

APPENDIX H1

TRAFFIC STUDY

TRAFFIC STUDY
DEV2022-002 (Tentative Tract Map No. 38346)
City of Menifee, CA

Prepared for:
City of Menifee
29844 Haun Road
Menifee, CA 92586

July 5, 2023

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1 EXECUTIVE SUMMARY

1.1 INTRODUCTION

The purpose of the Traffic Study is to document the traffic operational analysis findings of the proposed multi-family residential development of Tentative Tract Map No. 38346 (Project) in the City of Menifee. The Study evaluation included analysis of level of service (LOS), delay, and sight distance. A separate vehicle miles traveled (VMT) assessment memorandum was prepared to evaluate the California Environmental Quality Act (CEQA) transportation metric. Regionally, the Project site is located within the City of Menifee, in the County of Riverside.

The Project proposes the construction 162 attached condominium dwelling units on approximately 9.5 acres, in a single construction phase. The Project proposes one access point along Menifee Road and one access point along Rouse Road. The Project is anticipated to generate approximately 1,092 daily trips with 65 AM Peak Hour trips and 83 PM Peak Hour trips.

1.2 ANALYSIS SCENARIOS

The study scenarios are listed below.

1. Existing Year 2022 Condition
2. Existing Year 2022 With Project Condition
3. Opening Year 2024 Cumulative Without Project Condition
4. Opening Year 2024 Cumulative With Project Condition
5. Opening Year 2024 Cumulative With Project With Improvements Condition

1.3 ANALYSIS FINDINGS

The analysis conducted to evaluate the Project included intersection and roadway segment capacity analysis. The analysis locations are listed below.

Intersections

1. Junipero Road and Rouse Road
2. Galloping Way and Rouse Road
3. "B" Street and Rouse Road
4. Menifee Road and Rouse Road
5. "A" Street and Menifee Road

Segments

- A. Rouse Road, west of "B" Street
- B. Menifee Road, north of Rouse Road
- C. Menifee Road, south of Rouse Road

According to the *City of Menifee LOS Traffic Study Guidelines* (October 2020), LOS D is the minimum acceptable condition given the Project location. The operational analysis findings are as follows:

Existing Year 2022

In the Existing Year 2022 condition, all intersections operate at acceptable LOS D or better during the AM and PM Peak Hour. Additionally, all study segments operate under LOS D capacity.

Existing Year 2022 With Project

In the Existing Year 2022 With Project condition, all study intersection continue to operate at acceptable LOS D or better. Additionally, all study segments continue to operate under LOS D capacity. According to the analysis results, there will be no adverse effects at the study intersections or segments due to the Project.

Opening Year 2024

In the Opening Year 2024 condition, the intersection of Junipero Road and Rouse Road (#1) is projected to operate at unacceptable LOS F during the AM Peak Hour. All other intersections operate at LOS D or better during both the AM and PM peak hours. Additionally, all study segments are found to operate under LOS D capacity.

Opening Year 2024 With Project

In the Opening Year 2024 With Project condition, the intersection of Junipero Road and Rouse Road (#1) is projected to continue to operate at unacceptable LOS F during the AM Peak Hour. All other study intersections operate at acceptable LOS D or better. Additionally, all study segments are found to operate under LOS D capacity.

Under the City Guidelines, unacceptable operations of LOS E or LOS F and more than 50 added peak hour project trips result in a cumulative adverse effect. The project is forecast to add 31 AM Peak Hour trips at the intersection of Junipero Road and Rouse Road (#1). Therefore, while the intersection of Junipero Road and Rouse Road (#1) operates at LOS F, it does not qualify as cumulative adverse project effects since less than 50 peak hour project trips are added to the intersection during the time period when unacceptable LOS is projected.

A queue analysis shows acceptable storage lane lengths at all locations with one exception. At the intersection of Menifee Road and Rouse Road (#4), there is insufficient turn lane storage to accommodate projected southbound right turn queues.

Opening Year 2024 With Project With Improvements

The Opening Year 2024 With Project With Improvements condition is projected to operate with the same LOS and vehicle delay as the Opening Year 2024 With Project condition. A recommended improvement of extending the Menifee Road and Rouse Road (#4) southbound right turn lane will address the queue length issue identified in the without improvements condition.

Signal Warrant Analysis

At the intersection of Junipero Road and Rouse Road (#1), Warrant 3 (Peak Hour) is not satisfied under the Opening Year or Opening Year With Project scenarios.

1.4 SITE CIRCULATION

A review of the two Project driveway intersections at Rouse Road and Menifee Road confirms all driveway intersections provide adequate sight distance with relatively unobstructed views per *Standard Plan 81 - Intersection Sight Distance*. A review of the gated site driveways confirms sufficient space for both resident and guest queueing. The Project will ensure the distance between the call box and public ROW can accommodate a minimum of 2 passenger cars at both driveways in final design. Additionally, the driveways accommodate vehicle turnarounds. A review of the site plan confirms fire truck access to the site will be accommodated.

1.5 VEHICLE MILES TRAVELED

To satisfy California Environmental Quality Act (CEQA), a VMT screening assessment was prepared for the Tentative Tract Map No. 38346 Project under a separate memorandum.

1.6 KEY PROJECT TRANSPORTATION FEATURES

The following improvements have been identified in the Project documentation as being recommended. Each of these improvements have been evaluated in the With Project conditions in this study.

- 1) "B" Street and Rouse Road (#3)
 - a. Install a "STOP" control on the southbound approach to the intersection along "B" Street.
 - b. During final design, consider a shorter westbound right turn pocket and appropriate transitions.
- 2) Menifee Road and Rouse Road (#4)
 - a. A southbound right turn on red restriction was evaluated in this study; however, this restriction is not currently recommended. The City will observe operations and safety at this location and may consider Right Turn On Red restrictions in the future if needed.
- 3) "A" Street and Menifee Road (#5)
 - a. Install a "STOP" control on the eastbound approach to the intersection along "A" Street.
 - b. Construct a southbound right turn pocket with a minimum 100-foot lane and minimum 90-foot taper along Menifee Road. A southbound right turn pocket with 100-foot lane and 120-foot taper is currently provided on the site plan.
 - c. Provide Keep Clear pavement markings and Do No Block Driveway signage along Menifee Road at the "A" Street project driveway.
 - d. The median design concept on Menifee Road at the "A" Street Project driveway will require refinement to be constructed to typical design standards, including accommodation of inbound left turns and restrictions of outbound left turns
- 4) Rouse Road
 - a. Rouse Road is an east-west roadway located along the Project's southern boundary. Project to construct Rouse Road at its ultimate half-section width as a Major Highway (118-foot right-of-way) from the Project's western boundary to Menifee Road consistent with City standards. Construction of the Project's ultimate half-section along Rouse Road will complete the ultimate 4-lane section. Through lanes along the Project's frontage will be striped in the interim such as to transition down to the existing lanes west of the Project until such time in the future when Rouse Road is widened to its ultimate cross-section width to the west.
- 5) Menifee Road
 - a. Menifee Road is a north-south roadway located along the Project's eastern boundary. Project to construct Menifee Road at its ultimate half-width as an Urban Arterial Highway (152-foot right-of-way) from the Project's northern boundary to Rouse Road consistent with City standards. Similar to the east side of Menifee Road, the roadway will be striped along the Project's frontage to provide the appropriate lanes and transitions between the existing lanes to the north and south of the Project.

1.7 RECOMMENDATIONS

The following recommendation is proposed to address potential off-site conditions:

Recommendation #1 (Striping Plan Improvement) – Revise Project Applicant striping plan to provide a 200' southbound right turn lane plus taper at the intersection of Menifee Road and Rouse Road (#4).

2 INTRODUCTION

The purpose of the Traffic Study (Study) is to document the traffic analysis findings of the proposed residential development of Tentative Tract Map No. 38346 (Project) in the City of Menifee. Scenarios examined included Existing, Existing with Project, Opening Year, and Opening Year With Project. Key analysis measures evaluated included level of service (LOS), delay, and corner sight distance. A separate memorandum documents the VMT screening for this Project.

2.1 PROJECT DESCRIPTION

The Project proposes the construction of 162 attached condominium dwelling units on approximately 9.5 acres. Regionally, the Project site is located within the City of Menifee (City), in the County of Riverside (County) as shown in **Exhibit 2-1**. Locally, the Project site is located on the northwest corner of the Menifee Road and Rouse Road intersection as shown in **Exhibit 2-2**.

EXHIBIT 2-1: PROJECT LOCATION

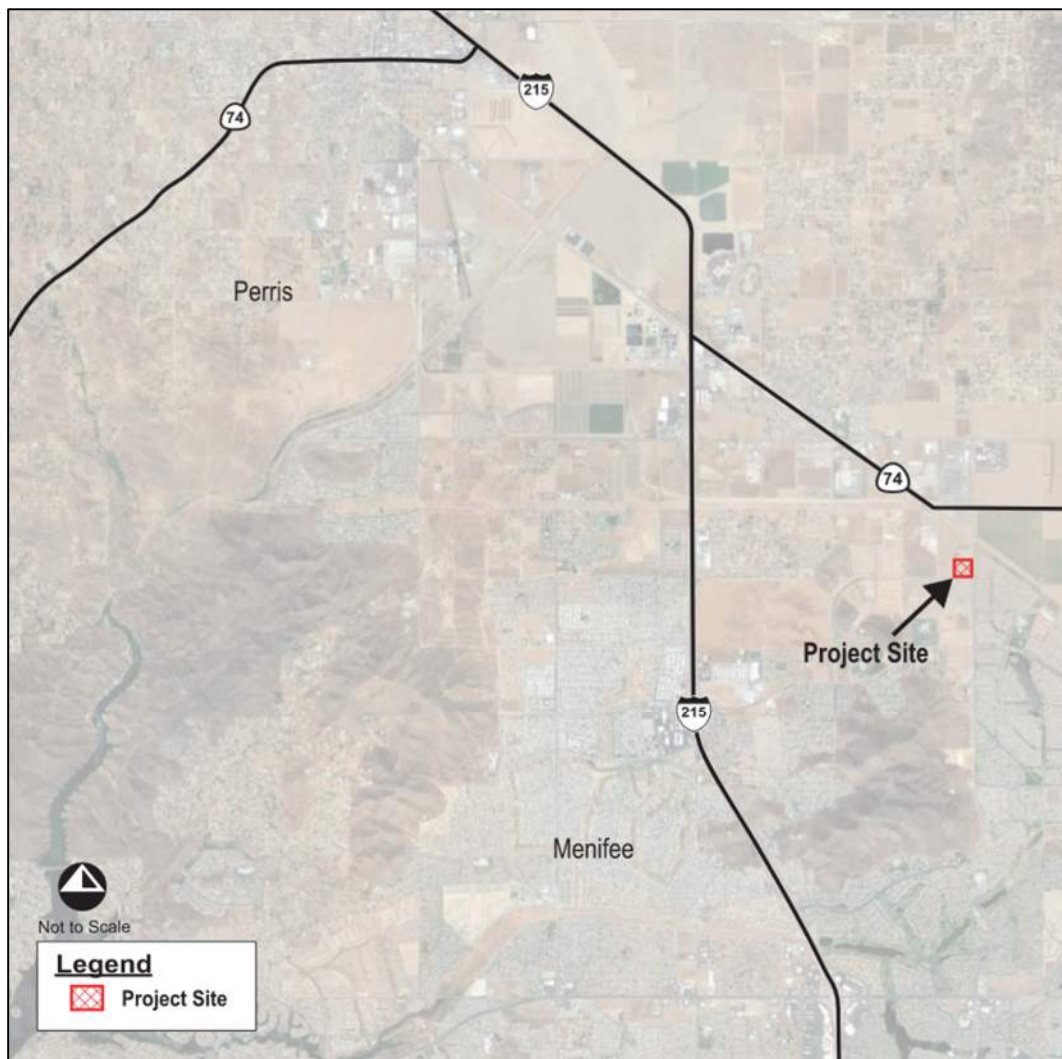
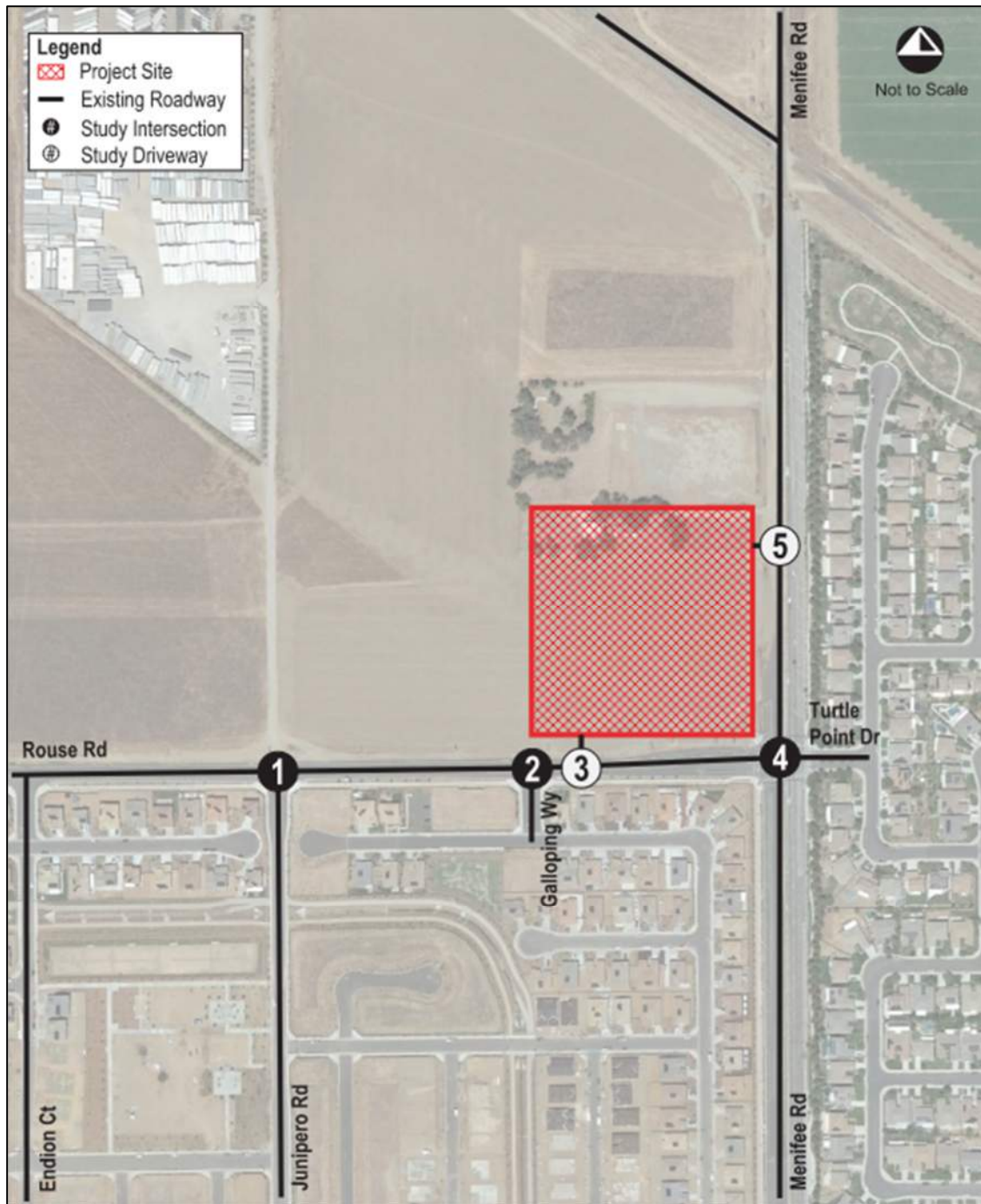
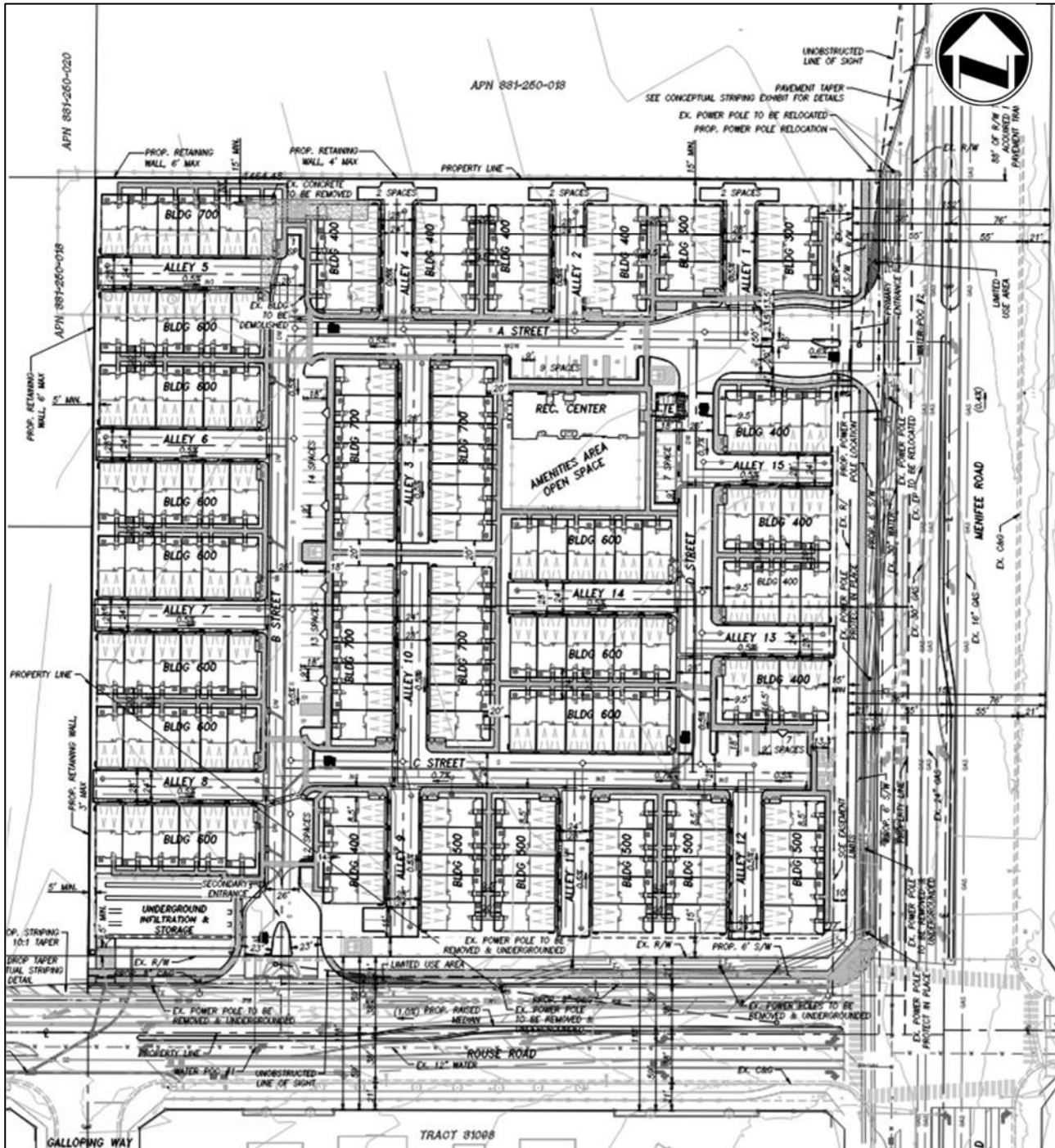


EXHIBIT 2-2: PROJECT SITE



The Project proposes two (2) access points. The first proposed project driveway ("A" Street) is located on the west side of Menifee Road, approximately 475 feet north of Rouse Road (intersection #5). This gated driveway provides right-in/right-out access, as well as left turn access from Menifee Road northbound. The second proposed project driveway ("B" Street) is located along the north side of Rouse Road, approximately 435 feet west of Menifee Road (intersection #3). This gated driveway provides right-in/right-out access. **Exhibit 2-3** shows the proposed site plan. Aspects of the site plan, such as median design, may be modified during final engineering. **Appendix A** shows the full-size site plan and a conceptual striping exhibit.

EXHIBIT 2-3: PROJECT SITE PLAN



Source: Adkan Engineers (dated 05/25/2023)

2.2 STUDY LOCATIONS

The following study intersections and segments were examined as part of this analysis:

Intersections

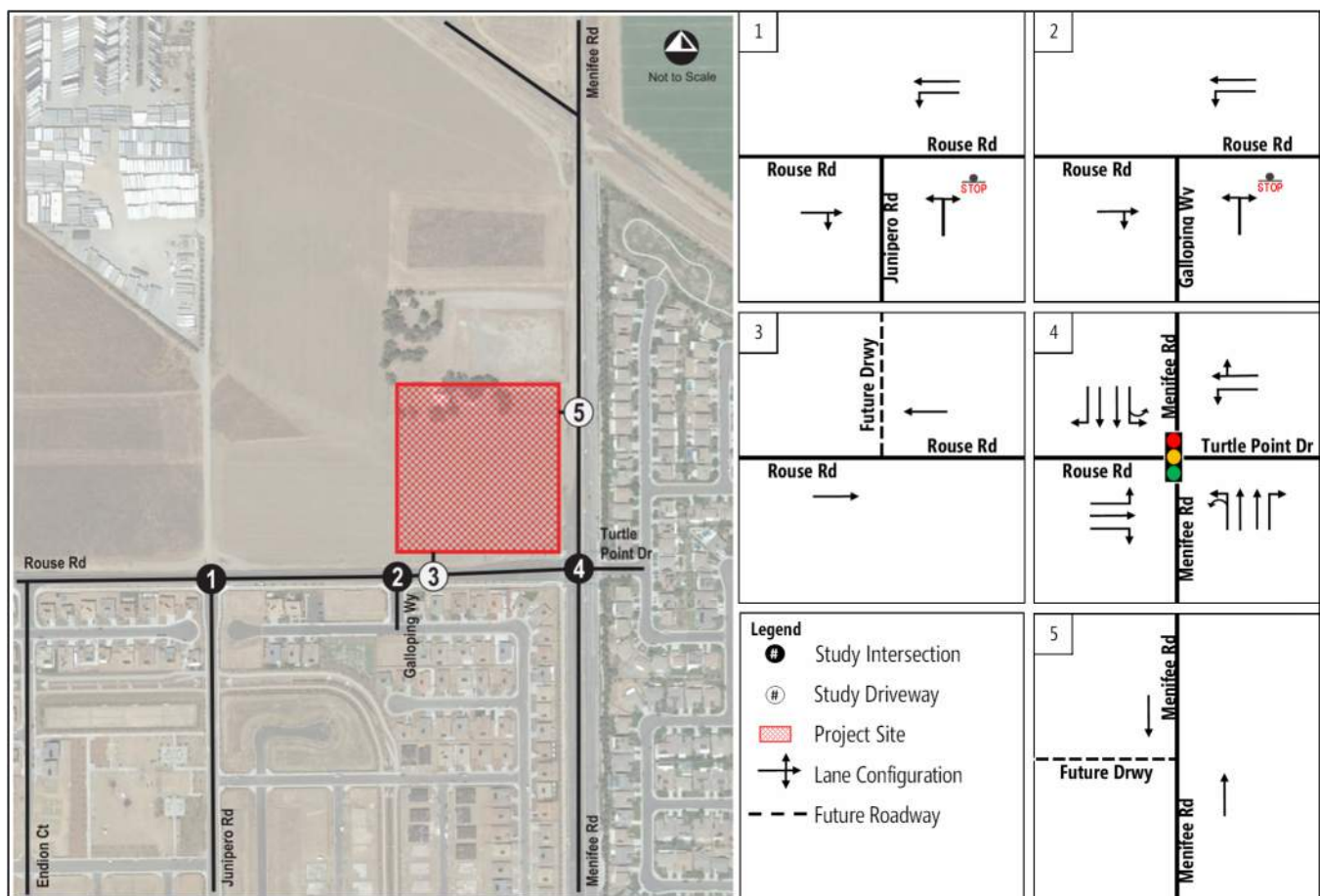
1. Junipero Road and Rouse Road
2. Galloping Way and Rouse Road
3. "B" Street and Rouse Road
4. Menifee Road and Rouse Road
5. "A" Street and Menifee Road

Segments

- A. Rouse Road, west of "B" Street
- B. Menifee Road, north of Rouse Road
- C. Menifee Road, south of Rouse Road

These five (5) intersections and three (3) segments have been identified in coordination with City staff as locations where traffic operations could potentially be impacted by the proposed Project. It should be noted that Intersections 3 and 5 do not exist without the Project and were not analyzed under the Existing condition. **Exhibit 2-4** shows the Existing study intersection lane geometry.

EXHIBIT 2-4: EXISTING LANE GEOMETRY



2.3 ANALYSIS SCENARIOS

In accordance with City guidelines, the analysis scenarios are analyzed are as follows:

1. Existing Year 2022 Condition
2. Existing Year 2022 With Project Condition
3. Opening Year 2024 Cumulative Without Project Condition
4. Opening Year 2024 Cumulative With Project Condition
5. Opening Year 2024 Cumulative With Project With Improvements Condition

2.4 KEY PROJECT TRANSPORTATION IMPROVEMENTS

The following improvements have been identified in the Project documentation as being recommended. Each of these improvements have been evaluated in the With Project conditions in this study.

- 1) "B" Street and Rouse Road (#3)
 - a. Install a "STOP" control on the southbound approach to the intersection along "B" Street.
 - b. During final design, consider a shorter westbound right turn pocket and appropriate transitions.
- 2) Menifee Road and Rouse Road (#4)
 - a. A southbound right turn on red restriction was evaluated in this study; however, this restriction is not currently recommended. The City will observe operations and safety at this location and may consider Right Turn On Red restrictions in the future if needed.
- 3) "A" Street and Menifee Road (#5)
 - a. Install a "STOP" control on the eastbound approach to the intersection along "A" Street.
 - b. Construct a southbound right turn pocket with a minimum 100-foot lane and minimum 90-foot taper along Menifee Road. A southbound right turn pocket with 100-foot lane and 120-foot taper is currently provided on the site plan.
 - c. Provide Keep Clear pavement markings and Do No Block Driveway signage along Menifee Road at the "A" Street project driveway.
 - d. The median design concept on Menifee Road at the "A" Street Project driveway will require refinement to be constructed to typical design standards including accommodation of inbound left turns and restrictions of outbound left turns.
- 4) Rouse Road
 - a. Rouse Road is an east-west roadway located along the Project's southern boundary. Project to construct Rouse Road at its ultimate half-section width as a Major Highway (118-foot right-of-way) from the Project's western boundary to Menifee Road consistent with City standards. Construction of the Project's ultimate half-section along Rouse Road will complete the ultimate 4-lane section. Through lanes along the Project's frontage will be striped in the interim such as to transition down to the existing lanes west of the Project until such time in the future when Rouse Road is widened to its ultimate cross-section width to the west.
- 5) Menifee Road
 - a. Menifee Road is a north-south roadway located along the Project's eastern boundary. Project to construct Menifee Road at its ultimate half-width as an Urban Arterial Highway (152-foot right-of-way) from the Project's northern boundary to Rouse Road consistent with City standards. Similar to the east side of Menifee Road, the roadway will be striped along the Project's frontage to provide the appropriate lanes and transitions between the existing lanes to the north and south of the Project.

3 ANALYSIS METHODOLOGY

3.1 LEVEL OF SERVICE ANALYSIS METHODOLOGIES

As required by City of Menifee, this traffic study has been prepared in accordance with the *City of Menifee LOS Traffic Study Guidelines* (October 2020) [City Guidelines]. The scope of this traffic study has been coordinated with the City of Menifee and the approved scoping memo is included as **Appendix B**.

Level of service (LOS) is commonly used as a qualitative description of intersection operation and is based on the type of traffic control and experienced delay at the intersection. The *Highway Capacity Manual* (HCM) 6th Edition published by the Transportation Research Board in 2016 was utilized in this analysis to determine the operating LOS at each of the study intersections. LOS can range from LOS A (free-flow conditions) to LOS F (severely congested conditions). Delay in seconds per vehicle (sec/veh) passing through the intersection, is the primary measure of effectiveness for signalized, stop-controlled, and roundabout intersections. The corresponding average stopped delay range experienced per vehicle per LOS is shown in **Table 3-1**.

TABLE 3-1: HCM INTERSECTION LEVEL OF SERVICE THRESHOLDS

Level of Service	Signalized Intersection Average Delay (seconds/vehicle)	Two-Way Stop-Controlled, All-Way Stop-Controlled, and Roundabout Control Delay (seconds/vehicle)
LOS A	$x \leq 10$	$x \leq 10$
LOS B	$10 < x \leq 20$	$10 < x \leq 15$
LOS C	$20 < x \leq 35$	$15 < x \leq 25$
LOS D	$35 < x \leq 55$	$25 < x \leq 35$
LOS E	$55 < x \leq 80$	$35 < x \leq 50$
LOS F	$80 < x$	$50 < x$

Source: *Highway Capacity Manual*, 6th Edition.

Note: If the volume-to-capacity ratio (v/c) > 1.0, LOS = F.

LOS is reported for the average stopped delay per vehicle for the overall intersection (all movements) for signalized intersections, all-way stop-controlled, and roundabout intersections. For one-way or two-way stop-controlled intersections, LOS is reported for the worst stop-controlled approach. LOS and delay for the intersection analysis was conducted with Synchro (version 11) software. HCM 6th Edition results were reported.

3.2 PERFORMANCE CRITERIA

The City Guidelines identify two minimum operating conditions. The minimum acceptable condition is LOS D for locations in the City. LOS E is identified as acceptable only in capacity constrained locations near I-215. For the purpose of this evaluation, LOS D is the minimum acceptable condition given the Project location. Given the Project location and per the City Guidelines, the Project will have adverse effects:

1. "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)."

2. *"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. 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 reducing the impact."*

4 EXISTING YEAR 2022 CONDITIONS

4.1 ROADWAY NETWORK

The analysis study area roadway network is described below.

Menifee Road is generally a four-lane roadway in the City of Menifee. Regionally, it travels north-south from Mapes Road in the north to Tulita Lane in the south. An intersection with State Route 74 (SR-74) exists to the north. Also, Menifee Road connects to McCall Boulevard to the south, which provides access to Interstate 215 (I-215). The City of Menifee General Plan (December 2013) identifies the section of Menifee Road along the project site frontage as a 6-lane divided Urban Arterial. The existing east side of Menifee Road does not match the General Plan section. The posted speed limit within the project vicinity is 55 miles per hour (mph).

Rouse Road is a two-lane roadway in the City of Menifee. Regionally, it travels east-west from Menifee Road in the east to Antelope Road in the west. The City of Menifee General Plan (December 2013) identifies the road near the project vicinity as a four-lane divided Major Roadway. The existing south side of Rouse Road does not match the General Plan section. The current posted speed limit on Rouse Road is 35 mph.

Junipero Road is a two-lane roadway in the City of Menifee. Regionally, it travels north-south from Rouse Road in the north to Shadel Road in the south. South of McCall Boulevard, Junipero Road is an unpaved road. The City of Menifee General Plan (December 2013) identifies the road near the project vicinity as a Collector/Interconnected Local roadway. The prima facie limit on Junipero Road is assumed to be 25 mph.

Galloping Way is a two-lane roadway in the City of Menifee. The road provides access to/from the Remington Place residential development. It is not identified under the City of Menifee General Plan (December 2013) and is assumed to be a Local roadway. The prima facie limit on Galloping Way Road is assumed to be 25 mph.

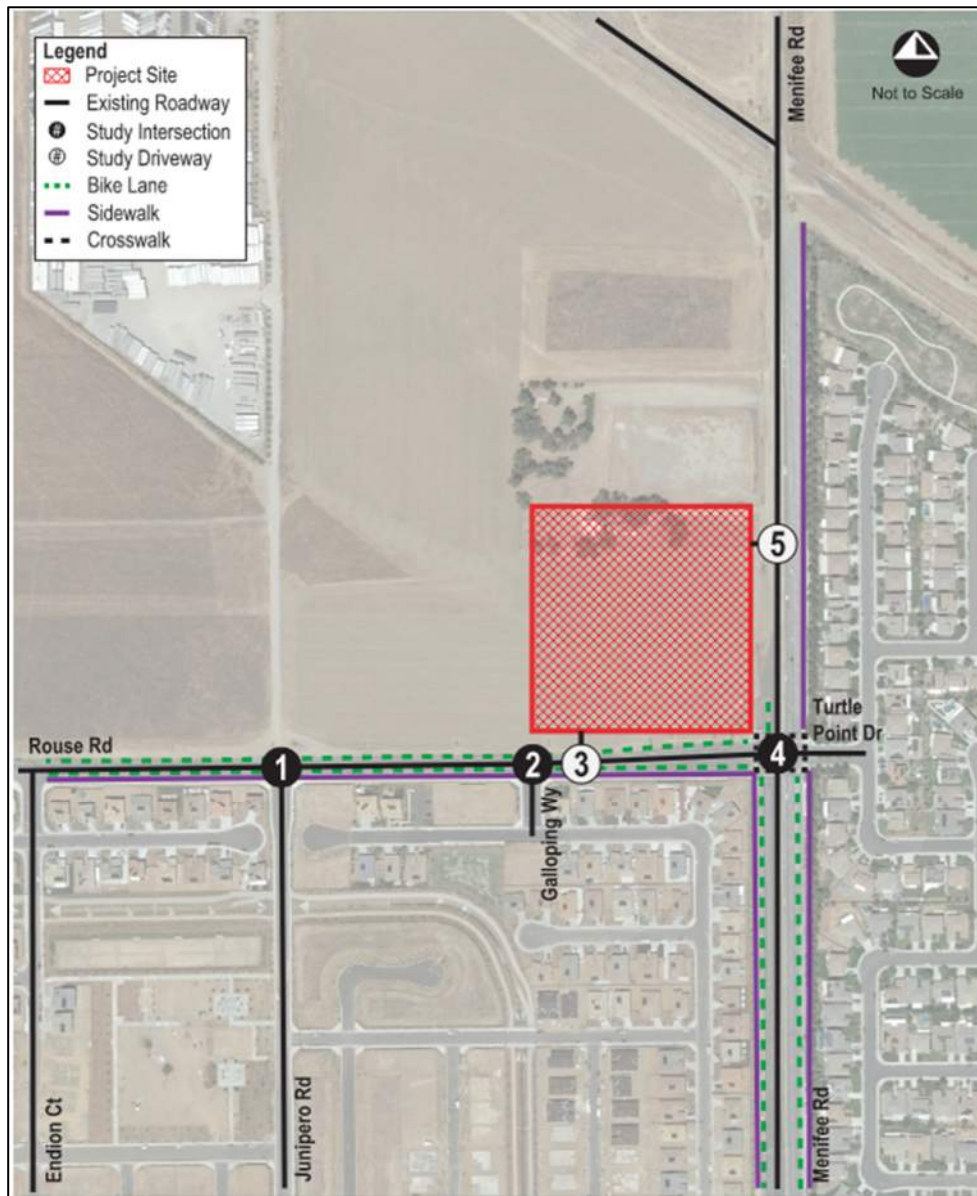
4.2 MULTIMODAL FACILITIES

The surrounding area of the project site accommodates various modes of travel – passenger cars, delivery trucks, transit vehicles, bicycles, and pedestrians. The information presented in this section focuses on the bicycle and pedestrian activity observed in the study area as well as the available transit service options.

4.2.1 Bicyclists and Pedestrians

Bicycle lanes currently exist within the Project Area. Class 2 Bike Lanes are located along the eastbound and westbound lanes of Rouse Road, between Palomar Road and Menifee Road, including along the Project frontage. Class 2 Bike Lanes are also present on the northbound and southbound lanes of Menifee Road between Rouse Road and Heritage Lake Drive, to the south of the Project. Along the Project frontage with Menifee Road, no bike lane currently exists with the exception of a 100-foot Class 2 Bike Lane at the southbound approach to the Rouse Road signalized intersection.

Along the project frontage no sidewalks currently exist. Sidewalk is present on the south side of Rouse Road. A sidewalk is present on the east and west side of Menifee Road from Rouse Road to Heritage Lake Drive. At the intersection of Menifee Road and Rouse Road crosswalks are provided on all legs of the intersection. **Exhibit 4-1** shows the existing Bicycle and Pedestrian facilities.

EXHIBIT 4-1: EXISTING BICYCLE AND PEDESTRIAN FACILITIES.**4.2.2 Transit Services**

Riverside Transit Authority (RTA) provides transit service in the area including fixed-route bus service and Dial-a-Ride service. Dial-a-Ride service is provided for locations within three quarters of a mile of an RTA local route, meaning service is provided in the Project area. RTA provides three types of Dial-A-Ride service: ADA Priority for the disabled and their Personal Care Attendant, Senior/Disabled regular service to those over 65 and disabled, and "Plus Lifeline Service," although trips are restricted to life-sustaining services.

The current bus route map showing the fixed route services is shown in **Exhibit 4-2**, along with the Project location added to the exhibit. The closest bus stop is located approximately 1 mile away at the intersection of Menifee Road and State Route 74 (SR-74). Service offered at this intersection is provided by Route 28 (Light Blue) seven (7) days a week, spanning between the Perris Station Transit Center, Romoland, downtown Hemet, and Valle Vista. The route runs from about 4 AM to 12 AM on weekdays and 4 AM to 12 AM on weekends, with about 20-minute headways between major stop locations along its route.

EXHIBIT 4-2: RTA BUS ROUTE MAP



Source: <https://www.riversidetransit.com/index.php/riding-the-bus/maps-schedules>

4.3 TRAFFIC VOLUMES

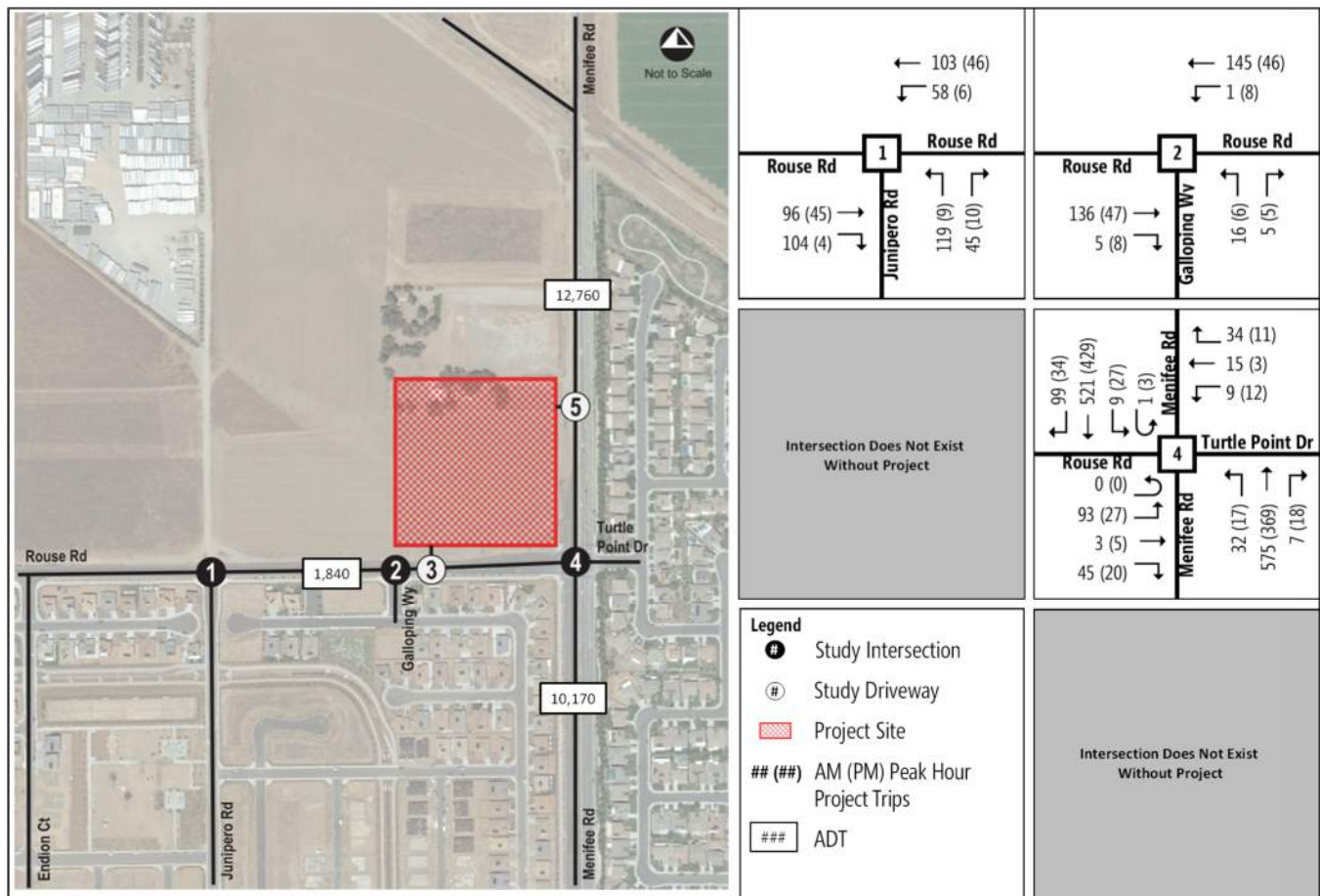
Traffic counts were collected on Thursday May 17th, 2022. Intersection counts were collected from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM, while segment counts were collected for a 24-hour period. The counts used in this analysis include daily, AM Peak Hour, and PM Peak Hour. **Table 4-1** shows the existing Average Daily Traffic (ADT) volumes. Segments A and B ADT reflect actual count data. Segment C ADT is estimated using a k-factor calculated from count data at Segments A and B. **Exhibit 4-3** shows the existing peak hour intersection volumes. Counts collected for this study are included in **Appendix C**. **Appendix D** contains detailed volume development worksheets

TABLE 4-1: EXISTING YEAR 2022 ADTs

ID	Roadway Segment	Existing Year 2022 ADT
A	Rouse Rd West of "B" St	1,840
B	Menifee Rd North of Rouse Rd	12,760
C	Menifee Rd South of Rouse Rd	10,170

Note: 1) Segment A & B ADT are actual count data. Segment C ADT factored.
2) ADT rounded to the nearest 10 vehicles.

EXHIBIT 4-3: EXISTING YEAR 2022 PEAK HOUR VOLUMES



4.4 LOS ANALYSIS

4.4.1 Segment Analysis

Table 4-2 summarizes the existing segment results. Per the City Guidelines capacity values, all study segments operate at LOS D capacity or better.

TABLE 4-2: EXISTING YEAR 2022 SEGMENT ANALYSIS RESULTS

ID	Roadway Segment	Existing Year 2022 ADT ¹	LOS D Capacity ^{2,3}	LOS D or Better?
A	Rouse Rd West of "B" St	1,840	11,700	Yes
B	Menifee Rd North of Rouse Rd	12,760	33,400	Yes
C	Menifee Rd South of Rouse Rd	10,170	33,400	Yes

Note: 1) ADT rounded to the nearest 10 vehicles.
 2) Rouse Road assumed capacity of two-lane collector roadway from *City of Menifee LOS Traffic Study Guidelines, Attachment B*.
 3) Menifee Road assumed capacity for a four-lane Arterial roadway from *City of Menifee LOS Traffic Study Guidelines, Attachment B*.

4.4.2 Intersection Analysis

Table 4-4 summarizes the Existing Year peak hour Synchro intersection analysis results. The analysis results show all intersections operate at acceptable LOS D or better during the AM and PM Peak Hours. The Existing Year AM Peak Hour analysis worksheets are contained in **Appendix E** and the Existing Year PM Peak Hour analysis worksheets are contained in **Appendix F**.

TABLE 4-4: EXISTING YEAR 2022 INTERSECTION ANALYSIS RESULTS

ID	Intersection	Control Type	Existing Year 2022			
			AM Peak Hour		PM Peak Hour	
			LOS	Delay	LOS	Delay
1	Junipero Rd & Rouse Rd	OWSC	B	14.1	A	9.0
2	Galloping Wy & Rouse Rd	OWSC	B	10.0	A	9.0
3	Project Driveway & Rouse Rd	OWSC	<i>Intersection Does Not Exist Under This Condition</i>			
4	Menifee Rd & Rouse Rd	SIG	B	16.8	B	10.5
5	Project Driveway & Menifee Rd	OWSC	<i>Intersection Does Not Exist Under This Condition</i>			

Notes: 1) LOS = Level of Service
 2) OWSC = One-Way Stop-Controlled; SIG = Signal Controlled
 3) Overall LOS provided for signalized intersection. Worst approach LOS provided for one-way stop-controlled intersections.
 4) Delay shown in seconds per vehicle.

5 FORECAST TRAFFIC

5.1 PROPOSED PROJECT

The Project proposes to construct 162 two-story attached condominium units on the northwest quadrant of the intersection of Menifee Road and Rouse Road. The project is anticipated to be built out by Year 2024.

5.1.1 Project Forecast Trip Generation

The Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition) was used to forecast vehicle trips generated by the proposed Project. **Table 5-1** shows the trip generation rate for Multifamily Housing (Low-Rise) land use (ITE Code 220). Land Use type for the project was coordinated with City Staff. **Table 5-2** summarizes the vehicular trips forecast to be generated by the Project. As shown, the project is anticipated to generate approximately 1,092 daily trips with 65 AM Peak Hour trips and 83 PM Peak Hour trips. The Project is assumed to be construction in one phase.

TABLE 5-1: TRIP GENERATION RATES

Land Use	ITE Code	Daily Trips Rate	AM Peak Hour				PM Peak Hour			
			Rate	In	/	Out	Rate	In	/	Out
Multifamily (Low Rise)	220	6.74 / DU	0.40	24%	/	76%	0.51	63%	/	37%

Source: ITE *Trip Generation Manual*, 11th Edition.

TABLE 5-2: TRIP GENERATION

Land Use	ITE Code	Intensity		Daily Trips	AM Peak Hour			PM Peak Hour		
					Volume	In	Out	Volume	In	Out
Multifamily (Low Rise)	220	162	DU	1,092	65	16	49	83	52	31

Note: DU = Dwelling Unit.

5.1.2 Project Trip Distribution and Assignment

The anticipated Project trip regional distribution trends are as follows:

- 20% to the North via Menifee Road
- 70% to the South via Menifee Road and Junipero Road
- 10% to the West via Rouse Road

Exhibit 5-1 shows the Project trip distribution at each of the study intersections and **Exhibit 5-2** shows the Project intersection trips. **Appendix D** contains detailed volume development worksheets.

EXHIBIT 5-1: PROJECT TRIP DISTRIBUTION

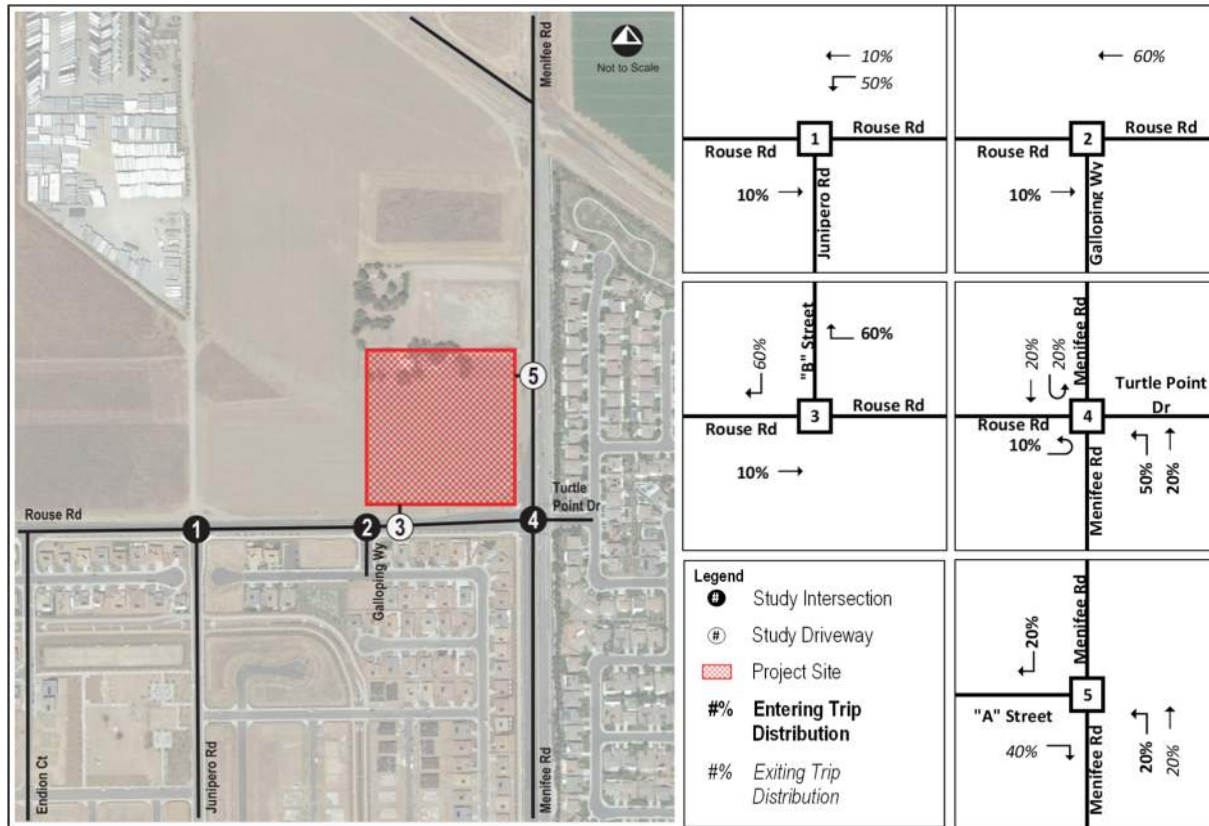
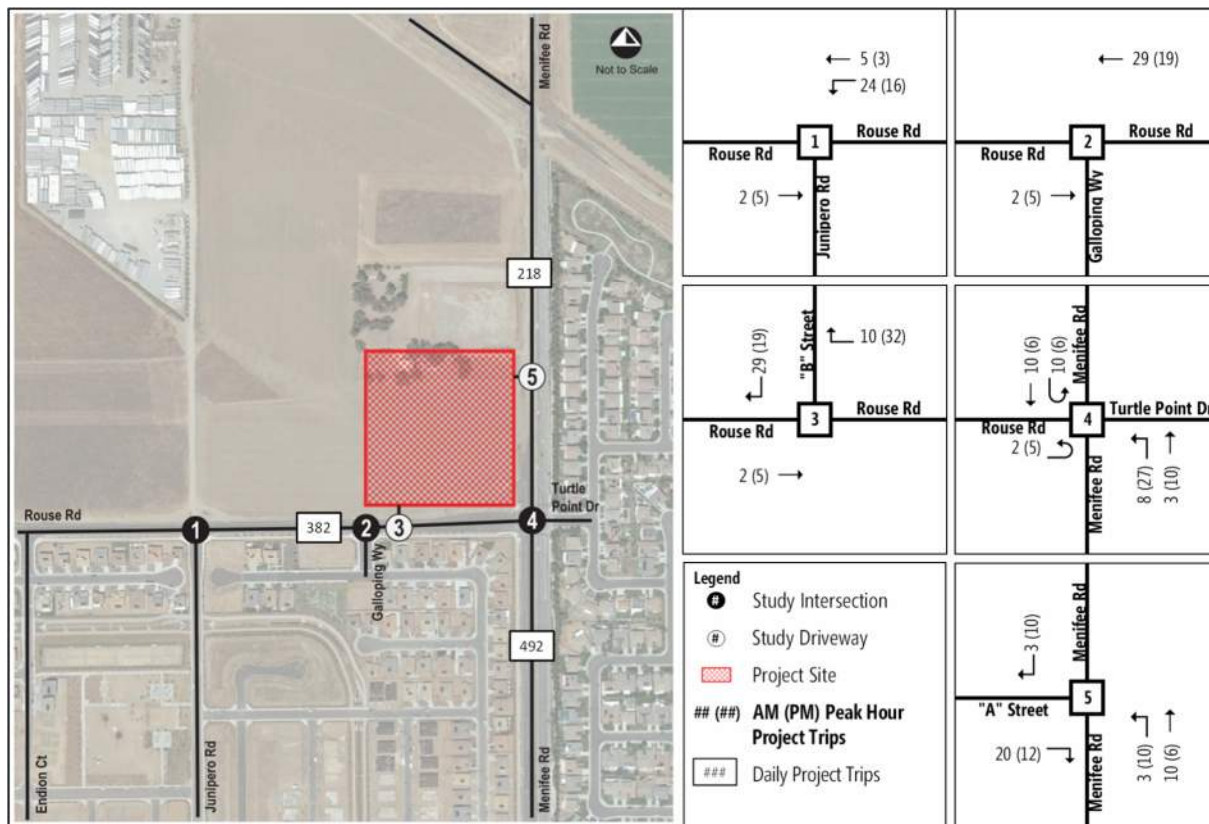


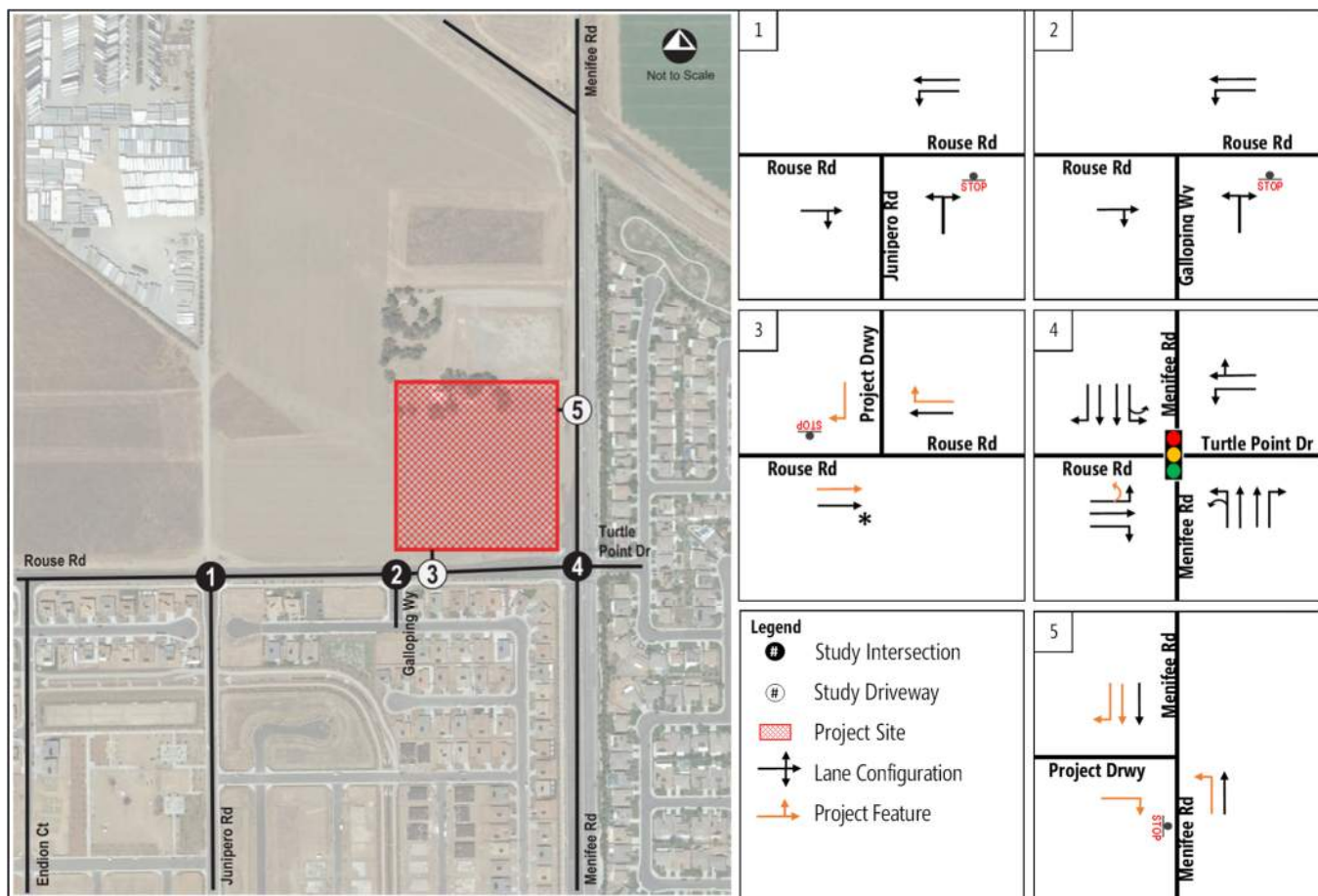
EXHIBIT 5-2: FORECAST PROJECT TRIPS



5.1.3 Project Features

Exhibit 5-3 shows the proposed With Project Lane configuration. Under the With Project lane configuration, the westbound right turn lane provided at the Project driveway on Rouse Road (#3) will extend to the intersection of Menifee Road and Rouse Road (#4) as full receiving lane. The added receiving lane on the west leg of the intersection of Menifee Road and Rouse Road (#4) provides space for eastbound U-turns. Additionally, the existing eastbound right-turn lane at the intersection of Menifee Road and Rouse Road (#4) will be extended to a full receiving leg at the intersection of Galloping Way and Rouse Road (#2). Additionally, the With Project configuration includes the implementation of a southbound right turn lane at the intersection of the Project Driveway and Menifee Road (#5). At the project driveway at "B" Street, stop control will be installed on the southbound approach. At the project driveway at "A" Street, stop control will be installed on the eastbound approach.

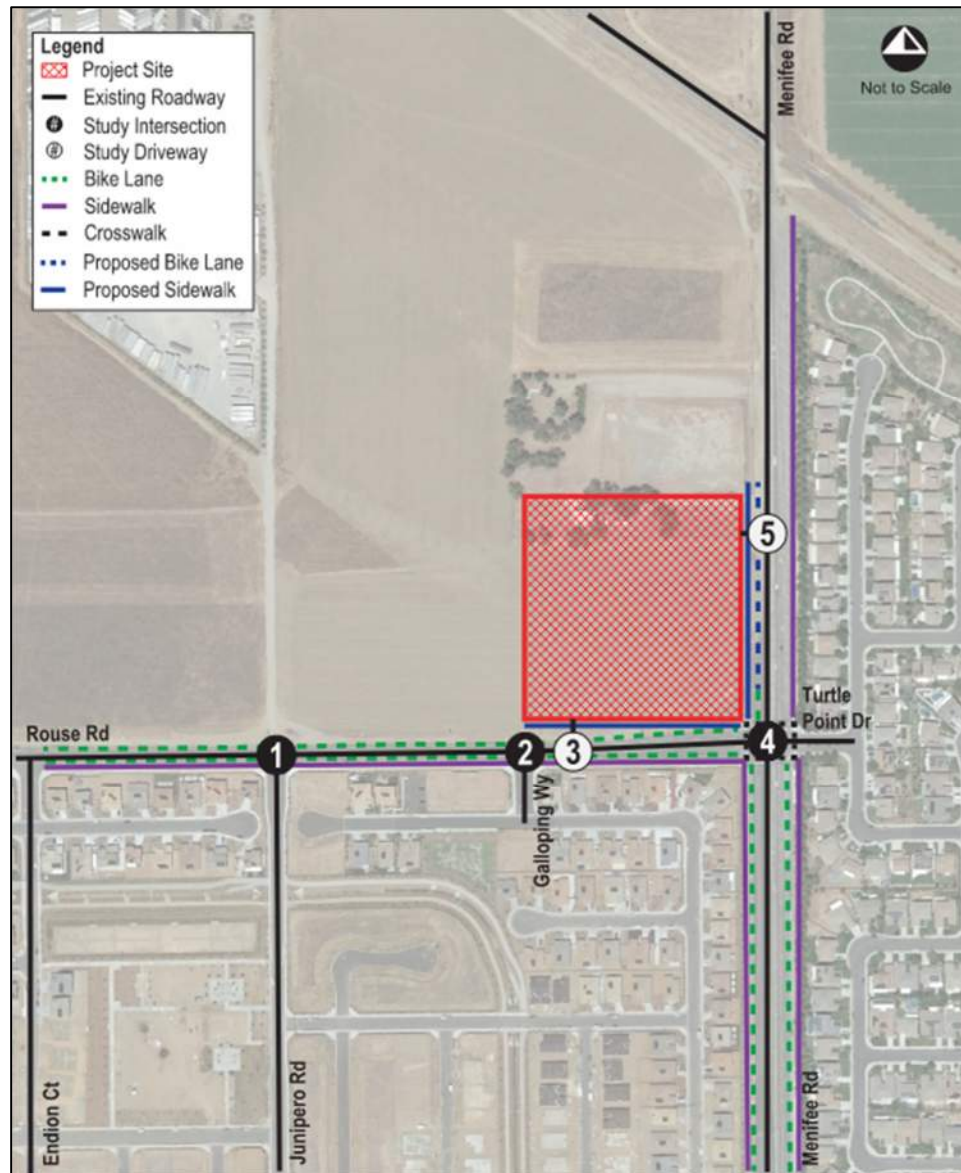
EXHIBIT 5-3: WITH PROJECT LANE CONFIGURATION



Note: 1) Asterisk denotes Intersection #3 EBT curb lane is extended into Intersection #4 as a trap right turn lane.

Along the project frontage on Rouse Road, the project proposes a 118-foot cross section consistent with City Standard Plans. Along the project frontage on Menifee Road, the project proposes a 152-foot cross section consistent with City Standard Plans. **Exhibit 5-4** shows the proposed Bicycle and Pedestrian improvements as part of the project.

EXHIBIT 5-4: WITH PROJECT BICYCLE AND PEDESTRIAN FACILITIES



5.2 AMBIENT GROWTH

The project Opening Year is estimated to be 2024. Therefore, Existing traffic volumes need to be adjusted to include 2 years of ambient growth. In coordination with City staff, a 2% annual growth rate was used for the Opening Year traffic forecasting.

5.3 CUMULATIVE PROJECTS

Cumulative project development was coordinated with the City of Menifee. **Table 5-3** shows the projects considered in the development of the subsequent volumes. Each Cumulative Project was evaluated to determine if any additional traffic from those planned/approved developments would occur at any of the study intersections or segments. **Exhibit 5-5** shows a map of cumulative projects determined to affect the study intersections. **Exhibit 5-6** shows the cumulative project trips affecting the study intersections. The project volume development and the cumulative projects volume distribution assumed that the Rouse Road construction and connection to Antelope Road will be completed prior to the Project opening. **Appendix D** contains detailed cumulative projects volume development worksheets.

TABLE 5-3: CUMULATIVE PROJECTS

ID	Project Name	Type	Size	Jurisdiction	Added to Study Intersections?
1	Newport and Menifee Commercial (PM 2018-118)	Commercial	138,091 SF Retail	Menifee	No
2	Village at Junipero	Residential	240 MFR	Menifee	Yes
3	Menifee Valley Specific Plan	Residential	1,711 SFR, 590 AC Mixed-Use	Menifee	Yes
4	McCall Plaza (PP 2016-124)	Commercial	6,200 SF Fast-food, 1,000 SF Retail, 12 VFP Gas Station	Menifee	Yes
5	Legado Specific Plan	Mixed-Use	1061 SFR, 10,000 SF Community Center, 11,230 SF Sports Park, 225,000 SF Retail	Menifee	Yes
6	TR 32314	Residential	33 SFR	Menifee	No
7	TR 2016-285, SP 2016-286, GPA 2016-287, CZ 2016-288	Residential	305 SFR	Menifee	No
8	TR 28859-1	Residential	161 SFR	Menifee	No
9	Menifee North Shopping Center	Commercial	200,000 SF Grocery Store, 5,500 SF Bank, 6,700 SF Fast-food, 10,000 SF Retail, 16 VFP Gas Station	Menifee	No
10	Underwood (KB Homes TR 29835)	Residential	543 SFR	Menifee	Yes
11	Remington / McCall Mesa (Lennar TR 31098)	Residential	264 SFR	Menifee	Yes
12	McCall Square (CUP 03549)	Commercial	152,893 SF Storage Facility, 45,000 SF Grocery Store, 14,600 SF Pharmacy, 11,500 SF Retail, 6,100 SF Restaurants, 3,500 SF Fast-food, 16 VFP Gas Station	Menifee	Yes
13	PP 19469R1	Residential	221 Senior Apartments	Menifee	No

TABLE 5-3: CUMULATIVE PROJECTS (CONTINUED)

ID	Project Name	Type	Size	Jurisdiction	Added to Study Intersections?
14	GPA 2016-061; SPA -062; TR -063	Residential	54 SFR	Menifee	No
15	2015-211	Residential	75 SFR	Menifee	No
16	TR 31582	Residential	140 SFR	Menifee	No
17	TR 32100 TR 32101 TR 32102	Residential	170 SFR 197 SFR 272 SFR	Menifee	No
18	Nautical Cove Residential	Residential	235 SFR	Menifee	No
19	Menifee Heights (TR 32277)	Residential	235 SFR, 10.2 AC Active Parks	Menifee	No
20	CUP 2016-110	Commercial	2.4 DU Fast-food	Menifee	No
21	Newport & Menifee Retail	Commercial	139,091 SF Retail	Menifee	No
22	The Lakes (TR 30422 / SP 247 Amendment 1)	Residential	327 SFR	Menifee	No
23	CUP 2016-183	Mixed-Use	45,246 SF Assisted Living, 10,368 Mixed Office/Retail	Menifee	No
24	TR 28859	Residential	86 SFR	Menifee	No
25	TTM 31456	Residential	177 SFR	Menifee	No
26	Cimarron Ridge	Residential	756 SFR	Menifee	No
27	Vista Ridge (2018-159 TM)	Residential	30 MFR	Menifee	No
28	Capstone Industrial (PLN21-0370)	Industrial	700,037 SF Warehouse	Menifee	No
29	Ares (DEV2022-017)	Industrial	551,685 SF Warehouse	Menifee	No

TABLE 5-3: CUMULATIVE PROJECTS (CONTINUED)

ID	Project Name	Type	Size	Jurisdiction	Added to Study Intersections?
30	Goetz & Ethanac Commercial (PP PLN21-0319, CUP PLN21-0320)	Commercial	C-Store-7,250 SF; Car wash 2,790 SF; Retail 7,040 SF; Fuel Canopy	Menifee	No
31	Corsica Business Park (DEV2022-010, PLN22-0058, PLN22-0060)	Industrial	3 warehouses: 30,873 & 81,129 & 164,680 SF	Menifee	No
32	Northern Gateway Commerce Center (PP PLN21-0281, TM PLN21-0282)	Industrial	One industrial building: 1,316,741 SF	Menifee	No
33	Ethanac & Barnett Warehouse (PP PLN21-0290)	Industrial	2 buildings: 125,890 SF each	Menifee	No
34	Ethanac Square (MJMOD PLN21-0104)	Residential	Diesel fuel station; 3,800 SF gas station; C-store; 2,080 SF express car wash	Menifee	No
35	Sagewood (TR 37400/2018-065)	Residential	174 SFR	Menifee	No
36	McLaughlin Village (TM 2015-250)	Residential	126 MFR	Menifee	No
37	Valley Blvd Tract Map (TR 2015-211 (TR 36911))	Residential	68 SFR	Menifee	No
38	Menifee Commerce Center II (DEV20222-014)	Industrial	One concrete tilt-up building 1,139,478 SF	Menifee	No
39	Nova Battery Storage (DEV20222-015)	Industrial	Re-development of the Inland Empire Energy Center generation plant	Menifee	No

TABLE 5-3: CUMULATIVE PROJECTS (CONTINUED.)

ID	Project Name	Type	Size	Jurisdiction	Added to Study Intersections?
40	McLaughlin San Jacinto Warehouses (DEV20222-016)	Industrial	Five warehouses: 491,467 SF	Menifee	No
41	Ethanac and Evans Warehouse (DEV20222-018)	Industrial	137,896 SF warehouse	Menifee	No
42	Trumble and Watson Warehouse (DEV20222-019)	Industrial	Warehouse 327,631 SF	Menifee	No
43	Cypress and Sands Apartments (DEV20222-020)	Residential	136 MFR	Menifee	Yes
44	Talavera (KB Homes TTM 29777)	Residential	173 SFR	Menifee	Yes

Notes:

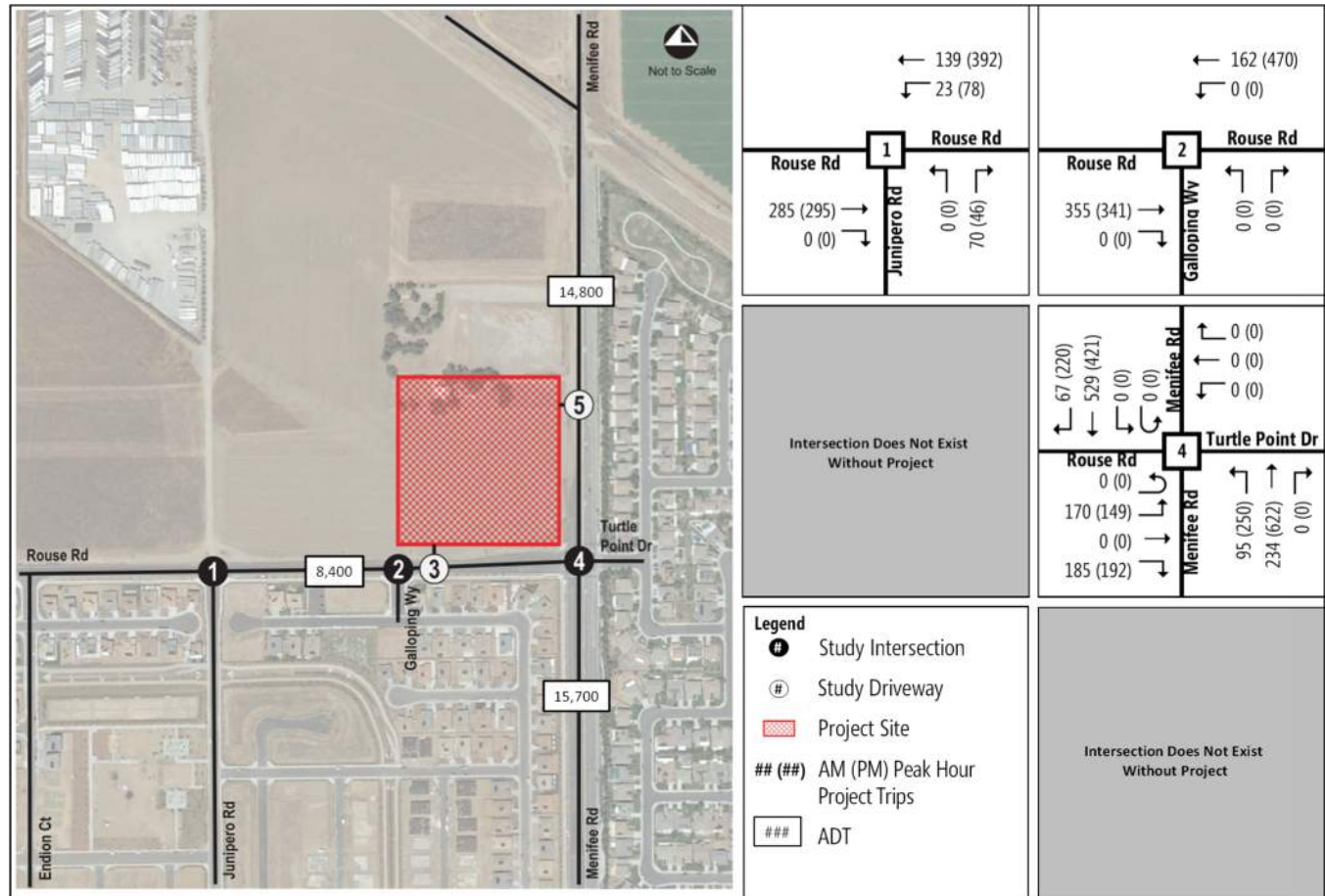
- 1) SFR = Single-Family Residential unit.
- 2) MFR = Multi-Family Residential unit.
- 3) SF = Square Feet.
- 4) VFP = Vehicle Fuel Pump.
- 5) DU = Dwelling Unit.

EXHIBIT 5-5: CUMULATIVE PROJECTS MAP



Note: Cumulative projects shown in this map includes those where project trips were added to study intersections.

EXHIBIT 5-6: CUMULATIVE PROJECT TRIPS



6 EXISTING YEAR 2022 WITH PROJECT CONDITION

6.1 TRAFFIC VOLUMES

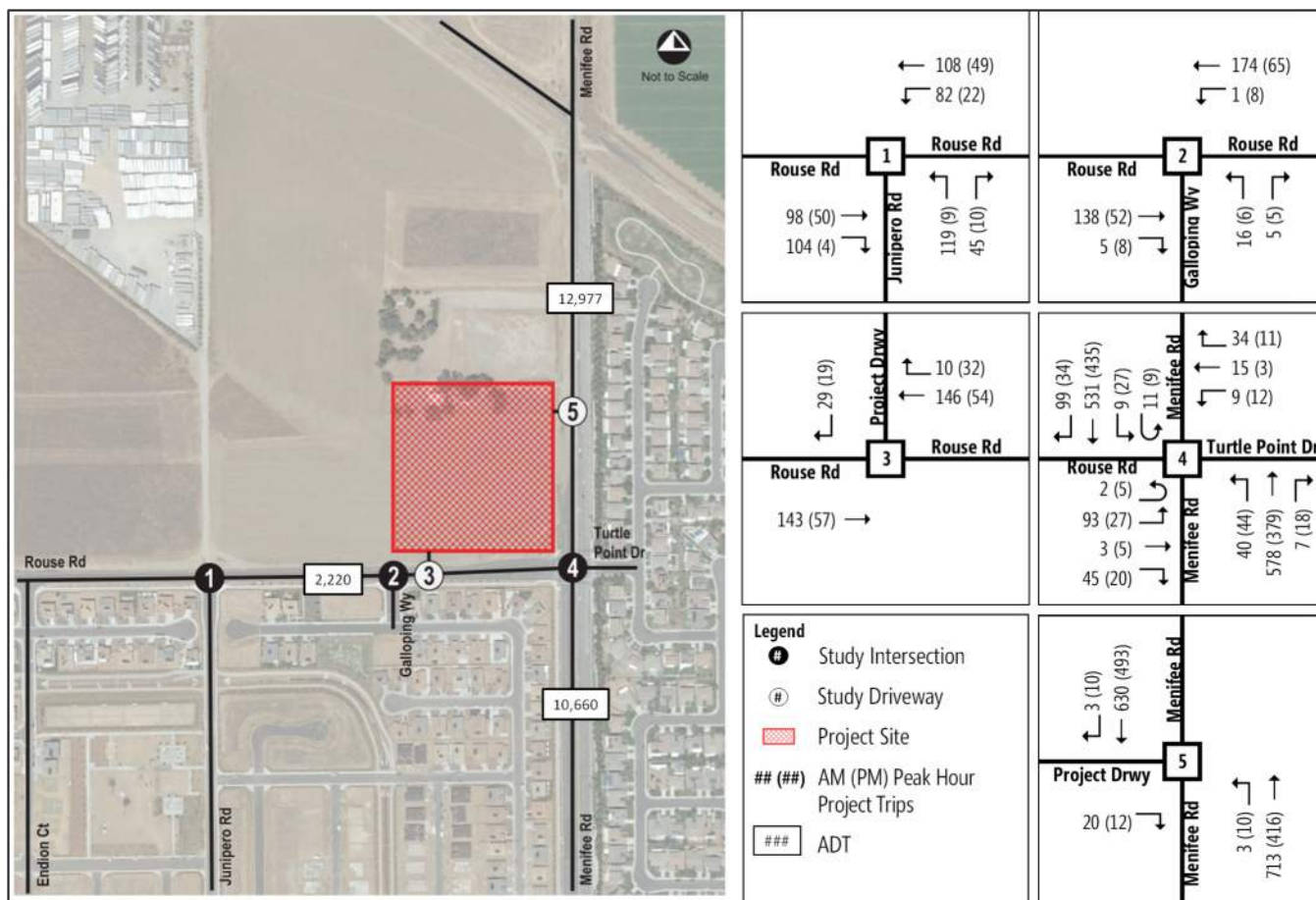
The Existing Year 2022 with Project traffic volumes were developed by adding the forecast project trips to the Existing traffic volumes. **Table 6-1** shows the Existing Year 2022 With Project ADT volumes. **Exhibit 6-1** shows the Existing Year 2022 With Project peak hour intersection volumes.

TABLE 6-1: EXISTING YEAR 2022 WITH PROJECT ADTs

ID	Roadway Segment	Existing Year 2022 With Project ADT ¹
A	Rouse Rd West of "B" St	2,200
B	Menifee Rd North of Rouse Rd	12,980
C	Menifee Rd South of Rouse Rd	10,660

Notes: 1) ADT rounded to the nearest 10 vehicles.

EXHIBIT 6-1: EXISTING YEAR 2022 WITH PROJECT PEAK HOUR VOLUMES



6.2 LOS ANALYSIS

6.2.1 Segment Analysis

Table 6-2 summarizes the Existing Year 2022 With Project segment results. Per the City Guidelines capacity values, all study segments operate at LOS D capacity or better.

TABLE 6-2: EXISTING YEAR 2022 WITH PROJECT SEGMENT ANALYSIS RESULTS

ID	Roadway Segment	Existing With Project ADT ¹	LOS D Capacity ^{2,3}	LOS D or Better?
A	Rouse Rd West of "B" St	2,220	11,700	Yes
B	Menifee Rd North of Rouse Rd	12,980	33,400	Yes
C	Menifee Rd South of Rouse Rd	10,660	33,400	Yes

Notes:

- 1) ADT rounded to the nearest 10 vehicles.
- 2) Rouse Road assumed capacity of two-lane collector roadway from *City of Menifee LOS Traffic Study Guidelines, Attachment B*.
- 3) Menifee Road assumed capacity for a four-lane Arterial roadway from *City of Menifee LOS Traffic Study Guidelines, Attachment B*.

6.2.2 Intersection Analysis

Table 6-3 summarizes the Existing Year 2022 With Project peak hour Synchro intersection analysis results. The analysis results show all intersections operate at acceptable LOS C or better during the AM and PM Peak Hours. Since each intersection is projected to operate better than the LOS D threshold, no adverse effects on operations are projected. The Existing Year 2022 With Project AM Peak Hour analysis worksheets are contained in **Appendix G** and the Existing Year 2022 With Project PM Peak Hour analysis worksheets are contained in **Appendix H**.

TABLE 6-3: EXISTING YEAR 2022 WITH PROJECT INTERSECTION ANALYSIS RESULTS

ID	Intersection	Control Type	Existing Year 2022				Existing Year 2022 With Project				Adverse Effect?	
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	AM	PM
1	Junipero Rd & Rouse Rd	OWSC	B	14.1	A	9.0	C	15.3	A	9.1	No	No
2	Galloping Wy & Rouse Rd	OWSC	B	10.0	A	9.0	B	10.1	A	9.1	No	No
3	Project Driveway & Rouse Rd	OWSC	Intersection Does Not Exist Under This Condition				A	9.2	A	8.7	No	No
4	Menifee Rd & Rouse Rd	SIG	B	16.8	B	10.5	B	16.9	B	11.1	No	No
5	Project Driveway & Menifee Rd	OWSC	Intersection Does Not Exist Under This Condition				B	10.8	B	10.1	No	No

- Notes:**
- 1) LOS = Level of Service
 - 2) OWSC = One-Way Stop-Controlled; SIG = Signal Controlled
 - 3) Overall LOS provided for signalized intersection. Worst approach LOS provided for one-way stop-controlled intersections.
 - 4) Delay shown in seconds per vehicle.
 - 5) Adverse Effect when pre-project is LOS E/F and more than 50 AM or PM peak hour project trips are added to the intersection.

7 OPENING YEAR 2024 CONDITION

7.1 TRAFFIC VOLUMES

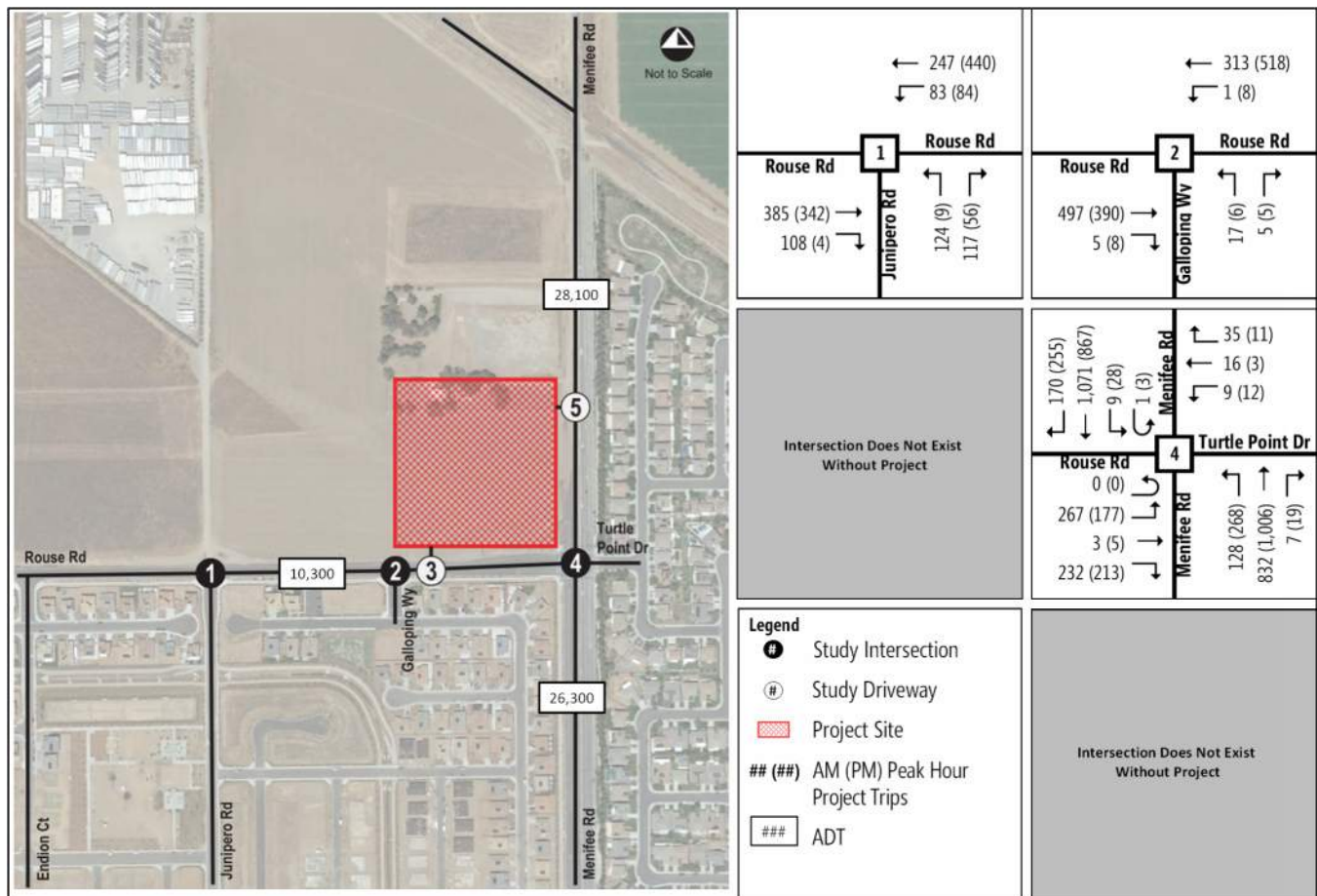
The Opening Year 2024 traffic volumes are developed by adding cumulative project trips and growing the Existing traffic volumes by a 2% growth rate. The growth rate used for the traffic forecasting was coordinated with the City. **Table 7-1** shows the Opening Year 2024 Average Daily Traffic (ADT) volumes and **Exhibit 7-1** shows the Opening Year 2024 peak hour intersection volumes. These volumes are Without Project conditions.

TABLE 7-1: OPENING YEAR 2024 ADTs

ID	Roadway Segment	Opening Year 2024 ADT ¹
A	Rouse Rd West of "B" St	10,300
B	Menifee Rd North of Rouse Rd	28,100
C	Menifee Rd South of Rouse Rd	26,300

Notes: 1) ADT rounded to the nearest 100 vehicles.

EXHIBIT 7-1: OPENING YEAR 2024 PEAK HOUR VOLUMES



7.2 LOS ANALYSIS

7.2.1 Segment Analysis

Table 7-2 summarizes the Opening Year 2024 segment results. Per the City Guidelines capacity values, all study segments operate at LOS D capacity or better.

TABLE 7-2: OPENING YEAR 2024 SEGMENT ANALYSIS RESULTS

ID	Roadway Segment	Opening Year 2024 ADT ¹	LOS D Capacity ^{2,3}	LOS D or Better?
A	Rouse Rd West of "B" St	10,300	11,700	Yes
B	Menifee Rd North of Rouse Rd	28,100	33,400	Yes
C	Menifee Rd South of Rouse Rd	26,300	33,400	Yes

Notes:

- 1) ADT rounded to the nearest 100 vehicles.
- 2) Rouse Road assumed capacity of two-lane collector roadway from *City of Menifee LOS Traffic Study Guidelines, Attachment B*.
- 3) Menifee Road assumed capacity for a four-lane Arterial roadway from *City of Menifee LOS Traffic Study Guidelines, Attachment B*.

7.2.2 Intersection Analysis

Table 7-3 summarizes the Opening Year 2024 peak hour Synchro intersection analysis results. The analysis results show the intersection of Junipero Road and Rouse Road (#1) is projected to operate at unacceptable LOS F during the AM Peak Hour. The other study intersections are projected to operate at LOS D or better for both the AM and PM peak hours. The Opening Year 2024 AM Peak Hour analysis worksheets are contained in **Appendix I** and the Opening Year PM Peak Hour analysis worksheets are contained in **Appendix J**.

TABLE 7-3: OPENING YEAR 2024 INTERSECTION ANALYSIS RESULTS

ID	Intersection	Control Type	Opening Year 2024			
			AM Peak Hour		PM Peak Hour	
			LOS	Delay	LOS	Delay
1	Junipero Rd & Rouse Rd	OWSC	F	52.2	B	11.8
2	Galloping Wy & Rouse Rd	OWSC	B	13.5	B	12.9
3	Project Driveway & Rouse Rd	OWSC	<i>Intersection Does Not Exist Under This Condition</i>			
4	Menifee Rd & Rouse Rd	SIG	D	50.7	C	25.2
5	Project Driveway & Menifee Rd	OWSC	<i>Intersection Does Not Exist Under This Condition</i>			

Notes:

- 1) LOS = Level of Service.
- 2) LOS E or LOS F in **red bold font** where applicable.
- 3) OWSC = One-Way Stop-Controlled; SIG = Signal Controlled.
- 4) Overall LOS provided for signalized intersection. Worst approach LOS provided for one-way stop-controlled intersections.
- 5) Delay shown in seconds per vehicle.

8 OPENING YEAR 2024 WITH PROJECT CONDITION

8.1 TRAFFIC VOLUMES

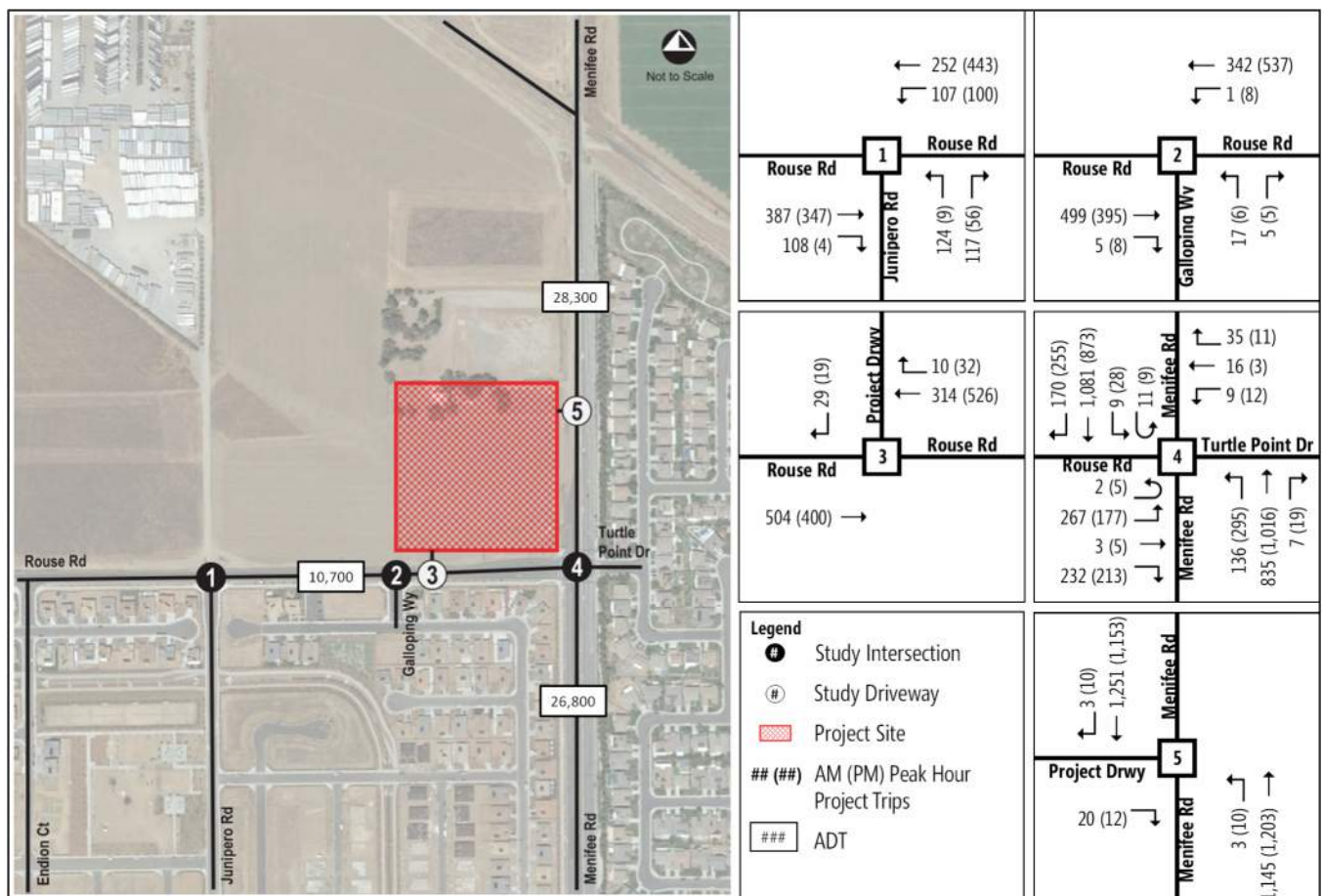
The Opening Year 2024 With Project traffic volumes are developed by adding the estimated Project trips to the Opening Year volumes. **Table 8-1** shows the Opening Year 2024 With Project ADT volumes and **Exhibit 8-1** shows the Opening Year 2024 With Project peak hour intersection volumes.

TABLE 8-1: OPENING YEAR 2024 WITH PROJECT ADTs

ID	Roadway Segment	Opening Year 2024 With Project ADT ¹
A	Rouse Rd West of "B" St	10,700
B	Menifee Rd North of Rouse Rd	28,300
C	Menifee Rd South of Rouse Rd	26,800

Notes: 1) ADT rounded to the nearest 100 vehicles.

EXHIBIT 8-1: OPENING YEAR 2024 WITH PROJECT PEAK HOUR VOLUMES



8.2 LOS ANALYSIS

8.2.1 Segment Analysis

Table 8-2 summarizes the Opening Year 2024 With Project segment results. Per the City Guidelines capacity values, all study segments operate at LOS D capacity or better.

TABLE 8-2: OPENING YEAR WITH PROJECT ADT ANALYSIS RESULTS

ID	Segment	Opening Year 2024 With Project ADT ¹	LOS D Capacity ^{2,3}	LOS D or Better?
A	Rouse Rd West of "B" St	10,700	11,700	Yes
B	Menifee Rd North of Rouse Rd	28,300	33,400	Yes
C	Menifee Rd South of Rouse Rd	26,800	33,400	Yes

Notes:

- 1) ADT rounded to the nearest 100 vehicles.
- 2) Rouse Road assumed capacity of two-lane collector roadway from *City of Menifee LOS Traffic Study Guidelines, Attachment B*.
- 3) Menifee Road assumed capacity for a four-lane Arterial roadway from *City of Menifee LOS Traffic Study Guidelines, Attachment B*.

8.2.2 Intersection Analysis

Table 8-3 summarizes the Opening Year 2024 With Project peak hour Synchro intersection analysis results. The analysis results show the intersection of Junipero Road and Rouse Road (#1) is projected to operate at unacceptable LOS during the AM Peak Hour. All other intersections in the study area are operate at LOS D or better for both the AM and PM peak hours. The Opening Year 2024 With Project AM Peak Hour analysis worksheets are contained in **Appendix K** and the Opening Year 2024 With Project PM Peak Hour analysis worksheets are contained in **Appendix L**.

The intersection of Junipero Road and Rouse Road (#1) experiences unacceptable LOS, with and without the proposed project. According to City Guidelines, an improvement should be identified if the both the Without Project and With Project scenarios resulted in unacceptable LOS E or F and more than 50 Project trips are added to the intersection. The project is forecast to add 31 AM trips at the intersection of Junipero Road and Rouse Road (#1). Therefore, while the intersection of Junipero Road and Rouse Road (#1) operates at LOS F, it does not qualify as cumulative adverse project effects since less than 50 peak hour project trips are added to the intersection during the time period when unacceptable LOS is projected.

The results shown in **Table 8-3** reflect a No Right Turn On Red condition for the southbound right turn movement at the intersection of Menifee Road and Rouse Road (#4). The results reflect worst case conditions. The City will observe operations and safety of the southbound right and eastbound left movements and may consider No Right Turn On Red restrictions in the future if needed.

TABLE 8-3: OPENING WITH PROJECT INTERSECTION ANALYSIS RESULTS

ID	Intersection	Control Type	Opening Year				Opening Year With Project				Project Trips Added		Adverse Effect?	
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM	PM	AM	PM
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay				
1	Junipero Rd & Rouse Rd	OWSC	F	52.2	B	11.8	F	63.9	B	11.9	31	24	No ⁶	No
2	Galloping Wy & Rouse Rd	OWSC	B	13.5	B	12.9	B	13.7	B	13.1	--	--	No	No
3	Project Driveway & Rouse Rd	OWSC	Intersection Does Not Exist Under This Condition				B	10.4	B	12.3	--	--	No	No
4	Meniffee Rd & Rouse Rd	SIG	D	50.7	C	25.2	D	52.9	C	27.1	33	54	No	No
5	Project Driveway & Meniffee Rd	OWSC	Intersection Does Not Exist Under This Condition				B	14.9	B	13.9	--	--	No	No

- Notes:**
- 1) LOS = Level of Service.
 - 2) LOS E or LOS F in **red bold font** where applicable.
 - 3) OWSC = One-Way Stop-Controlled; SIG = Signal Controlled.
 - 4) Overall LOS provided for signalized intersection. Worst approach LOS provided for one-way stop-controlled intersections.
 - 5) Delay shown in seconds per vehicle.
 - 6) Adverse Effect when pre-project is LOS E/F and more than 50 AM or PM peak hour project trips are added to the intersection.

8.3 QUEUE ANALYSIS

The Project driveway intersection queues were assessed to determine the adequacy of proposed storage lengths at the new intersections. **Table 8-4** summarizes the SimTraffic 95th percentile queues lengths and the available storage distances. As shown, all proposed driveway turn pockets are projected to accommodate peak hour queuing. The Opening Year With Project queue results are shown on the SimTraffic analysis worksheets in **Appendix K** and **Appendix L**.

TABLE 8-4: OPENING YEAR WITH PROJECT DRIVEWAY QUEUE ANALYSIS

ID	Intersection	Control Type ¹	Turn Movement	Proposed Available Storage (feet)	Opening Year With Project 95 th Percentile Queue (feet) ²	
					AM Peak Hour	PM Peak Hour
3	Project Driveway & Rouse Rd	OWSC	Southbound Right	55	33	28
5	Project Driveway & Menifee Rd	OWSC	Northbound Left	200	14	32
			Eastbound Right	60	35	25

Notes: 1) OWSC = One-Way Stop-Controlled.
 2) SimTraffic 95th percentile queues shown.
 3) The available storage is measured from the stop bar to the closed access gate.

Additionally, the queues at the intersection of Menifee Road and Rouse Road (#4) were also evaluate for the Opening Year With Project conditions. As shown, there is sufficient turn lane storage to accommodate projected queues at all but one movement. For the southbound right movement, queues are expected to exceed the available storage (180-foot queue length within a 165-foot storage lane); therefore, a storage lane length extension is recommended.

TABLE 8-5: MENIFEE ROAD AND ROUSE ROAD QUEUE ANALYSIS (SIMTRAFFIC)

ID	Intersection	Control Type	Opening Year With Project			
			Turn Movement	Available Storage (feet)	95 th Percentile Queue (feet)	
					AM Peak Hour	PM Peak Hour
4	Menifee Rd & Rouse Rd	SIG	NBL	400	314	394
			NBT	1,000+	561	629
			NBT	1,000+	433	496
			NBR	1,000+	90	164
			SBU-L	180	85	86
			SBT	420	310	223
			SBT	420	301	219
			SBR	165	174	180
			EBU-L	250	202	174
			EBT	540	10	16
			EBR	540	134	106
			WBL	100	28	30
			WBT-R	100	59	29

Notes: 1) SimTraffic 95th percentile queues shown.
 2) SIG = Signalized.
 3) **Red** text denotes queues that exceed available storage.

The results shown in **Table 8-5** reflect a No Right Turn On Red condition for the southbound right turn movement at the intersection of Menifee Road and Rouse Road (#4). The results reflect worst case conditions. The City will observe operations and safety of the southbound right and eastbound left movements and may consider No Right Turn On Red restrictions in the future if needed. A storage lane length extension is still recommended to accommodate potential future conditions.

Recommendation #1 (Striping Plan Improvement) – Revise Project Applicant striping plan to provide a 200’ southbound right turn lane plus taper at the intersection of Menifee Road and Rouse Road (#4).

8.4 SIGNAL WARRANT ANALYSIS

This section evaluates the need for traffic signal installation at the intersection of Junipero Road and Rouse Road (#1). The California Manual on Uniform Traffic Control Devices (CA MUTCD), 2014 Edition Revision 6 (Effective 3/30/2021) was used to conduct a traffic signal warrant for the intersection under the Opening Year Without Project and With Project conditions. Warrant 3 (Peak Hour) is considered adequate for analyzing peak hour effects. Per the CA MUTCD, satisfying a warrant itself does not require the installation of a traffic signal. Traffic signal installation requires the evaluation of traffic operations, pedestrian characteristics, and physical characteristics of the intersection, among other criteria. A traffic signal should only be installed if the engineering study, reviewing all appropriate criteria, recommends it. **Table 8-6** details the Warrant 3 (Peak Hour) results for the Opening Year scenarios. As shown, Warrant 3 is not satisfied at the intersection of Junipero Road and Rouse Road (#1). The traffic warrant analysis worksheets are contained in **Appendix M**.

TABLE 8-6: SIGNAL WARRANT ANALYSIS SUMMARY

ID	Intersection	Scenario	Warrant 3 Peak Hour Met? (100%)	
			AM Peak Hour	PM Peak Hour
1	Junipero Road and Rouse Road	Opening Year Without Project	No	No
		Opening Year With Project	No	No

8.5 OPENING YEAR WITH PROJECT WITH IMPROVEMENT CONDITION

The Synchro operations analysis has been updated to include the signing plan improvement recommendation to extend the southbound right turn lane storage area at Menifee Road and Rouse Road (#4). This modification does not impact the Opening Year 2024 With Project level of service and vehicle delay results shown in **Table 8-3**. **Appendix N** contains the updated Menifee Road and Rouse Road (#4) Synchro analysis worksheets.

9 SITE CIRCULATION

9.1 INTERSECTION SIGHT DISTANCE

This section evaluates the minimum intersection sight distance requirements at each of the Project driveway intersections. Intersection sight distance methodology utilizes sight triangles to show areas that should be clear of obstructions that might block a driver's view of potentially conflicting vehicles. The sight triangles are based on the roadway design speed and the time gap for minor road (driveways) vehicles to enter the major road. This methodology provides sufficient sight distance for a stopped driver on a minor road approach to depart the intersection and enter the major road (corner sight distance). Likewise, this methodology also provides enough time for a driver of a vehicle on the major road to slow or stop if a vehicle on the minor road approach has entered the roadway and is accelerating to reach the speed limit (stopping sight distance). The City of Menifee provides intersection sight distance requirement under *Standard Plan 81 - Intersection Sight Distance*.

Using the *City of Menifee Standard Plan 81*, Project intersections along Rouse Road and Menifee Road were evaluated to determine the required sight distance and to confirm standard requirements. **Table 9-1** lists the sight distance requirements for given design speeds.

TABLE 9-1: SIGHT DISTANCE REQUIREMENTS

Design Speed (MPH)	Corner Sight Distance (feet) ^{1, 2}	Stopping Sight Distance (feet) ¹
25	275	150
30	330	200
35	385	250
45	495	360
50	550	430
55	605	500

Source: *City of Menifee Std. Plan 81- Intersection Sight Distance.*

Notes:

- 1) Increase by 20% on sustained downgrade greater than 3% and longer than one mile.
- 2) Where restrictive conditions exist, the minimum value for corner sight distance shall be equal to the stopping sight distance with the approval of the Public Works Director

Table 9-2 shows the required and provided sight distance at all Project driveway intersections. As shown, all intersections provide adequate sight distance with relatively unobstructed views. **Exhibits 9-1** and **9-2** show sight distance triangles. Detailed sight distance worksheets included in **Appendix O**.

TABLE 9-2: SIGHT DISTANCE COMPLIANCE

ID	Intersection	Assumed Major Street Design Speed	Corner Sight Distance			Stopping Sight Distance		
			Required Sight Distance (feet) ¹	Available Distance (feet)	Meet Standard?	Required Sight Distance (feet) ¹	Available Distance (feet)	Meet Standard?
3	Project Driveway & Rouse Rd	40 mph	440	440	Yes	305	440	Yes
5	Project Driveway & Menifee Rd	60 mph	660	660	Yes	570	660	Yes

Source: City of Menifee Std. Plan 81- Intersection Sight Distance.

Notes: 1) Interpolated distance based on design speed.

2) Available sight distance applies to right turns unless otherwise noted.

3) Below standard sight distance shown in **bold red** font.

EXHIBIT 9-1: SIGHT DISTANCE COMPLIANCE – ROUSE ROAD SITE DRIVEWAY

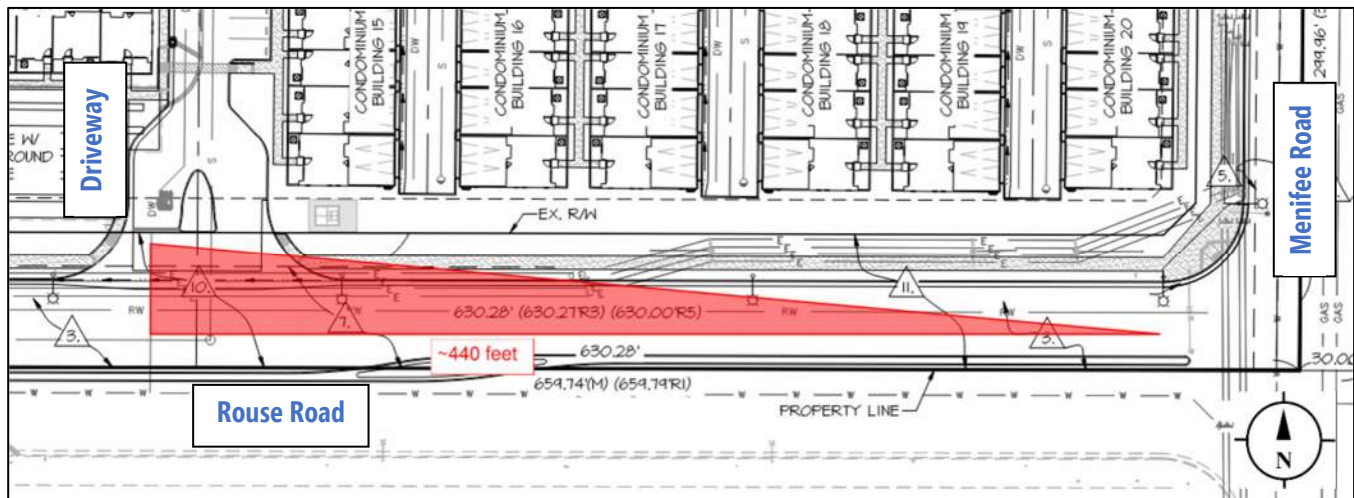
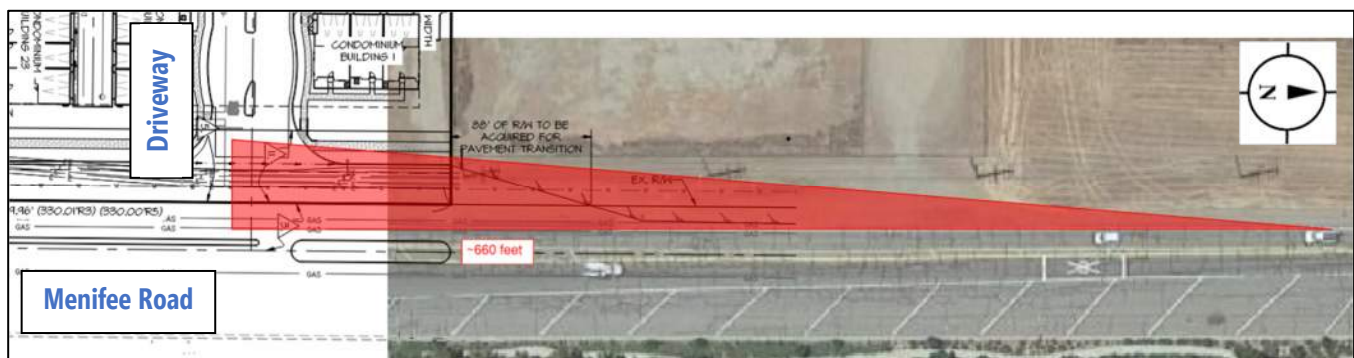


EXHIBIT 9-2: SIGHT DISTANCE COMPLIANCE – MENIFEE ROAD SITE DRIVEWAY



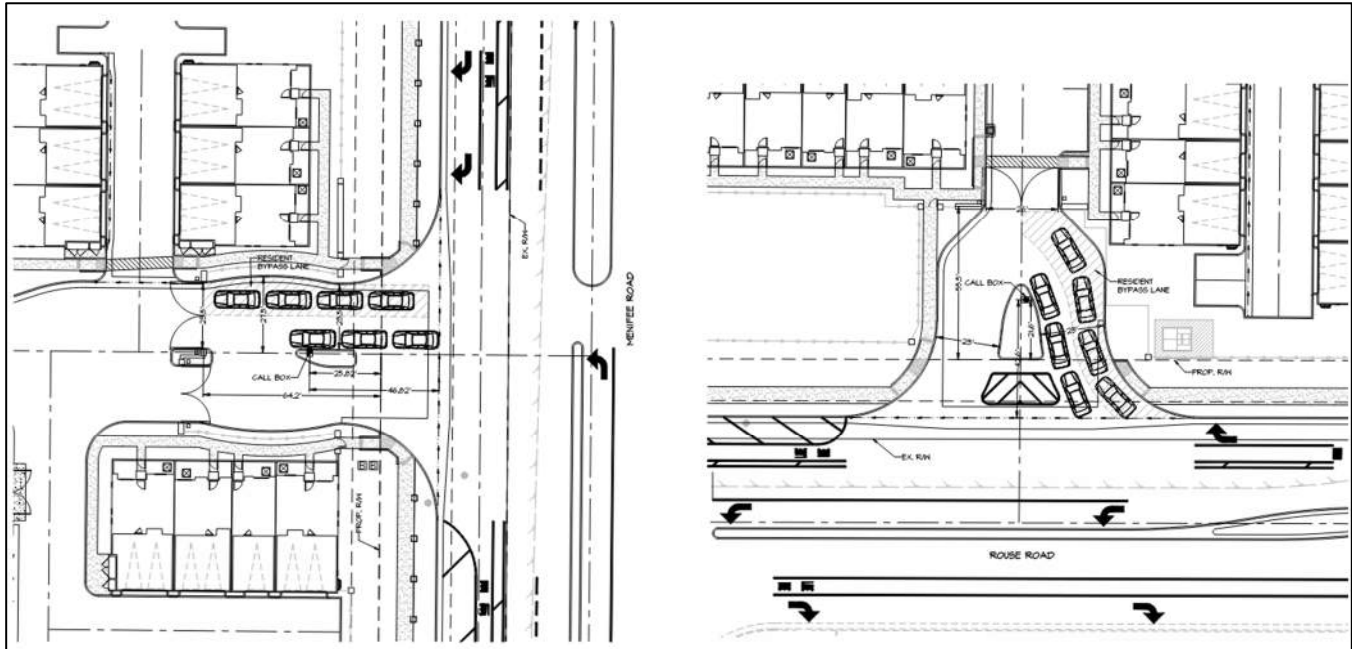
9.2 DRIVEWAY GATE ANALYSIS

The Project proposes two (2) gated access point at the intersections of "B" Street and Rouse Road (#3) and "A" Street and Menifee Road (#5). Due to their location, the gates queues were evaluated to ensure adequate traffic flow. The driveway at "B" Street provides approximately 70 feet of resident storage entering the site between the gate and Rouse Road. Additionally, 55 feet of guest storage entering the site is provided between the call box and Rouse Road. A total of 125 feet of storage is provided entering the site at "B" Street. Approximately 55 feet of storage are provided exiting this driveway between the stop bar and closed gate. The driveway of "A" Street provides approximately 80 feet of storage entering the site between the gate and Menifee Road. Additionally, 55 feet of guest storage entering the site is provided between the call box and Menifee Road. A total of 135 feet of storage is provided entering the site at "A" Street. Approximately 60 feet of storage are provided exiting this driveway between the stop bar and closed gate.

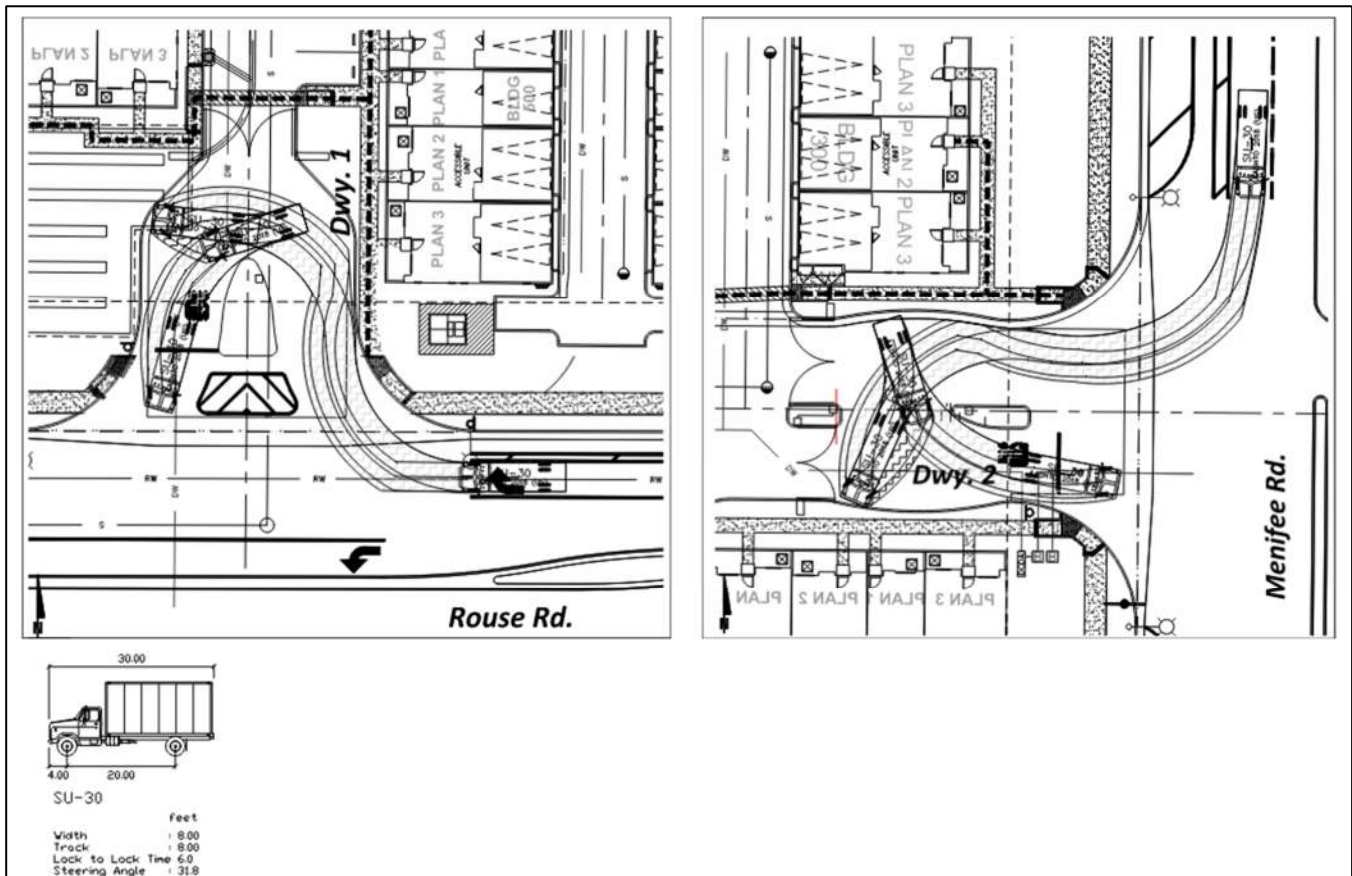
Entering Site Queues – Based on the anticipated project trips, the expected inbound arrival rate into the site is 1 vehicle every 2 to 3 minutes on average during the PM Peak Hour, with fewer during the AM Peak Hour at each driveway. Based on the available storage of 70 feet to 80 feet and an average passenger vehicle length of 20 feet, the driveways are anticipated to provide sufficient space for resident and guest queuing. The Project will ensure the distance between the call box and public ROW can accommodate a minimum of 2 passenger cars at both driveways in final design.

Exiting Site Queues – Based on the anticipated project trips, the expected outbound departure rate is 1 vehicle every 2 to 3 minutes on average during the AM Peak Hour, with fewer during the PM Peak Hour at each driveway. Based on these departure rates, there appears to be adequate stacking area on-site behind the gate. Additionally, the queue analysis presented in **Table 8-4** shows the anticipated queue lengths at the driveway stop bars which will extend back to the exit gates. As shown, the anticipated queue lengths are less than the distance between the stop bar and the closed gate (queues of 35 feet or less at the Menifee Road driveway and 33 feet or less at the Rouse Road driveway).

Exhibit 9-3 shows the gate queuing storage at the Project driveways separated by resident and guest queueing. Additionally, **Exhibit 9-4** shows the truck turnarounds at the Project driveways. **Appendix P** contains the gate queueing analysis worksheets.

EXHIBIT 9-3: DRIVEWAY GATE QUEUING STORAGE

Source: Adkan Engineers

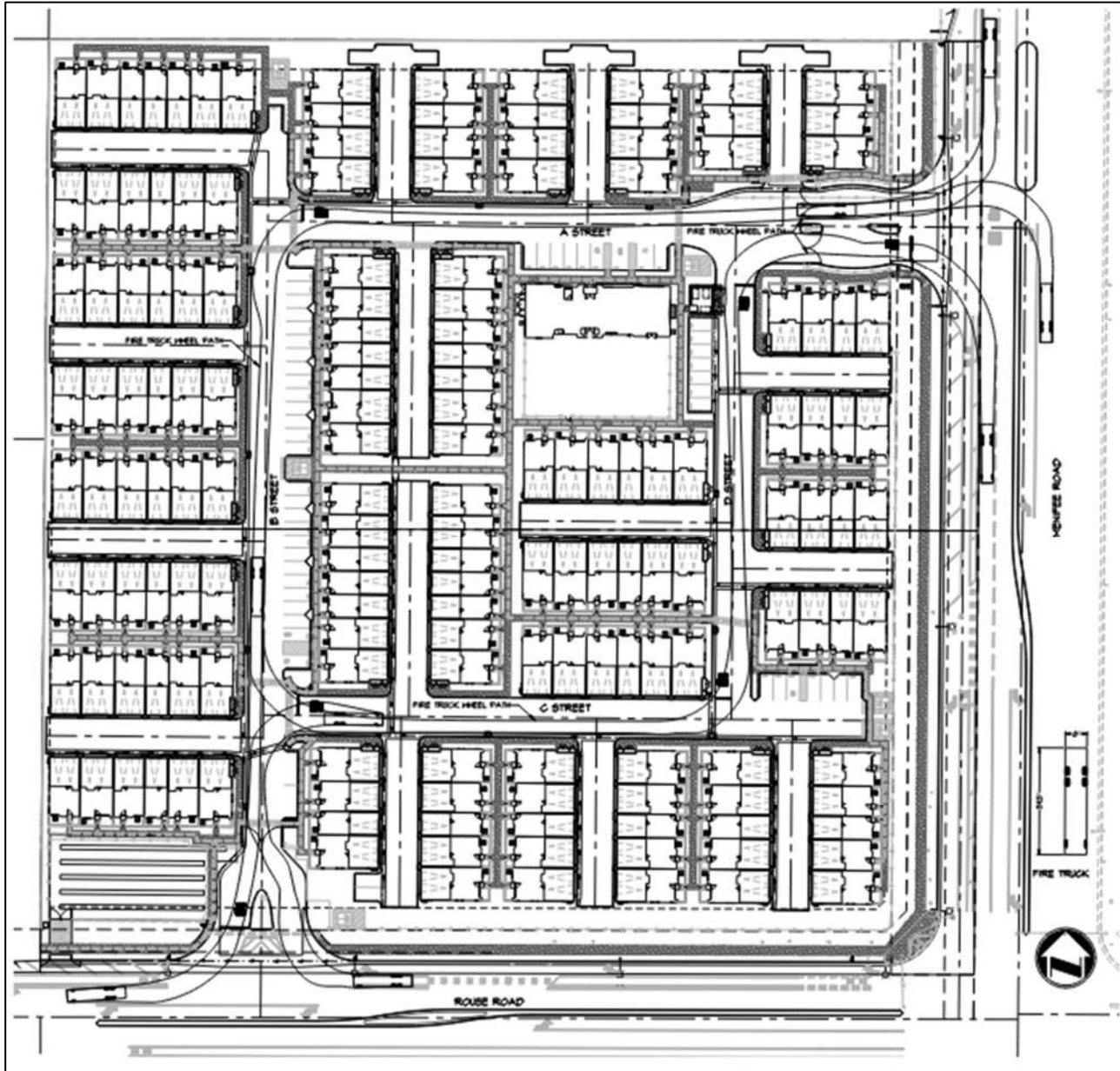
EXHIBIT 9-4: DRIVEWAY TRUCK TURNAROUND

Source: Adkan Engineers

9.3 FIRE TRUCK CIRCULATION

The Project was assessed to confirm the proposed site plan and gate do not interfere with fire access. As shown in the turning templates in **Exhibit 9-5**, fire truck access to the site will be accommodated.

EXHIBIT 9-5: FIRE TRUCK CIRCULATION



Source: Adkan Engineers

10 VEHICLE MILES TRAVELED

To satisfy California Environmental Quality Act (CEQA), a VMT screening assessment was prepared for the Tentative Tract Map No. 38346 Project under a separate memorandum.

11 FINDINGS AND RECOMMENDATIONS

11.1 LEVEL OF SERVICE ANALYSIS

Table 11-1 summarizes the intersection analysis results for all scenarios and **Table 11-2** summarizes the segment operations analysis results. The key findings are summarized below:

Existing Year 2022

In the Existing Year 2022 condition, all intersections operate at acceptable LOS D or better during the AM and PM Peak Hour. Additionally, all study segments operate under LOS D capacity.

Existing Year 2022 With Project

In the Existing Year 2022 With Project condition, all study intersection continue to operate at acceptable LOS D or better. Additionally, all study segments continue to operate under LOS D capacity. According to the analysis results, there will be no adverse effects at the study intersections or segments due to the Project.

Opening Year 2024

In the Opening Year 2024 condition, the intersection of Junipero Road and Rouse Road (#1) is projected to operate at unacceptable LOS F during the AM Peak Hour. All other intersections operate at LOS D or better during both the AM and PM peak hours. Additionally, all study segments are found to operate under LOS D capacity.

Opening Year 2024 With Project

In the Opening Year 2024 With Project condition, the intersection of Junipero Road and Rouse Road (#1) is projected to continue to operate at unacceptable LOS F during the AM Peak Hour. All other study intersections operate at acceptable LOS D or better. Additionally, all study segments are found to operate under LOS D capacity.

Under the City Guidelines, unacceptable operations of LOS E or LOS F and more than 50 added peak hour project trips result in a cumulative adverse effect. The project is forecast to add 31 AM Peak Hour trips at the intersection of Junipero Road and Rouse Road (#1). Therefore, while the intersection of Junipero Road and Rouse Road (#1) operates at LOS F, it does not qualify as cumulative adverse project effects since less than 50 peak hour project trips are added to the intersection during the time period when unacceptable LOS is projected.

A queue analysis shows acceptable storage lane lengths at all locations with one exception. At the intersection of Menifee Road and Rouse Road (#4), there is insufficient turn lane storage to accommodate projected southbound right turn queues.

With Project With Improvements

The Opening Year 2024 With Project With Improvements condition is projected to operate with the same LOS and vehicle delay as the Opening Year 2024 With Project condition. A recommended improvement of extending the Menifee Road and Rouse Road (#4) southbound right turn lane will address the queue length issue identified in the without improvements condition.

11.2 SIGNAL WARRANT

At the intersection of Junipero Road and Rouse Road (#1), Warrant 3 (Peak Hour) is not satisfied under the Opening Year or Opening Year With Project scenarios.

11.3 SITE CIRCULATION

A review of the two Project driveway intersections at Rouse Road and Menifee Road confirms all driveway intersections provide adequate sight distance with relatively unobstructed views per *Standard Plan 81 - Intersection Sight Distance*. A review of the gated site driveways confirms sufficient space for both resident and guest queueing. The Project will ensure the distance between the call box and public ROW can accommodate a minimum of 2 passenger cars at both driveways in final design. Additionally, the driveways accommodate vehicle turnarounds. A review of the site plan confirms fire truck access to the site will be accommodated.

11.4 VEHICLE MILES TRAVELED

To satisfy California Environmental Quality Act (CEQA), a VMT screening assessment was prepared for the Tentative Tract Map No. 38346 Project under a separate memorandum.

11.5 KEY PROJECT TRANSPORTATION FEATURES

The following improvements have been identified in the Project documentation as being recommended. Each of these improvements have been evaluated in the With Project conditions in this study.

- 1) "B" Street and Rouse Road (#3)
 - a. Install a "STOP" control on the southbound approach to the intersection along "B" Street.
 - b. During final design, consider a shorter westbound right turn pocket and appropriate transitions.
- 2) Menifee Road and Rouse Road (#4)
 - a. A southbound right turn on red restriction was evaluated in this study; however, this restriction is not currently recommended. The City will observe operations and safety at this location and may consider Right Turn On Red restrictions in the future if needed.
- 3) "A" Street and Menifee Road (#5)
 - a. Install a "STOP" control on the eastbound approach to the intersection along "A" Street.
 - b. Construct a southbound right turn pocket with a minimum 100-foot lane and minimum 90-foot taper along Menifee Road. A southbound right turn pocket with 100-foot lane and 120-foot taper is currently provided on the site plan.
 - c. Provide Keep Clear pavement markings and Do No Block Driveway signage along Menifee Road at the "A" Street project driveway.
 - d. The median design concept on Menifee Road at the "A" Street Project driveway will require refinement to be constructed to typical design standards including accommodation of inbound left turns and restrictions of outbound left turns.
- 4) Rouse Road
 - a. Rouse Road is an east-west roadway located along the Project's southern boundary. Project to construct Rouse Road at its ultimate half-section width as a Major Highway (118-foot right-of-way) from the Project's western boundary to Menifee Road consistent with City standards. Construction of the Project's ultimate half-section along Rouse Road will complete the ultimate 4-lane section. Through lanes along the Project's frontage will be

striped in the interim such as to transition down to the existing lanes west of the Project until such time in the future when Rouse Road is widened to its ultimate cross-section width to the west.

5) Menifee Road

- a. Menifee Road is a north-south roadway located along the Project's eastern boundary. Project to construct Menifee Road at its ultimate half-width as an Urban Arterial Highway (152-foot right-of-way) from the Project's northern boundary to Rouse Road consistent with City standards. Similar to the east side of Menifee Road, the roadway will be striped along the Project's frontage to provide the appropriate lanes and transitions between the existing lanes to the north and south of the Project.

11.6 RECOMMENDATIONS

The following recommendation is proposed to address potential off-site conditions:

Recommendation #1 (Striping Plan Improvement) – Revise Project Applicant striping plan to provide a 200' southbound right turn lane plus taper at the intersection of Menifee Road and Rouse Road (#4).

TABLE 11-1: INTERSECTION LOS SUMMARY TABLE

ID	Intersection	Control Type	Existing Year 2022				Existing With Project				Opening Year 2024				Opening Year With Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	Junipero Rd & Rouse Rd	OWSC	B	14.1	A	9.0	C	15.3	A	9.1	F	52.2	B	11.8	F	63.9	B	11.9
2	Galloping Wy & Rouse Rd	OWSC	B	10.0	A	9.0	B	10.1	A	9.1	B	13.5	B	12.9	B	13.7	B	13.1
3	Project Driveway & Rouse Rd	OWSC	Intersection Does Not Exist Under This Condition				A	9.2	A	8.7	Intersection Does Not Exist Under This Condition				B	10.4	B	12.3
4	Menifee Rd & Rouse Rd	SIG	B	16.8	B	10.5	B	16.9	B	11.1	D	50.7	C	25.2	D	52.9	C	27.1
5	Project Driveway & Menifee Rd	OWSC	Intersection Does Not Exist Under This Condition				B	10.8	B	10.1	Intersection Does Not Exist Under This Condition				B	14.9	B	13.9

- Notes:**
- 1) LOS = Level of Service
 - 2) LOS E or LOS F in **red bold font** where applicable.
 - 3) OWSC = One-Way Stop-Controlled; SIG = Signal Controlled
 - 4) Overall LOS provided for signalized & all-way stop intersections. Worst approach LOS provided for one-way and two-way stop-controlled intersections.
 - 5) Delay shown in seconds per vehicle.
 - 6) With Project scenarios include the Key Project Transportation Features listed in **Section 2.4**.
 - 7) The With Project With Improvements scenario LOS and delay would be the same as the With Project condition since the recommended improvement (extending storage lane length) does not impact LOS or delay.

TABLE 11-2: SEGMENT LOS SUMMARY TABLE

ID	Roadway Segment	Operate at LOS D or Better?			
		Existing	Existing With Project	Opening Year	Opening Year With Project
A	Rouse Rd West of "B" St	Yes	Yes	Yes	Yes
B	Menifee Rd North of Rouse Rd	Yes	Yes	Yes	Yes
C	Menifee Rd South of Rouse Rd	Yes	Yes	Yes	Yes

Note: 1) All segments projected to operate at LOS D or better; therefore, no improvements identified.

Appendix A:

Site Plan & Conceptual Striping Exhibit

SITE STATISTICS

GROSS AREA: 9.54 AC
LOT A&B: 1.49 AC PUBLIC R/W
BASIN: 0.18 AC
PRIVATE ROAD: 1.02 AC
CALCULATION PER PLANNING AND ZONING
DEVELOPMENT CODE CHAPTER 9.305: THE
PORTION OF A SITE NOT RESERVED FOR PUBLIC
USE. THE FOLLOWING ARE NOT INCLUDED IN
THE NET ACREAGE OF A SITE: PUBLIC OR
PRIVATE ROAD RIGHTS-OF-WAY, COMMON OR
PUBLIC OPEN SPACE, AND FLOODWAYS.
NET AREA: 6.85 AC
TOTAL UNITS: 162
DENSITY: 23.6 DUA

OWNER

LDW RANCON, LP
41391 KALMA STREET, SUITE 200
MURRIETA, CA 92562

APPLICANT

FOREMOST PACIFIC GROUP
27271 LAS RAMBLAS, SUITE 100
MISSION VIEJO, CA 92691
949-748-6714

ASSESSORS PARCEL NUMBERS

331-250-028, 331-250-029,
331-250-030

ENGINEER

adkan
ENGINEERS
6879 AIRPORT DRIVE
RIVERSIDE, CA 92504
951-688-0241

UTILITY PURVEYORS

SEWER: EASTERN MUNICIPAL WATER DISTRICT
WATER: EASTERN MUNICIPAL WATER DISTRICT
ELECTRIC: SOUTHERN CALIFORNIA EDISON
PHONE/CABLE: FRONTIER COMMUNICATIONS
GAS: SOUTHERN CALIFORNIA GAS COMPANY
SCHOOL DISTRICT: ROMOLAND & PERRIS UNION HIGH

CONDOMINIUM DATA

PLAN	SQ. FT.	LAYOUT	GARAGE	PRIVATE OS	# OF UNITS
1	917	1 BR	1 CAR	100 SF	37
2	1,209	2 BR	2 CAR	141 SF	63
3	1,316	3 BR	2 CAR	140 SF	62

TOTAL UNITS 162

ADA UNITS PROVIDED

PARKING COUNT: 17
GARAGE PARKING SPACES: 287
STANDARD STALLS: 59
ACCESSIBLE STALLS: 5
ELECTRIC VEHICLE STALLS: 1
TOTAL PARKING PROVIDED: 352
REQUIRED PARKING:
1 BR: 1 SPACE x 37 UNITS = 37 SPACES
2 BR: 1.5 SPACES x 63 UNITS = 94.5 SPACES
3 BR: 2.5 SPACES x 62 UNITS = 155 SPACES
GUEST PARKING: 1 SPACE/10 UNITS = 16.2 SPACES
TOTAL PARKING REQUIRED: 302.7

PROJECT NOTES:

- THIS TENTATIVE MAP INCLUDES THE ENTIRE CONTIGUOUS OWNERSHIP OF THE LAND DIVIDER.
- PER PRELIMINARY GEOTECHNICAL EVALUATION, POTENTIAL FOR LIQUEFACTION IS LOW AND SITE IS NOT LOCATED WITHIN A FAULT ZONE OR ON A FAULT LINE.

LEGAL DESCRIPTION

THE LEGAL DESCRIPTION AND SCHEDULE B EXCEPTIONS ARE REFERENCED TO A PRELIMINARY REPORT PREPARED BY FIRST AMERICAN TITLE COMPANY ORDER NO. 6551298-A, DATED DECEMBER 14, 2021.

REAL PROPERTY IN THE CITY OF MENEFEE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

PARCEL 1: (APN: PORTIONS OF 331-250-028-0 AND 331-250-030)

PARCEL "B" DESCRIBED ON EXHIBIT "A" AND SHOWN ON EXHIBIT "B" OF LOT LINE ADJUSTMENT NO. LLA 17-002 RECORDED FEBRUARY 21, 2020 AS INSTRUMENT NO. 2020-0081364, OF OFFICIAL RECORDS, DESCRIBED AS FOLLOWS:

BEING A PORTION OF PARCEL 1 OF MERGER 18-001, A CERTIFIED COPY OF WHICH RECORDED FEBRUARY 21, 2020 AS INSTRUMENT NO. 2020-0080310 OF OFFICIAL RECORDS, TOGETHER WITH LOT 976 OF ROMOLA FARMS NO. 10, IN THE CITY OF MENEFEE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS FILED IN BOOK 15, PAGES 29 THROUGH 31, INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, TOGETHER WITH THAT PORTION OF LOT "C" (ROUSE ROAD) ADJOINING SAID LOT AS SAID ROAD WAS VACATED AND ABANDONED BY RESOLUTION OF THE BOARD OF SUPERVISORS OF THE COUNTY OF RIVERSIDE, A CERTIFIED COPY OF WHICH RECORDED FEBRUARY 6, 1962 AS INSTRUMENT NO. 11656 OF OFFICIAL RECORDS, IN SECTION 14, TOWNSHIP 5 SOUTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECT OF SAID ROUSE ROAD (60 FEET WIDE PER MAP BOOK 15, PAGES 29-31) AND JUNIPERO ROAD (60 FEET WIDE PER MAP BOOK 15, PAGES 29-31);

THENCE ALONG SAID CENTERLINE OF ROUSE, NORTH 89°58'32" EAST, 660.23, SAID POINT BEING THE TRUE POINT OF BEGINNING;

THENCE NORTH 00°21'27" EAST, 330.06 FEET TO THE NORTHWEST CORNER OF LOT 976;

THENCE ALONG THE NORTHERLY LINE OF LOT 976, NORTH 89°58'57" EAST, 630.22 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF MENEFEE ROAD (60 FEET WIDE PER MAP BOOK 15, PAGES 29-31);

THENCE ALONG SAID WESTERLY RIGHT-OF-WAY LINE OF MENEFEE ROAD SOUTH 00°21'27" WEST, 329.98 FEET TO A POINT ON THE CENTERLINE OF ROUSE ROAD;

THENCE ALONG THE CENTERLINE OF ROUSE ROAD, SOUTH 89°58'32" WEST, 630.22, TO THE TRUE POINT OF BEGINNING.

PARCEL 2: (APN: PORTION OF 331-250-029)

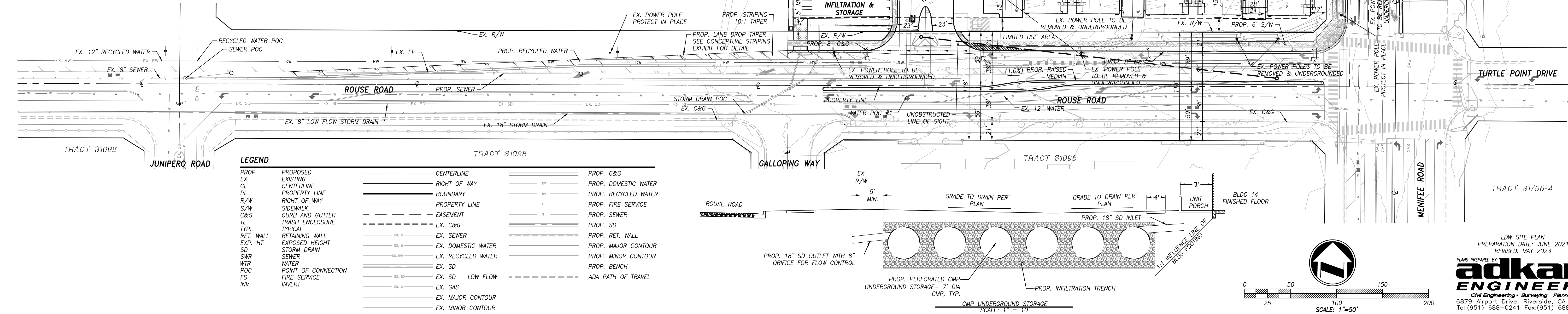
LOT 977, OF ROMOLA FARMS NO. 10, IN THE CITY OF MENEFEE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS FILED IN BOOK 15, PAGES 29 THROUGH 31, INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PROJECT DESCRIPTION

THE LDW PROJECT CONSISTS OF 9.5 ACRES (GROSS) OF MULTI-FAMILY RESIDENTIAL USE. IT PROPOSES 162 CONDOMINIUM DWELLING UNITS, A RECREATION BUILDING, POOL, OPEN SPACES, PRIVATE STREETS, AND AN UNDERGROUND STORAGE TANK FOR WATER QUALITY PURPOSES. EACH PROPOSED CONDO UNIT INCLUDES ITS OWN PRIVATE GARAGE, AND PORCH AREA, WHILE THE PROJECT SITE ALSO PROVIDES OPEN GUEST PARKING TO INCLUDE ADA, AND EV PARKING. THE OPEN SPACE AREAS INCLUDE VEGETATED AREAS WITH EFFICIENT IRRIGATION. PROPOSED OFFSITE IMPROVEMENTS INCLUDE THE ULTIMATE BUILD OUT OF MENEFEE RD AND ROUSE RD ALONG THE PROJECT FRONTAGE, TO INCLUDE INSTALLATION OF A RAISED MEDIAN ON EACH STREET TO MEET CITY STANDARDS. ALSO PROPOSED IS APPROXIMATELY 810' OF OFFSITE SEWER, AND 1,220' OF OFFSITE RECLAIMED WATER, AS WELL AS CONNECTIONS TO EXISTING STORM DRAIN AND WATER FACILITIES LOCATED ALONG THE PROJECT FRONTAGE.

NOTE

ALL POWER LINES LESS THAN 33kv TO BE PLACED UNDERGROUND ALONG THE PROJECT FRONTAGE



TTM 38346 - LDW
CONCEPTUAL STRIPING EXHIBIT

Page A2

Appendix B:

Traffic Scoping Agreement

Response To TIA Scoping Agreement Comments



Project:	Menifee Tract 38346	Review Submittal No.	1 st Submittal
Proj. No.:	DEV 2022-002; TTM 38346	Reviewer:	Stephen Manganiello
Comments Date:		Resubmittal Date:	March 16, 2023

No.	Section/ Page	Comment	Response
1	Study Scenarios	Per page 6 of the City of Menifee LOS Traffic Study Guidelines (October 2020) please add Existing Plus Project condition to list of study scenarios.	As requested, Existing Plus Project condition has been added to the list of study scenarios.
2	Cumulative Project List	Please contact City Planning Department to confirm cumulative projects list.	Michael Baker has coordinated with the City's Planning Department to confirm the list of cumulative projects to be analyzed in the traffic study.
3	VMT Analysis	Please provide VMT Analysis under a separate cover.	As requested, Michael Baker will prepare the VMT analysis under a separate cover.
4	VMT Analysis	Per page 14 of the City of Menifee Traffic Impact Analysis Guidelines for VMT (January 2022 update) consider using the VMT Assessment for Routine Projects method. This may remove the need to provide a full RIVCOM analysis.	Based on our review of the WRCOG VMT Tool, the proposed project land uses are consistent with the land uses within the project's TAZ. Therefore, a full RIVCOM analysis model run is not needed for this project. Michael Baker will use the WRCOG VMT Tool (VMT Assessment for Routine Project Method) since this method is appropriate for evaluating the project's VMT-related impacts.



CITY OF MENIFEE

MEMORANDUM

PUBLIC WORK/ENGINEERING DEPARTMENT

DATE: February 21, 2023

TO: Carla Dietrich, Michael Baker International

FROM: Stephen Manganiello, TE Contract Traffic Engineer
Rob Blough, PE, TE, City Traffic Engineer

CC: Chet Robinson, PE, GE, City Engineer

SUBJECT: DEV 2022-002 TTM 38346 Scoping Agreement – Review 1

Traffic Engineering has completed our review of the Scoping Agreement dated January 12, 2023, and have the following comments for the applicant:

Study Scenarios

1. Per page 6 of the City of Meniffee LOS Traffic Study Guidelines (October 2020) please add Existing Plus Project condition to list of study scenarios.

Cumulative Projects List

2. Please contact City Planning Department to confirm cumulative projects list.

VMT Analysis

3. Please provide VMT Analysis under a separate cover.
4. Per page 14 of the City of Meniffee Traffic Impact Analysis Guidelines for VMT (January 2022 update) consider using the VMT Assessment for Routine Projects method. This may remove the need to provide a full RIVCOM analysis.

Should you have any questions please contact Stephen Manganiello, Contract Traffic Engineer, at stephen.manganiello@stctrffic.com.

ATTACHMENT A

SCOPING AGREEMENT FOR TRAFFIC STUDY

This letter acknowledges the City Menifee Engineering Department requirements for the traffic study of the following project. The analysis must follow the latest City Traffic Study Guidelines dated October 2020

Case No.	TTM 38346
Related Cases	--
SP No.	--
EIR No.	--
GPA No.	--
CZ No.	--
Project Name:	Menifee Tract 38346
Project Location:	Northwest corner of Rouse Road and Menifee Road. (see Attachment 1) Assessor Parcel Numbers [APNs] 331-250-028, 331-250-029 and 331-250-030.
Project Description:	162 two-story attached condominium units on an approximately 9.5-acre site. The density of the project would be approximately 23.65 du/ac, which is within the allowable density range of 20.1 to 24 du/ac for land with the High Density Residential zoning designation.

	Consultant	Developer
Name:	Michael Baker International	
Address:	3536 Concours, Suite 100, Ontario, CA 91764 Carla Dietrich (cdietrich@mbakerintl.com)	
Telephone:	(909) 974-4908	

A. Trip Generation

Source:	ITE Trip Generation Manual, 11 th Edition (ITE Code 220)		
Existing Land Use:	Vacant	Proposed Land Use:	Residential
Existing Zoning:	High Density Residential	Proposed Zoning:	High Density Residential

ITE Code 220 – Multifamily (Low-Rise) Residential			
Total Daily Trips =	1,092		
	In	Out	Total
AM Trips	16	49	65
PM Trips	52	31	83

	Yes	No	% Trip Discount
Internal Trip Allowance		✓	0%
Pass-By Trip Allowance		✓	0%
Trip Credit		✓	--
(Attach additional sheet if this is a multi-use site with a breakdown of trips generated)			

B. Trip Geographic Distribution

N 20 % S 70 % E -- W 10 %

(See attached exhibit for detailed assignment) – **Attachment 2-A** (Outbound) and **Attachment 2-B** (Inbound)

C. Background Traffic

Project Completion Year:	2024
Annual Ambient Growth Rate:	2% (per City guidelines)
Other area projects to be included:	Draft list provided with this document (Supplemental File 1). Please either provide a list or confirm the list provided. Project status as of May 2022 when traffic count data was collected.
Model/Forecast methodology if required:	--

ATTACHMENT A

SCOPING AGREEMENT FOR TRAFFIC STUDY

D. Horizon Year Analysis

	Yes	No
Does this project require a Horizon Year Analysis?		✓
(Note: GPA, SP, or SPA not required.)		

E. Study Intersections

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

1.	Junipero Road and Rouse Road	5.	"A" Street and Menifee Road
2.	Galloping Way and Rouse Road	6.	--
3.	"B" Street and Rouse Road	7.	--
4.	Menifee Road and Rouse Road	8.	--

Note: See **Attachments 3 and 4** for intersection distribution and assignment. Intersections #3 and #5 are site driveway intersections which will be analyzed under With Project conditions.

F. Study Roadway Segments

1.	Rouse Road, west of "B" Street	5.	--
2.	Menifee Road, north of Rouse Road	6.	--
3.	Menifee Road, south of Rouse Road	7.	--
4.	--	8.	--

G. Other Jurisdictional Impacts

	Yes	No
Is this project within any other Agency's Sphere of Influence or one-mile radius of boundaries?		✓
If so, name of Jurisdiction:		
All study intersections and study roadway segments are located within the City of Menifee.		

H. Site Plan

(Please attached a legible 11x17 copy) – See [Attachment 5](#)

I. Specific issues to be addressed in the Study (in addition to the standard analysis described in the Guideline) (Preliminary list provided -- To be confirmed/edit by Engineering Department)

1)	Site driveway queue analysis including determination of minimum turn pocket length.
2)	Sight distance evaluation at site driveways.
3)	Planning level signal warrant analysis, if needed.

J. Other

Analysis Scenarios

- Existing Conditions (2022)
- Opening Year Cumulative Without Project Conditions (2024)
- Opening Year Cumulative With Project Conditions (2024)
- Opening Year Cumulative With Project Conditions (2024) + Improvements (if necessary)

Traffic Count Requirements

- Counts from a previous study will be used in this analysis.
 - Counts were collected on Thursday May 12, 2022.
 - Counts were collected during a non-holiday week and on a day of good weather.
 - Count time periods: 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM.
 - Intersection turning movement and 24-hour roadway segment counts were collected.

ATTACHMENT A

SCOPING AGREEMENT FOR TRAFFIC STUDY

K. VMT Analysis Scoping Form

Potential Screening Checks

Is your project screened from specific analyses (see Page 5 of the guidelines related to LOS assessment).

	Yes	No
Is the project screened from VMT assessment?		✓

VMT screening justification (see Pages 10-12 of the guidelines): Step 1: TPA Screening – The Project is not within a TPA. Step 2: Low VMT Area Screening – The Project is not within a Low VMT Area. Step 3: Project Type Screening – The Project does not meet the 110 daily vehicle trip threshold and does not meet the criteria. Attachment 6 shows the results of the WRCOG screening tool which supports the findings summarized above.

VMT Analysis Scoping

For projects that are not screened, identify the following:

• Travel Demand Forecasting Model Used:	RIVCOM
• Attach WRCOG VMT Assessment output or describe why it is not appropriate for use	
• Attach proposed Model Land Use Inputs and Assumed Conversion Factors	

VMT Modeling Methodology Assumptions:
1) VMT Calculations a. Calculation to include VMT per service population (VMT/SP) and VMT per capita given the City guidelines and the fact that the project is 100% residential. b. Origin Destination OD methodology will be followed. 2) VMT Modeling a. Project Generated VMT i. Baseline and Cumulative VMT will be calculated and compared to County of Riverside. b. Project Effect on VMT i. Baseline and Cumulative VMT link-level Citywide boundary VMT will be compared to the Without Project condition. 3) Model Input Assumptions / Conversion Factor a. 162 dwelling units. The RIVCOM calculates population and other parameters using the population synthesizer and does not allow direct input of population.

ATTACHMENT A
SCOPING AGREEMENT FOR TRAFFIC STUDY

Recommended by:

Carla Dietrich

Consultant's Representative

1/12/2023

Date

Scoping Agreement Submitted on

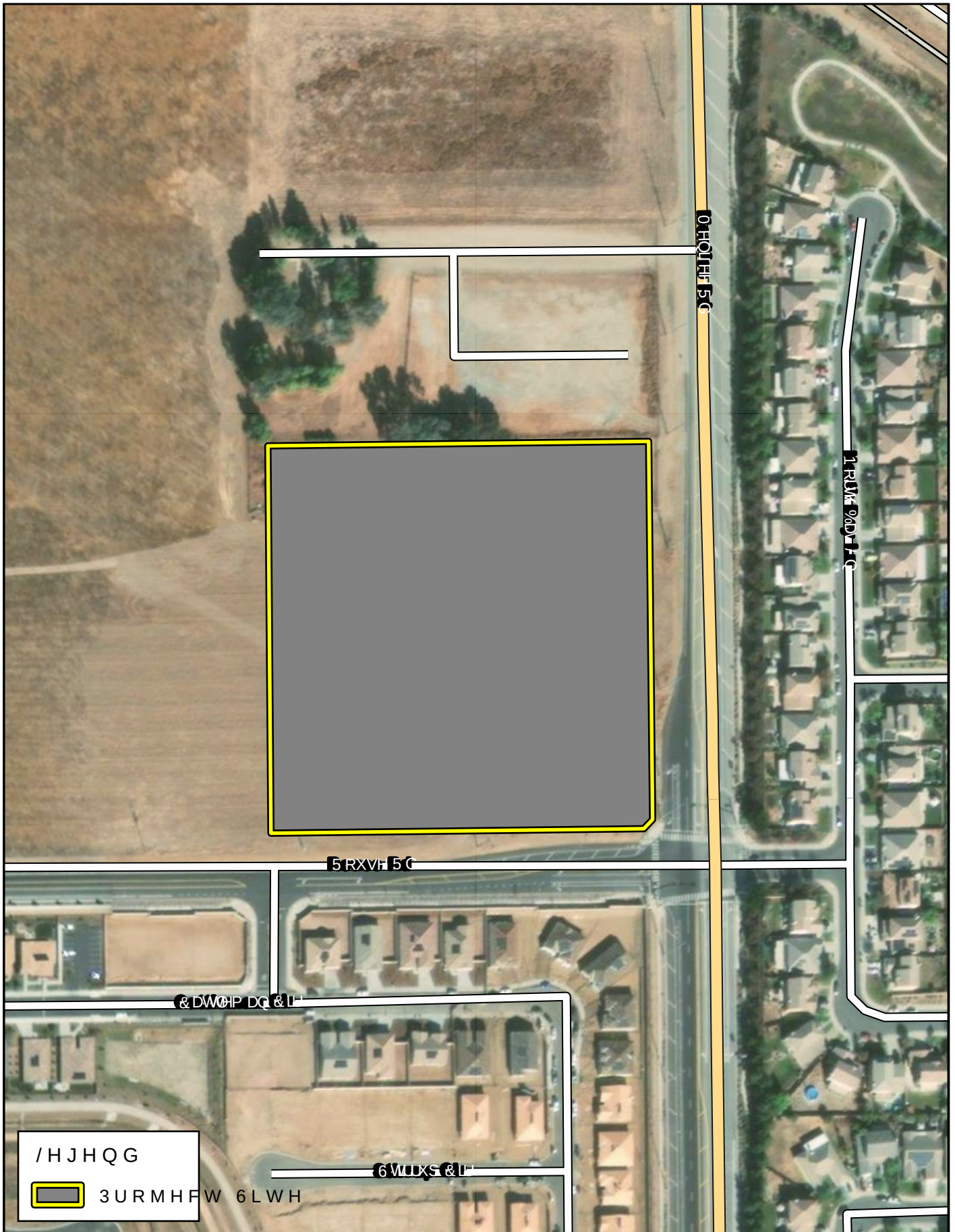
Date

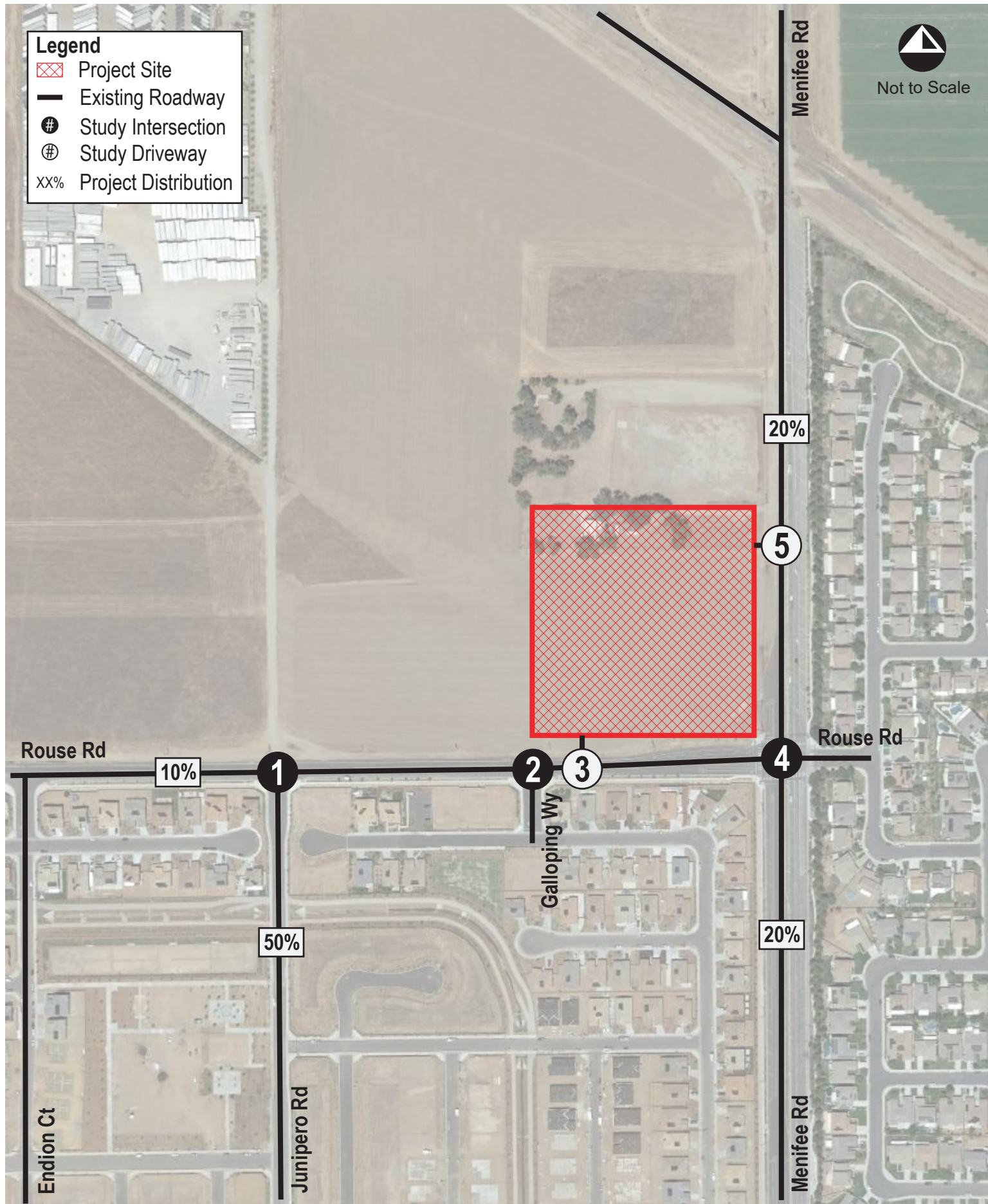
Scoping Agreement Resubmitted on

Date

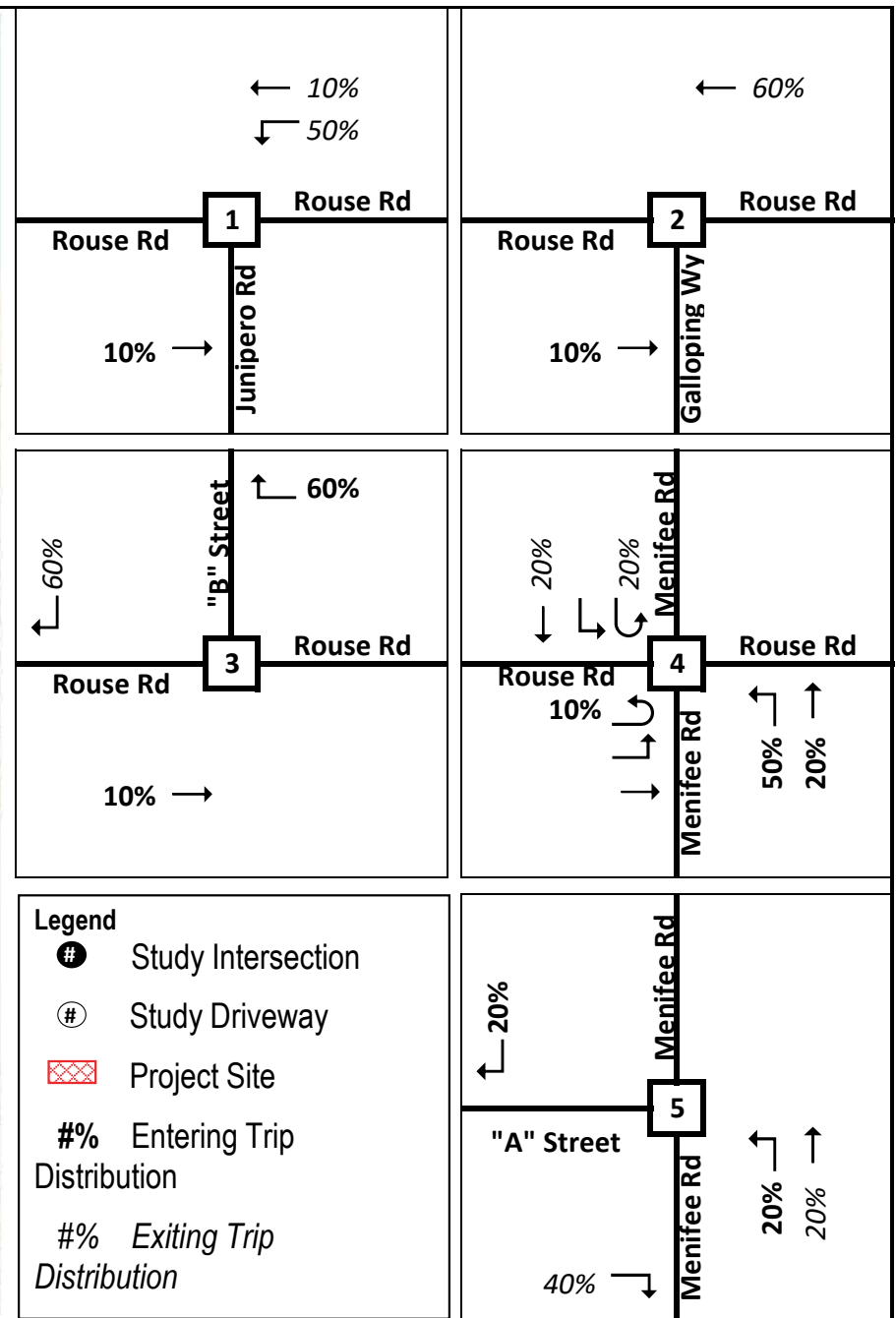
Approved Scoping Agreement:

City of Menifee



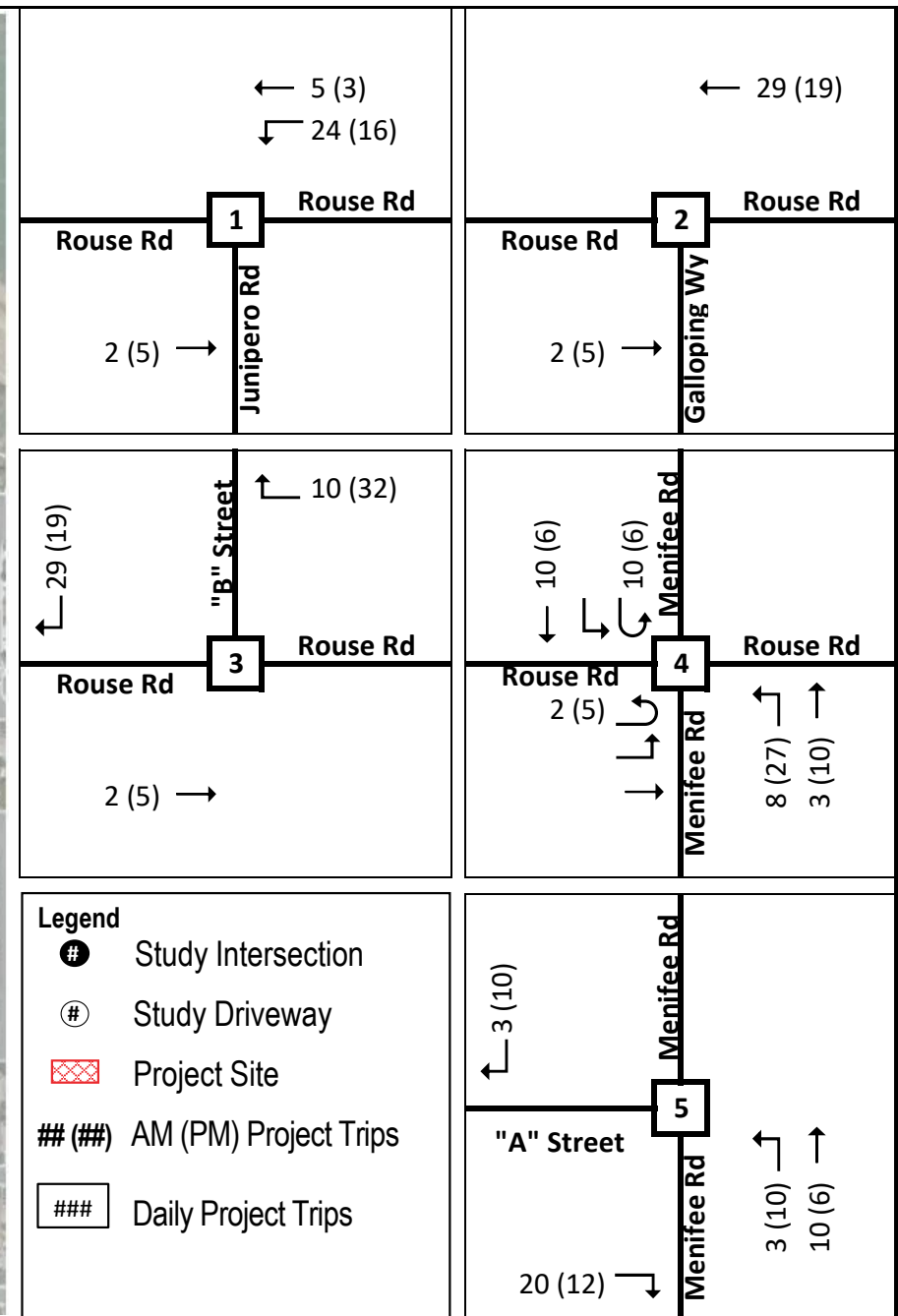






Intersection Trip Distribution

Attachment 3



Intersection Trip Assignment
Attachment 4

Attachment 6: WRCOG VMT Screening Tool

WRCOG VMT Tool

Powered by Fehr & Peers

User's Guide

+

rouse road and menifee rd, meni

×

Q

Show search results for rouse road an...

Complete #1-4, Then Click "Run"

#2. Select the VMT Metric. Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*

OD VMT Per Service Population

#3. Select the Baseline Year. The year available for analysis are from 2018 to 2045.*

2024

#4. Select the Threshold (% reduction from baseline year). Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*

Below County Future Buildout (0%)

(2 of 4)

OBJECTID 2

Assessor Parcel Number (APN) 331250029

Traffic Analysis Zone (TAZ) 1050

Community Region MENIFEE

Inside a Transit Priority Area (TPA) No

TAZ VMT 43

Jurisdiction VMT 33.6

% Difference 27.9%

VMT Metric OD VMT Per Service Population

Threshold 33.6

Zoom to

(4 of 4)

OBJECTID 1

Completely within a TPA? No (Fail)

Within a low VMT generating TAZ? No (Fail)

Note Screening results are based on location of parcel centroids. If results are desired considering the full parcel, please refer to the associated map layers to visually review parcel and TAZ boundary relationship.

Community Regions have different thresholds (1=Yes 0=No) 0

Zoom to

(1 of 4)

OBJECTID 3

Assessor Parcel Number (APN) 331250030

Traffic Analysis Zone (TAZ) 1050

Community Region MENIFEE

Inside a Transit Priority Area (TPA) No

TAZ VMT 43

Jurisdiction VMT 33.6

% Difference 27.9%

VMT Metric OD VMT Per Service Population

Threshold 33.6

Zoom to

(4 of 4)

OBJECTID 1

Completely within a TPA? No (Fail)

Within a low VMT generating TAZ? No (Fail)

Note Screening results are based on location of parcel centroids. If results are desired considering the full parcel, please refer to the associated map layers to visually review parcel and TAZ boundary relationship.

Community Regions have different thresholds (1=Yes 0=No) 0

Zoom to

(2 of 4)

OBJECTID 1

Assessor Parcel Number (APN) 331250028

Traffic Analysis Zone (TAZ) 1050

Community Region MENIFEE

Inside a Transit Priority Area (TPA) No

TAZ VMT 43

Jurisdiction VMT 33.6

% Difference 27.9%

VMT Metric OD VMT Per Service Population

Threshold 33.6

Zoom to

(4 of 4)

OBJECTID 1

Completely within a TPA? No (Fail)

Within a low VMT generating TAZ? No (Fail)

Note Screening results are based on location of parcel centroids. If results are desired considering the full parcel, please refer to the associated map layers to visually review parcel and TAZ boundary relationship.

Community Regions have different thresholds (1=Yes 0=No) 0

Zoom to

Output_Parcels

Selected Project Area

Low VMT Generating TAZs

TAZ Boundaries (Zoom in to view)

Parcels (Zoom in to view)

Transit Priority Area

WRCOG Cities

WRCOG Boundary

Options

Filter by map extent

Zoom to

Clear selection

Refresh

OBJECTID	Assessor Parcel Number (APN)	Traffic Analysis Zone (TAZ)	Community Region	Inside a Transit Priority Area (TPA)	TAZ VMT	Jurisdiction VMT	% Difference	VMT Metric	Threshold	Community Regions have different thresholds (1=Yes, 0=No)	Note
1	331,250,028	1,050.00	MENIFEE	No	43.00	33.60	27.9%	OD VMT Per Service Population	33.60	0	Screening results are based on location of parcel centroids. If results are desired considering the full parcel, please refer to the associated map layers to visually review parcel and TAZ boundary relationship.
2	331,250,029	1,050.00	MENIFEE	No	43.00	33.60	27.9%	OD VMT Per Service Population	33.60	0	Screening results are based on location of parcel centroids. If results are desired considering the full parcel, please refer to the associated map layers to visually review parcel and TAZ boundary relationship.
3	331,250,030	1,050.00	MENIFEE	No	43.00	33.60	27.9%	OD VMT Per Service Population	33.60	0	Screening results are based on location of parcel centroids. If results are desired considering the full parcel, please refer to the associated map layers to visually review parcel and TAZ boundary relationship.

Note: Output shown for three (3) parcels.

Appendix C: Traffic Counts

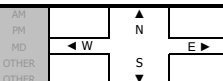
APPENDIX 3.1: TRAFFIC COUNTS – MAY 2022

INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: Thu, May 12, 22
 LOCATION: NORTH & SOUTH: Menifee
 EAST & WEST: Junipero Rouse
 PROJECT #: SC3429
 LOCATION #: 1
 CONTROL: STOP N

NOTES:



Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
LANES:	0	1	0	0	1	0	0	1	0	1	1	0	
7:30 AM	3	0	1	0	0	0	0	32	4	5	23	0	68
7:15 AM	5	0	3	0	0	0	0	33	6	11	35	1	94
7:30 AM	28	0	12	0	0	0	0	20	36	17	25	0	138
7:45 AM	47	0	20	0	0	0	0	21	48	23	19	0	178
8:00 AM	39	0	10	0	0	0	0	18	14	5	18	0	104
8:15 AM	8	0	3	0	0	0	0	19	3	4	19	0	56
8:30 AM	0	0	1	0	0	0	0	10	1	1	16	0	29
8:45 AM	2	0	1	0	0	0	1	6	3	2	12	0	27
VOLUMES	132	0	51	0	0	0	1	159	115	68	167	1	694
APPROACH %	72%	0%	28%	0%	0%	0%	0%	58%	42%	29%	71%	0%	
APP/DEPART	183	/	2	0	/	183	275	/	210	236	/	299	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	119	0	45	0	0	0	0	92	104	56	97	1	514
APPROACH %	73%	0%	27%	0%	0%	0%	0%	47%	53%	36%	63%	1%	
PEAK HR FACTOR	0.612			0.000			0.710			0.819			0.722
APP/DEPART	164	/	1	0	/	160	196	/	137	154	/	216	0
4:00 PM	1	0	3	0	0	0	0	11	1	1	10	0	27
4:15 PM	3	0	4	0	0	0	0	14	0	0	12	0	33
4:30 PM	1	0	4	0	0	0	0	10	2	2	11	0	30
4:45 PM	3	1	2	0	0	0	0	11	1	2	10	0	30
5:00 PM	2	0	0	1	0	0	0	10	1	2	12	0	28
5:15 PM	1	0	1	0	0	0	0	13	1	1	6	0	23
5:30 PM	4	0	1	0	0	0	0	15	3	0	12	0	35
5:45 PM	2	0	0	0	0	0	0	8	2	0	10	0	22
VOLUMES	17	1	15	1	0	0	0	92	11	8	83	0	228
APPROACH %	52%	3%	45%	100%	0%	0%	0%	89%	11%	9%	91%	0%	
APP/DEPART	33	/	1	1	/	19	103	/	108	91	/	100	0
BEGIN PEAK HR	4:15 PM												
VOLUMES	9	1	10	1	0	0	0	45	4	6	45	0	121
APPROACH %	45%	5%	50%	100%	0%	0%	0%	92%	8%	12%	88%	0%	
PEAK HR FACTOR	0.714			0.250			0.875			0.911			0.917
APP/DEPART	20	/	1	1	/	10	49	/	56	51	/	54	0

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

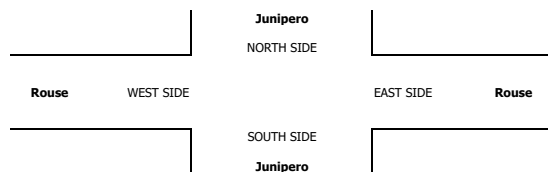
RTOR			
NRR	SRR	ERR	WRR
X	X	X	X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

0	0	0	0
---	---	---	---

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0
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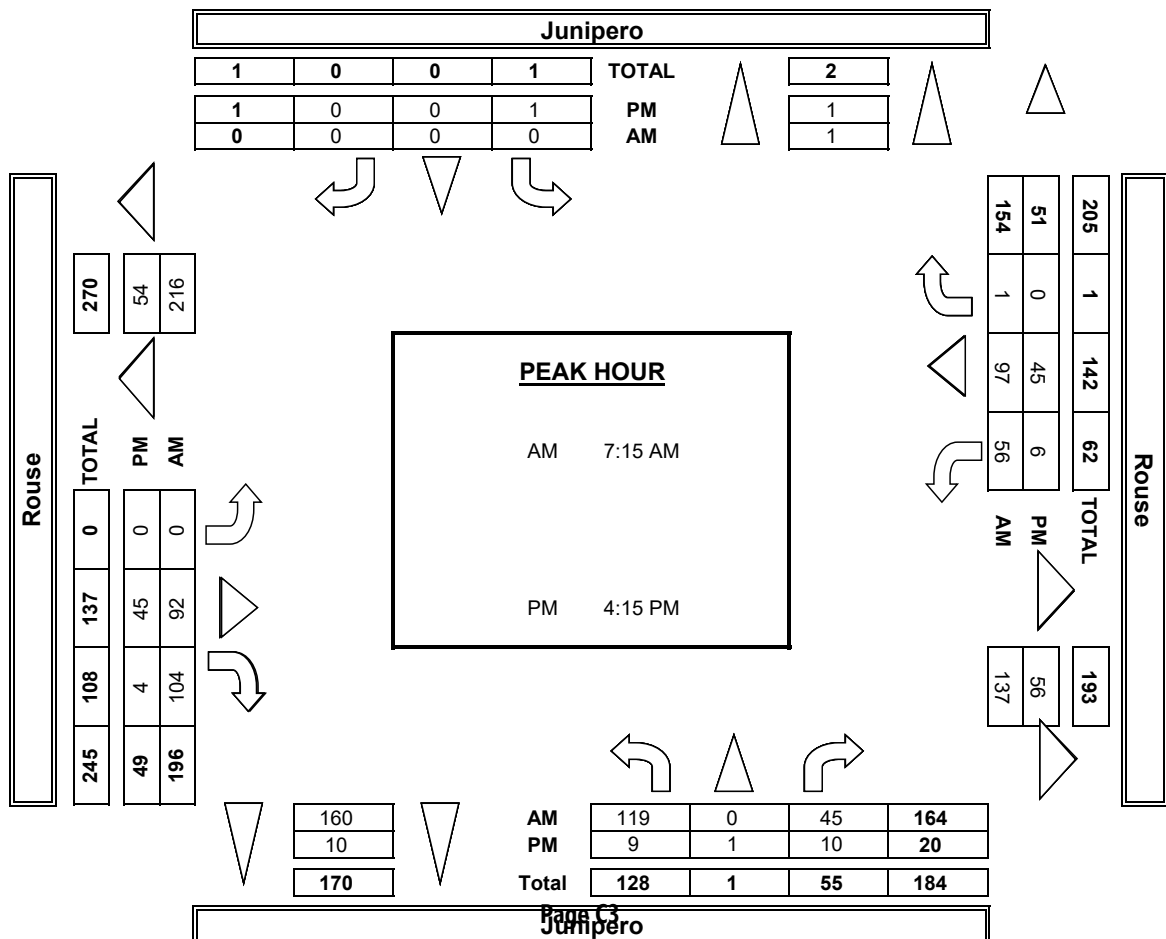
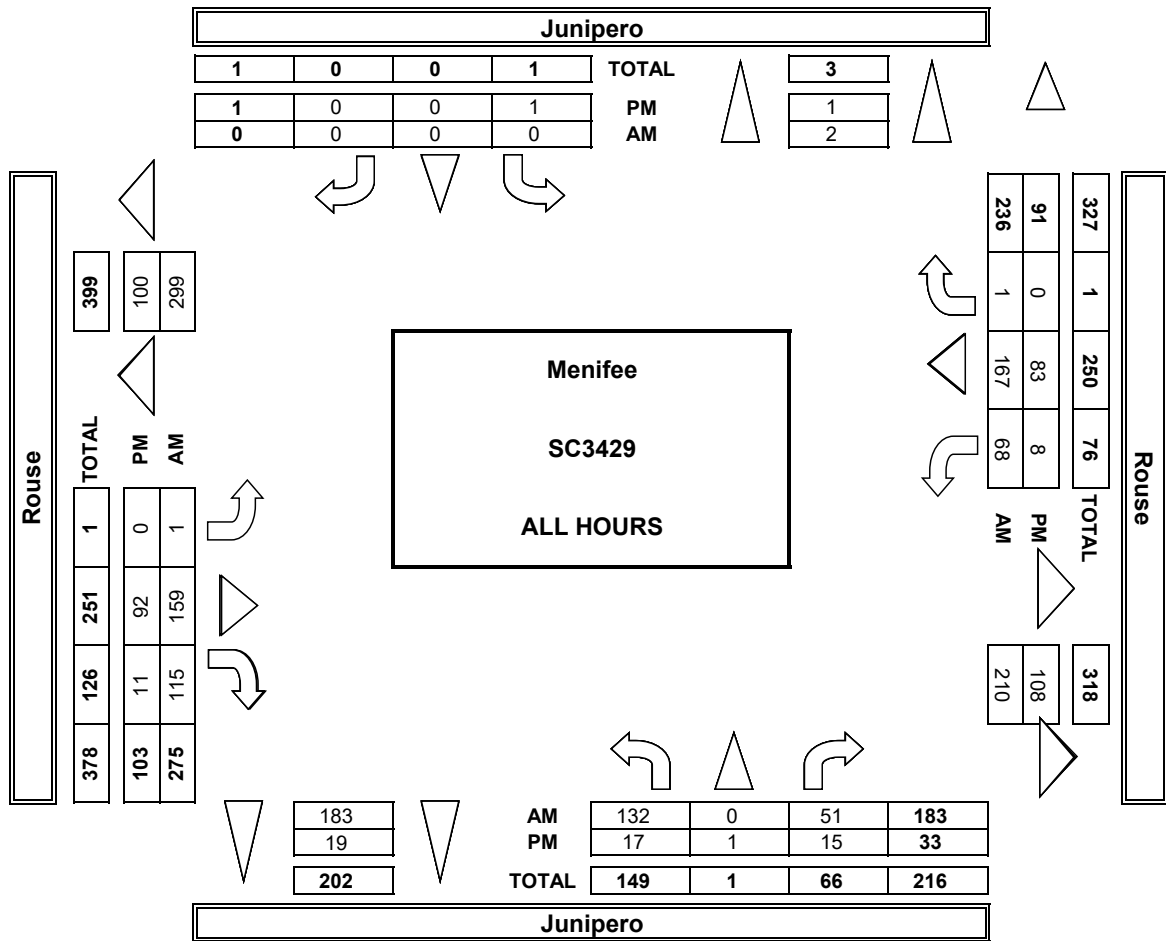
	AM	PM
7:00 AM	0	0
7:15 AM	0	0
7:30 AM	0	0
7:45 AM	0	0
8:00 AM	0	0
8:15 AM	0	0
8:30 AM	0	0
8:45 AM	0	0
TOTAL	0	0
4:00 PM	0	0
4:15 PM	0	0
4:30 PM	0	0
4:45 PM	0	0
5:00 PM	0	0
5:15 PM	0	0
5:30 PM	0	0
5:45 PM	0	0
TOTAL	0	0

ALL PED AND BIKE				
E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	2	0	2
0	0	0	0	0
0	0	0	0	0
0	0	3	0	3
0	0	0	0	0
0	0	0	0	0
0	0	6	0	6
0	0	0	0	0
0	0	2	0	2
0	0	0	0	0
0	0	1	0	1
0	0	2	0	2
0	0	1	3	4
0	0	2	0	2
0	0	8	3	11

PEDESTRIAN CROSSINGS				
E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	2	0	2
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2
0	0	0	0	0
0	0	5	0	5
0	0	2	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2

BICYCLE CROSSINGS				
ES	WS	SS	NS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	1	0	1
0	0	2	0	2
0	0	1	3	4
0	0	2	0	2
0	0	6	3	9

AimTD LLC
TURNING MOVEMENT COUNTS

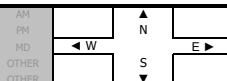


INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: Thu, May 12, 22	LOCATION: NORTH & SOUTH: EAST & WEST:	Menifee Galloping Rouse	PROJECT #: SC3429 LOCATION #: 2 CONTROL: STOP N
--------------------------	---	-------------------------------	--

NOTES:


☐ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Galloping			Galloping			Rouse			Rouse			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
7:30 AM	4	0	2	0	0	0	0	32	1	0	24	0	63
7:15 AM	4	0	2	0	0	0	0	36	0	0	43	0	85
7:30 AM	4	0	1	0	0	0	0	29	1	1	39	0	75
7:45 AM	4	0	0	0	0	0	0	38	3	0	38	0	83
8:00 AM	2	0	0	0	0	0	0	26	2	0	21	0	51
8:15 AM	2	0	1	0	0	0	0	19	3	2	23	0	50
8:30 AM	2	0	3	0	0	0	0	9	2	2	15	0	33
8:45 AM	2	0	3	0	0	0	0	7	0	1	12	0	25
VOLUMES	24	0	12	0	0	0	0	196	12	6	215	0	465
APPROACH %	67%	0%	33%	0%	0%	0%	0%	94%	6%	3%	97%	0%	
APP/DEPART	36	7	0	0	0	18	208	208	221	239	239	0	
BEGIN PEAK HR	7:00 AM												
VOLUMES	16	0	5	0	0	0	0	135	5	1	144	0	306
APPROACH %	76%	0%	24%	0%	0%	0%	0%	96%	4%	1%	99%	0%	
PEAK HR FACTOR	0.875			0.000			0.854			0.843			0.900
APP/DEPART	21	0	0	0	0	6	140	140	145	160	160	0	
4:00 PM	0	0	1	0	0	0	0	10	4	0	11	0	26
4:15 PM	0	0	2	0	0	0	0	12	6	0	12	0	32
4:30 PM	2	0	2	0	0	0	0	13	1	4	11	0	33
4:45 PM	1	0	1	0	0	0	0	11	0	2	11	0	26
5:00 PM	3	0	0	0	0	0	0	10	1	2	12	0	28
5:15 PM	1	0	2	0	0	0	0	11	3	1	6	0	24
5:30 PM	1	0	3	0	0	0	0	12	4	4	11	0	35
5:45 PM	1	0	2	0	0	0	0	8	0	2	9	0	22
VOLUMES	9	0	13	0	0	0	0	87	19	15	83	0	226
APPROACH %	41%	0%	59%	0%	0%	0%	0%	82%	18%	15%	85%	0%	
APP/DEPART	22	0	0	0	0	34	106	100	98	92	92	0	
BEGIN PEAK HR	4:15 PM												
VOLUMES	6	0	5	0	0	0	0	46	8	8	46	0	119
APPROACH %	55%	0%	45%	0%	0%	0%	0%	85%	15%	15%	85%	0%	
PEAK HR FACTOR	0.688			0.000			0.750			0.900			0.902
APP/DEPART	11	0	0	0	0	16	54	51	54	52	52	0	

Galloping

NORTH SIDE

Rouse

WEST SIDE

EAST SIDE

Rouse

SOUTH SIDE

Galloping

ALL PED AND BIKE

	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	1	0	1
7:45 AM	0	0	3	0	3
8:00 AM	0	0	2	0	2
8:15 AM	0	0	0	0	0
8:30 AM	0	0	1	0	1
8:45 AM	0	0	2	0	2
TOTAL	0	0	9	0	9
4:00 PM	0	0	1	0	1
4:15 PM	0	0	1	0	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	2	0	2
5:00 PM	0	0	2	0	2
5:15 PM	0	0	3	1	4
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	9	1	10

PEDESTRIAN CROSSINGS

	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	1	0	1
7:45 AM	0	0	3	0	3
8:00 AM	0	0	2	0	2
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	2	0	2
TOTAL	0	0	8	0	8
4:00 PM	0	0	1	0	1
4:15 PM	0	0	1	0	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	2	0	2

BICYCLE CROSSINGS

	ES	WS	SS	NS	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	1	0	1
8:45 AM	0	0	0	0	0
TOTAL	0	0	1	0	1
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	2	0	2
5:15 PM	0	0	2	0	2
5:30 PM	0	0	3	1	4
5:45 PM	0	0	0	0	0
TOTAL	0	0	7	1	8

The diagram illustrates a four-lane highway interchange with two main sections: **ALL HOURS** and **PEAK HOUR**. Each section shows traffic flow, lane counts, and vehicle counts for Galloping, PM, and AM directions.

Section 1: ALL HOURS

- Top Section:**
 - Galloping:** 0, 0, 0, 0 (TOTAL 0)
 - PM:** 0, 0, 0, 0
 - AM:** 0, 0, 0, 0
- Left Side (Rouse):**
 - 331** (TOTAL 0)
 - 92** (PM 0, AM 0)
 - 239** (PM 0, AM 0)
- Right Side (Rouse):**
 - 319** (TOTAL 21)
 - 98** (PM 83, AM 15)
 - 221** (PM 215, AM 6)
 - 308** (TOTAL 100)
 - 208** (PM 100, AM 208)
- Bottom Section:**
 - Galloping:** 18, 34 (TOTAL 52)
 - PM:** 24, 9 (TOTAL 33)
 - AM:** 0, 0 (TOTAL 0)
 - Right Side (Rouse):** 12, 196 (TOTAL 208)

Section 2: PEAK HOUR

- Top Section:**
 - Galloping:** 0, 0, 0, 0 (TOTAL 0)
 - PM:** 0, 0, 0, 0
 - AM:** 0, 0, 0, 0
- Left Side (Rouse):**
 - 212** (TOTAL 0)
 - 52** (PM 0, AM 0)
 - 160** (PM 0, AM 0)
- Right Side (Rouse):**
 - 199** (TOTAL 9)
 - 54** (PM 46, AM 8)
 - 145** (PM 144, AM 1)
 - 191** (TOTAL 51)
 - 140** (PM 51, AM 140)
- Bottom Section:**
 - Galloping:** 6, 16 (TOTAL 22)
 - PM:** 16, 6 (TOTAL 22)
 - AM:** 0, 0 (TOTAL 0)
 - Right Side (Rouse):** 8, 135 (TOTAL 140)

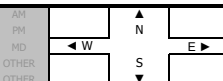
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INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: Thu, May 12, 22
LOCATION: NORTH & SOUTH: Menifee
EAST & WEST: Rouse
PROJECT #: SC3429
LOCATION #: 3
CONTROL: SIGNAL

NOTES:


☐ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
LANES:	1	2	1	1	2	1	1	1	1	1	1	0	
7:30 AM	3	109	2	1	163	16	12	1	19	1	1	9	337
7:15 AM	12	205	1	1	169	24	25	0	13	3	7	11	471
7:30 AM	12	157	3	3	86	23	23	0	7	2	5	6	327
7:45 AM	5	104	1	5	103	36	33	2	6	3	2	8	308
8:00 AM	7	93	6	6	98	16	18	4	4	4	1	9	266
8:15 AM	11	70	4	7	76	10	15	0	4	3	4	5	209
8:30 AM	7	81	4	2	62	5	6	0	4	0	2	3	176
8:45 AM	5	48	2	4	65	7	4	0	5	5	1	3	149
VOLUMES	62	867	23	29	822	137	136	7	62	21	23	54	2,243
APPROACH %	7%	91%	2%	3%	83%	14%	66%	3%	30%	21%	23%	55%	
APP/DEPART	952	7	1,058	988	7	905	205	7	58	98	7	222	0
BEGIN PEAK HR	7:00 AM												
VOLUMES	32	575	7	10	521	99	93	3	45	9	15	34	1,443
APPROACH %	5%	94%	1%	2%	83%	16%	66%	2%	32%	16%	26%	59%	
PEAK HR FACTOR	0.704			0.812			0.860			0.690			0.766
APP/DEPART	614	7	703	630	7	575	141	7	19	58	7	146	0
4:00 PM	4	90	2	4	110	9	8	0	3	2	1	1	234
4:15 PM	5	82	4	7	111	6	7	2	4	4	1	5	238
4:30 PM	5	96	4	7	89	7	8	2	6	5	0	0	229
4:45 PM	4	93	5	11	103	12	5	1	6	2	0	3	245
5:00 PM	3	98	5	5	126	9	6	0	4	1	2	3	262
5:15 PM	4	77	7	10	103	2	4	3	6	4	1	2	223
5:30 PM	3	97	4	7	89	10	6	3	3	3	2	3	230
5:45 PM	6	102	3	7	107	5	5	1	4	3	1	3	247
VOLUMES	34	735	34	58	838	60	49	12	36	24	8	20	1,908
APPROACH %	4%	92%	4%	6%	88%	6%	51%	12%	37%	46%	15%	38%	
APP/DEPART	803	7	808	956	7	899	97	7	100	52	7	101	0
BEGIN PEAK HR	4:15 PM												
VOLUMES	17	369	18	30	429	34	26	5	20	12	3	11	974
APPROACH %	4%	91%	4%	6%	87%	7%	51%	10%	39%	46%	12%	42%	
PEAK HR FACTOR	0.953			0.880			0.797			0.650			0.929
APP/DEPART	404	7	409	493	7	461	51	7	50	26	7	54	0

Menifee

NORTH SIDE

Rouse

WEST SIDE

EAST SIDE

Rouse

SOUTH SIDE

Menifee

U-TURNS

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

RTOR

NRR	SRR	ERR	WRR
0	0	14	5
0	4	4	3
0	5	4	2
0	10	5	3
3	0	4	0
0	2	3	3
0	1	4	2
0	0	4	2
3	24	42	20

0	21	27	13
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1	0	0	0	1
0	0	0	0	0
0	1	0	0	1
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
1	4	0	0	5

0	0	3	1
0	0	3	1
0	0	4	0
0	0	6	3
0	0	2	2
0	0	4	1
0	1	2	3
0	0	2	2
0	1	26	13

0	0	15	6
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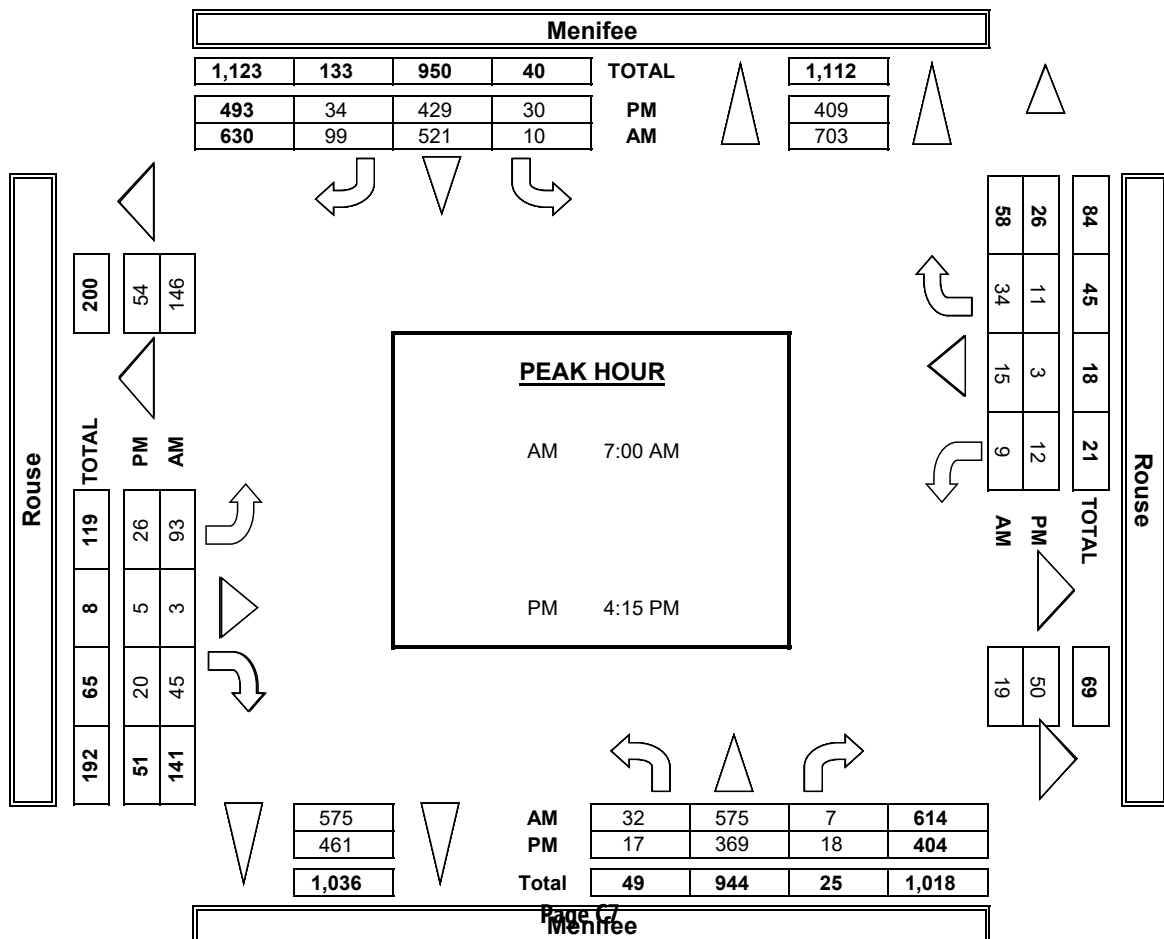
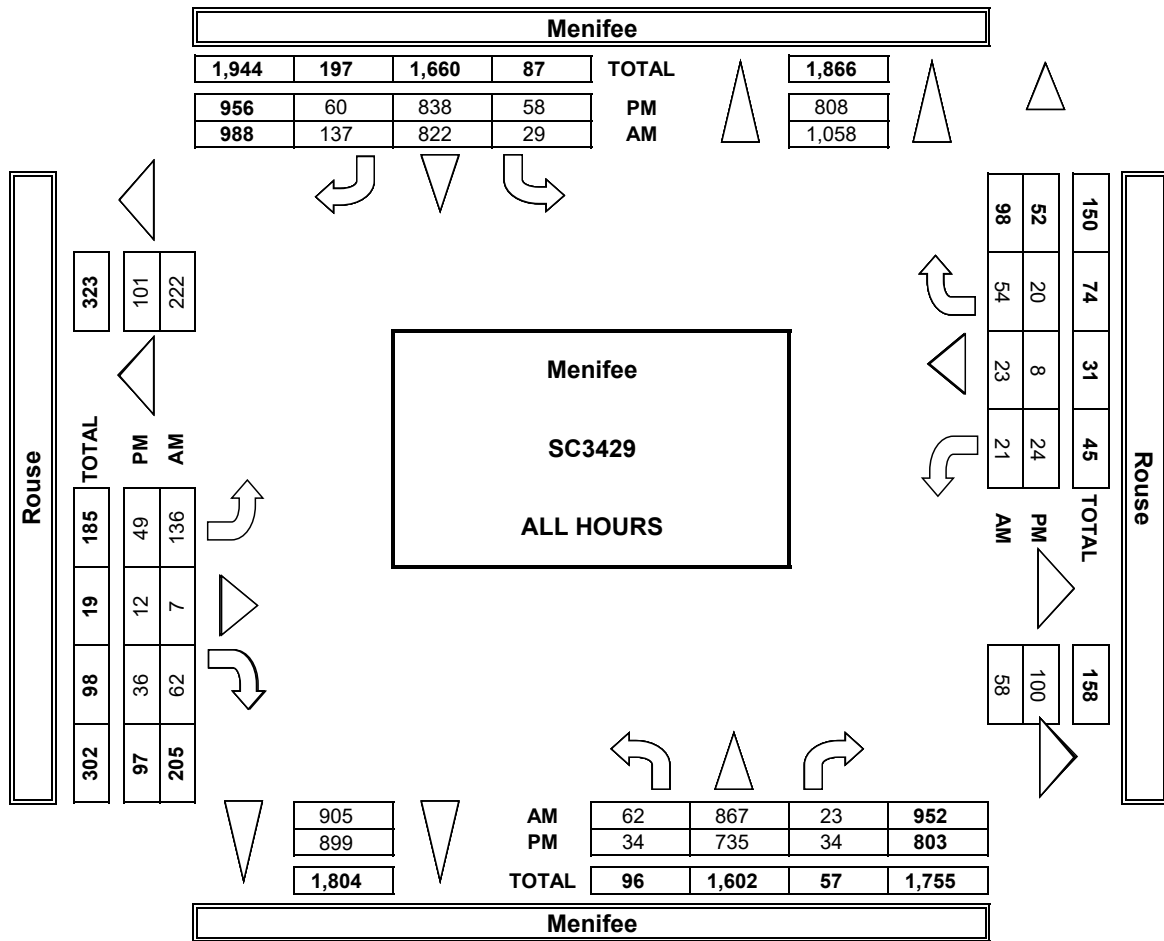
AM	PM
7:00 AM	4:00 PM
7:15 AM	4:15 PM
7:30 AM	4:30 PM
7:45 AM	4:45 PM
8:00 AM	5:00 PM
8:15 AM	5:15 PM
8:30 AM	5:30 PM
8:45 AM	5:45 PM
TOTAL	TOTAL

ALL PED AND BIKE				
E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2

PEDESTRIAN CROSSINGS				
E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1

BICYCLE CROSSINGS				
ES	WS	SS	NS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1

AimTD LLC
TURNING MOVEMENT COUNTS



24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Thursday, May 12, 2022

CITY# Menifee

JOB #: SC3429

CLASS1 Rouse west of Menifee

AM TIME	EASTBOUND													TOTAL	PM Time	EASTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12:00	0	6	4	0	2	1	1	0	0	0	0	0	0	14
0:15	0	0	1	0	0	0	0	0	0	0	0	0	0	1	12:15	0	4	6	0	1	1	2	0	0	0	0	0	0	14
0:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12:30	0	10	1	0	1	0	0	0	0	0	0	0	0	12
0:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1	12:45	0	5	2	0	0	1	0	0	0	0	0	0	0	8
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13:00	0	4	4	0	3	1	0	0	0	0	0	0	0	12
1:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13:15	0	6	3	0	0	0	1	0	0	0	0	0	0	10
1:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13:30	0	7	1	0	1	1	1	0	0	0	0	0	0	11
1:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13:45	0	13	5	0	1	1	0	0	0	1	0	0	0	21
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14:00	0	13	1	0	1	1	0	0	0	0	0	0	0	16
2:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14:15	0	13	4	0	2	1	0	0	0	0	0	0	0	20
2:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14:30	0	21	8	1	2	0	0	0	0	0	0	0	0	32
2:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14:45	0	17	7	0	3	0	0	0	0	0	0	0	0	27
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15:00	0	19	10	0	2	1	0	0	1	0	0	0	0	33
3:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15:15	0	21	2	0	1	1	0	0	0	0	0	0	0	25
3:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15:30	0	11	5	0	1	0	0	0	0	0	0	0	0	17
3:45	0	0	0	0	0	0	0	0	0	1	0	0	0	1	15:45	0	13	2	0	0	1	0	0	0	0	0	0	0	16
4:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16:00	0	5	2	0	2	1	0	0	1	0	0	0	0	11
4:15	0	2	1	0	0	0	0	0	0	0	0	0	0	3	16:15	0	11	2	0	0	0	0	0	0	0	0	0	0	13
4:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16:30	0	13	3	0	0	0	0	0	0	0	0	0	0	16
4:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16:45	0	10	2	0	0	0	0	0	0	0	0	0	0	12
5:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	17:00	0	5	4	0	0	0	0	0	1	0	0	0	0	10
5:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17:15	0	10	3	0	0	0	0	0	0	0	0	0	0	13
5:30	0	0	0	0	0	0	0	0	0	0	0	1	0	1	17:30	0	10	2	0	0	0	0	0	0	0	0	0	0	12
5:45	0	1	1	0	0	0	0	0	0	0	0	0	0	2	17:45	1	6	3	0	0	0	0	0	0	0	0	0	0	10
6:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2	18:00	0	5	4	0	0	0	0	0	0	0	0	0	0	9
6:15	0	6	1	0	1	1	0	0	0	0	0	0	0	9	18:15	0	9	3	0	1	0	0	0	0	0	0	0	0	13
6:30	0	6	0	0	0	1	0	0	0	0	0	0	0	7	18:30	0	6	4	0	0	0	0	0	0	0	0	0	0	10
6:45	0	11	1	0	0	0	0	0	0	0	0	0	0	12	18:45	0	5	3	0	0	0	0	0	0	0	0	0	0	8
7:00	0	27	5	0	1	0	0	0	0	0	0	0	0	33	19:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
7:15	0	34	3	0	1	1	1	0	0	0	0	0	0	40	19:15	0	4	1	0	0	0	0	0	0	0	0	0	0	5
7:30	0	26	2	0	3	0	0	0	0	0	0	0	0	31	19:30	0	5	2	0	0	0	0	0	0	0	0	0	0	7
7:45	0	30	5	0	2	2	0	0	0	0	0	0	0	39	19:45	0	4	3	0	0	0	0	0	0	0	0	0	0	7
8:00	0	12	6	0	2	1	0	0	1	0	0	0	0	22	20:00	0	8	2	0	0	0	0	0	0	0	0	0	0	10
8:15	0	12	5	0	2	0	1	0	1	0	1	0	0	21	20:15	0	2	2	0	0	0	0	0	0	0	0	0	0	4
8:30	0	8	1	0	0	1	0	0	0	0	0	0	0	10	20:30	0	1	1	0	0	0	0	0	0	0	0	0	0	2
8:45	0	3	4	0	1	1	0	0	0	0	0	0	0	9	20:45	0	3	4	0	0	0	0	0	0	0	0	0	0	7
9:00	0	9	2	0	0	1	1	0	0	0	0	0	0	13	21:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
9:15	0	1	1	0	1	0	2	0	0	0	0	0	0	5	21:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4
9:30	0	0	7	0	3	1	0	0	0	0	0	0	0	11	21:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
9:45	0	2	2	0	1	1	2	0	0	0	0	0	0	8	21:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
10:00	0	9	6	0	0	0	1	0	0	0	0	0	0	16	22:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
10:15	0	4	0	0	3	0	2	0	0	0	0	0	0	9	22:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
10:30	0	4	4	0	2	3	1	0	0	0	0	0	0	14	22:30	0	0	1	0	0	0	0	0	0	0	0	0	0	1
10:45	0	5	6	0	2	2	1	0	0	0	0	0	0	16	22:45	0	1	1	0	0	0	0	0	0	0	0	0	0	2
11:00	0	4	3	0	3	1	1	0	0	0	0	0	0	12	23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
11:15	0	3	0	0	0	0	2	0	0	0	0	0	0	5	23:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
11:30	0	1	0	0	1	1	1	0	0	0	0	0	0	4	23:30	0	0	1	0	0	0	0	0	0	0	0	0	0	1
11:45	0	11	3	0	0	0	0	0	0	0	0	0	0	14	23:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL	0	238	72	0	29	18	16	0	3	0	1	0	0	377	TOTAL	1	330	123	1	24	12	5	0	3	1	0	0	0	500
AM PEAK HOUR														7:00 AM	PM PEAK HOUR														2:30 PM
AM PEAK VOLUME														143	PM PEAK VOLUME														117

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	1	568	195	1	53	30	21	0	6	1	1	0	0	877
% OF TOTAL	0.1%	64.8%	22.2%	0.1%	6.0%	3.4%	2.4%	0.0%	0.7%	0.1%	0.1%	0.0%	0.0%	100.0%
Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	2	1,194	402	3	119	69	34	0	13	1	1	0	0	1,838
% OF TOTAL	0.1%	65.0%	21.9%	0.2%	6.5%	3.8%	1.8%	0.0%	0.7%	0.1%	0.1%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Thursday, May 12, 2022
JOB #: SC3429

CITY# Menifee
CLASS1 Rouse west of Menifee

AM TIME	WESTBOUND													TOTAL	PM Time	WESTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12:00	0	8	2	0	1	3	1	0	0	0	0	0	0	15
0:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12:15	0	8	2	0	1	0	1	0	0	0	0	0	0	12
0:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	12:30	0	8	2	0	1	1	0	0	0	0	0	0	0	12
0:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12:45	0	4	1	0	3	2	0	0	0	0	0	0	0	10
1:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2	13:00	0	1	5	0	1	1	0	0	0	0	0	0	0	8
1:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13:15	0	7	2	0	0	0	0	0	0	0	0	0	0	9
1:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	13:30	0	6	6	0	2	0	1	0	0	0	0	0	0	15
1:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13:45	0	12	1	0	0	0	1	0	0	0	0	0	0	14
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14:00	0	14	3	0	1	0	0	0	0	0	0	0	0	18
2:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14:15	0	38	2	0	3	1	0	0	0	0	0	0	0	44
2:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14:30	0	25	9	1	1	0	0	0	1	0	0	0	0	37
2:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14:45	0	16	6	0	1	1	0	0	1	0	0	0	0	25
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15:00	0	17	3	0	1	0	0	0	0	0	0	0	0	21
3:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2	15:15	0	15	5	1	3	1	0	0	0	0	0	0	0	25
3:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	15:30	0	19	1	0	1	0	0	0	0	0	0	0	0	21
3:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15:45	0	7	1	0	0	0	0	0	0	0	0	0	0	8
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16:00	0	10	2	0	0	1	0	0	0	0	0	0	0	13
4:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16:15	0	9	2	0	0	0	0	0	1	0	0	0	0	12
4:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16:30	0	8	3	0	1	0	0	0	0	0	0	0	0	12
4:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16:45	0	11	2	0	3	0	0	0	0	0	0	0	0	16
5:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2	17:00	0	12	1	0	0	0	0	0	0	0	0	0	0	13
5:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2	17:15	0	7	0	0	0	0	0	0	0	0	0	0	0	7
5:30	0	3	2	0	1	0	0	0	0	0	0	0	0	6	17:30	0	13	2	0	1	0	0	0	0	0	0	0	0	16
5:45	0	4	2	0	1	0	0	0	0	0	0	0	0	7	17:45	0	11	1	0	0	0	0	0	0	0	0	0	0	12
6:00	0	3	5	0	0	1	0	0	0	0	0	0	0	9	18:00	1	8	2	0	0	0	0	0	0	0	0	0	0	11
6:15	0	5	5	0	0	2	0	0	0	0	0	0	0	12	18:15	0	6	2	0	0	0	0	0	0	0	0	0	0	8
6:30	0	11	4	0	2	0	0	0	0	0	0	0	0	17	18:30	0	4	1	0	0	0	0	0	0	0	0	0	0	5
6:45	0	12	10	0	2	0	0	0	1	0	0	0	0	25	18:45	0	7	1	0	0	0	0	0	0	0	0	0	0	8
7:00	0	9	8	0	2	1	0	0	0	0	0	0	0	20	19:00	0	11	3	0	0	0	0	0	0	0	0	0	0	14
7:15	0	23	16	0	4	1	1	0	0	0	0	0	0	45	19:15	0	4	4	0	0	0	0	0	0	0	0	0	0	8
7:30	0	28	8	0	4	0	0	0	0	0	0	0	0	40	19:30	0	7	1	0	0	0	0	0	2	0	0	0	0	10
7:45	0	31	10	0	0	2	0	0	0	0	0	0	0	43	19:45	0	8	1	0	0	0	0	0	0	0	0	0	0	9
8:00	0	17	2	0	4	1	0	0	0	0	0	0	0	24	20:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
8:15	0	14	3	0	3	1	0	0	0	0	0	0	0	21	20:15	0	6	1	0	0	0	0	0	0	0	0	0	0	7
8:30	0	10	4	0	1	0	0	0	1	0	0	0	0	16	20:30	0	1	1	0	0	0	0	0	0	0	0	0	0	2
8:45	0	6	3	0	1	3	0	0	0	0	0	0	0	13	20:45	0	3	1	0	0	0	0	0	0	0	0	0	0	4
9:00	0	3	2	0	3	1	0	0	0	0	0	0	0	9	21:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
9:15	0	7	4	0	1	2	0	0	0	0	0	0	0	14	21:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
9:30	0	5	2	0	4	2	1	0	0	0	0	0	0	14	21:30	0	5	2	0	0	0	0	0	0	0	0	0	0	7
9:45	0	4	5	0	2	2	1	0	0	0	0	0	0	14	21:45	0	6	0	0	0	0	0	0	0	0	0	0	0	6
10:00	0	2	2	0	1	0	1	0	0	0	0	0	0	6	22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	1	5	0	0	3	1	0	0	0	0	0	0	10	22:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
10:30	0	3	3	0	1	1	0	0	0	0	0	0	0	8	22:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
10:45	0	7	3	0	2	1	0	0	0	0	0	0	0	13	22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	6	7	0	0	2	0	0	0	0	0	0	0	15	23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
11:15	0	5	3	0	1	2	1	0	0	0	0	0	0	12	23:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
11:30	0	4	0	0	0	0	2	0	0	0	0	0	0	6	23:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
11:45	0	5	2	0	1	0	1	0	0	0	0	0	0	9	23:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL	0	243	120	0	41	28	9	0	2	0	0	0	0	443	TOTAL	1	383	87	2	25	11	4	0	5	0	0	0	0	518

AM PEAK HOUR 7:15 AM
AM PEAK VOLUME 152

PM PEAK HOUR 2:15 PM
PM PEAK VOLUME 127

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	1	626	207	2	66	39	13	0	7	0	0	0	0	961
% OF TOTAL	0.1%	65.1%	21.5%	0.2%	6.9%	4.1%	1.4%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	100.0%

Class 1 2 3 4 5 6 7 8 9 10 11 12 13

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Thursday, May 12, 2022

CITY# Menifee

JOB #: SC3429

CLASS2 Menifee north of Rouse

AM TIME	NORTHBOUND													TOTAL	PM Time	NORTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8	12:00	0	47	19	0	2	2	1	0	1	0	0	0	0	72
0:15	0	4	3	0	0	0	0	0	0	0	0	0	0	7	12:15	0	53	20	0	7	3	2	0	0	0	0	0	0	85
0:30	0	8	2	0	0	0	0	0	0	0	0	0	0	10	12:30	1	51	17	0	3	0	1	0	0	0	0	0	0	73
0:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2	12:45	0	46	22	0	3	1	0	0	0	0	0	0	0	72
1:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8	13:00	0	50	26	0	3	2	0	0	1	0	0	0	0	82
1:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5	13:15	0	54	15	0	3	2	1	0	0	0	0	0	0	75
1:30	0	5	1	0	0	0	0	0	0	0	0	0	0	6	13:30	0	50	23	0	5	2	1	0	0	0	0	0	0	81
1:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1	13:45	1	56	19	0	5	1	0	0	0	1	0	0	0	83
2:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3	14:00	1	109	27	0	2	1	0	0	0	0	0	0	0	140
2:15	0	0	1	0	0	0	0	0	0	0	0	0	0	1	14:15	0	142	20	3	12	5	0	0	0	0	0	0	0	182
2:30	0	2	1	0	0	0	0	0	0	0	0	0	0	3	14:30	1	117	22	0	4	3	0	0	0	0	0	0	0	147
2:45	0	9	1	0	0	0	0	0	0	0	0	0	0	10	14:45	0	104	23	0	12	1	0	0	0	0	0	0	0	140
3:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6	15:00	0	90	27	1	6	3	0	0	0	0	0	0	0	127
3:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5	15:15	2	114	35	1	6	1	0	0	0	0	0	0	0	159
3:30	0	8	2	0	0	0	0	0	0	0	0	0	0	10	15:30	0	82	31	0	7	3	0	0	0	0	0	0	0	123
3:45	0	9	6	0	1	0	0	0	0	0	0	0	0	16	15:45	0	80	27	0	6	0	0	0	0	0	0	0	0	113
4:00	0	11	4	0	0	0	0	0	0	1	0	0	0	16	16:00	0	56	33	0	6	2	0	0	1	0	0	0	0	98
4:15	0	20	3	0	1	0	0	0	0	0	0	0	0	24	16:15	0	62	22	1	7	3	0	0	1	0	0	0	0	96
4:30	0	13	2	0	3	1	0	0	0	0	0	0	0	19	16:30	0	73	28	0	1	2	0	0	0	0	0	0	0	104
4:45	0	19	8	0	2	0	0	0	0	0	0	0	0	29	16:45	0	71	23	0	5	2	0	0	1	0	0	0	0	102
5:00	0	18	6	0	1	0	0	0	0	0	0	0	0	25	17:00	0	81	19	0	5	0	0	0	2	0	0	0	0	107
5:15	0	20	11	0	0	0	0	0	0	0	0	0	0	31	17:15	0	66	15	0	3	1	0	0	0	0	0	0	0	85
5:30	0	35	17	0	0	0	0	0	0	0	0	1	0	53	17:30	0	78	25	0	3	0	0	0	0	0	0	0	0	106
5:45	0	43	24	0	2	0	0	0	0	0	0	0	0	69	17:45	0	83	25	0	1	1	0	0	0	0	0	0	0	110
6:00	0	36	20	0	1	0	0	0	0	0	0	0	0	57	18:00	0	76	19	0	4	0	0	0	0	0	0	0	0	99
6:15	0	59	18	0	1	2	0	0	0	0	0	0	0	80	18:15	0	64	21	0	1	1	0	0	0	0	0	0	0	87
6:30	0	59	13	0	3	1	0	0	0	0	0	0	0	76	18:30	0	68	20	0	0	1	0	0	0	0	0	0	0	89
6:45	0	79	22	0	5	2	0	0	0	0	0	0	0	108	18:45	0	62	20	0	4	1	0	0	0	0	0	0	0	87
7:00	1	109	16	0	3	0	0	0	0	0	0	0	0	129	19:00	0	42	11	0	2	0	0	0	0	0	0	0	0	55
7:15	0	202	34	0	1	1	1	0	1	0	0	0	0	240	19:15	1	59	14	0	0	0	0	0	0	0	0	0	0	74
7:30	0	159	24	0	4	0	0	0	0	0	0	0	0	187	19:30	0	44	17	0	2	0	0	0	0	0	0	0	0	63
7:45	0	109	30	0	2	3	0	0	1	0	0	0	0	145	19:45	0	58	10	0	3	0	0	0	0	0	0	0	0	71
8:00	0	86	15	0	2	1	0	0	0	0	0	0	0	104	20:00	0	46	9	0	1	0	0	0	0	0	0	0	0	56
8:15	0	81	20	0	2	0	1	0	1	0	0	0	0	105	20:15	0	31	7	0	0	0	0	0	0	0	0	0	0	38
8:30	1	62	20	0	4	2	0	0	2	0	0	0	0	91	20:30	2	29	16	0	0	0	0	0	0	0	0	0	0	47
8:45	0	45	10	0	1	1	0	0	0	0	0	0	0	57	20:45	0	35	11	0	0	0	0	0	0	0	0	0	0	46
9:00	0	44	16	0	4	1	2	0	0	0	0	0	0	67	21:00	0	32	8	0	1	0	0	0	0	0	0	0	0	41
9:15	0	42	16	0	2	1	2	0	0	0	0	0	0	63	21:15	0	32	6	0	0	0	0	0	0	0	0	0	0	38
9:30	0	39	18	0	5	2	0	0	0	0	0	0	0	64	21:30	0	25	3	0	0	0	0	0	0	0	0	0	0	28
9:45	0	49	18	0	1	1	2	0	2	0	0	0	0	73	21:45	0	19	2	0	0	0	0	0	0	0	0	0	0	21
10:00	0	46	14	0	2	0	2	0	0	0	0	0	0	64	22:00	0	22	4	0	0	0	0	0	0	0	0	0	0	26
10:15	0	54	14	0	4	1	2	0	1	0	1	0	0	77	22:15	0	25	2	0	0	1	0	0	0	0	0	0	0	28
10:30	1	53	17	0	6	1	1	0	0	0	0	0	0	79	22:30	0	16	3	0	1	0	0	0	0	0	0	0	0	20
10:45	0	58	20	0	3	1	1	0	0	0	0	0	0	83	22:45	0	11	7	0	0	0	0	0	0	0	0	0	0	18
11:00	0	55	20	0	6	2	1	0	1	0	0	0	0	85	23:00	0	13	5	0	0	0	0	0	0	0	0	0	0	18
11:15	0	55	12	0	2	2	2	0	0	0	0	0	0	73	23:15	0	7	2	0	0	0	0	0	0	0	0	0	0	9
11:30	1	49	18	0	7	2	1	0	0	0	0	0	0	78	23:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5
11:45	0	58	18	0	5	2	0	0	2	0	0	0	0	85	23:45	0	12	4	0	0	0	0	0	0	0	0	0	0	16
TOTAL	4	1,950	535	0	86	30	18	0	12	0	2	0	0	2,637	TOTAL	9	2,648	784	6	136	45	6	0	7	1	0	0	0	3,642
AM PEAK HOUR														7:00 AM	PM PEAK HOUR														2:00 PM
AM PEAK VOLUME														701	PM PEAK VOLUME														609

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	13	4,598	1,319	6	222	75	24	0	19	1	2	0	0	6,279
% OF TOTAL	0.2%	73.2%	21.0%	0.1%	3.5%	1.2%	0.4%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	100.0%
Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	33	9,380	2,681	12	426	147	42	0	35	1	2	0	0	12,759
% OF TOTAL	0.3%	73.5%	21.0%	0.1%	3.3%	1.2%	0.3%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Thursday, May 12, 2022
JOB #: SC3429

CITY# Menifee
CLASS2 Menifee north of Rouse

AM TIME	SOUTHBOUND													TOTAL	PM Time	SOUTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8	12:00	0	48	15	0	2	6	1	0	0	0	0	0	0	72
0:15	0	8	0	0	0	0	0	0	0	0	0	0	0	8	12:15	0	40	17	0	1	0	1	0	2	0	0	0	0	61
0:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4	12:30	1	49	15	0	1	2	0	0	1	0	0	0	0	69
0:45	0	9	2	0	0	0	0	0	0	0	0	0	0	11	12:45	0	61	15	0	6	3	1	0	0	0	0	0	0	86
1:00	0	8	2	0	0	0	0	0	0	0	0	0	0	10	13:00	1	47	15	0	4	4	0	0	0	0	0	0	0	71
1:15	0	8	0	0	0	0	0	0	0	0	0	0	0	8	13:15	0	66	19	0	2	2	1	0	0	0	0	0	0	90
1:30	0	5	1	0	0	0	0	0	0	0	0	0	0	6	13:30	0	89	29	0	6	1	1	0	0	0	0	0	0	126
1:45	0	6	0	0	0	0	0	0	0	0	0	0	0	6	13:45	0	133	28	1	6	4	1	0	0	0	0	0	0	173
2:00	0	6	1	0	1	0	0	0	0	0	0	0	0	8	14:00	0	124	32	1	7	1	0	0	0	0	0	0	0	165
2:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5	14:15	1	113	18	0	4	1	0	0	1	0	0	0	0	138
2:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5	14:30	0	105	25	0	3	0	0	0	0	0	0	0	0	133
2:45	0	5	2	0	0	0	0	0	0	0	0	0	0	7	14:45	1	81	27	1	3	1	0	0	1	0	0	0	0	115
3:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6	15:00	0	87	25	0	4	0	0	0	0	0	0	0	0	116
3:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1	15:15	1	107	25	2	3	1	0	0	0	0	0	0	0	139
3:30	0	6	0	0	0	0	0	0	0	0	0	0	0	6	15:30	0	137	31	0	5	0	0	0	0	0	0	0	0	173
3:45	0	6	2	0	0	0	0	0	0	0	0	0	0	8	15:45	1	119	29	0	6	0	0	0	0	0	0	0	0	155
4:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5	16:00	0	89	20	0	5	0	0	0	0	0	0	0	0	114
4:15	0	10	2	0	0	0	0	0	0	0	0	0	0	12	16:15	2	87	33	0	0	0	0	0	0	0	0	0	0	122
4:30	0	15	1	0	1	0	0	0	0	0	0	0	0	17	16:30	0	75	30	0	2	0	0	0	0	0	0	0	0	107
4:45	0	12	2	0	1	0	0	0	0	0	0	0	0	15	16:45	0	95	33	0	4	0	0	0	0	0	0	0	0	132
5:00	0	8	3	0	1	0	0	0	0	0	0	0	0	12	17:00	1	96	35	0	2	0	0	0	0	0	0	0	0	134
5:15	0	15	5	0	1	0	0	0	0	0	0	0	0	21	17:15	0	85	21	0	1	0	0	0	0	0	0	0	0	107
5:30	0	21	7	0	2	0	0	0	0	0	0	0	0	30	17:30	1	80	32	0	2	0	0	0	0	0	0	0	0	115
5:45	0	34	14	0	2	0	0	0	0	0	0	0	0	50	17:45	0	98	24	0	2	1	0	0	0	0	0	0	0	125
6:00	0	26	19	0	3	1	0	0	0	0	0	0	0	49	18:00	1	107	20	0	2	0	0	0	0	0	0	0	0	130
6:15	2	29	24	0	0	3	0	0	0	0	0	0	0	58	18:15	0	109	15	0	3	0	0	0	0	0	0	0	0	127
6:30	1	60	33	0	9	2	0	0	0	0	0	0	0	105	18:30	0	88	14	0	2	0	0	0	0	0	0	0	0	104
6:45	1	56	34	0	4	3	1	0	1	0	0	0	0	100	18:45	0	74	15	1	1	0	0	0	0	0	0	0	0	91
7:00	1	136	37	0	5	3	0	0	2	0	0	0	0	184	19:00	0	73	21	0	0	0	0	0	0	0	0	0	0	94
7:15	0	144	43	0	8	1	1	0	1	0	0	0	0	198	19:15	0	82	11	0	0	0	0	0	0	0	0	0	0	93
7:30	0	91	25	0	5	2	0	0	0	0	0	0	0	123	19:30	0	54	7	0	2	0	0	0	0	0	0	0	0	63
7:45	0	105	32	0	1	4	0	0	1	0	0	0	0	143	19:45	0	53	10	0	1	0	0	0	0	0	0	0	0	64
8:00	0	71	23	0	5	2	0	0	1	0	0	0	0	102	20:00	0	41	5	0	0	0	0	0	0	0	0	0	0	46
8:15	0	59	21	0	5	2	0	0	0	0	0	0	0	87	20:15	0	36	4	0	0	0	0	0	0	0	0	0	0	40
8:30	0	49	17	0	4	0	1	0	1	0	0	0	0	72	20:30	0	38	5	0	0	0	0	0	0	0	0	0	0	43
8:45	1	52	20	0	3	3	0	0	0	0	0	0	0	79	20:45	0	28	7	0	1	0	0	0	0	0	0	0	0	36
9:00	0	37	23	0	8	2	1	0	0	0	0	0	0	71	21:00	2	37	7	0	1	0	0	0	0	0	0	0	0	47
9:15	0	48	20	0	6	2	0	0	0	0	0	0	0	76	21:15	0	36	3	0	0	0	0	0	0	0	0	0	0	39
9:30	0	47	18	0	4	2	1	0	2	0	0	0	0	74	21:30	0	25	6	0	0	0	0	0	0	0	0	0	0	31
9:45	0	54	22	0	3	1	1	0	0	0	0	0	0	81	21:45	0	25	2	0	0	0	0	0	0	0	0	0	0	27
10:00	1	42	19	0	2	1	1	0	0	0	0	0	0	66	22:00	0	19	4	0	0	0	0	0	0	0	0	0	0	23
10:15	0	41	15	0	4	3	1	0	1	0	0	0	0	65	22:15	0	13	2	0	0	0	0	0	0	0	0	0	0	15
10:30	0	46	21	0	3	1	0	0	0	0	0	0	0	71	22:30	0	13	1	0	0	0	0	0	0	0	0	0	0	14
10:45	0	50	25	0	6	2	0	0	0	0	0	0	0	83	22:45	0	15	1	0	0	0	0	0	0	0	0	0	0	16
11:00	0	49	17	0	5	1	0	0	1	0	0	0	0	73	23:00	0	15	1	0	1	0	0	0	0	0	0	0	0	17
11:15	0	47	20	0	2	3	1	0	0	0	0	0	0	73	23:15	0	16	1	0	0	0	0	0	0	0	0	0	0	17
11:30	0	51	19	0	2	0	2	0	0	0	0	0	0	74	23:30	0	10	0	0	0	0	0	0	0	0	0	0	0	10
11:45	0	49	13	0	3	1	1	0	0	0	0	0	0	67	23:45	0	12	0	0	0	0	0	0	0	0	0	0	0	12
TOTAL	7	1,652	607	0	109	45	12	0	11	0	0	0	0	2,443	TOTAL	13	3,130	755	6	95	27	6	0	5	0	0	0	0	4,037
AM PEAK HOUR														7:00 AM	PM PEAK HOUR														1:45 PM
AM PEAK VOLUME														648	PM PEAK VOLUME														609

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	20	4,782	1,362	6	204	72	18	0	16	0	0	0	0	6,480
% OF TOTAL	0.3%	73.8%	21.0%	0.1%	3.1%	1.1%	0.3%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	100.0%

Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
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Appendix D:

Traffic Volume Development Worksheets

Trip Gen						
Daily Trips	AM Peak Hour			PM Peak Hour		
	Volume	In	Out	Volume	In	Out
1,092	65	16	49	83	52	31

Intersection / Movement		Counts 2022		Balance		Existing 2022		Project Only				Existing With Project		Growth		Cumulative Projects		Opening Year 2024 W/O Project (unbalanced)		Balance		Opening Year 2024 W/O Project (balanced)		Opening Year 2024 With Project	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	In %	Out %	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1) Junipero Rd & Rouse Rd	NBL	119	9			119	9			0	0	119	9	5	0	0	0	124	9			124	9	124	9
	NBT	0	1			0	1			0	0	0	1	0	0	0	0	0	1			0	1	0	1
	NBR	45	10			45	10			0	0	45	10	2	0	70	46	117	56			117	56	117	56
	SBU	0	0			0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	SBL	0	1			0	1			0	0	0	1	0	0	0	0	0	1			0	1	0	1
	SBT	0	0			0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	SBR	0	0			0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	EBU	0	0			0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	EBL	0	0			0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	EBT	92	45	4	0	96	45	10%		2	5	98	50	4	2	285	295	385	342			385	342	387	347
	EBR	104	4			104	4			0	0	104	4	4	0	0	0	108	4			108	4	108	4
	WBL	56	6	2	0	58	6		50%	24	16	82	22	2	0	23	78	83	84			83	84	107	100
	WBT	97	45	6	1	103	46		10%	5	3	108	49	4	2	139	392	246	440	1		247	440	252	443
	WBR	1	0			1	0			0	0	1	0	0	0	0	0	1	0			1	0	1	0
2) Galloping Wy & Rouse Rd	NBL	16	6			16	6			0	0	16	6	1	0	0	0	17	6			17	6	17	6
	NBT	0	0			0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	NBR	5	5			5	5			0	0	5	5	0	0	0	0	5	5			5	5	5	5
	SBU	0	0			0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	SBL	0	0			0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	SBT	0	0			0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	SBR	0	0			0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	EBU	0	0			0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	EBL	0	0			0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	EBT	135	46	1	1	136	47	10%		2	5	138	52	5	2	355	341	496	390	1		497	390	499	395
	EBR	5	8			5	8			0	0	5	8	0	0	0	0	5	8			5	8	5	8
	WBL	1	8			1	8			0	0	1	8	0	0	0	0	1	8			1	8	1	8
	WBT	144	46	1	0	145	46		60%	29	19	174	65	6	2	162	470	313	518			313	518	342	537
	WBR	0	0			0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
3) "B" St & Rouse Rd	NBL					0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	NBT					0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	NBR					0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	SBU					0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	SBL					0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	SBT					0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	SBR					0	0		60%	29	19	29	19	0	0	0	0	0	0			0	0	29	19
	EBU					0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	EBL					0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	EBT			141	52	141	52	10%		2	5	143	57	6	2	355	341	502	395			502	395	504	400
	EBR					0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	WBL					0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	WBT			146	54	146	54			0	0	146	54	6	2	162	470	314	526			314	526	314	526
	WBR					0	0	60%		10	32	10	32	0	0	0	0	0	0			0	0	10	32
4) Menifee Rd & Rouse Rd/Turtle Point Dr	NBL	32	17			32	17	50%		8	27	40	44	1	1	95	250	128	268			128	268	136	295
	NBT	575	369			575	369	20%		3	10	578	379	23	15	234	622	832	1006			832	1006	835	1016
	NBR	7	18			7	18			0	0	7	18	0	1	0	0	7	19			7	19	7	19
	SBU	1	3			1	3		20%	10	6	11	9	0	0	0	0	1	3			1	3	11	9
	SBL	9	27			9	27			0	0	9	27	0	1	0	0	9	28			9	28	9	28
	SBT	521	429			521	429		20%	10	6	531	435	21	17	529	421	1071	867			1071	867	1081	873
	SBR	99	34			99	34			0	0	99	34	4	1	67	220	170	255			170	255	170	255
	EBU	0	0			0	0	10%		2	5	2	5	0	0	0	0	0	0			0	0	2	5
	EBL	93	26		1	93	27			0	0	93	27	4	1	170	149	267	177			267	177	267	177
	EBT	3	5			3	5			0	0	3	5	0	0	0	0	3	5			3	5	3	5
	EBR	45	20			45	20			0	0	45	20	2	1	185	192	232	213			232	213	232	213
	WBL	9	12			9	12			0	0	9	12	0	0	0	0	9	12			9	12	9	12
	WBT	15	3			15	3			0	0	15	3	1	0	0	0	16	3			16	3	16	3
	WBR	34	11			34	11			0	0	34	11	1	0	0	0	35	11			35	11	35	11
5) "A" St & Menifee Rd	NBL					0	0	20%		3	10	3	10	0	0	0	0	0	0			0	0	3	10
	NBT			703	410	703	410		20%	10	6	713	416	28	17	404	771	1135	1198		-1	1135	1197	1145	1203
	NBR					0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	SBU					0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	SBL					0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	SBT			630	493	630	493			0	0	630	493	25	20	596	641	1251	1154		-1	1251	1153	1251	1153
	SBR					0	0	20%		3	10	3	10	0	0	0	0	0	0			0	0	3	10
	EBU					0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	EBL					0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	EBT					0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	EBR					0	0		40%	20	12	20	12	0	0	0	0	0	0			0	0	20	12
	WBL					0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	WBT					0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0
	WBR					0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0

Meniffee Rouse Rd

Volume Development
ADT

Existing Year:	2022
Ambient Growth:	2.0%
Years till Opening:	2
Opening Year:	2024
k-factor:	0.101

Roadway Segment	Counts 2022			Project Only	Existing With Project (Rounded) ²	Growth (Rounded) ³	Cumulative Projects (Rounded) ³	Opening Year 2024 W/O Project (Rounded) ³	Opening Year 2024 With Project (Rounded) ³
	AM Peak Hour	PM Peak Hour	ADT ²	ADT	ADT	ADT	ADT	ADT	ADT
1) Rouse Rd West of "B" St	--	--	1,840	382	2,220	100	8,400	10,300	10,700
2) Meniffee Rd North of Rouse Rd	--	--	12,760	218	12,980	500	14,800	28,100	28,300
3) Meniffee Rd South of Rouse Rd	1,189	865	10,170	492	10,660	400	15,700	26,300	26,800

Notes:
1) Segment 3 existing ADT estimated using K-factor of Meniffee Rd North of Rouse Road (#2) and existing intersection turning movement volume.
2) Rounded to the nearest 10.
3) Rounded to the nearest 100.

Meniffee Rouse Rd

Volume Development

K-Factor

Roadway Movement	Counts 2022			K-factor		
	ADT	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	Average
1) Rouse Rd West of "B" St	1,838	295	244	0.161	0.133	0.147
2) Meniffee Rd North of Rouse Rd	12,759	1,349	1,218	0.106	0.095	0.101

Trip Generation (Vehicles)										
Land Use	ITE Code	Intensity		Daily Trips	AM Peak Hour			PM Peak Hour		
					Volume	In	Out	Volume	In	Out
Multifamily (Low Rise)	220	240	DU	1,618	96	23	73	122	77	45
Single-Family Detached	210	1711	DU	16,135	1,198	300	898	1,608	1,013	595
Fast Food Restaurant W/ Drive Thru	934	6.2	KSF	2,898	277	141	136	205	107	98
Strip Retail Plaza	822	1	KSF	54	2	1	1	7	4	3
Convenience Store/Gas Station	945	12	VFP	3,181	193	97	96	221	111	110
Subtotal				6,133	472	239	233	433	222	211
Single-Family Detached	210	1022	DU	9,637	715	179	536	961	605	356
Recreational Community Center	495	10	KSF	288	19	13	6	25	12	13
Shopping Center	820	225	KSF	8,327	189	117	72	765	367	398
Subtotal				18,252	923	309	614	1,751	984	767
Single-Family Detached	210	543	DU	5,120	380	95	285	510	321	189
Single-Family Detached	210	264	DU	2,490	185	46	139	248	156	92
Single-Family Detached	210	173	DU	1,631	121	30	91	163	103	60
Mini-Warehouse	151	152.893	KSF	222	14	8	6	23	11	12
Supermarket	850	45	KSF	4,223	129	76	53	403	202	201
Pharmacy W/ Drive Thru	881	14.6	KSF	1,583	55	29	26	150	75	75
Strip Retail Plaza	822	11.5	KSF	626	27	16	11	76	38	38
Fast Casual Restaurant	930	6.1	KSF	593	9	5	4	77	42	35
Fast Food Restaurant W/ Drive Thru	934	3.5	KSF	1,636	156	80	76	116	60	56
Convenience Store/Gas Station	945	16	VFP	4,242	257	129	128	295	148	147
Subtotal				13,125	647	343	304	1,140	576	564
Multifamily (Low Rise)	220	136	DU	917	54	13	41	69	43	26
Total		240	DU	65,421	4,076	1,398	2,678	6,044	3,495	2,549

Note: Values may vary slightly due to rounding.

Cumulative Projects List

Coachella Rouse Rd

#	Cumulative Project	Code	Land Use	Intensity	ADT	AM Peak Hour			PM Peak Hour			
						Total	Inbound	Outbound	Total	Inbound	Outbound	
1	Village at Junipero	See Trip Gen			1,618	96	23	73	122	77	46	
2	Mentefree Valley Specific Plan	See Trip Gen			16,135	1,198	300	898	1,608	1,013	595	
3	McCall Plaza	See Trip Gen			6,133	472	229	233	433	212	211	
4	Legado Specific Plan	See Trip Gen			18,252	923	309	614	1,751	984	767	
5	Underwood	See Trip Gen			5,120	380	95	285	510	321	189	
6	Remington/McCall Mesa	See Trip Gen			2,490	185	46	139	248	156	92	
7	Talavera	See Trip Gen			1,831	121	30	91	163	103	60	
8	McCall Square	See Trip Gen			13,125	647	343	304	1,140	576	564	
9	Cypress and Sands Apartments	See Trip Gen			917	54	13	41	69	43	26	
Total Cumulative Project Trips						65,421	4,076	1,398	2,678	6,044	3,495	2,549

Notes:

1) Sourced from ITE Trip Generation Manual 11th Edition

Cumulative Projects Peak Hour Trip Assignment

Int. 1	1				2				3				4				5				6				7				8				9				10				Total	
	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM	PM						
NBL			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0						
NBT			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0						
NBR			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0						
SBR																																										
SBL			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0						
SBT			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0						
SBR			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0						
EBU																																										
EBL			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0						
EBT			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0						
EBR			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0						
WBL			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0						
WBT			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0						
WBR			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0						

Int. 2	1				2				3				4				5				6				7				8				9				10				Total	
	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM	PM						
NBL		0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0		0	0		0	0	0	0		0	0		0	0	0	0					
NBT		0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0		0	0		0	0	0	0		0	0		0	0	0	0					
NBR		0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0		0	0		0	0	0	0		0	0		0	0	0	0					
SBL		0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0		0	0		0	0	0	0		0	0		0	0	0	0					
SBL		0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0		0	0		0	0	0	0		0	0		0	0	0	0					
SBT		0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0		0	0		0	0	0	0		0	0		0	0	0	0					
SBR		0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0		0	0		0	0	0	0		0	0		0	0	0	0					
EBU		0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0		0	0		0	0	0	0		0	0		0	0	0	0					
EBL		0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0		0	0		0	0	0	0		0	0		0	0	0	0					
EBT		0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0		0	0		0	0	0	0		0	0		0	0	0	0					
EBR		0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0		0	0		0	0	0	0		0	0		0	0	0	0					
WBL		0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0		0	0		0	0	0	0		0	0		0	0	0	0					
WBT		0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0		0	0		0	0	0	0		0	0		0	0	0	0					
WBR		0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0		0	0		0	0	0	0		0	0		0	0	0	0					

Int. 3	1				2				3				4				5				6				7				8				9				10				Total	
	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM	PM						
NBL		0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0		0	0				
NBT		0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0		0	0				
NBR		0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0		0	0				
SBU		0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0		0	0				
SBL		0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0		0	0				
SBT		0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0		0	0				
SBR		0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0		0	0				
EBU		0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0		0	0				
EBL		0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0		0	0				
EBT		0	0			0	0			0	0		15%	92	115		35%	100	66		50%	70	49		40%	36	24		15%	51	86		6	4		355	341					
EBR		0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0		0	0				
WBL		0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0		0	0				
WBT		0	0			0	0			0	0		15%	145	46		35%	145	53		50%	112	23		40%	12	41		15%	85	670		2		1621	670						
WBR		0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0			0	0		0	0				

Int. 4	1				2				3				4				5				6				7				8				9				10				Total	
	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM Vol.	PM Vol.	In Dist %	Out Dist %	AM	PM						
NBL			0	0			0	0			0	0	5%		15	49	15%		14	48	80%		14	47			6	21			15%	46	85		0	0	95	250				
NBT	20%	15	9	50%			150	507			10%	23	21		0	0			0	0	20%		0	0			15%	46	85		0	0	234	622								
NBR			0	0			0	0			0	0	0		0	0			0	0			0	0			15%	46	85		0	0	0	0								
NBU			0	0			0	0			0	0	0		0	0			0	0			0	0			15%	46	85		0	0	0	0								
SBL			0	0			0	0			0	0	0		0	0			0	0			0	0			15%	46	85		0	0	0	0								
SBT	20%	15	445	50%			445	258	10%		24	23	0		0	0			0	0			0	0			15%	46	85		0	0	51	88	421	529						
SBR			0	0			0	0			0	0	10%		31	98	20%		39	64	20%		9	31	20%		0	0			15%	220	2	8	67	220						
EBU			0	0			0	0			0	0	0		0	0			0	0			0	0			15%	46	85		0	0	0	0								
EBL			0	0			0	0			10%	61	37		0	0	20%		57	89	20%		28	18			20%	18	12		0	0	170	149								
EBT			0	0			0	0			0	0	0		0	0			0	0			0	0			20%	18	12		0	0	0	0								
EBR			0	0			0	0			5%	31	28		0	0	15%		43	28	30%		42	28			20%	18	12	15%		51	86	185	192							
WBL			0	0			0	0			0	0	0		0	0			0	0			0	0			15%	46	85		0	0	0	0								
WBT			0	0			0	0			0	0	0		0	0			0	0			0	0			15%	46	85		0	0	0	0								
WBR			0	0			0	0			0	0	0		0	0			0	0			0	0			15%	46	85		0	0	0	0								

Appendix E:

Existing Year 2022 AM Peak Hour Analysis Worksheets

Menifee TTM 38346 Rouse Rd
1: Junipero Rd & Rouse Rd

Existing AM

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	96	104	58	103	119	45
Future Volume (vph)	96	104	58	103	119	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	120		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.930				0.963	
Flt Protected			0.950		0.965	
Satd. Flow (prot)	1732	0	1770	1863	1731	0
Flt Permitted			0.950		0.965	
Satd. Flow (perm)	1732	0	1770	1863	1731	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	660			646	716	
Travel Time (s)	12.9			12.6	19.5	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	133	144	81	143	165	63
Shared Lane Traffic (%)						
Lane Group Flow (vph)	277	0	81	143	228	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	34.1%			ICU Level of Service A		
Analysis Period (min)	15					

Menifee TTM 38346 Rouse Rd
2: Galloping Wy & Rouse Rd

Existing AM

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗		↖	↗	↖	
Traffic Volume (vph)	136	5	1	145	16	5
Future Volume (vph)	136	5	1	145	16	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	120		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.995				0.966	
Flt Protected			0.950		0.964	
Satd. Flow (prot)	1853	0	1770	1863	1735	0
Flt Permitted			0.950		0.964	
Satd. Flow (perm)	1853	0	1770	1863	1735	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	646			645	243	
Travel Time (s)	12.6			12.6	6.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	151	6	1	161	18	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	157	0	1	161	24	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	17.6%			ICU Level of Service A		
Analysis Period (min)	15					

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Existing AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	93	3	45	9	15	34	32	575	7	1	9	521
Future Volume (vph)	93	3	45	9	15	34	32	575	7	1	9	521
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%				0%
Storage Length (ft)	150		270	0		0	275		0		130	
Storage Lanes	1		1	1		0	1		1		1	
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Ped Bike Factor												
Frt			0.850		0.895				0.850			
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	1770	1863	1583	1770	1667	0	1770	3539	1583	0	1770	3539
Flt Permitted	0.950			0.950			0.950				0.950	
Satd. Flow (perm)	1770	1863	1583	1770	1667	0	1770	3539	1583	0	1770	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)			130		44				146			
Link Speed (mph)		35			30			55				55
Link Distance (ft)		645			222			652				603
Travel Time (s)		12.6			5.0			8.1				7.5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Adj. Flow (vph)	121	4	58	12	19	44	42	747	9	1	12	677
Shared Lane Traffic (%)												
Lane Group Flow (vph)	121	4	58	12	63	0	42	747	9	0	13	677
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			12			12				12
Link Offset(ft)		-10			20			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2	1	1	2		1	2	1	1	1	2
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Left	Thru
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	20	100
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	3	8		7	4		1	6		5	5	2
Permitted Phases			8						6			
Detector Phase	3	8	8	7	4		1	6	6	5	5	2
Switch Phase												

Synchro 11 Report

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	99
Future Volume (vph)	99
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	130
Storage Lanes	2
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	146
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.77
Growth Factor	100%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Adj. Flow (vph)	129
Shared Lane Traffic (%)	
Lane Group Flow (vph)	129
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Turn Type	Perm
Protected Phases	
Permitted Phases	2
Detector Phase	2
Switch Phase	

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Existing AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Minimum Initial (s)	6.0	8.0	8.0	6.0	8.0		6.0	8.0	8.0	6.0	6.0	8.0
Minimum Split (s)	10.6	12.6	12.6	10.6	12.6		10.6	15.5	15.5	10.6	10.6	15.5
Total Split (s)	63.0	64.8	64.8	10.8	12.6		10.6	28.8	28.8	10.6	10.6	28.8
Total Split (%)	54.8%	56.3%	56.3%	9.4%	11.0%		9.2%	25.0%	25.0%	9.2%	9.2%	25.0%
Maximum Green (s)	58.4	60.2	60.2	6.2	8.0		6.0	21.3	21.3	6.0	6.0	21.3
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6		3.6	5.5	5.5	3.6	3.6	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	2.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	7.5	7.5		4.6	7.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	2.0	4.0
Minimum Gap (s)	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	2.0	4.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None		None	Min	Min	None	None	Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	9.0	14.2	14.2	6.3	8.4		6.3	32.1	32.1		6.3	28.4
Actuated g/C Ratio	0.16	0.25	0.25	0.11	0.15		0.11	0.56	0.56		0.11	0.50
v/c Ratio	0.44	0.01	0.12	0.06	0.22		0.22	0.38	0.01		0.07	0.39
Control Delay	30.0	19.0	0.5	29.1	15.8		31.1	12.8	0.0		29.2	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	30.0	19.0	0.5	29.1	15.8		31.1	12.8	0.0		29.2	16.1
LOS	C	B	A	C	B		C	B	A		C	B
Approach Delay		20.4			17.9			13.6				14.4
Approach LOS		C			B			B				B
90th %ile Green (s)	12.0	14.0	14.0	6.0	8.0		6.0	21.3	21.3	6.0	6.0	21.3
90th %ile Term Code	Gap	Hold	Hold	Min	Max		Max	Max	Max	Max	Max	Max
70th %ile Green (s)	10.0	22.6	22.6	0.0	8.0		6.0	31.9	31.9	0.0	0.0	21.3
70th %ile Term Code	Gap	Hold	Hold	Skip	Max		Max	Hold	Hold	Skip	Skip	Max
50th %ile Green (s)	8.8	21.4	21.4	0.0	8.0		6.0	31.9	31.9	0.0	0.0	21.3
50th %ile Term Code	Gap	Hold	Hold	Skip	Max		Max	Hold	Hold	Skip	Skip	Max
30th %ile Green (s)	8.0	8.0	8.0	0.0	0.0		0.0	22.2	22.2	0.0	0.0	22.2
30th %ile Term Code	Hold	Hold	Hold	Skip	Skip		Skip	Dwell	Dwell	Skip	Skip	Dwell
10th %ile Green (s)	0.0	0.0	0.0	0.0	0.0		0.0	36.3	36.3	0.0	0.0	36.3
10th %ile Term Code	Skip	Skip	Skip	Skip	Skip		Skip	Dwell	Dwell	Skip	Skip	Dwell
Stops (vph)	77	5	0	11	23		30	336	0		12	342
Fuel Used(gal)	2	0	0	0	0		1	10	0		0	12
CO Emissions (g/hr)	110	4	15	9	26		62	707	2		25	860
NOx Emissions (g/hr)	21	1	3	2	5		12	138	0		5	167
VOC Emissions (g/hr)	26	1	3	2	6		14	164	0		6	199
Dilemma Vehicles (#)	0	0	0	0	0		0	39	0		0	38
Queue Length 50th (ft)	46	1	0	4	7		16	95	0		5	116
Queue Length 95th (ft)	77	8	0	17	31		38	162	0		17	146
Internal Link Dist (ft)		565			142			572				523
Turn Bay Length (ft)	150		270				275				130	
Base Capacity (vph)	1636	1751	1496	200	281		194	1983	951		194	1755

Synchro 11 Report

Lane Group	SBR
Minimum Initial (s)	8.0
Minimum Split (s)	15.5
Total Split (s)	28.8
Total Split (%)	25.0%
Maximum Green (s)	21.3
Yellow Time (s)	5.5
All-Red Time (s)	2.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	7.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Minimum Gap (s)	4.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	Min
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	28.4
Actuated g/C Ratio	0.50
v/c Ratio	0.15
Control Delay	3.6
Queue Delay	0.0
Total Delay	3.6
LOS	A
Approach Delay	
Approach LOS	
90th %ile Green (s)	21.3
90th %ile Term Code	Max
70th %ile Green (s)	21.3
70th %ile Term Code	Max
50th %ile Green (s)	21.3
50th %ile Term Code	Max
30th %ile Green (s)	22.2
30th %ile Term Code	Dwell
10th %ile Green (s)	36.3
10th %ile Term Code	Dwell
Stops (vph)	12
Fuel Used(gal)	1
CO Emissions (g/hr)	77
NOx Emissions (g/hr)	15
VOC Emissions (g/hr)	18
Dilemma Vehicles (#)	0
Queue Length 50th (ft)	0
Queue Length 95th (ft)	17
Internal Link Dist (ft)	
Turn Bay Length (ft)	130
Base Capacity (vph)	859

Meniffee TTM 38346 Rouse Rd
4: Meniffee Rd & Rouse Rd/Turtle Point Dr

Existing AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	0
Reduced v/c Ratio	0.07	0.00	0.04	0.06	0.22		0.22	0.38	0.01		0.07	0.39

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 57.3

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.44

Intersection Signal Delay: 14.8

Intersection LOS: B

Intersection Capacity Utilization 46.6%

ICU Level of Service A

Analysis Period (min) 15

90th %ile Actuated Cycle: 68.6

70th %ile Actuated Cycle: 66.6

50th %ile Actuated Cycle: 65.4

30th %ile Actuated Cycle: 42.3

10th %ile Actuated Cycle: 43.8

Splits and Phases: 4: Meniffee Rd & Rouse Rd/Turtle Point Dr

 Ø1	 Ø2	 Ø3	 Ø4
10.6 s	28.8 s	63 s	12.6 s
 Ø5	 Ø6	 Ø7	 Ø8
10.6 s	28.8 s	10.8 s	64.8 s



Lane Group	SBR
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.15
Intersection Summary	

Intersection						
Int Delay, s/veh	5.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	96	104	58	103	119	45
Future Vol, veh/h	96	104	58	103	119	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	120	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	133	144	81	143	165	63
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	277	0	510	205
Stage 1	-	-	-	-	205	-
Stage 2	-	-	-	-	305	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1286	-	523	836
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	748	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1286	-	490	836
Mov Cap-2 Maneuver	-	-	-	-	566	-
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	701	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.9		14.1	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	621	-	-	1286	-	
HCM Lane V/C Ratio	0.367	-	-	0.063	-	
HCM Control Delay (s)	14.1	-	-	8	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	1.7	-	-	0.2	-	

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	136	5	1	145	16	5
Future Vol, veh/h	136	5	1	145	16	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	120	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	151	6	1	161	18	6
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	157	0	317	154
Stage 1	-	-	-	-	154	-
Stage 2	-	-	-	-	163	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1423	-	676	892
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	866	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1423	-	675	892
Mov Cap-2 Maneuver	-	-	-	-	705	-
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	865	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		10	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	742	-	-	1423	-	
HCM Lane V/C Ratio	0.031	-	-	0.001	-	
HCM Control Delay (s)	10	-	-	7.5	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Existing AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	93	3	45	9	15	34	32	575	7	1	9	521
Future Volume (veh/h)	93	3	45	9	15	34	32	575	7	1	9	521
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870		1870	1870
Adj Flow Rate, veh/h	121	4	58	12	19	44	42	747	9		12	677
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77		0.77	0.77
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2		2	2
Cap, veh/h	173	400	339	33	68	157	94	1164	519		33	1042
Arrive On Green	0.10	0.21	0.21	0.02	0.14	0.14	0.05	0.33	0.33		0.02	0.29
Sat Flow, veh/h	1781	1870	1585	1781	501	1160	1781	3554	1585		1781	3554
Grp Volume(v), veh/h	121	4	58	12	0	63	42	747	9		12	677
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1661	1781	1777	1585		1781	1777
Q Serve(g_s), s	3.3	0.1	1.5	0.3	0.0	1.7	1.2	9.0	0.2		0.3	8.4
Cycle Q Clear(g_c), s	3.3	0.1	1.5	0.3	0.0	1.7	1.2	9.0	0.2		0.3	8.4
Prop In Lane	1.00		1.00	1.00		0.70	1.00		1.00		1.00	
Lane Grp Cap(c), veh/h	173	400	339	33	0	225	94	1164	519		33	1042
V/C Ratio(X)	0.70	0.01	0.17	0.37	0.00	0.28	0.45	0.64	0.02		0.37	0.65
Avail Cap(c_a), veh/h	2060	2229	1889	219	0	263	212	1499	668		212	1499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	22.1	15.6	16.2	24.5	0.0	19.6	23.2	14.5	11.5		24.5	15.6
Incr Delay (d2), s/veh	1.9	0.0	0.2	2.5	0.0	0.7	1.2	0.8	0.0		2.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.5	0.2	0.0	0.6	0.4	2.7	0.1		0.1	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.0	15.7	16.4	27.0	0.0	20.3	24.4	15.3	11.5		27.0	16.6
LnGrp LOS	C	B	B	C	A	C	C	B	B		C	B
Approach Vol, veh/h		183			75			798				818
Approach Delay, s/veh		21.4			21.4			15.7				16.3
Approach LOS		C			C			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.3	22.3	9.5	11.4	5.5	24.0	5.5	15.4				
Change Period (Y+Rc), s	4.6	7.5	4.6	4.6	4.6	7.5	4.6	4.6				
Max Green Setting (Gmax), s	6.0	21.3	58.4	8.0	6.0	21.3	6.2	60.2				
Max Q Clear Time (g_c+I1), s	3.2	10.4	5.3	3.7	2.3	11.0	2.3	3.5				
Green Ext Time (p_c), s	0.0	4.4	0.2	0.1	0.0	4.2	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			16.8									
HCM 6th LOS			B									
Notes												
User approved ignoring U-Turning movement.												

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	99
Future Volume (veh/h)	99
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	129
Peak Hour Factor	0.77
Percent Heavy Veh, %	2
Cap, veh/h	465
Arrive On Green	0.29
Sat Flow, veh/h	1585
Grp Volume(v), veh/h	129
Grp Sat Flow(s),veh/h/ln	1585
Q Serve(g_s), s	3.2
Cycle Q Clear(g_c), s	3.2
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	465
V/C Ratio(X)	0.28
Avail Cap(c_a), veh/h	668
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	13.7
Incr Delay (d2), s/veh	0.5
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	1.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	14.2
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Appendix F:

Existing Year 2022 PM Peak Hour Analysis Worksheets

Menifee TTM 38346 Rouse Rd
1: Junipero Rd & Rouse Rd

Existing PM

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	45	4	6	46	9	10
Future Volume (vph)	45	4	6	46	9	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	120		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.990				0.929	
Flt Protected			0.950		0.977	
Satd. Flow (prot)	1844	0	1770	1863	1691	0
Flt Permitted			0.950		0.977	
Satd. Flow (perm)	1844	0	1770	1863	1691	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	660			646	716	
Travel Time (s)	12.9			12.6	19.5	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	49	4	7	50	10	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	0	7	50	21	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	15.0%			ICU Level of Service A		
Analysis Period (min)	15					

Menifee TTM 38346 Rouse Rd
2: Galloping Wy & Rouse Rd

Existing PM

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗		↖	↗	↖	
Traffic Volume (vph)	47	8	8	46	6	5
Future Volume (vph)	47	8	8	46	6	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	120		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.980				0.938	
Flt Protected			0.950		0.974	
Satd. Flow (prot)	1825	0	1770	1863	1702	0
Flt Permitted			0.950		0.974	
Satd. Flow (perm)	1825	0	1770	1863	1702	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	646			645	243	
Travel Time (s)	12.6			12.6	6.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	52	9	9	51	7	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	61	0	9	51	13	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	16.6%			ICU Level of Service A		
Analysis Period (min)	15					

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Existing PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	27	5	20	12	3	11	17	369	18	3	27	429
Future Volume (vph)	27	5	20	12	3	11	17	369	18	3	27	429
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%				0%
Storage Length (ft)	150		270	0		0	275		0		130	
Storage Lanes	1		1	1		0	1		1		1	
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Ped Bike Factor												
Frt			0.850		0.880				0.850			
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	1770	1863	1583	1770	1639	0	1770	3539	1583	0	1770	3539
Flt Permitted	0.950			0.950			0.950				0.518	
Satd. Flow (perm)	1770	1863	1583	1770	1639	0	1770	3539	1583	0	965	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)			130		12				146			
Link Speed (mph)		35			30			55				55
Link Distance (ft)		645			222			652				603
Travel Time (s)		12.6			5.0			8.1				7.5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Adj. Flow (vph)	29	5	22	13	3	12	18	397	19	3	29	461
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	5	22	13	15	0	18	397	19	0	32	461
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			12			12				12
Link Offset(ft)		-10			20			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2	1	1	2		1	2	1	1	1	2
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Left	Thru
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	20	100
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	Perm	NA
Protected Phases	3	8		7	4		1	6		5		2
Permitted Phases			8						6		2	
Detector Phase	3	8	8	7	4		1	6	6	5	2	2
Switch Phase												

Synchro 11 Report

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	34
Future Volume (vph)	34
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	130
Storage Lanes	2
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	146
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.93
Growth Factor	100%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Adj. Flow (vph)	37
Shared Lane Traffic (%)	
Lane Group Flow (vph)	37
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Turn Type	Perm
Protected Phases	
Permitted Phases	2
Detector Phase	2
Switch Phase	

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Existing PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Minimum Initial (s)	6.0	8.0	8.0	6.0	8.0		6.0	8.0	8.0	6.0	8.0	8.0
Minimum Split (s)	10.6	12.6	12.6	10.6	12.6		10.6	15.5	15.5	10.6	15.5	15.5
Total Split (s)	50.0	52.0	52.0	11.3	13.3		15.1	41.1	41.1	10.6	36.6	36.6
Total Split (%)	43.5%	45.2%	45.2%	9.8%	11.6%		13.1%	35.7%	35.7%	9.2%	31.8%	31.8%
Maximum Green (s)	45.4	47.4	47.4	6.7	8.7		10.5	33.6	33.6	6.0	29.1	29.1
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6		3.6	5.5	5.5	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	7.5	7.5		7.5	7.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	4.0	4.0
Minimum Gap (s)	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	4.0	4.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None		None	Min	Min	None	Min	Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	7.0	8.7	8.7	6.4	8.6		6.5	29.8	29.8		28.5	28.5
Actuated g/C Ratio	0.18	0.23	0.23	0.17	0.23		0.17	0.78	0.78		0.75	0.75
v/c Ratio	0.09	0.01	0.05	0.04	0.04		0.06	0.14	0.01		0.04	0.17
Control Delay	18.3	17.2	0.2	19.4	12.3		19.3	4.8	0.0		9.9	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	18.3	17.2	0.2	19.4	12.3		19.3	4.8	0.0		9.9	7.3
LOS	B	B	A	B	B		B	A	A		A	A
Approach Delay		11.1			15.6			5.2				7.0
Approach LOS		B			B			A				A
90th %ile Green (s)	7.1	9.1	9.1	6.0	8.0		6.3	29.1	29.1	0.0	18.2	18.2
90th %ile Term Code	Gap	Hold	Hold	Min	Min		Gap	Hold	Hold	Skip	Gap	Gap
70th %ile Green (s)	8.0	8.0	8.0	0.0	0.0		0.0	16.2	16.2	0.0	16.2	16.2
70th %ile Term Code	Hold	Min	Min	Skip	Skip		Skip	Dwell	Dwell	Skip	Dwell	Dwell
50th %ile Green (s)	0.0	0.0	0.0	0.0	0.0		0.0	24.1	24.1	0.0	24.1	24.1
50th %ile Term Code	Skip	Skip	Skip	Skip	Skip		Skip	Dwell	Dwell	Skip	Dwell	Dwell
30th %ile Green (s)	0.0	0.0	0.0	0.0	0.0		0.0	23.0	23.0	0.0	23.0	23.0
30th %ile Term Code	Skip	Skip	Skip	Skip	Skip		Skip	Dwell	Dwell	Skip	Dwell	Dwell
10th %ile Green (s)	0.0	0.0	0.0	0.0	0.0		0.0	23.0	23.0	0.0	23.0	23.0
10th %ile Term Code	Skip	Skip	Skip	Skip	Skip		Skip	Dwell	Dwell	Skip	Dwell	Dwell
Stops (vph)	24	7	0	15	9		19	114	0		18	161
Fuel Used(gal)	0	0	0	0	0		0	4	0		1	7
CO Emissions (g/hr)	28	7	7	11	8		34	280	5		45	497
NOx Emissions (g/hr)	6	1	1	2	1		7	54	1		9	97
VOC Emissions (g/hr)	7	2	2	2	2		8	65	1		10	115
Dilemma Vehicles (#)	0	1	0	0	0		0	21	0		0	24
Queue Length 50th (ft)	4	1	0	2	0		3	0	0		0	0
Queue Length 95th (ft)	30	10	0	19	15		23	65	0		27	108
Internal Link Dist (ft)		565			142			572				523
Turn Bay Length (ft)	150		270				275				130	
Base Capacity (vph)	1680	1780	1518	334	411		524	3169	1433		792	2908

Synchro 11 Report

Lane Group	SBR
Minimum Initial (s)	8.0
Minimum Split (s)	15.5
Total Split (s)	36.6
Total Split (%)	31.8%
Maximum Green (s)	29.1
Yellow Time (s)	5.5
All-Red Time (s)	2.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	7.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Minimum Gap (s)	4.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	Min
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	28.5
Actuated g/C Ratio	0.75
v/c Ratio	0.03
Control Delay	0.1
Queue Delay	0.0
Total Delay	0.1
LOS	A
Approach Delay	
Approach LOS	
90th %ile Green (s)	18.2
90th %ile Term Code	Gap
70th %ile Green (s)	16.2
70th %ile Term Code	Dwell
50th %ile Green (s)	24.1
50th %ile Term Code	Dwell
30th %ile Green (s)	23.0
30th %ile Term Code	Dwell
10th %ile Green (s)	23.0
10th %ile Term Code	Dwell
Stops (vph)	0
Fuel Used(gal)	0
CO Emissions (g/hr)	19
NOx Emissions (g/hr)	4
VOC Emissions (g/hr)	4
Dilemma Vehicles (#)	0
Queue Length 50th (ft)	0
Queue Length 95th (ft)	0
Internal Link Dist (ft)	
Turn Bay Length (ft)	130
Base Capacity (vph)	1326

Meniffee TTM 38346 Rouse Rd
4: Meniffee Rd & Rouse Rd/Turtle Point Dr

Existing PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	0
Reduced v/c Ratio	0.02	0.00	0.01	0.04	0.04		0.03	0.13	0.01		0.04	0.16

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 38

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.17

Intersection Signal Delay: 6.7

Intersection LOS: A

Intersection Capacity Utilization 41.4%

ICU Level of Service A

Analysis Period (min) 15

90th %ile Actuated Cycle: 60.9

70th %ile Actuated Cycle: 36.3

50th %ile Actuated Cycle: 31.6

30th %ile Actuated Cycle: 30.5

10th %ile Actuated Cycle: 30.5

Splits and Phases: 4: Meniffee Rd & Rouse Rd/Turtle Point Dr

 Ø1	 Ø2	 Ø3	 Ø4
15.1 s	36.6 s	50 s	13.3 s
 Ø5	 Ø6	 Ø7	 Ø8
10.6 s	41.1 s	11.3 s	52 s



Lane Group	SBR
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.03
Intersection Summary	

Intersection						
Int Delay, s/veh	1.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	45	4	6	46	9	10
Future Vol, veh/h	45	4	6	46	9	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	120	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	4	7	50	10	11
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	53	0	115	51
Stage 1	-	-	-	-	51	-
Stage 2	-	-	-	-	64	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1553	-	881	1017
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	959	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1553	-	877	1017
Mov Cap-2 Maneuver	-	-	-	-	839	-
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	954	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.8		9	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	924	-	-	1553	-	
HCM Lane V/C Ratio	0.022	-	-	0.004	-	
HCM Control Delay (s)	9	-	-	7.3	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	47	8	8	46	6	5
Future Vol, veh/h	47	8	8	46	6	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	120	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	52	9	9	51	7	6
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	61	0	126	57
Stage 1	-	-	-	-	57	-
Stage 2	-	-	-	-	69	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1542	-	869	1009
Stage 1	-	-	-	-	966	-
Stage 2	-	-	-	-	954	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1542	-	864	1009
Mov Cap-2 Maneuver	-	-	-	-	831	-
Stage 1	-	-	-	-	966	-
Stage 2	-	-	-	-	948	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	1.1		9		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	903	-	-	1542	-	
HCM Lane V/C Ratio	0.014	-	-	0.006	-	
HCM Control Delay (s)	9	-	-	7.3	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Existing PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	27	5	20	12	3	11	17	369	18	3	27	429
Future Volume (veh/h)	27	5	20	12	3	11	17	369	18	3	27	429
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870		1870	1870
Adj Flow Rate, veh/h	29	5	22	13	3	12	18	397	19		29	461
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93		0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2		2	2
Cap, veh/h	74	214	181	36	30	122	49	1495	667		454	962
Arrive On Green	0.04	0.11	0.11	0.02	0.09	0.09	0.03	0.42	0.42		0.27	0.27
Sat Flow, veh/h	1781	1870	1585	1781	327	1308	1781	3554	1585		970	3554
Grp Volume(v), veh/h	29	5	22	13	0	15	18	397	19		29	461
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1635	1781	1777	1585		970	1777
Q Serve(g_s), s	0.6	0.1	0.5	0.3	0.0	0.3	0.4	2.7	0.3		0.8	4.1
Cycle Q Clear(g_c), s	0.6	0.1	0.5	0.3	0.0	0.3	0.4	2.7	0.3		0.8	4.1
Prop In Lane	1.00		1.00	1.00		0.80	1.00		1.00		1.00	
Lane Grp Cap(c), veh/h	74	214	181	36	0	152	49	1495	667		454	962
V/C Ratio(X)	0.39	0.02	0.12	0.36	0.00	0.10	0.37	0.27	0.03		0.06	0.48
Avail Cap(c_a), veh/h	2153	2360	2000	318	0	379	498	3179	1418		944	2753
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	17.5	14.8	14.9	18.2	0.0	15.6	17.9	7.1	6.4		10.3	11.5
Incr Delay (d2), s/veh	1.2	0.0	0.3	2.2	0.0	0.3	1.7	0.1	0.0		0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.2	0.1	0.0	0.1	0.1	0.5	0.1		0.1	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	14.8	15.2	20.4	0.0	15.9	19.7	7.2	6.4		10.4	12.0
LnGrp LOS	B	B	B	C	A	B	B	A	A		B	B
Approach Vol, veh/h		56			28			434				527
Approach Delay, s/veh		17.0			18.0			7.7				11.8
Approach LOS		B			B			A				B
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	5.6	17.7	6.2	8.1		23.3	5.4	8.9				
Change Period (Y+Rc), s	4.6	7.5	4.6	4.6		7.5	4.6	4.6				
Max Green Setting (Gmax), s	10.5	29.1	45.4	8.7		33.6	6.7	47.4				
Max Q Clear Time (g_c+I1), s	2.4	6.1	2.6	2.3		4.7	2.3	2.5				
Green Ext Time (p_c), s	0.0	4.1	0.0	0.0		3.4	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay			10.5									
HCM 6th LOS			B									
Notes												
User approved ignoring U-Turning movement.												

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	34
Future Volume (veh/h)	34
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	37
Peak Hour Factor	0.93
Percent Heavy Veh, %	2
Cap, veh/h	429
Arrive On Green	0.27
Sat Flow, veh/h	1585
Grp Volume(v), veh/h	37
Grp Sat Flow(s),veh/h/ln	1585
Q Serve(g_s), s	0.7
Cycle Q Clear(g_c), s	0.7
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	429
V/C Ratio(X)	0.09
Avail Cap(c_a), veh/h	1228
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	10.2
Incr Delay (d2), s/veh	0.1
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	0.2
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	10.3
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

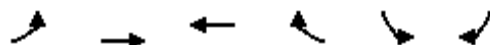
Appendix G: Existing With Project AM Peak Hour Analysis Worksheets

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	98	104	82	108	119	45
Future Volume (vph)	98	104	82	108	119	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	120		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.931				0.963	
Flt Protected			0.950		0.965	
Satd. Flow (prot)	1734	0	1770	1863	1731	0
Flt Permitted			0.950		0.965	
Satd. Flow (perm)	1734	0	1770	1863	1731	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	660			646	716	
Travel Time (s)	12.9			12.6	19.5	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	136	144	114	150	165	63
Shared Lane Traffic (%)						
Lane Group Flow (vph)	280	0	114	150	228	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	35.4%			ICU Level of Service A		
Analysis Period (min)	15					

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	138	5	1	174	16	5
Future Volume (vph)	138	5	1	174	16	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	160		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.995				0.966	
Flt Protected			0.950		0.964	
Satd. Flow (prot)	1853	0	1770	1863	1735	0
Flt Permitted			0.950		0.964	
Satd. Flow (perm)	1853	0	1770	1863	1735	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	646			162	243	
Travel Time (s)	12.6			3.2	6.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	153	6	1	193	18	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	159	0	1	193	24	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.2%			ICU Level of Service A		
Analysis Period (min)	15					

Menifee TTM 38346 Rouse Rd
3: Rouse Rd & Site Drwy

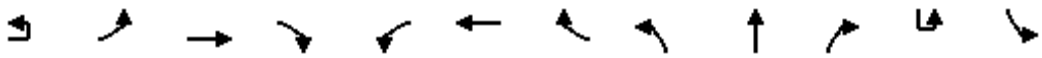
Existing+Proj AM



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑	↑		↑
Traffic Volume (vph)	0	143	146	10	0	29
Future Volume (vph)	0	143	146	10	0	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850		0.865
Flt Protected						
Satd. Flow (prot)	0	3539	1863	1583	0	1611
Flt Permitted						
Satd. Flow (perm)	0	3539	1863	1583	0	1611
Link Speed (mph)		35	35		30	
Link Distance (ft)		162	483		349	
Travel Time (s)		3.2	9.4		7.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	159	162	11	0	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	159	162	11	0	32
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 17.7% ICU Level of Service A						
Analysis Period (min) 15						

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Existing+Proj AM

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	2	93	3	45	9	15	34	40	578	7	11	9
Future Volume (vph)	2	93	3	45	9	15	34	40	578	7	11	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			0%			0%			0%			
Storage Length (ft)		250		0	0		0	400		0		180
Storage Lanes		1		1	1		0	1		1		1
Taper Length (ft)		25			25			25				25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00
Ped Bike Factor												
Frt				0.850		0.895				0.850		
Flt Protected		0.950			0.950			0.950				0.950
Satd. Flow (prot)	0	1770	1863	1583	1770	1667	0	1770	3539	1583	0	1770
Flt Permitted		0.068			0.950			0.950				0.950
Satd. Flow (perm)	0	127	1863	1583	1770	1667	0	1770	3539	1583	0	1770
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				130		44				146		
Link Speed (mph)			35			30			55			
Link Distance (ft)			483			222			652			
Travel Time (s)			9.4			5.0			8.1			
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%			0%			0%			
Adj. Flow (vph)	3	121	4	58	12	19	44	52	751	9	14	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	124	4	58	12	63	0	52	751	9	0	26
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left
Median Width(ft)			12			12			12			
Link Offset(ft)			-10			20			0			
Crosswalk Width(ft)			16			16			16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	15		9	15		9	9	15
Number of Detectors	1	1	2	1	1	2		1	2	1	1	1
Detector Template	Left	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Left
Leading Detector (ft)	20	20	100	20	20	100		20	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0		0	0	0	0	0
Turn Type	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	Prot
Protected Phases		3	8		7	4		1	6		5	5
Permitted Phases	8			8						6		
Detector Phase	8	3	8	8	7	4		1	6	6	5	5
Switch Phase												

Synchro 11 Report

Meniffee TTM 38346 Rouse Rd
4: Meniffee Rd & Rouse Rd/Turtle Point Dr

Existing+Proj AM



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	531	99
Future Volume (vph)	531	99
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		165
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	55	
Link Distance (ft)	263	
Travel Time (s)	3.3	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.77	0.77
Growth Factor	100%	100%
Heavy Vehicles (%)	2%	2%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Adj. Flow (vph)	690	129
Shared Lane Traffic (%)		
Lane Group Flow (vph)	690	129
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Detector Phase	2	2
Switch Phase		

Synchro 11 Report

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Existing+Proj AM

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Minimum Initial (s)	8.0	6.0	8.0	8.0	6.0	8.0		6.0	8.0	8.0	6.0	6.0
Minimum Split (s)	12.6	10.6	12.6	12.6	10.6	12.6		10.6	15.5	15.5	10.6	10.6
Total Split (s)	64.8	63.0	64.8	64.8	10.8	12.6		10.6	28.8	28.8	10.6	10.6
Total Split (%)	56.3%	54.8%	56.3%	56.3%	9.4%	11.0%		9.2%	25.0%	25.0%	9.2%	9.2%
Maximum Green (s)	60.2	58.4	60.2	60.2	6.2	8.0		6.0	21.3	21.3	6.0	6.0
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6		3.6	5.5	5.5	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0		1.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Lost Time (s)		4.6	4.6	4.6	4.6	4.6		4.6	7.5	7.5		4.6
Lead/Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	2.0
Minimum Gap (s)	3.0	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	2.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None		None	Min	Min	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		58.5	66.3	66.3	6.0	8.0		6.0	26.6	26.6		6.0
Actuated g/C Ratio		0.52	0.58	0.58	0.05	0.07		0.05	0.23	0.23		0.05
v/c Ratio		1.91	0.00	0.06	0.13	0.40		0.56	0.90	0.02		0.28
Control Delay		483.1	11.0	0.1	55.1	30.0		75.9	59.5	0.0		60.3
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Delay		483.1	11.0	0.1	55.1	30.0		75.9	59.5	0.0		60.3
LOS		F	B	A	E	C		E	E	A		E
Approach Delay			322.3			34.0			59.9			
Approach LOS			F			C			E			
90th %ile Green (s)	60.2	58.4	60.2	60.2	6.2	8.0		6.0	21.3	21.3	6.0	6.0
90th %ile Term Code	Hold	Max	Hold	Hold	Max	Max		Max	Max	Max	Max	Max
70th %ile Green (s)	71.0	58.4	71.0	71.0	0.0	8.0		6.0	21.3	21.3	6.0	6.0
70th %ile Term Code	Hold	Max	Hold	Hold	Skip	Max		Max	Max	Max	Max	Max
50th %ile Green (s)	71.0	58.4	71.0	71.0	0.0	8.0		6.0	21.3	21.3	6.0	6.0
50th %ile Term Code	Hold	Max	Hold	Hold	Skip	Max		Max	Max	Max	Max	Max
30th %ile Green (s)	71.0	58.4	71.0	71.0	0.0	8.0		6.0	31.9	31.9	0.0	0.0
30th %ile Term Code	Hold	Max	Hold	Hold	Skip	Max		Max	Hold	Hold	Skip	Skip
10th %ile Green (s)	58.4	58.4	58.4	58.4	0.0	0.0		0.0	36.3	36.3	0.0	0.0
10th %ile Term Code	Hold	Max	Hold	Hold	Skip	Skip		Skip	Dwell	Dwell	Skip	Skip
Stops (vph)		58	2	0	10	20		37	449	0		21
Fuel Used(gal)		10	0	0	0	0		1	18	0		1
CO Emissions (g/hr)		707	2	11	12	35		103	1239	2		49
NOx Emissions (g/hr)		138	0	2	2	7		20	241	0		10
VOC Emissions (g/hr)		164	1	3	3	8		24	287	0		11
Dilemma Vehicles (#)		0	0	0	0	0		0	21	0		0
Queue Length 50th (ft)		~142	1	0	9	14		38	~343	0		19
Queue Length 95th (ft)		#174	6	0	25	44		69	#360	0		41
Internal Link Dist (ft)			403			142			572			
Turn Bay Length (ft)		250						400				180
Base Capacity (vph)		65	1095	984	96	158		93	830	483		93

Synchro 11 Report

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Existing+Proj AM



Lane Group	SBT	SBR
Minimum Initial (s)	8.0	8.0
Minimum Split (s)	15.5	15.5
Total Split (s)	28.8	28.8
Total Split (%)	25.0%	25.0%
Maximum Green (s)	21.3	21.3
Yellow Time (s)	5.5	5.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	7.5	7.5
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	4.0	4.0
Minimum Gap (s)	4.0	4.0
Time Before Reduce (s)	0.0	0.0
Time To Reduce (s)	0.0	0.0
Recall Mode	Min	Min
Walk Time (s)		
Flash Dont Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)	24.5	24.5
Actuated g/C Ratio	0.22	0.22
v/c Ratio	0.90	0.38
Control Delay	61.3	44.4
Queue Delay	0.0	0.0
Total Delay	61.3	44.4
LOS	E	D
Approach Delay	58.7	
Approach LOS	E	
90th %ile Green (s)	21.3	21.3
90th %ile Term Code	Max	Max
70th %ile Green (s)	21.3	21.3
70th %ile Term Code	Max	Max
50th %ile Green (s)	21.3	21.3
50th %ile Term Code	Max	Max
30th %ile Green (s)	21.3	21.3
30th %ile Term Code	Max	Max
10th %ile Green (s)	36.3	36.3
10th %ile Term Code	Dwell	Dwell
Stops (vph)	443	84
Fuel Used(gal)	17	3
CO Emissions (g/hr)	1166	195
NOx Emissions (g/hr)	227	38
VOC Emissions (g/hr)	270	45
Dilemma Vehicles (#)	21	0
Queue Length 50th (ft)	~294	86
Queue Length 95th (ft)	#316	124
Internal Link Dist (ft)	183	
Turn Bay Length (ft)		165
Base Capacity (vph)	764	342

Synchro 11 Report

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Existing+Proj AM

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Starvation Cap Reductn		0	0	0	0	0		0	0	0		0
Spillback Cap Reductn		0	0	0	0	0		0	0	0		0
Storage Cap Reductn		0	0	0	0	0		0	0	0		0
Reduced v/c Ratio		1.91	0.00	0.06	0.13	0.40		0.56	0.90	0.02		0.28

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 113.4

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.91

Intersection Signal Delay: 83.8

Intersection LOS: F

Intersection Capacity Utilization 46.8%

ICU Level of Service A

Analysis Period (min) 15

90th %ile Actuated Cycle: 115

70th %ile Actuated Cycle: 115

50th %ile Actuated Cycle: 115

30th %ile Actuated Cycle: 115

10th %ile Actuated Cycle: 106.8

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 4: Menifee Rd & Rouse Rd/Turtle Point Dr

 Ø1	 Ø2	 Ø3	 Ø4
10.6 s	28.8 s	63 s	12.6 s
 Ø5	 Ø6	 Ø7	 Ø8
10.6 s	28.8 s	10.8 s	64.8 s



Lane Group	SBT	SBR
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.90	0.38
Intersection Summary		

Menifee TTM 38346 Rouse Rd
5: Menifee Rd & Site Drwy

Existing+Proj AM

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	20	3	713	630	3
Future Volume (vph)	0	20	3	713	630	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	200			100
Storage Lanes	0	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Ped Bike Factor						
Frt		0.865				0.850
Flt Protected			0.950			
Satd. Flow (prot)	0	1611	1770	1863	3539	1583
Flt Permitted			0.950			
Satd. Flow (perm)	0	1611	1770	1863	3539	1583
Link Speed (mph)	30			55	55	
Link Distance (ft)	369			279	241	
Travel Time (s)	8.4			3.5	3.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	22	3	792	700	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	22	3	792	700	3
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	40.9%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection

Int Delay, s/veh 5.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	98	104	82	108	119	45
Future Vol, veh/h	98	104	82	108	119	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	120	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	136	144	114	150	165	63

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	280
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1283
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1283
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.5	15.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	575	-	-	1283	-
HCM Lane V/C Ratio	0.396	-	-	0.089	-
HCM Control Delay (s)	15.3	-	-	8.1	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	1.9	-	-	0.3	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	138	5	1	174	16	5
Future Vol, veh/h	138	5	1	174	16	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	160	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	153	6	1	193	18	6
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	159	0	351	156
Stage 1	-	-	-	-	156	-
Stage 2	-	-	-	-	195	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1420	-	646	890
Stage 1	-	-	-	-	872	-
Stage 2	-	-	-	-	838	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1420	-	645	890
Mov Cap-2 Maneuver	-	-	-	-	684	-
Stage 1	-	-	-	-	872	-
Stage 2	-	-	-	-	837	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		10.1	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	724	-	-	1420	-	
HCM Lane V/C Ratio	0.032	-	-	0.001	-	
HCM Control Delay (s)	10.1	-	-	7.5	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑	↗		↗
Traffic Vol, veh/h	0	143	146	10	0	29
Future Vol, veh/h	0	143	146	10	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	159	162	11	0	32
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	162
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.319
Pot Cap-1 Maneuver	0	-	-	-	0	882
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	882
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		9.2		
HCM LOS	A					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	882		
HCM Lane V/C Ratio	-	-	-	0.037		
HCM Control Delay (s)	-	-	-	9.2		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	0.1		

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Existing+Proj AM

												
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (veh/h)	2	93	3	45	9	15	34	40	578	7	11	9
Future Volume (veh/h)	2	93	3	45	9	15	34	40	578	7	11	9
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0		0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00	1.00		1.00		1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
Work Zone On Approach		No				No			No			
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870	1870	1870	1870		1870
Adj Flow Rate, veh/h		121	4	58	12	19	44	52	751	9		12
Peak Hour Factor		0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77		0.77
Percent Heavy Veh, %		2	2	2	2	2	2	2	2	2		2
Cap, veh/h		171	395	335	33	67	155	109	1198	535		33
Arrive On Green		0.10	0.21	0.21	0.02	0.13	0.13	0.06	0.34	0.34		0.02
Sat Flow, veh/h		1781	1870	1585	1781	501	1160	1781	3554	1585		1781
Grp Volume(v), veh/h		121	4	58	12	0	63	52	751	9		12
Grp Sat Flow(s),veh/h/ln		1781	1870	1585	1781	0	1661	1781	1777	1585		1781
Q Serve(g_s), s		3.4	0.1	1.5	0.3	0.0	1.8	1.5	9.1	0.2		0.3
Cycle Q Clear(g_c), s		3.4	0.1	1.5	0.3	0.0	1.8	1.5	9.1	0.2		0.3
Prop In Lane		1.00		1.00	1.00		0.70	1.00		1.00		1.00
Lane Grp Cap(c), veh/h		171	395	335	33	0	222	109	1198	535		33
V/C Ratio(X)		0.71	0.01	0.17	0.37	0.00	0.28	0.48	0.63	0.02		0.37
Avail Cap(c_a), veh/h		2025	2192	1858	215	0	259	208	1474	657		208
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00		1.00
Uniform Delay (d), s/veh		22.5	16.0	16.6	24.9	0.0	20.0	23.3	14.3	11.3		24.9
Incr Delay (d2), s/veh		2.0	0.0	0.2	2.5	0.0	0.7	1.2	0.8	0.0		2.5
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
%ile BackOfQ(50%),veh/ln		1.4	0.0	0.5	0.2	0.0	0.7	0.5	2.7	0.1		0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		24.5	16.0	16.8	27.4	0.0	20.7	24.5	15.1	11.4		27.4
LnGrp LOS		C	B	B	C	A	C	C	B	B		C
Approach Vol, veh/h			183			75			812			
Approach Delay, s/veh			21.9			21.8			15.7			
Approach LOS			C			C			B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	22.6	9.5	11.5	5.5	24.8	5.5	15.5				
Change Period (Y+Rc), s	4.6	7.5	4.6	4.6	4.6	7.5	4.6	4.6				
Max Green Setting (Gmax), s	6.0	21.3	58.4	8.0	6.0	21.3	6.2	60.2				
Max Q Clear Time (g_c+I1), s	3.5	10.7	5.4	3.8	2.3	11.1	2.3	3.5				
Green Ext Time (p_c), s	0.0	4.4	0.2	0.1	0.0	4.2	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			16.9									
HCM 6th LOS			B									
Notes												
User approved ignoring U-Turning movement.												

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Existing+Proj AM



Movement	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (veh/h)	531	99
Future Volume (veh/h)	531	99
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1870
Adj Flow Rate, veh/h	690	129
Peak Hour Factor	0.77	0.77
Percent Heavy Veh, %	2	2
Cap, veh/h	1046	467
Arrive On Green	0.29	0.29
Sat Flow, veh/h	3554	1585
Grp Volume(v), veh/h	690	129
Grp Sat Flow(s),veh/h/ln	1777	1585
Q Serve(g_s), s	8.7	3.2
Cycle Q Clear(g_c), s	8.7	3.2
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	1046	467
V/C Ratio(X)	0.66	0.28
Avail Cap(c_a), veh/h	1474	657
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	15.9	13.9
Incr Delay (d2), s/veh	1.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	1.0
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	16.9	14.4
LnGrp LOS	B	B
Approach Vol, veh/h	831	
Approach Delay, s/veh	16.6	
Approach LOS	B	
Timer - Assigned Phs		

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗	↖	↑	↗↖	↗
Traffic Vol, veh/h	0	20	3	713	630	3
Future Vol, veh/h	0	20	3	713	630	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	22	3	792	700	3
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	350	703	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.93	4.13	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	0	647	892	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	647	892	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.8	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	892	-	647	-	-	
HCM Lane V/C Ratio	0.004	-	0.034	-	-	
HCM Control Delay (s)	9.1	-	10.8	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Appendix H: Existing With Project PM Peak Hour Analysis Worksheets

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	50	4	22	49	9	10
Future Volume (vph)	50	4	22	49	9	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	120		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.991				0.929	
Flt Protected			0.950		0.977	
Satd. Flow (prot)	1846	0	1770	1863	1691	0
Flt Permitted			0.950		0.977	
Satd. Flow (perm)	1846	0	1770	1863	1691	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	660			646	716	
Travel Time (s)	12.9			12.6	19.5	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	54	4	24	53	10	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	58	0	24	53	21	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	17.9%			ICU Level of Service A		
Analysis Period (min)	15					

Menifee TTM 38346 Rouse Rd
2: Galloping Wy & Rouse Rd

Existing+Proj PM

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	52	8	8	65	6	5
Future Volume (vph)	52	8	8	65	6	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	160		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.982				0.938	
Flt Protected			0.950		0.974	
Satd. Flow (prot)	1829	0	1770	1863	1702	0
Flt Permitted			0.950		0.974	
Satd. Flow (perm)	1829	0	1770	1863	1702	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	646			162	243	
Travel Time (s)	12.6			3.2	6.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	58	9	9	72	7	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	67	0	9	72	13	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 16.6%						
ICU Level of Service A						
Analysis Period (min) 15						

Menifee TTM 38346 Rouse Rd
3: Rouse Rd & Site Drwy

Existing+Proj PM



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑	↗		↗
Traffic Volume (vph)	0	57	54	32	0	19
Future Volume (vph)	0	57	54	32	0	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850		0.865
Flt Protected						
Satd. Flow (prot)	0	3539	1863	1583	0	1611
Flt Permitted						
Satd. Flow (perm)	0	3539	1863	1583	0	1611
Link Speed (mph)		35	35		30	
Link Distance (ft)		162	483		349	
Travel Time (s)		3.2	9.4		7.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	63	60	36	0	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	63	60	36	0	21
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 13.3%						
ICU Level of Service A						
Analysis Period (min) 15						

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Existing+Proj PM

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	5	27	5	20	12	3	11	44	379	18	9	27
Future Volume (vph)	5	27	5	20	12	3	11	44	379	18	9	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			0%			0%			0%			
Storage Length (ft)		250		0	0		0	400		0		180
Storage Lanes		1		1	1		0	1		1		1
Taper Length (ft)		25			25			25				25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00
Ped Bike Factor												
Frt				0.850		0.880				0.850		
Flt Protected		0.950			0.950			0.950				0.950
Satd. Flow (prot)	0	1770	1863	1583	1770	1639	0	1770	3539	1583	0	1770
Flt Permitted		0.408			0.950			0.950				0.512
Satd. Flow (perm)	0	760	1863	1583	1770	1639	0	1770	3539	1583	0	954
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				130		12				146		
Link Speed (mph)			35			30			55			
Link Distance (ft)			483			222			652			
Travel Time (s)			9.4			5.0			8.1			
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%			0%			0%			
Adj. Flow (vph)	5	29	5	22	13	3	12	47	408	19	10	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	34	5	22	13	15	0	47	408	19	0	39
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left
Median Width(ft)			12			12			12			
Link Offset(ft)			-10			20			0			
Crosswalk Width(ft)			16			16			16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	15		9	15		9	9	15
Number of Detectors	1	1	2	1	1	2		1	2	1	1	1
Detector Template	Left	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Left
Leading Detector (ft)	20	20	100	20	20	100		20	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0		0	0	0	0	0
Turn Type	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	Perm
Protected Phases		3	8		7	4		1	6		5	
Permitted Phases	8			8						6		2
Detector Phase	8	3	8	8	7	4		1	6	6	5	2
Switch Phase												

Synchro 11 Report

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Existing+Proj PM



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	435	34
Future Volume (vph)	435	34
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		165
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	55	
Link Distance (ft)	263	
Travel Time (s)	3.3	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.93	0.93
Growth Factor	100%	100%
Heavy Vehicles (%)	2%	2%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Adj. Flow (vph)	468	37
Shared Lane Traffic (%)		
Lane Group Flow (vph)	468	37
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Detector Phase	2	2
Switch Phase		

Synchro 11 Report

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Existing+Proj PM

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Minimum Initial (s)	8.0	6.0	8.0	8.0	6.0	8.0		6.0	8.0	8.0	6.0	8.0
Minimum Split (s)	12.6	10.6	12.6	12.6	10.6	12.6		10.6	15.5	15.5	10.6	15.5
Total Split (s)	52.0	50.0	52.0	52.0	11.3	13.3		15.1	41.1	41.1	10.6	36.6
Total Split (%)	45.2%	43.5%	45.2%	45.2%	9.8%	11.6%		13.1%	35.7%	35.7%	9.2%	31.8%
Maximum Green (s)	47.4	45.4	47.4	47.4	6.7	8.7		10.5	33.6	33.6	6.0	29.1
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6		3.6	5.5	5.5	3.6	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0		1.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Lost Time (s)		4.6	4.6	4.6	4.6	4.6		4.6	7.5	7.5		7.5
Lead/Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	4.0
Minimum Gap (s)	3.0	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	4.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None		None	Min	Min	None	Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		23.0	18.7	18.7	8.1	10.7		8.9	44.3	44.3		34.8
Actuated g/C Ratio		0.39	0.32	0.32	0.14	0.18		0.15	0.76	0.76		0.60
v/c Ratio		0.11	0.01	0.04	0.05	0.05		0.18	0.15	0.02		0.07
Control Delay		16.1	16.2	0.1	39.8	24.8		36.2	11.7	0.0		24.4
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Delay		16.1	16.2	0.1	39.8	24.8		36.2	11.7	0.0		24.4
LOS		B	B	A	D	C		D	B	A		C
Approach Delay			10.4			31.8			13.7			
Approach LOS			B			C			B			
90th %ile Green (s)	46.7	45.4	46.7	46.7	6.7	8.0		10.4	42.2	42.2	0.0	27.2
90th %ile Term Code	Hold	Max	Hold	Hold	Max	Min		Gap	Hold	Hold	Skip	Gap
70th %ile Green (s)	36.2	36.2	36.2	36.2	0.0	0.0		8.2	34.5	34.5	0.0	21.7
70th %ile Term Code	Hold	Gap	Hold	Hold	Skip	Skip		Gap	Hold	Hold	Skip	Gap
50th %ile Green (s)	0.0	0.0	0.0	0.0	0.0	0.0		6.3	27.3	27.3	0.0	16.4
50th %ile Term Code	Skip	Skip	Skip	Skip	Skip	Skip		Gap	Dwell	Dwell	Skip	Dwell
30th %ile Green (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	24.1	24.1	0.0	24.1
30th %ile Term Code	Skip	Skip	Skip	Skip	Skip	Skip		Skip	Dwell	Dwell	Skip	Dwell
10th %ile Green (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	23.0	23.0	0.0	23.0
10th %ile Term Code	Skip	Skip	Skip	Skip	Skip	Skip		Skip	Dwell	Dwell	Skip	Dwell
Stops (vph)		19	4	0	13	8		37	130	0		24
Fuel Used(gal)		0	0	0	0	0		1	5	0		1
CO Emissions (g/hr)		25	4	5	13	10		83	342	5		52
NOx Emissions (g/hr)		5	1	1	3	2		16	66	1		10
VOC Emissions (g/hr)		6	1	1	3	2		19	79	1		12
Dilemma Vehicles (#)		0	0	0	0	0		0	9	0		0
Queue Length 50th (ft)		2	1	0	2	1		8	0	0		4
Queue Length 95th (ft)		37	10	0	30	24		71	147	0		53
Internal Link Dist (ft)			403			142			572			
Turn Bay Length (ft)		250						400				180
Base Capacity (vph)		601	1488	1291	270	335		424	2659	1226		633

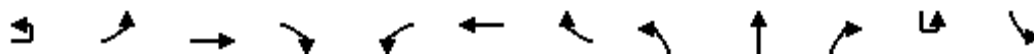
Synchro 11 Report



Lane Group	SBT	SBR
Minimum Initial (s)	8.0	8.0
Minimum Split (s)	15.5	15.5
Total Split (s)	36.6	36.6
Total Split (%)	31.8%	31.8%
Maximum Green (s)	29.1	29.1
Yellow Time (s)	5.5	5.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	7.5	7.5
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	4.0	4.0
Minimum Gap (s)	4.0	4.0
Time Before Reduce (s)	0.0	0.0
Time To Reduce (s)	0.0	0.0
Recall Mode	Min	Min
Walk Time (s)		
Flash Dont Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)	34.8	34.8
Actuated g/C Ratio	0.60	0.60
v/c Ratio	0.22	0.04
Control Delay	19.1	23.5
Queue Delay	0.0	0.0
Total Delay	19.1	23.5
LOS	B	C
Approach Delay	19.8	
Approach LOS	B	
90th %ile Green (s)	27.2	27.2
90th %ile Term Code	Gap	Gap
70th %ile Green (s)	21.7	21.7
70th %ile Term Code	Gap	Gap
50th %ile Green (s)	16.4	16.4
50th %ile Term Code	Dwell	Dwell
30th %ile Green (s)	24.1	24.1
30th %ile Term Code	Dwell	Dwell
10th %ile Green (s)	23.0	23.0
10th %ile Term Code	Dwell	Dwell
Stops (vph)	231	21
Fuel Used(gal)	7	1
CO Emissions (g/hr)	523	47
NOx Emissions (g/hr)	102	9
VOC Emissions (g/hr)	121	11
Dilemma Vehicles (#)	24	0
Queue Length 50th (ft)	24	3
Queue Length 95th (ft)	210	49
Internal Link Dist (ft)	183	
Turn Bay Length (ft)		165
Base Capacity (vph)	2351	1051

Meniffee TTM 38346 Rouse Rd
4: Meniffee Rd & Rouse Rd/Turtle Point Dr

Existing+Proj PM



Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Starvation Cap Reductn		0	0	0	0	0		0	0	0		0
Spillback Cap Reductn		0	0	0	0	0		0	0	0		0
Storage Cap Reductn		0	0	0	0	0		0	0	0		0
Reduced v/c Ratio		0.06	0.00	0.02	0.05	0.04		0.11	0.15	0.02		0.06

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 58.4

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.22

Intersection Signal Delay: 17.0

Intersection LOS: B

Intersection Capacity Utilization 41.9%

ICU Level of Service A

Analysis Period (min) 15

90th %ile Actuated Cycle: 112.3

70th %ile Actuated Cycle: 82.8

50th %ile Actuated Cycle: 34.8

30th %ile Actuated Cycle: 31.6

10th %ile Actuated Cycle: 30.5

Splits and Phases: 4: Meniffee Rd & Rouse Rd/Turtle Point Dr

 Ø1	 Ø2	 Ø3	 Ø4
15.1 s	36.6 s	50 s	13.3 s
 Ø5	 Ø6	 Ø7	 Ø8
10.6 s	41.1 s	11.3 s	52 s



Lane Group	SBT	SBR
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.20	0.04
Intersection Summary		

Menifee TTM 38346 Rouse Rd
5: Menifee Rd & Site Drwy

Existing+Proj PM

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	12	10	416	493	10
Future Volume (vph)	0	12	10	416	493	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	200			100
Storage Lanes	0	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Ped Bike Factor						
Frt		0.865				0.850
Flt Protected			0.950			
Satd. Flow (prot)	0	1611	1770	1863	3539	1583
Flt Permitted			0.950			
Satd. Flow (perm)	0	1611	1770	1863	3539	1583
Link Speed (mph)	30			55	55	
Link Distance (ft)	369			279	241	
Travel Time (s)	8.4			3.5	3.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	13	11	462	548	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	13	11	462	548	11
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	25.2%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection

Int Delay, s/veh 2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	50	4	22	49	9	10
Future Vol, veh/h	50	4	22	49	9	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	120	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	4	24	53	10	11

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	58
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1546
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1546
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	898	-	-	1546	-
HCM Lane V/C Ratio	0.023	-	-	0.015	-
HCM Control Delay (s)	9.1	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection

Int Delay, s/veh 1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	52	8	8	65	6	5
Future Vol, veh/h	52	8	8	65	6	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	160	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	9	9	72	7	6

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	67
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1535
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1535
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	887	-	-	1535	-
HCM Lane V/C Ratio	0.014	-	-	0.006	-
HCM Control Delay (s)	9.1	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑	↗		↗
Traffic Vol, veh/h	0	57	54	32	0	19
Future Vol, veh/h	0	57	54	32	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	63	60	36	0	21
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	60
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.319
Pot Cap-1 Maneuver	0	-	-	-	0	1005
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	1005
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		8.7		
HCM LOS	A					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	1005		
HCM Lane V/C Ratio	-	-	-	0.021		
HCM Control Delay (s)	-	-	-	8.7		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	0.1		

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Existing+Proj PM

												
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (veh/h)	5	27	5	20	12	3	11	44	379	18	9	27
Future Volume (veh/h)	5	27	5	20	12	3	11	44	379	18	9	27
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0		0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00	1.00		1.00		1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
Work Zone On Approach		No				No			No			
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870	1870	1870	1870		1870
Adj Flow Rate, veh/h		29	5	22	13	3	12	47	408	19		29
Peak Hour Factor		0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93		0.93
Percent Heavy Veh, %		2	2	2	2	2	2	2	2	2		2
Cap, veh/h		74	211	179	36	30	120	109	1579	704		438
Arrive On Green		0.04	0.11	0.11	0.02	0.09	0.09	0.06	0.44	0.44		0.27
Sat Flow, veh/h		1781	1870	1585	1781	327	1308	1781	3554	1585		961
Grp Volume(v), veh/h		29	5	22	13	0	15	47	408	19		29
Grp Sat Flow(s),veh/h/ln		1781	1870	1585	1781	0	1635	1781	1777	1585		961
Q Serve(g_s), s		0.6	0.1	0.5	0.3	0.0	0.3	1.0	2.8	0.3		0.9
Cycle Q Clear(g_c), s		0.6	0.1	0.5	0.3	0.0	0.3	1.0	2.8	0.3		0.9
Prop In Lane		1.00		1.00	1.00		0.80	1.00		1.00		1.00
Lane Grp Cap(c), veh/h		74	211	179	36	0	150	109	1579	704		438
V/C Ratio(X)		0.39	0.02	0.12	0.36	0.00	0.10	0.43	0.26	0.03		0.07
Avail Cap(c_a), veh/h		2047	2244	1901	302	0	360	473	3022	1348		890
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00		1.00
Uniform Delay (d), s/veh		18.5	15.6	15.8	19.1	0.0	16.4	17.9	6.9	6.2		11.0
Incr Delay (d2), s/veh		1.3	0.0	0.3	2.3	0.0	0.3	1.0	0.1	0.0		0.1
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
%ile BackOfQ(50%),veh/ln		0.2	0.0	0.2	0.1	0.0	0.1	0.3	0.5	0.1		0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		19.7	15.6	16.1	21.4	0.0	16.7	18.9	7.0	6.2		11.0
LnGrp LOS		B	B	B	C	A	B	B	A	A		B
Approach Vol, veh/h			56			28			474			
Approach Delay, s/veh			17.9			18.9			8.2			
Approach LOS			B			B			A			
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	7.0	18.0	6.2	8.2		25.1	5.4	9.1				
Change Period (Y+Rc), s	4.6	7.5	4.6	4.6		7.5	4.6	4.6				
Max Green Setting (Gmax), s	10.5	29.1	45.4	8.7		33.6	6.7	47.4				
Max Q Clear Time (g_c+I1), s	3.0	6.4	2.6	2.3		4.8	2.3	2.5				
Green Ext Time (p_c), s	0.0	4.1	0.0	0.0		3.5	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay			11.1									
HCM 6th LOS			B									
Notes												
User approved ignoring U-Turning movement.												

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Existing+Proj PM



Movement	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (veh/h)	435	34
Future Volume (veh/h)	435	34
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1870
Adj Flow Rate, veh/h	468	37
Peak Hour Factor	0.93	0.93
Percent Heavy Veh, %	2	2
Cap, veh/h	947	423
Arrive On Green	0.27	0.27
Sat Flow, veh/h	3554	1585
Grp Volume(v), veh/h	468	37
Grp Sat Flow(s),veh/h/ln	1777	1585
Q Serve(g_s), s	4.4	0.7
Cycle Q Clear(g_c), s	4.4	0.7
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	947	423
V/C Ratio(X)	0.49	0.09
Avail Cap(c_a), veh/h	2617	1167
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	12.2	10.9
Incr Delay (d2), s/veh	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.2
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	12.8	11.0
LnGrp LOS	B	B
Approach Vol, veh/h	534	
Approach Delay, s/veh	12.6	
Approach LOS	B	
Timer - Assigned Phs		

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	12	10	416	493	10
Future Vol, veh/h	0	12	10	416	493	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	13	11	462	548	11
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	274	559	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.93	4.13	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	0	724	1010	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	724	1010	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.1	0.2		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1010	-	724	-	-	
HCM Lane V/C Ratio	0.011	-	0.018	-	-	
HCM Control Delay (s)	8.6	-	10.1	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Appendix I:

Opening Year 2024 AM Peak Hour Analysis Worksheets

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	385	108	83	247	124	117
Future Volume (vph)	385	108	83	247	124	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	120		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.970				0.934	
Flt Protected			0.950		0.975	
Satd. Flow (prot)	1807	0	1770	1863	1696	0
Flt Permitted			0.950		0.975	
Satd. Flow (perm)	1807	0	1770	1863	1696	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	660			646	716	
Travel Time (s)	12.9			12.6	19.5	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	535	150	115	343	172	163
Shared Lane Traffic (%)						
Lane Group Flow (vph)	685	0	115	343	335	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	55.5%			ICU Level of Service B		
Analysis Period (min)	15					

Menifee TTM 38346 Rouse Rd
2: Galloping Wy & Rouse Rd

Opening AM

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	497	5	1	313	17	5
Future Volume (vph)	497	5	1	313	17	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	120		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.999				0.968	
Flt Protected			0.950		0.963	
Satd. Flow (prot)	1861	0	1770	1863	1736	0
Flt Permitted			0.950		0.963	
Satd. Flow (perm)	1861	0	1770	1863	1736	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	646			645	243	
Travel Time (s)	12.6			12.6	6.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	552	6	1	348	19	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	558	0	1	348	25	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	36.5%			ICU Level of Service A		
Analysis Period (min)	15					

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	267	3	232	9	16	35	128	832	7	1	9	1071
Future Volume (vph)	267	3	232	9	16	35	128	832	7	1	9	1071
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%				0%
Storage Length (ft)	150		270	0		0	275		0		130	
Storage Lanes	1		1	1		0	1		1		1	
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Ped Bike Factor												
Frt			0.850		0.898				0.850			
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	1770	1863	1583	1770	1673	0	1770	3539	1583	0	1770	3539
Flt Permitted	0.950			0.950			0.950				0.950	
Satd. Flow (perm)	1770	1863	1583	1770	1673	0	1770	3539	1583	0	1770	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)			301		45				146			
Link Speed (mph)		35			30			55				55
Link Distance (ft)		645			222			652				603
Travel Time (s)		12.6			5.0			8.1				7.5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Adj. Flow (vph)	347	4	301	12	21	45	166	1081	9	1	12	1391
Shared Lane Traffic (%)												
Lane Group Flow (vph)	347	4	301	12	66	0	166	1081	9	0	13	1391
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			12			12				12
Link Offset(ft)		-10			20			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2	1	1	2		1	2	1	1	1	2
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Left	Thru
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	20	100
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	3	8		7	4		1	6		5	5	2
Permitted Phases			8						6			
Detector Phase	3	8	8	7	4		1	6	6	5	5	2
Switch Phase												

Synchro 11 Report

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	170
Future Volume (vph)	170
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	130
Storage Lanes	2
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	146
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.77
Growth Factor	100%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Adj. Flow (vph)	221
Shared Lane Traffic (%)	
Lane Group Flow (vph)	221
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Turn Type	Perm
Protected Phases	
Permitted Phases	2
Detector Phase	2
Switch Phase	

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Minimum Initial (s)	6.0	8.0	8.0	6.0	8.0		6.0	8.0	8.0	6.0	6.0	8.0
Minimum Split (s)	10.6	12.6	12.6	10.6	12.6		10.6	15.5	15.5	10.6	10.6	15.5
Total Split (s)	46.4	31.0	31.0	28.0	12.6		15.0	45.4	45.4	10.6	10.6	41.0
Total Split (%)	40.3%	27.0%	27.0%	24.3%	11.0%		13.0%	39.5%	39.5%	9.2%	9.2%	35.7%
Maximum Green (s)	41.8	26.4	26.4	23.4	8.0		10.4	37.9	37.9	6.0	6.0	33.5
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6		3.6	5.5	5.5	3.6	3.6	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	2.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	7.5	7.5		4.6	7.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	2.0	4.0
Minimum Gap (s)	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	2.0	4.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None		None	Min	Min	None	None	Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	22.5	30.1	30.1	6.2	8.1		10.6	47.4	47.4		6.1	34.0
Actuated g/C Ratio	0.24	0.32	0.32	0.07	0.09		0.11	0.51	0.51		0.07	0.36
v/c Ratio	0.82	0.01	0.42	0.10	0.35		0.83	0.60	0.01		0.11	1.08
Control Delay	49.8	22.0	4.9	47.6	26.3		76.9	21.5	0.0		48.1	81.9
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	49.8	22.0	4.9	47.6	26.3		76.9	21.5	0.0		48.1	81.9
LOS	D	C	A	D	C		E	C	A		D	F
Approach Delay		28.9			29.5			28.7				72.0
Approach LOS		C			C			C				E
90th %ile Green (s)	32.7	34.1	34.1	6.6	8.0		10.4	37.9	37.9	6.0	6.0	33.5
90th %ile Term Code	Gap	Hold	Hold	Gap	Max		Max	Max	Max	Max	Max	Max
70th %ile Green (s)	26.7	39.3	39.3	0.0	8.0		10.4	48.5	48.5	0.0	0.0	33.5
70th %ile Term Code	Gap	Hold	Hold	Skip	Max		Max	Hold	Hold	Skip	Skip	Max
50th %ile Green (s)	22.9	35.5	35.5	0.0	8.0		10.4	48.5	48.5	0.0	0.0	33.5
50th %ile Term Code	Gap	Hold	Hold	Skip	Max		Max	Hold	Hold	Skip	Skip	Max
30th %ile Green (s)	19.4	32.0	32.0	0.0	8.0		10.4	48.5	48.5	0.0	0.0	33.5
30th %ile Term Code	Gap	Hold	Hold	Skip	Max		Max	Hold	Hold	Skip	Skip	Max
10th %ile Green (s)	13.1	13.1	13.1	0.0	0.0		10.4	48.5	48.5	0.0	0.0	33.5
10th %ile Term Code	Gap	Hold	Hold	Skip	Skip		Max	Hold	Hold	Skip	Skip	Max
Stops (vph)	240	2	22	10	22		106	570	0		10	851
Fuel Used(gal)	6	0	1	0	0		5	18	0		0	42
CO Emissions (g/hr)	402	3	103	11	34		315	1235	2		26	2962
NOx Emissions (g/hr)	78	1	20	2	7		61	240	0		5	576
VOC Emissions (g/hr)	93	1	24	3	8		73	286	0		6	686
Dilemma Vehicles (#)	0	0	0	0	0		0	39	0		0	49
Queue Length 50th (ft)	202	2	0	7	12		101	236	0		8	~521
Queue Length 95th (ft)	245	8	28	23	44		#193	350	0		25	#586
Internal Link Dist (ft)		565			142			572				523
Turn Bay Length (ft)	150		270				275				130	
Base Capacity (vph)	802	666	759	449	186		199	1790	873		115	1285

Synchro 11 Report



Lane Group	SBR
Minimum Initial (s)	8.0
Minimum Split (s)	15.5
Total Split (s)	41.0
Total Split (%)	35.7%
Maximum Green (s)	33.5
Yellow Time (s)	5.5
All-Red Time (s)	2.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	7.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Minimum Gap (s)	4.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	Min
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	34.0
Actuated g/C Ratio	0.36
v/c Ratio	0.33
Control Delay	10.9
Queue Delay	0.0
Total Delay	10.9
LOS	B
Approach Delay	
Approach LOS	
90th %ile Green (s)	33.5
90th %ile Term Code	Max
70th %ile Green (s)	33.5
70th %ile Term Code	Max
50th %ile Green (s)	33.5
50th %ile Term Code	Max
30th %ile Green (s)	33.5
30th %ile Term Code	Max
10th %ile Green (s)	33.5
10th %ile Term Code	Max
Stops (vph)	47
Fuel Used(gal)	3
CO Emissions (g/hr)	184
NOx Emissions (g/hr)	36
VOC Emissions (g/hr)	43
Dilemma Vehicles (#)	0
Queue Length 50th (ft)	31
Queue Length 95th (ft)	68
Internal Link Dist (ft)	
Turn Bay Length (ft)	130
Base Capacity (vph)	667

Meniffee TTM 38346 Rouse Rd
4: Meniffee Rd & Rouse Rd/Turtle Point Dr

Opening AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	0
Reduced v/c Ratio	0.43	0.01	0.40	0.03	0.35		0.83	0.60	0.01		0.11	1.08

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 93.6

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 48.2

Intersection LOS: D

Intersection Capacity Utilization 72.1%

ICU Level of Service C

Analysis Period (min) 15

90th %ile Actuated Cycle: 105.9

70th %ile Actuated Cycle: 99.9

50th %ile Actuated Cycle: 96.1

30th %ile Actuated Cycle: 92.6

10th %ile Actuated Cycle: 73.7

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 4: Meniffee Rd & Rouse Rd/Turtle Point Dr

 Ø1	 Ø2	 Ø3	 Ø4
15 s	41 s	46.4 s	12.6 s
 Ø5	 Ø6	 Ø7	 Ø8
10.6 s	45.4 s	28 s	31 s



Lane Group	SBR
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.33
Intersection Summary	

Intersection

Int Delay, s/veh 12.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	385	108	83	247	124	117
Future Vol, veh/h	385	108	83	247	124	117
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	120	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	535	150	115	343	172	163

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	685
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	908
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	908
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	52.2
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	385	-	-	908	-
HCM Lane V/C Ratio	0.869	-	-	0.127	-
HCM Control Delay (s)	52.2	-	-	9.5	-
HCM Lane LOS	F	-	-	A	-
HCM 95th %tile Q(veh)	8.5	-	-	0.4	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	497	5	1	313	17	5
Future Vol, veh/h	497	5	1	313	17	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	120	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	552	6	1	348	19	6
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	558	0	905	555
Stage 1	-	-	-	-	555	-
Stage 2	-	-	-	-	350	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1013	-	307	531
Stage 1	-	-	-	-	575	-
Stage 2	-	-	-	-	713	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1013	-	307	531
Mov Cap-2 Maneuver	-	-	-	-	427	-
Stage 1	-	-	-	-	575	-
Stage 2	-	-	-	-	712	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		13.5	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	447	-	-	1013	-	
HCM Lane V/C Ratio	0.055	-	-	0.001	-	
HCM Control Delay (s)	13.5	-	-	8.6	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	267	3	232	9	16	35	128	832	7	1	9	1071
Future Volume (veh/h)	267	3	232	9	16	35	128	832	7	1	9	1071
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870		1870	1870
Adj Flow Rate, veh/h	347	4	301	12	21	45	166	1081	9		12	1391
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77		0.77	0.77
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2		2	2
Cap, veh/h	385	532	451	31	45	97	198	1609	718		31	1275
Arrive On Green	0.22	0.28	0.28	0.02	0.09	0.09	0.11	0.45	0.45		0.02	0.36
Sat Flow, veh/h	1781	1870	1585	1781	530	1136	1781	3554	1585		1781	3554
Grp Volume(v), veh/h	347	4	301	12	0	66	166	1081	9		12	1391
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1666	1781	1777	1585		1781	1777
Q Serve(g_s), s	17.7	0.1	15.7	0.6	0.0	3.5	8.5	22.3	0.3		0.6	33.5
Cycle Q Clear(g_c), s	17.7	0.1	15.7	0.6	0.0	3.5	8.5	22.3	0.3		0.6	33.5
Prop In Lane	1.00		1.00	1.00		0.68	1.00		1.00		1.00	
Lane Grp Cap(c), veh/h	385	532	451	31	0	143	198	1609	718		31	1275
V/C Ratio(X)	0.90	0.01	0.67	0.39	0.00	0.46	0.84	0.67	0.01		0.39	1.09
Avail Cap(c_a), veh/h	797	532	451	446	0	143	198	1609	718		114	1275
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	35.6	23.9	29.5	45.4	0.0	40.6	40.7	20.1	14.1		45.4	29.9
Incr Delay (d2), s/veh	3.2	0.0	3.7	3.0	0.0	2.3	24.6	1.2	0.0		3.0	53.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	0.1	6.2	0.3	0.0	1.5	4.8	8.2	0.1		0.3	22.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.8	23.9	33.2	48.4	0.0	43.0	65.2	21.3	14.1		48.4	83.7
LnGrp LOS	D	C	C	D	A	D	E	C	B		D	F
Approach Vol, veh/h		652			78			1256				1624
Approach Delay, s/veh		36.1			43.8			27.1				75.2
Approach LOS		D			D			C				E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	41.0	24.8	12.6	6.2	49.8	6.2	31.2				
Change Period (Y+Rc), s	4.6	7.5	4.6	4.6	4.6	7.5	4.6	4.6				
Max Green Setting (Gmax), s	10.4	33.5	41.8	8.0	6.0	37.9	23.4	26.4				
Max Q Clear Time (g_c+I1), s	10.5	35.5	19.7	5.5	2.6	24.3	2.6	17.7				
Green Ext Time (p_c), s	0.0	0.0	0.5	0.0	0.0	7.3	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			50.7									
HCM 6th LOS			D									
Notes												
User approved ignoring U-Turning movement.												



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	170
Future Volume (veh/h)	170
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	221
Peak Hour Factor	0.77
Percent Heavy Veh, %	2
Cap, veh/h	569
Arrive On Green	0.36
Sat Flow, veh/h	1585
Grp Volume(v), veh/h	221
Grp Sat Flow(s),veh/h/ln	1585
Q Serve(g_s), s	9.7
Cycle Q Clear(g_c), s	9.7
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	569
V/C Ratio(X)	0.39
Avail Cap(c_a), veh/h	569
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	22.3
Incr Delay (d2), s/veh	0.6
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	3.6
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	22.9
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Appendix J:

Opening Year 2024 PM Peak Hour Analysis Worksheets

Menifee TTM 38346 Rouse Rd
1: Junipero Rd & Rouse Rd

Opening PM

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗		↖	↗	↘	
Traffic Volume (vph)	342	4	84	440	9	56
Future Volume (vph)	342	4	84	440	9	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	120		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.999				0.884	
Flt Protected			0.950		0.993	
Satd. Flow (prot)	1861	0	1770	1863	1635	0
Flt Permitted			0.950		0.993	
Satd. Flow (perm)	1861	0	1770	1863	1635	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	660			646	716	
Travel Time (s)	12.9			12.6	19.5	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	372	4	91	478	10	61
Shared Lane Traffic (%)						
Lane Group Flow (vph)	376	0	91	478	71	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	36.9%			ICU Level of Service A		
Analysis Period (min)	15					

Menifee TTM 38346 Rouse Rd
2: Galloping Wy & Rouse Rd

Opening PM

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗		↖	↗	↖	
Traffic Volume (vph)	390	8	8	518	6	5
Future Volume (vph)	390	8	8	518	6	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	120		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.997				0.938	
Flt Protected			0.950		0.974	
Satd. Flow (prot)	1857	0	1770	1863	1702	0
Flt Permitted			0.950		0.974	
Satd. Flow (perm)	1857	0	1770	1863	1702	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	646			645	243	
Travel Time (s)	12.6			12.6	6.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	433	9	9	576	7	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	442	0	9	576	13	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	37.3%			ICU Level of Service A		
Analysis Period (min)	15					

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	177	5	213	12	3	11	268	1006	19	3	28	867
Future Volume (vph)	177	5	213	12	3	11	268	1006	19	3	28	867
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%				0%
Storage Length (ft)	150		270	0		0	275		0		130	
Storage Lanes	1		1	1		0	1		1		1	
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Ped Bike Factor												
Frt			0.850		0.880				0.850			
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	1770	1863	1583	1770	1639	0	1770	3539	1583	0	1770	3539
Flt Permitted	0.950			0.950			0.950				0.264	
Satd. Flow (perm)	1770	1863	1583	1770	1639	0	1770	3539	1583	0	492	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)			229		12				146			
Link Speed (mph)		35			30			55				55
Link Distance (ft)		645			222			652				603
Travel Time (s)		12.6			5.0			8.1				7.5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Adj. Flow (vph)	190	5	229	13	3	12	288	1082	20	3	30	932
Shared Lane Traffic (%)												
Lane Group Flow (vph)	190	5	229	13	15	0	288	1082	20	0	33	932
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			12			12				12
Link Offset(ft)		-10			20			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2	1	1	2		1	2	1	1	1	2
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Left	Thru
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	20	100
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	Perm	NA
Protected Phases	3	8		7	4		1	6		5		2
Permitted Phases			8						6		2	
Detector Phase	3	8	8	7	4		1	6	6	5	2	2
Switch Phase												

Synchro 11 Report

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	255
Future Volume (vph)	255
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	130
Storage Lanes	2
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	190
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.93
Growth Factor	100%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Adj. Flow (vph)	274
Shared Lane Traffic (%)	
Lane Group Flow (vph)	274
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Turn Type	Perm
Protected Phases	
Permitted Phases	2
Detector Phase	2
Switch Phase	

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Minimum Initial (s)	6.0	8.0	8.0	6.0	8.0		6.0	8.0	8.0	6.0	8.0	8.0
Minimum Split (s)	10.6	12.6	12.6	10.6	12.6		10.6	15.5	15.5	10.6	15.5	15.5
Total Split (s)	46.4	31.0	31.0	28.0	12.6		20.0	45.4	45.4	10.6	36.0	36.0
Total Split (%)	40.3%	27.0%	27.0%	24.3%	11.0%		17.4%	39.5%	39.5%	9.2%	31.3%	31.3%
Maximum Green (s)	41.8	26.4	26.4	23.4	8.0		15.4	37.9	37.9	6.0	28.5	28.5
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6		3.6	5.5	5.5	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	7.5	7.5		7.5	7.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	4.0	4.0
Minimum Gap (s)	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	4.0	4.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None		None	Min	Min	None	Min	Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	12.8	13.1	13.1	6.1	8.1		15.6	49.1	49.1		28.8	28.8
Actuated g/C Ratio	0.17	0.17	0.17	0.08	0.11		0.20	0.64	0.64		0.38	0.38
v/c Ratio	0.64	0.02	0.50	0.09	0.08		0.80	0.47	0.02		0.18	0.70
Control Delay	40.3	26.6	8.3	38.0	22.3		49.0	9.2	0.1		22.4	25.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	40.3	26.6	8.3	38.0	22.3		49.0	9.2	0.1		22.4	25.1
LOS	D	C	A	D	C		D	A	A		C	C
Approach Delay		22.8			29.6			17.3				21.4
Approach LOS		C			C			B				C
90th %ile Green (s)	19.2	20.8	20.8	6.4	8.0		15.4	48.5	48.5	0.0	28.5	28.5
90th %ile Term Code	Gap	Hold	Hold	Gap	Max		Max	Hold	Hold	Skip	Max	Max
70th %ile Green (s)	15.8	15.8	15.8	0.0	0.0		15.4	48.5	48.5	0.0	28.5	28.5
70th %ile Term Code	Gap	Hold	Hold	Skip	Skip		Max	Hold	Hold	Skip	Max	Max
50th %ile Green (s)	12.0	12.0	12.0	0.0	0.0		15.4	48.5	48.5	0.0	28.5	28.5
50th %ile Term Code	Gap	Hold	Hold	Skip	Skip		Max	Hold	Hold	Skip	Max	Max
30th %ile Green (s)	10.3	10.3	10.3	0.0	0.0		15.4	48.5	48.5	0.0	28.5	28.5
30th %ile Term Code	Gap	Hold	Hold	Skip	Skip		Max	Hold	Hold	Skip	Max	Max
10th %ile Green (s)	8.0	8.0	8.0	0.0	0.0		15.4	48.5	48.5	0.0	28.5	28.5
10th %ile Term Code	Hold	Min	Min	Skip	Skip		Max	Hold	Hold	Skip	Max	Max
Stops (vph)	156	6	29	14	9		220	488	0		23	680
Fuel Used(gal)	3	0	2	0	0		8	15	0		1	24
CO Emissions (g/hr)	241	7	110	13	10		550	1056	6		57	1685
NOx Emissions (g/hr)	47	1	21	3	2		107	206	1		11	328
VOC Emissions (g/hr)	56	2	25	3	2		127	245	1		13	390
Dilemma Vehicles (#)	0	0	0	0	0		0	57	0		0	56
Queue Length 50th (ft)	81	2	0	6	1		122	103	0		9	176
Queue Length 95th (ft)	168	12	58	26	21		#330	277	0		40	#372
Internal Link Dist (ft)		565			142			572				523
Turn Bay Length (ft)	150		270				275				130	
Base Capacity (vph)	982	652	703	549	184		361	2278	1070		186	1338

Synchro 11 Report



Lane Group	SBR
Minimum Initial (s)	8.0
Minimum Split (s)	15.5
Total Split (s)	36.0
Total Split (%)	31.3%
Maximum Green (s)	28.5
Yellow Time (s)	5.5
All-Red Time (s)	2.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	7.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Minimum Gap (s)	4.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	Min
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	28.8
Actuated g/C Ratio	0.38
v/c Ratio	0.38
Control Delay	8.6
Queue Delay	0.0
Total Delay	8.6
LOS	A
Approach Delay	
Approach LOS	
90th %ile Green (s)	28.5
90th %ile Term Code	Max
70th %ile Green (s)	28.5
70th %ile Term Code	Max
50th %ile Green (s)	28.5
50th %ile Term Code	Max
30th %ile Green (s)	28.5
30th %ile Term Code	Max
10th %ile Green (s)	28.5
10th %ile Term Code	Max
Stops (vph)	65
Fuel Used(gal)	4
CO Emissions (g/hr)	261
NOx Emissions (g/hr)	51
VOC Emissions (g/hr)	60
Dilemma Vehicles (#)	0
Queue Length 50th (ft)	23
Queue Length 95th (ft)	102
Internal Link Dist (ft)	
Turn Bay Length (ft)	130
Base Capacity (vph)	716

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	0
Reduced v/c Ratio	0.19	0.01	0.33	0.02	0.08		0.80	0.47	0.02		0.18	0.70

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 76.2

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 19.8

Intersection LOS: B

Intersection Capacity Utilization 69.2%

ICU Level of Service C

Analysis Period (min) 15

90th %ile Actuated Cycle: 92.4

70th %ile Actuated Cycle: 76.4

50th %ile Actuated Cycle: 72.6

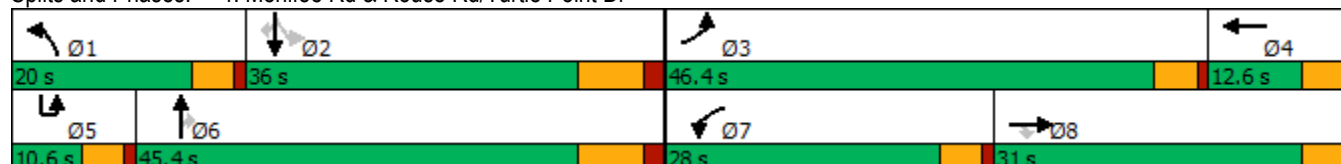
30th %ile Actuated Cycle: 70.9

10th %ile Actuated Cycle: 68.6

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 4: Menifee Rd & Rouse Rd/Turtle Point Dr





Lane Group	SBR
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.38
Intersection Summary	

Intersection

Int Delay, s/veh 1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	342	4	84	440	9	56
Future Vol, veh/h	342	4	84	440	9	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	120	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	372	4	91	478	10	61

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	376
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1182
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1182
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	600	-	-	1182	-
HCM Lane V/C Ratio	0.118	-	-	0.077	-
HCM Control Delay (s)	11.8	-	-	8.3	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0.3	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	390	8	8	518	6	5
Future Vol, veh/h	390	8	8	518	6	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	120	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	433	9	9	576	7	6
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	442	0	1032	438
Stage 1	-	-	-	-	438	-
Stage 2	-	-	-	-	594	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1118	-	258	619
Stage 1	-	-	-	-	651	-
Stage 2	-	-	-	-	552	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1118	-	256	619
Mov Cap-2 Maneuver	-	-	-	-	387	-
Stage 1	-	-	-	-	651	-
Stage 2	-	-	-	-	548	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		12.9	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	466	-	-	1118	-	
HCM Lane V/C Ratio	0.026	-	-	0.008	-	
HCM Control Delay (s)	12.9	-	-	8.2	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	177	5	213	12	3	11	268	1006	19	3	28	867
Future Volume (veh/h)	177	5	213	12	3	11	268	1006	19	3	28	867
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870		1870	1870
Adj Flow Rate, veh/h	190	5	229	13	3	12	288	1082	20		30	932
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93		0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2		2	2
Cap, veh/h	232	393	333	33	32	130	325	2002	893		255	1150
Arrive On Green	0.13	0.21	0.21	0.02	0.10	0.10	0.18	0.56	0.56		0.32	0.32
Sat Flow, veh/h	1781	1870	1585	1781	327	1308	1781	3554	1585		512	3554
Grp Volume(v), veh/h	190	5	229	13	0	15	288	1082	20		30	932
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1635	1781	1777	1585		512	1777
Q Serve(g_s), s	8.4	0.2	10.7	0.6	0.0	0.7	12.7	15.4	0.4		3.4	19.4
Cycle Q Clear(g_c), s	8.4	0.2	10.7	0.6	0.0	0.7	12.7	15.4	0.4		3.4	19.4
Prop In Lane	1.00		1.00	1.00		0.80	1.00		1.00		1.00	
Lane Grp Cap(c), veh/h	232	393	333	33	0	162	325	2002	893		255	1150
V/C Ratio(X)	0.82	0.01	0.69	0.39	0.00	0.09	0.89	0.54	0.02		0.12	0.81
Avail Cap(c_a), veh/h	925	614	520	518	0	163	341	2002	893		271	1258
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	34.1	25.2	29.3	39.0	0.0	33.0	32.1	11.0	7.8		19.6	25.0
Incr Delay (d2), s/veh	2.8	0.0	2.5	2.7	0.0	0.2	21.5	0.4	0.0		0.3	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.1	4.1	0.3	0.0	0.3	6.8	4.6	0.1		0.4	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.9	25.2	31.9	41.7	0.0	33.2	53.6	11.4	7.8		19.8	29.0
LnGrp LOS	D	C	C	D	A	C	D	B	A		B	C
Approach Vol, veh/h		424			28			1390				1236
Approach Delay, s/veh		34.0			37.2			20.1				27.6
Approach LOS		C			D			C				C
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	19.3	33.5	15.1	12.6		52.8	6.1	21.5				
Change Period (Y+Rc), s	4.6	7.5	4.6	4.6		7.5	4.6	4.6				
Max Green Setting (Gmax), s	15.4	28.5	41.8	8.0		37.9	23.4	26.4				
Max Q Clear Time (g_c+I1), s	14.7	21.4	10.4	2.7		17.4	2.6	12.7				
Green Ext Time (p_c), s	0.0	4.7	0.3	0.0		9.5	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			25.2									
HCM 6th LOS			C									
Notes												
User approved ignoring U-Turning movement.												



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	255
Future Volume (veh/h)	255
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	274
Peak Hour Factor	0.93
Percent Heavy Veh, %	2
Cap, veh/h	513
Arrive On Green	0.32
Sat Flow, veh/h	1585
Grp Volume(v), veh/h	274
Grp Sat Flow(s),veh/h/ln	1585
Q Serve(g_s), s	11.4
Cycle Q Clear(g_c), s	11.4
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	513
V/C Ratio(X)	0.53
Avail Cap(c_a), veh/h	561
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	22.3
Incr Delay (d2), s/veh	1.2
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	4.2
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	23.5
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

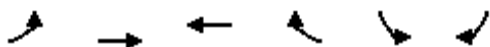
Appendix K: Opening Year 2024 With Project AM Peak Hour Analysis Worksheets

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	387	108	107	252	124	117
Future Volume (vph)	387	108	107	252	124	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	120		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.971				0.934	
Flt Protected			0.950		0.975	
Satd. Flow (prot)	1809	0	1770	1863	1696	0
Flt Permitted			0.950		0.975	
Satd. Flow (perm)	1809	0	1770	1863	1696	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	660			646	716	
Travel Time (s)	12.9			12.6	19.5	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	538	150	149	350	172	163
Shared Lane Traffic (%)						
Lane Group Flow (vph)	688	0	149	350	335	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	56.9%			ICU Level of Service B		
Analysis Period (min)	15					

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	499	5	1	342	17	5
Future Volume (vph)	499	5	1	342	17	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	160		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.999				0.968	
Flt Protected			0.950		0.963	
Satd. Flow (prot)	1861	0	1770	1863	1736	0
Flt Permitted			0.950		0.963	
Satd. Flow (perm)	1861	0	1770	1863	1736	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	646			162	243	
Travel Time (s)	12.6			3.2	6.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	554	6	1	380	19	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	560	0	1	380	25	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	36.6%			ICU Level of Service A		
Analysis Period (min)	15					

Menifee TTM 38346 Rouse Rd
3: Rouse Rd & Site Drwy

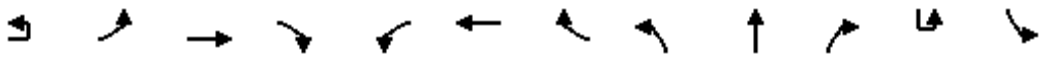
Opening+Proj AM



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑	↗		↗
Traffic Volume (vph)	0	504	314	10	0	29
Future Volume (vph)	0	504	314	10	0	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850		0.865
Flt Protected						
Satd. Flow (prot)	0	3539	1863	1583	0	1611
Flt Permitted						
Satd. Flow (perm)	0	3539	1863	1583	0	1611
Link Speed (mph)		35	35		30	
Link Distance (ft)		162	483		349	
Travel Time (s)		3.2	9.4		7.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	560	349	11	0	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	560	349	11	0	32
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 26.5%						
ICU Level of Service A						
Analysis Period (min) 15						

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening+Proj AM

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	2	267	3	232	9	16	35	136	835	7	11	9
Future Volume (vph)	2	267	3	232	9	16	35	136	835	7	11	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			0%			0%			0%			
Storage Length (ft)		250		0	0		0	400		0		180
Storage Lanes		1		1	1		0	1		1		1
Taper Length (ft)		25			25			25				25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00
Ped Bike Factor												
Frt				0.850		0.898				0.850		
Flt Protected		0.950			0.950			0.950				0.950
Satd. Flow (prot)	0	1770	1863	1583	1770	1673	0	1770	3539	1583	0	1770
Flt Permitted		0.950			0.950			0.950				0.950
Satd. Flow (perm)	0	1770	1863	1583	1770	1673	0	1770	3539	1583	0	1770
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				301		45				146		
Link Speed (mph)			35			30			55			
Link Distance (ft)			483			222			652			
Travel Time (s)			9.4			5.0			8.1			
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%			0%			0%			
Adj. Flow (vph)	3	347	4	301	12	21	45	177	1084	9	14	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	350	4	301	12	66	0	177	1084	9	0	26
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left
Median Width(ft)			12			12			12			
Link Offset(ft)			-10			20			0			
Crosswalk Width(ft)			16			16			16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	15		9	15		9	9	15
Number of Detectors	1	1	2	1	1	2		1	2	1	1	1
Detector Template	Left	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Left
Leading Detector (ft)	20	20	100	20	20	100		20	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0		0	0	0	0	0
Turn Type	Prot	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	Prot
Protected Phases	3	3	8		7	4		1	6		5	5
Permitted Phases				8						6		
Detector Phase	3	3	8	8	7	4		1	6	6	5	5
Switch Phase												

Synchro 11 Report



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	1081	170
Future Volume (vph)	1081	170
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		165
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	55	
Link Distance (ft)	263	
Travel Time (s)	3.3	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.77	0.77
Growth Factor	100%	100%
Heavy Vehicles (%)	2%	2%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Adj. Flow (vph)	1404	221
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1404	221
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Detector Phase	2	2
Switch Phase		

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening+Proj AM

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Minimum Initial (s)	6.0	6.0	8.0	8.0	6.0	8.0		6.0	8.0	8.0	6.0	6.0
Minimum Split (s)	10.6	10.6	12.6	12.6	10.6	12.6		10.6	15.5	15.5	10.6	10.6
Total Split (s)	46.4	46.4	31.0	31.0	28.0	12.6		15.0	45.4	45.4	10.6	10.6
Total Split (%)	40.3%	40.3%	27.0%	27.0%	24.3%	11.0%		13.0%	39.5%	39.5%	9.2%	9.2%
Maximum Green (s)	41.8	41.8	26.4	26.4	23.4	8.0		10.4	37.9	37.9	6.0	6.0
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6		3.6	5.5	5.5	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0		1.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Lost Time (s)		4.6	4.6	4.6	4.6	4.6		4.6	7.5	7.5		4.6
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	2.0
Minimum Gap (s)	2.0	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	2.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None		None	Min	Min	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		22.7	30.3	30.3	6.2	8.1		10.6	45.4	45.4		6.1
Actuated g/C Ratio		0.24	0.32	0.32	0.07	0.09		0.11	0.48	0.48		0.07
v/c Ratio		0.82	0.01	0.42	0.10	0.35		0.89	0.63	0.01		0.23
Control Delay		50.0	22.0	4.9	47.6	26.3		85.9	23.9	0.0		50.8
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Delay		50.0	22.0	4.9	47.6	26.3		85.9	23.9	0.0		50.8
LOS		D	C	A	D	C		F	C	A		D
Approach Delay			29.1			29.6			32.4			
Approach LOS			C			C			C			
90th %ile Green (s)	32.9	32.9	34.3	34.3	6.6	8.0		10.4	37.9	37.9	6.0	6.0
90th %ile Term Code	Gap	Gap	Hold	Hold	Gap	Max		Max	Max	Max	Max	Max
70th %ile Green (s)	26.9	26.9	39.5	39.5	0.0	8.0		10.4	37.9	37.9	6.0	6.0
70th %ile Term Code	Gap	Gap	Hold	Hold	Skip	Max		Max	Max	Max	Max	Max
50th %ile Green (s)	23.1	23.1	35.7	35.7	0.0	8.0		10.4	48.5	48.5	0.0	0.0
50th %ile Term Code	Gap	Gap	Hold	Hold	Skip	Max		Max	Hold	Hold	Skip	Skip
30th %ile Green (s)	19.6	19.6	32.2	32.2	0.0	8.0		10.4	48.5	48.5	0.0	0.0
30th %ile Term Code	Gap	Gap	Hold	Hold	Skip	Max		Max	Hold	Hold	Skip	Skip
10th %ile Green (s)	13.2	13.2	13.2	13.2	0.0	0.0		10.4	48.5	48.5	0.0	0.0
10th %ile Term Code	Gap	Gap	Hold	Hold	Skip	Skip		Max	Hold	Hold	Skip	Skip
Stops (vph)		244	2	22	10	22		108	603	0		21
Fuel Used(gal)		6	0	1	0	0		5	19	0		1
CO Emissions (g/hr)		386	3	84	11	34		346	1308	2		47
NOx Emissions (g/hr)		75	1	16	2	7		67	255	0		9
VOC Emissions (g/hr)		89	1	20	3	8		80	303	0		11
Dilemma Vehicles (#)		0	0	0	0	0		0	40	0		0
Queue Length 50th (ft)		204	2	0	7	12		109	238	0		15
Queue Length 95th (ft)		247	8	28	23	44		#209	352	0		39
Internal Link Dist (ft)			403			142			572			
Turn Bay Length (ft)		250						400				180
Base Capacity (vph)		801	668	760	448	186		199	1712	841		115

Synchro 11 Report



Lane Group	SBT	SBR
Minimum Initial (s)	8.0	8.0
Minimum Split (s)	15.5	15.5
Total Split (s)	41.0	41.0
Total Split (%)	35.7%	35.7%
Maximum Green (s)	33.5	33.5
Yellow Time (s)	5.5	5.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	7.5	7.5
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	4.0	4.0
Minimum Gap (s)	4.0	4.0
Time Before Reduce (s)	0.0	0.0
Time To Reduce (s)	0.0	0.0
Recall Mode	Min	Min
Walk Time (s)		
Flash Dont Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)	34.0	34.0
Actuated g/C Ratio	0.36	0.36
v/c Ratio	1.09	0.39
Control Delay	86.3	27.4
Queue Delay	0.0	0.0
Total Delay	86.3	27.4
LOS	F	C
Approach Delay	77.8	
Approach LOS	E	
90th %ile Green (s)	33.5	33.5
90th %ile Term Code	Max	Max
70th %ile Green (s)	33.5	33.5
70th %ile Term Code	Max	Max
50th %ile Green (s)	33.5	33.5
50th %ile Term Code	Max	Max
30th %ile Green (s)	33.5	33.5
30th %ile Term Code	Max	Max
10th %ile Green (s)	33.5	33.5
10th %ile Term Code	Max	Max
Stops (vph)	856	123
Fuel Used(gal)	39	4
CO Emissions (g/hr)	2698	267
NOx Emissions (g/hr)	525	52
VOC Emissions (g/hr)	625	62
Dilemma Vehicles (#)	49	0
Queue Length 50th (ft)	~532	101
Queue Length 95th (ft)	#596	157
Internal Link Dist (ft)	183	
Turn Bay Length (ft)		165
Base Capacity (vph)	1283	573

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening+Proj AM

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Starvation Cap Reductn		0	0	0	0	0		0	0	0		0
Spillback Cap Reductn		0	0	0	0	0		0	0	0		0
Storage Cap Reductn		0	0	0	0	0		0	0	0		0
Reduced v/c Ratio		0.44	0.01	0.40	0.03	0.35		0.89	0.63	0.01		0.23

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 93.8

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.09

Intersection Signal Delay: 52.3

Intersection LOS: D

Intersection Capacity Utilization 72.9%

ICU Level of Service C

Analysis Period (min) 15

90th %ile Actuated Cycle: 106.1

70th %ile Actuated Cycle: 100.1

50th %ile Actuated Cycle: 96.3

30th %ile Actuated Cycle: 92.8

10th %ile Actuated Cycle: 73.8

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 4: Menifee Rd & Rouse Rd/Turtle Point Dr

 Ø1	 Ø2	 Ø3	 Ø4
15 s	41 s	46.4 s	12.6 s
 Ø5	 Ø6	 Ø7	 Ø8
10.6 s	45.4 s	28 s	31 s



Lane Group	SBT	SBR
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	1.09	0.39
Intersection Summary		

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	20	3	1145	1251	3
Future Volume (vph)	0	20	3	1145	1251	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	200			100
Storage Lanes	0	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Ped Bike Factor						
Frt		0.865				0.850
Flt Protected			0.950			
Satd. Flow (prot)	0	1611	1770	1863	3539	1583
Flt Permitted			0.950			
Satd. Flow (perm)	0	1611	1770	1863	3539	1583
Link Speed (mph)	30			55	55	
Link Distance (ft)	369			279	241	
Travel Time (s)	8.4			3.5	3.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	22	3	1272	1390	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	22	3	1272	1390	3
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	63.6%			ICU Level of Service B		
Analysis Period (min)	15					

Intersection

Int Delay, s/veh 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	387	108	107	252	124	117
Future Vol, veh/h	387	108	107	252	124	117
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	120	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	538	150	149	350	172	163

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	688
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	906
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	906
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.9	63.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	363	-	-	906	-
HCM Lane V/C Ratio	0.922	-	-	0.164	-
HCM Control Delay (s)	63.9	-	-	9.8	-
HCM Lane LOS	F	-	-	A	-
HCM 95th %tile Q(veh)	9.6	-	-	0.6	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	499	5	1	342	17	5
Future Vol, veh/h	499	5	1	342	17	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	160	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	554	6	1	380	19	6
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	560	0	939	557
Stage 1	-	-	-	-	557	-
Stage 2	-	-	-	-	382	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1011	-	293	530
Stage 1	-	-	-	-	574	-
Stage 2	-	-	-	-	690	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1011	-	293	530
Mov Cap-2 Maneuver	-	-	-	-	417	-
Stage 1	-	-	-	-	574	-
Stage 2	-	-	-	-	689	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		13.7	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	438	-	-	1011	-	
HCM Lane V/C Ratio	0.056	-	-	0.001	-	
HCM Control Delay (s)	13.7	-	-	8.6	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑	↑		↑
Traffic Vol, veh/h	0	504	314	10	0	29
Future Vol, veh/h	0	504	314	10	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	560	349	11	0	32

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 349
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.23
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.319
Pot Cap-1 Maneuver	0	-	- - 0 693
Stage 1	0	-	- - 0 -
Stage 2	0	-	- - 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 693
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	693
HCM Lane V/C Ratio	-	-	-	0.046
HCM Control Delay (s)	-	-	-	10.4
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening+Proj AM

												
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (veh/h)	2	267	3	232	9	16	35	136	835	7	11	9
Future Volume (veh/h)	2	267	3	232	9	16	35	136	835	7	11	9
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0		0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00	1.00		1.00		1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
Work Zone On Approach		No				No			No			
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870	1870	1870	1870		1870
Adj Flow Rate, veh/h		347	4	301	12	21	45	177	1084	9		12
Peak Hour Factor		0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77		0.77
Percent Heavy Veh, %		2	2	2	2	2	2	2	2	2		2
Cap, veh/h		385	532	451	31	45	97	198	1609	718		31
Arrive On Green		0.22	0.28	0.28	0.02	0.09	0.09	0.11	0.45	0.45		0.02
Sat Flow, veh/h		1781	1870	1585	1781	530	1136	1781	3554	1585		1781
Grp Volume(v), veh/h		347	4	301	12	0	66	177	1084	9		12
Grp Sat Flow(s),veh/h/ln		1781	1870	1585	1781	0	1666	1781	1777	1585		1781
Q Serve(g_s), s		17.7	0.1	15.7	0.6	0.0	3.5	9.2	22.4	0.3		0.6
Cycle Q Clear(g_c), s		17.7	0.1	15.7	0.6	0.0	3.5	9.2	22.4	0.3		0.6
Prop In Lane		1.00		1.00	1.00		0.68	1.00		1.00		1.00
Lane Grp Cap(c), veh/h		385	532	451	31	0	143	198	1609	718		31
V/C Ratio(X)		0.90	0.01	0.67	0.39	0.00	0.46	0.89	0.67	0.01		0.39
Avail Cap(c_a), veh/h		797	532	451	446	0	143	198	1609	718		114
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00		1.00
Uniform Delay (d), s/veh		35.6	23.9	29.5	45.4	0.0	40.6	40.9	20.1	14.1		45.4
Incr Delay (d2), s/veh		3.2	0.0	3.7	3.0	0.0	2.3	35.0	1.3	0.0		3.0
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
%ile BackOfQ(95%),veh/ln		12.3	0.1	10.3	0.5	0.0	2.7	9.6	12.9	0.2		0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		38.8	24.0	33.2	48.4	0.0	43.0	75.9	21.4	14.1		48.4
LnGrp LOS		D	C	C	D	A	D	E	C	B		D
Approach Vol, veh/h			652			78			1270			
Approach Delay, s/veh			36.1			43.8			28.9			
Approach LOS			D			D			C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	41.0	24.8	12.6	6.2	49.8	6.2	31.2				
Change Period (Y+Rc), s	4.6	7.5	4.6	4.6	4.6	7.5	4.6	4.6				
Max Green Setting (Gmax), s	10.4	33.5	41.8	8.0	6.0	37.9	23.4	26.4				
Max Q Clear Time (g_c+I1), s	11.2	35.5	19.7	5.5	2.6	24.4	2.6	17.7				
Green Ext Time (p_c), s	0.0	0.0	0.5	0.0	0.0	7.3	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			52.9									
HCM 6th LOS			D									
Notes												
User approved ignoring U-Turning movement.												



Movement	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (veh/h)	1081	170
Future Volume (veh/h)	1081	170
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1870
Adj Flow Rate, veh/h	1404	221
Peak Hour Factor	0.77	0.77
Percent Heavy Veh, %	2	2
Cap, veh/h	1275	569
Arrive On Green	0.36	0.36
Sat Flow, veh/h	3554	1585
Grp Volume(v), veh/h	1404	221
Grp Sat Flow(s),veh/h/ln	1777	1585
Q Serve(g_s), s	33.5	9.7
Cycle Q Clear(g_c), s	33.5	9.7
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	1275	569
V/C Ratio(X)	1.10	0.39
Avail Cap(c_a), veh/h	1275	569
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	29.9	22.3
Incr Delay (d2), s/veh	57.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(95%),veh/ln	32.6	6.4
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	87.7	22.9
LnGrp LOS	F	C
Approach Vol, veh/h	1637	
Approach Delay, s/veh	78.6	
Approach LOS	E	
Timer - Assigned Phs		

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗	↘	↑	↑↑	↗
Traffic Vol, veh/h	0	20	3	1145	1251	3
Future Vol, veh/h	0	20	3	1145	1251	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	22	3	1272	1390	3
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	695	1393	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.93	4.13	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	0	385	489	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	385	489	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	14.9	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	489	-	385	-	-	
HCM Lane V/C Ratio	0.007	-	0.058	-	-	
HCM Control Delay (s)	12.4	-	14.9	-	-	
HCM Lane LOS	B	-	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

Intersection: 1: Junipero Rd & Rouse Rd

Movement	EB	WB	NB
Directions Served	TR	L	LR
Maximum Queue (ft)	17	74	195
Average Queue (ft)	0	29	80
95th Queue (ft)	6	60	146
Link Distance (ft)	626		682
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		120	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Galloping Wy & Rouse Rd

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	6	28
Average Queue (ft)	0	14
95th Queue (ft)	0	36
Link Distance (ft)		195
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	160	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Rouse Rd & Site Drwy

Movement	SB
Directions Served	R
Maximum Queue (ft)	30
Average Queue (ft)	14
95th Queue (ft)	33
Link Distance (ft)	300
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Meniffee Rd & Rouse Rd/Turtle Point Dr

Movement	EB	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	UL	T	R	L	TR	L	T	T	R	UL	T	T
Maximum Queue (ft)	217	20	172	39	79	424	629	598	126	127	253	253
Average Queue (ft)	129	1	70	8	29	119	297	97	5	24	180	167
95th Queue (ft)	202	10	134	28	59	314	561	433	90	85	264	256
Link Distance (ft)		397	397	162	162		613	613	613		180	180
Upstream Blk Time (%)							4	1	0	0	9	5
Queuing Penalty (veh)							0	0	0	0	55	33
Storage Bay Dist (ft)	250					400				180		
Storage Blk Time (%)	0					0	6			0	9	7
Queuing Penalty (veh)	0					0	9			0	2	12

Intersection: 4: Meniffee Rd & Rouse Rd/Turtle Point Dr

Movement	SB	B15	B15
Directions Served	R	T	T
Maximum Queue (ft)	179	77	93
Average Queue (ft)	84	8	7
95th Queue (ft)	174	46	45
Link Distance (ft)		223	223
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)	165		
Storage Blk Time (%)	0		
Queuing Penalty (veh)	2		

Intersection: 5: Meniffee Rd & Site Drwy

Movement	EB	NB
Directions Served	R	L
Maximum Queue (ft)	46	31
Average Queue (ft)	13	2
95th Queue (ft)	35	14
Link Distance (ft)	310	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	200	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 112

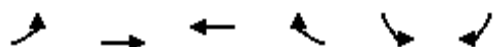
Appendix L: Opening Year 2024 With Project PM Peak Hour Analysis Worksheets

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	347	4	100	443	9	56
Future Volume (vph)	347	4	100	443	9	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	120		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.999				0.884	
Flt Protected			0.950		0.993	
Satd. Flow (prot)	1861	0	1770	1863	1635	0
Flt Permitted			0.950		0.993	
Satd. Flow (perm)	1861	0	1770	1863	1635	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	660			646	716	
Travel Time (s)	12.9			12.6	19.5	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	377	4	109	482	10	61
Shared Lane Traffic (%)						
Lane Group Flow (vph)	381	0	109	482	71	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	38.0%			ICU Level of Service A		
Analysis Period (min)	15					

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	395	8	8	537	6	5
Future Volume (vph)	395	8	8	537	6	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	160		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.997				0.938	
Flt Protected			0.950		0.974	
Satd. Flow (prot)	1857	0	1770	1863	1702	0
Flt Permitted			0.950		0.974	
Satd. Flow (perm)	1857	0	1770	1863	1702	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	646			162	243	
Travel Time (s)	12.6			3.2	6.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	439	9	9	597	7	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	448	0	9	597	13	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	38.3%			ICU Level of Service A		
Analysis Period (min)	15					

Menifee TTM 38346 Rouse Rd
3: Rouse Rd & Site Drwy

Opening+Proj PM



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑	↑		↑
Traffic Volume (vph)	0	400	526	32	0	19
Future Volume (vph)	0	400	526	32	0	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850		0.865
Flt Protected						
Satd. Flow (prot)	0	3539	1863	1583	0	1611
Flt Permitted						
Satd. Flow (perm)	0	3539	1863	1583	0	1611
Link Speed (mph)		35	35		30	
Link Distance (ft)		162	483		349	
Travel Time (s)		3.2	9.4		7.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	444	584	36	0	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	444	584	36	0	21
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 37.7% ICU Level of Service A						
Analysis Period (min) 15						

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening+Proj PM

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	5	177	5	213	12	3	11	295	1016	19	9	28
Future Volume (vph)	5	177	5	213	12	3	11	295	1016	19	9	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			0%			0%			0%			
Storage Length (ft)		250		0	0		0	400		0		180
Storage Lanes		1		1	1		0	1		1		1
Taper Length (ft)		25			25			25				25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00
Ped Bike Factor												
Frt				0.850		0.880				0.850		
Flt Protected		0.950			0.950			0.950				0.950
Satd. Flow (prot)	0	1770	1863	1583	1770	1639	0	1770	3539	1583	0	1770
Flt Permitted		0.950			0.950			0.950				0.261
Satd. Flow (perm)	0	1770	1863	1583	1770	1639	0	1770	3539	1583	0	486
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				229		12				146		
Link Speed (mph)			35			30			55			
Link Distance (ft)			483			222			652			
Travel Time (s)			9.4			5.0			8.1			
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%			0%			0%			
Adj. Flow (vph)	5	190	5	229	13	3	12	317	1092	20	10	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	195	5	229	13	15	0	317	1092	20	0	40
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left
Median Width(ft)			12			12			12			
Link Offset(ft)			-10			20			0			
Crosswalk Width(ft)			16			16			16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	15		9	15		9	9	15
Number of Detectors	1	1	2	1	1	2		1	2	1	1	1
Detector Template	Left	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Left
Leading Detector (ft)	20	20	100	20	20	100		20	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0		0	0	0	0	0
Turn Type	Prot	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	Perm
Protected Phases	3	3	8		7	4		1	6		5	
Permitted Phases				8						6		2
Detector Phase	3	3	8	8	7	4		1	6	6	5	2
Switch Phase												

Synchro 11 Report

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening+Proj PM



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	873	255
Future Volume (vph)	873	255
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		165
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	55	
Link Distance (ft)	263	
Travel Time (s)	3.3	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.93	0.93
Growth Factor	100%	100%
Heavy Vehicles (%)	2%	2%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Adj. Flow (vph)	939	274
Shared Lane Traffic (%)		
Lane Group Flow (vph)	939	274
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Detector Phase	2	2
Switch Phase		

Synchro 11 Report

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening+Proj PM

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Minimum Initial (s)	6.0	6.0	8.0	8.0	6.0	8.0		6.0	8.0	8.0	6.0	8.0
Minimum Split (s)	10.6	10.6	12.6	12.6	10.6	12.6		10.6	15.5	15.5	10.6	15.5
Total Split (s)	46.4	46.4	31.0	31.0	28.0	12.6		20.0	45.4	45.4	10.6	36.0
Total Split (%)	40.3%	40.3%	27.0%	27.0%	24.3%	11.0%		17.4%	39.5%	39.5%	9.2%	31.3%
Maximum Green (s)	41.8	41.8	26.4	26.4	23.4	8.0		15.4	37.9	37.9	6.0	28.5
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6		3.6	5.5	5.5	3.6	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0		1.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Lost Time (s)		4.6	4.6	4.6	4.6	4.6		4.6	7.5	7.5		7.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	4.0
Minimum Gap (s)	2.0	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	4.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None		None	Min	Min	None	Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		13.1	13.3	13.3	6.1	8.1		15.6	49.0	49.0		28.8
Actuated g/C Ratio		0.17	0.17	0.17	0.08	0.11		0.20	0.64	0.64		0.38
v/c Ratio		0.65	0.02	0.49	0.09	0.08		0.88	0.48	0.02		0.22
Control Delay		40.5	26.4	8.2	38.2	22.4		58.6	9.4	0.1		23.6
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Delay		40.5	26.4	8.2	38.2	22.4		58.6	9.4	0.1		23.6
LOS		D	C	A	D	C		E	A	A		C
Approach Delay			23.1			29.7			20.2			
Approach LOS			C			C			C			
90th %ile Green (s)	19.6	19.6	21.2	21.2	6.4	8.0		15.4	48.5	48.5	0.0	28.5
90th %ile Term Code	Gap	Gap	Hold	Hold	Gap	Max		Max	Hold	Hold	Skip	Max
70th %ile Green (s)	16.1	16.1	16.1	16.1	0.0	0.0		15.4	48.5	48.5	0.0	28.5
70th %ile Term Code	Gap	Gap	Hold	Hold	Skip	Skip		Max	Hold	Hold	Skip	Max
50th %ile Green (s)	12.3	12.3	12.3	12.3	0.0	0.0		15.4	48.5	48.5	0.0	28.5
50th %ile Term Code	Gap	Gap	Hold	Hold	Skip	Skip		Max	Hold	Hold	Skip	Max
30th %ile Green (s)	10.5	10.5	10.5	10.5	0.0	0.0		15.4	48.5	48.5	0.0	28.5
30th %ile Term Code	Gap	Gap	Hold	Hold	Skip	Skip		Max	Hold	Hold	Skip	Max
10th %ile Green (s)	8.0	8.0	8.0	8.0	0.0	0.0		15.4	48.5	48.5	0.0	28.5
10th %ile Term Code	Gap	Gap	Min	Min	Skip	Skip		Max	Hold	Hold	Skip	Max
Stops (vph)		159	6	29	14	9		237	498	0		29
Fuel Used(gal)		3	0	1	0	0		9	15	0		1
CO Emissions (g/hr)		232	6	92	13	10		639	1076	6		59
NOx Emissions (g/hr)		45	1	18	3	2		124	209	1		11
VOC Emissions (g/hr)		54	1	21	3	2		148	249	1		14
Dilemma Vehicles (#)		0	0	0	0	0		0	57	0		0
Queue Length 50th (ft)		83	2	0	6	1		138	106	0		12
Queue Length 95th (ft)		171	12	58	26	21		#373	283	0		48
Internal Link Dist (ft)			403			142			572			
Turn Bay Length (ft)		250						400				180
Base Capacity (vph)		979	650	702	548	184		360	2271	1068		183

Synchro 11 Report



Lane Group	SBT	SBR
Minimum Initial (s)	8.0	8.0
Minimum Split (s)	15.5	15.5
Total Split (s)	36.0	36.0
Total Split (%)	31.3%	31.3%
Maximum Green (s)	28.5	28.5
Yellow Time (s)	5.5	5.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	7.5	7.5
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	4.0	4.0
Minimum Gap (s)	4.0	4.0
Time Before Reduce (s)	0.0	0.0
Time To Reduce (s)	0.0	0.0
Recall Mode	Min	Min
Walk Time (s)		
Flash Dont Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)	28.8	28.8
Actuated g/C Ratio	0.38	0.38
v/c Ratio	0.70	0.46
Control Delay	25.4	23.1
Queue Delay	0.0	0.0
Total Delay	25.4	23.1
LOS	C	C
Approach Delay	24.9	
Approach LOS	C	
90th %ile Green (s)	28.5	28.5
90th %ile Term Code	Max	Max
70th %ile Green (s)	28.5	28.5
70th %ile Term Code	Max	Max
50th %ile Green (s)	28.5	28.5
50th %ile Term Code	Max	Max
30th %ile Green (s)	28.5	28.5
30th %ile Term Code	Max	Max
10th %ile Green (s)	28.5	28.5
10th %ile Term Code	Max	Max
Stops (vph)	685	187
Fuel Used(gal)	20	6
CO Emissions (g/hr)	1415	388
NOx Emissions (g/hr)	275	75
VOC Emissions (g/hr)	328	90
Dilemma Vehicles (#)	56	0
Queue Length 50th (ft)	179	88
Queue Length 95th (ft)	#379	217
Internal Link Dist (ft)	183	
Turn Bay Length (ft)		165
Base Capacity (vph)	1334	597

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening+Proj PM

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Starvation Cap Reductn		0	0	0	0	0		0	0	0		0
Spillback Cap Reductn		0	0	0	0	0		0	0	0		0
Storage Cap Reductn		0	0	0	0	0		0	0	0		0
Reduced v/c Ratio		0.20	0.01	0.33	0.02	0.08		0.88	0.48	0.02		0.22

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 76.4

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 22.5

Intersection LOS: C

Intersection Capacity Utilization 71.1%

ICU Level of Service C

Analysis Period (min) 15

90th %ile Actuated Cycle: 92.8

70th %ile Actuated Cycle: 76.7

50th %ile Actuated Cycle: 72.9

30th %ile Actuated Cycle: 71.1

10th %ile Actuated Cycle: 68.6

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 4: Menifee Rd & Rouse Rd/Turtle Point Dr

 Ø1	 Ø2	 Ø3	 Ø4
20 s	36 s	46.4 s	12.6 s
 Ø5	 Ø6	 Ø7	 Ø8
10.6 s	45.4 s	28 s	31 s



Lane Group	SBT	SBR
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.70	0.46
Intersection Summary		

Menifee TTM 38346 Rouse Rd
5: Menifee Rd & Site Drwy

Opening+Proj PM

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	12	10	1203	1153	10
Future Volume (vph)	0	12	10	1203	1153	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	200			100
Storage Lanes	0	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Ped Bike Factor						
Frt		0.865				0.850
Flt Protected			0.950			
Satd. Flow (prot)	0	1611	1770	1863	3539	1583
Flt Permitted			0.950			
Satd. Flow (perm)	0	1611	1770	1863	3539	1583
Link Speed (mph)	30			55	55	
Link Distance (ft)	369			279	241	
Travel Time (s)	8.4			3.5	3.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	13	11	1337	1281	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	13	11	1337	1281	11
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	66.6%			ICU Level of Service C		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	1.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	347	4	100	443	9	56
Future Vol, veh/h	347	4	100	443	9	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	120	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	377	4	109	482	10	61
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	381	0	1079	379
Stage 1	-	-	-	-	379	-
Stage 2	-	-	-	-	700	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1177	-	242	668
Stage 1	-	-	-	-	692	-
Stage 2	-	-	-	-	493	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1177	-	219	668
Mov Cap-2 Maneuver	-	-	-	-	340	-
Stage 1	-	-	-	-	692	-
Stage 2	-	-	-	-	447	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.5		11.9	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	589	-	-	1177	-	
HCM Lane V/C Ratio	0.12	-	-	0.092	-	
HCM Control Delay (s)	11.9	-	-	8.4	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.4	-	-	0.3	-	

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	395	8	8	537	6	5
Future Vol, veh/h	395	8	8	537	6	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	160	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	439	9	9	597	7	6
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	448	0	1059	444
Stage 1	-	-	-	-	444	-
Stage 2	-	-	-	-	615	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1112	-	249	614
Stage 1	-	-	-	-	646	-
Stage 2	-	-	-	-	539	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1112	-	247	614
Mov Cap-2 Maneuver	-	-	-	-	378	-
Stage 1	-	-	-	-	646	-
Stage 2	-	-	-	-	535	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		13.1	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	458	-	-	1112	-	
HCM Lane V/C Ratio	0.027	-	-	0.008	-	
HCM Control Delay (s)	13.1	-	-	8.3	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑	↑		↑
Traffic Vol, veh/h	0	400	526	32	0	19
Future Vol, veh/h	0	400	526	32	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	444	584	36	0	21

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 584
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.23
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.319
Pot Cap-1 Maneuver	0	-	- 0 511
Stage 1	0	-	- 0 -
Stage 2	0	-	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 511
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	511
HCM Lane V/C Ratio	-	-	-	0.041
HCM Control Delay (s)	-	-	-	12.3
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening+Proj PM

												
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (veh/h)	5	177	5	213	12	3	11	295	1016	19	9	28
Future Volume (veh/h)	5	177	5	213	12	3	11	295	1016	19	9	28
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0		0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00	1.00		1.00		1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
Work Zone On Approach		No				No			No			
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870	1870	1870	1870		1870
Adj Flow Rate, veh/h		190	5	229	13	3	12	317	1092	20		30
Peak Hour Factor		0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93		0.93
Percent Heavy Veh, %		2	2	2	2	2	2	2	2	2		2
Cap, veh/h		231	391	331	33	32	128	336	2017	900		252
Arrive On Green		0.13	0.21	0.21	0.02	0.10	0.10	0.19	0.57	0.57		0.32
Sat Flow, veh/h		1781	1870	1585	1781	327	1308	1781	3554	1585		507
Grp Volume(v), veh/h		190	5	229	13	0	15	317	1092	20		30
Grp Sat Flow(s),veh/h/ln		1781	1870	1585	1781	0	1635	1781	1777	1585		507
Q Serve(g_s), s		8.5	0.2	10.9	0.6	0.0	0.7	14.3	15.6	0.5		3.5
Cycle Q Clear(g_c), s		8.5	0.2	10.9	0.6	0.0	0.7	14.3	15.6	0.5		3.5
Prop In Lane		1.00		1.00	1.00		0.80	1.00		1.00		1.00
Lane Grp Cap(c), veh/h		231	391	331	33	0	160	336	2017	900		252
V/C Ratio(X)		0.82	0.01	0.69	0.39	0.00	0.09	0.94	0.54	0.02		0.12
Avail Cap(c_a), veh/h		913	605	513	511	0	160	336	2017	900		265
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00		1.00
Uniform Delay (d), s/veh		34.6	25.6	29.8	39.5	0.0	33.5	32.6	11.0	7.7		19.9
Incr Delay (d2), s/veh		2.8	0.0	2.6	2.7	0.0	0.3	33.9	0.4	0.0		0.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
%ile BackOfQ(50%),veh/ln		3.7	0.1	4.2	0.3	0.0	0.3	8.7	4.7	0.1		0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		37.4	25.6	32.4	42.3	0.0	33.7	66.5	11.4	7.7		20.2
LnGrp LOS		D	C	C	D	A	C	E	B	A		C
Approach Vol, veh/h			424			28			1429			
Approach Delay, s/veh			34.6			37.7			23.6			
Approach LOS			C			D			C			
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	20.0	33.8	15.2	12.6		53.8	6.1	21.6				
Change Period (Y+Rc), s	4.6	7.5	4.6	4.6		7.5	4.6	4.6				
Max Green Setting (Gmax), s	15.4	28.5	41.8	8.0		37.9	23.4	26.4				
Max Q Clear Time (g_c+I1), s	16.3	21.8	10.5	2.7		17.6	2.6	12.9				
Green Ext Time (p_c), s	0.0	4.4	0.3	0.0		9.5	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			27.1									
HCM 6th LOS			C									
Notes												
User approved ignoring U-Turning movement.												



Movement	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (veh/h)	873	255
Future Volume (veh/h)	873	255
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1870
Adj Flow Rate, veh/h	939	274
Peak Hour Factor	0.93	0.93
Percent Heavy Veh, %	2	2
Cap, veh/h	1146	511
Arrive On Green	0.32	0.32
Sat Flow, veh/h	3554	1585
Grp Volume(v), veh/h	939	274
Grp Sat Flow(s),veh/h/ln	1777	1585
Q Serve(g_s), s	19.8	11.5
Cycle Q Clear(g_c), s	19.8	11.5
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	1146	511
V/C Ratio(X)	0.82	0.54
Avail Cap(c_a), veh/h	1242	554
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	25.4	22.6
Incr Delay (d2), s/veh	4.5	1.2
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	4.2
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	29.9	23.9
LnGrp LOS	C	C
Approach Vol, veh/h	1243	
Approach Delay, s/veh	28.4	
Approach LOS	C	
Timer - Assigned Phs		

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	12	10	1203	1153	10
Future Vol, veh/h	0	12	10	1203	1153	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	13	11	1337	1281	11
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	641	1292	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.93	4.13	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	0	418	534	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	418	534	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	13.9	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	534	-	418	-	-	
HCM Lane V/C Ratio	0.021	-	0.032	-	-	
HCM Control Delay (s)	11.9	-	13.9	-	-	
HCM Lane LOS	B	-	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-	

Intersection: 1: Junipero Rd & Rouse Rd

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	62	64
Average Queue (ft)	22	32
95th Queue (ft)	54	56
Link Distance (ft)	682	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	120	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Galloping Wy & Rouse Rd

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	31	28
Average Queue (ft)	4	11
95th Queue (ft)	21	33
Link Distance (ft)	195	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	160	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Rouse Rd & Site Drwy

Movement	SB
Directions Served	R
Maximum Queue (ft)	29
Average Queue (ft)	10
95th Queue (ft)	28
Link Distance (ft)	300
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Meniffee Rd & Rouse Rd/Turtle Point Dr

Movement	EB	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	UL	T	R	L	TR	L	T	T	R	UL	T	T
Maximum Queue (ft)	204	30	131	43	32	424	643	506	129	111	236	237
Average Queue (ft)	100	3	58	9	10	198	319	111	14	31	145	126
95th Queue (ft)	174	16	106	30	29	394	629	496	164	86	210	205
Link Distance (ft)		397	397	162	162		613	613	613		180	180
Upstream Blk Time (%)							10	4	0	0	2	1
Queuing Penalty (veh)							0	0	0	0	13	7
Storage Bay Dist (ft)	250					400				180		
Storage Blk Time (%)	0					0	7			0	2	2
Queuing Penalty (veh)	0					0	21			0	1	5

Intersection: 4: Meniffee Rd & Rouse Rd/Turtle Point Dr

Movement	SB	B15	B15
Directions Served	R	T	T
Maximum Queue (ft)	179	22	26
Average Queue (ft)	102	1	1
95th Queue (ft)	180	13	14
Link Distance (ft)		223	223
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)	165		
Storage Blk Time (%)	1		
Queuing Penalty (veh)	2		

Intersection: 5: Meniffee Rd & Site Drwy

Movement	EB	NB
Directions Served	R	L
Maximum Queue (ft)	27	39
Average Queue (ft)	7	9
95th Queue (ft)	25	32
Link Distance (ft)	310	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	200	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 49

Appendix M: Signal Warrants

SIGNAL WARRANT WORKSHEET
Warrant 3, Peak Hour
CA MUTCD

6/5/2023

Project Name:	Tentative Tract 38346 (Rouse Rd)	Year/Condition:	2024 Opening
Intersection:	Junipero Rd & Rouse Rd	Computed By:	AT
Client:	City of Menifee	Checked By:	

Section 4C.04 Warrant 3, Peak Hour (100%)

The Peak Hour signal warrant is intended for use at a location where traffic conditions are such that for a minimum of 1 hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street.

This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

The need for a traffic control signal shall be considered if 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-3 for the existing combination of approach lanes.

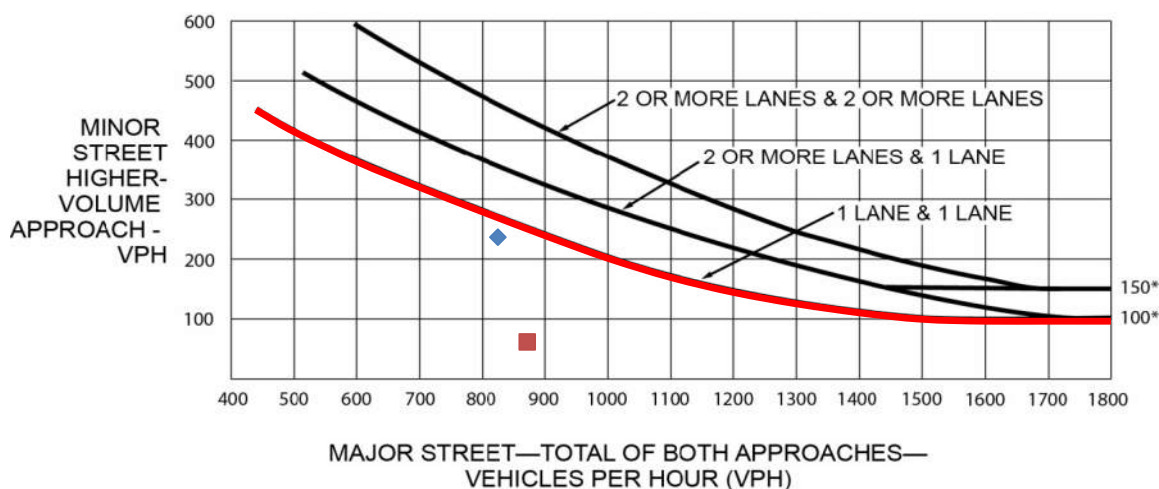
If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, Figure 4C-4 may be used in place of Figure 4C-3

Posted Speed Limit: 35 mph
Population: N/A

	Major Street	Minor Street
Street Name	Rouse Rd	Junipero Rd
No. of Lanes	1	1
Hour	Volume* (vph)	
AM	823	241
PM	870	65

*Total of both approaches for major street, higher volume approach only for minor street

Figure 4C - 3. Warrant 3, Peak Hour (100%)



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: 2014 CA MUTCD

SIGNAL WARRANT WORKSHEET
Warrant 3, Peak Hour
CA MUTCD

6/5/2023

Project Name:	Tentative Tract 38346 (Rouse Rd)	Year/Condition:	2024 Opening + Proj
Intersection:	Junipero Rd & Rouse Rd	Computed By:	AT
Client:	City of Menifee	Checked By:	

Section 4C.04 Warrant 3, Peak Hour (100%)

The Peak Hour signal warrant is intended for use at a location where traffic conditions are such that for a minimum of 1 hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street.

This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

The need for a traffic control signal shall be considered if 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-3 for the existing combination of approach lanes.

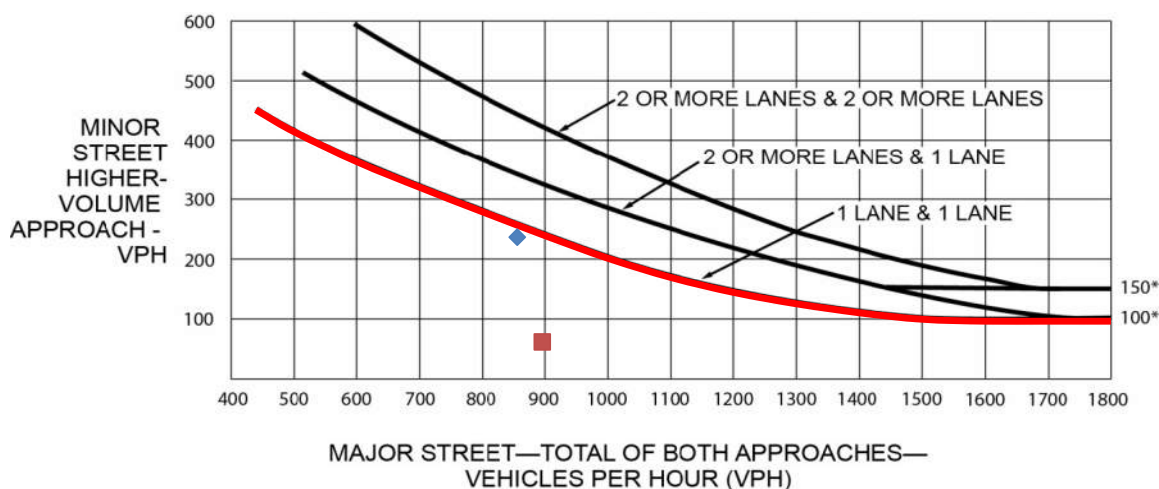
If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, Figure 4C-4 may be used in place of Figure 4C-3

Posted Speed Limit: 35 mph
Population: N/A

	Major Street	Minor Street
Street Name	Rouse Rd	Junipero Rd
No. of Lanes	1	1
Hour	Volume* (vph)	
AM	854	241
PM	894	65

*Total of both approaches for major street, higher volume approach only for minor street

Figure 4C - 3. Warrant 3, Peak Hour (100%)



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: 2014 CA MUTCD

Appendix N: Opening Year 2024 With Project With Improvement Analysis Worksheets

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening+Proj+Imp AM
06/06/2023

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	2	267	3	232	9	16	35	136	835	7	11	9
Future Volume (vph)	2	267	3	232	9	16	35	136	835	7	11	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			0%			0%			0%			
Storage Length (ft)		250		0	0		0	400		0		180
Storage Lanes		1		1	1		0	1		1		1
Taper Length (ft)		25			25			25				25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00
Ped Bike Factor												
Frt				0.850		0.898				0.850		
Flt Protected		0.950			0.950			0.950				0.950
Satd. Flow (prot)	0	1770	1863	1583	1770	1673	0	1770	3539	1583	0	1770
Flt Permitted		0.950			0.950			0.950				0.950
Satd. Flow (perm)	0	1770	1863	1583	1770	1673	0	1770	3539	1583	0	1770
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				301		45				146		
Link Speed (mph)			35			30			55			
Link Distance (ft)			483			222			652			
Travel Time (s)			9.4			5.0			8.1			
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%			0%			0%			
Adj. Flow (vph)	3	347	4	301	12	21	45	177	1084	9	14	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	350	4	301	12	66	0	177	1084	9	0	26
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left
Median Width(ft)			12			12			12			
Link Offset(ft)			-10			20			0			
Crosswalk Width(ft)			16			16			16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	15		9	15		9	9	15
Number of Detectors	1	1	2	1	1	2		1	2	1	1	1
Detector Template	Left	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Left
Leading Detector (ft)	20	20	100	20	20	100		20	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0		0	0	0	0	0
Turn Type	Prot	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	Prot
Protected Phases	3	3	8		7	4		1	6		5	5
Permitted Phases				8						6		
Detector Phase	3	3	8	8	7	4		1	6	6	5	5
Switch Phase												

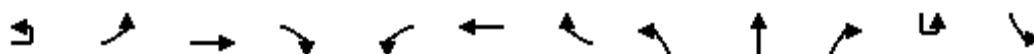
Synchro 11 Report



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	1081	170
Future Volume (vph)	1081	170
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		200
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	55	
Link Distance (ft)	263	
Travel Time (s)	3.3	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.77	0.77
Growth Factor	100%	100%
Heavy Vehicles (%)	2%	2%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Adj. Flow (vph)	1404	221
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1404	221
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Detector Phase	2	2
Switch Phase		

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening+Proj+Imp AM
06/06/2023

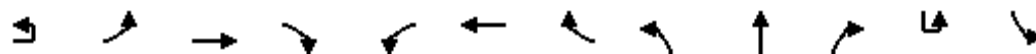


Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Minimum Initial (s)	6.0	6.0	8.0	8.0	6.0	8.0		6.0	8.0	8.0	6.0	6.0
Minimum Split (s)	10.6	10.6	12.6	12.6	10.6	12.6		10.6	15.5	15.5	10.6	10.6
Total Split (s)	46.4	46.4	31.0	31.0	28.0	12.6		15.0	45.4	45.4	10.6	10.6
Total Split (%)	40.3%	40.3%	27.0%	27.0%	24.3%	11.0%		13.0%	39.5%	39.5%	9.2%	9.2%
Maximum Green (s)	41.8	41.8	26.4	26.4	23.4	8.0		10.4	37.9	37.9	6.0	6.0
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6		3.6	5.5	5.5	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0		1.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Lost Time (s)		4.6	4.6	4.6	4.6	4.6		4.6	7.5	7.5		4.6
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	2.0
Minimum Gap (s)	2.0	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	2.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None		None	Min	Min	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		22.7	30.3	30.3	6.2	8.1		10.6	45.4	45.4		6.1
Actuated g/C Ratio		0.24	0.32	0.32	0.07	0.09		0.11	0.48	0.48		0.07
v/c Ratio		0.82	0.01	0.42	0.10	0.35		0.89	0.63	0.01		0.23
Control Delay		50.0	22.0	4.9	47.6	26.3		85.9	23.9	0.0		50.8
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Delay		50.0	22.0	4.9	47.6	26.3		85.9	23.9	0.0		50.8
LOS		D	C	A	D	C		F	C	A		D
Approach Delay			29.1			29.6			32.4			
Approach LOS			C			C			C			
90th %ile Green (s)	32.9	32.9	34.3	34.3	6.6	8.0		10.4	37.9	37.9	6.0	6.0
90th %ile Term Code	Gap	Gap	Hold	Hold	Gap	Max		Max	Max	Max	Max	Max
70th %ile Green (s)	26.9	26.9	39.5	39.5	0.0	8.0		10.4	37.9	37.9	6.0	6.0
70th %ile Term Code	Gap	Gap	Hold	Hold	Skip	Max		Max	Max	Max	Max	Max
50th %ile Green (s)	23.1	23.1	35.7	35.7	0.0	8.0		10.4	48.5	48.5	0.0	0.0
50th %ile Term Code	Gap	Gap	Hold	Hold	Skip	Max		Max	Hold	Hold	Skip	Skip
30th %ile Green (s)	19.6	19.6	32.2	32.2	0.0	8.0		10.4	48.5	48.5	0.0	0.0
30th %ile Term Code	Gap	Gap	Hold	Hold	Skip	Max		Max	Hold	Hold	Skip	Skip
10th %ile Green (s)	13.2	13.2	13.2	13.2	0.0	0.0		10.4	48.5	48.5	0.0	0.0
10th %ile Term Code	Gap	Gap	Hold	Hold	Skip	Skip		Max	Hold	Hold	Skip	Skip
Stops (vph)		244	2	22	10	22		108	603	0		21
Fuel Used(gal)		6	0	1	0	0		5	19	0		1
CO Emissions (g/hr)		386	3	84	11	34		346	1308	2		47
NOx Emissions (g/hr)		75	1	16	2	7		67	255	0		9
VOC Emissions (g/hr)		89	1	20	3	8		80	303	0		11
Dilemma Vehicles (#)		0	0	0	0	0		0	40	0		0
Queue Length 50th (ft)		204	2	0	7	12		109	238	0		15
Queue Length 95th (ft)		247	8	28	23	44		#209	352	0		39
Internal Link Dist (ft)			403			142			572			
Turn Bay Length (ft)		250						400				180
Base Capacity (vph)		801	668	760	448	186		199	1712	841		115

Synchro 11 Report



Lane Group	SBT	SBR
Minimum Initial (s)	8.0	8.0
Minimum Split (s)	15.5	15.5
Total Split (s)	41.0	41.0
Total Split (%)	35.7%	35.7%
Maximum Green (s)	33.5	33.5
Yellow Time (s)	5.5	5.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	7.5	7.5
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	4.0	4.0
Minimum Gap (s)	4.0	4.0
Time Before Reduce (s)	0.0	0.0
Time To Reduce (s)	0.0	0.0
Recall Mode	Min	Min
Walk Time (s)		
Flash Dont Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)	34.0	34.0
Actuated g/C Ratio	0.36	0.36
v/c Ratio	1.09	0.39
Control Delay	86.3	27.4
Queue Delay	0.0	0.0
Total Delay	86.3	27.4
LOS	F	C
Approach Delay	77.8	
Approach LOS	E	
90th %ile Green (s)	33.5	33.5
90th %ile Term Code	Max	Max
70th %ile Green (s)	33.5	33.5
70th %ile Term Code	Max	Max
50th %ile Green (s)	33.5	33.5
50th %ile Term Code	Max	Max
30th %ile Green (s)	33.5	33.5
30th %ile Term Code	Max	Max
10th %ile Green (s)	33.5	33.5
10th %ile Term Code	Max	Max
Stops (vph)	856	123
Fuel Used(gal)	39	4
CO Emissions (g/hr)	2698	267
NOx Emissions (g/hr)	525	52
VOC Emissions (g/hr)	625	62
Dilemma Vehicles (#)	49	0
Queue Length 50th (ft)	~532	101
Queue Length 95th (ft)	#596	157
Internal Link Dist (ft)	183	
Turn Bay Length (ft)		200
Base Capacity (vph)	1283	573



Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Starvation Cap Reductn		0	0	0	0	0		0	0	0		0
Spillback Cap Reductn		0	0	0	0	0		0	0	0		0
Storage Cap Reductn		0	0	0	0	0		0	0	0		0
Reduced v/c Ratio		0.44	0.01	0.40	0.03	0.35		0.89	0.63	0.01		0.23

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 93.8

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.09

Intersection Signal Delay: 52.3

Intersection LOS: D

Intersection Capacity Utilization 72.9%

ICU Level of Service C

Analysis Period (min) 15

90th %ile Actuated Cycle: 106.1

70th %ile Actuated Cycle: 100.1

50th %ile Actuated Cycle: 96.3

30th %ile Actuated Cycle: 92.8

10th %ile Actuated Cycle: 73.8

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 4: Menifee Rd & Rouse Rd/Turtle Point Dr

 Ø1	 Ø2	 Ø3	 Ø4
15 s	41 s	46.4 s	12.6 s
 Ø5	 Ø6	 Ø7	 Ø8
10.6 s	45.4 s	28 s	31 s



Lane Group	SBT	SBR
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	1.09	0.39
Intersection Summary		

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening+Proj+Imp PM
06/06/2023

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	5	177	5	213	12	3	11	295	1016	19	9	28
Future Volume (vph)	5	177	5	213	12	3	11	295	1016	19	9	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			0%			0%			0%			
Storage Length (ft)		250		0	0		0	400		0		180
Storage Lanes		1		1	1		0	1		1		1
Taper Length (ft)		25			25			25				25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00
Ped Bike Factor												
Frt				0.850		0.880				0.850		
Flt Protected		0.950			0.950			0.950				0.950
Satd. Flow (prot)	0	1770	1863	1583	1770	1639	0	1770	3539	1583	0	1770
Flt Permitted		0.950			0.950			0.950				0.261
Satd. Flow (perm)	0	1770	1863	1583	1770	1639	0	1770	3539	1583	0	486
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				229		12				146		
Link Speed (mph)			35			30			55			
Link Distance (ft)			483			222			652			
Travel Time (s)			9.4			5.0			8.1			
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%			0%			0%			
Adj. Flow (vph)	5	190	5	229	13	3	12	317	1092	20	10	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	195	5	229	13	15	0	317	1092	20	0	40
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left
Median Width(ft)			12			12			12			
Link Offset(ft)			-10			20			0			
Crosswalk Width(ft)			16			16			16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	15		9	15		9	9	15
Number of Detectors	1	1	2	1	1	2		1	2	1	1	1
Detector Template	Left	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Left
Leading Detector (ft)	20	20	100	20	20	100		20	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0		0	0	0	0	0
Turn Type	Prot	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	Perm
Protected Phases	3	3	8		7	4		1	6		5	
Permitted Phases				8						6		2
Detector Phase	3	3	8	8	7	4		1	6	6	5	2
Switch Phase												

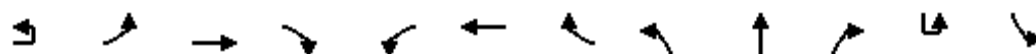
Synchro 11 Report



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	873	255
Future Volume (vph)	873	255
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		200
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	55	
Link Distance (ft)	263	
Travel Time (s)	3.3	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.93	0.93
Growth Factor	100%	100%
Heavy Vehicles (%)	2%	2%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Adj. Flow (vph)	939	274
Shared Lane Traffic (%)		
Lane Group Flow (vph)	939	274
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Detector Phase	2	2
Switch Phase		

Menifee TTM 38346 Rouse Rd
4: Menifee Rd & Rouse Rd/Turtle Point Dr

Opening+Proj+Imp PM
06/06/2023



Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Minimum Initial (s)	6.0	6.0	8.0	8.0	6.0	8.0		6.0	8.0	8.0	6.0	8.0
Minimum Split (s)	10.6	10.6	12.6	12.6	10.6	12.6		10.6	15.5	15.5	10.6	15.5
Total Split (s)	46.4	46.4	31.0	31.0	28.0	12.6		20.0	45.4	45.4	10.6	36.0
Total Split (%)	40.3%	40.3%	27.0%	27.0%	24.3%	11.0%		17.4%	39.5%	39.5%	9.2%	31.3%
Maximum Green (s)	41.8	41.8	26.4	26.4	23.4	8.0		15.4	37.9	37.9	6.0	28.5
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6		3.6	5.5	5.5	3.6	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0		1.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Lost Time (s)		4.6	4.6	4.6	4.6	4.6		4.6	7.5	7.5		7.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	4.0
Minimum Gap (s)	2.0	2.0	3.0	3.0	2.0	3.0		2.0	4.0	4.0	2.0	4.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None		None	Min	Min	None	Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		13.1	13.3	13.3	6.1	8.1		15.6	49.0	49.0		28.8
Actuated g/C Ratio		0.17	0.17	0.17	0.08	0.11		0.20	0.64	0.64		0.38
v/c Ratio		0.65	0.02	0.49	0.09	0.08		0.88	0.48	0.02		0.22
Control Delay		40.5	26.4	8.2	38.2	22.4		58.6	9.4	0.1		23.6
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Delay		40.5	26.4	8.2	38.2	22.4		58.6	9.4	0.1		23.6
LOS		D	C	A	D	C		E	A	A		C
Approach Delay			23.1			29.7			20.2			
Approach LOS			C			C			C			
90th %ile Green (s)	19.6	19.6	21.2	21.2	6.4	8.0		15.4	48.5	48.5	0.0	28.5
90th %ile Term Code	Gap	Gap	Hold	Hold	Gap	Max		Max	Hold	Hold	Skip	Max
70th %ile Green (s)	16.1	16.1	16.1	16.1	0.0	0.0		15.4	48.5	48.5	0.0	28.5
70th %ile Term Code	Gap	Gap	Hold	Hold	Skip	Skip		Max	Hold	Hold	Skip	Max
50th %ile Green (s)	12.3	12.3	12.3	12.3	0.0	0.0		15.4	48.5	48.5	0.0	28.5
50th %ile Term Code	Gap	Gap	Hold	Hold	Skip	Skip		Max	Hold	Hold	Skip	Max
30th %ile Green (s)	10.5	10.5	10.5	10.5	0.0	0.0		15.4	48.5	48.5	0.0	28.5
30th %ile Term Code	Gap	Gap	Hold	Hold	Skip	Skip		Max	Hold	Hold	Skip	Max
10th %ile Green (s)	8.0	8.0	8.0	8.0	0.0	0.0		15.4	48.5	48.5	0.0	28.5
10th %ile Term Code	Gap	Gap	Min	Min	Skip	Skip		Max	Hold	Hold	Skip	Max
Stops (vph)		159	6	29	14	9		237	498	0		29
Fuel Used(gal)		3	0	1	0	0		9	15	0		1
CO Emissions (g/hr)		232	6	92	13	10		639	1076	6		59
NOx Emissions (g/hr)		45	1	18	3	2		124	209	1		11
VOC Emissions (g/hr)		54	1	21	3	2		148	249	1		14
Dilemma Vehicles (#)		0	0	0	0	0		0	57	0		0
Queue Length 50th (ft)		83	2	0	6	1		138	106	0		12
Queue Length 95th (ft)		171	12	58	26	21		#373	283	0		48
Internal Link Dist (ft)			403			142			572			
Turn Bay Length (ft)		250						400				180
Base Capacity (vph)		979	650	702	548	184		360	2271	1068		183

Synchro 11 Report



Lane Group	SBT	SBR
Minimum Initial (s)	8.0	8.0
Minimum Split (s)	15.5	15.5
Total Split (s)	36.0	36.0
Total Split (%)	31.3%	31.3%
Maximum Green (s)	28.5	28.5
Yellow Time (s)	5.5	5.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	7.5	7.5
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	4.0	4.0
Minimum Gap (s)	4.0	4.0
Time Before Reduce (s)	0.0	0.0
Time To Reduce (s)	0.0	0.0
Recall Mode	Min	Min
Walk Time (s)		
Flash Dont Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)	28.8	28.8
Actuated g/C Ratio	0.38	0.38
v/c Ratio	0.70	0.46
Control Delay	25.4	23.1
Queue Delay	0.0	0.0
Total Delay	25.4	23.1
LOS	C	C
Approach Delay	24.9	
Approach LOS	C	
90th %ile Green (s)	28.5	28.5
90th %ile Term Code	Max	Max
70th %ile Green (s)	28.5	28.5
70th %ile Term Code	Max	Max
50th %ile Green (s)	28.5	28.5
50th %ile Term Code	Max	Max
30th %ile Green (s)	28.5	28.5
30th %ile Term Code	Max	Max
10th %ile Green (s)	28.5	28.5
10th %ile Term Code	Max	Max
Stops (vph)	685	187
Fuel Used(gal)	20	6
CO Emissions (g/hr)	1415	388
NOx Emissions (g/hr)	275	75
VOC Emissions (g/hr)	328	90
Dilemma Vehicles (#)	56	0
Queue Length 50th (ft)	179	88
Queue Length 95th (ft)	#379	217
Internal Link Dist (ft)	183	
Turn Bay Length (ft)		200
Base Capacity (vph)	1334	597

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Starvation Cap Reductn		0	0	0	0	0		0	0	0		0
Spillback Cap Reductn		0	0	0	0	0		0	0	0		0
Storage Cap Reductn		0	0	0	0	0		0	0	0		0
Reduced v/c Ratio		0.20	0.01	0.33	0.02	0.08		0.88	0.48	0.02		0.22

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 76.4

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 22.5

Intersection LOS: C

Intersection Capacity Utilization 71.1%

ICU Level of Service C

Analysis Period (min) 15

90th %ile Actuated Cycle: 92.8

70th %ile Actuated Cycle: 76.7

50th %ile Actuated Cycle: 72.9

30th %ile Actuated Cycle: 71.1

10th %ile Actuated Cycle: 68.6

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 4: Menifee Rd & Rouse Rd/Turtle Point Dr

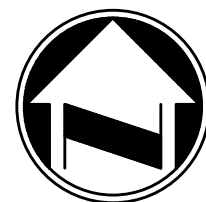
 Ø1	 Ø2	 Ø3	 Ø4
20 s	36 s	46.4 s	12.6 s
 Ø5	 Ø6	 Ø7	 Ø8
10.6 s	45.4 s	28 s	31 s



Lane Group	SBT	SBR
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.70	0.46
Intersection Summary		

Appendix O: Sight Distance Worksheet

IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA



PROPERTY LINE

~660 feet

EX. R/W

TURTLE PO
DRIVE

TRACT NO. 31098
MB 472 / 73-89

LDW TENTATIVE TRACT NO. 38346
PREPARATION DATE: DECEMBER 2021
REVISION DATE: AUGUST 2022

PLANS PREPARED BY:

adkan
ENGINEERS

Civil Engineering • Surveying • Planning
6879 Airport Drive, Riverside, CA 92504
Tel: (951) 688-0241 Fax: (951) 688-0599

Appendix P:

Gate Queueing Worksheets

IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

TTM 38346 - LDW ENTRY STACKING EXHIBIT

OWNER
LDW RANCON, LP
41341 KALMIA STREET, SUITE 200
MURRIETA, CA 92562

APPLICANT
FOREMOST COMPANIES
21211 LAS RAMBLAS, #100
MISSION VIEJO, CA 92691

ENGINEER
adkan
ENGINEERS
6879 AIRPORT DRIVE
RIVERSIDE, CA. 92504
951-688-0241

PROJECT DATA
PROJECT AREA: 9.54 ACRES GROSS
8.06 ACRES NET

ASSESSORS PARCEL NUMBERS
331-250-028, 331-250-024, 331-250-030

ZONING/LAND USE
EXIST ZONE: HIGH DENSITY RESIDENTIAL
PROP ZONE: HIGH DENSITY RESIDENTIAL
EXIST LAND USE: 201-24 RESIDENTIAL
PROP LAND USE: 201-24 RESIDENTIAL

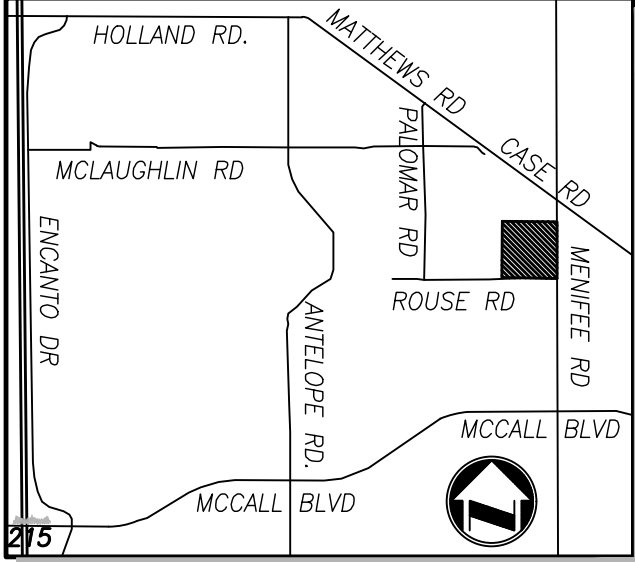
UTILITY PURVEYORS
SEWER: EASTERN MUNICIPAL WATER DISTRICT
WATER: EASTERN MUNICIPAL WATER DISTRICT
ELECTRIC: SOUTHERN CALIFORNIA EDISON
PHONE/CABLE: FRONTIER COMMUNICATIONS
GAS: SOUTHERN CALIFORNIA GAS COMPANY
SCHOOL DISTRICT: ROMOLAND & FERRIS UNION HIGH

BENCHMARK
1-3/8" BRASS DISK STAMPED "MND BM DVR 23
1981" SET IN WINGWALL. LOCATED 260 FEET SOUTH
OF OLIVE AVE. AND 40 FEET EAST OF
WINCHESTER ROAD.

ELEV = 1464.76' DATUM: NAVD83

BASIS OF BEARINGS
THE CENTERLINE OF ROUSE ROAD BEING NORTH
OF 84°51'18" WEST PER TRACT NO. 31098, FILED IN
BOOK 472 OF MAPS, AT PAGES 13 THROUGH 84,
INCLUSIVE, RECORDS OF RIVERSIDE COUNTY, HAS
HELD AS THE BASIS OF BEARINGS FOR THIS MAP.

THOMAS BROS. GUIDE PAGE 838, GRID 63



VICINITY MAP

T55R3W SEC. 14 S

LEGAL DESCRIPTION

THE LEGAL DESCRIPTION AND SCHEDULE B EXCEPTIONS ARE REFERENCED TO A PRELIMINARY REPORT PREPARED BY FIRST AMERICAN TITLE COMPANY ORDER NO. 6551298-A, DATED DECEMBER 14, 2021.

REAL PROPERTY IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

PARCEL 1: (APN: PORTIONS OF 331-250-028-0 AND 331-250-030)

PARCEL "B" DESCRIBED ON EXHIBIT "A" AND SHOWN ON EXHIBIT "B" OF LOT LINE ADJUSTMENT NO. LLA 17-002 RECORDED FEBRUARY 21, 2020 AS INSTRUMENT NO. 2020-0081364, OF OFFICIAL RECORDS, DESCRIBED AS FOLLOWS:

BEING A PORTION OF PARCEL 1 OF MERGER 18-001, A CERTIFIED COPY OF WHICH RECORDED FEBRUARY 21, 2020 AS INSTRUMENT NO. 2020-0080310 OF OFFICIAL RECORDS, TOGETHER WITH LOT 976 OF ROMOLA FARMS NO. 10, IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS FILED IN BOOK 15, PAGES 24 THROUGH 31, INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, TOGETHER WITH THAT PORTION OF LOT "C" (ROUSE ROAD) ADJOINING SAID LOT AS SAID ROAD WAS VACATED AND ABANDONED BY RESOLUTION OF THE BOARD OF SUPERVISORS OF THE COUNTY OF RIVERSIDE, A CERTIFIED COPY OF WHICH RECORDED FEBRUARY 6, 1962 AS INSTRUMENT NO. 11656 OF OFFICIAL RECORDS, IN SECTION 14, TOWNSHIP 5 SOUTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECT OF SAID ROUSE ROAD (60 FEET WIDE PER MAP BOOK 15, PAGES 24-31) AND JUNIPERO ROAD (60 FEET WIDE PER MAP BOOK 15, PAGES 24-31);

THENCE ALONG SAID CENTERLINE OF ROUSE, NORTH 84°58'32" EAST, 660.23, SAID POINT BEING THE TRUE POINT OF BEGINNING;

THENCE NORTH 00°21'27" EAST, 330.06 FEET TO THE NORTHWEST CORNER OF LOT 976;

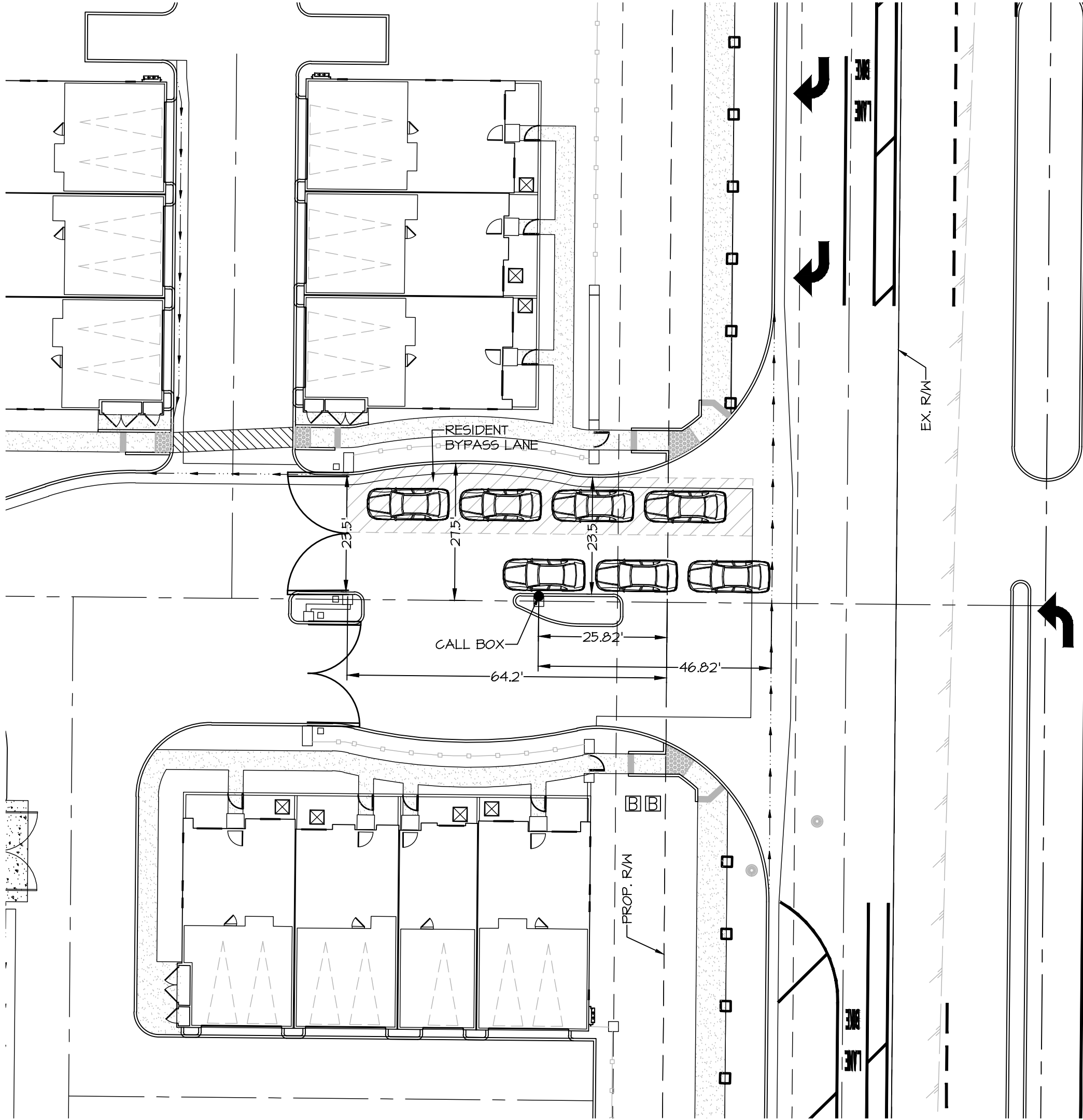
THENCE ALONG THE NORTHERLY LINE OF LOT 976, NORTH 84°58'31" EAST, 630.22 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF MENIFEE ROAD (60 FEET WIDE PER MAP BOOK 15, PAGES 24-31);

THENCE ALONG SAID WESTERLY RIGHT-OF-WAY LINE OF MENIFEE ROAD SOUTH 00°21'27" WEST, 329.98 FEET TO A POINT ON THE CENTERLINE OF ROUSE ROAD;

THENCE ALONG THE CENTERLINE OF ROUSE ROAD, SOUTH 84°58'32" WEST, 630.22, TO THE TRUE POINT OF BEGINNING.

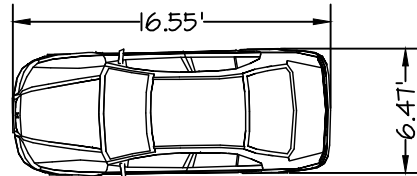
PARCEL 2: (APN: PORTION OF 331-250-024)

LOT 971, OF ROMOLA FARMS NO. 10, IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS FILED IN BOOK 15, PAGES 24 THROUGH 31, INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.



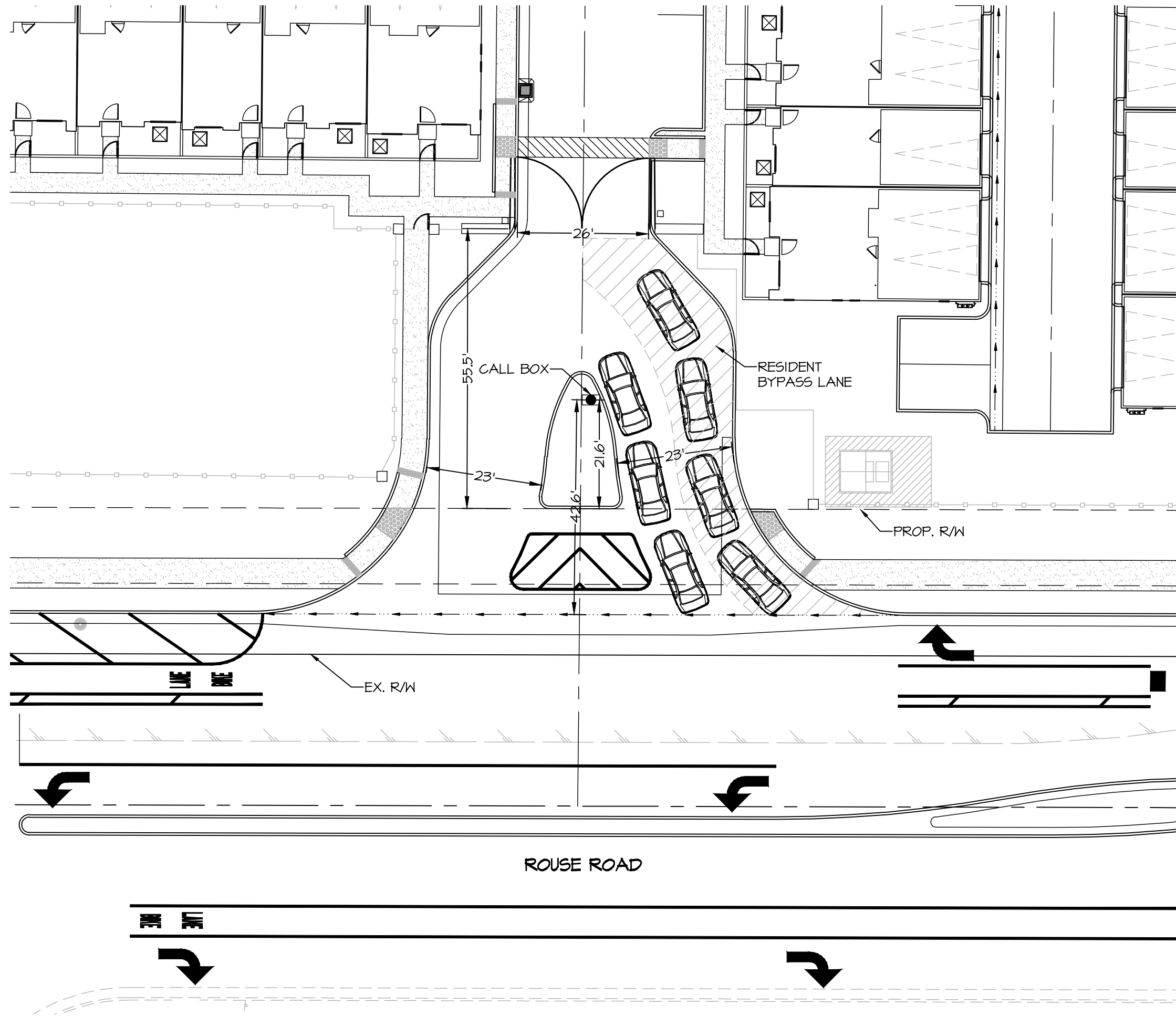
PRIMARY ENTRY - MENIFEE ROAD

SCALE: 1"=20'



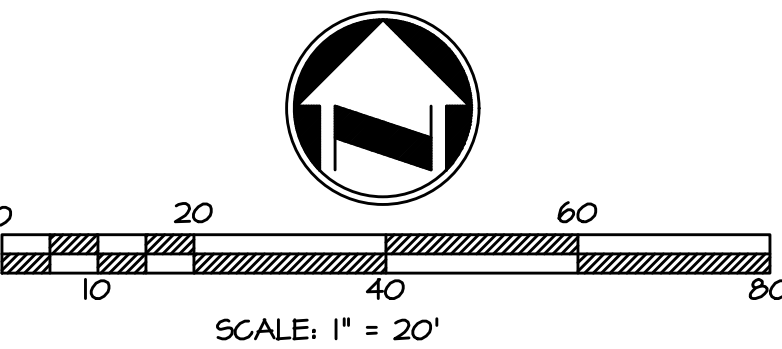
STANDARD VEHICLE

SCALE: 1"=10'



SECONDARY ENTRY - ROUSE ROAD

SCALE: 1"=20'



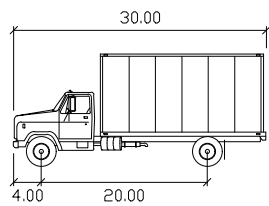
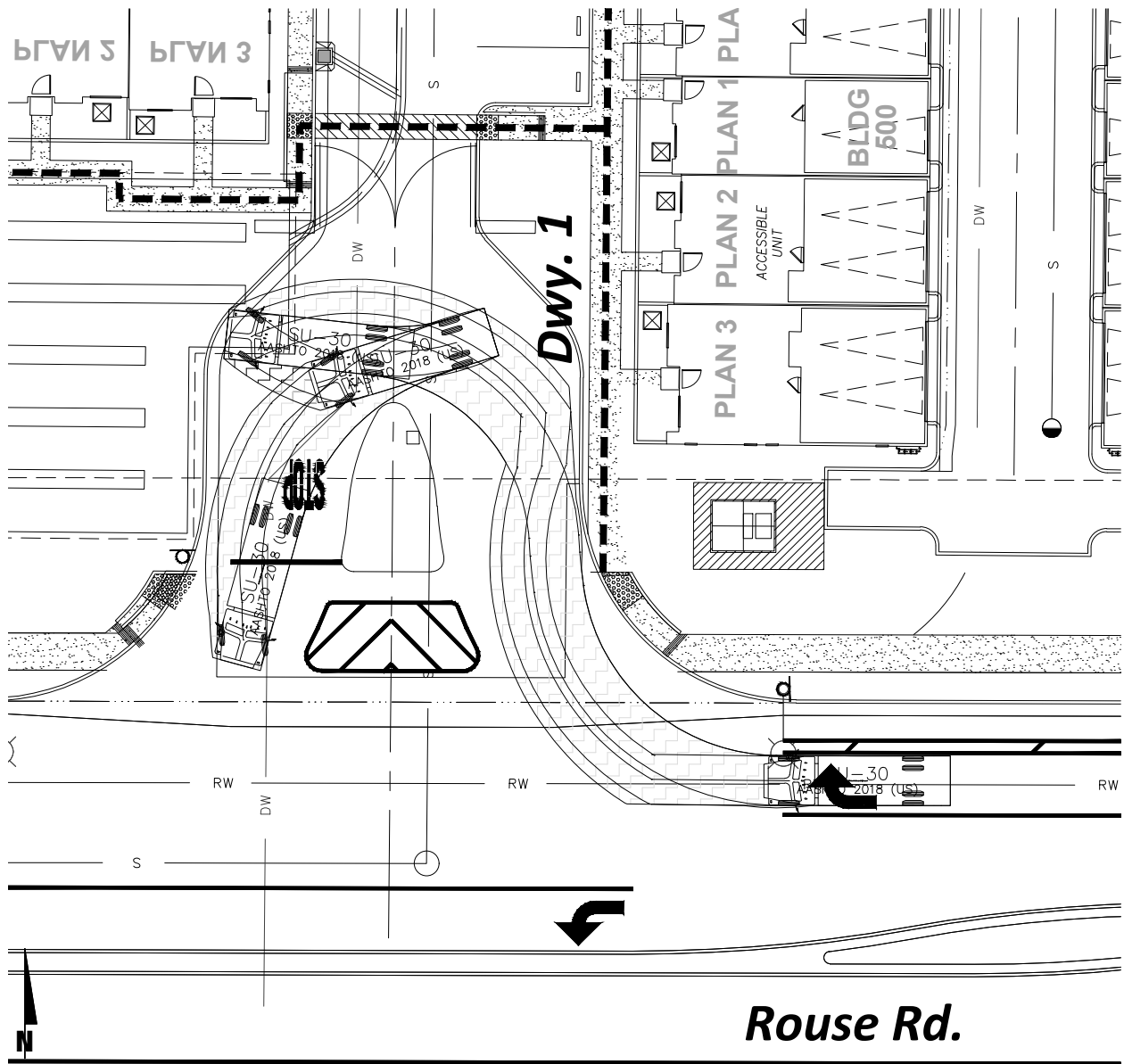
SCALE: 1" = 20'

TTM 38346 - LDW
ENTRY STACKING
PREPARATION DATE: MAY 2023

adkan
ENGINEERS
Civil Engineering • Surveying • Planning
6879 Airport Drive, Riverside, CA 92504
Tel: (951) 688-0241 • Fax: (951) 688-0599

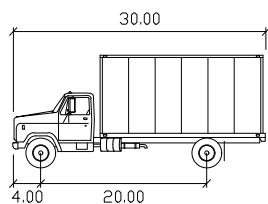
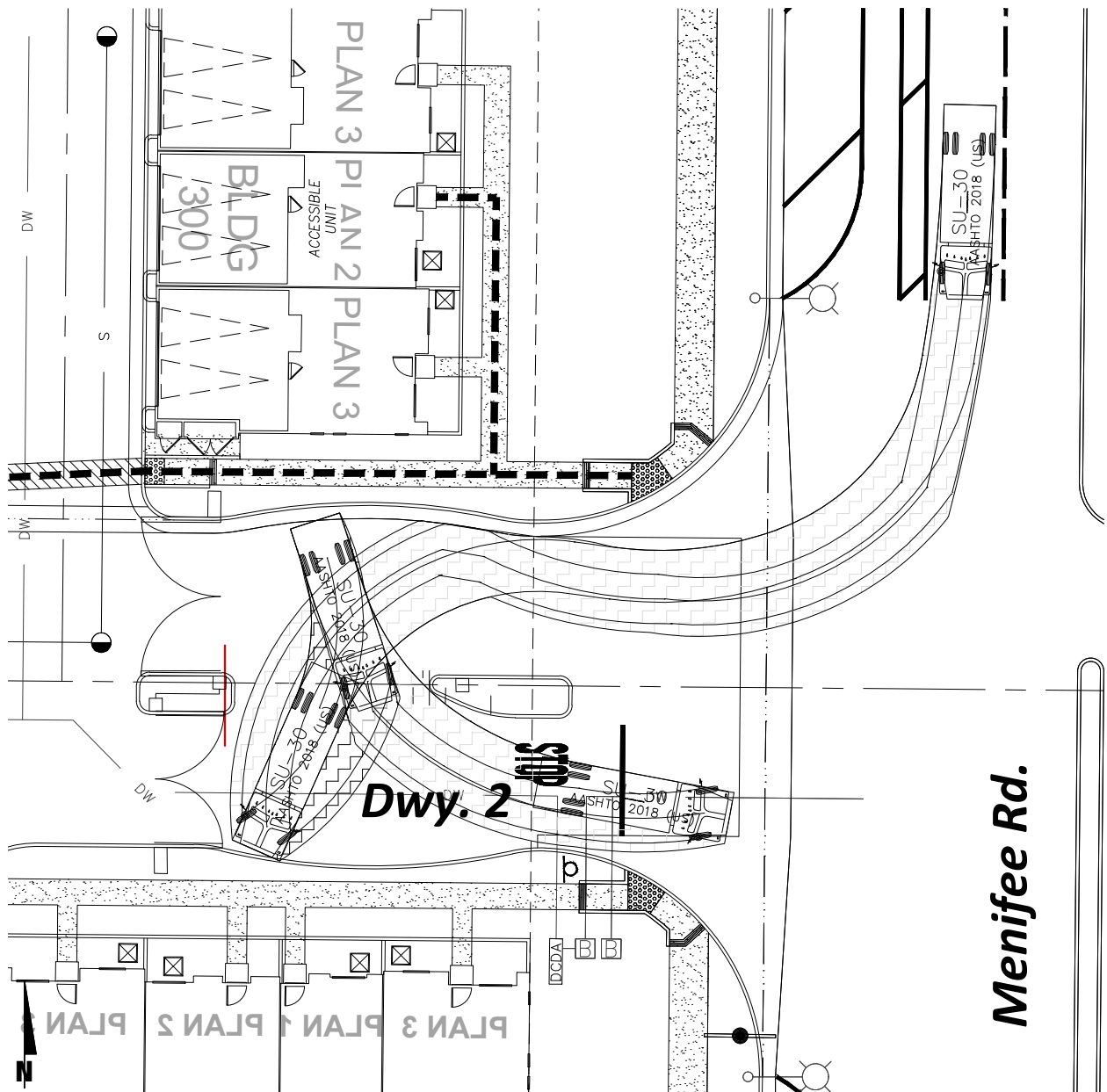
SHEET 1 OF 1

PLOT DATE: 5/24/2023 4:35 AM



SU-30

feet
 Width : 8.00
 Track : 8.00
 Lock to Lock Time 6.0
 Steering Angle : 31.8



SU-30

feet

Width : 8.00

Track : 8.00

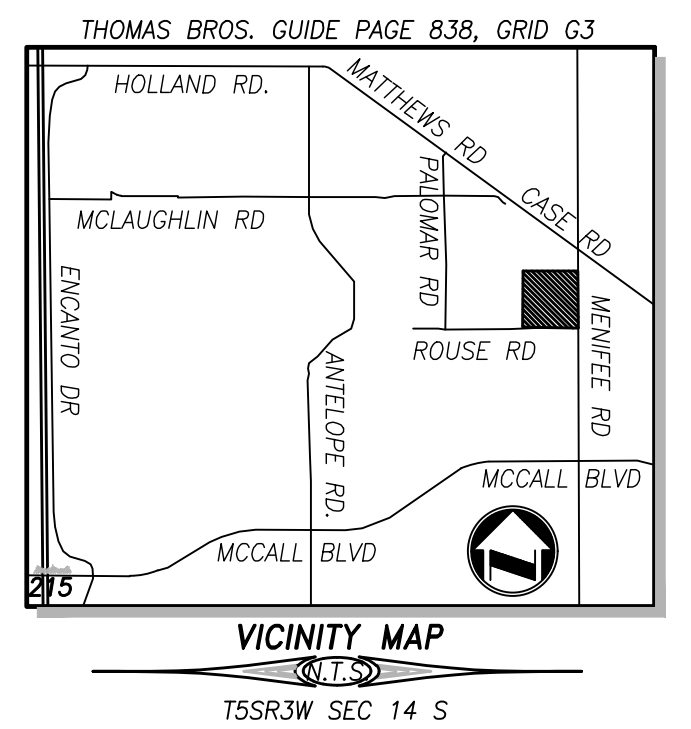
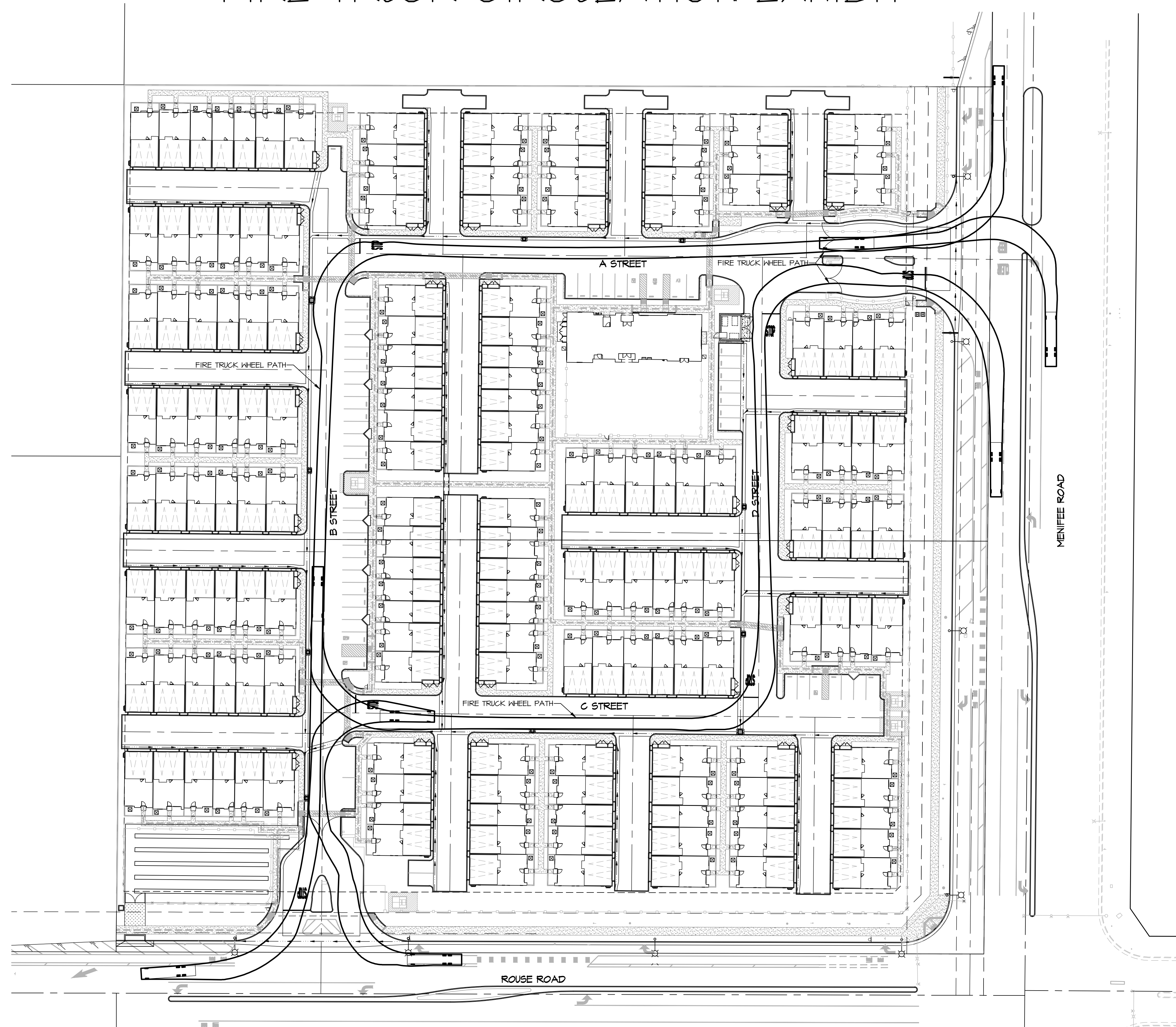
Lock to Lock Time : 6.0

Steering Angle : 31.8

IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

TTM 38346 - LDW

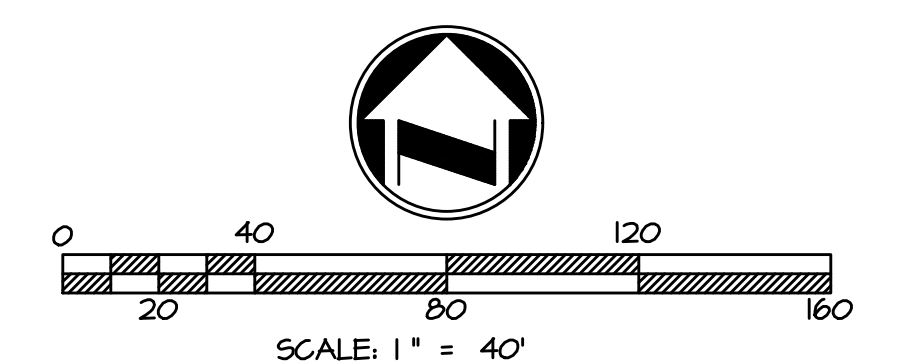
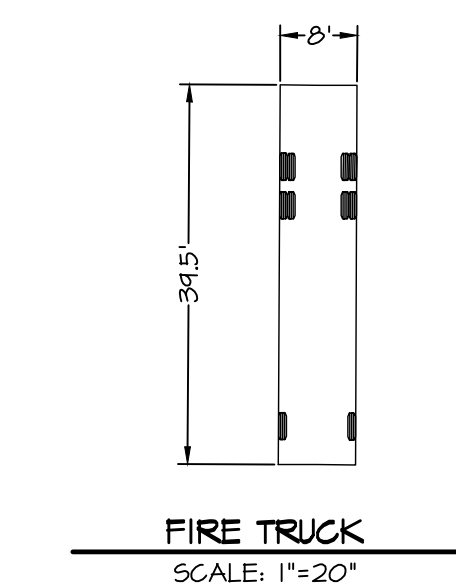
FIRE TRUCK CIRCULATION EXHIBIT



OWNER
LDW RANCON, LP
41341 KALMIA STREET, SUITE 200
MURRIETA, CA 92562

ENGINEER
adkan
ENGINEERS
6879 AIRPORT DRIVE
RIVERSIDE, CA 92504
951-688-0241

ASSESSORS PARCEL NUMBERS
331-250-028, 331-250-029,
331-250-030



PLANS PREPARED BY:
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