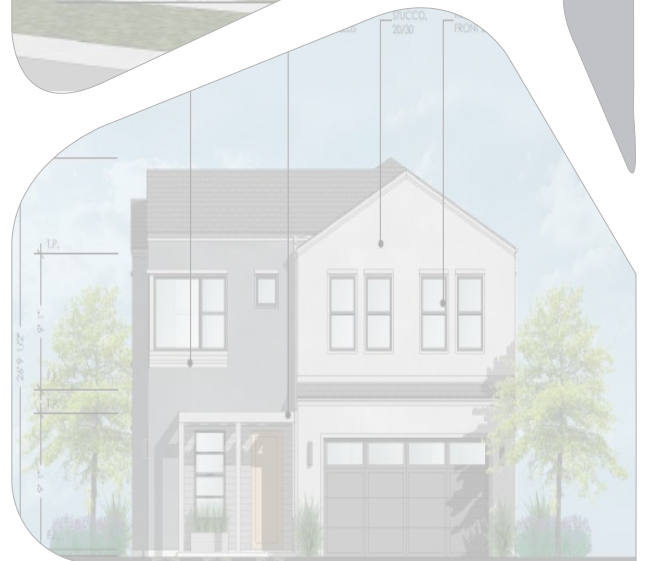


# Traffic Impact Analysis



# THE PINES AT SUNRISE VILLAGE

## TRAFFIC IMPACT ANALYSIS

### Prepared For:

Shopoff Realty Investments  
2 Park Plaza, Suite 700  
Irvine, California 92614

### Prepared By:

**ENVIRONMENT | PLANNING | DEVELOPMENT SOLUTIONS, INC.**

2 Park Plaza, Suite 1120  
Irvine, CA 92614  
(949) 794-1180

Contact: Meghan Macias, TE  
[meghan@epdsolutions.com](mailto:meghan@epdsolutions.com)

EPD Project Number 20-099



July 7, 2021

## Table of Contents

<b>1</b>	<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>2</b>	<b>INTRODUCTION.....</b>	<b>2</b>
2.1	Project Description.....	2
2.2	Study Area and Analysis Scenarios .....	5
2.3	Methodology.....	7
2.4	Significance Criteria .....	7
<b>3</b>	<b>BASELINE CONDITIONS .....</b>	<b>9</b>
3.1	Existing Transportation System .....	9
3.2	Existing Traffic Volumes and Levels of Service .....	9
3.3	Opening Year Baseline (2023) Traffic Volumes and LOS.....	12
<b>4</b>	<b>PROPOSED PROJECT .....</b>	<b>16</b>
4.1	Project Description and Project Access .....	16
4.2	Project Trip Generation.....	16
<b>5</b>	<b>PLUS PROJECT RESULTS .....</b>	<b>21</b>
5.1	Existing Plus Project Traffic Volumes and Intersection Operations .....	21
5.2	Opening Year (2023) Plus Project Traffic Volumes and Intersection Operations .....	25
<b>6</b>	<b>FINDINGS AND RECOMMENDATIONS .....</b>	<b>28</b>

## Figures

FIGURE 1: PROJECT LOCATION .....	3
FIGURE 2: PROJECT SITE PLAN .....	4
FIGURE 3: PROJECT STUDY AREA .....	6
FIGURE 4A: EXISTING BASELINE AM PEAK HOUR TRAFFIC VOLUMES.....	10
FIGURE 4B: EXISTING BASELINE PM PEAK HOUR TRAFFIC VOLUMES .....	11
FIGURE 5A: OPENING YEAR BASELINE AM PEAK HOUR TRAFFIC VOLUMES .....	13
FIGURE 5B: OPENING YEAR BASELINE PM PEAK HOUR TRAFFIC VOLUMES .....	14
FIGURE 6: PROJECT TRIP DISTRIBUTION .....	18
FIGURE 7A: PROJECT TRIP AM ASSIGNMENT.....	19
FIGURE 7B: PROJECT TRIP PM ASSIGNMENT.....	20
FIGURE 8A: EXISTING PLUS PROJECT AM PEAK HOUR TRAFFIC VOLUMES .....	22
FIGURE 8B: EXISTING PLUS PROJECT PM PEAK HOUR TRAFFIC VOLUMES .....	23
FIGURE 9A: OPENING YEAR PLUS PROJECT AM PEAK HOUR TRAFFIC VOLUMES.....	26
FIGURE 9B: OPENING YEAR PLUS PROJECT PM PEAK HOUR TRAFFIC VOLUMES.....	27

## Tables

TABLE 1.	RELATIONSHIP BETWEEN CONTROL DELAY AND LOS AT A SIGNALIZED INTERSECTION.....	7
TABLE 2.	RELATIONSHIP BETWEEN DELAY AND LOS AN UNSIGNALIZED INTERSECTION .....	7
TABLE 3.	EXISTING AM AND PM PEAK HOUR LEVELS OF SERVICE .....	12
TABLE 4.	OPENING YEAR BASELINE AM AND PM PEAK HOUR LEVELS OF SERVICE.....	15
TABLE 5.	PROJECT TRIP GENERATION .....	17
TABLE 6.	EXISTING BASELINE AND EXISTING PLUS PROJECT PEAK HOUR LEVELS OF SERVICE.....	24
TABLE 7.	OPENING YEAR BASELINE AND OPENING YEAR PLUS PROJECT PEAK HOUR LEVELS OF SERVICE.....	28

## Appendices

APPENDIX A – TRAFFIC COUNTS
APPENDIX B – LEVEL OF SERVICE CALCULATIONS
APPENDIX C – EXISTING DISTRIBUTION AND ASSIGNMENT



## 1 EXECUTIVE SUMMARY

This Traffic Impact Analysis (TIA) evaluates the potential traffic operational deficiencies of The Pines at Sunrise Villages project, a proposed 116-unit townhome and 52-unit single family residential development. An update to the project occurred after the analysis was complete which reduced the overall units to 164, down from the 168 units analyzed. Therefore, the following analysis is conservative. The project would replace the existing shopping center. The project is located on a 13.94-acre site located south of Rosecrans Avenue and west of Euclid Street, in the City of Fullerton. Based on the Institute of Transportation Engineers, *Trip Generation* 10th Edition vehicle trip generation rates, the project would generate a net of -2,600 net daily trips, including -7 net trips during the AM peak hour and -131 net trips during the PM peak hour.

Six study area intersections were evaluated during the AM and PM peak hours, which are defined as the hours with the highest traffic volumes during the 7 AM to 9 AM and 4 PM to 6 PM peak commute periods. AM and PM peak hour traffic operations were evaluated for the following scenarios:

- Existing Condition
- Existing plus Project Condition
- Opening Year Baseline (corresponding to the project opening year 2023)
- Opening Year plus project

### **Existing plus Project Intersection Analysis Results**

All study intersections are anticipated to operate at LOS D or better in the Existing plus Project condition.

### **Opening Year plus Project Intersection Analysis Results**

All study intersections are anticipated to operate at LOS D or better in the Opening Year plus Project condition.

Based on this analysis, the project would not cause unsatisfactory operation at any study area intersection.

## 2 INTRODUCTION

This Traffic Impact Analysis (TIA) has been prepared by EPD Solutions, Inc. (EPD) to analyze the potential transportation-related operational deficiencies of the proposed Sunrise Villages project (proposed project). The TIA was prepared according to the requirements of the *City of Fullerton Transportation Assessment Policies and Procedures*, City of Fullerton General Plan, and applicable provisions of the California Environmental Quality Act (CEQA).

### 2.1 Project Description

The proposed project is located on a 13.94-acre site located south of Rosecrans Avenue and west of Euclid Street, in the City of Fullerton. The location of the project is shown in Figure 1 - Project Location, and the project site plan is shown in Figure 2 – Project Site Plan. The project proposes to construct 115 townhome residential dwelling units and 49 single family residential dwelling units. An update to the project occurred after the analysis was complete which reduced the overall units to 164, down from the 168 units analyzed. Therefore, the following analysis is conservative.

The site is currently occupied by a 104,381 square foot shopping and 3,919 square foot Red Cross Center, which would be removed and replaced by the proposed project. The Project site currently has two driveways accessing the bulk of the shopping center, one on Rosecrans Avenue and one on Euclid Street which would remain. Access from Camino Loma will remain and provide a new connection to the whole project site.

Figure 1: Project Location

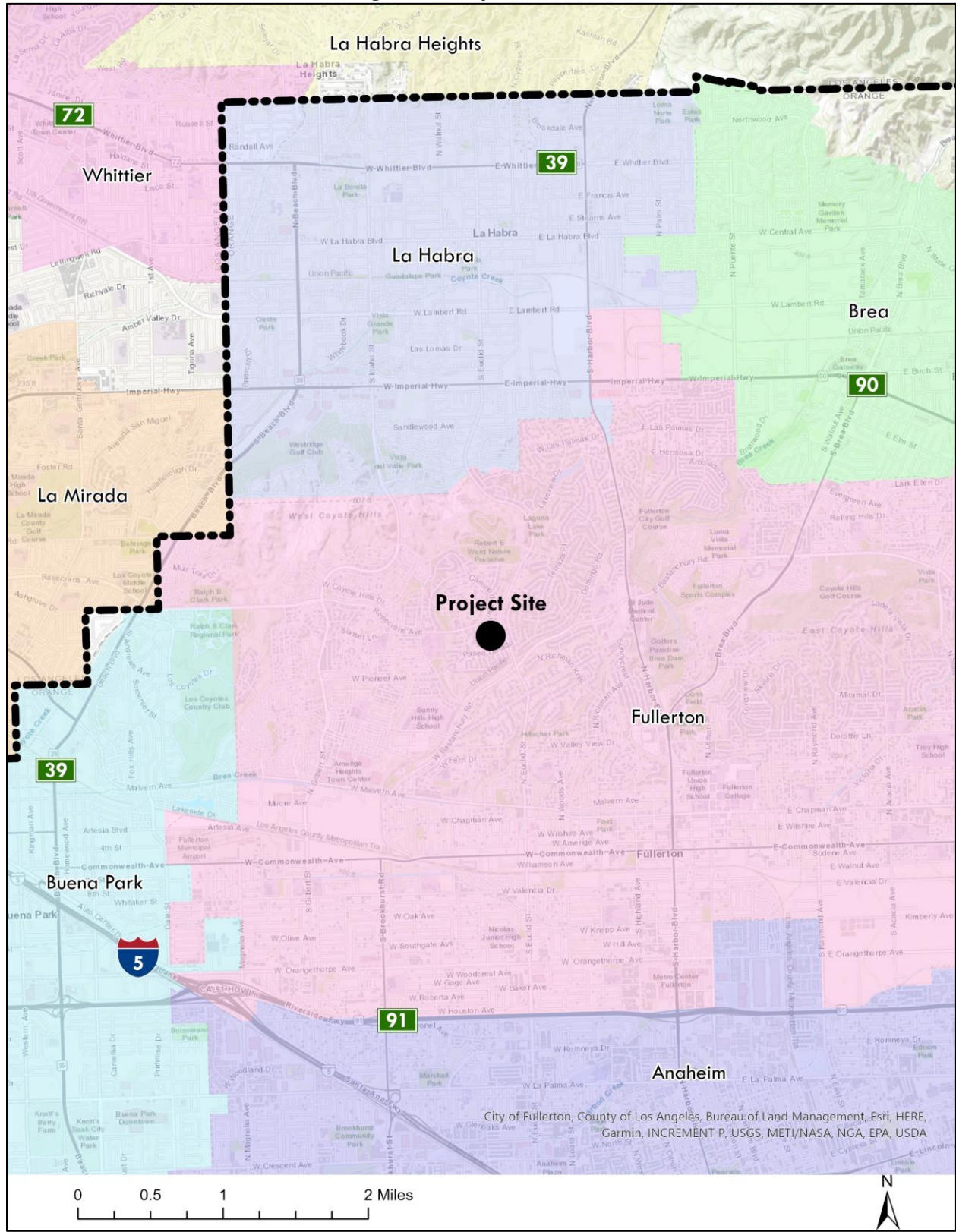
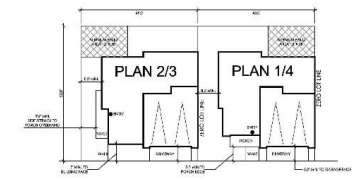
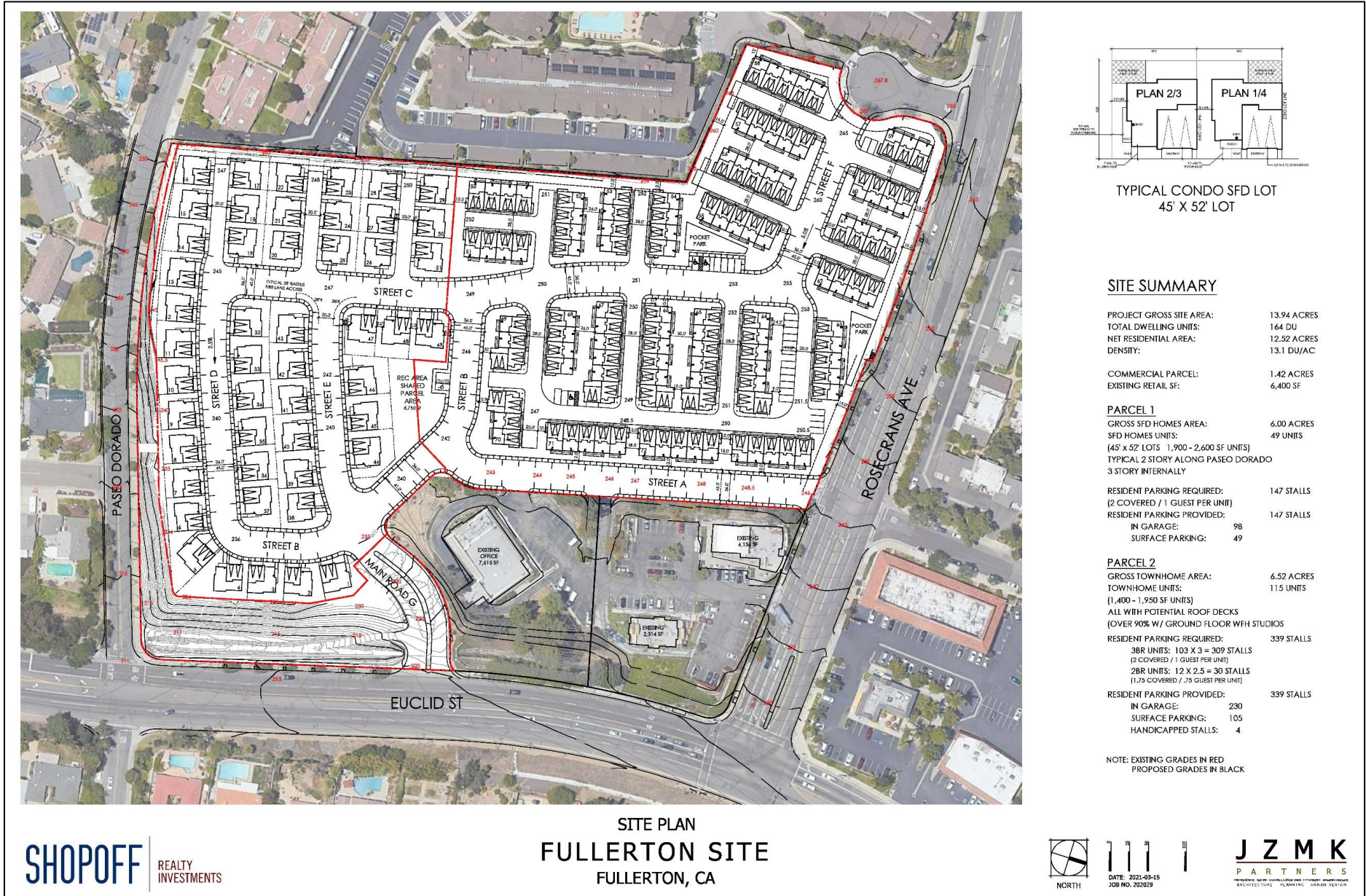




Figure 2: Project Site Plan



TYPICAL CONDO SFD LOT  
45' X 52' LOT

**SITE SUMMARY**

PROJECT GROSS SITE AREA:	13.94 ACRES
TOTAL DWELLING UNITS:	164 DU
NET RESIDENTIAL AREA:	12.52 ACRES
DENSITY:	13.1 DU/AC
COMMERCIAL PARCEL:	1.42 ACRES
EXISTING RETAIL SF:	6,400 SF
<b>PARCEL 1</b>	
GROSS SFD HOMES AREA:	6.00 ACRES
SFD HOMES UNITS:	49 UNITS
(45' x 52' LOTS 1,900 - 2,600 SF UNITS)	
TYPICAL 2 STORY ALONG PASEO DORADO	
3 STORY INTERNALLY	
RESIDENT PARKING REQUIRED:	147 STALLS
(2 COVERED / 1 GUEST PER UNIT)	
RESIDENT PARKING PROVIDED:	147 STALLS
IN GARAGE: 98	
SURFACE PARKING: 49	
<b>PARCEL 2</b>	
GROSS TOWNHOME AREA:	6.52 ACRES
TOWNHOME UNITS:	115 UNITS
(1,400 - 1,950 SF UNITS)	
ALL WITH POTENTIAL ROOF DECKS	
(OVER 90% W/ GROUND FLOOR WFH STUDIOS)	
RESIDENT PARKING REQUIRED:	339 STALLS
3BR UNITS: 103 X 3 = 309 STALLS	
(2 COVERED / 1 GUEST PER UNIT)	
2BR UNITS: 12 X 2.5 = 30 STALLS	
(1.75 COVERED / .75 GUEST PER UNIT)	
RESIDENT PARKING PROVIDED:	339 STALLS
IN GARAGE: 230	
SURFACE PARKING: 105	
HANDICAPPED STALLS: 4	
NOTE: EXISTING GRADES IN RED	
PROPOSED GRADES IN BLACK	

## 2.2 Study Area and Analysis Scenarios

The following intersections were analyzed in the Existing and Opening Year (2023) analysis:

1. Parks Road/Rosecrans Avenue
2. Camino Loma/Rosecrans Avenue
3. Driveway 1/Rosecrans Avenue
4. Euclid Street/Rosecrans Avenue
5. Euclid Street/Driveway 2
6. Euclid Street/Bastanchury Road

The location of the study area intersections is shown on Figure 3 – Project Study Area.

Study area intersections were evaluated during the AM and PM peak hours, which are defined as the hour with the highest traffic volumes during the 7 AM to 9 AM and 4 PM to 6 PM peak commute periods. AM and PM peak hour traffic operations were evaluated for the following scenarios:

- Existing Condition
- Existing plus Project Condition
- Opening Year Baseline (corresponding to the project opening year 2023)
- Opening Year plus project

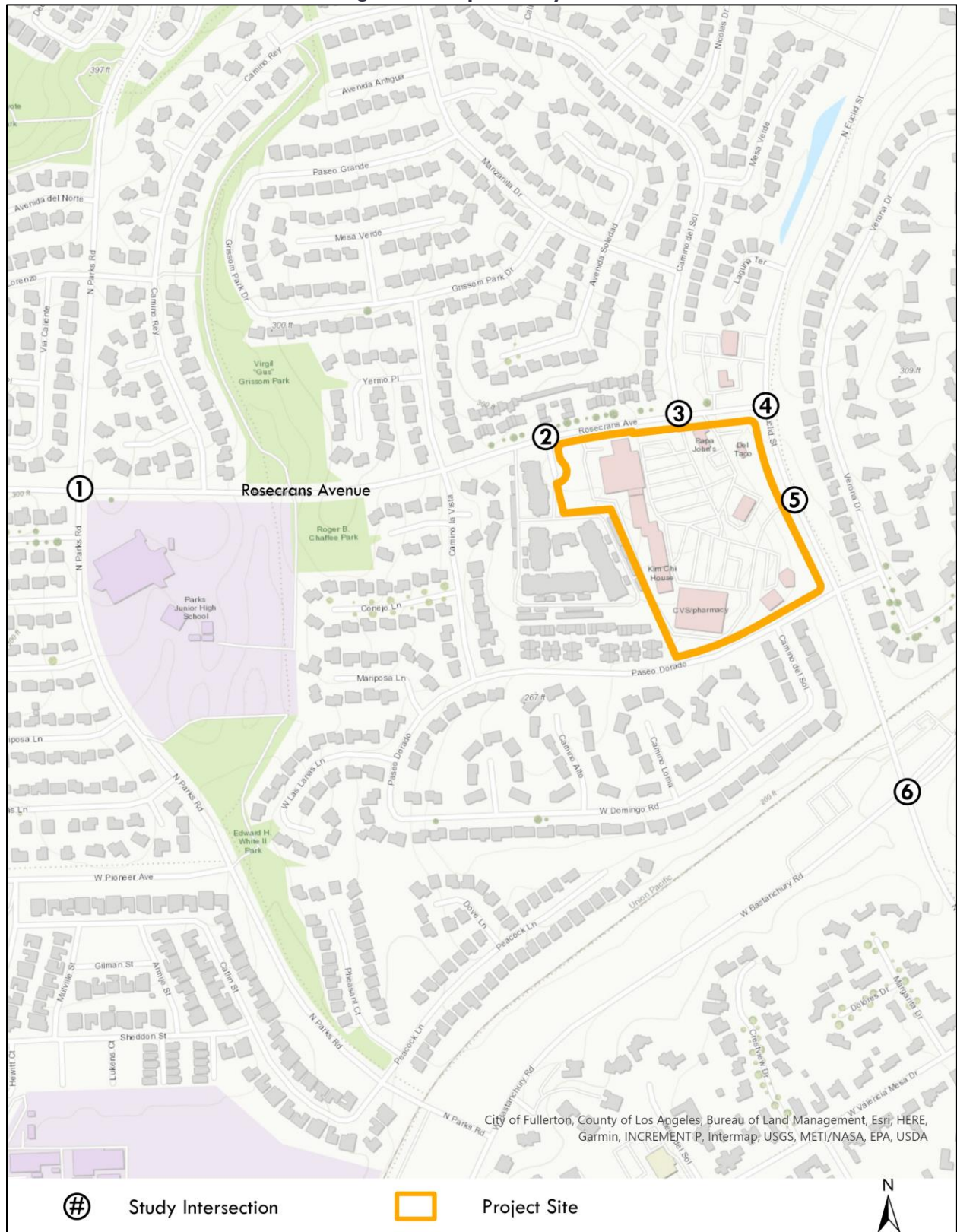
Forecast traffic volumes for the Opening Year conditions were developed by applying a growth rate of 1 percent per year to the 2021 traffic counts. Cumulative development projects were obtained from the City of Fullerton's website<sup>1</sup>. It was concluded that no cumulative project would have a significant affect (defined as adding 10 trips or more) to any of the study area intersections.

---

<sup>1</sup> [https://www.cityoffullerton.com/gov/departments/dev\\_serv/development\\_activity/default.asp](https://www.cityoffullerton.com/gov/departments/dev_serv/development_activity/default.asp)  
[ity of Fullerton - Fullerton](#)



Figure 3: Project Study Area



## 2.3 Methodology

Intersection operations are evaluated using Level of Service (LOS), which is a measure of the delay experienced by drivers on a roadway facility. LOS A indicates free-flow traffic conditions and is generally the best operating conditions. LOS F is an extremely congested condition and is the worst operating condition from the driver's perspective. In this report, LOS at signalized intersections is calculated using the Highway Capacity Manual (HCM), 6<sup>th</sup> Edition methodology.

LOS at signalized intersections is defined in terms of the weighted average control delay for the intersection as a whole. Control delay is a measure of the increase in travel time that is experienced due to traffic signal control and is expressed in terms of average control delay per vehicle (in seconds). Control delay is determined based on the intersection geometry and volume, signal cycle length, phasing and coordination along the arterial corridor. Table 1 shows the relationship between control delay and LOS at a signalized intersection.

**Table 1. Relationship between Control Delay and LOS at a Signalized Intersection**

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

Unsignalized intersections are categorized as either all-way stop control (AWSC) or two-way stop control (TWSC). LOS at AWSC intersections is determined by the weighted average control delay of the overall intersection. The HCM TWSC intersection methodology calculates LOS based on the delay experienced by drivers on the minor (stop-controlled) approaches to the intersection. For TWSC intersections, LOS is determined for each minor-street movement, as well as the major-street left-turns. The relationship between delay and LOS at Unsignalized intersections is shown in Table 2.

**Table 2. Relationship between Delay and LOS an Unsignalized Intersection**

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

## 2.4 Significance Criteria

As shown in the *City of Fullerton Transportation Assessment Policies and Procedures* set the threshold as LOS D. An operational deficiency would occur if the project causes:

- An intersection operating at an acceptable LOS to degrade to an unacceptable LOS; or

- The delay at an intersection operating at an unacceptable LOS to increase by 4.0 or more seconds if the intersection operates at LOS E, or by 2.0 or more seconds if the intersection operates at LOS F.



### 3 BASELINE CONDITIONS

This section discusses the baseline (without project) conditions. Baseline conditions are those conditions that exist within the study area in the existing condition and that are forecast to occur in the future, without the proposed project.

#### 3.1 Existing Transportation System

Access to the project site is provided by Rosecrans Avenue and Euclid Street. Rosecrans Avenue has a speed limit of 45 miles per hour (mph) near the project site while Euclid Street has a speed limit of 40 mph south of Rosecrans Avenue and 50 mph north of Rosecrans Avenue. There is sidewalk built along both sides of Rosecrans Avenue and along the west side of Euclid Street at the project site. The project site is served by Orange County Transportation Authority Bus Routes 37, which runs along Euclid Street and provides service seven days a week.

#### 3.2 Existing Traffic Volumes and Levels of Service

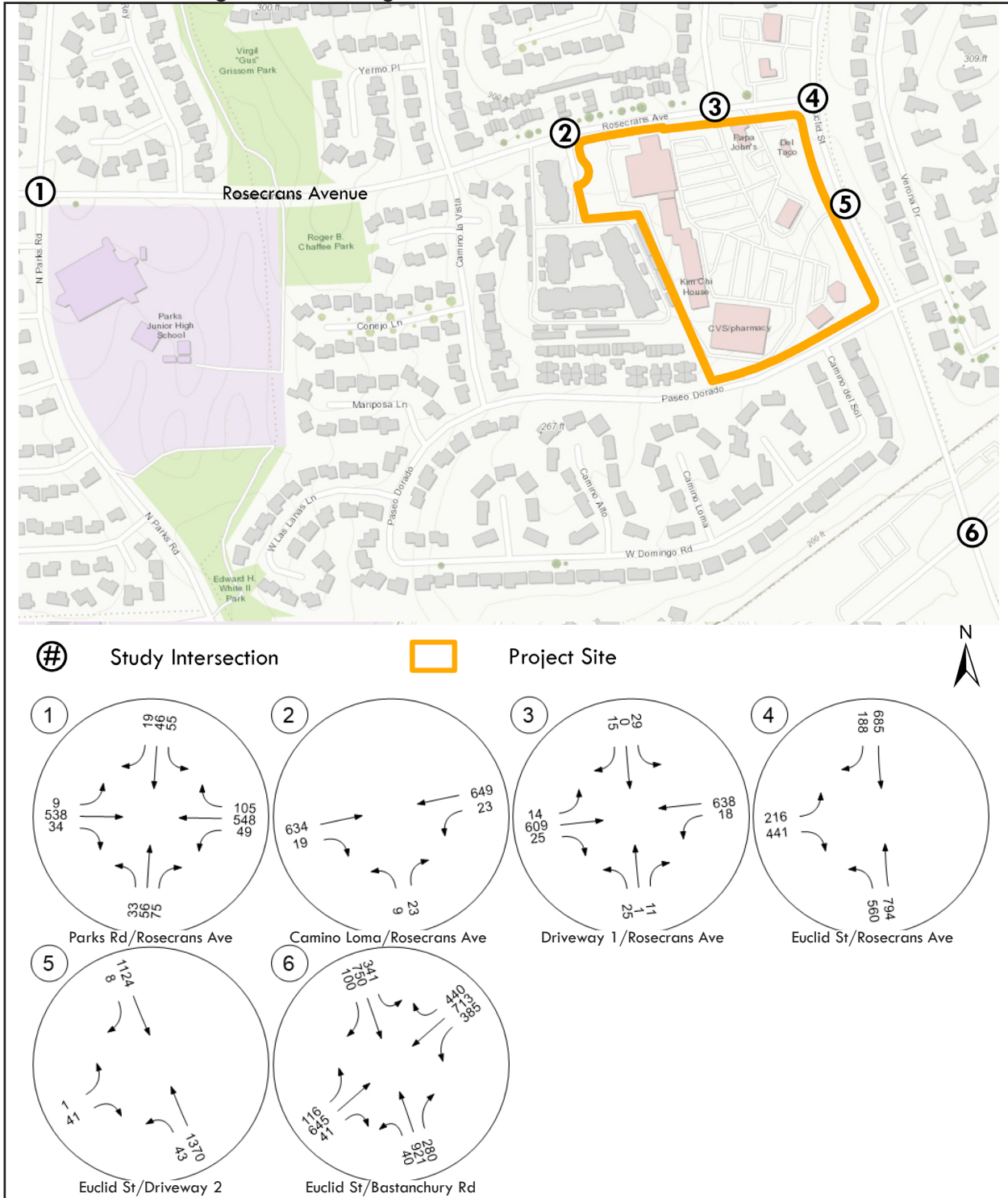
Traffic counts at the existing study area intersections shown in Figure 3 – Project Study Area, were collected on Wednesday, February 17th, 2021. Due to the Covid 19 pandemic, the counts were escalated with a covid factor of 25%, consistent with other traffic analyses within the City of Fullerton. All traffic count sheets are provided in Appendix A. These counts include trips generated by the existing shopping center, Red Cross donation center, and tennis courts, all of which would be removed by the development of the project. Existing AM and PM peak hour traffic volumes are shown on Figure 4 – Existing Baseline AM and PM peak Hour Traffic Volumes.

The existing Levels of Service at the study area intersections were determined using the methodology described in section 2.3. Table 3 shows the existing AM and PM peak hour levels of service at study intersections. All LOS calculations are provided in Appendix B. As shown in Table 3, all intersections operate at LOS D or better in the baseline existing condition except for Euclid Street/Driveway 2, which operates at LOS F in the PM Peak hour.

Figure 4a: Existing Baseline AM Peak Hour Traffic Volumes



**Figure 4b: Existing Baseline PM Peak Hour Traffic Volumes**



**Table 3. Existing AM and PM Peak Hour Levels of Service**

Intersection	Traffic Control	AM Peak		PM Peak	
		Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>
1. Parks Road/Rosecrans Avenue	Signalized	7.2	A	7.5	A
2. Camino Loma/Rosecrans Avenue	TWSC <sup>3</sup>	17.3	C	23.4	C
3. Driveway 1/Rosecrans Avenue	TWSC <sup>3</sup>	19.0	C	37.9	E
4. Euclid Street/Rosecrans Avenue	Signalized	15.8	B	18.7	B
5. Euclid Street/Driveway 2	TWSC <sup>3</sup>	13.1	B	85.7	F
6. Euclid St/Bastanchury Road	Signalized	35.1	D	38.7	D

<sup>1</sup> Delay in Seconds<sup>2</sup> Level of Service<sup>3</sup> Two Way Stop Control

### 3.3 Opening Year Baseline (2023) Traffic Volumes and LOS

Opening Year Baseline (2023) traffic volumes were developed by applying a growth rate of 1.01 percent per year to the existing (2021) traffic volumes. The Opening Year Baseline traffic volumes were illustrated in Figure 5 – Opening Year Baseline AM and PM Peak Hour Traffic Volumes.

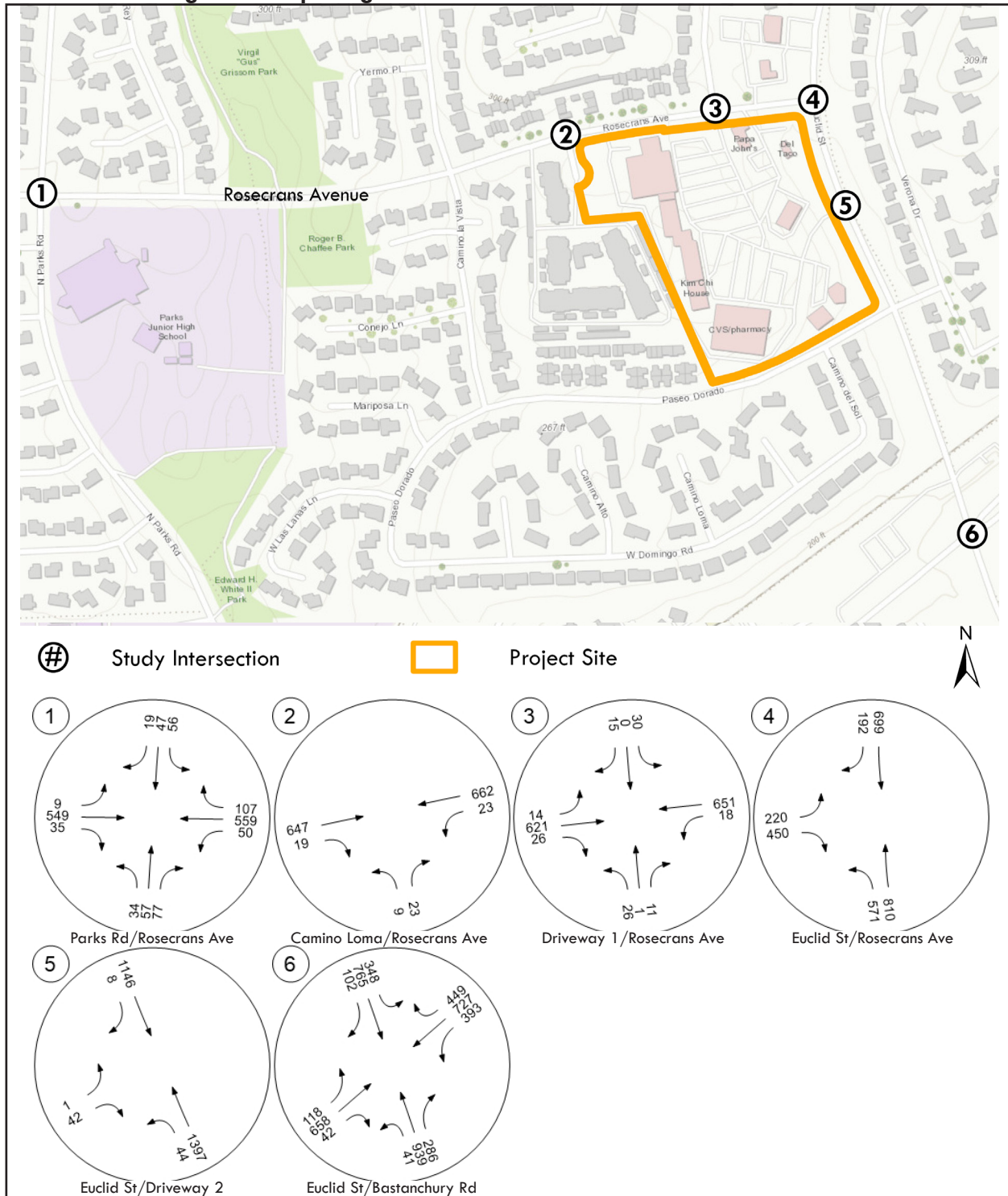
The Cumulative Baseline levels of service (LOS) at the six existing study area intersections were determined using the methodology described previously in Section 2.3 - Methodology. Table 5 shows the Cumulative Baseline AM and PM peak hour levels of service at study intersections. As shown in Table 4, all intersections operate at LOS D or better in the baseline opening year condition except for Euclid Street/Driveway 2, which operates at LOS F in the PM Peak hour.

**Figure 5a: Opening Year Baseline AM Peak Hour Traffic Volumes**





**Figure 5b: Opening Year Baseline PM Peak Hour Traffic Volumes**



**Table 4. Opening Year Baseline AM and PM Peak Hour Levels of Service**

Intersection	Traffic Control	AM Peak		PM Peak	
		Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>
1. Parks Road/Rosecrans Avenue	Signal	7.2	A	7.5	A
2. Camino Loma/Rosecrans Avenue	TWSC <sup>3</sup>	17.6	C	24.0	C
3. Driveway 1/Rosecrans Avenue	TWSC <sup>3</sup>	19.3	C	39.6	E
4. Euclid Street/Rosecrans Avenue	Signal	15.9	B	19.1	B
5. Euclid Street/Driveway 2	TWSC <sup>3</sup>	13.3	B	91.4	F
6. Euclid St/Bastanchury Road	Signal	33.2	C	44.0	D

<sup>1</sup> Delay in Seconds<sup>2</sup> Level of Service<sup>3</sup> Two Way Stop Control

## 4 PROPOSED PROJECT

### 4.1 Project Description and Project Access

As described in Section 2.1 – Project Description, the proposed project would remove the existing shopping center and replace it with 116 townhomes and 52 single family residential dwelling units. The Project site currently has two unsignalized driveways accessing the bulk of the shopping center, one on Rosecrans Avenue and one on Euclid Street which would remain. The Red Cross Center at the northwest corner of the site has access on Camino Loma, which will be connected to the rest of the site.

### 4.2 Project Trip Generation

Vehicle trips were generated for the project using trip rates from the Institute of Transportation Engineers (ITE) *Trip Generation* (10th Edition, 2017) as well as trips derived from the counts at the shopping center's driveway. Credit was taken for the existing trips. The Red Cross donation center and the tennis courts generate trips that use the Camino Loma/Rosecrans Avenue intersection, however since those exact trips could not be separated from the trips generated by the adjacent housing development, which also uses Camino Loma, they were not counted towards the existing project. Since the Shopping Center distribution would be different from the proposed residential land use, an Existing Distribution was created based on the counts and logical relationship with surrounding land uses. The project trip generation is shown in Table 5. The project would generate -2,600 net new daily trips, including -7 net AM peak hour and -131 net PM peak hour trips. Although the AM trip generation total is negative, the existing outbound trips are less than what the project is expected to generate, therefore there would still be outbound trips added to the study intersections. The project trip distribution and assignment are shown in Figure 6 and Figure 7 respectively. The Existing Site Distribution and Assignment can be found in Appendix C.



**Table 5. Project Trip Generation**

Land Use	Units		Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
<b><u>Trip Rates</u></b>									
Shopping Center <sup>1</sup>	TSF		37.75						
Single-Family Detached Housing <sup>2</sup>	DU		9.440	0.185	0.555	0.740	0.624	0.366	0.990
Multifamily Housing (Low-Rise) <sup>3</sup>	DU		7.320	0.106	0.354	0.460	0.353	0.207	0.560
<b><u>Existing Trip Generation</u></b>									
Shopping Center <sup>4</sup>	104.38	TSF	-3940	-54	-45	-99	-136	-111	-247
<b><u>Project Trip Generation</u></b>									
Single Family Homes	52	DU	491	10	29	38	32	19	51
Townhomes	116	DU	849	12	41	53	41	24	65
Project Trip Generation			1340	22	70	92	73	43	116
Total Net Trip Generation			-2600	-32	25	-7	-63	-68	-131
TSF = Thousand Square Feet DU = Dwelling Units <sup>1</sup> Daily Trip rate from the Institute of Transportation Engineers, <i>Trip Generation, 10th Edition</i> , 2017. Land Use Code 820 - Shopping Center, Peak hour trips from traffic counts, adjusted with a 25% covid factor with direction from City Staff. <sup>2</sup> Trip rates from the Institute of Transportation Engineers, <i>Trip Generation, 10th Edition</i> , 2017. Land Use Code 210 - Single-Family Detached Housing. <sup>3</sup> Trip rates from the Institute of Transportation Engineers, <i>Trip Generation, 10th Edition</i> , 2017. Land Use Code 220 - Multifamily Housing (Low-Rise). <sup>4</sup> Peak hour volumes were derived from counts taken at the project driveways.									

**Figure 6: Project Trip Distribution**

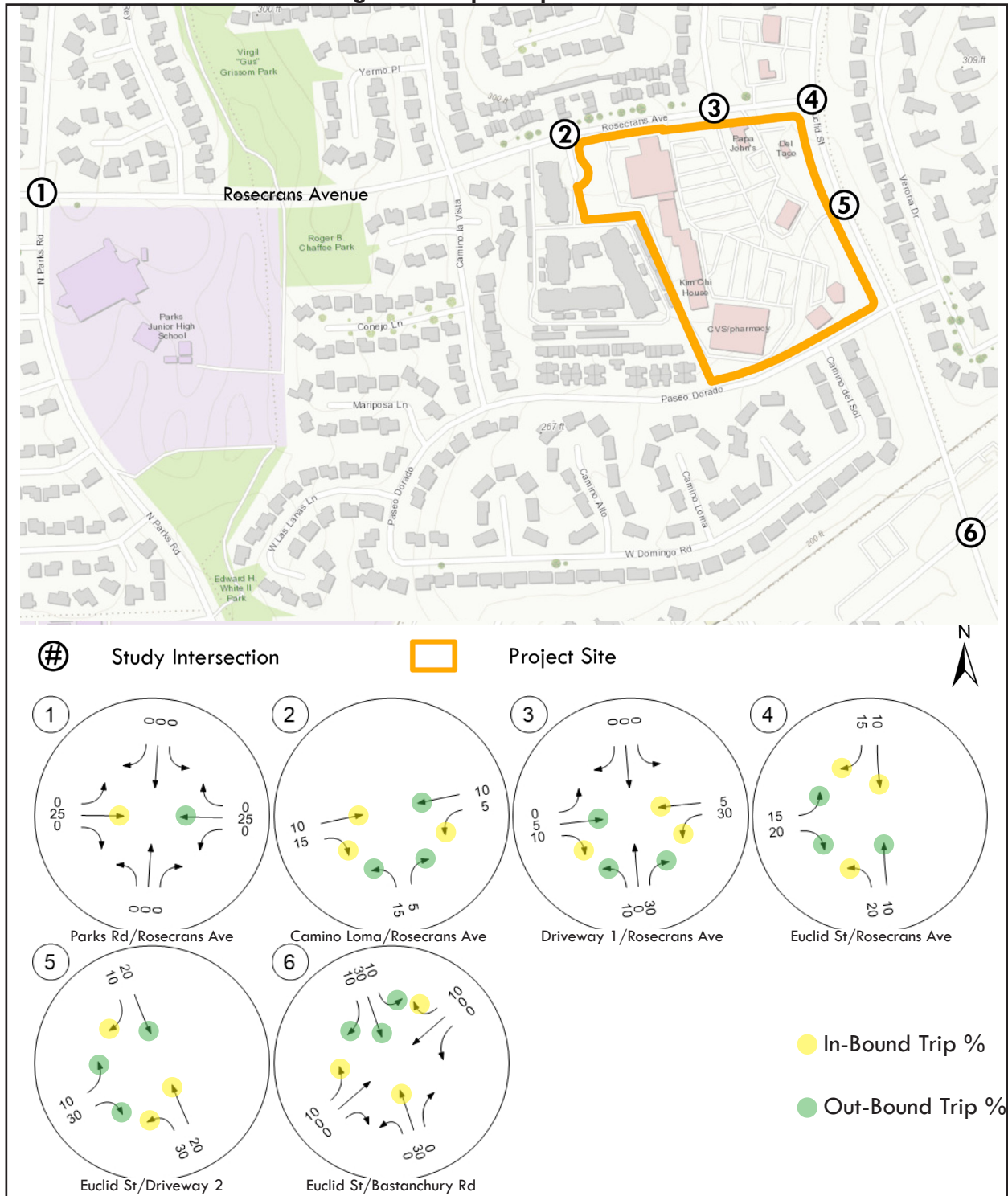
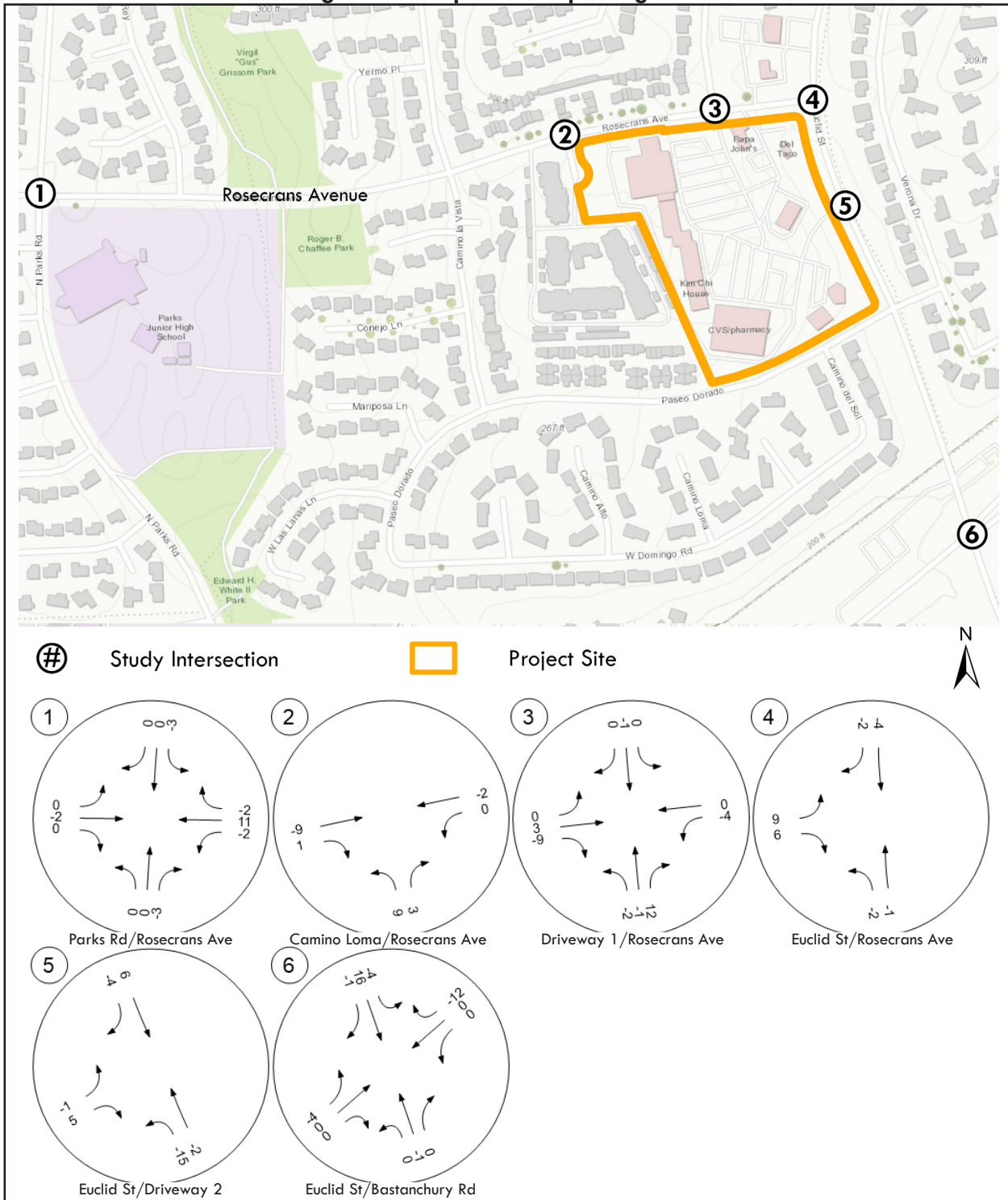


Figure 7a: Project AM Trip Assignment



**Figure 7b: Project PM Trip Assignment**



## 5 PLUS PROJECT RESULTS

### 5.1 Existing Plus Project Traffic Volumes and Intersection Operations

Existing plus Project traffic volumes were determined by adding the project trips to Existing Without Project traffic volumes. Figure 8 – Existing Plus Project AM and PM Peak Hour Traffic Volumes, shows the Existing plus Project weekday AM and PM peak hour traffic volumes and the Opening Year plus Project weekday AM and PM peak hour traffic volumes at the study intersections.

An intersection operations analysis was conducted for the study area to evaluate the Existing plus Project weekday AM and PM peak hour conditions. Intersection operations were calculated using the LOS methodology described previously in Section 2.3 - Methodology. Table 6 provides a comparison between the Existing Without and With Project conditions. As shown in Table 6, all of the study intersections are anticipated to operate at LOS D or better in the existing plus project condition.



**Figure 8a: Existing Plus Project AM Peak Hour Traffic Volumes**

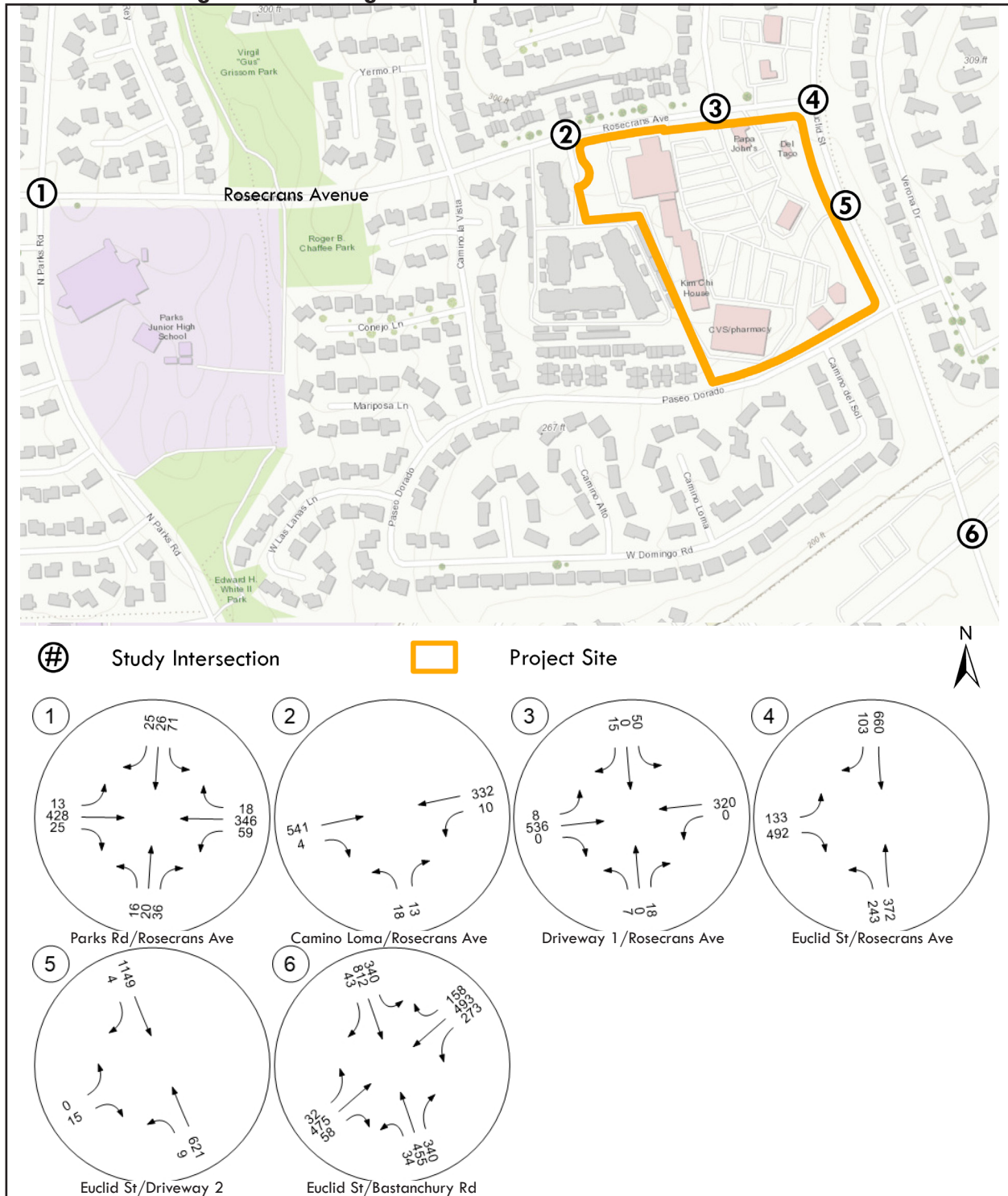


Figure 8b: Existing Plus Project PM Peak Hour Traffic Volumes



**Table 6. Existing Baseline and Existing plus Project Peak Hour Levels of Service**

	Traffic Control	Existing				Existing plus Project				Degraded Operation?	
		AM Peak		PM Peak		AM Peak		PM Peak		AM	PM
		Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>		
1. Parks Road/ Rosecrans Avenue	Signal	7.2	A	7.5	A	7.1	A	7.1	A	No	No
2. Camino Loma/ Rosecrans Avenue	TWSC <sup>3</sup>	17.3	C	23.4	C	17.5	C	19.4	C	No	No
3. Driveway 1/ Rosecrans Avenue	TWSC <sup>3</sup>	19.0	C	37.9	E	17.6	C	24.3	C	No	No
4. Euclid Street/ Rosecrans Avenue	Signal	15.8	B	18.7	B	15.9	B	17.6	B	No	No
5. Euclid Street/ Driveway 2	TWSC <sup>3</sup>	13.1	B	85.7	F	13.3	B	12.4	B	No	No
6. Euclid Street/ Bastanchury Road	Signal	35.1	D	38.7	D	34.8	C	34.5	C	No	No

<sup>1</sup> Delay in Seconds<sup>2</sup> Level of Service<sup>3</sup> Two Way Stop Control



## 5.2 Opening Year (2023) Plus Project Traffic Volumes and Intersection Operations

Opening Year with-project traffic volumes were determined by adding the project trips to the Cumulative Baseline traffic volumes. Figure 9 shows the Opening Year with-project weekday AM and PM peak hour traffic volumes at the study intersections.

An intersection operations analysis was conducted for the study area to evaluate the Opening Year with-Project weekday AM and PM peak hour conditions. Intersection operations were calculated using the LOS methodology described previously. Table 7 provides a comparison between the Opening Year without and with-project conditions. As shown in Table 7, all of the study intersections are anticipated to operate at LOS D or better in the opening year plus project condition.

**Figure 9a: Opening Year Plus Project AM Peak Hour Traffic Volumes**



**Figure 9b: Opening Year Plus Project PM Peak Hour Traffic Volumes**



**Table 7. Opening Year Baseline and Opening Year plus Project Peak Hour Levels of Service**

	Traffic Control	Existing				Existing plus Project				Degraded Operation?	
		AM Peak		PM Peak		AM Peak		PM Peak		AM	PM
		Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>		
1. Parks Road/ Rosecrans Avenue	Signal	7.2	A	7.5	A	6.8	A	7.1	A	No	No
2. Camino Loma/ Rosecrans Avenue	TWSC <sup>3</sup>	17.6	C	24.0	C	15.9	C	19.7	C	No	No
3. Driveway 1/ Rosecrans Avenue	TWSC <sup>3</sup>	19.3	C	39.6	E	16.0	C	25.1	D	No	No
4. Euclid Street/ Rosecrans Avenue	Signal	15.9	B	19.1	B	15.4	B	17.7	B	No	No
5. Euclid Street/ Driveway 2	TWSC <sup>3</sup>	13.3	B	91.4	F	12.5	B	12.6	B	No	No
6. Euclid Street/ Bastanchury Road	Signal	33.2	C	44.0	D	31.9	C	34.7	C	No	No

<sup>1</sup> Delay in Seconds  
<sup>2</sup> Level of Service  
<sup>3</sup> Two Way Stop Control

## 6 FINDINGS AND RECOMMENDATIONS

The following is a summary of the findings and recommendations based of the LOS analysis for The Pines at Sunrise Village Project:

### Existing plus Project Intersection Analysis Results

All study intersections are anticipated to operate at LOS D or better in the Existing plus Project condition.

### Opening Year plus Project Intersection Analysis Results

All study intersections are anticipated to operate at LOS D or better in the Opening Year plus Project condition.

Based on this analysis, the project would not cause unsatisfactory operation at any study area intersection, and no improvements are required.

---

*APPENDIX A – TRAFFIC COUNTS*

---



# INTERSECTION TURNING MOVEMENT COUNTS

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

<b>DATE:</b> Wed, Feb 17, 21	<b>LOCATION:</b> NORTH & SOUTH: EAST & WEST:	Fullerton Camino Loma Rosecrans	<b>PROJECT #:</b> <b>LOCATION #:</b> <b>CONTROL:</b>	SC2813 2 STOP N
---------------------------------	--	---------------------------------------	--	-----------------------

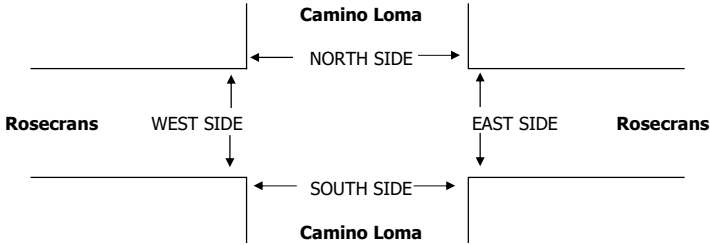
NOTES:	AM	▲ N ◀ W S ▶ E ▼
	PM	
	MD	
	OTHER	
	OTHER	

Add U-Turns to Left Turns

LANES:	NORTHBOUND Camino Loma			SOUTHBOUND Camino Loma			EASTBOUND Rosecrans			WESTBOUND Rosecrans			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
7:00 AM	0	0	1	0	0	0	0	42	0	0	38	0	81
7:15 AM	1	0	1	0	0	0	0	96	1	0	41	0	140
7:30 AM	2	0	3	0	0	0	0	115	0	3	51	0	174
7:45 AM	2	0	2	0	0	0	0	129	0	0	72	0	205
8:00 AM	2	0	2	0	0	0	0	87	1	2	74	0	168
8:15 AM	1	0	1	0	0	0	0	109	1	3	70	0	185
8:30 AM	1	0	3	0	0	0	0	91	0	2	65	0	162
8:45 AM	2	0	3	0	0	0	0	121	0	3	70	0	199
VOLUMES	11	0	16	0	0	0	0	790	3	13	481	0	1,314
APPROACH %	41%	0%	59%	0%	0%	0%	0%	100%	0%	3%	97%	0%	
APP/DEPART	27	/	0	0	/	16	793	/	806	494	/	492	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	7	0	8	0	0	0	0	440	2	8	267	0	732
APPROACH %	47%	0%	53%	0%	0%	0%	0%	100%	0%	3%	97%	0%	
PEAK HR FACTOR	0.750			0.000			0.857			0.905			0.893
APP/DEPART	15	/	0	0	/	10	442	/	448	275	/	274	0
4:00 PM	2	0	4	0	0	0	0	123	3	5	94	0	231
4:15 PM	5	0	3	0	0	0	0	117	3	4	111	0	243
4:30 PM	1	0	4	0	0	0	0	127	4	5	123	0	264
4:45 PM	2	0	1	0	0	0	0	134	2	6	116	0	261
5:00 PM	1	0	8	0	0	0	0	112	4	6	140	0	271
5:15 PM	3	0	5	0	0	0	0	134	5	1	140	0	288
5:30 PM	4	0	3	0	0	0	0	113	5	1	103	0	229
5:45 PM	3	0	0	0	0	0	0	133	6	3	99	0	244
VOLUMES	21	0	28	0	0	0	0	993	32	31	926	0	2,031
APPROACH %	43%	0%	57%	0%	0%	0%	0%	97%	3%	3%	97%	0%	
APP/DEPART	49	/	0	0	/	62	1,025	/	1,022	957	/	947	0
BEGIN PEAK HR	4:30 PM												
VOLUMES	7	0	18	0	0	0	0	507	15	18	519	0	1,084
APPROACH %	28%	0%	72%	0%	0%	0%	0%	97%	3%	3%	97%	0%	
PEAK HR FACTOR	0.694			0.000			0.939			0.920			0.941
APP/DEPART	25	/	0	0	/	32	522	/	526	537	/	526	0

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

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1



	PEDESTRIAN + BIKE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	1	0	0	1
7:30 AM	0	2	0	0	2
7:45 AM	0	0	0	0	0
8:00 AM	0	1	0	0	1
8:15 AM	0	0	0	0	0
8:30 AM	1	4	0	0	5
8:45 AM	0	3	0	0	3
TOTAL	1	11	0	0	12
AM BEGIN PEAK HR	7:30 AM				
4:00 PM	0	2	0	0	2
4:15 PM	0	2	0	0	2
4:30 PM	0	2	0	3	5
4:45 PM	1	3	0	0	4
5:00 PM	0	1	0	0	1
5:15 PM	0	0	0	0	0
5:30 PM	0	2	0	0	2
5:45 PM	0	3	0	0	3
TOTAL	1	15	0	3	19
PM BEGIN PEAK HR	4:30 PM				

	PEDESTRIAN CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	1	0	0	1
7:30 AM	0	2	0	0	2
7:45 AM	0	0	0	0	0
8:00 AM	0	1	0	0	1
8:15 AM	0	0	0	0	0
8:30 AM	1	4	0	0	5
8:45 AM	0	3	0	0	3
TOTAL	1	11	0	0	12
AM BEGIN PEAK HR	7:30 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	2	0	0	2
4:30 PM	0	2	0	0	2
4:45 PM	0	2	0	0	2
5:00 PM	0	1	0	0	1
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	3	0	0	3
TOTAL	0	10	0	0	10
PM BEGIN PEAK HR	4:30 PM				

	BICYCLE CROSSINGS				
	NS	SS	ES	WS	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	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:30 AM				
4:00 PM	0	2	0	0	2
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	3	3
4:45 PM	1	1	0	0	2
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	2	0	0	2
5:45 PM	0	0	0	0	0
TOTAL	1	5	0	3	9
PM BEGIN PEAK HR	4:30 PM				

# INTERSECTION TURNING MOVEMENT COUNTS

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

<b>DATE:</b> Wed, Feb 17, 21	<b>LOCATION:</b> NORTH & SOUTH: EAST & WEST:	<b>Fullerton</b> Driveway 1 Rosecrans	<b>PROJECT #:</b> SC2813 <b>LOCATION #:</b> 3 <b>CONTROL:</b> STOP S
---------------------------------	--	---	--

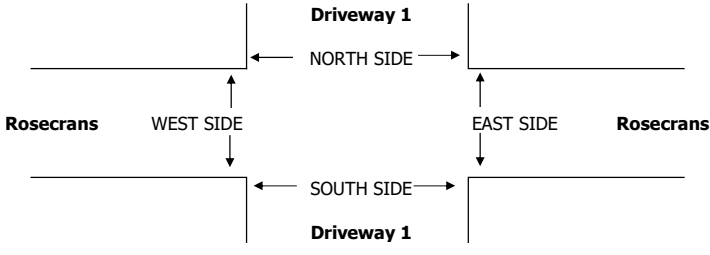
<b>NOTES:</b>	AM PM MD OTHER OTHER	▲ N ◀ W S ▶ E ▼	
---------------	----------------------------------	--------------------------------	--

Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Driveway 1-Camino Del Sol			Driveway 1-Camino Del Sol			Rosecrans			Rosecrans			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
7:00 AM	1	0	0	6	0	1	2	58	1	1	41	2	113
7:15 AM	1	0	0	8	0	2	1	90	0	1	36	3	142
7:30 AM	1	0	0	13	0	3	1	124	0	1	50	4	197
7:45 AM	2	0	1	10	0	2	1	110	2	0	73	5	206
8:00 AM	1	0	1	9	0	3	2	92	2	0	71	8	189
8:15 AM	3	1	3	8	0	4	2	100	2	0	62	6	191
8:30 AM	2	0	0	7	0	2	3	94	4	2	63	4	181
8:45 AM	3	0	0	14	0	1	1	98	5	0	60	6	188
<b>VOLUMES</b>	14	1	5	75	0	18	13	766	16	5	456	38	1,407
<b>APPROACH %</b>	70%	5%	25%	81%	0%	19%	2%	96%	2%	1%	91%	8%	
<b>APP/DEPART</b>	20	/	52	93	/	19	795	/	848	499	/	488	0
<b>BEGIN PEAK HR</b>	7:30 AM												
<b>VOLUMES</b>	7	1	5	40	0	12	6	426	6	1	256	23	783
<b>APPROACH %</b>	54%	8%	38%	77%	0%	23%	1%	97%	1%	0%	91%	8%	
<b>PEAK HR FACTOR</b>	0.464			0.813			0.876			0.886			0.950
<b>APP/DEPART</b>	13	/	30	52	/	7	438	/	471	280	/	275	0
4:00 PM	5	1	1	6	0	2	3	121	4	6	102	8	259
4:15 PM	6	0	4	8	1	3	3	115	6	3	100	8	257
4:30 PM	4	0	1	6	0	3	1	112	7	2	117	10	263
4:45 PM	4	0	3	8	0	4	3	129	5	4	117	16	293
5:00 PM	9	1	3	5	0	2	4	116	4	5	150	17	316
5:15 PM	3	0	2	4	0	3	3	130	4	3	126	10	288
5:30 PM	9	1	3	11	2	1	5	102	6	6	97	12	255
5:45 PM	3	0	4	7	0	6	6	120	5	1	100	13	265
<b>VOLUMES</b>	43	3	21	55	3	24	28	945	41	30	909	94	2,196
<b>APPROACH %</b>	64%	4%	31%	67%	4%	29%	3%	93%	4%	3%	88%	9%	
<b>APP/DEPART</b>	67	/	125	82	/	71	1,014	/	1,024	1,033	/	976	0
<b>BEGIN PEAK HR</b>	4:30 PM												
<b>VOLUMES</b>	20	1	9	23	0	12	11	487	20	14	510	53	1,160
<b>APPROACH %</b>	67%	3%	30%	66%	0%	34%	2%	94%	4%	2%	88%	9%	
<b>PEAK HR FACTOR</b>	0.577			0.729			0.945			0.839			0.918
<b>APP/DEPART</b>	30	/	65	35	/	33	518	/	520	577	/	542	0

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

0	0	0	2	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	3	3



	AM	PM
7:00 AM	1	5
7:15 AM	1	6
7:30 AM	1	4
7:45 AM	2	4
8:00 AM	1	9
8:15 AM	3	3
8:30 AM	2	9
8:45 AM	3	3
<b>TOTAL</b>	<b>13</b>	<b>65</b>
AM BEGIN PEAK HR	7:30 AM	
4:00 PM	5	9
4:15 PM	6	11
4:30 PM	4	11
4:45 PM	4	3
5:00 PM	9	2
5:15 PM	3	0
5:30 PM	9	0
5:45 PM	3	2
<b>TOTAL</b>	<b>67</b>	<b>33</b>
PM BEGIN PEAK HR	4:30 PM	

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	1	0	0	1
0	0	1	0	1
0	2	0	0	2
1	0	0	0	1
1	1	0	0	2
0	0	0	0	0
1	1	0	0	2
0	2	0	2	4
<b>3</b>	<b>7</b>	<b>1</b>	<b>2</b>	<b>13</b>
0	1	0	0	1
0	1	0	0	1
3	1	0	0	4
1	2	0	0	3
0	1	0	0	1
1	0	0	0	1
0	0	0	1	1
2	5	0	0	7
<b>7</b>	<b>11</b>	<b>0</b>	<b>1</b>	<b>19</b>
0	1	0	0	1
0	1	0	0	1
3	1	0	0	4
0	1	0	0	1
0	1	0	0	1
0	0	0	1	1
2	5	0	0	7
<b>7</b>	<b>11</b>	<b>0</b>	<b>1</b>	<b>19</b>
0	1	0	0	1
0	1	0	0	1
3	1	0	0	4
0	1	0	0	1
0	1	0	0	1
0	0	0	1	1
2	5	0	0	7
<b>7</b>	<b>11</b>	<b>0</b>	<b>1</b>	<b>19</b>

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	1	0	0	1
0	0	1	0	1
0	2	0	0	2
0	0	0	0	0
1	1	0	0	2
0	0	0	0	0
1	1	0	0	2
0	2	0	1	3
<b>2</b>	<b>7</b>	<b>1</b>	<b>1</b>	<b>11</b>
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
2	5	0	0	7
<b>2</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>11</b>
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
3	1	0	0	4
0	1	0	0	1
0	1	0	0	1
0	0	0	1	1
2	5	0	0	7
<b>2</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>11</b>

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	1	1
<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>
0	1	0	0	1
0	0	0	0	0
3	0	0	0	3
1	1	0	0	2
0	0	0	0	0
1	0	0	0	1
0	0	0	1	1
0	0	0	0	0
<b>5</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>8</b>



# INTERSECTION TURNING MOVEMENT COUNTS

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

**DATE:**  
Wed, Feb 17, 21

**LOCATION:**  
NORTH & SOUTH: Fullerton  
Euclid  
EAST & WEST: Rosecrans

**PROJECT #:** SC2813  
**LOCATION #:** 4  
**CONTROL:** SIGNAL

**NOTES:**

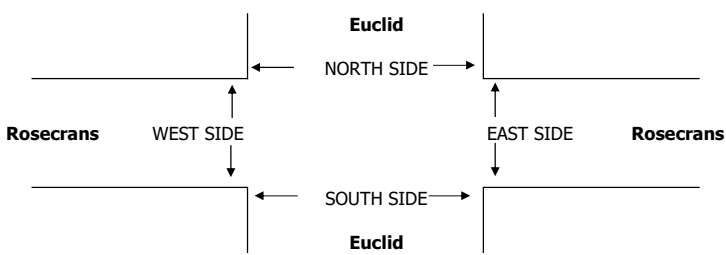
	AM PM MD OTHER OTHER	◀ W	▲ N ▼ S	E ▶
--	----------------------------------	-----	------------	-----

Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Euclid			Euclid			Rosecrans			Rosecrans			
LANES:	NL 2	NT 2	NR X	SL X	ST 2	SR 1	EL 2	ET X	ER 2	WL X	WT X	WR X	
<b>AM</b>													
7:00 AM	25	67	0	0	85	12	8	0	43	0	0	0	240
7:15 AM	28	55	0	0	143	19	21	0	85	0	0	0	351
7:30 AM	45	67	0	0	128	17	24	0	117	0	0	0	398
7:45 AM	39	87	0	0	142	23	23	0	105	0	0	0	419
8:00 AM	51	80	0	0	145	27	20	0	81	0	0	0	404
8:15 AM	61	64	0	0	116	17	32	0	86	0	0	0	376
8:30 AM	45	86	0	0	99	16	26	0	70	0	0	0	342
8:45 AM	51	84	0	0	106	17	20	0	104	0	0	0	382
VOLUMES	345	590	0	0	964	148	174	0	691	0	0	0	2,912
APPROACH %	37%	63%	0%	0%	87%	13%	20%	0%	80%	0%	0%	0%	
APP/DEPART	935	/	764	1,112	/	1,655	865	/	0	0	/	493	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	196	298	0	0	531	84	99	0	389	0	0	0	1,597
APPROACH %	40%	60%	0%	0%	86%	14%	20%	0%	80%	0%	0%	0%	
PEAK HR FACTOR	0.943			0.894			0.865			0.000			0.953
APP/DEPART	494	/	397	615	/	920	488	/	0	0	/	280	0
<b>PM</b>													
4:00 PM	106	85	0	0	138	30	38	0	82	0	0	0	479
4:15 PM	96	161	0	0	84	29	38	0	85	0	0	0	493
4:30 PM	80	177	0	0	110	33	33	0	99	0	0	0	532
4:45 PM	100	154	0	0	151	44	32	0	75	0	0	0	556
5:00 PM	119	167	0	0	139	34	36	0	96	0	0	0	591
5:15 PM	117	183	0	0	144	35	58	0	90	0	0	0	627
5:30 PM	112	131	0	0	114	37	47	0	92	0	0	0	533
5:45 PM	79	168	0	0	144	19	40	0	75	0	0	0	525
VOLUMES	809	1,226	0	0	1,024	261	322	0	694	0	0	0	4,336
APPROACH %	40%	60%	0%	0%	80%	20%	32%	0%	68%	0%	0%	0%	
APP/DEPART	2,035	/	1,548	1,285	/	1,718	1,016	/	0	0	/	1,070	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	448	635	0	0	548	150	173	0	353	0	0	0	2,307
APPROACH %	41%	59%	0%	0%	79%	21%	33%	0%	67%	0%	0%	0%	
PEAK HR FACTOR	0.903			0.895			0.889			0.000			0.920
APP/DEPART	1,083	/	808	698	/	901	526	/	0	0	/	598	0

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

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



	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	1
8:15 AM	0	0
8:30 AM	0	1
8:45 AM	0	0
TOTAL	0	2
AM BEGIN PEAK HR	7:30 AM	
4:00 PM	0	0
4:15 PM	0	3
4:30 PM	0	1
4:45 PM	0	4
5:00 PM	0	1
5:15 PM	0	1
5:30 PM	0	0
5:45 PM	0	0
TOTAL	0	10
PM BEGIN PEAK HR	4:45 PM	

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	2	2
0	0	0	0	0
0	0	0	0	0
0	1	0	2	3
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	2	0	4	6
0	0	1	1	2
0	3	1	1	5
0	1	0	4	5
0	4	1	0	5
0	1	0	1	2
0	1	1	2	4
0	0	0	3	3
0	0	0	2	2
0	10	3	14	27
0	0	0	0	0
0	6	0	5	11

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	1	0	2	3
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	2	0	3	5
0	1	0	2	3
0	0	0	1	1
0	3	0	1	4
0	1	0	2	3
0	4	0	0	4
0	1	0	1	2
0	1	0	1	2
0	0	0	3	3
0	0	0	2	2
0	10	0	11	21
0	6	0	5	11

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

# INTERSECTION TURNING MOVEMENT COUNTS

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

**DATE:**  
Wed, Feb 17, 21

**LOCATION:**  
NORTH & SOUTH: Fullerton  
Euclid  
EAST & WEST: Driveway 2

**PROJECT #:** SC2813  
**LOCATION #:** 5  
**CONTROL:** STOP E

**NOTES:**

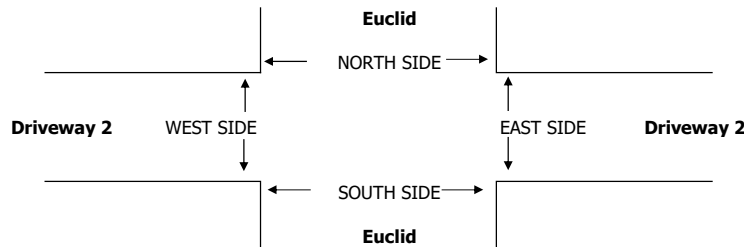
AM	▲ N	E ►
PM		
MD	◀ W	S
OTHER		
OTHER	▼	E ►
OTHER		

Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Euclid			Euclid			Driveway 2			Driveway 2			
LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	
<b>AM</b>													
7:00 AM	1	87	0	0	135	2	0	0	2	0	0	0	227
7:15 AM	2	85	0	0	230	0	0	0	0	0	0	0	317
7:30 AM	3	121	0	0	245	1	0	0	1	0	0	0	371
7:45 AM	3	136	0	0	232	0	0	0	1	0	0	0	372
8:00 AM	5	128	0	0	234	2	0	0	1	0	0	0	370
8:15 AM	8	113	0	0	203	3	0	0	5	0	0	0	332
8:30 AM	8	135	0	0	166	0	0	0	4	0	0	0	313
8:45 AM	7	134	0	0	202	1	2	0	5	0	0	0	351
VOLUMES	37	939	0	0	1,647	9	2	0	19	0	0	0	2,655
APPROACH %	4%	96%	0%	0%	99%	1%	10%	0%	90%	0%	0%	0%	
APP/DEPART	977	/	942	1,657	/	1,667	21	/	0	0	/	46	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	19	498	0	0	914	6	0	0	8	0	0	0	1,446
APPROACH %	4%	96%	0%	0%	99%	1%	0%	0%	100%	0%	0%	0%	
PEAK HR FACTOR	0.932			0.935			0.400			0.000			0.972
APP/DEPART	518	/	498	920	/	923	8	/	0	0	/	25	0
<b>PM</b>													
4:00 PM	9	191	0	0	222	0	0	0	8	0	0	0	430
4:15 PM	11	257	0	0	167	2	0	0	5	0	0	0	442
4:30 PM	4	257	0	0	210	0	0	0	6	0	0	0	477
4:45 PM	8	254	0	0	223	3	0	0	6	0	0	0	494
5:00 PM	12	286	0	0	232	3	0	0	12	0	0	0	545
5:15 PM	10	299	0	0	234	0	1	0	9	0	0	0	553
5:30 PM	8	237	0	0	203	3	0	0	9	0	0	0	460
5:45 PM	8	247	0	0	217	2	0	0	9	0	0	0	483
VOLUMES	70	2,028	0	0	1,708	13	1	0	64	0	0	0	3,884
APPROACH %	3%	97%	0%	0%	99%	1%	2%	0%	98%	0%	0%	0%	
APP/DEPART	2,098	/	2,029	1,721	/	1,772	65	/	0	0	/	83	0
BEGIN PEAK HR	4:30 PM												
VOLUMES	34	1,096	0	0	899	6	1	0	33	0	0	0	2,069
APPROACH %	3%	97%	0%	0%	99%	1%	3%	0%	97%	0%	0%	0%	
PEAK HR FACTOR	0.914			0.963			0.708			0.000			0.935
APP/DEPART	1,130	/	1,097	905	/	932	34	/	0	0	/	40	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
1	1	0	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	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



	AM	PM
7:00 AM	1	9
7:15 AM	2	11
7:30 AM	3	4
7:45 AM	3	8
8:00 AM	5	10
8:15 AM	8	8
8:30 AM	8	8
8:45 AM	7	8
<b>TOTAL</b>	<b>37</b>	<b>70</b>
AM BEGIN PEAK HR	7:30 AM	
4:00 PM	9	12
4:15 PM	11	10
4:30 PM	4	10
4:45 PM	8	8
5:00 PM	12	10
5:15 PM	10	8
5:30 PM	8	8
5:45 PM	8	8
<b>TOTAL</b>	<b>70</b>	<b>130</b>
PM BEGIN PEAK HR	4:30 PM	

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	1	0	1	2
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	1	0	3	4
7:30 AM				
0	0	0	1	1
0	0	0	0	0
0	0	1	0	1
0	0	0	2	2
0	0	2	1	3
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	4	4	8
4:30 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	3	3
7:30 AM				
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	2	2
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	3	3
4:30 PM				

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
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
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	2	0	2
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	4	1	5

# INTERSECTION TURNING MOVEMENT COUNTS

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

**DATE:**  
Wed, Feb 17, 21

**LOCATION:**  
NORTH & SOUTH: Euclid  
EAST & WEST: Bastanchury

**PROJECT #:** SC2813  
**LOCATION #:** 6  
**CONTROL:** SIGNAL

**NOTES:**

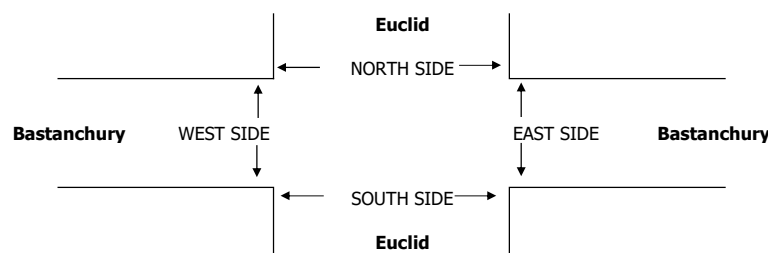
AM	▲ N
PM	
MD	◀ W      E ▶
OTHER	
OTHER	S ▼

Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Euclid			Euclid			Bastanchury			Bastanchury			
LANES:	NL 1	NT 3	NR 1	SL 2	ST 2	SR 1	EL 2	ET 3	ER 0	WL 2	WT 2	WR 1	
<b>AM</b>													
7:00 AM	6	67	43	32	89	3	2	51	2	30	86	22	433
7:15 AM	13	62	43	57	169	11	5	74	5	50	68	21	578
7:30 AM	6	73	71	79	184	4	2	97	6	51	97	39	709
7:45 AM	9	102	89	75	164	8	8	109	16	55	100	37	772
8:00 AM	7	108	52	57	161	9	6	70	13	42	103	26	654
8:15 AM	5	82	60	64	128	14	13	104	11	70	94	34	679
8:30 AM	5	89	58	52	107	17	7	98	10	38	86	41	608
8:45 AM	13	89	64	73	144	12	11	94	9	66	111	41	727
VOLUMES	64	672	480	489	1,146	78	54	697	72	402	745	261	5,160
APPROACH %	5%	55%	39%	29%	67%	5%	7%	85%	9%	29%	53%	19%	
APP/DEPART	1,216	/	991	1,713	/	1,619	823	/	1,663	1,408	/	887	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	27	365	272	275	637	35	29	380	46	218	394	136	2,814
APPROACH %	4%	55%	41%	29%	67%	4%	6%	84%	10%	29%	53%	18%	
PEAK HR FACTOR	0.830			0.887			0.855			0.944			0.911
APP/DEPART	664	/	533	947	/	901	455	/	924	748	/	456	0
<b>PM</b>													
4:00 PM	4	125	50	63	145	18	20	138	11	72	127	74	847
4:15 PM	15	170	46	62	134	12	20	122	10	79	122	72	864
4:30 PM	11	160	50	67	128	23	22	117	9	75	130	84	876
4:45 PM	9	194	50	77	146	17	24	127	10	84	142	70	950
5:00 PM	14	177	46	56	157	17	30	138	9	86	145	102	977
5:15 PM	5	199	55	74	151	20	17	140	9	87	144	113	1,014
5:30 PM	4	167	73	66	146	26	22	111	5	51	139	67	877
5:45 PM	5	164	57	63	167	15	22	117	7	56	115	76	864
VOLUMES	67	1,356	427	528	1,174	148	177	1,010	70	590	1,064	658	7,269
APPROACH %	4%	73%	23%	29%	63%	8%	14%	80%	6%	26%	46%	28%	
APP/DEPART	1,850	/	2,193	1,850	/	1,832	1,257	/	1,965	2,312	/	1,279	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	32	737	224	273	600	80	93	516	33	308	570	352	3,818
APPROACH %	3%	74%	23%	29%	63%	8%	14%	80%	5%	25%	46%	29%	
PEAK HR FACTOR	0.958			0.972			0.907			0.894			0.941
APP/DEPART	993	/	1,183	953	/	939	642	/	1,014	1,230	/	682	0

U-TURNS				
NB	SB	EB	WB	TTL
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
0	1	0	0	1
0	0	0	0	0
0	0	0	1	1
0	4	0	1	5

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	1	1
0	0	0	1	1
0	0	0	0	0
0	1	0	0	1
0	2	0	2	4



	AM BEGIN PEAK HR	PM BEGIN PEAK HR
7:00 AM		
7:15 AM		
7:30 AM		
7:45 AM		
8:00 AM		
8:15 AM		
8:30 AM		
8:45 AM		
TOTAL		
AM BEGIN PEAK HR		
4:00 PM		
4:15 PM		
4:30 PM		
4:45 PM		
5:00 PM		
5:15 PM		
5:30 PM		
5:45 PM		
TOTAL		
PM BEGIN PEAK HR		

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	2	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
1	0	1	0	2
0	3	0	2	5
0	0	0	0	0
1	3	4	2	10
7:30 AM				
1	0	0	2	3
0	0	0	0	0
0	2	2	1	5
5	0	2	0	7
1	0	0	0	1
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
8	2	4	3	17
4:45 PM				
1	0	0	0	1

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	2	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
1	0	1	0	2
0	0	0	0	0
0	0	0	0	0
1	0	4	0	5
1	0	2	0	3
0	0	0	0	0
0	0	2	0	2
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
1	0	2	0	3
1	0	0	0	1

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	3	0	2	5
0	0	0	0	0
0	3	0	2	5
1	0	0	2	3
0	0	0	0	0
0	2	0	1	3
5	0	2	0	7
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
7	2	2	3	14

---

*APPENDIX B – LEVEL OF SERVICE CALCULATIONS*

---

## Table of Contents

Intersection Analysis Summary .....	2
Intersection Level Of Service Report .....	3
Intersection 1: Parks Rd/Rosecrans Ave .....	3
Intersection 2: Camino Loma/Rosecrans Ave .....	8
Intersection 3: Driveway 1/Rosecrans Ave .....	10
Intersection 4: Euclid St/Rosecrans Ave .....	12
Intersection 5: Euclid St/Driveway 2 .....	17
Intersection 6: Euclid St/Bastanchury Rd .....	19
Turning Movement Volume: Summary .....	24

## Sunrise Village

Vistro File: C:\...\Shopoff Vistro.vistro

Scenario 1 Existing AM

Report File: C:\...\Existing AM.pdf

5/10/2021

**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Parks Rd/Rosecrans Ave	Signalized	HCM 6th Edition	SB Left	0.218	7.2	A
2	Camino Loma/Rosecrans Ave	Two-way stop	HCM 6th Edition	NB Left	0.033	17.3	C
3	Driveway 1/Rosecrans Ave	Two-way stop	HCM 6th Edition	NB Thru	0.004	19.0	C
4	Euclid St/Rosecrans Ave	Signalized	HCM 6th Edition	NB Left	0.475	15.8	B
5	Euclid St/Driveway 2	Two-way stop	HCM 6th Edition	EB Right	0.022	13.1	B
6	Euclid St/Bastanchury Rd	Signalized	HCM 6th Edition	WB Left	0.602	35.1	D

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

**Intersection Level Of Service Report**  
**Intersection 1: Parks Rd/Rosecrans Ave**

Control Type:	Signalized	Delay (sec / veh):	7.2
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.218

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	105.00	100.00	175.00	175.00	100.00	200.00	295.00	100.00	100.00	330.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name												
Base Volume Input [veh/h]	16	20	39	74	26	25	13	430	25	61	335	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	20	39	74	26	25	13	430	25	61	335	20
Peak Hour Factor	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	6	11	20	7	7	4	119	7	17	93	6
Total Analysis Volume [veh/h]	18	22	43	82	29	28	14	476	28	68	371	22
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	3		2			2			2			
v_di, Inbound Pedestrian Volume crossing in	2		2			2			3			
v_co, Outbound Pedestrian Volume crossing	1		1			1			2			
v_ci, Inbound Pedestrian Volume crossing mi	1		2			1			1			
v_ab, Corner Pedestrian Volume [ped/h]	0		0			0			0			
Bicycle Volume [bicycles/h]	0		1			0			1			



**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	4	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	27	0	0	27	0	0	33	0	0	33	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10	10	10	10	42	42	42	42	42	42
g / C, Green / Cycle	0.16	0.16	0.16	0.16	0.16	0.16	0.71	0.71	0.71	0.71	0.71	0.71
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.03	0.07	0.02	0.02	0.02	0.15	0.15	0.08	0.12	0.12
s, saturation flow rate [veh/h]	1235	1683	1417	1240	1683	1401	891	1683	1650	805	1683	1645
c, Capacity [veh/h]	269	270	227	274	270	224	677	1189	1166	612	1189	1162
d1, Uniform Delay [s]	23.56	21.46	21.83	24.66	21.55	21.60	4.28	3.05	3.05	4.94	2.93	2.93
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.10	0.13	0.40	0.61	0.17	0.25	0.06	0.41	0.42	0.37	0.30	0.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.07	0.08	0.19	0.30	0.11	0.12	0.02	0.21	0.21	0.11	0.17	0.17
d, Delay for Lane Group [s/veh]	23.66	21.59	22.23	25.27	21.72	21.85	4.34	3.46	3.47	5.31	3.23	3.25
Lane Group LOS	C	C	C	C	C	C	A	A	A	A	A	A
Critical Lane Group	No	No	No	Yes	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.22	0.26	0.52	1.08	0.34	0.33	0.06	0.73	0.72	0.33	0.55	0.54
50th-Percentile Queue Length [ft/ln]	5.58	6.45	12.98	26.93	8.54	8.34	1.45	18.25	18.05	8.19	13.64	13.52
95th-Percentile Queue Length [veh/ln]	0.40	0.46	0.93	1.94	0.62	0.60	0.10	1.31	1.30	0.59	0.98	0.97
95th-Percentile Queue Length [ft/ln]	10.05	11.61	23.36	48.47	15.38	15.01	2.61	32.85	32.50	14.74	24.55	24.33

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	23.66	21.59	22.23	25.27	21.72	21.85	4.34	3.46	3.47	5.31	3.24	3.25
Movement LOS	C	C	C	C	C	C	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	22.37			23.84			3.49			3.54		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	7.17											
Intersection LOS	A											
Intersection V/C	0.218											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.69	21.69	21.69	21.69
I_p,int, Pedestrian LOS Score for Intersection	2.259	2.180	2.488	2.604
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	766	766	966	966
d_b, Bicycle Delay [s]	11.42	11.43	8.02	8.02
I_b,int, Bicycle LOS Score for Intersection	1.697	1.789	1.987	1.940
Bicycle LOS	A	A	A	A

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 2: Camino Loma/Rosecrans Ave**

Control Type:	Two-way stop	Delay (sec / veh):	17.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.033

**Intersection Setup**

Name	Northbound		Eastbound		Westbound	
Approach						
Lane Configuration	↔		↔		↔	
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	235.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name	Northbound		Eastbound		Westbound	
Base Volume Input [veh/h]	9	10	550	3	10	334
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	10	550	3	10	334
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	154	1	3	94
Total Analysis Volume [veh/h]	10	11	616	3	11	374
Pedestrian Volume [ped/h]	3		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.03	0.02	0.01	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	17.26	10.72	0.00	0.00	8.83	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.15	0.15	0.00	0.00	0.04	0.00
95th-Percentile Queue Length [ft/ln]	3.85	3.85	0.00	0.00	0.88	0.00
d_A, Approach Delay [s/veh]	13.83		0.00		0.25	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.38					
Intersection LOS	C					



**Intersection Level Of Service Report  
Intersection 3: Driveway 1/Rosecrans Ave**

Control Type:	Two-way stop	Delay (sec / veh):	19.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach												
Lane Configuration	↔↔			+			↔↔↔			↔↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	80.00	100.00	100.00	100.00	235.00	100.00	140.00	165.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	9	1	6	50	0	15	8	533	8	1	320	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	1	6	50	0	15	8	533	8	1	320	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	2	13	0	4	2	140	2	0	84	0
Total Analysis Volume [veh/h]	9	1	6	53	0	16	8	561	8	1	337	0
Pedestrian Volume [ped/h]	1			3			0			0		

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.03	0.00	0.01	0.15	0.00	0.02	0.01	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	17.73	18.96	10.08	16.97	20.45	11.07	7.99	0.00	0.00	8.61	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	
95th-Percentile Queue Length [veh/ln]	0.11	0.11	0.03	0.60	0.60	0.60	0.02	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	2.67	2.67	0.63	15.03	15.03	15.03	0.50	0.00	0.00	0.08	0.00	0.00
d_A, Approach Delay [s/veh]	14.94			15.60			0.11			0.03		
Approach LOS	B			C			A			A		
d_I, Intersection Delay [s/veh]	1.39											
Intersection LOS	C											

**Intersection Level Of Service Report  
Intersection 4: Euclid St/Rosecrans Ave**

Control Type:	Signalized	Delay (sec / veh):	15.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.475

**Intersection Setup**

Name	Northbound		Southbound		Eastbound	
Approach						
Lane Configuration	← ↑ ↑		↑ ←		← ← ←	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	0	0
Entry Pocket Length [ft]	350.00	100.00	100.00	245.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name						
Base Volume Input [veh/h]	245	373	664	105	124	486
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	245	373	664	105	124	486
Peak Hour Factor	0.9530	0.9530	0.9530	0.9530	0.9530	0.9530
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	64	98	174	28	33	127
Total Analysis Volume [veh/h]	257	391	697	110	130	510
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		1	
v_di, Inbound Pedestrian Volume crossing in	1		1		0	
v_co, Outbound Pedestrian Volume crossing	1		1		1	
v_ci, Inbound Pedestrian Volume crossing mi	0		1		1	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Version 2021 (SP 0-2)

**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Overlap
Signal Group	1	6	2	0	3	8
Auxiliary Signal Groups						1,8
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	10	10	0	5	5
Maximum Green [s]	30	30	30	0	30	30
Amber [s]	3.0	3.0	3.0	0.0	3.0	3.0
All red [s]	1.0	1.0	1.0	0.0	1.0	1.0
Split [s]	12	42	30	0	33	33
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	3.0
Walk [s]	0	5	5	0	5	0
Pedestrian Clearance [s]	0	10	21	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
Minimum Recall	No	No	No		No	No
Maximum Recall	No	No	No		No	No
Pedestrian Recall	No	No	No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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



**Lane Group Calculations**

Lane Group	L	C	C	R	L	R
C, Cycle Length [s]	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	8	52	40	40	15	27
g / C, Green / Cycle	0.11	0.69	0.53	0.53	0.20	0.37
(v / s)_i Volume / Saturation Flow Rate	0.08	0.12	0.22	0.08	0.04	0.20
s, saturation flow rate [veh/h]	3113	3204	3204	1429	3105	2531
c, Capacity [veh/h]	338	2208	1689	753	636	927
d1, Uniform Delay [s]	32.57	4.14	10.75	9.11	24.83	18.90
k, delay calibration	0.11	0.50	0.50	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.52	0.18	0.75	0.41	0.16	0.51
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.76	0.18	0.41	0.15	0.20	0.55
d, Delay for Lane Group [s/veh]	36.09	4.32	11.49	9.52	24.98	19.41
Lane Group LOS	D	A	B	A	C	B
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.37	0.86	3.28	0.92	0.94	3.37
50th-Percentile Queue Length [ft/ln]	59.23	21.42	81.92	22.88	23.60	84.29
95th-Percentile Queue Length [veh/ln]	4.26	1.54	5.90	1.65	1.70	6.07
95th-Percentile Queue Length [ft/ln]	106.61	38.56	147.46	41.19	42.48	151.72

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	36.09	4.32	11.49	9.52	24.98	19.41
Movement LOS	D	A	B	A	C	B
d_A, Approach Delay [s/veh]	16.92		11.22		20.54	
Approach LOS	B		B		C	
d_I, Intersection Delay [s/veh]	15.83					
Intersection LOS	B					
Intersection V/C	0.475					

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.09	29.09	29.09
I_p,int, Pedestrian LOS Score for Intersection	2.845	2.551	2.609
Crosswalk LOS	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1012	692	772
d_b, Bicycle Delay [s]	9.17	16.05	14.15
I_b,int, Bicycle LOS Score for Intersection	2.094	2.225	1.560
Bicycle LOS	B	B	A

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 5: Euclid St/Driveway 2**

Control Type:	Two-way stop	Delay (sec / veh):	13.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.022

**Intersection Setup**

Name	Northbound		Southbound		Eastbound	
Approach						
Lane Configuration	↵ ↑ ↑		↑ ↵		↵↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1
Entry Pocket Length [ft]	180.00	100.00	100.00	100.00	100.00	170.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Northbound		Southbound		Eastbound	
Base Volume Input [veh/h]	24	623	1143	8	0	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	623	1143	8	0	10
Peak Hour Factor	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	160	294	2	0	3
Total Analysis Volume [veh/h]	25	641	1176	8	0	10
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	100

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.04	0.01	0.01	0.00	0.00	0.02
d_M, Delay for Movement [s/veh]	11.42	0.00	0.00	0.00	40.80	13.14
Movement LOS	B	A	A	A	E	B
95th-Percentile Queue Length [veh/ln]	0.13	0.00	0.00	0.00	0.00	0.07
95th-Percentile Queue Length [ft/ln]	3.34	0.00	0.00	0.00	0.00	1.69
d_A, Approach Delay [s/veh]	0.43		0.00		13.14	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.22					
Intersection LOS	B					

**Intersection Level Of Service Report**  
**Intersection 6: Euclid St/Bastanchury Rd**

Control Type:	Signalized	Delay (sec / veh):	35.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.602

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	2	0	0	2	0	1	2	0	1
Entry Pocket Length [ft]	260.00	100.00	100.00	200.00	100.00	100.00	290.00	100.00	180.00	285.00	100.00	185.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	540.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		



**Volumes**

Name												
Base Volume Input [veh/h]	34	456	340	344	796	44	36	475	58	273	493	170
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	456	340	344	796	44	36	475	58	273	493	170
Peak Hour Factor	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	125	93	94	218	12	10	130	16	75	135	47
Total Analysis Volume [veh/h]	37	501	373	378	874	48	40	521	64	300	541	187
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		1			0			0			
v_di, Inbound Pedestrian Volume crossing in	0		0			0			1			
v_co, Outbound Pedestrian Volume crossing	1		0			0			1			
v_ci, Inbound Pedestrian Volume crossing mi	1		0			0			1			
v_ab, Corner Pedestrian Volume [ped/h]	0		0			0			0			
Bicycle Volume [bicycles/h]	0		0			0			0			

**Intersection Settings**

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

**Phasing & Timing**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	37	0	17	33	0	9	33	0	13	37	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	27	0	0	24	0	0	24	0	0	27	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	47	47	13	57	57	3	15	15	9	21	21
g / C, Green / Cycle	0.03	0.47	0.47	0.13	0.57	0.57	0.03	0.15	0.15	0.09	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.02	0.11	0.26	0.12	0.27	0.03	0.01	0.12	0.12	0.10	0.17	0.13
s, saturation flow rate [veh/h]	1603	4584	1429	3113	3204	1431	3113	3204	1591	3113	3204	1428
c, Capacity [veh/h]	53	2140	667	406	1808	807	108	488	242	282	667	297
d1, Uniform Delay [s]	47.90	15.98	19.25	43.09	13.08	9.85	47.26	40.96	41.06	45.53	37.77	36.12
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	14.89	0.26	3.37	9.79	0.93	0.14	2.10	3.03	6.42	43.39	2.43	2.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.69	0.23	0.56	0.93	0.48	0.06	0.37	0.80	0.81	1.06	0.81	0.63
d, Delay for Lane Group [s/veh]	62.79	16.23	22.62	52.88	14.01	9.99	49.36	43.98	47.47	88.92	40.20	38.30
Lane Group LOS	E	B	C	D	B	A	D	D	D	F	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.13	2.28	6.63	5.13	5.76	0.49	0.52	4.78	5.07	5.18	6.45	4.30
50th-Percentile Queue Length [ft/ln]	28.24	57.11	165.86	128.32	144.06	12.22	12.93	119.49	126.73	129.47	161.28	107.40
95th-Percentile Queue Length [veh/ln]	2.03	4.11	10.86	8.85	9.70	0.88	0.93	8.36	8.76	9.10	10.62	7.70
95th-Percentile Queue Length [ft/ln]	50.84	102.80	271.47	221.20	242.49	21.99	23.27	209.12	219.04	227.44	265.41	192.38

**Movement, Approach, & Intersection Results**

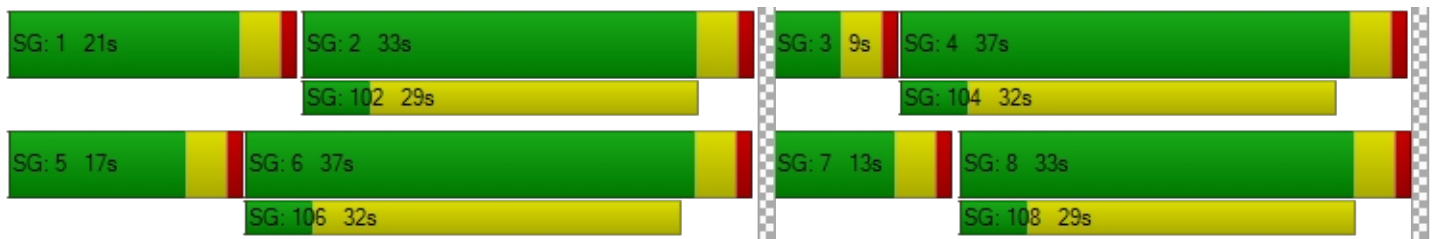
d_M, Delay for Movement [s/veh]	62.79	16.23	22.62	52.88	14.01	9.99	49.36	44.87	47.47	88.92	40.20	38.30
Movement LOS	E	B	C	D	B	A	D	D	D	F	D	D
d_A, Approach Delay [s/veh]	20.74			25.16			45.43			54.08		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	35.09											
Intersection LOS	D											
Intersection V/C	0.602											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	41.44			41.44			41.44			41.44		
I_p,int, Pedestrian LOS Score for Intersection	2.900			2.979			2.775			3.012		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	660			580			580			660		
d_b, Bicycle Delay [s]	22.48			25.24			25.24			22.48		
I_b,int, Bicycle LOS Score for Intersection	2.061			2.632			1.903			2.408		
Bicycle LOS	B			B			A			B		

**Sequence**

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



## Sunrise Village

Vistro File: C:\...\Shopoff Vistro.vistro

Scenario 1 Existing AM

Report File: C:\...\Existing AM.pdf

5/10/2021

**Turning Movement Volume: Summary**

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Parks Rd/Rosecrans Ave	16	20	39	74	26	25	13	430	25	61	335	20	1084

ID	Intersection Name	Northbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Right	Left	Thru	
2	Camino Loma/Rosecrans Ave	9	10	550	3	10	334	916

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound		Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
3	Driveway 1/Rosecrans Ave	9	1	6	50	0	15	8	533	8	1	320	951

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
4	Euclid St/Rosecrans Ave	245	373	664	105	124	486	1997

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
5	Euclid St/Driveway 2	24	623	1143	8	0	10	1808

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6	Euclid St/Bastanchury Rd	34	456	340	344	796	44	36	475	58	273	493	170	3519

## Table of Contents

Intersection Analysis Summary .....	2
Intersection Level Of Service Report .....	3
Intersection 1: Parks Rd/Rosecrans Ave .....	3
Intersection 2: Camino Loma/Rosecrans Ave .....	8
Intersection 3: Driveway 1/Rosecrans Ave .....	10
Intersection 4: Euclid St/Rosecrans Ave .....	12
Intersection 5: Euclid St/Driveway 2 .....	17
Intersection 6: Euclid St/Bastanchury Rd .....	19
Turning Movement Volume: Summary .....	24
Traffic Volume - Net New Site Trips .....	25



## Sunrise Village

Vistro File: C:\...\Shopoff Vistro.vistro

Scenario 2 Existing PM

Report File: C:\...\Existing PM.pdf

5/10/2021

**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Parks Rd/Rosecrans Ave	Signalized	HCM 6th Edition	SB Left	0.269	7.5	A
2	Camino Loma/Rosecrans Ave	Two-way stop	HCM 6th Edition	NB Left	0.049	23.4	C
3	Driveway 1/Rosecrans Ave	Two-way stop	HCM 6th Edition	NB Thru	0.008	37.9	E
4	Euclid St/Rosecrans Ave	Signalized	HCM 6th Edition	NB Left	0.575	18.7	B
5	Euclid St/Driveway 2	Two-way stop	HCM 6th Edition	EB Left	0.022	85.7	F
6	Euclid St/Bastanchury Rd	Signalized	HCM 6th Edition	SB Left	0.701	38.7	D

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

**Intersection Level Of Service Report**  
**Intersection 1: Parks Rd/Rosecrans Ave**

Control Type:	Signalized	Delay (sec / veh):	7.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.269

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	105.00	100.00	175.00	175.00	100.00	200.00	295.00	100.00	100.00	330.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name												
Base Volume Input [veh/h]	33	56	75	55	46	19	9	538	34	49	548	105
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	56	75	55	46	19	9	538	34	49	548	105
Peak Hour Factor	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	15	20	15	12	5	2	142	9	13	145	28
Total Analysis Volume [veh/h]	35	59	79	58	49	20	9	568	36	52	578	111
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		1			0			1			0	
v_di, Inbound Pedestrian Volume crossing in		0			1			0			1	
v_co, Outbound Pedestrian Volume crossing		2			1			1			2	
v_ci, Inbound Pedestrian Volume crossing mi		1			2			2			1	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		5			2			2			1	

**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	4	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	28	0	0	28	0	0	32	0	0	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10	10	10	10	42	42	42	42	42	42
g / C, Green / Cycle	0.16	0.16	0.16	0.16	0.16	0.16	0.71	0.71	0.71	0.71	0.71	0.71
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.06	0.05	0.03	0.01	0.01	0.18	0.18	0.07	0.21	0.21
s, saturation flow rate [veh/h]	1218	1683	1401	1208	1683	1407	678	1683	1643	734	1683	1577
c, Capacity [veh/h]	257	272	227	249	272	228	514	1187	1158	557	1187	1112
d1, Uniform Delay [s]	24.37	21.87	22.33	25.15	21.73	21.40	5.33	3.19	3.20	5.27	3.31	3.32
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.24	0.39	0.92	0.47	0.31	0.16	0.06	0.52	0.54	0.33	0.64	0.70
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.14	0.22	0.35	0.23	0.18	0.09	0.02	0.26	0.26	0.09	0.30	0.30
d, Delay for Lane Group [s/veh]	24.61	22.26	23.25	25.63	22.05	21.56	5.39	3.71	3.74	5.60	3.95	4.02
Lane Group LOS	C	C	C	C	C	C	A	A	A	A	A	A
Critical Lane Group	No	No	Yes	No	No	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.45	0.71	0.99	0.77	0.58	0.24	0.05	0.92	0.91	0.27	1.11	1.07
50th-Percentile Queue Length [ft/ln]	11.19	17.74	24.68	19.14	14.62	5.90	1.15	23.05	22.77	6.65	27.85	26.82
95th-Percentile Queue Length [veh/ln]	0.81	1.28	1.78	1.38	1.05	0.42	0.08	1.66	1.64	0.48	2.00	1.93
95th-Percentile Queue Length [ft/ln]	20.13	31.93	44.42	34.45	26.31	10.61	2.07	41.49	40.99	11.96	50.12	48.28

**Movement, Approach, & Intersection Results**

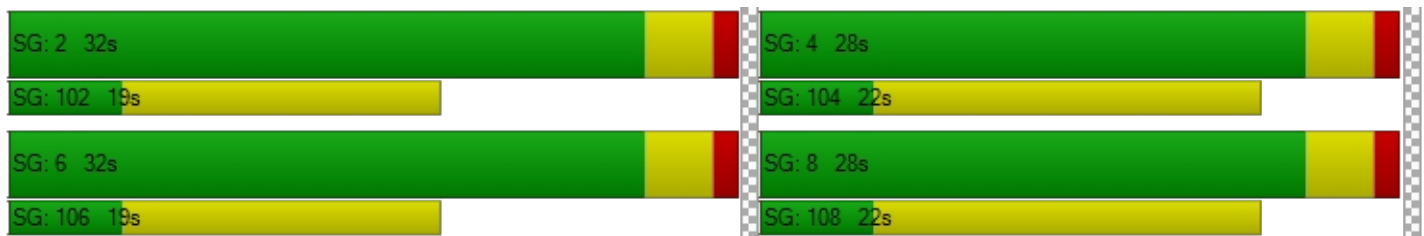
d_M, Delay for Movement [s/veh]	24.61	22.26	23.25	25.63	22.05	21.56	5.39	3.72	3.74	5.60	3.98	4.02
Movement LOS	C	C	C	C	C	C	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	23.19			23.61			3.75			4.10		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	7.46											
Intersection LOS	A											
Intersection V/C	0.269											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.69	21.69	21.69	21.69
I_p,int, Pedestrian LOS Score for Intersection	2.261	2.199	2.573	2.645
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	800	800	933	933
d_b, Bicycle Delay [s]	10.84	10.82	8.55	8.55
I_b,int, Bicycle LOS Score for Intersection	1.845	1.769	2.065	2.171
Bicycle LOS	A	A	B	B

**Sequence**

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





**Intersection Level Of Service Report**  
**Intersection 2: Camino Loma/Rosecrans Ave**

Control Type:	Two-way stop	Delay (sec / veh):	23.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.049

**Intersection Setup**

Name	Northbound		Eastbound		Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	235.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name	Northbound		Eastbound		Westbound	
Base Volume Input [veh/h]	9	23	634	19	23	649
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	23	634	19	23	649
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	6	168	5	6	172
Total Analysis Volume [veh/h]	10	24	674	20	24	690
Pedestrian Volume [ped/h]	5		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.05	0.04	0.01	0.00	0.03	0.01
d_M, Delay for Movement [s/veh]	23.38	11.47	0.00	0.00	9.16	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.28	0.28	0.00	0.00	0.08	0.00
95th-Percentile Queue Length [ft/ln]	7.02	7.02	0.00	0.00	2.08	0.00
d_A, Approach Delay [s/veh]	14.98		0.00		0.31	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.51					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 3: Driveway 1/Rosecrans Ave**

Control Type:	Two-way stop	Delay (sec / veh):	37.9
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach												
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	80.00	100.00	100.00	100.00	235.00	100.00	140.00	165.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	25	1	11	29	0	15	14	609	25	18	638	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	1	11	29	0	15	14	609	25	18	638	0
Peak Hour Factor	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	0	3	8	0	4	4	166	7	5	174	0
Total Analysis Volume [veh/h]	27	1	12	32	0	16	15	663	27	20	695	0
Pedestrian Volume [ped/h]	3			0			0			0		

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.17	0.01	0.02	0.20	0.00	0.02	0.02	0.01	0.00	0.02	0.01	0.00
d_M, Delay for Movement [s/veh]	31.94	37.87	10.56	32.58	39.16	15.45	9.08	0.00	0.00	9.11	0.00	0.00
Movement LOS	D	E	B	D	E	C	A	A	A	A	A	
95th-Percentile Queue Length [veh/ln]	0.61	0.61	0.06	0.84	0.84	0.84	0.05	0.00	0.00	0.07	0.00	0.00
95th-Percentile Queue Length [ft/ln]	15.31	15.31	1.39	21.07	21.07	21.07	1.28	0.00	0.00	1.71	0.00	0.00
d_A, Approach Delay [s/veh]	25.68			26.87			0.19			0.25		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	1.75											
Intersection LOS	E											

**Intersection Level Of Service Report  
Intersection 4: Euclid St/Rosecrans Ave**

Control Type:	Signalized	Delay (sec / veh):	18.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.575

**Intersection Setup**

Name	Northbound		Southbound		Eastbound	
Approach						
Lane Configuration	⇐		⇐		⇐⇐⇐⇐	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	0	0
Entry Pocket Length [ft]	350.00	100.00	100.00	245.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name						
Base Volume Input [veh/h]	560	794	685	188	216	441
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	560	794	685	188	216	441
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	152	216	186	51	59	120
Total Analysis Volume [veh/h]	609	863	745	204	235	479
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	3		0		3	
v_di, Inbound Pedestrian Volume crossing in	3		0		3	
v_co, Outbound Pedestrian Volume crossing	0		3		2	
v_ci, Inbound Pedestrian Volume crossing mi	0		2		3	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		1	

Version 2021 (SP 0-2)

**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Overlap
Signal Group	1	6	2	0	3	8
Auxiliary Signal Groups						1,8
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	10	10	0	5	5
Maximum Green [s]	30	30	30	0	30	30
Amber [s]	3.0	3.0	3.0	0.0	3.0	3.0
All red [s]	1.0	1.0	1.0	0.0	1.0	1.0
Split [s]	22	52	30	0	33	33
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	3.0
Walk [s]	0	5	5	0	5	0
Pedestrian Clearance [s]	0	10	21	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
Minimum Recall	No	No	No		No	No
Maximum Recall	No	No	No		No	No
Pedestrian Recall	No	No	No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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



**Lane Group Calculations**

Lane Group	L	C	C	R	L	R
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	18	62	40	40	15	37
g / C, Green / Cycle	0.21	0.73	0.48	0.48	0.17	0.43
(v / s)_i Volume / Saturation Flow Rate	0.20	0.27	0.23	0.14	0.08	0.19
s, saturation flow rate [veh/h]	3113	3204	3204	1426	3113	2513
c, Capacity [veh/h]	662	2353	1521	677	534	1083
d1, Uniform Delay [s]	32.82	4.11	15.30	13.69	31.59	16.98
k, delay calibration	0.11	0.50	0.50	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.85	0.44	1.13	1.14	0.57	0.28
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.92	0.37	0.49	0.30	0.44	0.44
d, Delay for Lane Group [s/veh]	38.67	4.55	16.43	14.84	32.16	17.27
Lane Group LOS	D	A	B	B	C	B
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.49	2.15	4.86	2.48	2.16	3.16
50th-Percentile Queue Length [ft/ln]	162.34	53.68	121.42	61.97	54.10	79.11
95th-Percentile Queue Length [veh/ln]	10.67	3.86	8.47	4.46	3.89	5.70
95th-Percentile Queue Length [ft/ln]	266.82	96.62	211.77	111.54	97.37	142.40

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	38.67	4.55	16.43	14.84	32.16	17.27
Movement LOS	D	A	B	B	C	B
d_A, Approach Delay [s/veh]	18.67		16.08		22.17	
Approach LOS	B		B		C	
d_I, Intersection Delay [s/veh]	18.68					
Intersection LOS	B					
Intersection V/C	0.575					

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.01	34.01	34.01
I_p,int, Pedestrian LOS Score for Intersection	2.968	2.698	2.700
Crosswalk LOS	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1129	611	682
d_b, Bicycle Delay [s]	8.08	20.51	18.49
I_b,int, Bicycle LOS Score for Intersection	2.774	2.343	1.560
Bicycle LOS	C	B	A

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 5: Euclid St/Driveway 2**

Control Type:	Two-way stop	Delay (sec / veh):	85.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.022

**Intersection Setup**

Name	Northbound		Southbound		Eastbound	
Approach						
Lane Configuration	↵↵↵		↵↵		↵↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1
Entry Pocket Length [ft]	180.00	100.00	100.00	100.00	100.00	170.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name	Northbound		Southbound		Eastbound	
Base Volume Input [veh/h]	43	1370	1124	8	1	41
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	43	1370	1124	8	1	41
Peak Hour Factor	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	366	301	2	0	11
Total Analysis Volume [veh/h]	46	1465	1202	9	1	44
Pedestrian Volume [ped/h]	0		0		3	

Version 2021 (SP 0-2)

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.08	0.01	0.01	0.00	0.02	0.10
d_M, Delay for Movement [s/veh]	11.89	0.00	0.00	0.00	85.69	14.09
Movement LOS	B	A	A	A	F	B
95th-Percentile Queue Length [veh/ln]	0.26	0.00	0.00	0.00	0.07	0.33
95th-Percentile Queue Length [ft/ln]	6.57	0.00	0.00	0.00	1.66	8.27
d_A, Approach Delay [s/veh]	0.36		0.00		15.68	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.45					
Intersection LOS	F					

**Intersection Level Of Service Report  
Intersection 6: Euclid St/Bastanchury Rd**

Control Type:	Signalized	Delay (sec / veh):	38.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.701

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	2	0	0	2	0	1	2	0	1
Entry Pocket Length [ft]	260.00	100.00	100.00	200.00	100.00	100.00	290.00	100.00	180.00	285.00	100.00	185.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	540.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name												
Base Volume Input [veh/h]	40	921	280	341	750	100	116	645	41	385	713	440
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	921	280	341	750	100	116	645	41	385	713	440
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	245	74	91	199	27	31	171	11	102	189	117
Total Analysis Volume [veh/h]	43	979	298	362	797	106	123	685	44	409	758	468
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			1			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			1		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			6			0			2		

**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	14	36	0	16	38	0	9	33	0	20	44	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	27	0	0	24	0	0	24	0	0	27	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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



**Lane Group Calculations**

Lane Group	L	C	R	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	35	35	12	43	43	5	26	26	16	37	37
g / C, Green / Cycle	0.03	0.33	0.33	0.11	0.41	0.41	0.05	0.25	0.25	0.15	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.03	0.21	0.21	0.12	0.25	0.08	0.04	0.15	0.15	0.13	0.24	0.33
s, saturation flow rate [veh/h]	1603	4584	1431	3113	3204	1409	3113	3204	1632	3113	3204	1410
c, Capacity [veh/h]	55	1530	477	357	1326	583	150	803	409	464	1126	496
d1, Uniform Delay [s]	50.31	29.66	29.46	46.51	24.04	19.51	49.56	34.73	34.77	43.80	28.94	32.84
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.37
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	20.22	2.07	6.05	26.01	2.02	0.69	10.62	0.73	1.44	5.68	0.71	23.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.78	0.64	0.62	1.02	0.60	0.18	0.82	0.60	0.60	0.88	0.67	0.94
d, Delay for Lane Group [s/veh]	70.53	31.72	35.51	72.52	26.06	20.19	60.18	35.46	36.20	49.48	29.65	56.27
Lane Group LOS	E	C	D	F	C	C	E	D	D	D	C	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.43	7.16	7.03	5.91	7.92	1.74	1.81	5.46	5.68	5.53	8.07	14.37
50th-Percentile Queue Length [ft/ln]	35.72	179.08	175.87	147.74	197.89	43.47	45.37	136.62	142.01	138.34	201.68	359.34
95th-Percentile Queue Length [veh/ln]	2.57	11.55	11.38	9.95	12.53	3.13	3.27	9.30	9.59	9.39	12.73	20.59
95th-Percentile Queue Length [ft/ln]	64.30	288.81	284.61	248.87	313.25	78.25	81.66	232.47	239.73	234.78	318.13	514.78

**Movement, Approach, & Intersection Results**

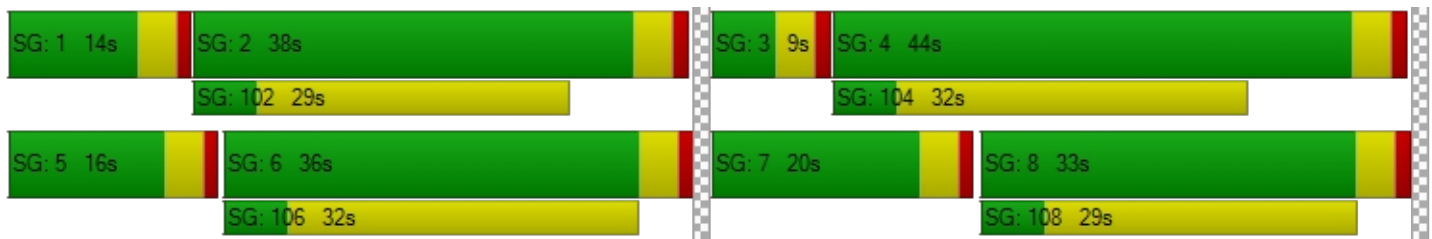
d_M, Delay for Movement [s/veh]	70.53	31.72	35.51	72.52	26.06	20.19	60.18	35.68	36.20	49.48	29.65	56.27
Movement LOS	E	C	D	F	C	C	E	D	D	D	C	E
d_A, Approach Delay [s/veh]	33.84			38.87			39.24			42.23		
Approach LOS	C			D			D			D		
d_I, Intersection Delay [s/veh]	38.71											
Intersection LOS	D											
Intersection V/C	0.701											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	43.90	43.90	43.90	43.90
I_p,int, Pedestrian LOS Score for Intersection	2.961	3.080	2.848	3.098
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	609	647	552	762
d_b, Bicycle Delay [s]	25.39	24.09	27.52	20.15
I_b,int, Bicycle LOS Score for Intersection	2.286	2.603	2.028	2.908
Bicycle LOS	B	B	B	C

**Sequence**

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



## Sunrise Village

Vistro File: C:\...\Shopoff Vistro.vistro

Scenario 2 Existing PM

Report File: C:\...\Existing PM.pdf

5/10/2021

**Turning Movement Volume: Summary**

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Parks Rd/Rosecrans Ave	33	56	75	55	46	19	9	538	34	49	548	105	1567

ID	Intersection Name	Northbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Right	Left	Thru	
2	Camino Loma/Rosecrans Ave	9	23	634	19	23	649	1357

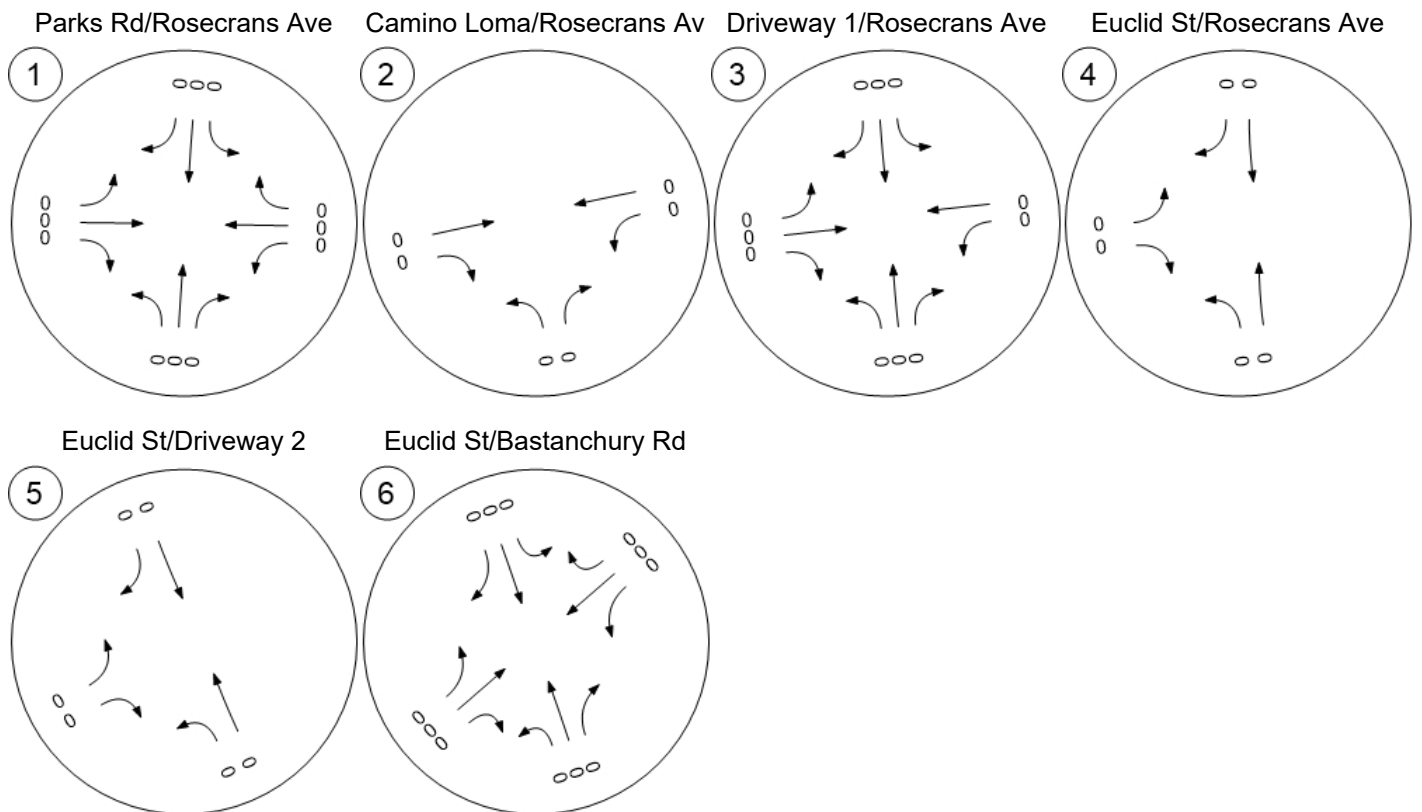
ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound		Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
3	Driveway 1/Rosecrans Ave	25	1	11	29	0	15	14	609	25	18	638	1385

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
4	Euclid St/Rosecrans Ave	560	794	685	188	216	441	2884

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
5	Euclid St/Driveway 2	43	1370	1124	8	1	41	2587

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6	Euclid St/Bastanchury Rd	40	921	280	341	750	100	116	645	41	385	713	440	4772

Traffic Volume - Net New Site Trips



## Table of Contents

Intersection Analysis Summary .....	2
Intersection Level Of Service Report .....	3
Intersection 1: Parks Rd/Rosecrans Ave .....	3
Intersection 2: Camino Loma/Rosecrans Ave .....	8
Intersection 3: Driveway 1/Rosecrans Ave .....	10
Intersection 4: Euclid St/Rosecrans Ave .....	12
Intersection 5: Euclid St/Driveway 2 .....	17
Intersection 6: Euclid St/Bastanchury Rd .....	19
Turning Movement Volume: Summary .....	24

## Sunrise Village

Vistro File: C:\...\Shopoff Vistro.vistro

Scenario 3 Existing AM + P

Report File: C:\...\Existing AM +P.pdf

5/10/2021

**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Parks Rd/Rosecrans Ave	Signalized	HCM 6th Edition	SB Left	0.215	7.1	A
2	Camino Loma/Rosecrans Ave	Two-way stop	HCM 6th Edition	NB Left	0.065	17.5	C
3	Driveway 1/Rosecrans Ave	Two-way stop	HCM 6th Edition	NB Left	0.024	17.6	C
4	Euclid St/Rosecrans Ave	Signalized	HCM 6th Edition	NB Left	0.475	15.9	B
5	Euclid St/Driveway 2	Two-way stop	HCM 6th Edition	EB Right	0.033	13.3	B
6	Euclid St/Bastanchury Rd	Signalized	HCM 6th Edition	WB Left	0.601	34.8	C

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

**Intersection Level Of Service Report**  
**Intersection 1: Parks Rd/Rosecrans Ave**

Control Type:	Signalized	Delay (sec / veh):	7.1
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.215

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	105.00	100.00	175.00	175.00	100.00	200.00	295.00	100.00	100.00	330.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name												
Base Volume Input [veh/h]	16	20	39	74	26	25	13	430	25	61	335	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	-3	-3	0	0	0	-2	0	-2	11	-2
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	20	36	71	26	25	13	428	25	59	346	18
Peak Hour Factor	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	6	10	20	7	7	4	118	7	16	96	5
Total Analysis Volume [veh/h]	18	22	40	79	29	28	14	474	28	65	383	20
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	3		2		2		2		2		2	
v_di, Inbound Pedestrian Volume crossing in	2		2		2		2		3		3	
v_co, Outbound Pedestrian Volume crossing	1		1		1		1		2		2	
v_ci, Inbound Pedestrian Volume crossing mi	1		2		1		1		1		1	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		0		0		0	
Bicycle Volume [bicycles/h]	0		1		0		0		1		1	



**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	4	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	27	0	0	27	0	0	33	0	0	33	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	9	9	9	9	9	43	43	43	43	43	43
g / C, Green / Cycle	0.16	0.16	0.16	0.16	0.16	0.16	0.71	0.71	0.71	0.71	0.71	0.71
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.03	0.06	0.02	0.02	0.02	0.15	0.15	0.08	0.12	0.12
s, saturation flow rate [veh/h]	1235	1683	1417	1240	1683	1401	883	1683	1650	806	1683	1649
c, Capacity [veh/h]	268	268	226	273	268	223	672	1190	1167	614	1190	1167
d1, Uniform Delay [s]	23.60	21.50	21.83	24.65	21.59	21.64	4.29	3.03	3.03	4.89	2.92	2.93
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.10	0.13	0.37	0.58	0.18	0.25	0.06	0.41	0.42	0.35	0.31	0.32
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.07	0.08	0.18	0.29	0.11	0.13	0.02	0.21	0.21	0.11	0.17	0.17
d, Delay for Lane Group [s/veh]	23.71	21.63	22.20	25.22	21.77	21.89	4.34	3.43	3.45	5.24	3.23	3.25
Lane Group LOS	C	C	C	C	C	C	A	A	A	A	A	A
Critical Lane Group	No	No	No	Yes	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.22	0.26	0.48	1.04	0.34	0.33	0.06	0.72	0.71	0.31	0.56	0.55
50th-Percentile Queue Length [ft/ln]	5.59	6.46	12.06	25.90	8.56	8.35	1.46	18.06	17.86	7.75	13.94	13.83
95th-Percentile Queue Length [veh/ln]	0.40	0.46	0.87	1.86	0.62	0.60	0.10	1.30	1.29	0.56	1.00	1.00
95th-Percentile Queue Length [ft/ln]	10.06	11.62	21.70	46.61	15.40	15.03	2.62	32.50	32.16	13.96	25.10	24.90

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	23.71	21.63	22.20	25.22	21.77	21.89	4.34	3.44	3.45	5.24	3.24	3.25
Movement LOS	C	C	C	C	C	C	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	22.38			23.80			3.47			3.52		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	7.05											
Intersection LOS	A											
Intersection V/C	0.215											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.69	21.69	21.69	21.69
I_p,int, Pedestrian LOS Score for Intersection	2.253	2.178	2.490	2.600
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	766	766	966	966
d_b, Bicycle Delay [s]	11.42	11.43	8.02	8.02
I_b,int, Bicycle LOS Score for Intersection	1.692	1.784	1.985	1.946
Bicycle LOS	A	A	A	A

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 2: Camino Loma/Rosecrans Ave**

Control Type:	Two-way stop	Delay (sec / veh):	17.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.065

**Intersection Setup**

Name	Northbound		Eastbound		Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	235.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name						
Base Volume Input [veh/h]	9	10	550	3	10	334
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	3	-9	1	0	-2
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	13	541	4	10	332
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	4	151	1	3	93
Total Analysis Volume [veh/h]	20	15	606	4	11	372
Pedestrian Volume [ped/h]	3		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.06	0.02	0.01	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	17.49	11.09	0.00	0.00	8.80	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.28	0.28	0.00	0.00	0.03	0.00
95th-Percentile Queue Length [ft/ln]	7.07	7.07	0.00	0.00	0.87	0.00
d_A, Approach Delay [s/veh]	14.75		0.00		0.25	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.60					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 3: Driveway 1/Rosecrans Ave**

Control Type:	Two-way stop	Delay (sec / veh):	17.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.024

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach												
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	80.00	100.00	100.00	100.00	235.00	100.00	140.00	165.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	9	1	6	50	0	15	8	533	8	1	320	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-2	-1	12	0	-1	0	0	3	-9	-4	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	0	18	50	0	15	8	536	0	0	320	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	5	13	0	4	2	141	0	0	84	0
Total Analysis Volume [veh/h]	7	0	19	53	0	16	8	564	0	0	337	0
Pedestrian Volume [ped/h]	1			3			0			0		

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.02	0.00	0.03	0.15	0.00	0.02	0.01	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	17.60	18.82	10.19	17.15	20.35	11.12	7.99	0.00	0.00	8.59	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	
95th-Percentile Queue Length [veh/ln]	0.07	0.07	0.08	0.61	0.61	0.61	0.02	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.83	1.83	2.05	15.24	15.24	15.24	0.50	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.18			15.75			0.11			0.00		
Approach LOS	B			C			A			A		
d_I, Intersection Delay [s/veh]	1.46											
Intersection LOS	C											

**Intersection Level Of Service Report  
Intersection 4: Euclid St/Rosecrans Ave**

Control Type:	Signalized	Delay (sec / veh):	15.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.475

**Intersection Setup**

Name	Northbound		Southbound		Eastbound	
Approach						
Lane Configuration	← ↑ ↑		↑ ←		← ← ←	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	0	0
Entry Pocket Length [ft]	350.00	100.00	100.00	245.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	



**Volumes**

Name						
Base Volume Input [veh/h]	245	373	664	105	124	486
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-2	-1	-4	-2	9	6
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	243	372	660	103	133	492
Peak Hour Factor	0.9530	0.9530	0.9530	0.9530	0.9530	0.9530
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	64	98	173	27	35	129
Total Analysis Volume [veh/h]	255	390	693	108	140	516
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		1	
v_di, Inbound Pedestrian Volume crossing in	1		1		0	
v_co, Outbound Pedestrian Volume crossing	1		1		1	
v_ci, Inbound Pedestrian Volume crossing mi	0		1		1	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Version 2021 (SP 0-2)

**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Overlap
Signal Group	1	6	2	0	3	8
Auxiliary Signal Groups						1,8
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	10	10	0	5	5
Maximum Green [s]	30	30	30	0	30	30
Amber [s]	3.0	3.0	3.0	0.0	3.0	3.0
All red [s]	1.0	1.0	1.0	0.0	1.0	1.0
Split [s]	12	42	30	0	33	33
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	3.0
Walk [s]	0	5	5	0	5	0
Pedestrian Clearance [s]	0	10	21	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
Minimum Recall	No	No	No		No	No
Maximum Recall	No	No	No		No	No
Pedestrian Recall	No	No	No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	R	L	R
C, Cycle Length [s]	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	8	52	39	39	16	28
g / C, Green / Cycle	0.11	0.69	0.53	0.53	0.21	0.37
(v / s)_i Volume / Saturation Flow Rate	0.08	0.12	0.22	0.08	0.05	0.20
s, saturation flow rate [veh/h]	3113	3204	3204	1429	3105	2531
c, Capacity [veh/h]	338	2201	1683	750	642	933
d1, Uniform Delay [s]	32.54	4.20	10.82	9.17	24.78	18.83
k, delay calibration	0.11	0.50	0.50	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.42	0.18	0.75	0.40	0.17	0.52
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.75	0.18	0.41	0.14	0.22	0.55
d, Delay for Lane Group [s/veh]	35.96	4.37	11.57	9.58	24.95	19.35
Lane Group LOS	D	A	B	A	C	B
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.35	0.86	3.27	0.90	1.02	3.41
50th-Percentile Queue Length [ft/ln]	58.64	21.61	81.81	22.56	25.42	85.18
95th-Percentile Queue Length [veh/ln]	4.22	1.56	5.89	1.62	1.83	6.13
95th-Percentile Queue Length [ft/ln]	105.54	38.89	147.27	40.62	45.76	153.33

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	35.96	4.37	11.57	9.58	24.95	19.35
Movement LOS	D	A	B	A	C	B
d_A, Approach Delay [s/veh]	16.86		11.30		20.54	
Approach LOS	B		B		C	
d_I, Intersection Delay [s/veh]	15.89					
Intersection LOS	B					
Intersection V/C	0.475					

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.09	29.09	29.09
I_p,int, Pedestrian LOS Score for Intersection	2.845	2.552	2.611
Crosswalk LOS	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1012	692	772
d_b, Bicycle Delay [s]	9.17	16.05	14.15
I_b,int, Bicycle LOS Score for Intersection	2.092	2.220	1.560
Bicycle LOS	B	B	A

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 5: Euclid St/Driveway 2**

Control Type:	Two-way stop	Delay (sec / veh):	13.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.033

**Intersection Setup**

Name	Northbound		Southbound		Eastbound	
Approach						
Lane Configuration	↵ ↑ ↑		↑ ↵		↵↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1
Entry Pocket Length [ft]	180.00	100.00	100.00	100.00	100.00	170.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Northbound		Southbound		Eastbound	
Base Volume Input [veh/h]	24	623	1143	8	0	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-15	-2	6	-4	-1	5
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	621	1149	4	0	15
Peak Hour Factor	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	160	296	1	0	4
Total Analysis Volume [veh/h]	9	639	1182	4	0	15
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	100

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.02	0.01	0.01	0.00	0.00	0.03
d_M, Delay for Movement [s/veh]	11.26	0.00	0.00	0.00	38.40	13.27
Movement LOS	B	A	A	A	E	B
95th-Percentile Queue Length [veh/ln]	0.05	0.00	0.00	0.00	0.00	0.10
95th-Percentile Queue Length [ft/ln]	1.17	0.00	0.00	0.00	0.00	2.58
d_A, Approach Delay [s/veh]	0.16		0.00		13.27	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.16					
Intersection LOS	B					

**Intersection Level Of Service Report**  
**Intersection 6: Euclid St/Bastanchury Rd**

Control Type:	Signalized	Delay (sec / veh):	34.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.601

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	2	0	0	2	0	1	2	0	1
Entry Pocket Length [ft]	260.00	100.00	100.00	200.00	100.00	100.00	290.00	100.00	180.00	285.00	100.00	185.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	540.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name												
Base Volume Input [veh/h]	34	456	340	344	796	44	36	475	58	273	493	170
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	-1	0	-4	16	-1	-4	0	0	0	0	-12
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	455	340	340	812	43	32	475	58	273	493	158
Peak Hour Factor	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	125	93	93	223	12	9	130	16	75	135	43
Total Analysis Volume [veh/h]	37	499	373	373	891	47	35	521	64	300	541	173
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			1			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			1		
v_co, Outbound Pedestrian Volume crossing	1			0			0			1		
v_ci, Inbound Pedestrian Volume crossing mi	1			0			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		



**Intersection Settings**

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

**Phasing & Timing**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	37	0	17	33	0	9	33	0	13	37	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	27	0	0	24	0	0	24	0	0	27	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	47	47	13	57	57	3	15	15	9	21	21
g / C, Green / Cycle	0.03	0.47	0.47	0.13	0.57	0.57	0.03	0.15	0.15	0.09	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.02	0.11	0.26	0.12	0.28	0.03	0.01	0.12	0.12	0.10	0.17	0.12
s, saturation flow rate [veh/h]	1603	4584	1429	3113	3204	1431	3113	3204	1592	3113	3204	1428
c, Capacity [veh/h]	53	2140	667	406	1807	807	100	488	242	282	675	301
d1, Uniform Delay [s]	47.90	15.97	19.25	43.01	13.18	9.84	47.42	40.95	41.06	45.53	37.54	35.49
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	14.89	0.26	3.37	8.71	0.96	0.14	2.06	3.02	6.42	43.39	2.27	1.73
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.69	0.23	0.56	0.92	0.49	0.06	0.35	0.80	0.81	1.06	0.80	0.58
d, Delay for Lane Group [s/veh]	62.79	16.23	22.62	51.72	14.14	9.98	49.48	43.98	47.47	88.92	39.81	37.23
Lane Group LOS	E	B	C	D	B	A	D	D	D	F	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.13	2.27	6.63	5.00	5.92	0.48	0.45	4.78	5.07	5.18	6.42	3.90
50th-Percentile Queue Length [ft/ln]	28.24	56.86	165.87	125.08	148.02	11.95	11.35	119.47	126.75	129.47	160.40	97.40
95th-Percentile Queue Length [veh/ln]	2.03	4.09	10.86	8.67	9.91	0.86	0.82	8.36	8.76	9.10	10.57	7.01
95th-Percentile Queue Length [ft/ln]	50.84	102.34	271.48	216.78	247.78	21.52	20.43	209.10	219.07	227.44	264.26	175.32

**Movement, Approach, & Intersection Results**

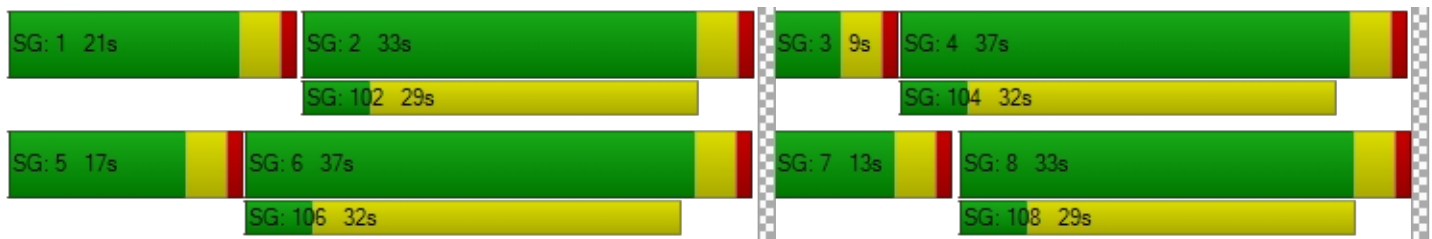
d_M, Delay for Movement [s/veh]	62.79	16.23	22.62	51.72	14.14	9.98	49.48	44.87	47.47	88.92	39.81	37.23
Movement LOS	E	B	C	D	B	A	D	D	D	F	D	D
d_A, Approach Delay [s/veh]	20.74			24.69			45.40			53.90		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	34.77											
Intersection LOS	C											
Intersection V/C	0.601											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	41.44			41.44			41.44			41.44		
l_p,int, Pedestrian LOS Score for Intersection	2.902			2.978			2.774			3.010		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	660			580			580			660		
d_b, Bicycle Delay [s]	22.48			25.24			25.24			22.48		
l_b,int, Bicycle LOS Score for Intersection	2.060			2.641			1.901			2.396		
Bicycle LOS	B			B			A			B		

**Sequence**

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



## Sunrise Village

Vistro File: C:\...\Shopoff Vistro.vistro

Scenario 3 Existing AM + P

Report File: C:\...\Existing AM +P.pdf

5/10/2021

**Turning Movement Volume: Summary**

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Parks Rd/Rosecrans Ave	16	20	36	71	26	25	13	428	25	59	346	18	1083

ID	Intersection Name	Northbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Right	Left	Thru	
2	Camino Loma/Rosecrans Ave	18	13	541	4	10	332	918

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound		Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
3	Driveway 1/Rosecrans Ave	7	0	18	50	0	15	8	536	0	0	320	954

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
4	Euclid St/Rosecrans Ave	243	372	660	103	133	492	2003

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
5	Euclid St/Driveway 2	9	621	1149	4	0	15	1798

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6	Euclid St/Bastanchury Rd	34	455	340	340	812	43	32	475	58	273	493	158	3513

## Table of Contents

Intersection Analysis Summary .....	2
Intersection Level Of Service Report .....	3
Intersection 1: Parks Rd/Rosecrans Ave .....	3
Intersection 2: Camino Loma/Rosecrans Ave .....	8
Intersection 3: Driveway 1/Rosecrans Ave .....	10
Intersection 4: Euclid St/Rosecrans Ave .....	12
Intersection 5: Euclid St/Driveway 2 .....	17
Intersection 6: Euclid St/Bastanchury Rd .....	19
Turning Movement Volume: Summary .....	24

## Sunrise Village

Vistro File: C:\...\Shopoff Vistro.vistro

Scenario 4 Existing PM + P

Report File: C:\...\Existing PM +P.pdf

5/10/2021

**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Parks Rd/Rosecrans Ave	Signalized	HCM 6th Edition	SB Left	0.227	7.1	A
2	Camino Loma/Rosecrans Ave	Two-way stop	HCM 6th Edition	NB Left	0.038	19.4	C
3	Driveway 1/Rosecrans Ave	Two-way stop	HCM 6th Edition	SB Left	0.128	24.3	C
4	Euclid St/Rosecrans Ave	Signalized	HCM 6th Edition	NB Left	0.503	17.6	B
5	Euclid St/Driveway 2	Two-way stop	HCM 6th Edition	EB Right	0.014	12.4	B
6	Euclid St/Bastanchury Rd	Signalized	HCM 6th Edition	NB Left	0.586	34.5	C

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

**Intersection Level Of Service Report  
Intersection 1: Parks Rd/Rosecrans Ave**

Control Type:	Signalized	Delay (sec / veh):	7.1
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.227

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	105.00	100.00	175.00	175.00	100.00	200.00	295.00	100.00	100.00	330.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name												
Base Volume Input [veh/h]	29	50	66	48	41	17	8	473	30	43	482	92
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	-7	-7	0	0	0	-2	0	-6	-6	-6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	29	50	59	41	41	17	8	471	30	37	476	86
Peak Hour Factor	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	13	16	11	11	4	2	124	8	10	126	23
Total Analysis Volume [veh/h]	31	53	62	43	43	18	8	497	32	39	502	91
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	1		0			1			0			
v_di, Inbound Pedestrian Volume crossing in	0		1			0			1			
v_co, Outbound Pedestrian Volume crossing	2		1			1			2			
v_ci, Inbound Pedestrian Volume crossing mi	1		2			2			1			
v_ab, Corner Pedestrian Volume [ped/h]	0		0			0			0			
Bicycle Volume [bicycles/h]	5		2			2			1			



**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	4	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	28	0	0	28	0	0	32	0	0	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	9	9	9	9	9	43	43	43	43	43	43
g / C, Green / Cycle	0.16	0.16	0.16	0.16	0.16	0.16	0.71	0.71	0.71	0.71	0.71	0.71
(v / s)_i Volume / Saturation Flow Rate	0.03	0.03	0.04	0.04	0.03	0.01	0.01	0.16	0.16	0.05	0.18	0.18
s, saturation flow rate [veh/h]	1225	1683	1401	1214	1683	1407	741	1683	1642	786	1683	1582
c, Capacity [veh/h]	255	264	219	247	264	220	566	1195	1166	601	1195	1123
d1, Uniform Delay [s]	24.40	22.06	22.33	24.94	21.92	21.63	4.81	3.00	3.00	4.75	3.08	3.09
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.21	0.37	0.70	0.33	0.29	0.16	0.05	0.43	0.45	0.21	0.51	0.56
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.12	0.20	0.28	0.17	0.16	0.08	0.01	0.22	0.22	0.06	0.25	0.26
d, Delay for Lane Group [s/veh]	24.61	22.43	23.03	25.27	22.21	21.79	4.86	3.43	3.45	4.96	3.59	3.64
Lane Group LOS	C	C	C	C	C	C	A	A	A	A	A	A
Critical Lane Group	No	No	Yes	No	No	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.40	0.64	0.77	0.56	0.52	0.21	0.04	0.75	0.75	0.18	0.88	0.86
50th-Percentile Queue Length [ft/ln]	9.90	16.00	19.21	14.01	12.88	5.35	0.93	18.86	18.66	4.52	22.09	21.40
95th-Percentile Queue Length [veh/ln]	0.71	1.15	1.38	1.01	0.93	0.38	0.07	1.36	1.34	0.33	1.59	1.54
95th-Percentile Queue Length [ft/ln]	17.82	28.81	34.58	25.22	23.19	9.62	1.68	33.95	33.58	8.14	39.76	38.52

**Movement, Approach, & Intersection Results**

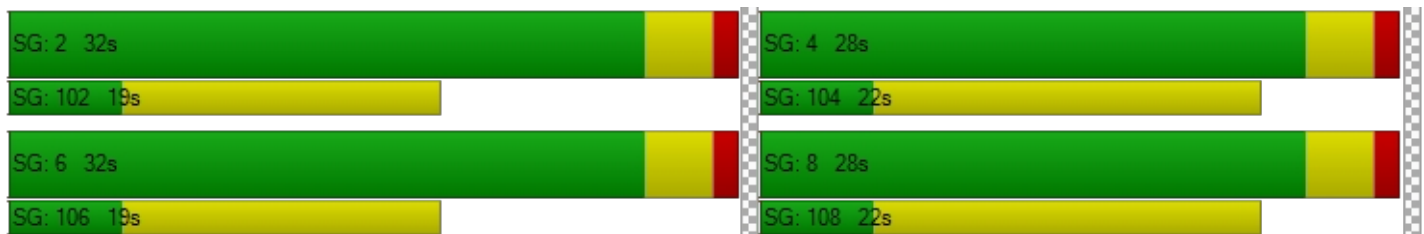
d_M, Delay for Movement [s/veh]	24.61	22.43	23.03	25.27	22.21	21.79	4.86	3.44	3.45	4.96	3.61	3.64
Movement LOS	C	C	C	C	C	C	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	23.14			23.40			3.46			3.70		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	7.05											
Intersection LOS	A											
Intersection V/C	0.227											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.69	21.69	21.69	21.69
I_p,int, Pedestrian LOS Score for Intersection	2.231	2.186	2.537	2.582
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	800	800	933	933
d_b, Bicycle Delay [s]	10.84	10.82	8.55	8.55
I_b,int, Bicycle LOS Score for Intersection	1.801	1.731	2.003	2.081
Bicycle LOS	A	A	B	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 2: Camino Loma/Rosecrans Ave**

Control Type:	Two-way stop	Delay (sec / veh):	19.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.038

**Intersection Setup**

Name	Northbound		Eastbound		Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	235.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name	Northbound		Eastbound		Westbound	
Base Volume Input [veh/h]	8	20	558	17	20	571
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	-1	-20	4	0	-18
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	19	538	21	20	553
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	5	143	6	5	147
Total Analysis Volume [veh/h]	10	20	572	22	21	588
Pedestrian Volume [ped/h]	5		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.04	0.03	0.01	0.00	0.02	0.01
d_M, Delay for Movement [s/veh]	19.35	10.79	0.00	0.00	8.80	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.22	0.22	0.00	0.00	0.07	0.00
95th-Percentile Queue Length [ft/ln]	5.38	5.38	0.00	0.00	1.66	0.00
d_A, Approach Delay [s/veh]	13.65		0.00		0.30	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.48					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 3: Driveway 1/Rosecrans Ave**

Control Type:	Two-way stop	Delay (sec / veh):	24.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.128

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach												
Lane Configuration	↔↔			+			↔↔↔			↔↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	80.00	100.00	100.00	100.00	235.00	100.00	140.00	165.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name												
Base Volume Input [veh/h]	22	1	10	25	0	13	12	536	22	15	561	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-18	-3	-9	0	-3	0	0	-1	-20	-6	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	0	1	25	0	13	12	535	2	9	561	0
Peak Hour Factor	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	7	0	4	3	146	1	2	153	0
Total Analysis Volume [veh/h]	4	0	1	27	0	14	13	583	2	10	611	0
Pedestrian Volume [ped/h]	3			0			0			0		

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.13	0.00	0.02	0.01	0.01	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	22.45	26.68	10.15	24.31	28.66	12.46	8.79	0.00	0.00	8.71	0.00	0.00
Movement LOS	C	D	B	C	D	B	A	A	A	A	A	
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.00	0.51	0.51	0.51	0.04	0.00	0.00	0.03	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.45	1.45	0.11	12.82	12.82	12.82	1.02	0.00	0.00	0.77	0.00	0.00
d_A, Approach Delay [s/veh]	19.99			20.26			0.19			0.14		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	0.89											
Intersection LOS	C											

**Intersection Level Of Service Report  
Intersection 4: Euclid St/Rosecrans Ave**

Control Type:	Signalized	Delay (sec / veh):	17.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.503

**Intersection Setup**

Name	Northbound		Southbound		Eastbound	
Approach						
Lane Configuration	← ←		←		← ← ←	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	0	0
Entry Pocket Length [ft]	350.00	100.00	100.00	245.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	



Version 2021 (SP 0-2)

**Volumes**

Name						
Base Volume Input [veh/h]	493	699	603	165	190	388
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-3	-9	-10	-3	-5	-5
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	490	690	593	162	185	383
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	133	188	161	44	50	104
Total Analysis Volume [veh/h]	533	750	645	176	201	416
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	3		0		3	
v_di, Inbound Pedestrian Volume crossing in	3		0		3	
v_co, Outbound Pedestrian Volume crossing	0		3		2	
v_ci, Inbound Pedestrian Volume crossing mi	0		2		3	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		1	

Version 2021 (SP 0-2)

**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Overlap
Signal Group	1	6	2	0	3	8
Auxiliary Signal Groups						1,8
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	10	10	0	5	5
Maximum Green [s]	30	30	30	0	30	30
Amber [s]	3.0	3.0	3.0	0.0	3.0	3.0
All red [s]	1.0	1.0	1.0	0.0	1.0	1.0
Split [s]	22	52	30	0	33	33
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	3.0
Walk [s]	0	5	5	0	5	0
Pedestrian Clearance [s]	0	10	21	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
Minimum Recall	No	No	No		No	No
Maximum Recall	No	No	No		No	No
Pedestrian Recall	No	No	No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	R	L	R
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	17	64	43	43	13	34
g / C, Green / Cycle	0.20	0.75	0.51	0.51	0.15	0.40
(v / s)_i Volume / Saturation Flow Rate	0.17	0.23	0.20	0.12	0.06	0.17
s, saturation flow rate [veh/h]	3113	3204	3204	1426	3113	2513
c, Capacity [veh/h]	619	2408	1620	721	481	1005
d1, Uniform Delay [s]	32.96	3.43	13.03	11.87	32.52	18.31
k, delay calibration	0.11	0.50	0.50	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.68	0.34	0.73	0.80	0.58	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.86	0.31	0.40	0.24	0.42	0.41
d, Delay for Lane Group [s/veh]	36.64	3.77	13.76	12.67	33.10	18.58
Lane Group LOS	D	A	B	B	C	B
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.48	1.58	3.71	1.92	1.88	2.85
50th-Percentile Queue Length [ft/ln]	137.01	39.39	92.80	48.10	46.89	71.26
95th-Percentile Queue Length [veh/ln]	9.32	2.84	6.68	3.46	3.38	5.13
95th-Percentile Queue Length [ft/ln]	232.99	70.90	167.03	86.58	84.39	128.26

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	36.64	3.77	13.76	12.67	33.10	18.58
Movement LOS	D	A	B	B	C	B
d_A, Approach Delay [s/veh]	17.43		13.53		23.31	
Approach LOS	B		B		C	
d_I, Intersection Delay [s/veh]	17.58					
Intersection LOS	B					
Intersection V/C	0.503					

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.01	34.01	34.01
I_p,int, Pedestrian LOS Score for Intersection	2.919	2.644	2.667
Crosswalk LOS	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1129	611	682
d_b, Bicycle Delay [s]	8.08	20.51	18.49
I_b,int, Bicycle LOS Score for Intersection	2.618	2.237	1.560
Bicycle LOS	B	B	A

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 5: Euclid St/Driveway 2**

Control Type:	Two-way stop	Delay (sec / veh):	12.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.014

**Intersection Setup**

Name	Northbound		Southbound		Eastbound	
Approach						
Lane Configuration	↵ ↑ ↑		↑ ↵		↵↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1
Entry Pocket Length [ft]	180.00	100.00	100.00	100.00	100.00	170.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name	Northbound		Southbound		Eastbound	
Base Volume Input [veh/h]	37	1206	989	7	1	36
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-29	-3	-5	-10	-9	-29
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	1203	984	0	0	7
Peak Hour Factor	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	322	263	0	0	2
Total Analysis Volume [veh/h]	9	1287	1052	0	0	7
Pedestrian Volume [ped/h]	0		0		3	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.01	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	10.58	0.00	0.00	0.00	50.24	12.41
Movement LOS	B	A	A	A	F	B
95th-Percentile Queue Length [veh/ln]	0.04	0.00	0.00	0.00	0.00	0.04
95th-Percentile Queue Length [ft/ln]	1.05	0.00	0.00	0.00	0.00	1.08
d_A, Approach Delay [s/veh]	0.07		0.00		12.41	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.08					
Intersection LOS	B					

**Intersection Level Of Service Report**  
**Intersection 6: Euclid St/Bastanchury Rd**

Control Type:	Signalized	Delay (sec / veh):	34.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.586

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	2	0	0	2	0	1	2	0	1
Entry Pocket Length [ft]	260.00	100.00	100.00	200.00	100.00	100.00	290.00	100.00	180.00	285.00	100.00	185.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	540.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name												
Base Volume Input [veh/h]	35	811	246	300	660	88	102	568	36	339	627	387
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	0	-24	-1	-9	-10	0	0	0	0	-27
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	816	246	276	659	79	92	568	36	339	627	360
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	217	65	73	175	21	24	151	10	90	167	96
Total Analysis Volume [veh/h]	37	867	261	293	700	84	98	604	38	360	666	383
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			1			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			1		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			6			0			2		



**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	14	36	0	16	38	0	9	33	0	20	44	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	27	0	0	24	0	0	24	0	0	27	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	41	41	12	49	49	5	22	22	14	31	31
g / C, Green / Cycle	0.03	0.39	0.39	0.11	0.47	0.47	0.05	0.21	0.21	0.14	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.02	0.19	0.18	0.09	0.22	0.06	0.03	0.13	0.13	0.12	0.21	0.27
s, saturation flow rate [veh/h]	1603	4584	1431	3113	3204	1409	3113	3204	1633	3113	3204	1410
c, Capacity [veh/h]	52	1781	556	350	1501	660	150	678	345	421	957	421
d1, Uniform Delay [s]	50.36	24.24	24.04	45.71	19.01	15.78	49.17	37.66	37.71	44.43	32.62	35.29
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.25
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	16.22	0.95	2.83	5.34	1.04	0.40	4.77	0.95	1.90	5.02	0.92	15.56
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.71	0.49	0.47	0.84	0.47	0.13	0.65	0.63	0.63	0.85	0.70	0.91
d, Delay for Lane Group [s/veh]	66.58	25.19	26.88	51.05	20.05	16.18	53.94	38.62	39.61	49.45	33.55	50.85
Lane Group LOS	E	C	C	D	C	B	D	D	D	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.20	5.48	5.21	3.98	5.86	1.20	1.36	5.01	5.24	4.84	7.51	11.02
50th-Percentile Queue Length [ft/ln]	29.89	137.03	130.16	99.59	146.53	29.94	33.99	125.30	131.01	121.12	187.83	275.42
95th-Percentile Queue Length [veh/ln]	2.15	9.32	8.95	7.17	9.83	2.16	2.45	8.68	8.99	8.45	12.01	16.46
95th-Percentile Queue Length [ft/ln]	53.80	233.02	223.71	179.27	245.79	53.88	61.17	217.09	224.87	211.37	300.22	411.50

**Movement, Approach, & Intersection Results**

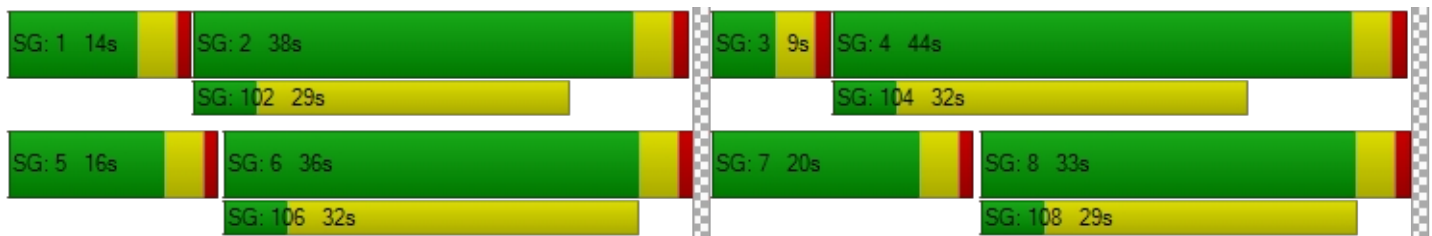
d_M, Delay for Movement [s/veh]	66.58	25.19	26.88	51.05	20.05	16.18	53.94	38.91	39.61	49.45	33.55	50.85
Movement LOS	E	C	C	D	C	B	D	D	D	D	C	D
d_A, Approach Delay [s/veh]	26.89			28.18			40.94			42.31		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	34.52											
Intersection LOS	C											
Intersection V/C	0.586											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	43.92	43.92	43.92	43.92
I_p,int, Pedestrian LOS Score for Intersection	2.918	3.030	2.816	3.047
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	609	647	552	761
d_b, Bicycle Delay [s]	25.40	24.10	27.53	20.17
I_b,int, Bicycle LOS Score for Intersection	2.200	2.448	1.967	2.722
Bicycle LOS	B	B	A	B

**Sequence**

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



## Sunrise Village

Vistro File: C:\...\Shopoff Vistro.vistro

Scenario 4 Existing PM + P

Report File: C:\...\Existing PM +P.pdf

5/10/2021

**Turning Movement Volume: Summary**

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Parks Rd/Rosecrans Ave	29	50	59	41	41	17	8	471	30	37	476	86	1345

ID	Intersection Name	Northbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Right	Left	Thru	
2	Camino Loma/Rosecrans Ave	9	19	538	21	20	553	1160

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound		Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
3	Driveway 1/Rosecrans Ave	4	0	1	25	0	13	12	535	2	9	561	1162

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
4	Euclid St/Rosecrans Ave	490	690	593	162	185	383	2503

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
5	Euclid St/Driveway 2	8	1203	984	0	0	7	2202

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6	Euclid St/Bastanchury Rd	35	816	246	276	659	79	92	568	36	339	627	360	4133

## Table of Contents

Intersection Analysis Summary .....	2
Intersection Level Of Service Report .....	3
Intersection 1: Parks Rd/Rosecrans Ave .....	3
Intersection 2: Camino Loma/Rosecrans Ave .....	8
Intersection 3: Driveway 1/Rosecrans Ave .....	10
Intersection 4: Euclid St/Rosecrans Ave .....	12
Intersection 5: Euclid St/Driveway 2 .....	17
Intersection 6: Euclid St/Bastanchury Rd .....	19
Turning Movement Volume: Summary .....	24

## Sunrise Village

Vistro File: C:\...\Shopoff Vistro.vistro

Scenario 5 OY AM

Report File: C:\...\OY AM.pdf

5/10/2021

**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Parks Rd/Rosecrans Ave	Signalized	HCM 6th Edition	SB Left	0.222	7.2	A
2	Camino Loma/Rosecrans Ave	Two-way stop	HCM 6th Edition	NB Left	0.034	17.6	C
3	Driveway 1/Rosecrans Ave	Two-way stop	HCM 6th Edition	NB Thru	0.004	19.3	C
4	Euclid St/Rosecrans Ave	Signalized	HCM 6th Edition	NB Left	0.484	15.9	B
5	Euclid St/Driveway 2	Two-way stop	HCM 6th Edition	EB Right	0.023	13.3	B
6	Euclid St/Bastanchury Rd	Signalized	HCM 6th Edition	NB Left	0.614	33.2	C

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

**Intersection Level Of Service Report**  
**Intersection 1: Parks Rd/Rosecrans Ave**

Control Type:	Signalized	Delay (sec / veh):	7.2
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.222

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	105.00	100.00	175.00	175.00	100.00	200.00	295.00	100.00	100.00	330.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name												
Base Volume Input [veh/h]	16	20	39	74	26	25	13	430	25	61	335	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	20	40	75	27	26	13	439	26	62	342	20
Peak Hour Factor	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	6	11	21	7	7	4	122	7	17	95	6
Total Analysis Volume [veh/h]	18	22	44	83	30	29	14	486	29	69	379	22
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	3		2			2			2			
v_di, Inbound Pedestrian Volume crossing in	2		2			2			3			
v_co, Outbound Pedestrian Volume crossing	1		1			1			2			
v_ci, Inbound Pedestrian Volume crossing mi	1		2			1			1			
v_ab, Corner Pedestrian Volume [ped/h]	0		0			0			0			
Bicycle Volume [bicycles/h]	0		1			0			1			



**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	4	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	27	0	0	27	0	0	33	0	0	33	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10	10	10	10	42	42	42	42	42	42
g / C, Green / Cycle	0.16	0.16	0.16	0.16	0.16	0.16	0.71	0.71	0.71	0.71	0.71	0.71
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.03	0.07	0.02	0.02	0.02	0.15	0.15	0.09	0.12	0.12
s, saturation flow rate [veh/h]	1234	1683	1417	1240	1683	1401	884	1683	1650	797	1683	1646
c, Capacity [veh/h]	269	271	228	275	271	226	671	1188	1164	605	1188	1162
d1, Uniform Delay [s]	23.55	21.42	21.81	24.64	21.52	21.58	4.32	3.07	3.08	5.02	2.95	2.96
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.10	0.13	0.41	0.61	0.18	0.25	0.06	0.42	0.43	0.38	0.31	0.32
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.07	0.08	0.19	0.30	0.11	0.13	0.02	0.22	0.22	0.11	0.17	0.17
d, Delay for Lane Group [s/veh]	23.65	21.55	22.22	25.25	21.70	21.83	4.38	3.50	3.51	5.40	3.26	3.28
Lane Group LOS	C	C	C	C	C	C	A	A	A	A	A	A
Critical Lane Group	No	No	No	Yes	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.22	0.26	0.53	1.09	0.35	0.35	0.06	0.75	0.75	0.34	0.56	0.56
50th-Percentile Queue Length [ft/ln]	5.58	6.44	13.27	27.25	8.83	8.63	1.46	18.83	18.63	8.42	14.03	13.91
95th-Percentile Queue Length [veh/ln]	0.40	0.46	0.96	1.96	0.64	0.62	0.11	1.36	1.34	0.61	1.01	1.00
95th-Percentile Queue Length [ft/ln]	10.04	11.59	23.89	49.05	15.90	15.54	2.64	33.90	33.53	15.16	25.26	25.03

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	23.65	21.55	22.22	25.25	21.70	21.83	4.38	3.50	3.51	5.40	3.27	3.28
Movement LOS	C	C	C	C	C	C	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	22.35			23.80			3.53			3.58		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	7.19											
Intersection LOS	A											
Intersection V/C	0.222											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.69	21.69	21.69	21.69
I_p,int, Pedestrian LOS Score for Intersection	2.262	2.180	2.492	2.610
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	766	766	966	966
d_b, Bicycle Delay [s]	11.42	11.43	8.02	8.02
I_b,int, Bicycle LOS Score for Intersection	1.698	1.794	1.996	1.947
Bicycle LOS	A	A	A	A

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 2: Camino Loma/Rosecrans Ave**

Control Type:	Two-way stop	Delay (sec / veh):	17.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.034

**Intersection Setup**

Name	Northbound		Eastbound		Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	235.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name	Northbound		Eastbound		Westbound	
Base Volume Input [veh/h]	9	10	550	3	10	334
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	10	561	3	10	341
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	157	1	3	95
Total Analysis Volume [veh/h]	10	11	628	3	11	382
Pedestrian Volume [ped/h]	3		0		0	

Version 2021 (SP 0-2)

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.03	0.02	0.01	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	17.56	10.78	0.00	0.00	8.87	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.16	0.16	0.00	0.00	0.04	0.00
95th-Percentile Queue Length [ft/ln]	3.93	3.93	0.00	0.00	0.89	0.00
d_A, Approach Delay [s/veh]	14.01		0.00		0.25	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.37					
Intersection LOS	C					

**Intersection Level Of Service Report  
Intersection 3: Driveway 1/Rosecrans Ave**

Control Type:	Two-way stop	Delay (sec / veh):	19.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	←→			↑			←→			←→		
Lane Configuration	←→			↑			←→			←→		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	80.00	100.00	100.00	100.00	235.00	100.00	140.00	165.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	9	1	6	50	0	15	8	533	8	1	320	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	1	6	51	0	15	8	544	8	1	326	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	2	13	0	4	2	143	2	0	86	0
Total Analysis Volume [veh/h]	9	1	6	54	0	16	8	573	8	1	343	0
Pedestrian Volume [ped/h]	1			3			0			0		

**Intersection Settings**

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




**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.03	0.00	0.01	0.16	0.00	0.02	0.01	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	18.06	19.32	10.12	17.29	20.90	11.20	8.00	0.00	0.00	8.65	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	
95th-Percentile Queue Length [veh/ln]	0.11	0.11	0.03	0.63	0.63	0.63	0.02	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	2.74	2.74	0.64	15.67	15.67	15.67	0.50	0.00	0.00	0.08	0.00	0.00
d_A, Approach Delay [s/veh]	15.16			15.90			0.11			0.03		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	1.40											
Intersection LOS	C											

**Intersection Level Of Service Report  
Intersection 4: Euclid St/Rosecrans Ave**

Control Type:	Signalized	Delay (sec / veh):	15.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.484

**Intersection Setup**

Name	Northbound		Southbound		Eastbound	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	0	0
Entry Pocket Length [ft]	350.00	100.00	100.00	245.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	



**Volumes**

Name						
Base Volume Input [veh/h]	245	373	664	105	124	486
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	250	380	677	107	126	496
Peak Hour Factor	0.9530	0.9530	0.9530	0.9530	0.9530	0.9530
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	66	100	178	28	33	130
Total Analysis Volume [veh/h]	262	399	710	112	132	520
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		1	
v_di, Inbound Pedestrian Volume crossing in	1		1		0	
v_co, Outbound Pedestrian Volume crossing	1		1		1	
v_ci, Inbound Pedestrian Volume crossing mi	0		1		1	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Version 2021 (SP 0-2)

**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Overlap
Signal Group	1	6	2	0	3	8
Auxiliary Signal Groups						1,8
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	10	10	0	5	5
Maximum Green [s]	30	30	30	0	30	30
Amber [s]	3.0	3.0	3.0	0.0	3.0	3.0
All red [s]	1.0	1.0	1.0	0.0	1.0	1.0
Split [s]	12	42	30	0	33	33
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	3.0
Walk [s]	0	5	5	0	5	0
Pedestrian Clearance [s]	0	10	21	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
Minimum Recall	No	No	No		No	No
Maximum Recall	No	No	No		No	No
Pedestrian Recall	No	No	No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	R	L	R
C, Cycle Length [s]	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	8	51	39	39	16	28
g / C, Green / Cycle	0.11	0.69	0.52	0.52	0.21	0.37
(v / s)_i Volume / Saturation Flow Rate	0.08	0.12	0.22	0.08	0.04	0.21
s, saturation flow rate [veh/h]	3113	3204	3204	1429	3105	2531
c, Capacity [veh/h]	338	2197	1678	748	646	936
d1, Uniform Delay [s]	32.62	4.25	10.96	9.26	24.63	18.79
k, delay calibration	0.11	0.50	0.50	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.81	0.18	0.78	0.42	0.15	0.52
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.77	0.18	0.42	0.15	0.20	0.56
d, Delay for Lane Group [s/veh]	36.43	4.43	11.74	9.68	24.78	19.30
Lane Group LOS	D	A	B	A	C	B
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.43	0.89	3.39	0.94	0.95	3.43
50th-Percentile Queue Length [ft/ln]	60.73	22.34	84.79	23.57	23.85	85.78
95th-Percentile Queue Length [veh/ln]	4.37	1.61	6.10	1.70	1.72	6.18
95th-Percentile Queue Length [ft/ln]	109.32	40.22	152.62	42.43	42.93	154.40

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	36.43	4.43	11.74	9.68	24.78	19.30
Movement LOS	D	A	B	A	C	B
d_A, Approach Delay [s/veh]	17.11		11.46		20.41	
Approach LOS	B		B		C	
d_I, Intersection Delay [s/veh]	15.95					
Intersection LOS	B					
Intersection V/C	0.484					

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.09	29.09	29.09
I_p,int, Pedestrian LOS Score for Intersection	2.850	2.556	2.612
Crosswalk LOS	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1012	692	772
d_b, Bicycle Delay [s]	9.17	16.05	14.15
I_b,int, Bicycle LOS Score for Intersection	2.105	2.238	1.560
Bicycle LOS	B	B	A

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 5: Euclid St/Driveway 2**

Control Type:	Two-way stop	Delay (sec / veh):	13.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.023

**Intersection Setup**

Name	Northbound		Southbound		Eastbound	
Approach						
Lane Configuration	↵↵↵		↵↵		↵↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1
Entry Pocket Length [ft]	180.00	100.00	100.00	100.00	100.00	170.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Northbound		Southbound		Eastbound	
Base Volume Input [veh/h]	24	623	1143	8	0	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	635	1166	8	0	10
Peak Hour Factor	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	163	300	2	0	3
Total Analysis Volume [veh/h]	25	653	1200	8	0	10
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	100

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.04	0.01	0.01	0.00	0.00	0.02
d_M, Delay for Movement [s/veh]	11.57	0.00	0.00	0.00	42.52	13.29
Movement LOS	B	A	A	A	E	B
95th-Percentile Queue Length [veh/ln]	0.14	0.00	0.00	0.00	0.00	0.07
95th-Percentile Queue Length [ft/ln]	3.41	0.00	0.00	0.00	0.00	1.73
d_A, Approach Delay [s/veh]	0.43		0.00		13.29	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.22					
Intersection LOS	B					

**Intersection Level Of Service Report  
Intersection 6: Euclid St/Bastanchury Rd**

Control Type:	Signalized	Delay (sec / veh):	33.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.614

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	2	0	0	2	0	1	2	0	1
Entry Pocket Length [ft]	260.00	100.00	100.00	200.00	100.00	100.00	290.00	100.00	180.00	285.00	100.00	185.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	540.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name												
Base Volume Input [veh/h]	34	456	340	344	796	44	36	475	58	273	493	170
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	465	347	351	812	45	37	485	59	278	503	173
Peak Hour Factor	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	128	95	96	223	12	10	133	16	76	138	47
Total Analysis Volume [veh/h]	38	510	381	385	891	49	41	532	65	305	552	190
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			1			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			1		
v_co, Outbound Pedestrian Volume crossing	1			0			0			1		
v_ci, Inbound Pedestrian Volume crossing mi	1			0			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		



**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	19	36	0	19	36	0	9	33	0	17	41	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	27	0	0	24	0	0	24	0	0	27	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	46	46	15	57	57	4	16	16	12	25	25
g / C, Green / Cycle	0.03	0.44	0.44	0.14	0.55	0.55	0.03	0.15	0.15	0.12	0.24	0.24
(v / s)_i Volume / Saturation Flow Rate	0.02	0.11	0.27	0.12	0.28	0.03	0.01	0.12	0.13	0.10	0.17	0.13
s, saturation flow rate [veh/h]	1603	4584	1429	3113	3204	1431	3113	3204	1592	3113	3204	1429
c, Capacity [veh/h]	53	2000	623	440	1745	779	107	492	244	363	756	337
d1, Uniform Delay [s]	50.34	18.79	22.77	44.22	15.09	11.28	49.67	42.99	43.10	45.46	37.08	35.39
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	16.61	0.31	4.43	5.61	1.07	0.15	2.25	3.19	6.74	5.22	1.38	1.48
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.72	0.26	0.61	0.87	0.51	0.06	0.38	0.81	0.82	0.84	0.73	0.56
d, Delay for Lane Group [s/veh]	66.95	19.10	27.20	49.82	16.16	11.44	51.92	46.18	49.84	50.68	38.46	36.88
Lane Group LOS	E	B	C	D	B	B	D	D	D	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.23	2.65	7.80	5.22	6.66	0.56	0.56	5.16	5.46	4.14	6.62	4.39
50th-Percentile Queue Length [ft/ln]	30.77	66.18	194.97	130.39	166.48	13.99	13.98	128.94	136.58	103.39	165.51	109.85
95th-Percentile Queue Length [veh/ln]	2.22	4.76	12.38	8.96	10.89	1.01	1.01	8.88	9.30	7.44	10.84	7.83
95th-Percentile Queue Length [ft/ln]	55.38	119.12	309.47	224.03	272.29	25.19	25.17	222.06	232.41	186.09	271.01	195.79

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	66.95	19.10	27.20	49.82	16.16	11.44	51.92	47.11	49.84	50.68	38.46	36.88
Movement LOS	E	B	C	D	B	B	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	24.38			25.77			47.70			41.73		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	33.24											
Intersection LOS	C											
Intersection V/C	0.614											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	43.92	43.92	43.92	43.92
I_p,int, Pedestrian LOS Score for Intersection	2.908	2.986	2.781	3.020
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	609	609	552	704
d_b, Bicycle Delay [s]	25.40	25.40	27.53	22.05
I_b,int, Bicycle LOS Score for Intersection	2.071	2.653	1.911	2.423
Bicycle LOS	B	B	A	B

**Sequence**

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



## Sunrise Village

Vistro File: C:\...\Shopoff Vistro.vistro

Scenario 5 OY AM

Report File: C:\...\OY AM.pdf

5/10/2021

**Turning Movement Volume: Summary**

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Parks Rd/Rosecrans Ave	16	20	40	75	27	26	13	439	26	62	342	20	1106

ID	Intersection Name	Northbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Right	Left	Thru	
2	Camino Loma/Rosecrans Ave	9	10	561	3	10	341	934

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound		Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
3	Driveway 1/Rosecrans Ave	9	1	6	51	0	15	8	544	8	1	326	969

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
4	Euclid St/Rosecrans Ave	250	380	677	107	126	496	2036

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
5	Euclid St/Driveway 2	24	635	1166	8	0	10	1843

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6	Euclid St/Bastanchury Rd	35	465	347	351	812	45	37	485	59	278	503	173	3590

## Table of Contents

Intersection Analysis Summary .....	2
Intersection Level Of Service Report .....	3
Intersection 1: Parks Rd/Rosecrans Ave .....	3
Intersection 2: Camino Loma/Rosecrans Ave .....	8
Intersection 3: Driveway 1/Rosecrans Ave .....	10
Intersection 4: Euclid St/Rosecrans Ave .....	12
Intersection 5: Euclid St/Driveway 2 .....	17
Intersection 6: Euclid St/Bastanchury Rd .....	19
Turning Movement Volume: Summary .....	24

## Sunrise Village

Vistro File: C:\...\Shopoff Vistro.vistro

Scenario 6 OY PM

Report File: C:\...\OY PM.pdf

5/10/2021

**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Parks Rd/Rosecrans Ave	Signalized	HCM 6th Edition	SB Left	0.275	7.5	A
2	Camino Loma/Rosecrans Ave	Two-way stop	HCM 6th Edition	NB Left	0.050	24.0	C
3	Driveway 1/Rosecrans Ave	Two-way stop	HCM 6th Edition	NB Thru	0.008	39.6	E
4	Euclid St/Rosecrans Ave	Signalized	HCM 6th Edition	NB Left	0.587	19.1	B
5	Euclid St/Driveway 2	Two-way stop	HCM 6th Edition	EB Left	0.023	91.4	F
6	Euclid St/Bastanchury Rd	Signalized	HCM 6th Edition	WB Left	0.715	44.0	D

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

**Intersection Level Of Service Report**  
**Intersection 1: Parks Rd/Rosecrans Ave**

Control Type:	Signalized	Delay (sec / veh):	7.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.275

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	105.00	100.00	175.00	175.00	100.00	200.00	295.00	100.00	100.00	330.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name												
Base Volume Input [veh/h]	33	56	75	55	46	19	9	538	34	49	548	105
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	57	77	56	47	19	9	549	35	50	559	107
Peak Hour Factor	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	15	20	15	12	5	2	145	9	13	147	28
Total Analysis Volume [veh/h]	36	60	81	59	50	20	9	579	37	53	590	113
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		1			0			1			0	
v_di, Inbound Pedestrian Volume crossing in		0			1			0			1	
v_co, Outbound Pedestrian Volume crossing		2			1			1			2	
v_ci, Inbound Pedestrian Volume crossing mi		1			2			2			1	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		5			2			2			1	



**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	4	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	27	0	0	27	0	0	33	0	0	33	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10	10	10	10	42	42	42	42	42	42
g / C, Green / Cycle	0.16	0.16	0.16	0.16	0.16	0.16	0.71	0.71	0.71	0.71	0.71	0.71
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.06	0.05	0.03	0.01	0.01	0.18	0.19	0.07	0.21	0.22
s, saturation flow rate [veh/h]	1217	1683	1401	1206	1683	1407	669	1683	1642	725	1683	1577
c, Capacity [veh/h]	257	273	227	249	273	228	507	1186	1157	551	1186	1111
d1, Uniform Delay [s]	24.39	21.85	22.34	25.18	21.72	21.37	5.40	3.22	3.22	5.34	3.34	3.35
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.25	0.40	0.94	0.48	0.32	0.16	0.06	0.54	0.56	0.35	0.66	0.72
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.14	0.22	0.36	0.24	0.18	0.09	0.02	0.26	0.26	0.10	0.30	0.31
d, Delay for Lane Group [s/veh]	24.64	22.25	23.28	25.66	22.03	21.53	5.47	3.76	3.78	5.69	4.00	4.07
Lane Group LOS	C	C	C	C	C	C	A	A	A	A	A	A
Critical Lane Group	No	No	Yes	No	No	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.46	0.72	1.01	0.78	0.60	0.24	0.05	0.95	0.94	0.27	1.15	1.11
50th-Percentile Queue Length [ft/ln]	11.52	18.03	25.33	19.49	14.91	5.89	1.17	23.72	23.43	6.86	28.71	27.64
95th-Percentile Queue Length [veh/ln]	0.83	1.30	1.82	1.40	1.07	0.42	0.08	1.71	1.69	0.49	2.07	1.99
95th-Percentile Queue Length [ft/ln]	20.73	32.46	45.59	35.09	26.84	10.60	2.10	42.70	42.18	12.34	51.68	49.76

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	24.64	22.25	23.28	25.66	22.03	21.53	5.47	3.77	3.78	5.69	4.03	4.07
Movement LOS	C	C	C	C	C	C	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	23.21			23.62			3.79			4.15		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	7.51											
Intersection LOS	A											
Intersection V/C	0.275											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.69	21.69	21.69	21.69
I_p,int, Pedestrian LOS Score for Intersection	2.264	2.200	2.580	2.652
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	766	766	966	966
d_b, Bicycle Delay [s]	11.45	11.43	8.03	8.02
I_b,int, Bicycle LOS Score for Intersection	1.852	1.772	2.075	2.183
Bicycle LOS	A	A	B	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 2: Camino Loma/Rosecrans Ave**

Control Type:	Two-way stop	Delay (sec / veh):	24.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.050

**Intersection Setup**

Name	Northbound		Eastbound		Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	235.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name	Northbound		Eastbound		Westbound	
Base Volume Input [veh/h]	9	23	634	19	23	649
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	23	647	19	23	662
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	6	172	5	6	176
Total Analysis Volume [veh/h]	10	24	688	20	24	704
Pedestrian Volume [ped/h]	5		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.05	0.04	0.01	0.00	0.03	0.01
d_M, Delay for Movement [s/veh]	23.99	11.57	0.00	0.00	9.21	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.29	0.29	0.00	0.00	0.08	0.00
95th-Percentile Queue Length [ft/ln]	7.20	7.20	0.00	0.00	2.10	0.00
d_A, Approach Delay [s/veh]	15.22		0.00		0.30	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.50					
Intersection LOS	C					

**Intersection Level Of Service Report  
Intersection 3: Driveway 1/Rosecrans Ave**

Control Type:	Two-way stop	Delay (sec / veh):	39.6
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach												
Lane Configuration	↔↔			+			↔↔↔			↔↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	80.00	100.00	100.00	100.00	235.00	100.00	140.00	165.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	25	1	11	29	0	15	14	609	25	18	638	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	1	11	30	0	15	14	621	26	18	651	0
Peak Hour Factor	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	0	3	8	0	4	4	169	7	5	177	0
Total Analysis Volume [veh/h]	28	1	12	33	0	16	15	676	28	20	709	0
Pedestrian Volume [ped/h]	3			0			0			0		

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.18	0.01	0.02	0.22	0.00	0.02	0.02	0.01	0.00	0.02	0.01	0.00
d_M, Delay for Movement [s/veh]	33.31	39.56	10.62	34.00	40.95	16.11	9.13	0.00	0.00	9.16	0.00	0.00
Movement LOS	D	E	B	D	E	C	A	A	A	A	A	
95th-Percentile Queue Length [veh/ln]	0.66	0.66	0.06	0.91	0.91	0.91	0.05	0.00	0.00	0.07	0.00	0.00
95th-Percentile Queue Length [ft/ln]	16.58	16.58	1.40	22.67	22.67	22.67	1.29	0.00	0.00	1.73	0.00	0.00
d_A, Approach Delay [s/veh]	26.82			28.16			0.19			0.25		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	1.82											
Intersection LOS	E											

**Intersection Level Of Service Report  
Intersection 4: Euclid St/Rosecrans Ave**

Control Type:	Signalized	Delay (sec / veh):	19.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.587

**Intersection Setup**

Name	Northbound		Southbound		Eastbound	
Approach						
Lane Configuration	⇐		⇐		⇐⇐⇐⇐	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	0	0
Entry Pocket Length [ft]	350.00	100.00	100.00	245.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	



**Volumes**

Name						
Base Volume Input [veh/h]	560	794	685	188	216	441
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	571	810	699	192	220	450
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	155	220	190	52	60	122
Total Analysis Volume [veh/h]	621	880	760	209	239	489
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	3		0		3	
v_di, Inbound Pedestrian Volume crossing in	3		0		3	
v_co, Outbound Pedestrian Volume crossing	0		3		2	
v_ci, Inbound Pedestrian Volume crossing mi	0		2		3	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		1	

Version 2021 (SP 0-2)

**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Overlap
Signal Group	1	6	2	0	3	8
Auxiliary Signal Groups						1,8
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	10	10	0	5	5
Maximum Green [s]	30	30	30	0	30	30
Amber [s]	3.0	3.0	3.0	0.0	3.0	3.0
All red [s]	1.0	1.0	1.0	0.0	1.0	1.0
Split [s]	22	52	30	0	33	33
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	3.0
Walk [s]	0	5	5	0	5	0
Pedestrian Clearance [s]	0	10	21	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
Minimum Recall	No	No	No		No	No
Maximum Recall	No	No	No		No	No
Pedestrian Recall	No	No	No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	R	L	R
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	18	62	40	40	15	37
g / C, Green / Cycle	0.21	0.73	0.47	0.47	0.17	0.43
(v / s)_i Volume / Saturation Flow Rate	0.20	0.27	0.24	0.15	0.08	0.19
s, saturation flow rate [veh/h]	3113	3204	3204	1426	3113	2513
c, Capacity [veh/h]	662	2343	1512	673	544	1090
d1, Uniform Delay [s]	32.97	4.24	15.57	13.91	31.40	16.88
k, delay calibration	0.11	0.50	0.50	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.15	0.46	1.20	1.20	0.56	0.29
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.94	0.38	0.50	0.31	0.44	0.45
d, Delay for Lane Group [s/veh]	40.12	4.70	16.77	15.11	31.96	17.17
Lane Group LOS	D	A	B	B	C	B
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.76	2.25	5.03	2.57	2.19	3.22
50th-Percentile Queue Length [ft/ln]	168.98	56.27	125.68	64.27	54.84	80.61
95th-Percentile Queue Length [veh/ln]	11.02	4.05	8.70	4.63	3.95	5.80
95th-Percentile Queue Length [ft/ln]	275.57	101.28	217.61	115.69	98.71	145.10

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	40.12	4.70	16.77	15.11	31.96	17.17
Movement LOS	D	A	B	B	C	B
d_A, Approach Delay [s/veh]	19.35		16.41		22.03	
Approach LOS	B		B		C	
d_I, Intersection Delay [s/veh]	19.07					
Intersection LOS	B					
Intersection V/C	0.587					

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.01	34.01	34.01
I_p,int, Pedestrian LOS Score for Intersection	2.976	2.706	2.705
Crosswalk LOS	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1129	611	682
d_b, Bicycle Delay [s]	8.08	20.51	18.49
I_b,int, Bicycle LOS Score for Intersection	2.798	2.359	1.560
Bicycle LOS	C	B	A

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 5: Euclid St/Driveway 2**

Control Type:	Two-way stop	Delay (sec / veh):	91.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.023

**Intersection Setup**

Name	Northbound		Southbound		Eastbound	
Approach						
Lane Configuration	↵↵↵		↵↵		↵↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1
Entry Pocket Length [ft]	180.00	100.00	100.00	100.00	100.00	170.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name	Northbound		Southbound		Eastbound	
Base Volume Input [veh/h]	43	1370	1124	8	1	41
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	1397	1146	8	1	42
Peak Hour Factor	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	374	306	2	0	11
Total Analysis Volume [veh/h]	47	1494	1226	9	1	45
Pedestrian Volume [ped/h]	0		0		3	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.08	0.01	0.01	0.00	0.02	0.10
d_M, Delay for Movement [s/veh]	12.06	0.00	0.00	0.00	91.43	14.29
Movement LOS	B	A	A	A	F	B
95th-Percentile Queue Length [veh/ln]	0.28	0.00	0.00	0.00	0.07	0.35
95th-Percentile Queue Length [ft/ln]	6.88	0.00	0.00	0.00	1.78	8.65
d_A, Approach Delay [s/veh]	0.37		0.00		15.97	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.46					
Intersection LOS	F					

**Intersection Level Of Service Report**  
**Intersection 6: Euclid St/Bastanchury Rd**

Control Type:	Signalized	Delay (sec / veh):	44.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.715

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	2	0	0	2	0	1	2	0	1
Entry Pocket Length [ft]	260.00	100.00	100.00	200.00	100.00	100.00	290.00	100.00	180.00	285.00	100.00	185.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	540.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name												
Base Volume Input [veh/h]	40	921	280	341	750	100	116	645	41	385	713	440
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	939	286	348	765	102	118	658	42	393	727	449
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	249	76	92	203	27	31	175	11	104	193	119
Total Analysis Volume [veh/h]	44	998	304	370	813	108	125	699	45	418	773	477
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			1			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			1	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			6			0			2	



**Intersection Settings**

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

**Phasing & Timing**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	36	0	15	35	0	9	33	0	16	40	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	27	0	0	24	0	0	24	0	0	27	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	33	33	11	40	40	5	28	28	12	35	35
g / C, Green / Cycle	0.04	0.33	0.33	0.11	0.40	0.40	0.05	0.28	0.28	0.12	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.03	0.22	0.21	0.12	0.25	0.08	0.04	0.15	0.15	0.13	0.24	0.34
s, saturation flow rate [veh/h]	1603	4584	1431	3113	3204	1409	3113	3204	1632	3113	3204	1410
c, Capacity [veh/h]	57	1507	470	343	1292	568	156	901	459	374	1125	495
d1, Uniform Delay [s]	47.84	28.81	28.62	44.50	23.86	19.26	47.01	30.52	30.55	44.00	27.74	31.58
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.41
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	19.73	2.31	6.72	47.55	2.33	0.74	9.13	0.52	1.03	61.78	0.75	28.74
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.77	0.66	0.65	1.08	0.63	0.19	0.80	0.55	0.55	1.12	0.69	0.96
d, Delay for Lane Group [s/veh]	67.58	31.12	35.35	92.06	26.19	20.00	56.14	31.04	31.57	105.78	28.50	60.32
Lane Group LOS	E	C	D	F	C	C	E	C	C	F	C	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.39	7.03	6.97	6.47	7.88	1.72	1.73	5.03	5.21	7.79	7.82	14.78
50th-Percentile Queue Length [ft/ln]	34.83	175.77	174.20	161.67	197.03	42.94	43.21	125.70	130.37	194.64	195.59	369.51
95th-Percentile Queue Length [veh/ln]	2.51	11.38	11.30	10.95	12.49	3.09	3.11	8.71	8.96	12.91	12.41	21.09
95th-Percentile Queue Length [ft/ln]	62.69	284.48	282.43	273.72	312.13	77.30	77.77	217.64	224.00	322.82	310.27	527.13

**Movement, Approach, & Intersection Results**

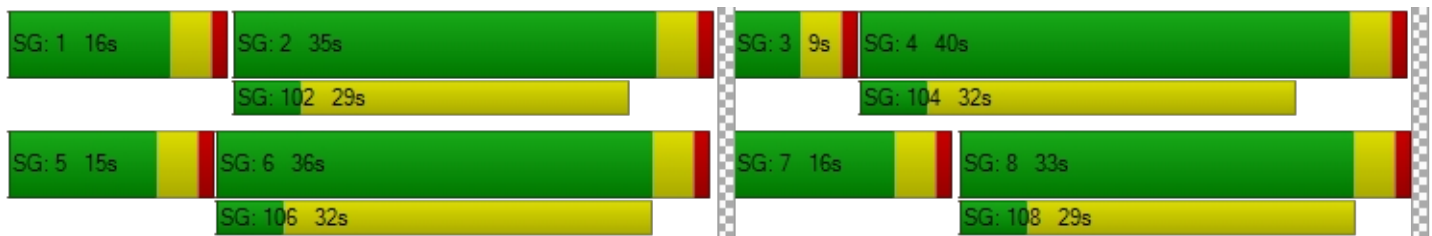
d_M, Delay for Movement [s/veh]	67.58	31.12	35.35	92.06	26.19	20.00	56.14	31.20	31.57	105.78	28.50	60.32
Movement LOS	E	C	D	F	C	C	E	C	C	F	C	E
d_A, Approach Delay [s/veh]	33.27			44.55			34.80			56.96		
Approach LOS	C			D			C			E		
d_I, Intersection Delay [s/veh]	43.98											
Intersection LOS	D											
Intersection V/C	0.715											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	41.41	41.41	41.41
I_p,int, Pedestrian LOS Score for Intersection	2.966	3.084	2.850	3.103
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	640	620	580	720
d_b, Bicycle Delay [s]	23.12	23.88	25.21	20.50
I_b,int, Bicycle LOS Score for Intersection	2.300	2.625	2.038	2.936
Bicycle LOS	B	B	B	C

**Sequence**

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



## Sunrise Village

Vistro File: C:\...\Shopoff Vistro.vistro

Scenario 6 OY PM

Report File: C:\...\OY PM.pdf

5/10/2021

**Turning Movement Volume: Summary**

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Parks Rd/Rosecrans Ave	34	57	77	56	47	19	9	549	35	50	559	107	1599

ID	Intersection Name	Northbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Right	Left	Thru	
2	Camino Loma/Rosecrans Ave	9	23	647	19	23	662	1383

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound		Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
3	Driveway 1/Rosecrans Ave	26	1	11	30	0	15	14	621	26	18	651	1413

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
4	Euclid St/Rosecrans Ave	571	810	699	192	220	450	2942

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
5	Euclid St/Driveway 2	44	1397	1146	8	1	42	2638

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6	Euclid St/Bastanchury Rd	41	939	286	348	765	102	118	658	42	393	727	449	4868

## Table of Contents

Intersection Analysis Summary .....	2
Intersection Level Of Service Report .....	3
Intersection 1: Parks Rd/Rosecrans Ave .....	3
Intersection 2: Camino Loma/Rosecrans Ave .....	8
Intersection 3: Driveway 1/Rosecrans Ave .....	10
Intersection 4: Euclid St/Rosecrans Ave .....	12
Intersection 5: Euclid St/Driveway 2 .....	17
Intersection 6: Euclid St/Bastanchury Rd .....	19
Turning Movement Volume: Summary .....	24

## Sunrise Village

Vistro File: C:\...\Shopoff Vistro.vistro

Scenario 7 OY AM + P

Report File: C:\...\OY AM + P.pdf

5/10/2021

**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Parks Rd/Rosecrans Ave	Signalized	HCM 6th Edition	SB Left	0.191	6.8	A
2	Camino Loma/Rosecrans Ave	Two-way stop	HCM 6th Edition	NB Left	0.054	15.9	C
3	Driveway 1/Rosecrans Ave	Two-way stop	HCM 6th Edition	NB Left	0.018	16.0	C
4	Euclid St/Rosecrans Ave	Signalized	HCM 6th Edition	NB Left	0.426	15.4	B
5	Euclid St/Driveway 2	Two-way stop	HCM 6th Edition	EB Right	0.028	12.5	B
6	Euclid St/Bastanchury Rd	Signalized	HCM 6th Edition	NB Left	0.539	31.9	C

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

**Intersection Level Of Service Report**  
**Intersection 1: Parks Rd/Rosecrans Ave**

Control Type:	Signalized	Delay (sec / veh):	6.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.191

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	105.00	100.00	175.00	175.00	100.00	200.00	295.00	100.00	100.00	330.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Version 2021 (SP 0-2)

**Volumes**

Name												
Base Volume Input [veh/h]	14	18	34	65	23	22	11	378	22	54	295	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	-3	-3	0	0	0	-2	0	-2	11	-2
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	18	32	63	23	22	11	384	22	53	312	16
Peak Hour Factor	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	5	9	17	6	6	3	106	6	15	86	4
Total Analysis Volume [veh/h]	16	20	35	70	25	24	12	425	24	59	346	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		3			2			2			2	
v_di, Inbound Pedestrian Volume crossing in		2			2			2			3	
v_co, Outbound Pedestrian Volume crossing		1			1			1			2	
v_ci, Inbound Pedestrian Volume crossing mi		1			2			1			1	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			1			0			1	



**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	4	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	27	0	0	27	0	0	33	0	0	33	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	9	9	9	9	9	43	43	43	43	43	43
g / C, Green / Cycle	0.15	0.15	0.15	0.15	0.15	0.15	0.71	0.71	0.71	0.71	0.71	0.71
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.02	0.06	0.01	0.02	0.01	0.13	0.14	0.07	0.11	0.11
s, saturation flow rate [veh/h]	1239	1683	1417	1242	1683	1400	915	1683	1651	847	1683	1650
c, Capacity [veh/h]	264	259	218	268	259	216	701	1200	1177	650	1200	1176
d1, Uniform Delay [s]	23.74	21.75	22.03	24.70	21.81	21.86	4.04	2.86	2.86	4.52	2.78	2.78
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.09	0.13	0.34	0.51	0.16	0.23	0.04	0.35	0.36	0.28	0.27	0.28
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.06	0.08	0.16	0.26	0.10	0.11	0.02	0.19	0.19	0.09	0.15	0.15
d, Delay for Lane Group [s/veh]	23.84	21.87	22.37	25.21	21.97	22.08	4.08	3.21	3.22	4.80	3.05	3.06
Lane Group LOS	C	C	C	C	C	C	A	A	A	A	A	A
Critical Lane Group	No	No	No	Yes	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.20	0.24	0.42	0.92	0.30	0.29	0.05	0.61	0.60	0.26	0.48	0.47
50th-Percentile Queue Length [ft/ln]	4.98	5.92	10.60	22.89	7.42	7.20	1.18	15.19	15.06	6.54	11.92	11.84
95th-Percentile Queue Length [veh/ln]	0.36	0.43	0.76	1.65	0.53	0.52	0.09	1.09	1.08	0.47	0.86	0.85
95th-Percentile Queue Length [ft/ln]	8.97	10.65	19.08	41.21	13.36	12.96	2.13	27.35	27.10	11.77	21.46	21.31

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	23.84	21.87	22.37	25.21	21.97	22.08	4.08	3.22	3.22	4.80	3.06	3.06
Movement LOS	C	C	C	C	C	C	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	22.56			23.90			3.24			3.30		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	6.83											
Intersection LOS	A											
Intersection V/C	0.191											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.69	21.69	21.69	21.69
I_p,int, Pedestrian LOS Score for Intersection	2.239	2.170	2.468	2.566
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	766	766	966	966
d_b, Bicycle Delay [s]	11.42	11.43	8.02	8.02
I_b,int, Bicycle LOS Score for Intersection	1.677	1.756	1.940	1.909
Bicycle LOS	A	A	A	A

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 2: Camino Loma/Rosecrans Ave**

Control Type:	Two-way stop	Delay (sec / veh):	15.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.054

**Intersection Setup**

Name	Northbound		Eastbound		Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	235.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name						
Base Volume Input [veh/h]	8	9	484	2	9	294
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	3	-9	1	0	-2
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	12	485	3	9	298
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	3	136	1	3	83
Total Analysis Volume [veh/h]	19	13	543	3	10	334
Pedestrian Volume [ped/h]	3		0		0	

Version 2021 (SP 0-2)

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.05	0.02	0.01	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	15.90	10.64	0.00	0.00	8.59	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.23	0.23	0.00	0.00	0.03	0.00
95th-Percentile Queue Length [ft/ln]	5.82	5.82	0.00	0.00	0.75	0.00
d_A, Approach Delay [s/veh]	13.76		0.00		0.25	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.57					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 3: Driveway 1/Rosecrans Ave**

Control Type:	Two-way stop	Delay (sec / veh):	16.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.018

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach												
Lane Configuration	↔↔			⊕			↔↔↔			↔↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	80.00	100.00	100.00	100.00	235.00	100.00	140.00	165.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name												
Base Volume Input [veh/h]	8	1	6	44	0	13	7	469	7	1	282	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-2	-1	12	0	-1	0	0	3	-9	-4	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	0	18	45	0	13	7	481	0	0	288	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	5	12	0	3	2	127	0	0	76	0
Total Analysis Volume [veh/h]	6	0	19	47	0	14	7	506	0	0	303	0
Pedestrian Volume [ped/h]	1			3			0			0		

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.02	0.00	0.03	0.12	0.00	0.02	0.01	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	15.98	17.10	9.96	15.53	18.18	10.46	7.90	0.00	0.00	8.42	0.00	0.00
Movement LOS	C	C	A	C	C	B	A	A	A	A	A	
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.08	0.47	0.47	0.47	0.02	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.37	1.37	1.96	11.79	11.79	11.79	0.42	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.40			14.36			0.11			0.00		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	1.35											
Intersection LOS	C											

**Intersection Level Of Service Report**  
**Intersection 4: Euclid St/Rosecrans Ave**

Control Type:	Signalized	Delay (sec / veh):	15.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.426

**Intersection Setup**

Name	Northbound		Southbound		Eastbound	
Approach						
Lane Configuration	⇐		⇐		⇐⇐⇐⇐	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	0	0
Entry Pocket Length [ft]	350.00	100.00	100.00	245.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	



**Volumes**

Name						
Base Volume Input [veh/h]	216	328	584	92	109	428
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-2	-1	-4	-2	9	6
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	218	334	592	92	120	443
Peak Hour Factor	0.9530	0.9530	0.9530	0.9530	0.9530	0.9530
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	57	88	155	24	31	116
Total Analysis Volume [veh/h]	229	350	621	97	126	465
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		1	
v_di, Inbound Pedestrian Volume crossing in	1		1		0	
v_co, Outbound Pedestrian Volume crossing	1		1		1	
v_ci, Inbound Pedestrian Volume crossing mi	0		1		1	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Version 2021 (SP 0-2)

**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Overlap
Signal Group	1	6	2	0	3	8
Auxiliary Signal Groups						1,8
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	10	10	0	5	5
Maximum Green [s]	30	30	30	0	30	30
Amber [s]	3.0	3.0	3.0	0.0	3.0	3.0
All red [s]	1.0	1.0	1.0	0.0	1.0	1.0
Split [s]	12	42	30	0	33	33
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	3.0
Walk [s]	0	5	5	0	5	0
Pedestrian Clearance [s]	0	10	21	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
Minimum Recall	No	No	No		No	No
Maximum Recall	No	No	No		No	No
Pedestrian Recall	No	No	No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	R	L	R
C, Cycle Length [s]	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	8	53	41	41	14	26
g / C, Green / Cycle	0.11	0.70	0.54	0.54	0.19	0.35
(v / s)_i Volume / Saturation Flow Rate	0.07	0.11	0.19	0.07	0.04	0.18
s, saturation flow rate [veh/h]	3113	3204	3204	1429	3104	2531
c, Capacity [veh/h]	338	2257	1739	775	587	888
d1, Uniform Delay [s]	32.25	3.69	9.76	8.44	25.77	19.40
k, delay calibration	0.11	0.50	0.50	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.37	0.15	0.57	0.33	0.18	0.48
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.68	0.16	0.36	0.13	0.21	0.52
d, Delay for Lane Group [s/veh]	34.62	3.83	10.33	8.77	25.95	19.88
Lane Group LOS	C	A	B	A	C	B
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.06	0.69	2.70	0.76	0.94	3.10
50th-Percentile Queue Length [ft/ln]	51.40	17.27	67.41	19.06	23.41	77.49
95th-Percentile Queue Length [veh/ln]	3.70	1.24	4.85	1.37	1.69	5.58
95th-Percentile Queue Length [ft/ln]	92.51	31.09	121.33	34.31	42.13	139.49

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	34.62	3.83	10.33	8.77	25.95	19.88
Movement LOS	C	A	B	A	C	B
d_A, Approach Delay [s/veh]	16.01		10.12		21.17	
Approach LOS	B		B		C	
d_I, Intersection Delay [s/veh]	15.39					
Intersection LOS	B					
Intersection V/C	0.426					

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.09	29.09	29.09
I_p,int, Pedestrian LOS Score for Intersection	2.818	2.525	2.594
Crosswalk LOS	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1012	692	772
d_b, Bicycle Delay [s]	9.17	16.05	14.15
I_b,int, Bicycle LOS Score for Intersection	2.037	2.152	1.560
Bicycle LOS	B	B	A

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 5: Euclid St/Driveway 2**

Control Type:	Two-way stop	Delay (sec / veh):	12.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.028

**Intersection Setup**

Name	Northbound		Southbound		Eastbound	
Approach						
Lane Configuration	↵		↵		↵↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1
Entry Pocket Length [ft]	180.00	100.00	100.00	100.00	100.00	170.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Northbound		Southbound		Eastbound	
Base Volume Input [veh/h]	21	548	1005	7	0	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-15	-2	6	-4	-1	5
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	557	1031	3	0	14
Peak Hour Factor	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	143	265	1	0	4
Total Analysis Volume [veh/h]	6	573	1061	3	0	14
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	100

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.01	0.01	0.00	0.00	0.03
d_M, Delay for Movement [s/veh]	10.59	0.00	0.00	0.00	31.02	12.51
Movement LOS	B	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.03	0.00	0.00	0.00	0.00	0.09
95th-Percentile Queue Length [ft/ln]	0.70	0.00	0.00	0.00	0.00	2.19
d_A, Approach Delay [s/veh]	0.11		0.00		12.51	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.14					
Intersection LOS	B					

**Intersection Level Of Service Report  
Intersection 6: Euclid St/Bastanchury Rd**

Control Type:	Signalized	Delay (sec / veh):	31.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.539

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	2	0	0	2	0	1	2	0	1
Entry Pocket Length [ft]	260.00	100.00	100.00	200.00	100.00	100.00	290.00	100.00	180.00	285.00	100.00	185.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	540.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name												
Base Volume Input [veh/h]	30	402	299	303	701	39	32	418	51	240	433	150
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	-1	0	-4	16	-1	-4	0	0	0	0	-12
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	31	409	305	305	731	39	29	426	52	245	442	141
Peak Hour Factor	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	112	84	84	201	11	8	117	14	67	121	39
Total Analysis Volume [veh/h]	34	449	335	335	802	43	32	468	57	269	485	155
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		1			0			0			
v_di, Inbound Pedestrian Volume crossing in	0		0			0			1			
v_co, Outbound Pedestrian Volume crossing	1		0			0			1			
v_ci, Inbound Pedestrian Volume crossing mi	1		0			0			1			
v_ab, Corner Pedestrian Volume [ped/h]	0		0			0			0			
Bicycle Volume [bicycles/h]	0		0			0			0			



**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	19	36	0	19	36	0	9	33	0	17	41	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	27	0	0	24	0	0	24	0	0	27	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	50	50	13	60	60	3	14	14	11	22	22
g / C, Green / Cycle	0.03	0.48	0.48	0.13	0.57	0.57	0.03	0.14	0.14	0.11	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.02	0.10	0.23	0.11	0.25	0.03	0.01	0.11	0.11	0.09	0.15	0.11
s, saturation flow rate [veh/h]	1603	4584	1429	3113	3204	1431	3113	3204	1592	3113	3204	1429
c, Capacity [veh/h]	50	2186	681	396	1836	820	93	442	219	330	685	305
d1, Uniform Delay [s]	50.42	15.95	18.79	44.87	12.79	9.88	49.97	43.84	43.95	45.98	38.28	36.43
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	15.21	0.21	2.53	5.04	0.76	0.12	2.16	3.18	6.81	4.90	1.36	1.30
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.68	0.21	0.49	0.85	0.44	0.05	0.34	0.79	0.81	0.81	0.71	0.51
d, Delay for Lane Group [s/veh]	65.63	16.16	21.32	49.91	13.55	10.01	52.12	47.02	50.76	50.88	39.64	37.74
Lane Group LOS	E	B	C	D	B	B	D	D	D	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.09	2.09	5.88	4.52	5.30	0.45	0.44	4.55	4.85	3.64	5.86	3.60
50th-Percentile Queue Length [ft/ln]	27.32	52.33	147.10	112.97	132.48	11.27	10.98	113.74	121.13	91.06	146.57	89.96
95th-Percentile Queue Length [veh/ln]	1.97	3.77	9.86	8.00	9.07	0.81	0.79	8.05	8.45	6.56	9.83	6.48
95th-Percentile Queue Length [ft/ln]	49.18	94.20	246.55	200.12	226.87	20.29	19.76	201.20	211.37	163.91	245.84	161.93

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	65.63	16.16	21.32	49.91	13.55	10.01	52.12	47.98	50.76	50.88	39.64	37.74
Movement LOS	E	B	C	D	B	B	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	20.33			23.74			48.50			42.64		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	31.88											
Intersection LOS	C											
Intersection V/C	0.539											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	43.92			43.92			43.92			43.92		
l_p,int, Pedestrian LOS Score for Intersection	2.874			2.956			2.759			2.984		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	609			609			552			704		
d_b, Bicycle Delay [s]	25.40			25.40			27.53			22.05		
l_b,int, Bicycle LOS Score for Intersection	2.010			2.533			1.866			2.310		
Bicycle LOS	B			B			A			B		

**Sequence**

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



## Sunrise Village

Vistro File: C:\...\Shopoff Vistro.vistro

Scenario 7 OY AM + P

Report File: C:\...\OY AM + P.pdf

5/10/2021

**Turning Movement Volume: Summary**

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Parks Rd/Rosecrans Ave	14	18	32	63	23	22	11	384	22	53	312	16	970

ID	Intersection Name	Northbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Right	Left	Thru	
2	Camino Loma/Rosecrans Ave	17	12	485	3	9	298	824

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound		Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
3	Driveway 1/Rosecrans Ave	6	0	18	45	0	13	7	481	0	0	288	858

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
4	Euclid St/Rosecrans Ave	218	334	592	92	120	443	1799

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
5	Euclid St/Driveway 2	6	557	1031	3	0	14	1611

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6	Euclid St/Bastanchury Rd	31	409	305	305	731	39	29	426	52	245	442	141	3155

## Table of Contents

Intersection Analysis Summary .....	2
Intersection Level Of Service Report .....	3
Intersection 1: Parks Rd/Rosecrans Ave .....	3
Intersection 2: Camino Loma/Rosecrans Ave .....	8
Intersection 3: Driveway 1/Rosecrans Ave .....	10
Intersection 4: Euclid St/Rosecrans Ave .....	12
Intersection 5: Euclid St/Driveway 2 .....	17
Intersection 6: Euclid St/Bastanchury Rd .....	19
Turning Movement Volume: Summary .....	24

## Sunrise Village

Vistro File: C:\...\Shopoff Vistro.vistro

Scenario 8 OY PM + P

Report File: C:\...\OY PM + P.pdf

5/10/2021

**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Parks Rd/Rosecrans Ave	Signalized	HCM 6th Edition	SB Left	0.232	7.1	A
2	Camino Loma/Rosecrans Ave	Two-way stop	HCM 6th Edition	NB Left	0.039	19.7	C
3	Driveway 1/Rosecrans Ave	Two-way stop	HCM 6th Edition	SB Left	0.137	25.1	D
4	Euclid St/Rosecrans Ave	Signalized	HCM 6th Edition	NB Left	0.512	17.7	B
5	Euclid St/Driveway 2	Two-way stop	HCM 6th Edition	EB Right	0.019	12.6	B
6	Euclid St/Bastanchury Rd	Signalized	HCM 6th Edition	NB Left	0.599	34.7	C

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

**Intersection Level Of Service Report**  
**Intersection 1: Parks Rd/Rosecrans Ave**

Control Type:	Signalized	Delay (sec / veh):	7.1
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.232

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	105.00	100.00	175.00	175.00	100.00	200.00	295.00	100.00	100.00	330.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name												
Base Volume Input [veh/h]	29	50	66	48	41	17	8	473	30	43	482	92
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	-7	-7	0	0	0	-2	0	-6	-6	-6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	30	51	60	42	42	17	8	480	31	38	486	88
Peak Hour Factor	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	13	16	11	11	4	2	127	8	10	128	23
Total Analysis Volume [veh/h]	32	54	63	44	44	18	8	506	33	40	513	93
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	1		0			1			0			
v_di, Inbound Pedestrian Volume crossing in	0		1			0			1			
v_co, Outbound Pedestrian Volume crossing	2		1			1			2			
v_ci, Inbound Pedestrian Volume crossing mi	1		2			2			1			
v_ab, Corner Pedestrian Volume [ped/h]	0		0			0			0			
Bicycle Volume [bicycles/h]	5		2			2			1			



**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	4	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	27	0	0	27	0	0	33	0	0	33	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	9	9	9	9	9	43	43	43	43	43	43
g / C, Green / Cycle	0.16	0.16	0.16	0.16	0.16	0.16	0.71	0.71	0.71	0.71	0.71	0.71
(v / s)_i Volume / Saturation Flow Rate	0.03	0.03	0.04	0.04	0.03	0.01	0.01	0.16	0.16	0.05	0.18	0.19
s, saturation flow rate [veh/h]	1224	1683	1401	1213	1683	1407	732	1683	1642	779	1683	1582
c, Capacity [veh/h]	255	265	220	247	265	221	559	1194	1165	595	1194	1122
d1, Uniform Delay [s]	24.41	22.03	22.31	24.95	21.90	21.60	4.87	3.02	3.03	4.81	3.11	3.12
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.22	0.38	0.71	0.34	0.29	0.16	0.05	0.44	0.46	0.22	0.53	0.57
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.13	0.20	0.29	0.18	0.17	0.08	0.01	0.23	0.23	0.07	0.26	0.26
d, Delay for Lane Group [s/veh]	24.63	22.41	23.01	25.29	22.19	21.75	4.92	3.47	3.49	5.03	3.64	3.69
Lane Group LOS	C	C	C	C	C	C	A	A	A	A	A	A
Critical Lane Group	No	No	Yes	No	No	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.41	0.65	0.78	0.57	0.53	0.21	0.04	0.78	0.77	0.19	0.91	0.88
50th-Percentile Queue Length [ft/ln]	10.23	16.30	19.52	14.35	13.18	5.34	0.95	19.40	19.18	4.69	22.82	22.09
95th-Percentile Queue Length [veh/ln]	0.74	1.17	1.41	1.03	0.95	0.38	0.07	1.40	1.38	0.34	1.64	1.59
95th-Percentile Queue Length [ft/ln]	18.41	29.34	35.13	25.83	23.72	9.61	1.70	34.91	34.53	8.44	41.08	39.77

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	24.63	22.41	23.01	25.29	22.19	21.75	4.92	3.48	3.49	5.03	3.66	3.69
Movement LOS	C	C	C	C	C	C	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	23.14			23.40			3.50			3.75		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	7.09											
Intersection LOS	A											
Intersection V/C	0.232											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.69	21.69	21.69	21.69
I_p,int, Pedestrian LOS Score for Intersection	2.234	2.187	2.543	2.589
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	766	766	966	966
d_b, Bicycle Delay [s]	11.45	11.43	8.03	8.02
I_b,int, Bicycle LOS Score for Intersection	1.805	1.735	2.011	2.093
Bicycle LOS	A	A	B	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 2: Camino Loma/Rosecrans Ave**

Control Type:	Two-way stop	Delay (sec / veh):	19.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.039

**Intersection Setup**

Name	Northbound		Eastbound		Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	235.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name	Northbound		Eastbound		Westbound	
Base Volume Input [veh/h]	8	20	558	17	20	571
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	-1	-20	4	0	-18
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	19	549	21	20	564
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	5	146	6	5	150
Total Analysis Volume [veh/h]	10	20	583	22	21	599
Pedestrian Volume [ped/h]	5		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.04	0.03	0.01	0.00	0.02	0.01
d_M, Delay for Movement [s/veh]	19.72	10.86	0.00	0.00	8.83	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.22	0.22	0.00	0.00	0.07	0.00
95th-Percentile Queue Length [ft/ln]	5.48	5.48	0.00	0.00	1.68	0.00
d_A, Approach Delay [s/veh]	13.81		0.00		0.30	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.48					
Intersection LOS	C					

**Intersection Level Of Service Report  
Intersection 3: Driveway 1/Rosecrans Ave**

Control Type:	Two-way stop	Delay (sec / veh):	25.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.137

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach												
Lane Configuration	↔↔			+			↔↔↔			↔↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	80.00	100.00	100.00	100.00	235.00	100.00	140.00	165.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	22	1	10	25	0	13	12	536	22	15	561	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-18	-3	-9	0	-3	0	0	-1	-20	-6	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	0	1	26	0	13	12	546	2	9	572	0
Peak Hour Factor	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	7	0	4	3	149	1	2	156	0
Total Analysis Volume [veh/h]	4	0	1	28	0	14	13	595	2	10	623	0
Pedestrian Volume [ped/h]	3			0			0			0		

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.14	0.00	0.02	0.01	0.01	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	23.00	27.43	10.20	25.08	29.64	12.76	8.83	0.00	0.00	8.75	0.00	0.00
Movement LOS	C	D	B	D	D	B	A	A	A	A	A	
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.00	0.55	0.55	0.55	0.04	0.00	0.00	0.03	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.50	1.50	0.11	13.72	13.72	13.72	1.04	0.00	0.00	0.78	0.00	0.00
d_A, Approach Delay [s/veh]	20.44			20.97			0.19			0.14		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	0.92											
Intersection LOS	D											

**Intersection Level Of Service Report  
Intersection 4: Euclid St/Rosecrans Ave**

Control Type:	Signalized	Delay (sec / veh):	17.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.512

**Intersection Setup**

Name	Northbound		Southbound		Eastbound	
Approach						
Lane Configuration	← ↑ ↑		↑ ←		← ← ←	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	0	0
Entry Pocket Length [ft]	350.00	100.00	100.00	245.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	



**Volumes**

Name						
Base Volume Input [veh/h]	493	699	603	165	190	388
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-3	-9	-10	-3	-5	-5
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	500	704	605	165	189	391
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	136	191	164	45	51	106
Total Analysis Volume [veh/h]	543	765	658	179	205	425
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	3		0		3	
v_di, Inbound Pedestrian Volume crossing in	3		0		3	
v_co, Outbound Pedestrian Volume crossing	0		3		2	
v_ci, Inbound Pedestrian Volume crossing mi	0		2		3	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		1	

Version 2021 (SP 0-2)

**Intersection Settings**

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Overlap
Signal Group	1	6	2	0	3	8
Auxiliary Signal Groups						1,8
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	10	10	0	5	5
Maximum Green [s]	30	30	30	0	30	30
Amber [s]	3.0	3.0	3.0	0.0	3.0	3.0
All red [s]	1.0	1.0	1.0	0.0	1.0	1.0
Split [s]	22	52	30	0	33	33
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	3.0
Walk [s]	0	5	5	0	5	0
Pedestrian Clearance [s]	0	10	21	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
Minimum Recall	No	No	No		No	No
Maximum Recall	No	No	No		No	No
Pedestrian Recall	No	No	No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	R	L	R
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	17	64	43	43	13	34
g / C, Green / Cycle	0.20	0.75	0.50	0.50	0.16	0.40
(v / s)_i Volume / Saturation Flow Rate	0.17	0.24	0.21	0.13	0.07	0.17
s, saturation flow rate [veh/h]	3113	3204	3204	1426	3113	2513
c, Capacity [veh/h]	626	2400	1605	714	489	1017
d1, Uniform Delay [s]	32.90	3.52	13.35	12.12	32.38	18.10
k, delay calibration	0.11	0.50	0.50	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.81	0.35	0.78	0.84	0.57	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.87	0.32	0.41	0.25	0.42	0.42
d, Delay for Lane Group [s/veh]	36.71	3.87	14.12	12.96	32.95	18.37
Lane Group LOS	D	A	B	B	C	B
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.59	1.65	3.86	1.99	1.91	2.90
50th-Percentile Queue Length [ft/ln]	139.86	41.16	96.42	49.68	47.71	72.38
95th-Percentile Queue Length [veh/ln]	9.47	2.96	6.94	3.58	3.44	5.21
95th-Percentile Queue Length [ft/ln]	236.84	74.09	173.55	89.42	85.89	130.29

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	36.71	3.87	14.12	12.96	32.95	18.37
Movement LOS	D	A	B	B	C	B
d_A, Approach Delay [s/veh]	17.50		13.88		23.12	
Approach LOS	B		B		C	
d_I, Intersection Delay [s/veh]	17.68					
Intersection LOS	B					
Intersection V/C	0.512					

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.01	34.01	34.01
I_p,int, Pedestrian LOS Score for Intersection	2.926	2.651	2.671
Crosswalk LOS	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1129	611	682
d_b, Bicycle Delay [s]	8.08	20.51	18.49
I_b,int, Bicycle LOS Score for Intersection	2.639	2.250	1.560
Bicycle LOS	B	B	A

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 5: Euclid St/Driveway 2**

Control Type:	Two-way stop	Delay (sec / veh):	12.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.019

**Intersection Setup**

Name	Northbound		Southbound		Eastbound	
Approach						
Lane Configuration	↵ ↑ ↑		↑ ↵		↵↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1
Entry Pocket Length [ft]	180.00	100.00	100.00	100.00	100.00	170.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name	Northbound		Southbound		Eastbound	
Base Volume Input [veh/h]	37	1206	989	7	1	36
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-29	-3	-5	-10	-9	-29
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	1227	1004	0	0	8
Peak Hour Factor	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	328	268	0	0	2
Total Analysis Volume [veh/h]	10	1312	1074	0	0	9
Pedestrian Volume [ped/h]	0		0		3	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.02	0.01	0.01	0.00	0.00	0.02
d_M, Delay for Movement [s/veh]	10.70	0.00	0.00	0.00	52.96	12.57
Movement LOS	B	A	A	A	F	B
95th-Percentile Queue Length [veh/ln]	0.05	0.00	0.00	0.00	0.00	0.06
95th-Percentile Queue Length [ft/ln]	1.19	0.00	0.00	0.00	0.00	1.42
d_A, Approach Delay [s/veh]	0.08		0.00		12.57	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.09					
Intersection LOS	B					

**Intersection Level Of Service Report  
Intersection 6: Euclid St/Bastanchury Rd**

Control Type:	Signalized	Delay (sec / veh):	34.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.599

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	2	0	0	2	0	1	2	0	1
Entry Pocket Length [ft]	260.00	100.00	100.00	200.00	100.00	100.00	290.00	100.00	180.00	285.00	100.00	185.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	540.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name												
Base Volume Input [veh/h]	35	811	246	300	660	88	102	568	36	339	627	387
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	0	-24	-1	-9	-10	0	0	0	0	-27
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	832	251	282	672	81	94	579	37	346	640	368
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	221	67	75	179	22	25	154	10	92	170	98
Total Analysis Volume [veh/h]	38	884	267	300	714	86	100	615	39	368	680	391
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			1			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			1		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			6			0			2		



**Intersection Settings**

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

**Phasing & Timing**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	36	0	15	35	0	9	33	0	16	40	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	27	0	0	24	0	0	24	0	0	27	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	38	38	11	45	45	5	23	23	12	30	30
g / C, Green / Cycle	0.03	0.38	0.38	0.11	0.45	0.45	0.05	0.23	0.23	0.12	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.02	0.19	0.19	0.10	0.22	0.06	0.03	0.13	0.14	0.12	0.21	0.28
s, saturation flow rate [veh/h]	1603	4584	1431	3113	3204	1409	3113	3204	1632	3113	3204	1410
c, Capacity [veh/h]	54	1728	539	344	1454	639	154	744	379	375	972	427
d1, Uniform Delay [s]	47.88	24.08	23.89	43.83	19.22	15.89	46.74	34.13	34.16	43.92	30.86	33.45
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.29
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	15.20	1.09	3.23	6.85	1.19	0.44	4.56	0.72	1.44	17.51	0.93	17.86
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.70	0.51	0.50	0.87	0.49	0.13	0.65	0.58	0.59	0.98	0.70	0.91
d, Delay for Lane Group [s/veh]	63.08	25.16	27.12	50.68	20.41	16.33	51.30	34.85	35.60	61.43	31.79	51.31
Lane Group LOS	E	C	C	D	C	B	D	C	D	E	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.16	5.44	5.22	3.95	5.88	1.20	1.31	4.69	4.89	5.41	7.24	10.99
50th-Percentile Queue Length [ft/ln]	29.06	135.96	130.44	98.86	147.01	30.03	32.85	117.16	122.21	135.34	180.91	274.66
95th-Percentile Queue Length [veh/ln]	2.09	9.26	8.96	7.12	9.86	2.16	2.37	8.24	8.51	9.23	11.65	16.42
95th-Percentile Queue Length [ft/ln]	52.30	231.58	224.09	177.94	246.43	54.05	59.14	205.92	212.86	230.73	291.20	410.56

**Movement, Approach, & Intersection Results**

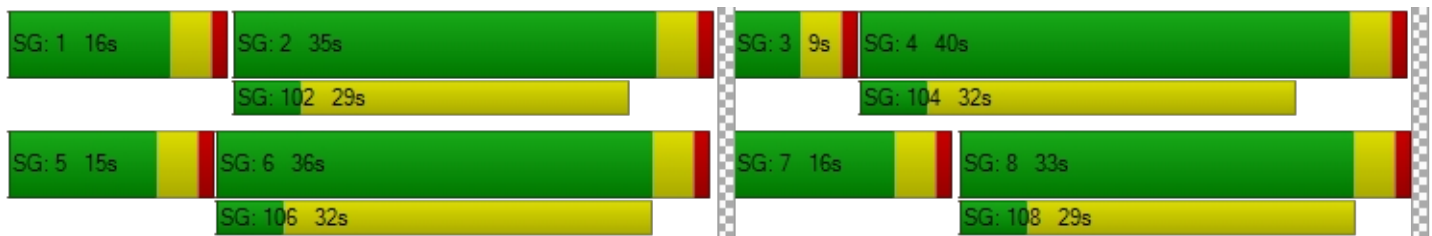
d_M, Delay for Movement [s/veh]	63.08	25.16	27.12	50.68	20.41	16.33	51.30	35.07	35.60	61.43	31.79	51.31
Movement LOS	E	C	C	D	C	B	D	D	D	E	C	D
d_A, Approach Delay [s/veh]	26.81			28.35			37.25			44.67		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	34.68											
Intersection LOS	C											
Intersection V/C	0.599											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.44	41.44	41.44	41.44
l_p,int, Pedestrian LOS Score for Intersection	2.922	3.034	2.818	3.052
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	640	620	580	719
d_b, Bicycle Delay [s]	23.15	23.91	25.24	20.53
l_b,int, Bicycle LOS Score for Intersection	2.214	2.467	1.974	2.747
Bicycle LOS	B	B	A	B

**Sequence**

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



## Sunrise Village

Vistro File: C:\...\Shopoff Vistro.vistro

Scenario 8 OY PM + P

Report File: C:\...\OY PM + P.pdf

5/10/2021

**Turning Movement Volume: Summary**

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Parks Rd/Rosecrans Ave	30	51	60	42	42	17	8	480	31	38	486	88	1373

ID	Intersection Name	Northbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Right	Left	Thru	
2	Camino Loma/Rosecrans Ave	9	19	549	21	20	564	1182

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound		Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
3	Driveway 1/Rosecrans Ave	4	0	1	26	0	13	12	546	2	9	572	1185

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
4	Euclid St/Rosecrans Ave	500	704	605	165	189	391	2554

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
5	Euclid St/Driveway 2	9	1227	1004	0	0	8	2248

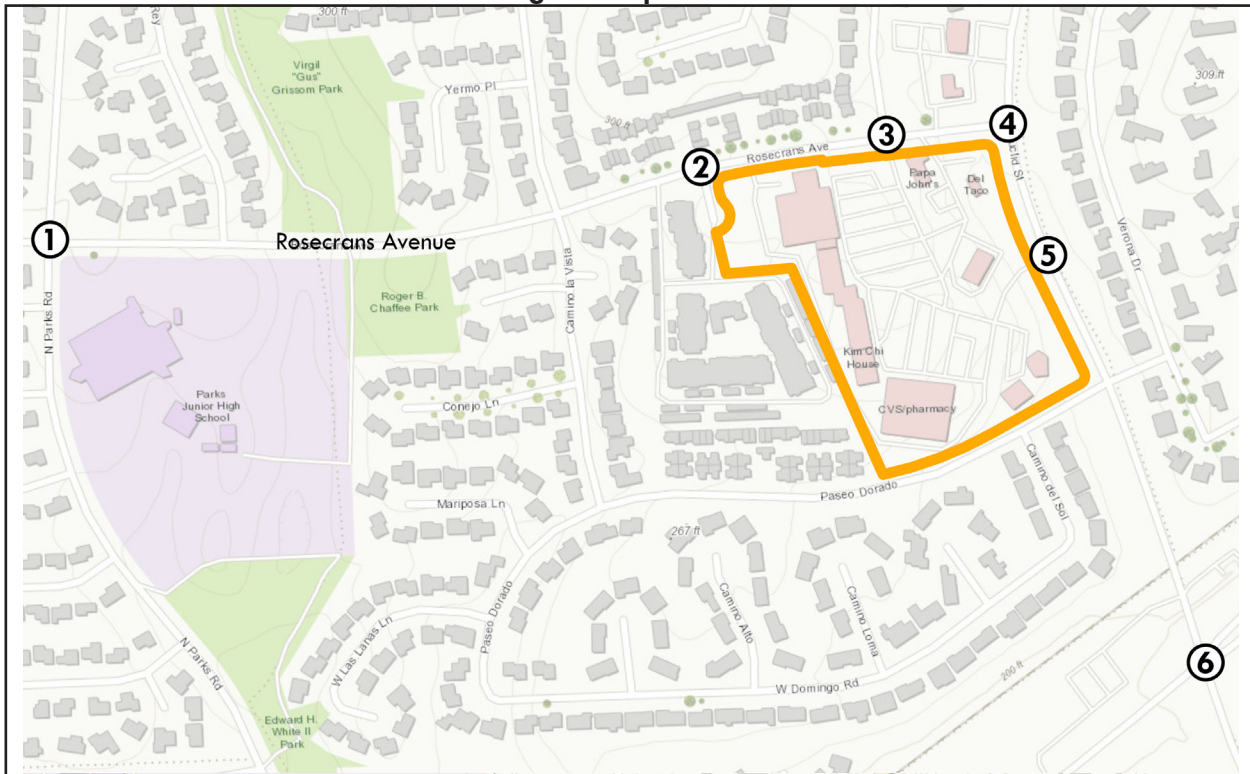
ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6	Euclid St/Bastanchury Rd	36	832	251	282	672	81	94	579	37	346	640	368	4218

---

*APPENDIX C – EXISTING DISTRIBUTION AND ASSIGNMENT*

---

**Existing Site Trip Distribution**



#

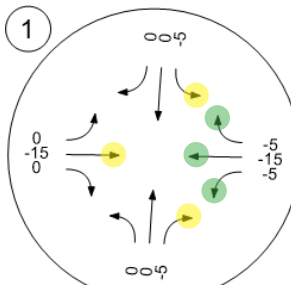
Study Intersection



Project Site

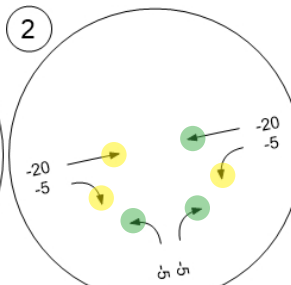


1



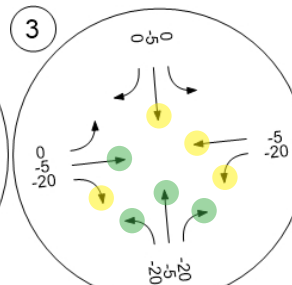
Parks Rd/Rosecrans Ave

2



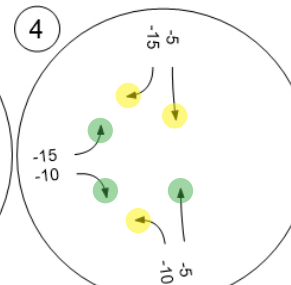
Camino Loma/Rosecrans Ave

3



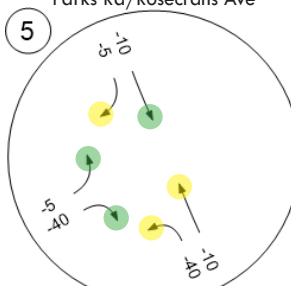
Driveway 1/Rosecrans Ave

4



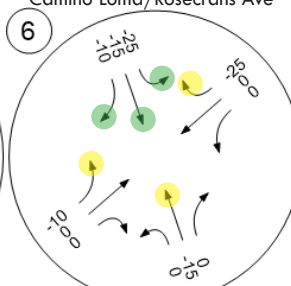
Euclid St/Rosecrans Ave

5



Euclid St/Driveway 2

6

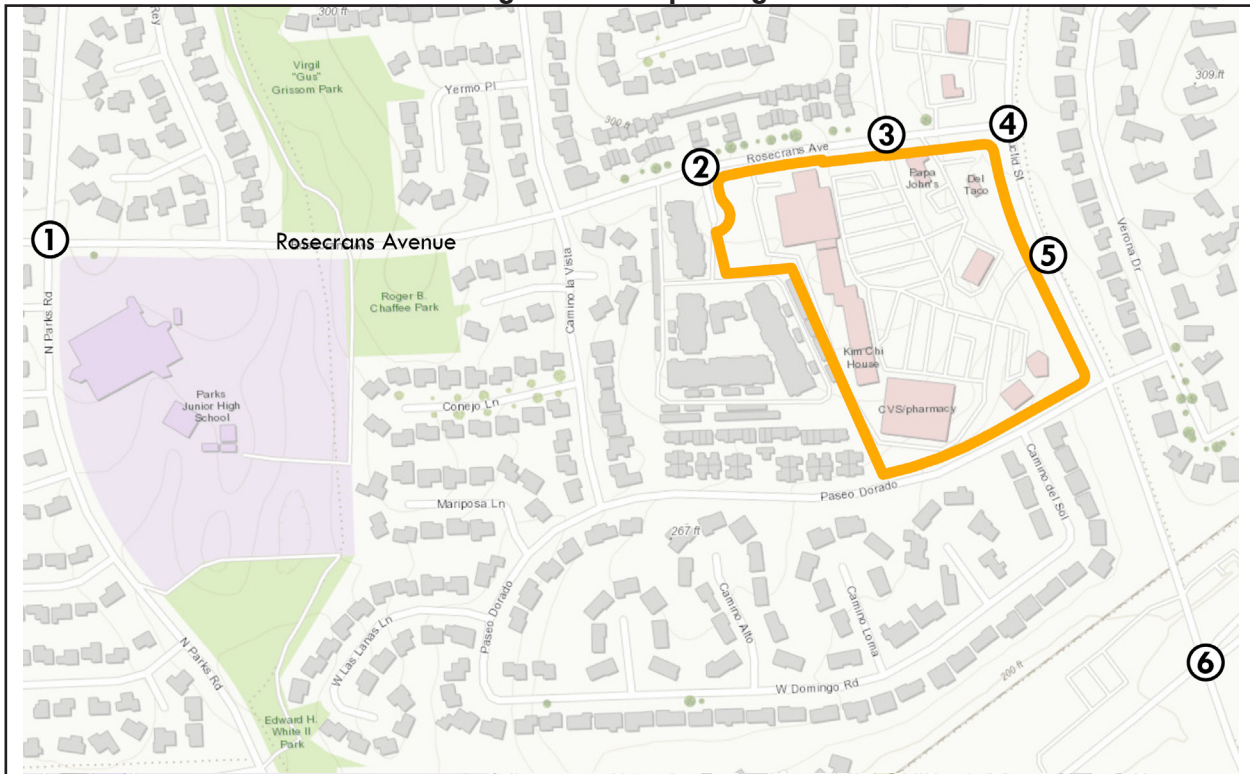


Euclid St/Bastanchury Rd

● In-Bound Trip %

● Out-Bound Trip %

**Existing Site AM Trip Assignment**



#

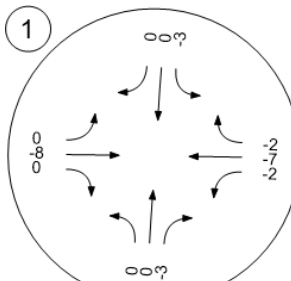
Study Intersection



Project Site

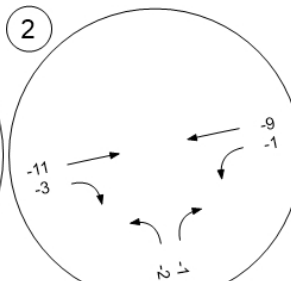


1



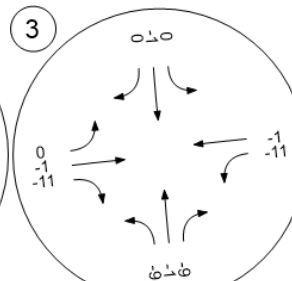
Parks Rd/Rosecrans Ave

2



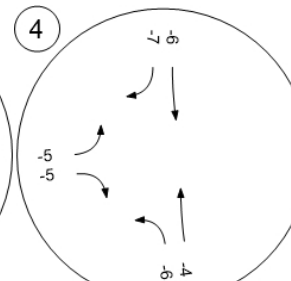
Camino Loma/Rosecrans Ave

3



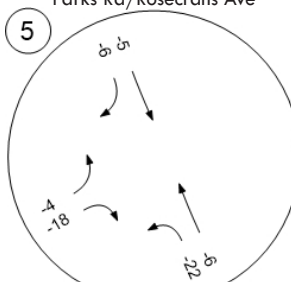
Driveway 1/Rosecrans Ave

4



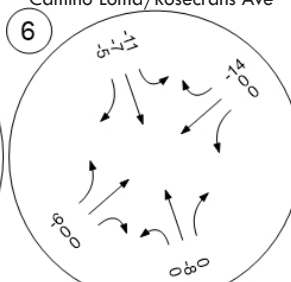
Euclid St/Rosecrans Ave

5



Euclid St/Driveway 2

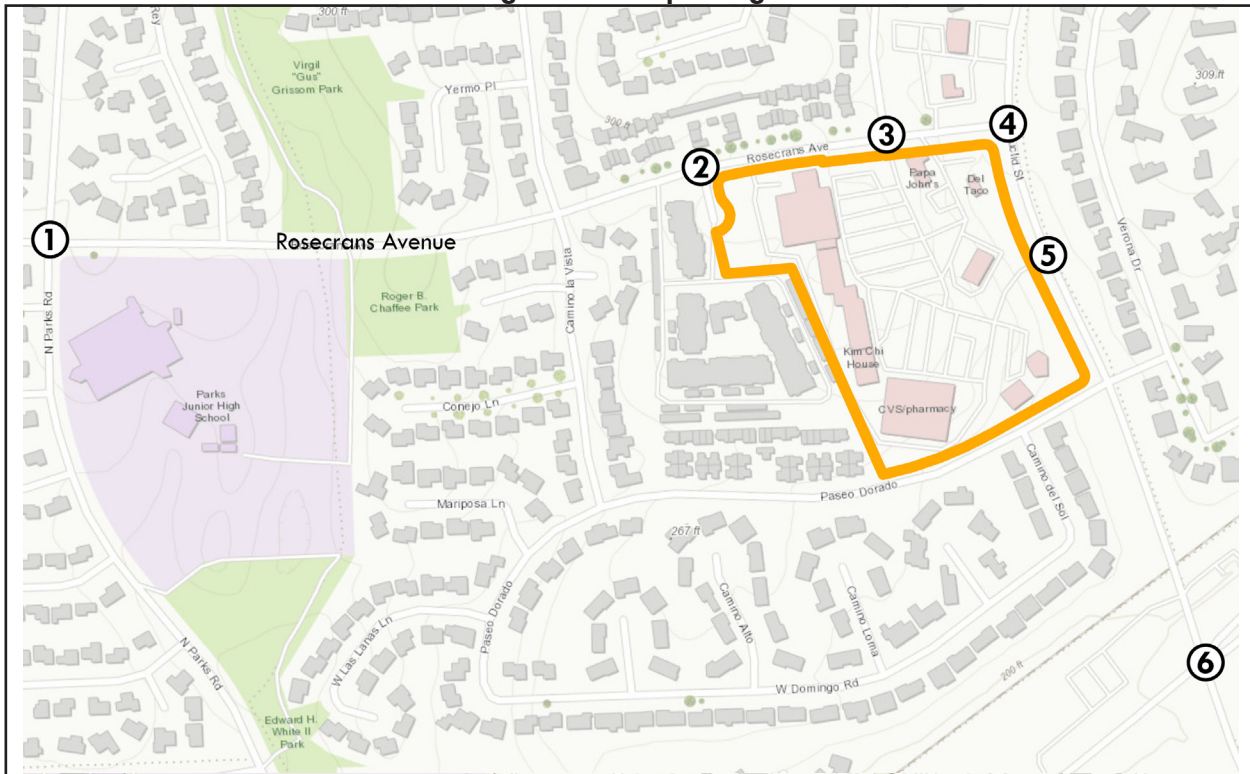
6



Euclid St/Bastanchury Rd



**Existing Site PM Trip Assignment**



#

Study Intersection



Project Site

