

Appendix 7A

Traffic Analysis

Sunset Crossings Residential Project
Initial Study

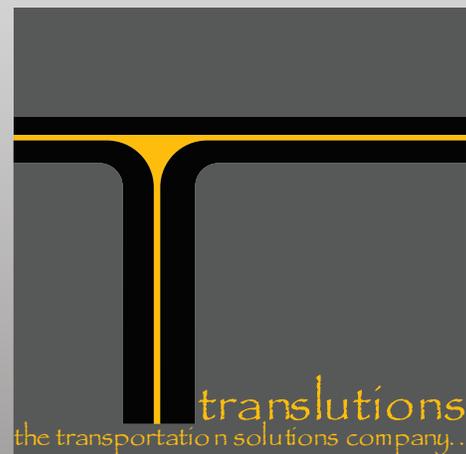
**MORENO VALLEY TTM
38442 RESIDENTIAL**

TRAFFIC IMPACT ANALYSIS

FEBRUARY 2, 2023

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1.0 INTRODUCTION

This report presents the methodology, findings and conclusions of the traffic impact analysis prepared for the proposed Tentative Tract Map 38442 residential development project. The project includes the construction of 108 single-family residences. The project site is located east of Nason Street between Cottonwood Avenue and Alessandro Boulevard in the City of Moreno Valley (City).

1.1 Purpose of the Traffic Study and Study Objectives

This report is intended to satisfy the requirements for a traffic impact analysis established by the City of Moreno Valley's *Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment*, (June 2020). The study area, analysis scenarios, and analysis methodologies are based on the City guidelines and in discussion with City staff. The approved scoping agreement is included in Appendix A.

1.2 Project Location & Study Area

The project is located east of Nason Street between Cottonwood Avenue and Alessandro Boulevard. The project proposes the construction of 108 single-family dwelling units.

Figure 1 shows the regional location of the project. The project opening year is 2024. Figure 2 illustrates the site plan of the proposed project. Based on the trip generation and trip distribution of the proposed project, and based on discussion with City staff, this report analyzes the following intersections and roadway segments for traffic operations:

Study Intersections

1. Lasselle Street and Alessandro Boulevard
2. Morrison Street and Alessandro Boulevard.
3. Nason Street and Eucalyptus Avenue.
4. Nason Street and Dracaea Avenue.
5. Nason Street and Cottonwood Avenue.
6. Nason Street and Alessandro Boulevard.
7. Street A and Cottonwood Avenue.
8. Street A and Alessandro Boulevard.

Study Roadway Segments

1. Cottonwood Avenue from Nason Street to Project's western boundary.
2. Alessandro Boulevard from Lasselle Street to Morrison Street.
3. Alessandro Boulevard from Morrison Street to Nason Street.
4. Alessandro Boulevard from Nason Street to Project's western boundary.

The study area intersections and roadway segments are shown in Figure 3.

This report analyzes weekday daily, a.m. and p.m. peak hour conditions. The a.m. peak hour is defined as the one hour of highest traffic volumes occurring between 7:00 a.m. and 9:00 a.m. The p.m. peak hour is defined as the one hour of highest traffic volumes occurring between 4:00 and 6:00 p.m. Roadway segments were analyzed during a 24-hour period using daily volume counts.

1.3 Analysis Scenarios

This report analyzes traffic operations for the following scenarios:

1. Existing Without Project Conditions.
2. Project Completion Year (2024) Without Project Conditions (existing plus ambient growth plus cumulative projects).

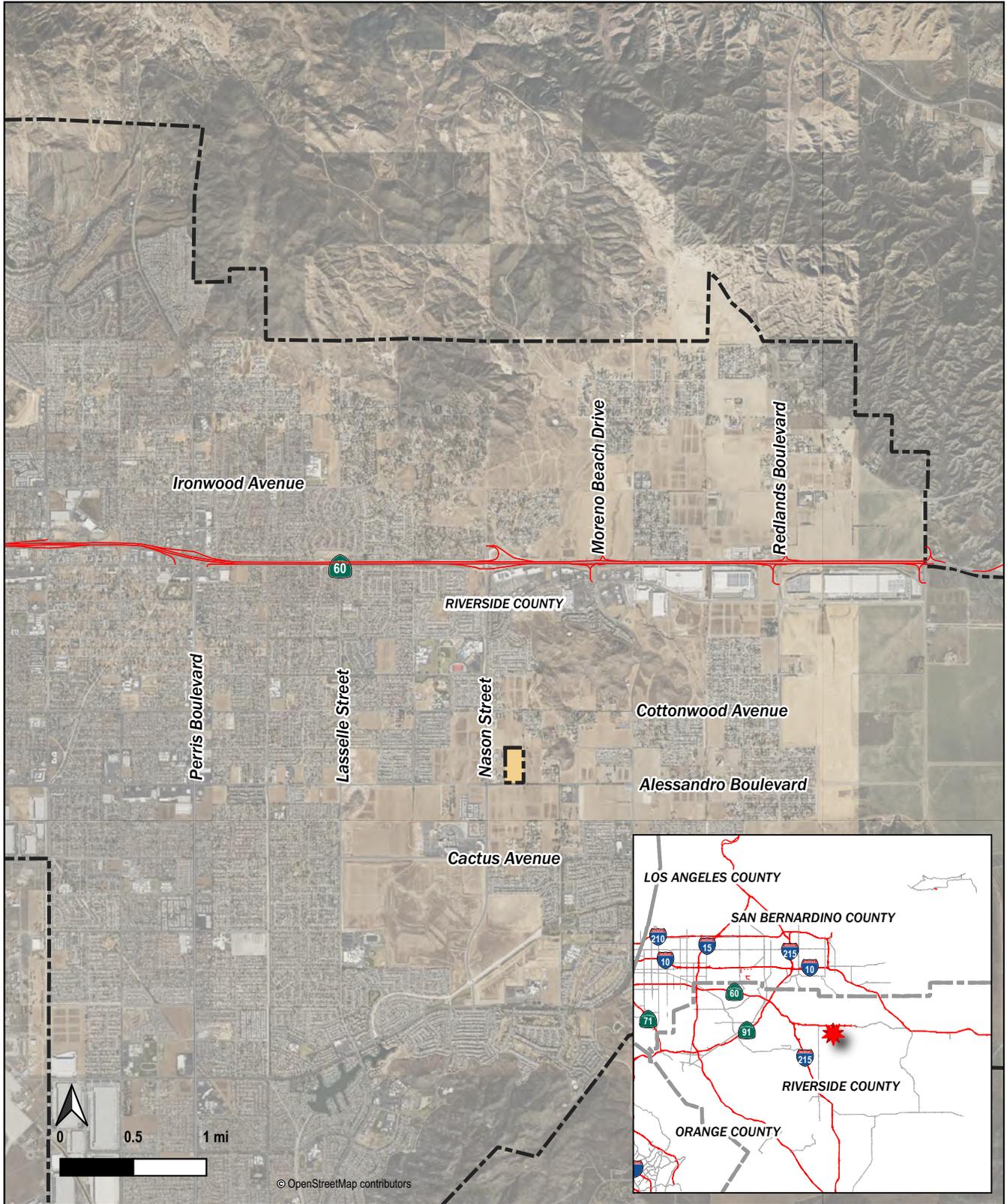


FIGURE 1

Legend

- City Boundary
- Project Location

**Moreno Valley TTM 38442 Residential
Regional Project Location**



APPLICANT / OWNER

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ENGINEER

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LEIGHTON GROUP
17781 COBAN
IRVINE, CA 92614
JEFF L. HALL | 949.681.4265

UTILITIES

WATER: EASTERN MUNICIPAL WATER DISTRICT
SEWER: EASTERN MUNICIPAL WATER DISTRICT
ELECTRIC: SOUTHERN CALIFORNIA Edison COMPANY
GAS: SOUTHERN CALIFORNIA GAS COMPANY
TELEPHONE: VERIZON
TELEVISION: COMCAST

ASSESSOR'S PARCEL NO.'S

488-210-006 & 488-210-020

LAND USE

TOTAL AREA GRASS: 18.1 AC
TOTAL AREA KEY: 18.1 AC
EXISTING LAND USE: VACANT
PROPOSED LAND USE: SINGLE FAMILY RESIDENTIAL
EXISTING ZONING: DOWNTOWN CENTER
PROPOSED ZONING: DOWNTOWN CENTER
EXISTING GENERAL PLAN: DOWNTOWN CENTER
PROPOSED GENERAL PLAN: DOWNTOWN CENTER

NOTES

- THIS AREA IS WITHIN THE MORENO VALLEY LAND USE DESIGNATION PER LOCAL INSURANCE RATE MAP COMMUNITY PANEL NUMBER 080704 COUNTY MAP 28 2008 (RIVERSIDE COUNTY - PANEL 765 OF 2008).
- ALL GRADING AND DRAINAGE SHALL BE CONSISTENT WITH THE REQUIREMENTS OF THE CITY OF MORENO VALLEY.
- IMPROVEMENTS SHALL BE FOR THE CITY OF MORENO VALLEY.
- NO EXISTING WATER WELLS ARE ON THE PROPERTY, OR WITHIN 200 FEET OF THE PROPERTY BOUNDARY.
- THIS TRACT CONSISTS OF 108 SINGLE-FAMILY LOTS WITH TWO DIFFERENT LOT SIZES, 64 UNITS WITH A MINIMUM SIZE OF 3200 SF AND 44 UNITS WITH A MINIMUM SIZE OF 4500 SF. LOT AREAS SHOWN IN THE TABLE ON THE RIGHT.
- THIS TRACT IS LOCATED IN A NON-WFWSZ ZONE, IN A STATE OR FEDERAL RESPONSIBILITY AREA.

LEGAL DESCRIPTION

LOTS 3 AND 6, BLOCK 105 OF BEAR VALLEY AND ALEXANDRO DEVELOPMENT COMPANY'S SUBDIVISION, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 11, PAGE 10 OF MAPS, RECORDS OF SAN BERNARDINO COUNTY

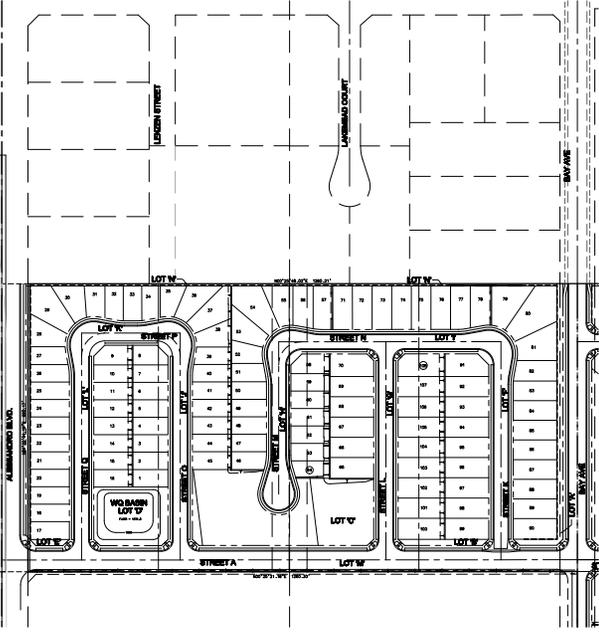
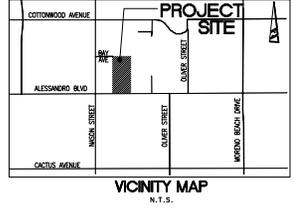
BENCHMARK

RIVERSIDE COUNTY BENCHMARK (84-10-4 RESET) AT THE SOUTHEAST CORNER OF NADON STREET AND ALEXANDRO BOULEVARD, 56.5 FEET EAST 1/2 CORNERLINE OF NADON STREET; 48 FEET SOUTH OF ALEXANDRO BOULEVARD; 13 FEET WEST OF P.O.C. 841-70306; 11.0 FEET NORTH OF A 4"x4" MARKER POST; A BRASS DISK SET IN TOP OF A CONCRETE POST AND MARKED 84-10-4 RESET 1976.
ELEVATION (FEET): 1568.42 (NVD023)

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA STATE PLANE COORDINATE SYSTEM (SAS, ZONE 10) BASED LOCALLY ON CONTROL STATION "NADY" "NADY" 4 7999 NAD83 (NAD83(1)) (EPOCH 2010.00, RECORDS OF THE RIVERSIDE COUNTY SURVEYOR). ALL BEARINGS SHOWN ON THIS MAP ARE GRID. QUOTED BEARINGS ARE DISTANCES FROM REFERENCE MAPS OR CIELDS ARE AS SHOWN PER THAT RECORD REFERENCE. ALL DISTANCES SHOWN ARE BEARING DISTANCES UNLESS SPECIFIED OTHERWISE. GRID DISTANCES MAY BE OBTAINED BY MULTIPLYING THE BEARING DISTANCE BY A COMBINATION FACTOR OF .99994205

TENTATIVE TRACT MAP NO. 38442
IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

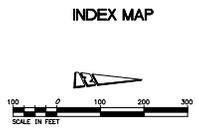


PROPOSED LOT SUMMARY TABLE

3200 SF MIN LOTS				4500 SF MIN LOTS			
LOT#	AREA	LOT#	AREA	LOT#	AREA	LOT#	AREA
1	3200 SF	33	3388 SF	65	4760 SF	97	4640 SF
2	3200 SF	34	3207 SF	66	4640 SF	98	4640 SF
3	3200 SF	35	3253 SF	67	4640 SF	99	4620 SF
4	3200 SF	36	4692 SF	68	4640 SF	100	5221 SF
5	3200 SF	37	6238 SF	69	4640 SF	101	5011 SF
6	3200 SF	38	4013 SF	70	5073 SF	102	5011 SF
7	3200 SF	39	3342 SF	71	4500 SF	103	5011 SF
8	3200 SF	40	3571 SF	72	4500 SF	104	5011 SF
9	3739 SF	41	3600 SF	73	4500 SF	105	5011 SF
10	3600 SF	42	3600 SF	74	4500 SF	106	5011 SF
11	3600 SF	43	3600 SF	75	4500 SF	107	5011 SF
12	3600 SF	44	3600 SF	76	4500 SF	108	5498 SF
13	3600 SF	45	3600 SF	77	4515 SF		
14	3600 SF	46	3216 SF	78	4515 SF		
15	3600 SF	47	3200 SF	79	6437 SF		
16	3600 SF	48	3200 SF	80	9046 SF		
17	3601 SF	49	3203 SF	81	6281 SF		
18	3600 SF	50	3200 SF	82	4209 SF		
19	3600 SF	51	3202 SF	83	4510 SF		
20	3600 SF	52	3254 SF	84	4511 SF		
21	3600 SF	53	4548 SF	85	4511 SF		
22	3600 SF	54	7188 SF	86	4511 SF		
23	3600 SF	55	4812 SF	87	4512 SF		
24	3600 SF	56	4353 SF	88	4512 SF		
25	3600 SF	57	4488 SF	89	4512 SF		
26	3571 SF	58	3740 SF	90	4775 SF		
27	3404 SF	59	3600 SF	91	4681 SF		
28	4375 SF	60	3200 SF	92	4640 SF		
29	6707 SF	61	3200 SF	93	4640 SF		
30	4236 SF	62	3200 SF	94	4640 SF		
31	3204 SF	63	3200 SF	95	4640 SF		
32	3236 SF	64	3200 SF	96	4640 SF		

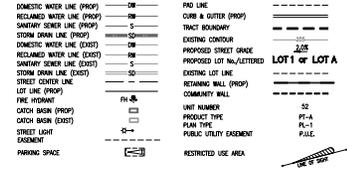
PARKS/LANDSCAPE AREAS

LOT#	AREA	OWNERSHIP	PURPOSE
A	0.22 AC	CITY OF MORENO VALLEY	LANDSCAPE
B	0.06 AC	CITY OF MORENO VALLEY	LANDSCAPE
C	1.38 AC	CITY OF MORENO VALLEY	RECREATION
D	0.52 AC	CITY OF MORENO VALLEY	Basin
E	0.02 AC	CITY OF MORENO VALLEY	LANDSCAPE
F	0.31 AC	CITY OF MORENO VALLEY	STREET
G	0.34 AC	CITY OF MORENO VALLEY	STREET
H	0.52 AC	CITY OF MORENO VALLEY	STREET
I	0.63 AC	CITY OF MORENO VALLEY	STREET
J	0.33 AC	CITY OF MORENO VALLEY	STREET
K	0.37 AC	CITY OF MORENO VALLEY	STREET
L	0.33 AC	CITY OF MORENO VALLEY	STREET
M	1.40 AC	CITY OF MORENO VALLEY	STREET
N	0.14 AC	CITY OF MORENO VALLEY	DRAINAGE ESM.



EASEMENT LIST	DISPOSITION
1. THE FOLLOWING MATTERS SHOWN OR DISCLOSED BY THE FILED OR RECORDED MAP REFERRED TO IN THE LEGAL DESCRIPTION: A STRIP OF LAND 80 FEET WIDE TRAVELING THROUGH THE CENTER OF BLOCKS 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 239, AND 240 IS RESERVED FOR RAIL ROAD PURPOSES	QUITCLAIM
2. PUBLIC UTILITIES AND INCIDENTAL PURPOSES (NON-PLOTTABLE) . BOOK 277, PAGE 343 IN FAVOR OF MORENO WATER COMPANY	QUITCLAIM
3. UTILITIES AND INCIDENTAL PURPOSES BOOK 854, PAGE 212 IN FAVOR OF SOUTHERN SIERRAS POWER COMPANY, A CORPORATION	QUITCLAIM
4. UTILITIES AND INCIDENTAL PURPOSES INSTRUMENT NO. 1988-81370 IN FAVOR OF CALIFORNIA ELECTRIC POWER COMPANY	QUITCLAIM
5. UTILITIES AND INCIDENTAL PURPOSES INSTRUMENT NO. 1988-81370 IN FAVOR OF CALIFORNIA ELECTRIC POWER COMPANY	QUITCLAIM
6. PIPELINES AND APPURTENANCES INSTRUMENT NO. 1988-11582 IN FAVOR OF EASTERN MUNICIPAL WATER DISTRICT	QUITCLAIM
7. DRAINAGE DITCH AND INCIDENTAL PURPOSES INSTRUMENT NO. 1978-15781 IN FAVOR OF COUNTY OF RIVERSIDE	QUITCLAIM

LEGEND



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TENTATIVE TRACT MAP 38442
TITLE SHEET
MAY 2022

sheet 1 of 3



FIGURE 2
Moreno Valley TTM 38442 Residential Site Plan

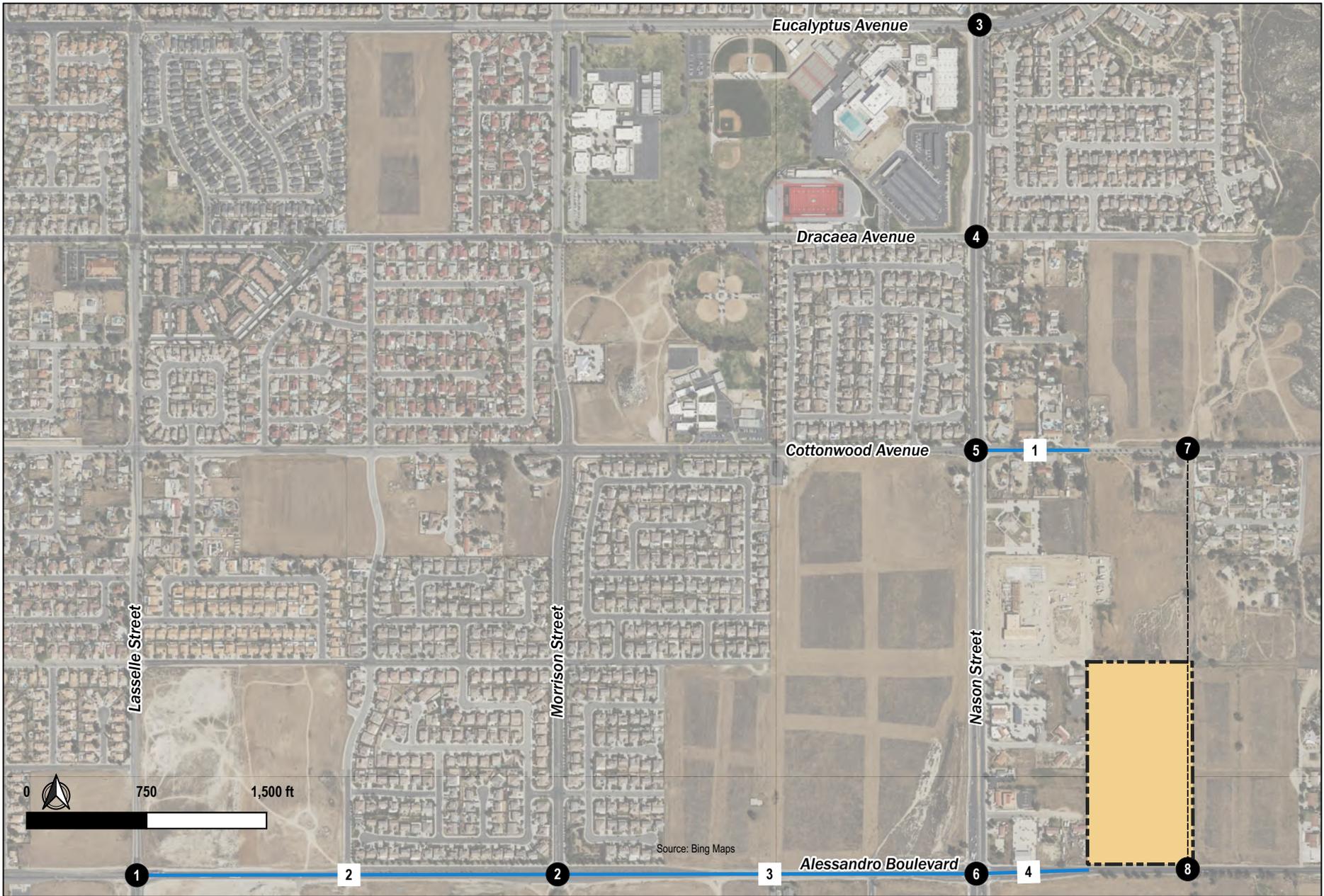


FIGURE 3
Moreno Valley TTM 38442 Residential
Study Area Intersections and Roadway Segments

3. Project Completion Year (2024) With Project Conditions.
4. General Plan Buildout (2040) Without Project Conditions. and
5. General Plan Buildout (2040) With Project Conditions.

2.0 PROJECT DESCRIPTION

The project proposes the construction of 108 single-family dwelling units. Access to the project will be provided by two full access intersections. The northern driveway will be located on Cottonwood Avenue and the southern driveway will be located on Alessandro Boulevard.

2.1 Project Trip Generation

Trip generation for the project is based on trip generation rates from the Institute of Transportation Engineers' (ITE) Trip Generation (11th Edition) and are based on Land Use 210 "Single-Family Detached Housing". Table A shows a summary of the project trip generation. As shown in Table A, the project is anticipated to generate 76 trips during the a.m. peak hour, 102 trips during the p.m. peak hour, and 1,018 daily trips.

2.2 Project Trip Distribution & Assignment

Project trip distribution patterns for the proposed project were developed based on location of local/regional destinations and in consultation with City staff. The project trip generation was applied to the trip distribution patterns for the project to develop the trip assignment for project trips. Figure 4 shows the project trip distribution and Figure 5 shows the project trip assignment.

3.0 LOS DEFINITIONS, PROCEDURES, AND THRESHOLDS

Level of service (LOS) is a measure of the quality of operational conditions within a traffic stream, and is generally expressed in terms of such measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Levels range from A to F, with LOS A representing excellent (free-flow) conditions and LOS F representing extreme congestion. Consistent with City guidelines, the Highway Capacity Manual (HCM) procedures have been used to evaluate levels of service. This section discusses the LOS definitions, procedures, and thresholds used in this report.

3.1 Intersection Levels of Service

The analysis of traffic operations at intersections was conducted according to the Highway Capacity Manual 6th Edition (HCM) delay methodologies using Synchro 11 software, which is described in the Highway Capacity Manual (Transportation Research Board, Washington, D.C., November 2016). Under the HCM methodology, LOS for signalized intersections is based on the average delay experienced by vehicles traveling through an intersection, whereas for un-signalized intersections, the LOS is based on the worst approach where the minor leg has a shared lane and on the worst movement where the minor leg has dedicated turn lanes. Table B presents a brief description of each level of service letter grade, as well as the range of delays associated with each grade.

3.2 Intersection General Plan Consistency Requirements

The City General Plan has established minimum target Levels of Services for study area intersections and roadways. LOS D is applicable to intersections that are adjacent to freeway on/off ramps, and adjacent to employment generating land uses. LOS C is applicable to all other intersections. For boundary intersections, LOS D is assumed to be acceptable. The City LOS standards are shown in Figure 6. Consistent with the acceptable LOS in the City's General Plan, the City considers the following criteria for application in a traffic study to identify infrastructure improvements required to provide acceptable operations. For signalized intersections, the City has established the following operating requirements:

Table A - Project Trip Generation

Land Use	Units	A.M. Peak Hour			P.M. Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Single-Family Residential								
Trip Generation Rates ¹		0.18	0.52	0.70	0.59	0.35	0.94	9.43
Trip Generation	108 DU	20	56	76	64	38	102	1,018
Project Trip Generation		20	56	76	64	38	102	1,018

Notes: DU = Dwelling Unit

¹ Trip generation based on rates for Land Use 210 - "Single-Family Detached Housing" from Institute of Transportation Engineers' (ITE) *Trip Generation* (11th Edition).

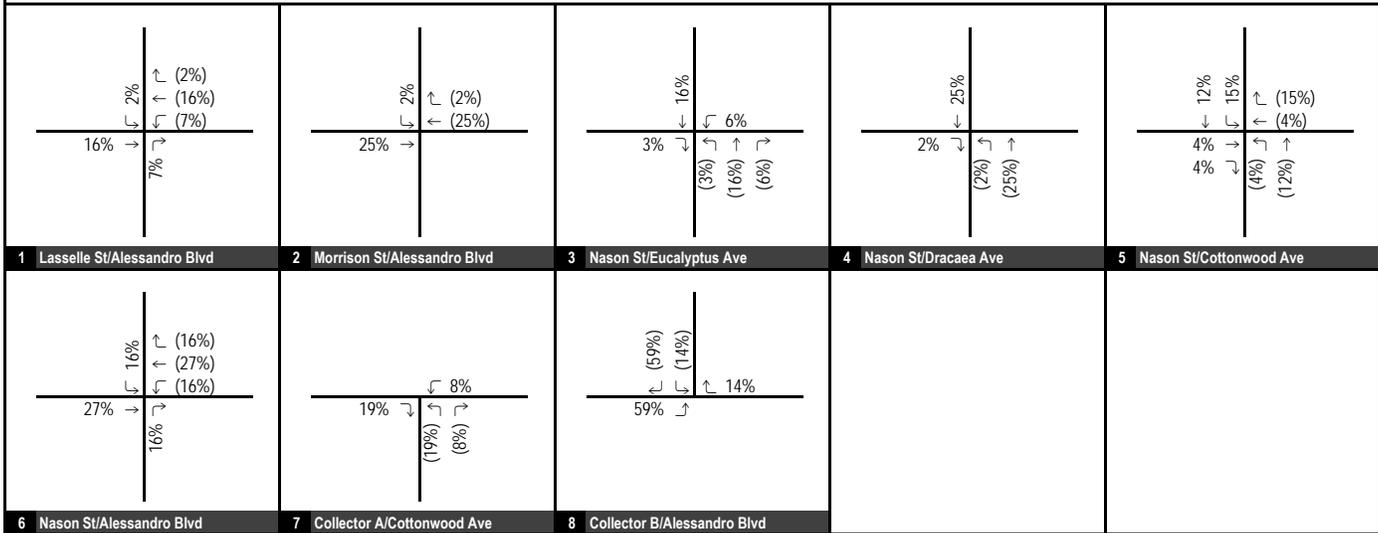
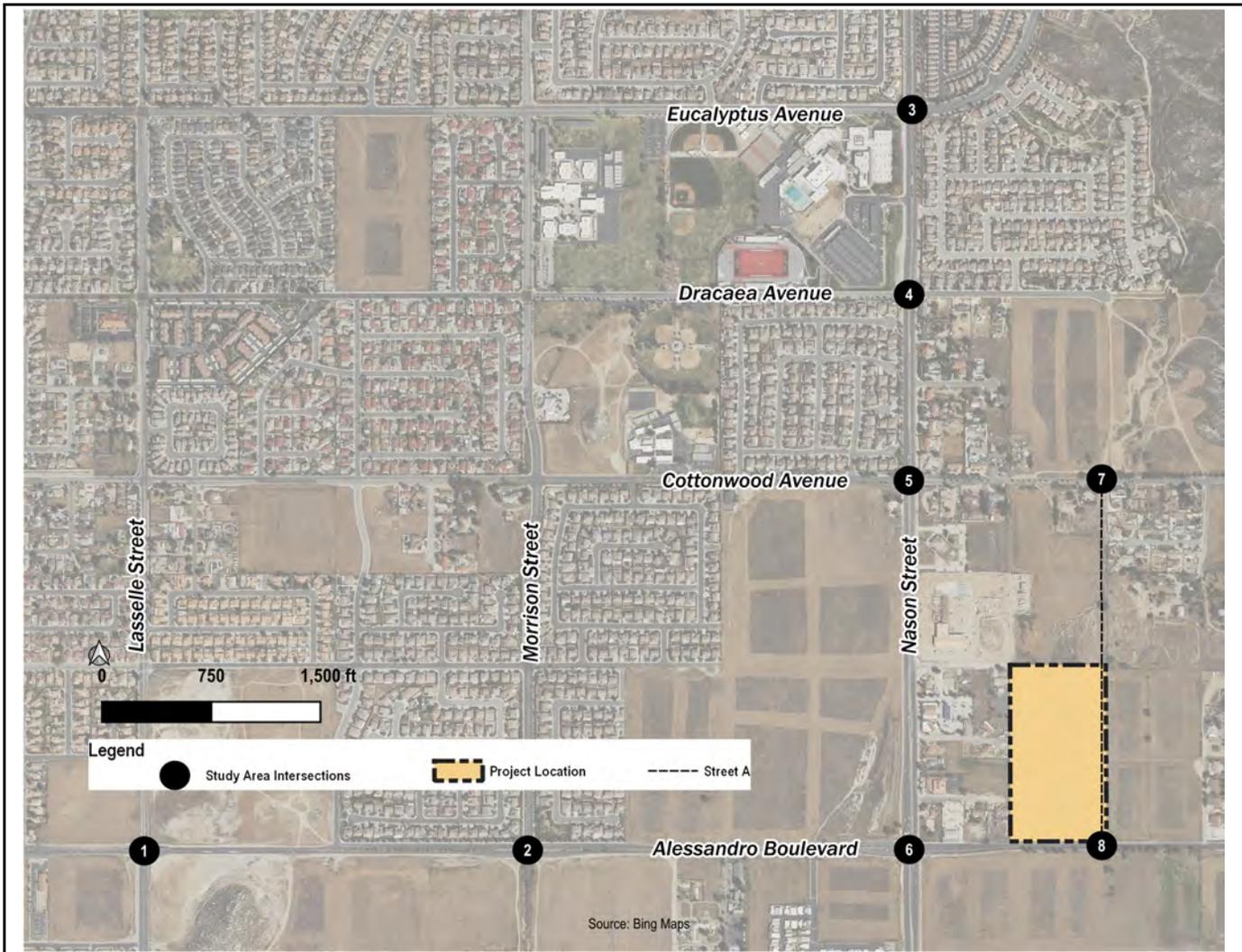


FIGURE 4

XX%(YY%) Inbound%(Outbound%) Distribution



TTM 38442
Project Trip Distribution

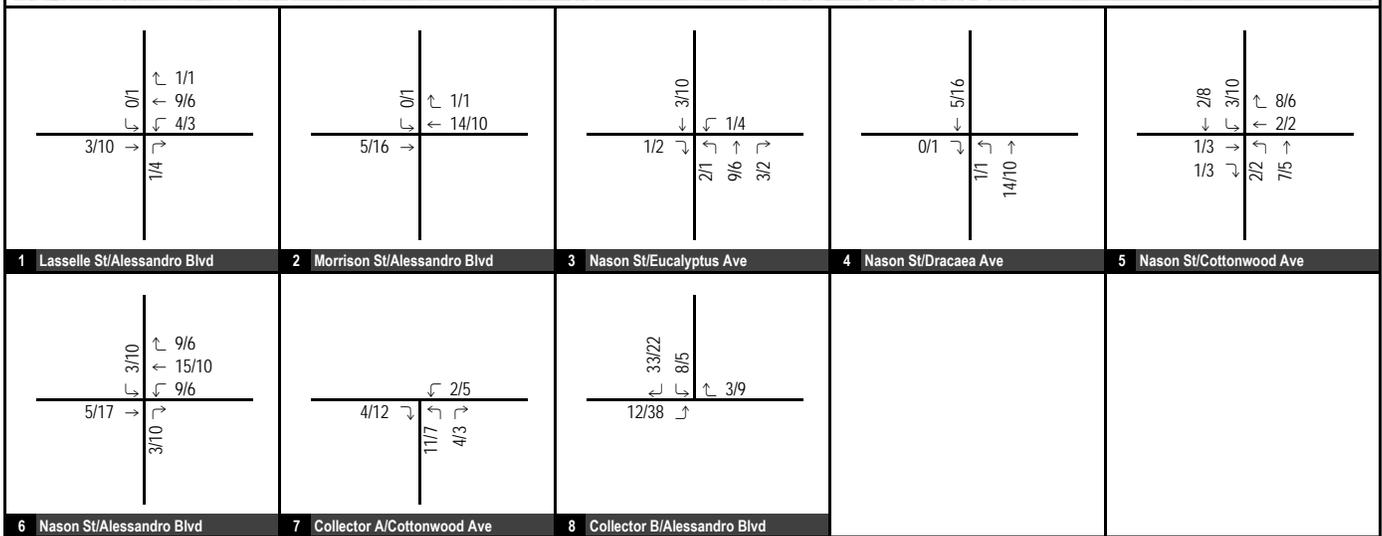
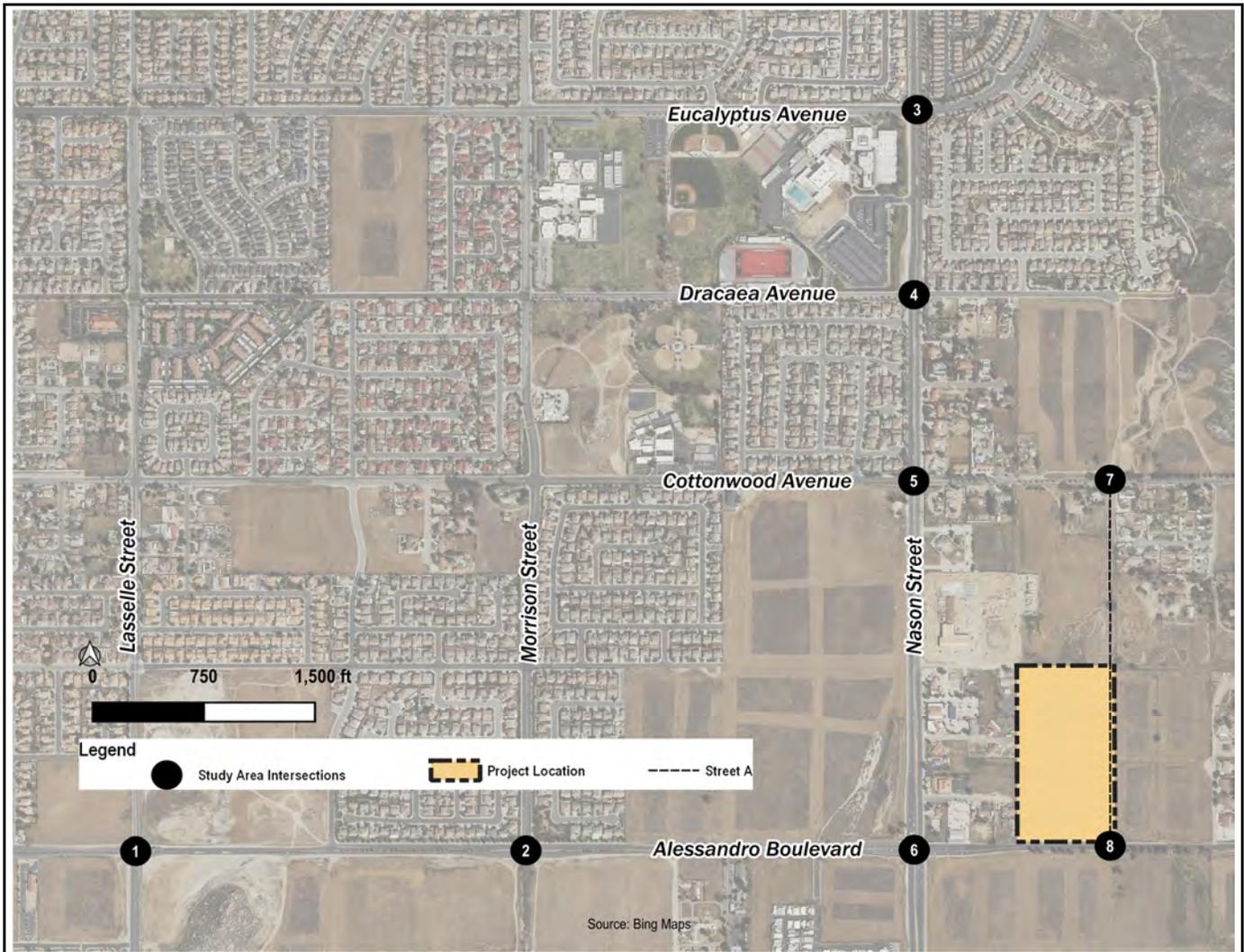


FIGURE 5

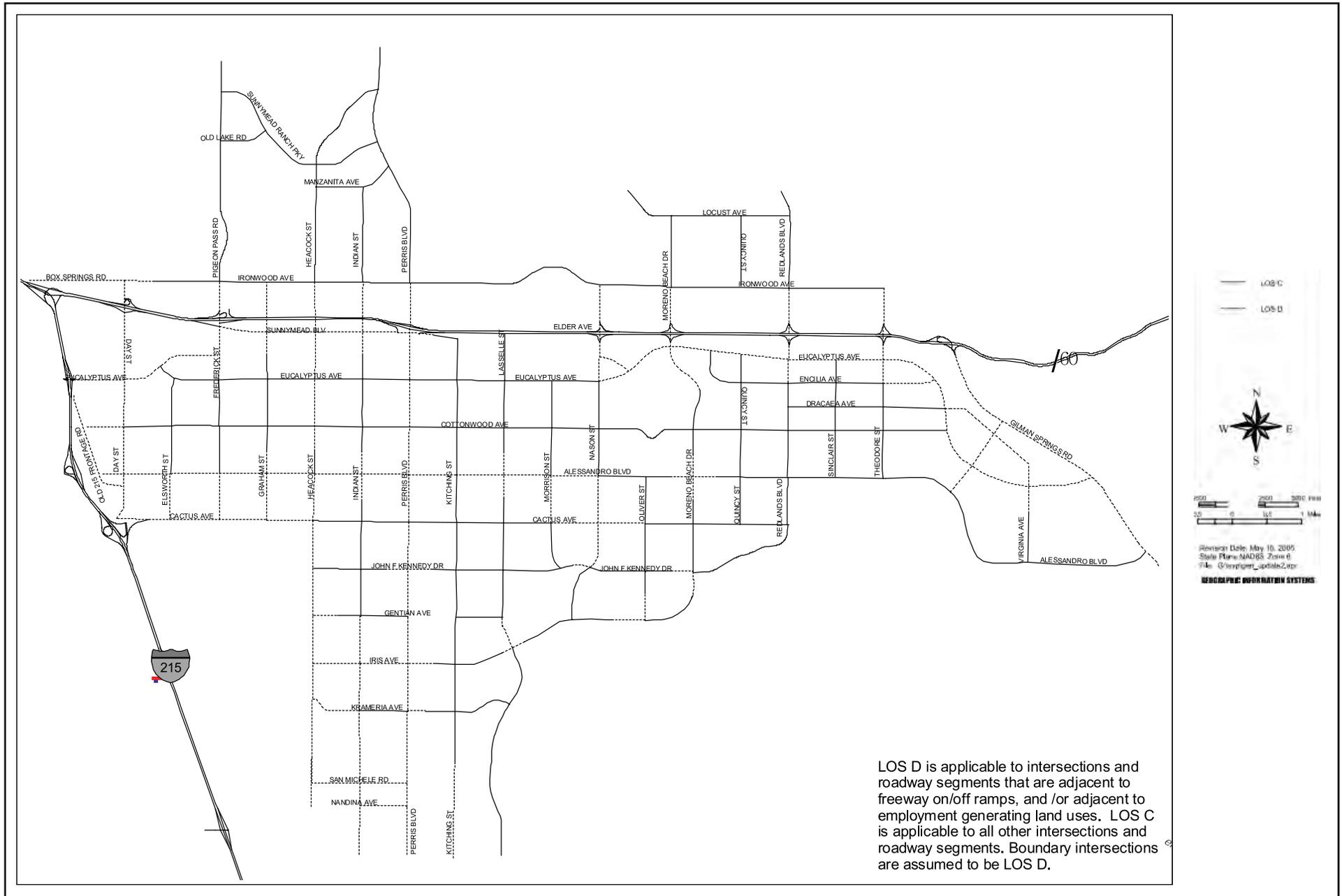
xx/yy AM/PM Peak Hour Project Trips

TTM 38442
Project Trip Assignment



Table B: Intersection Level of Service Criteria

LOS	Description of Drivers' Perception and Traffic Operation	Intersection Delay in Seconds	
		Unsignalized	Signalized
A	This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable, or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.	≤ 10	≤ 10
B	This level is assigned when the volume-to-capacity ratio is low and either progression is highly favorable, or the cycle length is short. More vehicles stop than with LOS A.	> 10 and ≤ 15	> 10 and ≤ 20
C	This level is typically assigned when progression is favorable, or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	> 15 and ≤ 25	> 20 and ≤ 35
D	This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective, or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	> 25 and ≤ 35	> 35 and ≤ 55
E	This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.	> 35 and ≤ 50	> 55 and ≤ 80
F	This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	> 50	> 80



Source: Moreno Valley General Plan

FIGURE 6

Moreno Valley TTM 38442 Residential
City LOS Standards

- Any signalized study intersection operating at acceptable LOS without project traffic in which the addition of project traffic causes the intersection to degrade to unacceptable LOS shall identify improvements to provide acceptable LOS.
- Any signalized study intersection that is operating at unacceptable LOS without project traffic where the project increases delay by 5.0 or more seconds shall identify improvements to offset the increase in delay.

For unsignalized intersections, the City has established that an operational improvement would be required if the study determines that either section a) or both sections b) and c) occur:

- a) The addition of project related traffic causes the intersection to degrade from an acceptable LOS to unacceptable LOS.
OR
- b) The project adds 5.0 seconds or more of delay to an intersection that is already projected to operate without project traffic at unacceptable LOS,
AND
- a) The intersection meets the peak hour traffic signal warrant after the addition of project traffic.

If the conditions above are satisfied, improvements should be identified that achieve the following:

- LOS D or better for case a) above or to pre-project LOS and delay for case b) above.

3.3 Roadway Segment Capacities and Levels of Service

The City evaluates roadway segments by comparing average daily traffic (ADT) volumes to street capacity. Capacity is a measure of the ability of the street system to meet and serve the demands placed on it. Based on the City General Plan, the capacity of a roadway is affected by a number of factors, including street width, roadway design, number of travel lanes, number of roadway intersections, number of driveways, presence of on-street parking, and traffic signal cycle length. The applicable maximum ADT roadway capacity values are based on the City's TIA Guidelines. Table C illustrates the City's daily roadway capacities values. It should be noted that the HCM describes generalized service volume tables as sketch-planning tools used for obtaining quick, approximate answers to highlight potential problem areas. The HCM cautions that the results from a service volume table should be treated as rough approximations and should not be used as a substitute for other tools in making a final determination of the operational adequacy of a particular roadway.

Table C: City of Moreno Valley Roadway Capacities and Levels of Service

Roadway Classification	Level of Service				
	A	B	C	D	E
Six-Lane Divided Arterial	33,900	39,400	45,000	50,600	56,300
Four-Lane Divided Arterial	22,500	26,300	30,000	33,800	37,500
Four-Lane Undivided Arterial	15,000	17,500	20,000	22,500	25,000
Two-Lane Industrial Collector	7,500	8,800	10,000	11,300	12,500
Two-Lane Undivided Residential	N/A	N/A	N/A	N/A	2,000

Source: City of Moreno Valley *Transportation Impact Analysis Preparation Guide for VMT and LOS Assessment* (June 2020).

3.4 Roadway Segment General Plan Consistency Requirements

Consistent with the City's acceptable LOS, the following roadway segment requirements should be considered and improvements recommended if the project exceeds the noted operational goals:

- Any study roadway segment operating at acceptable LOS without project traffic in which the addition of project traffic causes the segment to degrade to unacceptable LOS should identify improvements to achieve acceptable LOS.

- Any roadway segment that operates at unacceptable LOS in the no project scenario where the project adds traffic in excess of 5% of the roadway capacity (e.g. a volume-to-capacity ratio increase of 0.05) should identify improvements to add capacity to the segment.

4.0 VOLUME DEVELOPMENT METHODOLOGY

Forecast traffic volumes at study intersections were developed consistent with the City's guidelines. This section discusses the volume development methodology used to forecast future traffic volumes.

4.1 Existing Conditions Traffic Volumes

Existing traffic volumes for intersections and roadway segments are based on peak hour intersection turn movement counts and daily counts collected by Counts Unlimited in May 2022. Vehicle classification counts (e.g., passenger vehicle, 2-axle truck, 3-axle truck, and 4 or more axle truck), were conducted at all study area intersections. Consistent with City guidelines, PCE volumes at these intersections were computed using a PCE factor of 1.5 for 2-axle, 2.0 for 3-axle, and 4.0 for 4-axle trucks. Count sheets are contained in Appendix B. Detailed volume development worksheets are included in Appendix C.

4.2 Project Completion Year (2024) Without Project Traffic Volumes

Project completion year (2024) without project conditions traffic volumes for intersections and roadway segments were developed by applying an annual growth rate of 2 percent per year for 2 years (2022 to 2024) to the existing traffic volumes and adding traffic generated by cumulative projects. The cumulative projects included in the analysis are illustrated in Figure 7. Appendix C lists the cumulative projects included in the analysis. The cumulative projects are anticipated to generate 14,301 net a.m. peak hour trips, 17,460 net p.m. peak hour trips, and 186,441 net daily trips.

4.3 General Plan Buildout (2040) Without Project Traffic Volumes

General Plan Buildout (2040) without project traffic volumes were developed using the RivTAM with Moreno Valley General Plan. The base year for the traffic model is 2012 and the forecast year is 2040. The difference between the modeled 2012 and 2040 peak period directional arterial traffic volumes (for each intersection approach and departure) was identified from loaded network model plots. This difference defines the growth in traffic over the 28-year period. This incremental growth in peak period approach and departure volumes were factored to develop the incremental change in peak hour volumes. The RivTAM uses a three-hour a.m. peak period and a four-hour p.m. peak period. Southern California Association of Governments (SCAG), the regional Metropolitan Transportation Organization (MPO) has established that the a.m. peak hour comprises 38 percent of the a.m. peak period and that the p.m. peak hour comprises 28 percent of the p.m. peak period. Therefore, the incremental changes in peak period volumes were multiplied by the appropriate factor to develop incremental changes in peak hour volumes. The incremental growth in approach and departure volumes between 2012 and 2040 was factored to reflect the forecast growth between the year of the ground counts (2022) and 2040. For this purpose, linear growth between 2012 and year 2040 was assumed. Since the increment between 2022 and 2040 is 18 years of the 28-year time span, a factor of 0.68 (i.e., 18/28) was used. This forecast growth in approach and departure volumes were added to the 2022 ground counts, resulting in post-processed forecast year 2040 link volumes.

General Plan Build-Out (2040) without project turn volumes were developed using existing turn volumes and the future approach and departure volumes, based on the methodologies contained in National Cooperative Highway Research Program Report (NCHRP) 255: Highway Traffic Data for Urbanized Area Project Planning and Design (Transportation Research Board, December 1982). At some locations, forecast turning movements were forecast to be less than those under project completion year (2024) conditions. This can be attributed to network improvements, planned transit, or changes in land use. Therefore, these turning movements were adjusted by applying a growth factor of five percent to project completion year (2024) traffic volumes to account for an increase in traffic volumes at these locations from cumulative conditions to year 2040. Detailed volume development worksheets are included in Appendix C.

4.4 With Project Traffic Volumes

Traffic volumes for existing, opening year (2024), general plan build-out (2040) with project conditions were developed by adding the trip assignment to the corresponding without project peak hour traffic volumes.

5.0 EXISTING CONDITIONS

This section discusses the existing transportation conditions in the study area.

5.1 Existing Roadway Conditions

Regional access to the project site is provided by SR-60 to the north. Local access to the project will be provided by the following roadways:

- **Nason Street** is oriented in the north-south direction and is a 4-lane roadway within the project study area. The City's circulation element designates Nason Street as a "Modified Divided Major Arterial". The speed limit on Nason Street is 40 miles per hour. On-street parking is prohibited.
- **Cottonwood Avenue** is oriented in the east-west direction and is a 2-lane roadway within the project study area. The City's circulation element designates Cottonwood Avenue as a "Minor Arterial" roadway. The speed limit on Cottonwood Avenue is 40 miles per hour. On-street parking is prohibited.
- **Alessandro Boulevard** is oriented in the east-west direction and is a 2-lane roadway within the project study area. The City's circulation element designates Alessandro Boulevard as an "Arterial" roadway. The speed limit on Alessandro Boulevard is 50 miles per hour. On-street parking is prohibited.
- **Lasselle Street** is oriented in the north-south direction and is a 2-lane roadway within the project study area. The City's circulation element designates Lasselle Street as an "Arterial" roadway. The speed limit on Lasselle Street is 40 miles per hour. On-street parking is prohibited.
- **Morrison Street** is oriented in the north-south direction and is a 4-lane roadway. The City's circulation element designates Morrison Street as a "Minor Arterial" roadway. The speed limit on Morrison Street is 35 miles per hour. On-street parking is prohibited.

The City's existing system of major roadways, including freeways and arterial streets are shown in Figure 8.

5.2 Existing Transit Service

Public transportation services within the project area includes bus transit service provided by the Riverside Transit Agency (RTA). This service is further described below.

Bus Service. Public transportation within the project area is provided by RTA, which is the regional transit operator in Riverside County.

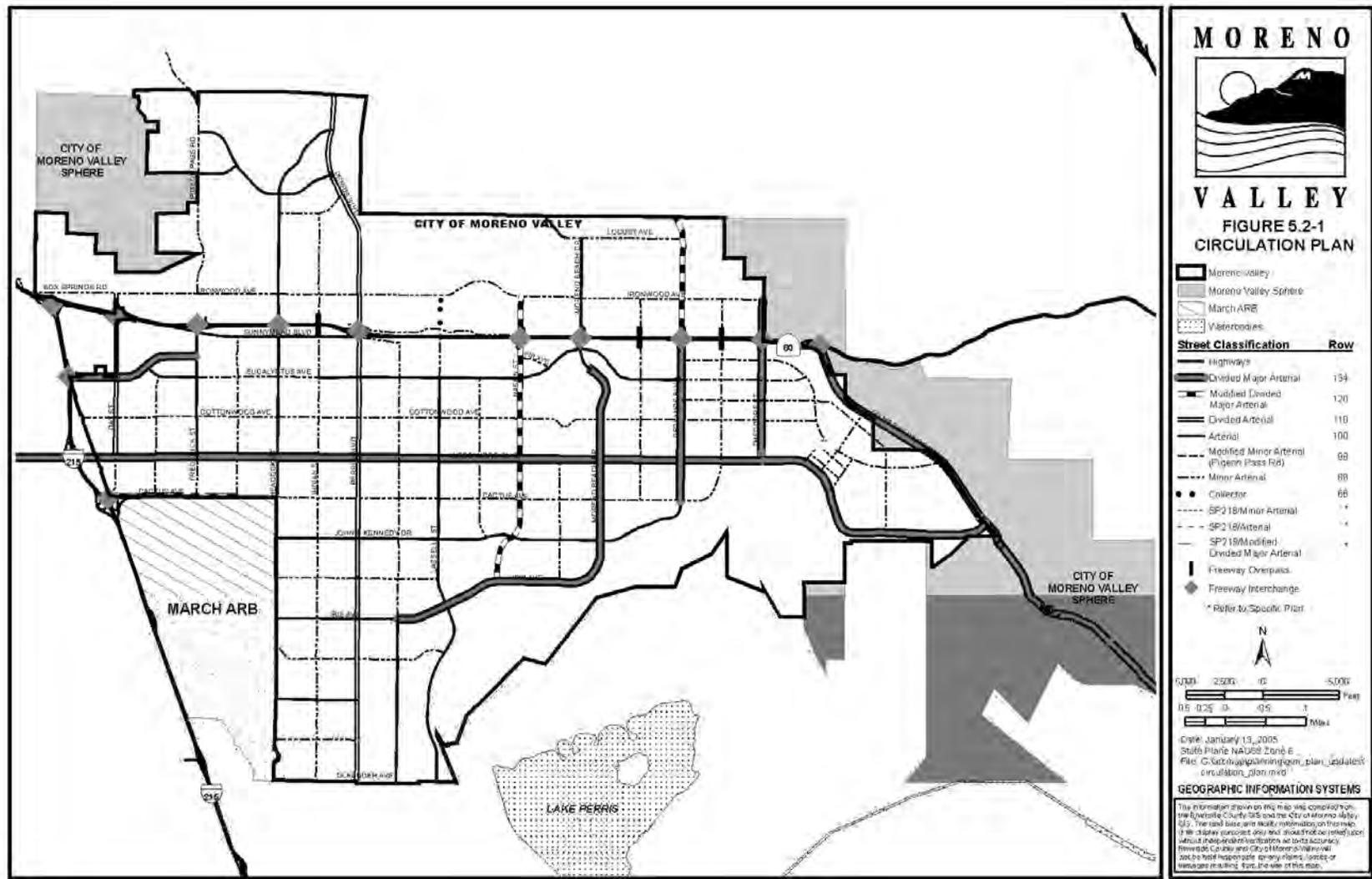
- **Route 31** provides transit service on Nason Street within the project area. Route 31 has a major stop at the Riverside University Medical Center on the northwest corner of Nason Street and Cactus Avenue. Route 31 operates at 60-90-minute headways on weekdays.

Figure 9 illustrates the existing transit services. As shown in Figure 9, the closest transit route to the project is located on Nason Street via Route 31.

5.3 Existing Pedestrian & Bicycle Facilities

The City uses three types of bike path classifications and are discussed below:

- **Class I Multi-use Paths:** Class I multi-use paths are physically separated from motor vehicle routes, with exclusive rights-of-way for non-motorized users like cyclists and pedestrians and with motor vehicle cross flows kept to a minimum.
- **Class II Bicycle Lanes:** Class II facilities provide an exclusive roadway space for cyclists, demarcated through pavement marking and signage. Bicycle lanes must be one-way facilities and carry bicycle traffic in the same direction as the adjacent motor vehicle traffic. They are typically located along the right side of the street, between the adjacent travel lane and curb, road edge or parking lane.



Moreno Valley General Plan
 Final Program EIR

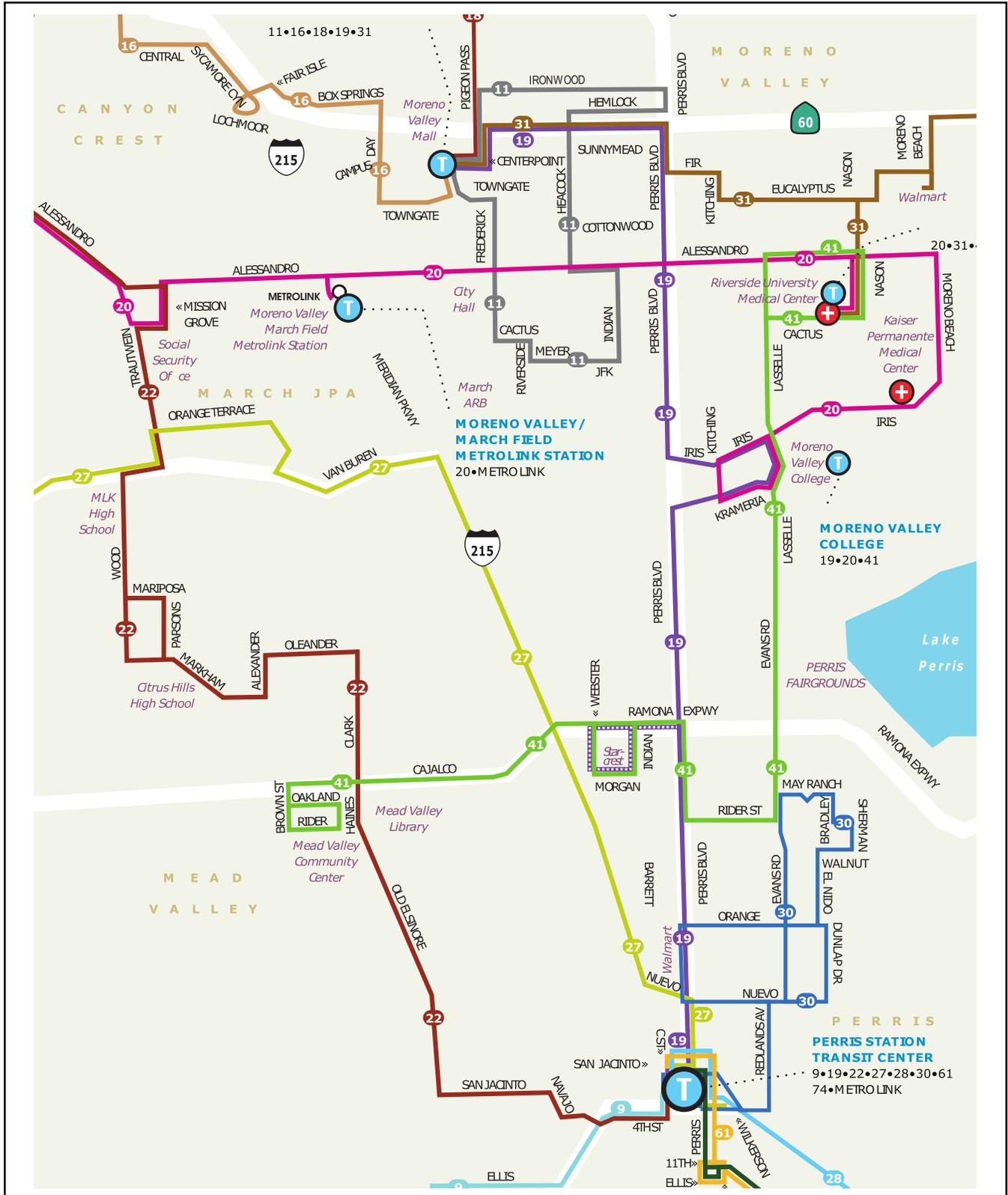
5.2-4

City of Moreno Valley
 July 2006

Source: Moreno Valley Circulation Plan

FIGURE 8

Moreno Valley TTM 38442 Residential
 City of Moreno Valley's Existing Circulation



Source: RTA

FIGURE 9



Moreno Valley TTM 38442 Residential Transit Routes

- **Class III Bicycle Routes:** Class III facilities are suggested bicycle routes marked by signs designating a preferred route between destinations. They are recommended where traffic volumes and roadway speeds are fairly low.

Figure 10 illustrates the existing bikeways within the City. As shown in Figure 10, there are existing bike lanes on Nason Street within the project area. Pedestrian circulation within the City is primarily provided via sidewalks. The existing pedestrian sidewalks adjacent to the project are illustrated in Figure 11. As illustrated in Figure 11, there are existing sidewalks on Nason street, no sidewalks on Alessandro Boulevard, and limited sidewalks on Cottonwood Avenue adjacent to the project site.

5.4 Existing Without Project Intersections Levels of Service

An intersection level of service analysis was conducted for existing without project conditions to determine current circulation system performance. Figure 12 shows the existing without project lane geometrics and stop controls at the study intersections. The existing without project traffic volumes at study intersections are illustrated in Figure 13. Detailed volume development worksheets are included in Appendix C. The existing without project levels of service for the study area intersections are summarized in Table D. Level of service calculation worksheets are contained in Appendix D. As shown in Table D, all study area intersections are currently operating at satisfactory levels of service with the exception of the following:

- Nason Street and Eucalyptus Avenue (a.m. peak hour).
- Nason Street and Dracaea Avenue (a.m. and p.m. peak hour).

5.5 Existing Without Project Roadway Segment Levels of Service

A roadway segment level of service analysis was conducted for existing without project conditions to determine current circulation system performance. The existing without project levels of service for the study area roadway segments are summarized in Table E. As shown in Table E, all study area roadway segments are currently operating at satisfactory levels of service with the exception of the following:

- Alessandro Boulevard from Lasselle Street to Morrison Street

Detailed volume development worksheets are included in Appendix C.

6.0 PROJECT COMPLETION YEAR (2024) CONDITIONS

This section discusses the project completion year (2024) transportation conditions in the study area. It is anticipated that the project will open in 2024.

6.1 Project Completion Year (2024) Roadway Conditions

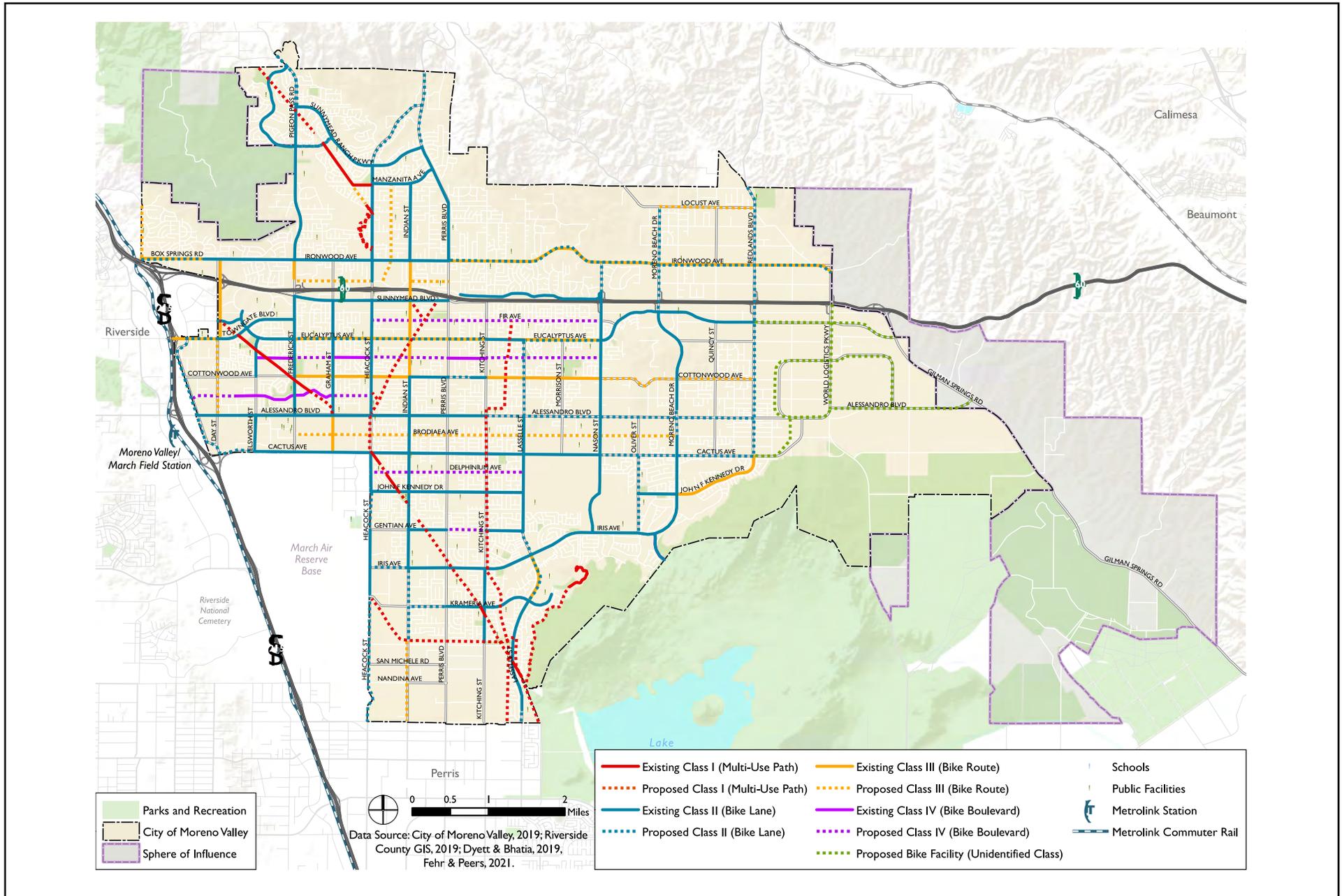
Project completion year (2024) roadway conditions are anticipated to remain the same as under existing conditions.

6.2 Project Completion Year (2024) Transit Service

Transit service under project completion year (2024) conditions is anticipated to remain the same as under existing conditions.

6.3 Project Completion Year (2024) Pedestrian & Bicycle Facilities

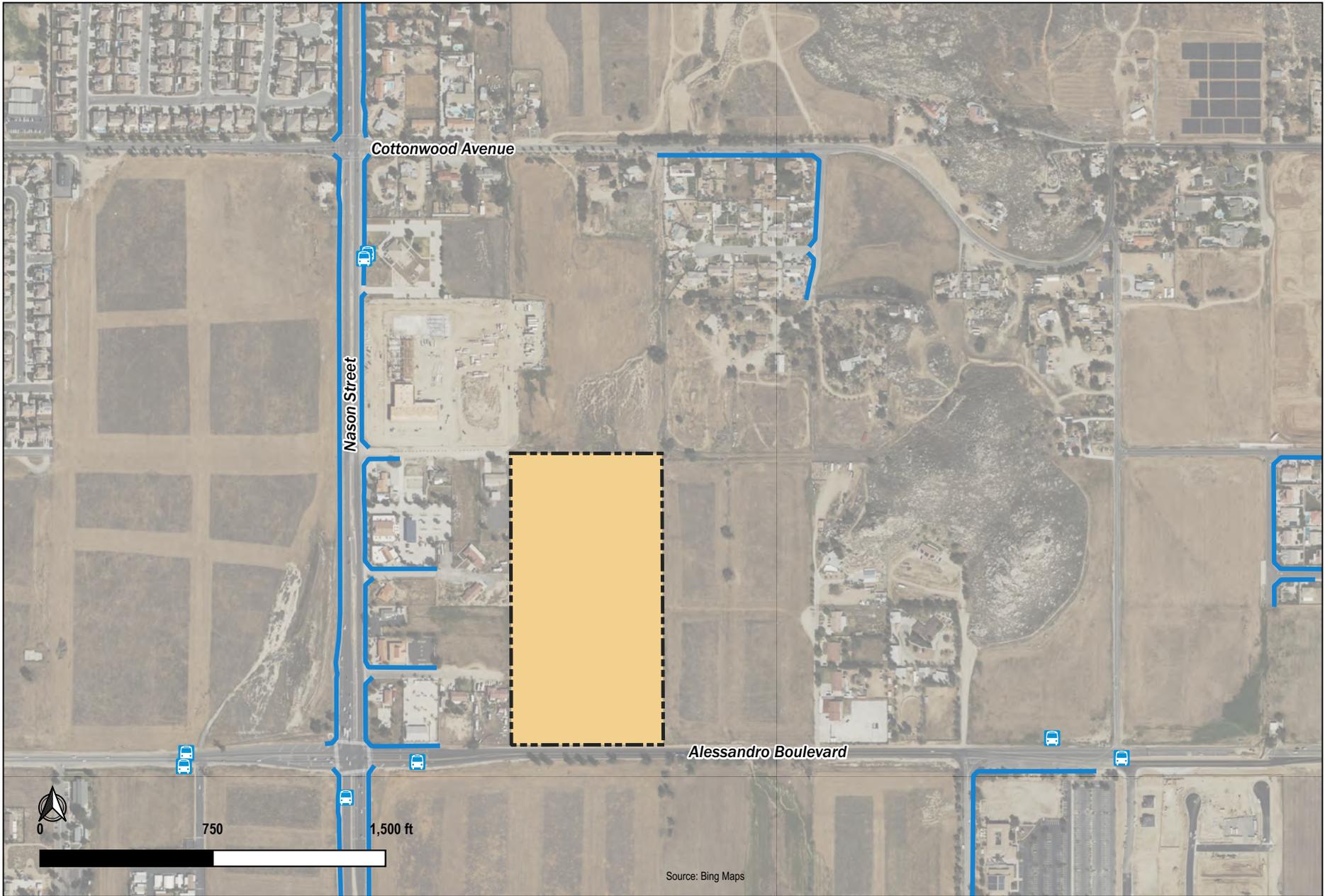
Pedestrian and bicycle facilities under project completion year (2024) conditions are anticipated to remain the same as under existing conditions, however, the City is proposing a Class II Bike Lane on Alessandro Boulevard from Kitching Street to Moreno Beach Drive. A Class III Bike Route is proposed on Cottonwood Avenue from Nason Street to Moreno Beach Drive. Figure 10 shows the City's proposed bike lanes.



Source: Moreno Valley General Plan 2040 Circulation Plan

FIGURE 10

Moreno Valley TTM 38442 Residential
 City of Moreno Valley's Existing and Planned Bicycle and Pedestrian Network



Legend
 Bus Stops
 Sidewalks
 Project Location



FIGURE 11
Moreno Valley TTM 38442 Residential
Pedestrian Facilities

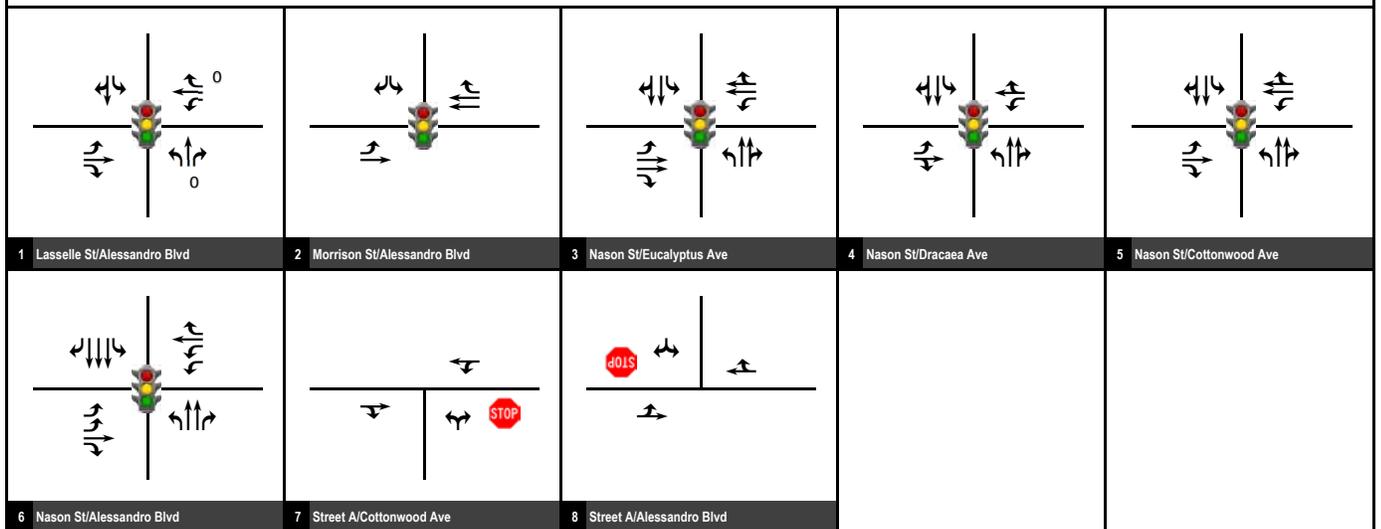
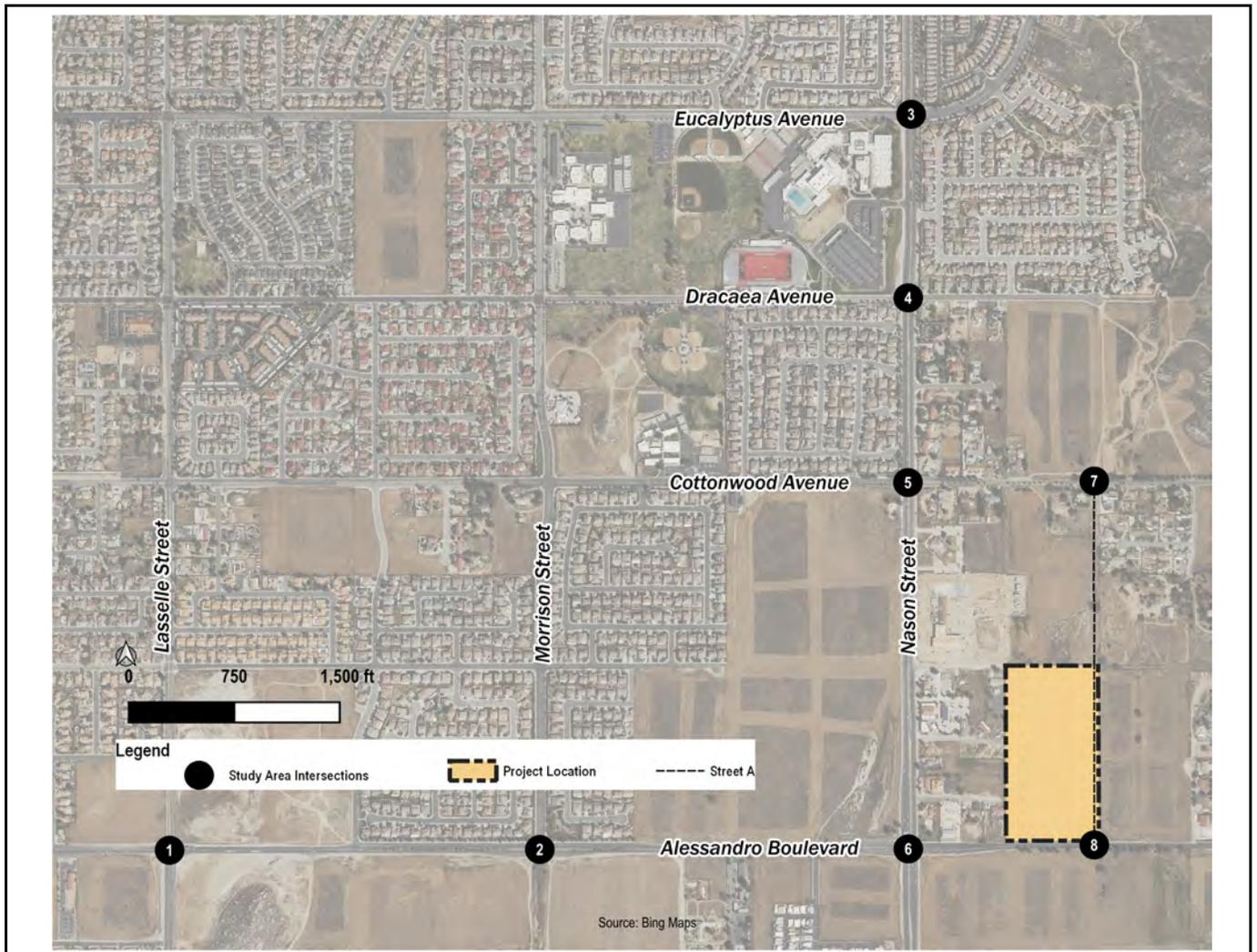


FIGURE 12

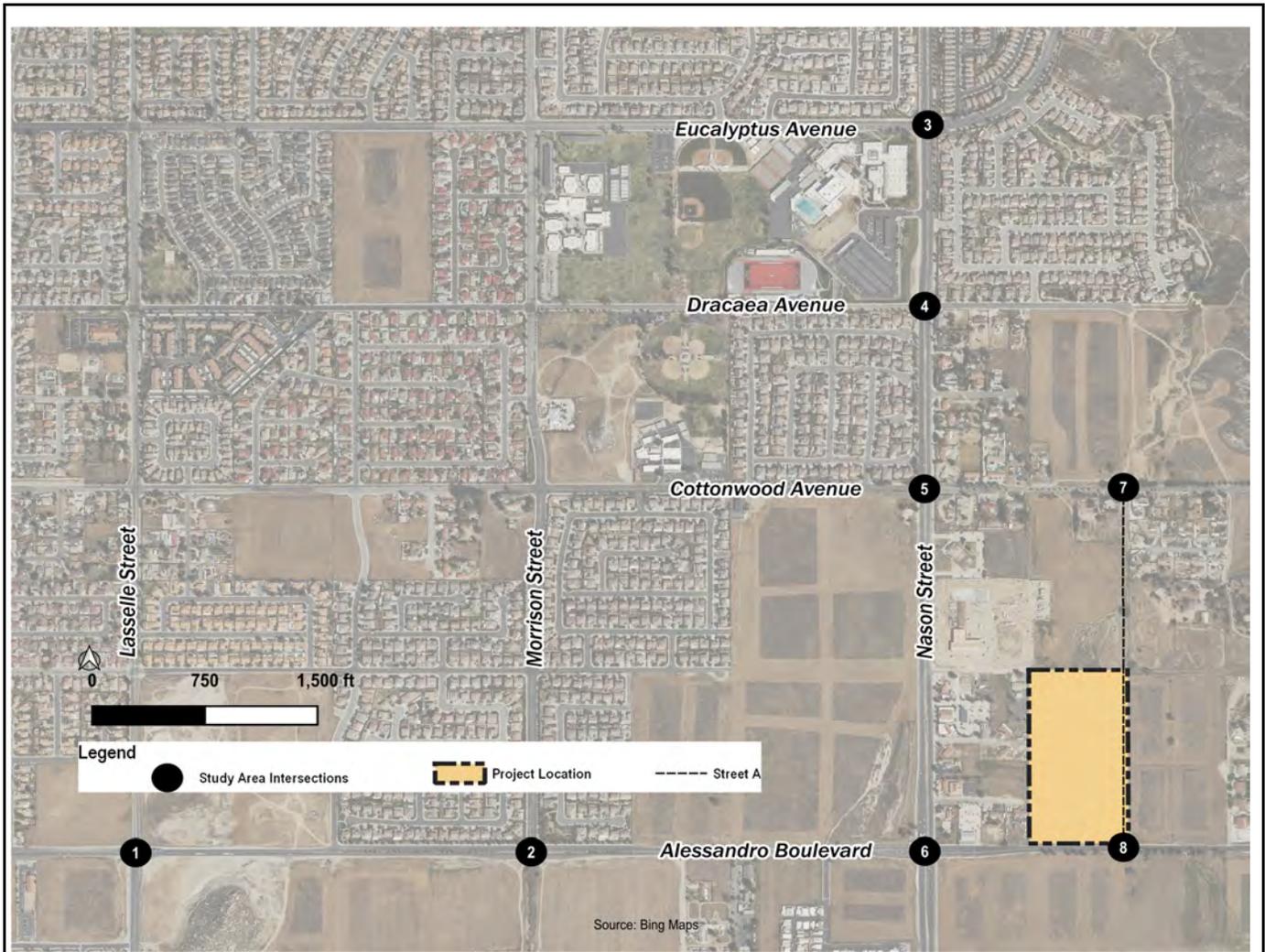
Legend



TTM 38442

Existing Without and With Project Intersection Geometrics and Stop Control





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FIGURE 13

xxx / yyy AM / PM Peak Hour Volume (In PCEs)

TTM 38442
Existing Without Project Peak Hour Traffic Volumes (PCEs)



Table D: Existing Without Project Levels of Service

Intersection	Jurisdiction	LOS Standard	Control	Without Project			
				AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1 . Lasselie St/Alessandro Blvd	Moreno Valley	D	Signal	46.3	D	37.6	D
2 . Morrison St/Alessandro Blvd	Moreno Valley	D	Signal	25.8	C	20.5	C
3 . Nason St/Eucalyptus Ave	Moreno Valley	D	Signal	>100	F *	23.6	C
4 . Nason St/Dracaea Ave	Moreno Valley	C	Signal	>100	F *	59.3	E *
5 . Nason St/Cottonwood Ave	Moreno Valley	C	Signal	25.7	C	26.8	C
6 . Nason St/Alessandro Blvd	Moreno Valley	D	Signal	33.7	C	33.2	C
7 . Street A/Cottonwood Ave	Moreno Valley	C	TWSC	<i>Future Intersection</i>			
8 . Street A/Alessandro Blvd	Moreno Valley	C	TWSC	<i>Future Intersection</i>			

Notes:

LOS = Level of Service

TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case movement.

Table E: Existing Without Project Roadway Segment Levels of Service

Roadway Segment	LOS Standard	Classification	Roadway Capacity	Without Project		
				Daily Volume	V/C	LOS
1 . Cottonwood Avenue from Nason Street to Project's Western Boundary	C	2U	12,500	1,851	0.148	A
2 . Alessandro Boulevard from Lasselle Street to Morrison Street	D	2U	12,500	11,718	0.937	E *
3 . Alessandro Boulevard from Morrison Street to Nason Street	D	2U	12,500	10,999	0.880	D
4 . Alessandro Boulevard from Nason to Project's Western Boundary	C	2U	12,500	9,574	0.766	C

Notes:

LOS = Level of Service, * = Exceeds Level of Service, 2U=2-Lane Undivided, 4D=4-Lane Divided

6.4 Project Completion Year (2024) Without Project Intersection Levels of Service

An intersection level of service analysis was conducted for project completion (2024) without project conditions to determine circulation system performance. Project completion year (2024) without project traffic volumes at study intersections are shown in Figure 14. Project completion year (2024) without project levels of service for the study area intersections are summarized in Table F. Detailed volume development worksheets are included in Appendix C. Level of service calculation worksheets are contained in Appendix D. As shown in Table F, all study area intersections are forecast to operate at satisfactory levels of service with the exception of the following:

- Lasselle Street and Alessandro Boulevard (a.m. and p.m. peak hours).
- Nason Street and Eucalyptus Avenue (a.m. and p.m. peak hours).
- Nason Street and Dracaea Avenue (a.m. and p.m. peak hours).
- Nason Street and Cottonwood Avenue (a.m. and p.m. peak hours).
- Nason Street and Alessandro Boulevard (a.m. and p.m. peak hours).
- Street A and Alessandro Boulevard (a.m. and p.m. peak hours).

6.5 Project Completion Year (2024) Without Project Roadway Segment Levels of Service

A roadway segment level of service analysis was conducted for project completion year (2024) without project conditions to determine the circulation system performance. The project completion year (2024) without project levels of service for the study area roadway segments are summarized in Table G. As shown in Table G, all study area roadway segments are forecast to operate at satisfactory levels of service with the exception of the following:

- Alessandro Boulevard from Lasselle Street to Morrison Street.
- Alessandro Boulevard from Morrison Street to Nason Street.
- Alessandro Boulevard from Nason to Project's Western Boundary.

Detailed volume development worksheets are included in Appendix C.

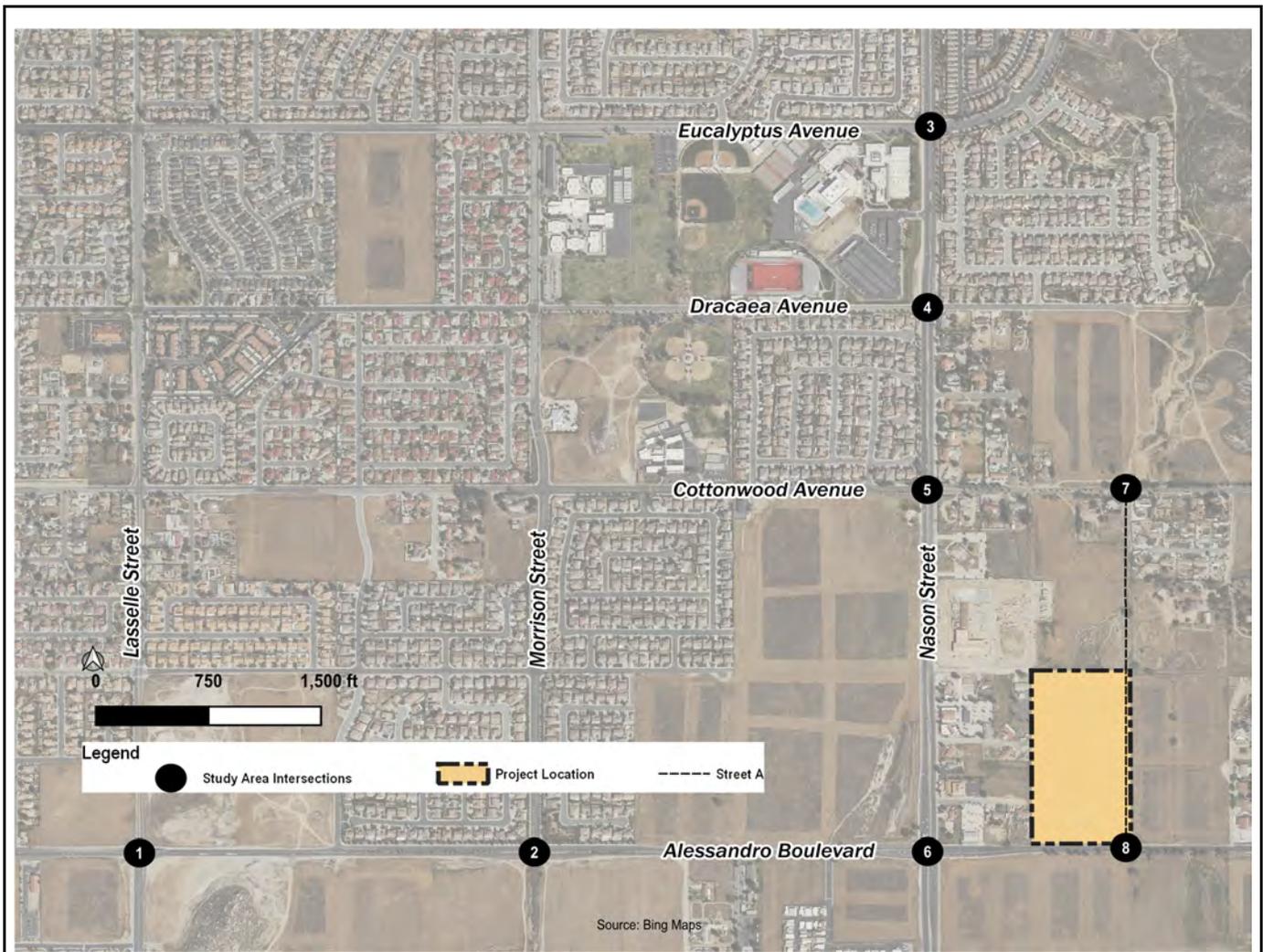
6.6 Project Completion Year (2024) With Project Intersection Levels of Service

An intersection level of service analysis was conducted for project completion year (2024) with project conditions to determine circulation system performance. Project completion year (2024) with project traffic volumes at study intersections are shown in Figure 15. The project completion year (2024) with project levels of service for the study area intersections are summarized in Table F. Detailed volume development worksheets are included in Appendix C. Level of service calculation worksheets are contained in Appendix D. As shown in Table F, all study area intersections are forecast to operate at satisfactory levels of service with the exception of the following:

- Lasselle Street and Alessandro Boulevard (a.m. and p.m. peak hours).
- Nason Street and Eucalyptus Avenue (a.m. and p.m. peak hours).
- Nason Street and Dracaea Avenue (a.m. and p.m. peak hours).
- Nason Street and Cottonwood Avenue (a.m. and p.m. peak hours).
- Nason Street and Alessandro Boulevard (a.m. and p.m. peak hours).
- Street A and Alessandro Boulevard (a.m. and p.m. peak hours).

6.7 Project Completion Year (2024) With Project Roadway Segment Levels of Service

A roadway segment level of service analysis was conducted for project completion year (2024) with project conditions to determine the circulation system performance. The project completion year (2024) with project levels of service for the study area roadway segments are summarized in Table G. As shown in Table G, all study area roadway segments



<table border="1"> <tr> <td>122/93</td> <td>401/428</td> <td>91/133</td> <td>134/108</td> </tr> <tr> <td>↙</td> <td>↘</td> <td>↗</td> <td>↖</td> </tr> <tr> <td>↖</td> <td>↗</td> <td>↘</td> <td>↙</td> </tr> <tr> <td>99/110</td> <td>214/148</td> <td>268/501</td> <td>411/437</td> </tr> <tr> <td>↙</td> <td>↘</td> <td>↗</td> <td>↖</td> </tr> <tr> <td>↖</td> <td>↗</td> <td>↘</td> <td>↙</td> </tr> <tr> <td>653/928</td> <td>193/200</td> <td>411/437</td> <td>193/200</td> </tr> <tr> <td>↙</td> <td>↘</td> <td>↗</td> <td>↖</td> </tr> <tr> <td>↖</td> <td>↗</td> <td>↘</td> <td>↙</td> </tr> <tr> <td>473/368</td> <td></td> <td></td> <td></td> </tr> </table>	122/93	401/428	91/133	134/108	↙	↘	↗	↖	↖	↗	↘	↙	99/110	214/148	268/501	411/437	↙	↘	↗	↖	↖	↗	↘	↙	653/928	193/200	411/437	193/200	↙	↘	↗	↖	↖	↗	↘	↙	473/368				<table border="1"> <tr> <td>165/85</td> <td>106/62</td> <td>87/56</td> </tr> <tr> <td>↙</td> <td>↘</td> <td>↗</td> </tr> <tr> <td>↖</td> <td>↗</td> <td>↘</td> </tr> <tr> <td>164/105</td> <td>770/939</td> <td>891/898</td> </tr> <tr> <td>↙</td> <td>↘</td> <td>↗</td> </tr> </table>	165/85	106/62	87/56	↙	↘	↗	↖	↗	↘	164/105	770/939	891/898	↙	↘	↗	<table border="1"> <tr> <td>103/69</td> <td>3094/2196</td> <td>31/61</td> <td>53/33</td> </tr> <tr> <td>↙</td> <td>↘</td> <td>↗</td> <td>↖</td> </tr> <tr> <td>↖</td> <td>↗</td> <td>↘</td> <td>↙</td> </tr> <tr> <td>263/48</td> <td>256/186</td> <td>252/77</td> <td>113/79</td> </tr> <tr> <td>↙</td> <td>↘</td> <td>↗</td> <td>↖</td> </tr> <tr> <td>↖</td> <td>↗</td> <td>↘</td> <td>↙</td> </tr> <tr> <td>1795/3188</td> <td>298/496</td> <td>113/79</td> <td>1795/3188</td> </tr> <tr> <td>↙</td> <td>↘</td> <td>↗</td> <td>↖</td> </tr> <tr> <td>↖</td> <td>↗</td> <td>↘</td> <td>↙</td> </tr> <tr> <td>393/302</td> <td></td> <td></td> <td></td> </tr> </table>	103/69	3094/2196	31/61	53/33	↙	↘	↗	↖	↖	↗	↘	↙	263/48	256/186	252/77	113/79	↙	↘	↗	↖	↖	↗	↘	↙	1795/3188	298/496	113/79	1795/3188	↙	↘	↗	↖	↖	↗	↘	↙	393/302				<table border="1"> <tr> <td>268/105</td> <td>3317/2428</td> <td>14/20</td> <td>3/3</td> </tr> <tr> <td>↙</td> <td>↘</td> <td>↗</td> <td>↖</td> </tr> <tr> <td>↖</td> <td>↗</td> <td>↘</td> <td>↙</td> </tr> <tr> <td>117/131</td> <td>15/2</td> <td>122/73</td> <td>270/48</td> </tr> <tr> <td>↙</td> <td>↘</td> <td>↗</td> <td>↖</td> </tr> <tr> <td>↖</td> <td>↗</td> <td>↘</td> <td>↙</td> </tr> <tr> <td>197/23559</td> <td>54/38</td> <td>197/23559</td> <td>54/38</td> </tr> <tr> <td>↙</td> <td>↘</td> <td>↗</td> <td>↖</td> </tr> <tr> <td>↖</td> <td>↗</td> <td>↘</td> <td>↙</td> </tr> <tr> <td>23/33</td> <td></td> <td></td> <td></td> </tr> </table>	268/105	3317/2428	14/20	3/3	↙	↘	↗	↖	↖	↗	↘	↙	117/131	15/2	122/73	270/48	↙	↘	↗	↖	↖	↗	↘	↙	197/23559	54/38	197/23559	54/38	↙	↘	↗	↖	↖	↗	↘	↙	23/33				<table border="1"> <tr> <td>254/313</td> <td>3199/2171</td> <td>45/49</td> <td>84/40</td> </tr> <tr> <td>↙</td> <td>↘</td> <td>↗</td> <td>↖</td> </tr> <tr> <td>↖</td> <td>↗</td> <td>↘</td> <td>↙</td> </tr> <tr> <td>350/302</td> <td>100/109</td> <td>148/98</td> <td>260/121</td> </tr> <tr> <td>↙</td> <td>↘</td> <td>↗</td> <td>↖</td> </tr> <tr> <td>↖</td> <td>↗</td> <td>↘</td> <td>↙</td> </tr> <tr> <td>186/13313</td> <td>71/51</td> <td>186/13313</td> <td>71/51</td> </tr> <tr> <td>↙</td> <td>↘</td> <td>↗</td> <td>↖</td> </tr> <tr> <td>↖</td> <td>↗</td> <td>↘</td> <td>↙</td> </tr> <tr> <td>99/39</td> <td></td> <td></td> <td></td> </tr> </table>	254/313	3199/2171	45/49	84/40	↙	↘	↗	↖	↖	↗	↘	↙	350/302	100/109	148/98	260/121	↙	↘	↗	↖	↖	↗	↘	↙	186/13313	71/51	186/13313	71/51	↙	↘	↗	↖	↖	↗	↘	↙	99/39			
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FIGURE 14

xxx / yyy AM / PM Peak Hour Volume (In PCEs)

TTM 38442

Project Completion Year (2024) Without Project Peak Hour Traffic Volumes (PCEs)



Table F: Project Completion Year (2024) Without and With Project Levels of Service

Intersection	Jurisdiction	LOS Standard	Control	Without Project				With Project				Change in Delay	
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour	PM Peak Hour
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS		
1 . Lasselie St/Alessandro Blvd	Moreno Valley	D	Signal	>100	F *	>100	F *	>100	F *	>100	F *	0.7	0
2 . Morrison St/Alessandro Blvd	Moreno Valley	D	Signal	31.8	C	28.9	C	32.2	C	29.6	C	0.4	0.7
3 . Nason St/Eucalyptus Ave	Moreno Valley	D	Signal	>100	F *	>100	F *	>100	F *	>100	F *	0.8	1.7
4 . Nason St/Dracaea Ave	Moreno Valley	C	Signal	>100	F *	>100	F *	>100	F *	>100	F *	0.5	-0.1
5 . Nason St/Cottonwood Ave	Moreno Valley	C	Signal	>100	F *	>100	F *	>100	F *	>100	F *	1.9	1.9
6 . Nason St/Alessandro Blvd	Moreno Valley	D	Signal	>100	F *	>100	F *	>100	F *	>100	F *	1.8	3.3
7 . Street A/Cottonwood Ave	Moreno Valley	C	TWSC	12.4	B	10.8	B	12.6	B	11.0	B	0.2	0.2
8 . Street A/Alessandro Blvd	Moreno Valley	C	TWSC	84.3	F *	84.3	F *	>100	F *	>100	F *	65	96.4

Notes:

LOS = Level of Service

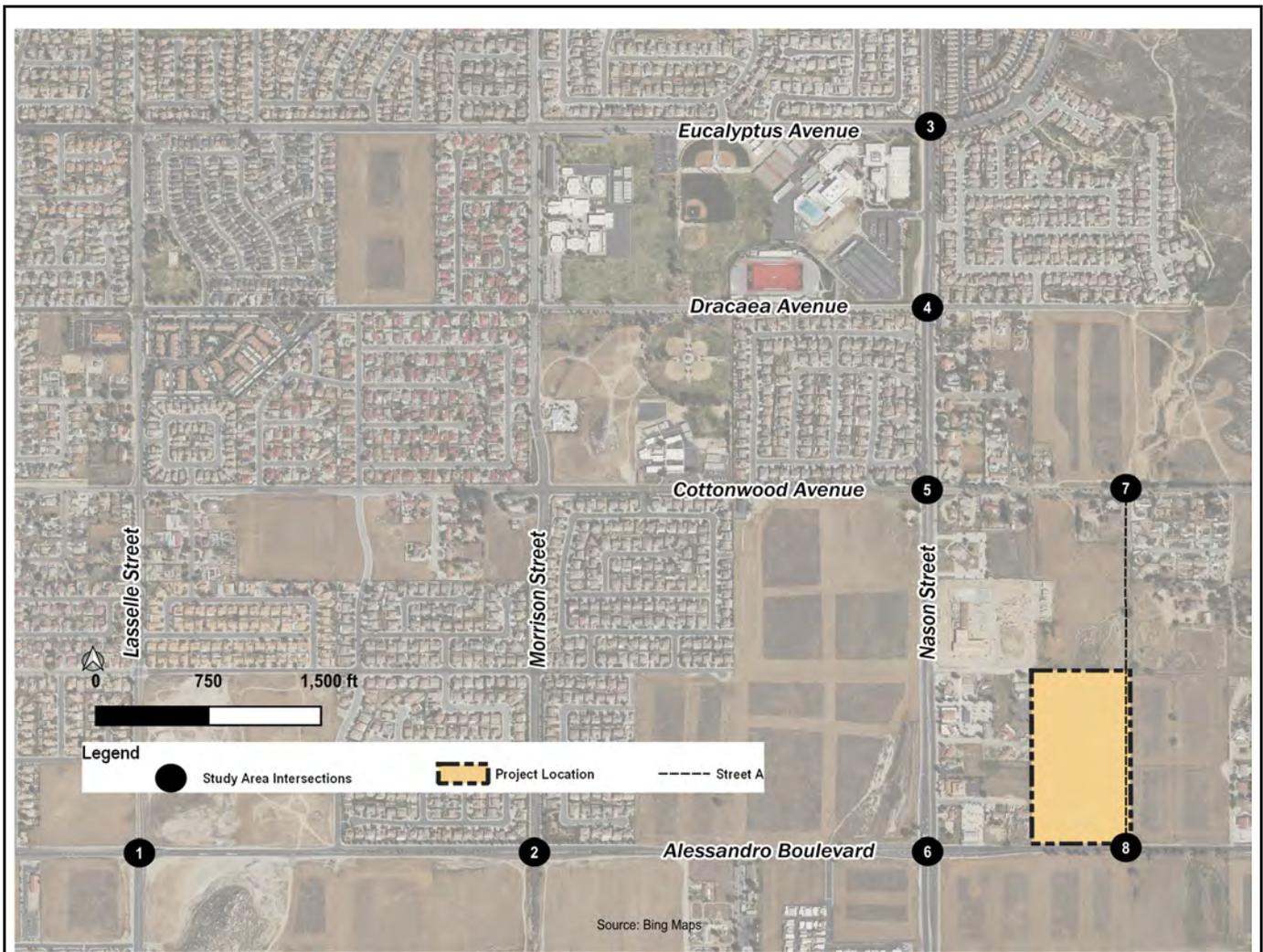
TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case movement.

Table G: Project Completion Year (2024) Without and With Project Roadway Segment Levels of Service

Roadway Segment	LOS Standard	Classification	Roadway Capacity	Without Project			With Project			V/C Delta
				Daily Volume	V/C	LOS	Daily Volume	LOS	V/C	
1 . Cottonwood Avenue from Nason Street to Project's Western Boundary	C	2U	12,500	4,874	0.390	A	5,066	A	0.405	0.015
2 . Alessandro Boulevard from Lasselle Street to Morrison Street	D	2U	12,500	25,835	2.067	F *	26,089	F *	2.087	0.020
3 . Alessandro Boulevard from Morrison Street to Nason Street	D	2U	12,500	22,373	1.790	F *	22,647	F *	1.812	0.022
4 . Alessandro Boulevard from Nason to Project's Western Boundary	C	2U	12,500	23,948	1.916	F *	24,546	F *	1.964	0.048

Notes:

LOS = Level of Service, * = Exceeds Level of Service, 2U=2-Lane Undivided, 4D=4-Lane Divided



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6 Nason St/Alessandro Blvd	7 Collector A/Cottonwood Ave	8 Collector B/Alessandro Blvd																																																																																																																										

FIGURE 15

xxx / yyy AM / PM Peak Hour Volume (In PCEs)

TTM 38442

Project Completion Year (2024) With Project Peak Hour Traffic Volumes (PCEs)



are forecast to operate at satisfactory levels of service with the exception of the following:

- Alessandro Boulevard from Lasselle Street to Morrison Street.
- Alessandro Boulevard from Morrison Street to Nason Street.
- Alessandro Boulevard from Nason to Project's Western Boundary.

Detailed volume development worksheets are included in Appendix C.

7.0 GENERAL PLAN BUILDOUT (2040) CONDITIONS

This section discusses the general plan buildout transportation conditions in the study area.

7.1 General Plan Buildout (2040) Roadway Conditions

The City guidelines include development projects that include a general plan amendment, specific plan, zone change, or other approval that increases traffic beyond what was approved in the General Plan will also be required to perform a General Plan Buildout analysis to assess long term impacts. This analysis determines if the circulation element of the General Plan is adequate to accommodate projected traffic at the required LOS, or if additional mitigation is necessary. The City's proposed General Plan Buildout (2040) circulation is shown in Figure 16. Also, the City's roadway cross-sections are shown in Figure 17. The intersection geometrics used in the General Plan Buildout (2040) analysis are shown in Figure 18.

7.2 General Plan Buildout (2040) Transit Service

Transit service under general plan buildout (2040) conditions is anticipated to remain the same as under project completion year (2024) conditions.

7.3 General Plan Buildout (2040) Pedestrian & Bicycle Facilities

Pedestrian and bicycle facilities under general plan buildout (2040) conditions are anticipated to remain the same as under project completion year (2024) conditions.

7.4 General Plan Buildout (2040) Without Project Intersection Levels of Service

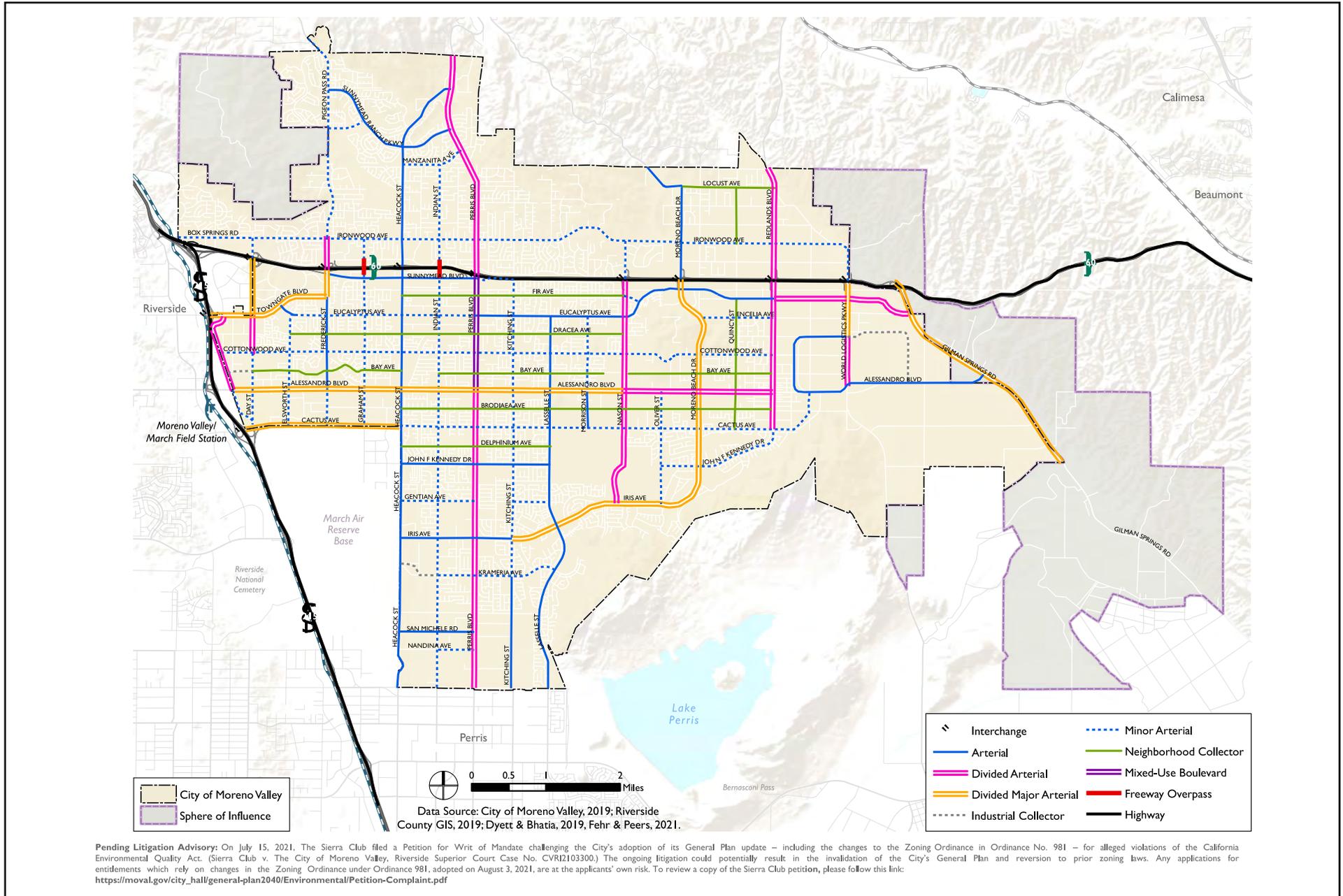
An intersection level of service analysis was conducted for general plan buildout (2040) without project conditions to determine circulation system performance. General plan buildout (2040) without project traffic volumes at study intersections are shown in Figure 19. General plan buildout (2040) without project levels of service for the study area intersections are summarized in Table H. Detailed volume development worksheets are included in Appendix C. Level of service calculation worksheets are contained in Appendix D. As shown in Table H, all study area intersections are forecast to operate at satisfactory levels of service with the exception of the following:

- Lasselle Street and Alessandro Boulevard (p.m. peak hour).
- Nason Street and Eucalyptus Avenue (a.m. and p.m. peak hours).
- Nason Street and Dracaea Avenue (a.m. peak hour).
- Nason Street and Cottonwood Avenue (a.m. and p.m. peak hours).
- Nason Street and Alessandro Boulevard (a.m. and p.m. peak hours).
- Street A and Alessandro Boulevard (a.m. peak hour).

7.5 General Plan Buildout (2040) Without Project Roadway Segment Levels of Service

A roadway segment level of service analysis was conducted for general plan buildout (2040) without project conditions to determine the circulation system performance. The general plan buildout (2040) without project levels of service for the study area roadway segments are summarized in Table I. As shown in Table I, all study area roadway segments are forecast to operate at satisfactory levels of service.

Detailed volume development worksheets are included in Appendix C.



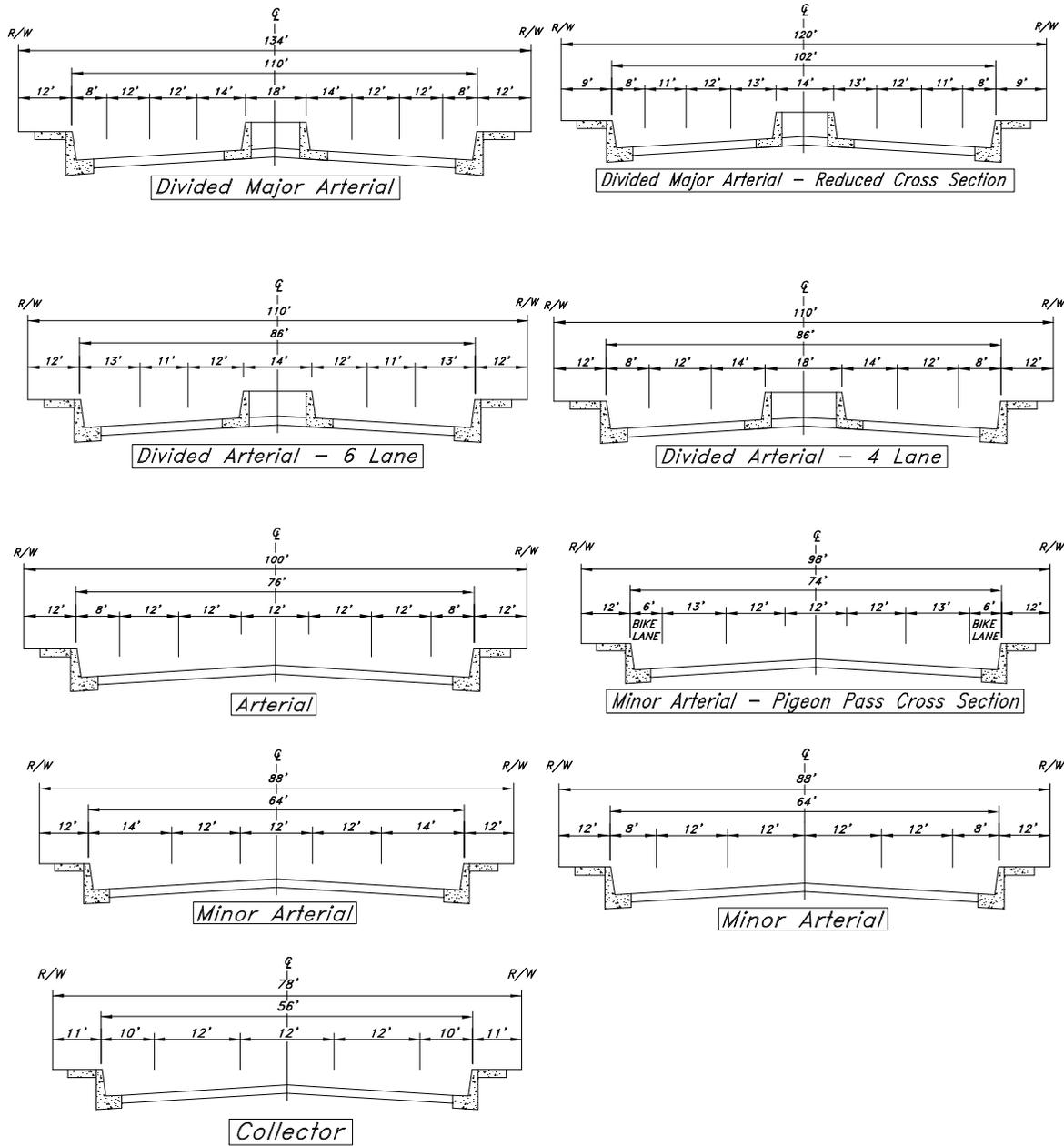
Source: Moreno Valley Circulation Plan

FIGURE 16

Moreno Valley TTM 38442 Residential
City of Moreno Valley's General Plan Buildout (2040) Proposed Circulation

PROPOSED CITY OF MORENO VALLEY Figure 5.2-2

GENERAL PLAN ROADWAY CROSS-SECTIONS



NOT TO SCALE

Source: City of Moreno Valley General Plan

FIGURE 17

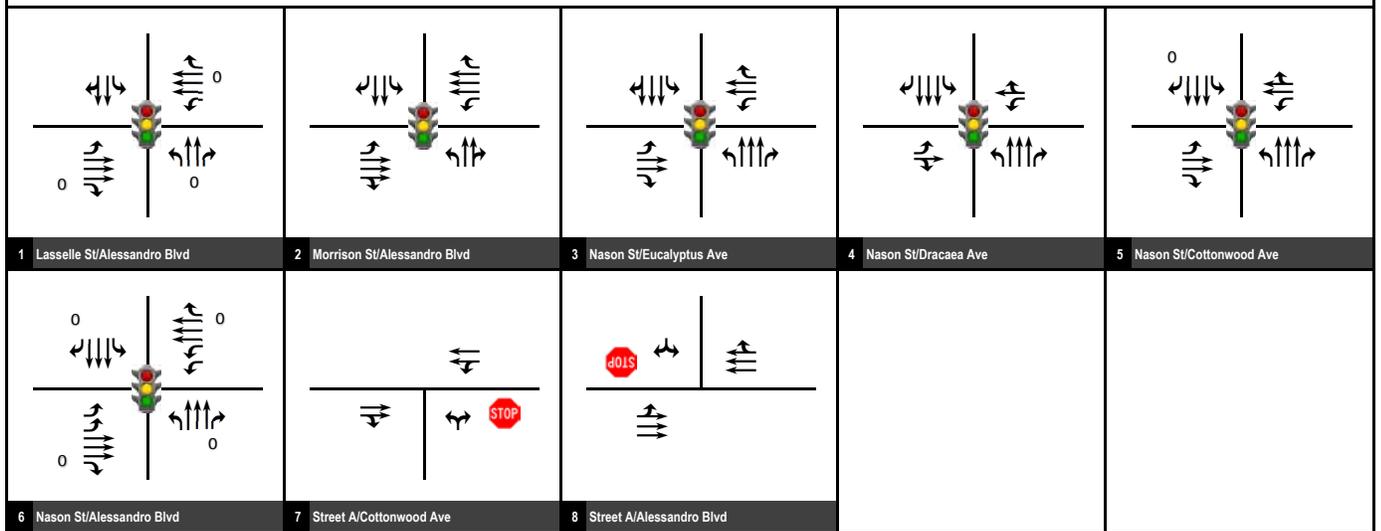
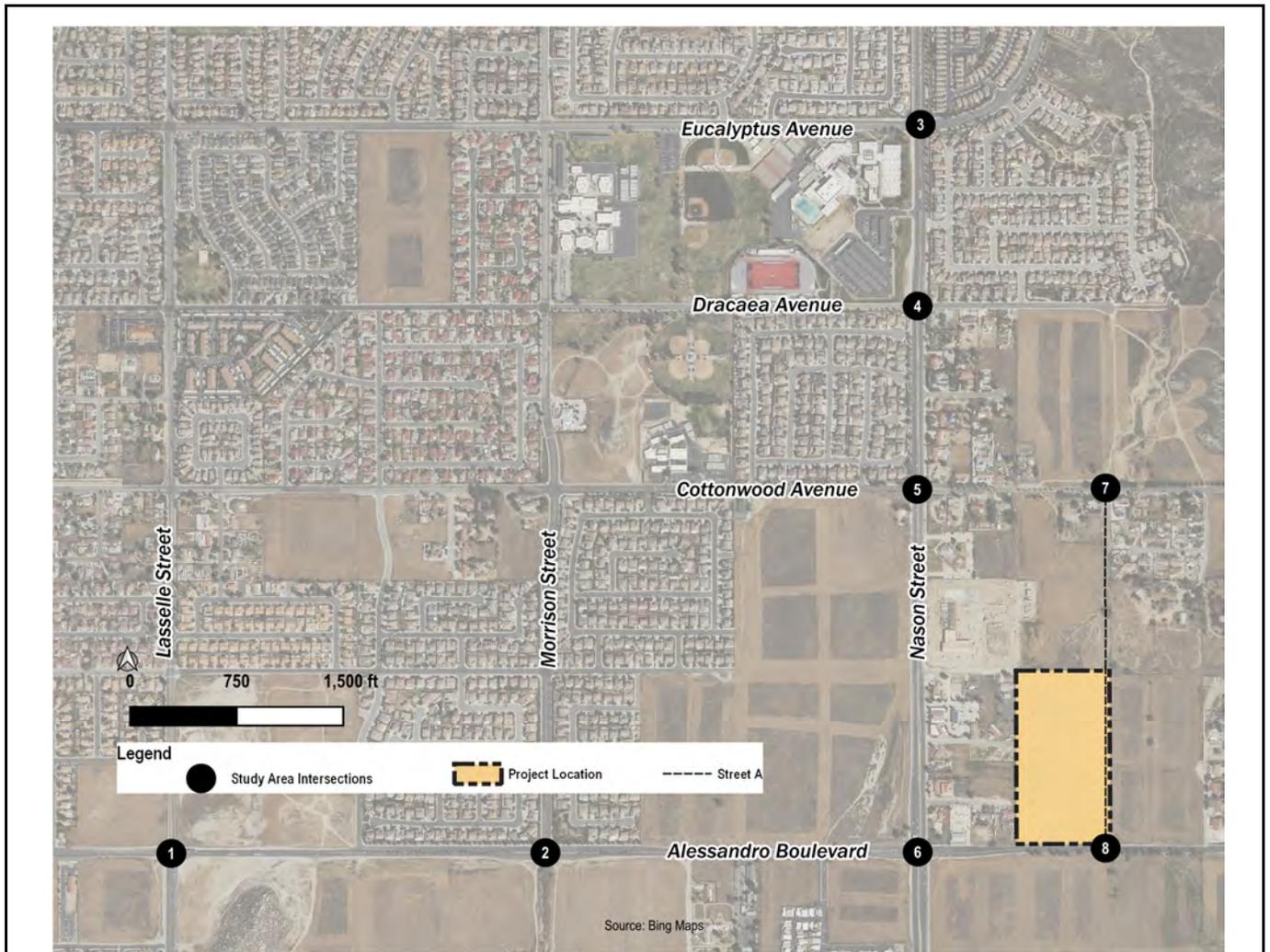


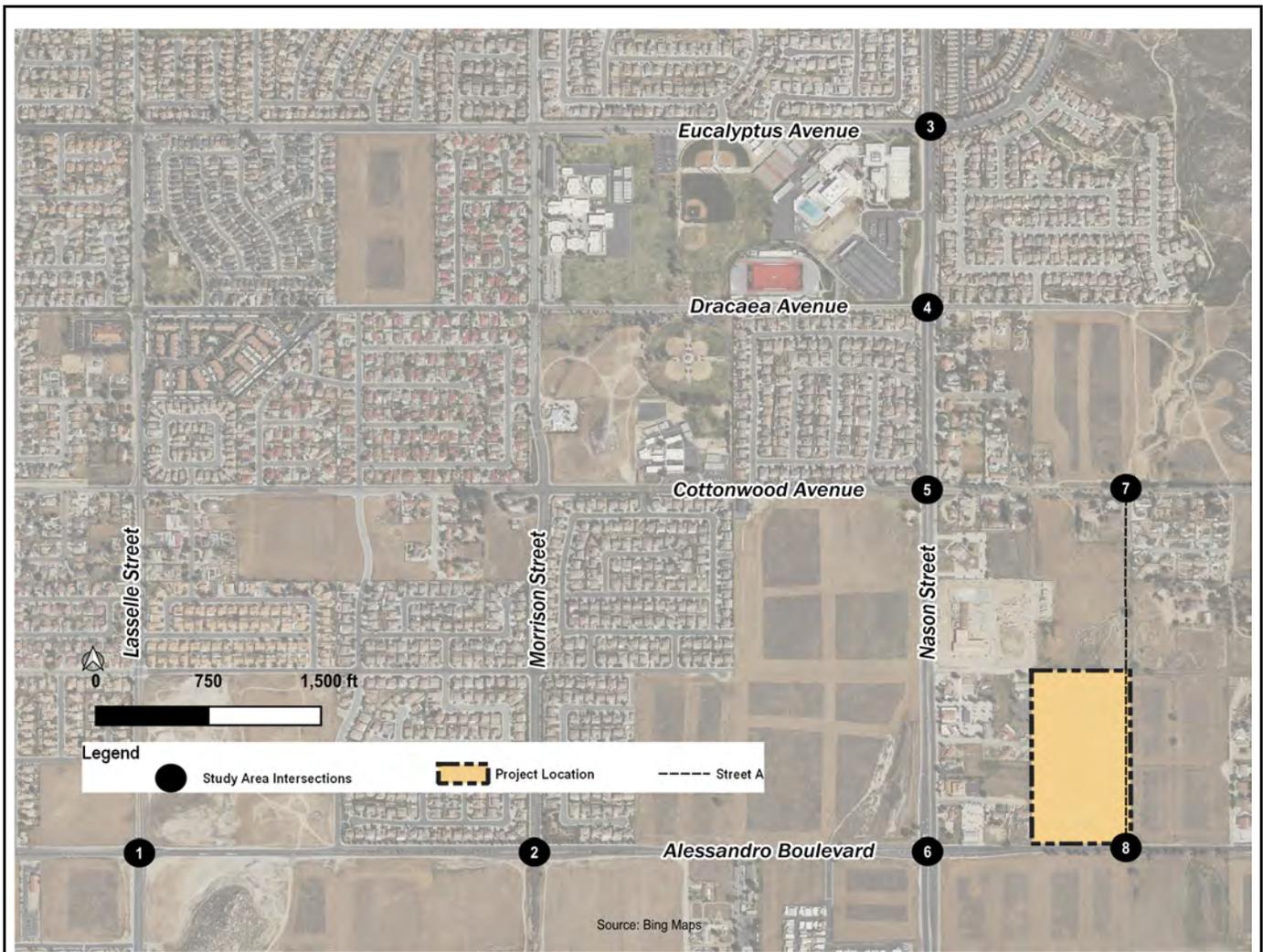
FIGURE 18

Legend

- Signal
- Stop Sign
- overlap

TTM 38442
 General Plan Buildout (2040) Intersection Geometrics and Stop Control





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FIGURE 19

xxx / yyy AM / PM Peak Hour Volume (In PCEs)

TTM 38442

General Plan Build-Out (2040) Without Project Peak Hour Traffic Volumes (PCEs)



Table H: General Plan Buildout (2040) Without and With Project Levels of Service

Intersection	Jurisdiction	LOS Standard	Control	Without Project				With Project				Change in Delay	
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour	PM Peak Hour
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS		
1 . Lasselie St/Alessandro Blvd	Moreno Valley	D	Signal	41.1	D	67.1	E *	42.2	D	67.1	E *	1.1	0
2 . Morrison St/Alessandro Blvd	Moreno Valley	D	Signal	37.7	D	36.4	D	37.6	D	36.4	D	-0.1	0
3 . Nason St/Eucalyptus Ave	Moreno Valley	D	Signal	>100	F *	85.8	F *	>100	F *	86.8	F *	0.1	1
4 . Nason St/Dracaea Ave	Moreno Valley	C	Signal	69.4	E *	27.2	C	70	E *	27.9	C	0.6	0.7
5 . Nason St/Cottonwood Ave	Moreno Valley	C	Signal	96.1	F *	53.8	D *	96.4	F *	53.5	D *	0.3	-0.3
6 . Nason St/Alessandro Blvd	Moreno Valley	D	Signal	>100	F *	65.2	E *	>100	F *	67.2	E *	0.9	2
7 . Street A/Cottonwood Ave	Moreno Valley	C	TWSC	11.5	B	10.5	B	11.6	B	10.7	B	0.1	0.2
8 . Street A/Alessandro Blvd	Moreno Valley	C	TWSC	32	D *	27.3	D *	39.5	E *	>100	F *	7.5	172.6

Notes:

LOS = Level of Service

TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case movement.

Table I: General Plan Buildout (2040) Without and With Project Roadway Segment Levels of Service

Roadway Segment	LOS Standard	Classification	Roadway Capacity	Without Project			With Project			V/C Delta
				Daily Volume	V/C	LOS	Daily Volume	LOS	V/C	
1 . Cottonwood Avenue from Nason Street to Project's Western Boundary	C	4U	25,000	5,117	0.205	A	5,309	A	0.212	0.008
2 . Alessandro Boulevard from Lasselle Street to Morrison Street	D	6D	56,300	27,126	0.482	A	27,380	A	0.486	0.005
3 . Alessandro Boulevard from Morrison Street to Nason Street	D	6D	56,300	23,099	0.410	A	23,373	A	0.415	0.005
4 . Alessandro Boulevard from Nason to Project's Western Boundary	C	6D	56,300	25,145	0.447	A	25,743	A	0.457	0.011

Notes:

LOS = Level of Service, * = Exceeds Level of Service, 2U=2-Lane Undivided, 4D=4-Lane Divided

7.6 General Plan Buildout (2040) With Project Intersection Levels of Service

An intersection level of service analysis was conducted for general plan buildout (2040) with project conditions to determine circulation system performance. General plan buildout (2040) with project traffic volumes at study intersections are shown in Figure 20. The general plan buildout (2040) with project levels of service for the study area intersections are summarized in Table H. Detailed volume development worksheets are included in Appendix C. Level of service calculation worksheets are contained in Appendix D. As shown in Table H, all study area intersections are forecast to operate at satisfactory levels of service with the exception of the following:

- Lasselle Street and Alessandro Boulevard (p.m. peak hour).
- Nason Street and Eucalyptus Avenue (a.m. and p.m. peak hours).
- Nason Street and Dracaea Avenue (a.m. peak hour).
- Nason Street and Cottonwood Avenue (a.m. and p.m. peak hours).
- Nason Street and Alessandro Boulevard (a.m. and p.m. peak hours).
- Street A and Alessandro Boulevard (a.m. and p.m. peak hours).

7.7 General Plan Buildout (2040) With Project Roadway Segment Levels of Service

A roadway segment level of service analysis was conducted for general plan buildout (2040) with project conditions to determine the circulation system performance. The general plan buildout (2040) with project levels of service for the study area roadway segments are summarized in Table I. As shown in Table I, all study area roadway segments are forecast to operate at satisfactory levels of service.

8.0 SIGNAL WARRANTS

Signal warrants have been included for both project driveways under project completion year (2024) and general plan buildout (2040) with project conditions. Figures 21 and 22 shows the signal warrants for the intersection of Collector A and Cottonwood Avenue and shows that the peak hour signal warrants are not met under project completion year (2024) and general plan buildout (2040) with project conditions. In addition, Figures 23 and 24 shows the signal warrants for the intersection of Collector B and Alessandro Boulevard and shows that the peak hour signal warrants are not met under project completion year (2024) and general plan buildout (2040) with project conditions.

9.0 CIRCULATION IMPROVEMENTS

The City requires that circulation improvements be recommended if the study area intersections and roadway segments don't meet the City's General Plan Consistency requirements included in Sections 3.2 and 3.4. These improvements can include conversion of stop control, signalization, changes to signal phasing, and/or addition of lanes as appropriate.

9.1 Project Completion Year (2024) With Project Intersection Circulation Improvements

Under project completion year (2024) with project conditions, the following modifications are recommended as follows:

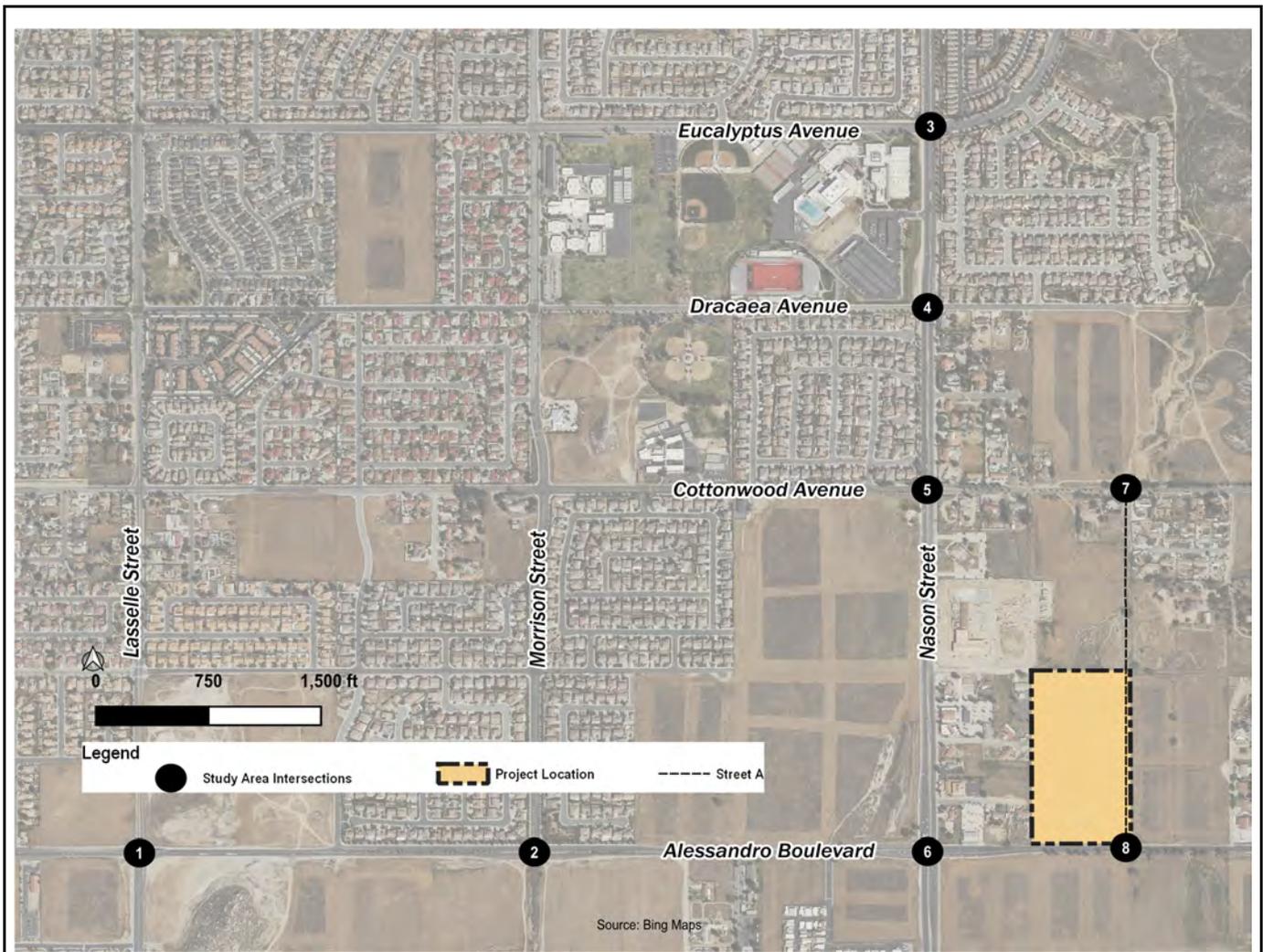
- Street A and Alessandro Boulevard: Modify the southbound approach by restricting outbound traffic to right-out access only.

The resulting levels of service for project completion (2024) with project with improvement conditions are included in Table J. Figure 25 illustrates the recommended improvements.

9.2 General Plan Buildout (2040) With Project Intersection Circulation Improvements

Under general plan buildout (2040) with project conditions, the following modifications are recommended as follows:

- Street A and Alessandro Boulevard: Modify the southbound approach by restricting outbound traffic to right-out access only. Inbound traffic including eastbound lefts-in will be permitted.



<table border="1"> <tr> <td>141/98</td> <td>412/554</td> <td>109/141</td> <td>142/114</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>104/125</td> <td>723/984</td> <td>497/386</td> <td>229/158</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>281/526</td> <td>458/496</td> <td>211/214</td> <td></td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td></td> </tr> </table>	141/98	412/554	109/141	142/114	↙ ↘	↙ ↘	↙ ↘	↙ ↘	104/125	723/984	497/386	229/158	↙ ↘	↙ ↘	↙ ↘	↙ ↘	281/526	458/496	211/214		↙ ↘	↙ ↘	↙ ↘		<table border="1"> <tr> <td>173/93</td> <td>116/155</td> <td>111/66</td> <td>92/60</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>172/110</td> <td>787/1002</td> <td>78/82</td> <td>35/38</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>55/104</td> <td>102/132</td> <td>42/65</td> <td></td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td></td> </tr> </table>	173/93	116/155	111/66	92/60	↙ ↘	↙ ↘	↙ ↘	↙ ↘	172/110	787/1002	78/82	35/38	↙ ↘	↙ ↘	↙ ↘	↙ ↘	55/104	102/132	42/65		↙ ↘	↙ ↘	↙ ↘		<table border="1"> <tr> <td>108/62</td> <td>325/2316</td> <td>33/64</td> <td>56/35</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>276/59</td> <td>409/323</td> <td>272/118</td> <td>414/474</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>121/95</td> <td>189/3353</td> <td>479/582</td> <td></td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td></td> </tr> </table>	108/62	325/2316	33/64	56/35	↙ ↘	↙ ↘	↙ ↘	↙ ↘	276/59	409/323	272/118	414/474	↙ ↘	↙ ↘	↙ ↘	↙ ↘	121/95	189/3353	479/582		↙ ↘	↙ ↘	↙ ↘		<table border="1"> <tr> <td>313/143</td> <td>3488/2565</td> <td>18/32</td> <td>35/4</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>149/172</td> <td>16/4</td> <td>128/89</td> <td>61/35</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>272/50</td> <td>2085/3747</td> <td>57/40</td> <td></td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td></td> </tr> </table>	313/143	3488/2565	18/32	35/4	↙ ↘	↙ ↘	↙ ↘	↙ ↘	149/172	16/4	128/89	61/35	↙ ↘	↙ ↘	↙ ↘	↙ ↘	272/50	2085/3747	57/40		↙ ↘	↙ ↘	↙ ↘		<table border="1"> <tr> <td>267/329</td> <td>3361/2288</td> <td>63/61</td> <td>96/61</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>368/317</td> <td>106/117</td> <td>156/106</td> <td>142/99</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>275/129</td> <td>196/13484</td> <td>75/54</td> <td>104/41</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> </table>	267/329	3361/2288	63/61	96/61	↙ ↘	↙ ↘	↙ ↘	↙ ↘	368/317	106/117	156/106	142/99	↙ ↘	↙ ↘	↙ ↘	↙ ↘	275/129	196/13484	75/54	104/41	↙ ↘	↙ ↘	↙ ↘	↙ ↘
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FIGURE 20

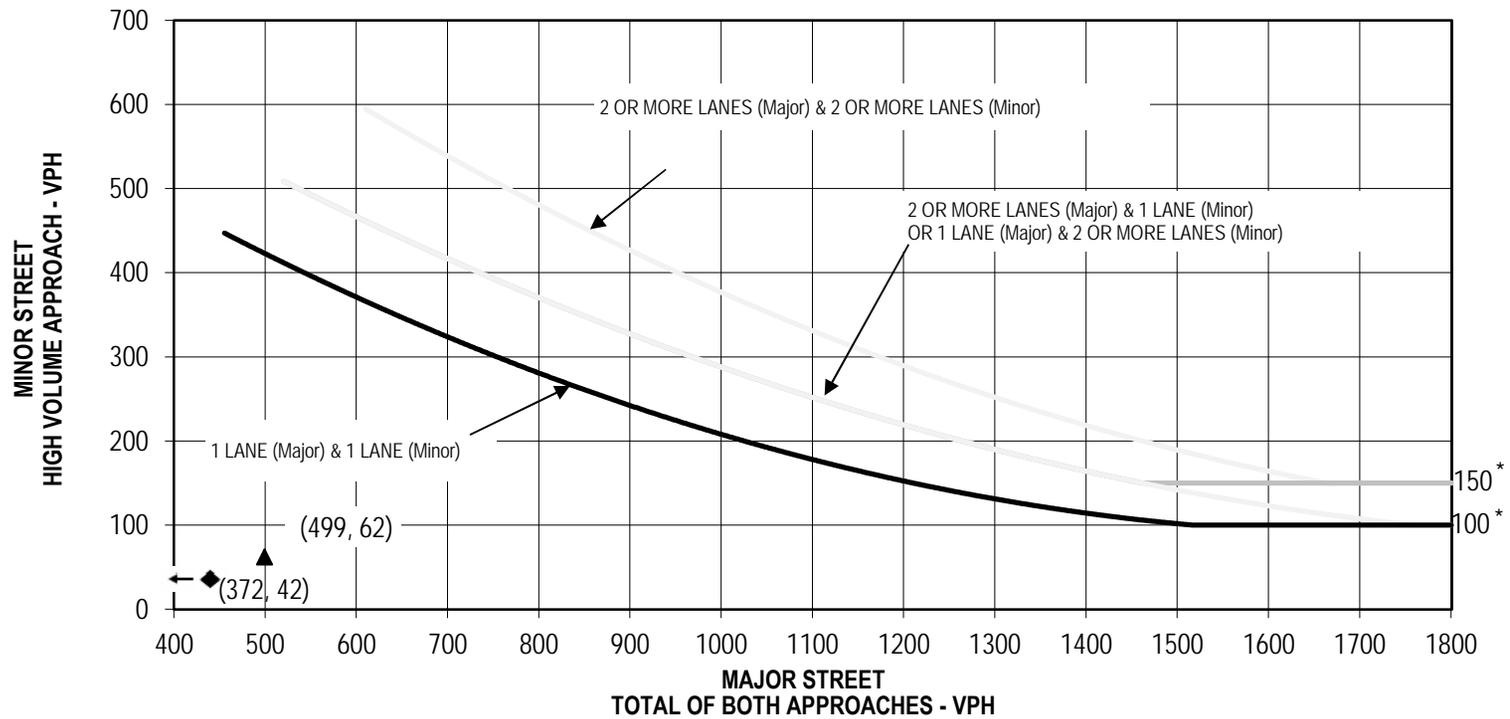
xxx / yyy AM / PM Peak Hour Volume (In PCEs)

TTM 38442

General Plan Build-Out (2040) With Project Peak Hour Traffic Volumes (PCEs)



WARRANT 3, PEAK HOUR



★ 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

FIGURE 21

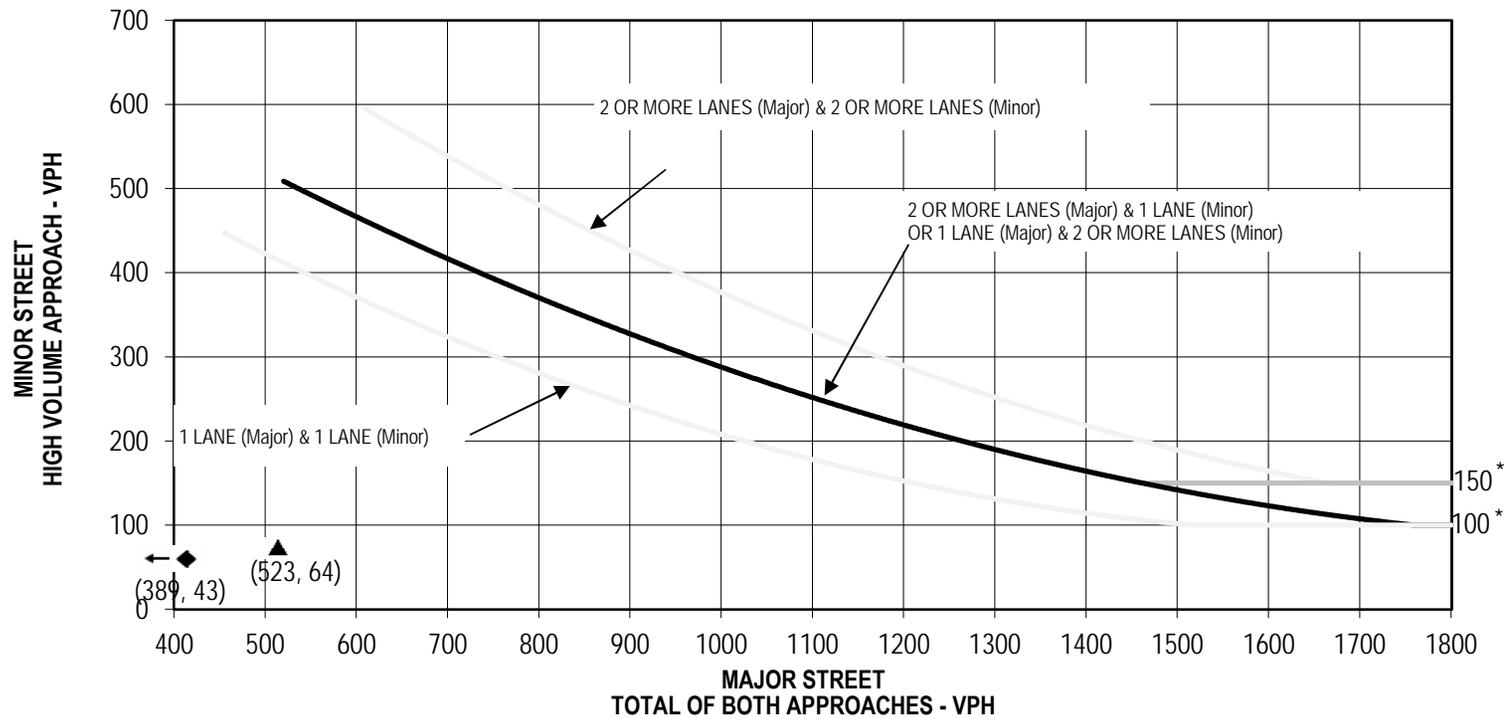
- ▲ AM Peak Hour
- ◆ PM Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES REVISION 6 2014 EDITION, FIGURE 4C-3

**TTM 38442 Moreno Valley Residential
Signal Warrant for Street A/Cottonwood Ave
Project Completion Year (2024) With Project Peak Hour Signal Warrants**



WARRANT 3, PEAK HOUR



★ 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

FIGURE 22

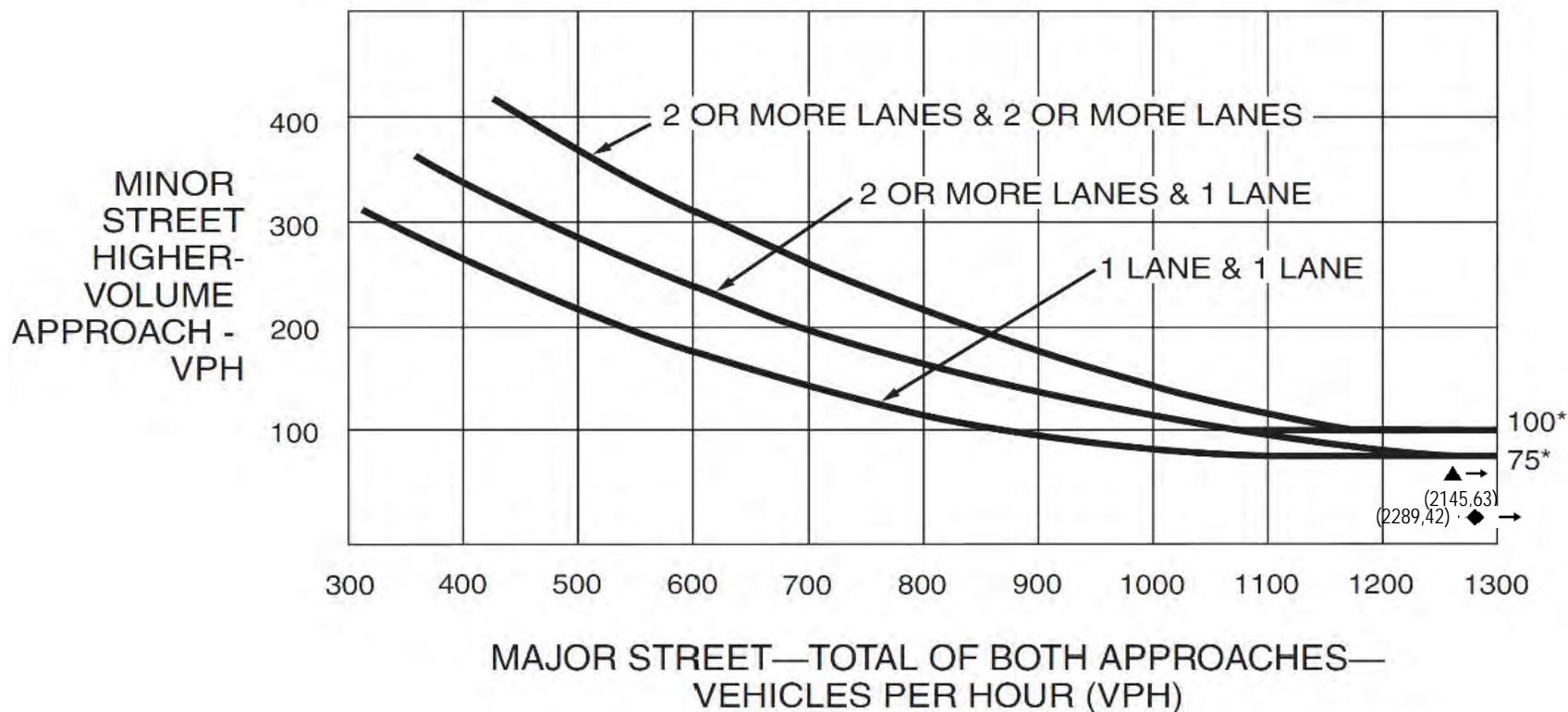
- ▲ AM Peak Hour
- ◆ PM Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES REVISION 6 2014 EDITION, FIGURE 4C-3

**TTM 38442 Moreno Valley Residential
Signal Warrant for Street A/Cottonwood Ave
General Plan Buildout (2040) With Project Peak Hour Signal Warrants**



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



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

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4

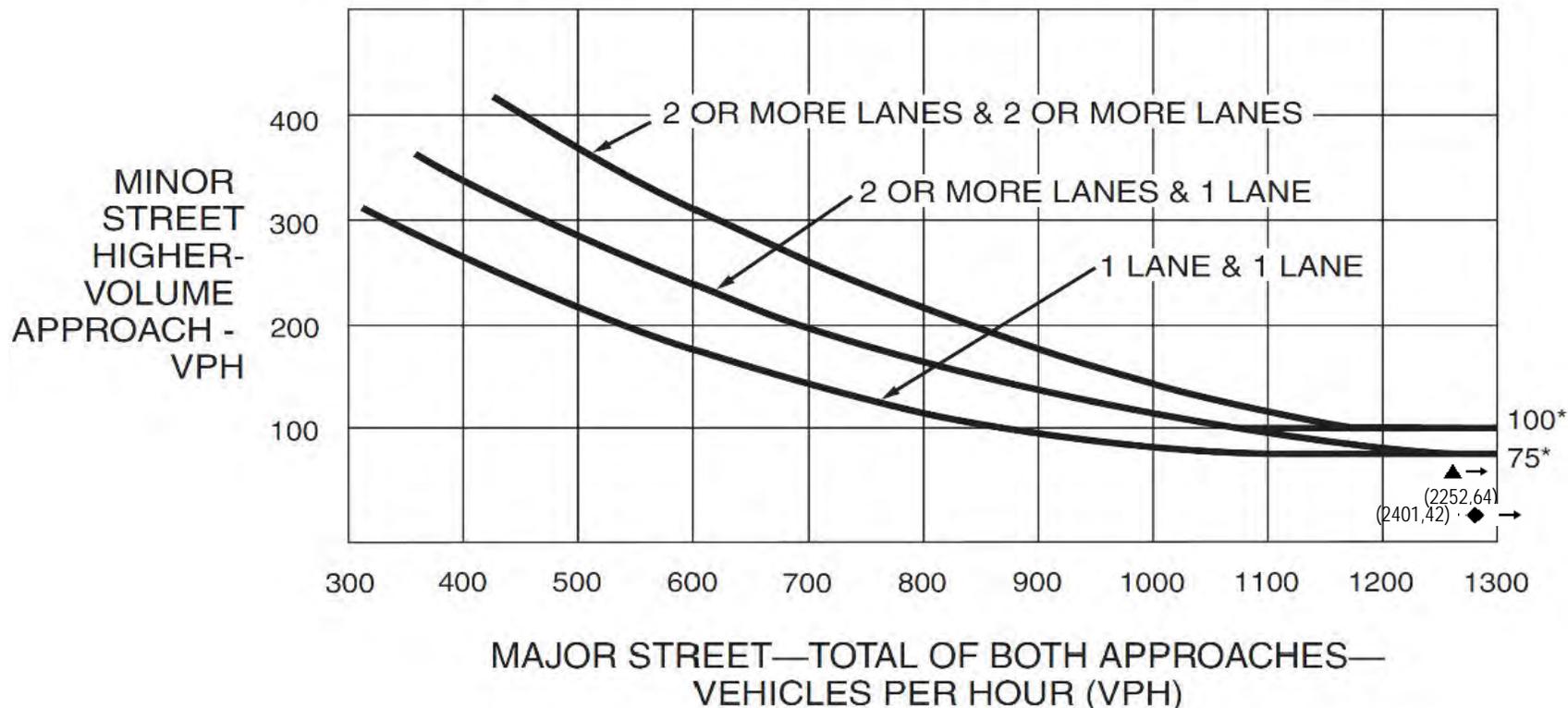
FIGURE 23

- ▲ AM Peak Hour
- ◆ PM Peak Hour



TTM 38443 Moreno Valley Residential
Signal Warrants for Street A/Alessandro Boulevard
Project Completion Year (2024) With Project Peak Hour Signal Warrants

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



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

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4

FIGURE 24

- ▲ AM Peak Hour
- ◆ PM Peak Hour



**TTM 38442 Moreno Valley Residential
 Signal Warrants for Street A/Alessandro Boulevard
 General Plan Buildout (2040) With Project Peak Hour Signal Warrants**

Table J: Project Completion Year (2024) With Project With Improvements Levels of Service

Intersection	Jurisdiction	LOS Standard	Control	Without Project		With Project With Improvements				Change in Delay			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour	PM Peak Hour
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS		
6 . Nason St/Alessandro Blvd	Moreno Valley	D	Signal	>100	F *	>100	F *	>100	F *	>100	F *	3.4	4
8 . Street A/Alessandro Blvd	Moreno Valley	C	TWSC	84.3	F *	84.3	F *	45.9	E *	20.5	C	-38.4	-63.8

Notes:

LOS = Level of Service

TWSC = Two-Way Stop Control: For TWSC intersections, reported delay is for worst-case movement.

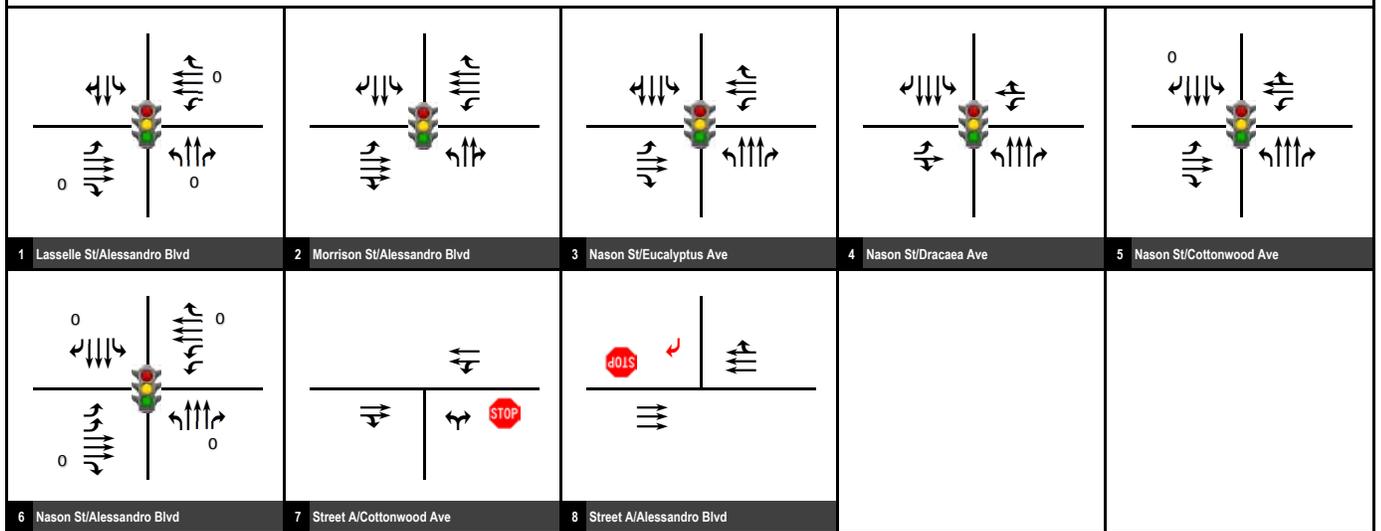
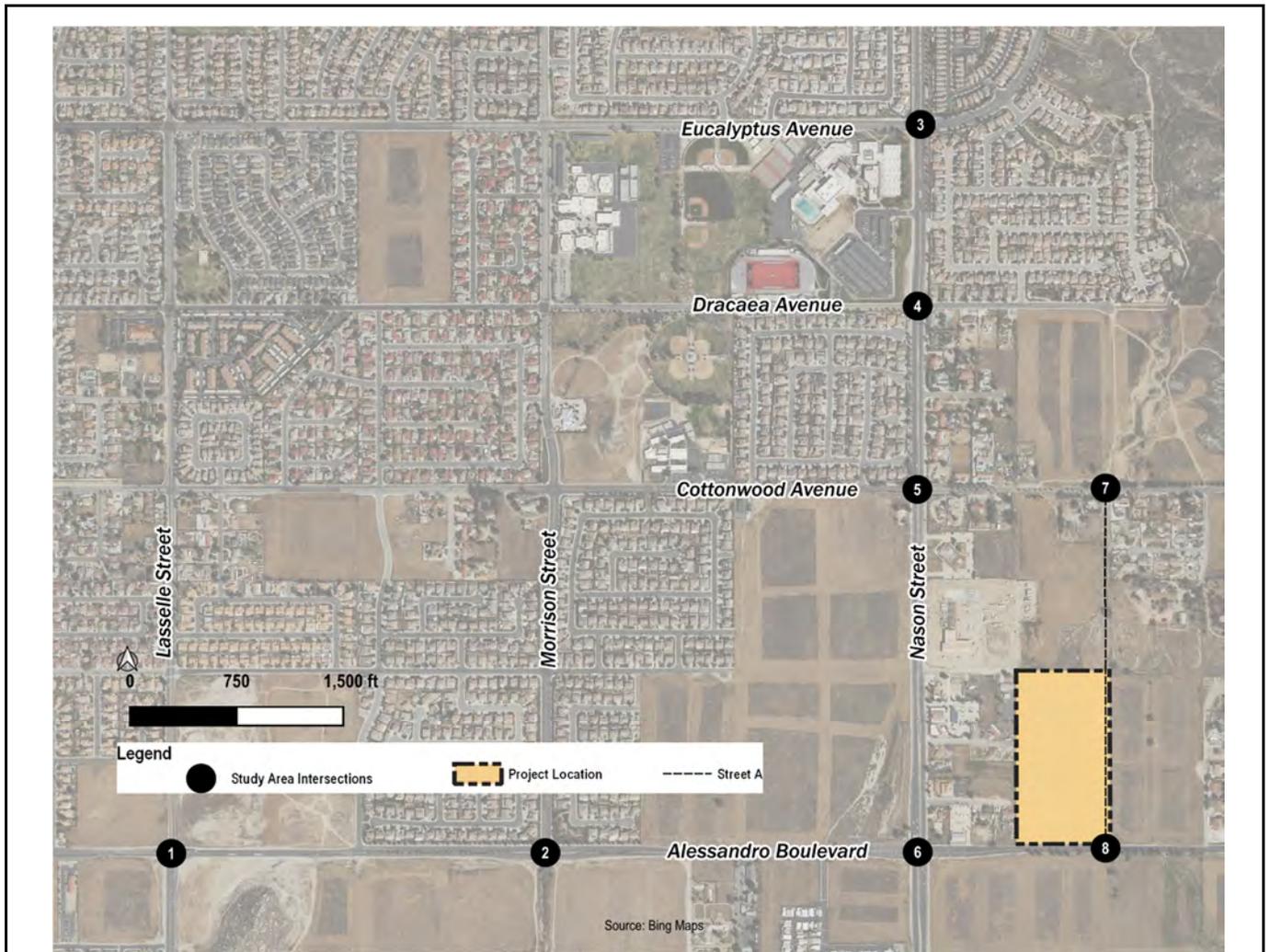


FIGURE 25

Legend

- Signal
- overlap
- Improvements
- Stop Sign

TTM 38442

Project Completion and 'General Plan Buildout (2040) With Project With Improvements

Intersection Geometrics and Stop Control



The resulting levels of service for general plan buildout (2040) with project with improvement conditions are included in Table K. Figure 25 illustrates the recommended improvements.

10.0 QUEUING ANALYSIS

A queuing analysis was conducted at the study area intersections on Alessandro Boulevard and Nason Street under existing, project completion (2024), and general plan build-out (2040) without and with project conditions. The 95th percentile back-of-queue lengths at the study area intersections have been reported. Tables L, M, and N show the queue lengths under each of the analysis years for without and with project conditions.

11.0 ALESSANDRO BOULEVARD MEDIAN FEASIBILITY ANALYSIS

Based on discussion with City staff, a feasibility analysis for a median opening for the eastbound left-turn movement at the intersection of Street A and Alessandro Boulevard has been conducted to evaluate if project traffic entering the site will cause significant delays. Table O shows the eastbound left-turn movement under project completion (2024) and general plan buildout (2040) with project conditions. As shown in Table O, the eastbound left-turn queue does not exceed one vehicle and is not anticipated to cause significant delays. Therefore, it is not recommended that the eastbound left-turn movement be restricted.

12.0 IMPACT CRITERIA FOR CEQA DETERMINATION

This section evaluates the CEQA checklist for impact evaluation.

A. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The project is consistent with the City's adopted plans and policies. The project would not conflict with adopted policies supporting alternative transportation modes. The project will not change roadway designations from those in the City's General Plan. The project will also not result in removal of any of the facilities listed above. Therefore, the project impact is considered less than significant.

B. Conflict or be inconsistent with CEQA Guidelines 15064.3, subdivision (b)?

Based on City guidelines, a separate Vehicle Miles Traveled report has been prepared and submitted to the City.

C. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The design of project access will be based on City Code, which sets the standard for such design. It is not anticipated that traffic hazards will increase, therefore, the project impact is considered less than significant.

D. Result in inadequate emergency access?

The proposed driveways will be designed in accordance with all applicable design and safety standards required by adopted fire codes, safety codes, and building codes established by the City's Engineering and Fire Departments. The project will not increase delays on street segments substantially, therefore, the project will not result in inadequate emergency access, and the project impact is considered less than significant.

13.0 SUMMARY & CONCLUSIONS

The proposed project is forecast to generate 76 trips during the a.m. peak hour, 102 trips during the p.m. peak hour, and 1,018 daily trips. Based on the LOS analysis, with implementation of the improvements, the project adds less than 5 seconds of additional delay and therefore falls below the thresholds set in the City's guidelines.

Table K: General Plan Buildout (2040) With Project With Improvements Levels of Service

Intersection	Jurisdiction	LOS Standard	Control	Without Project				With Project With Improvements				Change in Delay	
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour	PM Peak Hour
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS		
6 . Nason St/Alessandro Blvd	Moreno Valley	D	Signal	>100	F *	65.2	E *	>100	F *	68.1	E *	4	2.9
8 . Street A/Alessandro Blvd	Moreno Valley	C	TWSC	32	D *	27.3	D *	23.5	C	16.8	C	-8.5	-10.5

Notes:

LOS = Level of Service

TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case movement.

Table L: Existing Without and With Project Queuing Analysis

Intersection	Movement	Storage Length (In Feet)	Without Project	
			AM Peak Hour	PM Peak Hour
			Queue Length ¹	Queue Length ¹
1 . Lasselle St/Alessandro Blvd	WBL	150	227	152
	WBR	50	7	0
2 . Morrison St/Alessandro Blvd	EBL	125	173	120
	WBR	600	4	3
3 . Nason St/Eucalyptus Ave	NBL	300	132	85
	NBL	180	460	57
4 . Nason St/Dracaea Ave	SBL	280	22	40
	NBL	200	89	53
5 . Nason St/Cottonwood Ave	SBL	240	61	28
	EBL	240	67	66
6 . Nason St/Alessandro Blvd	EBR	200	61	58
	SBL	250	105	114
	SBR	300	40	42

Notes:

Bold = Exceeds storage length

¹Queues reported are 95th Percentile queue lengths per movement in feet. The average vehicle length is assumed to be 25 feet.

Table M: Project Completion Year (2024) Without and With Project Queuing Analysis

Intersection	Movement	Storage Length (In Feet)	Without Project		With Project	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
			Queue Length ¹	Queue Length ¹	Queue Length ¹	Queue Length ¹
1 . Lasselie St/Alessandro Blvd	WBL	150	393	305	369	313
	WBR	50	16	19	16	19
2 . Morrison St/Alessandro Blvd	EBL	125	156	86	151	80
	WBR	600	5	7	4	7
3 . Nason St/Eucalyptus Ave	NBL	300	132	44	134	44
	NBL	180	219	20	215	25
4 . Nason St/Dracaea Ave	SBL	280	7	19	7	19
	NBL	200	261	56	258	62
5 . Nason St/Cottonwood Ave	SBL	240	18	29	19	39
	EBL	240	180	112	179	108
6 . Nason St/Alessandro Blvd	EBR	200	57	35	54	31
	SBL	250	50	106	49	166
	SBR	300	9	16	7	53

Notes:

Bold = Exceeds storage length

¹Queues reported are 95th Percentile queue lengths per movement in feet. The average vehicle length is assumed to be 25 feet.

Table N: General Plan Buildout (2040) Without and With Project Queuing Analysis

Intersection	Movement	Storage Length (In Feet)	Without Project		With Project	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
			Queue Length ¹	Queue Length ¹	Queue Length ¹	Queue Length ¹
1 . Lasselie St/Alessandro Blvd	WBL	150	318	292	334	296
	WBR	50	0	1	0	4
2 . Morrison St/Alessandro Blvd	EBL	125	210	144	220	139
	WBR	600	7	4	7	4
3 . Nason St/Eucalyptus Ave	NBL	300	239	70	243	72
	NBL	180	156	30	174	30
4 . Nason St/Dracaea Ave	SBL	280	10	25	10	25
	NBL	200	450	86	479	87
5 . Nason St/Cottonwood Ave	SBL	240	30	57	31	69
	EBL	240	172	191	165	191
6 . Nason St/Alessandro Blvd	EBR	200	123	0	137	4
	SBL	250	80	218	84	210
	SBR	300	0	0	0	0

Notes:

Bold = Exceeds storage length

¹Queues reported are 95th Percentile queue lengths per movement in feet. The average vehicle length is assumed to be 25 feet.

Table O: Street A and Alessandro Boulevard Eastbound Left-Turn Queues

Intersection	Movement	Storage Length (In Feet)	Project Completion (2024) With Project		General Plan Buildout (2040) With Project	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
			Queue Length ¹	Queue Length ¹	Queue Length ¹	Queue Length ¹
8 . Street A/Alessandro Blvd	EBTL	1200	25	25	25	25

Notes:

Bold = Exceeds storage length

¹Queues reported are 95th Percentile queue lengths per movement in feet. The average vehicle length is assumed to be 25 feet.

APPENDIX A: APPROVED SCOPING AGREEMENT

Wei Sun
6/7/2022

EXHIBIT A

Project Scoping Form

This scoping form shall be submitted to the Lead Agency to assist in identifying infrastructure improvements that may be required to support traffic from the proposed project.

Project Identification:

Case Number:	PPA21-0041
Related Cases:	
SP No.	
EIR No.	
GPA No.	
CZ No.	
Project Name:	Highpointe Moreno Valley Residential
Project Address:	East of Nason St. between Cottonwood Ave & Alessandro Blvd.
Project Opening Year:	2024
Project Description:	The project will include the construction of 248 single-family dwelling units. Access will be provided via two intersections: Collector A/Cottonwood Ave. Collector B/Alessandro Blvd.

	Consultant:	Developer:
Name:	Translutions, Inc.	Michael Baker International
Address:	17632 Irvine Blvd., #200 Tustin, CA 92780	3536 Concoors, Suite 100 Ontario, CA 91764
Telephone:	949-656-3131	
Email:	sandipan@translutions.com	

Trip Generation Information:

Trip Generation Data Source: ITE 11th Edition, "Single-Family Detached Housing"

Notes: "The City of Moreno Valley reserves the right to use, share, and reproduce the information including, but not limited to, traffic counts, exhibits, and surveys provided in all submitted traffic studies and VMT assessments"

"Changes to scope of work, property site and location, occupancy or use, square footage, permitted activities may require a resubmittal for further review. Applicant/Developer acknowledges that by submitting scoping agreements and/or traffic studies out of the normal processing order may result in additional fees and expenses required for additional reviews and/or meetings. Applicant/Developer is responsible for these and any other fees and will pay the full review fees at the time of submittal"

Current General Plan Land Use:

Downtown Center/R3 Resid.

Proposed General Plan Land Use:

R3 Resid. (North)/Downtown Ce

Current Zoning:

Downtown Center/R3 Resid.

Proposed Zoning:

R-3, DC

	Existing Trip Generation			Proposed Trip Generation		
	In	Out	Total	In	Out	Total
AM Trips				45	129	174
PM Trips				147	86	233

Trip Internalization: Yes No (_____% Trip Discount)

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

Potential Screening Checks

Is your project screened from specific analyses (see Page 3 of the guidelines related to LOS assessment and Pages 22-23 for VMT screening criteria).

Is the project screened from LOS assessment? Yes No

LOS screening justification (see Page 3 of the guidelines): _____ _____ _____ _____ _____

Is the project screened from VMT assessment? Yes No

VMT screening justification (see Pages 22-23 of the guidelines): _____

Level of Service Scoping

- Proposed Trip Distribution (Attach Graphic for Detailed Distribution): See Figure 2 for Distribution

North	South	East	West
20 %	23 %	28 %	29 %

Link level of service and data collection:

X will be required
 _____ will not be required

- Attach list of study intersections (and roadway segments if applicable)
- Attach site plan
- Other specific items to be addressed:
 - Site access
 - On-site circulation
 - Parking
 - Consistency with Plans supporting Bikes/Peds/Transit
 - ✓ Other Analyze all intersection and median storage on Nason from Alessandro to Eucalyptus, and Alessandro from Lasselle to Nason

Evaluate feasibility of proposed median opening at project entrance along Alessandro (i.e. queuing, line of sight).

Signal warrant and stop warrant analysis for unsignalized intersections.

Segment analysis: Cottonwood from project's western boundary to Nason and Alessandro from Lasselle to project's western boundary.

- Attach proposed analysis scenarios (years plus proposed forecasting approach)
- Attach proposed phasing approach (if the project is phased)

VMT Scoping

For projects that are not screened, identify the following:

- Travel Demand Forecasting Model Used RivTAM with General Plan
- Attach WRCOG Screening VMT Assessment output or describe why it is not appropriate for use
- Attach proposed Model Land Use Inputs and Assumed Conversion Factors (attach)

Table A - Project Trip Generation

Land Use	Units	A.M. Peak Hour			P.M. Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Single-Family Residential								
Trip Generation Rates ¹		0.18	0.52	0.70	0.59	0.35	0.94	9.43
Trip Generation	248 DU	45	129	174	147	86	233	2,339
Project Buildout Trip Generation		45	129	174	147	86	233	2,339

Notes: DU = Dwelling Unit

¹ Trip generation based on rates for Land Use 210 - "Single-Family Detached Housing" from Institute of Transportation Engineers' (ITE) *Trip Generation* (11th Edition).

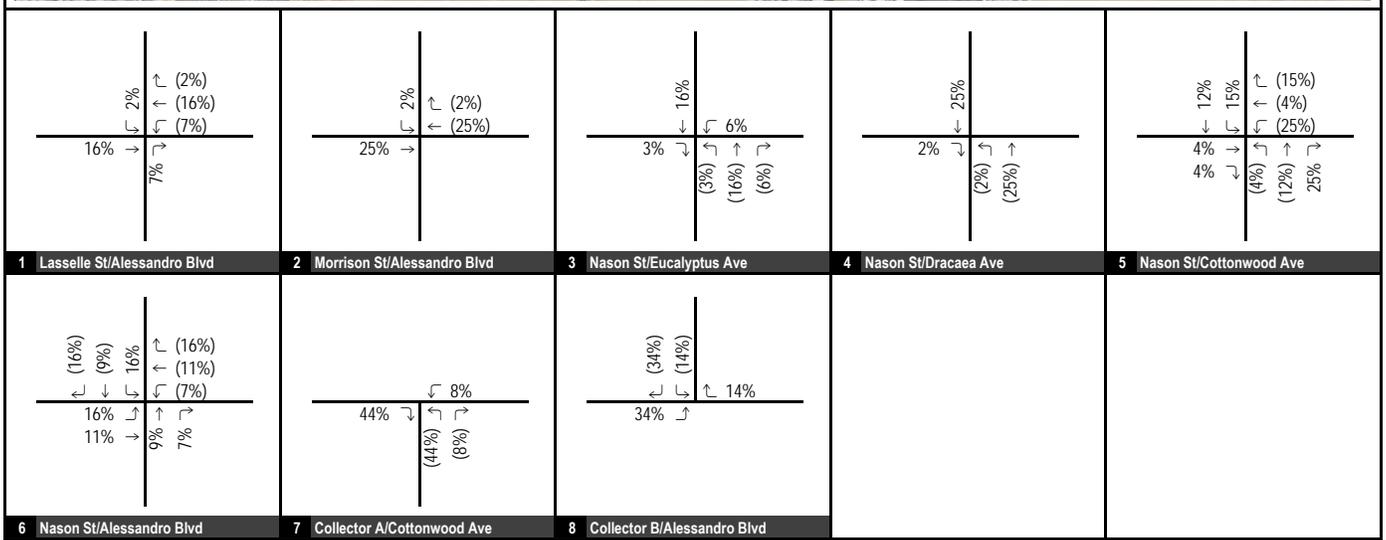
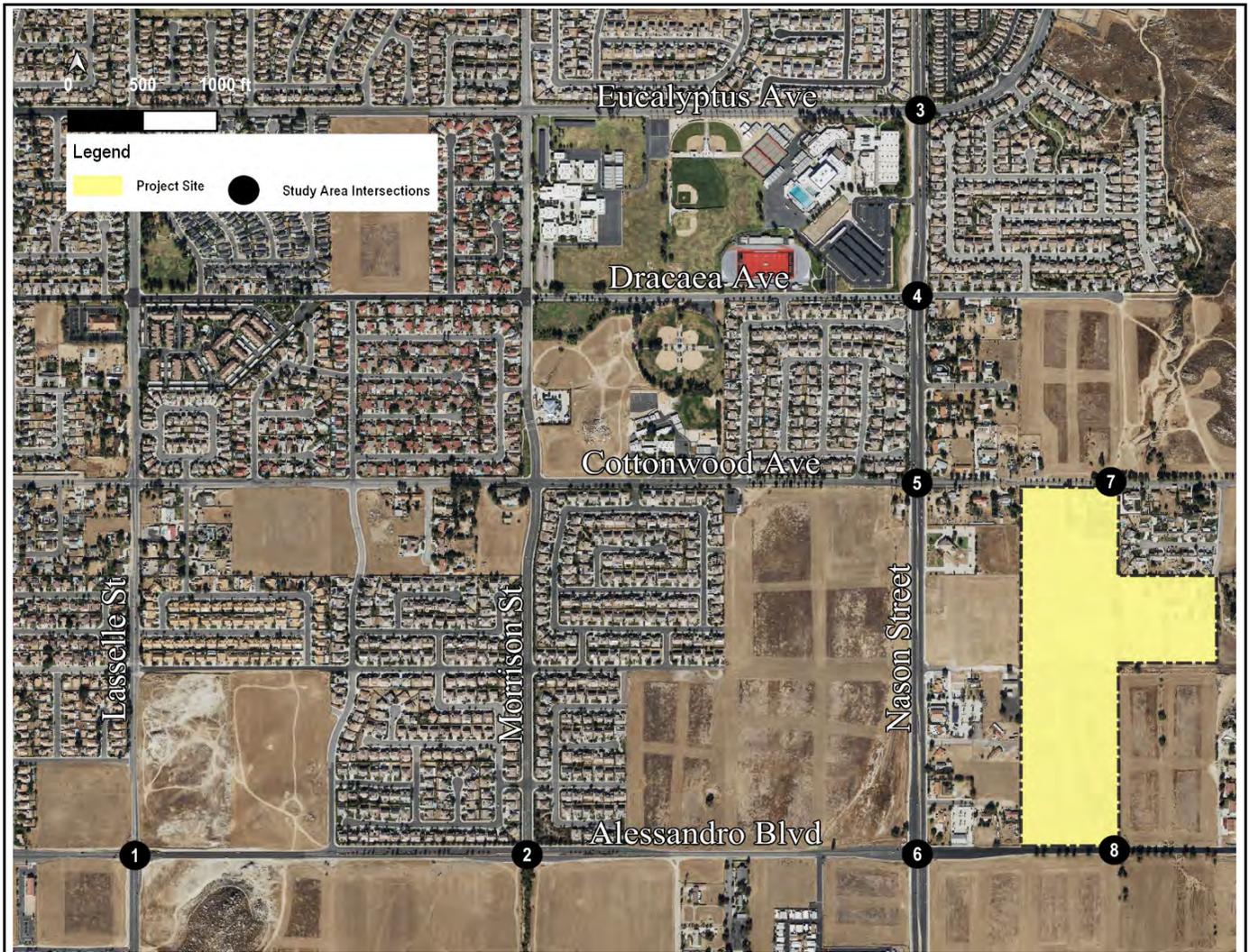


FIGURE 2

XX%(YY%) Inbound%(Outbound%) Distribution

Highpointe Moreno Valley Residential Project Trip Distribution



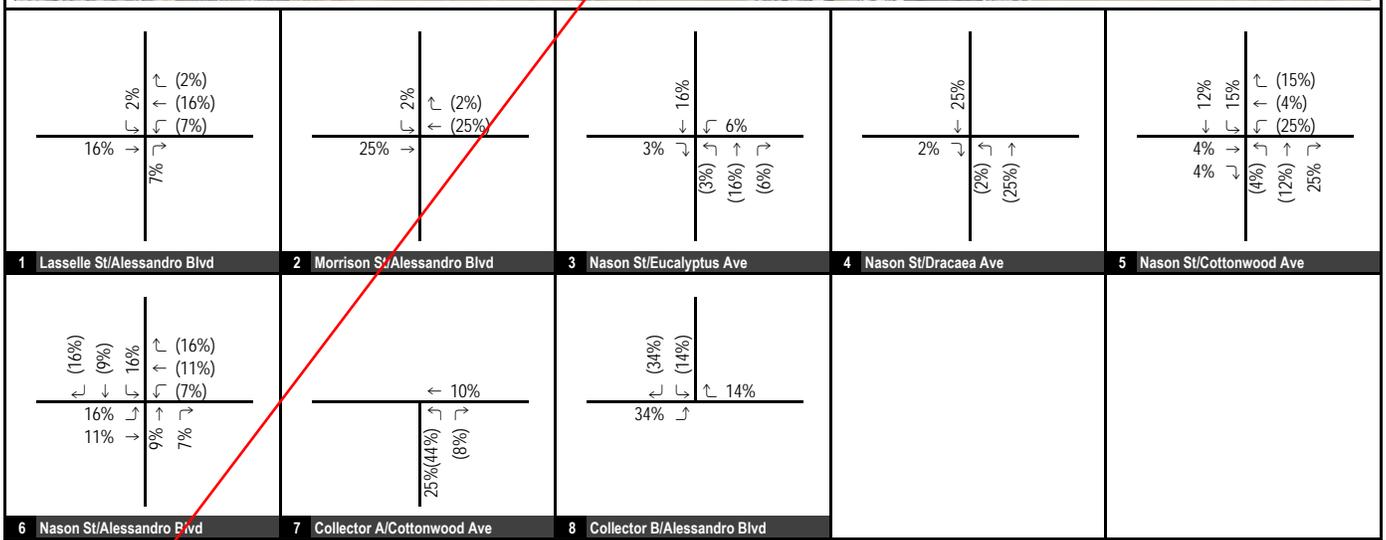
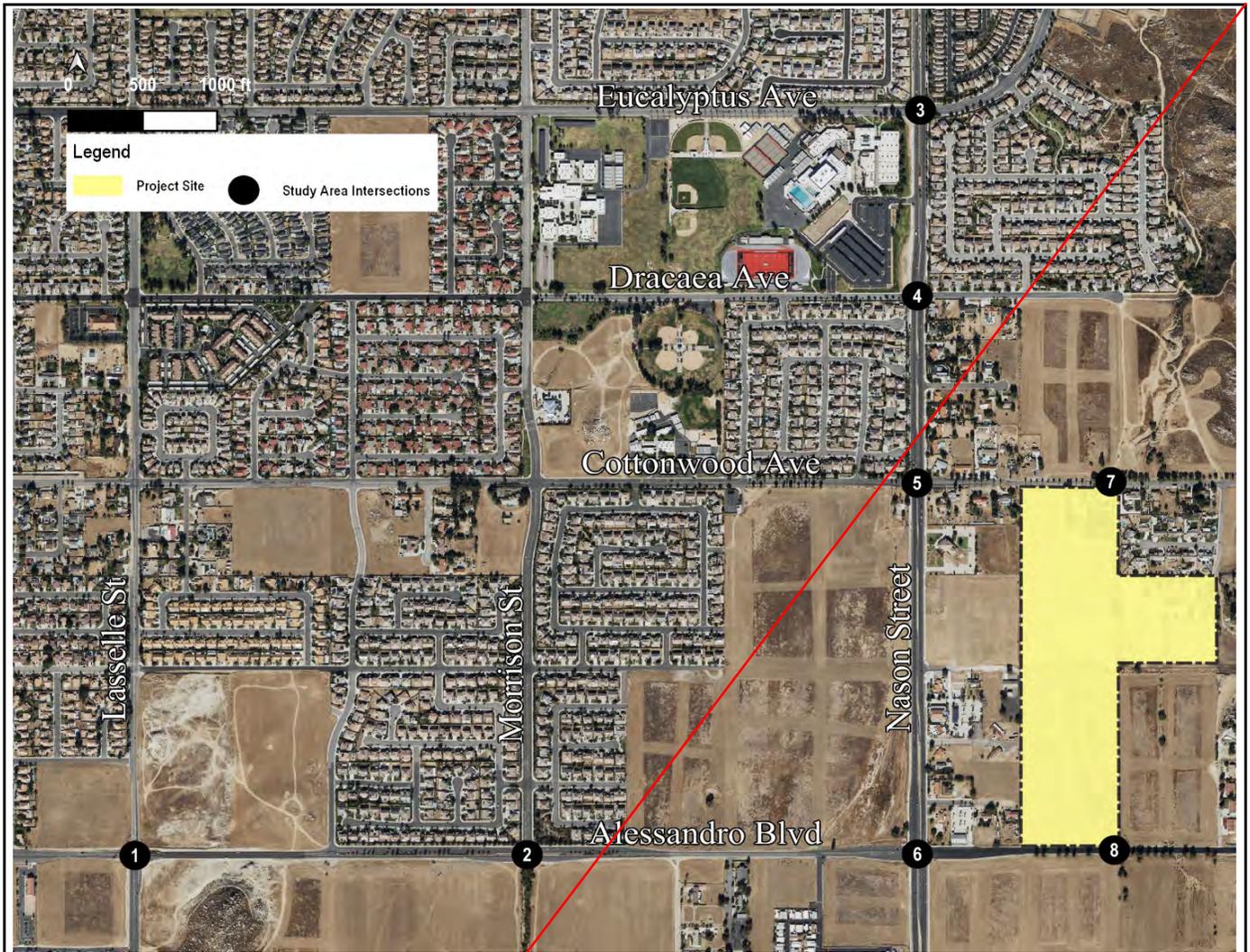


FIGURE 2

XX%(YY%) Inbound%(Outbound%) Distribution

Highpointe Moreno Valley Residential Project Trip Distribution



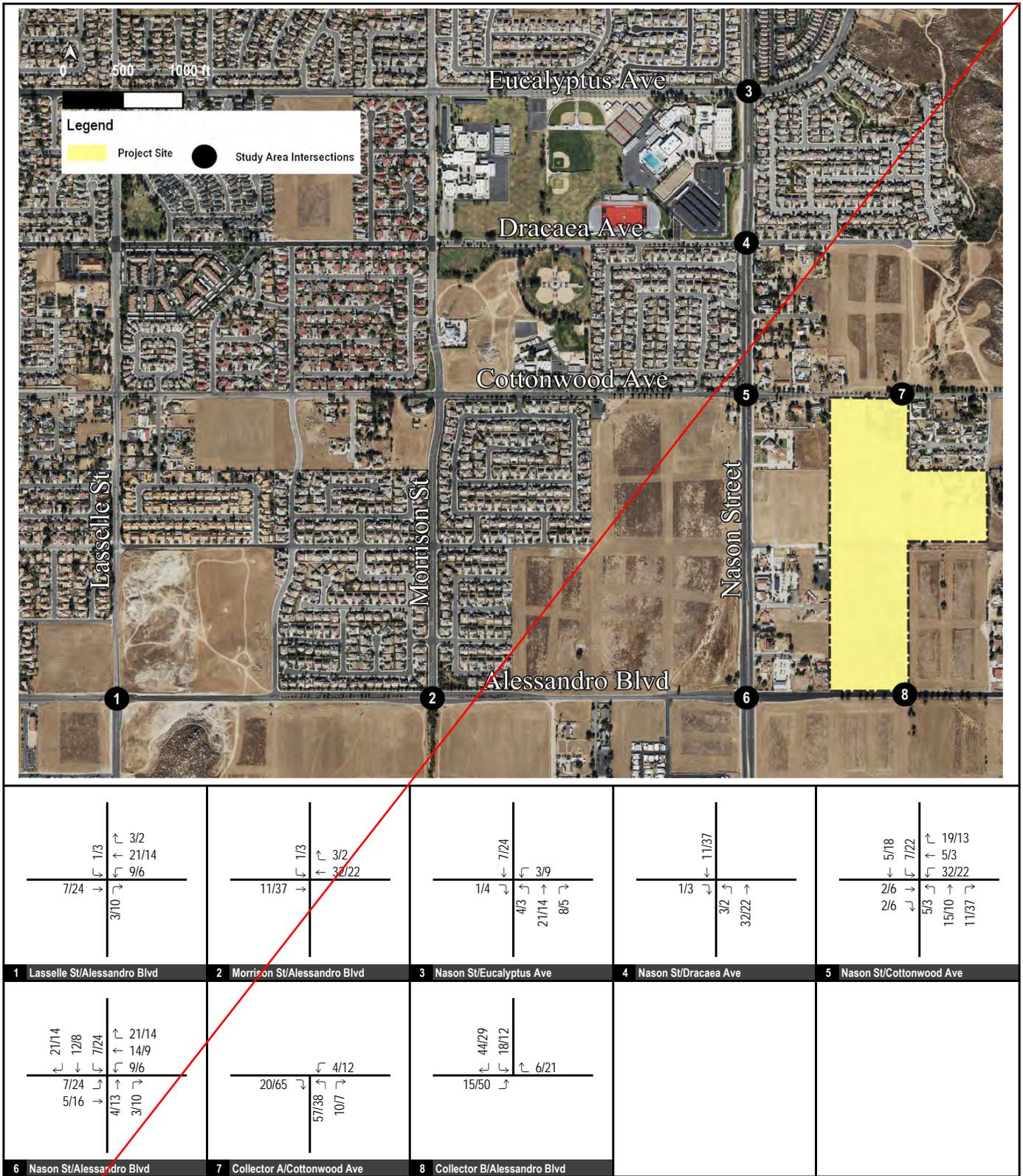


FIGURE 3

xx/yy AM/PM Peak Hour Project Trips

Highpointe Moreno Valley Residential
Project Trip Assignment



STUDY INTERSECTIONS:

1. Lasselle St/Alessandro Blvd
2. Morrison St/Alessandro Blvd
3. Nason St/Eucalyptus Ave
4. Nason St/Dracaea Ave
5. Nason St/Cottonwood Ave
6. Nason St/Alessandro Blvd
7. Collector A/Cottonwood Ave
8. Collector B/Alessandro Blvd

SITE PLAN: Attached Figure 1

TRIP GENERATION: Attached Table A

TRIP DISTRIBUTION: Attached Figure 2

TRIP ASSIGNMENT: Attached Figure 3

VMT ANALYSIS: A VMT analysis will be conducted consistent with City guidelines. The project level VMT analysis will be based on the RivTAM with Moreno Valley General Plan. Translutions will modify it to include the project socio-economic data. The model will also be modified so that the project forms several discrete traffic analysis zones (TAZs). Select Zone model runs will be conducted to calculate the project VMT and the project-effect on VMT. This task will be conducted using the base and future year models. The with project scenarios will summarize the project generated VMT per capita and compare it back to the appropriate benchmark noted in the City's thresholds of significance. The project effect on VMT will also be included for both with project scenarios and will compare how the project changes VMT on the network looking at Citywide VMT per capita and comparing to the no project condition.

ANALYSIS SCENARIOS:

- Existing Conditions
- Project Completion without Project (existing plus ambient growth plus cumulative projects). Opening year is anticipated to be 2024, growth rate of 2% per annum.
- Project Completion with Project (Project Completion Without Project plus project)
- General Plan Buildout without Project
- General Plan Buildout with Project

CUMULATIVE PROJECTS TO BE INCLUDED IN ANALYSIS

The following cumulative projects will be included in the traffic analysis. It should be noted that projects in highlighted in bold require project descriptions/project locations. Translutions requests that the City provide additional information regarding these projects.

- Nason Marketplace
- Moreno Valley Town Center Specific Plan
- Village at Moreno Valley
- **Rocas Grandes (420 MFDUs) (Location?)**
- **TR31590 (96 SFDUs) (Location?)**
- **TR32408 (80 SFDUs) (Location?)**
- Arco Gas Station on Hemlock and Redlands
- **Northwest Commercial (Project Description and Location?)**

- **Alessandro Walk (227 SFDUs; 3.15 TSF small office building) (Location?)**
- Moreno Valley Elementary School
- Rancho Bella Vista Specific Plan
- **PPA21-0038 (13-acre shopping center on NWC Moreno Beach Dr and SR-60 (Project Description and Location?))**
- Darco Tract 38123 (177 MFDUs)
- Commercial and Office Plaza at NWC Alessandro and Lasselle
- PA05-0052 Winchester Associates (105 SFDUs)
- PEN016-0162-Curtis Development (23 SFDUs)
- PA05-0114-Sussex Capital Grop (11 SFDUs)
- PA05-0115-Sussex Capital Group (57 SFDUs)
- World Logistics Center
- PA04-0146-Beazer Homes (274 SFDUs)
- PEN21-0075-Lansing Companies (315 SFDUs)
- PEN21-0075-Lansing Companies (430 MFDUs)
- Moreno Valley Trade Center
- PEN18-0065-MacJones Holdings (31 SFDUs)
- PEN21-0050-TM 38098 (195 SFDUs)
- PEN21-0184-DR Horton (204 SFDUs)
- PEN21-0199-DR Horton (67 SFDUs)
- PEN20-0144-Mike McKnight Planning (96 SFDUs)
- PEN18-0080-Hakan Buvan (8 SFDUs)
- PEN18-0154-Michael De La Tome (6 SFDUs)
- PEN18-0053- Canterbury (45 SFDUs)
- PEN21-0145-Passco Pacifica (322 SFDUs)
- PA15-0046-Rocas Grandes (426 MFDUs)
- PA06-0052-Perris Pacific Company (49 MFDUs)
- PA13-0062-Creative Design Assoc. (58 MFDUs)
- PEN16-0123- Villa Annette (220 MFDUs)
- PEN20-0175-RC Hobbs (38 MFDUs)
- PEN16-0130-ROCI CA Belago (350 MFDUs)
- PA08-0054-Granite Capital (135 MFDUs)
- Moreno Valley Medical Plaza (217,000 SF)
- Renaissance Village (98,400 SF)
- Integrated Care Communities (44,000 SF)
- Riverside University Health System Expansion (1,200,000 SF)
- Moreno Valley Medical Overlay Area (122,250 SF)
- Fresenius Medical Care (12,000 SF)
- Kaiser Permanente Master Campus Extension (800,000 SF)
- Mainsteet Post-Acute Care (57,000 SF)
- Pacific Communities (495 SFDUs)

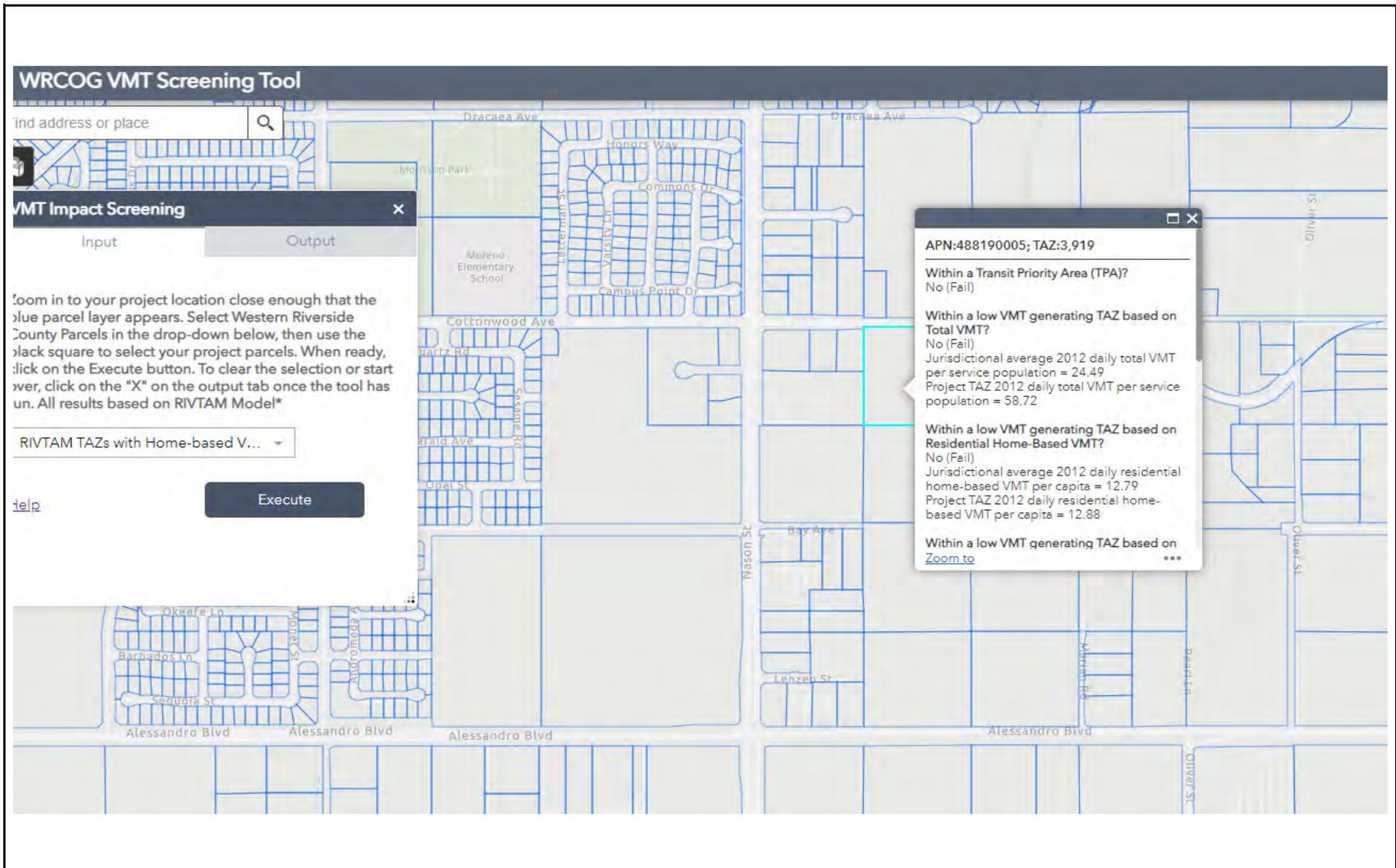


FIGURE 4

Highpointe Residential
WRCOG Low VMT Screening Tool

Table B - RivTAM VMT Inputs (Highpointe Residential)

Name	North Project TAZ	South Project TAZ
seq #	4935	4936
cnty	Riverside	Riverside
TAZ_ID	404191815	404191816
District	4	4
District2	4	4
POP	530.248269	429.6172107
RES	530.248269	429.6172107
HH	137	111
GN	0	0
HHSize_1	16.39663699	13.28486647
HHSize_2	27.10187933	21.95845697
HHSize_3	21.13946588	17.12759644
HHSize_4plus	72.3620178	58.62908012
HHSize_4E	82.93175074	67.19287834
age5_17	93.90801187	76.08605341
age18_24	45.39564787	36.78041543
age16_64	304.2185955	246.4836795
age65_over	114.098912	92.44510386
ho18_24	2.845697329	2.305637982
ho25_44	42.68545994	34.58456973
ho45_64	41.33036597	33.48664688
ho65_over	50.13847676	40.6231454
HH_w0	30.89614243	25.03264095
HH_w1	43.09198813	34.91394659
HH_w2	35.23244313	28.54599407
HH_w3	27.77942631	22.5074184
K12	0	0
COLLEGE	0	0
median	53191	53191
HO<\$25k	43.49851632	35.24332344
median25k	19149	19149
\$25k<HO<\$50k	45.53115727	36.89020772
median25_50	52402	52402
\$50k<HO<\$100k	35.90999011	29.09495549
median50_100	101614	101614
HO>\$100k	12.0603363	9.771513353
median_100	185198	185198
LINC_WRK	135.3738872	109.6824926
MINC_WRK	61.25024728	49.62611276
HINC_WRK	16.93867458	13.72403561

Table B - RivTAM VMT Inputs (Highpointe Residential)

Name	North Project TAZ	South Project TAZ
Tot_emp	0	0
TotLow_emp	0	0
TotMed_emp	0	0
TotHig_emp	0	0
Ag_emp	0	0
Const_emp	0	0
Manu_emp	0	0
Whole_emp	0	0
Ret_emp	0	0
Trans_emp	0	0
Infor_emp	0	0
FIRE_emp	0	0
Prof_emp	0	0
Educ_emp	0	0
ArtEnt_emp	0	0
OthSer_emp	0	0
PubAdm_emp	0	0
DailyPark	0	0
HourlyPark	0	0
CBD	0	0
RSA	45	45

APPENDIX B: COUNTS

City of Moreno Valley
 N/S: Nason Street
 E/W: Cottonwood Avenue
 Weather: Clear

File Name : 05_MR_V_Nas_Cot AM
 Site Code : 99922431
 Start Date : 5/12/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Nason Street Southbound				Cottonwood Avenue Westbound				Nason Street Northbound				Cottonwood Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	5	158	15	178	0	12	6	18	7	119	0	126	34	2	2	38	360
07:15 AM	6	183	13	202	0	11	10	21	4	169	0	173	14	4	0	18	414
07:30 AM	8	195	38	241	1	18	14	33	18	223	1	242	23	6	8	37	553
07:45 AM	6	181	47	234	2	28	18	48	23	222	1	246	40	33	14	87	615
Total	25	717	113	855	3	69	48	120	52	733	2	787	111	45	24	180	1942
08:00 AM	12	215	34	261	1	11	10	22	5	167	2	174	16	17	5	38	495
08:15 AM	4	175	23	202	2	4	5	11	10	128	0	138	20	10	6	36	387
08:30 AM	4	160	14	178	1	7	1	9	8	119	3	130	15	2	7	24	341
08:45 AM	3	120	10	133	1	7	3	11	4	121	0	125	18	7	14	39	308
Total	23	670	81	774	5	29	19	53	27	535	5	567	69	36	32	137	1531
Grand Total	48	1387	194	1629	8	98	67	173	79	1268	7	1354	180	81	56	317	3473
Apprch %	2.9	85.1	11.9		4.6	56.6	38.7		5.8	93.6	0.5		56.8	25.6	17.7		
Total %	1.4	39.9	5.6	46.9	0.2	2.8	1.9	5	2.3	36.5	0.2	39	5.2	2.3	1.6	9.1	

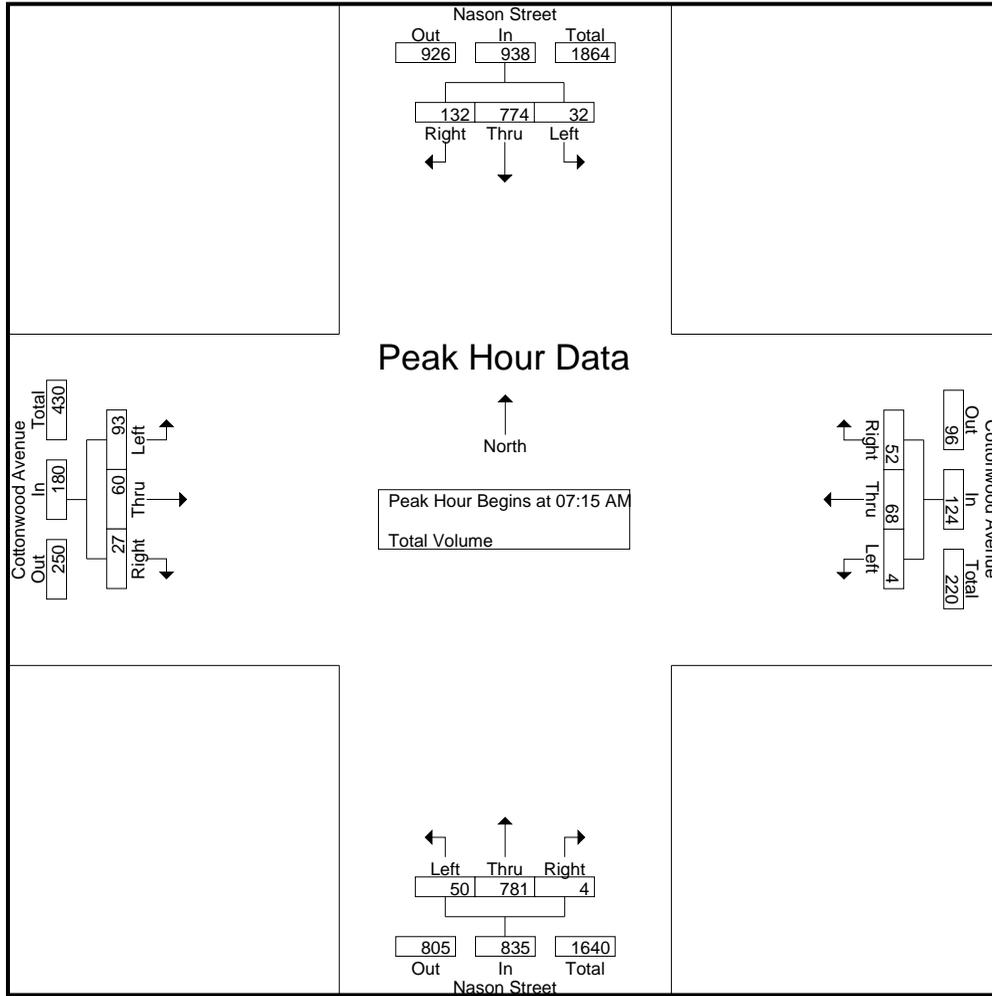
Start Time	Nason Street Southbound				Cottonwood Avenue Westbound				Nason Street Northbound				Cottonwood Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:15 AM	6	183	13	202	0	11	10	21	4	169	0	173	14	4	0	18	414
07:30 AM	8	195	38	241	1	18	14	33	18	223	1	242	23	6	8	37	553
07:45 AM	6	181	47	234	2	28	18	48	23	222	1	246	40	33	14	87	615
08:00 AM	12	215	34	261	1	11	10	22	5	167	2	174	16	17	5	38	495
Total Volume	32	774	132	938	4	68	52	124	50	781	4	835	93	60	27	180	2077
% App. Total	3.4	82.5	14.1		3.2	54.8	41.9		6	93.5	0.5		51.7	33.3	15		
PHF	.667	.900	.702	.898	.500	.607	.722	.646	.543	.876	.500	.849	.581	.455	.482	.517	.844

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM

City of Moreno Valley
 N/S: Nason Street
 E/W: Cottonwood Avenue
 Weather: Clear

File Name : 05_MR_V_Nas_Cot AM
 Site Code : 99922431
 Start Date : 5/12/2022
 Page No : 2



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

	07:15 AM				07:15 AM				07:15 AM				07:30 AM			
+0 mins.	6	183	13	202	0	11	10	21	4	169	0	173	23	6	8	37
+15 mins.	8	195	38	241	1	18	14	33	18	223	1	242	40	33	14	87
+30 mins.	6	181	47	234	2	28	18	48	23	222	1	246	16	17	5	38
+45 mins.	12	215	34	261	1	11	10	22	5	167	2	174	20	10	6	36
Total Volume	32	774	132	938	4	68	52	124	50	781	4	835	99	66	33	198
% App. Total	3.4	82.5	14.1		3.2	54.8	41.9		6	93.5	0.5		50	33.3	16.7	
PHF	.667	.900	.702	.898	.500	.607	.722	.646	.543	.876	.500	.849	.619	.500	.589	.569

City of Moreno Valley
 N/S: Nason Street
 E/W: Cottonwood Avenue
 Weather: Clear

File Name : 05_MRV_Nas_Cot PM
 Site Code : 99922431
 Start Date : 5/12/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Nason Street Southbound				Cottonwood Avenue Westbound				Nason Street Northbound				Cottonwood Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	3	166	24	193	1	10	9	20	8	183	2	193	22	12	9	43	449
04:15 PM	7	174	29	210	1	16	5	22	4	199	1	204	22	5	10	37	473
04:30 PM	4	166	27	197	0	8	1	9	6	240	5	251	17	7	12	36	493
04:45 PM	2	161	24	187	2	6	3	11	7	167	1	175	19	13	13	45	418
Total	16	667	104	787	4	40	18	62	25	789	9	823	80	37	44	161	1833
05:00 PM	2	158	24	184	2	15	8	25	5	195	1	201	22	6	4	32	442
05:15 PM	3	182	35	220	0	12	3	15	5	175	1	181	21	8	8	37	453
05:30 PM	6	167	32	205	1	5	4	10	3	157	5	165	25	6	5	36	416
05:45 PM	5	177	31	213	0	9	0	9	9	146	3	158	17	11	17	45	425
Total	16	684	122	822	3	41	15	59	22	673	10	705	85	31	34	150	1736
Grand Total	32	1351	226	1609	7	81	33	121	47	1462	19	1528	165	68	78	311	3569
Apprch %	2	84	14		5.8	66.9	27.3		3.1	95.7	1.2		53.1	21.9	25.1		
Total %	0.9	37.9	6.3	45.1	0.2	2.3	0.9	3.4	1.3	41	0.5	42.8	4.6	1.9	2.2	8.7	

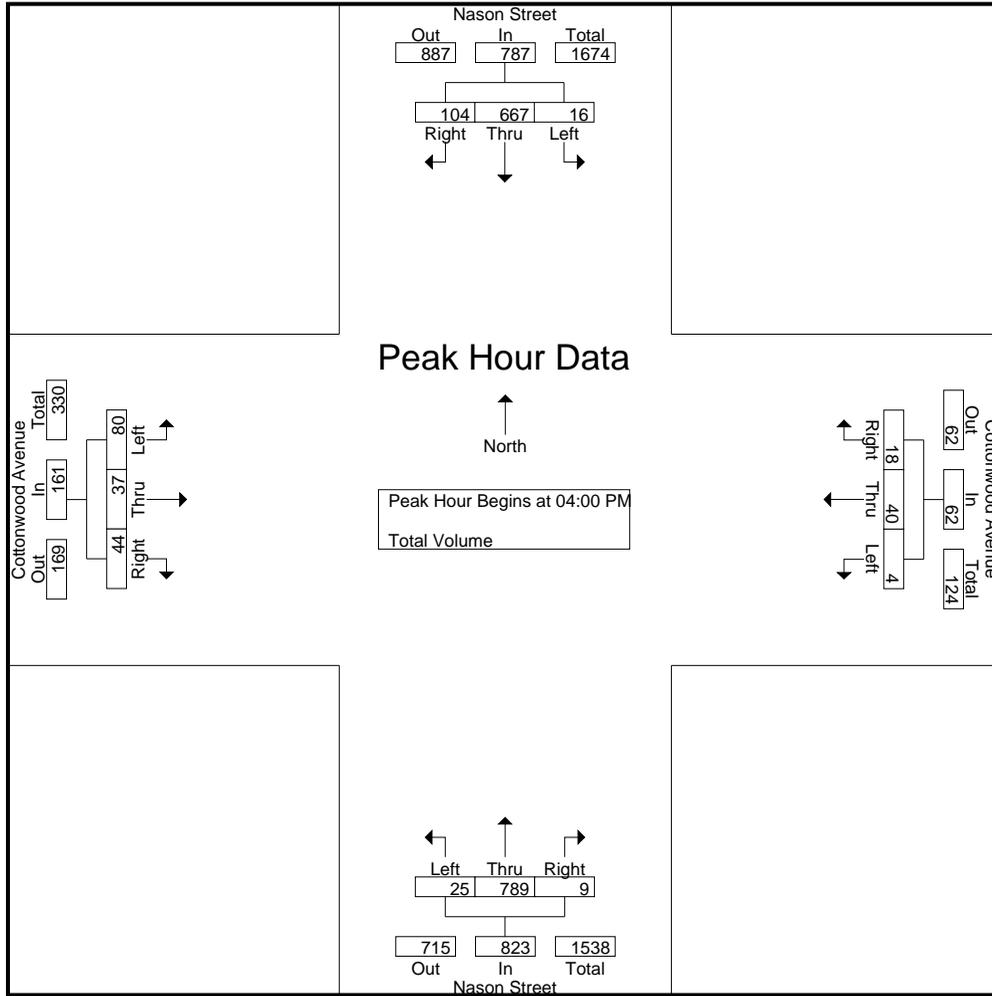
Start Time	Nason Street Southbound				Cottonwood Avenue Westbound				Nason Street Northbound				Cottonwood Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	3	166	24	193	1	10	9	20	8	183	2	193	22	12	9	43	449
04:15 PM	7	174	29	210	1	16	5	22	4	199	1	204	22	5	10	37	473
04:30 PM	4	166	27	197	0	8	1	9	6	240	5	251	17	7	12	36	493
04:45 PM	2	161	24	187	2	6	3	11	7	167	1	175	19	13	13	45	418
Total Volume	16	667	104	787	4	40	18	62	25	789	9	823	80	37	44	161	1833
% App. Total	2	84.8	13.2		6.5	64.5	29		3	95.9	1.1		49.7	23	27.3		
PHF	.571	.958	.897	.937	.500	.625	.500	.705	.781	.822	.450	.820	.909	.712	.846	.894	.930

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

City of Moreno Valley
 N/S: Nason Street
 E/W: Cottonwood Avenue
 Weather: Clear

File Name : 05_MR_V_Nas_Cot PM
 Site Code : 99922431
 Start Date : 5/12/2022
 Page No : 2



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

	05:00 PM				04:15 PM				04:15 PM				04:00 PM			
+0 mins.	2	158	24	184	1	16	5	22	4	199	1	204	22	12	9	43
+15 mins.	3	182	35	220	0	8	1	9	6	240	5	251	22	5	10	37
+30 mins.	6	167	32	205	2	6	3	11	7	167	1	175	17	7	12	36
+45 mins.	5	177	31	213	2	15	8	25	5	195	1	201	19	13	13	45
Total Volume	16	684	122	822	5	45	17	67	22	801	8	831	80	37	44	161
% App. Total	1.9	83.2	14.8		7.5	67.2	25.4		2.6	96.4	1		49.7	23	27.3	
PHF	.667	.940	.871	.934	.625	.703	.531	.670	.786	.834	.400	.828	.909	.712	.846	.894

Counts Unlimited, Inc.

City of Moreno Valley
 Alessandro Boulevard
 B/ Nason Street - Western Project Boundary
 24 Hour Directional Volume Count

PO Box 1178
 Corona, CA 92878
 Phone: (951) 268-6268
 email: counts@countsunlimited.com

MRV004
 Site Code: 999-22451

Start Time	12-May-22 Thu	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		9	65			14	59				
12:15		14	82			8	66				
12:30		7	48			4	53				
12:45		4	52	34	247	7	68	33	246	67	493
01:00		5	72			3	64				
01:15		6	55			9	81				
01:30		5	58			4	86				
01:45		7	56	23	241	4	69	20	300	43	541
02:00		5	75			6	78				
02:15		3	68			9	85				
02:30		5	73			2	96				
02:45		5	63	18	279	1	103	18	362	36	641
03:00		1	114			4	99				
03:15		2	136			3	90				
03:30		5	102			12	65				
03:45		3	89	11	441	13	66	32	320	43	761
04:00		8	86			11	77				
04:15		10	95			15	78				
04:30		19	107			25	76				
04:45		13	86	50	374	28	65	79	296	129	670
05:00		16	91			21	68				
05:15		12	82			26	72				
05:30		6	89			29	73				
05:45		23	86	57	348	48	76	124	289	181	637
06:00		24	78			29	62				
06:15		24	67			67	66				
06:30		31	81			62	66				
06:45		40	61	119	287	101	63	259	257	378	544
07:00		44	61			77	50				
07:15		36	52			117	49				
07:30		68	53			163	42				
07:45		82	57	230	223	188	55	545	196	775	419
08:00		68	47			122	47				
08:15		72	49			88	39				
08:30		50	49			89	37				
08:45		46	38	236	183	93	26	392	149	628	332
09:00		39	35			61	24				
09:15		38	42			53	28				
09:30		36	38			50	27				
09:45		58	27	171	142	55	29	219	108	390	250
10:00		30	31			64	14				
10:15		39	18			51	20				
10:30		49	10			51	17				
10:45		51	18	169	77	57	10	223	61	392	138
11:00		39	16			54	8				
11:15		67	11			56	10				
11:30		63	13			63	11				
11:45		54	13	223	53	56	10	229	39	452	92
Total		1341	2895	1341	2895	2173	2623	2173	2623	3514	5518
Combined Total		4236		4236		4796		4796		9032	
AM Peak	-	07:30	-	-	-	07:15	-	-	-	-	-
Vol.	-	290	-	-	-	590	-	-	-	-	-
P.H.F.	-	0.884	-	-	-	0.785	-	-	-	-	-
PM Peak	-	-	03:00	-	-	-	02:30	-	-	-	-
Vol.	-	-	441	-	-	-	388	-	-	-	-
P.H.F.	-	-	0.811	-	-	-	0.942	-	-	-	-
Percentage		31.7%	68.3%			45.3%	54.7%				
ADT/AADT		ADT 9,032		AADT 9,032							

APPENDIX C: VOLUME DEVELOPMENT WORKSHEETS

**Table C-1: Existing Peak Hour Volumes
(Intersections With Classification Counts)**

	AM Peak Hour					PM Peak Hour						
	Pass. Veh.	Trucks			Total PCE Volume	Pass. Veh.	Trucks			Total PCE Volume		
		2 Axle	3 Axle	4 Axle			PCE	2 Axle	3 Axle		4 Axle	PCE
1 . Lasselle St/Alessandro Blvd												
NBL	164	1	2	0	6	170	150	0	0	0	0	150
NBT	302	0	9	0	18	320	342	0	3	0	6	348
NBR	140	0	2	1	7	147	98	0	0	0	0	98
SBL	26	0	1	0	2	28	15	0	0	0	0	15
SBT	317	0	5	0	10	327	325	3	3	0	11	336
SBR	69	0	0	0	0	69	32	0	0	0	0	32
EBL	38	0	0	0	0	38	49	0	0	0	0	49
EBT	237	7	6	8	47	284	369	1	3	0	8	377
EBR	156	0	3	0	6	162	200	0	1	0	2	202
WBL	118	0	4	0	8	126	75	2	1	0	5	80
WBT	435	5	1	3	19	454	279	1	2	0	6	285
WBR	25	0	1	0	2	27	15	0	0	0	0	15
North Leg												
Approach	412	0	6	0	12	424	372	3	3	0	11	383
Departure	365	0	10	0	20	385	406	0	3	0	6	412
Total	777	0	16	0	32	809	778	3	6	0	17	795
South Leg												
Approach	606	1	13	1	31	637	590	0	3	0	6	596
Departure	591	0	12	0	24	615	600	5	5	0	18	618
Total	1,197	1	25	1	55	1,252	1,190	5	8	0	24	1,214
East Leg												
Approach	578	5	6	3	29	607	369	3	3	0	11	380
Departure	403	7	9	9	56	459	482	1	3	0	8	490
Total	981	12	15	12	85	1,066	851	4	6	0	19	870
West Leg												
Approach	431	7	9	8	53	484	618	1	4	0	10	628
Departure	668	6	3	3	25	693	461	1	2	0	6	467
Total	1,099	13	12	11	78	1,177	1,079	2	6	0	16	1,095
Total Approaches												
Approach	2,027	13	34	12	125	2,152	1,949	7	13	0	38	1,987
Departure	2,027	13	34	12	125	2,152	1,949	7	13	0	38	1,987
Total	4,054	26	68	24	250	4,304	3,898	14	26	0	76	3,974

Table C-1: Existing Peak Hour Volumes
(Intersections With Classification Counts)

	AM Peak Hour					PM Peak Hour						
	Pass. Veh.	Trucks			Total PCE Volume	Pass. Veh.	Trucks			Total PCE Volume		
		2 Axle	3 Axle	4 Axle			PCE	2 Axle	3 Axle		4 Axle	PCE
2 . Morrison St/Alessandro Blvd												
NBL	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	97	0	0	0	0	97	40	0	2	0	4	44
SBT	0	0	0	0	0	0	0	0	0	0	0	0
SBR	148	0	0	0	0	148	63	1	0	0	2	65
EBL	130	0	1	0	2	132	76	0	1	0	2	78
EBT	265	8	5	9	49	314	354	2	6	1	18	372
EBR	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	405	4	4	3	23	428	302	3	5	2	21	323
WBR	69	0	1	0	2	71	41	1	1	0	4	45
North Leg												
Approach	245	0	0	0	0	245	103	1	2	0	6	109
Departure	199	0	2	0	4	203	117	1	2	0	6	123
Total	444	0	2	0	4	448	220	2	4	0	12	232
South Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
East Leg												
Approach	474	4	5	3	25	499	343	4	6	2	25	368
Departure	362	8	5	9	49	411	394	2	8	1	22	416
Total	836	12	10	12	74	910	737	6	14	3	47	784
West Leg												
Approach	395	8	6	9	51	446	430	2	7	1	20	450
Departure	553	4	4	3	23	576	365	4	5	2	23	388
Total	948	12	10	12	74	1,022	795	6	12	3	43	838
Total Approaches												
Approach	1,114	12	11	12	76	1,190	876	7	15	3	51	927
Departure	1,114	12	11	12	76	1,190	876	7	15	3	51	927
Total	2,228	24	22	24	152	2,380	1,752	14	30	6	102	1,854

Table C-1: Existing Peak Hour Volumes
(Intersections With Classification Counts)

	AM Peak Hour					PM Peak Hour						
	Pass. Veh.	Trucks			Total PCE Volume	Pass. Veh.	Trucks			Total PCE Volume		
		2 Axle	3 Axle	4 Axle			PCE	2 Axle	3 Axle		4 Axle	PCE
3 . Nason St/Eucalyptus Ave												
NBL	63	2	2	0	7	70	46	1	1	0	4	50
NBT	665	2	2	0	7	672	740	8	8	3	37	777
NBR	179	1	1	0	4	183	210	1	1	0	4	214
SBL	13	1	0	0	2	15	37	0	0	0	0	37
SBT	896	6	2	1	16	912	662	12	1	2	26	688
SBR	89	0	1	0	2	91	49	1	0	0	2	51
EBL	249	1	1	0	4	253	42	1	1	0	4	46
EBT	214	0	0	0	0	214	97	1	1	0	4	101
EBR	195	1	1	0	4	199	40	2	2	0	7	47
WBL	135	1	0	0	2	137	138	2	0	0	3	141
WBT	145	0	0	0	0	145	125	6	0	0	9	134
WBR	25	0	0	0	0	25	14	0	0	0	0	14
North Leg												
Approach	998	7	3	1	20	1,018	748	13	1	2	28	776
Departure	939	3	3	0	11	950	796	9	9	3	41	837
Total	1,937	10	6	1	31	1,968	1,544	22	10	5	69	1,613
South Leg												
Approach	907	5	5	0	18	925	996	10	10	3	45	1,041
Departure	1,226	8	3	1	22	1,248	840	16	3	2	36	876
Total	2,133	13	8	1	40	2,173	1,836	26	13	5	81	1,917
East Leg												
Approach	305	1	0	0	2	307	277	8	0	0	12	289
Departure	406	2	1	0	6	412	344	2	2	0	8	352
Total	711	3	1	0	8	719	621	10	2	0	20	641
West Leg												
Approach	658	2	2	0	8	666	179	4	4	0	15	194
Departure	297	2	3	0	9	306	220	8	1	0	15	235
Total	955	4	5	0	17	972	399	12	5	0	30	429
Total Approaches												
Approach	2,868	15	10	1	48	2,916	2,200	35	15	5	100	2,300
Departure	2,868	15	10	1	48	2,916	2,200	35	15	5	100	2,300
Total	5,736	30	20	2	96	5,832	4,400	70	30	10	200	4,600

**Table C-1: Existing Peak Hour Volumes
(Intersections With Classification Counts)**

	AM Peak Hour					PM Peak Hour						
	Pass. Veh.	Trucks			Total PCE Volume	Pass. Veh.	Trucks			Total PCE Volume		
		2 Axle	3 Axle	4 Axle			PCE	2 Axle	3 Axle		4 Axle	PCE
4 . Nason St/Dracaea Ave												
NBL	219	0	0	0	0	219	26	0	0	0	0	26
NBT	654	9	16	2	52	706	841	0	7	0	14	855
NBR	27	1	1	0	4	31	17	1	0	0	2	19
SBL	9	0	2	0	4	13	17	0	1	0	2	19
SBT	819	2	15	0	33	852	712	6	13	0	35	747
SBR	239	0	4	0	8	247	92	0	1	0	2	94
EBL	108	1	0	0	2	110	117	0	0	0	0	117
EBT	12	0	1	0	2	14	2	0	0	0	0	2
EBR	74	0	1	0	2	76	41	2	1	0	5	46
WBL	6	0	0	0	0	6	10	0	0	0	0	10
WBT	2	0	0	0	0	2	4	1	0	0	2	6
WBR	1	0	1	0	2	3	3	0	0	0	0	3
North Leg												
Approach	1,067	2	21	0	45	1,112	821	6	15	0	39	860
Departure	763	10	17	2	56	819	961	0	7	0	14	975
Total	1,830	12	38	2	101	1,931	1,782	6	22	0	53	1,835
South Leg												
Approach	900	10	17	2	56	956	884	1	7	0	16	900
Departure	899	2	16	0	35	934	763	8	14	0	40	803
Total	1,799	12	33	2	91	1,890	1,647	9	21	0	56	1,703
East Leg												
Approach	9	0	1	0	2	11	17	1	0	0	2	19
Departure	48	1	4	0	10	58	36	1	1	0	4	40
Total	57	1	5	0	12	69	53	2	1	0	6	59
West Leg												
Approach	194	1	2	0	6	200	160	2	1	0	5	165
Departure	460	0	4	0	8	468	122	1	1	0	4	126
Total	654	1	6	0	14	668	282	3	2	0	9	291
Total Approaches												
Approach	2,170	13	41	2	109	2,279	1,882	10	23	0	62	1,944
Departure	2,170	13	41	2	109	2,279	1,882	10	23	0	62	1,944
Total	4,340	26	82	4	218	4,558	3,764	20	46	0	124	3,888

Table C-1: Existing Peak Hour Volumes
(Intersections With Classification Counts)

	AM Peak Hour					PM Peak Hour						
	Pass. Veh.	Trucks			Total PCE Volume	Pass. Veh.	Trucks			Total PCE Volume		
		2 Axle	3 Axle	4 Axle			PCE	2 Axle	3 Axle		4 Axle	PCE
5 . Nason St/Cottonwood Ave												
NBL	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
South Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
East Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
West Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
Total Approaches												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0

Table C-1: Existing Peak Hour Volumes
(Intersections With Classification Counts)

	AM Peak Hour					PM Peak Hour						
	Pass. Veh.	Trucks			Total PCE Volume	Pass. Veh.	Trucks			Total PCE Volume		
		2 Axle	3 Axle	4 Axle			PCE	2 Axle	3 Axle		4 Axle	PCE
6 . Nason St/Alessandro Blvd												
NBL	73	0	1	0	2	75	61	0	2	0	4	65
NBT	543	1	6	0	14	557	696	0	2	0	4	700
NBR	19	1	0	0	2	21	58	0	2	0	4	62
SBL	68	0	0	1	3	71	69	1	3	0	8	77
SBT	678	1	10	0	22	700	570	2	9	0	21	591
SBR	84	0	1	0	2	86	73	1	1	1	7	80
EBL	87	0	3	2	12	99	87	0	1	0	2	89
EBT	181	9	5	6	42	223	235	2	3	1	12	247
EBR	99	0	1	1	5	104	63	0	3	0	6	69
WBL	100	0	1	0	2	102	21	0	1	0	2	23
WBT	314	3	3	3	20	334	215	2	3	1	12	227
WBR	135	0	2	0	4	139	53	0	0	0	0	53
North Leg												
Approach	830	1	11	1	27	857	712	4	13	1	36	748
Departure	765	1	11	2	30	795	836	0	3	0	6	842
Total	1,595	2	22	3	57	1,652	1,548	4	16	1	42	1,590
South Leg												
Approach	635	2	7	0	18	653	815	0	6	0	12	827
Departure	877	1	12	1	29	906	654	2	13	0	29	683
Total	1,512	3	19	1	47	1,559	1,469	2	19	0	41	1,510
East Leg												
Approach	549	3	6	3	26	575	289	2	4	1	14	303
Departure	268	10	5	7	47	315	362	3	8	1	24	386
Total	817	13	11	10	73	890	651	5	12	2	38	689
West Leg												
Approach	367	9	9	9	59	426	385	2	7	1	20	405
Departure	471	3	5	3	24	495	349	3	6	2	23	372
Total	838	12	14	12	83	921	734	5	13	3	43	777
Total Approaches												
Approach	2,381	15	33	13	130	2,511	2,201	8	30	3	82	2,283
Departure	2,381	15	33	13	130	2,511	2,201	8	30	3	82	2,283
Total	4,762	30	66	26	260	5,022	4,402	16	60	6	164	4,566

Table C-2: Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
1 . Lasselle St/Alessandro Blvd								
NBL	164	3	167	1.80%	150	0	150	0.00%
NBT	302	9	311	2.89%	342	3	345	0.87%
NBR	140	3	143	2.10%	98	0	98	0.00%
SBL	26	1	27	3.70%	15	0	15	0.00%
SBT	317	5	322	1.55%	325	6	331	1.81%
SBR	69	0	69	0.00%	32	0	32	0.00%
EBL	38	0	38	0.00%	49	0	49	0.00%
EBT	237	21	258	8.14%	369	4	373	1.07%
EBR	156	3	159	1.89%	200	1	201	0.50%
WBL	118	4	122	3.28%	75	3	78	3.85%
WBT	435	9	444	2.03%	279	3	282	1.06%
WBR	25	1	26	3.85%	15	0	15	0.00%
North Leg								
Approach	412	6	418	1.4%	372	6	378	1.6%
Departure	365	10	375	2.7%	406	3	409	0.7%
Total	777	16	793	2.0%	778	9	787	1.1%
South Leg								
Approach	606	15	621	2.4%	590	3	593	0.5%
Departure	591	12	603	2.0%	600	10	610	1.6%
Total	1,197	27	1,224	2.2%	1,190	13	1,203	1.1%
East Leg								
Approach	578	14	592	2.4%	369	6	375	1.6%
Departure	403	25	428	5.8%	482	4	486	0.8%
Total	981	39	1,020	3.8%	851	10	861	1.2%
West Leg								
Approach	431	24	455	5.3%	618	5	623	0.8%
Departure	668	12	680	1.8%	461	3	464	0.6%
Total	1,099	36	1,135	3.2%	1,079	8	1,087	0.7%
Total Approaches								
Approach	2,027	59	2,086		1,949	20	1,969	
Departure	2,027	59	2,086		1,949	20	1,969	
Total	4,054	118	4,172	2.8%	3,898	40	3,938	1.0%

Table C-2: Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
2 . Morrison St/Alessandro Blvd								
NBL	0	0	0	0.00%	0	0	0	0.00%
NBT	0	0	0	0.00%	0	0	0	0.00%
NBR	0	0	0	0.00%	0	0	0	0.00%
SBL	97	0	97	0.00%	40	2	42	4.76%
SBT	0	0	0	0.00%	0	0	0	0.00%
SBR	148	0	148	0.00%	63	1	64	1.56%
EBL	130	1	131	0.76%	76	1	77	1.30%
EBT	265	22	287	7.67%	354	9	363	2.48%
EBR	0	0	0	0.00%	0	0	0	0.00%
WBL	0	0	0	0.00%	0	0	0	0.00%
WBT	405	11	416	2.64%	302	10	312	3.21%
WBR	69	1	70	1.43%	41	2	43	4.65%
North Leg								
Approach	245	0	245	0.0%	103	3	106	2.8%
Departure	199	2	201	1.0%	117	3	120	2.5%
Total	444	2	446	0.4%	220	6	226	2.7%
South Leg								
Approach	0	0	0	0.0%	0	0	0	0.0%
Departure	0	0	0	0.0%	0	0	0	0.0%
Total	0	0	0	0.0%	0	0	0	0.0%
East Leg								
Approach	474	12	486	2.5%	343	12	355	3.4%
Departure	362	22	384	5.7%	394	11	405	2.7%
Total	836	34	870	3.9%	737	23	760	3.0%
West Leg								
Approach	395	23	418	5.5%	430	10	440	2.3%
Departure	553	11	564	2.0%	365	11	376	2.9%
Total	948	34	982	3.5%	795	21	816	2.6%
Total Approaches								
Approach	1,114	35	1,149		876	25	901	
Departure	1,114	35	1,149		876	25	901	
Total	2,228	70	2,298	3.0%	1,752	50	1,802	2.8%

Table C-2: Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
3 . Nason St/Eucalyptus Ave								
NBL	63	4	67	5.97%	46	2	48	4.17%
NBT	665	4	669	0.60%	740	19	759	2.50%
NBR	179	2	181	1.10%	210	2	212	0.94%
SBL	13	1	14	7.14%	37	0	37	0.00%
SBT	896	9	905	0.99%	662	15	677	2.22%
SBR	89	1	90	1.11%	49	1	50	2.00%
EBL	249	2	251	0.80%	42	2	44	4.55%
EBT	214	0	214	0.00%	97	2	99	2.02%
EBR	195	2	197	1.02%	40	4	44	9.09%
WBL	135	1	136	0.74%	138	2	140	1.43%
WBT	145	0	145	0.00%	125	6	131	4.58%
WBR	25	0	25	0.00%	14	0	14	0.00%
North Leg								
Approach	998	11	1,009	1.1%	748	16	764	2.1%
Departure	939	6	945	0.6%	796	21	817	2.6%
Total	1,937	17	1,954	0.9%	1,544	37	1,581	2.3%
South Leg								
Approach	907	10	917	1.1%	996	23	1,019	2.3%
Departure	1,226	12	1,238	1.0%	840	21	861	2.4%
Total	2,133	22	2,155	1.0%	1,836	44	1,880	2.3%
East Leg								
Approach	305	1	306	0.3%	277	8	285	2.8%
Departure	406	3	409	0.7%	344	4	348	1.1%
Total	711	4	715	0.6%	621	12	633	1.9%
West Leg								
Approach	658	4	662	0.6%	179	8	187	4.3%
Departure	297	5	302	1.7%	220	9	229	3.9%
Total	955	9	964	0.9%	399	17	416	4.1%
Total Approaches								
Approach	2,868	26	2,894		2,200	55	2,255	
Departure	2,868	26	2,894		2,200	55	2,255	
Total	5,736	52	5,788	0.9%	4,400	110	4,510	2.4%

Table C-2: Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
4 . Nason St/Dracaea Ave								
NBL	219	0	219	0.00%	26	0	26	0.00%
NBT	654	27	681	3.96%	841	7	848	0.83%
NBR	27	2	29	6.90%	17	1	18	5.56%
SBL	9	2	11	18.18%	17	1	18	5.56%
SBT	819	17	836	2.03%	712	19	731	2.60%
SBR	239	4	243	1.65%	92	1	93	1.08%
EBL	108	1	109	0.92%	117	0	117	0.00%
EBT	12	1	13	7.69%	2	0	2	0.00%
EBR	74	1	75	1.33%	41	3	44	6.82%
WBL	6	0	6	0.00%	10	0	10	0.00%
WBT	2	0	2	0.00%	4	1	5	20.00%
WBR	1	1	2	50.00%	3	0	3	0.00%
North Leg								
Approach	1,067	23	1,090	2.1%	821	21	842	2.5%
Departure	763	29	792	3.7%	961	7	968	0.7%
Total	1,830	52	1,882	2.8%	1,782	28	1,810	1.5%
South Leg								
Approach	900	29	929	3.1%	884	8	892	0.9%
Departure	899	18	917	2.0%	763	22	785	2.8%
Total	1,799	47	1,846	2.5%	1,647	30	1,677	1.8%
East Leg								
Approach	9	1	10	10.0%	17	1	18	5.6%
Departure	48	5	53	9.4%	36	2	38	5.3%
Total	57	6	63	9.5%	53	3	56	5.4%
West Leg								
Approach	194	3	197	1.5%	160	3	163	1.8%
Departure	460	4	464	0.9%	122	2	124	1.6%
Total	654	7	661	1.1%	282	5	287	1.7%
Total Approaches								
Approach	2,170	56	2,226		1,882	33	1,915	
Departure	2,170	56	2,226		1,882	33	1,915	
Total	4,340	112	4,452	2.5%	3,764	66	3,830	1.7%

Table C-2: Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
5 . Nason St/Cottonwood Ave								
NBL	0	0	0	0.00%	0	0	0	0.00%
NBT	0	0	0	0.00%	0	0	0	0.00%
NBR	0	0	0	0.00%	0	0	0	0.00%
SBL	0	0	0	0.00%	0	0	0	0.00%
SBT	0	0	0	0.00%	0	0	0	0.00%
SBR	0	0	0	0.00%	0	0	0	0.00%
EBL	0	0	0	0.00%	0	0	0	0.00%
EBT	0	0	0	0.00%	0	0	0	0.00%
EBR	0	0	0	0.00%	0	0	0	0.00%
WBL	0	0	0	0.00%	0	0	0	0.00%
WBT	0	0	0	0.00%	0	0	0	0.00%
WBR	0	0	0	0.00%	0	0	0	0.00%
North Leg								
Approach	0	0	0	0.0%	0	0	0	0.0%
Departure	0	0	0	0.0%	0	0	0	0.0%
Total	0	0	0	0.0%	0	0	0	0.0%
South Leg								
Approach	0	0	0	0.0%	0	0	0	0.0%
Departure	0	0	0	0.0%	0	0	0	0.0%
Total	0	0	0	0.0%	0	0	0	0.0%
East Leg								
Approach	0	0	0	0.0%	0	0	0	0.0%
Departure	0	0	0	0.0%	0	0	0	0.0%
Total	0	0	0	0.0%	0	0	0	0.0%
West Leg								
Approach	0	0	0	0.0%	0	0	0	0.0%
Departure	0	0	0	0.0%	0	0	0	0.0%
Total	0	0	0	0.0%	0	0	0	0.0%
Total Approaches								
Approach	0	0	0		0	0	0	
Departure	0	0	0		0	0	0	
Total	0	0	0	0.0%	0	0	0	0.0%

Table C-2: Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
6 . Nason St/Alessandro Blvd								
NBL	73	1	74	1.35%	61	2	63	3.17%
NBT	543	7	550	1.27%	696	2	698	0.29%
NBR	19	1	20	5.00%	58	2	60	3.33%
SBL	68	1	69	1.45%	69	4	73	5.48%
SBT	678	11	689	1.60%	570	11	581	1.89%
SBR	84	1	85	1.18%	73	3	76	3.95%
EBL	87	5	92	5.43%	87	1	88	1.14%
EBT	181	20	201	9.95%	235	6	241	2.49%
EBR	99	2	101	1.98%	63	3	66	4.55%
WBL	100	1	101	0.99%	21	1	22	4.55%
WBT	314	9	323	2.79%	215	6	221	2.71%
WBR	135	2	137	1.46%	53	0	53	0.00%
North Leg								
Approach	830	13	843	1.5%	712	18	730	2.5%
Departure	765	14	779	1.8%	836	3	839	0.4%
Total	1,595	27	1,622	1.7%	1,548	21	1,569	1.3%
South Leg								
Approach	635	9	644	1.4%	815	6	821	0.7%
Departure	877	14	891	1.6%	654	15	669	2.2%
Total	1,512	23	1,535	1.5%	1,469	21	1,490	1.4%
East Leg								
Approach	549	12	561	2.1%	289	7	296	2.4%
Departure	268	22	290	7.6%	362	12	374	3.2%
Total	817	34	851	4.0%	651	19	670	2.8%
West Leg								
Approach	367	27	394	6.9%	385	10	395	2.5%
Departure	471	11	482	2.3%	349	11	360	3.1%
Total	838	38	876	4.3%	734	21	755	2.8%
Total Approaches								
Approach	2,381	61	2,442		2,201	41	2,242	
Departure	2,381	61	2,442		2,201	41	2,242	
Total	4,762	122	4,884	2.5%	4,402	82	4,484	1.8%

Table C-3: Existing PCE Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour					
	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol	
5 . Nason St/Cottonwood Ave											
NBL	50		50	0	0	50		25	0	0	25
NBT	781	2.5%	761	20	50	811	1.8%	775	14	35	810
NBR	4		4	0	0	4		9	0	0	9
SBL	32		32	0	0	32		16	0	0	16
SBT	774	2.5%	754	20	49	803	1.8%	655	12	30	685
SBR	132		132	0	0	132		104	0	0	104
EBL	93		93	0	0	93		80	0	0	80
EBT	60		60	0	0	60		37	0	0	37
EBR	27		27	0	0	27		44	0	0	44
WBL	4		4	0	0	4		4	0	0	4
WBT	68		68	0	0	68		40	0	0	40
WBR	52		52	0	0	52		18	0	0	18
North Leg											
Approach	938		918	20	49.00	967		775	12	30.00	805
Departure	926		906	20	50.00	956		873	14	35.00	908
Total	1,864		1,824	40	99.00	1,923		1,648	26	65.00	1,713
South Leg											
Approach	835		815	20	50.00	865		809	14	35.00	844
Departure	805		785	20	49.00	834		703	12	30.00	733
Total	1,640		1,600	40	99.00	1,699		1,512	26	65.00	1,577
East Leg											
Approach	124		124	0	0.00	124		62	0	0.00	62
Departure	96		96	0	0.00	96		62	0	0.00	62
Total	220		220	0	0.00	220		124	0	0.00	124
West Leg											
Approach	180		180	0	0.00	180		161	0	0.00	161
Departure	250		250	0	0.00	250		169	0	0.00	169
Total	430		430	0	0.00	430		330	0	0.00	330
Total Approaches											
Approach	2,077		2,037	40	99.00	2,136		1,807	26	65.00	1,872
Departure	2,077		2,037	40	99.00	2,136		1,807	26	65.00	1,872
Total	4,154		4,075	79	198.00	4,273		3,614	52	130.00	3,744

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
1 . Lasselle St/Alessandro Blvd						
NBL	170	0	170	150	0	150
NBT	320	0	320	348	0	348
NBR	147	1	148	98	4	102
SBL	28	0	28	15	1	16
SBT	327	0	327	336	0	336
SBR	69	0	69	32	0	32
EBL	38	0	38	49	0	49
EBT	284	3	287	377	10	387
EBR	162	0	162	202	0	202
WBL	126	4	130	80	3	83
WBT	454	9	463	285	6	291
WBR	27	1	28	15	1	16
North Leg						
Approach	424	0	424	383	1	384
Departure	385	1	386	412	1	413
Total	809	1	810	795	2	797
South Leg						
Approach	637	1	638	596	4	600
Departure	615	4	619	618	3	621
Total	1,252	5	1,257	1,214	7	1,221
East Leg						
Approach	607	14	621	380	10	390
Departure	459	4	463	490	15	505
Total	1,066	18	1,084	870	25	895
West Leg						
Approach	484	3	487	628	10	638
Departure	693	9	702	467	6	473
Total	1,177	12	1,189	1,095	16	1,111
Total Approaches						
Approach	2,152	18	2,170	1,987	25	2,012
Departure	2,152	18	2,170	1,987	25	2,012
Total	4,304	36	4,340	3,974	50	4,024

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
2 . Morrison St/Alessandro Blvd						
NBL	0	0	0	0	0	0
NBT	0	0	0	0	0	0
NBR	0	0	0	0	0	0
SBL	97	0	97	44	1	45
SBT	0	0	0	0	0	0
SBR	148	0	148	65	0	65
EBL	132	0	132	78	0	78
EBT	314	5	319	372	16	388
EBR	0	0	0	0	0	0
WBL	0	0	0	0	0	0
WBT	428	14	442	323	10	333
WBR	71	1	72	45	1	46
North Leg						
Approach	245	0	245	109	1	110
Departure	203	1	204	123	1	124
Total	448	1	449	232	2	234
South Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
East Leg						
Approach	499	15	514	368	11	379
Departure	411	5	416	416	17	433
Total	910	20	930	784	28	812
West Leg						
Approach	446	5	451	450	16	466
Departure	576	14	590	388	10	398
Total	1,022	19	1,041	838	26	864
Total Approaches						
Approach	1,190	20	1,210	927	28	955
Departure	1,190	20	1,210	927	28	955
Total	2,380	40	2,420	1,854	56	1,910

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
3 . Nason St/Eucalyptus Ave						
NBL	70	2	72	50	1	51
NBT	672	9	681	777	6	783
NBR	183	3	186	214	2	216
SBL	15	0	15	37	0	37
SBT	912	3	915	688	10	698
SBR	91	0	91	51	0	51
EBL	253	0	253	46	0	46
EBT	214	0	214	101	0	101
EBR	199	1	200	47	2	49
WBL	137	1	138	141	4	145
WBT	145	0	145	134	0	134
WBR	25	0	25	14	0	14
North Leg						
Approach	1,018	3	1,021	776	10	786
Departure	950	9	959	837	6	843
Total	1,968	12	1,980	1,613	16	1,629
South Leg						
Approach	925	14	939	1,041	9	1,050
Departure	1,248	5	1,253	876	16	892
Total	2,173	19	2,192	1,917	25	1,942
East Leg						
Approach	307	1	308	289	4	293
Departure	412	3	415	352	2	354
Total	719	4	723	641	6	647
West Leg						
Approach	666	1	667	194	2	196
Departure	306	2	308	235	1	236
Total	972	3	975	429	3	432
Total Approaches						
Approach	2,916	19	2,935	2,300	25	2,325
Departure	2,916	19	2,935	2,300	25	2,325
Total	5,832	38	5,870	4,600	50	4,650

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
4 . Nason St/Dracaea Ave						
NBL	219	1	220	26	1	27
NBT	706	14	720	855	10	865
NBR	31	0	31	19	0	19
SBL	13	0	13	19	0	19
SBT	852	5	857	747	16	763
SBR	247	0	247	94	0	94
EBL	110	0	110	117	0	117
EBT	14	0	14	2	0	2
EBR	76	0	76	46	1	47
WBL	6	0	6	10	0	10
WBT	2	0	2	6	0	6
WBR	3	0	3	3	0	3
North Leg						
Approach	1,112	5	1,117	860	16	876
Departure	819	14	833	975	10	985
Total	1,931	19	1,950	1,835	26	1,861
South Leg						
Approach	956	15	971	900	11	911
Departure	934	5	939	803	17	820
Total	1,890	20	1,910	1,703	28	1,731
East Leg						
Approach	11	0	11	19	0	19
Departure	58	0	58	40	0	40
Total	69	0	69	59	0	59
West Leg						
Approach	200	0	200	165	1	166
Departure	468	1	469	126	1	127
Total	668	1	669	291	2	293
Total Approaches						
Approach	2,279	20	2,299	1,944	28	1,972
Departure	2,279	20	2,299	1,944	28	1,972

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
5 . Nason St/Cottonwood Ave						
NBL	50	2	52	25	2	27
NBT	811	7	818	810	5	815
NBR	4	0	4	9	0	9
SBL	32	3	35	16	10	26
SBT	803	2	805	685	8	693
SBR	132	0	132	104	0	104
EBL	93	0	93	80	0	80
EBT	60	1	61	37	3	40
EBR	27	1	28	44	3	47
WBL	4	0	4	4	0	4
WBT	68	2	70	40	2	42
WBR	52	8	60	18	6	24
North Leg						
Approach	967	5	972	805	18	823
Departure	956	15	971	908	11	919
Total	1,923	20	1,943	1,713	29	1,742
South Leg						
Approach	865	9	874	844	7	851
Departure	834	3	837	733	11	744
Total	1,699	12	1,711	1,577	18	1,595
East Leg						
Approach	124	10	134	62	8	70
Departure	96	4	100	62	13	75
Total	220	14	234	124	21	145
West Leg						
Approach	180	2	182	161	6	167
Departure	250	4	254	169	4	173
Total	430	6	436	330	10	340
Total Approaches						
Approach	2,136	26	2,162	1,872	39	1,911
Departure	2,136	26	2,162	1,872	39	1,911

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
6 . Nason St/Alessandro Blvd						
NBL	75	0	75	65	0	65
NBT	557	0	557	700	0	700
NBR	21	3	24	62	10	72
SBL	71	3	74	77	10	87
SBT	700	0	700	591	0	591
SBR	86	0	86	80	0	80
EBL	99	0	99	89	0	89
EBT	223	5	228	247	17	264
EBR	104	0	104	69	0	69
WBL	102	9	111	23	6	29
WBT	334	15	349	227	10	237
WBR	139	9	148	53	6	59
North Leg						
Approach	857	3	860	748	10	758
Departure	795	9	804	842	6	848
Total	1,652	12	1,664	1,590	16	1,606
South Leg						
Approach	653	3	656	827	10	837
Departure	906	9	915	683	6	689
Total	1,559	12	1,571	1,510	16	1,526
East Leg						
Approach	575	33	608	303	22	325
Departure	315	11	326	386	37	423
Total	890	44	934	689	59	748
West Leg						
Approach	426	5	431	405	17	422
Departure	495	15	510	372	10	382
Total	921	20	941	777	27	804
Total Approaches						
Approach	2,511	44	2,555	2,283	59	2,342
Departure	2,511	44	2,555	2,283	59	2,342

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
7 . Street A/Cottonwood Ave						
NBL	0	11	11	0	7	7
NBT	0	0	0	0	0	0
NBR	0	4	4	0	3	3
SBL	0	0	0	0	0	0
SBT	0	0	0	0	0	0
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	96	0	96	62	0	62
EBR	0	4	4	0	12	12
WBL	0	2	2	0	5	5
WBT	124	0	124	62	0	62
WBR	0	0	0	0	0	0
North Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
South Leg						
Approach	0	15	15	0	10	10
Departure	0	6	6	0	17	17
Total	0	21	21	0	27	27
East Leg						
Approach	124	2	126	62	5	67
Departure	96	4	100	62	3	65
Total	220	6	226	124	8	132
West Leg						
Approach	96	4	100	62	12	74
Departure	124	11	135	62	7	69
Total	220	15	235	124	19	143
Total Approaches						
Approach	220	21	241	124	27	151
Departure	220	21	241	124	27	151

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
8 . Street A/Alessandro Blvd						
NBL	0	0	0	0	0	0
NBT	0	0	0	0	0	0
NBR	0	0	0	0	0	0
SBL	0	8	8	0	5	5
SBT	0	0	0	0	0	0
SBR	0	33	33	0	22	22
EBL	0	12	12	0	38	38
EBT	315	0	315	386	0	386
EBR	0	0	0	0	0	0
WBL	0	0	0	0	0	0
WBT	575	0	575	303	0	303
WBR	0	3	3	0	9	9
North Leg						
Approach	0	41	41	0	27	27
Departure	0	15	15	0	47	47
Total	0	56	56	0	74	74
South Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
East Leg						
Approach	575	3	578	303	9	312
Departure	315	8	323	386	5	391
Total	890	11	901	689	14	703
West Leg						
Approach	315	12	327	386	38	424
Departure	575	33	608	303	22	325
Total	890	45	935	689	60	749
Total Approaches						
Approach	890	56	946	689	74	763
Departure	890	56	946	689	74	763

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
1 . Lasselle St/Alessandro Blvd														
NBL	170	7	177	91	268	0	268	150	6	156	345	501	0	501
NBT	320	13	333	78	411	0	411	348	14	362	75	437	0	437
NBR	147	6	153	40	193	1	194	98	4	102	98	200	4	204
SBL	28	1	29	62	91	0	91	15	1	16	117	133	1	134
SBT	327	13	340	61	401	0	401	336	13	349	79	428	0	428
SBR	69	3	72	50	122	0	122	32	1	33	60	93	0	93
EBL	38	2	40	59	99	0	99	49	2	51	59	110	0	110
EBT	284	11	295	358	653	3	656	377	15	392	536	928	10	938
EBR	162	6	168	305	473	0	473	202	8	210	158	368	0	368
WBL	126	5	131	83	214	4	218	80	3	83	65	148	3	151
WBT	454	18	472	451	923	9	932	285	11	296	464	760	6	766
WBR	27	1	28	106	134	1	135	15	1	16	92	108	1	109
North Leg														
Approach	424	17	441	173	614	0	614	383	15	398	256	654	1	655
Departure	385	16	401	243	644	1	645	412	17	429	226	655	1	656
Total	809	33	842	416	1,258	1	1,259	795	32	827	482	1,309	2	1,311
South Leg														
Approach	637	26	663	209	872	1	873	596	24	620	518	1,138	4	1,142
Departure	615	24	639	449	1,088	4	1,092	618	24	642	302	944	3	947
Total	1,252	50	1,302	658	1,960	5	1,965	1,214	48	1,262	820	2,082	7	2,089
East Leg														
Approach	607	24	631	640	1,271	14	1,285	380	15	395	621	1,016	10	1,026
Departure	459	18	477	460	937	4	941	490	20	510	751	1,261	15	1,276
Total	1,066	42	1,108	1,100	2,208	18	2,226	870	35	905	1,372	2,277	25	2,302
West Leg														
Approach	484	19	503	722	1,225	3	1,228	628	25	653	753	1,406	10	1,416
Departure	693	28	721	592	1,313	9	1,322	467	18	485	869	1,354	6	1,360
Total	1,177	47	1,224	1,314	2,538	12	2,550	1,095	43	1,138	1,622	2,760	16	2,776
Total Approaches														
Approach	2,152	86	2,238	1,744	3,982	18	4,000	1,987	79	2,066	2,148	4,214	25	4,239
Departure	2,152	86	2,238	1,744	3,982	18	4,000	1,987	79	2,066	2,148	4,214	25	4,239
Total	4,304	172	4,476	3,488	7,964	36	8,000	3,974	158	4,132	4,296	8,428	50	8,478

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
2 . Morrison St/Alessandro Blvd														
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	97	4	101	5	106	0	106	44	2	46	16	62	1	63
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	148	6	154	11	165	0	165	65	3	68	17	85	0	85
EBL	132	5	137	27	164	0	164	78	3	81	24	105	0	105
EBT	314	13	327	443	770	5	775	372	15	387	552	939	16	955
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	428	17	445	446	891	14	905	323	13	336	562	898	10	908
WBR	71	3	74	13	87	1	88	45	2	47	9	56	1	57
North Leg														
Approach	245	10	255	16	271	0	271	109	5	114	33	147	1	148
Departure	203	8	211	40	251	1	252	123	5	128	33	161	1	162
Total	448	18	466	56	522	1	523	232	10	242	66	308	2	310
South Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East Leg														
Approach	499	20	519	459	978	15	993	368	15	383	571	954	11	965
Departure	411	17	428	448	876	5	881	416	17	433	568	1,001	17	1,018
Total	910	37	947	907	1,854	20	1,874	784	32	816	1,139	1,955	28	1,983
West Leg														
Approach	446	18	464	470	934	5	939	450	18	468	576	1,044	16	1,060
Departure	576	23	599	457	1,056	14	1,070	388	16	404	579	983	10	993
Total	1,022	41	1,063	927	1,990	19	2,009	838	34	872	1,155	2,027	26	2,053
Total Approaches														
Approach	1,190	48	1,238	945	2,183	20	2,203	927	38	965	1,180	2,145	28	2,173
Departure	1,190	48	1,238	945	2,183	20	2,203	927	38	965	1,180	2,145	28	2,173
Total	2,380	96	2,476	1,890	4,366	40	4,406	1,854	76	1,930	2,360	4,290	56	4,346

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
3 . Nason St/Eucalyptus Ave														
NBL	70	3	73	40	113	2	115	50	2	52	27	79	1	80
NBT	672	27	699	1,096	1,795	9	1,804	777	31	808	2,380	3,188	6	3,194
NBR	183	7	190	108	298	3	301	214	9	223	273	496	2	498
SBL	15	1	16	15	31	0	31	37	1	38	23	61	0	61
SBT	912	36	948	2,146	3,094	3	3,097	688	28	716	1,480	2,196	10	2,206
SBR	91	4	95	8	103	0	103	51	2	53	6	59	0	59
EBL	253	10	263	0	263	0	263	46	2	48	0	48	0	48
EBT	214	9	223	33	256	0	256	101	4	105	81	186	0	186
EBR	199	8	207	45	252	1	253	47	2	49	28	77	2	79
WBL	137	5	142	251	393	1	394	141	6	147	155	302	4	306
WBT	145	6	151	57	208	0	208	134	5	139	56	195	0	195
WBR	25	1	26	27	53	0	53	14	1	15	18	33	0	33
North Leg														
Approach	1,018	41	1,059	2,169	3,228	3	3,231	776	31	807	1,509	2,316	10	2,326
Departure	950	38	988	1,123	2,111	9	2,120	837	34	871	2,398	3,269	6	3,275
Total	1,968	79	2,047	3,292	5,339	12	5,351	1,613	65	1,678	3,907	5,585	16	5,601
South Leg														
Approach	925	37	962	1,244	2,206	14	2,220	1,041	42	1,083	2,680	3,763	9	3,772
Departure	1,248	49	1,297	2,442	3,739	5	3,744	876	36	912	1,663	2,575	16	2,591
Total	2,173	86	2,259	3,686	5,945	19	5,964	1,917	78	1,995	4,343	6,338	25	6,363
East Leg														
Approach	307	12	319	335	654	1	655	289	12	301	229	530	4	534
Departure	412	17	429	156	585	3	588	352	14	366	377	743	2	745
Total	719	29	748	491	1,239	4	1,243	641	26	667	606	1,273	6	1,279
West Leg														
Approach	666	27	693	78	771	1	772	194	8	202	109	311	2	313
Departure	306	13	319	105	424	2	426	235	9	244	89	333	1	334
Total	972	40	1,012	183	1,195	3	1,198	429	17	446	198	644	3	647
Total Approaches														
Approach	2,916	117	3,033	3,826	6,859	19	6,878	2,300	93	2,393	4,527	6,920	25	6,945
Departure	2,916	117	3,033	3,826	6,859	19	6,878	2,300	93	2,393	4,527	6,920	25	6,945
Total	5,832	234	6,066	7,652	13,718	38	13,756	4,600	186	4,786	9,054	13,840	50	13,890

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
4 . Nason St/Dracaea Ave														
NBL	219	9	228	42	270	1	271	26	1	27	21	48	1	49
NBT	706	28	734	1,238	1,972	14	1,986	855	34	889	2,670	3,559	10	3,569
NBR	31	1	32	22	54	0	54	19	1	20	18	38	0	38
SBL	13	1	14	0	14	0	14	19	1	20	0	20	0	20
SBT	852	34	886	2,431	3,317	5	3,322	747	30	777	1,651	2,428	16	2,444
SBR	247	10	257	11	268	0	268	94	4	98	7	105	0	105
EBL	110	4	114	3	117	0	117	117	5	122	9	131	0	131
EBT	14	1	15	0	15	0	15	2	0	2	0	2	0	2
EBR	76	3	79	43	122	0	122	46	2	48	25	73	1	74
WBL	6	0	6	17	23	0	23	10	0	10	23	33	0	33
WBT	2	0	2	0	2	0	2	6	0	6	0	6	0	6
WBR	3	0	3	0	3	0	3	3	0	3	0	3	0	3
North Leg														
Approach	1,112	45	1,157	2,442	3,599	5	3,604	860	35	895	1,658	2,553	16	2,569
Departure	819	32	851	1,241	2,092	14	2,106	975	39	1,014	2,679	3,693	10	3,703
Total	1,931	77	2,008	3,683	5,691	19	5,710	1,835	74	1,909	4,337	6,246	26	6,272
South Leg														
Approach	956	38	994	1,302	2,296	15	2,311	900	36	936	2,709	3,645	11	3,656
Departure	934	37	971	2,491	3,462	5	3,467	803	32	835	1,699	2,534	17	2,551
Total	1,890	75	1,965	3,793	5,758	20	5,778	1,703	68	1,771	4,408	6,179	28	6,207
East Leg														
Approach	11	0	11	17	28	0	28	19	0	19	23	42	0	42
Departure	58	3	61	22	83	0	83	40	2	42	18	60	0	60
Total	69	3	72	39	111	0	111	59	2	61	41	102	0	102
West Leg														
Approach	200	8	208	46	254	0	254	165	7	172	34	206	1	207
Departure	468	19	487	53	540	1	541	126	5	131	28	159	1	160
Total	668	27	695	99	794	1	795	291	12	303	62	365	2	367
Total Approaches														
Approach	2,279	91	2,370	3,807	6,177	20	6,197	1,944	78	2,022	4,424	6,446	28	6,474
Departure	2,279	91	2,370	3,807	6,177	20	6,197	1,944	78	2,022	4,424	6,446	28	6,474
Total	4,558	182	4,740	7,614	12,354	40	12,394	3,888	156	4,044	8,848	12,892	56	12,948

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
5 . Nason St/Cottonwood Ave														
NBL	50	2	52	208	260	2	262	25	1	26	95	121	2	123
NBT	811	32	843	1,018	1,861	7	1,868	810	32	842	2,471	3,313	5	3,318
NBR	4	0	4	67	71	0	71	9	0	9	42	51	0	51
SBL	32	1	33	12	45	3	48	16	1	17	32	49	10	59
SBT	803	32	835	2,364	3,199	2	3,201	685	27	712	1,459	2,171	8	2,179
SBR	132	5	137	117	254	0	254	104	4	108	205	313	0	313
EBL	93	4	97	253	350	0	350	80	3	83	219	302	0	302
EBT	60	2	62	38	100	1	101	37	1	38	71	109	3	112
EBR	27	1	28	120	148	1	149	44	2	46	52	98	3	101
WBL	4	0	4	95	99	0	99	4	0	4	35	39	0	39
WBT	68	3	71	62	133	2	135	40	2	42	50	92	2	94
WBR	52	2	54	30	84	8	92	18	1	19	21	40	6	46
North Leg														
Approach	967	38	1,005	2,493	3,498	5	3,503	805	32	837	1,696	2,533	18	2,551
Departure	956	38	994	1,301	2,295	15	2,310	908	36	944	2,711	3,655	11	3,666
Total	1,923	76	1,999	3,794	5,793	20	5,813	1,713	68	1,781	4,407	6,188	29	6,217
South Leg														
Approach	865	34	899	1,293	2,192	9	2,201	844	33	877	2,608	3,485	7	3,492
Departure	834	33	867	2,579	3,446	3	3,449	733	29	762	1,546	2,308	11	2,319
Total	1,699	67	1,766	3,872	5,638	12	5,650	1,577	62	1,639	4,154	5,793	18	5,811
East Leg														
Approach	124	5	129	187	316	10	326	62	3	65	106	171	8	179
Departure	96	3	99	117	216	4	220	62	2	64	145	209	13	222
Total	220	8	228	304	532	14	546	124	5	129	251	380	21	401
West Leg														
Approach	180	7	187	411	598	2	600	161	6	167	342	509	6	515
Departure	250	10	260	387	647	4	651	169	7	176	350	526	4	530
Total	430	17	447	798	1,245	6	1,251	330	13	343	692	1,035	10	1,045
Total Approaches														
Approach	2,136	84	2,220	4,384	6,604	26	6,630	1,872	74	1,946	4,752	6,698	39	6,737
Departure	2,136	84	2,220	4,384	6,604	26	6,630	1,872	74	1,946	4,752	6,698	39	6,737
Total	4,273	168	4,441	8,768	13,209	52	13,261	3,744	148	3,892	9,504	13,396	78	13,474

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
6 . Nason St/Alessandro Blvd														
NBL	75	3	78	43	121	0	121	65	3	68	135	203	0	203
NBT	557	22	579	624	1,203	0	1,203	700	28	728	2,147	2,875	0	2,875
NBR	21	1	22	133	155	3	158	62	2	64	479	543	10	553
SBL	71	3	74	98	172	3	175	77	3	80	137	217	10	227
SBT	700	28	728	1,936	2,664	0	2,664	591	24	615	977	1,592	0	1,592
SBR	86	3	89	86	175	0	175	80	3	83	130	213	0	213
EBL	99	4	103	141	244	0	244	89	4	93	99	192	0	192
EBT	223	9	232	204	436	5	441	247	10	257	281	538	17	555
EBR	104	4	108	119	227	0	227	69	3	72	72	144	0	144
WBL	102	4	106	416	522	9	531	23	1	24	231	255	6	261
WBT	334	13	347	213	560	15	575	227	9	236	288	524	10	534
WBR	139	6	145	153	298	9	307	53	2	55	108	163	6	169
North Leg														
Approach	857	34	891	2,120	3,011	3	3,014	748	30	778	1,244	2,022	10	2,032
Departure	795	32	827	918	1,745	9	1,754	842	34	876	2,354	3,230	6	3,236
Total	1,652	66	1,718	3,038	4,756	12	4,768	1,590	64	1,654	3,598	5,252	16	5,268
South Leg														
Approach	653	26	679	800	1,479	3	1,482	827	33	860	2,761	3,621	10	3,631
Departure	906	36	942	2,471	3,413	9	3,422	683	28	711	1,280	1,991	6	1,997
Total	1,559	62	1,621	3,271	4,892	12	4,904	1,510	61	1,571	4,041	5,612	16	5,628
East Leg														
Approach	575	23	598	782	1,380	33	1,413	303	12	315	627	942	22	964
Departure	315	13	328	435	763	11	774	386	15	401	897	1,298	37	1,335
Total	890	36	926	1,217	2,143	44	2,187	689	27	716	1,524	2,240	59	2,299
West Leg														
Approach	426	17	443	464	907	5	912	405	17	422	452	874	17	891
Departure	495	19	514	342	856	15	871	372	15	387	553	940	10	950
Total	921	36	957	806	1,763	20	1,783	777	32	809	1,005	1,814	27	1,841
Total Approaches														
Approach	2,511	100	2,611	4,166	6,777	44	6,821	2,283	92	2,375	5,084	7,459	59	7,518
Departure	2,511	100	2,611	4,166	6,777	44	6,821	2,283	92	2,375	5,084	7,459	59	7,518
Total	5,022	200	5,222	8,332	13,554	88	13,642	4,566	184	4,750	10,168	14,918	118	15,036

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
7 . Street A/Cottonwood Ave														
NBL	0	0	0	41	41	11	52	0	0	0	28	28	7	35
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	6	6	4	10	0	0	0	4	4	3	7
SBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBT	96	4	100	102	202	0	202	62	2	64	98	162	0	162
EBR	0	0	0	14	14	4	18	0	0	0	47	47	12	59
WBL	0	0	0	2	2	2	4	0	0	0	6	6	5	11
WBT	124	5	129	146	275	0	275	62	2	64	76	140	0	140
WBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South Leg														
Approach	0	0	0	47	47	15	62	0	0	0	32	32	10	42
Departure	0	0	0	16	16	6	22	0	0	0	53	53	17	70
Total	0	0	0	63	63	21	84	0	0	0	85	85	27	112
East Leg														
Approach	124	5	129	148	277	2	279	62	2	64	82	146	5	151
Departure	96	4	100	108	208	4	212	62	2	64	102	166	3	169
Total	220	9	229	256	485	6	491	124	4	128	184	312	8	320
West Leg														
Approach	96	4	100	116	216	4	220	62	2	64	145	209	12	221
Departure	124	5	129	187	316	11	327	62	2	64	104	168	7	175
Total	220	9	229	303	532	15	547	124	4	128	249	377	19	396
Total Approaches														
Approach	220	9	229	311	540	21	561	124	4	128	259	387	27	414
Departure	220	9	229	311	540	21	561	124	4	128	259	387	27	414
Total	440	18	458	622	1,080	42	1,122	248	8	256	518	774	54	828

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
8 . Street A/Alessandro Blvd														
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	10	10	8	18	0	0	0	7	7	5	12
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	12	12	33	45	0	0	0	8	8	22	30
EBL	0	0	0	4	4	12	16	0	0	0	14	14	38	52
EBT	315	13	328	430	758	0	758	386	15	401	881	1,282	0	1,282
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	575	23	598	767	1,365	0	1,365	303	12	315	620	935	0	935
WBR	0	0	0	3	3	3	6	0	0	0	11	11	9	20
North Leg														
Approach	0	0	0	22	22	41	63	0	0	0	15	15	27	42
Departure	0	0	0	7	7	15	22	0	0	0	25	25	47	72
Total	0	0	0	29	29	56	85	0	0	0	40	40	74	114
South Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East Leg														
Approach	575	23	598	770	1,368	3	1,371	303	12	315	631	946	9	955
Departure	315	13	328	440	768	8	776	386	15	401	888	1,289	5	1,294
Total	890	36	926	1,210	2,136	11	2,147	689	27	716	1,519	2,235	14	2,249
West Leg														
Approach	315	13	328	434	762	12	774	386	15	401	895	1,296	38	1,334
Departure	575	23	598	779	1,377	33	1,410	303	12	315	628	943	22	965
Total	890	36	926	1,213	2,139	45	2,184	689	27	716	1,523	2,239	60	2,299
Total Approaches														
Approach	890	36	926	1,226	2,152	56	2,208	689	27	716	1,541	2,257	74	2,331
Departure	890	36	926	1,226	2,152	56	2,208	689	27	716	1,541	2,257	74	2,331
Total	1,780	72	1,852	2,452	4,304	112	4,416	1,378	54	1,432	3,082	4,514	148	4,662

**Table C-6: Forecast Link Volume Worksheet
General Plan Build-Out (2040) Conditions**

	Existing 2022 Volume	Existing 2022 Link Volume	Base Yr. Modeled Pk. Per. Volume	Fut. Yr. Modeled Pk. Per. Volume	Base to Future Year Pk. Per. Change	Future Year Pk. Hr. Change	2022 to 2040 Link Vol Growth ¹	2040 Link Volume
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1 Lasselle St/Alessandro Blvd

AM Peak Hour

Northbound	Left	167	Approach	621	826	1,450	624	237	152	773
	Through	311	Departure	603	540	838	298	113	73	676
	Right	143								
Southbound	Left	27	Approach	418	439	1,404	965	367	236	654
	Through	322	Departure	375	585	1,643	1,058	402	258	633
	Right	69								
Eastbound	Left	38	Approach	455	578	2,304	1,726	656	422	877
	Through	258	Departure	680	719	2,377	1,658	630	405	1,085
	Right	159								
Westbound	Left	122	Approach	592	670	2,563	1,893	719	462	1,054
	Through	444	Departure	428	669	2,863	2,194	834	536	964
	Right	26								

PM Peak Hour

Northbound	Left	150	Approach	593	908	1,656	748	209	135	728
	Through	345	Departure	610	1,081	2,404	1,323	370	238	848
	Right	98								
Southbound	Left	15	Approach	378	858	2,698	1,840	515	331	709
	Through	331	Departure	409	716	2,371	1,655	463	298	707
	Right	32								
Eastbound	Left	49	Approach	623	1,016	4,134	3,118	873	561	1,184
	Through	373	Departure	464	939	4,040	3,101	868	558	1,022
	Right	201								
Westbound	Left	78	Approach	375	1,210	5,093	3,883	1,087	699	1,074
	Through	282	Departure	486	1,256	4,768	3,512	983	632	1,118
	Right	15								

¹ Modeled base year (2012) to modeled future year (2040) conditions represent 28 years of traffic growth. Since it is 18 years from 2022 to 2040 the growth represents 0.642857142857143 % of the growth between 2012 and 2040 model years. Also the a.m. peak hour is 38% of the peak period and the p.m. peak hour is 28 percent of the peak period.

**Table C-6: Forecast Link Volume Worksheet
General Plan Build-Out (2040) Conditions**

	Existing 2022 Volume	Existing 2022 Link Volume	Base Yr. Modeled Pk. Per. Volume	Fut. Yr. Modeled Pk. Per. Volume	Base to Future Year		2022 to 2040 Link Vol Growth ¹	2040 Link Volume
					Change	Change		

2 Morrison St/Alessandro Blvd

AM Peak Hour

Northbound	Left	0	Approach	0	0	813	813	309	199	199
	Through	0	Departure	0	0	939	939	357	229	229
	Right	0								
Southbound	Left	97	Approach	245	163	490	327	124	80	325
	Through	0	Departure	201	218	478	260	99	64	265
	Right	148								
Eastbound	Left	131	Approach	418	669	2,693	2,024	769	494	912
	Through	287	Departure	564	670	2,471	1,801	684	440	1,004
	Right	0								
Westbound	Left	0	Approach	486	725	2,308	1,583	602	387	873
	Through	416	Departure	384	669	2,414	1,745	663	426	810
	Right	70								

PM Peak Hour

Northbound	Left	0	Approach	0	0	1,677	1,677	470	302	302
	Through	0	Departure	0	0	1,527	1,527	428	275	275
	Right	0								
Southbound	Left	42	Approach	106	199	1,214	1,015	284	183	289
	Through	0	Departure	120	293	874	581	163	105	225
	Right	64								
Eastbound	Left	77	Approach	440	1,256	4,646	3,390	949	610	1,050
	Through	363	Departure	376	1,210	4,894	3,684	1,032	663	1,039
	Right	0								
Westbound	Left	0	Approach	355	1,310	4,341	3,031	849	546	901
	Through	312	Departure	405	1,262	4,582	3,320	930	598	1,003
	Right	43								

¹ Modeled base year (2012) to modeled future year (2040) conditions represent 28 years of traffic growth. Since it is 18 years from 2022 to 2040 the growth represents 0.642857142857143 % of the growth between 2012 and 2040 model years. Also the a.m. peak hour is 38% of the peak period and the p.m. peak hour is 28 percent of the peak period.

**Table C-6: Forecast Link Volume Worksheet
General Plan Build-Out (2040) Conditions**

	Existing 2022 Volume	Existing 2022 Link Volume	Base Yr. Modeled Pk. Per. Volume	Fut. Yr. Modeled Pk. Per. Volume	Base to Future Year Pk. Per. Change	Pk. Hr. Change	2022 to 2040 Link Vol Growth ¹	2040 Link Volume
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3 Nason St/Eucalyptus Ave

AM Peak Hour

Northbound	Left	67	Approach	917	954	2,758	1,804	686	441	1,358
	Through	669	Departure	1,238	783	2,530	1,747	664	427	1,665
	Right	181								
Southbound	Left	14	Approach	1,009	1,077	1,614	537	204	131	1,140
	Through	905	Departure	945	1,201	1,577	376	143	92	1,037
	Right	90								
Eastbound	Left	251	Approach	662	567	1,510	943	358	230	892
	Through	214	Departure	302	487	1,335	848	322	207	509
	Right	197								
Westbound	Left	136	Approach	306	666	2,373	1,707	649	417	723
	Through	145	Departure	409	793	2,815	2,022	768	494	903
	Right	25								

PM Peak Hour

Northbound	Left	48	Approach	1,019	1,247	3,917	2,670	748	481	1,500
	Through	759	Departure	861	1,779	4,370	2,591	725	466	1,327
	Right	212								
Southbound	Left	37	Approach	764	2,246	2,735	489	137	88	852
	Through	677	Departure	817	1,710	2,203	493	138	89	906
	Right	50								
Eastbound	Left	44	Approach	187	870	2,511	1,641	459	295	482
	Through	99	Departure	229	1,295	2,985	1,690	473	304	533
	Right	44								
Westbound	Left	140	Approach	285	1,810	5,105	3,295	923	593	878
	Through	131	Departure	348	1,388	4,710	3,322	930	598	946
	Right	14								

¹ Modeled base year (2012) to modeled future year (2040) conditions represent 28 years of traffic growth. Since it is 18 years from 2022 to 2040 the growth represents 0.642857142857143 % of the growth between 2012 and 2040 model years. Also the a.m. peak hour is 38% of the peak period and the p.m. peak hour is 28 percent of the peak period.

**Table C-6: Forecast Link Volume Worksheet
General Plan Build-Out (2040) Conditions**

		Existing 2022 Volume		Existing 2022 Link Volume	Base Yr. Modeled Pk. Per. Volume	Fut. Yr. Modeled Pk. Per. Volume	Base to Future Year		2022 to 2040 Link Vol Growth ¹	2040 Link Volume
							Pk. Per.	Pk. Hr.		

4 Nason St/Dracaea Ave

AM Peak Hour

Northbound	Left	219	Approach	929	954	2,758	1,804	686	441	1,370
	Through	681	Departure	917	783	2,530	1,747	664	427	1,344
	Right	29								
Southbound	Left	11	Approach	1,090	783	2,530	1,747	664	427	1,517
	Through	836	Departure	792	954	2,758	1,804	686	441	1,233
	Right	243								
Eastbound	Left	109	Approach	197	0	0	0	0	0	253
	Through	13	Departure	464	0	0	0	0	0	597
	Right	75								
Westbound	Left	6	Approach	10	0	0	0	0	0	102
	Through	2	Departure	53	0	0	0	0	0	68
	Right	2								

PM Peak Hour

Northbound	Left	26	Approach	892	1,247	3,917	2,670	748	481	1,373
	Through	848	Departure	785	1,779	4,370	2,591	725	466	1,251
	Right	18								
Southbound	Left	18	Approach	842	1,779	4,370	2,591	725	466	1,308
	Through	731	Departure	968	1,247	3,917	2,670	748	481	1,449
	Right	93								
Eastbound	Left	117	Approach	163	0	0	0	0	0	261
	Through	2	Departure	124	0	0	0	0	0	198
	Right	44								
Westbound	Left	10	Approach	18	0	0	0	0	0	29
	Through	5	Departure	38	0	0	0	0	0	72
	Right	3								

¹ Modeled base year (2012) to modeled future year (2040) conditions represent 28 years of traffic growth. Since it is 18 years from 2022 to 2040 the growth represents 0.642857142857143 % of the growth between 2012 and 2040 model years. Also the a.m. peak hour is 38% of the peak period and the p.m. peak hour is 28 percent of the peak period.

**Table C-6: Forecast Link Volume Worksheet
General Plan Build-Out (2040) Conditions**

		Existing 2022 Volume		Existing 2022 Link Volume	Base Yr. Modeled Pk. Per. Volume	Fut. Yr. Modeled Pk. Per. Volume	Base to Future Year Pk. Per. Pk. Hr. Change Change		2022 to 2040 Link Vol Growth ¹	2040 Link Volume
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5 Nason St/Cottonwood Ave

AM Peak Hour

Northbound	Left	50	Approach	835	930	2,543	1,613	613	394	1,229
	Through	781	Departure	805	761	2,208	1,447	550	353	1,158
	Right	4								
Southbound	Left	32	Approach	938	783	2,530	1,747	664	427	1,365
	Through	774	Departure	926	954	2,758	1,804	686	441	1,367
	Right	132								
Eastbound	Left	93	Approach	180	124	321	197	75	48	228
	Through	60	Departure	250	127	345	218	83	53	303
	Right	27								
Westbound	Left	4	Approach	124	101	231	130	49	32	156
	Through	68	Departure	96	95	313	218	83	53	149
	Right	52								

PM Peak Hour

Northbound	Left	25	Approach	823	1,145	3,491	2,346	657	422	1,245
	Through	789	Departure	715	1,719	4,078	2,359	661	425	1,140
	Right	9								
Southbound	Left	16	Approach	787	1,779	4,370	2,591	725	466	1,253
	Through	667	Departure	887	1,247	3,917	2,670	748	481	1,368
	Right	104								
Eastbound	Left	80	Approach	161	217	514	297	83	53	214
	Through	37	Departure	169	242	684	442	124	80	249
	Right	44								
Westbound	Left	4	Approach	62	263	770	507	142	91	153
	Through	40	Departure	62	197	466	269	75	48	110
	Right	18								

¹ Modeled base year (2012) to modeled future year (2040) conditions represent 28 years of traffic growth. Since it is 18 years from 2022 to 2040 the growth represents 0.642857142857143 % of the growth between 2012 and 2040 model years. Also the a.m. peak hour is 38% of the peak period and the p.m. peak hour is 28 percent of the peak period.

**Table C-6: Forecast Link Volume Worksheet
General Plan Build-Out (2040) Conditions**

		Existing 2022 Volume		Existing 2022 Link Volume	Base Yr. Modeled Pk. Per. Volume	Fut. Yr. Modeled Pk. Per. Volume	Base to Future Year		2022 to 2040 Link Vol Growth ¹	2040 Link Volume
							Pk. Per.	Pk. Hr.		

6 Nason St/Alessandro Blvd

AM Peak Hour

Northbound	Left	74	Approach	644	757	2,601	1,844	701	450	1,094
	Through	550	Departure	891	690	2,075	1,385	526	338	1,229
	Right	20								
Southbound	Left	69	Approach	843	761	2,208	1,447	550	353	1,196
	Through	689	Departure	779	930	2,543	1,613	613	394	1,173
	Right	85								
Eastbound	Left	92	Approach	394	601	2,414	1,813	689	443	837
	Through	201	Departure	482	519	2,308	1,789	680	437	919
	Right	101								
Westbound	Left	101	Approach	561	650	1,121	471	179	115	676
	Through	323	Departure	290	631	1,419	788	299	192	482
	Right	137								

PM Peak Hour

Northbound	Left	63	Approach	821	1,169	2,933	1,764	494	318	1,139
	Through	698	Departure	669	1,546	4,135	2,589	725	466	1,135
	Right	60								
Southbound	Left	73	Approach	730	1,719	4,078	2,359	661	425	1,155
	Through	581	Departure	839	1,145	3,491	2,346	657	422	1,261
	Right	76								
Eastbound	Left	88	Approach	395	989	4,582	3,593	1,006	647	1,042
	Through	241	Departure	360	1,170	4,341	3,171	888	571	931
	Right	66								
Westbound	Left	22	Approach	296	1,109	2,235	1,126	315	203	499
	Through	221	Departure	374	1,125	1,862	737	206	133	507
	Right	53								

¹ Modeled base year (2012) to modeled future year (2040) conditions represent 28 years of traffic growth. Since it is 18 years from 2022 to 2040 the growth represents 0.642857142857143 % of the growth between 2012 and 2040 model years. Also the a.m. peak hour is 38% of the peak period and the p.m. peak hour is 28 percent of the peak period.

**Table B-7 - Calculation of Future Turning Movement Volumes
(Based on NCHRP 255)**

Approach Direction	Traffic Counts	Forecast Future Year				
		Link Volume		Forecast TM Volume		
1 Lasselle St/Alessandro Blvd						
A.M. Peak Hour						
Northbound	Left	167	Approach	773	Left	125
	Through	311	Departure	676	Through	445
	Right	143			Right	205
Southbound	Left	27	Approach	654	Left	105
	Through	322	Departure	633	Through	406
	Right	69			Right	141
Eastbound	Left	38	Approach	877	Left	96
	Through	258	Departure	1,085	Through	654
	Right	159			Right	130
Westbound	Left	122	Approach	1,054	Left	139
	Through	444	Departure	964	Through	819
	Right	26			Right	92
P.M. Peak Hour						
Northbound	Left	150	Approach	728	Left	105
	Through	345	Departure	848	Through	492
	Right	98			Right	133
Southbound	Left	15	Approach	709	Left	77
	Through	331	Departure	707	Through	546
	Right	32			Right	84
Eastbound	Left	49	Approach	1,184	Left	125
	Through	373	Departure	1,022	Through	908
	Right	201			Right	158
Westbound	Left	78	Approach	1,074	Left	144
	Through	282	Departure	1,118	Through	833
	Right	15			Right	90

**Table B-7 - Calculation of Future Turning Movement Volumes
(Based on NCHRP 255)**

Approach Direction	Traffic Counts	Forecast Future Year				
		Link Volume		Forecast TM Volume		
2 Morrison St/Alessandro Blvd						
A.M. Peak Hour						
Northbound	Left	167	Approach	199	Left	55
	Through	311	Departure	229	Through	102
	Right	143			Right	42
Southbound	Left	27	Approach	325	Left	55
	Through	322	Departure	265	Through	116
	Right	69			Right	155
Eastbound	Left	38	Approach	912	Left	116
	Through	258	Departure	1,004	Through	714
	Right	159			Right	78
Westbound	Left	122	Approach	873	Left	35
	Through	444	Departure	810	Through	795
	Right	26			Right	46
P.M. Peak Hour						
Northbound	Left	150	Approach	302	Left	104
	Through	345	Departure	275	Through	132
	Right	98			Right	65
Southbound	Left	15	Approach	289	Left	41
	Through	331	Departure	225	Through	155
	Right	32			Right	92
Eastbound	Left	49	Approach	1,050	Left	68
	Through	373	Departure	1,039	Through	896
	Right	201			Right	82
Westbound	Left	78	Approach	901	Left	38
	Through	282	Departure	1,003	Through	842
	Right	15			Right	25

**Table B-7 - Calculation of Future Turning Movement Volumes
(Based on NCHRP 255)**

Approach Direction	Traffic Counts	Forecast Future Year				
		Link Volume		Forecast TM Volume		
3 Nason St/Eucalyptus Ave						
A.M. Peak Hour						
Northbound	Left	67	Approach	1,358	Left	103
	Through	669	Departure	1,665	Through	780
	Right	181			Right	471
Southbound	Left	14	Approach	1,140	Left	23
	Through	905	Departure	1,037	Through	1,035
	Right	90			Right	85
Eastbound	Left	251	Approach	892	Left	215
	Through	214	Departure	509	Through	409
	Right	197			Right	268
Westbound	Left	136	Approach	723	Left	362
	Through	145	Departure	903	Through	321
	Right	25			Right	42
P.M. Peak Hour						
Northbound	Left	48	Approach	1,500	Left	90
	Through	759	Departure	1,327	Through	825
	Right	212			Right	575
Southbound	Left	37	Approach	852	Left	54
	Through	677	Departure	906	Through	754
	Right	50			Right	50
Eastbound	Left	44	Approach	482	Left	56
	Through	99	Departure	533	Through	317
	Right	44			Right	108
Westbound	Left	140	Approach	878	Left	466
	Through	131	Departure	946	Through	393
	Right	14			Right	24

**Table B-7 - Calculation of Future Turning Movement Volumes
(Based on NCHRP 255)**

Approach Direction	Traffic Counts	Forecast Future Year				
		Link Volume		Forecast TM Volume		
4 Nason St/Dracaea Ave						
A.M. Peak Hour						
Northbound	Left	219	Approach	1,370	Left	271
	Through	681	Departure	1,344	Through	1,062
	Right	29			Right	38
Southbound	Left	11	Approach	1,517	Left	15
	Through	836	Departure	1,233	Through	1,192
	Right	243			Right	308
Eastbound	Left	109	Approach	253	Left	148
	Through	13	Departure	597	Through	15
	Right	75			Right	91
Westbound	Left	6	Approach	102	Left	61
	Through	2	Departure	68	Through	18
	Right	2			Right	23
P.M. Peak Hour						
Northbound	Left	26	Approach	1,373	Left	49
	Through	848	Departure	1,251	Through	1,273
	Right	18			Right	38
Southbound	Left	18	Approach	1,308	Left	30
	Through	731	Departure	1,449	Through	1,150
	Right	93			Right	141
Eastbound	Left	117	Approach	261	Left	172
	Through	2	Departure	198	Through	4
	Right	44			Right	84
Westbound	Left	10	Approach	29	Left	17
	Through	5	Departure	72	Through	8
	Right	3			Right	4

**Table B-7 - Calculation of Future Turning Movement Volumes
(Based on NCHRP 255)**

Approach Direction	Traffic Counts	Forecast Future Year				
		Link Volume		Forecast TM Volume		
5 Nason St/Cottonwood Ave						
A.M. Peak Hour						
Northbound	Left	50	Approach	1,229	Left	57
	Through	781	Departure	1,158	Through	1,174
	Right	4			Right	7
Southbound	Left	32	Approach	1,365	Left	60
	Through	774	Departure	1,367	Through	1,125
	Right	132			Right	171
Eastbound	Left	93	Approach	228	Left	117
	Through	60	Departure	303	Through	83
	Right	27			Right	29
Westbound	Left	4	Approach	156	Left	5
	Through	68	Departure	149	Through	75
	Right	52			Right	76
<hr/>						
P.M. Peak Hour						
Northbound	Left	25	Approach	1,245	Left	27
	Through	789	Departure	1,140	Through	1,208
	Right	9			Right	17
Southbound	Left	16	Approach	1,253	Left	35
	Through	667	Departure	1,368	Through	1,077
	Right	104			Right	134
Eastbound	Left	80	Approach	214	Left	105
	Through	37	Departure	249	Through	59
	Right	44			Right	51
Westbound	Left	4	Approach	153	Left	11
	Through	40	Departure	110	Through	87
	Right	18			Right	55

**Table B-7 - Calculation of Future Turning Movement Volumes
(Based on NCHRP 255)**

Approach Direction	Traffic Counts	Forecast Future Year				
		Link Volume		Forecast TM Volume		
6 Nason St/Alessandro Blvd						
A.M. Peak Hour						
Northbound	Left	74	Approach	1,094	Left	219
	Through	550	Departure	1,229	Through	851
	Right	20			Right	25
Southbound	Left	69	Approach	1,196	Left	74
	Through	689	Departure	1,173	Through	910
	Right	85			Right	212
Eastbound	Left	92	Approach	837	Left	214
	Through	201	Departure	919	Through	384
	Right	101			Right	239
Westbound	Left	101	Approach	676	Left	81
	Through	323	Departure	482	Through	488
	Right	137			Right	108
P.M. Peak Hour						
Northbound	Left	63	Approach	1,139	Left	216
	Through	698	Departure	1,135	Through	886
	Right	60			Right	35
Southbound	Left	73	Approach	1,155	Left	45
	Through	581	Departure	1,261	Through	841
	Right	76			Right	271
Eastbound	Left	88	Approach	1,042	Left	336
	Through	241	Departure	931	Through	427
	Right	66			Right	277
Westbound	Left	22	Approach	499	Left	18
	Through	221	Departure	507	Through	443
	Right	53			Right	39

Table C-8: Year 2040 PCE Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour						
	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol		
1 . Lasselle St/Alessandro Blvd												
NBL	125	1.8%	123	2	4	127	105	0.0%	105	0	0	105
NBT	445	2.9%	432	13	26	458	492	0.9%	488	4	8	496
NBR	205	2.1%	201	4	9	210	133	0.0%	133	0	0	133
SBL	105	3.7%	101	4	8	109	77	0.0%	77	0	0	77
SBT	406	1.6%	400	6	12	412	546	1.8%	536	10	18	554
SBR	141	0.0%	141	0	0	141	84	0.0%	84	0	0	84
EBL	96	0.0%	96	0	0	96	125	0.0%	125	0	0	125
EBT	654	8.1%	601	53	119	720	908	1.1%	898	10	20	918
EBR	130	1.9%	128	2	4	132	158	0.5%	157	1	2	159
WBL	139	3.3%	134	5	10	144	144	3.8%	138	6	10	148
WBT	819	2.0%	802	17	36	838	833	1.1%	824	9	18	842
WBR	92	3.8%	88	4	8	96	90	0.0%	90	0	0	90
North Leg												
Approach	652		642	10	20	662	707		697	10	18	715
Departure	633		616	17	34	650	707		703	4	8	711
Total	1,285		1,258	27	54	1,312	1,414		1,400	14	26	1,426
South Leg												
Approach	775		756	19	39	795	730		726	4	8	734
Departure	675		662	13	26	688	848		831	17	30	861
Total	1,450		1,418	32	65	1,483	1,578		1,557	21	38	1,595
East Leg												
Approach	1,050		1,024	26	54	1,078	1,067		1,052	15	28	1,080
Departure	964		903	61	136	1,039	1,118		1,108	10	20	1,128
Total	2,014		1,927	87	190	2,117	2,185		2,160	25	48	2,208
West Leg												
Approach	880		825	55	123	948	1,191		1,180	11	22	1,202
Departure	1,085		1,066	19	40	1,106	1,022		1,013	9	18	1,031
Total	1,965		1,891	74	163	2,054	2,213		2,193	20	40	2,233
Total Approaches												
Approach	3,357		3,247	110	236	3,483	3,695		3,655	40	76	3,731
Departure	3,357		3,247	110	236	3,483	3,695		3,655	40	76	3,731
Total	6,714		6,494	220	472	6,966	7,390		7,310	80	152	7,462

Table C-8: Year 2040 PCE Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour						
	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol		
2 . Morrison St/Alessandro Blvd												
NBL	55	0.0%	55	0	0	55	104	0.0%	104	0	0	104
NBT	102	0.0%	102	0	0	102	132	0.0%	132	0	0	132
NBR	42	0.0%	42	0	0	42	65	0.0%	65	0	0	65
SBL	55	0.0%	55	0	0	55	41	4.8%	39	2	4	43
SBT	116	0.0%	116	0	0	116	155	0.0%	155	0	0	155
SBR	155	0.0%	155	0	0	155	92	1.6%	91	1	2	93
EBL	116	0.8%	115	1	2	117	68	1.3%	67	1	2	69
EBT	714	7.7%	659	55	123	782	896	2.5%	874	22	44	918
EBR	78	0.0%	78	0	0	78	82	0.0%	82	0	0	82
WBL	35	0.0%	35	0	0	35	38	0.0%	38	0	0	38
WBT	795	2.6%	774	21	44	818	842	3.2%	815	27	57	872
WBR	46	1.4%	45	1	2	47	25	4.7%	24	1	2	26
North Leg												
Approach	326		326	0	0	326	288		285	3	6	291
Departure	264		262	2	4	266	225		223	2	4	227
Total	590		588	2	4	592	513		508	5	10	518
South Leg												
Approach	199		199	0	0	199	301		301	0	0	301
Departure	229		229	0	0	229	275		275	0	0	275
Total	428		428	0	0	428	576		576	0	0	576
East Leg												
Approach	876		854	22	46	900	905		877	28	59	936
Departure	811		756	55	123	879	1,002		978	24	48	1,026
Total	1,687		1,610	77	169	1,779	1,907		1,855	52	107	1,962
West Leg												
Approach	908		852	56	125	977	1,046		1,023	23	46	1,069
Departure	1,005		984	21	44	1,028	1,038		1,010	28	59	1,069
Total	1,913		1,836	77	169	2,005	2,084		2,033	51	105	2,138
Total Approaches												
Approach	2,309		2,231	78	171	2,402	2,540		2,486	54	111	2,597
Departure	2,309		2,231	78	171	2,402	2,540		2,486	54	111	2,597
Total	4,618		4,462	156	342	4,804	5,080		4,972	108	222	5,194

Table C-8: Year 2040 PCE Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Total Veh.	Truck %	Pass. Veh.	Truck Truck	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck Truck	Truck PCE	Total PCE Vol
3 . Nason St/Eucalyptus Ave												
NBL	103	6.0%	97	6	11	108	90	4.2%	86	4	8	94
NBT	780	0.6%	775	5	9	784	825	2.5%	804	21	41	845
NBR	471	1.1%	466	5	10	476	575	0.9%	570	5	10	580
SBL	23	7.1%	21	2	4	25	54	0.0%	54	0	0	54
SBT	1,035	1.0%	1,025	10	18	1,043	754	2.2%	737	17	29	766
SBR	85	1.1%	84	1	2	86	50	2.0%	49	1	2	51
EBL	215	0.8%	213	2	4	217	56	4.5%	53	3	6	59
EBT	409	0.0%	409	0	0	409	317	2.0%	311	6	12	323
EBR	268	1.0%	265	3	6	271	108	9.1%	98	10	18	116
WBL	362	0.7%	359	3	6	365	466	1.4%	459	7	11	470
WBT	321	0.0%	321	0	0	321	393	4.6%	375	18	27	402
WBR	42	0.0%	42	0	0	42	24	0.0%	24	0	0	24
North Leg												
Approach	1,143		1,130	13	24	1,154	858		840	18	31	871
Departure	1,037		1,030	7	13	1,043	905		881	24	47	928
Total	2,180		2,160	20	37	2,197	1,763		1,721	42	78	1,799
South Leg												
Approach	1,354		1,338	16	30	1,368	1,490		1,460	30	59	1,519
Departure	1,665		1,649	16	30	1,679	1,328		1,294	34	58	1,352
Total	3,019		2,987	32	60	3,047	2,818		2,754	64	117	2,871
East Leg												
Approach	725		722	3	6	728	883		858	25	38	896
Departure	903		896	7	14	910	946		935	11	22	957
Total	1,628		1,618	10	20	1,638	1,829		1,793	36	60	1,853
West Leg												
Approach	892		887	5	10	897	481		462	19	36	498
Departure	509		502	7	13	515	533		510	23	37	547
Total	1,401		1,389	12	23	1,412	1,014		972	42	73	1,045
Total Approaches												
Approach	4,114		4,077	37	70	4,147	3,712		3,620	92	164	3,784
Departure	4,114		4,077	37	70	4,147	3,712		3,620	92	164	3,784
Total	8,228		8,154	74	140	8,294	7,424		7,240	184	328	7,568

Table C-8: Year 2040 PCE Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Truck PCE	Total PCE Vol
4 . Nason St/Dracaea Ave												
NBL	271	0.0%	271	0	0	271	49	0.0%	49	0	0	49
NBT	1,062	4.0%	1,020	42	81	1,101	1,273	0.8%	1,262	11	22	1,284
NBR	38	6.9%	35	3	6	41	38	5.6%	36	2	4	40
SBL	15	18.2%	12	3	6	18	30	5.6%	28	2	4	32
SBT	1,192	2.0%	1,168	24	47	1,215	1,150	2.6%	1,120	30	55	1,175
SBR	308	1.6%	303	5	10	313	141	1.1%	139	2	4	143
EBL	148	0.9%	147	1	2	149	172	0.0%	172	0	0	172
EBT	15	7.7%	14	1	2	16	4	0.0%	4	0	0	4
EBR	91	1.3%	90	1	2	92	84	6.8%	78	6	10	88
WBL	61	0.0%	61	0	0	61	17	0.0%	17	0	0	17
WBT	18	0.0%	18	0	0	18	8	20.0%	6	2	4	10
WBR	23	50.0%	11	12	24	35	4	0.0%	4	0	0	4
North Leg												
Approach	1,515		1,483	32	63	1,546	1,321		1,287	34	63	1,350
Departure	1,233		1,178	55	107	1,285	1,449		1,438	11	22	1,460
Total	2,748		2,661	87	170	2,831	2,770		2,725	45	85	2,810
South Leg												
Approach	1,371		1,326	45	87	1,413	1,360		1,347	13	26	1,373
Departure	1,344		1,319	25	49	1,368	1,251		1,215	36	65	1,280
Total	2,715		2,645	70	136	2,781	2,611		2,562	49	91	2,653
East Leg												
Approach	102		90	12	24	114	29		27	2	4	31
Departure	68		61	7	14	75	72		68	4	8	76
Total	170		151	19	38	189	101		95	6	12	107
West Leg												
Approach	254		251	3	6	257	260		254	6	10	264
Departure	597		592	5	10	602	198		194	4	8	202
Total	851		843	8	16	859	458		448	10	18	466
Total Approaches												
Approach	3,242		3,150	92	180	3,330	2,970		2,915	55	103	3,018
Departure	3,242		3,150	92	180	3,330	2,970		2,915	55	103	3,018
Total	6,484		6,300	184	360	6,660	5,940		5,830	110	206	6,036

Table C-8: Year 2040 PCE Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Truck PCE	Total PCE Vol
5 . Nason St/Cottonwood Ave												
NBL	57	0.0%	57	0	0	57	27	0.0%	27	0	0	27
NBT	1,174	2.5%	1,144	30	75	1,219	1,208	1.8%	1,186	22	55	1,241
NBR	7	0.0%	7	0	0	7	17	0.0%	17	0	0	17
SBL	60	0.0%	60	0	0	60	35	0.0%	35	0	0	35
SBT	1,125	2.5%	1,096	29	73	1,169	1,077	1.8%	1,058	19	48	1,106
SBR	171	0.0%	171	0	0	171	134	0.0%	134	0	0	134
EBL	117	0.0%	117	0	0	117	105	0.0%	105	0	0	105
EBT	83	0.0%	83	0	0	83	59	0.0%	59	0	0	59
EBR	29	0.0%	29	0	0	29	51	0.0%	51	0	0	51
WBL	5	0.0%	5	0	0	5	11	0.0%	11	0	0	11
WBT	75	0.0%	75	0	0	75	87	0.0%	87	0	0	87
WBR	76	0.0%	76	0	0	76	55	0.0%	55	0	0	55
North Leg												
Approach	1,356		1,327	29	73	1,400	1,246		1,227	19	48	1,275
Departure	1,367		1,337	30	75	1,412	1,368		1,346	22	55	1,401
Total	2,723		2,664	59	148	2,812	2,614		2,573	41	103	2,676
South Leg												
Approach	1,238		1,208	30	75	1,283	1,252		1,230	22	55	1,285
Departure	1,159		1,130	29	73	1,203	1,139		1,120	19	48	1,168
Total	2,397		2,338	59	148	2,486	2,391		2,350	41	103	2,453
East Leg												
Approach	156		156	0	0	156	153		153	0	0	153
Departure	150		150	0	0	150	111		111	0	0	111
Total	306		306	0	0	306	264		264	0	0	264
West Leg												
Approach	229		229	0	0	229	215		215	0	0	215
Departure	303		303	0	0	303	248		248	0	0	248
Total	532		532	0	0	532	463		463	0	0	463
Total Approaches												
Approach	2,979		2,920	59	148	3,068	2,866		2,825	41	103	2,928
Departure	2,979		2,920	59	148	3,068	2,866		2,825	41	103	2,928
Total	5,958		5,840	118	296	6,136	5,732		5,650	82	206	5,856

Table C-8: Year 2040 PCE Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour						
	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol		
6 . Nason St/Alessandro Blvd												
NBL	219	1.4%	216	3	6	222	216	3.2%	209	7	14	223
NBT	851	1.3%	840	11	22	862	886	0.3%	883	3	6	889
NBR	25	5.0%	24	1	2	26	35	3.3%	34	1	2	36
SBL	74	1.4%	73	1	3	76	45	5.5%	43	2	4	47
SBT	910	1.6%	895	15	30	925	841	1.9%	825	16	31	856
SBR	212	1.2%	210	2	4	214	271	3.9%	260	11	26	286
EBL	214	5.4%	202	12	29	231	336	1.1%	332	4	8	340
EBT	384	10.0%	346	38	80	426	427	2.5%	416	11	22	438
EBR	239	2.0%	234	5	13	247	277	4.5%	264	13	26	290
WBL	81	1.0%	80	1	2	82	18	4.5%	17	1	2	19
WBT	488	2.8%	474	14	31	505	443	2.7%	431	12	24	455
WBR	108	1.5%	106	2	4	110	39	0.0%	39	0	0	39
North Leg												
Approach	1,196		1,178	18	37	1,215	1,157		1,128	29	61	1,189
Departure	1,173		1,148	25	55	1,203	1,261		1,254	7	14	1,268
Total	2,369		2,326	43	92	2,418	2,418		2,382	36	75	2,457
South Leg												
Approach	1,095		1,080	15	30	1,110	1,137		1,126	11	22	1,148
Departure	1,230		1,209	21	45	1,254	1,136		1,106	30	59	1,165
Total	2,325		2,289	36	75	2,364	2,273		2,232	41	81	2,313
East Leg												
Approach	677		660	17	37	697	500		487	13	26	513
Departure	483		443	40	85	528	507		493	14	28	521
Total	1,160		1,103	57	122	1,225	1,007		980	27	54	1,034
West Leg												
Approach	837		782	55	122	904	1,040		1,012	28	56	1,068
Departure	919		900	19	41	941	930		900	30	64	964
Total	1,756		1,682	74	163	1,845	1,970		1,912	58	120	2,032
Total Approaches												
Approach	3,805		3,700	105	226	3,926	3,834		3,753	81	165	3,918
Departure	3,805		3,700	105	226	3,926	3,834		3,753	81	165	3,918
Total	7,610		7,400	210	452	7,852	7,668		7,506	162	330	7,836

Table C-9: Year 2040 Peak Hour Volume Comparison

	AM Peak Hour			PM Peak Hour		
	2,040 Background	OY (2024) NP	2,040 NP	2,040 Background	OY (2024) NP	2,040 NP
1 . Lasselle St/Alessandro Blvd						
NBL	127	268	281	105	501	526
NBT	458	411	458	496	437	496
NBR	210	193	210	133	200	210
SBL	109	91	109	77	133	140
SBT	412	401	412	554	428	554
SBR	141	122	141	84	93	98
EBL	96	99	104	125	110	125
EBT	720	653	720	918	928	974
EBR	132	473	497	159	368	386
WBL	144	214	225	148	148	155
WBT	838	923	969	842	760	842
WBR	96	134	141	90	108	113
North Leg						
Approach	662	614	662	715	654	791
Departure	650	644	703	711	655	734
Total	1,312	1,258	1,365	1,426	1,309	1,526
South Leg						
Approach	795	872	949	734	1,138	1,232
Departure	688	1,088	1,133	861	944	1,096
Total	1,483	1,960	2,083	1,595	2,082	2,328
East Leg						
Approach	1,078	1,271	1,335	1,080	1,016	1,111
Departure	1,039	937	1,039	1,128	1,261	1,324
Total	2,117	2,208	2,374	2,208	2,277	2,435
West Leg						
Approach	948	1,225	1,321	1,202	1,406	1,486
Departure	1,106	1,313	1,392	1,031	1,354	1,466
Total	2,054	2,538	2,712	2,233	2,760	2,952
Total Approaches						
Approach	3,483	3,982	4,267	3,731	4,214	4,620
Departure	3,483	3,982	4,267	3,731	4,214	4,620
Total	6,966	7,964	8,533	7,462	8,428	9,240

Table C-9: Year 2040 Peak Hour Volume Comparison

	AM Peak Hour			PM Peak Hour		
	2,040 Background	OY (2024) NP	2,040 NP	2,040 Background	OY (2024) NP	2,040 NP
2 . Morrison St/Alessandro Blvd						
NBL	55	0	55	104	0	104
NBT	102	0	102	132	0	132
NBR	42	0	42	65	0	65
SBL	55	106	111	43	62	65
SBT	116	0	116	155	0	155
SBR	155	165	173	93	85	93
EBL	117	164	172	69	105	110
EBT	782	770	782	918	939	986
EBR	78	0	78	82	0	82
WBL	35	0	35	38	0	38
WBT	818	891	936	872	898	943
WBR	47	87	91	26	56	59
North Leg						
Approach	326	271	401	291	147	313
Departure	266	251	366	227	161	301
Total	592	522	766	518	308	614
South Leg						
Approach	199	0	199	301	0	301
Departure	229	0	229	275	0	275
Total	428	0	428	576	0	576
East Leg						
Approach	900	978	1,062	936	954	1,040
Departure	879	876	935	1,026	1,001	1,116
Total	1,779	1,854	1,997	1,962	1,955	2,156
West Leg						
Approach	977	934	1,032	1,069	1,044	1,178
Departure	1,028	1,056	1,164	1,069	983	1,140
Total	2,005	1,990	2,196	2,138	2,027	2,318
Total Approaches						
Approach	2,402	2,183	2,694	2,597	2,145	2,832
Departure	2,402	2,183	2,694	2,597	2,145	2,832
Total	4,804	4,366	5,387	5,194	4,290	5,664

Table C-9: Year 2040 Peak Hour Volume Comparison

	AM Peak Hour			PM Peak Hour		
	2,040 Background	OY (2024) NP	2,040 NP	2,040 Background	OY (2024) NP	2,040 NP
3 . Nason St/Eucalyptus Ave						
NBL	108	113	119	94	79	94
NBT	784	1,795	1,885	845	3,188	3,347
NBR	476	298	476	580	496	580
SBL	25	31	33	54	61	64
SBT	1,043	3,094	3,249	766	2,196	2,306
SBR	86	103	108	51	59	62
EBL	217	263	276	59	48	59
EBT	409	256	409	323	186	323
EBR	271	252	271	116	77	116
WBL	365	393	413	470	302	470
WBT	321	208	321	402	195	402
WBR	42	53	56	24	33	35
North Leg						
Approach	1,154	3,228	3,389	871	2,316	2,432
Departure	1,043	2,111	2,217	928	3,269	3,441
Total	2,197	5,339	5,606	1,799	5,585	5,873
South Leg						
Approach	1,368	2,206	2,479	1,519	3,763	4,021
Departure	1,679	3,739	3,932	1,352	2,575	2,892
Total	3,047	5,945	6,412	2,871	6,338	6,913
East Leg						
Approach	728	654	789	896	530	907
Departure	910	585	918	957	743	967
Total	1,638	1,239	1,707	1,853	1,273	1,874
West Leg						
Approach	897	771	956	498	311	498
Departure	515	424	548	547	333	558
Total	1,412	1,195	1,504	1,045	644	1,056
Total Approaches						
Approach	4,147	6,859	7,614	3,784	6,920	7,858
Departure	4,147	6,859	7,614	3,784	6,920	7,858
Total	8,294	13,718	15,229	7,568	13,840	15,716

Table C-9: Year 2040 Peak Hour Volume Comparison

	AM Peak Hour			PM Peak Hour		
	2,040 Background	OY (2024) NP	2,040 NP	2,040 Background	OY (2024) NP	2,040 NP
4 . Nason St/Dracaee Ave						
NBL	271	270	271	49	48	49
NBT	1,101	1,972	2,071	1,284	3,559	3,737
NBR	41	54	57	40	38	40
SBL	18	14	18	32	20	32
SBT	1,215	3,317	3,483	1,175	2,428	2,549
SBR	313	268	313	143	105	143
EBL	149	117	149	172	131	172
EBT	16	15	16	4	2	4
EBR	92	122	128	88	73	88
WBL	61	23	61	17	33	35
WBT	18	2	18	10	6	10
WBR	35	3	35	4	3	4
North Leg						
Approach	1,546	3,599	3,814	1,350	2,553	2,724
Departure	1,285	2,092	2,255	1,460	3,693	3,913
Total	2,831	5,691	6,068	2,810	6,246	6,637
South Leg						
Approach	1,413	2,296	2,398	1,373	3,645	3,826
Departure	1,368	3,462	3,672	1,280	2,534	2,672
Total	2,781	5,758	6,070	2,653	6,179	6,498
East Leg						
Approach	114	28	114	31	42	49
Departure	75	83	91	76	60	76
Total	189	111	205	107	102	125
West Leg						
Approach	257	254	293	264	206	264
Departure	602	540	602	202	159	202
Total	859	794	895	466	365	466
Total Approaches						
Approach	3,330	6,177	6,619	3,018	6,446	6,863
Departure	3,330	6,177	6,619	3,018	6,446	6,863
Total	6,660	12,354	13,239	6,036	12,892	13,726

Table C-9: Year 2040 Peak Hour Volume Comparison

	AM Peak Hour			PM Peak Hour		
	2,040 Background	OY (2024) NP	2,040 NP	2,040 Background	OY (2024) NP	2,040 NP
5 . Nason St/Cottonwood Ave						
NBL	57	260	273	27	121	127
NBT	1,219	1,861	1,954	1,241	3,313	3,479
NBR	7	71	75	17	51	54
SBL	60	45	60	35	49	51
SBT	1,169	3,199	3,359	1,106	2,171	2,280
SBR	171	254	267	134	313	329
EBL	117	350	368	105	302	317
EBT	83	100	105	59	109	114
EBR	29	148	155	51	98	103
WBL	5	99	104	11	39	41
WBT	75	133	140	87	92	97
WBR	76	84	88	55	40	55
North Leg						
Approach	1,400	3,498	3,686	1,275	2,533	2,660
Departure	1,412	2,295	2,410	1,401	3,655	3,851
Total	2,812	5,793	6,096	2,676	6,188	6,510
South Leg						
Approach	1,283	2,192	2,302	1,285	3,485	3,659
Departure	1,203	3,446	3,619	1,168	2,308	2,423
Total	2,486	5,638	5,920	2,453	5,793	6,083
East Leg						
Approach	156	316	332	153	171	193
Departure	150	216	240	111	209	219
Total	306	532	571	264	380	412
West Leg						
Approach	229	598	628	215	509	534
Departure	303	647	679	248	526	552
Total	532	1,245	1,307	463	1,035	1,087
Total Approaches						
Approach	3,068	6,604	6,947	2,928	6,698	7,046
Departure	3,068	6,604	6,947	2,928	6,698	7,046
Total	6,136	13,209	13,895	5,856	13,396	14,092

Table C-9: Year 2040 Peak Hour Volume Comparison

	AM Peak Hour			PM Peak Hour		
	2,040 Background	OY (2024) NP	2,040 NP	2,040 Background	OY (2024) NP	2,040 NP
6 . Nason St/Alessandro Blvd						
NBL	222	121	222	223	203	223
NBT	862	1,203	1,263	889	2,875	3,019
NBR	26	155	163	36	543	570
SBL	76	172	181	47	217	228
SBT	925	2,664	2,797	856	1,592	1,672
SBR	214	175	214	286	213	286
EBL	231	244	256	340	192	340
EBT	426	436	458	438	538	565
EBR	247	227	247	290	144	290
WBL	82	522	548	19	255	268
WBT	505	560	588	455	524	550
WBR	110	298	313	39	163	171
North Leg						
Approach	1,215	3,011	3,192	1,189	2,022	2,185
Departure	1,203	1,745	1,832	1,268	3,230	3,530
Total	2,418	4,756	5,024	2,457	5,252	5,715
South Leg						
Approach	1,110	1,479	1,648	1,148	3,621	3,812
Departure	1,254	3,413	3,592	1,165	1,991	2,229
Total	2,364	4,892	5,240	2,313	5,612	6,041
East Leg						
Approach	697	1,380	1,449	513	942	989
Departure	528	763	801	521	1,298	1,363
Total	1,225	2,143	2,250	1,034	2,240	2,352
West Leg						
Approach	904	907	961	1,068	874	1,195
Departure	941	856	1,024	964	940	1,059
Total	1,845	1,763	1,985	2,032	1,814	2,254
Total Approaches						
Approach	3,926	6,777	7,250	3,918	7,459	8,181
Departure	3,926	6,777	7,250	3,918	7,459	8,181
Total	7,852	13,554	14,499	7,836	14,918	16,363

Table C-10: Year 2040 With Project Peak Hour Volume Summary

	2,040 NP	Project Trips	2,040 With Project	2,040 NP	Project Trips	2,040 With Project
1 . Lasselle St/Alessandro Blvd						
NBL	281	0	281	526	0	526
NBT	458	0	458	496	0	496
NBR	210	1	211	210	4	214
SBL	109	0	109	140	1	141
SBT	412	0	412	554	0	554
SBR	141	0	141	98	0	98
EBL	104	0	104	125	0	125
EBT	720	3	723	974	10	984
EBR	497	0	497	386	0	386
WBL	225	4	229	155	3	158
WBT	969	9	978	842	6	848
WBR	141	1	142	113	1	114
North Leg						
Approach	662	0	662	791	1	792
Departure	703	1	704	734	1	735
Total	1,365	1	1,366	1,526	2	1,528
South Leg						
Approach	949	1	950	1,232	4	1,236
Departure	1,133	4	1,137	1,096	3	1,099
Total	2,083	5	2,088	2,328	7	2,335
East Leg						
Approach	1,335	14	1,349	1,111	10	1,121
Departure	1,039	4	1,043	1,324	15	1,339
Total	2,374	18	2,392	2,435	25	2,460
West Leg						
Approach	1,321	3	1,324	1,486	10	1,496
Departure	1,392	9	1,401	1,466	6	1,472
Total	2,712	12	2,724	2,952	16	2,968
Total Approaches						
Approach	4,267	18	4,285	4,620	25	4,645
Departure	4,267	18	4,285	4,620	25	4,645
Total	8,533	36	8,569	9,240	50	9,290

Table C-10: Year 2040 With Project Peak Hour Volume Summary

	2,040 NP	Project Trips	2,040 With Project	2,040 NP	Project Trips	2,040 With Project
2 . Morrison St/Alessandro Blvd						
NBL	55	0	55	104	0	104
NBT	102	0	102	132	0	132
NBR	42	0	42	65	0	65
SBL	111	0	111	65	1	66
SBT	116	0	116	155	0	155
SBR	173	0	173	93	0	93
EBL	172	0	172	110	0	110
EBT	782	5	787	986	16	1,002
EBR	78	0	78	82	0	82
WBL	35	0	35	38	0	38
WBT	936	14	950	943	10	953
WBR	91	1	92	59	1	60
North Leg						
Approach	401	0	401	313	1	314
Departure	366	1	367	301	1	302
Total	766	1	767	614	2	616
South Leg						
Approach	199	0	199	301	0	301
Departure	229	0	229	275	0	275
Total	428	0	428	576	0	576
East Leg						
Approach	1,062	15	1,077	1,040	11	1,051
Departure	935	5	940	1,116	17	1,133
Total	1,997	20	2,017	2,156	28	2,184
West Leg						
Approach	1,032	5	1,037	1,178	16	1,194
Departure	1,164	14	1,178	1,140	10	1,150
Total	2,196	19	2,215	2,318	26	2,344
Total Approaches						
Approach	2,694	20	2,714	2,832	28	2,860
Departure	2,694	20	2,714	2,832	28	2,860
Total	5,387	40	5,427	5,664	56	5,720

Table C-10: Year 2040 With Project Peak Hour Volume Summary

	2,040 NP	Project Trips	2,040 With Project	2,040 NP	Project Trips	2,040 With Project
3 . Nason St/Eucalyptus Ave						
NBL	119	2	121	94	1	95
NBT	1,885	9	1,894	3,347	6	3,353
NBR	476	3	479	580	2	582
SBL	33	0	33	64	0	64
SBT	3,249	3	3,252	2,306	10	2,316
SBR	108	0	108	62	0	62
EBL	276	0	276	59	0	59
EBT	409	0	409	323	0	323
EBR	271	1	272	116	2	118
WBL	413	1	414	470	4	474
WBT	321	0	321	402	0	402
WBR	56	0	56	35	0	35
North Leg						
Approach	3,389	3	3,392	2,432	10	2,442
Departure	2,217	9	2,226	3,441	6	3,447
Total	5,606	12	5,618	5,873	16	5,889
South Leg						
Approach	2,479	14	2,493	4,021	9	4,030
Departure	3,932	5	3,937	2,892	16	2,908
Total	6,412	19	6,431	6,913	25	6,938
East Leg						
Approach	789	1	790	907	4	911
Departure	918	3	921	967	2	969
Total	1,707	4	1,711	1,874	6	1,880
West Leg						
Approach	956	1	957	498	2	500
Departure	548	2	550	558	1	559
Total	1,504	3	1,507	1,056	3	1,059
Total Approaches						
Approach	7,614	19	7,633	7,858	25	7,883
Departure	7,614	19	7,633	7,858	25	7,883
Total	15,229	38	15,267	15,716	50	15,766

Table C-10: Year 2040 With Project Peak Hour Volume Summary

	2,040 NP	Project Trips	2,040 With Project	2,040 NP	Project Trips	2,040 With Project
4 . Nason St/Dracaea Ave						
NBL	271	1	272	49	1	50
NBT	2,071	14	2,085	3,737	10	3,747
NBR	57	0	57	40	0	40
SBL	18	0	18	32	0	32
SBT	3,483	5	3,488	2,549	16	2,565
SBR	313	0	313	143	0	143
EBL	149	0	149	172	0	172
EBT	16	0	16	4	0	4
EBR	128	0	128	88	1	89
WBL	61	0	61	35	0	35
WBT	18	0	18	10	0	10
WBR	35	0	35	4	0	4
North Leg						
Approach	3,814	5	3,819	2,724	16	2,740
Departure	2,255	14	2,269	3,913	10	3,923
Total	6,068	19	6,087	6,637	26	6,663
South Leg						
Approach	2,398	15	2,413	3,826	11	3,837
Departure	3,672	5	3,677	2,672	17	2,689
Total	6,070	20	6,090	6,498	28	6,526
East Leg						
Approach	114	0	114	49	0	49
Departure	91	0	91	76	0	76
Total	205	0	205	125	0	125
West Leg						
Approach	293	0	293	264	1	265
Departure	602	1	603	202	1	203
Total	895	1	896	466	2	468
Total Approaches						
Approach	6,619	20	6,639	6,863	28	6,891
Departure	6,619	20	6,639	6,863	28	6,891
Total	13,239	40	13,279	13,726	56	13,782

Table C-10: Year 2040 With Project Peak Hour Volume Summary

	2,040 NP	Project Trips	2,040 With Project	2,040 NP	Project Trips	2,040 With Project
5 . Nason St/Cottonwood Ave						
NBL	273	2	275	127	2	129
NBT	1,954	7	1,961	3,479	5	3,484
NBR	75	0	75	54	0	54
SBL	60	3	63	51	10	61
SBT	3,359	2	3,361	2,280	8	2,288
SBR	267	0	267	329	0	329
EBL	368	0	368	317	0	317
EBT	105	1	106	114	3	117
EBR	155	1	156	103	3	106
WBL	104	0	104	41	0	41
WBT	140	2	142	97	2	99
WBR	88	8	96	55	6	61
North Leg						
Approach	3,686	5	3,691	2,660	18	2,678
Departure	2,410	15	2,425	3,851	11	3,862
Total	6,096	20	6,116	6,510	29	6,539
South Leg						
Approach	2,302	9	2,311	3,659	7	3,666
Departure	3,619	3	3,622	2,423	11	2,434
Total	5,920	12	5,932	6,083	18	6,101
East Leg						
Approach	332	10	342	193	8	201
Departure	240	4	244	219	13	232
Total	571	14	585	412	21	433
West Leg						
Approach	628	2	630	534	6	540
Departure	679	4	683	552	4	556
Total	1,307	6	1,313	1,087	10	1,097
Total Approaches						
Approach	6,947	26	6,973	7,046	39	7,085
Departure	6,947	26	6,973	7,046	39	7,085
Total	13,895	52	13,947	14,092	78	14,170

Table C-10: Year 2040 With Project Peak Hour Volume Summary

	2,040 NP	Project Trips	2,040 With Project	2,040 NP	Project Trips	2,040 With Project
6 . Nason St/Alessandro Blvd						
NBL	222	0	222	223	0	223
NBT	1,263	0	1,263	3,019	0	3,019
NBR	163	3	166	570	10	580
SBL	181	3	184	228	10	238
SBT	2,797	0	2,797	1,672	0	1,672
SBR	214	0	214	286	0	286
EBL	256	0	256	340	0	340
EBT	458	5	463	565	17	582
EBR	247	0	247	290	0	290
WBL	548	9	557	268	6	274
WBT	588	15	603	550	10	560
WBR	313	9	322	171	6	177
North Leg						
Approach	3,192	3	3,195	2,185	10	2,195
Departure	1,832	9	1,841	3,530	6	3,536
Total	5,024	12	5,036	5,715	16	5,731
South Leg						
Approach	1,648	3	1,651	3,812	10	3,822
Departure	3,592	9	3,601	2,229	6	2,235
Total	5,240	12	5,252	6,041	16	6,057
East Leg						
Approach	1,449	33	1,482	989	22	1,011
Departure	801	11	812	1,363	37	1,400
Total	2,250	44	2,294	2,352	59	2,411
West Leg						
Approach	961	5	966	1,195	17	1,212
Departure	1,024	15	1,039	1,059	10	1,069
Total	1,985	20	2,005	2,254	27	2,281
Total Approaches						
Approach	7,250	44	7,294	8,181	59	8,240
Departure	7,250	44	7,294	8,181	59	8,240
Total	14,499	88	14,587	16,363	118	16,481

Table C-10: Year 2040 With Project Peak Hour Volume Summary

	2,040 NP	Project Trips	2,040 With Project	2,040 NP	Project Trips	2,040 With Project
7 . Street A/Cottonwood Ave						
NBL	43	11	54	29	7	36
NBT	0	0	0	0	0	0
NBR	6	4	10	4	3	7
SBL	0	0	0	0	0	0
SBT	0	0	0	0	0	0
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	212	0	212	170	0	170
EBR	15	4	19	49	12	61
WBL	2	2	4	6	5	11
WBT	289	0	289	147	0	147
WBR	0	0	0	0	0	0
North Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
South Leg						
Approach	49	15	64	34	10	44
Departure	17	6	23	56	17	73
Total	66	21	87	89	27	116
East Leg						
Approach	291	2	293	153	5	158
Departure	218	4	222	174	3	177
Total	509	6	515	328	8	336
West Leg						
Approach	227	4	231	219	12	231
Departure	332	11	343	176	7	183
Total	559	15	574	396	19	415
Total Approaches						
Approach	567	21	588	406	27	433
Departure	567	21	588	406	27	433
Total	1,134	42	1,176	813	54	867

Table C-10: Year 2040 With Project Peak Hour Volume Summary

	2,040 NP	Project Trips	2,040 With Project	2,040 NP	Project Trips	2,040 With Project
8 . Street A/Alessandro Blvd						
NBL	0	0	0	0	0	0
NBT	0	0	0	0	0	0
NBR	0	0	0	0	0	0
SBL	11	8	19	7	5	12
SBT	0	0	0	0	0	0
SBR	13	33	46	8	22	30
EBL	4	12	16	15	38	53
EBT	796	0	796	1,346	0	1,346
EBR	0	0	0	0	0	0
WBL	0	0	0	0	0	0
WBT	1,433	0	1,433	982	0	982
WBR	3	3	6	12	9	21
North Leg						
Approach	23	41	64	16	27	43
Departure	7	15	22	26	47	73
Total	30	56	86	42	74	116
South Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
East Leg						
Approach	1,436	3	1,439	993	9	1,002
Departure	806	8	814	1,353	5	1,358
Total	2,243	11	2,254	2,347	14	2,361
West Leg						
Approach	800	12	812	1,361	38	1,399
Departure	1,446	33	1,479	990	22	1,012
Total	2,246	45	2,291	2,351	60	2,411
Total Approaches						
Approach	2,260	56	2,316	2,370	74	2,444
Departure	2,260	56	2,316	2,370	74	2,444
Total	4,519	112	4,631	4,740	148	4,888

Table C-11 - Cumulative Projects Trip Generation

Project Number	Location	Land Use	Quantity	Units	A.M. Peak Hour			P.M. Peak Hour			Daily
					In	Out	Total	In	Out	Total	
1	Nason Market Place	Gas Station/Retail/Hotel/Coffee Shop	-	-	-	-	-	-	-	-	-
		Trip Generation Rates ¹			-	-	-	-	-	-	-
		Trip Generation			269	225	494	218	220	438	7,432
2	Moreno Valley Town Center Specific Plan	SFR/Park/Hotel/Office/Library/Restaurant	-	-	-	-	-	-	-	-	-
		Trip Generation Rates ²			138	340	478	420	221	641	6,434
		Trip Generation			286	198	484	273	315	589	5,882
					27	15	42	11	17	28	378
3	Village at Moreno Valley	Gas Station/Retail/Restaurant	-	-	-	-	-	-	-	-	-
		Trip Generation Rates ³			-	-	-	-	-	-	-
		Trip Generation			324	250	574	197	184	381	6,191
4	Rocas Grandes	Multi-Family Dwelling Units (MFDU)	426	DU	-	-	-	-	-	-	-
		Trip Generation Rates ⁴			0.10	0.30	0.40	0.32	0.19	0.51	6.74
		Trip Generation			41	129	170	137	81	218	2,871
5	TR31590 - Del Sol	Single Family Residential	96	DU	-	-	-	-	-	-	-
		Trip Generation Rates ⁵			0.18	0.52	0.70	0.59	0.35	0.94	9.43
		Trip Generation			17	50	67	57	34	91	905
6	TR32408 - Moothart	Single Family Residential	80	DU	-	-	-	-	-	-	-
		Trip Generation Rates ⁵			0.18	0.52	0.70	0.59	0.35	0.94	9.43
		Trip Generation			15	41	56	47	29	76	754
7	Arco Gas Station	Gas Station with Convenience Market	16.0	VFP	-	-	-	-	-	-	-
		Trip Generation Rates ⁶			8.03	8.03	16.06	9.21	9.21	18.42	265.12
		Trip Generation			128	129	257	147	148	295	4,242
		Pass-by ⁶			-80	-80	-160	-83	-83	-166	-1061
		Net New Project Trips			48	49	97	64	65	129	226
8	PEN21-0273 - Northwest Commercial Commercial and Office Plaza NWC of Alessandro Blvd. and Lasselle St.	Shopping Center/Office			-	-	-	-	-	-	-
		Trip Generation Rates ⁷			-	-	-	-	-	-	-
		Trip Generation			204	184	388	210	201	411	4,482

Table C-11 - Cumulative Projects Trip Generation

Project Number	Location	Land Use	Quantity	Units	A.M. Peak Hour			P.M. Peak Hour			Daily
					In	Out	Total	In	Out	Total	
9	TR38265 - Alessandro Walk	Single Family Residential	227	DU							
		Trip Generation Rates ⁵			0.18	0.52	0.70	0.59	0.35	0.94	9.43
		Trip Generation	41	118	159	134	80	214	2,141		
		Office	3.2	TSF							
		Trip Generation Rates ⁸			1.34	0.18	1.52	0.24	1.20	1.44	10.84
Trip Generation	4	1	5	1	4	5	34				
Total Project Trips				45	119	164	135	84	219	2,175	
10	Moreno Valley Elementary School	Elementary School	950	Students							
		Trip Generation Rates ⁹			-	-	-	-	-	-	-
Trip Generation				344	293	637	78	84	162	1,796	
11	Rancho Vista Specific Plan	Multifamily, Single Family, Senior Housing/Recreational Center/Soccer Complex									
		Trip Generation Rates ¹⁰	-	-	-	-	-	-	-		
Trip Generation				100	282	382	312	192	504	5,651	
12	PPA21-0038	Shopping Center	169.8	TSF							
		Trip Generation Rates ¹¹			0.52	0.32	0.84	1.63	1.77	3.40	37.01
		Trip Generation			88	55	143	277	301	578	6,284
		Pass-By Trips ¹²						(98)	(98)	(196)	(196)
Net Trip Generation				88	55	143	179	203	382	6,088	
13	Darco Tract 38123	Single Family Residential	195	DU							
		Trip Generation Rates ¹³			-	-	-	-	-	-	-
Trip Generation				37	107	144	122	71	193	1,841	
14	Commercial and Office Plaza NWC of Alessandro Blvd. and Lasselle St.	Shopping Center/Office									
		Trip Generation Rates ¹⁴	-	-	-	-	-	-	-		
Trip Generation				204	184	388	210	201	411	4,482	
15	PA05-0052 Winchester Associate	Single Family Residential	105	DU							
		Trip Generation Rates ⁵			0.18	0.52	0.70	0.59	0.35	0.94	9.43
Trip Generation				19	55	74	62	37	99	990	
15	PEN016-0162-Curtis Development	Single Family Residential	23	DU							
		Trip Generation Rates ⁵			0.18	0.52	0.70	0.59	0.35	0.94	9.43
Trip Generation				4	12	16	14	8	22	217	
16	PA05-0114-Sussex Capital Group	Single Family Residential	11	DU							
		Trip Generation Rates ⁵			0.18	0.52	0.70	0.59	0.35	0.94	9.43
Trip Generation				2	6	8	7	4	11	104	
17	PA05-0115-Sussex Capital Group	Single Family Residential	57	DU							
		Trip Generation Rates ⁵			0.18	0.52	0.70	0.59	0.35	0.94	9.43
Trip Generation				10	30	40	34	20	54	538	
18	PA04-0146-Beazer Homes	Single Family Residential	274	DU							
		Trip Generation Rates ⁵			0.18	0.52	0.70	0.59	0.35	0.94	9.43
Trip Generation				50	142	192	162	96	258	2,584	
19	World Logistics	Warehouse									
		Passenger Vehicles			763	691	1,454	608	1,349	1,958	23,532
		Trucks			174	207	380	121	148	269	6,143
Total				1,037	1,008	2,046	846	1,638	2,484	34,031	

Table C-11 - Cumulative Projects Trip Generation

Project Number	Location	Land Use	Quantity	Units	A.M. Peak Hour			P.M. Peak Hour			Daily
					In	Out	Total	In	Out	Total	
20	PEN21-0075-Lansing Companies	Single Family Residential Trip Generation Rates ⁵ Trip Generation	315	DU	0.18 57	0.52 164	0.70 221	0.59 187	0.35 110	0.94 297	9.43 2,970
21	PEN21-0075-Lansing Companies	Multi-Family Dwelling Units (MFDU) Trip Generation Rates ⁴ Trip Generation	430	DU	0.10 41	0.30 131	0.40 172	0.32 138	0.19 82	0.51 220	6.74 2,898
22	Moreno Valley Trade Center	Warehouse Passenger Vehicles Truck PCEs Total Trip Generation	1,263	TSF	354.00 35	75.00 43	429.00 95	505.00 31	472.00 53	977.00 84	5452 2,042 7,494
23	PEN18-0065-MacJones Holdings	Single Family Residential Trip Generation Rates ⁵ Trip Generation	31	DU	0.18 6	0.52 16	0.70 22	0.59 18	0.35 12	0.94 30	9.43 292
24	PEN21-0050-TM 38098	Single Family Residential Trip Generation Rates ⁵ Trip Generation	195	DU	0.18 35	0.52 102	0.70 137	0.59 115	0.35 69	0.94 184	9.43 1,839
25	PEN21-0184-DR Horton	Single Family Residential Trip Generation Rates ⁵ Trip Generation	204	DU	0.18 37	0.52 106	0.70 143	0.59 121	0.35 71	0.94 192	9.43 1,924
26	PEN21-0199-DR Horton	Single Family Residential Trip Generation Rates ⁵ Trip Generation	67	DU	0.18 12	0.52 35	0.70 47	0.59 40	0.35 23	0.94 63	9.43 632
27	PEN20-0144-Mike McKnight Planning	Single Family Residential Trip Generation Rates ⁵ Trip Generation	96	DU	0.18 17	0.52 50	0.70 67	0.59 57	0.35 34	0.94 91	9.43 905
28	PEN18-0080-Hakan Buvan	Single Family Residential Trip Generation Rates ⁵ Trip Generation	8	DU	0.18 1	0.52 5	0.70 6	0.59 5	0.35 3	0.94 8	9.43 75
29	PEN18-0154-Michael De La Tome	Single Family Residential Trip Generation Rates ⁵ Trip Generation	6	DU	0.18 1	0.52 3	0.70 4	0.59 4	0.35 2	0.94 6	9.43 57
30	PEN18-0053- Canterbury	Single Family Residential Trip Generation Rates ⁵ Trip Generation	45	DU	0.18 8	0.52 24	0.70 32	0.59 27	0.35 16	0.94 43	9.43 424
31	PEN21-0145-Passco Pacifica	Single Family Residential Trip Generation Rates ⁵ Trip Generation	322	DU	0.18 59	0.52 166	0.70 225	0.59 191	0.35 112	0.94 303	9.43 3,036
32	PA06-0052-Perris Pacific Company	Multi-Family Dwelling Units (MFDU) Trip Generation Rates ⁴ Trip Generation	49	DU	0.10 5	0.30 15	0.40 20	0.32 16	0.19 9	0.51 25	6.74 330
33	PA13-0062-Creative Design Assoc.	Multi-Family Dwelling Units (MFDU) Trip Generation Rates ⁴ Trip Generation	58	DU	0.10 6	0.30 17	0.40 23	0.32 19	0.19 11	0.51 30	6.74 391
34	PEN16-0123- Villa Annette	Multi-Family Dwelling Units (MFDU) Trip Generation Rates ⁴ Trip Generation	220	DU	0.10 21	0.30 67	0.40 88	0.32 71	0.19 42	0.51 113	6.74 1,483
35	PEN20-0175-RC Hobbs	Multi-Family Dwelling Units (MFDU) Trip Generation Rates ⁴	38	DU	0.10	0.30	0.40	0.32	0.19	0.51	6.74

Table C-11 - Cumulative Projects Trip Generation

Project Number	Location	Land Use	Quantity	Units	A.M. Peak Hour			P.M. Peak Hour			Daily
					In	Out	Total	In	Out	Total	
		Trip Generation			4	11	15	12	8	20	256
36	PEN16-0130-ROCI CA Belago	Multi-Family Dwelling Units (MFDU)	358	DU							
		Trip Generation Rates ⁴			0.10	0.30	0.40	0.32	0.19	0.51	6.74
		Trip Generation			34	109	143	115	68	183	2,413
37	PA08-0054-Granite Capital	Multi-Family Dwelling Units (MFDU)	135	DU							
		Trip Generation Rates ⁴			0.10	0.30	0.40	0.32	0.19	0.51	6.74
		Trip Generation			13	41	54	43	26	69	910
38	Moreno Valley Medical Plaza	Medical-Dental Office Building	217.0	TSF							
		Trip Generation Rates ¹⁵			2.45	0.65	3.10	1.18	2.75	3.93	36
		Trip Generation			531	142	673	256	597	853	7,812
39	Renaissance Village	Medical-Dental Office Building	98.4	TSF							
		Trip Generation Rates ¹⁵			2.45	0.65	3.10	1.18	2.75	3.93	36
		Trip Generation			241	64	305	116	271	387	3,542
40	Integrated Care Communities	Medical-Dental Office Building	44.0	TSF							
		Trip Generation Rates ¹⁵			2.45	0.65	3.10	1.18	2.75	3.93	36
		Trip Generation			108	28	136	52	121	173	1,584
41	University of Riverside Health System Expansion	Medical-Dental Office Building	1,200.0	TSF							
		Trip Generation Rates ¹⁵			2.45	0.65	3.10	1.18	2.75	3.93	36
		Trip Generation			2,939	781	3,720	1,415	3,301	4,716	43,200
42	Moreno Valley Astoria	Single Family Residential	495	DU							
		Trip Generation Rates ⁵			0.18	0.52	0.70	0.59	0.35	0.94	9.43
		Trip Generation			90	257	347	293	173	466	4,668
43	Moreno Valley TTM 38443 Residential	Single Family Residential	133	DU							
		Trip Generation Rates ⁵			0.18	0.52	0.70	0.59	0.35	0.94	9.43
		Trip Generation			24	69	93	79	47	126	1,254
Total Net Cumulative Project Trip Generation					7,988	6,295	14,301	7,721	9,738	17,460	186,441

Notes: VFP = Vehicle Fueling Positions, DU = Dwelling Units, TSF = Thousand Square Feet

¹ Trip generation was extracted from the approved Traffic Impact Analysis of the "Nason Market Place" project, dated August 6, 2021.

² Trip generation was extracted from the approved Traffic Impact Analysis for the "Moreno Valley Town Center Specific Plan," dated March 3, 2022.

³ Trip generation was extracted from the approved Traffic Impact Analysis for the "Village at Moreno Valley" project, dated September 2021.

⁴ Trip generation based on rates for Land Use 220 - "Multi Family Housing (Low-Rise)" from Institute of Transportation Engineers' (ITE) *Trip Generation* (11th Edition).

⁵ Trip generation based on rates for Land Use 210 - "Single-Family Detached Housing" from Institute of Transportation Engineers' (ITE) *Trip Generation* (11th Edition).

⁶ Trip generation based on rates for Land Use 945 - "Convenience Store/Gas Station" from Institute of Transportation Engineers' (ITE) *Trip Generation* (11th Edition). For the a.m. and p.m. peak hours pass-by rates are based on the Trip Generation Handbook, 3rd Edition. A 62% pass-by deduction was applied to the a.m. peak hour and 56% pass-by deduction was applied to the p.m. peak hour. The a.m. and p.m. pass-by deductions were applied to daily trip generation.

⁷ Trip generation was extracted from the approved focused Traffic Impact Analysis of the "New Commercial and Office Plaza at NWC off Alessandro Blvd. and Lasselle St." project, dated April 6, 2021.

⁸ Trip generation based on rates for Land Use 710 - "General Office" from Institute of Transportation Engineers' (ITE) *Trip Generation* (11th Edition).

⁹ Trip generation was extracted from the approved Traffic Impact Analysis for the "Moreno Valley Elementary School" project, dated May 27, 2020.

¹⁰ Trip generation was extracted from the approved Traffic Impact Analysis for the "Rancho Bell Vista Specific Plan," dated January 6, 2022.

¹¹ Trip generation based on rates for Land Use 820 - Shopping Center (>150k)" from Institute of Transportation Engineers' (ITE) *Trip Generation* (11th Edition).

¹² A 34% pass-by rate was applied for the PM Peak Hour. Rates based on Land Use 820 - "Shopping Center" from Institute of Transportation Engineers, *Trip Generation Handbook*, 2nd Edition. No pass-by rate was applicable for the AM Peak Hour. As a conservative approach, p.m. peak hour pass-by trip credits were applied to the daily trip generation.

¹³ Trip generation was extracted from the approved Traffic Impact Analysis of the "Draco Tract 38123" project, dated September 22, 2021.

¹⁴ Trip generation was extracted from the approved focused Traffic Impact Analysis of the "New Commercial and Office Plaza" project, dated April 6, 2021.

¹⁵ Trip generation based on rates for Land Use 710 - "Medical-Dental Office Building" from Institute of Transportation Engineers' (ITE) *Trip Generation* (11th Edition).

Table C-11 - Cumulative Projects Trip Generation

Project Number Location	Land Use	Quantity	Units	A.M. Peak Hour			P.M. Peak Hour			Daily
				In	Out	Total	In	Out	Total	

Table C-12: Existing With Project Roadway Segment Volume Summary

Roadway Segment	Without Project					Daily Project Trips	Existing With Project	
	Exist Daily Pass. Veh.	Exist Daily Trucks	Exist Daily Total Vehicles	Exist Daily Truck PCEs	Exist Daily PCE Volumes		Exist With Project Total Vehicles	Exist With Project Total PCEs
1 . Cottonwood Avenue from Nason Street to Project's Western Boundary	1,766	34	1,800	85	1,851	192	1,992	2,043
2 . Alessandro Boulevard from Lasselle Street to Morrison Street	10,658	424	11,082	1,060	11,718	254	11,336	11,972
3 . Alessandro Boulevard from Morrison Street to Nason Street	9,879	448	10,327	1,120	10,999	274	10,601	11,273
4 . Alessandro Boulevard from Nason to Project's Western Boundary	8,671	361	9,032	903	9,574	598	9,630	10,172

Table C-13: Opening Year (2024) With Project Roadway Segment Volume Summary

Roadway Segment	Existing	Growth	OY Back.	WLC Project Trips	MVTC Project Trips	Cumul. Project Trips	OY NP	Daily Project Trips	OY With Project
1 . Cottonwood Avenue from Nason Street to Project's Western Boundary	1,851	74	1,925	0	164	2,785	4,874	192	5,066
2 . Alessandro Boulevard from Lasselle Street to Morrison Street	11,718	469	12,187	0	164	13,484	25,835	254	26,089
3 . Alessandro Boulevard from Morrison Street to Nason Street	10,999	440	11,439	0	164	10,770	22,373	274	22,647
4 . Alessandro Boulevard from Nason to Project's Western Boundary	9,574	383	9,957	0	164	13,828	23,948	598	24,546

Table C-14: General Plan Build-Out (2040) Roadway Segment Daily Link Volume Worksheet

Roadway Segment	Existing 2022	2012 Model Volume	2040 Model Volume	Base to Future Year Change	2022 to 2040 Growth	2040 Link Volume
1 . Cottonwood Avenue from Nason Street to Project's Western Boundary	1,800	1,231	2,906	1,675	1,077	2,877
2 . Alessandro Boulevard from Lasselle Street to Morrison Street	11,082	7,303	26,729	19,426	12,488	23,570
3 . Alessandro Boulevard from Morrison Street to Nason Street	10,327	6,027	23,699	17,672	11,361	21,688
4 . Alessandro Boulevard from Nason to Project's Western Boundary	9,032	6,478	11,896	5,418	3,483	12,515

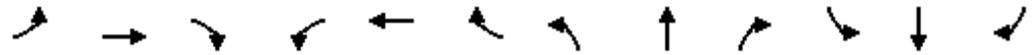
Table C-15: General Plan Build-Out (2040) Roadway Segment Daily PCE Volume Summary

Roadway Segment	2040 Background	OY NP	2040 NP	Daily Project Trips	2040 With Project
1 . Cottonwood Avenue from Nason Street to Project's Western Boundary	2,959	4,874	5,117	192	5,309
2 . Alessandro Boulevard from Lasselle Street to Morrison Street	24,922	25,835	27,126	254	27,380
3 . Alessandro Boulevard from Morrison Street to Nason Street	23,099	22,373	23,099	274	23,373
4 . Alessandro Boulevard from Nason to Project's Western Boundary	13,265	23,948	25,145	598	25,743

APPENDIX D: LOS WORKSHEETS

HCM 6th Signalized Intersection Summary
 Int.1: Lasselle St & Alessandro Blvd

Highpointe MV Residential
 08/02/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	284	162	126	454	27	170	320	147	28	327	69
Future Volume (veh/h)	38	284	162	126	454	27	170	320	147	28	327	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	44	330	188	147	528	31	198	372	171	33	380	80
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	106	712	604	166	776	720	196	686	729	70	444	93
Arrive On Green	0.06	0.38	0.38	0.09	0.41	0.41	0.11	0.36	0.36	0.04	0.29	0.29
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1522	320
Grp Volume(v), veh/h	44	330	188	147	528	31	198	372	171	33	0	460
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	0	1842
Q Serve(g_s), s	2.8	15.8	9.9	9.6	27.3	0.9	13.0	18.7	1.0	2.1	0.0	28.3
Cycle Q Clear(g_c), s	2.8	15.8	9.9	9.6	27.3	0.9	13.0	18.7	1.0	2.1	0.0	28.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	106	713	604	166	776	720	196	686	729	70	0	537
V/C Ratio(X)	0.42	0.46	0.31	0.89	0.68	0.04	1.01	0.54	0.23	0.47	0.00	0.86
Avail Cap(c_a), veh/h	106	713	604	166	776	720	196	686	729	151	0	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.5	28.4	26.5	53.9	29.1	10.0	53.5	30.5	11.5	56.5	0.0	40.1
Incr Delay (d2), s/veh	2.6	2.2	1.3	39.3	4.8	0.1	66.9	3.1	0.8	4.8	0.0	16.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	7.2	3.9	6.0	12.7	0.4	9.4	8.8	2.1	1.0	0.0	14.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.1	30.5	27.9	93.2	33.9	10.1	120.4	33.5	12.3	61.2	0.0	56.1
LnGrp LOS	E	C	C	F	C	B	F	C	B	E	A	E
Approach Vol, veh/h		562			706			741				493
Approach Delay, s/veh		31.7			45.2			51.8				56.4
Approach LOS		C			D			D				E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	49.0	17.0	39.0	11.0	53.0	8.7	47.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	11.0	45.0	13.0	35.0	7.0	49.0	10.0	38.0				
Max Q Clear Time (g_c+I1), s	11.6	17.8	15.0	30.3	4.8	29.3	4.1	20.7				
Green Ext Time (p_c), s	0.0	2.3	0.0	1.1	0.0	2.9	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			46.3									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 Int.2: Alessandro Blvd & Morrison St



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↑↑	↖	↘	↖
Traffic Volume (veh/h)	132	314	428	71	97	148
Future Volume (veh/h)	132	314	428	71	97	148
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	161	383	522	87	118	180
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	332	1156	1414	631	588	523
Arrive On Green	0.18	0.61	0.39	0.39	0.32	0.32
Sat Flow, veh/h	1810	1900	3705	1610	1810	1610
Grp Volume(v), veh/h	161	383	522	87	118	180
Grp Sat Flow(s),veh/h/ln	1810	1900	1805	1610	1810	1610
Q Serve(g_s), s	9.6	11.9	12.3	4.2	5.7	10.2
Cycle Q Clear(g_c), s	9.6	11.9	12.3	4.2	5.7	10.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	332	1156	1414	631	588	523
V/C Ratio(X)	0.49	0.33	0.37	0.14	0.20	0.34
Avail Cap(c_a), veh/h	332	1156	1414	631	588	523
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	11.5	26.0	23.5	29.2	30.8
Incr Delay (d2), s/veh	1.1	0.8	0.7	0.5	0.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	4.7	5.2	1.6	2.5	10.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.0	12.3	26.7	23.9	30.0	32.6
LnGrp LOS	D	B	C	C	C	C
Approach Vol, veh/h		544	609		298	
Approach Delay, s/veh		22.0	26.3		31.6	
Approach LOS		C	C		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		77.0		43.0	26.0	51.0
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		73.0		39.0	22.0	47.0
Max Q Clear Time (g_c+I1), s		13.9		12.2	11.6	14.3
Green Ext Time (p_c), s		2.2		0.9	0.3	3.5
Intersection Summary						
HCM 6th Ctrl Delay			25.8			
HCM 6th LOS			C			

HCM 6th Signalized Intersection Summary
 Int.3: Nason St & Eucalyptus Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↑↑		↘	↑↑	
Traffic Volume (veh/h)	253	214	199	137	145	25	70	672	183	15	912	91
Future Volume (veh/h)	253	214	199	137	145	25	70	672	183	15	912	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	312	264	246	169	179	31	86	830	226	19	1126	112
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	387	172	166	382	65	440	1796	489	50	1409	140
Arrive On Green	0.08	0.11	0.11	0.09	0.12	0.12	0.49	1.00	1.00	0.03	0.43	0.43
Sat Flow, veh/h	1810	3610	1610	1810	3086	525	1810	2804	763	1810	3316	329
Grp Volume(v), veh/h	312	264	246	169	103	107	86	534	522	19	612	626
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1806	1810	1805	1763	1810	1805	1841
Q Serve(g_s), s	9.0	8.5	8.4	11.0	6.4	6.6	3.2	0.0	0.0	1.2	35.4	35.5
Cycle Q Clear(g_c), s	9.0	8.5	8.4	11.0	6.4	6.6	3.2	0.0	0.0	1.2	35.4	35.5
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.43	1.00		0.18
Lane Grp Cap(c), veh/h	136	387	172	166	223	223	440	1156	1129	50	767	782
V/C Ratio(X)	2.30	0.68	1.43	1.02	0.46	0.48	0.20	0.46	0.46	0.38	0.80	0.80
Avail Cap(c_a), veh/h	136	1053	470	166	557	557	440	1156	1129	106	767	782
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	51.6	22.9	54.5	48.9	49.0	24.2	0.0	0.0	57.4	30.0	30.1
Incr Delay (d2), s/veh	607.1	2.1	200.3	74.9	1.5	1.6	0.2	1.3	1.3	4.8	8.5	8.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.9	3.9	12.7	8.4	2.9	3.0	1.3	0.4	0.4	0.6	16.2	16.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	662.6	53.7	223.2	129.4	50.4	50.5	24.4	1.3	1.3	62.2	38.5	38.5
LnGrp LOS	F	D	F	F	D	D	C	A	A	E	D	D
Approach Vol, veh/h		822			379			1142			1257	
Approach Delay, s/veh		335.6			85.7			3.0			38.8	
Approach LOS		F			F			A			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.3	80.9	15.0	16.9	33.1	55.0	13.0	18.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	51.0	11.0	11.0	35.0	7.0	51.0	9.0	37.0				
Max Q Clear Time (g_c+1), s	2.0	13.0	13.0	10.5	5.2	37.5	11.0	8.6				
Green Ext Time (p_c), s	0.0	7.8	0.0	2.4	0.0	6.3	0.0	1.1				

Intersection Summary

HCM 6th Ctrl Delay	100.2
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary
 Int.4: Nason St & Dracaea Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	110	14	76	6	2	3	219	706	31	13	852	247
Future Volume (veh/h)	110	14	76	6	2	3	219	706	31	13	852	247
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	128	16	88	7	2	3	255	821	36	15	991	287
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	168	24	130	35	13	20	958	793	35	958	622	179
Arrive On Green	0.09	0.09	0.09	0.02	0.02	0.02	1.00	0.45	0.45	1.00	0.45	0.45
Sat Flow, veh/h	1810	254	1395	1810	686	1029	1810	3523	154	1810	2765	797
Grp Volume(v), veh/h	128	0	104	7	0	5	255	421	436	15	645	633
Grp Sat Flow(s),veh/h/ln	1810	0	1649	1810	0	1715	1810	1805	1872	1810	1805	1757
Q Serve(g_s), s	8.3	0.0	7.3	0.5	0.0	0.3	0.0	27.0	27.0	0.0	27.0	27.0
Cycle Q Clear(g_c), s	8.3	0.0	7.3	0.5	0.0	0.3	0.0	27.0	27.0	0.0	27.0	27.0
Prop In Lane	1.00		0.85	1.00		0.60	1.00		0.08	1.00		0.45
Lane Grp Cap(c), veh/h	168	0	153	35	0	33	958	406	421	958	406	395
V/C Ratio(X)	0.76	0.00	0.68	0.20	0.00	0.15	0.27	1.04	1.04	0.02	1.59	1.60
Avail Cap(c_a), veh/h	528	0	481	528	0	500	958	406	421	958	406	395
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.91	0.91	0.91	0.71	0.71	0.71
Uniform Delay (d), s/veh	53.1	0.0	52.7	57.9	0.0	57.9	0.0	33.0	33.0	0.0	33.0	33.0
Incr Delay (d2), s/veh	6.9	0.0	5.1	2.8	0.0	2.1	0.1	52.1	51.4	0.0	273.3	278.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	3.2	0.2	0.0	0.2	0.0	14.2	14.6	0.0	39.1	38.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.0	0.0	57.8	60.7	0.0	60.0	0.1	85.1	84.4	0.0	306.3	311.7
LnGrp LOS	E	A	E	E	A	E	A	F	F	A	F	F
Approach Vol, veh/h		232			12			1112			1293	
Approach Delay, s/veh		59.0			60.4			65.4			305.4	
Approach LOS		E			E			E			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	67.5	31.0		15.2	67.5	31.0		6.3				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	27.0			35.0	7.0	27.0		35.0				
Max Q Clear Time (g_c+1/2), s	29.0			10.3	2.0	29.0		2.5				
Green Ext Time (p_c), s	0.0	0.0		0.9	0.3	0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay		181.9										
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary
 Int.5: Nason St & Cottonwood Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑↑		↘	↑↑		↘	↑↑	↗
Traffic Volume (veh/h)	93	60	27	4	68	52	50	811	4	32	803	132
Future Volume (veh/h)	93	60	27	4	68	52	50	811	4	32	803	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	111	71	32	5	81	62	60	965	5	38	956	157
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	137	111	94	149	132	92	575	1565	8	545	1474	657
Arrive On Green	0.08	0.06	0.06	0.08	0.07	0.07	0.32	0.43	0.43	0.60	0.82	0.82
Sat Flow, veh/h	1810	1900	1610	1810	2031	1419	1810	3682	19	1810	3610	1610
Grp Volume(v), veh/h	111	71	32	5	71	72	60	473	497	38	956	157
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1805	1645	1810	1805	1897	1810	1805	1610
Q Serve(g_s), s	7.3	4.4	2.3	0.3	4.6	5.1	2.8	24.5	24.5	1.0	12.4	2.0
Cycle Q Clear(g_c), s	7.3	4.4	2.3	0.3	4.6	5.1	2.8	24.5	24.5	1.0	12.4	2.0
Prop In Lane	1.00		1.00	1.00		0.86	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	137	111	94	149	118	107	575	767	806	545	1474	657
V/C Ratio(X)	0.81	0.64	0.34	0.03	0.61	0.67	0.10	0.62	0.62	0.07	0.65	0.24
Avail Cap(c_a), veh/h	166	554	470	166	526	480	575	767	806	545	1474	657
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	54.6	55.3	54.3	50.7	54.6	54.8	28.9	26.9	26.9	16.9	7.6	3.9
Incr Delay (d2), s/veh	21.9	6.0	2.1	0.1	4.9	7.1	0.1	3.7	3.5	0.0	1.9	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	2.3	1.0	0.1	2.2	2.3	1.2	10.8	11.3	0.4	3.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.5	61.3	56.4	50.8	59.5	61.9	29.0	30.6	30.4	16.9	9.5	4.6
LnGrp LOS	E	E	E	D	E	E	C	C	C	C	B	A
Approach Vol, veh/h		214			148			1030			1151	
Approach Delay, s/veh		68.4			60.4			30.4			9.1	
Approach LOS		E			E			C			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	40.1	55.0	13.9	11.0	42.1	53.0	13.1	11.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	51.0	11.0	35.0	9.0	49.0	11.0	35.0					
Max Q Clear Time (g_c+1), s	26.5	2.3	6.4	4.8	14.4	9.3	7.1					
Green Ext Time (p_c), s	0.0	6.0	0.0	0.4	0.0	7.9	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay											25.7	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary
 Int.6: Nason St & Alessandro Blvd



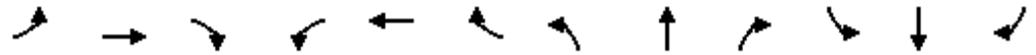
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖↗	↑	↖	↖	↑↑	↖	↖	↑↑↑	↖
Traffic Volume (veh/h)	99	223	104	102	334	139	75	557	21	71	700	86
Future Volume (veh/h)	99	223	104	102	334	139	75	557	21	71	700	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	114	256	120	117	384	160	86	640	24	82	805	99
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	200	438	371	201	438	371	384	1881	839	105	1902	590
Arrive On Green	0.06	0.23	0.23	0.06	0.23	0.23	0.21	0.52	0.52	0.06	0.37	0.37
Sat Flow, veh/h	3510	1900	1610	3510	1900	1610	1810	3610	1610	1810	5187	1610
Grp Volume(v), veh/h	114	256	120	117	384	160	86	640	24	82	805	99
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1755	1900	1610	1810	1805	1610	1810	1729	1610
Q Serve(g_s), s	3.8	14.4	4.7	3.9	23.4	8.5	4.7	12.4	0.9	5.4	14.0	5.0
Cycle Q Clear(g_c), s	3.8	14.4	4.7	3.9	23.4	8.5	4.7	12.4	0.9	5.4	14.0	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	200	438	371	201	438	371	384	1881	839	105	1902	590
V/C Ratio(X)	0.57	0.58	0.32	0.58	0.88	0.43	0.22	0.34	0.03	0.78	0.42	0.17
Avail Cap(c_a), veh/h	263	649	550	293	665	564	384	1881	839	181	1902	590
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	41.1	15.6	55.2	44.5	27.7	39.1	16.7	14.0	55.8	28.5	25.6
Incr Delay (d2), s/veh	2.5	1.2	0.5	2.7	8.5	0.8	0.3	0.5	0.1	12.0	0.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	6.6	2.8	1.7	11.6	3.2	2.1	5.0	0.3	2.7	5.7	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.7	42.3	16.1	57.9	53.0	28.5	39.4	17.2	14.0	67.8	29.2	26.3
LnGrp LOS	E	D	B	E	D	C	D	B	B	E	C	C
Approach Vol, veh/h		490			661			750			986	
Approach Delay, s/veh		39.5			47.9			19.7			32.1	
Approach LOS		D			D			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.9	66.5	10.9	31.7	29.5	48.0	10.8	31.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	12.0	41.0	10.0	41.0	9.0	44.0	9.0	42.0				
Max Q Clear Time (g_c+1), s	14.4	14.4	5.9	16.4	6.7	16.0	5.8	25.4				
Green Ext Time (p_c), s	0.1	4.2	0.1	1.6	0.0	5.9	0.1	2.3				

Intersection Summary

HCM 6th Ctrl Delay	33.7
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
 Int.1: Lasselle St & Alessandro Blvd

Highpointe MV Residential
 08/02/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	377	202	80	285	15	150	348	98	15	336	32
Future Volume (veh/h)	49	377	202	80	285	15	150	348	98	15	336	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	401	215	85	303	16	160	370	104	16	357	34
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	173	697	590	188	712	643	189	707	766	44	498	47
Arrive On Green	0.10	0.37	0.37	0.10	0.38	0.38	0.10	0.37	0.37	0.02	0.29	0.29
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1708	163
Grp Volume(v), veh/h	52	401	215	85	303	16	160	370	104	16	0	391
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	0	1871
Q Serve(g_s), s	3.2	20.3	11.7	5.3	14.2	0.5	10.4	18.2	0.5	1.0	0.0	22.5
Cycle Q Clear(g_c), s	3.2	20.3	11.7	5.3	14.2	0.5	10.4	18.2	0.5	1.0	0.0	22.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	173	697	590	188	713	643	189	707	766	44	0	546
V/C Ratio(X)	0.30	0.58	0.36	0.45	0.43	0.02	0.85	0.52	0.14	0.37	0.00	0.72
Avail Cap(c_a), veh/h	173	697	590	188	713	643	256	707	766	196	0	546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.5	30.5	27.8	50.5	27.9	11.0	52.8	29.4	10.5	57.7	0.0	38.1
Incr Delay (d2), s/veh	1.0	3.4	1.7	1.7	1.9	0.1	17.4	2.8	0.4	5.1	0.0	7.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	9.5	4.6	2.4	6.5	0.2	5.5	8.5	1.2	0.5	0.0	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.5	33.9	29.5	52.2	29.7	11.0	70.2	32.2	10.8	62.7	0.0	45.9
LnGrp LOS	D	C	C	D	C	B	E	C	B	E	A	D
Approach Vol, veh/h		668			404			634			407	
Approach Delay, s/veh		33.9			33.7			38.3			46.6	
Approach LOS		C			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.5	48.0	16.5	39.0	15.5	49.0	6.9	48.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	8.0	44.0	17.0	35.0	7.0	45.0	13.0	39.0				
Max Q Clear Time (g_c+I1), s	7.3	22.3	12.4	24.5	5.2	16.2	3.0	20.2				
Green Ext Time (p_c), s	0.0	2.8	0.2	1.5	0.0	1.6	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay			37.6									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 Int.2: Alessandro Blvd & Morrison St

Highpointe MV Residential
 08/02/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↶	↷	↶↷	↶	↶	↶
Traffic Volume (veh/h)	78	372	323	45	44	65
Future Volume (veh/h)	78	372	323	45	44	65
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	85	404	351	49	48	71
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	211	1156	1655	738	588	523
Arrive On Green	0.12	0.61	0.46	0.46	0.32	0.32
Sat Flow, veh/h	1810	1900	3705	1610	1810	1610
Grp Volume(v), veh/h	85	404	351	49	48	71
Grp Sat Flow(s),veh/h/ln	1810	1900	1805	1610	1810	1610
Q Serve(g_s), s	5.2	12.7	7.0	2.0	2.2	3.7
Cycle Q Clear(g_c), s	5.2	12.7	7.0	2.0	2.2	3.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	211	1156	1655	738	588	523
V/C Ratio(X)	0.40	0.35	0.21	0.07	0.08	0.14
Avail Cap(c_a), veh/h	211	1156	1655	738	588	523
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.1	11.7	19.5	18.2	28.1	28.6
Incr Delay (d2), s/veh	1.2	0.8	0.3	0.2	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	5.0	2.8	0.8	1.0	4.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.4	12.5	19.8	18.3	28.4	29.1
LnGrp LOS	D	B	B	B	C	C
Approach Vol, veh/h		489	400		119	
Approach Delay, s/veh		19.1	19.6		28.8	
Approach LOS		B	B		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		77.0		43.0	18.0	59.0
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		73.0		39.0	14.0	55.0
Max Q Clear Time (g_c+I1), s		14.7		5.7	7.2	9.0
Green Ext Time (p_c), s		2.3		0.3	0.1	2.3
Intersection Summary						
HCM 6th Ctrl Delay			20.5			
HCM 6th LOS			C			

HCM 6th Signalized Intersection Summary
 Int.3: Nason St & Eucalyptus Ave

Highpointe MV Residential
 08/02/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	101	47	141	134	14	50	777	214	37	688	51
Future Volume (veh/h)	46	101	47	141	134	14	50	777	214	37	688	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	47	103	48	144	137	14	51	793	218	38	702	52
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	84	211	94	166	344	35	528	1888	519	76	1448	107
Arrive On Green	0.05	0.06	0.06	0.09	0.10	0.10	0.58	1.00	1.00	0.04	0.43	0.43
Sat Flow, veh/h	1810	3610	1610	1810	3311	334	1810	2798	769	1810	3407	252
Grp Volume(v), veh/h	47	103	48	144	74	77	51	512	499	38	372	382
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1840	1810	1805	1762	1810	1805	1855
Q Serve(g_s), s	3.1	3.3	2.2	9.4	4.6	4.7	1.5	0.0	0.0	2.5	17.9	17.9
Cycle Q Clear(g_c), s	3.1	3.3	2.2	9.4	4.6	4.7	1.5	0.0	0.0	2.5	17.9	17.9
Prop In Lane	1.00		1.00	1.00		0.18	1.00		0.44	1.00		0.14
Lane Grp Cap(c), veh/h	84	211	94	166	187	191	528	1218	1189	76	767	788
V/C Ratio(X)	0.56	0.49	0.51	0.87	0.39	0.40	0.10	0.42	0.42	0.50	0.48	0.49
Avail Cap(c_a), veh/h	136	1053	470	166	557	567	528	1218	1189	106	767	788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	54.8	21.0	53.8	50.2	50.3	18.0	0.0	0.0	56.3	25.0	25.0
Incr Delay (d2), s/veh	5.8	1.8	4.2	35.5	1.3	1.4	0.1	1.0	1.0	5.0	2.2	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.5	1.5	5.8	2.1	2.2	0.6	0.3	0.3	1.2	7.8	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.9	56.5	25.3	89.3	51.6	51.7	18.1	1.0	1.0	61.3	27.2	27.1
LnGrp LOS	E	E	C	F	D	D	B	A	A	E	C	C
Approach Vol, veh/h		198			295			1062			792	
Approach Delay, s/veh		50.2			70.0			1.8			28.8	
Approach LOS		D			E			A			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	85.0	15.0	11.0	39.0	55.0	9.5	16.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	51.0	11.0	11.0	35.0	7.0	51.0	9.0	37.0				
Max Q Clear Time (g_c+1), s	2.0	11.4	5.3	3.5	19.9	5.1	6.7					
Green Ext Time (p_c), s	0.0	7.3	0.0	0.7	0.0	4.6	0.0	0.8				
Intersection Summary												
HCM 6th Ctrl Delay				23.6								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 Int.4: Nason St & Dracaea Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕		↖	↗	
Traffic Volume (veh/h)	117	2	46	10	6	3	26	855	19	19	747	94
Future Volume (veh/h)	117	2	46	10	6	3	26	855	19	19	747	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	130	2	51	11	7	3	29	950	21	21	830	104
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	166	6	143	53	37	16	942	2586	57	53	726	91
Arrive On Green	0.09	0.09	0.09	0.03	0.03	0.03	0.69	0.95	0.95	0.06	0.45	0.45
Sat Flow, veh/h	1810	61	1558	1810	1262	541	1810	3611	80	1810	3228	404
Grp Volume(v), veh/h	130	0	53	11	0	10	29	475	496	21	464	470
Grp Sat Flow(s),veh/h/ln	1810	0	1619	1810	0	1803	1810	1805	1886	1810	1805	1827
Q Serve(g_s), s	8.4	0.0	3.7	0.7	0.0	0.6	0.6	2.3	2.3	1.3	27.0	27.0
Cycle Q Clear(g_c), s	8.4	0.0	3.7	0.7	0.0	0.6	0.6	2.3	2.3	1.3	27.0	27.0
Prop In Lane	1.00		0.96	1.00		0.30	1.00		0.04	1.00		0.22
Lane Grp Cap(c), veh/h	166	0	149	53	0	53	942	1293	1350	53	406	411
V/C Ratio(X)	0.78	0.00	0.36	0.21	0.00	0.19	0.03	0.37	0.37	0.40	1.14	1.14
Avail Cap(c_a), veh/h	528	0	472	528	0	526	942	1293	1350	106	406	411
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.95	0.95	0.95	0.92	0.92	0.92
Uniform Delay (d), s/veh	53.3	0.0	51.2	56.9	0.0	56.8	8.9	0.9	0.9	55.4	33.0	33.0
Incr Delay (d2), s/veh	7.8	0.0	1.4	1.9	0.0	1.7	0.0	0.8	0.7	4.3	88.1	87.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	1.5	0.3	0.0	0.3	0.2	0.8	0.8	0.7	18.2	18.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.1	0.0	52.6	58.8	0.0	58.5	9.0	1.6	1.6	59.8	121.1	120.9
LnGrp LOS	E	A	D	E	A	E	A	A	A	E	F	F
Approach Vol, veh/h		183			21			1000			955	
Approach Delay, s/veh		58.7			58.7			1.8			119.6	
Approach LOS		E			E			A			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	89.9		15.0	66.5	31.0		7.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	27.0			35.0	7.0	27.0		35.0				
Max Q Clear Time (g_c+1), s	4.3			10.4	2.6	29.0		2.7				
Green Ext Time (p_c), s	0.0	5.9		0.6	0.0	0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	59.3
HCM 6th LOS	E

HCM 6th Signalized Intersection Summary
 Int.5: Nason St & Cottonwood Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	37	44	4	40	18	25	810	9	16	685	104
Future Volume (veh/h)	80	37	44	4	40	18	25	810	9	16	685	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	86	40	47	4	43	19	27	871	10	17	737	112
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	109	211	179	13	144	60	675	1371	16	675	1354	604
Arrive On Green	0.06	0.11	0.11	0.01	0.06	0.06	0.37	0.38	0.38	0.75	0.75	0.75
Sat Flow, veh/h	1810	1900	1610	1810	2488	1031	1810	3655	42	1810	3610	1610
Grp Volume(v), veh/h	86	40	47	4	30	32	27	430	451	17	737	112
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1805	1714	1810	1805	1892	1810	1805	1610
Q Serve(g_s), s	5.6	2.3	1.6	0.3	1.9	2.1	1.1	23.5	23.5	0.3	10.4	2.4
Cycle Q Clear(g_c), s	5.6	2.3	1.6	0.3	1.9	2.1	1.1	23.5	23.5	0.3	10.4	2.4
Prop In Lane	1.00		1.00	1.00		0.60	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	109	211	179	13	105	99	675	677	710	675	1354	604
V/C Ratio(X)	0.79	0.19	0.26	0.30	0.29	0.32	0.04	0.64	0.64	0.03	0.54	0.19
Avail Cap(c_a), veh/h	196	618	523	166	557	529	675	677	710	675	1354	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	55.6	48.4	12.5	59.3	54.2	54.2	23.9	30.8	30.8	9.6	10.7	9.7
Incr Delay (d2), s/veh	11.6	0.4	0.8	12.4	1.5	1.8	0.0	4.5	4.3	0.0	1.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	1.1	1.3	0.2	0.9	0.9	0.5	10.6	11.1	0.1	3.1	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	48.9	13.2	71.6	55.7	56.1	24.0	35.3	35.1	9.6	12.2	10.3
LnGrp LOS	E	D	B	E	E	E	C	D	D	A	B	B
Approach Vol, veh/h	173			66			908			866		
Approach Delay, s/veh	48.3			56.8			34.8			11.9		
Approach LOS	D			E			C			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	48.8	49.0	4.9	17.3	48.8	49.0	11.3	11.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	45.0	11.0	39.0	9.0	45.0	13.0	37.0					
Max Q Clear Time (g_c+1), s	25.5	2.3	4.3	3.1	12.4	7.6	4.1					
Green Ext Time (p_c), s	0.0	4.9	0.0	0.3	0.0	5.5	0.1	0.3				
Intersection Summary												
HCM 6th Ctrl Delay	26.8											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary
 Int.6: Nason St & Alessandro Blvd

Highpointe MV Residential
 08/02/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑	↗	↔↔	↑	↗	↖	↑↑	↗	↖	↑↑↑	↗
Traffic Volume (veh/h)	89	247	69	23	227	53	65	700	62	77	591	80
Future Volume (veh/h)	89	247	69	23	227	53	65	700	62	77	591	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	100	278	78	26	255	60	73	787	70	87	664	90
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	197	326	276	152	302	256	576	2134	952	110	1729	537
Arrive On Green	0.06	0.17	0.17	0.04	0.16	0.16	0.32	0.59	0.59	0.06	0.33	0.33
Sat Flow, veh/h	3510	1900	1610	3510	1900	1610	1810	3610	1610	1810	5187	1610
Grp Volume(v), veh/h	100	278	78	26	255	60	73	787	70	87	664	90
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1755	1900	1610	1810	1805	1610	1810	1729	1610
Q Serve(g_s), s	3.3	17.0	5.1	0.9	15.6	3.3	3.4	13.7	1.6	5.7	11.7	4.7
Cycle Q Clear(g_c), s	3.3	17.0	5.1	0.9	15.6	3.3	3.4	13.7	1.6	5.7	11.7	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	197	326	276	152	302	256	576	2134	952	110	1729	537
V/C Ratio(X)	0.51	0.85	0.28	0.17	0.85	0.23	0.13	0.37	0.07	0.79	0.38	0.17
Avail Cap(c_a), veh/h	234	649	550	234	649	550	576	2134	952	121	1729	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	48.2	43.3	55.3	49.0	31.8	29.1	12.8	5.6	55.6	30.6	28.2
Incr Delay (d2), s/veh	2.0	6.3	0.6	0.5	6.4	0.5	0.1	0.5	0.2	27.4	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	8.3	2.0	0.4	7.7	1.5	1.5	5.2	0.7	3.4	4.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.0	54.5	43.8	55.9	55.5	32.2	29.2	13.3	5.8	83.0	31.2	28.9
LnGrp LOS	E	D	D	E	E	C	C	B	A	F	C	C
Approach Vol, veh/h		456			341			930			841	
Approach Delay, s/veh		53.2			51.4			14.0			36.3	
Approach LOS		D			D			B			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.3	74.9	9.2	24.6	42.2	44.0	10.8	23.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	47.0	47.0	8.0	41.0	15.0	40.0	8.0	41.0				
Max Q Clear Time (g_c+1), s	15.7	15.7	2.9	19.0	5.4	13.7	5.3	17.6				
Green Ext Time (p_c), s	0.0	5.8	0.0	1.6	0.1	4.7	0.1	1.4				
Intersection Summary												
HCM 6th Ctrl Delay											33.2	
HCM 6th LOS											C	

Queues

Int.1: Lasselle St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	115	759	550	249	1073	156	312	478	224	106	608
v/c Ratio	0.96	1.09	0.83	1.38	1.41	0.19	1.60	0.79	0.31	0.74	1.12
Control Delay	127.8	98.1	38.8	235.0	214.7	1.6	327.7	48.0	9.3	82.4	114.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	127.8	98.1	38.8	235.0	214.7	1.6	327.7	48.0	9.3	82.4	114.1
Queue Length 50th (ft)	90	-662	311	-263	-1148	13	-345	337	45	81	-536
Queue Length 95th (ft)	#196	#834	429	m#393	#1319	m16	#495	442	80	#154	#709
Internal Link Dist (ft)		1			1373			338			424
Turn Bay Length (ft)	175		60	150		50	200		75	150	
Base Capacity (vph)	120	696	666	180	760	822	195	607	732	150	544
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	1.09	0.83	1.38	1.41	0.19	1.60	0.79	0.31	0.71	1.12

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

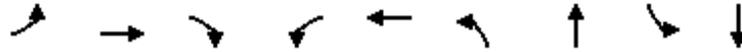


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	200	939	1087	106	129	201
v/c Ratio	0.61	0.81	0.77	0.15	0.22	0.30
Control Delay	43.2	15.2	23.8	3.5	30.7	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.2	15.2	23.8	3.5	30.7	5.3
Queue Length 50th (ft)	146	638	264	2	72	0
Queue Length 95th (ft)	m156	m595	m273	m5	110	38
Internal Link Dist (ft)		382	930		379	
Turn Bay Length (ft)	125			600		
Base Capacity (vph)	330	1155	1413	697	586	660
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.81	0.77	0.15	0.22	0.30

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.3: Nason St & Eucalyptus Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	325	316	311	485	322	140	2584	38	3947
v/c Ratio	2.41	0.48	0.80	4.04	0.51	0.50	1.25	0.30	2.38
Control Delay	679.5	44.9	43.2	1403.0	42.4	59.7	138.5	58.9	643.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	679.5	44.9	43.2	1403.0	42.4	59.7	138.5	58.9	643.7
Queue Length 50th (ft)	~415	116	149	~685	110	115	~1356	29	~2675
Queue Length 95th (ft)	#526	128	190	#794	123	m132	#1411	57	#2483
Internal Link Dist (ft)		585			309		1241		544
Turn Bay Length (ft)	200		25	200		300		175	
Base Capacity (vph)	135	1143	590	120	1098	280	2070	125	1658
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.41	0.28	0.53	4.04	0.29	0.50	1.25	0.30	2.38

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	136	159	27	5	314	2356	16	4169
v/c Ratio	0.63	0.49	0.23	0.04	0.47	0.92	0.15	3.34
Control Delay	62.5	15.4	57.7	39.8	34.3	23.1	50.0	1066.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.5	15.4	57.7	39.8	34.3	23.1	50.0	1066.3
Queue Length 50th (ft)	102	12	20	1	246	594	13	-2963
Queue Length 95th (ft)	153	64	48	14	m219	m#587	m7	m#987
Internal Link Dist (ft)		639		926		1246		1241
Turn Bay Length (ft)	200		100		180		280	
Base Capacity (vph)	526	580	526	506	666	2561	110	1250
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.27	0.05	0.01	0.47	0.92	0.15	3.34

Intersection Summary

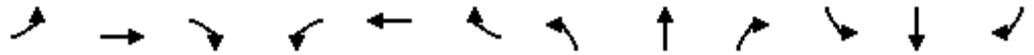
- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	417	119	176	118	258	310	2300	54	3808	302
v/c Ratio	2.14	0.58	0.56	0.56	0.53	0.65	1.10	0.39	2.81	0.44
Control Delay	555.7	61.8	17.5	59.9	33.0	58.7	67.0	61.4	833.1	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	555.7	61.8	17.5	59.9	33.0	58.7	67.0	61.4	833.1	4.8
Queue Length 50th (ft)	~515	89	14	88	61	233	~1106	45	~2609	9
Queue Length 95th (ft)	#656	135	66	134	86	m261	m#1131	m18	m120	m2
Internal Link Dist (ft)		517			319		2097		1246	
Turn Bay Length (ft)	90		50	300		200		240		300
Base Capacity (vph)	195	601	618	212	1090	480	2092	139	1353	679
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.14	0.20	0.28	0.56	0.24	0.65	1.10	0.39	2.81	0.44

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



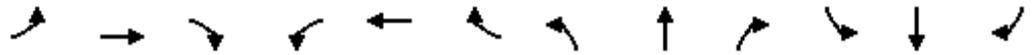
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	280	503	261	600	644	343	139	1383	178	198	3062	201
v/c Ratio	1.00	0.87	0.43	1.34	0.96	0.50	1.03	1.15	0.28	1.10	1.65	0.31
Control Delay	90.8	37.2	6.7	208.0	64.9	17.1	139.9	114.4	10.1	110.4	313.2	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.8	37.2	6.7	208.0	64.9	17.1	139.9	114.4	10.1	110.4	313.2	3.8
Queue Length 50th (ft)	~122	375	56	~326	481	97	~115	~662	24	~167	~1302	42
Queue Length 95th (ft)	m#180	405	m57	#472	#676	174	#234	#757	71	m50	m261	m9
Internal Link Dist (ft)		1525			272			428			382	
Turn Bay Length (ft)	240		200	240		240	275		275	250		300
Base Capacity (vph)	281	665	675	448	680	689	135	1203	626	180	1858	648
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.76	0.39	1.34	0.95	0.50	1.03	1.15	0.28	1.10	1.65	0.31

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
 Int.1: Lasselle St & Alessandro Blvd

MV TTM 38442 Residential
 08/05/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	928	368	148	760	108	501	437	200	133	428	93
Future Volume (veh/h)	110	928	368	148	760	108	501	437	200	133	428	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	117	987	391	157	809	115	533	465	213	141	455	99
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	151	697	590	121	665	714	256	645	654	169	441	96
Arrive On Green	0.08	0.37	0.37	0.07	0.35	0.35	0.14	0.34	0.34	0.09	0.29	0.29
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1512	329
Grp Volume(v), veh/h	117	987	391	157	809	115	533	465	213	141	0	554
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	0	1841
Q Serve(g_s), s	7.6	44.0	24.4	8.0	42.0	3.4	17.0	25.7	2.3	9.2	0.0	35.0
Cycle Q Clear(g_c), s	7.6	44.0	24.4	8.0	42.0	3.4	17.0	25.7	2.3	9.2	0.0	35.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	151	697	590	121	665	714	256	645	654	169	0	537
V/C Ratio(X)	0.78	1.42	0.66	1.30	1.22	0.16	2.08	0.72	0.33	0.83	0.00	1.03
Avail Cap(c_a), veh/h	151	697	590	121	665	714	256	645	654	256	0	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.9	38.0	31.8	56.0	39.0	9.9	51.5	34.6	12.2	53.5	0.0	42.5
Incr Delay (d2), s/veh	22.0	195.9	5.8	183.3	110.8	0.5	498.8	6.8	1.3	13.2	0.0	47.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	57.0	10.0	9.7	38.8	1.4	43.0	12.6	2.6	4.7	0.0	22.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.9	233.9	37.5	239.3	149.8	10.4	550.3	41.5	13.5	66.7	0.0	89.8
LnGrp LOS	E	F	D	F	F	B	F	D	B	E	A	F
Approach Vol, veh/h		1495			1081			1211			695	
Approach Delay, s/veh		170.2			148.0			260.5			85.1	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	48.0	21.0	39.0	14.0	46.0	15.2	44.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	8.0	44.0	17.0	35.0	10.0	42.0	17.0	35.0				
Max Q Clear Time (g_c+I1), s	10.0	46.0	19.0	37.0	9.6	44.0	11.2	27.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.0				

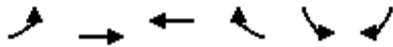
Intersection Summary

HCM 6th Ctrl Delay	176.0
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary
 Int.2: Alessandro Blvd & Morrison St

MV TTM 38442 Residential

08/05/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↖↗	↖	↖	↖
Traffic Volume (veh/h)	105	939	898	56	62	85
Future Volume (veh/h)	105	939	898	56	62	85
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	114	1021	976	61	67	92
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	211	1156	1655	738	588	523
Arrive On Green	0.12	0.61	0.46	0.46	0.32	0.32
Sat Flow, veh/h	1810	1900	3705	1610	1810	1610
Grp Volume(v), veh/h	114	1021	976	61	67	92
Grp Sat Flow(s),veh/h/ln	1810	1900	1805	1610	1810	1610
Q Serve(g_s), s	7.1	54.6	24.1	2.6	3.1	4.9
Cycle Q Clear(g_c), s	7.1	54.6	24.1	2.6	3.1	4.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	211	1156	1655	738	588	523
V/C Ratio(X)	0.54	0.88	0.59	0.08	0.11	0.18
Avail Cap(c_a), veh/h	211	1156	1655	738	588	523
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	19.9	24.1	18.3	28.4	29.0
Incr Delay (d2), s/veh	2.8	9.9	1.6	0.2	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	23.6	9.9	0.9	1.4	5.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	52.7	29.8	25.7	18.5	28.8	29.7
LnGrp LOS	D	C	C	B	C	C
Approach Vol, veh/h		1135	1037		159	
Approach Delay, s/veh		32.1	25.3		29.3	
Approach LOS		C	C		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		77.0		43.0	18.0	59.0
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		73.0		39.0	14.0	55.0
Max Q Clear Time (g_c+I1), s		56.6		6.9	9.1	26.1
Green Ext Time (p_c), s		6.7		0.5	0.1	7.1
Intersection Summary						
HCM 6th Ctrl Delay			28.9			
HCM 6th LOS			C			

HCM 6th Signalized Intersection Summary
 Int.3: Nason St & Eucalyptus Ave

MV TTM 38442 Residential
 08/05/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	186	77	302	195	33	79	3188	496	61	2196	59
Future Volume (veh/h)	48	186	77	302	195	33	79	3188	496	61	2196	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	49	190	79	308	199	34	81	3253	506	62	2241	60
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	85	285	127	196	434	73	103	1975	299	92	2236	60
Arrive On Green	0.05	0.08	0.08	0.11	0.14	0.14	0.06	0.63	0.63	0.05	0.62	0.62
Sat Flow, veh/h	1810	3610	1610	1810	3092	520	1810	3143	476	1810	3592	96
Grp Volume(v), veh/h	49	190	79	308	115	118	81	1831	1928	62	1121	1180
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1806	1810	1805	1814	1810	1805	1883
Q Serve(g_s), s	3.2	6.1	5.7	13.0	7.0	7.2	5.3	75.4	75.4	4.0	74.2	74.7
Cycle Q Clear(g_c), s	3.2	6.1	5.7	13.0	7.0	7.2	5.3	75.4	75.4	4.0	74.2	74.7
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.26	1.00		0.05
Lane Grp Cap(c), veh/h	85	285	127	196	253	254	103	1134	1140	92	1124	1172
V/C Ratio(X)	0.58	0.67	0.62	1.57	0.45	0.47	0.79	1.61	1.69	0.67	1.00	1.01
Avail Cap(c_a), veh/h	166	1053	470	196	557	557	106	1134	1140	106	1124	1172
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	53.7	53.5	53.5	47.3	47.4	55.9	22.3	22.3	56.0	22.6	22.6
Incr Delay (d2), s/veh	6.0	2.7	4.9	280.2	1.3	1.3	3.6	277.0	311.3	13.0	26.3	27.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	2.8	2.4	21.1	3.2	3.3	2.5	114.2	125.6	2.1	34.9	37.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.1	56.4	58.4	333.7	48.6	48.8	59.5	299.3	333.6	69.0	48.9	50.6
LnGrp LOS	E	E	E	F	D	D	E	F	F	E	D	F
Approach Vol, veh/h	318			541			3840			2363		
Approach Delay, s/veh	57.8			210.9			311.4			50.2		
Approach LOS	E			F			F			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	79.4	17.0	13.5	10.8	78.7	9.6	20.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	49.0	13.0	35.0	7.0	49.0	11.0	37.0					
Max Q Clear Time (g_c+1), s	77.4	15.0	8.1	7.3	76.7	5.2	9.2					
Green Ext Time (p_c), s	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay	204.9
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary
 Int.4: Nason St & Dracaea Ave

MV TTM 38442 Residential
 08/05/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	131	2	73	33	6	3	48	3559	38	20	2428	105
Future Volume (veh/h)	131	2	73	33	6	3	48	3559	38	20	2428	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	146	2	81	37	7	3	53	3954	42	22	2698	117
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	185	4	161	84	58	25	88	2517	27	55	2362	102
Arrive On Green	0.10	0.10	0.10	0.05	0.05	0.05	0.06	0.92	0.92	0.04	0.89	0.89
Sat Flow, veh/h	1810	39	1577	1810	1262	541	1810	3659	39	1810	3526	152
Grp Volume(v), veh/h	146	0	83	37	0	10	53	1947	2049	22	1371	1444
Grp Sat Flow(s),veh/h/ln	1810	0	1616	1810	0	1803	1810	1805	1893	1810	1805	1873
Q Serve(g_s), s	9.5	0.0	5.8	2.4	0.0	0.6	3.4	82.6	82.6	1.4	80.4	80.4
Cycle Q Clear(g_c), s	9.5	0.0	5.8	2.4	0.0	0.6	3.4	82.6	82.6	1.4	80.4	80.4
Prop In Lane	1.00		0.98	1.00		0.30	1.00		0.02	1.00		0.08
Lane Grp Cap(c), veh/h	185	0	165	84	0	83	88	1242	1302	55	1209	1255
V/C Ratio(X)	0.79	0.00	0.50	0.44	0.00	0.12	0.61	1.57	1.57	0.40	1.13	1.15
Avail Cap(c_a), veh/h	528	0	471	528	0	526	106	1242	1302	106	1209	1255
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.09	0.09	0.09	0.09	0.09	0.09
Uniform Delay (d), s/veh	52.6	0.0	51.0	55.7	0.0	54.9	55.0	5.1	5.1	56.5	6.5	6.5
Incr Delay (d2), s/veh	7.3	0.0	2.4	3.7	0.0	0.6	0.6	255.8	258.4	0.4	61.5	68.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	2.4	1.2	0.0	0.3	1.5	91.1	96.5	0.6	24.5	27.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.9	0.0	53.3	59.4	0.0	55.5	55.6	260.9	263.5	56.9	68.0	75.3
LnGrp LOS	E	A	D	E	A	E	E	F	F	E	F	F
Approach Vol, veh/h		229			47			4049			2837	
Approach Delay, s/veh		57.5			58.6			259.5			71.6	
Approach LOS		E			E			F			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	86.6		16.3	9.8	84.4		9.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	7.0	27.0		35.0	7.0	27.0		35.0				
Max Q Clear Time (g_c+1), s	13.4	84.6		11.5	5.4	82.4		4.4				
Green Ext Time (p_c), s	0.0	0.0		0.8	0.0	0.0		0.1				

Intersection Summary

HCM 6th Ctrl Delay	177.3
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary
 Int.5: Nason St & Cottonwood Ave

MV TTM 38442 Residential
 08/05/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	302	109	98	39	92	40	121	3313	51	49	2171	313
Future Volume (veh/h)	302	109	98	39	92	40	121	3313	51	49	2171	313
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	325	117	105	42	99	43	130	3562	55	53	2334	337
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	211	258	219	80	158	65	156	2323	36	88	2167	967
Arrive On Green	0.12	0.14	0.14	0.04	0.06	0.06	0.09	0.64	0.64	0.06	0.80	0.80
Sat Flow, veh/h	1810	1900	1610	1810	2493	1027	1810	3639	56	1810	3610	1610
Grp Volume(v), veh/h	325	117	105	42	70	72	130	1762	1855	53	2334	337
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1805	1715	1810	1805	1890	1810	1805	1610
Q Serve(g_s), s	14.0	6.8	7.2	2.7	4.5	4.9	8.5	76.6	76.6	3.4	72.0	3.8
Cycle Q Clear(g_c), s	14.0	6.8	7.2	2.7	4.5	4.9	8.5	76.6	76.6	3.4	72.0	3.8
Prop In Lane	1.00		1.00	1.00		0.60	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	211	258	219	80	114	109	156	1152	1206	88	2167	967
V/C Ratio(X)	1.54	0.45	0.48	0.53	0.61	0.66	0.83	1.53	1.54	0.61	1.08	0.35
Avail Cap(c_a), veh/h	211	618	523	166	542	515	166	1152	1206	136	2167	967
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	53.0	47.7	47.9	56.1	54.8	54.9	54.0	21.7	21.7	55.0	12.1	1.6
Incr Delay (d2), s/veh	265.0	1.2	1.6	5.3	5.3	6.7	27.6	242.6	246.1	0.6	35.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.8	3.3	2.9	1.3	2.2	2.3	5.0	104.7	110.8	1.5	21.4	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	318.0	49.0	49.5	61.5	60.0	61.6	81.6	264.3	267.8	55.6	47.7	1.7
LnGrp LOS	F	D	D	E	E	E	F	F	F	E	F	A
Approach Vol, veh/h		547			184			3747			2724	
Approach Delay, s/veh		209.0			61.0			259.7			42.2	
Approach LOS		F			E			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.8	80.6	9.3	20.3	14.4	76.0	18.0	11.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	45.0	11.0	39.0	11.0	43.0	14.0	36.0					
Max Q Clear Time (g_c+1), s	78.6	4.7	9.2	10.5	74.0	16.0	6.9					
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	0.0	0.7					
Intersection Summary												
HCM 6th Ctrl Delay			168.5									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary
 Int.6: Nason St & Alessandro Blvd

MV TTM 38442 Residential
 08/05/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖↗	↑	↖	↖	↑↑	↖	↖	↑↑↑	↖
Traffic Volume (veh/h)	192	538	144	255	524	163	203	2875	543	217	1592	213
Future Volume (veh/h)	192	538	144	255	524	163	203	2875	543	217	1592	213
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	216	604	162	287	589	183	228	3230	610	244	1789	239
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	253	634	537	234	623	528	226	1383	617	151	1771	550
Arrive On Green	0.07	0.33	0.33	0.07	0.33	0.33	0.13	0.38	0.38	0.08	0.34	0.34
Sat Flow, veh/h	3510	1900	1610	3510	1900	1610	1810	3610	1610	1810	5187	1610
Grp Volume(v), veh/h	216	604	162	287	589	183	228	3230	610	244	1789	239
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1755	1900	1610	1810	1805	1610	1810	1729	1610
Q Serve(g_s), s	7.3	37.3	6.4	8.0	36.2	8.0	15.0	46.0	35.4	10.0	41.0	10.9
Cycle Q Clear(g_c), s	7.3	37.3	6.4	8.0	36.2	8.0	15.0	46.0	35.4	10.0	41.0	10.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	253	634	537	234	623	528	226	1383	617	151	1771	550
V/C Ratio(X)	0.85	0.95	0.30	1.23	0.95	0.35	1.01	2.34	0.99	1.62	1.01	0.43
Avail Cap(c_a), veh/h	253	649	550	234	649	550	226	1383	617	151	1771	550
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	39.1	15.0	56.0	39.3	18.4	52.5	37.0	22.6	55.0	39.5	19.0
Incr Delay (d2), s/veh	23.4	24.1	0.3	133.6	22.3	0.4	61.9	603.0	33.6	306.5	23.8	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	20.5	3.2	7.8	19.8	3.8	10.5	134.9	17.9	17.3	20.4	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.4	63.1	15.4	189.6	61.6	18.8	114.4	640.0	56.1	361.5	63.3	21.5
LnGrp LOS	E	E	B	F	E	B	F	F	E	F	F	C
Approach Vol, veh/h		982			1059			4068			2272	
Approach Delay, s/veh		58.6			88.9			523.0			91.0	
Approach LOS		E			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.0	50.0	12.0	44.0	19.0	45.0	12.7	43.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	45.0	45.0	8.0	41.0	15.0	40.0	8.0	41.0				
Max Q Clear Time (g_c+M2), s	48.0	48.0	10.0	39.3	17.0	43.0	9.3	38.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.7	0.0	0.0	0.0	1.1				

Intersection Summary

HCM 6th Ctrl Delay	296.6
HCM 6th LOS	F

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	162	47	6	140	28	4
Future Vol, veh/h	162	47	6	140	28	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	176	51	7	152	30	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	227	0	368 202
Stage 1	-	-	-	-	202 -
Stage 2	-	-	-	-	166 -
Critical Hdwy	-	-	4.1	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	1353	-	636 844
Stage 1	-	-	-	-	837 -
Stage 2	-	-	-	-	868 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1353	-	632 844
Mov Cap-2 Maneuver	-	-	-	-	632 -
Stage 1	-	-	-	-	837 -
Stage 2	-	-	-	-	863 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	652	-	-	1353	-
HCM Lane V/C Ratio	0.053	-	-	0.005	-
HCM Control Delay (s)	10.8	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	14	1282	935	11	7	8
Future Vol, veh/h	14	1282	935	11	7	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	15	1393	1016	12	8	9

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1028	0	0 2445 1022
Stage 1	-	-	- 1022 -
Stage 2	-	-	- 1423 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	683	-	- 35 289
Stage 1	-	-	- 350 -
Stage 2	-	-	- 225 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	683	-	- 32 289
Mov Cap-2 Maneuver	-	-	- 32 -
Stage 1	-	-	- 316 -
Stage 2	-	-	- 225 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	84.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	683	-	-	-	61
HCM Lane V/C Ratio	0.022	-	-	-	0.267
HCM Control Delay (s)	10.4	0	-	-	84.3
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

HCM 6th Signalized Intersection Summary
 Int.1: Lasselle St & Alessandro Blvd

MV TTM 38442 Residential
 08/04/2022



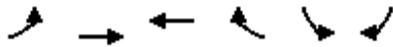
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Traffic Volume (veh/h)	99	656	473	218	932	135	268	411	194	91	401	122
Future Volume (veh/h)	99	656	473	218	932	135	268	411	194	91	401	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	115	763	550	253	1084	157	312	478	226	106	466	142
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	106	665	564	211	776	774	196	622	715	131	408	124
Arrive On Green	0.06	0.35	0.35	0.12	0.41	0.41	0.11	0.33	0.33	0.07	0.29	0.29
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1397	426
Grp Volume(v), veh/h	115	763	550	253	1084	157	312	478	226	106	0	608
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	0	1823
Q Serve(g_s), s	7.0	42.0	40.5	14.0	49.0	4.7	13.0	27.1	2.1	6.9	0.0	35.0
Cycle Q Clear(g_c), s	7.0	42.0	40.5	14.0	49.0	4.7	13.0	27.1	2.1	6.9	0.0	35.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	106	665	564	211	776	774	196	622	715	131	0	532
V/C Ratio(X)	1.09	1.15	0.98	1.20	1.40	0.20	1.59	0.77	0.32	0.81	0.00	1.14
Avail Cap(c_a), veh/h	106	665	564	211	776	774	196	622	715	151	0	532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	56.5	39.0	38.5	53.0	35.5	9.2	53.5	36.2	11.0	54.8	0.0	42.5
Incr Delay (d2), s/veh	113.8	83.1	32.4	125.8	186.6	0.6	289.0	8.8	1.2	24.3	0.0	85.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	33.6	20.2	13.5	61.1	1.9	21.5	13.6	2.7	3.9	0.0	27.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	170.3	122.1	70.9	178.8	222.1	9.8	342.5	45.1	12.2	79.1	0.0	127.5
LnGrp LOS	F	F	E	F	F	A	F	D	B	E	A	F
Approach Vol, veh/h		1428			1494			1016			714	
Approach Delay, s/veh		106.3			192.4			129.1			120.3	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	46.0	17.0	39.0	11.0	53.0	12.7	43.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	14.0	42.0	13.0	35.0	7.0	49.0	10.0	38.0				
Max Q Clear Time (g_c+I1), s	16.0	44.0	15.0	37.0	9.0	51.0	8.9	29.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4				

Intersection Summary												
HCM 6th Ctrl Delay	141.1											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary
 Int.2: Alessandro Blvd & Morrison St

MV TTM 38442 Residential

08/04/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	164	775	905	88	106	165
Future Volume (veh/h)	164	775	905	88	106	165
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	200	945	1104	107	129	201
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	332	1156	1414	631	588	523
Arrive On Green	0.18	0.61	0.39	0.39	0.32	0.32
Sat Flow, veh/h	1810	1900	3705	1610	1810	1610
Grp Volume(v), veh/h	200	945	1104	107	129	201
Grp Sat Flow(s),veh/h/ln	1810	1900	1805	1610	1810	1610
Q Serve(g_s), s	12.2	46.5	32.2	5.2	6.2	11.6
Cycle Q Clear(g_c), s	12.2	46.5	32.2	5.2	6.2	11.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	332	1156	1414	631	588	523
V/C Ratio(X)	0.60	0.82	0.78	0.17	0.22	0.38
Avail Cap(c_a), veh/h	332	1156	1414	631	588	523
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	18.3	32.0	23.8	29.4	31.2
Incr Delay (d2), s/veh	3.1	6.5	4.3	0.6	0.9	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	19.5	13.9	2.0	2.8	11.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.0	24.8	36.3	24.4	30.3	33.4
LnGrp LOS	D	C	D	C	C	C
Approach Vol, veh/h		1145	1211		330	
Approach Delay, s/veh		28.8	35.3		32.2	
Approach LOS		C	D		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		77.0		43.0	26.0	51.0
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		73.0		39.0	22.0	47.0
Max Q Clear Time (g_c+I1), s		48.5		13.6	14.2	34.2
Green Ext Time (p_c), s		7.0		1.0	0.3	5.9
Intersection Summary						
HCM 6th Ctrl Delay			32.2			
HCM 6th LOS			C			

HCM 6th Signalized Intersection Summary
 Int.3: Nason St & Eucalyptus Ave

MV TTM 38442 Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↑↑		↘	↑↑	
Traffic Volume (veh/h)	263	256	253	394	208	53	115	1804	301	31	3097	103
Future Volume (veh/h)	263	256	253	394	208	53	115	1804	301	31	3097	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	325	316	312	486	257	65	142	2227	372	38	3823	127
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	805	359	151	663	165	106	1612	262	76	1790	59
Arrive On Green	0.08	0.22	0.22	0.08	0.23	0.23	0.06	0.52	0.52	0.04	0.50	0.50
Sat Flow, veh/h	1810	3610	1610	1810	2866	711	1810	3109	505	1810	3566	118
Grp Volume(v), veh/h	325	316	312	486	160	162	142	1266	1333	38	1924	2026
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1772	1810	1805	1809	1810	1805	1879
Q Serve(g_s), s	9.0	8.9	22.4	10.0	9.0	9.3	7.0	62.2	62.2	2.5	60.2	60.2
Cycle Q Clear(g_c), s	9.0	8.9	22.4	10.0	9.0	9.3	7.0	62.2	62.2	2.5	60.2	60.2
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.28	1.00		0.06
Lane Grp Cap(c), veh/h	136	805	359	151	418	410	106	936	938	76	906	943
V/C Ratio(X)	2.39	0.39	0.87	3.22	0.38	0.40	1.35	1.35	1.42	0.50	2.12	2.15
Avail Cap(c_a), veh/h	136	1083	483	151	557	546	106	936	938	106	906	943
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.29	0.29	0.29	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	39.7	44.9	55.0	38.9	39.0	56.5	28.9	28.9	56.3	29.9	29.9
Incr Delay (d2), s/veh	649.6	0.3	12.2	1017.3	0.6	0.6	172.7	161.0	191.4	5.0	509.5	520.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh	28.5	3.9	10.0	47.1	4.0	4.0	8.2	66.1	74.2	1.2	151.9	161.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	705.1	40.0	57.2	1072.3	39.5	39.6	229.2	189.9	220.3	61.3	539.4	550.0
LnGrp LOS	F	D	E	F	D	D	F	F	F	E	F	F
Approach Vol, veh/h		953			808			2741			3988	
Approach Delay, s/veh		272.4			660.8			206.7			540.2	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	66.2	14.0	30.8	11.0	64.2	13.0	31.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	7.0	51.0	10.0	36.0	7.0	51.0	9.0	37.0				
Max Q Clear Time (g_c+1), s	11.5	64.2	12.0	24.4	9.0	62.2	11.0	11.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.4	0.0	0.0	0.0	1.7				

Intersection Summary

HCM 6th Ctrl Delay		414.0										
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary
 Int.4: Nason St & Dracaea Ave

MV TTM 38442 Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	117	15	122	23	2	3	271	1986	54	14	3322	268
Future Volume (veh/h)	117	15	122	23	2	3	271	1986	54	14	3322	268
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	136	17	142	27	2	3	315	2309	63	16	3863	312
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	220	21	177	69	26	39	106	2452	67	44	2197	175
Arrive On Green	0.12	0.12	0.12	0.04	0.04	0.04	0.12	1.00	1.00	0.02	0.43	0.43
Sat Flow, veh/h	1810	175	1462	1810	686	1029	1810	3590	97	1810	3387	270
Grp Volume(v), veh/h	136	0	159	27	0	5	315	1156	1216	16	2034	2141
Grp Sat Flow(s),veh/h/ln	1810	0	1637	1810	0	1715	1810	1805	1882	1810	1805	1851
Q Serve(g_s), s	8.6	0.0	11.3	1.7	0.0	0.3	7.0	0.0	0.0	1.1	77.8	77.8
Cycle Q Clear(g_c), s	8.6	0.0	11.3	1.7	0.0	0.3	7.0	0.0	0.0	1.1	77.8	77.8
Prop In Lane	1.00		0.89	1.00		0.60	1.00		0.05	1.00		0.15
Lane Grp Cap(c), veh/h	220	0	199	69	0	66	106	1233	1286	44	1171	1201
V/C Ratio(X)	0.62	0.00	0.80	0.39	0.00	0.08	2.98	0.94	0.95	0.37	1.74	1.78
Avail Cap(c_a), veh/h	528	0	477	528	0	500	106	1233	1286	106	1171	1201
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.67	0.67	0.67
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	0.09	0.09	0.09	0.09	0.09	0.09
Uniform Delay (d), s/veh	50.1	0.0	51.3	56.3	0.0	55.7	53.0	0.0	0.0	58.1	33.9	33.9
Incr Delay (d2), s/veh	2.8	0.0	7.3	3.5	0.0	0.5	895.2	1.8	2.0	0.5	332.0	352.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	5.0	0.9	0.0	0.2	29.2	0.6	0.7	0.5	142.1	152.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.9	0.0	58.6	59.9	0.0	56.1	948.2	1.8	2.0	58.6	365.9	386.4
LnGrp LOS	D	A	E	E	A	E	F	A	A	E	F	F
Approach Vol, veh/h		295			32			2687			4191	
Approach Delay, s/veh		56.0			59.3			112.9			375.2	
Approach LOS		E			E			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	86.0		18.6	11.0	81.8		8.6				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	27.0			35.0	7.0	27.0		35.0				
Max Q Clear Time (g_c+1), s	2.0			13.3	9.0	79.8		3.7				
Green Ext Time (p_c), s	0.0	20.6		1.2	0.0	0.0		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				262.9								
HCM 6th LOS				F								

HCM 6th Signalized Intersection Summary
 Int.5: Nason St & Cottonwood Ave

MV TTM 38442 Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	101	149	99	135	92	262	1868	71	48	3201	254
Future Volume (veh/h)	350	101	149	99	135	92	262	1868	71	48	3201	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	417	120	177	118	161	110	312	2224	85	57	3811	302
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	166	220	186	150	226	145	166	2192	83	90	2080	928
Arrive On Green	0.09	0.12	0.12	0.08	0.11	0.11	0.09	0.62	0.62	0.03	0.39	0.39
Sat Flow, veh/h	1810	1900	1610	1810	2105	1356	1810	3546	135	1810	3610	1610
Grp Volume(v), veh/h	417	120	177	118	137	134	312	1125	1184	57	3811	302
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1805	1656	1810	1805	1876	1810	1805	1610
Q Serve(g_s), s	11.0	7.2	10.8	7.7	8.8	9.5	11.0	74.2	74.2	3.7	69.1	15.8
Cycle Q Clear(g_c), s	11.0	7.2	10.8	7.7	8.8	9.5	11.0	74.2	74.2	3.7	69.1	15.8
Prop In Lane	1.00		1.00	1.00		0.82	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	166	220	186	150	193	177	166	1116	1160	90	2080	928
V/C Ratio(X)	2.51	0.55	0.95	0.79	0.71	0.76	1.88	1.01	1.02	0.63	1.83	0.33
Avail Cap(c_a), veh/h	166	570	483	166	542	497	166	1116	1160	121	2080	928
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	54.5	50.1	35.5	54.0	51.7	52.1	54.5	22.9	22.9	56.9	36.8	20.5
Incr Delay (d2), s/veh	698.9	2.1	20.5	19.9	4.7	6.5	418.4	28.9	31.9	0.7	374.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.1	3.5	5.2	4.2	4.1	4.2	24.2	35.8	38.2	1.7	138.9	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	753.4	52.2	56.0	73.9	56.4	58.5	472.9	51.8	54.8	57.6	411.5	20.5
LnGrp LOS	F	D	E	E	E	E	F	F	F	E	F	C
Approach Vol, veh/h	714			389			2621			4170		
Approach Delay, s/veh	462.6			62.4			103.3			378.3		
Approach LOS	F			E			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	78.2	14.0	17.9	15.0	73.1	15.0	16.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	49.0	49.0	11.0	36.0	11.0	46.0	11.0	36.0				
Max Q Clear Time (g_c+1), s	76.2	76.2	9.7	12.8	13.0	71.1	13.0	11.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.1	0.0	0.0	0.0	1.4				
Intersection Summary												
HCM 6th Ctrl Delay	279.1											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary
Int.6: Nason St & Alessandro Blvd

MV TTM 38442 Residential
08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖↗	↑	↖	↖	↑↑	↖	↖	↑↑↑	↖
Traffic Volume (veh/h)	244	441	227	531	575	307	121	1203	158	175	2664	175
Future Volume (veh/h)	244	441	227	531	575	307	121	1203	158	175	2664	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	280	507	261	610	661	353	139	1383	182	201	3062	201
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	263	558	473	461	665	564	136	1173	523	211	1902	590
Arrive On Green	0.08	0.29	0.29	0.13	0.35	0.35	0.08	0.32	0.32	0.12	0.37	0.37
Sat Flow, veh/h	3510	1900	1610	3510	1900	1610	1810	3610	1610	1810	5187	1610
Grp Volume(v), veh/h	280	507	261	610	661	353	139	1383	182	201	3062	201
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1755	1900	1610	1810	1805	1610	1810	1729	1610
Q Serve(g_s), s	9.0	30.8	13.1	15.7	41.6	15.7	9.0	39.0	7.3	13.2	44.0	8.4
Cycle Q Clear(g_c), s	9.0	30.8	13.1	15.7	41.6	15.7	9.0	39.0	7.3	13.2	44.0	8.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	263	558	473	461	665	564	136	1173	523	211	1902	590
V/C Ratio(X)	1.06	0.91	0.55	1.32	0.99	0.63	1.02	1.18	0.35	0.95	1.61	0.34
Avail Cap(c_a), veh/h	263	649	550	461	665	564	136	1173	523	211	1902	590
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	40.8	22.8	52.1	38.9	16.7	55.5	40.5	15.4	52.7	38.0	16.6
Incr Delay (d2), s/veh	73.2	15.3	1.0	160.3	33.3	2.2	83.8	89.5	1.8	48.3	277.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.5	16.0	4.8	16.9	24.3	5.7	7.2	31.0	4.0	8.7	66.3	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	128.7	56.1	23.8	212.5	72.2	18.9	139.3	130.0	17.2	101.0	315.0	18.1
LnGrp LOS	F	E	C	F	E	B	F	F	B	F	F	B
Approach Vol, veh/h		1048			1624			1704			3464	
Approach Delay, s/veh		67.5			113.3			118.7			285.3	
Approach LOS		E			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	38.0	43.0	19.7	39.3	13.0	48.0	13.0	46.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	14.0	39.0	10.0	41.0	9.0	44.0	9.0	42.0				
Max Q Clear Time (g_c+1/2), s	11.0	41.0	17.7	32.8	11.0	46.0	11.0	43.6				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	184.4
HCM 6th LOS	F

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	202	18	4	275	52	10
Future Vol, veh/h	202	18	4	275	52	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	220	20	4	299	57	11

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	240	0	537 230
Stage 1	-	-	-	-	230 -
Stage 2	-	-	-	-	307 -
Critical Hdwy	-	-	4.1	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	1339	-	508 814
Stage 1	-	-	-	-	813 -
Stage 2	-	-	-	-	751 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1339	-	506 814
Mov Cap-2 Maneuver	-	-	-	-	506 -
Stage 1	-	-	-	-	813 -
Stage 2	-	-	-	-	748 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	12.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	539	-	-	1339	-
HCM Lane V/C Ratio	0.125	-	-	0.003	-
HCM Control Delay (s)	12.6	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection						
Int Delay, s/veh	4.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	16	758	1365	6	18	45
Future Vol, veh/h	16	758	1365	6	18	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	17	824	1484	7	20	49

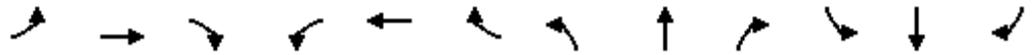
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1491	0	-	0	2346 1488
Stage 1	-	-	-	-	1488 -
Stage 2	-	-	-	-	858 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	456	-	-	-	40 154
Stage 1	-	-	-	-	209 -
Stage 2	-	-	-	-	419 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	456	-	-	-	37 154
Mov Cap-2 Maneuver	-	-	-	-	37 -
Stage 1	-	-	-	-	195 -
Stage 2	-	-	-	-	419 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	149.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	456	-	-	-	81
HCM Lane V/C Ratio	0.038	-	-	-	0.845
HCM Control Delay (s)	13.2	0	-	-	149.3
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	4.3

HCM 6th Signalized Intersection Summary
 Int.1: Lasselle St & Alessandro Blvd

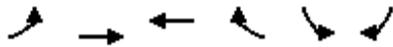
MV TTM 38442 Residential
 08/05/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	938	368	151	766	109	501	437	204	134	428	93
Future Volume (veh/h)	110	938	368	151	766	109	501	437	204	134	428	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	117	998	391	161	815	116	533	465	217	143	455	99
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	121	697	590	121	697	742	256	645	654	170	441	96
Arrive On Green	0.07	0.37	0.37	0.07	0.37	0.37	0.14	0.34	0.34	0.09	0.29	0.29
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1512	329
Grp Volume(v), veh/h	117	998	391	161	815	116	533	465	217	143	0	554
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	0	1841
Q Serve(g_s), s	7.7	44.0	24.4	8.0	44.0	3.5	17.0	25.7	2.4	9.3	0.0	35.0
Cycle Q Clear(g_c), s	7.7	44.0	24.4	8.0	44.0	3.5	17.0	25.7	2.4	9.3	0.0	35.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	121	697	590	121	697	742	256	645	654	170	0	537
V/C Ratio(X)	0.97	1.43	0.66	1.33	1.17	0.16	2.08	0.72	0.33	0.84	0.00	1.03
Avail Cap(c_a), veh/h	121	697	590	121	697	742	256	645	654	196	0	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.9	38.0	31.8	56.0	38.0	9.6	51.5	34.7	12.2	53.5	0.0	42.5
Incr Delay (d2), s/veh	72.3	202.9	5.8	196.2	91.3	0.4	498.8	6.9	1.4	24.0	0.0	47.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	58.3	10.0	10.1	36.7	1.5	43.0	12.6	2.7	5.2	0.0	22.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	128.2	240.9	37.5	252.2	129.3	10.1	550.3	41.5	13.6	77.5	0.0	89.8
LnGrp LOS	F	F	D	F	F	B	F	D	B	E	A	F
Approach Vol, veh/h		1506			1092			1215				697
Approach Delay, s/veh		179.3			134.8			259.7				87.3
Approach LOS		F			F			F				F
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	48.0	21.0	39.0	12.0	48.0	15.3	44.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	8.0	44.0	17.0	35.0	8.0	44.0	13.0	39.0				
Max Q Clear Time (g_c+I1), s	10.0	46.0	19.0	37.0	9.7	46.0	11.3	27.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.6				
Intersection Summary												
HCM 6th Ctrl Delay			176.0									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary
 Int.2: Alessandro Blvd & Morrison St

MV TTM 38442 Residential
 08/05/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	105	955	908	57	63	85
Future Volume (veh/h)	105	955	908	57	63	85
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	114	1038	987	62	68	92
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	211	1156	1655	738	588	523
Arrive On Green	0.12	0.61	0.46	0.46	0.32	0.32
Sat Flow, veh/h	1810	1900	3705	1610	1810	1610
Grp Volume(v), veh/h	114	1038	987	62	68	92
Grp Sat Flow(s),veh/h/ln	1810	1900	1805	1610	1810	1610
Q Serve(g_s), s	7.1	56.6	24.5	2.6	3.2	4.9
Cycle Q Clear(g_c), s	7.1	56.6	24.5	2.6	3.2	4.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	211	1156	1655	738	588	523
V/C Ratio(X)	0.54	0.90	0.60	0.08	0.12	0.18
Avail Cap(c_a), veh/h	211	1156	1655	738	588	523
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	20.3	24.2	18.3	28.4	29.0
Incr Delay (d2), s/veh	2.8	11.1	1.6	0.2	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	24.7	10.0	1.0	1.4	5.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	52.7	31.3	25.8	18.5	28.8	29.7
LnGrp LOS	D	C	C	B	C	C
Approach Vol, veh/h		1152	1049		160	
Approach Delay, s/veh		33.5	25.4		29.3	
Approach LOS		C	C		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		77.0		43.0	18.0	59.0
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		73.0		39.0	14.0	55.0
Max Q Clear Time (g_c+I1), s		58.6		6.9	9.1	26.5
Green Ext Time (p_c), s		6.4		0.5	0.1	7.2
Intersection Summary						
HCM 6th Ctrl Delay			29.6			
HCM 6th LOS			C			

HCM 6th Signalized Intersection Summary
 Int.3: Nason St & Eucalyptus Ave

MV TTM 38442 Residential

08/05/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↑↑		↘	↑↑	
Traffic Volume (veh/h)	48	186	79	306	195	33	80	3194	498	61	2206	59
Future Volume (veh/h)	48	186	79	306	195	33	80	3194	498	61	2206	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	49	190	81	312	199	34	82	3259	508	62	2251	60
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	85	285	127	196	434	73	104	1974	300	92	2234	59
Arrive On Green	0.05	0.08	0.08	0.11	0.14	0.14	0.06	0.63	0.63	0.05	0.62	0.62
Sat Flow, veh/h	1810	3610	1610	1810	3092	520	1810	3142	477	1810	3593	95
Grp Volume(v), veh/h	49	190	81	312	115	118	82	1835	1932	62	1126	1185
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1806	1810	1805	1814	1810	1805	1883
Q Serve(g_s), s	3.2	6.1	5.9	13.0	7.0	7.2	5.4	75.4	75.4	4.0	74.6	74.6
Cycle Q Clear(g_c), s	3.2	6.1	5.9	13.0	7.0	7.2	5.4	75.4	75.4	4.0	74.6	74.6
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.26	1.00		0.05
Lane Grp Cap(c), veh/h	85	285	127	196	254	254	104	1134	1140	92	1122	1171
V/C Ratio(X)	0.58	0.67	0.64	1.59	0.45	0.47	0.79	1.62	1.69	0.67	1.00	1.01
Avail Cap(c_a), veh/h	166	1053	470	196	557	557	106	1134	1140	106	1122	1171
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	53.7	53.6	53.5	47.3	47.4	55.8	22.3	22.3	56.0	22.7	22.7
Incr Delay (d2), s/veh	6.0	2.7	5.2	289.0	1.3	1.3	3.7	278.6	313.0	13.0	27.6	29.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	2.8	2.5	21.5	3.2	3.3	2.5	114.8	126.3	2.1	35.5	37.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.1	56.4	58.8	342.5	48.6	48.8	59.5	300.9	335.3	69.0	50.3	52.0
LnGrp LOS	E	E	E	F	D	D	E	F	F	E	F	F
Approach Vol, veh/h		320			545			3849			2373	
Approach Delay, s/veh		57.8			216.9			313.0			51.7	
Approach LOS		E			F			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	79.4	17.0	13.5	10.9	78.6	9.6	20.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	49.0	13.0	35.0	7.0	49.0	11.0	37.0					
Max Q Clear Time (g_c+1), s	77.4	15.0	8.1	7.4	76.6	5.2	9.2					
Green Ext Time (p_c), s	0.0	0.0	0.0	1.4	0.0	0.0	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay	206.6
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary
 Int.4: Nason St & Dracaea Ave

MV TTM 38442 Residential
 08/05/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	131	2	74	33	6	3	49	3569	38	20	2444	105
Future Volume (veh/h)	131	2	74	33	6	3	49	3569	38	20	2444	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	146	2	82	37	7	3	54	3966	42	22	2716	117
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	185	4	161	84	58	25	88	2517	27	55	2362	101
Arrive On Green	0.10	0.10	0.10	0.05	0.05	0.05	0.06	0.91	0.91	0.06	1.00	1.00
Sat Flow, veh/h	1810	38	1578	1810	1262	541	1810	3659	39	1810	3527	151
Grp Volume(v), veh/h	146	0	84	37	0	10	54	1953	2055	22	1380	1453
Grp Sat Flow(s),veh/h/ln	1810	0	1616	1810	0	1803	1810	1805	1893	1810	1805	1873
Q Serve(g_s), s	9.5	0.0	5.9	2.4	0.0	0.6	3.5	82.6	82.6	1.4	0.0	80.3
Cycle Q Clear(g_c), s	9.5	0.0	5.9	2.4	0.0	0.6	3.5	82.6	82.6	1.4	0.0	80.3
Prop In Lane	1.00		0.98	1.00		0.30	1.00		0.02	1.00		0.08
Lane Grp Cap(c), veh/h	185	0	165	84	0	83	88	1242	1302	55	1209	1254
V/C Ratio(X)	0.79	0.00	0.51	0.44	0.00	0.12	0.61	1.57	1.58	0.40	1.14	1.16
Avail Cap(c_a), veh/h	528	0	471	528	0	526	106	1242	1302	136	1209	1254
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	0.09	0.09	0.09	0.09	0.09	0.09
Uniform Delay (d), s/veh	52.6	0.0	51.0	55.7	0.0	54.9	55.0	5.1	5.1	55.3	0.0	0.0
Incr Delay (d2), s/veh	7.3	0.0	2.4	3.7	0.0	0.6	0.7	258.0	260.6	0.4	65.0	72.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	2.5	1.2	0.0	0.3	1.6	91.8	97.2	0.6	21.8	25.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.9	0.0	53.4	59.4	0.0	55.5	55.7	263.1	265.7	55.7	65.0	72.3
LnGrp LOS	E	A	D	E	A	E	E	F	F	E	F	F
Approach Vol, veh/h		230			47			4062			2855	
Approach Delay, s/veh		57.5			58.6			261.6			68.6	
Approach LOS		E			E			F			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	86.6		16.3	9.8	84.3		9.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	25.0			35.0	7.0	27.0		35.0				
Max Q Clear Time (g_c+1), s	84.6			11.5	5.5	82.3		4.4				
Green Ext Time (p_c), s	0.0	0.0		0.8	0.0	0.0		0.1				

Intersection Summary

HCM 6th Ctrl Delay	177.2
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary
 Int.5: Nason St & Cottonwood Ave

MV TTM 38442 Residential
 08/05/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	302	112	101	39	94	46	123	3318	51	59	2179	313
Future Volume (veh/h)	302	112	101	39	94	46	123	3318	51	59	2179	313
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	325	120	109	42	101	49	132	3568	55	63	2343	337
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	196	248	210	80	159	73	136	2332	36	93	2228	994
Arrive On Green	0.11	0.13	0.13	0.04	0.07	0.07	0.08	0.64	0.64	0.05	0.62	0.62
Sat Flow, veh/h	1810	1900	1610	1810	2405	1102	1810	3639	56	1810	3610	1610
Grp Volume(v), veh/h	325	120	109	42	74	76	132	1765	1858	63	2343	337
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1805	1702	1810	1805	1890	1810	1805	1610
Q Serve(g_s), s	13.0	7.0	7.6	2.7	4.8	5.2	8.7	76.9	76.9	4.1	74.0	6.6
Cycle Q Clear(g_c), s	13.0	7.0	7.6	2.7	4.8	5.2	8.7	76.9	76.9	4.1	74.0	6.6
Prop In Lane	1.00		1.00	1.00		0.65	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	196	248	210	80	120	113	136	1157	1211	93	2228	994
V/C Ratio(X)	1.66	0.48	0.52	0.53	0.62	0.67	0.97	1.53	1.53	0.68	1.05	0.34
Avail Cap(c_a), veh/h	196	602	510	181	557	525	136	1157	1211	136	2228	994
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	53.5	48.4	48.6	56.1	54.6	54.7	55.4	21.5	21.5	56.0	23.0	3.3
Incr Delay (d2), s/veh	317.6	1.5	2.0	5.3	5.2	6.7	68.6	241.1	244.5	0.8	24.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.1	3.4	3.1	1.3	2.3	2.4	6.5	104.5	110.6	1.9	34.4	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	371.1	49.9	50.6	61.5	59.7	61.5	124.0	262.6	266.0	56.8	47.7	3.4
LnGrp LOS	F	D	D	E	E	E	F	F	F	E	F	A
Approach Vol, veh/h		554			192			3755			2743	
Approach Delay, s/veh		238.5			60.8			259.4			42.5	
Approach LOS		F			E			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	80.1	80.9	9.3	19.7	13.0	78.0	17.0	12.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	45.0	12.0	38.0	9.0	45.0	13.0	37.0					
Max Q Clear Time (g_c+1), s	78.9	4.7	9.6	10.7	76.0	15.0	7.2					
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	170.4
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary
 Int.6: Nason St & Alessandro Blvd

MV TTM 38442 Residential
 08/05/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖↗	↑	↖	↖	↑↑	↖	↖	↑↑↑	↖
Traffic Volume (veh/h)	192	555	144	261	534	169	203	2875	553	227	1592	213
Future Volume (veh/h)	192	555	144	261	534	169	203	2875	553	227	1592	213
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	216	624	162	293	600	190	228	3230	621	255	1789	239
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	266	657	557	234	640	542	226	1399	624	121	1707	530
Arrive On Green	0.08	0.35	0.35	0.07	0.34	0.34	0.13	0.39	0.39	0.07	0.33	0.33
Sat Flow, veh/h	3510	1900	1610	3510	1900	1610	1810	3610	1610	1810	5187	1610
Grp Volume(v), veh/h	216	624	162	293	600	190	228	3230	621	255	1789	239
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1755	1900	1610	1810	1805	1610	1810	1729	1610
Q Serve(g_s), s	7.3	38.4	6.2	8.0	36.7	8.5	15.0	46.5	36.1	8.0	39.5	11.0
Cycle Q Clear(g_c), s	7.3	38.4	6.2	8.0	36.7	8.5	15.0	46.5	36.1	8.0	39.5	11.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	266	657	557	234	640	542	226	1399	624	121	1707	530
V/C Ratio(X)	0.81	0.95	0.29	1.25	0.94	0.35	1.01	2.31	1.00	2.11	1.05	0.45
Avail Cap(c_a), veh/h	266	681	577	234	681	577	226	1399	624	121	1707	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.6	38.2	14.3	56.0	38.6	19.1	52.5	36.7	22.4	56.0	40.2	19.7
Incr Delay (d2), s/veh	17.0	22.5	0.3	143.6	20.2	0.4	61.9	591.3	34.9	528.1	35.5	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	20.9	3.2	8.1	19.7	3.9	10.5	134.1	18.4	21.3	21.6	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.6	60.8	14.6	199.6	58.8	19.5	114.4	628.0	57.3	584.1	75.7	22.4
LnGrp LOS	E	E	B	F	E	B	F	F	E	F	F	C
Approach Vol, veh/h		1002			1083			4079			2283	
Approach Delay, s/veh		55.6			90.0			512.4			126.9	
Approach LOS		E			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	50.5	12.0	45.5	19.0	43.5	13.1	44.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	45.0	45.0	8.0	43.0	15.0	38.0	8.0	43.0				
Max Q Clear Time (g_c+M), s	48.5	48.5	10.0	40.4	17.0	41.5	9.3	38.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.1	0.0	0.0	0.0	1.6				

Intersection Summary

HCM 6th Ctrl Delay	299.9
HCM 6th LOS	F

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	162	59	11	140	35	7
Future Vol, veh/h	162	59	11	140	35	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	176	64	12	152	38	8

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	240	0	384 208
Stage 1	-	-	-	-	208 -
Stage 2	-	-	-	-	176 -
Critical Hdwy	-	-	4.1	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	1339	-	623 837
Stage 1	-	-	-	-	832 -
Stage 2	-	-	-	-	859 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1339	-	617 837
Mov Cap-2 Maneuver	-	-	-	-	617 -
Stage 1	-	-	-	-	832 -
Stage 2	-	-	-	-	850 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	11
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	645	-	-	1339	-
HCM Lane V/C Ratio	0.071	-	-	0.009	-
HCM Control Delay (s)	11	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	3.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	52	1282	935	20	12	30
Future Vol, veh/h	52	1282	935	20	12	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	57	1393	1016	22	13	33

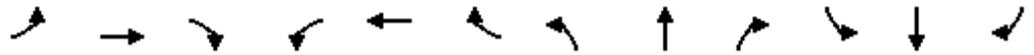
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1038	0	-	0	2534 1027
Stage 1	-	-	-	-	1027 -
Stage 2	-	-	-	-	1507 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	678	-	-	-	31 287
Stage 1	-	-	-	-	348 -
Stage 2	-	-	-	-	204 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	678	-	-	-	19 287
Mov Cap-2 Maneuver	-	-	-	-	19 -
Stage 1	-	-	-	-	219 -
Stage 2	-	-	-	-	204 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	180.7
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	678	-	-	-	57
HCM Lane V/C Ratio	0.083	-	-	-	0.801
HCM Control Delay (s)	10.8	0	-	-	180.7
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.3	-	-	-	3.5

HCM 6th Signalized Intersection Summary
 Int.1: Lasselle St & Alessandro Blvd

MV TTM 38442 Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Traffic Volume (veh/h)	99	653	473	214	923	134	268	411	193	91	401	122
Future Volume (veh/h)	99	653	473	214	923	134	268	411	193	91	401	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	115	759	550	249	1073	156	312	478	224	106	466	142
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	121	712	604	166	760	761	196	622	675	131	408	124
Arrive On Green	0.07	0.38	0.38	0.09	0.40	0.40	0.11	0.33	0.33	0.07	0.29	0.29
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1397	426
Grp Volume(v), veh/h	115	759	550	249	1073	156	312	478	224	106	0	608
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	0	1823
Q Serve(g_s), s	7.6	45.0	38.9	11.0	48.0	4.6	13.0	27.1	2.1	6.9	0.0	35.0
Cycle Q Clear(g_c), s	7.6	45.0	38.9	11.0	48.0	4.6	13.0	27.1	2.1	6.9	0.0	35.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	121	713	604	166	760	761	196	622	675	131	0	532
V/C Ratio(X)	0.95	1.07	0.91	1.50	1.41	0.21	1.59	0.77	0.33	0.81	0.00	1.14
Avail Cap(c_a), veh/h	121	713	604	166	760	761	196	622	675	151	0	532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.8	37.5	35.6	54.5	36.0	9.3	53.5	36.2	12.4	54.8	0.0	42.5
Incr Delay (d2), s/veh	67.2	52.5	20.2	254.3	193.1	0.6	289.0	8.8	1.3	24.3	0.0	85.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	29.8	17.8	16.6	61.3	1.9	21.5	13.6	2.9	3.9	0.0	27.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	123.0	90.0	55.8	308.8	229.1	9.9	342.5	45.1	13.7	79.1	0.0	127.5
LnGrp LOS	F	F	E	F	F	A	F	D	B	E	A	F
Approach Vol, veh/h		1424			1478			1014			714	
Approach Delay, s/veh		79.5			219.4			129.6			120.3	
Approach LOS		E			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	49.0	17.0	39.0	12.0	52.0	12.7	43.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	11.0	45.0	13.0	35.0	8.0	48.0	10.0	38.0				
Max Q Clear Time (g_c+I1), s	13.0	47.0	15.0	37.0	9.6	50.0	8.9	29.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4				

Intersection Summary												
HCM 6th Ctrl Delay											141.4	
HCM 6th LOS											F	

HCM 6th Signalized Intersection Summary
 Int.2: Alessandro Blvd & Morrison St

MV TTM 38442 Residential
 08/04/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	164	770	891	87	106	165
Future Volume (veh/h)	164	770	891	87	106	165
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	200	939	1087	106	129	201
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	332	1156	1414	631	588	523
Arrive On Green	0.18	0.61	0.39	0.39	0.32	0.32
Sat Flow, veh/h	1810	1900	3705	1610	1810	1610
Grp Volume(v), veh/h	200	939	1087	106	129	201
Grp Sat Flow(s),veh/h/ln	1810	1900	1805	1610	1810	1610
Q Serve(g_s), s	12.2	45.9	31.5	5.1	6.2	11.6
Cycle Q Clear(g_c), s	12.2	45.9	31.5	5.1	6.2	11.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	332	1156	1414	631	588	523
V/C Ratio(X)	0.60	0.81	0.77	0.17	0.22	0.38
Avail Cap(c_a), veh/h	332	1156	1414	631	588	523
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	18.2	31.8	23.8	29.4	31.2
Incr Delay (d2), s/veh	3.1	6.3	4.1	0.6	0.9	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	19.2	13.6	2.0	2.8	11.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.0	24.5	35.8	24.3	30.3	33.4
LnGrp LOS	D	C	D	C	C	C
Approach Vol, veh/h		1139	1193		330	
Approach Delay, s/veh		28.6	34.8		32.2	
Approach LOS		C	C		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		77.0		43.0	26.0	51.0
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		73.0		39.0	22.0	47.0
Max Q Clear Time (g_c+I1), s		47.9		13.6	14.2	33.5
Green Ext Time (p_c), s		7.0		1.0	0.3	6.0
Intersection Summary						
HCM 6th Ctrl Delay			31.8			
HCM 6th LOS			C			

HCM 6th Signalized Intersection Summary
 Int.3: Nason St & Eucalyptus Ave

MV TTM 38442 Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↑↑		↘	↑↑	
Traffic Volume (veh/h)	263	256	252	393	208	53	113	1795	298	31	3094	103
Future Volume (veh/h)	263	256	252	393	208	53	113	1795	298	31	3094	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	325	316	311	485	257	65	140	2216	368	38	3820	127
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	801	357	166	683	170	106	1591	257	76	1765	58
Arrive On Green	0.08	0.22	0.22	0.09	0.24	0.24	0.06	0.51	0.51	0.04	0.49	0.49
Sat Flow, veh/h	1810	3610	1610	1810	2866	711	1810	3112	503	1810	3566	118
Grp Volume(v), veh/h	325	316	311	485	160	162	140	1259	1325	38	1923	2024
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1772	1810	1805	1810	1810	1805	1879
Q Serve(g_s), s	9.0	9.0	22.4	11.0	8.9	9.2	7.0	61.4	61.4	2.5	59.4	59.4
Cycle Q Clear(g_c), s	9.0	9.0	22.4	11.0	8.9	9.2	7.0	61.4	61.4	2.5	59.4	59.4
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.28	1.00		0.06
Lane Grp Cap(c), veh/h	136	801	357	166	430	422	106	923	925	76	893	930
V/C Ratio(X)	2.39	0.39	0.87	2.92	0.37	0.38	1.33	1.36	1.43	0.50	2.15	2.18
Avail Cap(c_a), veh/h	136	1053	470	166	557	546	106	923	925	106	893	930
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.31	0.31	0.31	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	39.8	45.0	54.5	38.2	38.3	56.5	29.3	29.3	56.3	30.3	30.3
Incr Delay (d2), s/veh	649.6	0.3	13.1	882.0	0.5	0.6	165.9	166.0	196.4	5.0	522.4	533.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh	28.5	3.9	10.0	45.6	3.9	4.0	8.0	66.6	74.6	1.2	153.1	162.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	705.1	40.1	58.1	936.5	38.7	38.9	222.4	195.3	225.7	61.3	552.7	563.5
LnGrp LOS	F	D	E	F	D	D	F	F	F	E	F	F
Approach Vol, veh/h		952			807			2724			3985	
Approach Delay, s/veh		273.0			578.3			211.5			553.5	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	65.4	15.0	30.6	11.0	63.4	13.0	32.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	7.0	51.0	11.0	35.0	7.0	51.0	9.0	37.0				
Max Q Clear Time (g_c+1), s	11.5	63.4	13.0	24.4	9.0	61.4	11.0	11.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.3	0.0	0.0	0.0	1.7				

Intersection Summary

HCM 6th Ctrl Delay	414.3
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary
 Int.4: Nason St & Dracaea Ave

MV TTM 38442 Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕		↖	↗	
Traffic Volume (veh/h)	117	15	122	23	2	3	270	1972	54	14	3317	268
Future Volume (veh/h)	117	15	122	23	2	3	270	1972	54	14	3317	268
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	136	17	142	27	2	3	314	2293	63	16	3857	312
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	220	21	177	69	26	39	106	2451	67	44	2197	175
Arrive On Green	0.12	0.12	0.12	0.04	0.04	0.04	0.12	1.00	1.00	0.02	0.43	0.43
Sat Flow, veh/h	1810	175	1462	1810	686	1029	1810	3589	98	1810	3386	270
Grp Volume(v), veh/h	136	0	159	27	0	5	314	1148	1208	16	2031	2138
Grp Sat Flow(s),veh/h/ln	1810	0	1637	1810	0	1715	1810	1805	1882	1810	1805	1851
Q Serve(g_s), s	8.6	0.0	11.3	1.7	0.0	0.3	7.0	0.0	0.0	1.1	77.8	77.8
Cycle Q Clear(g_c), s	8.6	0.0	11.3	1.7	0.0	0.3	7.0	0.0	0.0	1.1	77.8	77.8
Prop In Lane	1.00		0.89	1.00		0.60	1.00		0.05	1.00		0.15
Lane Grp Cap(c), veh/h	220	0	199	69	0	66	106	1233	1286	44	1171	1201
V/C Ratio(X)	0.62	0.00	0.80	0.39	0.00	0.08	2.97	0.93	0.94	0.37	1.73	1.78
Avail Cap(c_a), veh/h	528	0	477	528	0	500	106	1233	1286	106	1171	1201
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.09	0.09	0.09	0.09	0.09	0.09
Uniform Delay (d), s/veh	50.1	0.0	51.3	56.3	0.0	55.7	53.0	0.0	0.0	58.1	33.9	33.9
Incr Delay (d2), s/veh	2.8	0.0	7.3	3.5	0.0	0.5	890.9	1.7	1.8	0.5	330.9	351.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	5.0	0.9	0.0	0.2	29.0	0.6	0.7	0.5	141.7	152.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.9	0.0	58.6	59.9	0.0	56.1	943.9	1.7	1.8	58.6	364.8	385.3
LnGrp LOS	D	A	E	E	A	E	F	A	A	E	F	F
Approach Vol, veh/h		295			32			2670			4185	
Approach Delay, s/veh		56.0			59.3			112.6			374.1	
Approach LOS		E			E			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	86.0		18.6	11.0	81.8		8.6				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	7.0	27.0		35.0	7.0	27.0		35.0				
Max Q Clear Time (g_c+1), s	13.0	2.0		13.3	9.0	79.8		3.7				
Green Ext Time (p_c), s	0.0	20.4		1.2	0.0	0.0		0.1				

Intersection Summary

HCM 6th Ctrl Delay		262.4										
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary
 Int.5: Nason St & Cottonwood Ave

MV TTM 38442 Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	100	148	99	133	84	260	1861	71	45	3199	254
Future Volume (veh/h)	350	100	148	99	133	84	260	1861	71	45	3199	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	417	119	176	118	158	100	310	2215	85	54	3808	302
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	196	221	187	171	223	133	151	2152	82	88	2067	922
Arrive On Green	0.11	0.12	0.12	0.09	0.10	0.10	0.08	0.61	0.61	0.03	0.38	0.38
Sat Flow, veh/h	1810	1900	1610	1810	2172	1299	1810	3545	135	1810	3610	1610
Grp Volume(v), veh/h	417	119	176	118	130	128	310	1121	1179	54	3808	302
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1805	1666	1810	1805	1876	1810	1805	1610
Q Serve(g_s), s	13.0	7.1	10.8	7.6	8.3	9.0	10.0	72.9	72.9	3.5	68.7	15.9
Cycle Q Clear(g_c), s	13.0	7.1	10.8	7.6	8.3	9.0	10.0	72.9	72.9	3.5	68.7	15.9
Prop In Lane	1.00		1.00	1.00		0.78	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	196	221	187	171	185	171	151	1096	1139	88	2067	922
V/C Ratio(X)	2.13	0.54	0.94	0.69	0.70	0.75	2.06	1.02	1.04	0.61	1.84	0.33
Avail Cap(c_a), veh/h	196	602	510	171	542	500	151	1096	1139	106	2067	922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	53.5	50.0	36.3	52.6	52.1	52.4	55.0	23.6	23.6	56.9	37.0	20.7
Incr Delay (d2), s/veh	524.0	2.0	19.1	11.1	4.8	6.5	497.3	33.0	36.4	0.7	379.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	3.4	5.1	3.9	3.9	4.0	25.3	36.7	39.2	1.6	139.4	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	577.5	52.0	55.3	63.7	56.8	58.8	552.3	56.6	60.0	57.6	416.4	20.8
LnGrp LOS	F	D	E	E	E	E	F	F	F	E	F	C
Approach Vol, veh/h		712			376			2610			4164	
Approach Delay, s/veh		360.6			59.7			117.0			383.0	
Approach LOS		F			E			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.8	76.9	15.4	18.0	14.0	72.7	17.0	16.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	48.0	11.0	38.0	10.0	45.0	13.0	36.0					
Max Q Clear Time (g_c+1),s	74.9	9.6	12.8	12.0	70.7	15.0	11.0					
Green Ext Time (p_c), s	0.0	0.0	0.0	1.2	0.0	0.0	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay											277.2	
HCM 6th LOS											F	

HCM 6th Signalized Intersection Summary
 Int.6: Nason St & Alessandro Blvd

MV TTM 38442 Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖↗	↑	↖	↖	↑↑	↖	↖	↑↑↑	↖
Traffic Volume (veh/h)	244	438	227	522	560	298	121	1203	155	172	2664	175
Future Volume (veh/h)	244	438	227	522	560	298	121	1203	155	172	2664	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	280	503	261	600	644	343	139	1383	178	198	3062	201
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	263	557	472	476	672	569	136	1220	544	181	1883	585
Arrive On Green	0.08	0.29	0.29	0.14	0.35	0.35	0.08	0.34	0.34	0.10	0.36	0.36
Sat Flow, veh/h	3510	1900	1610	3510	1900	1610	1810	3610	1610	1810	5187	1610
Grp Volume(v), veh/h	280	503	261	600	644	343	139	1383	178	198	3062	201
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1755	1900	1610	1810	1805	1610	1810	1729	1610
Q Serve(g_s), s	9.0	30.5	13.1	16.3	39.8	15.6	9.0	40.6	6.9	12.0	43.6	8.5
Cycle Q Clear(g_c), s	9.0	30.5	13.1	16.3	39.8	15.6	9.0	40.6	6.9	12.0	43.6	8.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	263	557	472	476	672	569	136	1220	544	181	1883	585
V/C Ratio(X)	1.06	0.90	0.55	1.26	0.96	0.60	1.02	1.13	0.33	1.09	1.63	0.34
Avail Cap(c_a), veh/h	263	665	564	476	681	577	136	1220	544	181	1883	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	40.8	22.9	51.9	37.9	17.5	55.5	39.7	14.3	54.0	38.2	16.8
Incr Delay (d2), s/veh	73.2	14.1	1.0	133.0	24.5	1.7	83.8	70.6	1.6	94.3	284.2	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.5	15.7	4.8	15.7	21.9	5.6	7.2	29.0	3.7	10.0	67.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	128.7	54.9	23.9	184.9	62.4	19.3	139.3	110.3	15.8	148.3	322.4	18.4
LnGrp LOS	F	D	C	F	E	B	F	F	B	F	F	B
Approach Vol, veh/h		1044			1587			1700			3461	
Approach Delay, s/veh		67.0			99.4			102.8			294.8	
Approach LOS		E			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	60.0	44.6	20.3	39.2	13.0	47.6	13.0	46.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	12.0	40.0	10.0	42.0	9.0	43.0	9.0	43.0				
Max Q Clear Time (g_c+M), s	14.0	42.6	18.3	32.5	11.0	45.6	11.0	41.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	182.6
HCM 6th LOS	F

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	202	14	2	275	41	6
Future Vol, veh/h	202	14	2	275	41	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	220	15	2	299	45	7

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	235	0	531 228
Stage 1	-	-	-	-	228 -
Stage 2	-	-	-	-	303 -
Critical Hdwy	-	-	4.1	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	1344	-	512 816
Stage 1	-	-	-	-	815 -
Stage 2	-	-	-	-	754 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1344	-	511 816
Mov Cap-2 Maneuver	-	-	-	-	511 -
Stage 1	-	-	-	-	815 -
Stage 2	-	-	-	-	752 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	12.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	537	-	-	1344	-
HCM Lane V/C Ratio	0.095	-	-	0.002	-
HCM Control Delay (s)	12.4	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	4	758	1365	3	10	12
Future Vol, veh/h	4	758	1365	3	10	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	824	1484	3	11	13

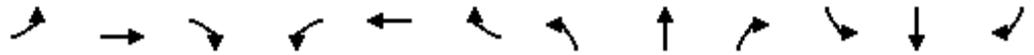
Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1487	0	0 2318 1486
Stage 1	-	-	- 1486 -
Stage 2	-	-	- 832 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	458	-	- 42 155
Stage 1	-	-	- 209 -
Stage 2	-	-	- 431 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	458	-	- 41 155
Mov Cap-2 Maneuver	-	-	- 41 -
Stage 1	-	-	- 206 -
Stage 2	-	-	- 431 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	84.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	458	-	-	-	68
HCM Lane V/C Ratio	0.009	-	-	-	0.352
HCM Control Delay (s)	12.9	0	-	-	84.3
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	1.3

HCM 6th Signalized Intersection Summary
 Int.1: Lasselle St & Alessandro Blvd

MV TTM 38442 Residential
 08/04/2022

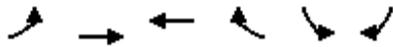


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	928	368	148	760	108	501	437	200	133	428	93
Future Volume (veh/h)	110	928	368	148	760	108	501	437	200	133	428	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	117	987	391	157	809	115	533	465	213	141	455	99
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	151	697	590	121	665	713	256	647	655	168	441	96
Arrive On Green	0.08	0.37	0.37	0.07	0.35	0.35	0.14	0.34	0.34	0.09	0.29	0.29
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1512	329
Grp Volume(v), veh/h	117	987	391	157	809	115	533	465	213	141	0	554
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	0	1841
Q Serve(g_s), s	7.6	44.0	24.4	8.0	42.0	3.4	17.0	25.6	2.3	9.2	0.0	35.0
Cycle Q Clear(g_c), s	7.6	44.0	24.4	8.0	42.0	3.4	17.0	25.6	2.3	9.2	0.0	35.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	151	697	590	121	665	713	256	647	655	168	0	537
V/C Ratio(X)	0.78	1.42	0.66	1.30	1.22	0.16	2.08	0.72	0.32	0.84	0.00	1.03
Avail Cap(c_a), veh/h	151	697	590	121	665	713	256	647	655	196	0	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.9	38.0	31.8	56.0	39.0	9.9	51.5	34.6	12.2	53.5	0.0	42.5
Incr Delay (d2), s/veh	22.0	195.9	5.8	183.3	110.8	0.5	498.8	6.8	1.3	23.5	0.0	47.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	57.0	10.0	9.7	38.8	1.5	43.0	12.6	2.6	5.1	0.0	22.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.9	233.9	37.5	239.3	149.8	10.4	550.3	41.3	13.5	77.1	0.0	89.8
LnGrp LOS	E	F	D	F	F	B	F	D	B	E	A	F
Approach Vol, veh/h		1495			1081			1211			695	
Approach Delay, s/veh		170.2			148.0			260.4			87.2	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	48.0	21.0	39.0	14.0	46.0	15.2	44.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	8.0	44.0	17.0	35.0	10.0	42.0	13.0	39.0				
Max Q Clear Time (g_c+I1), s	10.0	46.0	19.0	37.0	9.6	44.0	11.2	27.6				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.6				
Intersection Summary												
HCM 6th Ctrl Delay	176.4											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary
 Int.2: Alessandro Blvd & Morrison St

MV TTM 38442 Residential

08/04/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↕	↗	↘	↗
Traffic Volume (veh/h)	105	939	898	56	62	85
Future Volume (veh/h)	105	939	898	56	62	85
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	114	1021	976	61	67	92
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	211	1156	1655	738	588	523
Arrive On Green	0.12	0.61	0.46	0.46	0.32	0.32
Sat Flow, veh/h	1810	1900	3705	1610	1810	1610
Grp Volume(v), veh/h	114	1021	976	61	67	92
Grp Sat Flow(s),veh/h/ln	1810	1900	1805	1610	1810	1610
Q Serve(g_s), s	7.1	54.6	24.1	2.6	3.1	4.9
Cycle Q Clear(g_c), s	7.1	54.6	24.1	2.6	3.1	4.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	211	1156	1655	738	588	523
V/C Ratio(X)	0.54	0.88	0.59	0.08	0.11	0.18
Avail Cap(c_a), veh/h	211	1156	1655	738	588	523
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	19.9	24.1	18.3	28.4	29.0
Incr Delay (d2), s/veh	2.8	9.9	1.6	0.2	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	23.6	9.9	0.9	1.4	5.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	52.7	29.8	25.7	18.5	28.8	29.7
LnGrp LOS	D	C	C	B	C	C
Approach Vol, veh/h		1135	1037		159	
Approach Delay, s/veh		32.1	25.3		29.3	
Approach LOS		C	C		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		77.0		43.0	18.0	59.0
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		73.0		39.0	14.0	55.0
Max Q Clear Time (g_c+I1), s		56.6		6.9	9.1	26.1
Green Ext Time (p_c), s		6.7		0.5	0.1	7.1
Intersection Summary						
HCM 6th Ctrl Delay			28.9			
HCM 6th LOS			C			

HCM 6th Signalized Intersection Summary
 Int.3: Nason St & Eucalyptus Ave

MV TTM 38442 Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	186	77	302	195	33	79	3188	496	61	2196	59
Future Volume (veh/h)	48	186	77	302	195	33	79	3188	496	61	2196	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	49	190	79	308	199	34	81	3253	506	62	2241	60
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	85	285	127	196	434	73	103	1975	299	92	2236	60
Arrive On Green	0.05	0.08	0.08	0.11	0.14	0.14	0.06	0.63	0.63	0.05	0.62	0.62
Sat Flow, veh/h	1810	3610	1610	1810	3092	520	1810	3143	476	1810	3592	96
Grp Volume(v), veh/h	49	190	79	308	115	118	81	1831	1928	62	1121	1180
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1806	1810	1805	1814	1810	1805	1883
Q Serve(g_s), s	3.2	6.1	5.7	13.0	7.0	7.2	5.3	75.4	75.4	4.0	74.2	74.7
Cycle Q Clear(g_c), s	3.2	6.1	5.7	13.0	7.0	7.2	5.3	75.4	75.4	4.0	74.2	74.7
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.26	1.00		0.05
Lane Grp Cap(c), veh/h	85	285	127	196	253	254	103	1134	1140	92	1124	1172
V/C Ratio(X)	0.58	0.67	0.62	1.57	0.45	0.47	0.79	1.61	1.69	0.67	1.00	1.01
Avail Cap(c_a), veh/h	166	1053	470	196	557	557	106	1134	1140	106	1124	1172
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	53.7	53.5	53.5	47.3	47.4	55.9	22.3	22.3	56.0	22.6	22.6
Incr Delay (d2), s/veh	6.0	2.7	4.9	280.2	1.3	1.3	3.6	277.0	311.3	13.0	26.3	27.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	2.8	2.4	21.1	3.2	3.3	2.5	114.2	125.6	2.1	34.9	37.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.1	56.4	58.4	333.7	48.6	48.8	59.5	299.3	333.6	69.0	48.9	50.6
LnGrp LOS	E	E	E	F	D	D	E	F	F	E	D	F
Approach Vol, veh/h	318			541			3840			2363		
Approach Delay, s/veh	57.8			210.9			311.4			50.2		
Approach LOS	E			F			F			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	79.4	17.0	13.5	10.8	78.7	9.6	20.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	49.0	13.0	35.0	7.0	49.0	11.0	37.0					
Max Q Clear Time (g_c+1), s	77.4	15.0	8.1	7.3	76.7	5.2	9.2					
Green Ext Time (p_c), s	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.2				

Intersection Summary												
HCM 6th Ctrl Delay	204.9											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary
 Int.4: Nason St & Dracaea Ave

MV TTM 38442 Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕		↖	↗	
Traffic Volume (veh/h)	131	2	73	33	6	3	48	3559	38	20	2428	105
Future Volume (veh/h)	131	2	73	33	6	3	48	3559	38	20	2428	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	146	2	81	37	7	3	53	3954	42	22	2698	117
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	185	4	161	84	58	25	88	2517	27	55	2362	102
Arrive On Green	0.10	0.10	0.10	0.05	0.05	0.05	0.06	0.92	0.92	0.04	0.89	0.89
Sat Flow, veh/h	1810	39	1577	1810	1262	541	1810	3659	39	1810	3526	152
Grp Volume(v), veh/h	146	0	83	37	0	10	53	1947	2049	22	1371	1444
Grp Sat Flow(s),veh/h/ln	1810	0	1616	1810	0	1803	1810	1805	1893	1810	1805	1873
Q Serve(g_s), s	9.5	0.0	5.8	2.4	0.0	0.6	3.4	82.6	82.6	1.4	80.4	80.4
Cycle Q Clear(g_c), s	9.5	0.0	5.8	2.4	0.0	0.6	3.4	82.6	82.6	1.4	80.4	80.4
Prop In Lane	1.00		0.98	1.00		0.30	1.00		0.02	1.00		0.08
Lane Grp Cap(c), veh/h	185	0	165	84	0	83	88	1242	1302	55	1209	1255
V/C Ratio(X)	0.79	0.00	0.50	0.44	0.00	0.12	0.61	1.57	1.57	0.40	1.13	1.15
Avail Cap(c_a), veh/h	528	0	471	528	0	526	106	1242	1302	106	1209	1255
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.09	0.09	0.09	0.09	0.09	0.09
Uniform Delay (d), s/veh	52.6	0.0	51.0	55.7	0.0	54.9	55.0	5.1	5.1	56.5	6.5	6.5
Incr Delay (d2), s/veh	7.3	0.0	2.4	3.7	0.0	0.6	0.6	255.8	258.4	0.4	61.5	68.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	2.4	1.2	0.0	0.3	1.5	91.1	96.5	0.6	24.5	27.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.9	0.0	53.3	59.4	0.0	55.5	55.6	260.9	263.5	56.9	68.0	75.3
LnGrp LOS	E	A	D	E	A	E	E	F	F	E	F	F
Approach Vol, veh/h		229			47			4049			2837	
Approach Delay, s/veh		57.5			58.6			259.5			71.6	
Approach LOS		E			E			F			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	86.6		16.3	9.8	84.4		9.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	7.0	27.0		35.0	7.0	27.0		35.0				
Max Q Clear Time (g_c+1), s	13.4	84.6		11.5	5.4	82.4		4.4				
Green Ext Time (p_c), s	0.0	0.0		0.8	0.0	0.0		0.1				

Intersection Summary

HCM 6th Ctrl Delay	177.3
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary
 Int.5: Nason St & Cottonwood Ave

MV TTM 38442 Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	302	109	98	39	92	40	121	3313	51	49	2171	313
Future Volume (veh/h)	302	109	98	39	92	40	121	3313	51	49	2171	313
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	325	117	105	42	99	43	130	3562	55	53	2334	337
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	211	258	219	80	158	65	156	2323	36	88	2167	967
Arrive On Green	0.12	0.14	0.14	0.04	0.06	0.06	0.09	0.64	0.64	0.06	0.80	0.80
Sat Flow, veh/h	1810	1900	1610	1810	2493	1027	1810	3639	56	1810	3610	1610
Grp Volume(v), veh/h	325	117	105	42	70	72	130	1762	1855	53	2334	337
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1805	1715	1810	1805	1890	1810	1805	1610
Q Serve(g_s), s	14.0	6.8	7.2	2.7	4.5	4.9	8.5	76.6	76.6	3.4	72.0	3.8
Cycle Q Clear(g_c), s	14.0	6.8	7.2	2.7	4.5	4.9	8.5	76.6	76.6	3.4	72.0	3.8
Prop In Lane	1.00		1.00	1.00		0.60	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	211	258	219	80	114	109	156	1152	1206	88	2167	967
V/C Ratio(X)	1.54	0.45	0.48	0.53	0.61	0.66	0.83	1.53	1.54	0.61	1.08	0.35
Avail Cap(c_a), veh/h	211	618	523	166	542	515	166	1152	1206	136	2167	967
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	53.0	47.7	47.9	56.1	54.8	54.9	54.0	21.7	21.7	55.0	12.1	1.6
Incr Delay (d2), s/veh	265.0	1.2	1.6	5.3	5.3	6.7	27.6	242.6	246.1	0.6	35.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.8	3.3	2.9	1.3	2.2	2.3	5.0	104.7	110.8	1.5	21.4	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	318.0	49.0	49.5	61.5	60.0	61.6	81.6	264.3	267.8	55.6	47.7	1.7
LnGrp LOS	F	D	D	E	E	E	F	F	F	E	F	A
Approach Vol, veh/h	547			184			3747			2724		
Approach Delay, s/veh	209.0			61.0			259.7			42.2		
Approach LOS	F			E			F			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.8	80.6	9.3	20.3	14.4	76.0	18.0	11.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	45.0	11.0	39.0	11.0	43.0	14.0	36.0					
Max Q Clear Time (g_c+1), s	78.6	4.7	9.2	10.5	74.0	16.0	6.9					
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	0.0	0.7					

Intersection Summary

HCM 6th Ctrl Delay	168.5
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary
 Int.6: Nason St & Alessandro Blvd

MV TTM 38442 Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑	↗	↔↔	↑	↗	↖	↑↑	↗	↖	↑↑↑	↗
Traffic Volume (veh/h)	192	538	144	255	524	163	203	2875	543	217	1592	213
Future Volume (veh/h)	192	538	144	255	524	163	203	2875	543	217	1592	213
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	216	604	162	287	589	183	228	3230	610	244	1789	239
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	253	634	537	234	623	528	226	1383	617	151	1771	550
Arrive On Green	0.07	0.33	0.33	0.07	0.33	0.33	0.13	0.38	0.38	0.08	0.34	0.34
Sat Flow, veh/h	3510	1900	1610	3510	1900	1610	1810	3610	1610	1810	5187	1610
Grp Volume(v), veh/h	216	604	162	287	589	183	228	3230	610	244	1789	239
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1755	1900	1610	1810	1805	1610	1810	1729	1610
Q Serve(g_s), s	7.3	37.3	6.4	8.0	36.2	8.0	15.0	46.0	35.4	10.0	41.0	10.9
Cycle Q Clear(g_c), s	7.3	37.3	6.4	8.0	36.2	8.0	15.0	46.0	35.4	10.0	41.0	10.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	253	634	537	234	623	528	226	1383	617	151	1771	550
V/C Ratio(X)	0.85	0.95	0.30	1.23	0.95	0.35	1.01	2.34	0.99	1.62	1.01	0.43
Avail Cap(c_a), veh/h	253	649	550	234	649	550	226	1383	617	151	1771	550
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	39.1	15.0	56.0	39.3	18.4	52.5	37.0	22.6	55.0	39.5	19.0
Incr Delay (d2), s/veh	23.4	24.1	0.3	133.6	22.3	0.4	61.9	603.0	33.6	306.5	23.8	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	20.5	3.2	7.8	19.8	3.8	10.5	134.9	17.9	17.3	20.4	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.4	63.1	15.4	189.6	61.6	18.8	114.4	640.0	56.1	361.5	63.3	21.5
LnGrp LOS	E	E	B	F	E	B	F	F	E	F	F	C
Approach Vol, veh/h		982			1059			4068			2272	
Approach Delay, s/veh		58.6			88.9			523.0			91.0	
Approach LOS		E			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.0	50.0	12.0	44.0	19.0	45.0	12.7	43.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	45.0	8.0	41.0	15.0	40.0	8.0	41.0				
Max Q Clear Time (g_c+M2), s	4.0	48.0	10.0	39.3	17.0	43.0	9.3	38.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.7	0.0	0.0	0.0	1.1				

Intersection Summary

HCM 6th Ctrl Delay	296.6
HCM 6th LOS	F

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	162	47	6	140	28	4
Future Vol, veh/h	162	47	6	140	28	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	176	51	7	152	30	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	227	0	368 202
Stage 1	-	-	-	-	202 -
Stage 2	-	-	-	-	166 -
Critical Hdwy	-	-	4.1	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	1353	-	636 844
Stage 1	-	-	-	-	837 -
Stage 2	-	-	-	-	868 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1353	-	632 844
Mov Cap-2 Maneuver	-	-	-	-	632 -
Stage 1	-	-	-	-	837 -
Stage 2	-	-	-	-	863 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	652	-	-	1353	-
HCM Lane V/C Ratio	0.053	-	-	0.005	-
HCM Control Delay (s)	10.8	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	14	1282	935	11	7	8
Future Vol, veh/h	14	1282	935	11	7	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	15	1393	1016	12	8	9

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1028	0	-	0	2445 1022
Stage 1	-	-	-	-	1022 -
Stage 2	-	-	-	-	1423 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	683	-	-	-	35 289
Stage 1	-	-	-	-	350 -
Stage 2	-	-	-	-	225 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	683	-	-	-	32 289
Mov Cap-2 Maneuver	-	-	-	-	32 -
Stage 1	-	-	-	-	316 -
Stage 2	-	-	-	-	225 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	84.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	683	-	-	-	61
HCM Lane V/C Ratio	0.022	-	-	-	0.267
HCM Control Delay (s)	10.4	0	-	-	84.3
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

HCM 6th Signalized Intersection Summary
 Int.1: Lasselle St & Alessandro Blvd

TTM 38442 MV Residential
 08/04/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	104	723	497	229	978	142	281	458	211	109	412	141
Future Volume (veh/h)	104	723	497	229	978	142	281	458	211	109	412	141
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	104	723	497	229	978	142	281	458	211	109	412	141
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	196	1556	725	226	1643	698	271	1173	725	211	772	261
Arrive On Green	0.11	0.30	0.30	0.13	0.32	0.32	0.15	0.32	0.32	0.12	0.29	0.29
Sat Flow, veh/h	1810	5187	1610	1810	5187	1610	1810	3610	1610	1810	2647	896
Grp Volume(v), veh/h	104	723	497	229	978	142	281	458	211	109	279	274
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1810	1729	1610	1810	1805	1610	1810	1805	1739
Q Serve(g_s), s	6.5	13.6	8.5	15.0	19.1	0.0	18.0	11.8	6.0	6.8	15.6	15.9
Cycle Q Clear(g_c), s	6.5	13.6	8.5	15.0	19.1	0.0	18.0	11.8	6.0	6.8	15.6	15.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.52
Lane Grp Cap(c), veh/h	196	1556	725	226	1643	698	271	1173	725	211	526	507
V/C Ratio(X)	0.53	0.46	0.69	1.01	0.60	0.20	1.04	0.39	0.29	0.52	0.53	0.54
Avail Cap(c_a), veh/h	196	1556	725	226	1643	698	271	1173	725	211	526	507
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.6	34.2	11.3	52.5	34.5	21.1	51.0	31.3	9.2	49.8	35.6	35.7
Incr Delay (d2), s/veh	2.7	1.0	5.2	63.1	1.6	0.7	64.1	1.0	1.0	2.2	3.8	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	5.6	6.3	10.5	7.9	2.5	12.7	5.1	2.5	3.1	7.1	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.3	35.2	16.6	115.6	36.1	21.8	115.1	32.3	10.2	52.0	39.4	39.8
LnGrp LOS	D	D	B	F	D	C	F	C	B	D	D	D
Approach Vol, veh/h		1324			1349			950			662	
Approach Delay, s/veh		29.6			48.1			51.9			41.6	
Approach LOS		C			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.0	40.0	22.0	39.0	17.0	42.0	18.0	43.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	15.0	36.0	18.0	35.0	13.0	38.0	14.0	39.0				
Max Q Clear Time (g_c+I1), s	17.0	15.6	20.0	17.9	8.5	21.1	8.8	13.8				
Green Ext Time (p_c), s	0.0	6.3	0.0	2.7	0.1	6.1	0.1	3.5				
Intersection Summary												
HCM 6th Ctrl Delay			42.2									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 Int.2: Alessandro Blvd & Morrison St

TTM 38442 MV Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑↑ ↗		↖	↖	↑↑		↖	↑↑	↖
Traffic Volume (veh/h)	172	787	78	35	950	92	55	102	42	111	116	173
Future Volume (veh/h)	172	787	78	35	950	92	55	102	42	111	116	173
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	172	787	78	35	950	92	55	102	42	111	116	173
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	303	1772	175	73	1254	389	89	314	123	603	1474	657
Arrive On Green	0.17	0.37	0.37	0.04	0.24	0.24	0.05	0.12	0.12	0.33	0.41	0.41
Sat Flow, veh/h	1810	4800	473	1810	5187	1610	1810	2534	993	1810	3610	1610
Grp Volume(v), veh/h	172	566	299	35	950	92	55	71	73	111	116	173
Grp Sat Flow(s),veh/h/ln	1810	1729	1815	1810	1729	1610	1810	1805	1721	1810	1805	1610
Q Serve(g_s), s	10.5	14.8	14.9	2.3	20.4	2.6	3.6	4.3	4.6	5.2	2.4	8.5
Cycle Q Clear(g_c), s	10.5	14.8	14.9	2.3	20.4	2.6	3.6	4.3	4.6	5.2	2.4	8.5
Prop In Lane	1.00		0.26	1.00		1.00	1.00		0.58	1.00		1.00
Lane Grp Cap(c), veh/h	303	1277	670	73	1254	389	89	224	213	603	1474	657
V/C Ratio(X)	0.57	0.44	0.45	0.48	0.76	0.24	0.62	0.32	0.34	0.18	0.08	0.26
Avail Cap(c_a), veh/h	303	1277	670	106	1254	389	136	271	258	603	1474	657
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.9	28.5	28.6	56.4	42.2	8.2	56.0	47.9	48.1	28.4	21.7	23.5
Incr Delay (d2), s/veh	2.5	1.1	2.1	4.9	4.3	1.4	6.9	0.8	0.9	0.7	0.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	6.0	6.6	1.1	8.8	2.3	1.8	2.0	2.1	2.3	1.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.4	29.7	30.7	61.2	46.6	9.6	62.8	48.7	49.0	29.1	21.8	24.5
LnGrp LOS	D	C	C	E	D	A	E	D	D	C	C	C
Approach Vol, veh/h	1037			1077			199			400		
Approach Delay, s/veh	33.1			43.9			52.7			25.0		
Approach LOS	C			D			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	48.3	9.9	53.0	24.1	33.0	44.0	18.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	39.0	9.0	49.0	17.0	29.0	40.0	18.0					
Max Q Clear Time (g_c+1), s	16.9	5.6	10.5	12.5	22.4	7.2	6.6					
Green Ext Time (p_c), s	0.0	5.1	0.0	1.3	0.2	3.2	0.3	0.5				

Intersection Summary

HCM 6th Ctrl Delay	37.6
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
 Int.3: Nason St & Eucalyptus Ave

TTM 38442 MV Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	276	409	272	414	321	56	121	1894	479	33	3252	108
Future Volume (veh/h)	276	409	272	414	321	56	121	1894	479	33	3252	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	276	409	272	414	321	56	121	1894	479	33	3252	108
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	211	551	246	196	521	233	357	2032	805	387	2106	69
Arrive On Green	0.12	0.15	0.15	0.11	0.14	0.14	0.39	0.78	0.78	0.21	0.41	0.41
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	5187	1610	1810	5158	169
Grp Volume(v), veh/h	276	409	272	414	321	56	121	1894	479	33	2169	1191
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1810	1729	1610	1810	1729	1869
Q Serve(g_s), s	14.0	13.0	12.6	13.0	10.0	2.5	5.6	35.2	5.8	1.8	49.0	49.0
Cycle Q Clear(g_c), s	14.0	13.0	12.6	13.0	10.0	2.5	5.6	35.2	5.8	1.8	49.0	49.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	211	551	246	196	521	233	357	2032	805	387	1412	763
V/C Ratio(X)	1.31	0.74	1.11	2.11	0.62	0.24	0.34	0.93	0.59	0.09	1.54	1.56
Avail Cap(c_a), veh/h	211	1053	470	196	1023	456	357	2032	805	387	1412	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.0	48.6	24.1	53.5	48.2	20.6	30.9	11.7	2.4	37.8	35.5	35.5
Incr Delay (d2), s/veh	168.1	2.0	66.4	517.2	1.2	0.5	0.4	7.6	2.5	0.1	244.7	258.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.1	5.9	9.2	34.0	4.5	1.5	2.3	5.7	1.5	0.8	67.3	75.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	221.1	50.6	90.5	570.7	49.4	21.1	31.3	19.3	4.9	37.9	280.2	294.3
LnGrp LOS	F	D	F	F	D	C	C	B	A	D	F	F
Approach Vol, veh/h		957			791			2494			3393	
Approach Delay, s/veh		111.1			320.3			17.1			282.8	
Approach LOS		F			F			B			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	29.7	51.0	17.0	22.3	27.7	53.0	18.0	21.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	47.0	13.0	35.0	7.0	49.0	14.0	34.0					
Max Q Clear Time (g_c+1), s	37.2	15.0	15.0	7.6	51.0	16.0	12.0					
Green Ext Time (p_c), s	0.0	8.1	0.0	3.3	0.0	0.0	2.0					
Intersection Summary												
HCM 6th Ctrl Delay											178.4	
HCM 6th LOS											F	

HCM 6th Signalized Intersection Summary
 Int.4: Nason St & Dracaea Ave

TTM 38442 MV Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑↑	↗	↖	↑↑↑	↗
Traffic Volume (veh/h)	149	16	128	61	18	35	272	2085	57	18	3488	313
Future Volume (veh/h)	149	16	128	61	18	35	272	2085	57	18	3488	313
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	149	16	128	61	18	35	272	2085	57	18	3488	313
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	182	20	158	106	38	75	166	3493	1084	48	3154	979
Arrive On Green	0.10	0.11	0.11	0.06	0.07	0.07	0.06	0.45	0.45	0.02	0.41	0.41
Sat Flow, veh/h	1810	182	1456	1810	577	1121	1810	5187	1610	1810	5187	1610
Grp Volume(v), veh/h	149	0	144	61	0	53	272	2085	57	18	3488	313
Grp Sat Flow(s),veh/h/ln	1810	0	1638	1810	0	1698	1810	1729	1610	1810	1729	1610
Q Serve(g_s), s	9.7	0.0	10.3	3.9	0.0	3.6	11.0	36.2	2.4	1.2	73.0	15.9
Cycle Q Clear(g_c), s	9.7	0.0	10.3	3.9	0.0	3.6	11.0	36.2	2.4	1.2	73.0	15.9
Prop In Lane	1.00		0.89	1.00		0.66	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	182	0	178	106	0	113	166	3493	1084	48	3154	979
V/C Ratio(X)	0.82	0.00	0.81	0.58	0.00	0.47	1.64	0.60	0.05	0.38	1.11	0.32
Avail Cap(c_a), veh/h	528	0	478	528	0	495	166	3493	1084	106	3154	979
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	0.67	0.67	0.67
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	0.41	0.41	0.41	0.09	0.09	0.09
Uniform Delay (d), s/veh	52.9	0.0	52.3	55.1	0.0	54.0	56.3	20.7	11.4	58.0	35.6	18.7
Incr Delay (d2), s/veh	8.8	0.0	8.4	4.9	0.0	3.0	298.9	0.3	0.0	0.4	48.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.0	4.6	1.9	0.0	1.6	18.8	15.3	0.8	0.5	44.9	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.7	0.0	60.7	60.0	0.0	57.0	355.2	21.0	11.5	58.4	83.8	18.7
LnGrp LOS	E	A	E	E	A	E	F	C	B	E	F	B
Approach Vol, veh/h		293			114			2414			3819	
Approach Delay, s/veh		61.2			58.6			58.4			78.4	
Approach LOS		E			E			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.2	84.8	11.0	17.0	15.0	77.0	16.1	12.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	27.0	35.0	35.0	11.0	23.0	35.0	35.0					
Max Q Clear Time (g_c+1), s	38.2	5.9	12.3	13.0	75.0	11.7	5.6					
Green Ext Time (p_c), s	0.0	0.0	0.1	0.7	0.0	0.0	0.4	0.2				
Intersection Summary												
HCM 6th Ctrl Delay											70.0	
HCM 6th LOS											E	

HCM 6th Signalized Intersection Summary
 Int.5: Nason St & Cottonwood Ave

TTM 38442 MV Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↑↑↑	↗	↘	↑↑↑	↗
Traffic Volume (veh/h)	368	106	156	104	142	96	275	1961	75	63	3361	267
Future Volume (veh/h)	368	106	156	104	142	96	275	1961	75	63	3361	267
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	368	106	156	104	142	96	275	1961	75	63	3361	267
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	196	481	215	129	204	129	151	3169	984	93	3002	1106
Arrive On Green	0.11	0.13	0.13	0.07	0.10	0.10	0.08	0.61	0.61	0.03	0.39	0.39
Sat Flow, veh/h	1810	3610	1610	1810	2119	1344	1810	5187	1610	1810	5187	1610
Grp Volume(v), veh/h	368	106	156	104	120	118	275	1961	75	63	3361	267
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1658	1810	1729	1610	1810	1729	1610
Q Serve(g_s), s	13.0	3.1	11.2	6.8	7.7	8.3	10.0	28.4	2.3	4.1	69.5	3.8
Cycle Q Clear(g_c), s	13.0	3.1	11.2	6.8	7.7	8.3	10.0	28.4	2.3	4.1	69.5	3.8
Prop In Lane	1.00		1.00	1.00		0.81	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	196	481	215	129	174	160	151	3169	984	93	3002	1106
V/C Ratio(X)	1.88	0.22	0.73	0.81	0.69	0.74	1.82	0.62	0.08	0.68	1.12	0.24
Avail Cap(c_a), veh/h	196	1113	496	166	526	484	151	3169	984	106	3002	1106
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	53.5	46.4	49.9	54.9	52.5	52.8	55.0	14.6	9.5	57.0	36.7	3.4
Incr Delay (d2), s/veh	413.5	0.2	4.7	19.6	4.8	6.6	395.4	0.9	0.2	1.4	54.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	28.3	1.4	4.7	3.7	3.6	3.7	21.0	10.2	0.8	1.9	44.6	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	467.0	46.7	54.6	74.5	57.3	59.4	450.4	15.5	9.7	58.3	91.0	3.5
LnGrp LOS	F	D	D	E	E	E	F	B	A	E	F	A
Approach Vol, veh/h		630			342			2311			3691	
Approach Delay, s/veh		294.2			63.3			67.1			84.1	
Approach LOS		F			E			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	77.3	12.6	20.0	14.0	73.5	17.0	15.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	49.0	11.0	37.0	10.0	46.0	13.0	35.0					
Max Q Clear Time (g_c+1), s	30.4	8.8	13.2	12.0	71.5	15.0	10.3					
Green Ext Time (p_c), s	0.0	13.0	0.0	1.1	0.0	0.0	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay	96.4
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary
 Int.6: Nason St & Alessandro Blvd

TTM 38442 MV Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔	↑↑↑	↔	↔	↑↑↑	↔
Traffic Volume (veh/h)	256	463	247	557	603	322	222	1263	166	184	2797	214
Future Volume (veh/h)	256	463	247	557	603	322	222	1263	166	184	2797	214
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	256	463	247	557	603	322	222	1263	166	184	2797	214
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	293	1144	671	293	1144	544	355	2312	852	212	1902	725
Arrive On Green	0.08	0.22	0.22	0.08	0.22	0.22	0.20	0.45	0.45	0.12	0.37	0.37
Sat Flow, veh/h	3510	5187	1610	3510	5187	1610	1810	5187	1610	1810	5187	1610
Grp Volume(v), veh/h	256	463	247	557	603	322	222	1263	166	184	2797	214
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1610	1810	1729	1610	1810	1729	1610
Q Serve(g_s), s	8.7	9.2	2.5	10.0	12.3	19.9	13.5	21.4	6.5	12.0	44.0	4.7
Cycle Q Clear(g_c), s	8.7	9.2	2.5	10.0	12.3	19.9	13.5	21.4	6.5	12.0	44.0	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	293	1144	671	293	1144	544	355	2312	852	212	1902	725
V/C Ratio(X)	0.88	0.40	0.37	1.90	0.53	0.59	0.63	0.55	0.19	0.87	1.47	0.30
Avail Cap(c_a), veh/h	293	1772	866	293	1772	739	355	2312	852	241	1902	725
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.4	40.0	12.3	55.0	41.3	32.9	44.2	24.4	14.8	52.1	38.0	8.1
Incr Delay (d2), s/veh	24.2	0.2	0.3	419.4	0.4	1.0	3.4	0.9	0.5	24.8	214.7	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	3.8	2.8	21.3	5.1	7.5	6.2	8.5	2.3	6.8	55.4	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.6	40.3	12.6	474.4	41.6	33.9	47.6	25.3	15.3	76.9	252.7	9.1
LnGrp LOS	E	D	B	F	D	C	D	C	B	E	F	A
Approach Vol, veh/h		966			1482			1651			3195	
Approach Delay, s/veh		43.4			202.6			27.3			226.3	
Approach LOS		D			F			C			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	38.1	57.5	14.0	30.5	27.5	48.0	14.0	30.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	10.0	37.0	10.0	41.0	9.0	44.0	10.0	41.0				
Max Q Clear Time (g_c+M), s	11.0	23.4	12.0	11.2	15.5	46.0	10.7	21.9				
Green Ext Time (p_c), s	0.1	7.2	0.0	3.7	0.0	0.0	0.0	4.6				

Intersection Summary

HCM 6th Ctrl Delay	152.2
HCM 6th LOS	F

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Vol, veh/h	212	19	4	289	54	10
Future Vol, veh/h	212	19	4	289	54	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	230	21	4	314	59	11

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	251	0	406 126
Stage 1	-	-	-	-	241 -
Stage 2	-	-	-	-	165 -
Critical Hdwy	-	-	4.1	-	6.8 6.9
Critical Hdwy Stg 1	-	-	-	-	5.8 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	1326	-	578 907
Stage 1	-	-	-	-	783 -
Stage 2	-	-	-	-	853 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1326	-	576 907
Mov Cap-2 Maneuver	-	-	-	-	576 -
Stage 1	-	-	-	-	783 -
Stage 2	-	-	-	-	850 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	611	-	-	1326	-
HCM Lane V/C Ratio	0.114	-	-	0.003	-
HCM Control Delay (s)	11.6	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑↑↑ ↑↑↑				↑↑	
Traffic Vol, veh/h	16	796	1433	6	19	46
Future Vol, veh/h	16	796	1433	6	19	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	17	865	1558	7	21	50

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1565	0	-	0	1942 783
Stage 1	-	-	-	-	1562 -
Stage 2	-	-	-	-	380 -
Critical Hdwy	5.3	-	-	-	5.7 7.1
Critical Hdwy Stg 1	-	-	-	-	6.6 -
Critical Hdwy Stg 2	-	-	-	-	6 -
Follow-up Hdwy	3.1	-	-	-	3.8 3.9
Pot Cap-1 Maneuver	211	-	-	-	103 292
Stage 1	-	-	-	-	110 -
Stage 2	-	-	-	-	610 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	211	-	-	-	87 292
Mov Cap-2 Maneuver	-	-	-	-	87 -
Stage 1	-	-	-	-	93 -
Stage 2	-	-	-	-	610 -

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	39.5
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	211	-	-	-	173
HCM Lane V/C Ratio	0.082	-	-	-	0.408
HCM Control Delay (s)	23.6	1.1	-	-	39.5
HCM Lane LOS	C	A	-	-	E
HCM 95th %tile Q(veh)	0.3	-	-	-	1.8

HCM 6th Signalized Intersection Summary
 Int.1: Lasselle St & Alessandro Blvd

TTM 38442 MV Residential
 08/04/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	125	984	386	158	848	114	526	496	214	141	554	98
Future Volume (veh/h)	125	984	386	158	848	114	526	496	214	141	554	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	125	984	386	158	848	114	526	496	214	141	554	98
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	121	1556	819	121	1556	634	377	1467	762	169	895	158
Arrive On Green	0.07	0.30	0.30	0.07	0.30	0.30	0.21	0.41	0.41	0.09	0.29	0.29
Sat Flow, veh/h	1810	5187	1610	1810	5187	1610	1810	3610	1610	1810	3067	541
Grp Volume(v), veh/h	125	984	386	158	848	114	526	496	214	141	325	327
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1810	1729	1610	1810	1805	1610	1810	1805	1803
Q Serve(g_s), s	8.0	19.7	3.8	8.0	16.4	4.0	25.0	11.3	9.7	9.2	18.7	18.8
Cycle Q Clear(g_c), s	8.0	19.7	3.8	8.0	16.4	4.0	25.0	11.3	9.7	9.2	18.7	18.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	121	1556	819	121	1556	634	377	1467	762	169	526	526
V/C Ratio(X)	1.04	0.63	0.47	1.31	0.54	0.18	1.40	0.34	0.28	0.83	0.62	0.62
Avail Cap(c_a), veh/h	121	1556	819	121	1556	634	377	1467	762	256	526	526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	36.3	9.1	56.0	35.1	13.1	47.5	24.5	19.2	53.5	36.7	36.8
Incr Delay (d2), s/veh	91.9	2.0	1.9	186.5	1.4	0.6	193.4	0.6	0.9	13.2	5.4	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	8.2	4.1	9.8	6.8	1.7	31.1	4.8	3.7	4.7	8.6	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	147.9	38.2	11.1	242.5	36.5	13.8	240.9	25.1	20.1	66.7	42.1	42.2
LnGrp LOS	F	D	B	F	D	B	F	C	C	E	D	D
Approach Vol, veh/h		1495			1120			1236			793	
Approach Delay, s/veh		40.4			63.3			116.1			46.5	
Approach LOS		D			E			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	40.0	29.0	39.0	12.0	40.0	15.2	52.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	8.0	36.0	25.0	35.0	8.0	36.0	17.0	43.0				
Max Q Clear Time (g_c+I1), s	10.0	21.7	27.0	20.8	10.0	18.4	11.2	13.3				
Green Ext Time (p_c), s	0.0	6.5	0.0	3.0	0.0	5.3	0.1	3.9				
Intersection Summary												
HCM 6th Ctrl Delay				67.1								
HCM 6th LOS				E								

HCM 6th Signalized Intersection Summary
 Int.2: Alessandro Blvd & Morrison St

TTM 38442 MV Residential

08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘ ↑↑ ↘			↘ ↑↑↑		↘	↘ ↑↑	↘ ↑↑		↘ ↑↑	↘ ↑↑	↘
Traffic Volume (veh/h)	110	1002	82	38	953	60	104	132	65	66	155	93
Future Volume (veh/h)	110	1002	82	38	953	60	104	132	65	66	155	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	110	1002	82	38	953	60	104	132	65	66	155	93
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	278	1889	154	76	1426	443	130	271	126	588	1324	590
Arrive On Green	0.15	0.39	0.39	0.04	0.28	0.28	0.07	0.11	0.11	0.32	0.37	0.37
Sat Flow, veh/h	1810	4887	399	1810	5187	1610	1810	2388	1116	1810	3610	1610
Grp Volume(v), veh/h	110	708	376	38	953	60	104	98	99	66	155	93
Grp Sat Flow(s),veh/h/ln	1810	1729	1828	1810	1729	1610	1810	1805	1699	1810	1805	1610
Q Serve(g_s), s	6.6	19.0	19.0	2.5	19.6	1.5	6.8	6.1	6.6	3.1	3.4	3.0
Cycle Q Clear(g_c), s	6.6	19.0	19.0	2.5	19.6	1.5	6.8	6.1	6.6	3.1	3.4	3.0
Prop In Lane	1.00		0.22	1.00		1.00	1.00		0.66	1.00		1.00
Lane Grp Cap(c), veh/h	278	1336	707	76	1426	443	130	204	192	588	1324	590
V/C Ratio(X)	0.40	0.53	0.53	0.50	0.67	0.14	0.80	0.48	0.51	0.11	0.12	0.16
Avail Cap(c_a), veh/h	278	1336	707	106	1426	443	196	271	255	588	1324	590
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.8	28.4	28.4	56.3	38.6	6.9	54.9	49.9	50.1	28.4	25.1	10.9
Incr Delay (d2), s/veh	0.9	1.5	2.9	5.0	2.5	0.6	13.0	1.7	2.1	0.4	0.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	7.7	8.4	1.2	8.3	1.4	3.6	2.9	2.9	1.4	1.5	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.7	29.9	31.3	61.3	41.1	7.6	67.9	51.6	52.2	28.8	25.3	11.4
LnGrp LOS	D	C	C	E	D	A	E	D	D	C	C	B
Approach Vol, veh/h		1194			1051			301			314	
Approach Delay, s/veh		31.9			39.9			57.4			21.9	
Approach LOS		C			D			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	50.4	12.6	48.0	22.4	37.0	43.0	17.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	40.0	13.0	44.0	14.0	33.0	39.0	18.0					
Max Q Clear Time (g_c+1), s	21.0	8.8	5.4	8.6	21.6	5.1	8.6					
Green Ext Time (p_c), s	0.0	6.3	0.1	1.2	0.1	4.6	0.2	0.7				

Intersection Summary

HCM 6th Ctrl Delay	36.4
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
 Int.3: Nason St & Eucalyptus Ave

TTM 38442 MV Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	323	118	474	402	35	95	3353	582	64	2316	62
Future Volume (veh/h)	59	323	118	474	402	35	95	3353	582	64	2316	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	59	323	118	474	402	35	95	3353	582	64	2316	62
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	91	440	196	211	680	303	106	2991	928	93	2959	79
Arrive On Green	0.05	0.12	0.12	0.12	0.19	0.19	0.06	0.58	0.58	0.05	0.57	0.57
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	5187	1610	1810	5194	139
Grp Volume(v), veh/h	59	323	118	474	402	35	95	3353	582	64	1539	839
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1810	1729	1610	1810	1729	1875
Q Serve(g_s), s	3.8	10.4	7.1	14.0	12.2	2.2	6.3	69.2	16.3	4.2	41.4	41.8
Cycle Q Clear(g_c), s	3.8	10.4	7.1	14.0	12.2	2.2	6.3	69.2	16.3	4.2	41.4	41.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	91	440	196	211	680	303	106	2991	928	93	1970	1068
V/C Ratio(X)	0.65	0.73	0.60	2.25	0.59	0.12	0.90	1.12	0.63	0.69	0.78	0.79
Avail Cap(c_a), veh/h	136	1053	470	211	1203	537	106	2991	928	106	1970	1068
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	50.8	36.7	53.0	44.5	40.4	56.2	25.4	5.4	56.0	20.0	20.1
Incr Delay (d2), s/veh	7.6	2.4	2.9	575.3	0.8	0.2	9.6	55.0	0.3	14.8	3.2	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	4.7	2.9	40.0	5.4	0.9	3.1	40.1	4.3	2.2	15.8	18.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.5	53.2	39.6	628.3	45.3	40.6	65.8	80.4	5.7	70.7	23.2	25.9
LnGrp LOS	E	D	D	F	D	D	E	F	A	E	C	C
Approach Vol, veh/h		500			911			4030			2442	
Approach Delay, s/veh		51.2			348.5			69.3			25.4	
Approach LOS		D			F			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.2	73.2	18.0	18.6	11.0	72.4	10.0	26.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	48.0	14.0	35.0	7.0	48.0	9.0	40.0					
Max Q Clear Time (g_c+1), s	71.2	16.0	12.4	8.3	43.8	5.8	14.2					
Green Ext Time (p_c), s	0.0	0.0	0.0	2.3	0.0	3.8	0.0	2.6				

Intersection Summary

HCM 6th Ctrl Delay	86.8
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary
 Int.4: Nason St & Dracaea Ave

TTM 38442 MV Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑↑	↗	↖	↑↑↑	↗
Traffic Volume (veh/h)	172	4	89	35	10	4	50	3747	40	32	2565	143
Future Volume (veh/h)	172	4	89	35	10	4	50	3747	40	32	2565	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	172	4	89	35	10	4	50	3747	40	32	2565	143
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	205	8	175	105	75	30	86	3409	1058	69	3362	1044
Arrive On Green	0.11	0.11	0.11	0.06	0.06	0.06	0.09	1.00	1.00	0.08	1.00	1.00
Sat Flow, veh/h	1810	70	1551	1810	1291	516	1810	5187	1610	1810	5187	1610
Grp Volume(v), veh/h	172	0	93	35	0	14	50	3747	40	32	2565	143
Grp Sat Flow(s),veh/h/ln	1810	0	1621	1810	0	1807	1810	1729	1610	1810	1729	1610
Q Serve(g_s), s	11.2	0.0	6.5	2.2	0.0	0.9	3.2	0.0	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	11.2	0.0	6.5	2.2	0.0	0.9	3.2	0.0	0.0	2.0	0.0	0.0
Prop In Lane	1.00		0.96	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	205	0	183	105	0	104	86	3409	1058	69	3362	1044
V/C Ratio(X)	0.84	0.00	0.51	0.33	0.00	0.13	0.58	1.10	0.04	0.46	0.76	0.14
Avail Cap(c_a), veh/h	528	0	473	528	0	527	106	3409	1058	106	3362	1044
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	0.09	0.09	0.09	0.09	0.09	0.09
Uniform Delay (d), s/veh	52.1	0.0	50.1	54.3	0.0	53.7	53.2	0.0	0.0	54.2	0.0	0.0
Incr Delay (d2), s/veh	8.8	0.0	2.2	1.8	0.0	0.6	0.6	45.1	0.0	0.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	0.0	2.7	1.1	0.0	0.4	1.4	14.2	0.0	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.9	0.0	52.3	56.1	0.0	54.3	53.8	45.1	0.0	54.7	0.2	0.0
LnGrp LOS	E	A	D	E	A	D	D	F	A	D	A	A
Approach Vol, veh/h		265			49			3837			2740	
Approach Delay, s/veh		57.9			55.6			44.8			0.8	
Approach LOS		E			E			D			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.6	82.9	11.0	17.5	9.7	81.8	17.6	10.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	7.0	27.0	35.0	35.0	7.0	27.0	35.0	35.0				
Max Q Clear Time (g_c+1), s	14.0	2.0	4.2	8.5	5.2	2.0	13.2	2.9				
Green Ext Time (p_c), s	0.0	24.6	0.1	0.5	0.0	20.8	0.4	0.0				
Intersection Summary												
HCM 6th Ctrl Delay											27.9	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary
 Int.5: Nason St & Cottonwood Ave

TTM 38442 MV Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↑↑↑	↗	↘	↑↑↑	↗
Traffic Volume (veh/h)	317	117	106	41	99	61	129	3484	54	61	2288	329
Future Volume (veh/h)	317	117	106	41	99	61	129	3484	54	61	2288	329
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	317	117	106	41	99	61	129	3484	54	61	2288	329
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	181	286	128	165	156	89	151	3348	1039	92	3179	1148
Arrive On Green	0.10	0.08	0.08	0.09	0.07	0.07	0.08	0.65	0.65	0.05	0.61	0.61
Sat Flow, veh/h	1810	3610	1610	1810	2209	1268	1810	5187	1610	1810	5187	1610
Grp Volume(v), veh/h	317	117	106	41	80	80	129	3484	54	61	2288	329
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1672	1810	1729	1610	1810	1729	1610
Q Serve(g_s), s	12.0	3.7	6.5	2.5	5.1	5.6	8.4	77.5	0.8	4.0	36.7	3.6
Cycle Q Clear(g_c), s	12.0	3.7	6.5	2.5	5.1	5.6	8.4	77.5	0.8	4.0	36.7	3.6
Prop In Lane	1.00		1.00	1.00		0.76	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	181	286	128	165	127	118	151	3348	1039	92	3179	1148
V/C Ratio(X)	1.75	0.41	0.83	0.25	0.63	0.68	0.86	1.04	0.05	0.66	0.72	0.29
Avail Cap(c_a), veh/h	181	1203	537	181	602	557	151	3348	1039	106	3179	1148
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.59	0.59	0.59
Uniform Delay (d), s/veh	54.0	52.6	38.1	50.7	54.2	54.5	54.3	21.3	2.4	56.0	16.1	1.8
Incr Delay (d2), s/veh	360.1	0.9	12.7	0.8	5.0	6.8	35.4	27.4	0.1	7.4	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	38.5	1.7	3.5	1.2	2.5	2.5	5.2	34.5	0.5	2.0	13.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	414.1	53.5	50.8	51.5	59.2	61.2	89.7	48.7	2.5	63.4	16.9	2.2
LnGrp LOS	F	D	D	D	E	E	F	F	A	E	B	A
Approach Vol, veh/h		540			201			3667			2678	
Approach Delay, s/veh		264.7			58.4			49.5			16.2	
Approach LOS		F			E			D			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.1	81.5	14.9	13.5	14.0	77.5	16.0	12.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	45.0	12.0	40.0	10.0	42.0	12.0	40.0					
Max Q Clear Time (g_c+1), s	79.5	4.5	8.5	10.4	38.7	14.0	7.6					
Green Ext Time (p_c), s	0.0	0.0	0.0	1.0	0.0	3.1	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay	53.5
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
 Int.6: Nason St & Alessandro Blvd

TTM 38442 MV Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔	↑↑↑	↔	↔	↑↑↑	↔
Traffic Volume (veh/h)	340	582	290	274	560	177	223	3019	580	238	1672	286
Future Volume (veh/h)	340	582	290	274	560	177	223	3019	580	238	1672	286
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	340	582	290	274	560	177	223	3019	580	238	1672	286
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	264	839	751	234	795	367	552	2922	1014	136	1729	658
Arrive On Green	0.08	0.16	0.16	0.07	0.15	0.15	0.30	0.56	0.56	0.08	0.33	0.33
Sat Flow, veh/h	3510	5187	1610	3510	5187	1610	1810	5187	1610	1810	5187	1610
Grp Volume(v), veh/h	340	582	290	274	560	177	223	3019	580	238	1672	286
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1610	1810	1729	1610	1810	1729	1610
Q Serve(g_s), s	9.0	12.7	0.0	8.0	12.3	8.8	11.7	67.6	12.5	9.0	38.1	6.3
Cycle Q Clear(g_c), s	9.0	12.7	0.0	8.0	12.3	8.8	11.7	67.6	12.5	9.0	38.1	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	839	751	234	795	367	552	2922	1014	136	1729	658
V/C Ratio(X)	1.29	0.69	0.39	1.17	0.70	0.48	0.40	1.03	0.57	1.75	0.97	0.43
Avail Cap(c_a), veh/h	264	1772	1041	234	1772	671	552	2922	1014	136	1729	658
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	47.5	20.8	56.0	48.2	24.8	33.1	26.2	6.2	55.5	39.4	25.5
Incr Delay (d2), s/veh	155.5	1.0	0.3	112.8	1.2	1.0	0.5	26.0	2.3	367.6	15.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	5.4	5.0	7.1	5.2	3.3	5.1	31.6	4.1	17.9	17.8	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	210.9	48.5	21.1	168.8	49.4	25.8	33.5	52.2	8.6	423.1	54.5	27.6
LnGrp LOS	F	D	C	F	D	C	C	F	A	F	D	C
Approach Vol, veh/h		1212			1011			3822			2196	
Approach Delay, s/veh		87.5			77.6			44.5			90.9	
Approach LOS		F			E			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	3.0	71.6	12.0	23.4	40.6	44.0	13.0	22.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	46.0	8.0	41.0	15.0	40.0	8.0	41.0					
Max Q Clear Time (g_c+M), s	69.6	10.0	14.7	13.7	40.1	11.0	14.3					
Green Ext Time (p_c), s	0.0	0.0	0.0	4.7	0.1	0.0	4.1					
Intersection Summary												
HCM 6th Ctrl Delay											67.2	
HCM 6th LOS											E	

Intersection						
Int Delay, s/veh	1.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	170	61	11	147	36	7
Future Vol, veh/h	170	61	11	147	36	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	185	66	12	160	39	8

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	251	0	322	126
Stage 1	-	-	-	-	218	-
Stage 2	-	-	-	-	104	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1326	-	652	907
Stage 1	-	-	-	-	803	-
Stage 2	-	-	-	-	915	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1326	-	645	907
Mov Cap-2 Maneuver	-	-	-	-	645	-
Stage 1	-	-	-	-	803	-
Stage 2	-	-	-	-	906	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	677	-	-	1326	-
HCM Lane V/C Ratio	0.069	-	-	0.009	-
HCM Control Delay (s)	10.7	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	6.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑	
Traffic Vol, veh/h	53	1346	982	21	12	30
Future Vol, veh/h	53	1346	982	21	12	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	58	1463	1067	23	13	33

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1090	0	-	0	1780 545
Stage 1	-	-	-	-	1079 -
Stage 2	-	-	-	-	701 -
Critical Hdwy	5.3	-	-	-	5.7 7.1
Critical Hdwy Stg 1	-	-	-	-	6.6 -
Critical Hdwy Stg 2	-	-	-	-	6 -
Follow-up Hdwy	3.1	-	-	-	3.8 3.9
Pot Cap-1 Maneuver	360	-	-	-	125 417
Stage 1	-	-	-	-	220 -
Stage 2	-	-	-	-	417 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	360	-	-	-	17 417
Mov Cap-2 Maneuver	-	-	-	-	17 -
Stage 1	-	-	-	-	31 -
Stage 2	-	-	-	-	417 -

Approach	EB	WB	SB
HCM Control Delay, s	4.8	0	199.9
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	360	-	-	-	54
HCM Lane V/C Ratio	0.16	-	-	-	0.845
HCM Control Delay (s)	16.9	4.3	-	-	199.9
HCM Lane LOS	C	A	-	-	F
HCM 95th %tile Q(veh)	0.6	-	-	-	3.6

APPENDIX E: QUEUE WORKSHEETS

Queues

Int.1: Lasselle St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	44	330	188	147	528	31	198	372	171	33	460
v/c Ratio	0.42	0.46	0.28	0.89	0.65	0.04	1.02	0.56	0.22	0.27	0.84
Control Delay	67.1	31.0	11.2	98.4	23.0	1.3	121.6	36.5	7.3	58.5	54.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.1	31.0	11.2	98.4	23.0	1.3	121.6	36.5	7.3	58.5	54.5
Queue Length 50th (ft)	34	192	35	120	410	0	~158	237	27	25	329
Queue Length 95th (ft)	70	263	80	#227	512	7	#294	330	56	55	#461
Internal Link Dist (ft)		1			1373			338			424
Turn Bay Length (ft)	175		60	150		50	200		75	150	
Base Capacity (vph)	105	712	679	165	810	873	195	667	776	150	546
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.46	0.28	0.89	0.65	0.04	1.02	0.56	0.22	0.22	0.84

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Queues

Int.2: Alessandro Blvd & Morrison St

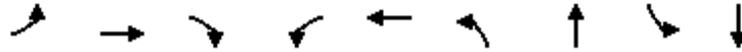


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	161	383	522	87	118	180
v/c Ratio	0.49	0.33	0.37	0.13	0.20	0.28
Control Delay	48.6	7.9	10.6	1.2	30.4	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.6	7.9	10.6	1.2	30.4	5.3
Queue Length 50th (ft)	119	188	72	0	66	0
Queue Length 95th (ft)	173	142	86	m4	102	36
Internal Link Dist (ft)		382	930		379	
Turn Bay Length (ft)	125			600		
Base Capacity (vph)	330	1155	1413	685	586	646
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.33	0.37	0.13	0.20	0.28

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.3: Nason St & Eucalyptus Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	312	264	246	169	210	86	1056	19	1238
v/c Ratio	2.31	0.56	0.72	1.02	0.39	0.82	0.47	0.17	0.59
Control Delay	637.7	52.6	31.3	130.2	43.5	105.1	13.7	56.7	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	637.7	52.6	31.3	130.2	43.5	105.1	13.7	56.7	17.9
Queue Length 50th (ft)	~394	104	71	~139	73	64	242	14	289
Queue Length 95th (ft)	#507	120	119	#241	90	#132	200	35	366
Internal Link Dist (ft)		585			309		1241		544
Turn Bay Length (ft)	200		25	200		300		175	
Base Capacity (vph)	135	1052	577	165	1100	105	2237	111	2087
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.31	0.25	0.43	1.02	0.19	0.82	0.47	0.17	0.59

Intersection Summary

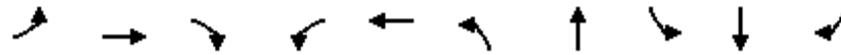
- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	128	104	7	5	255	857	15	1278
v/c Ratio	0.62	0.39	0.07	0.05	2.43	0.32	0.14	0.53
Control Delay	62.5	17.2	55.0	41.5	691.0	7.1	59.5	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.5	17.2	55.0	41.5	691.0	7.1	59.5	4.8
Queue Length 50th (ft)	96	11	5	2	-332	45	12	94
Queue Length 95th (ft)	147	56	20	14	#460	183	m22	m135
Internal Link Dist (ft)		639		926		1246		1241
Turn Bay Length (ft)	200		100		180		280	
Base Capacity (vph)	526	546	526	506	105	2670	105	2412
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.19	0.01	0.01	2.43	0.32	0.14	0.53

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	111	71	32	5	143	60	970	38	956	157
v/c Ratio	0.71	0.22	0.09	0.05	0.48	0.48	0.39	0.36	0.40	0.14
Control Delay	77.3	45.7	0.5	53.5	35.3	65.4	3.9	62.3	3.3	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.3	45.7	0.5	53.5	35.3	65.4	3.9	62.3	3.3	0.4
Queue Length 50th (ft)	85	47	0	4	32	49	87	31	108	4
Queue Length 95th (ft)	#146	92	0	16	58	89	93	m61	45	1
Internal Link Dist (ft)		517			319		2097		1246	
Turn Bay Length (ft)	90		50	300		200		240		300
Base Capacity (vph)	165	554	529	165	1028	135	2474	105	2368	1113
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.13	0.06	0.03	0.14	0.44	0.39	0.36	0.40	0.14

Intersection Summary

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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

MV TTM 38442 Residential

Int.6: Nason St & Alessandro Blvd

08/05/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	114	256	120	117	384	160	86	640	24	82	805	99
v/c Ratio	0.42	0.53	0.24	0.45	0.80	0.30	0.64	0.38	0.03	0.53	0.34	0.12
Control Delay	60.4	44.5	13.9	58.6	54.7	6.1	75.4	24.0	0.0	52.1	9.9	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.4	44.5	13.9	58.6	54.7	6.1	75.4	24.0	0.0	52.1	9.9	4.3
Queue Length 50th (ft)	47	194	28	45	281	0	66	170	0	54	136	20
Queue Length 95th (ft)	67	227	61	73	340	42	#129	254	0	105	175	40
Internal Link Dist (ft)		1525			272			428				382
Turn Bay Length (ft)	240		200	240		240	275		275	250		300
Base Capacity (vph)	286	649	630	291	665	669	135	1698	822	182	2400	810
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.39	0.19	0.40	0.58	0.24	0.64	0.38	0.03	0.45	0.34	0.12

Intersection Summary

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

Queue shown is maximum after two cycles.

Queues

Int.1: Lasselle St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	52	401	215	85	303	16	160	370	104	16	391
v/c Ratio	0.50	0.58	0.32	0.72	0.41	0.02	0.63	0.47	0.13	0.15	0.71
Control Delay	71.2	34.6	13.5	80.5	11.2	1.1	60.4	29.8	7.0	56.3	45.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.2	34.6	13.5	80.5	11.2	1.1	60.4	29.8	7.0	56.3	45.7
Queue Length 50th (ft)	40	247	50	70	96	0	118	220	16	12	268
Queue Length 95th (ft)	83	351	111	#152	186	0	193	321	42	35	383
Internal Link Dist (ft)		1			1373			338			424
Turn Bay Length (ft)	175		60	150		50	200		75	150	
Base Capacity (vph)	105	696	666	120	744	858	255	779	809	195	552
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.58	0.32	0.71	0.41	0.02	0.63	0.47	0.13	0.08	0.71

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Queues

Int.2: Alessandro Blvd & Morrison St

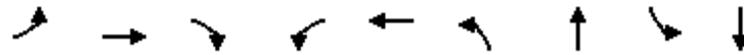


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	85	404	351	49	48	71
v/c Ratio	0.45	0.35	0.20	0.06	0.08	0.12
Control Delay	57.9	7.2	7.5	1.0	28.7	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.9	7.2	7.5	1.0	28.7	7.0
Queue Length 50th (ft)	69	186	22	0	26	0
Queue Length 95th (ft)	m120	181	48	3	55	33
Internal Link Dist (ft)		382	930		379	
Turn Bay Length (ft)	125			600		
Base Capacity (vph)	210	1155	1762	813	586	572
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.35	0.20	0.06	0.08	0.12

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.3: Nason St & Eucalyptus Ave

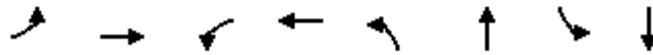


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	47	103	48	144	151	51	1011	38	754
v/c Ratio	0.39	0.38	0.21	0.87	0.36	0.49	0.43	0.30	0.32
Control Delay	62.6	56.7	2.1	97.2	49.5	66.5	6.3	58.9	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.6	56.7	2.1	97.2	49.5	66.5	6.3	58.9	9.7
Queue Length 50th (ft)	35	40	0	112	55	41	93	29	126
Queue Length 95th (ft)	76	68	0	#233	89	85	58	64	171
Internal Link Dist (ft)		585			309		1241		544
Turn Bay Length (ft)	200		25	200		300		175	
Base Capacity (vph)	135	1052	554	165	1103	105	2344	125	2363
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.10	0.09	0.87	0.14	0.49	0.43	0.30	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
Int.4: Nason St & Dracaea Ave



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	130	53	11	10	29	971	21	934
v/c Ratio	0.62	0.23	0.10	0.09	0.28	0.37	0.19	0.36
Control Delay	62.6	15.3	55.5	46.4	52.1	2.7	64.3	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.6	15.3	55.5	46.4	52.1	2.7	64.3	6.4
Queue Length 50th (ft)	97	1	8	5	23	8	16	99
Queue Length 95th (ft)	156	38	28	23	m57	114	m40	m140
Internal Link Dist (ft)		639		926		1246		1241
Turn Bay Length (ft)	200		100		180		280	
Base Capacity (vph)	526	510	526	531	105	2656	113	2571
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.10	0.02	0.02	0.28	0.37	0.19	0.36

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



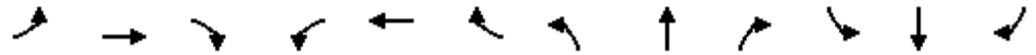
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	86	40	47	4	62	27	881	17	737	112
v/c Ratio	0.52	0.14	0.15	0.04	0.27	0.23	0.33	0.15	0.28	0.09
Control Delay	62.3	43.7	3.5	54.2	41.9	53.2	1.6	40.1	13.0	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	43.7	3.5	54.2	41.9	53.2	1.6	40.1	13.0	6.6
Queue Length 50th (ft)	65	26	0	3	16	23	46	10	127	3
Queue Length 95th (ft)	115	61	11	15	40	m53	58	m28	190	43
Internal Link Dist (ft)		517			319		2097		1246	
Turn Bay Length (ft)	90		50	300		200		240		300
Base Capacity (vph)	202	617	580	165	1075	135	2690	135	2628	1207
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.06	0.08	0.02	0.06	0.20	0.33	0.13	0.28	0.09

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.6: Nason St & Alessandro Blvd

MV TTM 38442 Residential
08/05/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	100	278	78	26	255	60	73	787	70	87	664	90
v/c Ratio	0.39	0.65	0.17	0.12	0.75	0.16	0.36	0.42	0.08	0.50	0.25	0.10
Control Delay	57.7	44.8	12.9	53.6	59.5	0.8	53.8	20.5	3.7	60.5	10.1	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.7	44.8	12.9	53.6	59.5	0.8	53.8	20.5	3.7	60.5	10.1	5.2
Queue Length 50th (ft)	42	223	22	9	189	0	52	191	0	56	84	10
Queue Length 95th (ft)	66	309	58	24	258	0	100	296	22	114	127	42
Internal Link Dist (ft)		1525			272			428			382	
Turn Bay Length (ft)	240		200	240		240	275		275	250		300
Base Capacity (vph)	266	649	629	242	649	629	225	1863	873	174	2692	881
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.43	0.12	0.11	0.39	0.10	0.32	0.42	0.08	0.50	0.25	0.10

Intersection Summary

Queues

Int.1: Lasselle St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	115	759	550	249	1073	156	312	478	224	106	608
v/c Ratio	0.96	1.07	0.81	1.51	1.41	0.19	1.60	0.79	0.31	0.74	1.12
Control Delay	127.8	89.4	37.0	287.4	214.7	1.6	327.7	48.0	9.6	82.4	114.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	127.8	89.4	37.0	287.4	214.7	1.6	327.7	48.0	9.6	82.4	114.1
Queue Length 50th (ft)	90	-649	307	-276	-1148	13	-345	337	46	81	-536
Queue Length 95th (ft)	#196	#822	423	m#406	#1319	m16	#495	442	81	#154	#709
Internal Link Dist (ft)		1			1373			338			424
Turn Bay Length (ft)	175		60	150		50	200		75	150	
Base Capacity (vph)	120	712	679	165	760	822	195	607	720	150	544
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	1.07	0.81	1.51	1.41	0.19	1.60	0.79	0.31	0.71	1.12

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

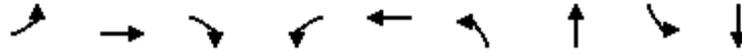
Int.2: Alessandro Blvd & Morrison St



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	200	939	1087	106	129	201
v/c Ratio	0.61	0.81	0.77	0.15	0.22	0.30
Control Delay	43.1	15.1	23.8	3.5	30.7	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	15.1	23.8	3.5	30.7	5.3
Queue Length 50th (ft)	146	622	264	2	72	0
Queue Length 95th (ft)	m158	m603	m273	m5	110	38
Internal Link Dist (ft)		382	930		379	
Turn Bay Length (ft)	125			600		
Base Capacity (vph)	330	1155	1413	697	586	660
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.81	0.77	0.15	0.22	0.30

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	325	316	311	485	322	140	2584	38	3947
v/c Ratio	2.41	0.48	0.80	2.94	0.45	0.53	1.30	0.31	2.46
Control Delay	679.5	45.0	44.0	908.7	39.2	61.6	161.4	59.7	678.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	679.5	45.0	44.0	908.7	39.2	61.6	161.4	59.7	678.1
Queue Length 50th (ft)	~415	116	150	~648	106	114	~1395	29	~2715
Queue Length 95th (ft)	#526	128	192	#758	118	m#144	#1435	57	#2483
Internal Link Dist (ft)		585			309		1241		544
Turn Bay Length (ft)	200		25	200		300		175	
Base Capacity (vph)	135	1052	551	165	1098	262	1990	122	1606
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.41	0.30	0.56	2.94	0.29	0.53	1.30	0.31	2.46

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	136	159	27	5	314	2356	16	4169
v/c Ratio	0.63	0.49	0.23	0.04	0.47	0.92	0.15	3.34
Control Delay	62.5	15.4	57.7	39.8	34.3	23.1	50.4	1066.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.5	15.4	57.7	39.8	34.3	23.1	50.4	1066.3
Queue Length 50th (ft)	102	12	20	1	246	594	13	-2954
Queue Length 95th (ft)	153	64	48	14	m219	m#587	m7	m#982
Internal Link Dist (ft)		639		926		1246		1241
Turn Bay Length (ft)	200		100		180		280	
Base Capacity (vph)	526	580	526	506	666	2561	110	1250
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.27	0.05	0.01	0.47	0.92	0.15	3.34

Intersection Summary

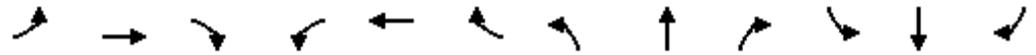
- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	417	119	176	118	258	310	2300	54	3808	302
v/c Ratio	2.14	0.58	0.56	0.56	0.53	0.65	1.10	0.39	2.81	0.44
Control Delay	555.7	61.8	17.5	59.9	33.0	58.7	67.0	61.4	833.1	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	555.7	61.8	17.5	59.9	33.0	58.7	67.0	61.4	833.1	4.8
Queue Length 50th (ft)	~515	89	14	88	61	233	~1106	45	~2610	9
Queue Length 95th (ft)	#656	135	66	134	86	m261	m#1131	m18	m120	m2
Internal Link Dist (ft)		517			319		2097		1246	
Turn Bay Length (ft)	90		50	300		200		240		300
Base Capacity (vph)	195	601	618	212	1090	480	2092	139	1353	679
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.14	0.20	0.28	0.56	0.24	0.65	1.10	0.39	2.81	0.44

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	280	503	261	600	644	343	139	1383	178	198	3062	201
v/c Ratio	1.00	0.87	0.43	1.34	0.96	0.50	1.03	1.15	0.28	1.10	1.65	0.31
Control Delay	90.8	37.2	6.7	208.0	64.9	17.1	139.9	114.4	10.1	110.4	313.2	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.8	37.2	6.7	208.0	64.9	17.1	139.9	114.4	10.1	110.4	313.2	3.8
Queue Length 50th (ft)	~122	375	56	~326	481	97	~115	~662	24	~167	~1302	42
Queue Length 95th (ft)	m#180	405	m57	#472	#676	174	#234	#757	71	m50	m261	m9
Internal Link Dist (ft)		1525			272			428			382	
Turn Bay Length (ft)	240		200	240		240	275		275	250		300
Base Capacity (vph)	281	665	675	448	680	689	135	1203	626	180	1858	648
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.76	0.39	1.34	0.95	0.50	1.03	1.15	0.28	1.10	1.65	0.31

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.1: Lasselle St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	117	987	391	157	809	115	533	465	213	141	554
v/c Ratio	0.78	1.42	0.59	1.31	1.22	0.14	2.09	0.77	0.32	0.67	1.02
Control Delay	86.7	227.9	25.0	218.4	128.9	1.8	530.5	47.9	10.7	66.2	84.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.7	227.9	25.0	218.4	128.9	1.8	530.5	47.9	10.7	66.2	84.6
Queue Length 50th (ft)	90	~1029	169	~161	~794	12	~653	328	44	106	~437
Queue Length 95th (ft)	#190	#1281	273	#305	#1047	19	#869	#509	84	172	#669
Internal Link Dist (ft)		1			1373			338			424
Turn Bay Length (ft)	175		60	150		50	200		75	150	
Base Capacity (vph)	150	696	666	120	665	835	255	601	672	255	545
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	1.42	0.59	1.31	1.22	0.14	2.09	0.77	0.32	0.55	1.02

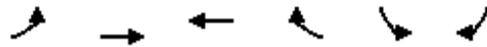
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

Int.2: Alessandro Blvd & Morrison St

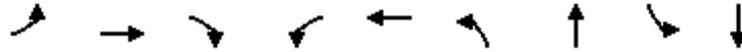


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	114	1021	976	61	67	92
v/c Ratio	0.54	0.88	0.59	0.08	0.11	0.16
Control Delay	46.0	15.6	22.0	6.7	29.2	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.0	15.6	22.0	6.7	29.2	6.4
Queue Length 50th (ft)	91	737	200	4	36	0
Queue Length 95th (ft)	m86	m584	m232	m7	71	37
Internal Link Dist (ft)		382	930		379	
Turn Bay Length (ft)	125			600		
Base Capacity (vph)	210	1155	1654	773	586	586
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.88	0.59	0.08	0.11	0.16

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.3: Nason St & Eucalyptus Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	49	190	79	308	233	81	3759	62	2301
v/c Ratio	0.37	0.54	0.34	1.58	0.43	0.48	1.77	0.42	1.13
Control Delay	60.6	57.0	14.0	319.2	46.2	51.9	368.8	60.5	91.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.6	57.0	14.0	319.2	46.2	51.9	368.8	60.5	91.7
Queue Length 50th (ft)	37	75	0	~339	82	67	~2308	47	~1094
Queue Length 95th (ft)	76	111	44	#518	123	m44	m#665	90	#1314
Internal Link Dist (ft)		585			309		1241		544
Turn Bay Length (ft)	200		25	200		300		175	
Base Capacity (vph)	165	1052	529	195	1100	170	2120	147	2037
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.18	0.15	1.58	0.21	0.48	1.77	0.42	1.13

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	146	83	37	10	53	3996	22	2815
v/c Ratio	0.65	0.30	0.30	0.08	0.39	1.63	0.19	1.21
Control Delay	62.5	12.9	58.7	44.1	71.2	303.8	54.0	112.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.5	12.9	58.7	44.1	71.2	303.8	54.0	112.5
Queue Length 50th (ft)	109	1	28	5	40	~2504	19	~1462
Queue Length 95th (ft)	171	46	62	23	m20	m#898	m19	m#1312
Internal Link Dist (ft)		639		926		1246		1241
Turn Bay Length (ft)	200		100		180		280	
Base Capacity (vph)	526	530	526	531	137	2458	113	2335
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.16	0.07	0.02	0.39	1.63	0.19	1.21

Intersection Summary

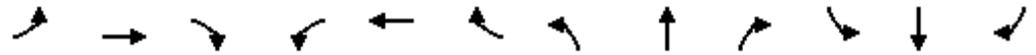
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- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	325	117	105	42	142	130	3617	53	2334	337
v/c Ratio	0.59	0.19	0.17	0.33	0.47	0.61	2.35	0.38	1.76	0.48
Control Delay	41.6	32.3	6.8	59.4	41.7	78.4	624.9	31.4	374.6	30.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.6	32.3	6.8	59.4	41.7	78.4	624.9	31.4	374.6	30.7
Queue Length 50th (ft)	219	68	0	32	38	105	~2482	38	~1420	186
Queue Length 95th (ft)	325	120	42	68	71	m56	m#980	m29	m#1152	m164
Internal Link Dist (ft)		517			319		2097		1246	
Turn Bay Length (ft)	90		50	300		200		240		300
Base Capacity (vph)	551	671	638	165	1064	216	1538	149	1325	698
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.17	0.16	0.25	0.13	0.60	2.35	0.36	1.76	0.48

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	216	604	162	287	589	183	228	3230	610	244	1789	239
v/c Ratio	0.79	0.95	0.26	1.09	0.94	0.29	1.01	2.39	0.83	1.63	1.03	0.35
Control Delay	58.6	41.3	5.5	133.8	63.1	8.2	115.7	647.7	33.2	327.4	37.2	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.6	41.3	5.5	133.8	63.1	8.2	115.7	647.7	33.2	327.4	37.2	4.0
Queue Length 50th (ft)	90	492	33	~141	433	17	~182	~2165	297	~264	~564	50
Queue Length 95th (ft)	m#112	m#577	m35	#228	#636	66	#340	#2250	#467	m#106	m206	m16
Internal Link Dist (ft)		1525			272			428			382	
Turn Bay Length (ft)	240		200	240		240	275		275	250		300
Base Capacity (vph)	273	649	629	263	649	650	225	1353	735	150	1729	680
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.93	0.26	1.09	0.91	0.28	1.01	2.39	0.83	1.63	1.03	0.35

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.1: Lasselle St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	115	763	550	253	1084	157	312	478	226	106	608
v/c Ratio	1.10	1.15	0.83	1.20	1.40	0.19	1.60	0.79	0.30	0.74	1.12
Control Delay	167.9	119.6	37.2	163.4	208.8	1.6	327.7	48.0	9.2	82.4	114.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	167.9	119.6	37.2	163.4	208.8	1.6	327.7	48.0	9.2	82.4	114.1
Queue Length 50th (ft)	~101	~694	290	~244	~1153	13	~345	337	47	81	~536
Queue Length 95th (ft)	#209	#866	409	m#369	#1326	m16	#495	442	80	#154	#709
Internal Link Dist (ft)		1			1373			338			424
Turn Bay Length (ft)	175		60	150		50	200		75	150	
Base Capacity (vph)	105	665	666	210	775	835	195	607	754	150	544
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.10	1.15	0.83	1.20	1.40	0.19	1.60	0.79	0.30	0.71	1.12

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.2: Alessandro Blvd & Morrison St

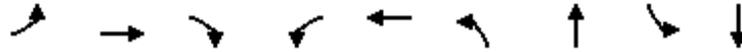


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	200	945	1104	107	129	201
v/c Ratio	0.61	0.82	0.78	0.15	0.22	0.30
Control Delay	43.2	15.6	24.4	3.3	30.7	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.2	15.6	24.4	3.3	30.7	5.3
Queue Length 50th (ft)	146	670	278	2	72	0
Queue Length 95th (ft)	m151	m578	m283	m4	110	38
Internal Link Dist (ft)		382	930		379	
Turn Bay Length (ft)	125			600		
Base Capacity (vph)	330	1155	1413	697	586	660
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.82	0.78	0.15	0.22	0.30

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.3: Nason St & Eucalyptus Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	325	316	312	486	322	142	2599	38	3950
v/c Ratio	2.41	0.48	0.80	3.24	0.46	0.52	1.29	0.30	2.44
Control Delay	679.5	44.9	44.1	1043.1	40.1	60.9	158.4	59.0	672.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	679.5	44.9	44.1	1043.1	40.1	60.9	158.4	59.0	672.0
Queue Length 50th (ft)	~415	116	151	~662	107	116	~1397	29	~2709
Queue Length 95th (ft)	#526	128	193	#773	120	m#134	#1447	57	#2484
Internal Link Dist (ft)		585			309		1241		544
Turn Bay Length (ft)	200		25	200		300		175	
Base Capacity (vph)	135	1083	564	150	1098	271	2011	125	1616
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.41	0.29	0.55	3.24	0.29	0.52	1.29	0.30	2.44

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	136	159	27	5	315	2372	16	4175
v/c Ratio	0.63	0.49	0.23	0.04	0.47	0.93	0.15	3.35
Control Delay	62.5	15.4	57.7	39.8	33.6	23.8	50.5	1071.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.5	15.4	57.7	39.8	33.6	23.8	50.5	1071.8
Queue Length 50th (ft)	102	12	20	1	250	612	13	-2961
Queue Length 95th (ft)	153	64	48	14	m215	m594	m7	m#981
Internal Link Dist (ft)		639		926		1246		1241
Turn Bay Length (ft)	200		100		180		280	
Base Capacity (vph)	526	580	526	506	667	2561	110	1247
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.27	0.05	0.01	0.47	0.93	0.15	3.35

Intersection Summary

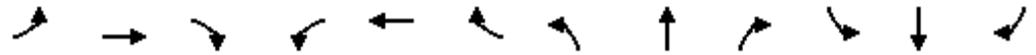
- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	417	120	177	118	271	312	2309	57	3811	302
v/c Ratio	2.53	0.59	0.55	0.57	0.50	0.66	1.10	0.40	2.76	0.44
Control Delay	727.7	62.0	14.9	60.9	30.4	59.9	67.5	62.0	806.6	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	727.7	62.0	14.9	60.9	30.4	59.9	67.5	62.0	806.6	3.7
Queue Length 50th (ft)	~539	90	6	88	61	248	~1106	47	~2598	1
Queue Length 95th (ft)	#681	136	57	134	85	m258	m#1101	m19	m107	m0
Internal Link Dist (ft)		517			319		2097		1246	
Turn Bay Length (ft)	90		50	300		200		240		300
Base Capacity (vph)	165	570	602	209	1094	471	2098	145	1383	691
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.53	0.21	0.29	0.56	0.25	0.66	1.10	0.39	2.76	0.44

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	280	507	261	610	661	353	139	1383	182	201	3062	201
v/c Ratio	1.07	0.88	0.43	1.44	0.99	0.51	1.03	1.18	0.30	0.96	1.61	0.30
Control Delay	109.1	38.0	6.5	249.6	72.9	16.4	139.9	126.5	10.7	73.2	295.9	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	109.1	38.0	6.5	249.6	72.9	16.4	139.9	126.5	10.7	73.2	295.9	2.9
Queue Length 50th (ft)	~121	367	52	~350	507	94	~115	~675	26	136	~1288	34
Queue Length 95th (ft)	m#179	424	m54	#480	#716	172	#234	#770	75	m49	m224	m7
Internal Link Dist (ft)		1525			272			428			382	
Turn Bay Length (ft)	240		200	240		240	275		275	250		300
Base Capacity (vph)	262	649	663	423	665	689	135	1173	614	210	1901	661
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.07	0.78	0.39	1.44	0.99	0.51	1.03	1.18	0.30	0.96	1.61	0.30

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.1: Lasselle St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	117	998	391	161	815	116	533	465	217	143	554
v/c Ratio	0.97	1.43	0.59	1.34	1.17	0.14	2.09	0.74	0.32	0.77	1.02
Control Delay	132.0	234.6	25.0	230.2	109.4	1.8	530.5	44.3	12.2	78.9	84.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	132.0	234.6	25.0	230.2	109.4	1.8	530.5	44.3	12.2	78.9	84.6
Queue Length 50th (ft)	92	~1047	169	~169	~773	12	~653	321	54	109	~437
Queue Length 95th (ft)	#214	#1300	273	#313	#1022	19	#869	449	96	#207	#669
Internal Link Dist (ft)		1			1373			338			424
Turn Bay Length (ft)	175		60	150		50	200		75	150	
Base Capacity (vph)	120	696	666	120	696	810	255	627	680	195	545
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	1.43	0.59	1.34	1.17	0.14	2.09	0.74	0.32	0.73	1.02

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Queues

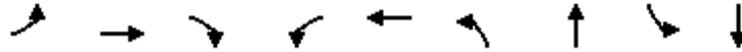
Int.2: Alessandro Blvd & Morrison St



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	114	1038	987	62	68	92
v/c Ratio	0.54	0.90	0.60	0.08	0.12	0.16
Control Delay	44.6	15.1	20.1	5.7	29.2	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.6	15.1	20.1	5.7	29.2	6.4
Queue Length 50th (ft)	91	747	168	4	37	0
Queue Length 95th (ft)	m80	m575	m223	m7	72	37
Internal Link Dist (ft)		382	930		379	
Turn Bay Length (ft)	125			600		
Base Capacity (vph)	210	1155	1654	773	586	586
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.90	0.60	0.08	0.12	0.16

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	49	190	81	312	233	82	3767	62	2311
v/c Ratio	0.37	0.54	0.35	1.60	0.43	0.48	1.78	0.42	1.14
Control Delay	60.6	57.0	14.5	327.7	46.2	53.8	370.2	60.5	94.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.6	57.0	14.5	327.7	46.2	53.8	370.2	60.5	94.7
Queue Length 50th (ft)	37	75	0	~345	82	68	~2315	47	~1104
Queue Length 95th (ft)	76	111	46	#526	123	m44	m#632	90	#1325
Internal Link Dist (ft)		585			309		1241		544
Turn Bay Length (ft)	200		25	200		300		175	
Base Capacity (vph)	165	1052	529	195	1100	172	2120	147	2033
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.18	0.15	1.60	0.21	0.48	1.78	0.42	1.14

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	146	84	37	10	54	4008	22	2833
v/c Ratio	0.65	0.31	0.30	0.08	0.39	1.63	0.19	1.21
Control Delay	62.5	12.8	58.7	44.1	34.3	314.0	52.2	117.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.5	12.8	58.7	44.1	34.3	314.0	52.2	117.2
Queue Length 50th (ft)	109	1	28	5	0	~2420	18	~1478
Queue Length 95th (ft)	171	46	62	23	m25	m#795	m19	m#1313
Internal Link Dist (ft)		639		926		1246		1241
Turn Bay Length (ft)	200		100		180		280	
Base Capacity (vph)	526	531	526	531	139	2458	135	2332
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.16	0.07	0.02	0.39	1.63	0.16	1.21

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	325	120	109	42	150	132	3623	63	2343	337
v/c Ratio	0.58	0.19	0.18	0.33	0.49	0.69	2.41	0.43	1.73	0.47
Control Delay	41.1	32.0	6.7	59.3	40.7	45.8	661.5	66.9	349.9	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.1	32.0	6.7	59.3	40.7	45.8	661.5	66.9	349.9	4.4
Queue Length 50th (ft)	217	69	0	32	40	109	~2496	44	~1407	72
Queue Length 95th (ft)	325	122	43	68	73	m62	m#1001	m39	m#1065	m32
Internal Link Dist (ft)		517			319		2097		1246	
Turn Bay Length (ft)	90		50	300		200		240		300
Base Capacity (vph)	559	666	637	180	1092	190	1502	156	1353	712
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.18	0.17	0.23	0.14	0.69	2.41	0.40	1.73	0.47

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	216	624	162	293	600	190	228	3230	621	255	1789	239
v/c Ratio	0.73	0.95	0.25	1.09	0.93	0.29	1.01	2.39	0.84	2.12	1.09	0.37
Control Delay	54.0	37.3	4.8	130.6	60.0	7.9	115.7	647.7	34.3	531.5	101.4	31.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.0	37.3	4.8	130.6	60.0	7.9	115.7	647.7	34.3	531.5	101.4	31.6
Queue Length 50th (ft)	90	486	30	~146	433	18	~182	~2165	306	~325	~590	127
Queue Length 95th (ft)	m#108	m#569	m31	#233	#630	66	#340	#2250	#511	m#166	m330	m53
Internal Link Dist (ft)		1525			272			428			382	
Turn Bay Length (ft)	240		200	240		240	275		275	250		300
Base Capacity (vph)	296	680	654	270	680	678	225	1353	736	120	1642	653
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.92	0.25	1.09	0.88	0.28	1.01	2.39	0.84	2.13	1.09	0.37

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.1: Lasselle St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	104	720	497	225	969	141	281	458	210	109	553
v/c Ratio	0.53	0.48	0.62	1.00	0.61	0.18	0.99	0.38	0.26	0.52	0.53
Control Delay	61.4	36.2	13.3	89.8	17.1	0.6	100.7	31.7	5.2	59.4	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.4	36.2	13.3	89.8	17.1	0.6	100.7	31.7	5.2	59.4	35.1
Queue Length 50th (ft)	77	168	120	140	167	0	220	142	22	81	175
Queue Length 95th (ft)	137	208	192	m#318	302	m0	#397	189	52	141	232
Internal Link Dist (ft)		1			1373			338			424
Turn Bay Length (ft)	175		60	150		50	200		75	150	
Base Capacity (vph)	195	1512	808	225	1599	784	285	1203	809	210	1041
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.48	0.62	1.00	0.61	0.18	0.99	0.38	0.26	0.52	0.53

Intersection Summary

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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.2: Alessandro Blvd & Morrison St

TTM 38442 MV Residential

08/05/2022



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	172	860	35	936	91	55	144	111	116	173
v/c Ratio	0.60	0.43	0.33	0.71	0.18	0.44	0.30	0.19	0.08	0.23
Control Delay	38.2	11.5	75.2	20.1	2.1	64.7	33.9	30.3	22.5	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.2	11.5	75.2	20.1	2.1	64.7	33.9	30.3	22.5	4.1
Queue Length 50th (ft)	131	131	29	134	3	41	36	62	28	0
Queue Length 95th (ft)	210	186	m0	m167	m7	86	68	107	48	44
Internal Link Dist (ft)		382		930			396		379	
Turn Bay Length (ft)	125		150		600	150		150		
Base Capacity (vph)	285	2006	105	1316	498	135	553	586	1456	754
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.43	0.33	0.71	0.18	0.41	0.26	0.19	0.08	0.23

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.3: Nason St & Eucalyptus Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	276	409	271	413	321	56	119	1885	476	33	3357
v/c Ratio	1.42	0.65	0.72	2.12	0.51	0.16	1.13	0.65	0.40	0.31	1.24
Control Delay	253.5	50.3	37.6	546.9	46.8	4.3	181.0	24.9	10.5	62.5	138.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	253.5	50.3	37.6	546.9	46.8	4.3	181.0	24.9	10.5	62.5	138.3
Queue Length 50th (ft)	~287	158	119	~508	121	0	~110	500	206	25	~1172
Queue Length 95th (ft)	#460	192	197	#706	152	17	#239	588	393	60	#1380
Internal Link Dist (ft)		585			309			1241			544
Turn Bay Length (ft)	200		250	200		250	300		250	175	
Base Capacity (vph)	195	1052	550	195	1052	529	105	2912	1176	105	2711
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.42	0.39	0.49	2.12	0.31	0.11	1.13	0.65	0.40	0.31	1.24

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	149	144	61	53	271	2071	57	18	3483	313
v/c Ratio	0.65	0.48	0.42	0.37	0.45	0.58	0.05	0.16	1.87	0.50
Control Delay	62.4	16.4	60.6	32.1	21.8	13.5	1.7	40.0	422.3	36.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.4	16.4	60.6	32.1	21.8	13.5	1.7	40.0	422.3	36.8
Queue Length 50th (ft)	111	11	46	14	99	85	0	13	~1431	173
Queue Length 95th (ft)	173	70	89	54	m156	653	m7	m10	m#1096	m158
Internal Link Dist (ft)		639		926		1246			1241	
Turn Bay Length (ft)	200		100		180		150	280		150
Base Capacity (vph)	526	571	526	524	600	3554	1132	111	1862	632
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.25	0.12	0.10	0.45	0.58	0.05	0.16	1.87	0.50

Intersection Summary

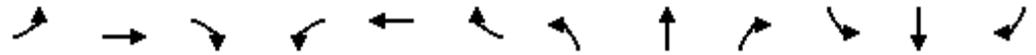
- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	368	105	155	104	228	273	1954	75	60	3359	267
v/c Ratio	0.65	0.09	0.25	0.65	0.60	1.52	0.93	0.10	0.43	1.77	0.23
Control Delay	42.9	30.3	5.9	71.0	38.6	294.3	37.5	0.7	68.9	376.5	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	30.3	5.9	71.0	38.6	294.3	37.5	0.7	68.9	376.5	2.9
Queue Length 50th (ft)	245	31	0	78	55	~287	559	1	50	~1468	24
Queue Length 95th (ft)	372	53	49	138	94	m#450	#668	m3	m30	m575	m10
Internal Link Dist (ft)		517			319		2097			1246	
Turn Bay Length (ft)	90		50	300		200		150	240		300
Base Capacity (vph)	563	1120	608	180	1054	180	2109	726	150	1901	1148
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.09	0.25	0.58	0.22	1.52	0.93	0.10	0.40	1.77	0.23

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	256	458	247	548	588	313	222	1263	163	181	2797	214
v/c Ratio	0.88	0.54	0.55	1.88	0.69	0.51	1.64	0.52	0.16	0.68	0.99	0.20
Control Delay	60.3	31.8	10.5	440.6	51.7	24.5	355.6	24.2	2.6	77.7	25.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.3	31.8	10.5	440.6	51.7	24.5	355.6	24.2	2.6	77.7	25.7	0.1
Queue Length 50th (ft)	102	124	61	~334	158	139	~249	246	0	150	255	1
Queue Length 95th (ft)	#172	160	123	#446	193	200	#407	334	34	m80	m28	m0
Internal Link Dist (ft)		1525			272			428			382	
Turn Bay Length (ft)	240		200	240		240	275		275	250		300
Base Capacity (vph)	291	1772	447	291	1772	618	135	2443	1016	277	2827	1050
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.26	0.55	1.88	0.33	0.51	1.64	0.52	0.16	0.65	0.99	0.20

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.1: Lasselle St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	125	974	386	155	842	113	526	496	210	140	652
v/c Ratio	1.04	0.63	0.42	1.29	0.54	0.16	1.40	0.36	0.27	0.67	0.63
Control Delay	148.0	38.3	14.2	206.2	9.0	0.4	231.5	27.9	6.6	66.1	39.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	148.0	38.3	14.2	206.2	9.0	0.4	231.5	27.9	6.6	66.1	39.0
Queue Length 50th (ft)	~105	238	132	~158	37	0	~545	144	30	105	224
Queue Length 95th (ft)	#230	286	206	m#292	46	m1	#761	196	61	171	288
Internal Link Dist (ft)		1			1373			338			424
Turn Bay Length (ft)	175		60	150		50	200		75	150	
Base Capacity (vph)	120	1556	912	120	1556	759	376	1385	785	255	1040
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.04	0.63	0.42	1.29	0.54	0.15	1.40	0.36	0.27	0.55	0.63

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.2: Alessandro Blvd & Morrison St



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	110	1068	38	943	59	104	197	65	155	93
v/c Ratio	0.52	0.56	0.36	0.66	0.11	0.62	0.35	0.11	0.11	0.13
Control Delay	53.6	26.1	50.8	24.8	0.9	68.2	33.7	29.1	24.8	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.6	26.1	50.8	24.8	0.9	68.2	33.7	29.1	24.8	2.8
Queue Length 50th (ft)	88	278	22	285	1	78	50	35	41	0
Queue Length 95th (ft)	m144	328	m47	m320	m4	137	87	69	65	22
Internal Link Dist (ft)		382		930			396		379	
Turn Bay Length (ft)	125		150		600	150		150		
Base Capacity (vph)	210	1904	105	1426	529	195	565	586	1377	689
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.56	0.36	0.66	0.11	0.53	0.35	0.11	0.11	0.13

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	59	323	116	470	402	35	94	3347	580	64	2368
v/c Ratio	0.47	0.66	0.37	0.96	0.31	0.06	0.78	1.54	0.70	0.61	1.17
Control Delay	66.0	55.6	11.9	74.9	29.6	0.2	79.8	266.9	6.1	79.5	116.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.0	55.6	11.9	74.9	29.6	0.2	79.8	266.9	6.1	79.5	116.0
Queue Length 50th (ft)	44	126	2	358	122	0	71	-1363	159	49	-802
Queue Length 95th (ft)	90	168	54	#628	166	0	m70	m#1275	m52	#112	#897
Internal Link Dist (ft)		585			309			1241			544
Turn Bay Length (ft)	200		250	200		250	300		250	175	
Base Capacity (vph)	135	1052	551	492	1288	629	120	2169	827	105	2025
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.31	0.21	0.96	0.31	0.06	0.78	1.54	0.70	0.61	1.17

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	172	92	35	14	49	3737	40	32	2549	143
v/c Ratio	0.67	0.35	0.28	0.13	0.37	1.05	0.04	0.27	0.74	0.13
Control Delay	61.0	13.8	58.6	46.1	63.0	42.3	0.0	38.3	29.4	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.0	13.8	58.6	46.1	63.0	42.3	0.0	38.3	29.4	14.5
Queue Length 50th (ft)	126	3	26	7	39	~462	0	21	562	52
Queue Length 95th (ft)	193	49	59	29	m30	m132	m0	m25	m563	m44
Internal Link Dist (ft)		639		926		1246			1241	
Turn Bay Length (ft)	200		100		180		150	280		150
Base Capacity (vph)	526	537	526	533	134	3573	1138	120	3440	1098
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.17	0.07	0.03	0.37	1.05	0.04	0.27	0.74	0.13

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

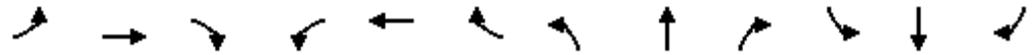
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	317	114	103	41	152	127	3479	54	51	2280	329
v/c Ratio	0.59	0.14	0.23	0.12	0.49	0.64	1.54	0.07	0.38	1.15	0.27
Control Delay	42.4	45.7	11.2	36.0	38.9	79.0	259.7	0.0	57.6	101.4	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	45.7	11.2	36.0	38.9	79.0	259.7	0.0	57.6	101.4	2.0
Queue Length 50th (ft)	216	45	0	24	38	106	~1395	0	43	~740	6
Queue Length 95th (ft)	315	74	54	52	71	m86	m#906	m0	m57	#836	78
Internal Link Dist (ft)		517			319		2097			1246	
Turn Bay Length (ft)	90		50	300		200		150	240		300
Base Capacity (vph)	535	1357	671	349	1035	199	2263	771	141	1988	1198
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.08	0.15	0.12	0.15	0.64	1.54	0.07	0.36	1.15	0.27

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	340	565	290	268	550	171	223	3019	570	228	1672	286
v/c Ratio	0.47	0.69	0.51	0.38	0.69	0.34	0.99	1.52	0.58	1.05	0.85	0.27
Control Delay	35.6	24.4	4.4	43.5	52.4	11.2	110.6	265.5	9.0	94.4	6.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.6	24.4	4.4	43.5	52.4	11.2	110.6	265.5	9.0	94.4	6.9	0.2
Queue Length 50th (ft)	138	128	0	97	149	31	175	~1195	101	137	36	0
Queue Length 95th (ft)	191	138	0	132	182	67	#337	#1280	181	m#218	m79	m0
Internal Link Dist (ft)		1525			272			428				382
Turn Bay Length (ft)	240		200	240		240	275		275	250		300
Base Capacity (vph)	729	1772	568	714	1772	503	225	1988	991	217	1965	1049
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.32	0.51	0.38	0.31	0.34	0.99	1.52	0.58	1.05	0.85	0.27

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.1: Lasselle St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	104	723	497	229	978	142	281	458	211	109	553
v/c Ratio	0.53	0.46	0.62	1.02	0.60	0.18	1.04	0.39	0.26	0.52	0.53
Control Delay	61.4	35.4	13.5	93.7	16.8	0.8	115.4	32.5	5.4	59.4	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.4	35.4	13.5	93.7	16.8	0.8	115.4	32.5	5.4	59.4	35.1
Queue Length 50th (ft)	77	166	121	~140	179	0	~235	143	23	81	175
Queue Length 95th (ft)	137	207	192	m#334	288	m0	#409	191	53	141	232
Internal Link Dist (ft)		1			1373			338			424
Turn Bay Length (ft)	175		60	150		50	200		75	150	
Base Capacity (vph)	195	1556	808	225	1642	789	270	1173	797	210	1041
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.46	0.62	1.02	0.60	0.18	1.04	0.39	0.26	0.52	0.53

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	172	865	35	950	92	55	144	111	116	173
v/c Ratio	0.67	0.44	0.33	0.70	0.18	0.44	0.30	0.18	0.08	0.23
Control Delay	44.8	12.8	76.1	17.3	1.9	64.7	33.9	29.5	21.9	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	12.8	76.1	17.3	1.9	64.7	33.9	29.5	21.9	4.0
Queue Length 50th (ft)	134	167	29	131	3	41	36	61	28	0
Queue Length 95th (ft)	#220	213	m55	m152	m7	86	68	106	48	43
Internal Link Dist (ft)		382		930			396		379	
Turn Bay Length (ft)	125		150		600	150		150		
Base Capacity (vph)	255	1963	105	1359	510	135	553	601	1486	766
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.44	0.33	0.70	0.18	0.41	0.26	0.18	0.08	0.23

Intersection Summary

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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.3: Nason St & Eucalyptus Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	276	409	272	414	321	56	121	1894	479	33	3360
v/c Ratio	1.31	0.65	0.72	2.12	0.53	0.17	1.15	0.66	0.41	0.27	1.24
Control Delay	212.7	50.4	37.1	549.1	48.2	4.5	185.9	24.2	10.9	58.3	138.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	212.7	50.4	37.1	549.1	48.2	4.5	185.9	24.2	10.9	58.3	138.5
Queue Length 50th (ft)	~275	158	118	~510	122	0	~113	521	186	25	~1174
Queue Length 95th (ft)	#448	192	196	#708	154	18	#243	587	396	59	#1380
Internal Link Dist (ft)		585			309			1241			544
Turn Bay Length (ft)	200		250	200		250	300		250	175	
Base Capacity (vph)	210	1052	552	195	1022	516	105	2862	1169	135	2712
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.31	0.39	0.49	2.12	0.31	0.11	1.15	0.66	0.41	0.24	1.24

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	149	144	61	53	272	2085	57	18	3488	313
v/c Ratio	0.65	0.48	0.42	0.37	0.51	0.59	0.05	0.16	1.69	0.45
Control Delay	62.4	16.4	60.6	32.1	45.8	7.7	0.1	43.1	342.3	34.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.4	16.4	60.6	32.1	45.8	7.7	0.1	43.1	342.3	34.8
Queue Length 50th (ft)	111	11	46	14	165	90	0	13	~1403	172
Queue Length 95th (ft)	173	70	89	54	m174	665	m0	m10	m#1102	m152
Internal Link Dist (ft)		639		926		1246			1241	
Turn Bay Length (ft)	200		100		180		150	280		150
Base Capacity (vph)	526	571	526	524	529	3554	1132	111	2067	693
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.25	0.12	0.10	0.51	0.59	0.05	0.16	1.69	0.45

Intersection Summary

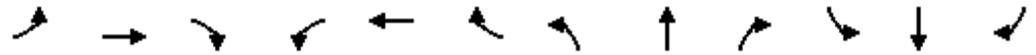
- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	368	106	156	104	238	275	1961	75	63	3361	267
v/c Ratio	0.65	0.09	0.25	0.68	0.61	1.83	0.89	0.10	0.60	1.69	0.23
Control Delay	43.1	29.7	5.8	75.0	37.8	429.1	32.8	0.8	31.3	345.9	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	29.7	5.8	75.0	37.8	429.1	32.8	0.8	31.3	345.9	1.5
Queue Length 50th (ft)	246	30	0	79	56	~315	530	5	49	~1443	10
Queue Length 95th (ft)	373	53	49	#150	95	m#479	#606	m0	m31	m#660	m0
Internal Link Dist (ft)		517			319		2097			1246	
Turn Bay Length (ft)	90		50	300		200		150	240		300
Base Capacity (vph)	562	1136	614	165	1056	150	2213	756	105	1988	1172
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.09	0.25	0.63	0.23	1.83	0.89	0.10	0.60	1.69	0.23

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	256	463	247	557	603	322	222	1263	166	184	2797	214
v/c Ratio	0.88	0.53	0.54	1.91	0.69	0.52	1.64	0.52	0.16	0.69	1.00	0.21
Control Delay	59.4	30.2	10.5	453.9	51.2	24.6	355.6	24.7	2.7	76.8	26.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	30.2	10.5	453.9	51.2	24.6	355.6	24.7	2.7	76.8	26.9	0.3
Queue Length 50th (ft)	94	126	71	~341	162	145	~249	247	0	153	~265	0
Queue Length 95th (ft)	#165	161	137	#454	195	203	#407	342	35	m84	m45	m0
Internal Link Dist (ft)		1525			272			428			382	
Turn Bay Length (ft)	240		200	240		240	275		275	250		300
Base Capacity (vph)	291	1772	454	291	1772	629	135	2422	1011	282	2804	1041
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.26	0.54	1.91	0.34	0.51	1.64	0.52	0.16	0.65	1.00	0.21

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.1: Lasselle St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	125	984	386	158	848	114	526	496	214	141	652
v/c Ratio	1.04	0.63	0.45	1.32	0.54	0.16	1.40	0.36	0.26	0.67	0.63
Control Delay	148.0	38.5	10.6	242.3	15.7	2.2	231.5	27.9	9.9	66.2	39.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	148.0	38.5	10.6	242.3	15.7	2.2	231.5	27.9	9.9	66.2	39.0
Queue Length 50th (ft)	~105	241	98	~163	53	0	~545	144	43	106	224
Queue Length 95th (ft)	#230	289	154	m#296	108	m4	#761	196	96	172	288
Internal Link Dist (ft)		1			1373			338			424
Turn Bay Length (ft)	175		60	150		50	200		75	150	
Base Capacity (vph)	120	1556	861	120	1556	759	376	1383	837	255	1040
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.04	0.63	0.45	1.32	0.54	0.15	1.40	0.36	0.26	0.55	0.63

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.2: Alessandro Blvd & Morrison St

TTM 38442 MV Residential

08/05/2022



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	110	1084	38	953	60	104	197	66	155	93
v/c Ratio	0.52	0.57	0.36	0.67	0.11	0.62	0.35	0.11	0.11	0.13
Control Delay	52.7	25.6	52.2	25.5	0.8	68.2	33.7	29.1	24.8	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.7	25.6	52.2	25.5	0.8	68.2	33.7	29.1	24.8	2.8
Queue Length 50th (ft)	87	306	22	288	1	78	50	36	41	0
Queue Length 95th (ft)	m139	343	m48	m323	m4	137	87	70	65	22
Internal Link Dist (ft)		382		930			396		379	
Turn Bay Length (ft)	125		150		600	150		150		
Base Capacity (vph)	210	1906	105	1426	529	195	565	586	1377	689
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.57	0.36	0.67	0.11	0.53	0.35	0.11	0.11	0.13

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	59	323	118	474	402	35	95	3353	582	64	2378
v/c Ratio	0.47	0.66	0.37	0.96	0.31	0.06	0.90	1.55	0.70	0.61	1.15
Control Delay	66.0	55.6	12.6	76.5	29.6	0.2	92.5	267.9	6.4	79.5	107.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.0	55.6	12.6	76.5	29.6	0.2	92.5	267.9	6.4	79.5	107.5
Queue Length 50th (ft)	44	126	4	362	122	0	73	~1367	169	49	~795
Queue Length 95th (ft)	90	168	56	#635	166	0	m72	m#1273	m62	#112	#889
Internal Link Dist (ft)		585			309			1241			544
Turn Bay Length (ft)	200		250	200		250	300		250	175	
Base Capacity (vph)	135	1052	550	492	1288	629	105	2169	827	105	2068
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.31	0.21	0.96	0.31	0.06	0.90	1.55	0.70	0.61	1.15

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	172	93	35	14	50	3747	40	32	2565	143
v/c Ratio	0.67	0.35	0.28	0.13	0.37	1.05	0.04	0.27	0.75	0.13
Control Delay	61.0	13.9	58.6	46.1	65.9	43.9	0.0	38.2	29.2	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.0	13.9	58.6	46.1	65.9	43.9	0.0	38.2	29.2	14.4
Queue Length 50th (ft)	126	3	26	7	41	~520	0	21	562	52
Queue Length 95th (ft)	193	50	59	29	m30	m76	m0	m25	m576	m45
Internal Link Dist (ft)		639		926		1246			1241	
Turn Bay Length (ft)	200		100		180		150	280		150
Base Capacity (vph)	526	537	526	533	135	3573	1138	120	3437	1097
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.17	0.07	0.03	0.37	1.05	0.04	0.27	0.75	0.13

Intersection Summary

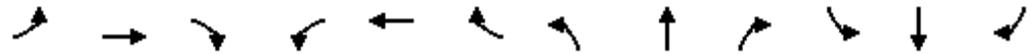
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Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	317	117	106	41	160	129	3484	54	61	2288	329
v/c Ratio	0.57	0.14	0.23	0.12	0.51	0.59	1.62	0.08	0.41	1.23	0.28
Control Delay	40.7	45.1	11.0	35.7	38.0	76.6	296.0	0.0	56.1	140.2	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.7	45.1	11.0	35.7	38.0	76.6	296.0	0.0	56.1	140.2	2.3
Queue Length 50th (ft)	211	46	0	23	38	107	~1383	0	51	~764	20
Queue Length 95th (ft)	318	76	54	53	73	m87	m#883	m0	m69	#894	m89
Internal Link Dist (ft)		517			319		2097			1246	
Turn Bay Length (ft)	90		50	300		200		150	240		300
Base Capacity (vph)	561	1380	683	372	1175	218	2155	719	148	1857	1172
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.08	0.16	0.11	0.14	0.59	1.62	0.08	0.41	1.23	0.28

Intersection Summary

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	340	582	290	274	560	177	223	3019	580	238	1672	286
v/c Ratio	0.46	0.69	0.51	0.38	0.69	0.35	0.99	1.52	0.59	1.13	0.86	0.27
Control Delay	35.8	24.8	4.4	43.6	52.3	11.7	110.6	265.5	9.4	118.5	5.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.8	24.8	4.4	43.6	52.3	11.7	110.6	265.5	9.4	118.5	5.6	0.1
Queue Length 50th (ft)	138	129	0	100	152	34	175	~1195	109	143	20	0
Queue Length 95th (ft)	191	146	4	136	185	70	#337	#1280	193	m#210	m28	m0
Internal Link Dist (ft)		1525			272			428				382
Turn Bay Length (ft)	240		200	240		240	275		275	250		300
Base Capacity (vph)	734	1772	573	713	1772	501	225	1988	987	211	1948	1044
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.33	0.51	0.38	0.32	0.35	0.99	1.52	0.59	1.13	0.86	0.27

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.