Transportation Impact Analyses

Mapes Residential

Prepared for
County of Riverside

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TABLE OF CONTENTS

1 Executive Summary 1
2 Introduction 4
2.1 Project Description 4
2.2 Study Area and Analysis Scenarios 7
2.3 Methodology 9
2.4 Significance Criteria 10
3 Baseline Conditions 12
3.1 Existing Transportation System and Access 12
3.2 Study Area Street Network 13
3.3 Existing (2026) Traffic Conditions 15
3.4 General Plan (2045) Without Project Traffic Conditions 18
4 PROPOSED PROJECT 23
4.1 Project Trip Generation 23
4.2 Project Trip Distribution and Assignment 24
5 Plus Project Conditions 28
5.1 Project Completion (2027) Traffic Conditions 28
5.2 Cumulative (2027) Traffic Conditions 31
5.3 General Plan (2045) Plus Project Traffic Conditions 42
6 Project Improvements 46
6.1 Peak Hour Signal Warrant Analysis 46
6.2 Cumulative (2027) Improvements 46
6.3 General Plan (2045) Plus Project Improvements 48
6.4 Implementation of Project Improvements 50

Tables

Table 2.1: Relationship between Delay and LOS at Signalized Intersections 9
Table 2.2: Relationship Between Delay and LOS at an Unsignalized Intersection 9
Table 3.1: Existing (2026) AM and PM Peak Hour Level of Service 15
Table 3.2: General Plan (2045) Without Project AM and PM Peak Hour Level of Service 20
Table 4.1: Proposed Project Trip Generation 23
Table 5.1: Project Completion (2027) AM and PM Peak Hour Level of Service 28
Table 5.2: Cumulative (2027) AM and PM Peak Hour LOS 32
Table 5.3: Cumulative Projects Trip Generation 33
Table 5.3: Cumulative Projects Trip Generation (Continued) 34
Table 5.3: Cumulative Projects Trip Generation (Continued) 35
Table 5.3: Cumulative Projects Trip Generation (Continued) 36
Table 5.4: General Plan (2045) Plus Project AM and PM Peak Hour LOS 43
Table 6.1: Intersection 4 - Peak Hour Signal Warrant Analysis Results 46

Table 6.2: Cumulative (2027) Peak Hour LOS With Improvements 47
Table 6.3: General Plan (2045) Plus Project Peak Hour LOS With Improvements 49

Figures

Figure 2.1: Project Location 5
Figure 2.2: Project Site Plan 6
Figure 2.3: Project Study Area 8
Figure 3.1: Existing Intersection Lane Configuration and Traffic Control 14
Figure 3.2: Existing (2026) AM Peak Hour Volumes 16
Figure 3.3: Existing (2026) PM Peak Hour Volumes 17
Figure 3.4: General Plan (2045) Without Project AM Traffic Volumes 21
Figure 3.5: General Plan (2045) Without Project PM Traffic Volumes 22
Figure 4.1: Project Trip Distribution 25
Figure 4.2: Project AM Trip Assignment 26
Figure 4.3: Project PM Trip Assignment 27
Figure 5.1: Project Completion (2027) AM Traffic Volumes 29
Figure 5.2: Project Completion (2027) PM Traffic Volumes 30
Figure 5.3: Location of Cumulative Projects 37
Figure 5.4: Cumulative Projects AM Trip Assignment 38
Figure 5.5: Cumulative Projects PM Trip Assignment 39
Figure 5.6: Cumulative (2027) AM Peak Hour Traffic Volumes 40
Figure 5.7: Cumulative (2027) PM Peak Hour Traffic Volumes 41
Figure 5.8: General Plan (2045) Plus Project AM Peak Hour Traffic Volumes 44
Figure 5.9: General Plan (2045) Plus Project PM Peak Hour Traffic Volumes 45

Appendices

Appendix A – Traffic Study Scoping Agreement
Appendix B – Traffic Counts, RIVCOM Volume Outputs, and Volume Adjustment Worksheets
Appendix C – Level of Service Calculations
Appendix D – Peak Hour Signal Warrant Analysis

1 EXECUTIVE SUMMARY

This Traffic Impact Analysis (TIA) has been prepared by EPD Solutions, Inc. (EPD) to analyze the proposed Mapes Residential Project (Project) located at the northwest corner of Mapes Road and Palomar Road within Riverside County's Harvest Valley/Winchester Area Plan. This TIA was prepared based on the scope of work provided in Appendix A, which was reviewed and approved by Riverside County, and uses methodologies and significance criteria consistent with the Riverside County *Transportation Analysis Guidelines for Level of Service and Vehicle Miles Traveled* (County's Guidelines) adopted in December 2020.

Project Description

The Project site is located at the northwest corner of Mapes Road and Palomar Road in the northwestern portion of Riverside County's Harvest Valley/Winchester Area Plan. Regional access to the Project site is provided via Interstate 215 (I-215) to the west and State Route 74 (SR 74) to the south.

The Project was originally entitled on July 26, 2005, under Tentative Tract Map (TTM) No. 31684, Environmental Assessment No. 39303, approving subdivision of the site into 65 single-family residential lots (minimum lot size of 0.5 acres) along with three open space lots for drainage and flood control purposes. The existing Project site is currently vacant and undeveloped.

The Project now proposes a zone change from Very Low Density Residential (VLDR) to Planned Residential (R-4), with the creation of 172 individual lots, including 157 numbered lots for single-family development and 15 lettered lots for a drainage basin, open space recreational and landscape areas, and a Riverside County Flood Control District (RCFCD) easement. In addition, the Project includes frontage improvements along Tradewinds Drive, Palomar Road, and Mapes Road, consisting of street improvements, curb, concrete trails, and landscaping along the property frontage. The Project will include a 6-foot-wide concrete trail along Tradewinds Drive and Palomar Road, and an 8-foot-wide concrete trail along Mapes Road. The proposed Project also includes a General Plan Amendment to change the land use designation of the site from Very Low Density Residential (VLDR) to Medium Density Residential (MDR).

Intersection Analysis

The following intersections were included in the analysis:

1. Antelope Road/Mapes Road
2. Tradewinds Drive/Mapes Road
3. Palomar Road/Mapes Road
4. Menifee Road and Mapes Road
5. Tradewinds Drive/Project Driveway 1
6. Palomar Road/Project Driveway 2

AM and PM peak hour traffic operations were evaluated for the following scenarios:

- Existing (2026) AM and PM Peak Hour Conditions
- Project Completion (2027) (Existing + Ambient Growth + Project) AM and PM Peak Hour Conditions

- Cumulative (2027) (Existing + Ambient Growth + Project + Cumulative Projects) AM and PM Peak Hour Conditions
- General Plan (2045) Without Project AM and PM Peak Hour Conditions
- General Plan (2045) Plus Project AM and PM Peak Hour Conditions

Existing (2026) Conditions Analysis Results

All intersections currently operate at a satisfactory level of service (LOS) during AM and PM peak hours under Existing (2026) Conditions.

Project Completion (2027) Conditions Analysis Results

All intersections are anticipated to operate at a satisfactory LOS during AM and PM peak hours under Project Completion (2027) Conditions.

Cumulative (2027) Conditions Analysis Results

All intersections are anticipated to operate at a satisfactory LOS during AM and PM peak hours under Cumulative (2027) Conditions except for the following intersection:

- **4. Menifee Road/ Mapes Road:** LOS E during AM Peak Hour with the southbound (SB) through direction operating as the worst movement.

General Plan (2045) Without Project Analysis Results

All intersections are anticipated to operate at a satisfactory LOS during AM and PM peak hours under General Plan (2045) Without Project Conditions except for the following intersection:

- **4. Menifee Road/Mapes Road:** LOS F during AM Peak Hour with the SB through direction operating as the worst movement, and LOS F during PM Peak Hour with the northbound (NB) through direction operating as the worst movement.

General Plan (2045) With Project Analysis Results

All intersections are anticipated to operate at a satisfactory LOS during AM and PM peak hours under General Plan (2045) Plus Project Conditions except for the following intersection:

- **4. Menifee Road/Mapes Road:** LOS F during AM Peak Hour with the SB through direction operating as the worst movement, and LOS F during PM Peak Hour with the NB through direction operating as the worst movement.

Peak Hour Signal Warrant Analysis Results

A peak hour signal warrant analysis was conducted for each intersection using Vistro. For the intersections with an unsatisfactory LOS, an analysis following the California Manual on Uniform Traffic Control Devices (CA MUTCD) Figure 4C-4 was performed for the scenarios in which the intersection is deficient. The signal warrant analysis results for the deficient Intersections are listed below:

Intersection 4. Menifee Rd/Mapes Rd:

- Cumulative (2027): Signal warrant met.
- General Plan (2045) Without Project: Signal warrant met.
- General Plan (2045) Plus Project: Signal warrant met.

Cumulative (2027) Project Improvements

The following improvement would improve the LOS to a satisfactory level or better than baseline for all intersections with an unsatisfactory LOS under Cumulative (2027) Conditions:

- 4. Menifee Road/Mapes Road: Install a traffic signal at the intersection.

General Plan (2045) Plus Project Improvements

The following improvement would improve the LOS to a satisfactory level or better than baseline for the intersection with an unsatisfactory LOS under General Plan (2045) Plus Project Conditions:

- 4. Menifee Road/Mapes Road: Install a traffic signal at the intersection.

Implementation of Project Improvements

Based on EPD's coordination with county staff, the installation of a traffic signal at Intersection #4 (Menifee Road/Mapes Road) is required to address future traffic conditions. However, he applicant is not solely responsible for the installation of traffic signals at this intersection, as these improvements are included within the Riverside County Development Impact Fee (DIF) program for traffic signals.

The Project will contribute to the County's DIF program. DIF revenues are used to fund the installation of traffic signals at intersections that meet applicable signal warrant criteria and are programmed by the County. As such, the Project's contribution toward these improvements will be satisfied through payment of applicable DIF fees at the time of building permit issuance. No additional project-specific fair share contribution is required.

2 INTRODUCTION

This Traffic Impact Analysis (TIA) has been prepared by EPD Solutions, Inc. (EPD) to analyze the proposed Mapes Residential (Project) located at the northwest corner of Mapes Road and Palomar Road within Riverside County's Harvest Valley/Winchester Area Plan. This TIA was prepared based on the scope of work provided in Appendix A, which was reviewed and approved by Riverside County, and uses methodologies and significance criteria consistent with the Riverside County *Transportation Analysis Guidelines for Level of Service and Vehicle Miles Traveled* (County's Guidelines) adopted in December 2020.

2.1 Project Description

The Project site is located at the northwest corner of Mapes Road and Palomar Road in the northwestern portion of Riverside County's Harvest Valley/Winchester Area Plan. Regional access to the Project site is provided via Interstate 215 (I-215) to the west and State Route 74 (SR-74) to the south.

The Project was originally entitled on July 26, 2005, under Tentative Tract Map (TTM) No. 31684, Environmental Assessment No. 39303, approving subdivision of the site into 65 single-family residential lots (minimum lot size of 0.5 acres) along with three open space lots for drainage and flood control purposes. The existing Project site is currently vacant and undeveloped.

The Project now proposes a zone change from Very Low Density Residential (VLDR) to Planned Residential (R-4), with the creation of 172 individual lots, including 157 numbered lots for single-family development and 15 lettered lots for a drainage basin, open space recreational and landscape areas, and a Riverside County Flood Control District (RCFCD) easement. In addition, the Project includes frontage improvements along Tradewinds Drive, Palomar Road, and Mapes Road, consisting of street improvements, curb, concrete trails, and landscaping along the property frontage. The Project will include a 6-foot-wide concrete trail along Tradewinds Drive and Palomar Road, and an 8-foot-wide concrete trail along Mapes Road. The proposed Project also includes a General Plan Amendment to change the land use designation of the site from Very Low Density Residential (VLDR) to Medium Density Residential (MDR).

The location of the Project site is shown in Figure 2.1, *Project Location*, and the proposed site plan is shown in Figure 2.2, *Project Site Plan*.

Figure 2.1: Project Location

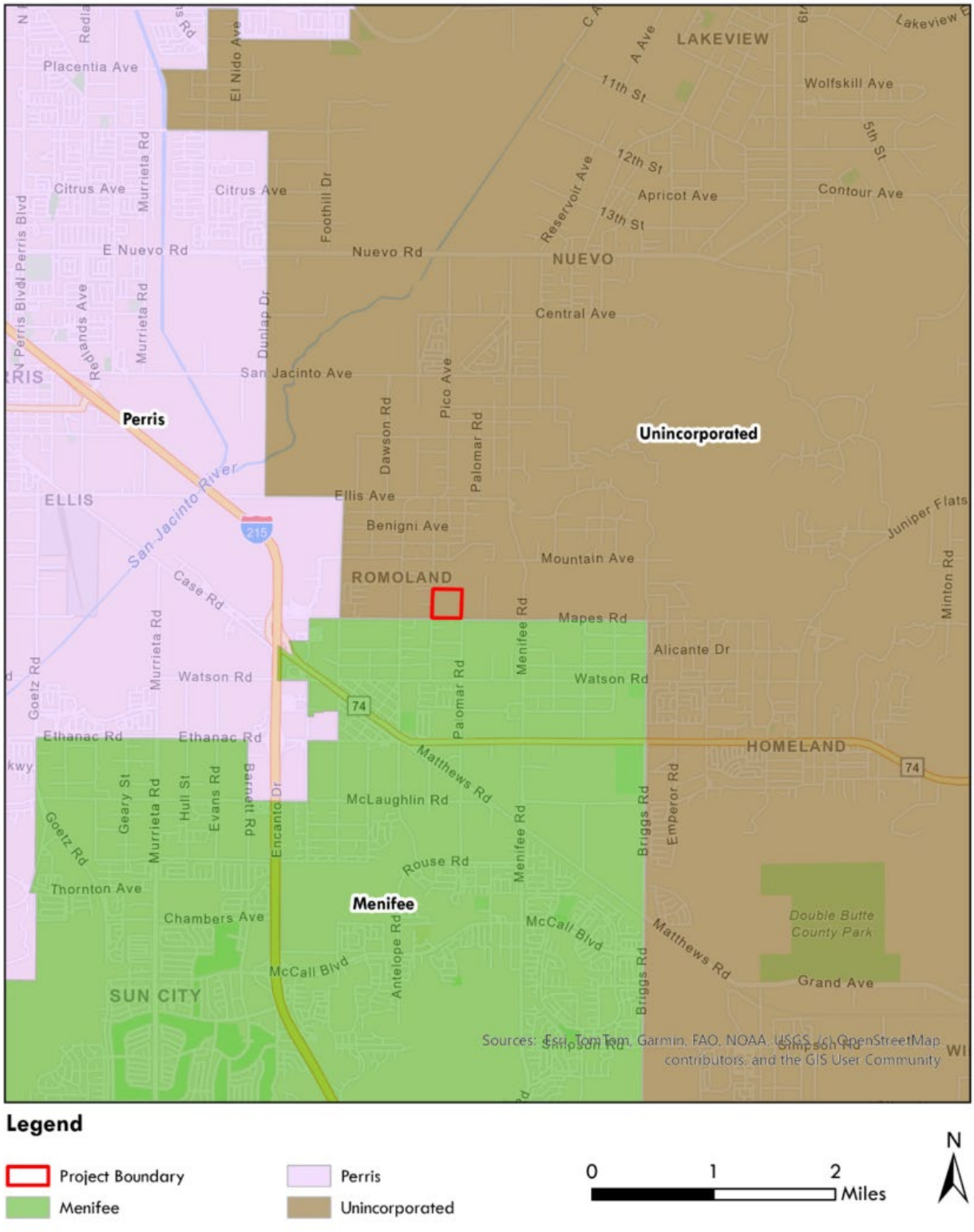
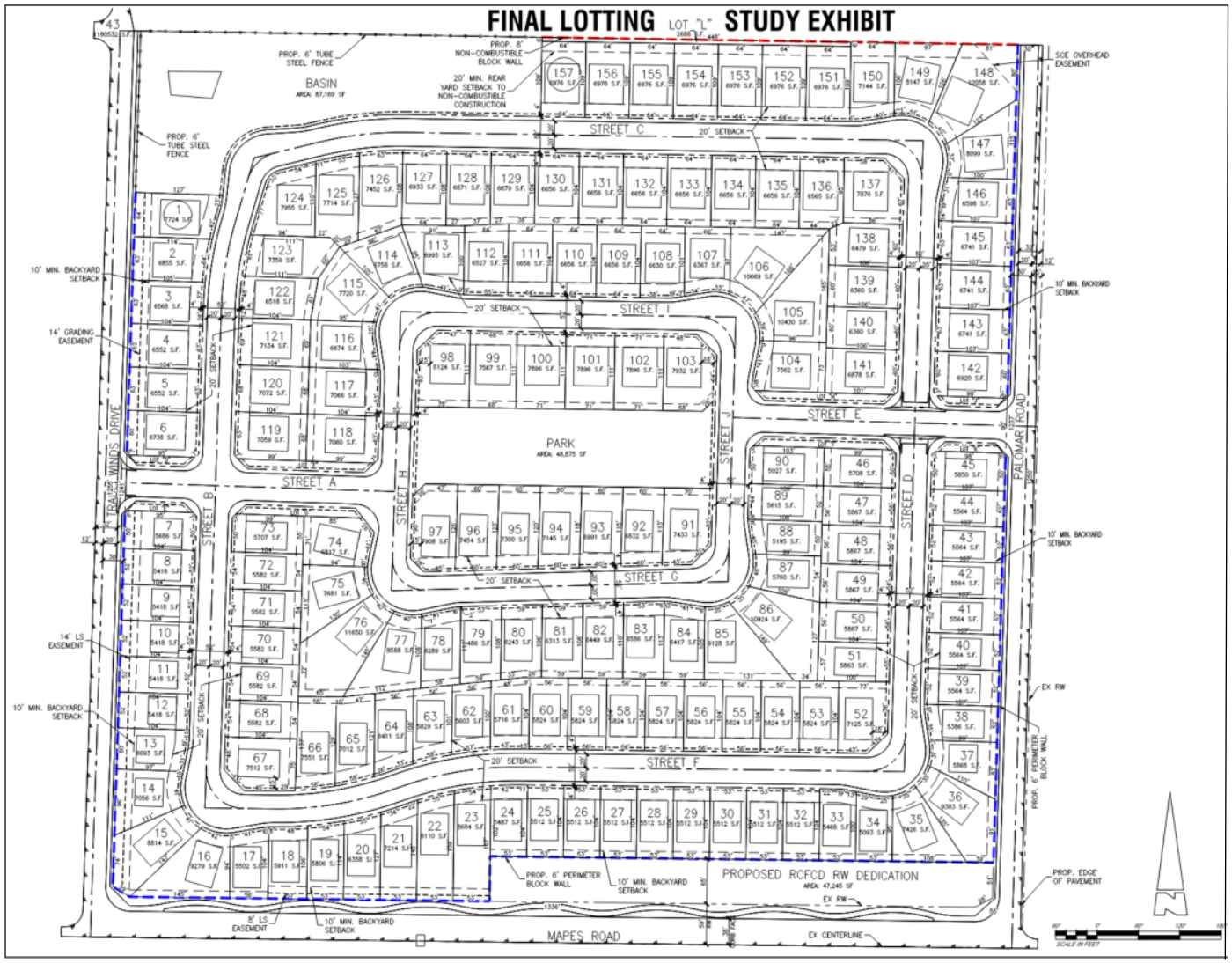


Figure 2.2: Project Site Plan



2.2 Study Area and Analysis Scenarios

This TIA includes all signalized and unsignalized intersections where the Project has the potential to add 50 trips or more during any peak hour. The following intersections were included in this analysis:

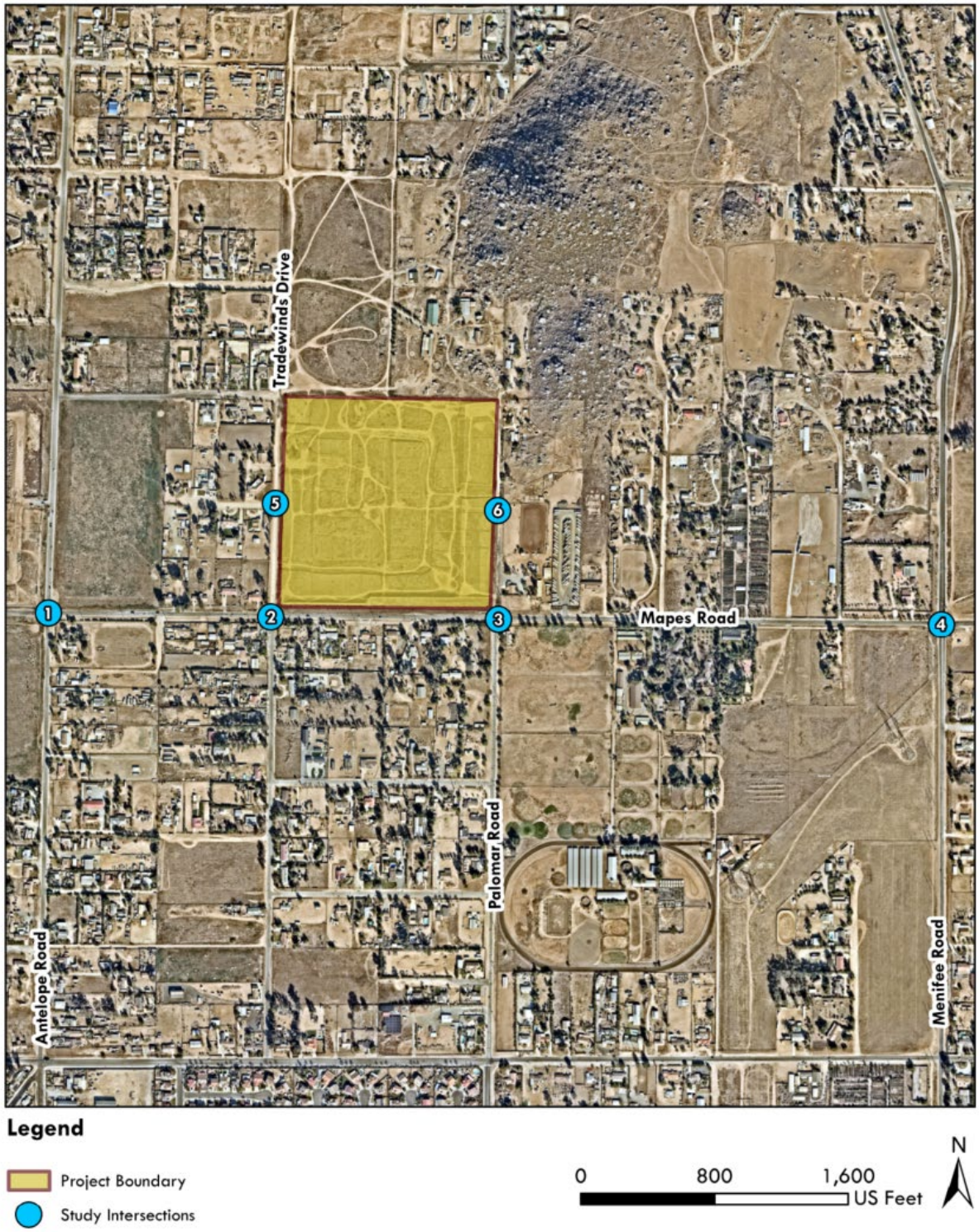
1. Antelope Road/Mapes Road
2. Tradewinds Drive/Mapes Road
3. Palomar Road/Mapes Road
4. Menifee Road/Mapes Road
5. Tradewinds Drive/Project Driveway 1
6. Palomar Road/Project Driveway 2

The location of the intersections included in this analysis is shown in Figure 2.3, *Project Study Area*. The study intersections were evaluated during the morning (AM), and afternoon (PM) peak hours, which are defined as the hours with the highest traffic volumes between 7 AM and 9 AM, and 4 PM and 6 PM, respectively. AM and PM peak hour traffic operations were evaluated for the following scenarios:

- Existing (2026) Conditions
- Project Completion (2027) (Existing + Ambient Growth + Project) AM and PM Peak Hour Conditions
- Cumulative (2027) (Existing + Ambient Growth + Project + Cumulative Projects) AM and PM Peak Hour Conditions
- General Plan (2045) Without Project Conditions
- General Plan (2045) Plus Project Conditions

EPD collected counts specifically for this Project for the study intersections on Thursday, January 15, 2026.

Figure 2.3: Project Study Area



2.3 Methodology

Intersection operations are evaluated using level of service (LOS), which is a measure of the delay experienced by drivers on a roadway facility. LOS A indicates free-flow traffic conditions and generally the best operating conditions. LOS F indicates extremely congested conditions and the worst operating conditions from the driver's perspective. In this report, LOS at signalized and unsignalized intersections was calculated using the *Highway Capacity Manual (HCM), 7th Edition*, methodology.

LOS at signalized intersections is defined in terms of the weighted average control delay for the intersection. Control delay is a measure of the increase in travel time that is experienced due to traffic signal control and is expressed in terms of average control delay per vehicle (in seconds). Control delay is determined based on the intersection geometry and volume, signal cycle length, phasing, and coordination along the arterial corridor. Table 2.1 shows the relationship between control delay and LOS.

Table 2.1: Relationship between Delay and LOS at Signalized Intersections

LOS	Delay (Seconds per Vehicle)
A	≤ 10
B	>10 – 20
C	>20 – 35
D	>35 – 55
E	>55 – 80
F	>80

Unsignalized intersections are categorized as either all-way stop control (AWSC) or two-way stop control (TWSC). LOS at AWSC intersections is determined by the weighted average control delay of the overall intersection. The HCM TWSC intersection methodology calculates LOS based on the delay experienced by drivers on the minor (stop-controlled) approaches to the intersection. For TWSC intersections, LOS is determined for each minor-street movement, as well as the major-street left turns. The relationship between delay and LOS at unsignalized intersections is shown in Table 2.2, *Relationship Between Delay and LOS at an Unsignalized Intersection*.

Table 2.2: Relationship Between Delay and LOS at an Unsignalized Intersection

LOS	Delay (seconds)
A	0-10
B	>10 – 15
C	>15 – 25
D	>25 – 35
E	>35 – 50
F	>50

2.4 Significance Criteria

County of Riverside

The County of Riverside General Plan Circulation Element (Chapter 4) sets an LOS standard of C for all county intersections, with exceptions for intersections within designated Area Plans, where the standard is LOS D. The Project is located within the Harvest Valley/Winchester Area Plan. Hence, any intersection operating at LOS E or F is deemed deficient. The County's TIA guidelines state that the Project Completion (2027) scenario will be the basis for determining transportation-related deficiencies caused by the Project.

Any deficiencies identified as a result of the Project shall be accompanied by recommendations to address said deficiencies.

City of Menifee

The City of Menifee LOS Traffic Study (TS) Guidelines identify LOS D as the threshold for acceptable operating conditions for intersections except at constrained intersections and roadway segments in close proximity to I-215, where LOS E is accepted during peak hours.

Per the TS guidelines, a project would not meet the LOS standard under the following conditions:

- If the pre-project condition at an intersection or roadway segment is at or better than the minimum acceptable LOS (LOS D, or LOS E at constrained locations near I-215) and the addition of project trips results in unacceptable LOS (LOS E or LOS F), a significant impact is forecasted to occur. This type of impact would be considered a "direct" project impact in which the project would be fully responsible for mitigating the impact.
- If the pre-project condition is LOS E or F and the Project adds 50 or more peak hour trips to the intersection or roadway segment, then a significant impact is forecasted to occur. This type of impact would be considered a "cumulative" project impact in which the project would be required to contribute a fair share payment toward mitigating the impact.

City of Perris

LOS Standards

The City of Perris LOS Standards require that projects maintain the following target LOS:

- LOS "D" along all City maintained roads (including intersections) and LOS "D" along I-215 and SR 74 (including intersections with local streets and roads). An exception to the local road standard is LOS "E", at intersections of any Arterials and Expressways with SR 74, the Ramona-Cajalco Expressway or at I-215 freeway ramps.
- LOS "E" may be allowed within the boundaries of the Downtown Specific Plan Area to the extent that it would support transit-oriented development and walkable communities. Increased congestion in this area will facilitate an increase in transit ridership and encourage development of a complementary mix of land uses within a comfortable walking distance from light rail stations.

Thresholds of Significance

To determine whether the addition of project-generated trips (or alternative-generated trips) results in a significant impact, and thus requires mitigation, the analysis shall evaluate significant impacts based on the following criteria:

- A project-related impact is considered direct and significant when a study intersection operates at an acceptable Level of Service for existing conditions (without the project) and the addition of 50 or more AM or PM peak hour project trips causes the intersection to operate at an unacceptable Level of Service for existing plus project conditions.
- A project-related impact is considered direct and significant when a study intersection operates at an unacceptable Level of Service for existing conditions (without the project) and the addition of 50 or more AM or PM peak hour project trips causes the intersection delay to increase by 2 seconds or more.
- A cumulative impact is considered significant when a study intersection is forecast to operate at an unacceptable Level of Service with the addition of cumulative/background traffic and 50 or more AM or PM peak hour project trips.

3 BASELINE CONDITIONS

This section discusses the Baseline (without Project) traffic conditions. Baseline conditions are those conditions that exist within the study area under existing conditions as well as future estimated conditions without the addition of traffic from the proposed Project.

3.1 Existing Transportation System and Access

The Project site is located within the northwest region of the Riverside County's Harvest Valley/Winchester Area Plan, at the northwest corner of the intersection of Mapes Road and Palomar Road. Local access is provided by Mapes Road, Tradewinds Drive, and Palomar Street. Regional access to the Project site is provided by Interstate 215 (I-215) and State Route 74 (SR 74), which are described below:

- **Interstate 215 (I-215)** is a north-south regional interstate bypass for Interstate 15 (I-15) in Southern California. It connects I-15 north of San Bernardino and I-15 in Murrieta, providing access to the cities of San Bernardino, Colton, Riverside, Perris, and Menifee.
- **State Route 74 (SR-74)**, also known as Florida Avenue, is an east-west state highway in Southern California. It connects Interstate 5 (I-5) in San Juan Capistrano to SR-111 in Palm Desert, providing access to the cities of Lake Elsinore, Perris, and Hemet.

The Project site is accessible via Riverside Transit Agency's (RTA) Bus Route 28 which travels along SR-74 roughly one mile south of the Project site. RTA Bus Route 28 operates from 4:00 AM to 1:00 AM with 30-45 minute headway on weekdays and from 5:00 AM to 12:00 AM with 45-60 minute headway on weekends. Regional transit is accessible via the Perris South Metrolink station roughly two miles northwest of the Project site and provides access to Union Station in Downtown Los Angeles. Currently, there are no continuous pedestrian or bicycle facilities that would connect the Project site to any existing transit options.

The Project study area is currently underdeveloped with pedestrian and bicycle facilities and does not offer many continuous connections between existing facilities. The proposed Project will add to the pedestrian network by constructing sidewalks along the Project frontage on Tradewinds Drive, Mapes Road, and Palomar Road. The Riverside County Harvest Valley/Winchester Area Plan Trails and Bikeway System provide a plan for future development of Community Trails[1] along Mapes Road, Antelope Road, Tradewinds Drive, and Palomar Road, which will enhance the pedestrian and bicycle facilities surrounding the Project site in the future. The project will include a 6-foot-wide concrete trail along Tradewinds Drive and Palomar Road, and an 8-foot-wide concrete trail along Mapes Road.

[1] Per the Riverside County General Plan Circulation Element, Community Trails are designed to link areas of a community to the regional trail system and to link areas of a community with each other. Such trails are typically maintained and operated by a local parks and recreation district or other governmental entities empowered and funded to maintain trails. Community Trails are designed for trail users preferring a soft trail surface, including equestrians, pedestrians, joggers, and mountain bikers. Community Trails will be sited within easements or portions of road right-of-ways (ROWs) of up to 14 feet wide.

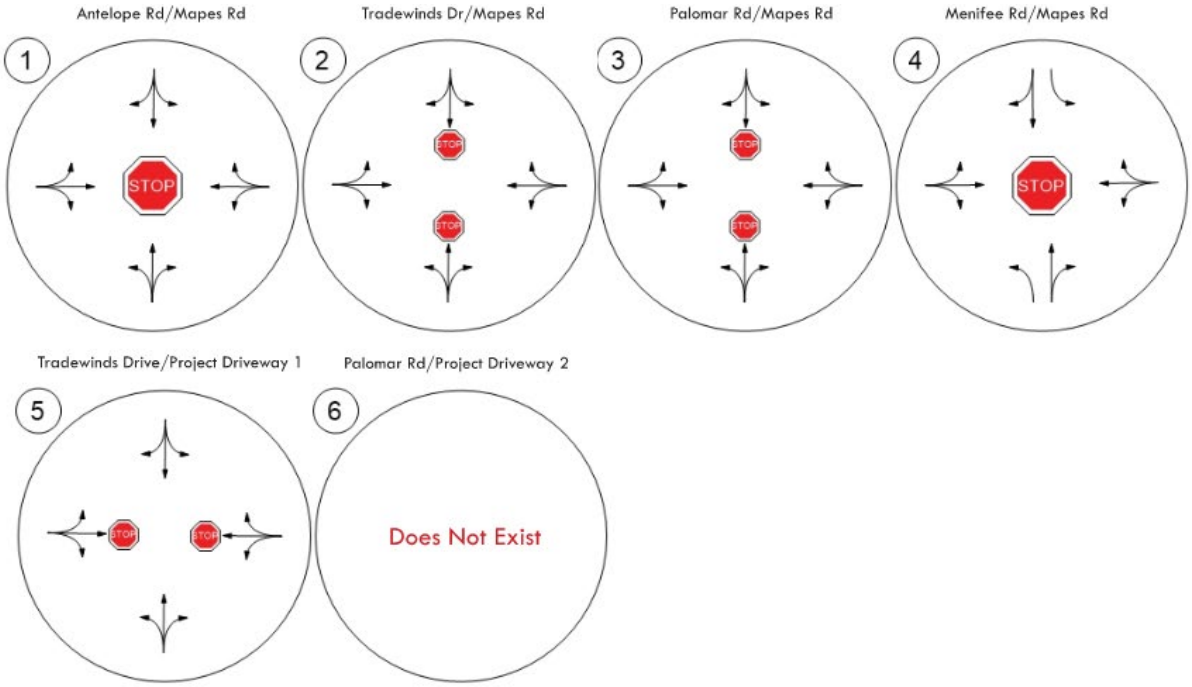
The Existing (2026) conditions lane configuration at the study intersections is provided in Figure 3.1, *Existing Lane Geometries and Traffic Control*.

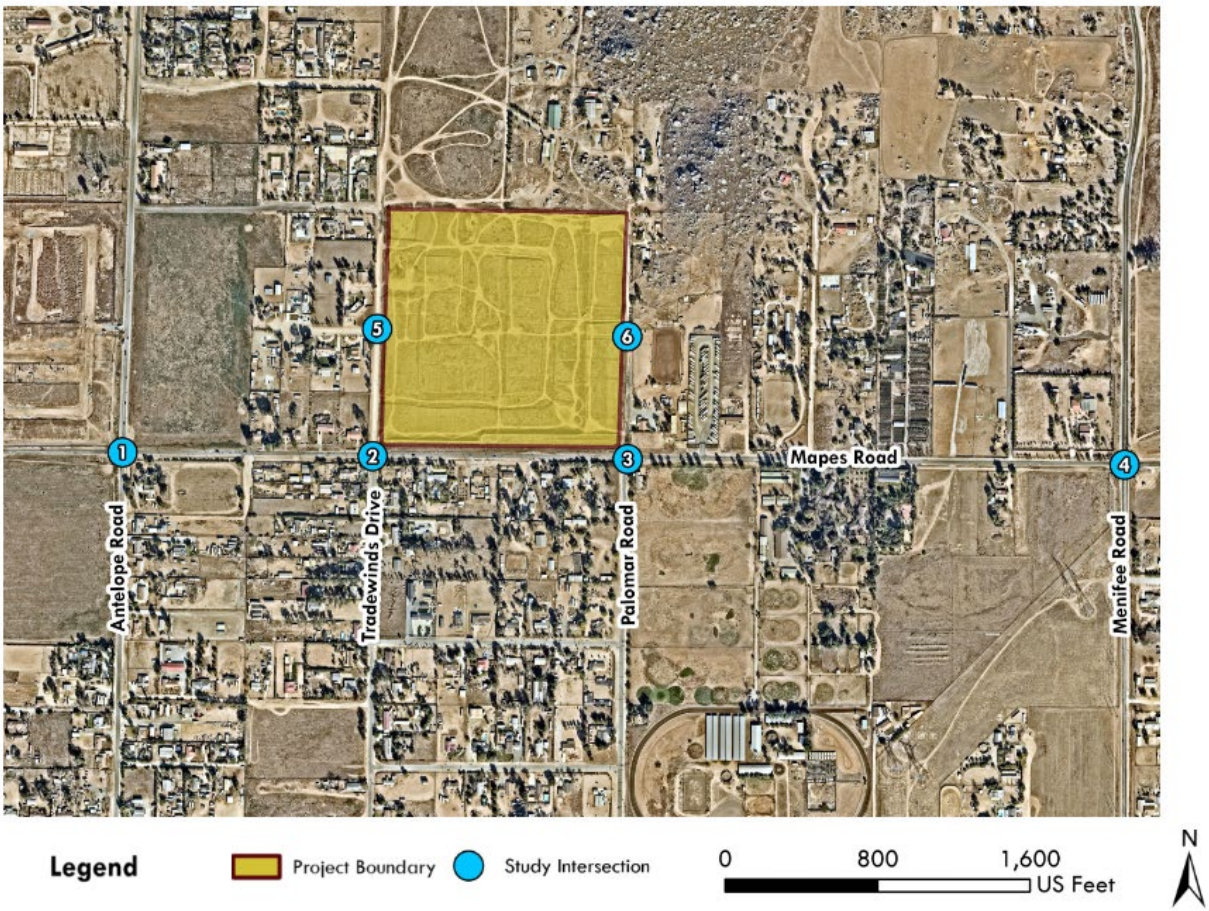
3.2 Study Area Street Network

The characteristics of each roadway including the existing pedestrian and bicycle facilities within the study area are discussed below.

- **Mapes Road** is a two-lane undivided road that runs east-west and is classified as a major roadway with a potential of 118 feet of right-of-way (ROW) between Sherman Road and Menifee Road and classified as a secondary roadway with a potential of 100 feet of ROW between Menifee Road and Briggs Road, according to Riverside County's Harvest Valley/Winchester Area Plan. There is no street parking and there are no bike lanes on Mapes Road. There is a segment of sidewalk on the north side of Mapes Road west of Ball Road.
- **Palomar Road** is a two-lane undivided road that runs north-south and becomes a dirt road north of Mapes Road. It is classified as a secondary roadway with a potential of 100 feet of ROW between State Route 74 (SR 74) and Case Road, according to Riverside County's Harvest Valley/Winchester Area Plan. There is no street parking and there are no bike lanes on Palomar Road. There is a segment of sidewalk on the west side of Palomar Road between Watson Road and Cider Street.
- **Antelope Road** is a two-lane undivided road that runs north-south and is classified as a major roadway with a potential of 118 feet of ROW between Ellis Avenue and Watson Road, according to Riverside County's Harvest Valley/Winchester Area Plan. There is no street parking and there are no bike lanes on Antelope Road. There is a sidewalk on the east and west sides of Antelope Road south of Watson Road.
- **Menifee Road** is a two-lane road that runs north-south that is classified as an urban arterial roadway with a potential of 152 feet of ROW, according to Riverside County's Harvest Valley/Winchester Area Plan. There is no street parking and there are no bike lanes on Menifee Road. There are segments of sidewalk on both the east and west sides of Menifee Road south of SR-74.
- **Tradewinds Drive** is a two-lane undivided road that runs north-south and currently is a dirt road north of Mapes Road. There is no street parking and there are no bike lanes or sidewalks on Tradewinds Drive.

Figure 3.1: Existing Intersection Lane Configuration and Traffic Control





3.3 Existing (2026) Traffic Conditions

As described in Section 2.2, *Study Area and Analysis Scenarios*, EPD collected counts for the study intersections on Thursday, January 15, 2026 to reflect Existing (2026) Conditions. Existing (2026) AM and PM peak hour traffic volumes at the study area intersections are shown in Figures 3.2 and 3.3, respectively. As described previously in Section 2.3, *Methodology*, LOS at the study area intersections was determined using the HCM methodology.

The Existing (2026) LOS at the study area intersections is shown in Table 3.1. All LOS calculations are provided in Appendix C. As shown in Table 3.1, all intersections currently operate at a satisfactory LOS during AM and PM peak hours.

Table 3.1: Existing (2026) AM and PM Peak Hour Level of Service

Intersection	Jurisdiction	Control Type	AM Peak		PM Peak		LOS Standard	Satisfactory?
			Delay	LOS	Delay	LOS		
1. Antelope Rd/ Mapes Rd	Riverside County	AWSC	10.4	B	9.6	A	D	Yes
2. Tradewinds Dr/ Mapes Rd	Riverside County	TWSC	11.4	B	11.3	B	D	Yes
3. Palomar Rd/ Mapes Rd	Riverside County	TWSC	12.1	B	12.2	B	D	Yes
4. Menifee Rd/ Mapes Rd	Riverside County	AWSC	25.8	D	16.4	C	D	Yes
5. Tradewinds Dr/ Project Driveway 1	Riverside County	TWSC	8.4	A	8.3	A	D	Yes
6. Palomar Rd/ Project Driveway 2	Riverside County	TWSC	-	-	-	-	D	Yes

AWSC = All Way Stop Control

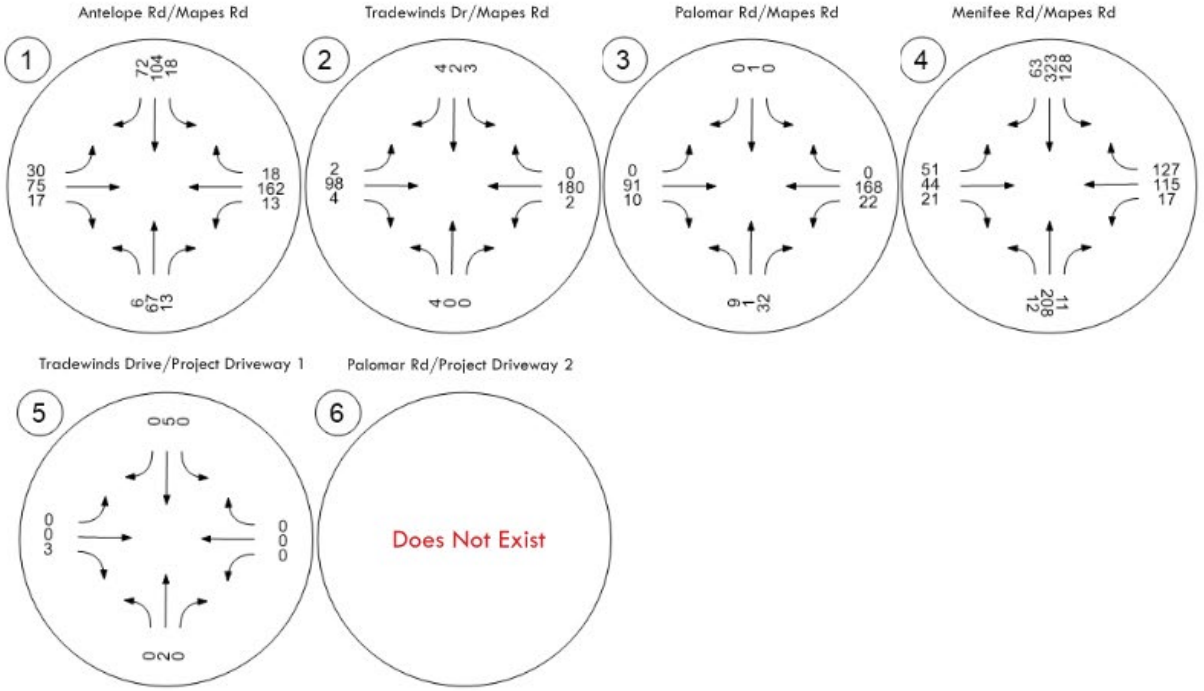
TWSC = Two Way Stop Control

Delay Reported in Seconds per Vehicle

LOS = Level of Service

Unsatisfactory Level of Service

Figure 3.2: Existing (2026) AM Peak Hour Volumes



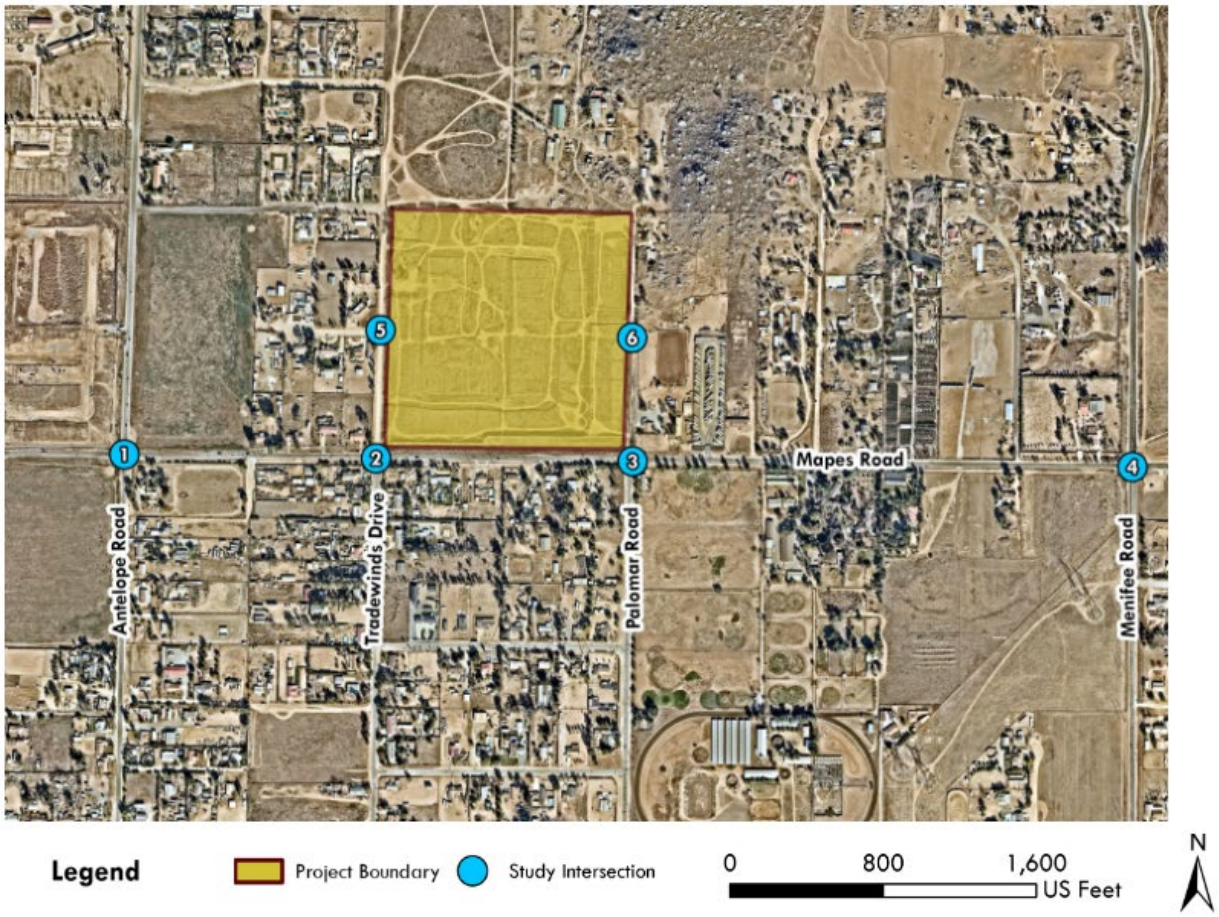
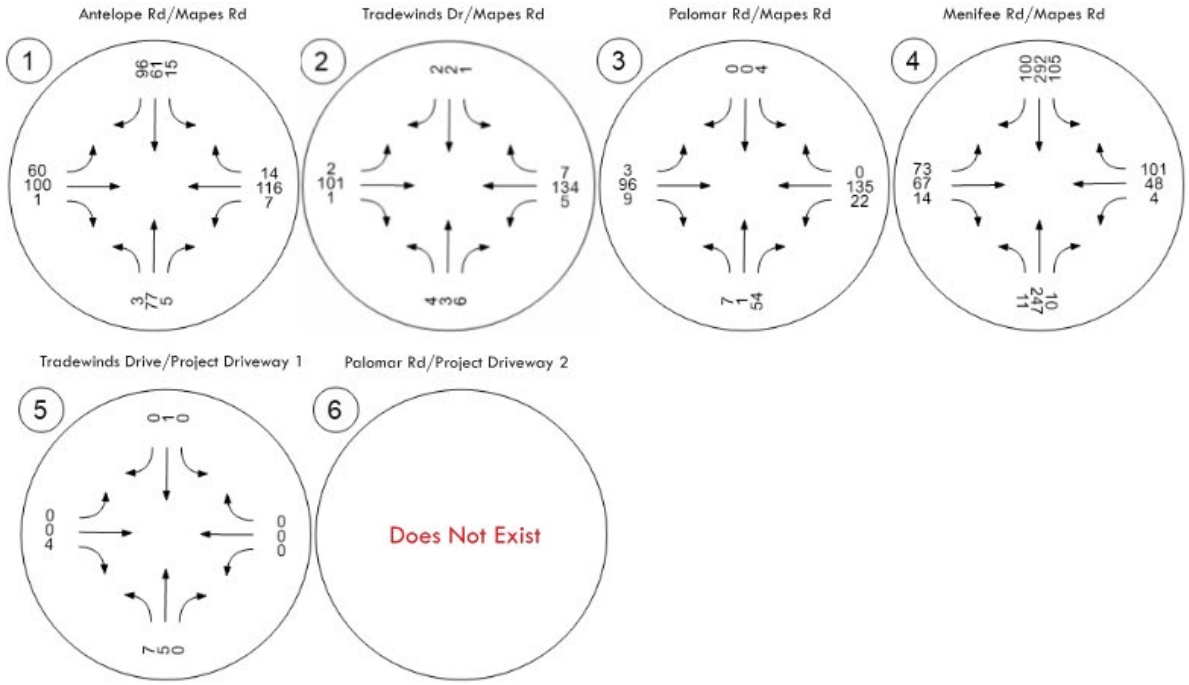
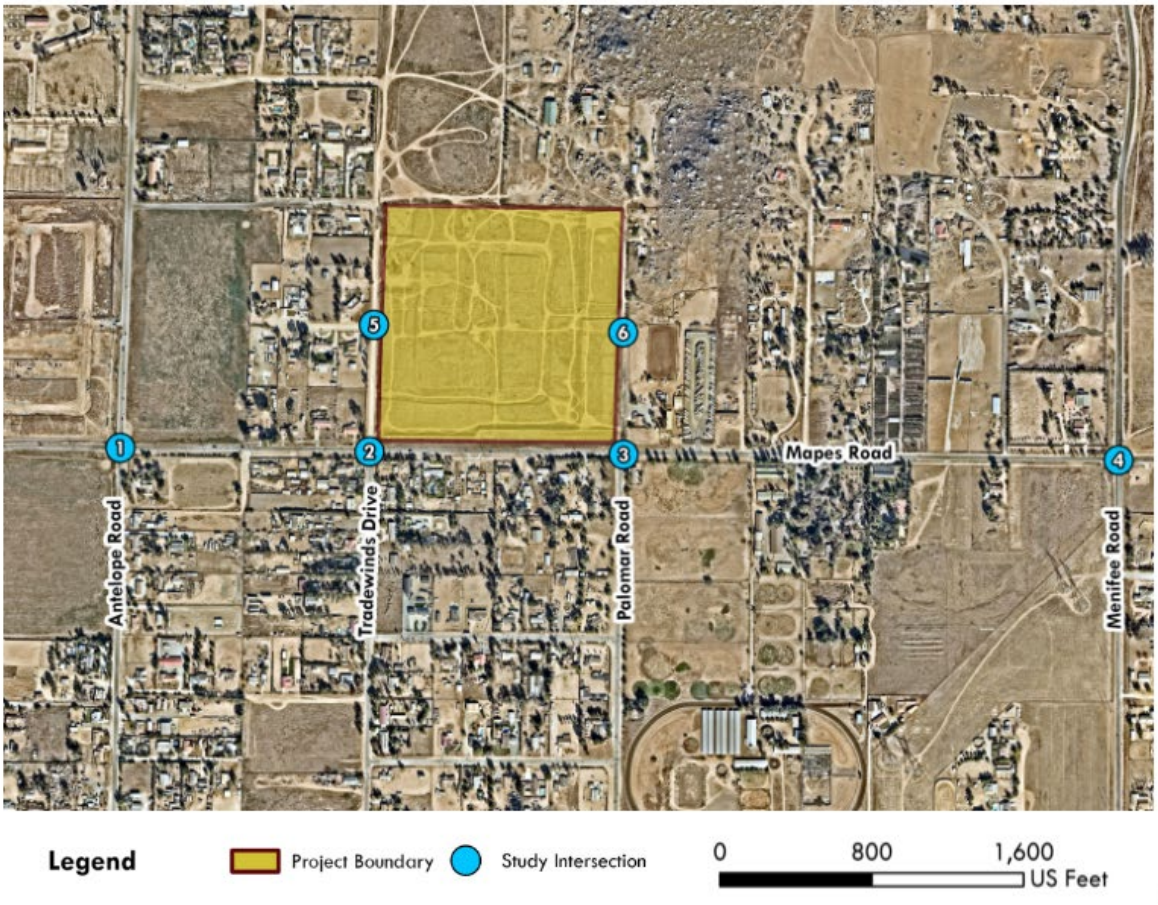


Figure 3.3: Existing (2026) PM Peak Hour Volumes





3.4 General Plan (2045) Without Project Traffic Conditions

In accordance with the approved scope of work by Riverside County, baseline volumes for General Plan Buildout (2045) scenario were forecasted using the Riverside County travel demand forecasting model (RIVCOM), which assumes full buildout of the County of Riverside per the approved General Plan of each jurisdiction within the County.

Based on EPD's coordination with County staff and review of the RIVCOM 2045 roadway network, the following model roadway network updates near the Project site were identified under General Plan Buildout (2045) scenario, in order to ensure that the County's General Plan roadway designations are reflected in the RIVCOM General Plan Buildout (2045) scenario.

- Mapes Road
    - Mapes Road is shown as a 2-lane Road in RIVCOM
    - As previously mentioned in Section 3.2, Mapes Road is identified as a major/secondary roadway in the County's General Plan (4 lanes).
        - Mapes Road is updated to 4 lanes in RIVCOM.
- Menifee Road
    - Menifee Road is shown as a 4-lane Road in RIVCOM
    - As previously mentioned in Section 3.2, Menifee Road is identified as an Urban Arterial in the County's General Plan (6 lane divided).
        - Menifee Road is updated to 6 lanes in RIVCOM.
- Antelope Road
    - Antelope Road is shown as a 2-lane Road in RIVCOM
    - As previously mentioned in Section 3.2, Antelope Road is identified as a major roadway in the County's General Plan (4 lanes).
        - Antelope Road is updated to 4 lanes in RIVCOM.

With the updated roadway network, annual growth rates on roadway links were obtained utilizing RIVCOM. The link volume growth rates from Base Year (2018) to General Plan (2045) were then post-processed to calculate intersection turning movement volumes using the Iterative Directional Volume Estimation Methodology from the National Cooperative Highway Research Program (NCHRP) Report 765, based on methodology outlined in NCHRP Report 255. The volume forecast outputs on Mapes Road, Menifee Road and Antelope Road from NCHRP Report 765 were reviewed and adjusted under the following steps:

- **Mapes Road:** The post-processed General Plan Year (2045) turning movement volumes on Mapes Road were observed to be lower than the corresponding Cumulative Year (2027) Conditions without Project volumes at certain intersections, even with Mapes Road being updated to 4 lanes in RIVCOM.

- EPD reviewed the roadway network in the study area and identified growth trends, as well as reasons for volumes to decrease:
    - Upon review of EPD's RIVCOM, Menifee Road being widened from 2 lanes in the Base Year (2018) to 6 lanes in the General Plan Year (2045) causes the model's traffic distribution to utilize the 4-lane Mapes Road less. As a result, this causes volumes to decrease on Mapes Road in the General Plan (2045) scenario compared to the Base Year (2018) volumes.
    - In real-life scenarios, an increase in the number of lanes on Menifee Road would not lead to a decrease in traffic volumes on Mapes Road.
    - EPD concluded that there are no justifiable reasons to assume a decrease in traffic volumes on Mapes Road.
- Therefore, in such cases to provide a conservative estimate for General Plan (2045) traffic conditions, the General Plan (2045) Without Project base input volumes were adjusted to be equal to the corresponding Cumulative Year (2027) volumes where RIVCOM forecast a volume decrease, so that no General Plan (2045) Without Project volumes are lower than the corresponding Cumulative Year (2027) Without Project volumes.

- **Antelope Road:** An annual growth rate of over 10% per year was observed at the SBT movement of Intersection #1, causing the peak hour AM SBT volume to increase from 104 (Existing 2026) to 811 (General Plan 2045)
    - A peak hour AM SBT volume of 811 under General Plan 2045 is unrealistic, as it exceeds 8 times the existing traffic count volume, and the raw RIVCOM model General Plan 2045 peak period link volume.
    - EPD reviewed the overall traffic volume growth at the study intersections. Based on RIVCOM Base Year (2018) and General Plan (2045) volumes, the annual growth rates at Intersections 1 is approximately 1.7 percent per year for the intersection overall traffic volume.
        - Therefore, EPD conservatively applied an annual growth rate of 1.7 percent per year for 19 years to the Existing (2026) SBT turning movement volumes, in order to represent a realistic forecast of the General Plan (2045) base input traffic volume growth.
- **Menifee Road:** An annual growth rate of around 8% per year at the NBT and SBT movements of Intersection #4. This is primarily due to Menifee Road being widened from 2 lanes in the Base Year (2018) to 6 lanes in the General Plan Year (2045)
    - EPD found the volume growth on Menifee Road to be reasonable with the addition of lanes on Menifee Road.
    - As such, Intersection #4 Menifee Road/Mapes Road is analyzed assuming the full buildout of Menifee Road.

For a conservative analysis, a peak hour factor of 0.95 was used for General Plan (2045) scenarios. The General Plan (2045) Without Project AM and PM traffic volumes are shown in Figure 3.4 and Figure 3.5, respectively. All traffic counts, RIVCOM volume outputs, and volume adjustment worksheets are provided in Appendix B.

The General Plan (2045) Without Project Conditions LOS at the study area intersections were determined using the HCM methodology, described previously in Section 2.3, *Methodology*. Table 3.2 shows the General Plan (2045) Without Project AM and PM peak hour levels of service at study area intersections.

As shown in Table 3.2, the following intersection is anticipated to operate at an unsatisfactory LOS during the AM or PM peak hours under General Plan (2045) Without Project Conditions:

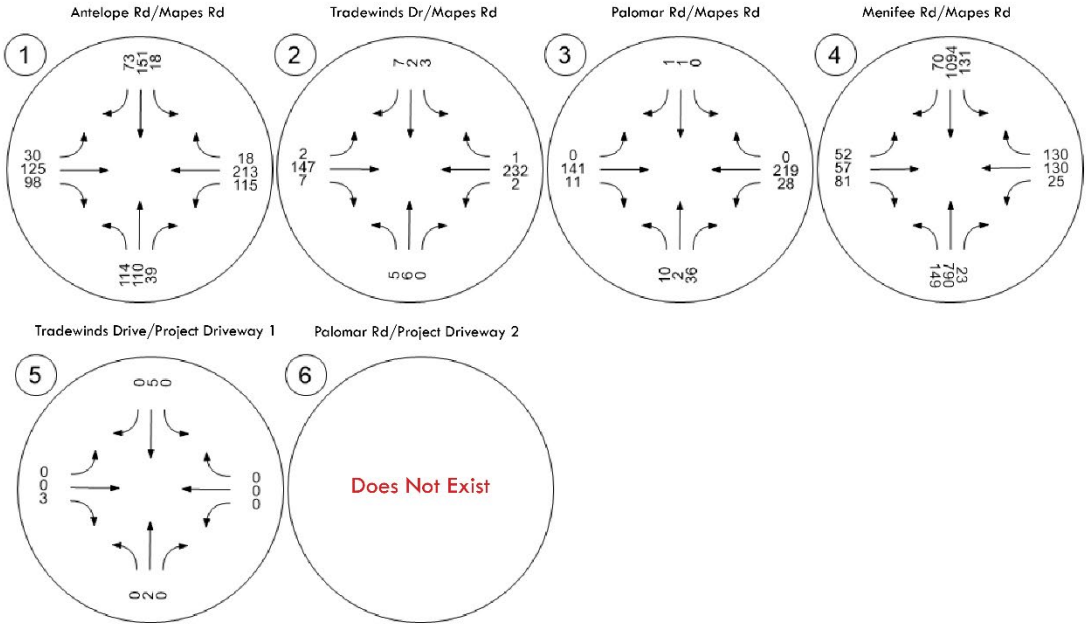
- **4. Menifee Road/ Mapes Road:** LOS F during AM Peak Hour with the SB through direction operating as the worst movement, and LOS F during PM Peak Hour with the NB through direction operating as the worst movement.

Table 3.2: General Plan (2045) Without Project AM and PM Peak Hour Level of Service

Intersection	Control Type	General Plan (2045) Without Project AM Peak		PM Peak		LOS Standard	General Plan (2045)
		Delay	LOS	Delay	LOS		
1. Antelope Rd/ Mapes Rd	AWSC	16.8	C	16.7	C	D	Yes
2. Tradewinds Dr/ Mapes Rd	TWSC	11.9	B	12.3	B	D	Yes
3. Palomar Rd/ Mapes Rd	TWSC	12.6	B	13.8	B	D	Yes
4. Menifee Rd/ Mapes Rd	AWSC	**145.9**	**F**	**59.7**	**F**	D	**No**
5. Tradewinds Dr/ Project Driveway 1	TWSC	8.3	A	8.3	A	D	Yes
6. Palomar Rd/ Project Driveway 2	TWSC	-	-	-	-	D	Yes

AWSC = All Way Stop Control
TWSC = Two Way Stop Control
Delay Reported in Seconds per Vehicle
LOS = Level of Service
Unsatisfactory Level of Service

Figure 3.4: General Plan (2045) Without Project AM Traffic Volumes



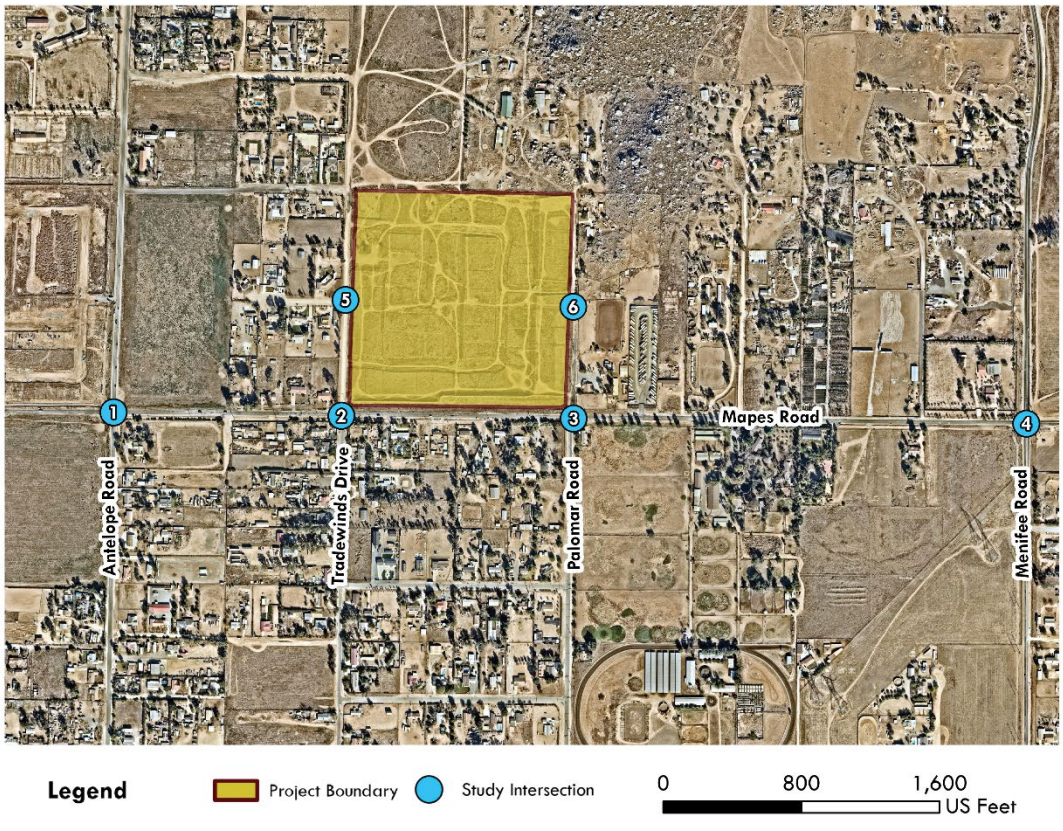
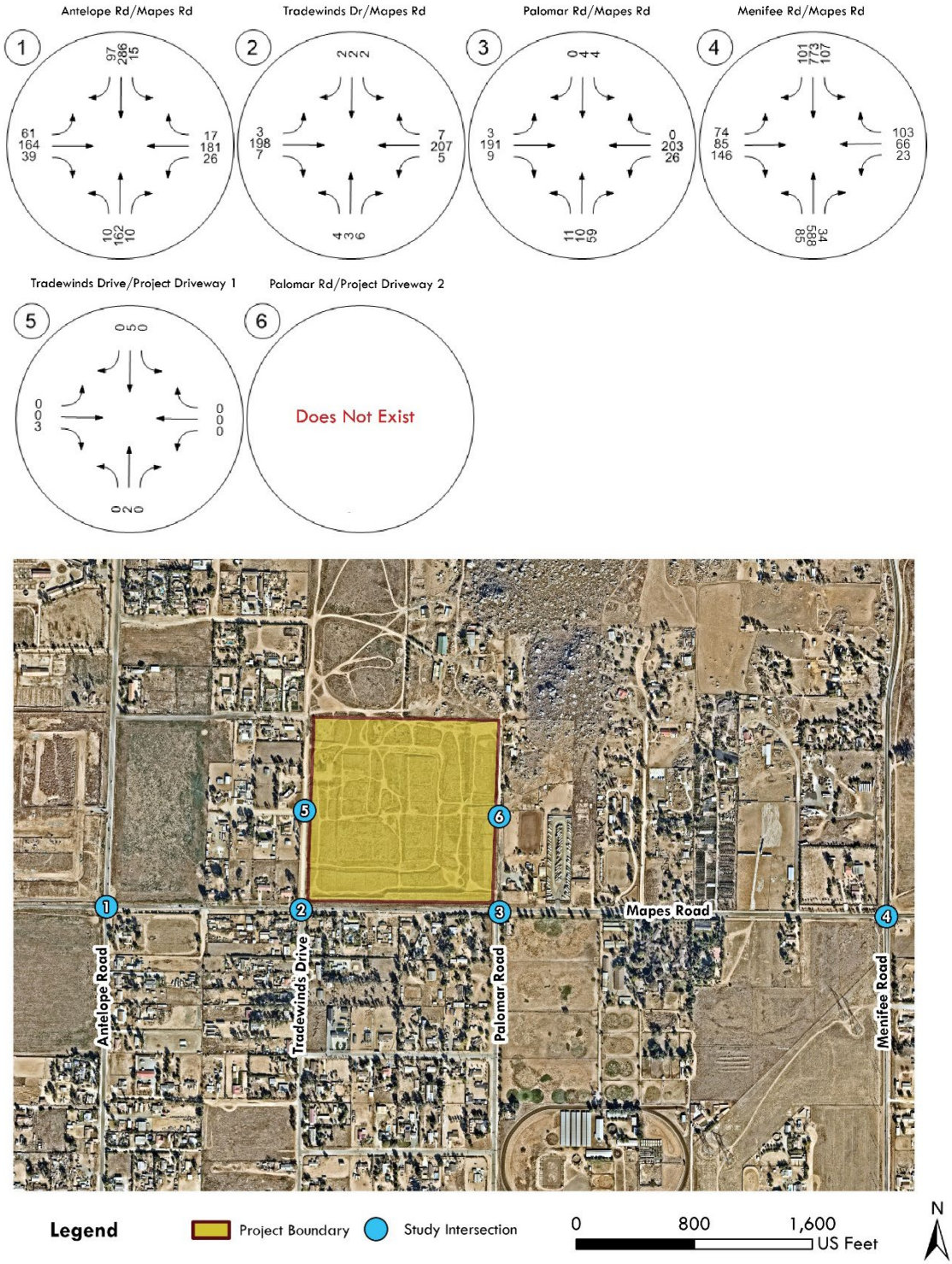


Figure 3.5: General Plan (2045) Without Project PM Traffic Volumes



4 PROPOSED PROJECT

4.1 Project Trip Generation

The Project trip generation is shown in Table 4.1. The Project trip generation was calculated using trip rates from the ITE, *Trip Generation Manual, 12th Edition*, 2025. The proposed Project were analyzed using ITE Land Use Code 210 – Single Family Detached Housing. As shown in Table 4.1, the proposed Project is anticipated to generate 1,427 daily trips, with 110 trips occurring during the AM peak hour and 146 trips occurring during the PM peak hour.

Table 4.1: Proposed Project Trip Generation

				AM Peak Hour			PM Peak Hour		
Land Use		**Units**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Trip Rates									
210 Single-Family Detached Housing[1]		DU	9.09	0.19	0.51	0.7	0.58	0.35	0.93
Project Trip Generation									
Single-Family Detached Housing[1]	157	DU	1427	30	80	110	91	55	146
Total Project Trip Generation			**1427**	**30**	**80**	**110**	**91**	**55**	**146**

DU = Dwelling Unit

[1]Institute of Transportation Engineers, Trip Generation Manual, 12th Edition, 2025. Land Use Code 210 - Single-Family Detached Housing (Average Rate)

4.2 Project Trip Distribution and Assignment

Project trips were distributed to the study area intersections based on the location of the Project and logical routes of travel to and from the site and approved by County staff. The Project trip distribution is shown in Figure 4.1.

Project trips were assigned to the study area intersections by multiplying the proposed Project trip generation by the trip distribution percentage at each location. The Project's AM and PM Trip Assignments are shown in Figures 4.2 and 4.3, respectively.

Figure 4.1: Project Trip Distribution

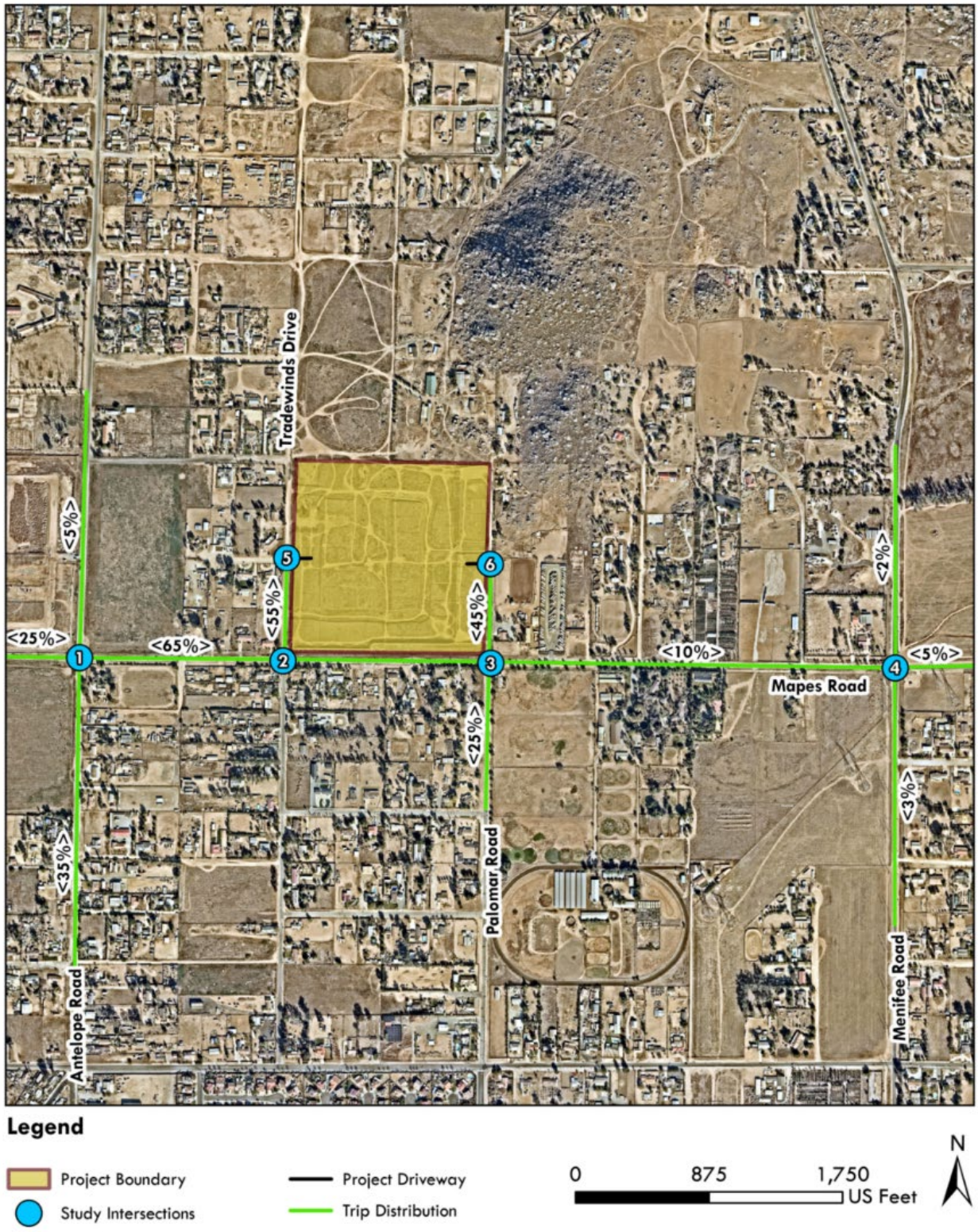
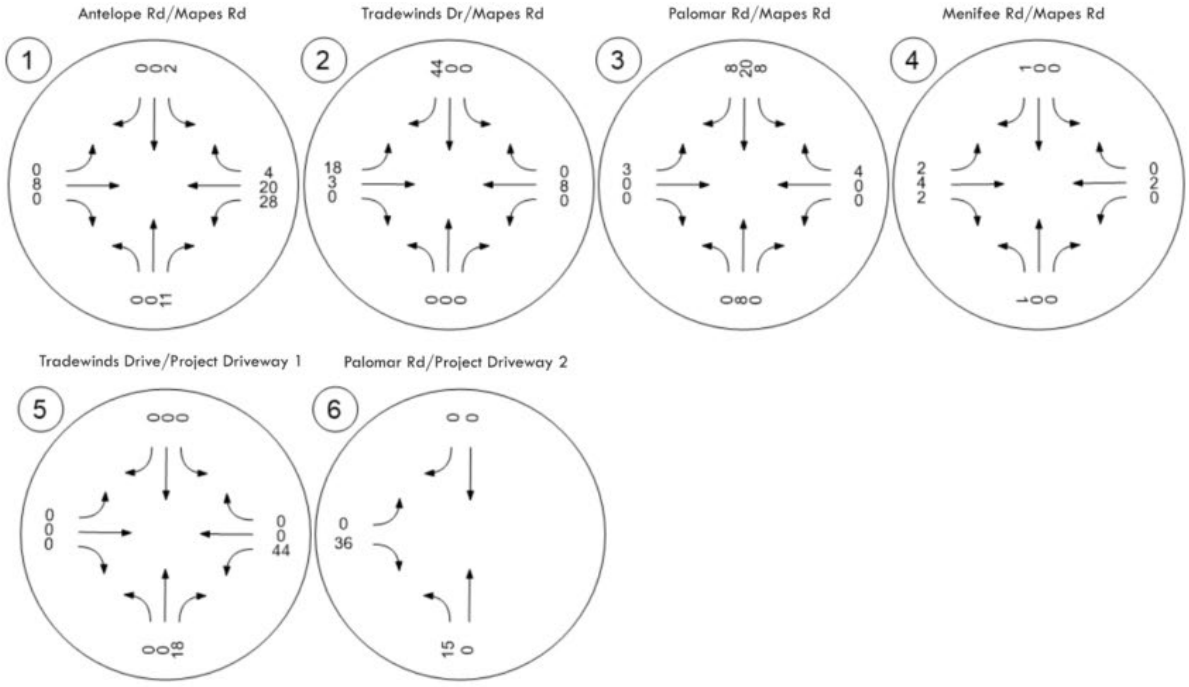


Figure 4.2: Project AM Trip Assignment



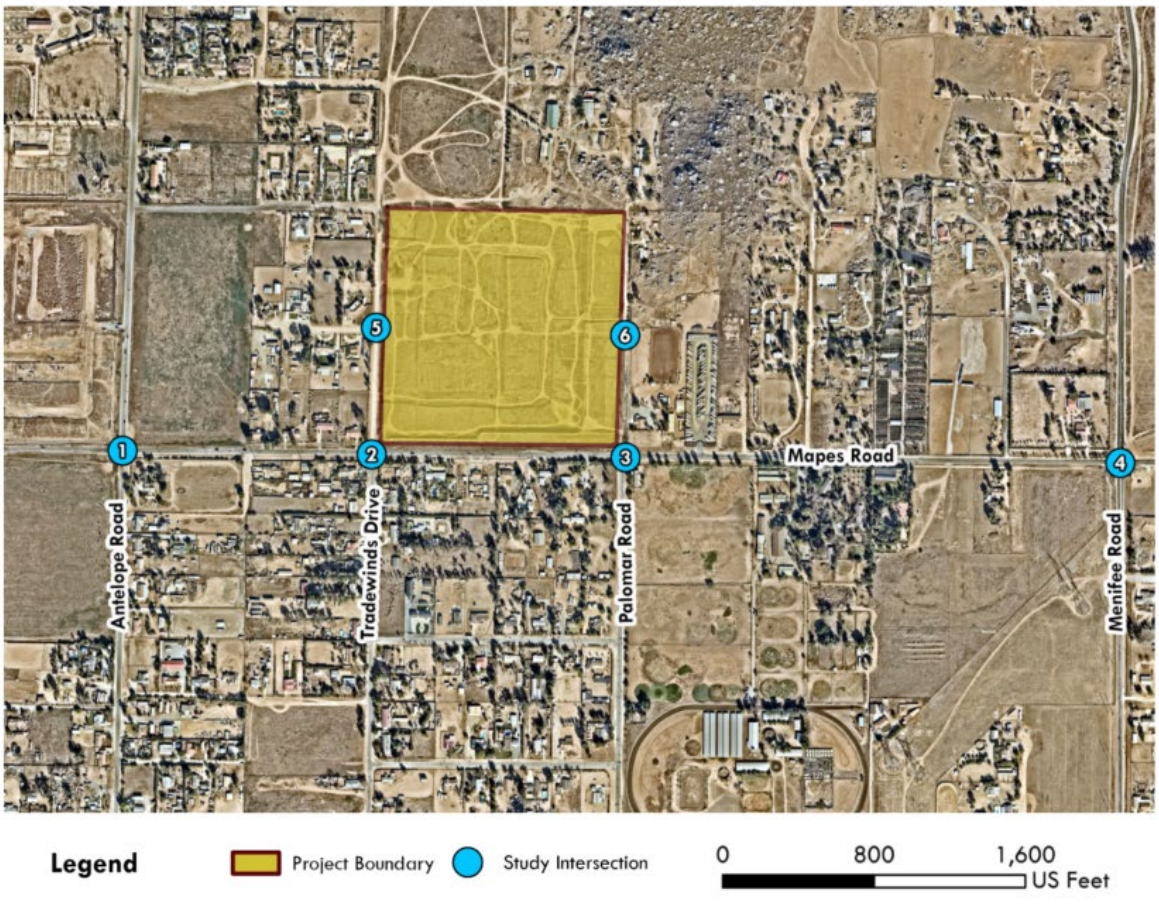
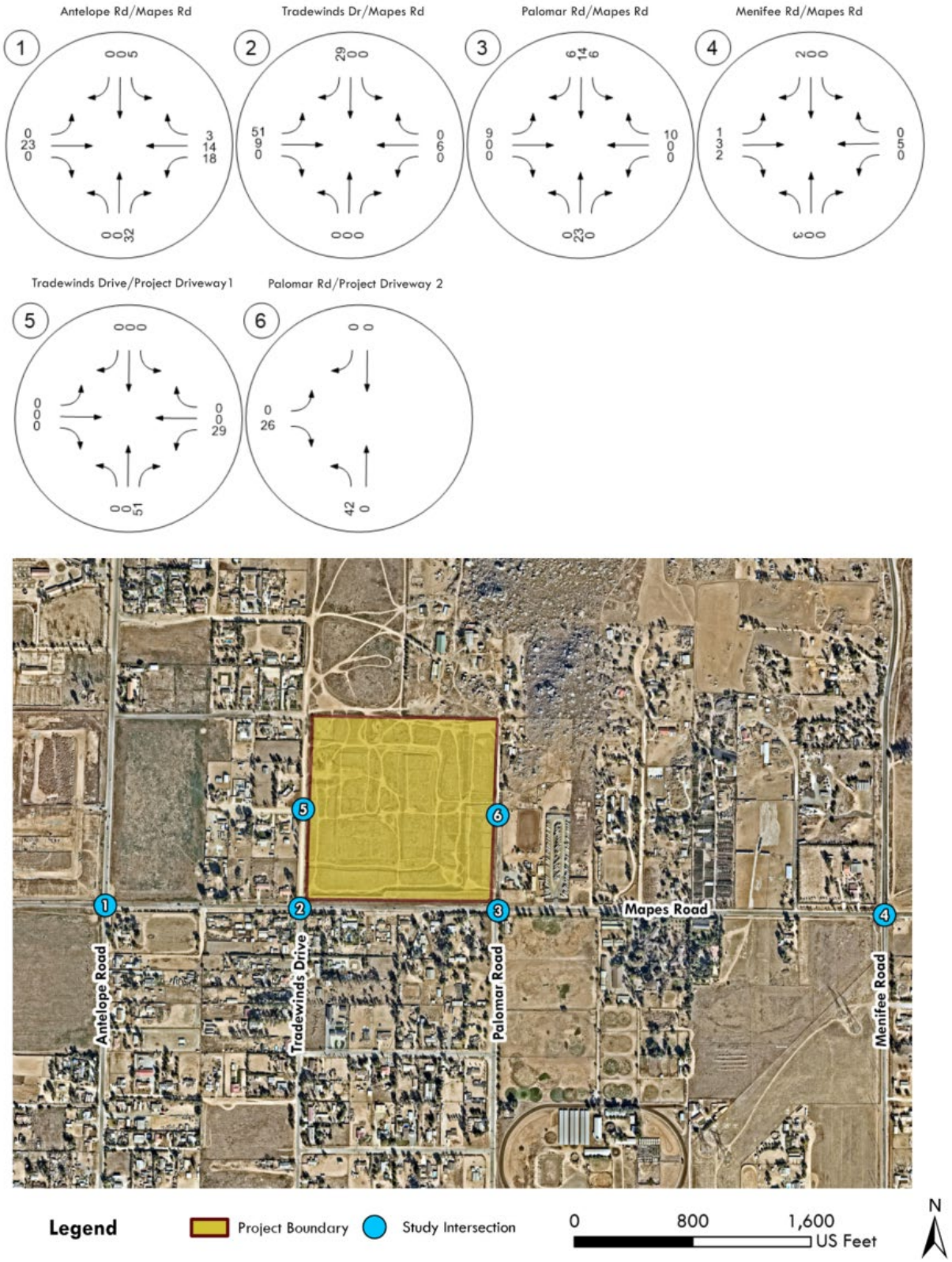


Figure 4.3: Project PM Trip Assignment



5 PLUS PROJECT CONDITIONS

5.1 Project Completion (2027) Traffic Conditions

As described in Section 2.2, Project Completion (2027) traffic volumes were projected by applying a growth rate of 2 percent to traffic volumes (for one year) under Existing (2026) Conditions and adding traffic generated by the Project. Project Completion (2027) AM and PM peak hour traffic volumes at the study area intersection are shown in Figures 5.1 and 5.2, respectively.

As described previously in Section 2.3, *Methodology*, LOS at the study area intersections was determined using the HCM methodology. The Project Completion (2027) AM and PM Peak Hour LOS throughout the study area is shown in Table 5.1. All LOS calculations are provided in Appendix C. As shown in Table 5.1, all intersections are anticipated to operate at a satisfactory LOS during AM and PM peak hours under Project Completion (2027) Conditions.

Table 5.1: Project Completion (2027) AM and PM Peak Hour Level of Service

Intersection	Control Type	Project Completion (2027)				LOS Standard	Satisfactory?
		AM Peak		PM Peak			
		Delay	LOS	Delay	LOS		
1. Antelope Rd/ Mapes Rd	AWSC	11.5	B	10.6	B	D	Yes
2. Tradewinds Dr/ Mapes Rd	TWSC	13.0	B	14.4	B	D	Yes
3. Palomar Rd/ Mapes Rd	TWSC	14.8	C	14.5	B	D	Yes
4. Menifee Rd/ Mapes Rd	AWSC	29.8	D	17.4	C	D	Yes
5. Tradewinds Dr/ Project Driveway 1	TWSC	9.0	A	9.4	A	D	Yes
6. Palomar Rd/ Project Driveway 2	TWSC	8.4	A	8.4	A	D	Yes

AWSC = All Way Stop Control

TWSC = Two Way Stop Control

Delay Reported in Seconds per Vehicle

LOS = Level of Service

Unsatisfactory Level of Service

Figure 5.1: Project Completion (2027) AM Traffic Volumes

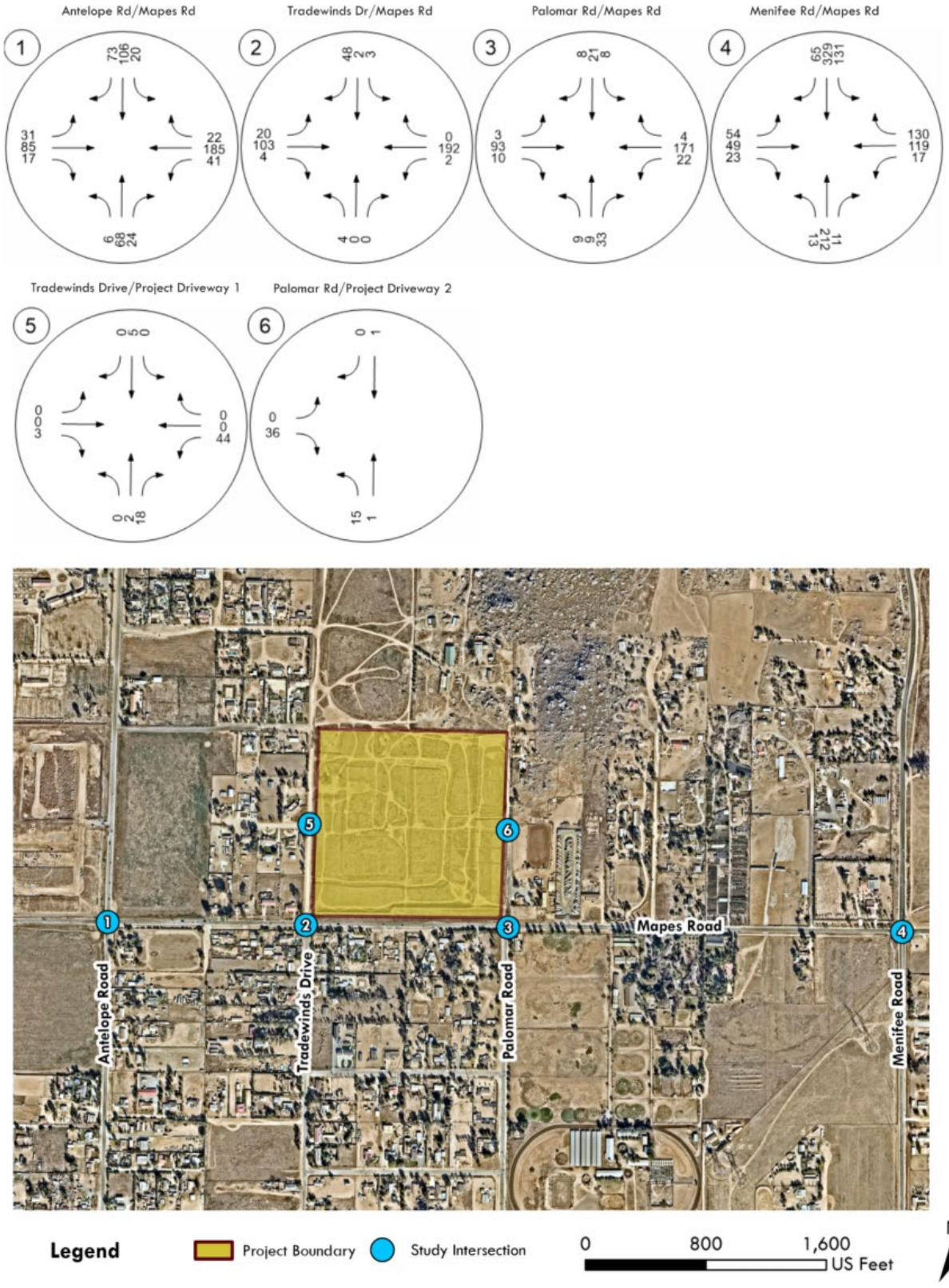
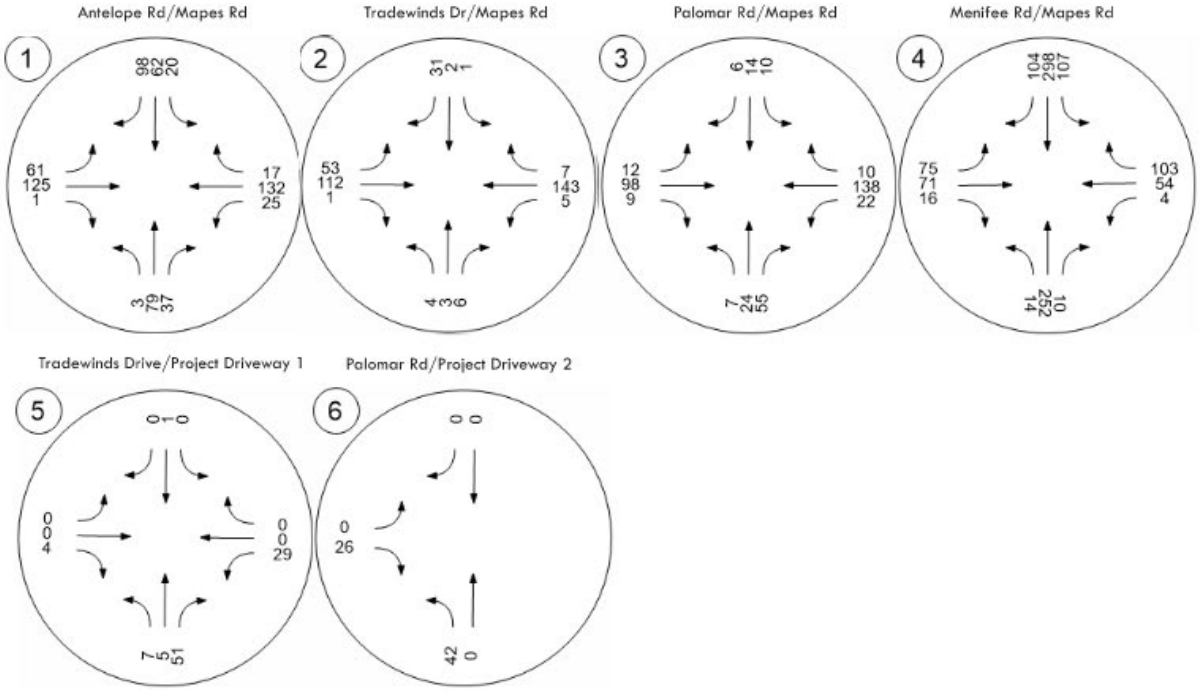
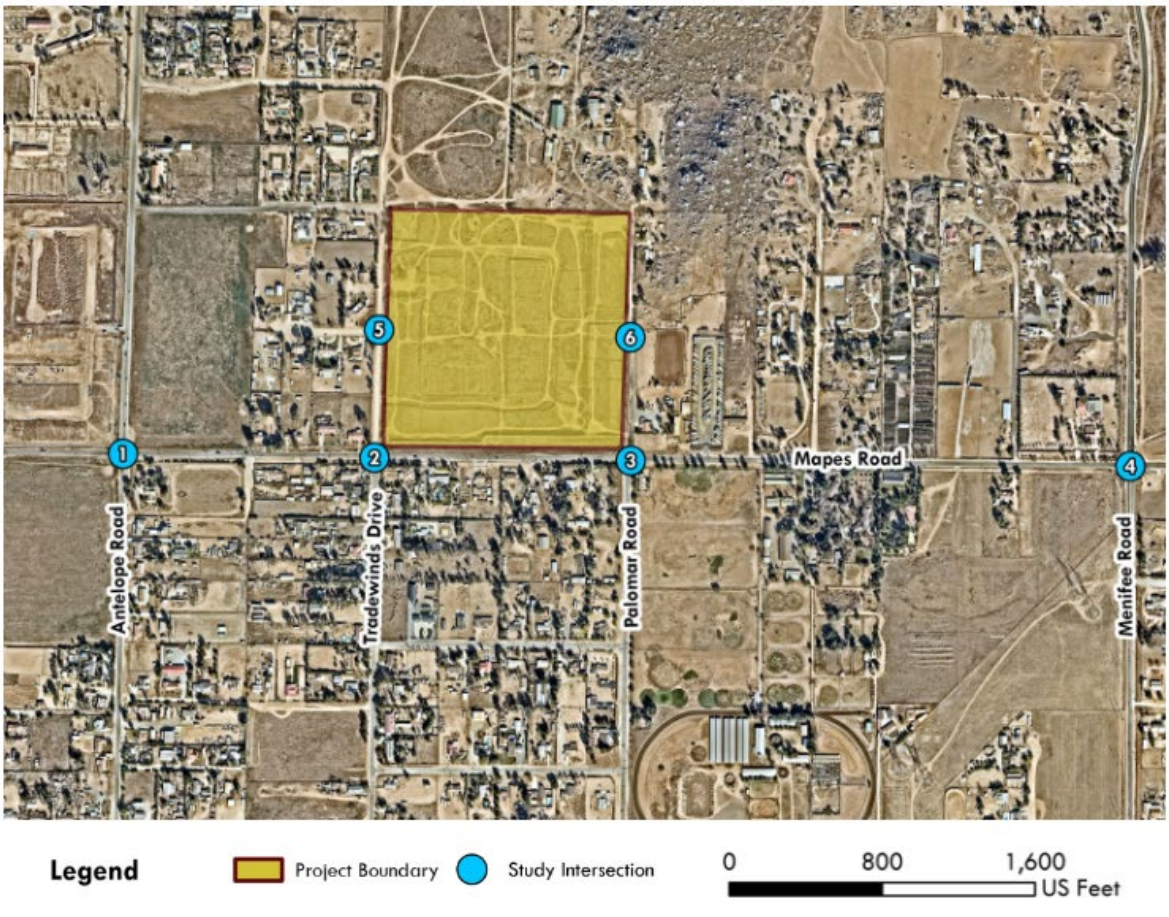


Figure 5.2: Project Completion (2027) PM Traffic Volumes





5.2 Cumulative (2027) Traffic Conditions

Cumulative (2027) traffic volumes were determined by adding traffic generated by cumulative projects, which are approved and pending development projects or newly constructed projects that would impact the study area to the Project Completion (2027) traffic volumes. Cumulative Projects were attained from Riverside County, the City of Menifee and the City of Perris. The locations of the cumulative projects included in the analysis are shown in Figure 5.3. A 2-mile radius was utilized for determining which cumulative projects would be included in the cumulative projects analysis. The trip generation for cumulative projects (shown in Table 5.3) was generated using ITE *Trip Generation Manual, 12th Edition,* rates and are based on the project list provided by the City of Perris, the City of Menifee and Riverside County.

The AM and PM cumulative project trip assignment at study area intersections are shown in Figures 5.4 and 5.5, respectively. Cumulative (2027) AM and PM peak hour traffic volumes at the study area intersections are shown in Figures 5.6 and 5.7, respectively.

As described previously in Section 2.3, *Methodology*, LOS at the study area intersections was determined using the HCM methodology. The Cumulative (2027) LOS throughout the study area intersections is shown in Table 5.2. All LOS calculations are provided in Appendix C. As shown in Table 5.2, the following intersection would operate at an unsatisfactory LOS under the Cumulative (2027) Conditions:

- **4. Menifee Road/ Mapes Road:** LOS E during AM Peak Hour with the SB through direction operating as the worst movement.

The recommended improvements for the intersection with an unsatisfactory LOS can be found in Section 6.2, Cumulative (2027) Improvements.

Table 5.2: Cumulative (2027) AM and PM Peak Hour LOS

Intersection	Control Type	Project Completion (2027)				Cumulative Conditions (2027)				Delay Difference		LOS Standard	Cumulative Conditions (2027) Satisfactory?
		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak	PM Peak		
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS				
1. Antelope Rd/ Mapes Rd	AWSC	11.5	B	10.6	B	13.6	B	13.2	B	2.1	2.6	D	Yes
2. Tradewinds Dr/ Mapes Rd	TWSC	13.0	B	14.4	B	14.7	B	17.5	C	1.7	3.1	D	Yes
3. Palomar Rd/ Mapes Rd	TWSC	14.8	C	14.5	B	17.7	C	18.4	C	2.9	3.9	D	Yes
4. Menifee Rd/ Mapes Rd	AWSC	29.8	D	17.4	C	**47.4**	**E**	28.4	D	17.6	11.0	D	**No**
5. Tradewinds Dr/ Project Driveway 1	TWSC	9.0	A	9.4	A	9.0	A	9.4	A	0.0	0.0	D	Yes
6. Palomar Rd/ Project Driveway 2	TWSC	8.4	A	8.4	A	8.4	A	8.4	A	0.0	0.0	D	Yes

AWSC = All Way Stop Control

TWSC = Two Way Stop Control

Delay Reported in Seconds per Vehicle

LOS = Level of Service

Unsatisfactory Level of Service

Table 5.3: Cumulative Projects Trip Generation

				AM Peak Hour			PM Peak Hour		
Land Use		**Units**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Trip Rates									
822 Strip Retail Plaza (<40k)[1]		1000 Sq. Ft. GLA	54.45	2.16	1.77	3.93	3.15	3.15	6.29
210 Single-Family Detached Housing[2]		Dwelling Units	9.09	0.19	0.51	0.70	0.58	0.35	0.93
154 High-Cube Transload and Short-Term Storage Warehouse[3]		1000 Sq. Ft. GFA	1.40	0.06	0.02	0.08	0.03	0.07	0.10
110 General Light Industrial[4]		1000 Sq. Ft. GFA	3.60	0.41	0.07	0.48	0.12	0.37	0.49
180 Specialty Trade Contractor[5]		1000 Sq. Ft. GFA	9.82	1.23	0.43	1.66	0.62	1.31	1.93
820 Shopping Center (>150k)[6]		1000 Sq. Ft. GLA	36.39	0.55	0.33	0.88	1.60	1.66	3.26
35 Truck and Trailer Parking[7]		Acres	24.91	0.78	0.75	1.53	0.88	1.00	1.88
157 High-Cube Cold Storage Warehouse[8]		1000 Sq. Ft. GFA	2.23	0.0693	0.0407	0.11	0.0495	0.0605	0.11
140 Manufacturing[9]		1000 Sq. Ft. GFA	4.27	0.38	0.13	0.51	0.18	0.45	0.63
Project Trip Generation									
1. PR-25-00019[1]	7.5	1000 Sq. Ft. GLA	408	16	13	29	24	23	47
2. Raintree Investments GVSP[2] (No case number)	228	Dwelling Units	2073	43	117	160	131	81	212
3. CUP 23-05047[3]	498	1000 Sq. Ft. GFA	697	31	9	40	14	36	50
Vehicle Mix[11]		**Percent**							
Passenger Vehicles		84.30%	587	26	8	34	13	29	42
2-Axle Trucks		3.40%	24	1	0	1	0	2	2
3-Axle Trucks		2.80%	20	1	0	1	0	1	1
4+-Axle Trucks		9.50%	66	3	1	4	1	4	5
		100%	697	31	9	40	14	36	50
Proposed PCE Trip Generation[12]		**PCE Factor**							
Passenger Vehicles		1.0	587	26	8	34	13	29	42
2-Axle Trucks		1.5	36	2	0	2	0	3	3
3-Axle Trucks		2.0	40	2	0	2	0	2	2
4+-Axle Trucks		3.0	198	9	3	12	3	12	15
			861	39	11	50	16	46	62
4. CUP 22-05023[3]	350	1000 Sq. Ft. GFA	490	22	6	28	10	25	35
Vehicle Mix[11]		**Percent**							
Passenger Vehicles		84.30%	412	18	5	23	9	21	30
2-Axle Trucks		3.40%	17	1	0	1	0	1	1
3-Axle Trucks		2.80%	14	1	0	1	0	1	1
4+-Axle Trucks		9.50%	47	2	1	3	1	2	3
		100%	490	22	6	28	10	25	35
Proposed PCE Trip Generation[12]		**PCE Factor**							
Passenger Vehicles		1.0	412	18	5	23	9	21	30
2-Axle Trucks		1.5	26	2	0	2	0	2	2
3-Axle Trucks		2.0	28	2	0	2	0	2	2
4+-Axle Trucks		3.0	141	6	3	9	3	6	9
			607	28	8	36	12	31	43
5. CUP 22-05023[4]	14	1000 Sq. Ft. GFA	50	6	1	7	2	5	7
Vehicle Mix[13]		**Percent**							

Table 5.3: Cumulative Projects Trip Generation (Continued)

Passenger Vehicles		93.06%	46	6	1	7	2	5	7
2-Axle Trucks		1.52%	1	0	0	0	0	0	0
3-Axle Trucks		1.23%	1	0	0	0	0	0	0
4+-Axle Trucks		4.19%	2	0	0	0	0	0	0
		100%	50	6	1	7	2	5	7
Proposed PCE Trip Generation[12]		**PCE Factor**							
Passenger Vehicles		1.0	46	6	1	7	2	5	7
2-Axle Trucks		1.5	2	0	0	0	0	0	0
3-Axle Trucks		2.0	2	0	0	0	0	0	0
4+-Axle Trucks		3.0	6	0	0	0	0	0	0
			56	6	1	7	2	5	7
6. CUP 24-05264[5]	25.859	1000 Sq. Ft. GFA	254	32	11	43	16	34	50
Vehicle Mix[14]		**Percent**							
Passenger Vehicles		94.20%	239	31	9	40	15	31	46
2-Axle Trucks		1.30%	3	0	1	1	0	1	1
3-Axle Trucks		1.00%	3	0	0	0	0	1	1
4+-Axle Trucks		3.50%	9	1	1	2	1	1	2
		100%	254	32	11	43	16	34	50
Proposed PCE Trip Generation[12]		**PCE Factor**							
Passenger Vehicles		1.0	239	31	9	40	15	31	46
2-Axle Trucks		1.5	5	0	2	2	0	2	2
3-Axle Trucks		2.0	6	0	0	0	0	2	2
4+-Axle Trucks		3.0	27	3	3	6	3	3	6
			277	34	14	48	18	38	56
7. PR 22-05139[3]	410.65	1000 Sq. Ft. GFA	575	25	8	33	11	30	41
Vehicle Mix[11]		**Percent**							
Passenger Vehicles		84.30%	484	21	7	28	10	25	35
2-Axle Trucks		3.40%	20	1	0	1	0	1	1
3-Axle Trucks		2.80%	16	1	0	1	0	1	1
4+-Axle Trucks		9.50%	55	2	1	3	1	3	4
		100%	575	25	8	33	11	30	41
Proposed PCE Trip Generation[12]		**PCE Factor**							
Passenger Vehicles		1.0	484	21	7	28	10	25	35
2-Axle Trucks		1.5	30	2	0	2	0	2	2
3-Axle Trucks		2.0	32	2	0	2	0	2	2
4+-Axle Trucks		3.0	165	6	3	9	3	9	12
			711	31	10	41	13	38	51
8. PR 22-05190[4]	123	1000 Sq. Ft. GFA	443	51	8	59	14	46	60
Vehicle Mix[13]		**Percent**							
Passenger Vehicles		93.06%	412	47	8	55	13	42	55
2-Axle Trucks		1.52%	7	1	0	1	0	1	1
3-Axle Trucks		1.23%	5	1	0	1	0	1	1
4+-Axle Trucks		4.19%	19	2	0	2	1	2	3
		100%	443	51	8	59	14	46	60
Proposed PCE Trip Generation[12]		**PCE Factor**							
Passenger Vehicles		1.0	412	47	8	55	13	42	55

Table 5.3: Cumulative Projects Trip Generation (Continued)

2-Axle Trucks		1.5	11	2	0	2	0	2	2
3-Axle Trucks		2.0	10	2	0	2	0	2	2
4+-Axle Trucks		3.0	57	6	0	6	3	6	9
			490	57	8	65	16	52	68
8. PR 22-05190[1]	9	1000 Sq. Ft. GLA	490	19	16	35	29	28	57
9. DPR 06-0337[6]	484.3	1000 Sq. Ft. GLA	17624	264	162	426	774	805	1579
10. CUPs 22-05002 & 22-05003[15]			7,834	180	185	365	210	194	404
11. CUP 23-05210, DPR23-00014, & DPR23-00013[1]	21.6	1000 Sq. Ft. GLA	1176	47	38	85	68	68	136
12. TTM38801[2]	117	Dwelling Units	1064	22	60	82	68	41	109
13. SP00260A1[2]	287	Dwelling Units	2609	54	147	201	166	101	267
14. PPT250066, CZ2500044, TPM39411- 90% High-Cube Cold Storage[8]	1163.7	1000 Sq. Ft. GLA	2,595	81	47	128	58	70	128
Vehicle Mix[15]									
Passenger Vehicles		64.13%	1,664	52	30	82	37	45	82
2-Axle Trucks		7.87%	204	6	4	10	5	6	11
3-Axle Trucks		6.36%	165	5	3	8	4	4	8
4+-Axle Trucks		21.64%	562	18	10	28	12	15	27
		100%	2,595	81	47	128	58	70	128
Proposed PCE Trip Generation[12]		**PCE Factor**							
Passenger Vehicles		1	1,664	52	30	82	37	45	82
2-Axle Trucks		1.5	306	9	6	15	7	9	16
3-Axle Trucks		2	330	10	6	16	8	8	16
4+-Axle Trucks		3	1,685	54	30	84	36	45	81
			3,985	125	72	197	88	107	195
14. PPT250066, CZ2500044, TPM39411- 10% Manufacturing[9]	129.304	1000 Sq. Ft. GLA	552	49	17	66	23	58	81
Vehicle Mix[16]		**Percent**							
Passenger Vehicles		86.70%	479	43	15	58	20	50	70
2-Axle Trucks		2.91%	16	1	1	2	0	2	2
3-Axle Trucks		2.35%	13	1	0	1	1	1	2
4+-Axle Trucks		8.04%	44	4	1	5	2	5	7
		100%	552	49	17	66	23	58	81
Proposed PCE Trip Generation[12]		**PCE Factor**							
Passenger Vehicles		1	479	43	15	58	20	50	70
2-Axle Trucks		1.5	24	2	1	3	0	3	3
3-Axle Trucks		2	26	2	0	2	2	2	4
4+-Axle Trucks		3	133	12	4	16	6	14	20
			662	59	20	79	28	69	97
15. TTM37358[2]	154	Dwelling Units	1400	29	79	108	89	54	143
16. CUP220029[8]	2.6	Acres	65	2	2	4	2	3	5
Vehicle Mix[15]		**Percent**							
Passenger Vehicles		42.07%	27	1	1	2	1	0	1
2-Axle Trucks		12.69%	8	0	1	1	0	1	1
3-Axle Trucks		10.25%	7	0	0	0	0	1	1

Table 5.3: Cumulative Projects Trip Generation (Continued)

4+-Axle Trucks		34.99%	23	1	0	1	1	1	2
		100%	65	2	2	4	2	3	5
Proposed PCE Trip Generation[12]		**PCE Factor**							
Passenger Vehicles		1.0	27	1	1	2	1	0	1
2-Axle Trucks		1.5	12	0	2	2	0	2	2
3-Axle Trucks		2.0	14	0	0	0	0	2	2
4+-Axle Trucks		3.0	69	3	0	3	3	3	6
			122	4	3	7	4	7	11
17. TR30926E02[2]	330	Dwelling Units	3000	62	169	231	190	117	307
18. TTM37533[2]	373	Dwelling Units	3391	70	191	261	215	132	347
19. TTM39115[2]	192	Dwelling Units	1745	36	98	134	111	68	179
Total Project Passenger Vehicle Trip Generation			47,164	1,086	1,359	2,446	2,195	1,961	4,155
Total Project Truck Trip Generation			1,371	55	26	79	29	59	89
Total Project Trip Generation (Non PCE)			48,045	1,119	1,378	2,497	2,215	1,994	4,209
Total Project Trip Generation (PCE)			**50,585**	**1,225**	**1,422**	**2,647**	**2,272**	**2,105**	**4,377**

[1]Institute of Transportation Engineers, Trip Generation Manual, 12th Edition, 2025. Land Use Code 822 - Strip Retail Plaza (<40k) (Average Rate).

[2]Institute of Transportation Engineers, Trip Generation Manual, 12th Edition, 2025. Land Use Code 210 - Single-Family Detached Housing (Average Rate).

[3]Institute of Transportation Engineers, Trip Generation Manual, 12th Edition, 2025. Land Use Code 154 - High-Cube Transload and Short-Term Storage Warehouse (Average Rate).

[4]Institute of Transportation Engineers, Trip Generation Manual, 12th Edition, 2025. Land Use Code 110 - General Light Industrial (Average Rate).

[5]Institute of Transportation Engineers, Trip Generation Manual, 12th Edition, 2025. Land Use Code 180 - Specialty Trade Contractor (Average Rate).

[6]Institute of Transportation Engineers, Trip Generation Manual, 12th Edition, 2025. Land Use Code 820 - Shopping Center (>150k). (Average Rate)

[7]Institute of Transportation Engineers, Trip Generation Manual, 12th Edition, 2025. Land Use Code 35 - Truck and Trailer Parking (Average Rate).

[8]Institute of Transportation Engineers, Trip Generation Manual, 12th Edition, 2025. Land Use Code 157 - High-Cube Cold Storage Warehouse.

[9]Institute of Transportation Engineers, Trip Generation Manual, 12th Edition, 2025. Land Use Code 140 - Manufacturing (Average Rate).

[10] Ethanac Travel Center TIA, October 2022.

[11]Truck% from the Institute of Transportation Engineers, Trip Generation, 12th Edition, 2025 for ITE 154 - High-Cube Transload and Short Term. Truck axle split from SCAQMD Composite of the SCAQMD Warehouse Truck Trip Study Data Results and Usage, July 17, 2014.

[12]Passenger Car Equivalent (PCE) factors from San Bernardino County CMP, Appendix B - Guidelines for CMP Traffic Impact Analysis Reports in San Bernardino County, 2016.

[13]Truck% from the Institute of Transportation Engineers, Trip Generation, 12th Edition, 2025 for ITE 110 - General Light Industrial. Truck axle split from SCAQMD Composite of the SCAQMD Warehouse Truck Trip Study Data Results and Usage, July 17, 2014.

[14]Truck% from the Institute of Transportation Engineers, Trip Generation, 11th Edition, 2021 for ITE 180 - Specialty Trade Contractor. Truck axle split from SCAQMD Composite of the SCAQMD Warehouse Truck Trip Study Data Results and Usage, July 17, 2014.

[15]Truck% from the Institute of Transportation Engineers, Trip Generation, 12th Edition, 2025 for ITE 035 - Truck and Trailer Parking. Truck axle split from SCAQMD Composite of the SCAQMD Warehouse Truck Trip Study Data Results and Usage, July 17, 2014.

[16]Truck % from the Institute of Transportation Engineers, Trip Generation, 12th Edition, 2025 for ITE 157 - High-Cube Cold Storage Warehouse. Truck axle split from SCAQMD Composite of the SCAQMD Warehouse Truck Trip Study Data Results and Usage, July 17, 2014.

[17]Truck% from the Institute of Transportation Engineers, Trip Generation, 12th Edition, 2025 for ITE 140 - Manufacturing. Truck axle split from SCAQMD Composite of the SCAQMD Warehouse Truck Trip Study Data Results and Usage, July 17, 2014.

Figure 5.3: Location of Cumulative Projects

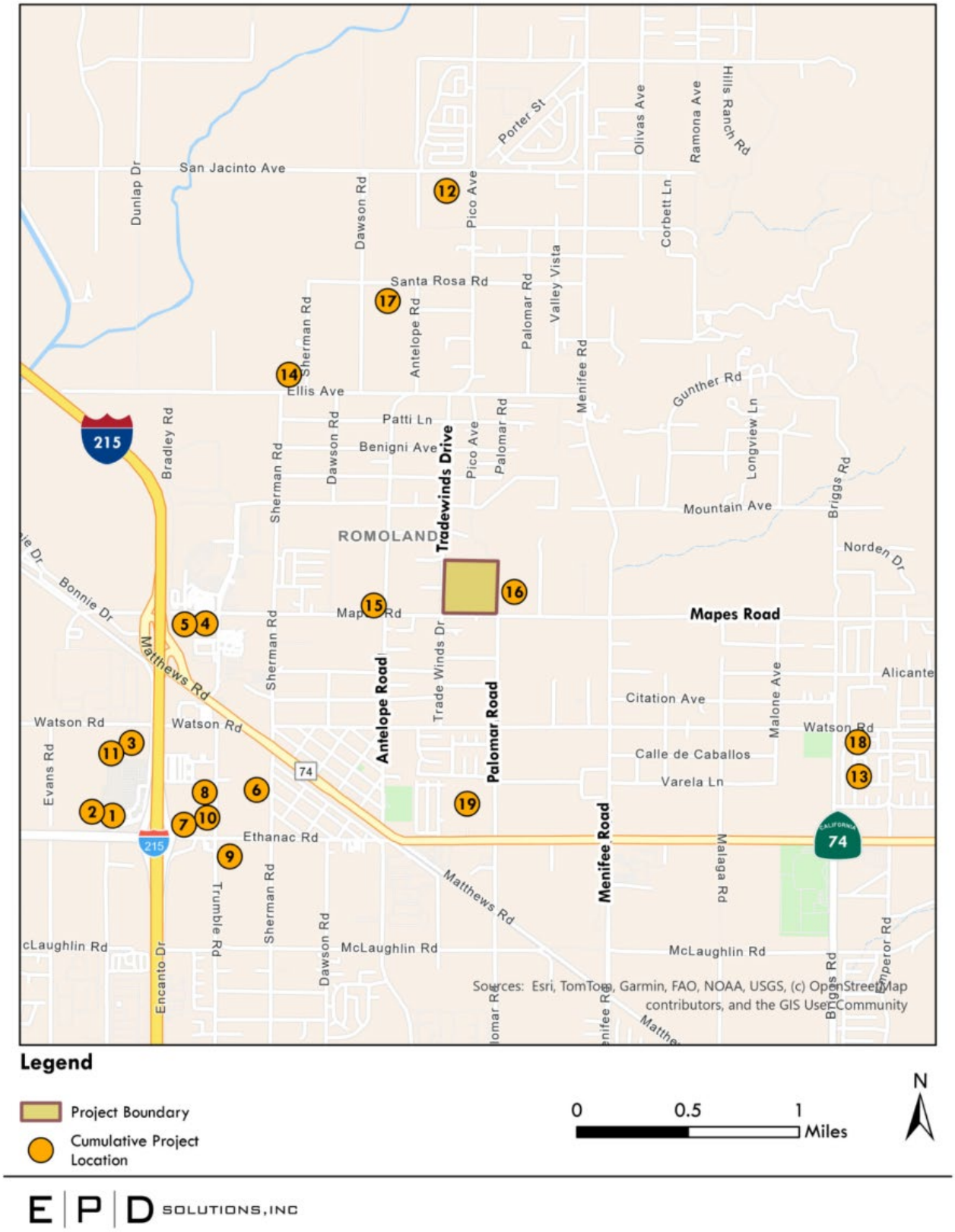
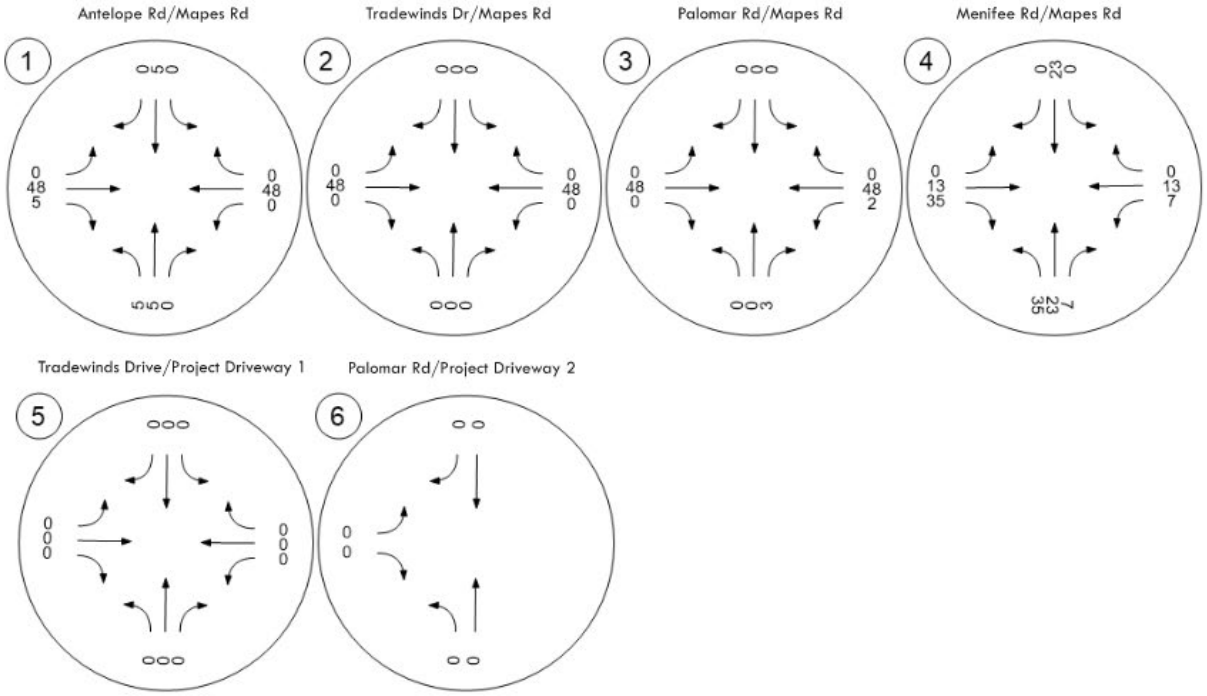


Figure 5.4: Cumulative Projects AM Trip Assignment



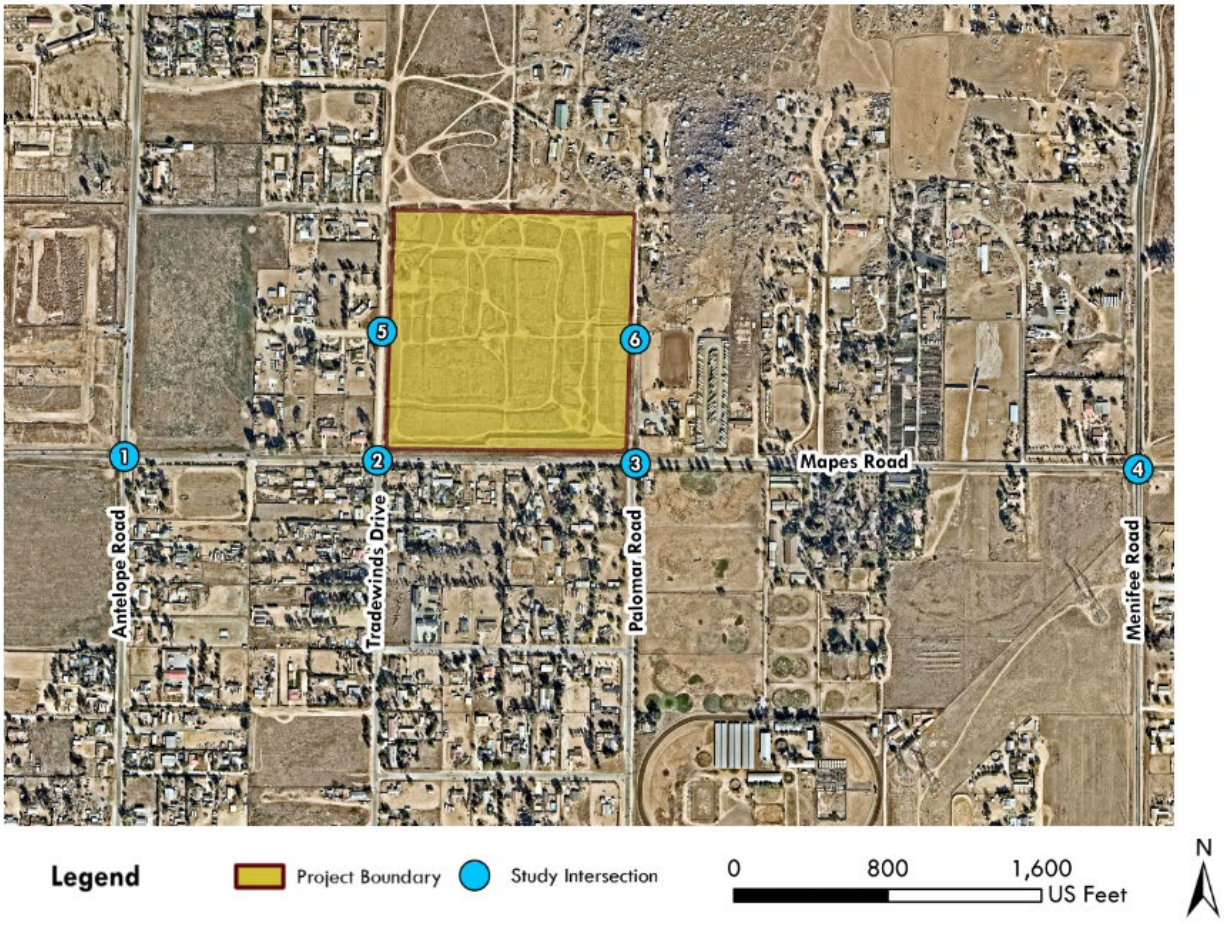


Figure 5.5: Cumulative Projects PM Trip Assignment

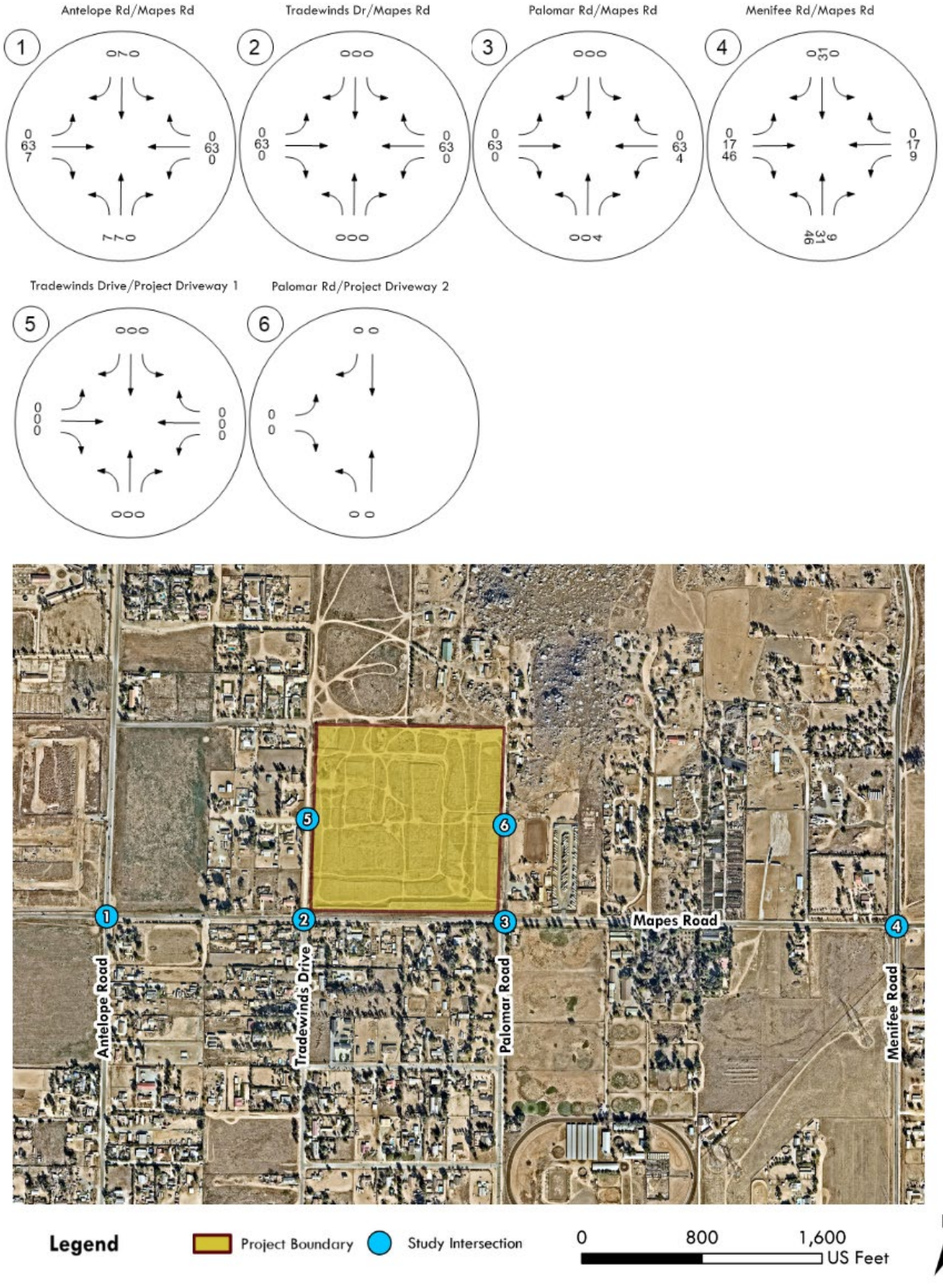


Figure 5.6: Cumulative (2027) AM Peak Hour Traffic Volumes

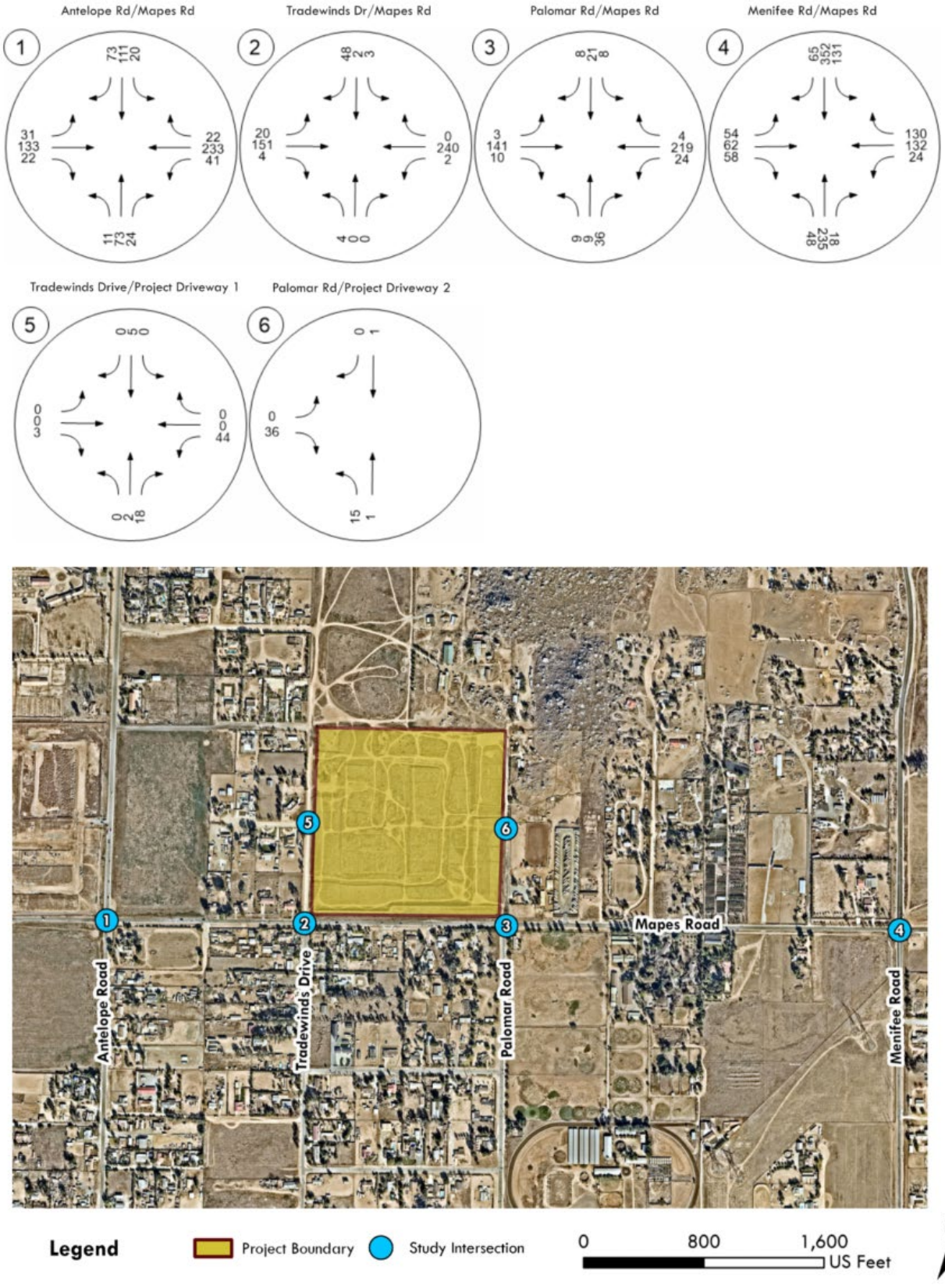
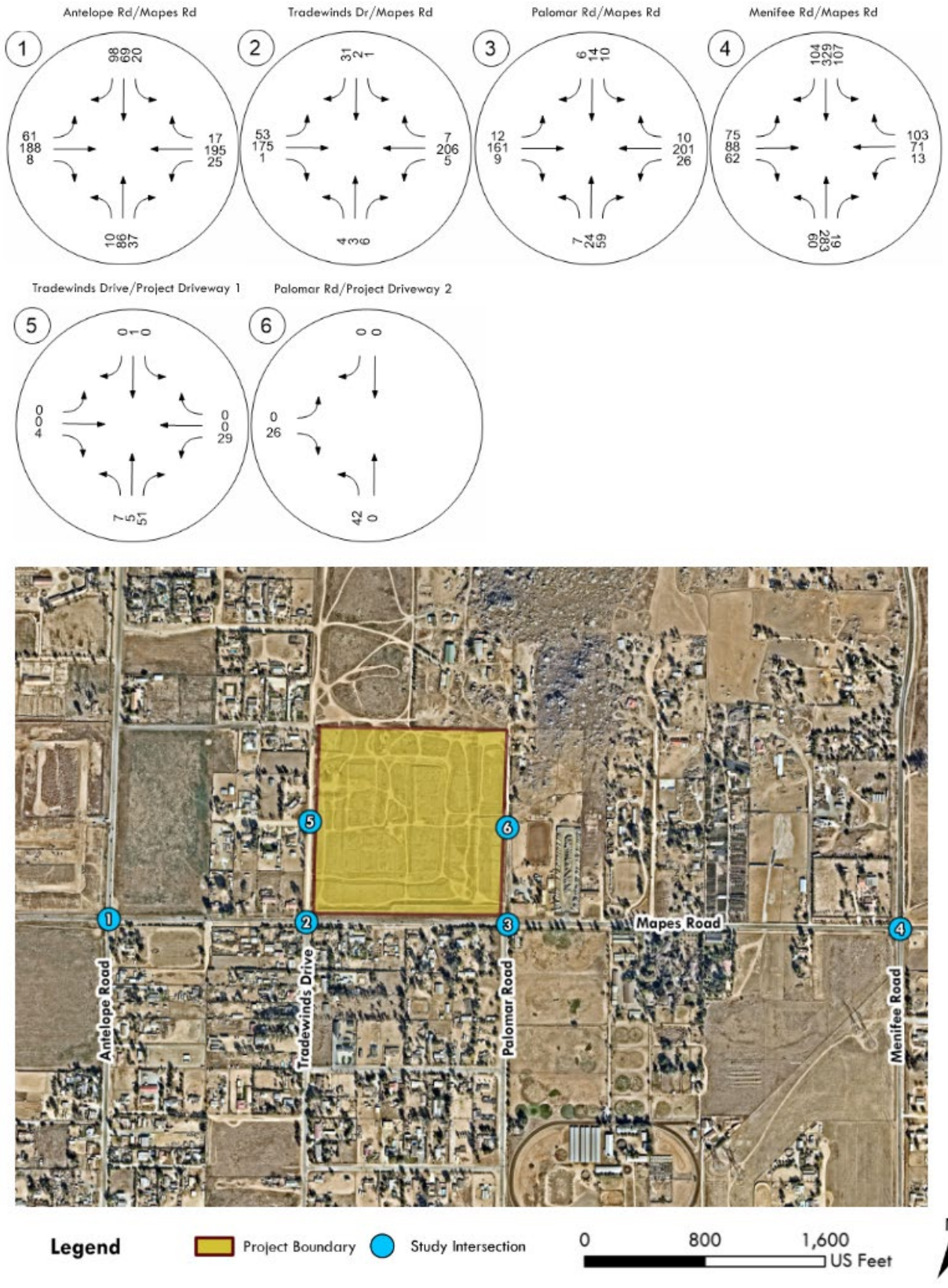


Figure 5.7: Cumulative (2027) PM Peak Hour Traffic Volumes



5.3 General Plan (2045) Plus Project Traffic Conditions

General Plan (2045) Plus Project traffic volumes were determined by adding the Project trips to the General Plan (2045) Without Project traffic volumes. General Plan (2045) Plus Project AM and PM peak hour traffic volumes at the study area intersections are shown in Figures 5.8 and 5.9, respectively.

As described previously in Section 2.3, *Methodology*, LOS at the study area intersections was determined using the HCM methodology. The General Plan (2045) Plus Project LOS throughout the study area intersections is shown in Table 5.4. All LOS calculations are provided in Appendix C. As shown in Table 5.4, the following intersection operates at an unsatisfactory LOS under the General Plan (2045) Plus Project Conditions:

- **4. Menifee Road/Mapes Road:** LOS F during AM Peak Hour with the SB through direction operating as the worst movement, and LOS F during PM Peak Hour with the NB through direction operating as the worst movement.

The recommended improvements for the intersection with an unsatisfactory LOS can be found in Section 6.3 General Plan (2045) Plus Project Improvements.

Table 5.4: General Plan (2045) Plus Project AM and PM Peak Hour LOS

Intersection	Control Type	General Plan (2045) Without Project				General Plan (2045) Plus Project				Delay Difference		LOS Standard	General Plan (2045)
		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak	PM Peak		
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS				
1. Antelope Rd/ Mapes Rd	AWSC	16.8	C	16.7	C	21.1	C	20.3	C	4.3	3.6	D	Yes
2. Tradewinds Dr/ Mapes Rd	TWSC	11.9	B	12.3	B	13.2	B	14.6	B	1.3	2.3	D	Yes
3. Palomar Rd/ Mapes Rd	TWSC	12.6	B	13.8	B	13.4	B	15.5	C	0.8	1.7	D	Yes
4. Menifee Rd/ Mapes Rd	AWSC	**145.9**	**F**	**59.7**	**F**	**148.7**	**F**	**62.5**	**F**	2.8	2.8	D	**No**
5. Tradewinds Dr/ Project Driveway 1	TWSC	8.3	A	8.3	A	8.8	A	8.8	A	0.5	0.5	D	Yes
6. Palomar Rd/ Project Driveway 2	TWSC	-	-	-	-	8.4	A	8.4	A	-	-	D	Yes

AWSC = All Way Stop Control
TWSC = Two Way Stop Control
Delay Reported in Seconds per Vehicle
LOS = Level of Service
Unsatisfactory Level of Service

Figure 5.8: General Plan (2045) Plus Project AM Peak Hour Traffic Volumes

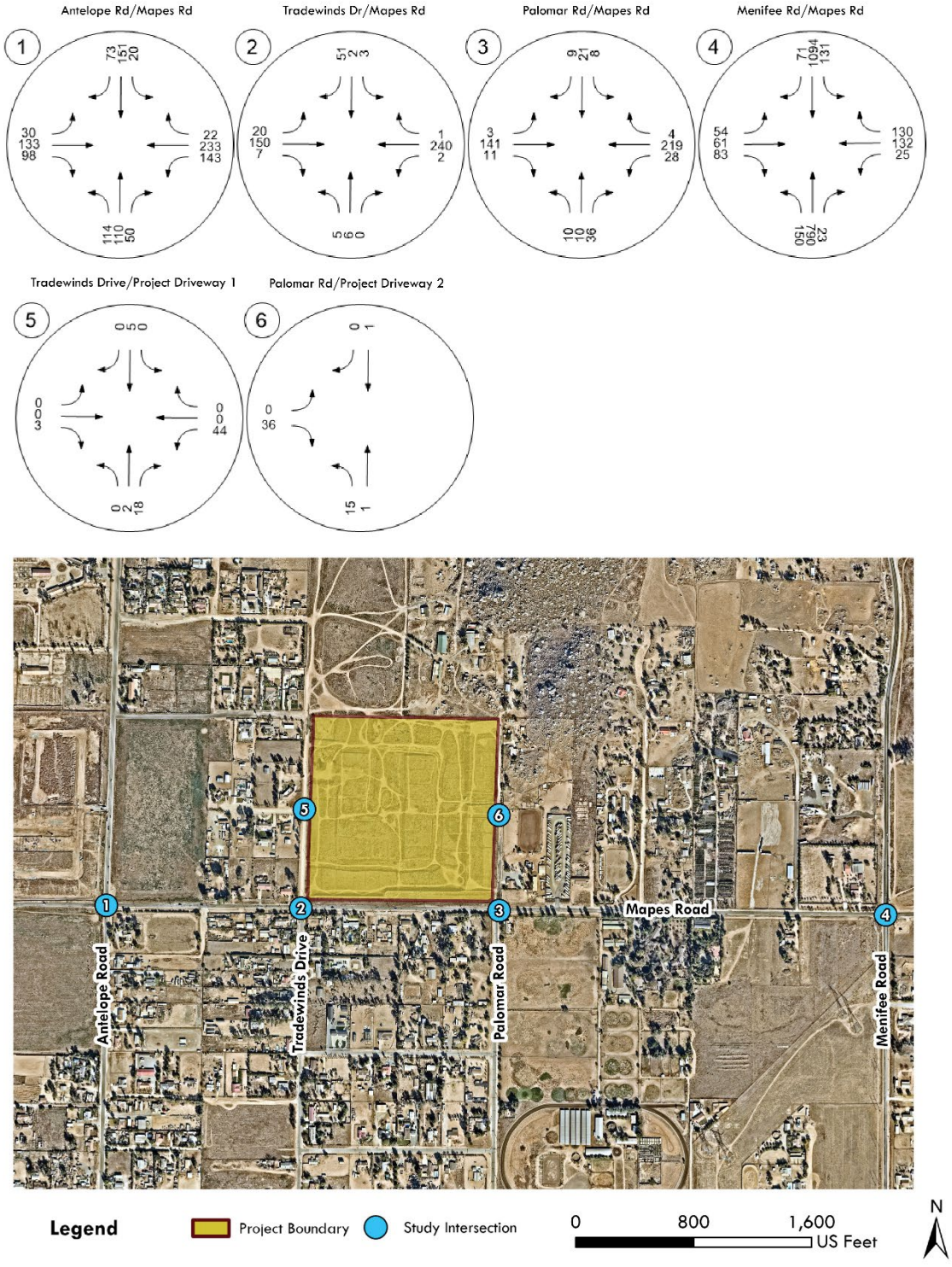
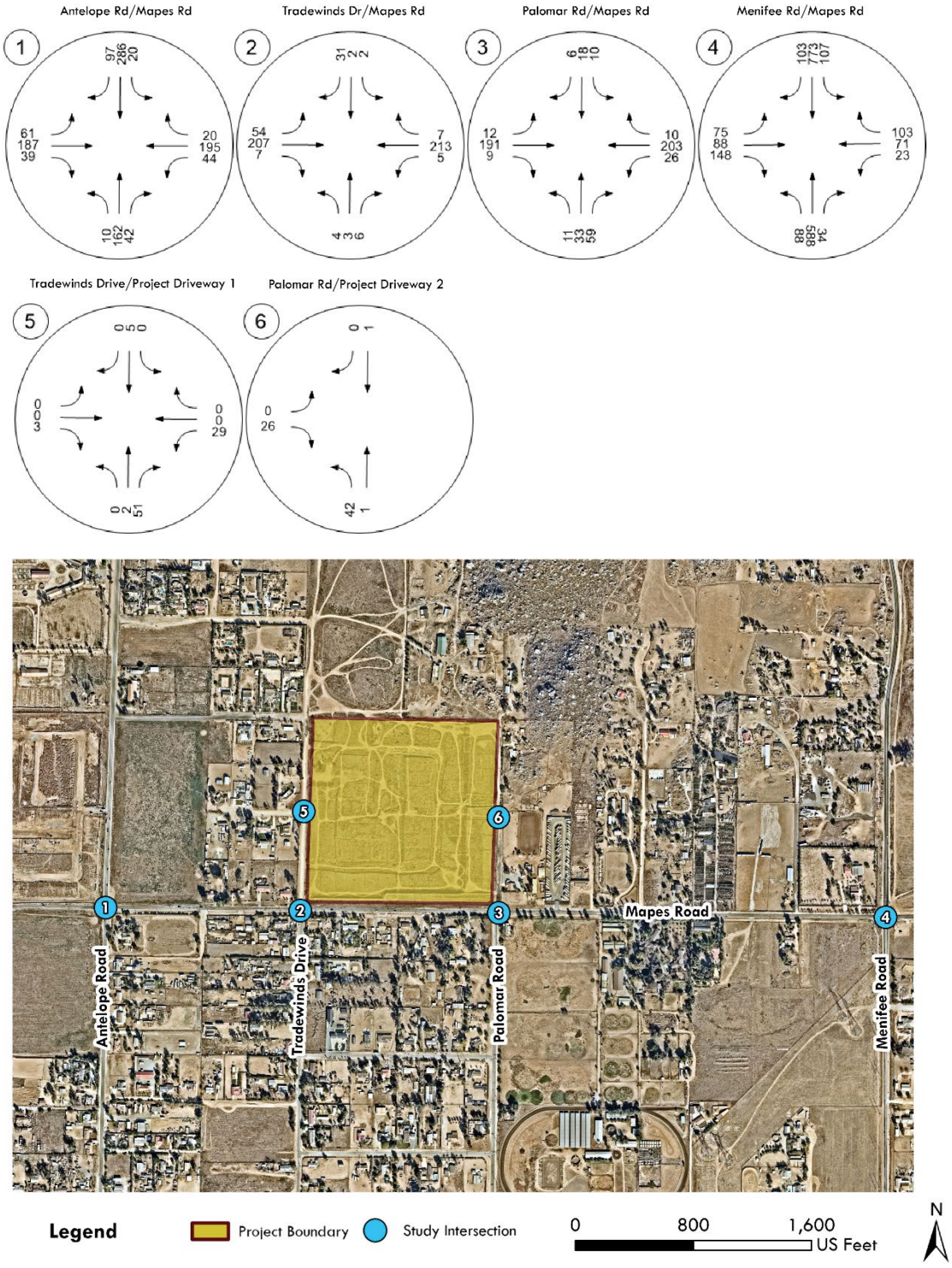


Figure 5.9: General Plan (2045) Plus Project PM Peak Hour Traffic Volumes



6 PROJECT IMPROVEMENTS

6.1 Peak Hour Signal Warrant Analysis

Warrant 3 – Peak Hour signal warrant analysis was conducted to evaluate whether existing stop-controlled intersections should be modified to signalized control. The analysis was conducted for each intersection via Vistro. The Vistro output sheets for the peak hour signal warrant analysis are provided in Appendix D.

As Intersection #4 is the only intersection with an LOS deficiency, an analysis following the California Manual on Uniform Traffic Control Devices (CA MUTCD) Figure 4C-4 was performed for the scenarios in which the intersections are deficient. The detailed signal warrant analysis is provided in Appendix D.

Table 6.1 presents the signal warrant analysis results for the AM and PM peak hours at the deficient intersection. Sections 6.2 and 6.3 discuss the recommended improvements.

Table 6.1: Intersection 4 - Peak Hour Signal Warrant Analysis Results

Intersection	Control Type	Cumulative (2027)		General Plan (2045) Without Project		General Plan (2045) Plus Project	
		AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
4. Menifee Rd/ Mapes Rd	AWSC	Yes	Yes	Yes	Yes	Yes	Yes

AWSC = All Way Stop Control

6.2 Cumulative (2027) Improvements

As previously shown in Section 5.2, the addition of the cumulative project's trips in the Cumulative (2027) Conditions would result in an unsatisfactory LOS at one of the six study intersections.

The following improvement would improve the LOS to a satisfactory level or better than baseline for the intersection with an unsatisfactory LOS under Cumulative (2027) Conditions, as shown in Table 6.2:

- **4. Menifee Road/Mapes Road:** Install a traffic signal at the intersection.

Table 6.2: Cumulative (2027) Peak Hour LOS With Improvements

Intersection	Control Type	Existing (2025) Conditions				Project Completion (2027) Conditions				Cumulative (2027) Conditions				Delay Difference Between PC & CC		LOS Standard	Cumulative (2027) Conditions Satisfactory?	Project Deficiency?	Cumulative (2027) With Improvements[1]				Less Than Baseline?[2]
		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak							AM Peak		PM Peak		
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	AM Peak	PM Peak				Delay	LOS	Delay	LOS	
4. Menifee Rd/ Mapes Rd	AWSC	26.8	D	17.1	C	29.8	D	17.4	C	**47.4**	**E**	28.4	D	17.6	11.0	D	No	Yes	8.4	A	7.2	A	Yes

AWSC = All Way Stop Control
TWSC = Two Way Stop Control
Delay Reported in Seconds per Vehicle
LOS = Level of Service
Unsatisfactory Level of Service

[1] Recommended improvements are discussed in Section 6.

[2] Baseline in this context refers to Existing conditions.

6.3 General Plan (2045) Plus Project Improvements

As previously shown in Section 5.3, the General Plan (2045) Plus Project Conditions result with an unsatisfactory LOS at one of the six study intersections.

The following improvements would improve the LOS to a satisfactory level or better than baseline for the intersections with an unsatisfactory LOS under General Plan (2045) Plus Project Conditions, as shown in Table 6.3:

- **4. Menifee Road/Mapes Road:** Install a traffic signal at the intersection.

Table 6.3: General Plan (2045) Plus Project Peak Hour LOS With Improvements

Intersection	Control Type	General Plan (2045) Without Project				General Plan (2045) Plus Project				Delay Difference Between GP & GP + Project		LOS Standard	(General Plan (2045) Plus Project) Satisfactory?	General Plan (2045) Plus Project With Improvements[1]				Less Than Baseline?[2]
		AM Peak		PM Peak		AM Peak		PM Peak						AM Peak		PM Peak		
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	AM Peak	PM Peak			Delay	LOS	Delay	LOS	
4. Menifee Rd/ Mapes Rd	AWSC	**145.9**	**F**	**59.7**	**F**	**148.7**	**F**	**62.5**	**F**	2.8	2.8	D	No	34.0	C	31.9	C	Yes

AWSC = All Way Stop Control

TWSC = Two Way Stop Control

Delay Reported in Seconds per Vehicle

LOS = Level of Service

Unsatisfactory Level of Service

[1] Recommended improvements are discussed in Section 6.

[2] Baseline in this context refers to General Plan (2045) Without Project.

6.4 Implementation of Project Improvements

According to the Riverside County Transportation Analysis Guidelines, for improvements that are needed where the applicant is not solely responsible, a fair share computation should be computed and reported for each mitigation.

However, based on EPD's coordination with county staff, the installation of a traffic signal at Intersection #4 (Menifee Road/Mapes Road) is required to address future traffic conditions. However, the applicant is not solely responsible for the installation of traffic signals at this intersection, as these improvements are included within the Riverside County Development Impact Fee (DIF) program for traffic signals.The County's DIF program covers all portions of unincorporated Riverside County. The DIF program is administered by the Riverside County Executive Office and was adopted through Ordinance No. 659, which created the DIF framework that funds facilities such as:

- Traffic improvements
- Traffic signals
- Fire protection facilities
- Regional parks and trails
- Libraries and other public facilities

The Project will contribute to the County's DIF program. DIF revenues are used to fund the installation of traffic signals at intersections that meet applicable signal warrant criteria and are programmed by the County. As such, the Project's contribution toward these improvements will be satisfied through payment of applicable DIF fees at the time of building permit issuance. No additional project-specific fair share contribution is required.

APPENDIX A – TRAFFIC STUDY SCOPING AGREEMENT

SCOPING AGREEMENT FOR TRANSPORTATION LOS ANALYSIS

This letter acknowledges the Riverside County Transportation Department requirements for transportation level of service analysis of the following project. The analysis must follow the Riverside County Transportation Department Transportation Analysis Guidelines, December 2020.

Case No.	CZ2500031 - GPA250018 - TTM39316 - PPT250045
Related Cases	
Project Name:	Mapes and Palomar
Project Address:	Northwest corner of Mapes Road/Palomar Road including APNs 327-480-001 through -022, 327-481-001 through -012, 327-490-001 through -016, 327-491-001 through -018. Please refer to Figure 1: Project Location
Project Description:	The project proposes the creation of 158 individual lots, including 144 numbered lots for single-family development and 14 lettered lots for a drainage basin, open space areas, a Riverside County Flood Control District (RCFCD) easement, and various right-of-way dedications for road purposes.

	Traffic Consultant	Applicant/Developer
Name:	EPD Solutions, Inc.	EPD Solutions, Inc.
Address:	3333 Michelson Drive Suite 500, Irvine, CA 92612	3333 Michelson Drive Suite 500, Irvine, CA 92612
Telephone:	(949) 794 -1180	(949) 794-1188
E-mail:	techservices@epdsolutions.com	dane@epdsolutions.com

Current GP Land Use	Very Low Density Residential (VLDR)	Proposed Land Use	Medium Density Residential (MDR)
Current Zoning	Rural Residential (R-R)	Proposed Zoning	Planned Residential (R-4)

A. Trip Generation Source: ITE 12th Edition Land Use Code

	Current Trip Generation			Proposed Trip Generation		
	In	Out	Total	In	Out	Total
AM Trips	N/A	N/A	N/A	26	75	101
PM Trips	N/A	N/A	N/A	85	50	135

Internal Trip Allowance ☐ Yes ☑ No (_____ % Trip Discount)

Pass-By Trip Allowance ☐ Yes ☑ No (_____ % Trip Discount)

A pass-by trip discount of 25% is allowed for appropriate land uses. The pass-by trips at adjacent study area intersections and project driveways shall be indicated on a report figure.

B. Trip Geographic Distribution: N 10 % S 25 % E 10 % W 55 %

Please refer to Figure 3: Project Trip Distribution

C. Background Traffic

Project Build-out Year:	2027	Annual Ambient Growth Rate:	2 %
Phase Year(s)	2045		
Other projects to be analyzed:	A list of cumulative projects will be requested from the City within a 2-mile radius.		
Model/Forecast methodology	Annual Growth Rate plus Cumulative Project		

D. Study intersections: *(NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies.)* - Please refer to attachment B - Project Study Area

1. Antelope Road and Mapes Road
2. Tradewinds Drive and Mapes Road
3. Palomar Road and Mapes Road
4. Menifee Road and Mapes Road
5. Tradewinds Drive and Project Driveway 1
6. Palomar Road and Project Driveway 2
7.
8.
9.
10.

E. Study Roadway Segments: *(NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies.)*

1. N/A
2. N/A
3. N/A
4. N/A
5. N/A
6. N/A
7. N/A
8. N/A
9. N/A
10. N/A

F. Other Jurisdictional

Is this project within a City's Sphere of Influence or one-mile radius of City boundaries? ☑ Yes ☐ No

If yes, name of jurisdiction(s): Menifee and Perris

Send the scoping agreement to the Cities for review and cc the County

G. Site Plan (please attach reduced copy) - Please see Figure 4: Conceptual Site Plan

H. Specific issues to be addressed in the Study (in addition to the standard analysis described in the Guideline) (To be filled out by Transportation Department)

(NOTE: If the traffic study states that "a traffic signal is warranted" (or "a traffic signal appears to be warranted," or similar statement) at an existing unsignalized intersection under existing conditions, 8-hour approach traffic volume information must be submitted in addition to the peak hourly turning movement counts for that intersection.)

The TIA will examine the impacts on queue lengths, need for additional queuing area, and access to turn lanes at intersections and/or site access driveways.

I. Existing Conditions

Traffic count data must be new or recent. Provide traffic count dates if using other than new counts.
Date of counts_____

***NOTE* Traffic Study Submittal Form and appropriate fee must be submitted with this form.**

Recommended by:

Chad Karns	10/27/25
Traffic Consultant	Date

Scoping Agreement Submitted on 09/12/25
Revised on 10/27/25

Approved Scoping Agreement

Eva Covarrubias	11/5/2025
Riverside County Transportation Department	Date

Table 1: Project Trip Generation

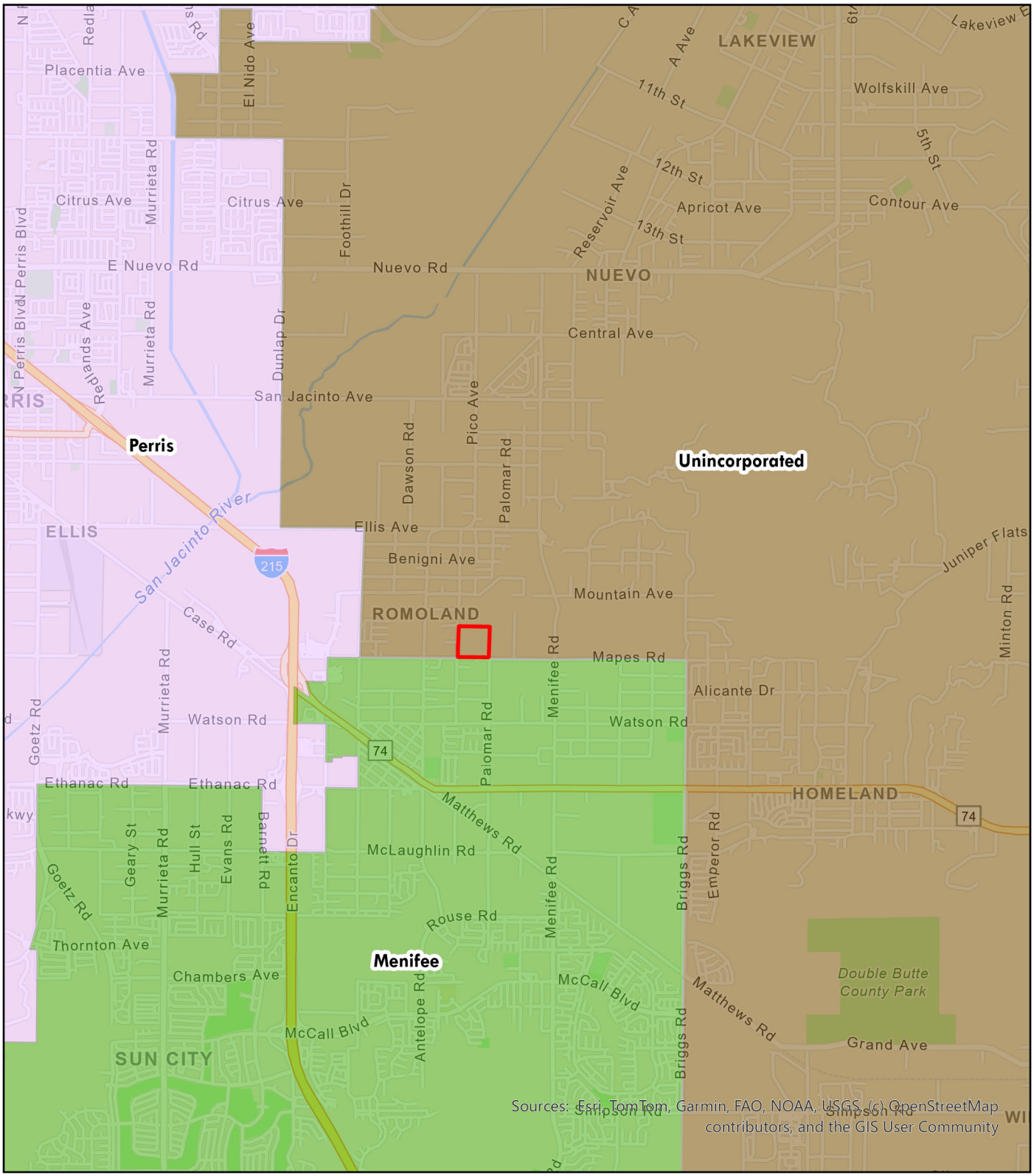
				AM Peak Hour			PM Peak Hour		
Land Use		**Units**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Trip Rates									
210 Single-Family Detached Housing[1]		Dwelling Units	9.09	0.19	0.51	0.70	0.58	0.35	0.93
Project Trip Generation									
Single-Family Detached Housing[1]	144	Dwelling Units	1,309	27	73	100	84	50	134
Total Project Trip Generation			**1,309**	**27**	**73**	**100**	**84**	**50**	**134**

[1]Institute of Transportation Engineers, Trip Generation, 12th Edition, 2025. Land Use Code 210 - Single-Family Detached Housing (Average Rate)

Project Impact Analysis: Level of service will be calculated for the following conditions:

-Existing (2025) Conditions AM and PM Peak Hour
-Project Completion (2027) Conditions (Existing plus Ambient Growth plus Project
-Cumulative (2027) Conditions (Existing plus Ambient Growth plus Project plus Cumulative Projects)
-General Plan Year (2045) AM and PM Peak Hour Conditions
-General Plan Year (2045) with Project AM and PM Peak Hour Conditions

Figure 1: Project Location



Legend

- Project Boundary
- Menifee
- Perris
- Unincorporated

0 1 2 Miles

N

E P D SOLUTIONS, INC

Figure 2: Project Study Area



Legend

Project Boundary

Study Intersections

0 800 1,600 US Feet

N

E P D SOLUTIONS, INC

Figure 3: Project Trip Distribution

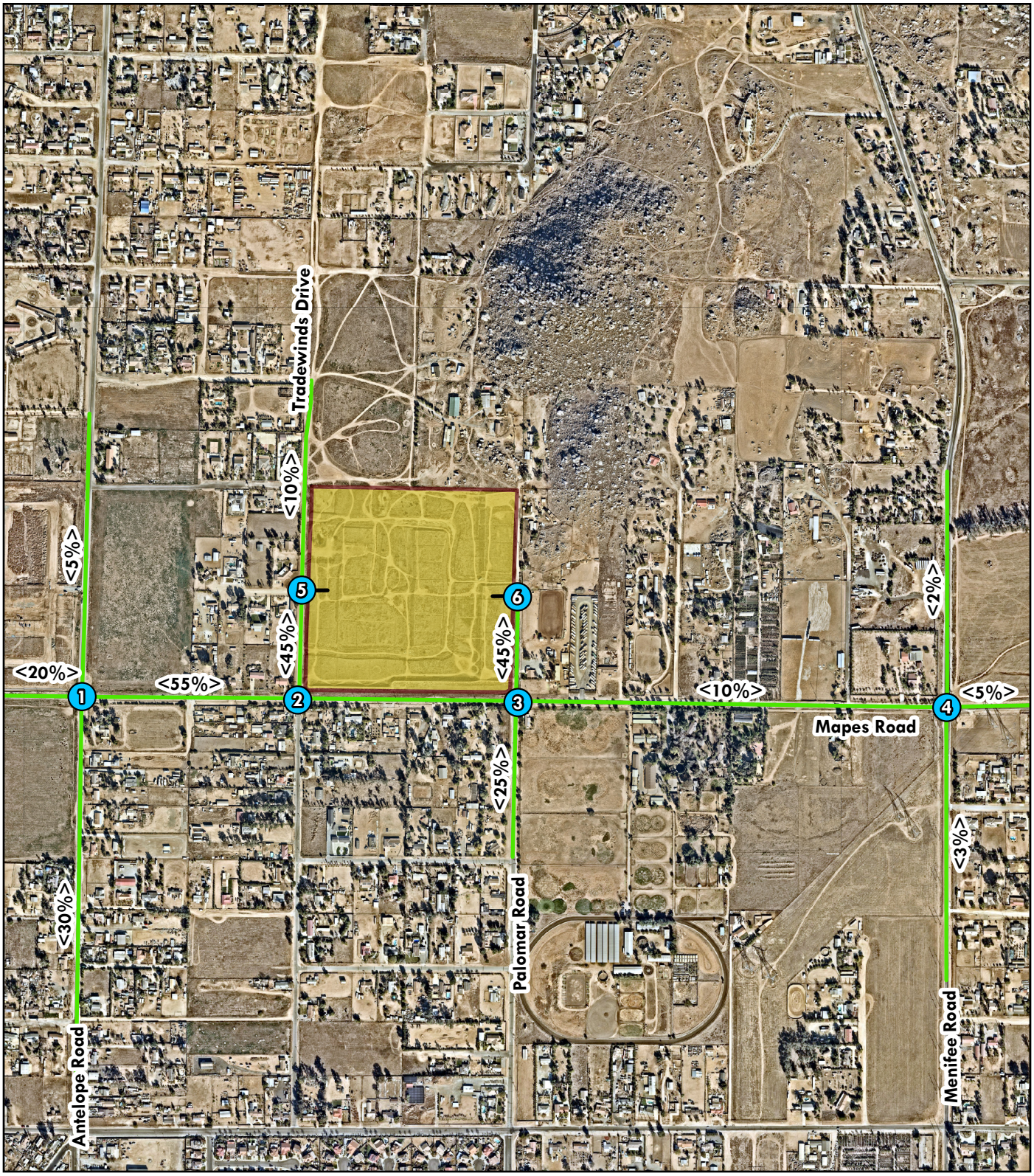


Figure 4: Conceptual Site Plan



KWC ENGINEERS
CIVIL ENGINEERS • PLANNERS • SURVEYORS
1181 CALIFORNIA AVENUE, SUITE 235 •CORONA, CA 92881-3370 •951-734-2130

E | P | D SOLUTIONS, INC

APPENDIX B – TRAFFIC COUNTS, RIVCOM VOLUME OUTPUTS, AND VOLUME ADJUSTMENT WORKSHEETS

INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:	LOCATION:	Riverside	PROJECT #:	SC5838
1/15/26	NORTH & SOUTH:	Antelope Rd	LOCATION #:	1
THURSDAY	EAST & WEST:	Mapes Rd	CONTROL:	STOP ALL

	NOTES:											
PCE Adjusted	Class	1	2	3	4	5	6			AM		▲ N
	Factor	1	1.5	2	3	2	2			PM	◄ W	E ►
										MD		
										OTHER		S ▼
										OTHER		

		NORTHBOUND Antelope Rd			SOUTHBOUND Antelope Rd			EASTBOUND Mapes Rd			WESTBOUND Mapes Rd				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	1	11	0	0	10	17	3	10	1	4	21	2	78					0
	7:15 AM	2	7	5	1	27	22	7	11	1	2	41	4	129					0
	7:30 AM	2	26	2	8	46	17	6	17	11	7	44	4	187					0
	7:45 AM	2	24	3	3	22	15	9	30	3	3	43	3	159					0
	8:00 AM	0	10	3	6	10	19	9	18	2	1	35	7	119					0
	8:15 AM	0	14	1	3	16	18	7	30	3	0	24	6	121					0
	8:30 AM	0	15	0	3	14	15	2	13	0	2	23	2	89					0
	8:45 AM	1	8	2	1	11	17	6	12	1	1	22	5	86					0
	VOLUMES	8	114	16	25	154	139	47	140	22	20	252	32	966	0	0	0	0	0
	APPROACH %	6%	83%	11%	8%	49%	44%	22%	67%	10%	6%	83%	11%						
	APP/DEPART	137	/	192	318	/	195	208	/	181	303	/	398	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	6	67	13	18	104	72	30	75	17	13	162	18	593					
	APPROACH %	7%	78%	15%	9%	54%	37%	24%	62%	14%	7%	84%	9%						
	PEAK HR FACTOR		0.713			0.693			0.738			0.883		0.793					
	APP/DEPART	86	/	114	194	/	134	121	/	106	193	/	240	0					
PM	4:00 PM	1	26	7	3	11	10	22	22	1	1	21	3	126					0
	4:15 PM	0	27	1	4	13	21	10	29	0	3	25	0	131					0
	4:30 PM	2	8	2	2	18	33	14	35	0	2	33	9	158					0
	4:45 PM	1	21	1	3	15	18	23	14	1	0	31	4	130					0
	5:00 PM	0	21	1	6	17	25	13	23	0	2	28	1	135					0
	5:15 PM	1	17	2	2	15	21	12	19	2	1	35	1	126					0
	5:30 PM	1	20	1	1	18	8	16	13	3	1	14	6	101					0
	5:45 PM	0	16	0	2	20	6	12	11	0	3	25	4	98					0
	VOLUMES	6	155	15	23	125	140	121	163	7	13	210	27	1,004	0	0	0	0	0
	APPROACH %	3%	88%	9%	8%	43%	49%	42%	56%	2%	5%	84%	11%						
	APP/DEPART	176	/	303	287	/	145	291	/	201	250	/	356	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	3	77	5	15	61	96	60	100	1	7	116	14	554					
	APPROACH %	4%	91%	6%	8%	36%	56%	37%	62%	1%	5%	85%	10%						
	PEAK HR FACTOR		0.759			0.814			0.819			0.778		0.879					
	APP/DEPART	85	/	151	171	/	69	161	/	119	137	/	215	0					



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:	LOCATION:	Riverside	PROJECT #:	SC5838
1/15/26	NORTH & SOUTH:	Tradewinds Dr	LOCATION #:	2
THURSDAY	EAST & WEST:	Mapes Rd	CONTROL:	STOP N/S

	NOTES:											
PCE Adjusted	Class	1	2	3	4	5	6			AM		▲ N
	Factor	1	1.5	2	3	2	2			PM MD	◄ W	E ►
										OTHER		S ▼
										OTHER		

		NORTHBOUND Tradewinds Dr			SOUTHBOUND Tradewinds Dr			EASTBOUND Mapes Rd			WESTBOUND Mapes Rd				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	10	0	0	24	0	34					0
	7:15 AM	1	0	0	1	0	0	2	13	2	0	43	0	62					0
	7:30 AM	2	0	0	0	2	1	0	26	0	1	54	0	85					0
	7:45 AM	0	0	0	0	0	3	0	32	2	1	43	0	80					0
	8:00 AM	1	0	0	2	0	0	0	28	0	0	41	0	72					0
	8:15 AM	1	0	1	0	0	2	0	35	0	0	27	1	67					0
	8:30 AM	2	0	4	0	0	0	1	15	0	1	26	0	49					0
	8:45 AM	4	0	3	0	0	0	2	13	1	3	25	0	50					0
	VOLUMES	11	0	8	3	2	6	5	171	5	6	282	1	497	0	0	0	0	0
	APPROACH %	58%	0%	42%	30%	15%	55%	3%	95%	3%	2%	98%	0%						
	APP/DEPART	19	/	6	10	/	12	180	/	182	289	/	298	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	4	0	0	3	2	4	2	98	4	2	180	0	298					
	APPROACH %	100%	0%	0%	35%	18%	47%	2%	95%	3%	1%	99%	0%						
	PEAK HR FACTOR		0.500			0.708			0.780			0.835		0.880					
	APP/DEPART	4	/	2	9	/	7	103	/	101	182	/	188	0					
PM	4:00 PM	0	0	1	0	0	1	2	30	0	0	25	0	59					0
	4:15 PM	0	0	0	0	0	0	1	28	4	1	30	0	64					0
	4:30 PM	2	0	1	0	0	1	1	37	1	1	40	3	86					0
	4:45 PM	1	0	4	0	0	0	0	16	0	2	34	1	57					0
	5:00 PM	0	2	0	1	0	1	0	27	0	0	25	0	55					0
	5:15 PM	1	1	1	0	2	0	1	22	0	2	36	4	69					0
	5:30 PM	1	0	1	0	0	0	0	15	0	1	20	0	38					0
	5:45 PM	0	0	1	1	0	1	0	12	1	3	32	1	52					0
	VOLUMES	5	3	9	2	2	4	5	184	6	10	241	8	478	0	0	0	0	0
	APPROACH %	30%	15%	55%	27%	20%	53%	3%	94%	3%	4%	93%	3%						
	APP/DEPART	17	/	16	8	/	17	195	/	195	259	/	250	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	4	3	6	1	2	2	2	101	1	5	134	7	267					
	APPROACH %	32%	20%	48%	22%	33%	44%	2%	97%	1%	3%	92%	5%						
	PEAK HR FACTOR		0.625			0.563			0.667			0.846		0.775					
	APP/DEPART	13	/	12	5	/	7	104	/	108	146	/	140	0					



INTERSECTION TURNING MOVEMENT COUNTS

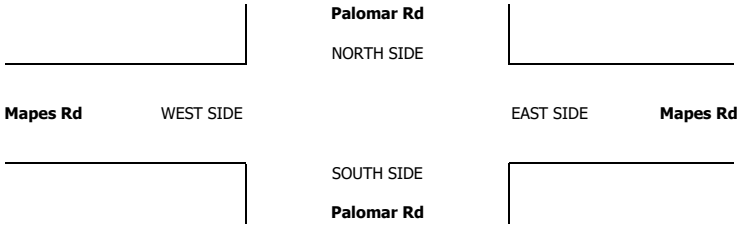
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Riverside	PROJECT #:	SC5838
1/15/26	NORTH & SOUTH:	Palomar Rd	LOCATION #:	3
THURSDAY	EAST & WEST:	Mapes Rd	CONTROL:	STOP N

	NOTES:								
PCE Adjusted	Class	1	2	3	4	5	6		
	Factor	1	1.5	2	3	2	2		

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

		NORTHBOUND Palomar Rd			SOUTHBOUND Palomar Rd			EASTBOUND Mapes Rd			WESTBOUND Mapes Rd				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	2	0	8	0	0	0	0	8	2	2	22	0	44					0
	7:15 AM	1	0	13	0	0	0	0	13	2	1	40	0	70					0
	7:30 AM	1	1	7	0	0	0	0	22	4	8	54	0	96					0
	7:45 AM	3	0	7	0	1	0	0	29	2	9	37	0	87					0
	8:00 AM	4	0	5	0	0	0	0	29	2	4	38	0	81					0
	8:15 AM	3	0	4	0	0	0	0	34	0	7	26	0	74					0
	8:30 AM	1	0	12	0	0	0	0	15	4	7	27	0	65					0
	8:45 AM	0	0	6	0	0	1	0	16	0	3	24	0	50					0
	VOLUMES	15	1	61	0	1	1	0	164	16	41	266	0	565	0	0	0	0	0
	APPROACH %	19%	1%	79%	0%	50%	50%	0%	91%	9%	13%	87%	0%						
	APP/DEPART	77	/	1	2	/	58	180	/	225	306	/	282	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	9	1	32	0	1	0	0	91	10	22	168	0	333					
	APPROACH %	21%	2%	76%	0%	100%	0%	0%	90%	10%	11%	89%	0%						
	PEAK HR FACTOR		0.750			0.250			0.828			0.768		0.867					
	APP/DEPART	42	/	1	1	/	33	101	/	123	189	/	177	0					
PM	4:00 PM	1	0	7	0	0	0	0	29	1	5	23	0	66					0
	4:15 PM	0	0	9	0	0	0	0	27	0	5	33	0	74					0
	4:30 PM	4	0	16	0	0	0	3	32	2	5	38	0	100					0
	4:45 PM	2	0	13	0	0	0	0	20	2	5	32	0	73					0
	5:00 PM	0	1	12	1	0	0	0	24	4	6	26	0	73					0
	5:15 PM	1	0	14	3	0	0	0	21	1	6	40	0	86					0
	5:30 PM	3	0	7	0	1	0	0	16	1	2	18	0	48					0
	5:45 PM	4	0	5	0	0	0	0	11	1	6	33	0	60					0
	VOLUMES	15	1	82	4	1	0	3	178	12	40	242	0	577	0	0	0	0	0
	APPROACH %	15%	1%	84%	80%	20%	0%	2%	92%	6%	14%	86%	0%						
	APP/DEPART	98	/	4	5	/	53	193	/	263	282	/	257	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	7	1	54	4	0	0	3	96	9	22	135	0	331					
	APPROACH %	11%	2%	87%	100%	0%	0%	3%	89%	8%	14%	86%	0%						
	PEAK HR FACTOR		0.769			0.333			0.730			0.853		0.830					
	APP/DEPART	62	/	4	4	/	31	108	/	154	157	/	142	0					



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:	LOCATION:	Riverside	PROJECT #:	SC5838
1/15/26	NORTH & SOUTH:	Menifee Rd	LOCATION #:	4
THURSDAY	EAST & WEST:	Mapes Rd	CONTROL:	STOP ALL

NOTES:

PCE Adjusted								
Class	1	2	3	4	5	6		
Factor	1	1.5	2	3	2	2		

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

	NORTHBOUND Menifee Rd			SOUTHBOUND Menifee Rd			EASTBOUND Mapes Rd			WESTBOUND Mapes Rd				U-TURNS				
LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM 7:00 AM	3	60	0	15	50	13	9	5	2	2	9	24	190					0
7:15 AM	4	43	4	18	77	14	12	7	3	1	22	31	234					0
7:30 AM	2	51	2	31	106	23	10	11	6	6	41	38	325					0
7:45 AM	3	62	3	33	74	12	13	12	8	8	30	32	288					0
8:00 AM	4	52	2	47	67	14	16	14	5	2	23	27	272					0
8:15 AM	1	46	3	26	57	14	13	19	4	0	13	33	227					0
8:30 AM	5	49	4	23	47	17	11	17	5	0	11	26	213					0
8:45 AM	2	30	1	20	56	6	9	9	0	6	16	17	171					0
VOLUMES	23	391	19	210	532	112	91	93	32	25	164	227	1,917	0	0	0	0	0
APPROACH %	5%	91%	4%	25%	62%	13%	42%	43%	15%	6%	39%	55%						
APP/DEPART	432	/	709	854	/	589	216	/	322	416	/	299	0					
BEGIN PEAK HR		7:15 AM																
VOLUMES	12	208	11	128	323	63	51	44	21	17	115	127	1,118					
APPROACH %	5%	90%	5%	25%	63%	12%	44%	38%	18%	7%	44%	49%						
PEAK HR FACTOR		0.852			0.805			0.833			0.771		0.861					
APP/DEPART	230	/	385	514	/	361	115	/	182	259	/	190	0					
PM 4:00 PM	2	66	2	41	69	21	7	22	3	1	7	26	265					0
4:15 PM	2	56	3	40	61	24	14	16	2	3	9	26	255					0
4:30 PM	4	49	3	27	73	26	18	24	6	1	15	23	267					0
4:45 PM	1	67	3	22	75	23	18	17	1	1	13	25	265					0
5:00 PM	2	62	2	30	76	26	17	11	2	2	10	28	267					0
5:15 PM	4	69	3	26	69	26	20	15	5	0	11	26	271					0
5:30 PM	0	60	2	27	66	14	13	11	1	0	8	25	226					0
5:45 PM	5	43	1	28	52	21	9	7	2	0	9	21	196					0
VOLUMES	19	470	18	240	539	179	116	123	22	8	81	198	2,011	0	0	0	0	0
APPROACH %	4%	93%	4%	25%	56%	19%	45%	47%	8%	3%	28%	69%						
APP/DEPART	507	/	784	957	/	568	260	/	381	287	/	279	0					
BEGIN PEAK HR		4:30 PM																
VOLUMES	11	247	10	105	292	100	73	67	14	4	48	101	1,069					
APPROACH %	4%	92%	4%	21%	59%	20%	47%	43%	9%	3%	31%	66%						
PEAK HR FACTOR		0.886			0.946			0.805			0.956		0.986					
APP/DEPART	268	/	421	496	/	310	153	/	181	153	/	158	0					



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:	LOCATION:	Riverside	PROJECT #:	SC5838
1/15/26	NORTH & SOUTH:	Tradewinds Dr	LOCATION #:	5
THURSDAY	EAST & WEST:	Project Dwy 1	CONTROL:	NO CONTROL

	NOTES:											
PCE Adjusted	Class	1	2	3	4	5	6			AM		▲ N
	Factor	1	1.5	2	3	2	2			PM	◄ W	E ►
										MD		
										OTHER		S ▼
										OTHER		

		NORTHBOUND Tradewinds Dr			SOUTHBOUND Tradewinds Dr			EASTBOUND Tower View Ct			WESTBOUND Project Dwy 1				U-TURNS				
	LANES:	NL 0	NT 1	NR X	SL X	ST 1	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	7:15 AM	0	2	0	0	0	0	0	0	1	0	0	0	3					0
	7:30 AM	0	0	0	0	1	0	0	0	1	0	0	0	2					0
	7:45 AM	0	0	0	0	2	0	0	0	1	0	0	0	3					0
	8:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	2					0
	8:15 AM	1	0	0	0	0	0	0	0	1	0	0	0	2					0
	8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1					0
	8:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	1					0
	VOLUMES	2	3	0	0	5	0	0	0	4	0	0	0	14	0	0	0	0	0
	APPROACH %	40%	60%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%						
	APP/DEPART	5	/	3	5	/	9	4	/	0	0	/	2	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	2	0	0	5	0	0	0	3	0	0	0	10					
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%						
	PEAK HR FACTOR		0.250			0.625			0.750			0.000		0.833					
	APP/DEPART	2	/	2	5	/	8	3	/	0	0	/	0	0					
PM	4:00 PM	0	2	0	0	0	0	0	0	1	0	0	0	3					0
	4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1					0
	4:30 PM	1	2	0	0	1	0	0	0	0	0	0	0	4					0
	4:45 PM	1	0	0	0	0	0	0	0	1	0	0	0	2					0
	5:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	1					0
	5:15 PM	5	3	0	0	0	0	0	0	2	0	0	0	9					0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	5:45 PM	1	0	0	0	1	0	0	0	1	0	0	0	3					0
	VOLUMES	8	8	0	0	2	0	0	0	6	0	0	0	23	0	0	0	0	0
	APPROACH %	50%	50%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%						
	APP/DEPART	15	/	8	2	/	8	6	/	0	0	/	8	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	7	5	0	0	1	0	0	0	4	0	0	0	16					
	APPROACH %	59%	41%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%						
	PEAK HR FACTOR		0.393			0.250			0.583			0.000		0.456					
	APP/DEPART	11	/	5	1	/	5	4	/	0	0	/	7	0					



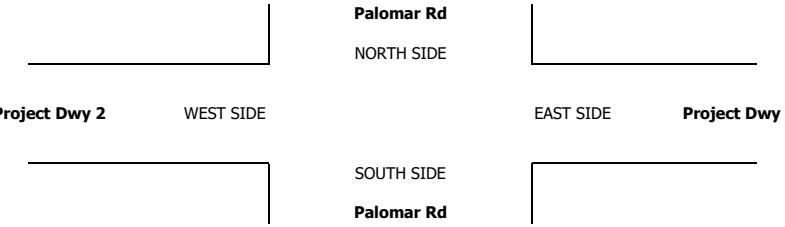
INTERSECTION TURNING MOVEMENT COUNTS

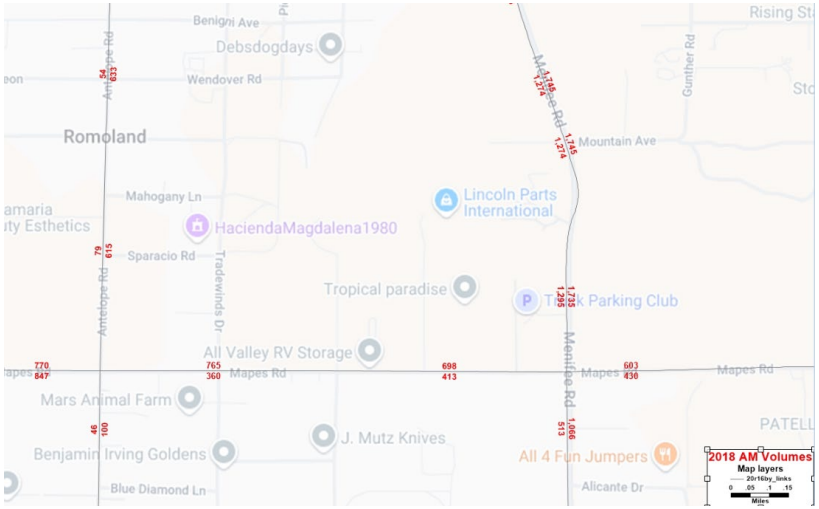
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

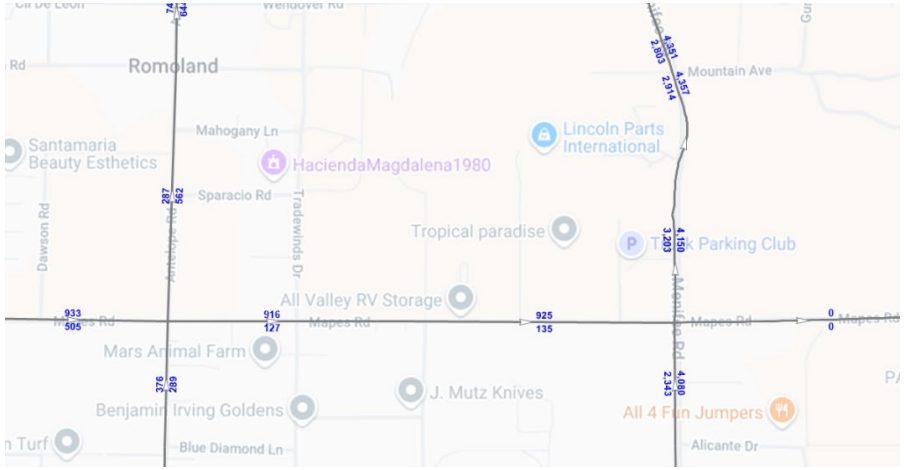
DATE:	LOCATION:	Riverside	PROJECT #:	SC5838
1/15/26	NORTH & SOUTH:	Palomar Rd	LOCATION #:	6
THURSDAY	EAST & WEST:	Project Dwy 2	CONTROL:	NO CONTROL

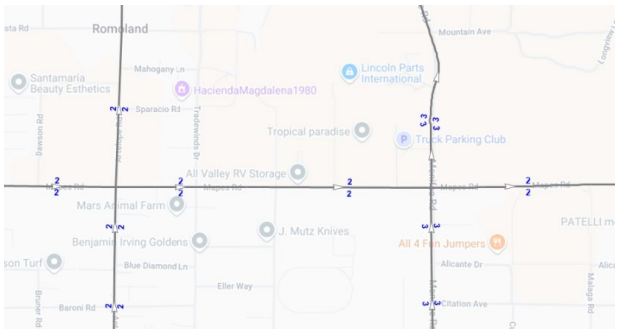
	NOTES:											
PCE Adjusted	Class	1	2	3	4	5	6			AM		▲ N
	Factor	1	1.5	2	3	2	2			PM MD	◄ W	E ►
										OTHER		S ▼
										OTHER		

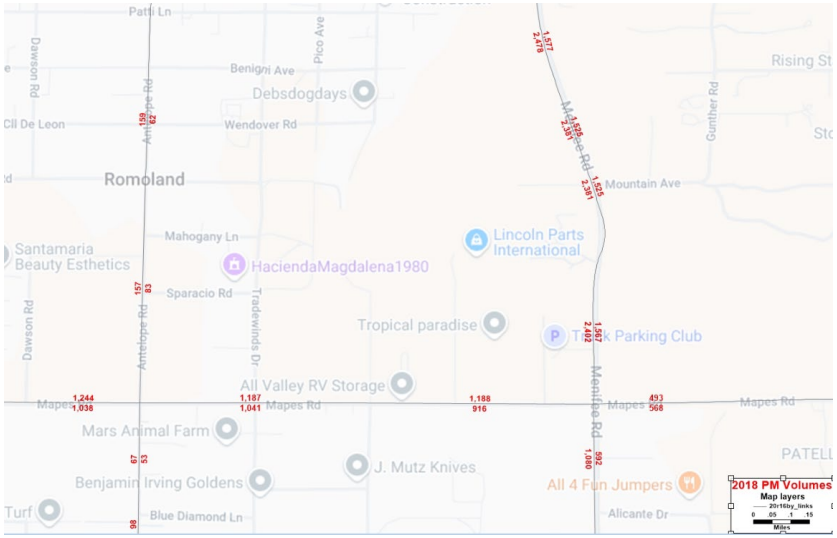
		NORTHBOUND Palomar Rd			SOUTHBOUND Palomar Rd			EASTBOUND Project Dwy 2			WESTBOUND Project Dwy 2				U-TURNS				
	LANES:	NL 0	NT 1	NR X	SL X	ST 1	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1					0
	7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1					0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1					0
	VOLUMES	0	1	0	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	1	/	1	2	/	2	0	/	0	0	/	0	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	0	1	0	0	1	0	0	0	0	0	0	0	2					
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.250			0.250			0.000			0.000		0.500					
	APP/DEPART	1	/	1	1	/	1	0	/	0	0	/	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		3:00 PM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					

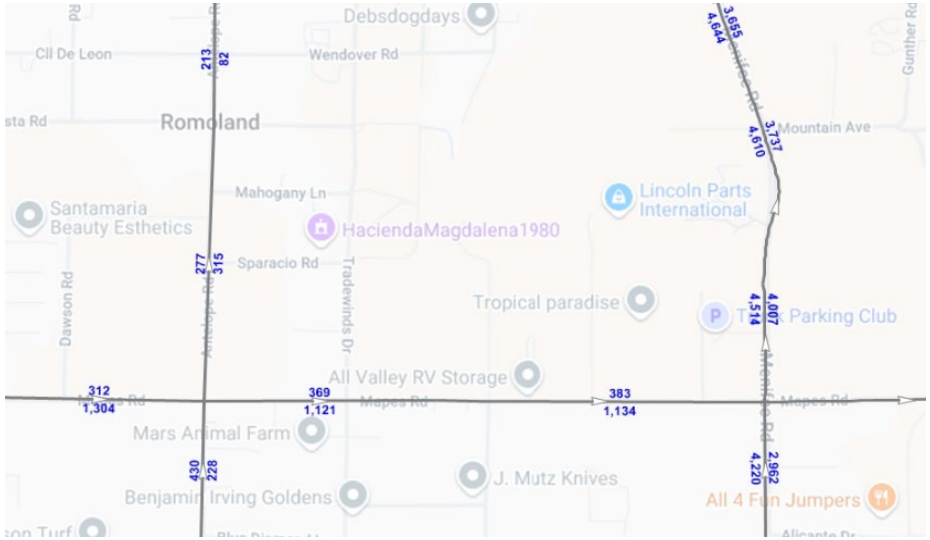


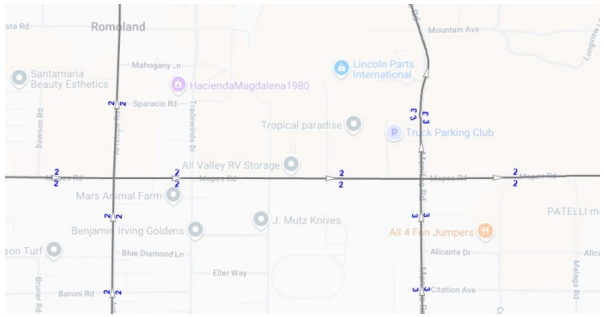

Romoland
Benigni Ave
Debsdogdays
Wendover Rd
Mountain Ave
Mahogany Ln
Lincoln Parts International
HaciendaMagdalena1980
Sparacio Rd
Tradewinds Dr
Tropical paradise
All Valley RV Storage
Mapes Rd
Mars Animal Farm
J. Mutz Knives
Benjamin Irving Goldens
All 4 Fun Jumpers
Blue Diamond Ln
Alicante Dr
Gunther Rd
2018 AM Volumes
Map layers
20r16by_links
Miles


Romoland
Mountain Ave
Mahogany Ln
Lincoln Parts International
Santamaria Beauty Esthetics
HaciendaMagdalena1980
Sparacio Rd
Tradewinds Dr
Tropical paradise
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Tropical paradise
All Valley RV Storage
Mapes Rd
Mars Animal Farm
J. Mutz Knives
Benjamin Irving Goldens
All 4 Fun Jumpers
Blue Diamond Ln
Alicante Dr
Eller Way
Citation Ave


Patti Ln
Benigni Ave
Debsdogdays
Wendover Rd
Romoland
Mountain Ave
Mahogany Ln
Lincoln Parts International
Santamaria Beauty Esthetics
HaciendaMagdalena1980
Sparacio Rd
Tropical paradise
All Valley RV Storage
Mapes Rd
Mars Animal Farm
J. Mutz Knives
Benjamin Irving Goldens
All 4 Fun Jumpers
Blue Diamond Ln
Alicante Dr
Rising St
Gunther Rd
Pico Ave
Dawson Rd
Antelope Rd
Tradewinds Dr
Menifee Rd
1,244
1,038
1,187
1,041
1,188
916
493
568
2018 PM Volumes
Map layers


Debsdogdays
Wendover Rd
Romoland
Mountain Ave
Mahogany Ln
Lincoln Parts International
Santamaria Beauty Esthetics
HaciendaMagdalena1980
Sparacio Rd
Tropical paradise
All Valley RV Storage
Mapes Rd
Mars Animal Farm
J. Mutz Knives
Benjamin Irving Goldens
All 4 Fun Jumpers
Dawson Rd
Tradewinds Dr
312
1,304
369
1,121
383
1,134
3,695
4,644
3,737
4,610
4,007
4,514
2,962
4,220


Romoland
Mountain Ave
Mahogany Ln
Lincoln Parts International
Santamaria Beauty Esthetics
HaciendaMagdalena1980
Sparacio Rd
Tropical paradise
All Valley RV Storage
Mars Animal Farm
J. Mutz Knives
Benjamin Irving Goldens
All 4 Fun Jumpers
Blue Diamond Ln
Alicante Dr
Eller Way
Baroni Rd
Citation Ave

Raw AM Volumes

	EX AM Traffic Volumes													
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum
Antelope Road and Mapes Road	1	6	67	13	18	104	72	30	75	17	13	162	18	593
Tradewinds Drive and Mapes Road	2	4	0	0	3	2	4	2	98	4	2	180	0	298
Palomar Road and Mapes Road	3	9	1	32	0	1	0	0	91	10	22	168	0	333
Menifee Road and Mapes Road	4	12	208	11	128	323	63	51	44	21	17	115	127	1118
Tradewinds Drive and Project Driveway 1	5	0	2	0	0	5	0	0	0	3	0	0	0	10
Palomar Road and Project Driveway 2	6	0	1	0	0	1	0	0	0	0	0	0	0	2

	OY AM Traffic Volumes														
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum	
Antelope Road and Mapes Road	1	6	68	13	18	106	73	30	77	17	13	165	18	605	2.00%
Tradewinds Drive and Mapes Road	2	4	0	0	3	2	4	2	99	4	2	184	0	303	2.00%
Palomar Road and Mapes Road	3	9	1	33	0	1	0	0	93	10	22	171	0	340	2.00%
Menifee Road and Mapes Road	4	12	212	11	131	329	64	52	44	21	17	117	130	1140	2.00%
Tradewinds Drive and Project Driveway 1	5	0	2	0	0	5	0	0	0	3	0	0	0	10	
Palomar Road and Project Driveway 2	6	0	1	0	0	1	0	0	0	0	0	0	0	2	

	FY AM Traffic Volumes														
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum	
Antelope Road and Mapes Road	1	109	105	39	2	811	48	2	19	93	115	133	3	1479	7.86%
Tradewinds Drive and Mapes Road	2	5	6	0	2	1	7	1	99	7	1	165	1	295	-0.04%
Palomar Road and Mapes Road	3	10	2	28	0	1	1	0	86	11	26	166	0	331	-0.03%
Menifee Road and Mapes Road	4	114	767	16	23	1071	70	16	8	46	18	32	23	2204	5.12%
Tradewinds Drive and Project Driveway 1	5													0	
Palomar Road and Project Driveway 2	6													0	

Raw PM Volumes

	EX PM Traffic Volumes													
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum
Antelope Road and Mapes Road	1	3	77	5	14.5	61	95.5	60	99.5	1	7	116	14	553.5
Tradewinds Drive and Mapes Road	2	4	2.5	6	1	1.5	2	2	101	1	4.5	134	7	266.5
Palomar Road and Mapes Road	3	7	1	53.5	4	0	0	3	96	9	22	135	0	330.5
Menifee Road and Mapes Road	4	10.5	247	10	104.5	291.5	99.5	72.5	66.5	14	4	48	101	1069
Tradewinds Drive and Project Driveway 1	5	6.5	4.5	0	0	1	0	0	0	3.5	0	0	0	15.5
Palomar Road and Project Driveway 2	6	0	0	0	0	0	0	0	0	0	0	0	0	0

	OY PM Traffic Volumes														
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum	
Antelope Road and Mapes Road	1	3	79	5	15	62	97	61	101	1	7	118	14	565	2.00%
Tradewinds Drive and Mapes Road	2	4	3	6	1	2	2	2	103	1	5	137	7	272	2.00%
Palomar Road and Mapes Road	3	7	1	55	4	0	0	3	98	9	22	138	0	337	2.00%
Menifee Road and Mapes Road	4	11	252	10	107	297	101	74	68	14	4	49	103	1090	2.00%
Tradewinds Drive and Project Driveway 1	5	7	5	0	0	1	0	0	0	4	0	0	0	16	
Palomar Road and Project Driveway 2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	

	FY PM Traffic Volumes														
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum	
Antelope Road and Mapes Road	1	2	155	10	6	279	21	60	55	32	26	70	17	733	1.71%
Tradewinds Drive and Mapes Road	2	4	0	0	2	0	2	3	135	7	5	144	0	302	0.70%
Palomar Road and Mapes Road	3	11	10	46	1	4	0	0	128	0	21	140	0	361	0.49%
Menifee Road and Mapes Road	4	39	557	25	13	742	27	27	22	100	14	5	10	1581	2.52%
Tradewinds Drive and Project Driveway 1	5	7	1	0	0	0	0	2	0	1	0	0	0	11	
Palomar Road and Project Driveway 2	6	0	4	0	0	2	0	0	0	0	0	0	0	6	

AM Growth

	OY - EX AM Traffic Volumes													
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum
Antelope Road and Mapes Road	1	0.12	1.33	0.26	0.36	2.08	1.44	0.59	1.5	0.33	0.26	3.24	0.35	11.86
Tradewinds Drive and Mapes Road	2	0.08	0	0	0.06	0.03	0.08	0.04	1.95	0.07	0.04	3.6	0	5.95
Palomar Road and Mapes Road	3	0.18	0.02	0.64	0	0.02	0	0	1.82	0.2	0.43	3.35	0	6.66
Menifee Road and Mapes Road	4	0.24	4.15	0.21	2.56	6.46	1.25	1.01	0.87	0.42	0.34	2.3	2.54	22.35
Tradewinds Drive and Project Driveway 1	5	0	0.04	0	0	0.1	0	0	0	0.06	0	0	0	0.2
Palomar Road and Project Driveway 2	6	0	0.02	0	0	0.02	0	0	0	0	0	0	0	0.04

	FY - OY AM Traffic Volumes													
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum
Antelope Road and Mapes Road	1	102.88	37.17	25.74	-16.36	704.92	-25.44	-28.09	-57.5	76.17	101.74	-32.24	-14.85	874.14
Tradewinds Drive and Mapes Road	2	0.92	6	0	-1.06	-0.53	2.92	-1.04	-0.45	3.43	-1.04	-18.6	1	-8.45
Palomar Road and Mapes Road	3	0.82	0.98	-4.64	0	-0.02	1	0	-6.82	0.8	4.07	-4.85	0	-8.66
Menifee Road and Mapes Road	4	101.76	555.35	5.29	-107.56	741.54	6.25	-35.51	-36.37	24.58	0.66	-85.3	-106.54	1064.15
Tradewinds Drive and Project Driveway 1	5	0	-2.04	0	0	-5.1	0	0	0	-3.06	0	0	0	-10.2
Palomar Road and Project Driveway 2	6	0	-1.02	0	0	-1.02	0	0	0	0	0	0	0	-2.04

AM Growth Adjusted

	OY - EX AM Traffic Volumes Adjusted													
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum
Antelope Road and Mapes Road	1	0.12	1.33	0.26	0.36	2.08	1.44	0.59	1.5	0.33	0.26	3.24	0.35	11.86
Tradewinds Drive and Mapes Road	2	0.08	0	0	0.06	0.03	0.08	0.04	1.95	0.07	0.04	3.6	0	5.95
Palomar Road and Mapes Road	3	0.18	0.02	0.64	0	0.02	0	0	1.82	0.2	0.43	3.35	0	6.66
Menifee Road and Mapes Road	4	0.24	4.15	0.21	2.56	6.46	1.25	1.01	0.87	0.42	0.34	2.3	2.54	22.35
Tradewinds Drive and Project Driveway 1	5	0	0.04	0	0	0.1	0	0	0	0.06	0	0	0	0.2
Palomar Road and Project Driveway 2	6	0	0.02	0	0	0.02	0	0	0	0	0	0	0	0.04

	FY - OY AM Traffic Volumes Adjusted													
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum
Antelope Road and Mapes Road	1	102.88	37.17	25.74	0	39.52	0	0	0	76.17	101.74	0	0	383.22
Tradewinds Drive and Mapes Road	2	0.92	6	0	0	0	2.92	0	0	3.43	0	0	1	14.27
Palomar Road and Mapes Road	3	0.82	0.98	0	0	0	1	0	0	0.8	4.07	0	0	7.67
Menifee Road and Mapes Road	4	101.76	555.35	5.29	0	741.54	6.25	0	0	24.58	0.66	0	0	1435.43
Tradewinds Drive and Project Driveway 1	5	0	0	0	0	0	0	0	0	0	0	0	0	0
Palomar Road and Project Driveway 2	6	0	0	0	0	0	0	0	0	0	0	0	0	0

Base		Future	
	2018		2045
Model Growth Years			27
Count		Buildout	
	2026		2045
Count Escalation Years			19
Openiny Year		Buildout	
	2027		2045
Count Escalation Years			18
Ambient growth rate per year		Total ambient growth	
	0.02		

PM Growth

	OY - EX PM Traffic Volumes													
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum
Antelope Road and Mapes Road	1	0.06	1.54	0.1	0.29	1.22	1.91	1.2	1.99	0.02	0.14	2.32	0.28	11.07
Tradewinds Drive and Mapes Road	2	0.08	0.05	0.12	0.02	0.03	0.04	0.04	2.02	0.02	0.09	2.68	0.14	5.33
Palomar Road and Mapes Road	3	0.14	0.02	1.07	0.08	0	0	0.06	1.92	0.18	0.44	2.7	0	6.61
Menifee Road and Mapes Road	4	0.21	4.94	0.2	2.09	5.83	1.99	1.45	1.33	0.28	0.08	0.96	2.02	21.38
Tradewinds Drive and Project Driveway 1	5	0.13	0.09	0	0	0.02	0	0	0	0.07	0	0	0	0.31
Palomar Road and Project Driveway 2	6	0	0	0	0	0	0	0	0	0	0	0	0	0

	FY - OY PM Traffic Volumes													
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum
Antelope Road and Mapes Road	1	-1.06	76.46	4.9	-8.79	216.78	-76.41	-1.2	-46.49	30.98	18.86	-48.32	2.72	168.43
Tradewinds Drive and Mapes Road	2	-0.08	-2.55	-6.12	0.98	-1.53	-0.04	0.96	31.98	5.98	0.41	7.32	-7.14	30.17
Palomar Road and Mapes Road	3	3.86	8.98	-8.57	-3.08	4	0	-3.06	30.08	-9.18	-1.44	2.3	0	23.89
Menifee Road and Mapes Road	4	28.29	305.06	14.8	-93.59	444.67	-74.49	-46.95	-45.83	85.72	9.92	-43.96	-93.02	490.62
Tradewinds Drive and Project Driveway 1	5	0.37	-3.59	0	0	-1.02	0	2	0	-2.57	0	0	0	-4.81
Palomar Road and Project Driveway 2	6	0	4	0	0	2	0	0	0	0	0	0	0	6

PM Growth Adjusted

	OY - EX PM Traffic Volumes Adjusted													
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum
Antelope Road and Mapes Road	1	0.06	1.54	0.1	0.29	1.22	1.91	1.2	1.99	0.02	0.14	2.32	0.28	11.07
Tradewinds Drive and Mapes Road	2	0.08	0.05	0.12	0.02	0.03	0.04	0.04	2.02	0.02	0.09	2.68	0.14	5.33
Palomar Road and Mapes Road	3	0.14	0.02	1.07	0.08	0	0	0.06	1.92	0.18	0.44	2.7	0	6.61
Menifee Road and Mapes Road	4	0.21	4.94	0.2	2.09	5.83	1.99	1.45	1.33	0.28	0.08	0.96	2.02	21.38
Tradewinds Drive and Project Driveway 1	5	0.13	0.09	0	0	0.02	0	0	0	0.07	0	0	0	0.31
Palomar Road and Project Driveway 2	6	0	0	0	0	0	0	0	0	0	0	0	0	0

	FY - OY PM Traffic Volumes Adjusted													
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum
Antelope Road and Mapes Road	1	0	76.46	4.9	0	216.78	0	0	0	30.98	18.86	0	2.72	350.7
Tradewinds Drive and Mapes Road	2	0	0	0	0.98	0	0	0.96	31.98	5.98	0.41	7.32	0	47.63
Palomar Road and Mapes Road	3	3.86	8.98	0	0	4	0	0	30.08	0	0	2.3	0	49.22
Menifee Road and Mapes Road	4	28.29	305.06	14.8	0	444.67	0	0	0	85.72	9.92	0	0	888.46
Tradewinds Drive and Project Driveway 1	5	0.37	0	0	0	0	0	2	0	0	0	0	0	2.37
Palomar Road and Project Driveway 2	6	0	4	0	0	2	0	0	0	0	0	0	0	6

ADJUSTED AM Volumes

	EX AM Traffic Volumes													
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum
Antelope Road and Mapes Road	1	6	66.5	13	18	104	72	29.5	75	16.5	13	162	17.5	593
Tradewinds Drive and Mapes Road	2	4	0	0	3	1.5	4	2	97.5	3.5	2	180	0	297.5
Palomar Road and Mapes Road	3	9	1	32	0	1	0	0	91	10	21.5	167.5	0	333
Menifee Road and Mapes Road	4	12	207.5	10.5	128	323	62.5	50.5	43.5	21	17	115	127	1117.5
Tradewinds Drive and Project Driveway 1	5	0	2	0	0	5	0	0	0	3	0	0	0	10
Palomar Road and Project Driveway 2	6	0	1	0	0	1	0	0	0	0	0	0	0	2

	OY AM Traffic Volumes													
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum
Antelope Road and Mapes Road	1	6	68	13	18	106	73	30	77	17	13	165	18	604.86
Tradewinds Drive and Mapes Road	2	4	0	0	3	2	4	2	99	4	2	184	0	303.45
Palomar Road and Mapes Road	3	9	1	33	0	1	0	0	93	10	22	171	0	339.66
Menifee Road and Mapes Road	4	12	212	11	131	329	64	52	44	21	17	117	130	1139.85
Tradewinds Drive and Project Driveway 1	5	0	2	0	0	5	0	0	0	3	0	0	0	10.2
Palomar Road and Project Driveway 2	6	0	1	0	0	1	0	0	0	0	0	0	0	2.04

	FY AM Traffic Volumes													
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum
Antelope Road and Mapes Road	1	109	105	39	18	146	73	30	77	93	115	165	18	988
Tradewinds Drive and Mapes Road	2	5	6	0	3	2	7	2	99	7	2	184	1	318
Palomar Road and Mapes Road	3	10	2	33	0	1	1	0	93	11	26	171	0	347
Menifee Road and Mapes Road	4	114	767	16	131	1071	70	52	44	46	18	117	130	2575
Tradewinds Drive and Project Driveway 1	5	0	2	0	0	5	0	0	0	3	0	0	0	10
Palomar Road and Project Driveway 2	6	0	1	0	0	1	0	0	0	0	0	0	0	2

ADJUSTED PM Volumes

	EX PM Traffic Volumes													
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum
Antelope Road and Mapes Road	1	3	77	5	14.5	61	95.5	60	99.5	1	7	116	14	553.5
Tradewinds Drive and Mapes Road	2	4	2.5	6	1	1.5	2	2	101	1	4.5	134	7	266.5
Palomar Road and Mapes Road	3	7	1	53.5	4	0	0	3	96	9	22	135	0	330.5
Menifee Road and Mapes Road	4	10.5	247	10	104.5	291.5	99.5	72.5	66.5	14	4	48	101	1069
Tradewinds Drive and Project Driveway 1	5	6.5	4.5	0	0	1	0	0	0	3.5	0	0	0	15.5
Palomar Road and Project Driveway 2	6	0	0	0	0	0	0	0	0	0	0	0	0	0

	OY PM Traffic Volumes													
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum
Antelope Road and Mapes Road	1	3.06	78.54	5.1	14.79	62.22	97.41	61.2	101.49	1.02	7.14	118.32	14.28	564.57
Tradewinds Drive and Mapes Road	2	4.08	2.55	6.12	1.02	1.53	2.04	2.04	103.02	1.02	4.59	136.68	7.14	271.83
Palomar Road and Mapes Road	3	7.14	1.02	54.57	4.08	0	0	3.06	97.92	9.18	22.44	137.7	0	337.11
Menifee Road and Mapes Road	4	10.71	251.94	10.2	106.59	297.33	101.49	73.95	67.83	14.28	4.08	48.96	103.02	1090.38
Tradewinds Drive and Project Driveway 1	5	6.63	4.59	0	0	1.02	0	0	0	3.57	0	0	0	15.81
Palomar Road and Project Driveway 2	6	0	0	0	0	0	0	0	0	0	0	0	0	0

	FY PM Traffic Volumes													
	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	sum
Antelope Road and Mapes Road	1	3	155	10	15	279	97	61	101	32	26	118	17	915.27
Tradewinds Drive and Mapes Road	2	4	3	6	2	2	2	3	135	7	5	144	7	319.46
Palomar Road and Mapes Road	3	11	10	55	4	4	0	3	128	9	22	140	0	386.33
Menifee Road and Mapes Road	4	39	557	25	107	742	101	74	68	100	14	49	103	1978.84
Tradewinds Drive and Project Driveway 1	5	7	5	0	0	1	0	2	0	4	0	0	0	18.18
Palomar Road and Project Driveway 2	6	0	4	0	0	2	0	0	0	0	0	0	0	6

APPENDIX C – LEVEL OF SERVICE CALCULATIONS

Vistro File: C:\...\25_006_Mapes and Palomar_1.09.25.vistro Scenario 1 Existing AM
Report File: C:\...\Existing AM.pdf 1/27/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Antelope Rd/Mapes Rd	All-way stop	HCM 7th Edition	SB Thru	0.384	10.4	B
2	Tradewinds Dr/ Mapes Rd	Two-way stop	HCM 7th Edition	SB Thru	0.005	11.4	B
3	Palomar Rd/ Mapes Rd	Two-way stop	HCM 7th Edition	NB Thru	0.002	12.1	B
4	Menifee Rd/ Mapes Rd	All-way stop	HCM 7th Edition	SB Thru	0.892	25.8	D
5	Tradewinds Dr/Project Driveway 1	Two-way stop	HCM 7th Edition	EB Right	0.004	8.4	A
6	Palomar Rd/ Project Driveway 2	Two-way stop	HCM 7th Edition	SB Thru	0.000	0.0	A

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

Intersection Level Of Service Report
Intersection 1: Antelope Rd/Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	10.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.384

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	6	67	13	18	104	72	30	75	17	13	162	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Total Hourly Volume [veh/h]	6	67	13	18	104	72	30	75	17	13	162	18
Peak Hour Factor	0.7130	0.7130	0.7130	0.6930	0.6930	0.6930	0.7380	0.7380	0.7380	0.8830	0.8830	0.8830
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	23	5	6	38	26	10	25	6	4	46	5
Total Analysis Volume [veh/h]	8	94	18	26	150	104	41	102	23	15	183	20
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	679	729	682	694
Degree of Utilization, x	0.18	0.38	0.24	0.31

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.64	1.81	0.95	1.34
95th-Percentile Queue Length [ft]	15.96	45.30	23.77	33.60
Approach Delay [s/veh]	9.44	10.98	9.97	10.55
Approach LOS	A	B	A	B
Intersection Delay [s/veh]	10.41			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 2: Tradewinds Dr/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	11.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	4	0	0	3	2	4	2	98	4	2	180	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Total Hourly Volume [veh/h]	4	0	0	3	2	4	2	98	4	2	180	0
Peak Hour Factor	0.5000	0.5000	0.5000	0.7080	0.7080	0.7080	0.7800	0.7800	0.7800	0.8350	0.8350	0.8350
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	0	1	1	1	1	31	1	1	54	0
Total Analysis Volume [veh/h]	8	0	0	4	3	6	3	126	5	2	216	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.20	11.40	8.98	11.10	11.44	9.46	7.65	0.00	0.00	7.47	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.04	0.06	0.06	0.06	0.01	0.01	0.01	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.03	1.03	1.03	1.47	1.47	1.47	0.13	0.13	0.13	0.08	0.08	0.08
d_A, Approach Delay [s/veh]	11.20			10.42			0.17			0.07		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.71											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 3: Palomar Rd/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	12.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	9	1	32	0	1	0	0	91	10	22	168	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Total Hourly Volume [veh/h]	9	1	32	0	1	0	0	91	10	22	168	0
Peak Hour Factor	0.7500	0.7500	0.7500	0.2500	0.2500	0.2500	0.8280	0.8280	0.8280	0.7680	0.7680	0.7680
Other Adjustment Factor	1.0000	1.0000	1.0000	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	0	11	0	1	0	0	27	3	7	55	0
Total Analysis Volume [veh/h]	12	1	43	0	4	0	0	110	12	29	219	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.00
d_M, Delay for Movement [s/veh]	11.88	12.09	9.17	12.09	11.86	9.43	7.65	0.00	0.00	7.48	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.22	0.22	0.22	0.02	0.02	0.02	0.00	0.00	0.00	0.05	0.05	0.05
95th-Percentile Queue Length [ft/ln]	5.59	5.59	5.59	0.57	0.57	0.57	0.00	0.00	0.00	1.23	1.23	1.23
d_A, Approach Delay [s/veh]	9.80			11.86			0.00			0.87		
Approach LOS	A			B			A			A		
d_I, Intersection Delay [s/veh]	1.89											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 4: Menifee Rd/ Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	25.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.892

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	110.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	12	208	11	128	323	63	51	44	21	17	115	127
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 [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Total Hourly Volume [veh/h]	12	208	11	128	323	63	51	44	21	17	115	127
Peak Hour Factor	0.8520	0.8520	0.8520	0.8050	0.8050	0.8050	0.8330	0.8330	0.8330	0.7710	0.7710	0.7710
Other Adjustment Factor	1.0000	1.0000	1.0000	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	61	3	40	100	20	15	13	6	6	37	41
Total Analysis Volume [veh/h]	14	244	13	159	401	78	61	53	25	22	149	165
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	454	488	490	537	482	547
Degree of Utilization, x	0.03	0.53	0.32	0.89	0.29	0.61

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.10	3.02	1.39	10.27	1.18	4.13
95th-Percentile Queue Length [ft]	2.38	75.54	34.79	256.81	29.61	103.28
Approach Delay [s/veh]	17.62		35.26		13.48	19.50
Approach LOS	C		E		B	C
Intersection Delay [s/veh]	25.79					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 5: Tradewinds Dr/Project Driveway 1

Control Type:	Two-way stop	Delay (sec / veh):	8.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	2	0	0	5	0	0	0	3	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Total Hourly Volume [veh/h]	0	2	0	0	5	0	0	0	3	0	0	0
Peak Hour Factor	0.2500	0.2500	0.2500	0.6250	0.6250	0.6250	0.7500	0.7500	0.7500	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	0	0	2	0	0	0	1	0	0	0
Total Analysis Volume [veh/h]	0	8	0	0	8	0	0	0	4	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.22	0.00	0.00	7.22	0.00	0.00	8.61	9.10	8.36	8.62	9.09	8.34
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.28	0.28	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00			0.00			8.36			8.68		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	1.67											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 6: Palomar Rd/ Project Driveway 2

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
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 Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	1	1	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00
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	1	1	0	0	0
Peak Hour Factor	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	1	1	0	0	0
Total Analysis Volume [veh/h]	0	4	4	0	0	0
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	0.00
d_M, Delay for Movement [s/veh]	7.22	0.00	0.00	0.00	8.55	8.33
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.44	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Vistro File: C:\...\25_006_Mapes and Palomar_2.27.26.vistro Scenario 2 Existing PM
Report File: C:\...\Existing PM.pdf 2/27/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Antelope Rd/Mapes Rd	All-way stop	HCM 7th Edition	EB Thru	0.276	9.6	A
2	Tradewinds Dr/ Mapes Rd	Two-way stop	HCM 7th Edition	NB Thru	0.009	11.3	B
3	Palomar Rd/ Mapes Rd	Two-way stop	HCM 7th Edition	SB Left	0.023	12.2	B
4	Menifee Rd/ Mapes Rd	All-way stop	HCM 7th Edition	SB Thru	0.696	16.4	C
5	Tradewinds Dr/Project Driveway 1	Two-way stop	HCM 7th Edition	EB Right	0.006	8.3	A
6	Palomar Rd/ Project Driveway 2	Two-way stop	HCM 7th Edition		0.000	0.0	

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

Intersection Level Of Service Report
Intersection 1: Antelope Rd/Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	9.6
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.276

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	3	77	5	15	61	96	60	100	1	7	116	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Total Hourly Volume [veh/h]	3	77	5	15	61	96	60	100	1	7	116	14
Peak Hour Factor	0.7590	0.7590	0.7590	0.8140	0.8140	0.8140	0.8190	0.8190	0.8190	0.7780	0.7780	0.7780
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	25	2	5	19	29	18	31	0	2	37	4
Total Analysis Volume [veh/h]	4	101	7	18	75	118	73	122	1	9	149	18
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	701	764	714	726
Degree of Utilization, x	0.16	0.28	0.27	0.24

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.57	1.13	1.12	0.95
95th-Percentile Queue Length [ft]	14.15	28.19	27.93	23.66
Approach Delay [s/veh]	9.11	9.51	9.95	9.53
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	9.57			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 2: Tradewinds Dr/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	11.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.009

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	4	3	6	1	2	2	2	101	1	5	134	7
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 [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Total Hourly Volume [veh/h]	4	3	6	1	2	2	2	101	1	5	134	7
Peak Hour Factor	0.6250	0.6250	0.6250	0.5630	0.5630	0.5630	0.6670	0.6670	0.6670	0.8460	0.8460	0.8460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	1	2	0	1	1	1	38	0	1	40	2
Total Analysis Volume [veh/h]	6	5	10	2	4	4	3	151	1	6	158	8
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.07	11.33	9.17	11.07	11.23	9.14	7.54	0.00	0.00	7.52	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.09	0.09	0.09	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	2.28	2.28	2.28	1.12	1.12	1.12	0.13	0.13	0.13	0.25	0.25	0.25
d_A, Approach Delay [s/veh]	10.23			10.36			0.15			0.26		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	1.08											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 3: Palomar Rd/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	12.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.023

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	7	1	54	4	0	0	3	96	9	22	135	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Total Hourly Volume [veh/h]	7	1	54	4	0	0	3	96	9	22	135	0
Peak Hour Factor	0.7690	0.7690	0.7690	0.3330	0.3330	0.3330	0.7300	0.7300	0.7300	0.8530	0.8530	0.8530
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	18	3	0	0	1	33	3	6	40	0
Total Analysis Volume [veh/h]	9	1	70	12	0	0	4	132	12	26	158	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.08	0.02	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
d_M, Delay for Movement [s/veh]	11.56	11.88	9.38	12.18	11.66	9.21	7.53	0.00	0.00	7.52	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.31	0.31	0.31	0.07	0.07	0.07	0.01	0.01	0.01	0.04	0.04	0.04
95th-Percentile Queue Length [ft/ln]	7.74	7.74	7.74	1.79	1.79	1.79	0.17	0.17	0.17	1.10	1.10	1.10
d_A, Approach Delay [s/veh]	9.66			12.18			0.20			1.06		
Approach LOS	A			B			A			A		
d_I, Intersection Delay [s/veh]	2.70											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 4: Menifee Rd/ Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	16.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.696

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	110.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	247	10	105	292	100	73	67	14	4	48	101
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 [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Total Hourly Volume [veh/h]	11	247	10	105	292	100	73	67	14	4	48	101
Peak Hour Factor	0.8860	0.8860	0.8860	0.9460	0.9460	0.9460	0.8050	0.8050	0.8050	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	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	70	3	28	77	26	23	21	4	1	13	26
Total Analysis Volume [veh/h]	12	279	11	111	309	106	91	83	17	4	50	106
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	512	554	535	596	547	575
Degree of Utilization, x	0.02	0.52	0.21	0.70	0.35	0.28

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.07	3.02	0.77	5.52	1.55	1.13
95th-Percentile Queue Length [ft]	1.80	75.56	19.35	138.12	38.84	28.31
Approach Delay [s/veh]	15.88		19.24		13.06	11.66
Approach LOS	C		C		B	B
Intersection Delay [s/veh]	16.35					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 5: Tradewinds Dr/Project Driveway 1

Control Type:	Two-way stop	Delay (sec / veh):	8.3
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	7	5	0	0	1	0	0	0	4	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Total Hourly Volume [veh/h]	7	5	0	0	1	0	0	0	4	0	0	0
Peak Hour Factor	0.3930	0.3930	0.3930	0.2500	0.2500	0.2500	0.5830	0.5830	0.5830	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	3	0	0	1	0	0	0	2	0	0	0
Total Analysis Volume [veh/h]	18	13	0	0	4	0	0	0	7	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.24	0.00	0.00	7.23	0.00	0.00	8.86	9.35	8.35	8.89	9.33	8.36
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.03	0.00	0.00	0.00	0.02	0.02	0.02	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.76	0.76	0.76	0.00	0.00	0.00	0.49	0.49	0.49	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	4.20			0.00			8.35			8.86		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	4.49											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 6: Palomar Rd/ Project Driveway 2

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
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 Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00
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	0	0	0	0	0
Peak Hour Factor	0.3500	0.3500	0.5000	0.5000	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	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	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	0.00
d_M, Delay for Movement [s/veh]	7.21	0.00	0.00	0.00	8.51	8.31
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	3.60		0.00		8.41	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

Vistro File: C:\...\25_006_Mapes and Palomar_2.02.26.vistro Scenario 3 Project Completion 2027 AM
Report File: C:\...\Project Completion 2027 AM.pdf 2/4/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Antelope Rd/Mapes Rd	All-way stop	HCM 7th Edition	WB Thru	0.420	11.5	B
2	Tradewinds Dr/ Mapes Rd	Two-way stop	HCM 7th Edition	NB Left	0.017	13.0	B
3	Palomar Rd/ Mapes Rd	Two-way stop	HCM 7th Edition	SB Left	0.066	14.8	B
4	Menifee Rd/ Mapes Rd	All-way stop	HCM 7th Edition	SB Thru	0.940	29.8	D
5	Tradewinds Dr/Project Driveway 1	Two-way stop	HCM 7th Edition	WB Left	0.047	9.0	A
6	Palomar Rd/ Project Driveway 2	Two-way stop	HCM 7th Edition	EB Right	0.033	8.4	A

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

Intersection Level Of Service Report
Intersection 1: Antelope Rd/Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	11.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.420

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	6	67	13	18	104	72	30	75	17	13	162	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	11	2	0	0	0	8	0	28	20	4
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	68	24	20	106	73	31	85	17	41	185	22
Peak Hour Factor	0.7130	0.7130	0.7130	0.6930	0.6930	0.6930	0.7380	0.7380	0.7380	0.8830	0.8830	0.8830
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	24	8	7	38	26	11	29	6	12	52	6
Total Analysis Volume [veh/h]	8	95	34	29	153	105	42	115	23	46	210	25
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	648	687	650	670
Degree of Utilization, x	0.21	0.42	0.28	0.42

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.79	2.07	1.13	2.08
95th-Percentile Queue Length [ft]	19.87	51.68	28.16	51.99
Approach Delay [s/veh]	10.04	11.95	10.64	12.20
Approach LOS	B	B	B	B
Intersection Delay [s/veh]	11.47			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 2: Tradewinds Dr/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	13.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.017

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	4	0	0	3	2	4	2	98	4	2	180	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	44	18	3	0	0	8	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	0	0	3	2	48	20	103	4	2	192	0
Peak Hour Factor	0.5000	0.5000	0.5000	0.7080	0.7080	0.7080	0.7800	0.7800	0.7800	0.8350	0.8350	0.8350
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	0	1	1	17	6	33	1	1	57	0
Total Analysis Volume [veh/h]	8	0	0	4	3	68	26	132	5	2	230	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.01	0.01	0.08	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.97	12.14	9.06	12.26	12.53	9.94	7.71	0.00	0.00	7.48	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.05	0.32	0.32	0.32	0.04	0.04	0.04	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.33	1.33	1.33	8.04	8.04	8.04	1.11	1.11	1.11	0.08	0.08	0.08
d_A, Approach Delay [s/veh]	12.97			10.16			1.23			0.06		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	2.26											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 3: Palomar Rd/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	14.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.066

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	9	1	32	0	1	0	0	91	10	22	168	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	8	0	8	20	8	3	0	0	0	0	4
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	9	33	8	21	8	3	93	10	22	171	4
Peak Hour Factor	0.7500	0.7500	0.7500	0.2500	0.2500	0.2500	0.8280	0.8280	0.8280	0.7680	0.7680	0.7680
Other Adjustment Factor	1.0000	1.0000	1.0000	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	3	11	8	21	8	1	28	3	7	56	1
Total Analysis Volume [veh/h]	12	12	44	32	84	32	4	112	12	29	223	5
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.02	0.05	0.07	0.16	0.04	0.00	0.00	0.00	0.02	0.00	0.00
d_M, Delay for Movement [s/veh]	14.61	12.54	9.43	14.85	14.36	11.79	7.68	0.00	0.00	7.48	0.00	0.00
Movement LOS	B	B	A	B	B	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.33	0.33	0.33	1.08	1.08	1.08	0.01	0.01	0.01	0.05	0.05	0.05
95th-Percentile Queue Length [ft/ln]	8.32	8.32	8.32	26.96	26.96	26.96	0.17	0.17	0.17	1.23	1.23	1.23
d_A, Approach Delay [s/veh]	10.90			13.91			0.24			0.84		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	5.07											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 4: Menifee Rd/ Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	29.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.940

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	110.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	12	208	11	128	323	63	51	44	21	17	115	127
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 [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	0	0	0	0	1	2	4	2	0	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	212	11	131	329	65	54	49	23	17	119	130
Peak Hour Factor	0.8520	0.8520	0.8520	0.8050	0.8050	0.8050	0.8330	0.8330	0.8330	0.7710	0.7710	0.7710
Other Adjustment Factor	1.0000	1.0000	1.0000	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	62	3	41	102	20	16	15	7	6	39	42
Total Analysis Volume [veh/h]	15	249	13	163	409	81	65	59	28	22	154	169
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	441	473	478	521	468	531
Degree of Utilization, x	0.03	0.55	0.34	0.94	0.32	0.65

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.11	3.31	1.50	11.73	1.39	4.64
95th-Percentile Queue Length [ft]	2.64	82.71	37.43	293.35	34.86	115.97
Approach Delay [s/veh]	18.90		42.36		14.35	21.48
Approach LOS	C		E		B	C
Intersection Delay [s/veh]	29.78					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 5: Tradewinds Dr/Project Driveway 1

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.047

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	2	0	0	5	0	0	0	3	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	18	0	0	0	0	0	0	44	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	2	18	0	5	0	0	0	3	44	0	0
Peak Hour Factor	0.2500	0.2500	0.2500	0.6250	0.6250	0.6250	0.7500	0.7500	0.7500	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	18	0	2	0	0	0	1	11	0	0
Total Analysis Volume [veh/h]	0	8	72	0	8	0	0	0	4	44	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00
d_M, Delay for Movement [s/veh]	7.22	0.00	0.00	7.36	0.00	0.00	8.80	9.49	8.36	9.00	9.47	8.69
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.15	0.15	0.15
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.28	0.28	3.67	3.67	3.67
d_A, Approach Delay [s/veh]	0.00			0.00			8.36			9.00		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	3.16											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 6: Palomar Rd/ Project Driveway 2

Control Type:	Two-way stop	Delay (sec / veh):	8.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.033

Intersection Setup

Name						
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 Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	1	1	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	0	0	0	0	36
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]	15	1	1	0	0	36
Peak Hour Factor	0.2500	0.2500	0.2500	0.2500	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]	15	1	1	0	0	9
Total Analysis Volume [veh/h]	60	4	4	0	0	36
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	0.04	0.00	0.00	0.00	0.00	0.03
d_M, Delay for Movement [s/veh]	7.29	0.00	0.00	0.00	9.42	8.44
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.11	0.11	0.00	0.00	0.10	0.10
95th-Percentile Queue Length [ft/ln]	2.70	2.70	0.00	0.00	2.58	2.58
d_A, Approach Delay [s/veh]	6.84		0.00		8.44	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.13					
Intersection LOS	A					

Vistro File: C:\...\25_006_Mapes and Palomar_2.27.26.vistro
Report File: C:\...\Project Completion 2027 PM.pdf

Scenario 4 Project Completion 2027 PM
2/27/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Antelope Rd/Mapes Rd	All-way stop	HCM 7th Edition	EB Thru	0.339	10.6	B
2	Tradewinds Dr/ Mapes Rd	Two-way stop	HCM 7th Edition	NB Left	0.015	14.4	B
3	Palomar Rd/ Mapes Rd	Two-way stop	HCM 7th Edition	SB Left	0.068	14.5	B
4	Menifee Rd/ Mapes Rd	All-way stop	HCM 7th Edition	SB Thru	0.727	17.4	C
5	Tradewinds Dr/Project Driveway 1	Two-way stop	HCM 7th Edition	WB Left	0.035	9.4	A
6	Palomar Rd/ Project Driveway 2	Two-way stop	HCM 7th Edition	EB Right	0.024	8.4	A

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

Intersection Level Of Service Report
Intersection 1: Antelope Rd/Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	10.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.339

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	3	77	5	15	61	96	60	100	1	7	116	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	32	5	0	0	0	23	0	18	14	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	79	37	20	62	98	61	125	1	25	132	17
Peak Hour Factor	0.7590	0.7590	0.7590	0.8140	0.8140	0.8140	0.8190	0.8190	0.8190	0.7780	0.7780	0.7780
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	26	12	6	19	30	19	38	0	8	42	5
Total Analysis Volume [veh/h]	4	104	49	25	76	120	74	153	1	32	170	22
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	676	705	673	683
Degree of Utilization, x	0.23	0.31	0.34	0.33

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.90	1.34	1.50	1.43
95th-Percentile Queue Length [ft]	22.39	33.51	37.48	35.74
Approach Delay [s/veh]	9.93	10.42	11.08	10.83
Approach LOS	A	B	B	B
Intersection Delay [s/veh]	10.62			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 2: Tradewinds Dr/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	14.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	4	3	6	1	2	2	2	101	1	5	134	7
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 [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	29	51	9	0	0	6	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	3	6	1	2	31	53	112	1	5	143	7
Peak Hour Factor	0.6250	0.6250	0.6250	0.5630	0.5630	0.5630	0.6670	0.6670	0.6670	0.8460	0.8460	0.8460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	1	2	0	1	14	20	42	0	1	42	2
Total Analysis Volume [veh/h]	6	5	10	2	4	55	79	168	1	6	169	8
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.01	0.00	0.01	0.06	0.06	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	14.41	13.56	9.36	13.78	13.64	9.50	7.65	0.00	0.00	7.55	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.12	0.12	0.12	0.25	0.25	0.25	0.14	0.14	0.14	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	2.97	2.97	2.97	6.23	6.23	6.23	3.44	3.44	3.44	0.25	0.25	0.25
d_A, Approach Delay [s/veh]	11.80			9.91			2.44			0.25		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	2.93											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 3: Palomar Rd/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	14.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.068

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	7	1	54	4	0	0	3	96	9	22	135	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	23	0	6	14	6	9	0	0	0	0	10
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	24	55	10	14	6	12	98	9	22	138	10
Peak Hour Factor	0.7690	0.7690	0.7690	0.3330	0.3330	0.3330	0.7300	0.7300	0.7300	0.8530	0.8530	0.8530
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	8	18	8	11	5	4	34	3	6	40	3
Total Analysis Volume [veh/h]	9	31	72	30	42	18	16	134	12	26	162	12
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.06	0.08	0.07	0.08	0.02	0.01	0.00	0.00	0.02	0.00	0.00
d_M, Delay for Movement [s/veh]	13.51	12.81	9.89	14.50	13.23	10.46	7.57	0.00	0.00	7.53	0.00	0.00
Movement LOS	B	B	A	B	B	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.56	0.56	0.56	0.60	0.60	0.60	0.03	0.03	0.03	0.04	0.04	0.04
95th-Percentile Queue Length [ft/ln]	13.88	13.88	13.88	15.04	15.04	15.04	0.68	0.68	0.68	1.11	1.11	1.11
d_A, Approach Delay [s/veh]	10.99			13.10			0.75			0.98		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	4.84											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 4: Menifee Rd/ Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	17.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.727

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	110.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	247	10	105	292	100	73	67	14	4	48	101
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 [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	0	0	0	0	2	1	3	2	0	5	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	252	10	107	298	104	75	71	16	4	54	103
Peak Hour Factor	0.8860	0.8860	0.8860	0.9460	0.9460	0.9460	0.8050	0.8050	0.8050	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	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	71	3	28	79	27	23	22	5	1	14	27
Total Analysis Volume [veh/h]	16	284	11	113	315	110	93	88	20	4	56	108
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	502	543	525	585	538	562
Degree of Utilization, x	0.03	0.54	0.22	0.73	0.37	0.30

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.10	3.24	0.81	6.12	1.72	1.25
95th-Percentile Queue Length [ft]	2.47	80.95	20.24	152.94	42.94	31.19
Approach Delay [s/veh]	16.61		20.98		13.62	12.11
Approach LOS	C		C		B	B
Intersection Delay [s/veh]	17.43					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 5: Tradewinds Dr/Project Driveway 1

Control Type:	Two-way stop	Delay (sec / veh):	9.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.035

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	7	5	0	0	1	0	0	0	4	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	51	0	0	0	0	0	0	29	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	5	51	0	1	0	0	0	4	29	0	0
Peak Hour Factor	0.3930	0.3930	0.3930	0.2500	0.2500	0.2500	0.5830	0.5830	0.5830	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	3	32	0	1	0	0	0	2	7	0	0
Total Analysis Volume [veh/h]	18	13	130	0	4	0	0	0	7	29	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.00	0.00
d_M, Delay for Movement [s/veh]	7.24	0.00	0.00	7.49	0.00	0.00	9.26	10.13	8.35	9.44	9.86	8.81
Movement LOS	A	A	A	A	A	A	A	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.04	0.00	0.00	0.00	0.02	0.02	0.02	0.11	0.11	0.11
95th-Percentile Queue Length [ft/ln]	0.90	0.90	0.90	0.00	0.00	0.00	0.49	0.49	0.49	2.68	2.68	2.68
d_A, Approach Delay [s/veh]	0.81			0.00			8.35			9.44		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	2.30											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 6: Palomar Rd/ Project Driveway 2

Control Type:	Two-way stop	Delay (sec / veh):	8.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.024

Intersection Setup

Name						
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 Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	42	0	0	0	0	26
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]	42	0	0	0	0	26
Peak Hour Factor	0.3500	0.3500	0.5000	0.5000	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]	30	0	0	0	0	7
Total Analysis Volume [veh/h]	120	0	0	0	0	26
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	0.07	0.00	0.00	0.00	0.00	0.02
d_M, Delay for Movement [s/veh]	7.38	0.00	0.00	0.00	10.26	8.39
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.24	0.24	0.00	0.00	0.07	0.07
95th-Percentile Queue Length [ft/ln]	5.95	5.95	0.00	0.00	1.84	1.84
d_A, Approach Delay [s/veh]	7.38		0.00		8.39	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.56					
Intersection LOS	A					

Vistro File: C:\...\25_006_Mapes and Palomar_2.02.26.vistro Scenario 5 Cumulative 2027 AM
Report File: C:\...\Cumulative 2027 AM.pdf 2/4/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Antelope Rd/Mapes Rd	All-way stop	HCM 7th Edition	WB Thru	0.532	13.6	B
2	Tradewinds Dr/ Mapes Rd	Two-way stop	HCM 7th Edition	NB Left	0.021	14.7	B
3	Palomar Rd/ Mapes Rd	Two-way stop	HCM 7th Edition	SB Left	0.082	17.7	C
4	Menifee Rd/ Mapes Rd	All-way stop	HCM 7th Edition	SB Thru	1.100	47.4	E
5	Tradewinds Dr/Project Driveway 1	Two-way stop	HCM 7th Edition	WB Left	0.047	9.0	A
6	Palomar Rd/ Project Driveway 2	Two-way stop	HCM 7th Edition	EB Right	0.033	8.4	A

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

Intersection Level Of Service Report
Intersection 1: Antelope Rd/Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	13.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.532

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	6	67	13	18	104	72	30	75	17	13	162	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	5	11	2	5	0	0	56	5	28	68	4
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	73	24	20	111	73	31	133	22	41	233	22
Peak Hour Factor	0.7130	0.7130	0.7130	0.6930	0.6930	0.6930	0.7380	0.7380	0.7380	0.8830	0.8830	0.8830
Other Adjustment Factor	1.0000	1.0000	1.0000	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	26	8	7	40	26	11	45	7	12	66	6
Total Analysis Volume [veh/h]	15	102	34	29	160	105	42	180	30	46	264	25
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	587	626	615	630
Degree of Utilization, x	0.26	0.47	0.41	0.53

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.02	2.50	1.99	3.14
95th-Percentile Queue Length [ft]	25.49	62.56	49.85	78.61
Approach Delay [s/veh]	11.24	13.72	12.85	15.04
Approach LOS	B	B	B	C
Intersection Delay [s/veh]	13.57			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 2: Tradewinds Dr/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	14.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.021

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	4	0	0	3	2	4	2	98	4	2	180	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	44	18	51	0	0	56	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	0	0	3	2	48	20	151	4	2	240	0
Peak Hour Factor	0.5000	0.5000	0.5000	0.7080	0.7080	0.7080	0.7800	0.7800	0.7800	0.8350	0.8350	0.8350
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	0	1	1	17	6	48	1	1	72	0
Total Analysis Volume [veh/h]	8	0	0	4	3	68	26	194	5	2	287	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.01	0.01	0.09	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	14.69	13.40	9.45	13.72	13.82	10.37	7.84	0.00	0.00	7.61	0.00	0.00
Movement LOS	B	B	A	B	B	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.06	0.35	0.35	0.35	0.04	0.04	0.04	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.61	1.61	1.61	8.85	8.85	8.85	1.10	1.10	1.10	0.08	0.08	0.08
d_A, Approach Delay [s/veh]	14.69			10.69			0.91			0.05		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	1.91											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 3: Palomar Rd/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	17.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.082

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	9	1	32	0	1	0	0	91	10	22	168	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	8	3	8	20	8	3	48	0	2	48	4
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	9	36	8	21	8	3	141	10	24	219	4
Peak Hour Factor	0.7500	0.7500	0.7500	0.2500	0.2500	0.2500	0.8280	0.8280	0.8280	0.7680	0.7680	0.7680
Other Adjustment Factor	1.0000	1.0000	1.0000	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	3	12	8	21	8	1	43	3	8	71	1
Total Analysis Volume [veh/h]	12	12	48	32	84	32	4	170	12	31	285	5
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.03	0.06	0.08	0.19	0.04	0.00	0.00	0.00	0.02	0.00	0.00
d_M, Delay for Movement [s/veh]	17.19	14.02	9.96	17.73	16.77	13.30	7.82	0.00	0.00	7.61	0.00	0.00
Movement LOS	C	B	A	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.41	0.41	0.41	1.34	1.34	1.34	0.01	0.01	0.01	0.05	0.05	0.05
95th-Percentile Queue Length [ft/ln]	10.20	10.20	10.20	33.61	33.61	33.61	0.17	0.17	0.17	1.32	1.32	1.32
d_A, Approach Delay [s/veh]	11.84			16.23			0.17			0.73		
Approach LOS	B			C			A			A		
d_I, Intersection Delay [s/veh]	4.84											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 4: Menifee Rd/ Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	47.4
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.100

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	110.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	12	208	11	128	323	63	51	44	21	17	115	127
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 [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	36	23	7	0	23	1	2	17	37	7	15	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	235	18	131	352	65	54	62	58	24	132	130
Peak Hour Factor	0.8520	0.8520	0.8520	0.8050	0.8050	0.8050	0.8330	0.8330	0.8330	0.7710	0.7710	0.7710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	69	5	41	109	20	16	19	17	8	43	42
Total Analysis Volume [veh/h]	56	276	21	163	437	81	65	74	70	31	171	169
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	418	447	435	518	448	493
Degree of Utilization, x	0.13	0.67	0.37	1.10	0.47	0.75

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.46	4.75	1.71	17.20	2.43	6.44
95th-Percentile Queue Length [ft]	11.49	118.86	42.81	429.88	60.74	161.07
Approach Delay [s/veh]	23.36		78.67		17.89	29.41
Approach LOS	C		F		C	D
Intersection Delay [s/veh]	47.38					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 5: Tradewinds Dr/Project Driveway 1

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.047

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	2	0	0	5	0	0	0	3	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	18	0	0	0	0	0	0	44	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	2	18	0	5	0	0	0	3	44	0	0
Peak Hour Factor	0.2500	0.2500	0.2500	0.6250	0.6250	0.6250	0.7500	0.7500	0.7500	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	18	0	2	0	0	0	1	11	0	0
Total Analysis Volume [veh/h]	0	8	72	0	8	0	0	0	4	44	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00
d_M, Delay for Movement [s/veh]	7.22	0.00	0.00	7.36	0.00	0.00	8.80	9.49	8.36	9.00	9.47	8.69
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.15	0.15	0.15
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.28	0.28	3.67	3.67	3.67
d_A, Approach Delay [s/veh]	0.00			0.00			8.36			9.00		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	3.16											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 6: Palomar Rd/ Project Driveway 2

Control Type:	Two-way stop	Delay (sec / veh):	8.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.033

Intersection Setup

Name						
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 Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	1	1	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	0	0	0	0	36
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]	15	1	1	0	0	36
Peak Hour Factor	0.2500	0.2500	0.2500	0.2500	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]	15	1	1	0	0	9
Total Analysis Volume [veh/h]	60	4	4	0	0	36
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	0.04	0.00	0.00	0.00	0.00	0.03
d_M, Delay for Movement [s/veh]	7.29	0.00	0.00	0.00	9.42	8.44
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.11	0.11	0.00	0.00	0.10	0.10
95th-Percentile Queue Length [ft/ln]	2.70	2.70	0.00	0.00	2.58	2.58
d_A, Approach Delay [s/veh]	6.84		0.00		8.44	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.13					
Intersection LOS	A					

Vistro File: C:\...\25_006_Mapes and Palomar_2.27.26.vistro Scenario 6 Cumulative 2027 PM
Report File: C:\...\Cumulative 2027 PM.pdf 2/27/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Antelope Rd/Mapes Rd	All-way stop	HCM 7th Edition	EB Thru	0.499	13.2	B
2	Tradewinds Dr/ Mapes Rd	Two-way stop	HCM 7th Edition	NB Left	0.020	17.5	C
3	Palomar Rd/ Mapes Rd	Two-way stop	HCM 7th Edition	SB Left	0.092	18.4	C
4	Menifee Rd/ Mapes Rd	All-way stop	HCM 7th Edition	SB Thru	0.907	28.4	D
5	Tradewinds Dr/Project Driveway 1	Two-way stop	HCM 7th Edition	WB Left	0.035	9.4	A
6	Palomar Rd/ Project Driveway 2	Two-way stop	HCM 7th Edition	EB Right	0.024	8.4	A

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

Intersection Level Of Service Report
Intersection 1: Antelope Rd/Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	13.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.499

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	3	77	5	15	61	96	60	100	1	7	116	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	7	7	32	5	7	0	0	86	7	18	77	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	86	37	20	69	98	61	188	8	25	195	17
Peak Hour Factor	0.7590	0.7590	0.7590	0.8140	0.8140	0.8140	0.8190	0.8190	0.8190	0.7780	0.7780	0.7780
Other Adjustment Factor	1.0000	1.0000	1.0000	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	28	12	6	21	30	19	57	2	8	63	5
Total Analysis Volume [veh/h]	13	113	49	25	85	120	74	230	10	32	251	22
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	598	624	629	633
Degree of Utilization, x	0.29	0.37	0.50	0.48

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.21	1.69	2.79	2.62
95th-Percentile Queue Length [ft]	30.36	42.36	69.77	65.62
Approach Delay [s/veh]	11.50	12.11	14.28	13.87
Approach LOS	B	B	B	B
Intersection Delay [s/veh]	13.20			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 2: Tradewinds Dr/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	17.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.020

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	4	3	6	1	2	2	2	101	1	5	134	7
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 [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	29	51	72	0	0	69	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	3	6	1	2	31	53	175	1	5	206	7
Peak Hour Factor	0.6250	0.6250	0.6250	0.5630	0.5630	0.5630	0.6670	0.6670	0.6670	0.8460	0.8460	0.8460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	1	2	0	1	14	20	66	0	1	61	2
Total Analysis Volume [veh/h]	6	5	10	2	4	55	79	262	1	6	243	8
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.01	0.01	0.01	0.07	0.06	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	17.47	15.85	10.03	16.52	15.88	10.02	7.82	0.00	0.00	7.76	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.15	0.15	0.15	0.28	0.28	0.28	0.14	0.14	0.14	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	3.73	3.73	3.73	7.12	7.12	7.12	3.44	3.44	3.44	0.25	0.25	0.25
d_A, Approach Delay [s/veh]	13.54			10.62			1.81			0.18		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	2.34											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 3: Palomar Rd/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	18.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.092

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	7	1	54	4	0	0	3	96	9	22	135	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	23	4	6	14	6	9	63	0	4	63	10
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	24	59	10	14	6	12	161	9	26	201	10
Peak Hour Factor	0.7690	0.7690	0.7690	0.3330	0.3330	0.3330	0.7300	0.7300	0.7300	0.8530	0.8530	0.8530
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	8	19	8	11	5	4	55	3	8	59	3
Total Analysis Volume [veh/h]	9	31	77	30	42	18	16	221	12	30	236	12
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.07	0.09	0.09	0.10	0.02	0.01	0.00	0.00	0.02	0.00	0.00
d_M, Delay for Movement [s/veh]	16.54	15.06	10.85	18.35	15.97	11.84	7.74	0.00	0.00	7.72	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.71	0.71	0.71	0.81	0.81	0.81	0.03	0.03	0.03	0.05	0.05	0.05
95th-Percentile Queue Length [ft/ln]	17.85	17.85	17.85	20.14	20.14	20.14	0.68	0.68	0.68	1.28	1.28	1.28
d_A, Approach Delay [s/veh]	12.40			15.94			0.50			0.83		
Approach LOS	B			C			A			A		
d_I, Intersection Delay [s/veh]	4.42											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 4: Menifee Rd/ Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	28.4
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.907

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	110.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	247	10	105	292	100	73	67	14	4	48	101
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 [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	49	31	9	0	31	2	1	20	48	9	22	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	60	283	19	107	329	104	75	88	62	13	71	103
Peak Hour Factor	0.8860	0.8860	0.8860	0.9460	0.9460	0.9460	0.8050	0.8050	0.8050	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	80	5	28	87	27	23	27	19	3	19	27
Total Analysis Volume [veh/h]	68	319	21	113	348	110	93	109	77	14	74	108
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	445	479	461	505	488	478
Degree of Utilization, x	0.15	0.71	0.25	0.91	0.57	0.41

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.53	5.58	0.95	10.48	3.54	1.97
95th-Percentile Queue Length [ft]	13.37	139.41	23.85	262.11	88.42	49.31
Approach Delay [s/veh]	24.25		40.02		19.82	15.65
Approach LOS	C		E		C	C
Intersection Delay [s/veh]	28.44					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 5: Tradewinds Dr/Project Driveway 1

Control Type:	Two-way stop	Delay (sec / veh):	9.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.035

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	7	5	0	0	1	0	0	0	4	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	51	0	0	0	0	0	0	29	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	5	51	0	1	0	0	0	4	29	0	0
Peak Hour Factor	0.3930	0.3930	0.3930	0.2500	0.2500	0.2500	0.5830	0.5830	0.5830	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	3	32	0	1	0	0	0	2	7	0	0
Total Analysis Volume [veh/h]	18	13	130	0	4	0	0	0	7	29	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.00	0.00
d_M, Delay for Movement [s/veh]	7.24	0.00	0.00	7.49	0.00	0.00	9.26	10.13	8.35	9.44	9.86	8.81
Movement LOS	A	A	A	A	A	A	A	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.04	0.00	0.00	0.00	0.02	0.02	0.02	0.11	0.11	0.11
95th-Percentile Queue Length [ft/ln]	0.90	0.90	0.90	0.00	0.00	0.00	0.49	0.49	0.49	2.68	2.68	2.68
d_A, Approach Delay [s/veh]	0.81			0.00			8.35			9.44		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	2.30											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 6: Palomar Rd/ Project Driveway 2

Control Type:	Two-way stop	Delay (sec / veh):	8.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.024

Intersection Setup

Name						
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 Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	42	0	0	0	0	26
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]	42	0	0	0	0	26
Peak Hour Factor	0.3500	0.3500	0.5000	0.5000	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]	30	0	0	0	0	7
Total Analysis Volume [veh/h]	120	0	0	0	0	26
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	0.07	0.00	0.00	0.00	0.00	0.02
d_M, Delay for Movement [s/veh]	7.38	0.00	0.00	0.00	10.26	8.39
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.24	0.24	0.00	0.00	0.07	0.07
95th-Percentile Queue Length [ft/ln]	5.95	5.95	0.00	0.00	1.84	1.84
d_A, Approach Delay [s/veh]	7.38		0.00		8.39	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.56					
Intersection LOS	A					

Vistro File: C:\...\25_006_Mapes and Palomar 4.01.26TEST2.vistro
Report File: C:\...\GPAM.pdf

Scenario 7 GP2045 AM
4/8/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Antelope Rd/Mapes Rd	All-way stop	HCM 7th Edition	WB Thru	0.641	16.8	C
2	Tradewinds Dr/ Mapes Rd	Two-way stop	HCM 7th Edition	NB Thru	0.011	11.9	B
3	Palomar Rd/ Mapes Rd	Two-way stop	HCM 7th Edition	NB Thru	0.004	12.6	B
4	Menifee Rd/ Mapes Rd	All-way stop	HCM 7th Edition	SB Thru	1.511	145.9	F
5	Tradewinds Dr/Project Driveway 1	Two-way stop	HCM 7th Edition	EB Right	0.003	8.3	A
6	Palomar Rd/ Project Driveway 2	Two-way stop	HCM 7th Edition	SB Thru	0.000	0.0	A

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

Intersection Level Of Service Report
Intersection 1: Antelope Rd/Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	16.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.641

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	109	105	39	18	146	73	30	77	93	115	165	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	5	5	0	0	5	0	0	48	5	0	48	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	114	110	39	18	151	73	30	125	98	115	213	18
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	29	10	5	40	19	8	33	26	30	56	5
Total Analysis Volume [veh/h]	120	116	41	19	159	77	32	132	103	121	224	19
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	547	555	567	568
Degree of Utilization, x	0.51	0.46	0.47	0.64

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.84	2.40	2.50	4.55
95th-Percentile Queue Length [ft]	71.03	59.99	62.52	113.79
Approach Delay [s/veh]	16.15	14.90	14.86	19.99
Approach LOS	C	B	B	C
Intersection Delay [s/veh]	16.78			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 2: Tradewinds Dr/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	11.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.011

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	5	6	0	3	2	7	2	99	7	2	184	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	48	0	0	48	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	6	0	3	2	7	2	147	7	2	232	1
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	2	0	1	1	2	1	39	2	1	61	0
Total Analysis Volume [veh/h]	5	6	0	3	2	7	2	155	7	2	244	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.80	11.93	9.19	11.74	11.92	9.62	7.72	0.00	0.00	7.53	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.06	0.06	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.57	1.57	1.57	1.38	1.38	1.38	0.08	0.08	0.08	0.08	0.08	0.08
d_A, Approach Delay [s/veh]	11.87			10.53			0.09			0.06		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.66											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 3: Palomar Rd/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	12.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	10	2	33	0	1	1	0	93	11	26	171	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	3	0	0	0	0	48	0	2	48	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	2	36	0	1	1	0	141	11	28	219	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	9	0	0	0	0	37	3	7	58	0
Total Analysis Volume [veh/h]	11	2	38	0	1	1	0	148	12	29	231	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
d_M, Delay for Movement [s/veh]	12.38	12.57	9.37	12.58	12.29	9.46	7.68	0.00	0.00	7.56	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.22	0.22	0.22	0.01	0.01	0.01	0.00	0.00	0.00	0.05	0.05	0.05
95th-Percentile Queue Length [ft/ln]	5.46	5.46	5.46	0.24	0.24	0.24	0.00	0.00	0.00	1.23	1.23	1.23
d_A, Approach Delay [s/veh]	10.15			10.88			0.00			0.84		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	1.60											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 4: Menifee Rd/ Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	145.9
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.511

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	114	767	16	131	1071	70	52	44	46	18	117	130
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 [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	35	23	7	0	23	0	0	13	35	7	13	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	149	790	23	131	1094	70	52	57	81	25	130	130
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	39	208	6	34	288	18	14	15	21	7	34	34
Total Analysis Volume [veh/h]	157	832	24	138	1152	74	55	60	85	26	137	137
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	386	428	428	384	613	613	351	370
Degree of Utilization, x	0.41	1.05	1.05	0.36	1.51	1.50	0.57	0.81

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.93	14.03	13.90	1.60	32.89	32.48	3.37	7.11
95th-Percentile Queue Length [ft]	48.30	350.66	347.52	39.99	822.20	812.08	84.13	177.81
Approach Delay [s/veh]	77.05			237.12			25.95	43.52
Approach LOS	F			F			D	E
Intersection Delay [s/veh]	145.89							
Intersection LOS	F							

Intersection Level Of Service Report
Intersection 5: Tradewinds Dr/Project Driveway 1

Control Type:	Two-way stop	Delay (sec / veh):	8.3
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	2	0	0	5	0	0	0	3	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Total Hourly Volume [veh/h]	0	2	0	0	5	0	0	0	3	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	1	0	0	1	0	0	0	1	0	0	0
Total Analysis Volume [veh/h]	0	2	0	0	5	0	0	0	3	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.22	0.00	0.00	7.21	0.00	0.00	8.56	9.05	8.34	8.56	9.04	8.32
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.21	0.21	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00			0.00			8.34			8.64		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	2.50											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 6: Palomar Rd/ Project Driveway 2

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
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 Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	1	1	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00
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	1	1	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	1	1	0	0	0
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	0.00
d_M, Delay for Movement [s/veh]	7.21	0.00	0.00	0.00	8.52	8.31
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.42	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Vistro File: C:\...\25_006_Mapes and Palomar 4.01.26TEST2.vistro
Report File: C:\...\GPPM.pdf

Scenario 8 GP2045 PM
4/8/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Antelope Rd/Mapes Rd	All-way stop	HCM 7th Edition	SB Thru	0.686	16.7	C
2	Tradewinds Dr/ Mapes Rd	Two-way stop	HCM 7th Edition	NB Thru	0.006	12.3	B
3	Palomar Rd/ Mapes Rd	Two-way stop	HCM 7th Edition	SB Left	0.010	13.8	B
4	Menifee Rd/ Mapes Rd	All-way stop	HCM 7th Edition	SB Thru	1.107	59.7	F
5	Tradewinds Dr/Project Driveway 1	Two-way stop	HCM 7th Edition	EB Right	0.003	8.3	A
6	Palomar Rd/ Project Driveway 2	Two-way stop	HCM 7th Edition	SB Thru	0.000	0.0	A

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

Intersection Level Of Service Report
Intersection 1: Antelope Rd/Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	16.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.686

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	3	155	10	15	279	97	61	101	32	26	118	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	7	7	0	0	7	0	0	63	7	0	63	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	162	10	15	286	97	61	164	39	26	181	17
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	43	3	4	75	26	16	43	10	7	48	4
Total Analysis Volume [veh/h]	11	171	11	16	301	102	64	173	41	27	191	18
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	555	611	568	557
Degree of Utilization, x	0.35	0.69	0.49	0.42

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.55	5.35	2.68	2.10
95th-Percentile Queue Length [ft]	38.69	133.76	67.04	52.39
Approach Delay [s/veh]	12.91	20.74	15.28	14.13
Approach LOS	B	C	C	B
Intersection Delay [s/veh]	16.67			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 2: Tradewinds Dr/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	12.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	4	3	6	2	2	2	3	135	7	5	144	7
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 [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	63	0	0	63	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	3	6	2	2	2	3	198	7	5	207	7
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	2	1	1	1	1	52	2	1	54	2
Total Analysis Volume [veh/h]	4	3	6	2	2	2	3	208	7	5	218	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.14	12.31	9.46	12.15	12.25	9.45	7.67	0.00	0.00	7.65	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.06	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	1.61	1.61	1.61	0.79	0.79	0.79	0.13	0.13	0.13	0.21	0.21	0.21
d_A, Approach Delay [s/veh]	10.94			11.28			0.11			0.17		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.58											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 3: Palomar Rd/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	13.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.010

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	10	55	4	4	0	3	128	9	22	140	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	4	0	0	0	0	63	0	4	63	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	10	59	4	4	0	3	191	9	26	203	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	16	1	1	0	1	50	2	7	53	0
Total Analysis Volume [veh/h]	12	11	62	4	4	0	3	201	9	27	214	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.02	0.07	0.01	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.00
d_M, Delay for Movement [s/veh]	13.21	13.30	10.02	13.81	12.78	9.50	7.65	0.00	0.00	7.66	0.00	0.00
Movement LOS	B	B	B	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.42	0.42	0.42	0.06	0.06	0.06	0.01	0.01	0.01	0.05	0.05	0.05
95th-Percentile Queue Length [ft/ln]	10.38	10.38	10.38	1.38	1.38	1.38	0.13	0.13	0.13	1.14	1.14	1.14
d_A, Approach Delay [s/veh]	10.89			13.29			0.11			0.86		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	2.31											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 4: Menifee Rd/ Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	59.7
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.107

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	39	557	25	107	742	101	74	68	100	14	49	103
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	46	31	9	0	31	0	0	17	46	9	17	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	85	588	34	107	773	101	74	85	146	23	66	103
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	155	9	28	203	27	19	22	38	6	17	27
Total Analysis Volume [veh/h]	89	619	36	113	814	106	78	89	154	24	69	108
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	392	415	419	392	460	460	402	386
Degree of Utilization, x	0.23	0.79	0.78	0.29	1.11	1.08	0.80	0.52

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.86	6.89	6.76	1.18	16.20	15.58	7.04	2.89
95th-Percentile Queue Length [ft]	21.53	172.33	169.12	29.42	404.97	389.43	176.11	72.35
Approach Delay [s/veh]	33.86			92.02			39.43	22.00
Approach LOS	D			F			E	C
Intersection Delay [s/veh]	59.73							
Intersection LOS	F							

Intersection Level Of Service Report
Intersection 5: Tradewinds Dr/Project Driveway 1

Control Type:	Two-way stop	Delay (sec / veh):	8.3
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	2	0	0	5	0	0	0	3	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Total Hourly Volume [veh/h]	0	2	0	0	5	0	0	0	3	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	1	0	0	1	0	0	0	1	0	0	0
Total Analysis Volume [veh/h]	0	2	0	0	5	0	0	0	3	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.22	0.00	0.00	7.21	0.00	0.00	8.56	9.05	8.34	8.56	9.04	8.32
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.21	0.21	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00			0.00			8.34			8.64		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	2.50											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 6: Palomar Rd/ Project Driveway 2

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
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 Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	1	1	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00
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	1	1	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	1	1	0	0	0
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	0.00
d_M, Delay for Movement [s/veh]	7.21	0.00	0.00	0.00	8.52	8.31
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.42	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Vistro File: C:\...\25_006_Mapes and Palomar 4.01.26TEST2.vistro
Report File: C:\...\GPPP AM.pdf

Scenario 9 GP2045 AM Plus Project
4/8/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Antelope Rd/Mapes Rd	All-way stop	HCM 7th Edition	WB Thru	0.770	21.1	C
2	Tradewinds Dr/ Mapes Rd	Two-way stop	HCM 7th Edition	NB Left	0.011	13.2	B
3	Palomar Rd/ Mapes Rd	Two-way stop	HCM 7th Edition	SB Left	0.017	13.4	B
4	Menifee Rd/ Mapes Rd	All-way stop	HCM 7th Edition	SB Thru	1.522	148.7	F
5	Tradewinds Dr/Project Driveway 1	Two-way stop	HCM 7th Edition	WB Left	0.046	8.8	A
6	Palomar Rd/ Project Driveway 2	Two-way stop	HCM 7th Edition	EB Right	0.035	8.4	A

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

Intersection Level Of Service Report
Intersection 1: Antelope Rd/Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	21.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.770

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	109	105	39	18	146	73	30	77	93	115	165	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	5	5	11	2	5	0	0	56	5	28	68	4
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	114	110	50	20	151	73	30	133	98	143	233	22
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	29	13	5	40	19	8	35	26	38	61	6
Total Analysis Volume [veh/h]	120	116	53	21	159	77	32	140	103	151	245	23
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	516	517	532	545
Degree of Utilization, x	0.56	0.50	0.52	0.77

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.42	2.73	2.94	6.95
95th-Percentile Queue Length [ft]	85.43	68.30	73.41	173.69
Approach Delay [s/veh]	18.53	16.63	16.76	28.34
Approach LOS	C	C	C	D
Intersection Delay [s/veh]	21.06			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 2: Tradewinds Dr/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	13.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.011

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	5	6	0	3	2	7	2	99	7	2	184	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	44	18	51	0	0	56	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	6	0	3	2	51	20	150	7	2	240	1
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	2	0	1	1	13	5	39	2	1	63	0
Total Analysis Volume [veh/h]	5	6	0	3	2	54	21	158	7	2	253	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.01	0.00	0.07	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.24	12.55	9.25	12.69	12.80	9.98	7.76	0.00	0.00	7.54	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.07	0.07	0.07	0.26	0.26	0.26	0.04	0.04	0.04	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.80	1.80	1.80	6.39	6.39	6.39	0.89	0.89	0.89	0.08	0.08	0.08
d_A, Approach Delay [s/veh]	12.86			10.21			0.88			0.06		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	1.80											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 3: Palomar Rd/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	13.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.017

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	10	2	33	0	1	1	0	93	11	26	171	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	8	3	8	20	8	3	48	0	2	48	4
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	10	36	8	21	9	3	141	11	28	219	4
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	9	2	6	2	1	37	3	7	58	1
Total Analysis Volume [veh/h]	11	11	38	8	22	9	3	148	12	29	231	4
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.02	0.04	0.02	0.05	0.01	0.00	0.00	0.00	0.02	0.00	0.00
d_M, Delay for Movement [s/veh]	13.21	12.85	9.54	13.41	12.91	9.99	7.69	0.00	0.00	7.56	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.29	0.29	0.29	0.24	0.24	0.24	0.01	0.01	0.01	0.05	0.05	0.05
95th-Percentile Queue Length [ft/ln]	7.24	7.24	7.24	5.94	5.94	5.94	0.13	0.13	0.13	1.23	1.23	1.23
d_A, Approach Delay [s/veh]	10.82			12.34			0.14			0.83		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	2.61											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 4: Menifee Rd/ Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	148.7
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.522

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	114	767	16	131	1071	70	52	44	46	18	117	130
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 [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	36	23	7	0	23	1	2	17	37	7	15	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	150	790	23	131	1094	71	54	61	83	25	132	130
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	39	208	6	34	288	19	14	16	22	7	35	34
Total Analysis Volume [veh/h]	158	832	24	138	1152	75	57	64	87	26	139	137
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	383	428	428	382	614	614	351	368
Degree of Utilization, x	0.41	1.06	1.05	0.36	1.52	1.51	0.59	0.82

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.97	14.22	14.09	1.61	33.24	32.83	3.64	7.30
95th-Percentile Queue Length [ft]	49.25	355.48	352.35	40.37	830.89	820.75	90.94	182.50
Approach Delay [s/veh]	79.07			241.83			27.21	44.93
Approach LOS	F			F			D	E
Intersection Delay [s/veh]	148.67							
Intersection LOS	F							

Intersection Level Of Service Report
Intersection 5: Tradewinds Dr/Project Driveway 1

Control Type:	Two-way stop	Delay (sec / veh):	8.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.046

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	2	0	0	5	0	0	0	3	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	18	0	0	0	0	0	0	44	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	2	18	0	5	0	0	0	3	44	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	1	5	0	1	0	0	0	1	12	0	0
Total Analysis Volume [veh/h]	0	2	19	0	5	0	0	0	3	46	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00
d_M, Delay for Movement [s/veh]	7.22	0.00	0.00	7.25	0.00	0.00	8.61	9.15	8.34	8.79	9.27	8.53
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.15	0.15	0.15
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.21	0.21	3.63	3.63	3.63
d_A, Approach Delay [s/veh]	0.00			0.00			8.34			8.79		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.72											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 6: Palomar Rd/ Project Driveway 2

Control Type:	Two-way stop	Delay (sec / veh):	8.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.035

Intersection Setup

Name						
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 Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	1	1	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00
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]	15	0	0	0	0	36
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]	15	1	1	0	0	36
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	0	0	0	0	9
Total Analysis Volume [veh/h]	16	1	1	0	0	38
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	0.00	0.03
d_M, Delay for Movement [s/veh]	7.23	0.00	0.00	0.00	8.82	8.43
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.00	0.00	0.11	0.11
95th-Percentile Queue Length [ft/ln]	0.70	0.70	0.00	0.00	2.72	2.72
d_A, Approach Delay [s/veh]	6.80		0.00		8.43	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.79					
Intersection LOS	A					

Vistro File: C:\...\25_006_Mapes and Palomar 4.01.26TEST2.vistro
Report File: C:\...\GPPP PM.pdf

Scenario 10 GP2045 PM Plus Project
4/8/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Antelope Rd/Mapes Rd	All-way stop	HCM 7th Edition	SB Thru	0.752	20.3	C
2	Tradewinds Dr/ Mapes Rd	Two-way stop	HCM 7th Edition	NB Left	0.011	14.6	B
3	Palomar Rd/ Mapes Rd	Two-way stop	HCM 7th Edition	SB Left	0.030	15.5	C
4	Menifee Rd/ Mapes Rd	All-way stop	HCM 7th Edition	SB Thru	1.122	62.5	F
5	Tradewinds Dr/Project Driveway 1	Two-way stop	HCM 7th Edition	WB Left	0.032	8.8	A
6	Palomar Rd/ Project Driveway 2	Two-way stop	HCM 7th Edition	EB Right	0.025	8.4	A

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

Intersection Level Of Service Report
Intersection 1: Antelope Rd/Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	20.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.752

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	3	155	10	15	279	97	61	101	32	26	118	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	7	7	32	5	7	0	0	86	7	18	77	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	162	42	20	286	97	61	187	39	44	195	20
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	43	11	5	75	26	16	49	10	12	51	5
Total Analysis Volume [veh/h]	11	171	44	21	301	102	64	197	41	46	205	21
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	520	564	528	520
Degree of Utilization, x	0.43	0.75	0.57	0.52

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.18	6.60	3.56	3.00
95th-Percentile Queue Length [ft]	54.39	165.10	89.00	75.06
Approach Delay [s/veh]	15.13	26.22	18.53	17.28
Approach LOS	C	D	C	C
Intersection Delay [s/veh]	20.29			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 2: Tradewinds Dr/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	14.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.011

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	4	3	6	2	2	2	3	135	7	5	144	7
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 [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	29	51	72	0	0	69	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	3	6	2	2	31	54	207	7	5	213	7
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	2	1	1	8	14	54	2	1	56	2
Total Analysis Volume [veh/h]	4	3	6	2	2	33	57	218	7	5	224	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.01	0.00	0.00	0.04	0.04	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	14.65	14.04	9.57	14.25	14.12	9.68	7.75	0.00	0.00	7.67	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.08	0.08	0.08	0.16	0.16	0.16	0.10	0.10	0.10	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	1.94	1.94	1.94	3.98	3.98	3.98	2.47	2.47	2.47	0.21	0.21	0.21
d_A, Approach Delay [s/veh]	12.16			10.17			1.57			0.16		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	1.79											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 3: Palomar Rd/ Mapes Rd

Control Type:	Two-way stop	Delay (sec / veh):	15.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.030

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	10	55	4	4	0	3	128	9	22	140	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	23	4	6	14	6	9	63	0	4	63	10
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	33	59	10	18	6	12	191	9	26	203	10
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	9	16	3	5	2	3	50	2	7	53	3
Total Analysis Volume [veh/h]	12	35	62	11	19	6	13	201	9	27	214	11
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.08	0.07	0.03	0.04	0.01	0.01	0.00	0.00	0.02	0.00	0.00
d_M, Delay for Movement [s/veh]	14.60	14.25	10.59	15.45	13.63	10.05	7.68	0.00	0.00	7.67	0.00	0.00
Movement LOS	B	B	B	C	B	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.65	0.65	0.65	0.26	0.26	0.26	0.02	0.02	0.02	0.05	0.05	0.05
95th-Percentile Queue Length [ft/ln]	16.20	16.20	16.20	6.41	6.41	6.41	0.55	0.55	0.55	1.15	1.15	1.15
d_A, Approach Delay [s/veh]	12.20			13.59			0.45			0.82		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	3.43											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 4: Menifee Rd/ Mapes Rd

Control Type:	All-way stop	Delay (sec / veh):	62.5
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.122

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	39	557	25	107	742	101	74	68	100	14	49	103
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	49	31	9	0	31	2	1	20	48	9	22	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	88	588	34	107	773	103	75	88	148	23	71	103
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	155	9	28	203	27	20	23	39	6	19	27
Total Analysis Volume [veh/h]	93	619	36	113	814	108	79	93	156	24	75	108
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	389	411	415	388	461	461	399	384
Degree of Utilization, x	0.24	0.80	0.79	0.29	1.12	1.10	0.82	0.54

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.92	7.02	6.89	1.19	16.66	16.03	7.51	3.09
95th-Percentile Queue Length [ft]	23.00	175.55	172.31	29.86	416.51	400.71	187.63	77.16
Approach Delay [s/veh]	34.67			96.96			42.25	22.86
Approach LOS	D			F			E	C
Intersection Delay [s/veh]	62.50							
Intersection LOS	F							

Intersection Level Of Service Report
Intersection 5: Tradewinds Dr/Project Driveway 1

Control Type:	Two-way stop	Delay (sec / veh):	8.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.032

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	2	0	0	5	0	0	0	3	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	51	0	0	0	0	0	0	29	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	2	51	0	5	0	0	0	3	29	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	1	13	0	1	0	0	0	1	8	0	0
Total Analysis Volume [veh/h]	0	2	54	0	5	0	0	0	3	31	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
d_M, Delay for Movement [s/veh]	7.22	0.00	0.00	7.31	0.00	0.00	8.70	9.34	8.34	8.83	9.31	8.56
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.10	0.10	0.10
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.21	0.21	2.47	2.47	2.47
d_A, Approach Delay [s/veh]	0.00			0.00			8.34			8.83		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	3.15											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 6: Palomar Rd/ Project Driveway 2

Control Type:	Two-way stop	Delay (sec / veh):	8.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.025

Intersection Setup

Name						
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 Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	1	1	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	1.00	1.00	1.00
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]	42	0	0	0	0	26
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]	42	1	1	0	0	26
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	0	0	0	0	7
Total Analysis Volume [veh/h]	44	1	1	0	0	27
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	0.00	0.02
d_M, Delay for Movement [s/veh]	7.27	0.00	0.00	0.00	9.14	8.40
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.08	0.08	0.00	0.00	0.08	0.08
95th-Percentile Queue Length [ft/ln]	2.04	2.04	0.00	0.00	1.91	1.91
d_A, Approach Delay [s/veh]	7.11		0.00		8.40	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.49					
Intersection LOS	A					

Option 1: Copy of Menifee Rd/ Mapes Rd

Number	4											
Intersection	Menifee Rd/ Mapes Rd											
Control Type	Signalized											
Analysis Method	HCM 7th Edition											
Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Base Volume Input [veh/h]	114	767	16	131	1071	70	52	44	46	18	117	130
Total Analysis Volume [veh/h]	158	832	24	138	1152	75	57	64	87	26	139	137

Intersection Settings

Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fixed time
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Flashing Yellow Arrow												
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	32	113	0	39	120	0	0	66	0	0	66	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0

Phasing & Timing: Pattern 1

Split [s]	21.0	62.0	0.0	24.0	65.0	0.0	0.0	34.0	0.0	0.0	34.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	

Exclusive Pedestrian Phase

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

Lane Group Calculations

g / C, Green / Cycle	0.14	0.48	0.48	0.17	0.51	0.51	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.10	0.25	0.25	0.09	0.36	0.37	0.17	0.19
so, Base Saturation Flow per Lane [pc/h/ln]	1900	1900	1900	1900	1900	1900	1900	1900
Arrival type	3			3			3	3
s, saturation flow rate [veh/h]	1810	1900	1900	1810	1900	1900	1100	1542

s, saturation flow rate [veh/h]	1616	1696	1680	1616	1696	1660	1169	1548
c, Capacity [veh/h]	229	820	812	269	862	844	330	420
X, volume / capacity	0.69	0.52	0.52	0.51	0.72	0.72	0.63	0.72
d, Delay for Lane Group [s/veh]	64.74	23.85	23.88	52.37	27.94	28.16	49.32	52.00
Lane Group LOS	E	C	C	D	C	C	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	5.31	8.15	8.08	4.09	13.28	13.10	6.44	9.12
50th-Percentile Queue Length [ft/ln]	132.69	203.80	201.94	102.36	331.95	327.48	161.05	228.08
95th-Percentile Queue Length [veh/ln]	9.09	12.83	12.74	7.37	19.25	19.03	10.60	14.08
95th-Percentile Queue Length [ft/ln]	227.15	320.87	318.46	184.25	481.36	475.87	265.12	351.92

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	64.74	23.86	23.88	52.37	28.04	28.16	49.32	49.32	49.32	52.00	52.00	52.00
Movement LOS	E	C	C	D	C	C	D	D	D	D	D	D
Critical Movement	Yes	No	No	No	No	No	No	No	No	No	No	No
d_A, Approach Delay [s/veh]	30.23			30.51			49.32			52.00		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	34.01											
Intersection LOS	C											
Intersection V/C	0.731											

Option 1: Copy of Menifee Rd/ Mapes Rd

Number	4											
Intersection	Menifee Rd/ Mapes Rd											
Control Type	Signalized											
Analysis Method	HCM 7th Edition											
Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Base Volume Input [veh/h]	39	557	25	107	742	101	74	68	100	14	49	103
Total Analysis Volume [veh/h]	93	619	36	113	814	108	79	93	156	24	75	108

Intersection Settings

Cycle Length [s]	115
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fixed time
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Flashing Yellow Arrow												
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	21	90	0	32	101	0	0	86	0	0	86	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0

Phasing & Timing: Pattern 1

Split [s]	15.0	50.0	0.0	21.0	56.0	0.0	0.0	44.0	0.0	0.0	44.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	

Exclusive Pedestrian Phase

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

Lane Group Calculations

g / C, Green / Cycle	0.10	0.40	0.40	0.15	0.45	0.45	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.06	0.19	0.20	0.07	0.28	0.28	0.22	0.14
so, Base Saturation Flow per Lane [pc/h/ln]	1900	1900	1900	1900	1900	1900	1900	1900
Arrival type	3			3			3	3
[illegible]	[illegible]							

s, saturation flow rate [veh/h]	1616	1696	1664	1616	1696	1628	1439	1506
c, Capacity [veh/h]	155	679	666	239	767	736	539	559
X, volume / capacity	0.60	0.49	0.49	0.47	0.61	0.61	0.61	0.37
d, Delay for Lane Group [s/veh]	66.04	28.20	28.26	51.48	27.52	27.68	36.20	30.10
Lane Group LOS	E	C	C	D	C	C	D	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	3.15	6.69	6.58	3.26	9.55	9.20	8.30	4.36
50th-Percentile Queue Length [ft/ln]	78.68	167.17	164.40	81.39	238.81	229.96	207.41	109.05
95th-Percentile Queue Length [veh/ln]	5.66	10.93	10.78	5.86	14.62	14.17	13.02	7.79
95th-Percentile Queue Length [ft/ln]	141.62	273.19	269.54	146.51	365.53	354.31	325.50	194.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	66.04	28.23	28.26	51.48	27.59	27.68	36.20	36.20	36.20	30.10	30.10	30.10
Movement LOS	E	C	C	D	C	C	D	D	D	C	C	C
Critical Movement	Yes	No	No	No	No	No	No	No	No	No	No	No
d_A, Approach Delay [s/veh]	32.93			30.21			36.20			30.10		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	31.92											
Intersection LOS	C											
Intersection V/C	0.624											

APPENDIX D – SIGNAL WARRANT ANALYSIS

Peak Hour Signal Warrant Analysis #4. Mapes Rd/Menifee Rd

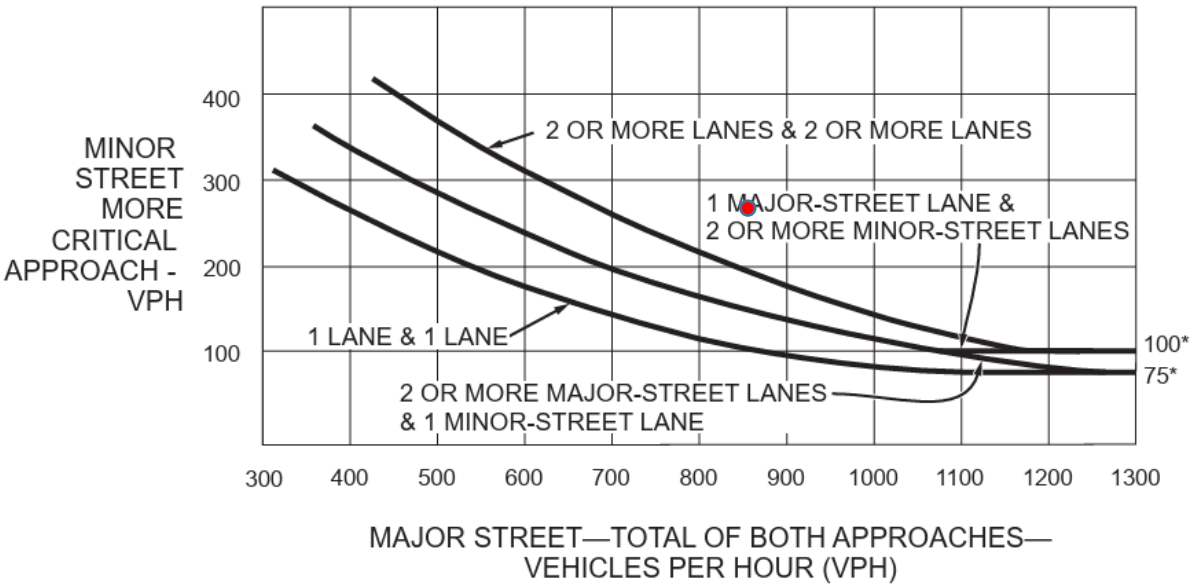
Cumulative Year (2027) (Existing + Ambient Growth + Project + Cumulative Projects) Traffic Conditions AM/PM Peak Hour *(Warrant Met)*

Warrant 3: MUTCD Guidance: *The need for a traffic control signal shall be considered if an engineering study finds that the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-4 for the existing combination of approach lanes.*

- **For the AM peak hour, 849 vehicles (major street – total of both approaches) and 286 vehicles (minor street – higher volume approach) would utilize the intersection. As shown in Figure 4C-4 – Warrant 3, Peak Hour (AM), the volume corresponding point falls above the threshold curve. Therefore, this criteria is met.**
- **For the PM peak hour, 902 vehicles (major street – total of both approaches) and 225 vehicles (minor street – higher volume approach) would utilize the intersection. As shown in Figure 4C-4 – Warrant 3, Peak Hour (PM), the volume corresponding point falls above the threshold curve. Therefore, this criteria is met.**

Figure 4C-4. Warrant 3, Peak Hour (70% Factor) (AM)

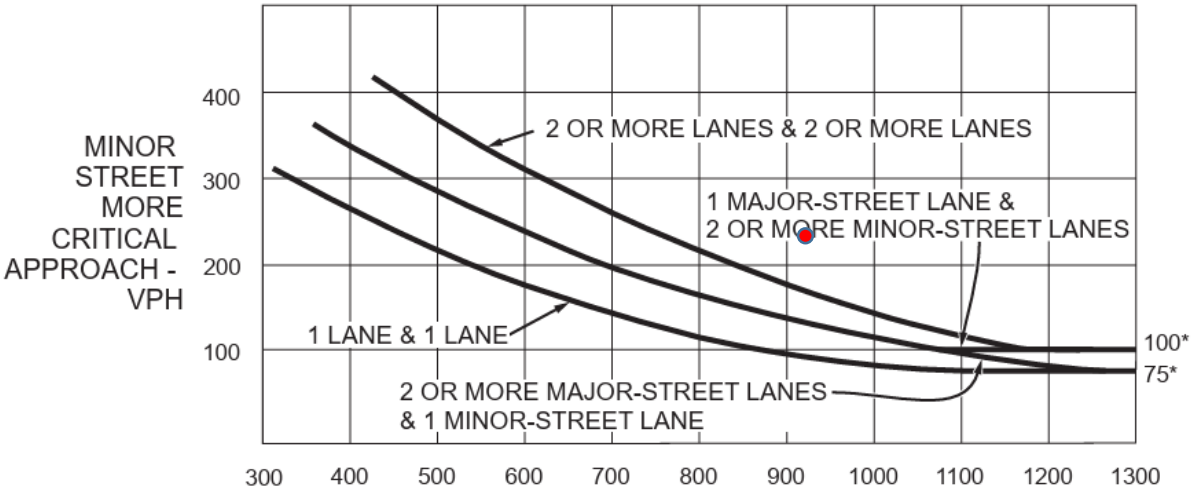
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*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

Figure 4C-4. Warrant 3, Peak Hour (70% Factor) (PM)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



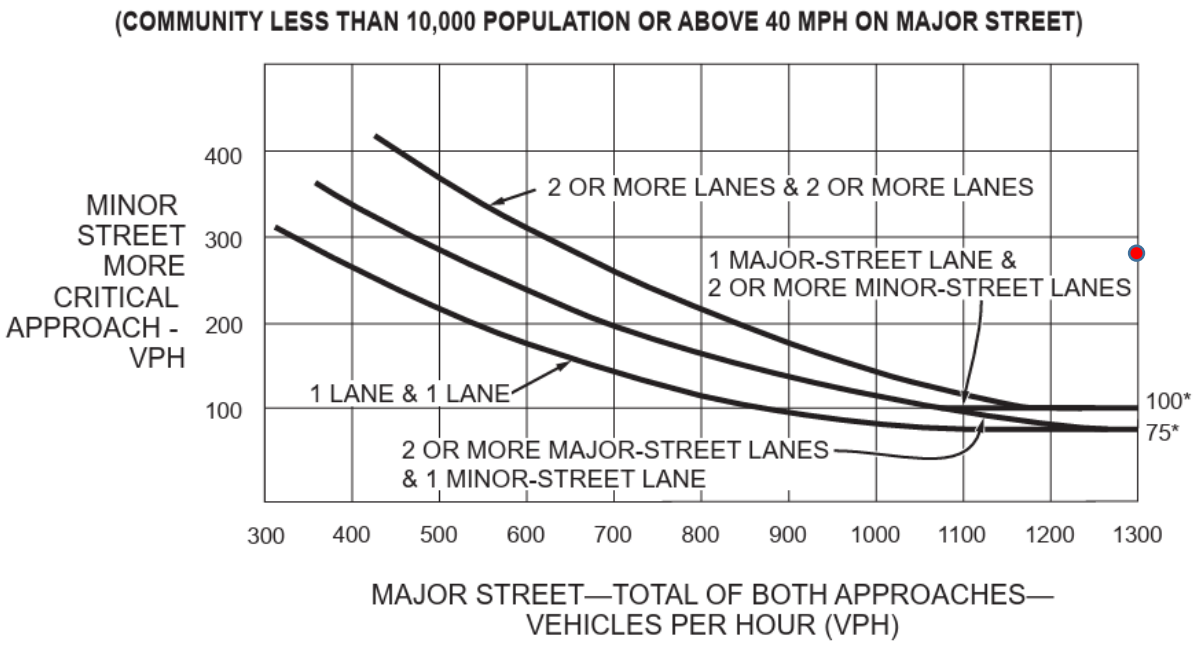
*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane

General Plan 2045 Conditions AM/PM Peak Hour *(Warrant Met)*

Warrant 3: MUTCD Guidance: *The need for a traffic control signal shall be considered if an engineering study finds that the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-4 for the existing combination of approach lanes.*

- **For the AM peak hour, 2,257 vehicles (major street – total of both approaches) and 285 vehicles (minor street – higher volume approach) would utilize the intersection. As shown in Figure 4C-4 – Warrant 3, Peak Hour (AM), the volume corresponding point falls above the threshold curve. Therefore, this criteria is met.**
- **For the PM peak hour, 1,688 vehicles (major street – total of both approaches) and 305 vehicles (minor street – higher volume approach) would utilize the intersection. As shown in Figure 4C-4 – Warrant 3, Peak Hour (PM), the volume corresponding point falls above the threshold curve. Therefore, this criteria is met.**

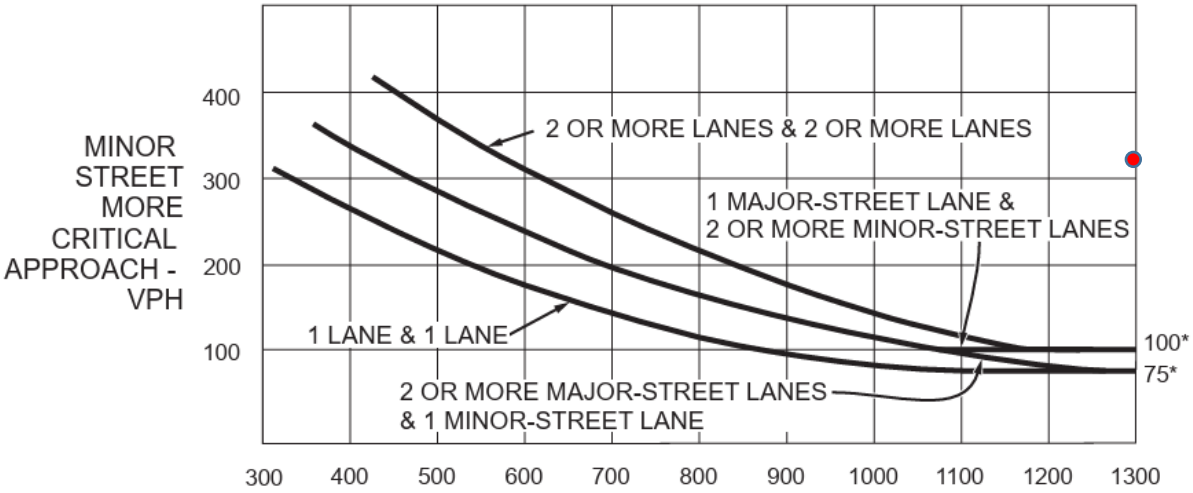
Figure 4C-4. Warrant 3, Peak Hour (70% Factor) (AM)



*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

Figure 4C-4. Warrant 3, Peak Hour (70% Factor) (PM)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



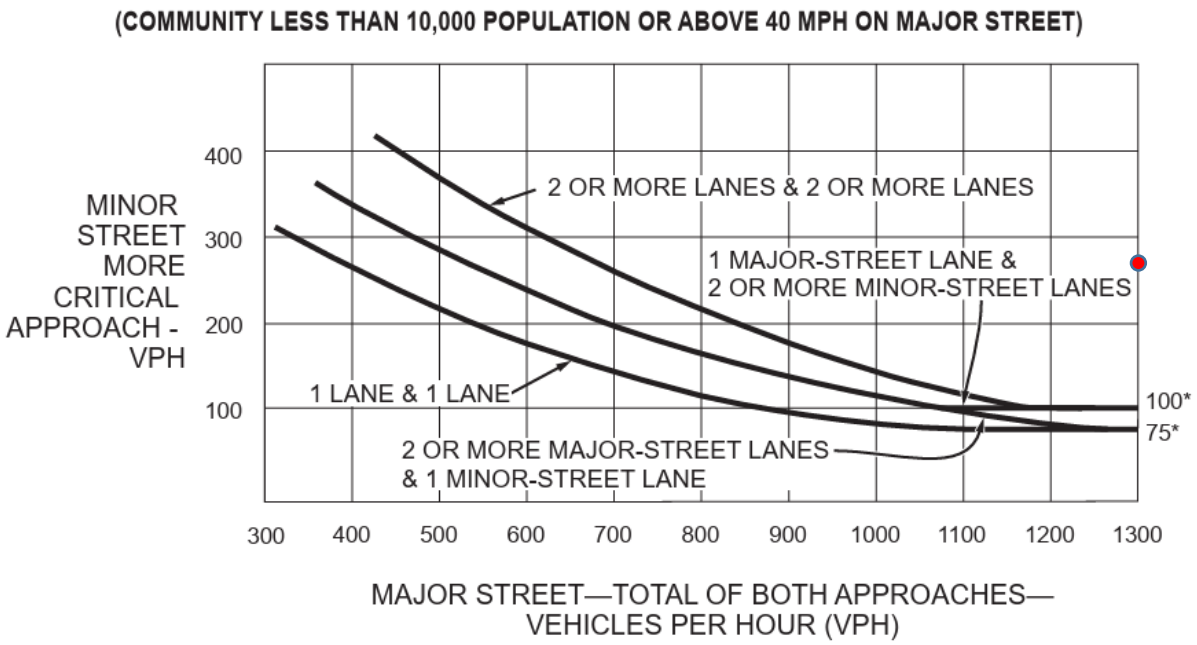
*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane

General Plan (2045) With Project Conditions AM/PM Peak Hour *(Warrant Met)*

Warrant 3: MUTCD Guidance: *The need for a traffic control signal shall be considered if an engineering study finds that the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-4 for the existing combination of approach lanes.*

- **For the AM peak hour, 2,259 vehicles (major street – total of both approaches) and 287 vehicles (minor street – higher volume approach) would utilize the intersection. As shown in Figure 4C-4 – Warrant 3, Peak Hour (AM), the volume corresponding point falls above the threshold curve. Therefore, this criteria is met.**
- **For the PM peak hour, 1,693 vehicles (major street – total of both approaches) and 311 vehicles (minor street – higher volume approach) would utilize the intersection. As shown in Figure 4C-4 – Warrant 3, Peak Hour (PM), the volume corresponding point falls above the threshold curve. Therefore, this criteria is met.**

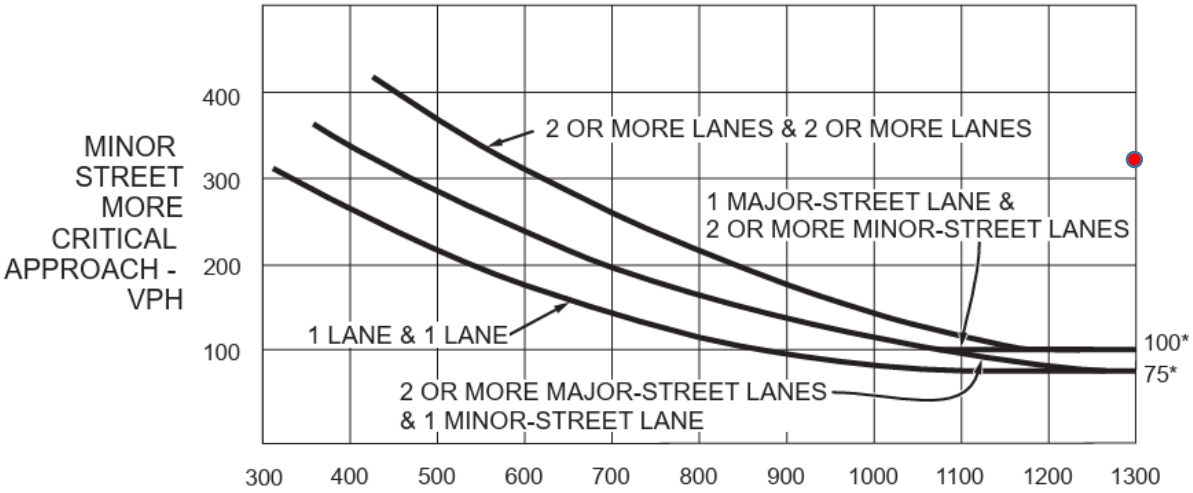
Figure 4C-4. Warrant 3, Peak Hour (70% Factor) (AM)



*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

Figure 4C-4. Warrant 3, Peak Hour (70% Factor) (PM)

(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

Signal Warrants Report For Intersection 1: Antelope Rd/Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	194	86	193	122
2	188	83	187	118
3	184	82	183	116
4	173	77	172	109
5	153	68	152	96
6	151	67	151	95
7	149	66	149	94
8	136	60	135	85
9	134	59	133	84
10	132	58	131	83
11	114	51	114	72
12	107	47	106	67
13	105	46	104	66
14	78	34	77	49
15	78	34	77	49
16	54	24	54	34
17	31	14	31	20
18	31	14	31	20
19	17	8	17	11
20	10	4	10	6
21	6	3	6	4
22	2	1	2	1
23	2	1	2	1
24	2	1	2	1

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	280	1	193	No	No	No	Yes	No	No	No	No	No	No
2	1	271	1	187	No	No	No	No	No	No	No	No	No	No
3	1	266	1	183	No	No	No	No	No	No	No	No	No	No
4	1	250	1	172	No	No	No	No	No	No	No	No	No	No
5	1	221	1	152	No	No	No	No	No	No	No	No	No	No
6	1	218	1	151	No	No	No	No	No	No	No	No	No	No
7	1	215	1	149	No	No	No	No	No	No	No	No	No	No
8	1	196	1	135	No	No	No	No	No	No	No	No	No	No
9	1	193	1	133	No	No	No	No	No	No	No	No	No	No
10	1	190	1	131	No	No	No	No	No	No	No	No	No	No
11	1	165	1	114	No	No	No	No	No	No	No	No	No	No
12	1	154	1	106	No	No	No	No	No	No	No	No	No	No
13	1	151	1	104	No	No	No	No	No	No	No	No	No	No
14	1	112	1	77	No	No	No	No	No	No	No	No	No	No
15	1	112	1	77	No	No	No	No	No	No	No	No	No	No
16	1	78	1	54	No	No	No	No	No	No	No	No	No	No
17	1	45	1	31	No	No	No	No	No	No	No	No	No	No
18	1	45	1	31	No	No	No	No	No	No	No	No	No	No
19	1	25	1	17	No	No	No	No	No	No	No	No	No	No
20	1	14	1	10	No	No	No	No	No	No	No	No	No	No
21	1	9	1	6	No	No	No	No	No	No	No	No	No	No
22	1	3	1	2	No	No	No	No	No	No	No	No	No	No
23	1	3	1	2	No	No	No	No	No	No	No	No	No	No
24	1	3	1	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	1	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.5	10
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:33	0:20
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	193	122
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	595	595
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Tradewinds Dr/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	182	104	9	4
2	177	101	9	4
3	173	99	9	4
4	162	93	8	4
5	144	82	7	3
6	142	81	7	3
7	140	80	7	3
8	127	73	6	3
9	126	72	6	3
10	124	71	6	3
11	107	61	5	2
12	100	57	5	2
13	98	56	5	2
14	73	42	4	2
15	73	42	4	2
16	51	29	3	1
17	29	17	1	1
18	29	17	1	1
19	16	9	1	0
20	9	5	0	0
21	5	3	0	0
22	2	1	0	0
23	2	1	0	0
24	2	1	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	286	1	9	No	No	No	No	No	No	No	No	No	No
2	1	278	1	9	No	No	No	No	No	No	No	No	No	No
3	1	272	1	9	No	No	No	No	No	No	No	No	No	No
4	1	255	1	8	No	No	No	No	No	No	No	No	No	No
5	1	226	1	7	No	No	No	No	No	No	No	No	No	No
6	1	223	1	7	No	No	No	No	No	No	No	No	No	No
7	1	220	1	7	No	No	No	No	No	No	No	No	No	No
8	1	200	1	6	No	No	No	No	No	No	No	No	No	No
9	1	198	1	6	No	No	No	No	No	No	No	No	No	No
10	1	195	1	6	No	No	No	No	No	No	No	No	No	No
11	1	168	1	5	No	No	No	No	No	No	No	No	No	No
12	1	157	1	5	No	No	No	No	No	No	No	No	No	No
13	1	154	1	5	No	No	No	No	No	No	No	No	No	No
14	1	115	1	4	No	No	No	No	No	No	No	No	No	No
15	1	115	1	4	No	No	No	No	No	No	No	No	No	No
16	1	80	1	3	No	No	No	No	No	No	No	No	No	No
17	1	46	1	1	No	No	No	No	No	No	No	No	No	No
18	1	46	1	1	No	No	No	No	No	No	No	No	No	No
19	1	25	1	1	No	No	No	No	No	No	No	No	No	No
20	1	14	1	0	No	No	No	No	No	No	No	No	No	No
21	1	8	1	0	No	No	No	No	No	No	No	No	No	No
22	1	3	1	0	No	No	No	No	No	No	No	No	No	No
23	1	3	1	0	No	No	No	No	No	No	No	No	No	No
24	1	3	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.4	11.2
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:01	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	9	4
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	299	299
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 3: Palomar Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	190	101	1	42
2	184	98	1	41
3	181	96	1	40
4	169	90	1	37
5	150	80	1	33
6	148	79	1	33
7	146	78	1	32
8	133	71	1	29
9	131	70	1	29
10	129	69	1	29
11	112	60	1	25
12	105	56	1	23
13	103	55	1	23
14	76	40	0	17
15	76	40	0	17
16	53	28	0	12
17	30	16	0	7
18	30	16	0	7
19	17	9	0	4
20	10	5	0	2
21	6	3	0	1
22	2	1	0	0
23	2	1	0	0
24	2	1	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	291	1	42	No	No	No	No	No	No	No	No	No	No
2	1	282	1	41	No	No	No	No	No	No	No	No	No	No
3	1	277	1	40	No	No	No	No	No	No	No	No	No	No
4	1	259	1	37	No	No	No	No	No	No	No	No	No	No
5	1	230	1	33	No	No	No	No	No	No	No	No	No	No
6	1	227	1	33	No	No	No	No	No	No	No	No	No	No
7	1	224	1	32	No	No	No	No	No	No	No	No	No	No
8	1	204	1	29	No	No	No	No	No	No	No	No	No	No
9	1	201	1	29	No	No	No	No	No	No	No	No	No	No
10	1	198	1	29	No	No	No	No	No	No	No	No	No	No
11	1	172	1	25	No	No	No	No	No	No	No	No	No	No
12	1	161	1	23	No	No	No	No	No	No	No	No	No	No
13	1	158	1	23	No	No	No	No	No	No	No	No	No	No
14	1	116	1	17	No	No	No	No	No	No	No	No	No	No
15	1	116	1	17	No	No	No	No	No	No	No	No	No	No
16	1	81	1	12	No	No	No	No	No	No	No	No	No	No
17	1	46	1	7	No	No	No	No	No	No	No	No	No	No
18	1	46	1	7	No	No	No	No	No	No	No	No	No	No
19	1	26	1	4	No	No	No	No	No	No	No	No	No	No
20	1	15	1	2	No	No	No	No	No	No	No	No	No	No
21	1	9	1	1	No	No	No	No	No	No	No	No	No	No
22	1	3	1	0	No	No	No	No	No	No	No	No	No	No
23	1	3	1	0	No	No	No	No	No	No	No	No	No	No
24	1	3	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	11.9	9.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:06
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	1	42
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	334	334
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 4: Menifee Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	231	514	259	116
2	224	499	251	113
3	219	488	246	110
4	206	457	231	103
5	182	406	205	92
6	180	401	202	90
7	178	396	199	89
8	162	360	181	81
9	159	355	179	80
10	157	350	176	79
11	136	303	153	68
12	127	283	142	64
13	125	278	140	63
14	92	206	104	46
15	92	206	104	46
16	65	144	73	32
17	37	82	41	19
18	37	82	41	19
19	21	46	23	10
20	12	26	13	6
21	7	15	8	3
22	2	5	3	1
23	2	5	3	1
24	2	5	3	1

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	745	1	259	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
2	2	723	1	251	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
3	2	707	1	246	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes
4	2	663	1	231	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes
5	2	588	1	205	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
6	2	581	1	202	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
7	2	574	1	199	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
8	2	522	1	181	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
9	2	514	1	179	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
10	2	507	1	176	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
11	2	439	1	153	No	No	Yes	Yes	No	No	No	No	No	No
12	2	410	1	142	No	No	No	Yes	No	No	No	No	No	No
13	2	403	1	140	No	No	No	Yes	No	No	No	No	No	No
14	2	298	1	104	No	No	No	No	No	No	No	No	No	No
15	2	298	1	104	No	No	No	No	No	No	No	No	No	No
16	2	209	1	73	No	No	No	No	No	No	No	No	No	No
17	2	119	1	41	No	No	No	No	No	No	No	No	No	No
18	2	119	1	41	No	No	No	No	No	No	No	No	No	No
19	2	67	1	23	No	No	No	No	No	No	No	No	No	No
20	2	38	1	13	No	No	No	No	No	No	No	No	No	No
21	2	22	1	8	No	No	No	No	No	No	No	No	No	No
22	2	7	1	3	No	No	No	No	No	No	No	No	No	No
23	2	7	1	3	No	No	No	No	No	No	No	No	No	No
24	2	7	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					4	10	11	13	0	2	4	10	10	4

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	19.5	13.5
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	1:24	0:26
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	259	116
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	1120	1120
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 5: Tradewinds Dr/Project Driveway 1

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	5	2	0	3
2	5	2	0	3
3	5	2	0	3
4	4	2	0	3
5	4	2	0	2
6	4	2	0	2
7	4	2	0	2
8	4	1	0	2
9	3	1	0	2
10	3	1	0	2
11	3	1	0	2
12	3	1	0	2
13	3	1	0	2
14	2	1	0	1
15	2	1	0	1
16	1	1	0	1
17	1	0	0	0
18	1	0	0	0
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	7	1	3	No	No	No	No	No	No	No	No	No	No
2	1	7	1	3	No	No	No	No	No	No	No	No	No	No
3	1	7	1	3	No	No	No	No	No	No	No	No	No	No
4	1	6	1	3	No	No	No	No	No	No	No	No	No	No
5	1	6	1	2	No	No	No	No	No	No	No	No	No	No
6	1	6	1	2	No	No	No	No	No	No	No	No	No	No
7	1	6	1	2	No	No	No	No	No	No	No	No	No	No
8	1	5	1	2	No	No	No	No	No	No	No	No	No	No
9	1	4	1	2	No	No	No	No	No	No	No	No	No	No
10	1	4	1	2	No	No	No	No	No	No	No	No	No	No
11	1	4	1	2	No	No	No	No	No	No	No	No	No	No
12	1	4	1	2	No	No	No	No	No	No	No	No	No	No
13	1	4	1	2	No	No	No	No	No	No	No	No	No	No
14	1	3	1	1	No	No	No	No	No	No	No	No	No	No
15	1	3	1	1	No	No	No	No	No	No	No	No	No	No
16	1	2	1	1	No	No	No	No	No	No	No	No	No	No
17	1	1	1	0	No	No	No	No	No	No	No	No	No	No
18	1	1	1	0	No	No	No	No	No	No	No	No	No	No
19	1	0	1	0	No	No	No	No	No	No	No	No	No	No
20	1	0	1	0	No	No	No	No	No	No	No	No	No	No
21	1	0	1	0	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.7	8.4
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	0	3
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	10	10
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 6: Palomar Rd/ Project Driveway 2

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	1	1	0
2	1	1	0
3	1	1	0
4	1	1	0
5	1	1	0
6	1	1	0
7	1	1	0
8	1	1	0
9	1	1	0
10	1	1	0
11	1	1	0
12	1	1	0
13	1	1	0
14	0	0	0
15	0	0	0
16	0	0	0
17	0	0	0
18	0	0	0
19	0	0	0
20	0	0	0
21	0	0	0
22	0	0	0
23	0	0	0
24	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	2	1	0	No	No	No	No	No	No	No	No	No	No
2	1	2	1	0	No	No	No	No	No	No	No	No	No	No
3	1	2	1	0	No	No	No	No	No	No	No	No	No	No
4	1	2	1	0	No	No	No	No	No	No	No	No	No	No
5	1	2	1	0	No	No	No	No	No	No	No	No	No	No
6	1	2	1	0	No	No	No	No	No	No	No	No	No	No
7	1	2	1	0	No	No	No	No	No	No	No	No	No	No
8	1	2	1	0	No	No	No	No	No	No	No	No	No	No
9	1	2	1	0	No	No	No	No	No	No	No	No	No	No
10	1	2	1	0	No	No	No	No	No	No	No	No	No	No
11	1	2	1	0	No	No	No	No	No	No	No	No	No	No
12	1	2	1	0	No	No	No	No	No	No	No	No	No	No
13	1	2	1	0	No	No	No	No	No	No	No	No	No	No
14	1	0	1	0	No	No	No	No	No	No	No	No	No	No
15	1	0	1	0	No	No	No	No	No	No	No	No	No	No
16	1	0	1	0	No	No	No	No	No	No	No	No	No	No
17	1	0	1	0	No	No	No	No	No	No	No	No	No	No
18	1	0	1	0	No	No	No	No	No	No	No	No	No	No
19	1	0	1	0	No	No	No	No	No	No	No	No	No	No
20	1	0	1	0	No	No	No	No	No	No	No	No	No	No
21	1	0	1	0	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.4
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	2
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 1: Antelope Rd/Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	172	85	137	161
2	167	82	133	156
3	163	81	130	153
4	153	76	122	143
5	136	67	108	127
6	134	66	107	126
7	132	65	105	124
8	120	59	96	113
9	119	59	95	111
10	117	58	93	109
11	101	50	81	95
12	95	47	75	89
13	93	46	74	87
14	69	34	55	64
15	69	34	55	64
16	48	24	38	45
17	28	14	22	26
18	28	14	22	26
19	15	8	12	14
20	9	4	7	8
21	5	3	4	5
22	2	1	1	2
23	2	1	1	2
24	2	1	1	2

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	257	1	161	No	No	No	No	No	No	No	No	No	No
2	1	249	1	156	No	No	No	No	No	No	No	No	No	No
3	1	244	1	153	No	No	No	No	No	No	No	No	No	No
4	1	229	1	143	No	No	No	No	No	No	No	No	No	No
5	1	203	1	127	No	No	No	No	No	No	No	No	No	No
6	1	200	1	126	No	No	No	No	No	No	No	No	No	No
7	1	197	1	124	No	No	No	No	No	No	No	No	No	No
8	1	179	1	113	No	No	No	No	No	No	No	No	No	No
9	1	178	1	111	No	No	No	No	No	No	No	No	No	No
10	1	175	1	109	No	No	No	No	No	No	No	No	No	No
11	1	151	1	95	No	No	No	No	No	No	No	No	No	No
12	1	142	1	89	No	No	No	No	No	No	No	No	No	No
13	1	139	1	87	No	No	No	No	No	No	No	No	No	No
14	1	103	1	64	No	No	No	No	No	No	No	No	No	No
15	1	103	1	64	No	No	No	No	No	No	No	No	No	No
16	1	72	1	45	No	No	No	No	No	No	No	No	No	No
17	1	42	1	26	No	No	No	No	No	No	No	No	No	No
18	1	42	1	26	No	No	No	No	No	No	No	No	No	No
19	1	23	1	14	No	No	No	No	No	No	No	No	No	No
20	1	13	1	8	No	No	No	No	No	No	No	No	No	No
21	1	8	1	5	No	No	No	No	No	No	No	No	No	No
22	1	3	1	2	No	No	No	No	No	No	No	No	No	No
23	1	3	1	2	No	No	No	No	No	No	No	No	No	No
24	1	3	1	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.5	9.9
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:21	0:26
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	137	161
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	555	555
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Tradewinds Dr/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	146	104	5	13
2	142	101	5	13
3	139	99	5	12
4	130	93	4	12
5	115	82	4	10
6	114	81	4	10
7	112	80	4	10
8	102	73	4	9
9	101	72	3	9
10	99	71	3	9
11	86	61	3	8
12	80	57	3	7
13	79	56	3	7
14	58	42	2	5
15	58	42	2	5
16	41	29	1	4
17	23	17	1	2
18	23	17	1	2
19	13	9	0	1
20	7	5	0	1
21	4	3	0	0
22	1	1	0	0
23	1	1	0	0
24	1	1	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	250	1	13	No	No	No	No	No	No	No	No	No	No
2	1	243	1	13	No	No	No	No	No	No	No	No	No	No
3	1	238	1	12	No	No	No	No	No	No	No	No	No	No
4	1	223	1	12	No	No	No	No	No	No	No	No	No	No
5	1	197	1	10	No	No	No	No	No	No	No	No	No	No
6	1	195	1	10	No	No	No	No	No	No	No	No	No	No
7	1	192	1	10	No	No	No	No	No	No	No	No	No	No
8	1	175	1	9	No	No	No	No	No	No	No	No	No	No
9	1	173	1	9	No	No	No	No	No	No	No	No	No	No
10	1	170	1	9	No	No	No	No	No	No	No	No	No	No
11	1	147	1	8	No	No	No	No	No	No	No	No	No	No
12	1	137	1	7	No	No	No	No	No	No	No	No	No	No
13	1	135	1	7	No	No	No	No	No	No	No	No	No	No
14	1	100	1	5	No	No	No	No	No	No	No	No	No	No
15	1	100	1	5	No	No	No	No	No	No	No	No	No	No
16	1	70	1	4	No	No	No	No	No	No	No	No	No	No
17	1	40	1	2	No	No	No	No	No	No	No	No	No	No
18	1	40	1	2	No	No	No	No	No	No	No	No	No	No
19	1	22	1	1	No	No	No	No	No	No	No	No	No	No
20	1	12	1	1	No	No	No	No	No	No	No	No	No	No
21	1	7	1	0	No	No	No	No	No	No	No	No	No	No
22	1	2	1	0	No	No	No	No	No	No	No	No	No	No
23	1	2	1	0	No	No	No	No	No	No	No	No	No	No
24	1	2	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.4	10.2
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:02
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	5	13
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	268	268
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 3: Palomar Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	157	108	4	62
2	152	105	4	60
3	149	103	4	59
4	140	96	4	55
5	124	85	3	49
6	122	84	3	48
7	121	83	3	48
8	110	76	3	43
9	108	75	3	43
10	107	73	3	42
11	93	64	2	37
12	86	59	2	34
13	85	58	2	33
14	63	43	2	25
15	63	43	2	25
16	44	30	1	17
17	25	17	1	10
18	25	17	1	10
19	14	10	0	6
20	8	5	0	3
21	5	3	0	2
22	2	1	0	1
23	2	1	0	1
24	2	1	0	1

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	265	1	62	No	No	No	No	No	No	No	No	No	No
2	1	257	1	60	No	No	No	No	No	No	No	No	No	No
3	1	252	1	59	No	No	No	No	No	No	No	No	No	No
4	1	236	1	55	No	No	No	No	No	No	No	No	No	No
5	1	209	1	49	No	No	No	No	No	No	No	No	No	No
6	1	206	1	48	No	No	No	No	No	No	No	No	No	No
7	1	204	1	48	No	No	No	No	No	No	No	No	No	No
8	1	186	1	43	No	No	No	No	No	No	No	No	No	No
9	1	183	1	43	No	No	No	No	No	No	No	No	No	No
10	1	180	1	42	No	No	No	No	No	No	No	No	No	No
11	1	157	1	37	No	No	No	No	No	No	No	No	No	No
12	1	145	1	34	No	No	No	No	No	No	No	No	No	No
13	1	143	1	33	No	No	No	No	No	No	No	No	No	No
14	1	106	1	25	No	No	No	No	No	No	No	No	No	No
15	1	106	1	25	No	No	No	No	No	No	No	No	No	No
16	1	74	1	17	No	No	No	No	No	No	No	No	No	No
17	1	42	1	10	No	No	No	No	No	No	No	No	No	No
18	1	42	1	10	No	No	No	No	No	No	No	No	No	No
19	1	24	1	6	No	No	No	No	No	No	No	No	No	No
20	1	13	1	3	No	No	No	No	No	No	No	No	No	No
21	1	8	1	2	No	No	No	No	No	No	No	No	No	No
22	1	3	1	1	No	No	No	No	No	No	No	No	No	No
23	1	3	1	1	No	No	No	No	No	No	No	No	No	No
24	1	3	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	12.2	9.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:09
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	4	62
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	331	331
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 4: Menifee Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	268	497	153	154
2	260	482	148	149
3	255	472	145	146
4	239	442	136	137
5	212	393	121	122
6	209	388	119	120
7	206	383	118	119
8	188	348	107	108
9	185	343	106	106
10	182	338	104	105
11	158	293	90	91
12	147	273	84	85
13	145	268	83	83
14	107	199	61	62
15	107	199	61	62
16	75	139	43	43
17	43	80	24	25
18	43	80	24	25
19	24	45	14	14
20	13	25	8	8
21	8	15	5	5
22	3	5	2	2
23	3	5	2	2
24	3	5	2	2

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	765	1	154	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No
2	2	742	1	149	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No
3	2	727	1	146	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No
4	2	681	1	137	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No
5	2	605	1	122	No	Yes	Yes	Yes	No	No	No	Yes	No	No
6	2	597	1	120	No	Yes	Yes	Yes	No	No	No	Yes	No	No
7	2	589	1	119	No	No	Yes	Yes	No	No	No	Yes	No	No
8	2	536	1	108	No	No	Yes	Yes	No	No	No	Yes	No	No
9	2	528	1	106	No	No	Yes	Yes	No	No	No	Yes	No	No
10	2	520	1	105	No	No	Yes	Yes	No	No	No	Yes	No	No
11	2	451	1	91	No	No	No	Yes	No	No	No	No	No	No
12	2	420	1	85	No	No	No	Yes	No	No	No	No	No	No
13	2	413	1	83	No	No	No	No	No	No	No	No	No	No
14	2	306	1	62	No	No	No	No	No	No	No	No	No	No
15	2	306	1	62	No	No	No	No	No	No	No	No	No	No
16	2	214	1	43	No	No	No	No	No	No	No	No	No	No
17	2	123	1	25	No	No	No	No	No	No	No	No	No	No
18	2	123	1	25	No	No	No	No	No	No	No	No	No	No
19	2	69	1	14	No	No	No	No	No	No	No	No	No	No
20	2	38	1	8	No	No	No	No	No	No	No	No	No	No
21	2	23	1	5	No	No	No	No	No	No	No	No	No	No
22	2	8	1	2	No	No	No	No	No	No	No	No	No	No
23	2	8	1	2	No	No	No	No	No	No	No	No	No	No
24	2	8	1	2	No	No	No	No	No	No	No	No	No	No
Hours Met					1	6	10	12	0	3	4	10	4	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	11.7	13.1
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:29	0:33
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	153	154
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	1072	1072
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 5: Tradewinds Dr/Project Driveway 1

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	1	12	0	4
2	1	12	0	4
3	1	11	0	4
4	1	11	0	4
5	1	9	0	3
6	1	9	0	3
7	1	9	0	3
8	1	8	0	3
9	1	8	0	3
10	1	8	0	3
11	1	7	0	2
12	1	7	0	2
13	1	6	0	2
14	0	5	0	2
15	0	5	0	2
16	0	3	0	1
17	0	2	0	1
18	0	2	0	1
19	0	1	0	0
20	0	1	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	13	1	4	No	No	No	No	No	No	No	No	No	No
2	1	13	1	4	No	No	No	No	No	No	No	No	No	No
3	1	12	1	4	No	No	No	No	No	No	No	No	No	No
4	1	12	1	4	No	No	No	No	No	No	No	No	No	No
5	1	10	1	3	No	No	No	No	No	No	No	No	No	No
6	1	10	1	3	No	No	No	No	No	No	No	No	No	No
7	1	10	1	3	No	No	No	No	No	No	No	No	No	No
8	1	9	1	3	No	No	No	No	No	No	No	No	No	No
9	1	9	1	3	No	No	No	No	No	No	No	No	No	No
10	1	9	1	3	No	No	No	No	No	No	No	No	No	No
11	1	8	1	2	No	No	No	No	No	No	No	No	No	No
12	1	8	1	2	No	No	No	No	No	No	No	No	No	No
13	1	7	1	2	No	No	No	No	No	No	No	No	No	No
14	1	5	1	2	No	No	No	No	No	No	No	No	No	No
15	1	5	1	2	No	No	No	No	No	No	No	No	No	No
16	1	3	1	1	No	No	No	No	No	No	No	No	No	No
17	1	2	1	1	No	No	No	No	No	No	No	No	No	No
18	1	2	1	1	No	No	No	No	No	No	No	No	No	No
19	1	1	1	0	No	No	No	No	No	No	No	No	No	No
20	1	1	1	0	No	No	No	No	No	No	No	No	No	No
21	1	0	1	0	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.9	8.3
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	0	4
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	17	17
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 6: Palomar Rd/ Project Driveway 2

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
5	0	0	0
6	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	0	0	0
11	0	0	0
12	0	0	0
13	0	0	0
14	0	0	0
15	0	0	0
16	0	0	0
17	0	0	0
18	0	0	0
19	0	0	0
20	0	0	0
21	0	0	0
22	0	0	0
23	0	0	0
24	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	0	1	0	No	No	No	No	No	No	No	No	No	No
2	1	0	1	0	No	No	No	No	No	No	No	No	No	No
3	1	0	1	0	No	No	No	No	No	No	No	No	No	No
4	1	0	1	0	No	No	No	No	No	No	No	No	No	No
5	1	0	1	0	No	No	No	No	No	No	No	No	No	No
6	1	0	1	0	No	No	No	No	No	No	No	No	No	No
7	1	0	1	0	No	No	No	No	No	No	No	No	No	No
8	1	0	1	0	No	No	No	No	No	No	No	No	No	No
9	1	0	1	0	No	No	No	No	No	No	No	No	No	No
10	1	0	1	0	No	No	No	No	No	No	No	No	No	No
11	1	0	1	0	No	No	No	No	No	No	No	No	No	No
12	1	0	1	0	No	No	No	No	No	No	No	No	No	No
13	1	0	1	0	No	No	No	No	No	No	No	No	No	No
14	1	0	1	0	No	No	No	No	No	No	No	No	No	No
15	1	0	1	0	No	No	No	No	No	No	No	No	No	No
16	1	0	1	0	No	No	No	No	No	No	No	No	No	No
17	1	0	1	0	No	No	No	No	No	No	No	No	No	No
18	1	0	1	0	No	No	No	No	No	No	No	No	No	No
19	1	0	1	0	No	No	No	No	No	No	No	No	No	No
20	1	0	1	0	No	No	No	No	No	No	No	No	No	No
21	1	0	1	0	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	0
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 1: Antelope Rd/Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	199	98	248	133
2	193	95	241	129
3	189	93	236	126
4	177	87	221	118
5	157	77	196	105
6	155	76	193	104
7	153	75	191	102
8	139	69	174	93
9	137	68	171	92
10	135	67	169	90
11	117	58	146	78
12	109	54	136	73
13	107	53	134	72
14	80	39	99	53
15	80	39	99	53
16	56	27	69	37
17	32	16	40	21
18	32	16	40	21
19	18	9	22	12
20	10	5	12	7
21	6	3	7	4
22	2	1	2	1
23	2	1	2	1
24	2	1	2	1

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	297	1	248	No	No	No	Yes	No	No	No	No	No	No
2	1	288	1	241	No	No	No	Yes	No	No	No	No	No	No
3	1	282	1	236	No	No	No	Yes	No	No	No	No	No	No
4	1	264	1	221	No	No	No	No	No	No	No	No	No	No
5	1	234	1	196	No	No	No	No	No	No	No	No	No	No
6	1	231	1	193	No	No	No	No	No	No	No	No	No	No
7	1	228	1	191	No	No	No	No	No	No	No	No	No	No
8	1	208	1	174	No	No	No	No	No	No	No	No	No	No
9	1	205	1	171	No	No	No	No	No	No	No	No	No	No
10	1	202	1	169	No	No	No	No	No	No	No	No	No	No
11	1	175	1	146	No	No	No	No	No	No	No	No	No	No
12	1	163	1	136	No	No	No	No	No	No	No	No	No	No
13	1	160	1	134	No	No	No	No	No	No	No	No	No	No
14	1	119	1	99	No	No	No	No	No	No	No	No	No	No
15	1	119	1	99	No	No	No	No	No	No	No	No	No	No
16	1	83	1	69	No	No	No	No	No	No	No	No	No	No
17	1	48	1	40	No	No	No	No	No	No	No	No	No	No
18	1	48	1	40	No	No	No	No	No	No	No	No	No	No
19	1	27	1	22	No	No	No	No	No	No	No	No	No	No
20	1	15	1	12	No	No	No	No	No	No	No	No	No	No
21	1	9	1	7	No	No	No	No	No	No	No	No	No	No
22	1	3	1	2	No	No	No	No	No	No	No	No	No	No
23	1	3	1	2	No	No	No	No	No	No	No	No	No	No
24	1	3	1	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	3	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	12.2	10.6
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:50	0:23
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	248	133
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	678	678
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Tradewinds Dr/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	194	127	53	4
2	188	123	51	4
3	184	121	50	4
4	173	113	47	4
5	153	100	42	3
6	151	99	41	3
7	149	98	41	3
8	136	89	37	3
9	134	88	37	3
10	132	86	36	3
11	114	75	31	2
12	107	70	29	2
13	105	69	29	2
14	78	51	21	2
15	78	51	21	2
16	54	36	15	1
17	31	20	8	1
18	31	20	8	1
19	17	11	5	0
20	10	6	3	0
21	6	4	2	0
22	2	1	1	0
23	2	1	1	0
24	2	1	1	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	321	1	53	No	No	No	No	No	No	No	No	No	No
2	1	311	1	51	No	No	No	No	No	No	No	No	No	No
3	1	305	1	50	No	No	No	No	No	No	No	No	No	No
4	1	286	1	47	No	No	No	No	No	No	No	No	No	No
5	1	253	1	42	No	No	No	No	No	No	No	No	No	No
6	1	250	1	41	No	No	No	No	No	No	No	No	No	No
7	1	247	1	41	No	No	No	No	No	No	No	No	No	No
8	1	225	1	37	No	No	No	No	No	No	No	No	No	No
9	1	222	1	37	No	No	No	No	No	No	No	No	No	No
10	1	218	1	36	No	No	No	No	No	No	No	No	No	No
11	1	189	1	31	No	No	No	No	No	No	No	No	No	No
12	1	177	1	29	No	No	No	No	No	No	No	No	No	No
13	1	174	1	29	No	No	No	No	No	No	No	No	No	No
14	1	129	1	21	No	No	No	No	No	No	No	No	No	No
15	1	129	1	21	No	No	No	No	No	No	No	No	No	No
16	1	90	1	15	No	No	No	No	No	No	No	No	No	No
17	1	51	1	8	No	No	No	No	No	No	No	No	No	No
18	1	51	1	8	No	No	No	No	No	No	No	No	No	No
19	1	28	1	5	No	No	No	No	No	No	No	No	No	No
20	1	16	1	3	No	No	No	No	No	No	No	No	No	No
21	1	10	1	2	No	No	No	No	No	No	No	No	No	No
22	1	3	1	1	No	No	No	No	No	No	No	No	No	No
23	1	3	1	1	No	No	No	No	No	No	No	No	No	No
24	1	3	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.2	13
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:08	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	53	4
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	378	378
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 3: Palomar Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	197	106	37	51
2	191	103	36	49
3	187	101	35	48
4	175	94	33	45
5	156	84	29	40
6	154	83	29	40
7	152	82	28	39
8	138	74	26	36
9	136	73	26	35
10	134	72	25	35
11	116	63	22	30
12	108	58	20	28
13	106	57	20	28
14	79	42	15	20
15	79	42	15	20
16	55	30	10	14
17	32	17	6	8
18	32	17	6	8
19	18	10	3	5
20	10	5	2	3
21	6	3	1	2
22	2	1	0	1
23	2	1	0	1
24	2	1	0	1

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	303	1	51	No	No	No	No	No	No	No	No	No	No
2	1	294	1	49	No	No	No	No	No	No	No	No	No	No
3	1	288	1	48	No	No	No	No	No	No	No	No	No	No
4	1	269	1	45	No	No	No	No	No	No	No	No	No	No
5	1	240	1	40	No	No	No	No	No	No	No	No	No	No
6	1	237	1	40	No	No	No	No	No	No	No	No	No	No
7	1	234	1	39	No	No	No	No	No	No	No	No	No	No
8	1	212	1	36	No	No	No	No	No	No	No	No	No	No
9	1	209	1	35	No	No	No	No	No	No	No	No	No	No
10	1	206	1	35	No	No	No	No	No	No	No	No	No	No
11	1	179	1	30	No	No	No	No	No	No	No	No	No	No
12	1	166	1	28	No	No	No	No	No	No	No	No	No	No
13	1	163	1	28	No	No	No	No	No	No	No	No	No	No
14	1	121	1	20	No	No	No	No	No	No	No	No	No	No
15	1	121	1	20	No	No	No	No	No	No	No	No	No	No
16	1	85	1	14	No	No	No	No	No	No	No	No	No	No
17	1	49	1	8	No	No	No	No	No	No	No	No	No	No
18	1	49	1	8	No	No	No	No	No	No	No	No	No	No
19	1	28	1	5	No	No	No	No	No	No	No	No	No	No
20	1	15	1	3	No	No	No	No	No	No	No	No	No	No
21	1	9	1	2	No	No	No	No	No	No	No	No	No	No
22	1	3	1	1	No	No	No	No	No	No	No	No	No	No
23	1	3	1	1	No	No	No	No	No	No	No	No	No	No
24	1	3	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	13.9	10.9
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:08	0:09
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	37	51
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	391	391
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 4: Menifee Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	236	525	266	126
2	229	509	258	122
3	224	499	253	120
4	210	467	237	112
5	186	415	210	100
6	184	410	207	98
7	182	404	205	97
8	165	368	186	88
9	163	362	184	87
10	160	357	181	86
11	139	310	157	74
12	130	289	146	69
13	127	284	144	68
14	94	210	106	50
15	94	210	106	50
16	66	147	74	35
17	38	84	43	20
18	38	84	43	20
19	21	47	24	11
20	12	26	13	6
21	7	16	8	4
22	2	5	3	1
23	2	5	3	1
24	2	5	3	1

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	761	1	266	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
2	2	738	1	258	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
3	2	723	1	253	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
4	2	677	1	237	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes
5	2	601	1	210	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No
6	2	594	1	207	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
7	2	586	1	205	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
8	2	533	1	186	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
9	2	525	1	184	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
10	2	517	1	181	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
11	2	449	1	157	No	No	Yes	Yes	No	No	No	No	No	No
12	2	419	1	146	No	No	No	Yes	No	No	No	No	No	No
13	2	411	1	144	No	No	No	Yes	No	No	No	No	No	No
14	2	304	1	106	No	No	No	No	No	No	No	No	No	No
15	2	304	1	106	No	No	No	No	No	No	No	No	No	No
16	2	213	1	74	No	No	No	No	No	No	No	No	No	No
17	2	122	1	43	No	No	No	No	No	No	No	No	No	No
18	2	122	1	43	No	No	No	No	No	No	No	No	No	No
19	2	68	1	24	No	No	No	No	No	No	No	No	No	No
20	2	38	1	13	No	No	No	No	No	No	No	No	No	No
21	2	23	1	8	No	No	No	No	No	No	No	No	No	No
22	2	7	1	3	No	No	No	No	No	No	No	No	No	No
23	2	7	1	3	No	No	No	No	No	No	No	No	No	No
24	2	7	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					5	10	11	13	0	3	4	10	10	4

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	21.5	14.4
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	1:35	0:30
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	266	126
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	1153	1153
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 5: Tradewinds Dr/Project Driveway 1

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	5	20	44	3
2	5	19	43	3
3	5	19	42	3
4	4	18	39	3
5	4	16	35	2
6	4	16	34	2
7	4	15	34	2
8	4	14	31	2
9	3	14	30	2
10	3	14	30	2
11	3	12	26	2
12	3	11	24	2
13	3	11	24	2
14	2	8	18	1
15	2	8	18	1
16	1	6	12	1
17	1	3	7	0
18	1	3	7	0
19	0	2	4	0
20	0	1	2	0
21	0	1	1	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	25	1	44	No	No	No	No	No	No	No	No	No	No
2	1	24	1	43	No	No	No	No	No	No	No	No	No	No
3	1	24	1	42	No	No	No	No	No	No	No	No	No	No
4	1	22	1	39	No	No	No	No	No	No	No	No	No	No
5	1	20	1	35	No	No	No	No	No	No	No	No	No	No
6	1	20	1	34	No	No	No	No	No	No	No	No	No	No
7	1	19	1	34	No	No	No	No	No	No	No	No	No	No
8	1	18	1	31	No	No	No	No	No	No	No	No	No	No
9	1	17	1	30	No	No	No	No	No	No	No	No	No	No
10	1	17	1	30	No	No	No	No	No	No	No	No	No	No
11	1	15	1	26	No	No	No	No	No	No	No	No	No	No
12	1	14	1	24	No	No	No	No	No	No	No	No	No	No
13	1	14	1	24	No	No	No	No	No	No	No	No	No	No
14	1	10	1	18	No	No	No	No	No	No	No	No	No	No
15	1	10	1	18	No	No	No	No	No	No	No	No	No	No
16	1	7	1	12	No	No	No	No	No	No	No	No	No	No
17	1	4	1	7	No	No	No	No	No	No	No	No	No	No
18	1	4	1	7	No	No	No	No	No	No	No	No	No	No
19	1	2	1	4	No	No	No	No	No	No	No	No	No	No
20	1	1	1	2	No	No	No	No	No	No	No	No	No	No
21	1	1	1	1	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9	8.4
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:06	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	44	3
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	72	72
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 6: Palomar Rd/ Project Driveway 2

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	1	16	36
2	1	16	35
3	1	15	34
4	1	14	32
5	1	13	28
6	1	12	28
7	1	12	28
8	1	11	25
9	1	11	25
10	1	11	24
11	1	9	21
12	1	9	20
13	1	9	19
14	0	6	14
15	0	6	14
16	0	4	10
17	0	3	6
18	0	3	6
19	0	1	3
20	0	1	2
21	0	0	1
22	0	0	0
23	0	0	0
24	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	17	1	36	No	No	No	No	No	No	No	No	No	No
2	1	17	1	35	No	No	No	No	No	No	No	No	No	No
3	1	16	1	34	No	No	No	No	No	No	No	No	No	No
4	1	15	1	32	No	No	No	No	No	No	No	No	No	No
5	1	14	1	28	No	No	No	No	No	No	No	No	No	No
6	1	13	1	28	No	No	No	No	No	No	No	No	No	No
7	1	13	1	28	No	No	No	No	No	No	No	No	No	No
8	1	12	1	25	No	No	No	No	No	No	No	No	No	No
9	1	12	1	25	No	No	No	No	No	No	No	No	No	No
10	1	12	1	24	No	No	No	No	No	No	No	No	No	No
11	1	10	1	21	No	No	No	No	No	No	No	No	No	No
12	1	10	1	20	No	No	No	No	No	No	No	No	No	No
13	1	10	1	19	No	No	No	No	No	No	No	No	No	No
14	1	6	1	14	No	No	No	No	No	No	No	No	No	No
15	1	6	1	14	No	No	No	No	No	No	No	No	No	No
16	1	4	1	10	No	No	No	No	No	No	No	No	No	No
17	1	3	1	6	No	No	No	No	No	No	No	No	No	No
18	1	3	1	6	No	No	No	No	No	No	No	No	No	No
19	1	1	1	3	No	No	No	No	No	No	No	No	No	No
20	1	1	1	2	No	No	No	No	No	No	No	No	No	No
21	1	0	1	1	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.4
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:05
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	36
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	53
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 1: Antelope Rd/Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	180	119	174	187
2	175	115	169	181
3	171	113	165	178
4	160	106	155	166
5	142	94	137	148
6	140	93	136	146
7	139	92	134	144
8	126	83	122	131
9	124	82	120	129
10	122	81	118	127
11	106	70	103	110
12	99	65	96	103
13	97	64	94	101
14	72	48	70	75
15	72	48	70	75
16	50	33	49	52
17	29	19	28	30
18	29	19	28	30
19	16	11	16	17
20	9	6	9	9
21	5	4	5	6
22	2	1	2	2
23	2	1	2	2
24	2	1	2	2

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	299	1	187	No	No	No	Yes	No	No	No	No	No	No
2	1	290	1	181	No	No	No	Yes	No	No	No	No	No	No
3	1	284	1	178	No	No	No	Yes	No	No	No	No	No	No
4	1	266	1	166	No	No	No	No	No	No	No	No	No	No
5	1	236	1	148	No	No	No	No	No	No	No	No	No	No
6	1	233	1	146	No	No	No	No	No	No	No	No	No	No
7	1	231	1	144	No	No	No	No	No	No	No	No	No	No
8	1	209	1	131	No	No	No	No	No	No	No	No	No	No
9	1	206	1	129	No	No	No	No	No	No	No	No	No	No
10	1	203	1	127	No	No	No	No	No	No	No	No	No	No
11	1	176	1	110	No	No	No	No	No	No	No	No	No	No
12	1	164	1	103	No	No	No	No	No	No	No	No	No	No
13	1	161	1	101	No	No	No	No	No	No	No	No	No	No
14	1	120	1	75	No	No	No	No	No	No	No	No	No	No
15	1	120	1	75	No	No	No	No	No	No	No	No	No	No
16	1	83	1	52	No	No	No	No	No	No	No	No	No	No
17	1	48	1	30	No	No	No	No	No	No	No	No	No	No
18	1	48	1	30	No	No	No	No	No	No	No	No	No	No
19	1	27	1	17	No	No	No	No	No	No	No	No	No	No
20	1	15	1	9	No	No	No	No	No	No	No	No	No	No
21	1	9	1	6	No	No	No	No	No	No	No	No	No	No
22	1	3	1	2	No	No	No	No	No	No	No	No	No	No
23	1	3	1	2	No	No	No	No	No	No	No	No	No	No
24	1	3	1	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	3	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.8	11.1
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:31	0:34
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	174	187
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	660	660
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Tradewinds Dr/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	155	166	34	13
2	150	161	33	13
3	147	158	32	12
4	138	148	30	12
5	122	131	27	10
6	121	129	27	10
7	119	128	26	10
8	109	116	24	9
9	107	115	23	9
10	105	113	23	9
11	91	98	20	8
12	85	91	19	7
13	84	90	18	7
14	62	66	14	5
15	62	66	14	5
16	43	46	10	4
17	25	27	5	2
18	25	27	5	2
19	14	15	3	1
20	8	8	2	1
21	5	5	1	0
22	2	2	0	0
23	2	2	0	0
24	2	2	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	321	1	34	No	No	No	No	No	No	No	No	No	No
2	1	311	1	33	No	No	No	No	No	No	No	No	No	No
3	1	305	1	32	No	No	No	No	No	No	No	No	No	No
4	1	286	1	30	No	No	No	No	No	No	No	No	No	No
5	1	253	1	27	No	No	No	No	No	No	No	No	No	No
6	1	250	1	27	No	No	No	No	No	No	No	No	No	No
7	1	247	1	26	No	No	No	No	No	No	No	No	No	No
8	1	225	1	24	No	No	No	No	No	No	No	No	No	No
9	1	222	1	23	No	No	No	No	No	No	No	No	No	No
10	1	218	1	23	No	No	No	No	No	No	No	No	No	No
11	1	189	1	20	No	No	No	No	No	No	No	No	No	No
12	1	176	1	19	No	No	No	No	No	No	No	No	No	No
13	1	174	1	18	No	No	No	No	No	No	No	No	No	No
14	1	128	1	14	No	No	No	No	No	No	No	No	No	No
15	1	128	1	14	No	No	No	No	No	No	No	No	No	No
16	1	89	1	10	No	No	No	No	No	No	No	No	No	No
17	1	52	1	5	No	No	No	No	No	No	No	No	No	No
18	1	52	1	5	No	No	No	No	No	No	No	No	No	No
19	1	29	1	3	No	No	No	No	No	No	No	No	No	No
20	1	16	1	2	No	No	No	No	No	No	No	No	No	No
21	1	10	1	1	No	No	No	No	No	No	No	No	No	No
22	1	4	1	0	No	No	No	No	No	No	No	No	No	No
23	1	4	1	0	No	No	No	No	No	No	No	No	No	No
24	1	4	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.9	11.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:05	0:02
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	34	13
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	368	368
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 3: Palomar Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	170	119	30	86
2	165	115	29	83
3	162	113	29	82
4	151	106	27	77
5	134	94	24	68
6	133	93	23	67
7	131	92	23	66
8	119	83	21	60
9	117	82	21	59
10	116	81	20	58
11	100	70	18	51
12	94	65	17	47
13	92	64	16	46
14	68	48	12	34
15	68	48	12	34
16	48	33	8	24
17	27	19	5	14
18	27	19	5	14
19	15	11	3	8
20	9	6	2	4
21	5	4	1	3
22	2	1	0	1
23	2	1	0	1
24	2	1	0	1

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	289	1	86	No	No	No	Yes	No	No	No	No	No	No
2	1	280	1	83	No	No	No	No	No	No	No	No	No	No
3	1	275	1	82	No	No	No	No	No	No	No	No	No	No
4	1	257	1	77	No	No	No	No	No	No	No	No	No	No
5	1	228	1	68	No	No	No	No	No	No	No	No	No	No
6	1	226	1	67	No	No	No	No	No	No	No	No	No	No
7	1	223	1	66	No	No	No	No	No	No	No	No	No	No
8	1	202	1	60	No	No	No	No	No	No	No	No	No	No
9	1	199	1	59	No	No	No	No	No	No	No	No	No	No
10	1	197	1	58	No	No	No	No	No	No	No	No	No	No
11	1	170	1	51	No	No	No	No	No	No	No	No	No	No
12	1	159	1	47	No	No	No	No	No	No	No	No	No	No
13	1	156	1	46	No	No	No	No	No	No	No	No	No	No
14	1	116	1	34	No	No	No	No	No	No	No	No	No	No
15	1	116	1	34	No	No	No	No	No	No	No	No	No	No
16	1	81	1	24	No	No	No	No	No	No	No	No	No	No
17	1	46	1	14	No	No	No	No	No	No	No	No	No	No
18	1	46	1	14	No	No	No	No	No	No	No	No	No	No
19	1	26	1	8	No	No	No	No	No	No	No	No	No	No
20	1	15	1	4	No	No	No	No	No	No	No	No	No	No
21	1	9	1	3	No	No	No	No	No	No	No	No	No	No
22	1	3	1	1	No	No	No	No	No	No	No	No	No	No
23	1	3	1	1	No	No	No	No	No	No	No	No	No	No
24	1	3	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	1	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	13.1	11
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:06	0:15
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	30	86
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	405	405
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 4: Menifee Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	276	509	161	162
2	268	494	156	157
3	262	484	153	154
4	246	453	143	144
5	218	402	127	128
6	215	397	126	126
7	213	392	124	125
8	193	356	113	113
9	190	351	111	112
10	188	346	109	110
11	163	300	95	96
12	152	280	89	89
13	149	275	87	87
14	110	204	64	65
15	110	204	64	65
16	77	143	45	45
17	44	81	26	26
18	44	81	26	26
19	25	46	14	15
20	14	25	8	8
21	8	15	5	5
22	3	5	2	2
23	3	5	2	2
24	3	5	2	2

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	785	1	162	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No
2	2	762	1	157	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No
3	2	746	1	154	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No
4	2	699	1	144	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No
5	2	620	1	128	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
6	2	612	1	126	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
7	2	605	1	125	No	Yes	Yes	Yes	No	No	No	Yes	No	No
8	2	549	1	113	No	No	Yes	Yes	No	No	No	Yes	No	No
9	2	541	1	112	No	No	Yes	Yes	No	No	No	Yes	No	No
10	2	534	1	110	No	No	Yes	Yes	No	No	No	Yes	No	No
11	2	463	1	96	No	No	No	Yes	No	No	No	No	No	No
12	2	432	1	89	No	No	No	Yes	No	No	No	No	No	No
13	2	424	1	87	No	No	No	Yes	No	No	No	No	No	No
14	2	314	1	65	No	No	No	No	No	No	No	No	No	No
15	2	314	1	65	No	No	No	No	No	No	No	No	No	No
16	2	220	1	45	No	No	No	No	No	No	No	No	No	No
17	2	125	1	26	No	No	No	No	No	No	No	No	No	No
18	2	125	1	26	No	No	No	No	No	No	No	No	No	No
19	2	71	1	15	No	No	No	No	No	No	No	No	No	No
20	2	39	1	8	No	No	No	No	No	No	No	No	No	No
21	2	23	1	5	No	No	No	No	No	No	No	No	No	No
22	2	8	1	2	No	No	No	No	No	No	No	No	No	No
23	2	8	1	2	No	No	No	No	No	No	No	No	No	No
24	2	8	1	2	No	No	No	No	No	No	No	No	No	No
Hours Met					3	7	10	13	0	3	4	10	6	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	12.1	13.6
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:32	0:36
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	161	162
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	1108	1108
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 5: Tradewinds Dr/Project Driveway 1

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	1	63	29	4
2	1	61	28	4
3	1	60	28	4
4	1	56	26	4
5	1	50	23	3
6	1	49	23	3
7	1	49	22	3
8	1	44	20	3
9	1	43	20	3
10	1	43	20	3
11	1	37	17	2
12	1	35	16	2
13	1	34	16	2
14	0	25	12	2
15	0	25	12	2
16	0	18	8	1
17	0	10	5	1
18	0	10	5	1
19	0	6	3	0
20	0	3	1	0
21	0	2	1	0
22	0	1	0	0
23	0	1	0	0
24	0	1	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	64	1	29	No	No	No	No	No	No	No	No	No	No
2	1	62	1	28	No	No	No	No	No	No	No	No	No	No
3	1	61	1	28	No	No	No	No	No	No	No	No	No	No
4	1	57	1	26	No	No	No	No	No	No	No	No	No	No
5	1	51	1	23	No	No	No	No	No	No	No	No	No	No
6	1	50	1	23	No	No	No	No	No	No	No	No	No	No
7	1	50	1	22	No	No	No	No	No	No	No	No	No	No
8	1	45	1	20	No	No	No	No	No	No	No	No	No	No
9	1	44	1	20	No	No	No	No	No	No	No	No	No	No
10	1	44	1	20	No	No	No	No	No	No	No	No	No	No
11	1	38	1	17	No	No	No	No	No	No	No	No	No	No
12	1	36	1	16	No	No	No	No	No	No	No	No	No	No
13	1	35	1	16	No	No	No	No	No	No	No	No	No	No
14	1	25	1	12	No	No	No	No	No	No	No	No	No	No
15	1	25	1	12	No	No	No	No	No	No	No	No	No	No
16	1	18	1	8	No	No	No	No	No	No	No	No	No	No
17	1	10	1	5	No	No	No	No	No	No	No	No	No	No
18	1	10	1	5	No	No	No	No	No	No	No	No	No	No
19	1	6	1	3	No	No	No	No	No	No	No	No	No	No
20	1	3	1	1	No	No	No	No	No	No	No	No	No	No
21	1	2	1	1	No	No	No	No	No	No	No	No	No	No
22	1	1	1	0	No	No	No	No	No	No	No	No	No	No
23	1	1	1	0	No	No	No	No	No	No	No	No	No	No
24	1	1	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.4	8.3
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:04	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	29	4
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	97	97
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 6: Palomar Rd/ Project Driveway 2

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	0	42	26
2	0	41	25
3	0	40	25
4	0	37	23
5	0	33	21
6	0	33	20
7	0	32	20
8	0	29	18
9	0	29	18
10	0	29	18
11	0	25	15
12	0	23	14
13	0	23	14
14	0	17	10
15	0	17	10
16	0	12	7
17	0	7	4
18	0	7	4
19	0	4	2
20	0	2	1
21	0	1	1
22	0	0	0
23	0	0	0
24	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	42	1	26	No	No	No	No	No	No	No	No	No	No
2	1	41	1	25	No	No	No	No	No	No	No	No	No	No
3	1	40	1	25	No	No	No	No	No	No	No	No	No	No
4	1	37	1	23	No	No	No	No	No	No	No	No	No	No
5	1	33	1	21	No	No	No	No	No	No	No	No	No	No
6	1	33	1	20	No	No	No	No	No	No	No	No	No	No
7	1	32	1	20	No	No	No	No	No	No	No	No	No	No
8	1	29	1	18	No	No	No	No	No	No	No	No	No	No
9	1	29	1	18	No	No	No	No	No	No	No	No	No	No
10	1	29	1	18	No	No	No	No	No	No	No	No	No	No
11	1	25	1	15	No	No	No	No	No	No	No	No	No	No
12	1	23	1	14	No	No	No	No	No	No	No	No	No	No
13	1	23	1	14	No	No	No	No	No	No	No	No	No	No
14	1	17	1	10	No	No	No	No	No	No	No	No	No	No
15	1	17	1	10	No	No	No	No	No	No	No	No	No	No
16	1	12	1	7	No	No	No	No	No	No	No	No	No	No
17	1	7	1	4	No	No	No	No	No	No	No	No	No	No
18	1	7	1	4	No	No	No	No	No	No	No	No	No	No
19	1	4	1	2	No	No	No	No	No	No	No	No	No	No
20	1	2	1	1	No	No	No	No	No	No	No	No	No	No
21	1	1	1	1	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.4
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:03
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	26
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	68
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 1: Antelope Rd/Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	204	108	296	186
2	198	105	287	180
3	194	103	281	177
4	182	96	263	166
5	161	85	234	147
6	159	84	231	145
7	157	83	228	143
8	143	76	207	130
9	141	75	204	128
10	139	73	201	126
11	120	64	175	110
12	112	59	163	102
13	110	58	160	100
14	82	43	118	74
15	82	43	118	74
16	57	30	83	52
17	33	17	47	30
18	33	17	47	30
19	18	10	27	17
20	10	5	15	9
21	6	3	9	6
22	2	1	3	2
23	2	1	3	2
24	2	1	3	2

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	312	1	296	No	No	No	Yes	No	No	No	No	No	No
2	1	303	1	287	No	No	No	Yes	No	No	No	No	No	No
3	1	297	1	281	No	No	No	Yes	No	No	No	No	No	No
4	1	278	1	263	No	No	No	No	No	No	No	No	No	No
5	1	246	1	234	No	No	No	No	No	No	No	No	No	No
6	1	243	1	231	No	No	No	No	No	No	No	No	No	No
7	1	240	1	228	No	No	No	No	No	No	No	No	No	No
8	1	219	1	207	No	No	No	No	No	No	No	No	No	No
9	1	216	1	204	No	No	No	No	No	No	No	No	No	No
10	1	212	1	201	No	No	No	No	No	No	No	No	No	No
11	1	184	1	175	No	No	No	No	No	No	No	No	No	No
12	1	171	1	163	No	No	No	No	No	No	No	No	No	No
13	1	168	1	160	No	No	No	No	No	No	No	No	No	No
14	1	125	1	118	No	No	No	No	No	No	No	No	No	No
15	1	125	1	118	No	No	No	No	No	No	No	No	No	No
16	1	87	1	83	No	No	No	No	No	No	No	No	No	No
17	1	50	1	47	No	No	No	No	No	No	No	No	No	No
18	1	50	1	47	No	No	No	No	No	No	No	No	No	No
19	1	28	1	27	No	No	No	No	No	No	No	No	No	No
20	1	15	1	15	No	No	No	No	No	No	No	No	No	No
21	1	9	1	9	No	No	No	No	No	No	No	No	No	No
22	1	3	1	3	No	No	No	No	No	No	No	No	No	No
23	1	3	1	3	No	No	No	No	No	No	No	No	No	No
24	1	3	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	3	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	15	12.9
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	1:14	0:39
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	296	186
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	794	794
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Tradewinds Dr/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	242	175	53	4
2	235	170	51	4
3	230	166	50	4
4	215	156	47	4
5	191	138	42	3
6	189	137	41	3
7	186	135	41	3
8	169	122	37	3
9	167	121	37	3
10	165	119	36	3
11	143	103	31	2
12	133	96	29	2
13	131	95	29	2
14	97	70	21	2
15	97	70	21	2
16	68	49	15	1
17	39	28	8	1
18	39	28	8	1
19	22	16	5	0
20	12	9	3	0
21	7	5	2	0
22	2	2	1	0
23	2	2	1	0
24	2	2	1	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	417	1	53	No	No	No	No	No	No	No	No	No	No
2	1	405	1	51	No	No	No	No	No	No	No	No	No	No
3	1	396	1	50	No	No	No	No	No	No	No	No	No	No
4	1	371	1	47	No	No	No	No	No	No	No	No	No	No
5	1	329	1	42	No	No	No	No	No	No	No	No	No	No
6	1	326	1	41	No	No	No	No	No	No	No	No	No	No
7	1	321	1	41	No	No	No	No	No	No	No	No	No	No
8	1	291	1	37	No	No	No	No	No	No	No	No	No	No
9	1	288	1	37	No	No	No	No	No	No	No	No	No	No
10	1	284	1	36	No	No	No	No	No	No	No	No	No	No
11	1	246	1	31	No	No	No	No	No	No	No	No	No	No
12	1	229	1	29	No	No	No	No	No	No	No	No	No	No
13	1	226	1	29	No	No	No	No	No	No	No	No	No	No
14	1	167	1	21	No	No	No	No	No	No	No	No	No	No
15	1	167	1	21	No	No	No	No	No	No	No	No	No	No
16	1	117	1	15	No	No	No	No	No	No	No	No	No	No
17	1	67	1	8	No	No	No	No	No	No	No	No	No	No
18	1	67	1	8	No	No	No	No	No	No	No	No	No	No
19	1	38	1	5	No	No	No	No	No	No	No	No	No	No
20	1	21	1	3	No	No	No	No	No	No	No	No	No	No
21	1	12	1	2	No	No	No	No	No	No	No	No	No	No
22	1	4	1	1	No	No	No	No	No	No	No	No	No	No
23	1	4	1	1	No	No	No	No	No	No	No	No	No	No
24	1	4	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.7	14.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:09	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	53	4
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	474	474
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 3: Palomar Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	247	154	37	54
2	240	149	36	52
3	235	146	35	51
4	220	137	33	48
5	195	122	29	43
6	193	120	29	42
7	190	119	28	42
8	173	108	26	38
9	170	106	26	37
10	168	105	25	37
11	146	91	22	32
12	136	85	20	30
13	133	83	20	29
14	99	62	15	22
15	99	62	15	22
16	69	43	10	15
17	40	25	6	9
18	40	25	6	9
19	22	14	3	5
20	12	8	2	3
21	7	5	1	2
22	2	2	0	1
23	2	2	0	1
24	2	2	0	1

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	401	1	54	No	No	No	No	No	No	No	No	No	No
2	1	389	1	52	No	No	No	No	No	No	No	No	No	No
3	1	381	1	51	No	No	No	No	No	No	No	No	No	No
4	1	357	1	48	No	No	No	No	No	No	No	No	No	No
5	1	317	1	43	No	No	No	No	No	No	No	No	No	No
6	1	313	1	42	No	No	No	No	No	No	No	No	No	No
7	1	309	1	42	No	No	No	No	No	No	No	No	No	No
8	1	281	1	38	No	No	No	No	No	No	No	No	No	No
9	1	276	1	37	No	No	No	No	No	No	No	No	No	No
10	1	273	1	37	No	No	No	No	No	No	No	No	No	No
11	1	237	1	32	No	No	No	No	No	No	No	No	No	No
12	1	221	1	30	No	No	No	No	No	No	No	No	No	No
13	1	216	1	29	No	No	No	No	No	No	No	No	No	No
14	1	161	1	22	No	No	No	No	No	No	No	No	No	No
15	1	161	1	22	No	No	No	No	No	No	No	No	No	No
16	1	112	1	15	No	No	No	No	No	No	No	No	No	No
17	1	65	1	9	No	No	No	No	No	No	No	No	No	No
18	1	65	1	9	No	No	No	No	No	No	No	No	No	No
19	1	36	1	5	No	No	No	No	No	No	No	No	No	No
20	1	20	1	3	No	No	No	No	No	No	No	No	No	No
21	1	12	1	2	No	No	No	No	No	No	No	No	No	No
22	1	4	1	1	No	No	No	No	No	No	No	No	No	No
23	1	4	1	1	No	No	No	No	No	No	No	No	No	No
24	1	4	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	16.2	11.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:10	0:10
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	37	54
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	492	492
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 4: Menifee Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	301	548	286	174
2	292	532	277	169
3	286	521	272	165
4	268	488	255	155
5	238	433	226	137
6	235	427	223	136
7	232	422	220	134
8	211	384	200	122
9	208	378	197	120
10	205	373	194	118
11	178	323	169	103
12	166	301	157	96
13	163	296	154	94
14	120	219	114	70
15	120	219	114	70
16	84	153	80	49
17	48	88	46	28
18	48	88	46	28
19	27	49	26	16
20	15	27	14	9
21	9	16	9	5
22	3	5	3	2
23	3	5	3	2
24	3	5	3	2

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	849	1	286	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
2	2	824	1	277	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
3	2	807	1	272	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
4	2	756	1	255	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
5	2	671	1	226	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes
6	2	662	1	223	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes
7	2	654	1	220	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes
8	2	595	1	200	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
9	2	586	1	197	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
10	2	578	1	194	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
11	2	501	1	169	No	Yes	Yes	Yes	No	No	No	No	Yes	No
12	2	467	1	157	No	No	Yes	Yes	No	No	No	No	No	No
13	2	459	1	154	No	No	Yes	Yes	No	No	No	No	No	No
14	2	339	1	114	No	No	No	Yes	No	No	No	No	No	No
15	2	339	1	114	No	No	No	Yes	No	No	No	No	No	No
16	2	237	1	80	No	No	No	No	No	No	No	No	No	No
17	2	136	1	46	No	No	No	No	No	No	No	No	No	No
18	2	136	1	46	No	No	No	No	No	No	No	No	No	No
19	2	76	1	26	No	No	No	No	No	No	No	No	No	No
20	2	42	1	14	No	No	No	No	No	No	No	No	No	No
21	2	25	1	9	No	No	No	No	No	No	No	No	No	No
22	2	8	1	3	No	No	No	No	No	No	No	No	No	No
23	2	8	1	3	No	No	No	No	No	No	No	No	No	No
24	2	8	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					7	11	13	15	0	4	7	10	11	7

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	29.4	17.9
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	2:20	0:51
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	286	174
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	1309	1309
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 5: Tradewinds Dr/Project Driveway 1

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	5	20	44	3
2	5	19	43	3
3	5	19	42	3
4	4	18	39	3
5	4	16	35	2
6	4	16	34	2
7	4	15	34	2
8	4	14	31	2
9	3	14	30	2
10	3	14	30	2
11	3	12	26	2
12	3	11	24	2
13	3	11	24	2
14	2	8	18	1
15	2	8	18	1
16	1	6	12	1
17	1	3	7	0
18	1	3	7	0
19	0	2	4	0
20	0	1	2	0
21	0	1	1	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	25	1	44	No	No	No	No	No	No	No	No	No	No
2	1	24	1	43	No	No	No	No	No	No	No	No	No	No
3	1	24	1	42	No	No	No	No	No	No	No	No	No	No
4	1	22	1	39	No	No	No	No	No	No	No	No	No	No
5	1	20	1	35	No	No	No	No	No	No	No	No	No	No
6	1	20	1	34	No	No	No	No	No	No	No	No	No	No
7	1	19	1	34	No	No	No	No	No	No	No	No	No	No
8	1	18	1	31	No	No	No	No	No	No	No	No	No	No
9	1	17	1	30	No	No	No	No	No	No	No	No	No	No
10	1	17	1	30	No	No	No	No	No	No	No	No	No	No
11	1	15	1	26	No	No	No	No	No	No	No	No	No	No
12	1	14	1	24	No	No	No	No	No	No	No	No	No	No
13	1	14	1	24	No	No	No	No	No	No	No	No	No	No
14	1	10	1	18	No	No	No	No	No	No	No	No	No	No
15	1	10	1	18	No	No	No	No	No	No	No	No	No	No
16	1	7	1	12	No	No	No	No	No	No	No	No	No	No
17	1	4	1	7	No	No	No	No	No	No	No	No	No	No
18	1	4	1	7	No	No	No	No	No	No	No	No	No	No
19	1	2	1	4	No	No	No	No	No	No	No	No	No	No
20	1	1	1	2	No	No	No	No	No	No	No	No	No	No
21	1	1	1	1	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9	8.4
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:06	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	44	3
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	72	72
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 6: Palomar Rd/ Project Driveway 2

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	1	16	36
2	1	16	35
3	1	15	34
4	1	14	32
5	1	13	28
6	1	12	28
7	1	12	28
8	1	11	25
9	1	11	25
10	1	11	24
11	1	9	21
12	1	9	20
13	1	9	19
14	0	6	14
15	0	6	14
16	0	4	10
17	0	3	6
18	0	3	6
19	0	1	3
20	0	1	2
21	0	0	1
22	0	0	0
23	0	0	0
24	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	17	1	36	No	No	No	No	No	No	No	No	No	No
2	1	17	1	35	No	No	No	No	No	No	No	No	No	No
3	1	16	1	34	No	No	No	No	No	No	No	No	No	No
4	1	15	1	32	No	No	No	No	No	No	No	No	No	No
5	1	14	1	28	No	No	No	No	No	No	No	No	No	No
6	1	13	1	28	No	No	No	No	No	No	No	No	No	No
7	1	13	1	28	No	No	No	No	No	No	No	No	No	No
8	1	12	1	25	No	No	No	No	No	No	No	No	No	No
9	1	12	1	25	No	No	No	No	No	No	No	No	No	No
10	1	12	1	24	No	No	No	No	No	No	No	No	No	No
11	1	10	1	21	No	No	No	No	No	No	No	No	No	No
12	1	10	1	20	No	No	No	No	No	No	No	No	No	No
13	1	10	1	19	No	No	No	No	No	No	No	No	No	No
14	1	6	1	14	No	No	No	No	No	No	No	No	No	No
15	1	6	1	14	No	No	No	No	No	No	No	No	No	No
16	1	4	1	10	No	No	No	No	No	No	No	No	No	No
17	1	3	1	6	No	No	No	No	No	No	No	No	No	No
18	1	3	1	6	No	No	No	No	No	No	No	No	No	No
19	1	1	1	3	No	No	No	No	No	No	No	No	No	No
20	1	1	1	2	No	No	No	No	No	No	No	No	No	No
21	1	0	1	1	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.4
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:05
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	36
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	53
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 1: Antelope Rd/Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	187	133	237	257
2	181	129	230	249
3	178	126	225	244
4	166	118	211	229
5	148	105	187	203
6	146	104	185	200
7	144	102	182	198
8	131	93	166	180
9	129	92	164	177
10	127	90	161	175
11	110	78	140	152
12	103	73	130	141
13	101	72	128	139
14	75	53	95	103
15	75	53	95	103
16	52	37	66	72
17	30	21	38	41
18	30	21	38	41
19	17	12	21	23
20	9	7	12	13
21	6	4	7	8
22	2	1	2	3
23	2	1	2	3
24	2	1	2	3

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	320	1	257	No	No	No	Yes	No	No	No	No	No	No
2	1	310	1	249	No	No	No	Yes	No	No	No	No	No	No
3	1	304	1	244	No	No	No	Yes	No	No	No	No	No	No
4	1	284	1	229	No	No	No	Yes	No	No	No	No	No	No
5	1	253	1	203	No	No	No	No	No	No	No	No	No	No
6	1	250	1	200	No	No	No	No	No	No	No	No	No	No
7	1	246	1	198	No	No	No	No	No	No	No	No	No	No
8	1	224	1	180	No	No	No	No	No	No	No	No	No	No
9	1	221	1	177	No	No	No	No	No	No	No	No	No	No
10	1	217	1	175	No	No	No	No	No	No	No	No	No	No
11	1	188	1	152	No	No	No	No	No	No	No	No	No	No
12	1	176	1	141	No	No	No	No	No	No	No	No	No	No
13	1	173	1	139	No	No	No	No	No	No	No	No	No	No
14	1	128	1	103	No	No	No	No	No	No	No	No	No	No
15	1	128	1	103	No	No	No	No	No	No	No	No	No	No
16	1	89	1	72	No	No	No	No	No	No	No	No	No	No
17	1	51	1	41	No	No	No	No	No	No	No	No	No	No
18	1	51	1	41	No	No	No	No	No	No	No	No	No	No
19	1	29	1	23	No	No	No	No	No	No	No	No	No	No
20	1	16	1	13	No	No	No	No	No	No	No	No	No	No
21	1	10	1	8	No	No	No	No	No	No	No	No	No	No
22	1	3	1	3	No	No	No	No	No	No	No	No	No	No
23	1	3	1	3	No	No	No	No	No	No	No	No	No	No
24	1	3	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	4	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	13.9	14.3
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:54	1:01
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	237	257
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	814	814
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Tradewinds Dr/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	218	229	34	13
2	211	222	33	13
3	207	218	32	12
4	194	204	30	12
5	172	181	27	10
6	170	179	27	10
7	168	176	26	10
8	153	160	24	9
9	150	158	23	9
10	148	156	23	9
11	129	135	20	8
12	120	126	19	7
13	118	124	18	7
14	87	92	14	5
15	87	92	14	5
16	61	64	10	4
17	35	37	5	2
18	35	37	5	2
19	20	21	3	1
20	11	11	2	1
21	7	7	1	0
22	2	2	0	0
23	2	2	0	0
24	2	2	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	447	1	34	No	No	No	No	No	No	No	No	No	No
2	1	433	1	33	No	No	No	No	No	No	No	No	No	No
3	1	425	1	32	No	No	No	No	No	No	No	No	No	No
4	1	398	1	30	No	No	No	No	No	No	No	No	No	No
5	1	353	1	27	No	No	No	No	No	No	No	No	No	No
6	1	349	1	27	No	No	No	No	No	No	No	No	No	No
7	1	344	1	26	No	No	No	No	No	No	No	No	No	No
8	1	313	1	24	No	No	No	No	No	No	No	No	No	No
9	1	308	1	23	No	No	No	No	No	No	No	No	No	No
10	1	304	1	23	No	No	No	No	No	No	No	No	No	No
11	1	264	1	20	No	No	No	No	No	No	No	No	No	No
12	1	246	1	19	No	No	No	No	No	No	No	No	No	No
13	1	242	1	18	No	No	No	No	No	No	No	No	No	No
14	1	179	1	14	No	No	No	No	No	No	No	No	No	No
15	1	179	1	14	No	No	No	No	No	No	No	No	No	No
16	1	125	1	10	No	No	No	No	No	No	No	No	No	No
17	1	72	1	5	No	No	No	No	No	No	No	No	No	No
18	1	72	1	5	No	No	No	No	No	No	No	No	No	No
19	1	41	1	3	No	No	No	No	No	No	No	No	No	No
20	1	22	1	2	No	No	No	No	No	No	No	No	No	No
21	1	14	1	1	No	No	No	No	No	No	No	No	No	No
22	1	4	1	0	No	No	No	No	No	No	No	No	No	No
23	1	4	1	0	No	No	No	No	No	No	No	No	No	No
24	1	4	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.6	13.5
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:06	0:02
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	34	13
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	494	494
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 3: Palomar Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	237	182	30	90
2	230	177	29	87
3	225	173	29	86
4	211	162	27	80
5	187	144	24	71
6	185	142	23	70
7	182	140	23	69
8	166	127	21	63
9	164	126	21	62
10	161	124	20	61
11	140	107	18	53
12	130	100	17	50
13	128	98	16	49
14	95	73	12	36
15	95	73	12	36
16	66	51	8	25
17	38	29	5	14
18	38	29	5	14
19	21	16	3	8
20	12	9	2	5
21	7	5	1	3
22	2	2	0	1
23	2	2	0	1
24	2	2	0	1

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	419	1	90	No	No	No	Yes	No	No	No	No	No	No
2	1	407	1	87	No	No	No	Yes	No	No	No	No	No	No
3	1	398	1	86	No	No	No	Yes	No	No	No	No	No	No
4	1	373	1	80	No	No	No	No	No	No	No	No	No	No
5	1	331	1	71	No	No	No	No	No	No	No	No	No	No
6	1	327	1	70	No	No	No	No	No	No	No	No	No	No
7	1	322	1	69	No	No	No	No	No	No	No	No	No	No
8	1	293	1	63	No	No	No	No	No	No	No	No	No	No
9	1	290	1	62	No	No	No	No	No	No	No	No	No	No
10	1	285	1	61	No	No	No	No	No	No	No	No	No	No
11	1	247	1	53	No	No	No	No	No	No	No	No	No	No
12	1	230	1	50	No	No	No	No	No	No	No	No	No	No
13	1	226	1	49	No	No	No	No	No	No	No	No	No	No
14	1	168	1	36	No	No	No	No	No	No	No	No	No	No
15	1	168	1	36	No	No	No	No	No	No	No	No	No	No
16	1	117	1	25	No	No	No	No	No	No	No	No	No	No
17	1	67	1	14	No	No	No	No	No	No	No	No	No	No
18	1	67	1	14	No	No	No	No	No	No	No	No	No	No
19	1	37	1	8	No	No	No	No	No	No	No	No	No	No
20	1	21	1	5	No	No	No	No	No	No	No	No	No	No
21	1	12	1	3	No	No	No	No	No	No	No	No	No	No
22	1	4	1	1	No	No	No	No	No	No	No	No	No	No
23	1	4	1	1	No	No	No	No	No	No	No	No	No	No
24	1	4	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	3	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	15.9	12.4
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:07	0:18
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	30	90
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	539	539
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 4: Menifee Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	362	540	187	225
2	351	524	181	218
3	344	513	178	214
4	322	481	166	200
5	286	427	148	178
6	282	421	146	176
7	279	416	144	173
8	253	378	131	158
9	250	373	129	155
10	246	367	127	153
11	214	319	110	133
12	199	297	103	124
13	195	292	101	122
14	145	216	75	90
15	145	216	75	90
16	101	151	52	63
17	58	86	30	36
18	58	86	30	36
19	33	49	17	20
20	18	27	9	11
21	11	16	6	7
22	4	5	2	2
23	4	5	2	2
24	4	5	2	2

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	902	1	225	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	2	875	1	218	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
3	2	857	1	214	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
4	2	803	1	200	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
5	2	713	1	178	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No
6	2	703	1	176	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No
7	2	695	1	173	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No
8	2	631	1	158	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No
9	2	623	1	155	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No
10	2	613	1	153	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No
11	2	533	1	133	No	Yes	Yes	Yes	No	No	No	Yes	No	No
12	2	496	1	124	No	Yes	Yes	Yes	No	No	No	No	No	No
13	2	487	1	122	No	Yes	Yes	Yes	No	No	No	No	No	No
14	2	361	1	90	No	No	No	Yes	No	No	No	No	No	No
15	2	361	1	90	No	No	No	Yes	No	No	No	No	No	No
16	2	252	1	63	No	No	No	No	No	No	No	No	No	No
17	2	144	1	36	No	No	No	No	No	No	No	No	No	No
18	2	144	1	36	No	No	No	No	No	No	No	No	No	No
19	2	82	1	20	No	No	No	No	No	No	No	No	No	No
20	2	45	1	11	No	No	No	No	No	No	No	No	No	No
21	2	27	1	7	No	No	No	No	No	No	No	No	No	No
22	2	9	1	2	No	No	No	No	No	No	No	No	No	No
23	2	9	1	2	No	No	No	No	No	No	No	No	No	No
24	2	9	1	2	No	No	No	No	No	No	No	No	No	No
Hours Met					10	13	13	15	1	4	8	11	10	4

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	15.7	19.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:48	1:14
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	187	225
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	1314	1314
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 5: Tradewinds Dr/Project Driveway 1

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	1	63	29	4
2	1	61	28	4
3	1	60	28	4
4	1	56	26	4
5	1	50	23	3
6	1	49	23	3
7	1	49	22	3
8	1	44	20	3
9	1	43	20	3
10	1	43	20	3
11	1	37	17	2
12	1	35	16	2
13	1	34	16	2
14	0	25	12	2
15	0	25	12	2
16	0	18	8	1
17	0	10	5	1
18	0	10	5	1
19	0	6	3	0
20	0	3	1	0
21	0	2	1	0
22	0	1	0	0
23	0	1	0	0
24	0	1	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	64	1	29	No	No	No	No	No	No	No	No	No	No
2	1	62	1	28	No	No	No	No	No	No	No	No	No	No
3	1	61	1	28	No	No	No	No	No	No	No	No	No	No
4	1	57	1	26	No	No	No	No	No	No	No	No	No	No
5	1	51	1	23	No	No	No	No	No	No	No	No	No	No
6	1	50	1	23	No	No	No	No	No	No	No	No	No	No
7	1	50	1	22	No	No	No	No	No	No	No	No	No	No
8	1	45	1	20	No	No	No	No	No	No	No	No	No	No
9	1	44	1	20	No	No	No	No	No	No	No	No	No	No
10	1	44	1	20	No	No	No	No	No	No	No	No	No	No
11	1	38	1	17	No	No	No	No	No	No	No	No	No	No
12	1	36	1	16	No	No	No	No	No	No	No	No	No	No
13	1	35	1	16	No	No	No	No	No	No	No	No	No	No
14	1	25	1	12	No	No	No	No	No	No	No	No	No	No
15	1	25	1	12	No	No	No	No	No	No	No	No	No	No
16	1	18	1	8	No	No	No	No	No	No	No	No	No	No
17	1	10	1	5	No	No	No	No	No	No	No	No	No	No
18	1	10	1	5	No	No	No	No	No	No	No	No	No	No
19	1	6	1	3	No	No	No	No	No	No	No	No	No	No
20	1	3	1	1	No	No	No	No	No	No	No	No	No	No
21	1	2	1	1	No	No	No	No	No	No	No	No	No	No
22	1	1	1	0	No	No	No	No	No	No	No	No	No	No
23	1	1	1	0	No	No	No	No	No	No	No	No	No	No
24	1	1	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.4	8.3
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:04	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	29	4
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	97	97
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 6: Palomar Rd/ Project Driveway 2

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	0	42	26
2	0	41	25
3	0	40	25
4	0	37	23
5	0	33	21
6	0	33	20
7	0	32	20
8	0	29	18
9	0	29	18
10	0	29	18
11	0	25	15
12	0	23	14
13	0	23	14
14	0	17	10
15	0	17	10
16	0	12	7
17	0	7	4
18	0	7	4
19	0	4	2
20	0	2	1
21	0	1	1
22	0	0	0
23	0	0	0
24	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	42	1	26	No	No	No	No	No	No	No	No	No	No
2	1	41	1	25	No	No	No	No	No	No	No	No	No	No
3	1	40	1	25	No	No	No	No	No	No	No	No	No	No
4	1	37	1	23	No	No	No	No	No	No	No	No	No	No
5	1	33	1	21	No	No	No	No	No	No	No	No	No	No
6	1	33	1	20	No	No	No	No	No	No	No	No	No	No
7	1	32	1	20	No	No	No	No	No	No	No	No	No	No
8	1	29	1	18	No	No	No	No	No	No	No	No	No	No
9	1	29	1	18	No	No	No	No	No	No	No	No	No	No
10	1	29	1	18	No	No	No	No	No	No	No	No	No	No
11	1	25	1	15	No	No	No	No	No	No	No	No	No	No
12	1	23	1	14	No	No	No	No	No	No	No	No	No	No
13	1	23	1	14	No	No	No	No	No	No	No	No	No	No
14	1	17	1	10	No	No	No	No	No	No	No	No	No	No
15	1	17	1	10	No	No	No	No	No	No	No	No	No	No
16	1	12	1	7	No	No	No	No	No	No	No	No	No	No
17	1	7	1	4	No	No	No	No	No	No	No	No	No	No
18	1	7	1	4	No	No	No	No	No	No	No	No	No	No
19	1	4	1	2	No	No	No	No	No	No	No	No	No	No
20	1	2	1	1	No	No	No	No	No	No	No	No	No	No
21	1	1	1	1	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.4
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:03
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	26
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	68
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 1: Antelope Rd/Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	242	263	346	253
2	235	255	336	245
3	230	250	329	240
4	215	234	308	225
5	191	208	273	200
6	189	205	270	197
7	186	203	266	195
8	169	184	242	177
9	167	181	239	175
10	165	179	235	172
11	143	155	204	149
12	133	145	190	139
13	131	142	187	137
14	97	105	138	101
15	97	105	138	101
16	68	74	97	71
17	39	42	55	40
18	39	42	55	40
19	22	24	31	23
20	12	13	17	13
21	7	8	10	8
22	2	3	3	3
23	2	3	3	3
24	2	3	3	3

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	505	1	346	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No
2	1	490	1	336	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
3	1	480	1	329	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
4	1	449	1	308	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
5	1	399	1	273	No	No	Yes	Yes	No	No	No	No	No	No
6	1	394	1	270	No	No	Yes	Yes	No	No	No	No	No	No
7	1	389	1	266	No	No	Yes	Yes	No	No	No	No	No	No
8	1	353	1	242	No	No	Yes	Yes	No	No	No	No	No	No
9	1	348	1	239	No	No	No	Yes	No	No	No	No	No	No
10	1	344	1	235	No	No	No	Yes	No	No	No	No	No	No
11	1	298	1	204	No	No	No	Yes	No	No	No	No	No	No
12	1	278	1	190	No	No	No	No	No	No	No	No	No	No
13	1	273	1	187	No	No	No	No	No	No	No	No	No	No
14	1	202	1	138	No	No	No	No	No	No	No	No	No	No
15	1	202	1	138	No	No	No	No	No	No	No	No	No	No
16	1	142	1	97	No	No	No	No	No	No	No	No	No	No
17	1	81	1	55	No	No	No	No	No	No	No	No	No	No
18	1	81	1	55	No	No	No	No	No	No	No	No	No	No
19	1	46	1	31	No	No	No	No	No	No	No	No	No	No
20	1	25	1	17	No	No	No	No	No	No	No	No	No	No
21	1	15	1	10	No	No	No	No	No	No	No	No	No	No
22	1	5	1	3	No	No	No	No	No	No	No	No	No	No
23	1	5	1	3	No	No	No	No	No	No	No	No	No	No
24	1	5	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					1	4	8	11	0	0	0	4	4	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	20	14.9
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	1:55	1:02
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	346	253
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	1104	1104
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Tradewinds Dr/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	235	156	12	11
2	228	151	12	11
3	223	148	11	10
4	209	139	11	10
5	186	123	9	9
6	183	122	9	9
7	181	120	9	8
8	165	109	8	8
9	162	108	8	8
10	160	106	8	7
11	139	92	7	6
12	129	86	7	6
13	127	84	6	6
14	94	62	5	4
15	94	62	5	4
16	66	44	3	3
17	38	25	2	2
18	38	25	2	2
19	21	14	1	1
20	12	8	1	1
21	7	5	0	0
22	2	2	0	0
23	2	2	0	0
24	2	2	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	391	1	12	No	No	No	No	No	No	No	No	No	No
2	1	379	1	12	No	No	No	No	No	No	No	No	No	No
3	1	371	1	11	No	No	No	No	No	No	No	No	No	No
4	1	348	1	11	No	No	No	No	No	No	No	No	No	No
5	1	309	1	9	No	No	No	No	No	No	No	No	No	No
6	1	305	1	9	No	No	No	No	No	No	No	No	No	No
7	1	301	1	9	No	No	No	No	No	No	No	No	No	No
8	1	274	1	8	No	No	No	No	No	No	No	No	No	No
9	1	270	1	8	No	No	No	No	No	No	No	No	No	No
10	1	266	1	8	No	No	No	No	No	No	No	No	No	No
11	1	231	1	7	No	No	No	No	No	No	No	No	No	No
12	1	215	1	7	No	No	No	No	No	No	No	No	No	No
13	1	211	1	6	No	No	No	No	No	No	No	No	No	No
14	1	156	1	5	No	No	No	No	No	No	No	No	No	No
15	1	156	1	5	No	No	No	No	No	No	No	No	No	No
16	1	110	1	3	No	No	No	No	No	No	No	No	No	No
17	1	63	1	2	No	No	No	No	No	No	No	No	No	No
18	1	63	1	2	No	No	No	No	No	No	No	No	No	No
19	1	35	1	1	No	No	No	No	No	No	No	No	No	No
20	1	20	1	1	No	No	No	No	No	No	No	No	No	No
21	1	12	1	0	No	No	No	No	No	No	No	No	No	No
22	1	4	1	0	No	No	No	No	No	No	No	No	No	No
23	1	4	1	0	No	No	No	No	No	No	No	No	No	No
24	1	4	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.5	11.9
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:02	0:02
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	12	11
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	414	414
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 3: Palomar Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	247	152	2	48
2	240	147	2	47
3	235	144	2	46
4	220	135	2	43
5	195	120	2	38
6	193	119	2	37
7	190	117	2	37
8	173	106	1	34
9	170	105	1	33
10	168	103	1	33
11	146	90	1	28
12	136	84	1	26
13	133	82	1	26
14	99	61	1	19
15	99	61	1	19
16	69	43	1	13
17	40	24	0	8
18	40	24	0	8
19	22	14	0	4
20	12	8	0	2
21	7	5	0	1
22	2	2	0	0
23	2	2	0	0
24	2	2	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	399	1	48	No	No	No	No	No	No	No	No	No	No
2	1	387	1	47	No	No	No	No	No	No	No	No	No	No
3	1	379	1	46	No	No	No	No	No	No	No	No	No	No
4	1	355	1	43	No	No	No	No	No	No	No	No	No	No
5	1	315	1	38	No	No	No	No	No	No	No	No	No	No
6	1	312	1	37	No	No	No	No	No	No	No	No	No	No
7	1	307	1	37	No	No	No	No	No	No	No	No	No	No
8	1	279	1	34	No	No	No	No	No	No	No	No	No	No
9	1	275	1	33	No	No	No	No	No	No	No	No	No	No
10	1	271	1	33	No	No	No	No	No	No	No	No	No	No
11	1	236	1	28	No	No	No	No	No	No	No	No	No	No
12	1	220	1	26	No	No	No	No	No	No	No	No	No	No
13	1	215	1	26	No	No	No	No	No	No	No	No	No	No
14	1	160	1	19	No	No	No	No	No	No	No	No	No	No
15	1	160	1	19	No	No	No	No	No	No	No	No	No	No
16	1	112	1	13	No	No	No	No	No	No	No	No	No	No
17	1	64	1	8	No	No	No	No	No	No	No	No	No	No
18	1	64	1	8	No	No	No	No	No	No	No	No	No	No
19	1	36	1	4	No	No	No	No	No	No	No	No	No	No
20	1	20	1	2	No	No	No	No	No	No	No	No	No	No
21	1	12	1	1	No	No	No	No	No	No	No	No	No	No
22	1	4	1	0	No	No	No	No	No	No	No	No	No	No
23	1	4	1	0	No	No	No	No	No	No	No	No	No	No
24	1	4	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.9	10.1
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:08
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	2	48
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	449	449
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 4: Menifee Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	962	1295	285	190
2	933	1256	276	184
3	914	1230	271	181
4	856	1153	254	169
5	760	1023	225	150
6	750	1010	222	148
7	741	997	219	146
8	673	906	200	133
9	664	894	197	131
10	654	881	194	129
11	568	764	168	112
12	529	712	157	105
13	519	699	154	103
14	385	518	114	76
15	385	518	114	76
16	269	363	80	53
17	154	207	46	30
18	154	207	46	30
19	87	117	26	17
20	48	65	14	10
21	29	39	9	6
22	10	13	3	2
23	10	13	3	2
24	10	13	3	2

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	3	2257	1	285	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	3	2189	1	276	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	3	2144	1	271	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4	3	2009	1	254	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5	3	1783	1	225	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6	3	1760	1	222	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
7	3	1738	1	219	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8	3	1579	1	200	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9	3	1558	1	197	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
10	3	1535	1	194	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
11	3	1332	1	168	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12	3	1241	1	157	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
13	3	1218	1	154	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
14	3	903	1	114	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
15	3	903	1	114	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
16	3	632	1	80	No	No	No	No	No	No	Yes	Yes	No	No
17	3	361	1	46	No	No	No	No	No	No	No	No	No	No
18	3	361	1	46	No	No	No	No	No	No	No	No	No	No
19	3	204	1	26	No	No	No	No	No	No	No	No	No	No
20	3	113	1	14	No	No	No	No	No	No	No	No	No	No
21	3	68	1	9	No	No	No	No	No	No	No	No	No	No
22	3	23	1	3	No	No	No	No	No	No	No	No	No	No
23	3	23	1	3	No	No	No	No	No	No	No	No	No	No
24	3	23	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					13	13	15	15	15	15	16	16	15	13

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	43.5	25.9
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	3:26	1:22
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	285	190
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	2732	2732
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 5: Tradewinds Dr/Project Driveway 1

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	5	2	0	3
2	5	2	0	3
3	5	2	0	3
4	4	2	0	3
5	4	2	0	2
6	4	2	0	2
7	4	2	0	2
8	4	1	0	2
9	3	1	0	2
10	3	1	0	2
11	3	1	0	2
12	3	1	0	2
13	3	1	0	2
14	2	1	0	1
15	2	1	0	1
16	1	1	0	1
17	1	0	0	0
18	1	0	0	0
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	7	1	3	No	No	No	No	No	No	No	No	No	No
2	1	7	1	3	No	No	No	No	No	No	No	No	No	No
3	1	7	1	3	No	No	No	No	No	No	No	No	No	No
4	1	6	1	3	No	No	No	No	No	No	No	No	No	No
5	1	6	1	2	No	No	No	No	No	No	No	No	No	No
6	1	6	1	2	No	No	No	No	No	No	No	No	No	No
7	1	6	1	2	No	No	No	No	No	No	No	No	No	No
8	1	5	1	2	No	No	No	No	No	No	No	No	No	No
9	1	4	1	2	No	No	No	No	No	No	No	No	No	No
10	1	4	1	2	No	No	No	No	No	No	No	No	No	No
11	1	4	1	2	No	No	No	No	No	No	No	No	No	No
12	1	4	1	2	No	No	No	No	No	No	No	No	No	No
13	1	4	1	2	No	No	No	No	No	No	No	No	No	No
14	1	3	1	1	No	No	No	No	No	No	No	No	No	No
15	1	3	1	1	No	No	No	No	No	No	No	No	No	No
16	1	2	1	1	No	No	No	No	No	No	No	No	No	No
17	1	1	1	0	No	No	No	No	No	No	No	No	No	No
18	1	1	1	0	No	No	No	No	No	No	No	No	No	No
19	1	0	1	0	No	No	No	No	No	No	No	No	No	No
20	1	0	1	0	No	No	No	No	No	No	No	No	No	No
21	1	0	1	0	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.6	8.3
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	0	3
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	10	10
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 6: Palomar Rd/ Project Driveway 2

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	1	1	0
2	1	1	0
3	1	1	0
4	1	1	0
5	1	1	0
6	1	1	0
7	1	1	0
8	1	1	0
9	1	1	0
10	1	1	0
11	1	1	0
12	1	1	0
13	1	1	0
14	0	0	0
15	0	0	0
16	0	0	0
17	0	0	0
18	0	0	0
19	0	0	0
20	0	0	0
21	0	0	0
22	0	0	0
23	0	0	0
24	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	2	1	0	No	No	No	No	No	No	No	No	No	No
2	1	2	1	0	No	No	No	No	No	No	No	No	No	No
3	1	2	1	0	No	No	No	No	No	No	No	No	No	No
4	1	2	1	0	No	No	No	No	No	No	No	No	No	No
5	1	2	1	0	No	No	No	No	No	No	No	No	No	No
6	1	2	1	0	No	No	No	No	No	No	No	No	No	No
7	1	2	1	0	No	No	No	No	No	No	No	No	No	No
8	1	2	1	0	No	No	No	No	No	No	No	No	No	No
9	1	2	1	0	No	No	No	No	No	No	No	No	No	No
10	1	2	1	0	No	No	No	No	No	No	No	No	No	No
11	1	2	1	0	No	No	No	No	No	No	No	No	No	No
12	1	2	1	0	No	No	No	No	No	No	No	No	No	No
13	1	2	1	0	No	No	No	No	No	No	No	No	No	No
14	1	0	1	0	No	No	No	No	No	No	No	No	No	No
15	1	0	1	0	No	No	No	No	No	No	No	No	No	No
16	1	0	1	0	No	No	No	No	No	No	No	No	No	No
17	1	0	1	0	No	No	No	No	No	No	No	No	No	No
18	1	0	1	0	No	No	No	No	No	No	No	No	No	No
19	1	0	1	0	No	No	No	No	No	No	No	No	No	No
20	1	0	1	0	No	No	No	No	No	No	No	No	No	No
21	1	0	1	0	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.4
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	2
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 1: Antelope Rd/Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	398	182	224	264
2	386	177	217	256
3	378	173	213	251
4	354	162	199	235
5	314	144	177	209
6	310	142	175	206
7	306	140	172	203
8	279	127	157	185
9	275	126	155	182
10	271	124	152	180
11	235	107	132	156
12	219	100	123	145
13	215	98	121	143
14	159	73	90	106
15	159	73	90	106
16	111	51	63	74
17	64	29	36	42
18	64	29	36	42
19	36	16	20	24
20	20	9	11	13
21	12	5	7	8
22	4	2	2	3
23	4	2	2	3
24	4	2	2	3

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	580	1	264	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No
2	1	563	1	256	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No
3	1	551	1	251	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No
4	1	516	1	235	Yes	Yes	Yes	Yes	No	No	No	Yes	No	No
5	1	458	1	209	No	Yes	Yes	Yes	No	No	No	Yes	No	No
6	1	452	1	206	No	Yes	Yes	Yes	No	No	No	Yes	No	No
7	1	446	1	203	No	Yes	Yes	Yes	No	No	No	Yes	No	No
8	1	406	1	185	No	Yes	Yes	Yes	No	No	No	No	No	No
9	1	401	1	182	No	Yes	Yes	Yes	No	No	No	No	No	No
10	1	395	1	180	No	No	Yes	Yes	No	No	No	No	No	No
11	1	342	1	156	No	No	No	Yes	No	No	No	No	No	No
12	1	319	1	145	No	No	No	Yes	No	No	No	No	No	No
13	1	313	1	143	No	No	No	Yes	No	No	No	No	No	No
14	1	232	1	106	No	No	No	No	No	No	No	No	No	No
15	1	232	1	106	No	No	No	No	No	No	No	No	No	No
16	1	162	1	74	No	No	No	No	No	No	No	No	No	No
17	1	93	1	42	No	No	No	No	No	No	No	No	No	No
18	1	93	1	42	No	No	No	No	No	No	No	No	No	No
19	1	52	1	24	No	No	No	No	No	No	No	No	No	No
20	1	29	1	13	No	No	No	No	No	No	No	No	No	No
21	1	17	1	8	No	No	No	No	No	No	No	No	No	No
22	1	6	1	3	No	No	No	No	No	No	No	No	No	No
23	1	6	1	3	No	No	No	No	No	No	No	No	No	No
24	1	6	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					4	9	10	13	0	0	3	7	3	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	14.1	15.3
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:52	1:07
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	224	264
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	1068	1068
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Tradewinds Dr/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	219	208	6	13
2	212	202	6	13
3	208	198	6	12
4	195	185	5	12
5	173	164	5	10
6	171	162	5	10
7	169	160	5	10
8	153	146	4	9
9	151	144	4	9
10	149	141	4	9
11	129	123	4	8
12	120	114	3	7
13	118	112	3	7
14	88	83	2	5
15	88	83	2	5
16	61	58	2	4
17	35	33	1	2
18	35	33	1	2
19	20	19	1	1
20	11	10	0	1
21	7	6	0	0
22	2	2	0	0
23	2	2	0	0
24	2	2	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	427	1	13	No	No	No	No	No	No	No	No	No	No
2	1	414	1	13	No	No	No	No	No	No	No	No	No	No
3	1	406	1	12	No	No	No	No	No	No	No	No	No	No
4	1	380	1	12	No	No	No	No	No	No	No	No	No	No
5	1	337	1	10	No	No	No	No	No	No	No	No	No	No
6	1	333	1	10	No	No	No	No	No	No	No	No	No	No
7	1	329	1	10	No	No	No	No	No	No	No	No	No	No
8	1	299	1	9	No	No	No	No	No	No	No	No	No	No
9	1	295	1	9	No	No	No	No	No	No	No	No	No	No
10	1	290	1	9	No	No	No	No	No	No	No	No	No	No
11	1	252	1	8	No	No	No	No	No	No	No	No	No	No
12	1	234	1	7	No	No	No	No	No	No	No	No	No	No
13	1	230	1	7	No	No	No	No	No	No	No	No	No	No
14	1	171	1	5	No	No	No	No	No	No	No	No	No	No
15	1	171	1	5	No	No	No	No	No	No	No	No	No	No
16	1	119	1	4	No	No	No	No	No	No	No	No	No	No
17	1	68	1	2	No	No	No	No	No	No	No	No	No	No
18	1	68	1	2	No	No	No	No	No	No	No	No	No	No
19	1	39	1	1	No	No	No	No	No	No	No	No	No	No
20	1	21	1	1	No	No	No	No	No	No	No	No	No	No
21	1	13	1	0	No	No	No	No	No	No	No	No	No	No
22	1	4	1	0	No	No	No	No	No	No	No	No	No	No
23	1	4	1	0	No	No	No	No	No	No	No	No	No	No
24	1	4	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	11.3	10.9
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:01	0:02
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	6	13
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	446	446
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 3: Palomar Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	229	203	8	80
2	222	197	8	78
3	218	193	8	76
4	204	181	7	71
5	181	160	6	63
6	179	158	6	62
7	176	156	6	62
8	160	142	6	56
9	158	140	6	55
10	156	138	5	54
11	135	120	5	47
12	126	112	4	44
13	124	110	4	43
14	92	81	3	32
15	92	81	3	32
16	64	57	2	22
17	37	32	1	13
18	37	32	1	13
19	21	18	1	7
20	11	10	0	4
21	7	6	0	2
22	2	2	0	1
23	2	2	0	1
24	2	2	0	1

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	432	1	80	No	No	No	No	No	No	No	Yes	No	No
2	1	419	1	78	No	No	No	No	No	No	No	No	No	No
3	1	411	1	76	No	No	No	No	No	No	No	No	No	No
4	1	385	1	71	No	No	No	No	No	No	No	No	No	No
5	1	341	1	63	No	No	No	No	No	No	No	No	No	No
6	1	337	1	62	No	No	No	No	No	No	No	No	No	No
7	1	332	1	62	No	No	No	No	No	No	No	No	No	No
8	1	302	1	56	No	No	No	No	No	No	No	No	No	No
9	1	298	1	55	No	No	No	No	No	No	No	No	No	No
10	1	294	1	54	No	No	No	No	No	No	No	No	No	No
11	1	255	1	47	No	No	No	No	No	No	No	No	No	No
12	1	238	1	44	No	No	No	No	No	No	No	No	No	No
13	1	234	1	43	No	No	No	No	No	No	No	No	No	No
14	1	173	1	32	No	No	No	No	No	No	No	No	No	No
15	1	173	1	32	No	No	No	No	No	No	No	No	No	No
16	1	121	1	22	No	No	No	No	No	No	No	No	No	No
17	1	69	1	13	No	No	No	No	No	No	No	No	No	No
18	1	69	1	13	No	No	No	No	No	No	No	No	No	No
19	1	39	1	7	No	No	No	No	No	No	No	No	No	No
20	1	21	1	4	No	No	No	No	No	No	No	No	No	No
21	1	13	1	2	No	No	No	No	No	No	No	No	No	No
22	1	4	1	1	No	No	No	No	No	No	No	No	No	No
23	1	4	1	1	No	No	No	No	No	No	No	No	No	No
24	1	4	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	1	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	13.3	10.9
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:01	0:14
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	8	80
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	520	520
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 4: Menifee Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	707	981	192	305
2	686	952	186	296
3	672	932	182	290
4	629	873	171	271
5	559	775	152	241
6	551	765	150	238
7	544	755	148	235
8	495	687	134	214
9	488	677	132	210
10	481	667	131	207
11	417	579	113	180
12	389	540	106	168
13	382	530	104	165
14	283	392	77	122
15	283	392	77	122
16	198	275	54	85
17	113	157	31	49
18	113	157	31	49
19	64	88	17	27
20	35	49	10	15
21	21	29	6	9
22	7	10	2	3
23	7	10	2	3
24	7	10	2	3

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	3	1688	1	305	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	3	1638	1	296	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	3	1604	1	290	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4	3	1502	1	271	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5	3	1334	1	241	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6	3	1316	1	238	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
7	3	1299	1	235	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8	3	1182	1	214	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9	3	1165	1	210	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
10	3	1148	1	207	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
11	3	996	1	180	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12	3	929	1	168	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
13	3	912	1	165	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
14	3	675	1	122	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No
15	3	675	1	122	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No
16	3	473	1	85	No	No	No	Yes	No	No	No	No	No	No
17	3	270	1	49	No	No	No	No	No	No	No	No	No	No
18	3	270	1	49	No	No	No	No	No	No	No	No	No	No
19	3	152	1	27	No	No	No	No	No	No	No	No	No	No
20	3	84	1	15	No	No	No	No	No	No	No	No	No	No
21	3	50	1	9	No	No	No	No	No	No	No	No	No	No
22	3	17	1	3	No	No	No	No	No	No	No	No	No	No
23	3	17	1	3	No	No	No	No	No	No	No	No	No	No
24	3	17	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					13	15	15	16	13	13	15	15	15	13

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	22	39.4
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	1:10	3:20
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	192	305
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	2185	2185
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 5: Tradewinds Dr/Project Driveway 1

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	5	2	0	3
2	5	2	0	3
3	5	2	0	3
4	4	2	0	3
5	4	2	0	2
6	4	2	0	2
7	4	2	0	2
8	4	1	0	2
9	3	1	0	2
10	3	1	0	2
11	3	1	0	2
12	3	1	0	2
13	3	1	0	2
14	2	1	0	1
15	2	1	0	1
16	1	1	0	1
17	1	0	0	0
18	1	0	0	0
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	7	1	3	No	No	No	No	No	No	No	No	No	No
2	1	7	1	3	No	No	No	No	No	No	No	No	No	No
3	1	7	1	3	No	No	No	No	No	No	No	No	No	No
4	1	6	1	3	No	No	No	No	No	No	No	No	No	No
5	1	6	1	2	No	No	No	No	No	No	No	No	No	No
6	1	6	1	2	No	No	No	No	No	No	No	No	No	No
7	1	6	1	2	No	No	No	No	No	No	No	No	No	No
8	1	5	1	2	No	No	No	No	No	No	No	No	No	No
9	1	4	1	2	No	No	No	No	No	No	No	No	No	No
10	1	4	1	2	No	No	No	No	No	No	No	No	No	No
11	1	4	1	2	No	No	No	No	No	No	No	No	No	No
12	1	4	1	2	No	No	No	No	No	No	No	No	No	No
13	1	4	1	2	No	No	No	No	No	No	No	No	No	No
14	1	3	1	1	No	No	No	No	No	No	No	No	No	No
15	1	3	1	1	No	No	No	No	No	No	No	No	No	No
16	1	2	1	1	No	No	No	No	No	No	No	No	No	No
17	1	1	1	0	No	No	No	No	No	No	No	No	No	No
18	1	1	1	0	No	No	No	No	No	No	No	No	No	No
19	1	0	1	0	No	No	No	No	No	No	No	No	No	No
20	1	0	1	0	No	No	No	No	No	No	No	No	No	No
21	1	0	1	0	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.6	8.3
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	0	3
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	10	10
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 6: Palomar Rd/ Project Driveway 2

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	1	1	0
2	1	1	0
3	1	1	0
4	1	1	0
5	1	1	0
6	1	1	0
7	1	1	0
8	1	1	0
9	1	1	0
10	1	1	0
11	1	1	0
12	1	1	0
13	1	1	0
14	0	0	0
15	0	0	0
16	0	0	0
17	0	0	0
18	0	0	0
19	0	0	0
20	0	0	0
21	0	0	0
22	0	0	0
23	0	0	0
24	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	2	1	0	No	No	No	No	No	No	No	No	No	No
2	1	2	1	0	No	No	No	No	No	No	No	No	No	No
3	1	2	1	0	No	No	No	No	No	No	No	No	No	No
4	1	2	1	0	No	No	No	No	No	No	No	No	No	No
5	1	2	1	0	No	No	No	No	No	No	No	No	No	No
6	1	2	1	0	No	No	No	No	No	No	No	No	No	No
7	1	2	1	0	No	No	No	No	No	No	No	No	No	No
8	1	2	1	0	No	No	No	No	No	No	No	No	No	No
9	1	2	1	0	No	No	No	No	No	No	No	No	No	No
10	1	2	1	0	No	No	No	No	No	No	No	No	No	No
11	1	2	1	0	No	No	No	No	No	No	No	No	No	No
12	1	2	1	0	No	No	No	No	No	No	No	No	No	No
13	1	2	1	0	No	No	No	No	No	No	No	No	No	No
14	1	0	1	0	No	No	No	No	No	No	No	No	No	No
15	1	0	1	0	No	No	No	No	No	No	No	No	No	No
16	1	0	1	0	No	No	No	No	No	No	No	No	No	No
17	1	0	1	0	No	No	No	No	No	No	No	No	No	No
18	1	0	1	0	No	No	No	No	No	No	No	No	No	No
19	1	0	1	0	No	No	No	No	No	No	No	No	No	No
20	1	0	1	0	No	No	No	No	No	No	No	No	No	No
21	1	0	1	0	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.4
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	2
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 1: Antelope Rd/Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	244	274	398	261
2	237	266	386	253
3	232	260	378	248
4	217	244	354	232
5	193	216	314	206
6	190	214	310	204
7	188	211	306	201
8	171	192	279	183
9	168	189	275	180
10	166	186	271	177
11	144	162	235	154
12	134	151	219	144
13	132	148	215	141
14	98	110	159	104
15	98	110	159	104
16	68	77	111	73
17	39	44	64	42
18	39	44	64	42
19	22	25	36	23
20	12	14	20	13
21	7	8	12	8
22	2	3	4	3
23	2	3	4	3
24	2	3	4	3

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	518	1	398	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No
2	1	503	1	386	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No
3	1	492	1	378	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
4	1	461	1	354	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
5	1	409	1	314	No	Yes	Yes	Yes	No	No	No	No	Yes	No
6	1	404	1	310	No	Yes	Yes	Yes	No	No	No	No	Yes	No
7	1	399	1	306	No	No	Yes	Yes	No	No	No	No	No	No
8	1	363	1	279	No	No	Yes	Yes	No	No	No	No	No	No
9	1	357	1	275	No	No	Yes	Yes	No	No	No	No	No	No
10	1	352	1	271	No	No	Yes	Yes	No	No	No	No	No	No
11	1	306	1	235	No	No	No	Yes	No	No	No	No	No	No
12	1	285	1	219	No	No	No	Yes	No	No	No	No	No	No
13	1	280	1	215	No	No	No	Yes	No	No	No	No	No	No
14	1	208	1	159	No	No	No	No	No	No	No	No	No	No
15	1	208	1	159	No	No	No	No	No	No	No	No	No	No
16	1	145	1	111	No	No	No	No	No	No	No	No	No	No
17	1	83	1	64	No	No	No	No	No	No	No	No	No	No
18	1	83	1	64	No	No	No	No	No	No	No	No	No	No
19	1	47	1	36	No	No	No	No	No	No	No	No	No	No
20	1	26	1	20	No	No	No	No	No	No	No	No	No	No
21	1	15	1	12	No	No	No	No	No	No	No	No	No	No
22	1	5	1	4	No	No	No	No	No	No	No	No	No	No
23	1	5	1	4	No	No	No	No	No	No	No	No	No	No
24	1	5	1	4	No	No	No	No	No	No	No	No	No	No
Hours Met					2	6	10	13	0	0	0	4	6	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	28.3	16.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	3:07	1:12
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	398	261
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	1177	1177
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Tradewinds Dr/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	243	177	56	11
2	236	172	54	11
3	231	168	53	10
4	216	158	50	10
5	192	140	44	9
6	190	138	44	9
7	187	136	43	8
8	170	124	39	8
9	168	122	39	8
10	165	120	38	7
11	143	104	33	6
12	134	97	31	6
13	131	96	30	6
14	97	71	22	4
15	97	71	22	4
16	68	50	16	3
17	39	28	9	2
18	39	28	9	2
19	22	16	5	1
20	12	9	3	1
21	7	5	2	0
22	2	2	1	0
23	2	2	1	0
24	2	2	1	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	420	1	56	No	No	No	No	No	No	No	Yes	No	No
2	1	408	1	54	No	No	No	No	No	No	No	No	No	No
3	1	399	1	53	No	No	No	No	No	No	No	No	No	No
4	1	374	1	50	No	No	No	No	No	No	No	No	No	No
5	1	332	1	44	No	No	No	No	No	No	No	No	No	No
6	1	328	1	44	No	No	No	No	No	No	No	No	No	No
7	1	323	1	43	No	No	No	No	No	No	No	No	No	No
8	1	294	1	39	No	No	No	No	No	No	No	No	No	No
9	1	290	1	39	No	No	No	No	No	No	No	No	No	No
10	1	285	1	38	No	No	No	No	No	No	No	No	No	No
11	1	247	1	33	No	No	No	No	No	No	No	No	No	No
12	1	231	1	31	No	No	No	No	No	No	No	No	No	No
13	1	227	1	30	No	No	No	No	No	No	No	No	No	No
14	1	168	1	22	No	No	No	No	No	No	No	No	No	No
15	1	168	1	22	No	No	No	No	No	No	No	No	No	No
16	1	118	1	16	No	No	No	No	No	No	No	No	No	No
17	1	67	1	9	No	No	No	No	No	No	No	No	No	No
18	1	67	1	9	No	No	No	No	No	No	No	No	No	No
19	1	38	1	5	No	No	No	No	No	No	No	No	No	No
20	1	21	1	3	No	No	No	No	No	No	No	No	No	No
21	1	12	1	2	No	No	No	No	No	No	No	No	No	No
22	1	4	1	1	No	No	No	No	No	No	No	No	No	No
23	1	4	1	1	No	No	No	No	No	No	No	No	No	No
24	1	4	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	1	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.2	12.9
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:09	0:02
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	56	11
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	487	487
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 3: Palomar Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	251	155	38	56
2	243	150	37	54
3	238	147	36	53
4	223	138	34	50
5	198	122	30	44
6	196	121	30	44
7	193	119	29	43
8	176	109	27	39
9	173	107	26	39
10	171	105	26	38
11	148	91	22	33
12	138	85	21	31
13	136	84	21	30
14	100	62	15	22
15	100	62	15	22
16	70	43	11	16
17	40	25	6	9
18	40	25	6	9
19	23	14	3	5
20	13	8	2	3
21	8	5	1	2
22	3	2	0	1
23	3	2	0	1
24	3	2	0	1

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	406	1	56	No	No	No	No	No	No	No	No	No	No
2	1	393	1	54	No	No	No	No	No	No	No	No	No	No
3	1	385	1	53	No	No	No	No	No	No	No	No	No	No
4	1	361	1	50	No	No	No	No	No	No	No	No	No	No
5	1	320	1	44	No	No	No	No	No	No	No	No	No	No
6	1	317	1	44	No	No	No	No	No	No	No	No	No	No
7	1	312	1	43	No	No	No	No	No	No	No	No	No	No
8	1	285	1	39	No	No	No	No	No	No	No	No	No	No
9	1	280	1	39	No	No	No	No	No	No	No	No	No	No
10	1	276	1	38	No	No	No	No	No	No	No	No	No	No
11	1	239	1	33	No	No	No	No	No	No	No	No	No	No
12	1	223	1	31	No	No	No	No	No	No	No	No	No	No
13	1	220	1	30	No	No	No	No	No	No	No	No	No	No
14	1	162	1	22	No	No	No	No	No	No	No	No	No	No
15	1	162	1	22	No	No	No	No	No	No	No	No	No	No
16	1	113	1	16	No	No	No	No	No	No	No	No	No	No
17	1	65	1	9	No	No	No	No	No	No	No	No	No	No
18	1	65	1	9	No	No	No	No	No	No	No	No	No	No
19	1	37	1	5	No	No	No	No	No	No	No	No	No	No
20	1	21	1	3	No	No	No	No	No	No	No	No	No	No
21	1	13	1	2	No	No	No	No	No	No	No	No	No	No
22	1	5	1	1	No	No	No	No	No	No	No	No	No	No
23	1	5	1	1	No	No	No	No	No	No	No	No	No	No
24	1	5	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	12.3	10.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:07	0:10
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	38	56
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	500	500
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 4: Menifee Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	963	1296	287	198
2	934	1257	278	192
3	915	1231	273	188
4	857	1153	255	176
5	761	1024	227	156
6	751	1011	224	154
7	742	998	221	152
8	674	907	201	139
9	664	894	198	137
10	655	881	195	135
11	568	765	169	117
12	530	713	158	109
13	520	700	155	107
14	385	518	115	79
15	385	518	115	79
16	270	363	80	55
17	154	207	46	32
18	154	207	46	32
19	87	117	26	18
20	48	65	14	10
21	29	39	9	6
22	10	13	3	2
23	10	13	3	2
24	10	13	3	2

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	3	2259	1	287	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	3	2191	1	278	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	3	2146	1	273	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4	3	2010	1	255	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5	3	1785	1	227	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6	3	1762	1	224	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
7	3	1740	1	221	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8	3	1581	1	201	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9	3	1558	1	198	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
10	3	1536	1	195	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
11	3	1333	1	169	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12	3	1243	1	158	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
13	3	1220	1	155	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
14	3	903	1	115	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
15	3	903	1	115	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
16	3	633	1	80	No	No	No	No	No	No	Yes	Yes	No	No
17	3	361	1	46	No	No	No	No	No	No	No	No	No	No
18	3	361	1	46	No	No	No	No	No	No	No	No	No	No
19	3	204	1	26	No	No	No	No	No	No	No	No	No	No
20	3	113	1	14	No	No	No	No	No	No	No	No	No	No
21	3	68	1	9	No	No	No	No	No	No	No	No	No	No
22	3	23	1	3	No	No	No	No	No	No	No	No	No	No
23	3	23	1	3	No	No	No	No	No	No	No	No	No	No
24	3	23	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					13	13	15	15	15	15	16	16	15	13

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	44.9	27.2
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	3:34	1:29
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	287	198
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	2744	2744
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 5: Tradewinds Dr/Project Driveway 1

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	5	20	44	3
2	5	19	43	3
3	5	19	42	3
4	4	18	39	3
5	4	16	35	2
6	4	16	34	2
7	4	15	34	2
8	4	14	31	2
9	3	14	30	2
10	3	14	30	2
11	3	12	26	2
12	3	11	24	2
13	3	11	24	2
14	2	8	18	1
15	2	8	18	1
16	1	6	12	1
17	1	3	7	0
18	1	3	7	0
19	0	2	4	0
20	0	1	2	0
21	0	1	1	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	25	1	44	No	No	No	No	No	No	No	No	No	No
2	1	24	1	43	No	No	No	No	No	No	No	No	No	No
3	1	24	1	42	No	No	No	No	No	No	No	No	No	No
4	1	22	1	39	No	No	No	No	No	No	No	No	No	No
5	1	20	1	35	No	No	No	No	No	No	No	No	No	No
6	1	20	1	34	No	No	No	No	No	No	No	No	No	No
7	1	19	1	34	No	No	No	No	No	No	No	No	No	No
8	1	18	1	31	No	No	No	No	No	No	No	No	No	No
9	1	17	1	30	No	No	No	No	No	No	No	No	No	No
10	1	17	1	30	No	No	No	No	No	No	No	No	No	No
11	1	15	1	26	No	No	No	No	No	No	No	No	No	No
12	1	14	1	24	No	No	No	No	No	No	No	No	No	No
13	1	14	1	24	No	No	No	No	No	No	No	No	No	No
14	1	10	1	18	No	No	No	No	No	No	No	No	No	No
15	1	10	1	18	No	No	No	No	No	No	No	No	No	No
16	1	7	1	12	No	No	No	No	No	No	No	No	No	No
17	1	4	1	7	No	No	No	No	No	No	No	No	No	No
18	1	4	1	7	No	No	No	No	No	No	No	No	No	No
19	1	2	1	4	No	No	No	No	No	No	No	No	No	No
20	1	1	1	2	No	No	No	No	No	No	No	No	No	No
21	1	1	1	1	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.8	8.3
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:06	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	44	3
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	72	72
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 6: Palomar Rd/ Project Driveway 2

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	1	16	36
2	1	16	35
3	1	15	34
4	1	14	32
5	1	13	28
6	1	12	28
7	1	12	28
8	1	11	25
9	1	11	25
10	1	11	24
11	1	9	21
12	1	9	20
13	1	9	19
14	0	6	14
15	0	6	14
16	0	4	10
17	0	3	6
18	0	3	6
19	0	1	3
20	0	1	2
21	0	0	1
22	0	0	0
23	0	0	0
24	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	17	1	36	No	No	No	No	No	No	No	No	No	No
2	1	17	1	35	No	No	No	No	No	No	No	No	No	No
3	1	16	1	34	No	No	No	No	No	No	No	No	No	No
4	1	15	1	32	No	No	No	No	No	No	No	No	No	No
5	1	14	1	28	No	No	No	No	No	No	No	No	No	No
6	1	13	1	28	No	No	No	No	No	No	No	No	No	No
7	1	13	1	28	No	No	No	No	No	No	No	No	No	No
8	1	12	1	25	No	No	No	No	No	No	No	No	No	No
9	1	12	1	25	No	No	No	No	No	No	No	No	No	No
10	1	12	1	24	No	No	No	No	No	No	No	No	No	No
11	1	10	1	21	No	No	No	No	No	No	No	No	No	No
12	1	10	1	20	No	No	No	No	No	No	No	No	No	No
13	1	10	1	19	No	No	No	No	No	No	No	No	No	No
14	1	6	1	14	No	No	No	No	No	No	No	No	No	No
15	1	6	1	14	No	No	No	No	No	No	No	No	No	No
16	1	4	1	10	No	No	No	No	No	No	No	No	No	No
17	1	3	1	6	No	No	No	No	No	No	No	No	No	No
18	1	3	1	6	No	No	No	No	No	No	No	No	No	No
19	1	1	1	3	No	No	No	No	No	No	No	No	No	No
20	1	1	1	2	No	No	No	No	No	No	No	No	No	No
21	1	0	1	1	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.4
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:05
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	36
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	53
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 1: Antelope Rd/Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	244	274	398	261
2	237	266	386	253
3	232	260	378	248
4	217	244	354	232
5	193	216	314	206
6	190	214	310	204
7	188	211	306	201
8	171	192	279	183
9	168	189	275	180
10	166	186	271	177
11	144	162	235	154
12	134	151	219	144
13	132	148	215	141
14	98	110	159	104
15	98	110	159	104
16	68	77	111	73
17	39	44	64	42
18	39	44	64	42
19	22	25	36	23
20	12	14	20	13
21	7	8	12	8
22	2	3	4	3
23	2	3	4	3
24	2	3	4	3

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	518	1	398	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No
2	1	503	1	386	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No
3	1	492	1	378	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
4	1	461	1	354	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
5	1	409	1	314	No	Yes	Yes	Yes	No	No	No	No	Yes	No
6	1	404	1	310	No	Yes	Yes	Yes	No	No	No	No	Yes	No
7	1	399	1	306	No	No	Yes	Yes	No	No	No	No	No	No
8	1	363	1	279	No	No	Yes	Yes	No	No	No	No	No	No
9	1	357	1	275	No	No	Yes	Yes	No	No	No	No	No	No
10	1	352	1	271	No	No	Yes	Yes	No	No	No	No	No	No
11	1	306	1	235	No	No	No	Yes	No	No	No	No	No	No
12	1	285	1	219	No	No	No	Yes	No	No	No	No	No	No
13	1	280	1	215	No	No	No	Yes	No	No	No	No	No	No
14	1	208	1	159	No	No	No	No	No	No	No	No	No	No
15	1	208	1	159	No	No	No	No	No	No	No	No	No	No
16	1	145	1	111	No	No	No	No	No	No	No	No	No	No
17	1	83	1	64	No	No	No	No	No	No	No	No	No	No
18	1	83	1	64	No	No	No	No	No	No	No	No	No	No
19	1	47	1	36	No	No	No	No	No	No	No	No	No	No
20	1	26	1	20	No	No	No	No	No	No	No	No	No	No
21	1	15	1	12	No	No	No	No	No	No	No	No	No	No
22	1	5	1	4	No	No	No	No	No	No	No	No	No	No
23	1	5	1	4	No	No	No	No	No	No	No	No	No	No
24	1	5	1	4	No	No	No	No	No	No	No	No	No	No
Hours Met					2	6	10	13	0	0	0	4	6	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	28.3	16.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	3:07	1:12
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	398	261
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	1177	1177
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Tradewinds Dr/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	243	177	56	11
2	236	172	54	11
3	231	168	53	10
4	216	158	50	10
5	192	140	44	9
6	190	138	44	9
7	187	136	43	8
8	170	124	39	8
9	168	122	39	8
10	165	120	38	7
11	143	104	33	6
12	134	97	31	6
13	131	96	30	6
14	97	71	22	4
15	97	71	22	4
16	68	50	16	3
17	39	28	9	2
18	39	28	9	2
19	22	16	5	1
20	12	9	3	1
21	7	5	2	0
22	2	2	1	0
23	2	2	1	0
24	2	2	1	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	420	1	56	No	No	No	No	No	No	No	Yes	No	No
2	1	408	1	54	No	No	No	No	No	No	No	No	No	No
3	1	399	1	53	No	No	No	No	No	No	No	No	No	No
4	1	374	1	50	No	No	No	No	No	No	No	No	No	No
5	1	332	1	44	No	No	No	No	No	No	No	No	No	No
6	1	328	1	44	No	No	No	No	No	No	No	No	No	No
7	1	323	1	43	No	No	No	No	No	No	No	No	No	No
8	1	294	1	39	No	No	No	No	No	No	No	No	No	No
9	1	290	1	39	No	No	No	No	No	No	No	No	No	No
10	1	285	1	38	No	No	No	No	No	No	No	No	No	No
11	1	247	1	33	No	No	No	No	No	No	No	No	No	No
12	1	231	1	31	No	No	No	No	No	No	No	No	No	No
13	1	227	1	30	No	No	No	No	No	No	No	No	No	No
14	1	168	1	22	No	No	No	No	No	No	No	No	No	No
15	1	168	1	22	No	No	No	No	No	No	No	No	No	No
16	1	118	1	16	No	No	No	No	No	No	No	No	No	No
17	1	67	1	9	No	No	No	No	No	No	No	No	No	No
18	1	67	1	9	No	No	No	No	No	No	No	No	No	No
19	1	38	1	5	No	No	No	No	No	No	No	No	No	No
20	1	21	1	3	No	No	No	No	No	No	No	No	No	No
21	1	12	1	2	No	No	No	No	No	No	No	No	No	No
22	1	4	1	1	No	No	No	No	No	No	No	No	No	No
23	1	4	1	1	No	No	No	No	No	No	No	No	No	No
24	1	4	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	1	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.2	12.9
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:09	0:02
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	56	11
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	487	487
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 3: Palomar Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N, S
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	N	S
1	251	155	38	56
2	243	150	37	54
3	238	147	36	53
4	223	138	34	50
5	198	122	30	44
6	196	121	30	44
7	193	119	29	43
8	176	109	27	39
9	173	107	26	39
10	171	105	26	38
11	148	91	22	33
12	138	85	21	31
13	136	84	21	30
14	100	62	15	22
15	100	62	15	22
16	70	43	11	16
17	40	25	6	9
18	40	25	6	9
19	23	14	3	5
20	13	8	2	3
21	8	5	1	2
22	3	2	0	1
23	3	2	0	1
24	3	2	0	1

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	406	1	56	No	No	No	No	No	No	No	No	No	No
2	1	393	1	54	No	No	No	No	No	No	No	No	No	No
3	1	385	1	53	No	No	No	No	No	No	No	No	No	No
4	1	361	1	50	No	No	No	No	No	No	No	No	No	No
5	1	320	1	44	No	No	No	No	No	No	No	No	No	No
6	1	317	1	44	No	No	No	No	No	No	No	No	No	No
7	1	312	1	43	No	No	No	No	No	No	No	No	No	No
8	1	285	1	39	No	No	No	No	No	No	No	No	No	No
9	1	280	1	39	No	No	No	No	No	No	No	No	No	No
10	1	276	1	38	No	No	No	No	No	No	No	No	No	No
11	1	239	1	33	No	No	No	No	No	No	No	No	No	No
12	1	223	1	31	No	No	No	No	No	No	No	No	No	No
13	1	220	1	30	No	No	No	No	No	No	No	No	No	No
14	1	162	1	22	No	No	No	No	No	No	No	No	No	No
15	1	162	1	22	No	No	No	No	No	No	No	No	No	No
16	1	113	1	16	No	No	No	No	No	No	No	No	No	No
17	1	65	1	9	No	No	No	No	No	No	No	No	No	No
18	1	65	1	9	No	No	No	No	No	No	No	No	No	No
19	1	37	1	5	No	No	No	No	No	No	No	No	No	No
20	1	21	1	3	No	No	No	No	No	No	No	No	No	No
21	1	13	1	2	No	No	No	No	No	No	No	No	No	No
22	1	5	1	1	No	No	No	No	No	No	No	No	No	No
23	1	5	1	1	No	No	No	No	No	No	No	No	No	No
24	1	5	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	12.3	10.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:07	0:10
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	38	56
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	500	500
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 4: Menifee Rd/ Mapes Rd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	963	1296	287	198
2	934	1257	278	192
3	915	1231	273	188
4	857	1153	255	176
5	761	1024	227	156
6	751	1011	224	154
7	742	998	221	152
8	674	907	201	139
9	664	894	198	137
10	655	881	195	135
11	568	765	169	117
12	530	713	158	109
13	520	700	155	107
14	385	518	115	79
15	385	518	115	79
16	270	363	80	55
17	154	207	46	32
18	154	207	46	32
19	87	117	26	18
20	48	65	14	10
21	29	39	9	6
22	10	13	3	2
23	10	13	3	2
24	10	13	3	2

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	3	2259	1	287	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	3	2191	1	278	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	3	2146	1	273	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4	3	2010	1	255	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5	3	1785	1	227	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6	3	1762	1	224	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
7	3	1740	1	221	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8	3	1581	1	201	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9	3	1558	1	198	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
10	3	1536	1	195	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
11	3	1333	1	169	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12	3	1243	1	158	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
13	3	1220	1	155	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
14	3	903	1	115	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
15	3	903	1	115	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
16	3	633	1	80	No	No	No	No	No	No	Yes	Yes	No	No
17	3	361	1	46	No	No	No	No	No	No	No	No	No	No
18	3	361	1	46	No	No	No	No	No	No	No	No	No	No
19	3	204	1	26	No	No	No	No	No	No	No	No	No	No
20	3	113	1	14	No	No	No	No	No	No	No	No	No	No
21	3	68	1	9	No	No	No	No	No	No	No	No	No	No
22	3	23	1	3	No	No	No	No	No	No	No	No	No	No
23	3	23	1	3	No	No	No	No	No	No	No	No	No	No
24	3	23	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					13	13	15	15	15	15	16	16	15	13

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	44.9	27.2
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	3:34	1:29
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	287	198
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	2744	2744
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 5: Tradewinds Dr/Project Driveway 1

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	5	20	44	3
2	5	19	43	3
3	5	19	42	3
4	4	18	39	3
5	4	16	35	2
6	4	16	34	2
7	4	15	34	2
8	4	14	31	2
9	3	14	30	2
10	3	14	30	2
11	3	12	26	2
12	3	11	24	2
13	3	11	24	2
14	2	8	18	1
15	2	8	18	1
16	1	6	12	1
17	1	3	7	0
18	1	3	7	0
19	0	2	4	0
20	0	1	2	0
21	0	1	1	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	25	1	44	No	No	No	No	No	No	No	No	No	No
2	1	24	1	43	No	No	No	No	No	No	No	No	No	No
3	1	24	1	42	No	No	No	No	No	No	No	No	No	No
4	1	22	1	39	No	No	No	No	No	No	No	No	No	No
5	1	20	1	35	No	No	No	No	No	No	No	No	No	No
6	1	20	1	34	No	No	No	No	No	No	No	No	No	No
7	1	19	1	34	No	No	No	No	No	No	No	No	No	No
8	1	18	1	31	No	No	No	No	No	No	No	No	No	No
9	1	17	1	30	No	No	No	No	No	No	No	No	No	No
10	1	17	1	30	No	No	No	No	No	No	No	No	No	No
11	1	15	1	26	No	No	No	No	No	No	No	No	No	No
12	1	14	1	24	No	No	No	No	No	No	No	No	No	No
13	1	14	1	24	No	No	No	No	No	No	No	No	No	No
14	1	10	1	18	No	No	No	No	No	No	No	No	No	No
15	1	10	1	18	No	No	No	No	No	No	No	No	No	No
16	1	7	1	12	No	No	No	No	No	No	No	No	No	No
17	1	4	1	7	No	No	No	No	No	No	No	No	No	No
18	1	4	1	7	No	No	No	No	No	No	No	No	No	No
19	1	2	1	4	No	No	No	No	No	No	No	No	No	No
20	1	1	1	2	No	No	No	No	No	No	No	No	No	No
21	1	1	1	1	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.8	8.3
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:06	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	44	3
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	72	72
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 6: Palomar Rd/ Project Driveway 2

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	1	16	36
2	1	16	35
3	1	15	34
4	1	14	32
5	1	13	28
6	1	12	28
7	1	12	28
8	1	11	25
9	1	11	25
10	1	11	24
11	1	9	21
12	1	9	20
13	1	9	19
14	0	6	14
15	0	6	14
16	0	4	10
17	0	3	6
18	0	3	6
19	0	1	3
20	0	1	2
21	0	0	1
22	0	0	0
23	0	0	0
24	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	17	1	36	No	No	No	No	No	No	No	No	No	No
2	1	17	1	35	No	No	No	No	No	No	No	No	No	No
3	1	16	1	34	No	No	No	No	No	No	No	No	No	No
4	1	15	1	32	No	No	No	No	No	No	No	No	No	No
5	1	14	1	28	No	No	No	No	No	No	No	No	No	No
6	1	13	1	28	No	No	No	No	No	No	No	No	No	No
7	1	13	1	28	No	No	No	No	No	No	No	No	No	No
8	1	12	1	25	No	No	No	No	No	No	No	No	No	No
9	1	12	1	25	No	No	No	No	No	No	No	No	No	No
10	1	12	1	24	No	No	No	No	No	No	No	No	No	No
11	1	10	1	21	No	No	No	No	No	No	No	No	No	No
12	1	10	1	20	No	No	No	No	No	No	No	No	No	No
13	1	10	1	19	No	No	No	No	No	No	No	No	No	No
14	1	6	1	14	No	No	No	No	No	No	No	No	No	No
15	1	6	1	14	No	No	No	No	No	No	No	No	No	No
16	1	4	1	10	No	No	No	No	No	No	No	No	No	No
17	1	3	1	6	No	No	No	No	No	No	No	No	No	No
18	1	3	1	6	No	No	No	No	No	No	No	No	No	No
19	1	1	1	3	No	No	No	No	No	No	No	No	No	No
20	1	1	1	2	No	No	No	No	No	No	No	No	No	No
21	1	0	1	1	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.4
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:05
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	36
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	53
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

To:	County of Riverside
From:	Jordan Mower, Maryam Javanmardi, Chad Karns, EPD Solutions, Inc.
Date:	2/4/2026
Site:	Northwest Corner of Mapes Road and Palomar Road, Romoland, CA, 92585
Subject:	Vehicle Miles Traveled (VMT) Screening Analysis Mapes and Palomar – EPD Project No. 25-006

This is an update to the previously approved Vehicle Miles Traveled (VMT) Screening Analysis for 144 numbered lots for single-family residential development approved by the County of Riverside on November 5, 2025.

This technical memorandum evaluates the proposed Project located at the northwest corner of Mapes Road and Palomar Road in unincorporated Riverside County. The Project site includes 68 parcels total 39.09 acres: Assessor's Parcel Numbers (APNs) 327-480-001 through -022; 327-481-001 through -012; 327-490-001 through -016; and 327-491-001 through -018. The purpose of this analysis is to determine whether a vehicle miles traveled (VMT) analysis would be required for the proposed Project. This memo will evaluate the Project using the Riverside County *Transportation Analysis Guidelines for Level of Service and Vehicle Miles Traveled* (December 2020).

Project Location and Regional Access

The Project site is located at the northwest corner of Mapes Road and Palomar Road in the northwestern portion of unincorporated Riverside County. Regional access to the Project site is provided via Interstate 215 (I-215) to the west and State Route 74 (SR-74) to the north.

Project Description

The Project was originally entitled on July 26, 2005, under Tentative Tract Map (TTM) No. 31684, Environmental Assessment No. 39303, approving subdivision of the site into 65 single-family residential lots (minimum lot size of 0.5 acres) along with three open space lots for drainage and flood control purposes. The existing Project site is currently vacant and undeveloped.

The Project now proposes a zone change from Very Low Density Residential (VLDR) to Planned Residential (R-4), with the creation of 172 individual lots, including 157 numbered lots for single-family development and 15 lettered lots for a drainage basin, open space recreational and landscape areas, and a Riverside County Flood Control District (RCFCD) easement. The proposed Project also includes a General Plan Amendment to change the land use designation of the site from Very Low Density Residential (VLDR) to Medium Density Residential (MDR).

A site plan for the proposed Project is provided in Figure 1, *Proposed Project Site Plan.*

Project Trip Generation

A trip generation analysis was conducted to estimate vehicle trips associated with the proposed Project. The analysis applied trip rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 12th Edition* (2025) using Land Use Code 210 – Single-Family Detached Housing. As summarized in Table 1, *Project Trip Generation*, the proposed Project is estimated to generate 1,427 daily trips, including 110 trips during the AM peak hour and 146 trips during the PM peak hour.

Table 1: Project Trip Generation

				AM Peak Hour			PM Peak Hour		
Land Use		**Units**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Trip Rates									
210 Single-Family Detached Housing[1]		Dwelling Units	9.09	0.19	0.51	0.7	0.58	0.35	0.93
Project Trip Generation									
Single-Family Detached Housing[1]	157	Dwelling Units	1427	30	80	110	91	55	146
Total Project Trip Generation			**1427**	**30**	**80**	**110**	**91**	**55**	**146**

[1]Institute of Transportation Engineers, Trip Generation Manual, 12th Edition, 2025. Land Use Code 210 - Single-Family Detached Housing (Average Rate)

Vehicle Miles Traveled Background

Senate Bill (SB) 743 was signed by Governor Brown in 2013 and required the Governor's Office of Planning and Research (OPR) to amend the California Environmental Quality Act (CEQA) Guidelines to provide an alternative to level of service (LOS) for evaluating transportation impacts, aiming to promote the reduction of greenhouse gas (GHG) emissions, the development of multimodal transportation networks, and a diversity of land uses. In response, Section 15064.3, *Determining the Significance of Transportation Impacts*, was added to the CEQA Guidelines, which states that VMT is the most appropriate measure of transportation impacts and shall apply statewide beginning on July 1, 2020.

County of Riverside VMT Screening

Riverside County's *Transportation Analysis Guidelines* provide VMT screening thresholds to identify projects that would be considered to have a less-than-significant impact on VMT and therefore could be screened out from further analysis. If a project meets one of the following criteria, then the VMT impact of the project would be considered less than significant and no further analysis of VMT would be required:

1. The project generates 110 or fewer net new daily trips, or the project creates less than 3,000 metric tons of carbon dioxide equivalent ($MTCO_2e$) of greenhouse gas (GHG) emissions annually.
2. The project is located within a Transit Priority Area (TPA) and meets the following criteria:
    - Has a floor area ratio (FAR) of 0.75 or greater;
    - Is consistent with the applicable Southern California Association of Governments (SCAG) Sustainable Communities Strategy (SCS) (as determined by the County);
    - Does not provide more parking than required by the County; and
    - Does not replace affordable housing units.
3. The project includes locally serving retail uses under 50,000 square feet that primarily serve the local community.
4. The project includes a high percentage of residential units that qualify as affordable housing.
5. The project includes local essential services.
6. The project is located in a Traffic Analysis Zone (TAZ) that is below the county-wide baseline VMT per capita.
7. The project replaces an existing VMT-generating land use and does not result in a net overall increase in VMT.

The applicability of each criterion to the Project is discussed below.

Screening Criterion 1 – Small Projects: According to the County's Guidelines, projects that would generate 110 or fewer net new daily trips or that would generate less than 3,000 $MTCO_2e$ annually are presumed to have a less-than-significant impact on VMT. As shown in Table 1, *Project Trip Generation*, the proposed Project is expected to generate 1,427 daily trips, which is above the 110-trip threshold. To determine the GHG emissions created by the Project, the proposed 157 single-family homes on the 39.09-acre lot was input into CalEEMod Version 2020.4.0 (current adopted version). The CalEEMod results are approximate as the proposed Project's construction schedule has not been determined. The CalEEMod output file is included with this memo as Attachment A. According to the CalEEMod results, the proposed Project is expected to generate 2,406 $MTCO_2e$ annually, which is less than the 3,000 $MTCO_2e$ threshold. Therefore, the proposed Project would meet Screening Criterion 1.

Screening Criterion 2 – Transit Priority Area (TPA) Screening:[1] Per the County's VMT screening criteria, projects located within an existing TPA may be presumed to result in a less-than-significant VMT impact. As shown in Figure 2, *WRCOG VMT Screening Results,* based on the Western Riverside Council of Governments (WRCOG) VMT Tool, the proposed Project is not located within an existing TPA. Therefore, the Project does not meet Screening Criterion 2.

Screening Criterion 3 – Locally Serving Retail: According to the County's Guidelines, projects that propose locally serving retail uses of 50,000 square feet or less are presumed to have a less-than-significant impact on VMT. The proposed Project is not classified as retail under these definitions and therefore does not meet Screening Criterion 3.

Screening Criterion 4 – Affordable Housing: The County Guidelines provide a VMT screening exemption for residential projects that include affordable housing units. The proposed Project does not propose any affordable housing units and therefore does not meet Screening Criterion 4.

Screening Criterion 5 – Local Essential Service: According to the County's Guidelines, projects that propose local essential services such as police or fire facilities, dental/medical offices, government offices, local parks, etc., are presumed to have a less-than-significant impact on VMT. The proposed Project is not classified as a local essential service and therefore does not meet Screening Criterion 5.

Screening Criterion 6 – Map-Based Screening: The County's Guidelines include a screening threshold for projects located in a low VMT generating area, which is defined as a TAZ with total daily VMT per capita that is below the County-wide average. As the Project would require a General Plan Amendment and zone change, this screening criteria is not applicable. Therefore, the Project does not meet Screening Criterion 6.

Screening Criterion 7 – Redevelopment Projects: According to the County Guidelines, projects that replace an existing VMT-generating land use and do not result in a net overall increase in VMT are presumed to have a less-than-significant impact on VMT. The proposed Project does not replace an existing VMT-generating land use and therefore does not meet Screening Criterion 7.

Summary

The proposed Project meets Screening Criterion 1 (Small Projects) as the Project is expected to generate less than 3,000 $MTCO_2e$ annually. The proposed Project is expected to generate 2,406 $MTCO_2e$ annually. Therefore, the Project is presumed to have a less-than-significant impact on VMT, and no further analysis is required.

If you have any questions about this analysis, please contact us at (949) 794-1180 or techservices@epdsolutions.com.

[1] A Transit Priority Area (TPA) is defined as a half-mile radius around an existing major transit stop or an existing stop along a high-quality transit corridor per the definitions below.
Pub. Resources Code, § 21064.3 - 'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.
Pub. Resources Code, § 21155 - For purposes of this section, a 'high-quality transit corridor' means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

Figure 1: Proposed Project Site Plan

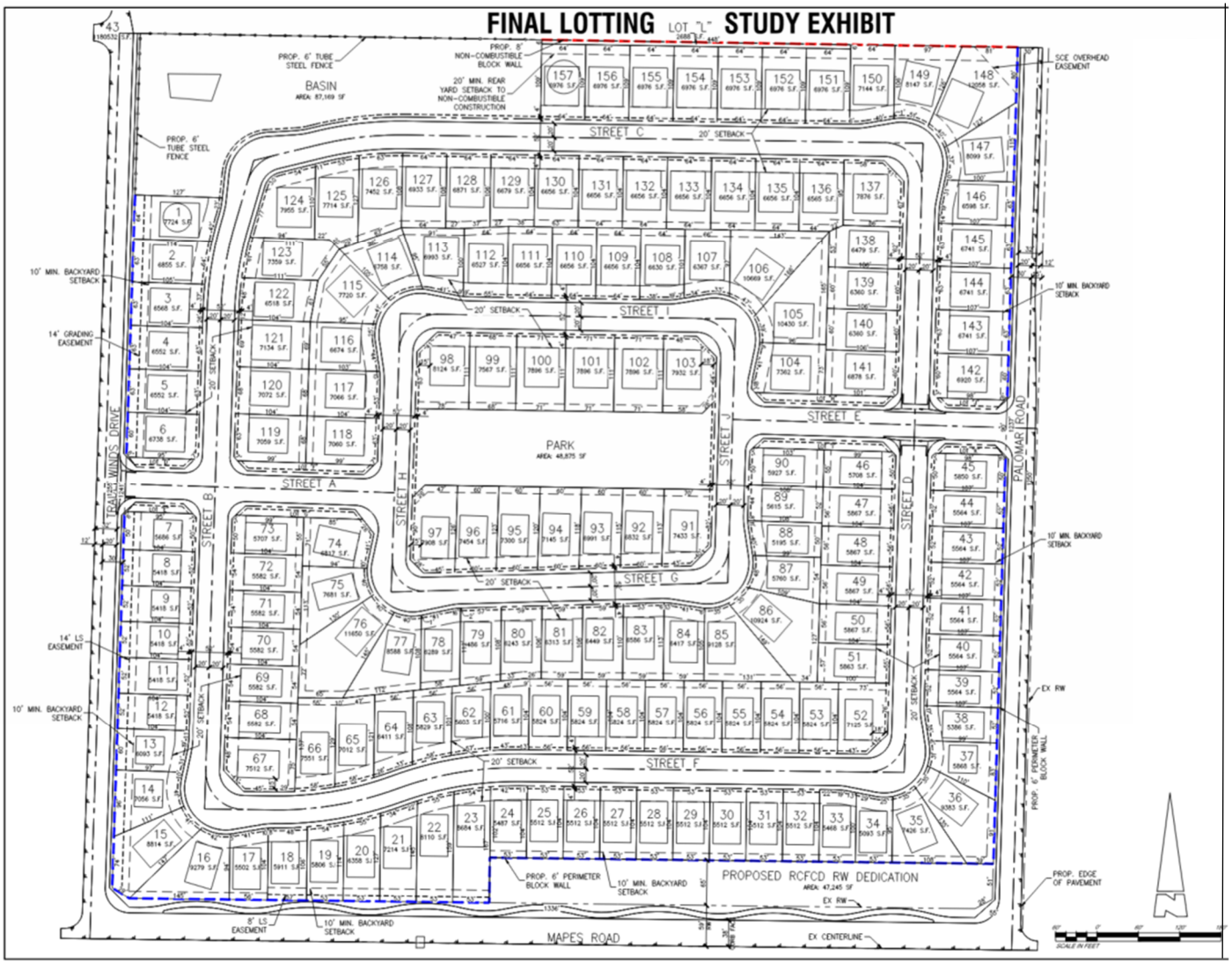
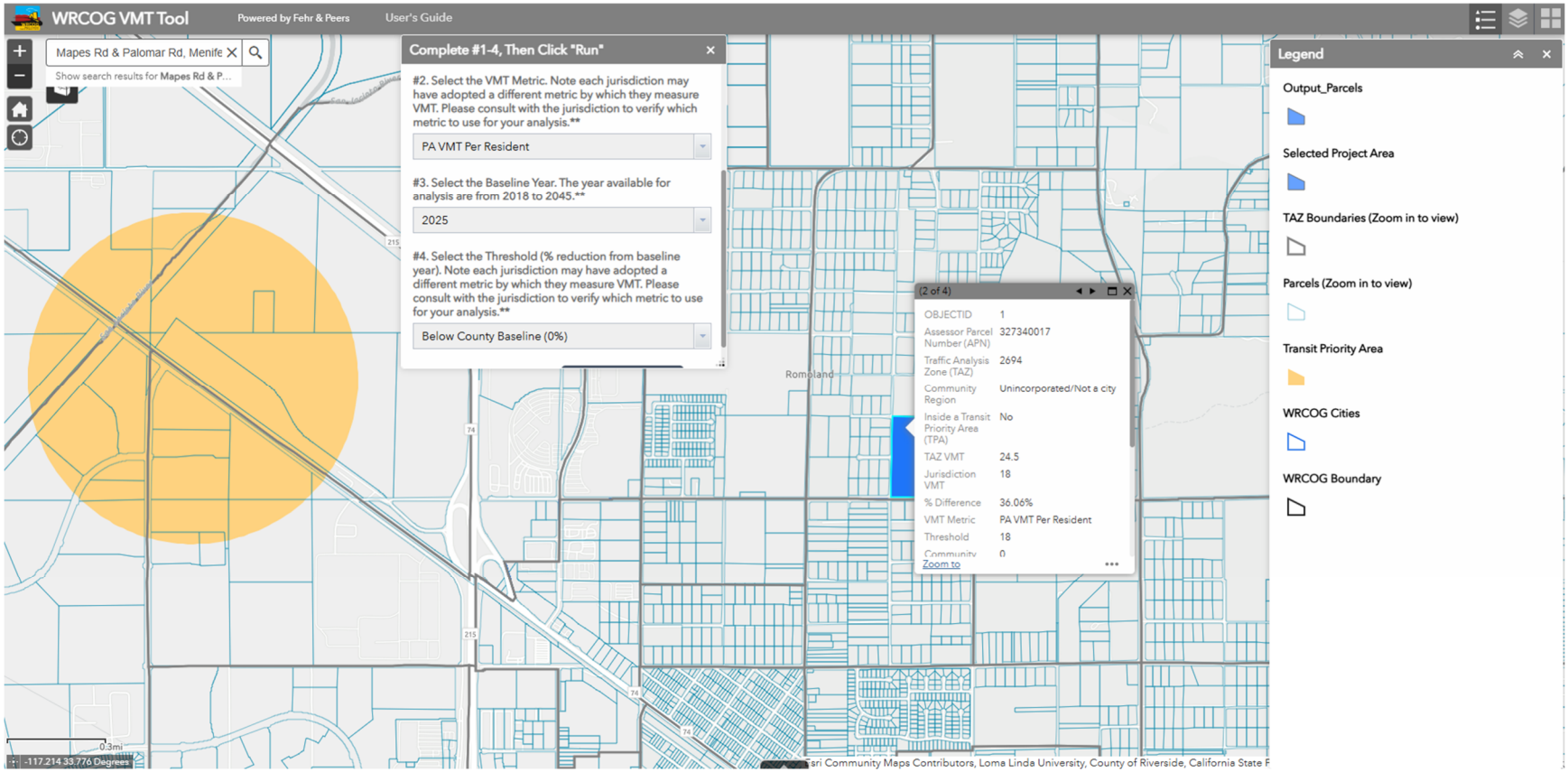


Figure 2: WRCOG VMT Screening Results



ATTACHMENT A – CALEEMOD DETAILED REPORT

25-006 Mapes and Palomar Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Site Preparation (2027) - Unmitigated

3.3. Grading (2027) - Unmitigated

3.5. Grading (2028) - Unmitigated

3.7. Building Construction (2028) - Unmitigated

3.9. Paving (2028) - Unmitigated

3.11. Architectural Coating (2028) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

8.1. Justifications

8.3. Land Use

8.4. Construction

8.4.1. Construction Phases

8.4.2. Off-Road Equipment

8.4.4. Dust from Material Movement

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

8.5.3. Energy Usage

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	25-006 Mapes and Palomar
Construction Start Date	9/1/2027
Operational Year	2029
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50000
Precipitation (days)	0.20000
Location	Mapes Rd & Palomar Rd, Romoland, CA 92585, USA
County	Riverside-South Coast
City	Unincorporated
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5513
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.37

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Single Family Housing	157.000	Dwelling Unit	24.2400	44,665.0	14,982.0	—	507.000	Residential units

Other Asphalt Surfaces	6.00000	Acre	6.00000	0.00000	0.00000	—	—	off-site improvements within tract
Other Asphalt Surfaces	3.80000	Acre	3.80000	0.00000	0.00000	—	—	off-site improvements off tract
Other Non-Asphalt Surfaces	5.73000	Acre	5.73000	0.00000	0.00000	—	—	—
City Park	3.12000	Acre	3.12000	0.00000	0.00000	47,245.0	—	City Park

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Unmit.	11.2302	32.8057	31.5351	0.05106	1.61987	7.51090	4.23008	5,791.86
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Unmit.	11.2278	32.8136	31.2513	0.07069	1.61987	7.51090	4.23008	8,295.13
Average Daily (Max)	—	—	—	—	—	—	—	—
Unmit.	2.11215	7.26735	8.89076	0.01553	0.33091	1.29139	0.68593	1,963.76
Annual (Max)	—	—	—	—	—	—	—	—
Unmit.	0.38547	1.32629	1.62256	0.00283	0.06039	0.23568	0.12518	325.123
Exceeds (Daily Max)	—	—	—	—	—	—	—	—
Threshold	75.0000	100.0000	550.000	150.000	150.000	150.000	55.0000	—
Unmit.	No	No	No	No	No	No	No	—

Exceeds (Average Daily)	—	—	—	—	—	—	—	—
Threshold	75.0000	100.0000	550.000	150.000	150.000	150.000	55.0000	—
Unmit.	No	No	No	No	No	No	No	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—
2027	3.71600	32.8057	31.5351	0.05106	1.61987	7.51090	4.23008	5,791.86
2028	11.2302	10.3488	17.6937	0.02932	0.33316	1.21553	0.51995	3,908.49
Daily - Winter (Max)	—	—	—	—	—	—	—	—
2027	3.71214	32.8136	31.2513	0.07069	1.61987	7.51090	4.23008	8,295.13
2028	11.2278	27.9034	29.4486	0.07069	1.20234	4.47390	2.24467	8,262.26
Average Daily	—	—	—	—	—	—	—	—
2027	0.82267	7.26735	7.20339	0.01553	0.33091	1.29139	0.68593	1,808.51
2028	2.11215	5.51623	8.89076	0.01505	0.18005	0.63612	0.27845	1,963.76
Annual	—	—	—	—	—	—	—	—
2027	0.15014	1.32629	1.31462	0.00283	0.06039	0.23568	0.12518	299.420
2028	0.38547	1.00671	1.62256	0.00275	0.03286	0.11609	0.05082	325.123

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Unmit.	6.95668	4.63762	53.6373	0.12199	0.08514	11.3258	2.93162	15,196.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—

Unmit.	5.89156	4.87905	37.5293	0.11415	0.08108	11.3218	2.92856	14,391.9
Average Daily (Max)	—	—	—	—	—	—	—	—
Unmit.	6.37652	5.02170	44.9883	0.11549	0.08386	11.3231	2.93030	14,531.8
Annual (Max)	—	—	—	—	—	—	—	—
Unmit.	1.16372	0.91646	8.21037	0.02108	0.01531	2.06647	0.53478	2,405.91
Exceeds (Daily Max)	—	—	—	—	—	—	—	—
Threshold	55.0000	55.0000	550.000	150.000	150.000	150.000	55.0000	—
Unmit.	No	No	No	No	No	No	No	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—
Threshold	55.0000	55.0000	550.000	150.000	150.000	150.000	55.0000	—
Unmit.	No	No	No	No	No	No	No	—
Exceeds (Annual)	—	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—	3,000.00
Unmit.	—	—	—	—	—	—	—	No

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Mobile	5.03876	4.55391	44.7066	0.12161	0.08103	11.3217	2.92852	12,638.0
Area	1.91792	0.08372	8.93077	0.00039	0.00411	0.00411	0.00310	23.8987
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	2,162.43
Water	—	—	—	—	—	—	—	100.065
Waste	—	—	—	—	—	—	—	271.495
Refrig.	—	—	—	—	—	—	—	0.31989

Total	6.95668	4.63762	53.6373	0.12199	0.08514	11.3258	2.93162	15,196.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Mobile	4.74638	4.87905	37.5293	0.11415	0.08108	11.3218	2.92856	11,857.6
Area	1.14519	—	—	—	—	—	—	—
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	2,162.43
Water	—	—	—	—	—	—	—	100.065
Waste	—	—	—	—	—	—	—	271.495
Refrig.	—	—	—	—	—	—	—	0.31989
Total	5.89156	4.87905	37.5293	0.11415	0.08108	11.3218	2.92856	14,391.9
Average Daily	—	—	—	—	—	—	—	—
Mobile	4.70207	4.96436	38.8714	0.11523	0.08105	11.3203	2.92818	11,981.1
Area	1.67446	0.05734	6.11696	0.00026	0.00281	0.00281	0.00212	16.3690
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	2,162.43
Water	—	—	—	—	—	—	—	100.065
Waste	—	—	—	—	—	—	—	271.495
Refrig.	—	—	—	—	—	—	—	0.31989
Total	6.37652	5.02170	44.9883	0.11549	0.08386	11.3231	2.93030	14,531.8
Annual	—	—	—	—	—	—	—	—
Mobile	0.85813	0.90600	7.09403	0.02103	0.01479	2.06596	0.53439	1,983.61
Area	0.30559	0.01046	1.11635	0.00005	0.00051	0.00051	0.00039	2.71007
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	358.015
Water	—	—	—	—	—	—	—	16.5669
Waste	—	—	—	—	—	—	—	44.9492
Refrig.	—	—	—	—	—	—	—	0.05296
Total	1.16372	0.91646	8.21037	0.02108	0.01531	2.06647	0.53478	2,405.91

3. Construction Emissions Details

3.1. Site Preparation (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	3.64578	32.7450	30.3726	0.05106	1.61987	1.61987	1.49028	5,551.71
Dust From Material Movement	—	—	—	—	—	5.66228	2.68618	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	3.64578	32.7450	30.3726	0.05106	1.61987	1.61987	1.49028	5,551.71
Dust From Material Movement	—	—	—	—	—	5.66228	2.68618	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24971	2.24281	2.08032	0.00350	0.11095	0.11095	0.10207	380.254
Dust From Material Movement	—	—	—	—	—	0.38783	0.18398	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04557	0.40931	0.37966	0.00064	0.02025	0.02025	0.01863	62.9554
Dust From Material Movement	—	—	—	—	—	0.07078	0.03358	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.07022	0.06076	1.16244	0.00000	0.00000	0.22874	0.05362	240.151
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.06636	0.06867	0.87868	0.00000	0.00000	0.22874	0.05362	220.424
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—
Worker	0.00455	0.00519	0.06317	0.00000	0.00000	0.01567	0.00367	15.3068
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—
Worker	0.00083	0.00095	0.01153	0.00000	0.00000	0.00286	0.00067	2.53421
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3. Grading (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	3.24250	27.9664	28.3283	0.06201	1.26714	1.26714	1.16577	6,738.58
Dust From Material Movement	—	—	—	—	—	2.67072	0.98006	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55205	4.76140	4.82301	0.01056	0.21574	0.21574	0.19848	1,147.27
Dust From Material Movement	—	—	—	—	—	0.45470	0.16686	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10075	0.86896	0.88020	0.00193	0.03937	0.03937	0.03622	189.944
Dust From Material Movement	—	—	—	—	—	0.08298	0.03045	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.07584	0.07848	1.00421	0.00000	0.00000	0.26142	0.06128	251.913
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01902	1.42062	0.34110	0.00868	0.02481	0.36423	0.12000	1,304.65
Average Daily	—	—	—	—	—	—	—	—
Worker	0.01291	0.01475	0.17945	0.00000	0.00000	0.04450	0.01043	43.4837
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00345	0.24320	0.05744	0.00148	0.00422	0.06201	0.02043	222.198
Annual	—	—	—	—	—	—	—	—
Worker	0.00236	0.00269	0.03275	0.00000	0.00000	0.00812	0.00190	7.19922
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00063	0.04438	0.01048	0.00027	0.00077	0.01132	0.00373	36.7874

3.5. Grading (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	3.13765	26.4482	28.1784	0.06201	1.17753	1.17753	1.08333	6,738.24
Dust From Material Movement	—	—	—	—	—	2.67072	0.98006	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02456	0.20703	0.22057	0.00049	0.00922	0.00922	0.00848	52.7455
Dust From Material Movement	—	—	—	—	—	0.02091	0.00767	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00448	0.03778	0.04025	0.00009	0.00168	0.00168	0.00155	8.73262
Dust From Material Movement	—	—	—	—	—	0.00382	0.00140	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.07319	0.07804	0.93652	0.00000	0.00000	0.26142	0.06128	247.300
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01902	1.37721	0.33366	0.00868	0.02481	0.36423	0.12000	1,276.72
Average Daily	—	—	—	—	—	—	—	—

Worker	0.00057	0.00061	0.00772	0.00000	0.00000	0.00205	0.00048	1.96236
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00016	0.01084	0.00259	0.00007	0.00019	0.00285	0.00094	9.99776
Annual	—	—	—	—	—	—	—	—
Worker	0.00010	0.00011	0.00141	0.00000	0.00000	0.00037	0.00009	0.32489
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00003	0.00198	0.00047	0.00001	0.00004	0.00052	0.00017	1.65524

3.7. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07097	9.66028	14.0357	0.02555	0.32561	0.32561	0.29956	2,639.17
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07097	9.66028	14.0357	0.02555	0.32561	0.32561	0.29956	2,639.17
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48414	4.36698	6.34492	0.01155	0.14719	0.14719	0.13542	1,193.05
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08836	0.79697	1.15795	0.00211	0.02686	0.02686	0.02471	197.523
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.21931	0.19501	3.49892	0.00000	0.00000	0.73877	0.17317	761.087
Vendor	0.01043	0.49352	0.15903	0.00377	0.00755	0.15114	0.04722	508.227
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.20684	0.22055	2.64662	0.00000	0.00000	0.73877	0.17317	698.871
Vendor	0.00969	0.51675	0.16310	0.00377	0.00755	0.15114	0.04722	507.492
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—
Worker	0.09294	0.09970	1.26007	0.00000	0.00000	0.33392	0.07827	320.261
Vendor	0.00455	0.23484	0.07289	0.00171	0.00341	0.06832	0.02134	229.524
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—
Worker	0.01696	0.01820	0.22996	0.00000	0.00000	0.06094	0.01428	53.0228
Vendor	0.00083	0.04286	0.01330	0.00031	0.00062	0.01247	0.00390	38.0003
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9. Paving (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68524	6.62754	9.90989	0.01395	0.25554	0.25554	0.23510	1,516.22
Paving	1.02704	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04693	0.45394	0.67876	0.00096	0.01750	0.01750	0.01610	103.850
Paving	0.07035	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00857	0.08284	0.12387	0.00017	0.00319	0.00319	0.00294	17.1936
Paving	0.01284	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.05820	0.05175	0.92859	0.00000	0.00000	0.19606	0.04596	201.987
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Worker	0.00374	0.00401	0.05067	0.00000	0.00000	0.01343	0.00315	12.8780
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—
Worker	0.00068	0.00073	0.00925	0.00000	0.00000	0.00245	0.00057	2.13210
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.11. Architectural Coating (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e

Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14308	1.07752	1.49111	0.00230	0.02048	0.02048	0.01884	178.634
Architectural Coatings	11.0433	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14308	1.07752	1.49111	0.00230	0.02048	0.02048	0.01884	178.634
Architectural Coatings	11.0433	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01764	0.13285	0.18384	0.00028	0.00252	0.00252	0.00232	22.0233
Architectural Coatings	1.36150	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00322	0.02424	0.03355	0.00005	0.00046	0.00046	0.00042	3.64621
Architectural Coatings	0.24847	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.04386	0.03900	0.69978	0.00000	0.00000	0.14775	0.03463	152.217
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.04137	0.04411	0.52932	0.00000	0.00000	0.14775	0.03463	139.774
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—
Worker	0.00507	0.00544	0.06873	0.00000	0.00000	0.01821	0.00427	17.4688
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—
Worker	0.00093	0.00099	0.01254	0.00000	0.00000	0.00332	0.00078	2.89215
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Single Family Housing	5.03876	4.55391	44.7066	0.12161	0.08103	11.3217	2.92852	12,638.0
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	5.03876	4.55391	44.7066	0.12161	0.08103	11.3217	2.92852	12,638.0

Daily, Winter (Max)	—	—	—	—	—	—	—	—
Single Family Housing	4.74638	4.87905	37.5293	0.11415	0.08108	11.3218	2.92856	11,857.6
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	4.74638	4.87905	37.5293	0.11415	0.08108	11.3218	2.92856	11,857.6
Annual	—	—	—	—	—	—	—	—
Single Family Housing	0.85813	0.90600	7.09403	0.02103	0.01479	2.06596	0.53439	1,983.61
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.85813	0.90600	7.09403	0.02103	0.01479	2.06596	0.53439	1,983.61

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	2,162.43
Other Asphalt Surfaces	—	—	—	—	—	—	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	0.00000

City Park	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	2,162.43
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	2,162.43
Other Asphalt Surfaces	—	—	—	—	—	—	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	0.00000
City Park	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	2,162.43
Annual	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	358.015
Other Asphalt Surfaces	—	—	—	—	—	—	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	0.00000
City Park	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	358.015

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Single Family Housing	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Single Family Housing	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—
Single Family Housing	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Consumer Products	1.00904	—	—	—	—	—	—	—
Architectural Coatings	0.13615	—	—	—	—	—	—	—

Landscape Equipment	0.77273	0.08372	8.93077	0.00039	0.00411	0.00411	0.00310	23.8987
Total	1.91792	0.08372	8.93077	0.00039	0.00411	0.00411	0.00310	23.8987
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Consumer Products	1.00904	—	—	—	—	—	—	—
Architectural Coatings	0.13615	—	—	—	—	—	—	—
Total	1.14519	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Consumer Products	0.18415	—	—	—	—	—	—	—
Architectural Coatings	0.02485	—	—	—	—	—	—	—
Landscape Equipment	0.09659	0.01046	1.11635	0.00005	0.00051	0.00051	0.00039	2.71007
Total	0.30559	0.01046	1.11635	0.00005	0.00051	0.00051	0.00039	2.71007

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	95.4296
Other Asphalt Surfaces	—	—	—	—	—	—	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	0.00000
City Park	—	—	—	—	—	—	—	4.63526
Total	—	—	—	—	—	—	—	100.065

Daily, Winter (Max)	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	95.4296
Other Asphalt Surfaces	—	—	—	—	—	—	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	0.00000
City Park	—	—	—	—	—	—	—	4.63526
Total	—	—	—	—	—	—	—	100.065
Annual	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	15.7995
Other Asphalt Surfaces	—	—	—	—	—	—	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	0.00000
City Park	—	—	—	—	—	—	—	0.76742
Total	—	—	—	—	—	—	—	16.5669

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	270.989
Other Asphalt Surfaces	—	—	—	—	—	—	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	0.00000

City Park	—	—	—	—	—	—	—	0.50593
Total	—	—	—	—	—	—	—	271.495
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	270.989
Other Asphalt Surfaces	—	—	—	—	—	—	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	0.00000
City Park	—	—	—	—	—	—	—	0.50593
Total	—	—	—	—	—	—	—	271.495
Annual	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	44.8654
Other Asphalt Surfaces	—	—	—	—	—	—	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	0.00000
City Park	—	—	—	—	—	—	—	0.08376
Total	—	—	—	—	—	—	—	44.9492

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	0.31989
City Park	—	—	—	—	—	—	—	0.00000

Total	—	—	—	—	—	—	—	0.31989
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	0.31989
City Park	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	0.31989
Annual	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	0.05296
City Park	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	0.05296

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	9/1/2027	10/5/2027	5.00000	25.0000	—
Grading	Grading	10/6/2027	1/4/2028	5.00000	65.0000	—
Building Construction	Building Construction	1/5/2028	8/22/2028	5.00000	165.000	—
Paving	Paving	8/23/2028	9/26/2028	5.00000	25.0000	—
Architectural Coating	Architectural Coating	9/27/2028	11/28/2028	5.00000	45.0000	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00000	8.00000	367.000	0.40000
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	0.00000	8.00000	84.0000	0.37000
Site Preparation	Crawler Tractors	Diesel	Average	4.00000	8.00000	87.0000	0.43000
Grading	Excavators	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Grading	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	8.00000	367.000	0.40000
Grading	Scrapers	Diesel	Average	2.00000	8.00000	423.000	0.48000
Grading	Tractors/Loaders/Backhoes	Diesel	Average	0.00000	8.00000	84.0000	0.37000
Grading	Crawler Tractors	Diesel	Average	2.00000	8.00000	87.0000	0.43000
Building Construction	Cranes	Diesel	Average	1.000000	8.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Average	3.00000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00000	8.00000	84.0000	0.37000
Building Construction	Welders	Diesel	Average	1.000000	8.00000	46.0000	0.45000
Paving	Pavers	Diesel	Average	2.00000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Average	2.00000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	8.00000	37.0000	0.48000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	Worker	17.5000	18.5000	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2000	HHDT,MHDT

Site Preparation	Hauling	0.00000	20.0000	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	20.0000	18.5000	LDA,LDT1,LDT2
Grading	Vendor	—	10.2000	HHDT,MHDT
Grading	Hauling	18.7538	20.0000	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	56.5200	18.5000	LDA,LDT1,LDT2
Building Construction	Vendor	16.7833	10.2000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	15.0000	18.5000	LDA,LDT1,LDT2
Paving	Vendor	—	10.2000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	11.3040	18.5000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	90,446.6	30,148.9	0.00000	0.00000	46,888.0

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	87.5000	0.00000	0.00000
Grading	—	9,746.00	195.000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	19.6700

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Single Family Housing	1.73003	0%
Paving	Other Asphalt Surfaces	6.00000	100%
Paving	Other Asphalt Surfaces	3.80000	100%
Paving	Other Non-Asphalt Surfaces	8.14000	0%
Paving	City Park	0.00000	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00000	531.983	0.03300	0.00400
2028	0.00000	531.983	0.03300	0.00400

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	1,427.13	1,427.13	1,427.13	520,902	15,879.5	15,879.5	15,879.5	5,796,020
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
Single Family Housing	Wood Fireplaces	0	0
Single Family Housing	Gas Fireplaces	0	0
Single Family Housing	Propane Fireplaces	0	0
Single Family Housing	Electric Fireplaces	0	0
Single Family Housing	No Fireplaces	0	0
Single Family Housing	Conventional Wood Stoves	0	0
Single Family Housing	Catalytic Wood Stoves	0	0
Single Family Housing	Non-Catalytic Wood Stoves	0	0
Single Family Housing	Pellet Wood Stoves	0	0
Other Asphalt Surfaces	Wood Fireplaces	0	0
Other Asphalt Surfaces	Gas Fireplaces	0	0

Other Asphalt Surfaces	Propane Fireplaces	0	0
Other Asphalt Surfaces	Electric Fireplaces	0	0
Other Asphalt Surfaces	No Fireplaces	0	0
Other Asphalt Surfaces	Conventional Wood Stoves	0	0
Other Asphalt Surfaces	Catalytic Wood Stoves	0	0
Other Asphalt Surfaces	Non-Catalytic Wood Stoves	0	0
Other Asphalt Surfaces	Pellet Wood Stoves	0	0
Other Asphalt Surfaces	Wood Fireplaces	0	0
Other Asphalt Surfaces	Gas Fireplaces	0	0
Other Asphalt Surfaces	Propane Fireplaces	0	0
Other Asphalt Surfaces	Electric Fireplaces	0	0
Other Asphalt Surfaces	No Fireplaces	0	0
Other Asphalt Surfaces	Conventional Wood Stoves	0	0
Other Asphalt Surfaces	Catalytic Wood Stoves	0	0
Other Asphalt Surfaces	Non-Catalytic Wood Stoves	0	0
Other Asphalt Surfaces	Pellet Wood Stoves	0	0
Other Non-Asphalt Surfaces	Wood Fireplaces	0	0
Other Non-Asphalt Surfaces	Gas Fireplaces	0	0
Other Non-Asphalt Surfaces	Propane Fireplaces	0	0
Other Non-Asphalt Surfaces	Electric Fireplaces	0	0
Other Non-Asphalt Surfaces	No Fireplaces	0	0
Other Non-Asphalt Surfaces	Conventional Wood Stoves	0	0
Other Non-Asphalt Surfaces	Catalytic Wood Stoves	0	0
Other Non-Asphalt Surfaces	Non-Catalytic Wood Stoves	0	0
Other Non-Asphalt Surfaces	Pellet Wood Stoves	0	0
City Park	Wood Fireplaces	0	0
City Park	Gas Fireplaces	0	0
City Park	Propane Fireplaces	0	0

City Park	Electric Fireplaces	0	0
City Park	No Fireplaces	0	0
City Park	Conventional Wood Stoves	0	0
City Park	Catalytic Wood Stoves	0	0
City Park	Non-Catalytic Wood Stoves	0	0
City Park	Pellet Wood Stoves	0	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
90,446.6	30,148.9	0.00000	0.00000	46,888.0

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	250.000

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	2,266,678	346.196	0.0330	0.0040	0.00000
Other Asphalt Surfaces	0.00000	346.196	0.0330	0.0040	0.00000
Other Asphalt Surfaces	0.00000	346.196	0.0330	0.0040	0.00000
Other Non-Asphalt Surfaces	0.00000	346.196	0.0330	0.0040	0.00000
City Park	0.00000	346.196	0.0330	0.0040	0.00000

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	6,385,783	290,339
Other Asphalt Surfaces	0.00000	0.00000
Other Asphalt Surfaces	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000
City Park	0.00000	915,570

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	143.718	0.00000
Other Asphalt Surfaces	0.00000	0.00000
Other Asphalt Surfaces	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000
City Park	0.26832	0.00000

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088.00	0.00225	2.50000	2.50000	10.00000

Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430.00	0.11538	0.60000	0.00000	1.000000
City Park	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.03750	1.000000	0.00000	1.000000

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.1500	annual days of extreme heat
Extreme Precipitation	2.60000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	15.2400	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A

Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	95.2707
AQ-PM	50.6783
AQ-DPM	43.1736
Drinking Water	10.2036
Lead Risk Housing	35.1229
Pesticides	57.8276
Toxic Releases	25.3063
Traffic	81.8000
Effect Indicators	—
CleanUp Sites	0.00000
Groundwater	0.00000
Haz Waste Facilities/Generators	35.6188
Impaired Water Bodies	0.00000
Solid Waste	35.7159
Sensitive Population	—
Asthma	39.0828
Cardio-vascular	72.9187
Low Birth Weights	37.8753
Socioeconomic Factor Indicators	—
Education	86.3579
Housing	73.4094
Linguistic	44.3632
Poverty	87.7638
Unemployment	67.4779

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	21.59630438
Employed	8.956756063
Median HI	35.94251251
Education	—
Bachelor's or higher	3.836776594
High school enrollment	6.685486975
Preschool enrollment	31.33581419
Transportation	—
Auto Access	49.51879892
Active commuting	15.06480175
Social	—
2-parent households	62.08135506
Voting	24.39368664
Neighborhood	—
Alcohol availability	66.20043629
Park access	2.194276915
Retail density	9.316052868
Supermarket access	32.97831387
Tree canopy	0.667265495
Housing	—
Homeownership	65.03272167
Housing habitability	43.02579238
Low-inc homeowner severe housing cost burden	15.44976261
Low-inc renter severe housing cost burden	71.34607982

Uncrowded housing	14.42320031
Health Outcomes	—
Insured adults	9.547029385
Arthritis	32.0
Asthma ER Admissions	60.6
High Blood Pressure	38.5
Cancer (excluding skin)	55.0
Asthma	27.9
Coronary Heart Disease	28.5
Chronic Obstructive Pulmonary Disease	23.6
Diagnosed Diabetes	33.2
Life Expectancy at Birth	16.6
Cognitively Disabled	44.8
Physically Disabled	87.9
Heart Attack ER Admissions	34.3
Mental Health Not Good	26.2
Chronic Kidney Disease	27.1
Obesity	17.5
Pedestrian Injuries	90.3
Physical Health Not Good	26.5
Stroke	39.4
Health Risk Behaviors	—
Binge Drinking	35.4
Current Smoker	23.0
No Leisure Time for Physical Activity	24.4
Climate Change Exposures	—
Wildfire Risk	7.3
SLR Inundation Area	0.0

Children	81.0
Elderly	85.6
English Speaking	69.8
Foreign-born	42.8
Outdoor Workers	5.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	92.8
Traffic Density	52.0
Traffic Access	23.0
Other Indices	—
Hardship	80.6
Other Decision Support	—
2016 Voting	37.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	58.0000
Healthy Places Index Score for Project Location (b)	11.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Land Use	The lot acreage is estimated based on the plotting plan. The building area (44,665 square feet) is estimated by multiplying the maximum building square footage (2,845 square feet) by 157.
Construction: Construction Phases	Adjusted based on the provided info by the applicant.
Construction: Off-Road Equipment	Added typical equipment used for trenching. Assumed all construction will be utilized 8 hours per work day. Replaced Tractors/Loaders/Backhoes with Crawler Tractors in the Site Preparation and Grading Phases.
Construction: Dust From Material Movement	Based on the grading plan, the expected net export is 9,746 CY.
Operations: Vehicle Data	Adjusted rates for Weekday Trips (based on ITE 12th Edition) to match ITE trip rates for 210-Single-Family Detached Housing. Utilized weekday trip rates for both weekends and weekdays to maintain consistency with the project's traffic study.
Operations: Hearths	Fireplaces and Wood Stoves are removed in accordance with SCAQMD Rule 445.
Operations: Energy Use	Since the Project does not include natural gas, the estimated natural gas consumption is converted to electricity-equivalent using a factor of 0.18 and added to the electricity consumption, based on the American Gas Association (AGA) 2022, Comparison of Home Appliance Energy Use, Operating Costs, and Carbon Dioxide Emissions – 2022 Update.

8.3. Land Use

Model Parameter	Units	Default Value	New Value
Lot Area	acre	50.9740	24.2400
Building Area	sq. ft	306,150	44,665.0
Landscape Area	sq. ft	1,838,919	14,982.0
Landscape Area	sq. ft	—	0.00000
Special Landscape Area	sq. ft	0.00000	47,245.0

8.4. Construction

8.4.1. Construction Phases

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Site Preparation	Site Preparation	Start Date	11/11/2027	9/1/2027
Site Preparation	Site Preparation	End Date	12/23/2027	10/5/2027
Site Preparation	Site Preparation	Work Days per Phase	30.0000	25.0000
Grading	Grading	Start Date	12/24/2027	10/6/2027
Grading	Grading	End Date	4/7/2028	1/4/2028
Grading	Grading	Work Days per Phase	75.0000	65.0000
Building Construction	Building Construction	Start Date	4/8/2028	1/5/2028
Building Construction	Building Construction	End Date	2/8/2031	8/22/2028
Building Construction	Building Construction	Work Days per Phase	740.000	165.000
Paving	Paving	Start Date	2/9/2031	8/23/2028
Paving	Paving	End Date	4/27/2031	9/26/2028
Paving	Paving	Work Days per Phase	55.0000	25.0000
Architectural Coating	Architectural Coating	Start Date	4/28/2031	9/27/2028
Architectural Coating	Architectural Coating	End Date	7/14/2031	11/28/2028
Architectural Coating	Architectural Coating	Work Days per Phase	55.0000	45.0000

8.4.2. Off-Road Equipment

Phase Name	Equipment Type	Model Parameter	Default Value	New Value
Site Preparation	Tractors/Loaders/Backhoes	Number per Day	4.00000	0.00000
Grading	Tractors/Loaders/Backhoes	Number per Day	2.00000	0.00000
Building Construction	Cranes	Hours Per Day	7.00000	8.00000
Building Construction	Tractors/Loaders/Backhoes	Hours Per Day	7.00000	8.00000
Architectural Coating	Air Compressors	Hours Per Day	6.00000	8.00000

8.4.4. Dust from Material Movement

Phase Name	Model Parameter	Units	Default Value	New Value
Grading	Material Exported	Cubic Yards	—	9,746.00
Grading	Total Acres Graded	acres	260.000	195.000

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

Land Use	Model Parameter	Units	Default Value	New Value
Single Family Housing	Weekday Trip Rate	size/day	9.44000	9.09000
Single Family Housing	Saturday Trip Rate	size/day	9.54000	9.09000
Single Family Housing	Sunday Trip Rate	size/day	8.55000	9.09000
City Park	Weekday Trip Rate	size/day	0.78000	0.00000
City Park	Saturday Trip Rate	size/day	1.96000	0.00000
City Park	Sunday Trip Rate	size/day	2.19000	0.00000

8.5.3. Energy Usage

Land Use	Model Parameter	Units	Default Value	New Value
Single Family Housing	Electricity	kWh/yr	1,466,261	2,266,678
Single Family Housing	Electricity (Subject to Title 24)	kWh/yr	507,780	784,972
Single Family Housing	Electricity (Not Subject to Title 24)	kWh/yr	958,481	1,481,706
Single Family Housing	Natural Gas	kBTU/yr	5,583,597	0.00000
Single Family Housing	Natural Gas (Not Subject to Title 24)	kBTU/yr	780,013	0.00000