

Appendix 7A

Traffic Analysis

Sunset Crossings Residential Project
Initial Study

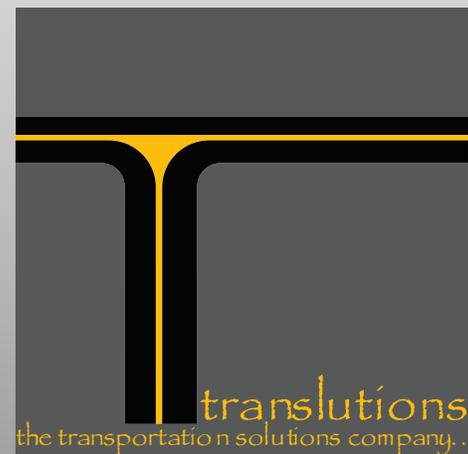
**MORENO VALLEY TTM
38443 RESIDENTIAL**

TRAFFIC IMPACT ANALYSIS

FEBRUARY 2, 2023

PREPARED FOR:
Michael Baker International
3536 Concourse, Suite 100
Ontario, California 91764

PREPARED BY:



translutions, inc.

17632 Irvine Boulevard, Suite 200
Tustin, California 92780
(949) 656-3131



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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 38443 residential development project. The project includes the construction of 133 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 133 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).

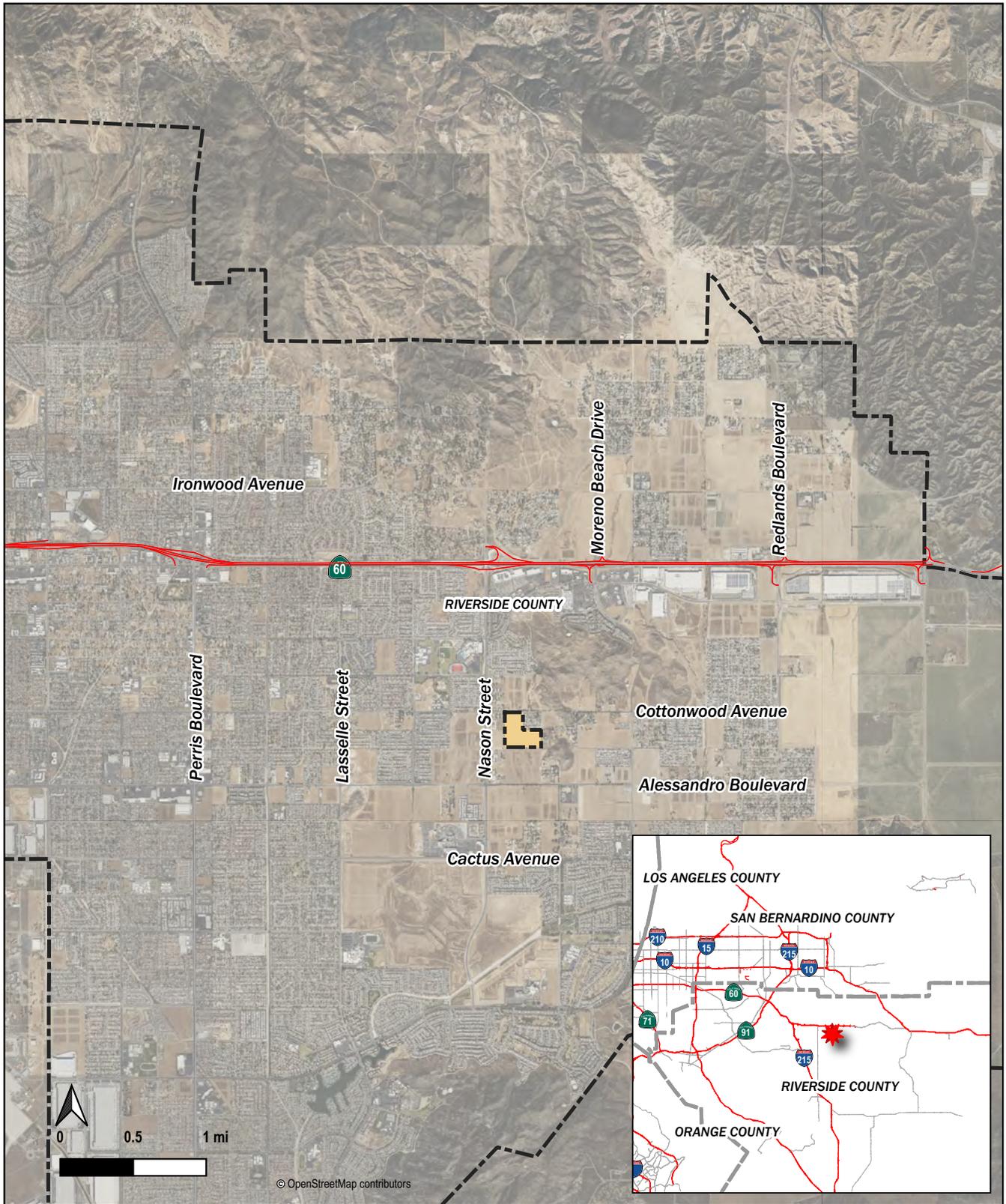


FIGURE 1

Legend
 [Dashed line symbol] City Boundary [Yellow box symbol] Project Location

**Moreno Valley TTM 38443 Residential
 Regional Project Location**



APPLICANT / OWNER

HIGHPOINTE INV, LLC
530 TECHNOLOGY SUITE 100
IRVINE, CA 92618
ROSS YAMAMOTO | 949.472.0800

TOPO SOURCE

DON READ CORPORATION
201 MERCURY LAKE
BREA, CA 92821
(714) 509-9089
JUNE 25, 2021

ENGINEER

PROACTIVE ENGINEERING
200 S. MAIN STREET, STE. 300
CORONA, CA 92706
DILLON STRAND | 951.200.3319

SOILS ENGINEER

LEIGHTON GROUP
17781 CORAN
IRVINE, CA 92614
JEFF L. HALL | 949.681.4205

UTILITIES

WATER: EASTERN MUNICIPAL WATER DISTRICT
SEWER: EASTERN MUNICIPAL WATER DISTRICT
ELECTRIC: MORENO VALLEY UTILITY
GAS: SOUTHERN CALIFORNIA GAS COMPANY
TELEPHONE: MORENO
TELEVISION: COMCAST

ASSESSOR'S PARCEL NO.'S

488-190-005, 488-190-027 & 488-190-028

LAND USE

TOTAL AREA: 28.2 AC
TOTAL AREA KEY: 23.1 AC
EXISTING LAND USE: MOUNTAIN/FAMILY RESIDENTIAL
PROPOSED LAND USE: SINGLE-FAMILY RESIDENTIAL
EXISTING ZONING: SUBURBAN RESIDENTIAL
PROPOSED ZONING: SUBURBAN RESIDENTIAL
EXISTING GENERAL PLAN: R3 RESIDENTIAL
PROPOSED GENERAL PLAN: R3 RESIDENTIAL

NOTES

- THIS AREA IS WITHIN THE MORENO VALLEY UNIFIED SCHOOL DISTRICT.
- PROJECT SITE IS LOCATED WITHIN ZONE X, AREA 02 WITHIN FLOODING, FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 00074-0100 DATED 08/01/20, 2008 (RIVERSIDE COUNTY - PANEL 785 OF 300).
- 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 BOUNDARY.
- THIS TRACT CONSISTS OF 133 SINGLE-FAMILY LOTS WITH THREE DIFFERENT LOTS WITH A MINIMUM SIZE OF 6000 SF AND 52 UNITS WITH A MINIMUM SIZE OF 4000 SF. LOT AREAS SHOWN IN THE TABLE ON THE RIGHT.
- THIS TRACT IS LOCATED IN A NON-FIREZONED ZONE, IN A STATE OR FEDERAL RESPONSIBILITY AREA.

LEGAL DESCRIPTION

LOTS 3, 6 AND 7, BLOCK 82 OF NEW VALLEY AND ALEXSSANDRO 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

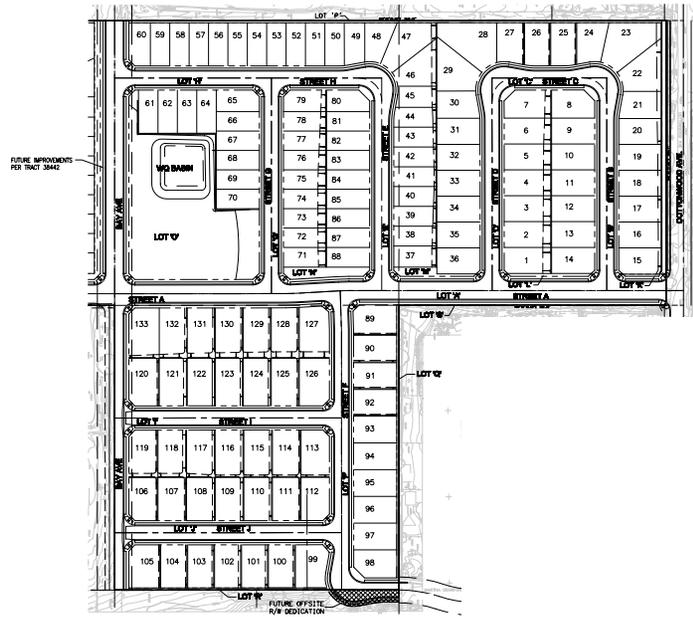
RIVERSIDE COUNTY BENCHMARK (N=40+4 RESET) AT THE SOUTHWEST CORNER OF HANSON STREET AND ALEXSSANDRO BOULEVARD, 26.0 FEET EAST TO CENTERLINE OF HANSON STREET, 48 FEET SOUTH OF ALEXSSANDRO BOULEVARD, 3' WEST OF P.O.C. 867-7036, 1.0 FEET NORTH OF 4" P.I.V. MARKER POINT, A BRASS DISK SET IN TOP OF A CONCRETE POST AND MARKED N=40+4 RESET IN 1976.
ELEVATION (FEET): 1588.42 (961029)

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA STATE PLANE COORDINATE SYSTEM (SBS), ZONE 10 BASED LOCALLY ON CONTROL STATION "MAY", "MAY" & "MAY" MARKS (NAD83) 11 EPOCH 2010.00, RECORDS OF THE RIVERSIDE COUNTY SURVEYOR. ALL BEARINGS SHOWN ON THIS MAP ARE QUOTED BEARINGS AS DISTANCE FROM REFERENCE MARK OR OTHER 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 .99994285.

TENTATIVE TRACT MAP NO. 38443

IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA



PROPOSED LOT SUMMARY TABLE

LOT#	AREA	LOT#	AREA	LOT#	AREA
1	6604 SF	35	6000 SF	69	4500 SF
2	6600 SF	36	6010 SF	70	4500 SF
3	6600 SF	37	4629 SF	71	4500 SF
4	6600 SF	38	4500 SF	72	4500 SF
5	6600 SF	39	4500 SF	73	4500 SF
6	6600 SF	40	4500 SF	74	4500 SF
7	6639 SF	41	4508 SF	75	4500 SF
8	6131 SF	42	4500 SF	76	4500 SF
9	6000 SF	43	4500 SF	77	4500 SF
10	6000 SF	44	4508 SF	78	4500 SF
11	6000 SF	45	4519 SF	79	4888 SF
12	6000 SF	46	4177 SF	80	4491 SF
13	6000 SF	47	8796 SF	81	4500 SF
14	6000 SF	48	5183 SF	82	4500 SF
15	6017 SF	49	4512 SF	83	4500 SF
16	6000 SF	50	4488 SF	84	4500 SF
17	6000 SF	51	4500 SF	85	4500 SF
18	6000 SF	52	4500 SF	86	4900 SF
19	6000 SF	53	4500 SF	87	4500 SF
20	6001 SF	54	4500 SF	88	4546 SF
21	6006 SF	55	4500 SF	89	7343 SF
22	8308 SF	56	4500 SF	90	6681 SF
23	10736 SF	57	4500 SF	91	6010 SF
24	6000 SF	58	4500 SF	92	6010 SF
25	6000 SF	59	4500 SF	93	6010 SF
26	6031 SF	60	4888 SF	94	6010 SF
27	6000 SF	61	4500 SF	95	6010 SF
28	11145 SF	62	4500 SF	96	6010 SF
29	8408 SF	63	4500 SF	97	6010 SF
30	6007 SF	64	4521 SF	98	6010 SF
31	6050 SF	65	4888 SF	99	7616 SF
32	6000 SF	66	4500 SF	100	6563 SF
33	6000 SF	67	4500 SF	101	6563 SF
34	6000 SF	68	4500 SF	102	6563 SF

LOT#	AREA	OWNERSHIP	PURPOSE
A	1.41 AC	CITY OF MORENO VALLEY	STREET
B	0.31 AC	CITY OF MORENO VALLEY	STREET
C	0.40 AC	CITY OF MORENO VALLEY	STREET
D	0.31 AC	CITY OF MORENO VALLEY	STREET
E	0.31 AC	CITY OF MORENO VALLEY	STREET
F	0.73 AC	CITY OF MORENO VALLEY	STREET
G	0.34 AC	CITY OF MORENO VALLEY	STREET
H	0.38 AC	CITY OF MORENO VALLEY	STREET
I	0.36 AC	CITY OF MORENO VALLEY	STREET
J	0.36 AC	CITY OF MORENO VALLEY	STREET
K	0.01 AC	CITY OF MORENO VALLEY	LANDSCAPE
L	0.03 AC	CITY OF MORENO VALLEY	LANDSCAPE
M	0.06 AC	CITY OF MORENO VALLEY	LANDSCAPE
N	0.11 AC	CITY OF MORENO VALLEY	LANDSCAPE
O	2.00 AC	CITY OF MORENO VALLEY	LANDSCAPE
P	0.14 AC	CITY OF MORENO VALLEY	DRAINAGE
Q	0.07 AC	CITY OF MORENO VALLEY	DRAINAGE
R	0.05 AC	CITY OF MORENO VALLEY	DRAINAGE
S	0.02 AC	CITY OF MORENO VALLEY	WALL

APN 488-190-005, 488-190-027	
EASEMENTS	DISPOSITION
1. PUBLIC UTILITIES AND INCIDENTAL PURPOSES (NON-PLOTTABLE) BOOK 170, PAGE 509 IN FAVOR OF EASTERN MUNICIPAL WATER DISTRICT	QUITCLAIM
2. PUBLIC UTILITIES AND INCIDENTAL PURPOSES (NON-PLOTTABLE) INSTRUMENT NO. 107711 IN FAVOR OF CALIFORNIA WATER AND TELEPHONE COMPANY	QUITCLAIM
3. COAR (NON-PLOTTABLE) INSTRUMENT NO. 18671 IN FAVOR OF COAR	QUITCLAIM
4. PUBLIC UTILITIES AND INCIDENTAL PURPOSES (NON-PLOTTABLE) INSTRUMENT NO. 1868-11052 IN FAVOR OF EASTERN MUNICIPAL WATER DISTRICT	QUITCLAIM

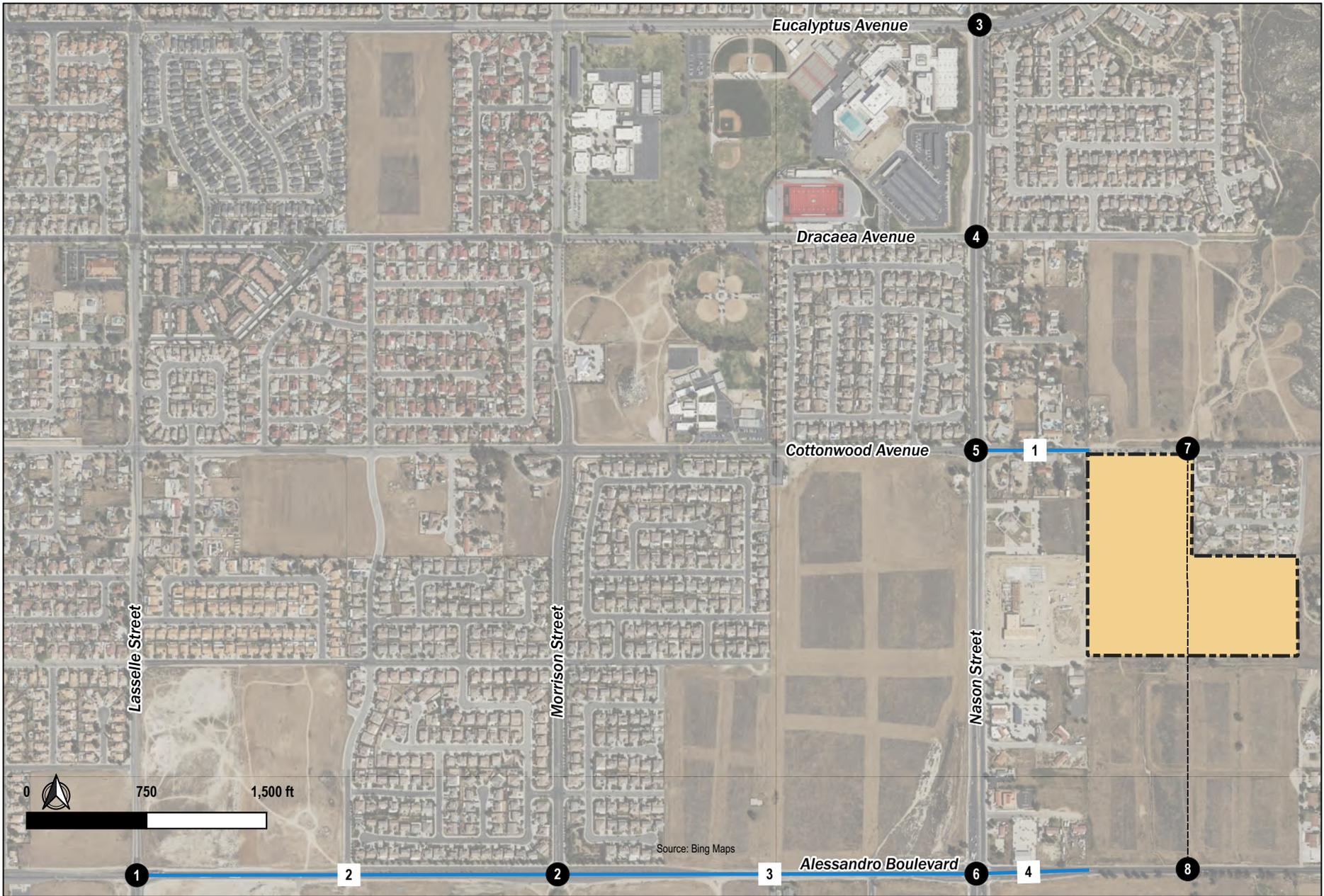
APN 488-190-028	
EASEMENTS	DISPOSITION
1. PUBLIC UTILITIES AND APPURTENANCES INSTRUMENT NO. 107711 IN FAVOR OF CALIFORNIA WATER AND TELEPHONE COMPANY	QUITCLAIM

DESIGNER: PROACTIVE ENGINEERING CONSULTANTS
300 South Main Street, Suite 300
Corona, CA 92706 (951) 550-9500

TENTATIVE TRACT MAP 38443
TITLE SHEET
MAY 2022

SHEET 1
OF 5

FIGURE 2
Moreno Valley TTM 38443 Residential Site Plan



Legend

- Study Area Intersections
- Roadway Segments
- Project Location North
- Street A



FIGURE 3
Moreno Valley TTM 38443 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 133 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 93 trips during the a.m. peak hour, 125 trips during the p.m. peak hour, and 1,254 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	133 DU	24	69	93	79	46	125	1,254
Project Trip Generation		24	69	93	79	46	125	1,254

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).

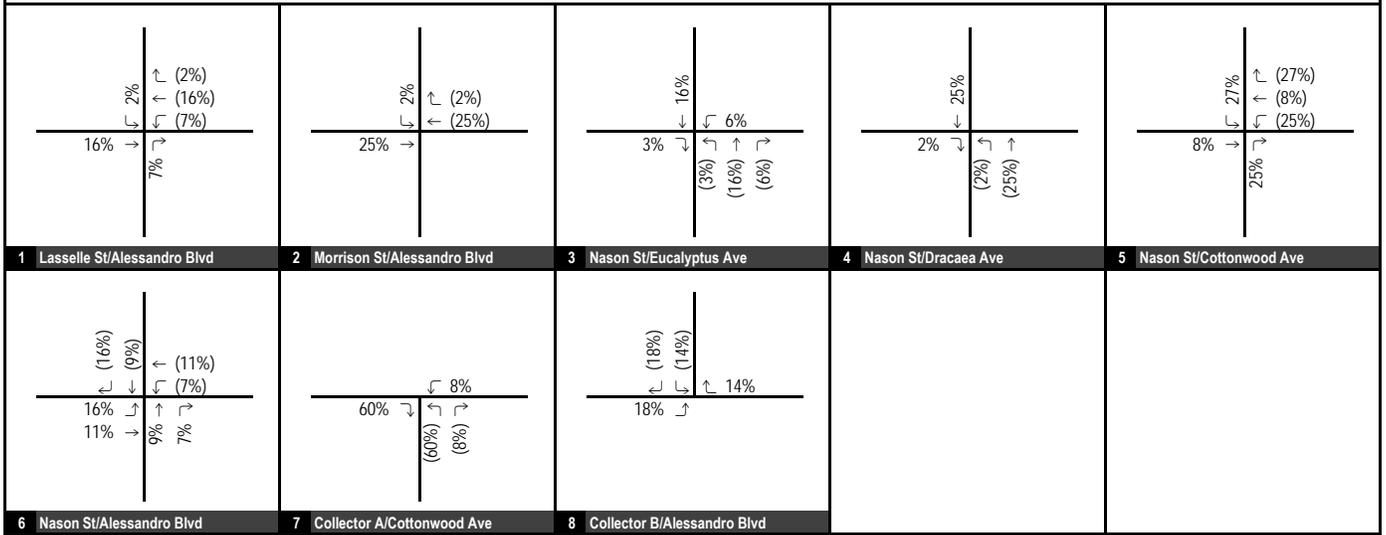
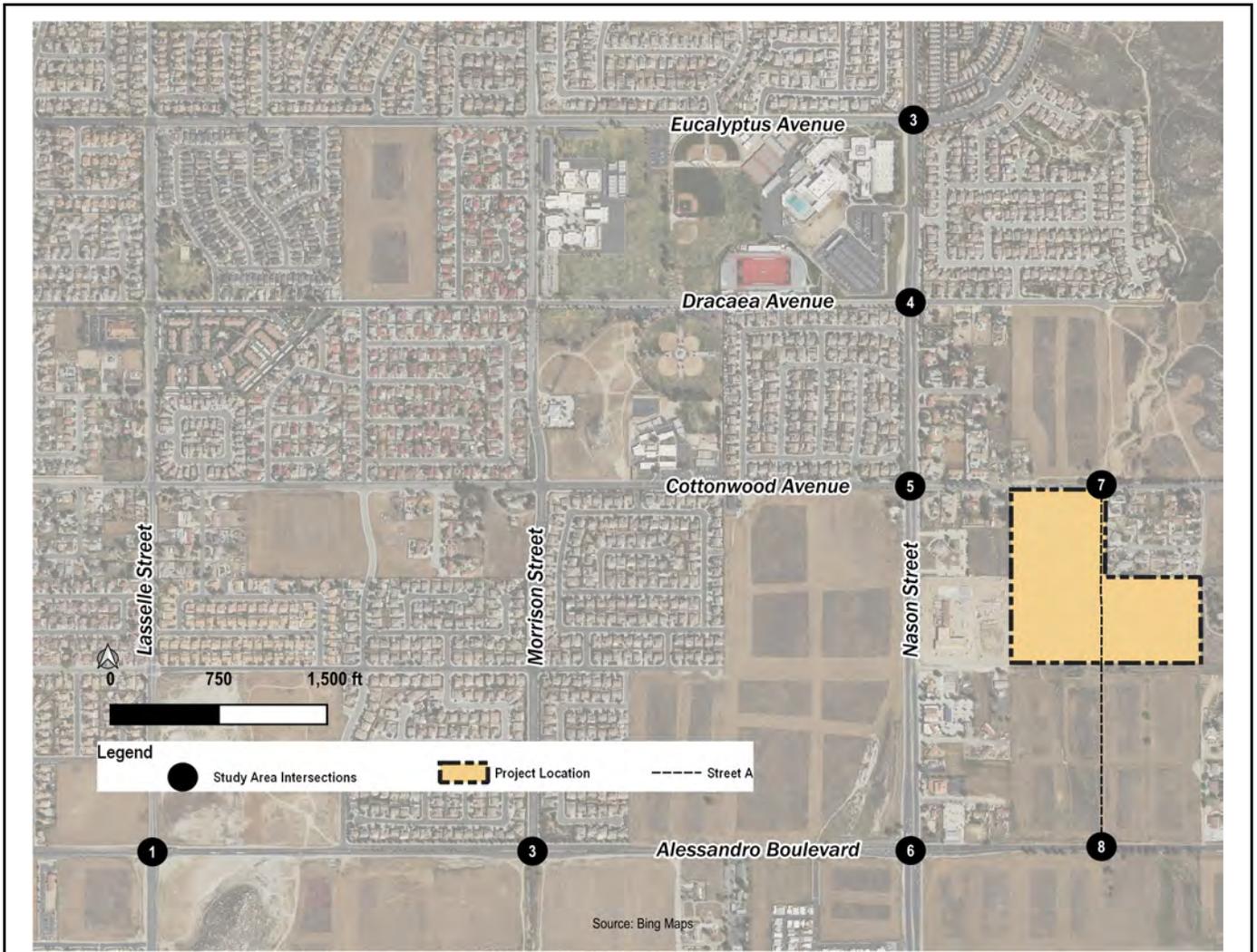


FIGURE 4

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

TTM 38443
Project Trip Distribution



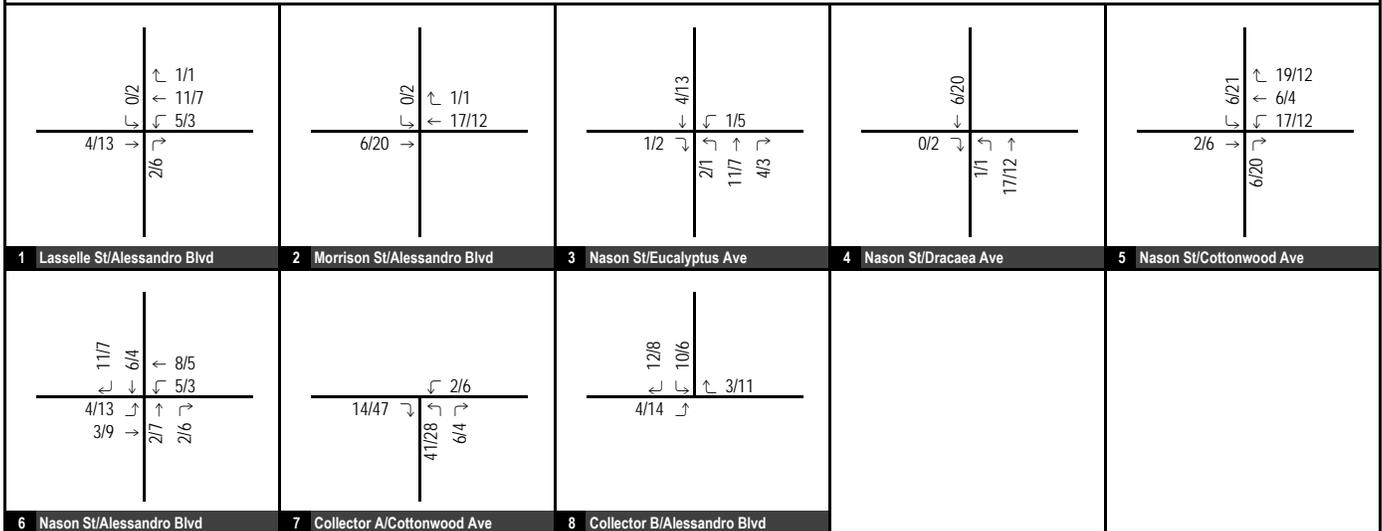
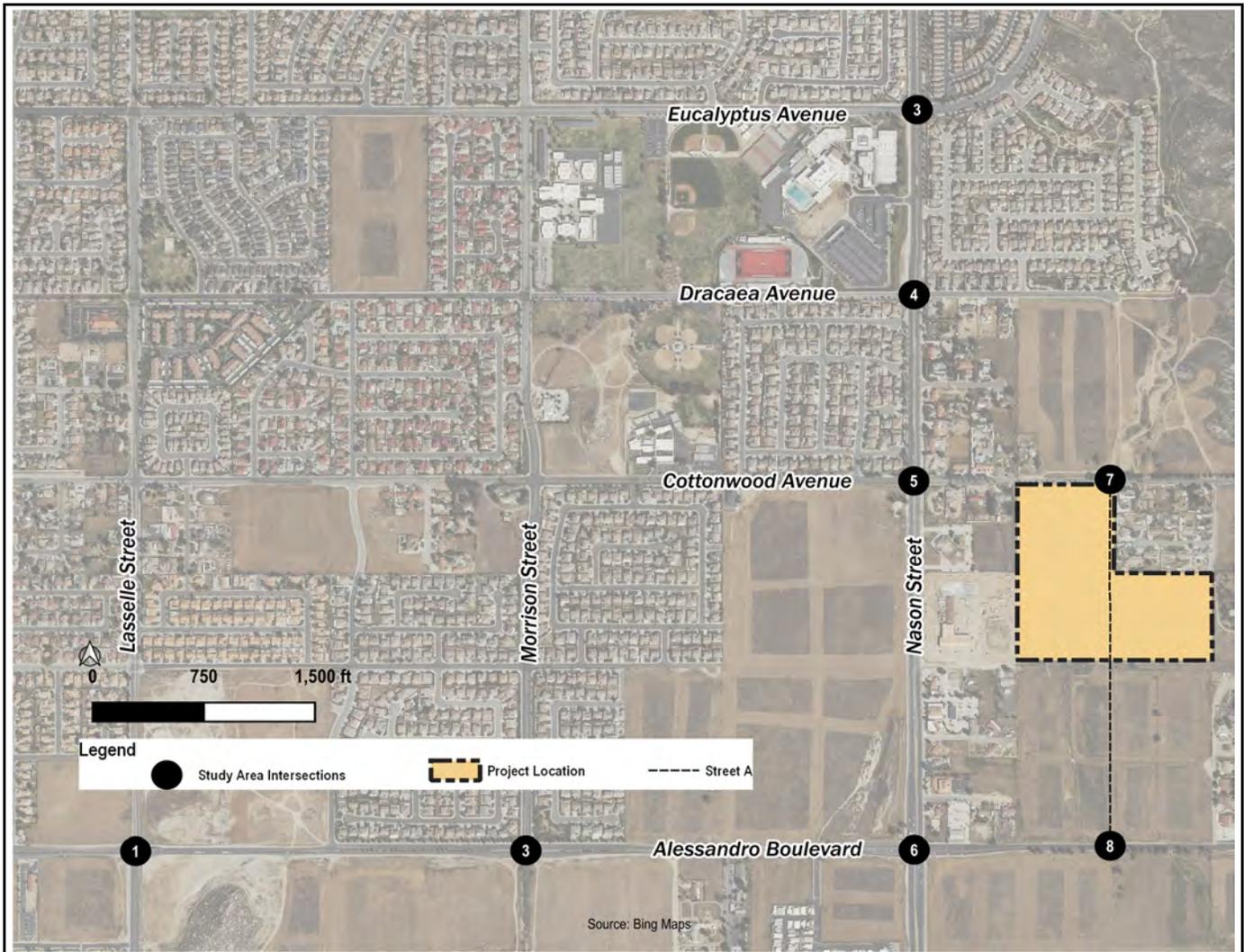


FIGURE 5

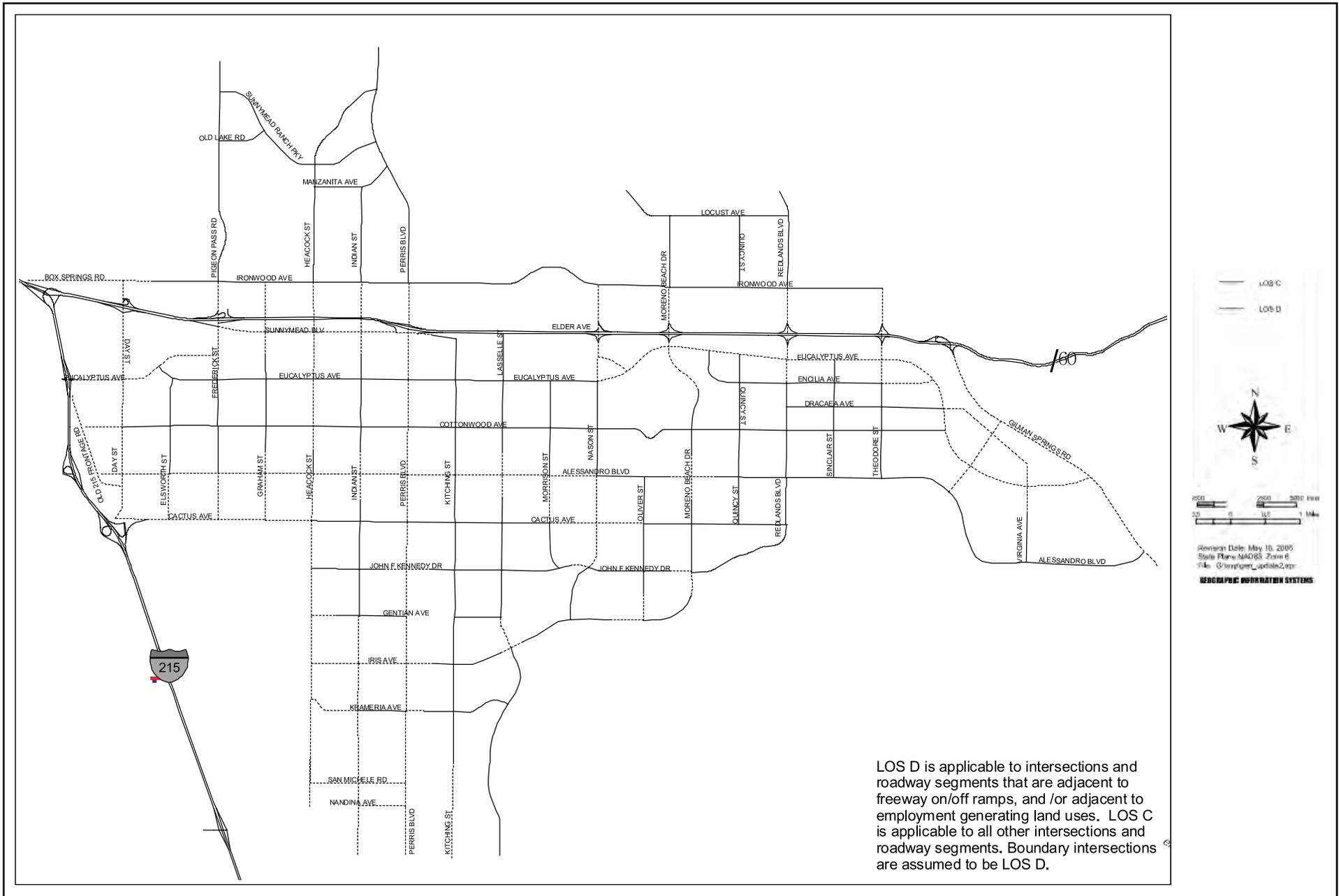
xx/yy AM/PM Peak Hour Project Trips

TTM 38443
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 38443 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.

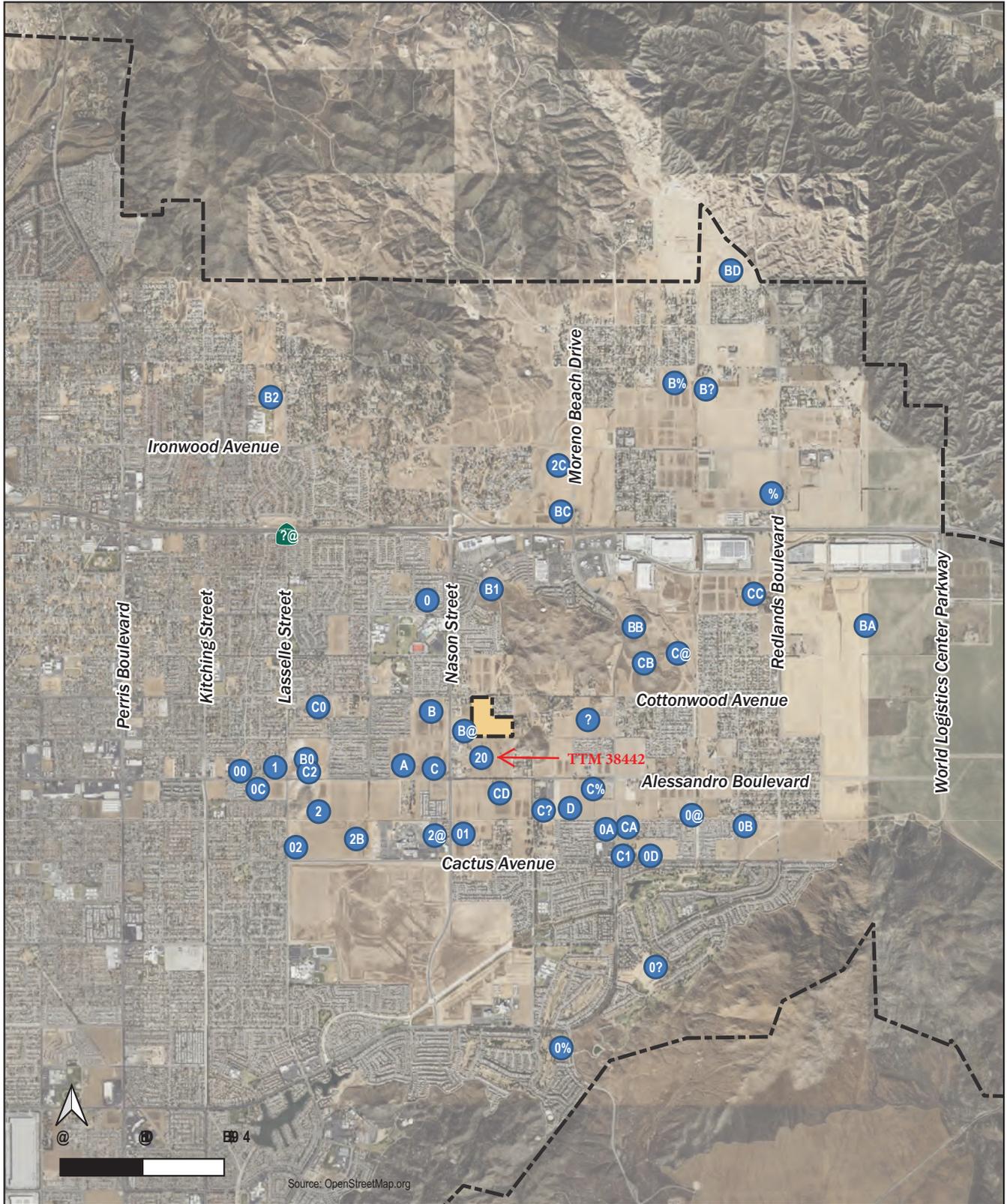
4.2 Project Completion Year (2024) Without Project Traffic Volumes

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 14,284 net a.m. peak hour trips, 17,436 net p.m. peak hour trips, and 186,205 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.



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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.

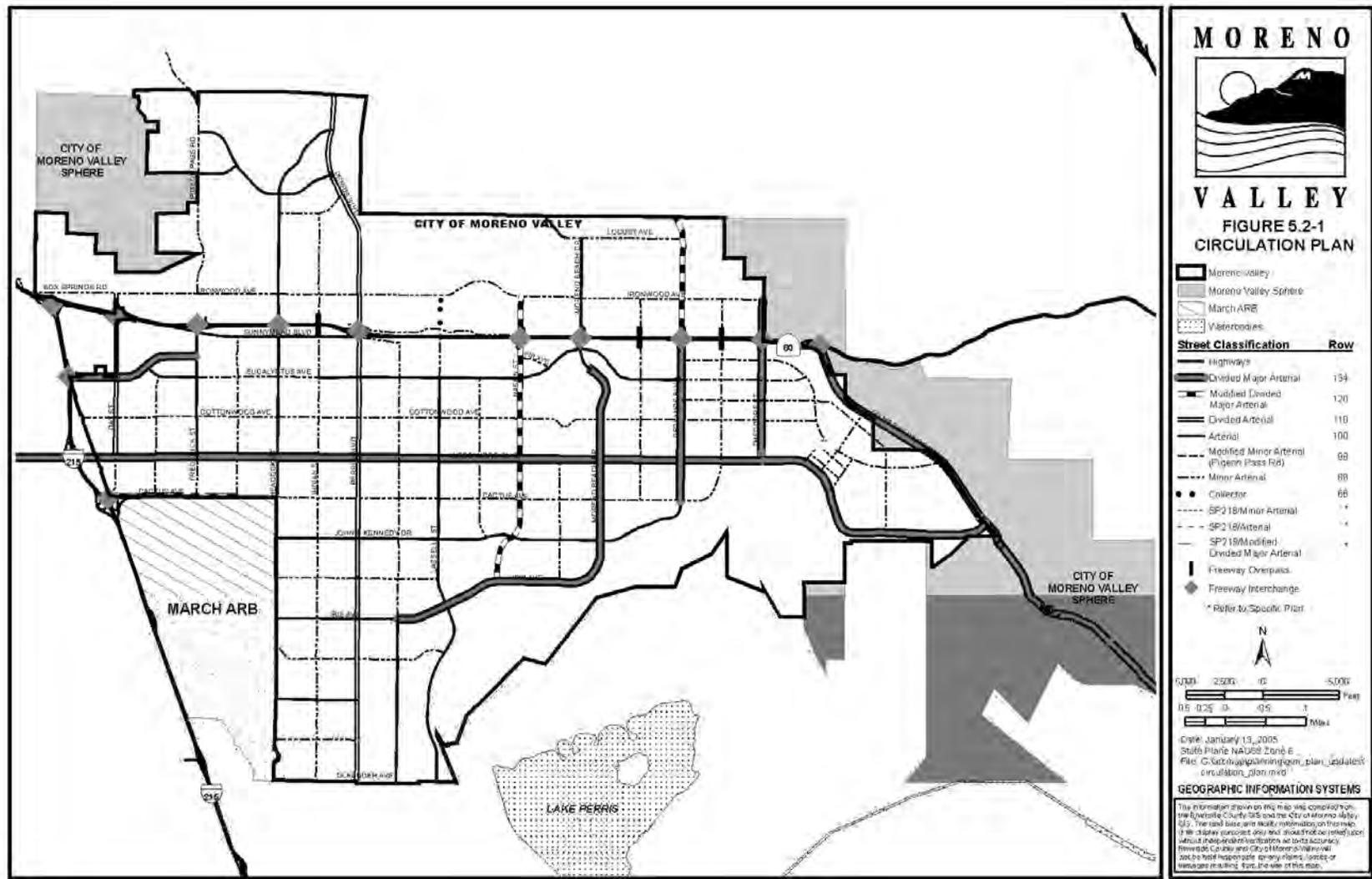
- **Route 31** provides transit service on Nason Street within the project area. Route 31 has a major stop at the Riverside University Medical Center on the northwest corner of Nason Street and Cactus Avenue. Route 31 operates at 60-90-minute headways on weekdays.

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

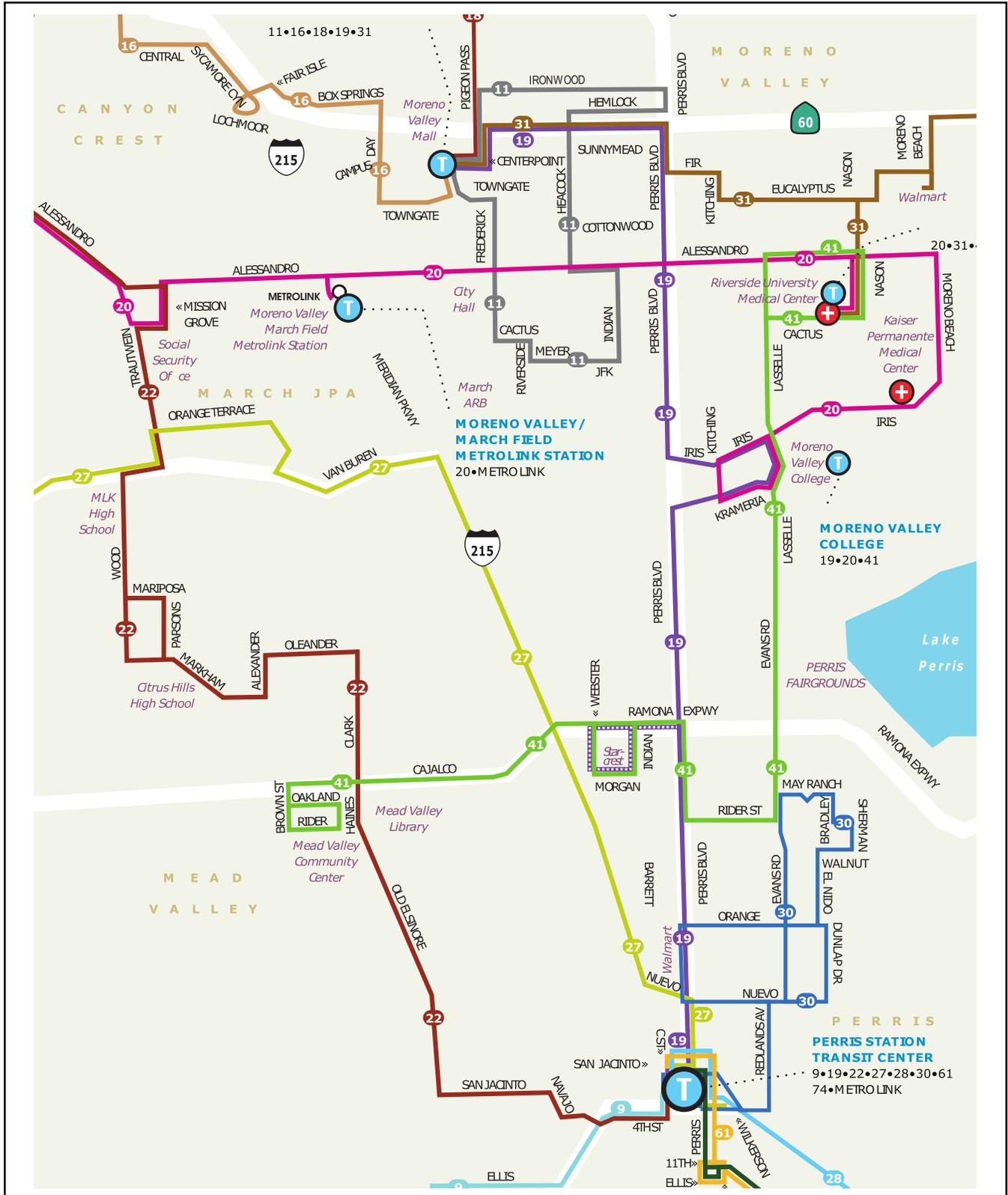
5.2-4

City of Moreno Valley
 July 2006

Source: Moreno Valley Circulation Plan

FIGURE 8

Moreno Valley TTM 38443 Residential
 City of Moreno Valley's Existing Circulation



Source: RTA

FIGURE 9

- **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.

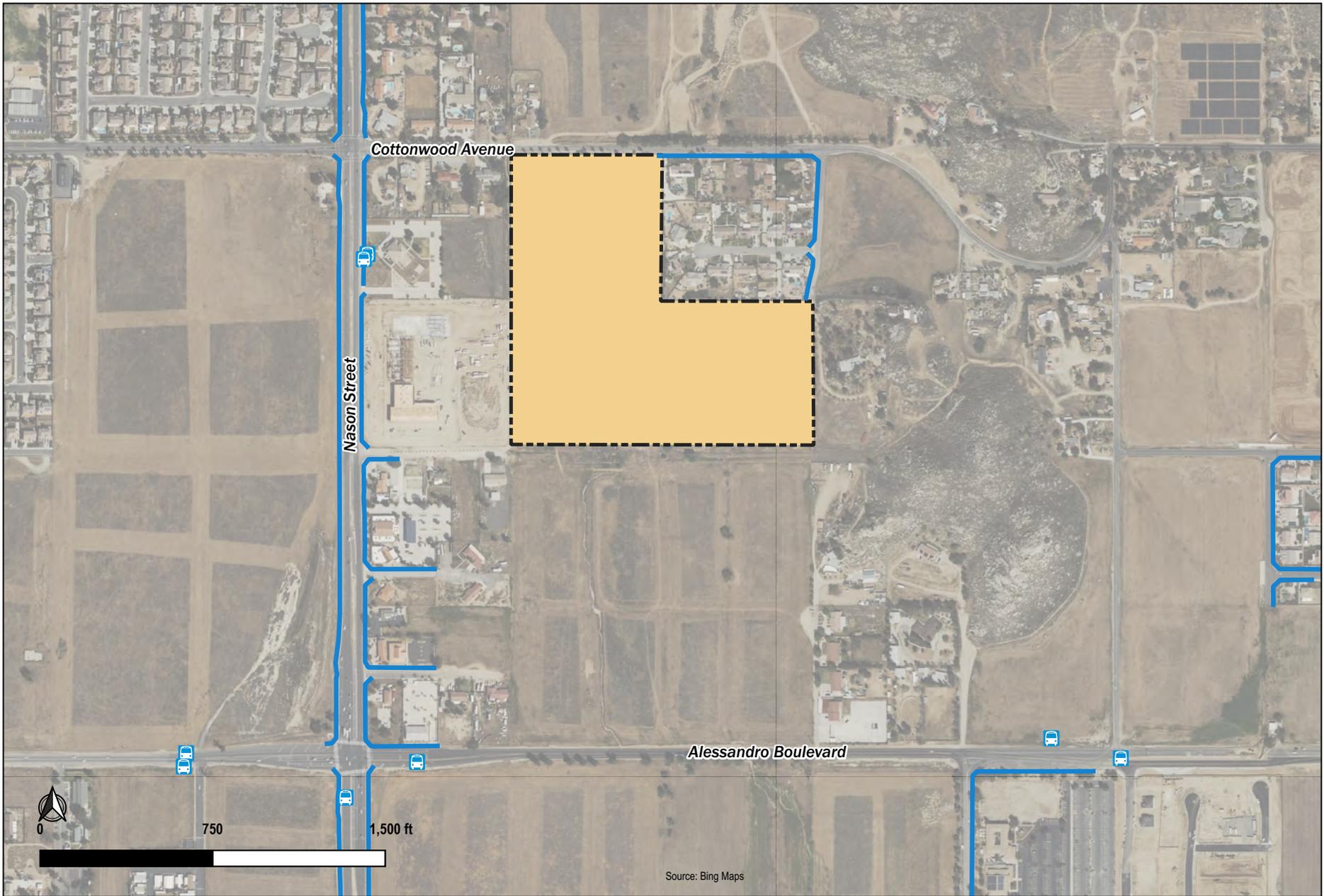


FIGURE 11

Moreno Valley TTM 38443 Residential
Pedestrian Facilities

- Legend
-  Bus Stops
 -  Sidewalks
 -  Project Location



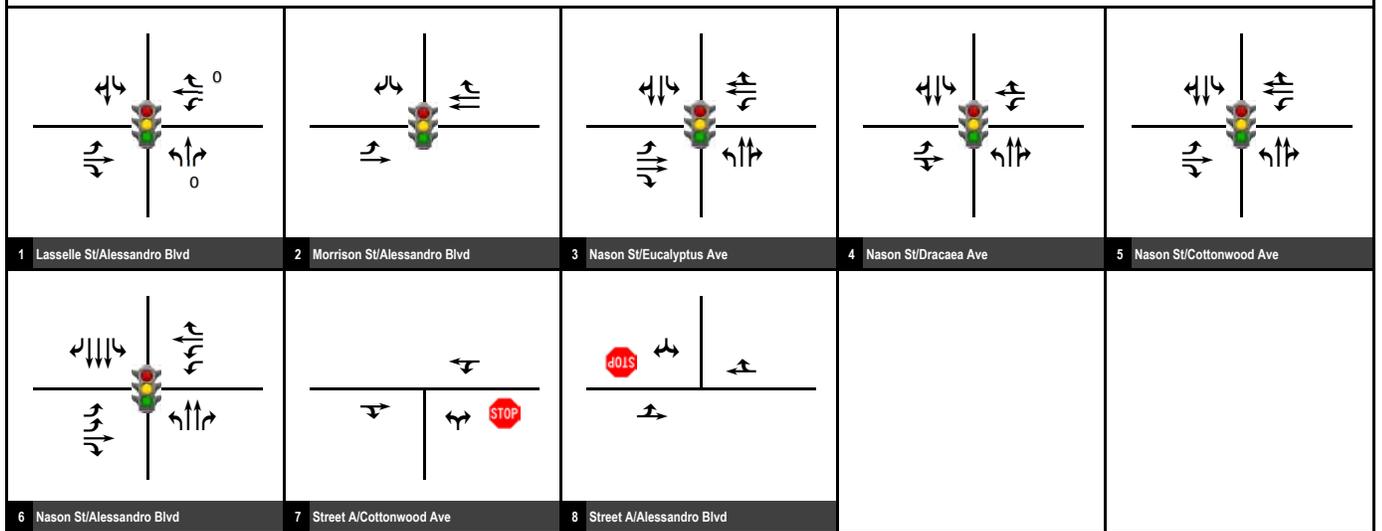
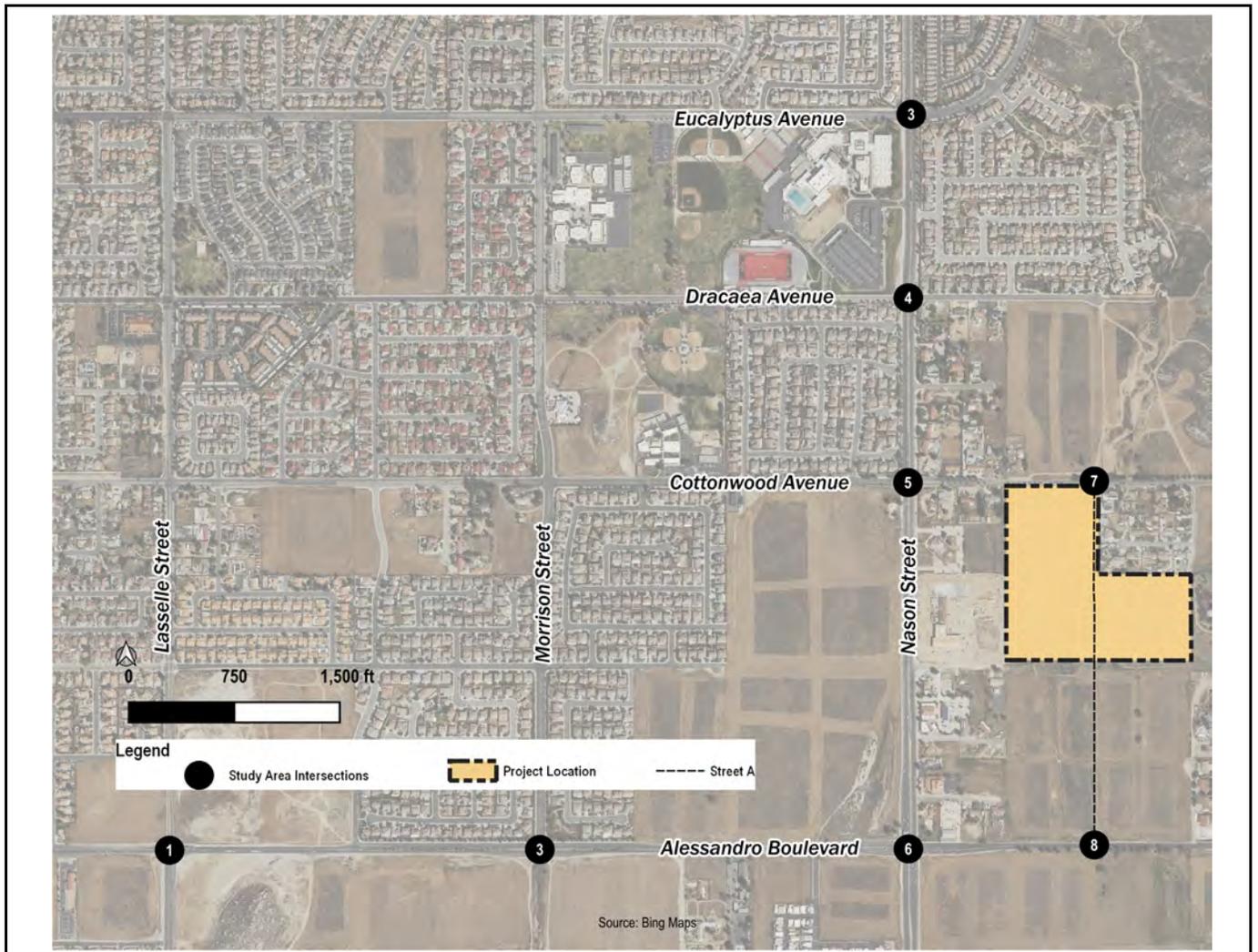


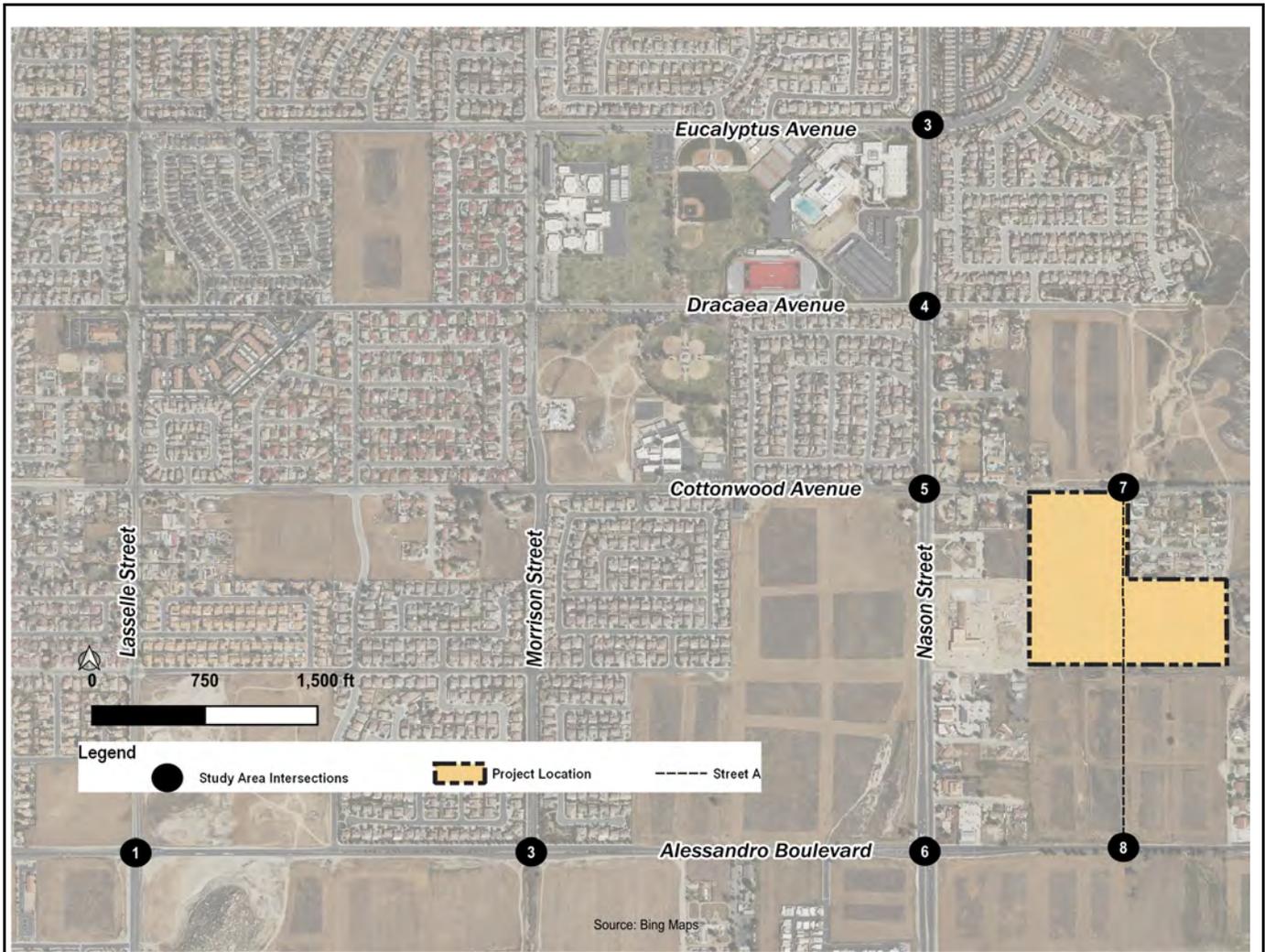
FIGURE 12

Legend

- Signal
- Stop Sign
- overlap

TTM 38443
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 38443
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.

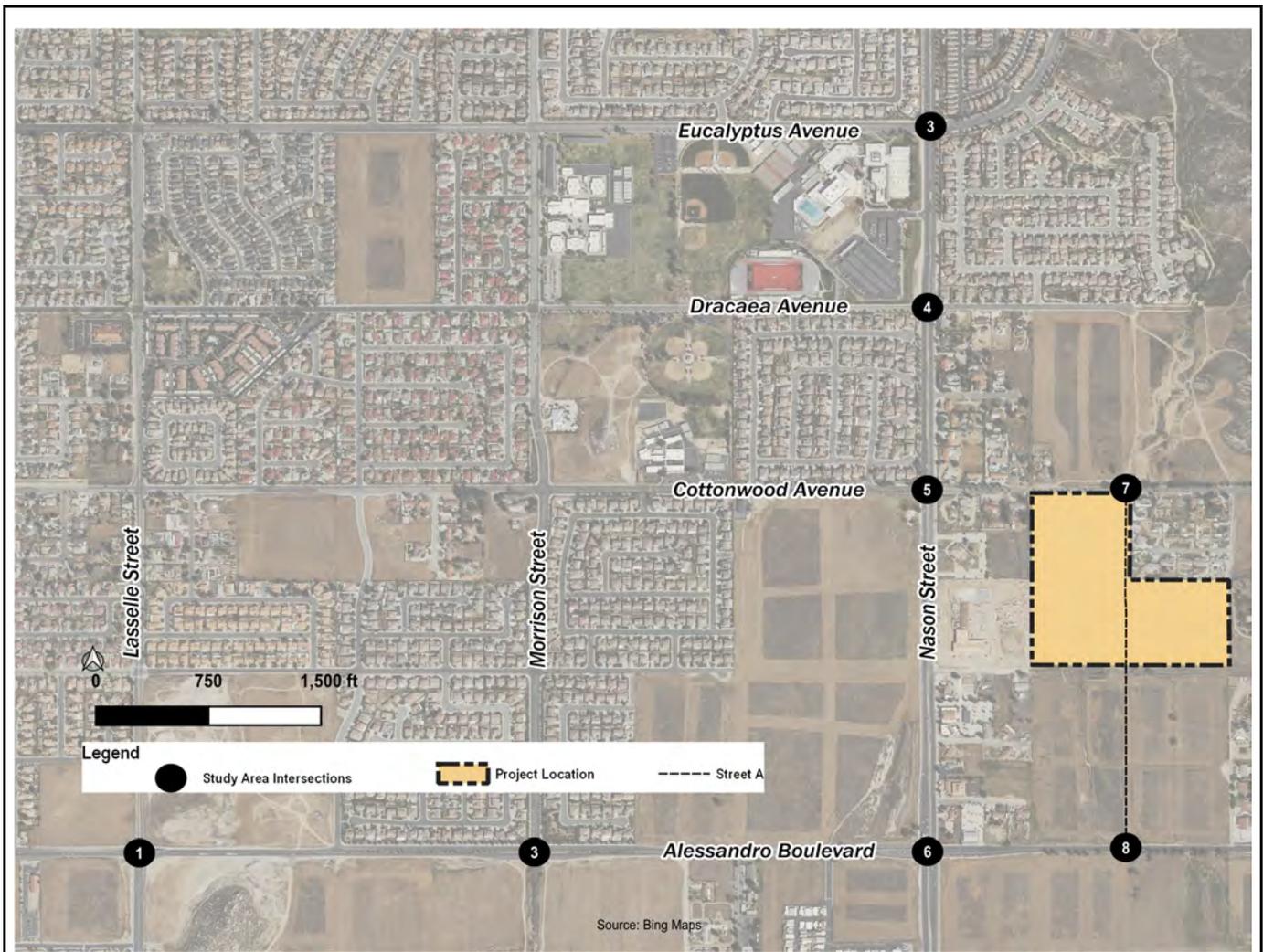
6.6 Project Completion Year (2024) With Project Intersection Levels of Service

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>91/132</td> <td>134/108</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>99/110</td> <td>268/501</td> <td>411/437</td> <td>921/758</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>652/925</td> <td>411/437</td> <td>192/198</td> <td>213/148</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>473/368</td> <td>268/501</td> <td>411/437</td> <td>192/198</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> </table>	122/93	401/428	91/132	134/108	↙ ↘	↙ ↘	↙ ↘	↙ ↘	99/110	268/501	411/437	921/758	↙ ↘	↙ ↘	↙ ↘	↙ ↘	652/925	411/437	192/198	213/148	↙ ↘	↙ ↘	↙ ↘	↙ ↘	473/368	268/501	411/437	192/198	↙ ↘	↙ ↘	↙ ↘	↙ ↘	<table border="1"> <tr> <td>165/85</td> <td>106/61</td> <td>87/56</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>164/105</td> <td>769/935</td> <td>888/896</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> </table>	165/85	106/61	87/56	↙ ↘	↙ ↘	↙ ↘	164/105	769/935	888/896	↙ ↘	↙ ↘	↙ ↘	<table border="1"> <tr> <td>103/69</td> <td>3093/2193</td> <td>31/61</td> <td>53/33</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>263/48</td> <td>256/186</td> <td>113/79</td> <td>208/195</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>252/77</td> <td>179/3/3186</td> <td>179/3/3186</td> <td>393/301</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td></td> <td>297/495</td> <td>297/495</td> <td></td> </tr> <tr> <td></td> <td>↙ ↘</td> <td>↙ ↘</td> <td></td> </tr> </table>	103/69	3093/2193	31/61	53/33	↙ ↘	↙ ↘	↙ ↘	↙ ↘	263/48	256/186	113/79	208/195	↙ ↘	↙ ↘	↙ ↘	↙ ↘	252/77	179/3/3186	179/3/3186	393/301	↙ ↘	↙ ↘	↙ ↘	↙ ↘		297/495	297/495			↙ ↘	↙ ↘		<table border="1"> <tr> <td>268/105</td> <td>3316/2424</td> <td>14/20</td> <td>3/3</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>117/131</td> <td>15/2</td> <td>270/48</td> <td>2/6</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>122/72</td> <td>196/9/3557</td> <td>196/9/3557</td> <td>23/33</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td></td> <td>54/38</td> <td>54/38</td> <td></td> </tr> <tr> <td></td> <td>↙ ↘</td> <td>↙ ↘</td> <td></td> </tr> </table>	268/105	3316/2424	14/20	3/3	↙ ↘	↙ ↘	↙ ↘	↙ ↘	117/131	15/2	270/48	2/6	↙ ↘	↙ ↘	↙ ↘	↙ ↘	122/72	196/9/3557	196/9/3557	23/33	↙ ↘	↙ ↘	↙ ↘	↙ ↘		54/38	54/38			↙ ↘	↙ ↘		<table border="1"> <tr> <td>254/313</td> <td>3201/2179</td> <td>42/38</td> <td>73/33</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>350/302</td> <td>99/106</td> <td>262/123</td> <td>129/90</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td>149/101</td> <td>186/8/3318</td> <td>186/8/3318</td> <td>82/27</td> </tr> <tr> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> <td>↙ ↘</td> </tr> <tr> <td></td> <td>65/31</td> <td>65/31</td> <td></td> </tr> <tr> <td></td> <td>↙ ↘</td> <td>↙ ↘</td> <td></td> </tr> </table>	254/313	3201/2179	42/38	73/33	↙ ↘	↙ ↘	↙ ↘	↙ ↘	350/302	99/106	262/123	129/90	↙ ↘	↙ ↘	↙ ↘	↙ ↘	149/101	186/8/3318	186/8/3318	82/27	↙ ↘	↙ ↘	↙ ↘	↙ ↘		65/31	65/31			↙ ↘	↙ ↘	
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FIGURE 14

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

TTM 38443

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 *	0.2	0.2
2 . Morrison St/Alessandro Blvd	Moreno Valley	D	Signal	31.8	C	28.7	C	32.2	C	29.6	C	0.4	0.9
3 . Nason St/Eucalyptus Ave	Moreno Valley	D	Signal	>100	F *	>100	F *	>100	F *	>100	F *	0	2.1
4 . Nason St/Dracaea Ave	Moreno Valley	C	Signal	>100	F *	>100	F *	>100	F *	>100	F *	0.5	0.4
5 . Nason St/Cottonwood Ave	Moreno Valley	C	Signal	>100	F *	>100	F *	>100	F *	>100	F *	2.1	3.4
6 . Nason St/Alessandro Blvd	Moreno Valley	D	Signal	>100	F *	>100	F *	>100	F *	>100	F *	0.4	2.2
7 . Street A/Cottonwood Ave	Moreno Valley	C	TWSC	11.5	B	10.2	B	12.6	B	11.0	B	1.1	0.8
8 . Street A/Alessandro Blvd	Moreno Valley	C	TWSC	68.2	F *	59.6	F *	>100	F *	>100	F *	81.1	100.5

Notes:

LOS = Level of Service

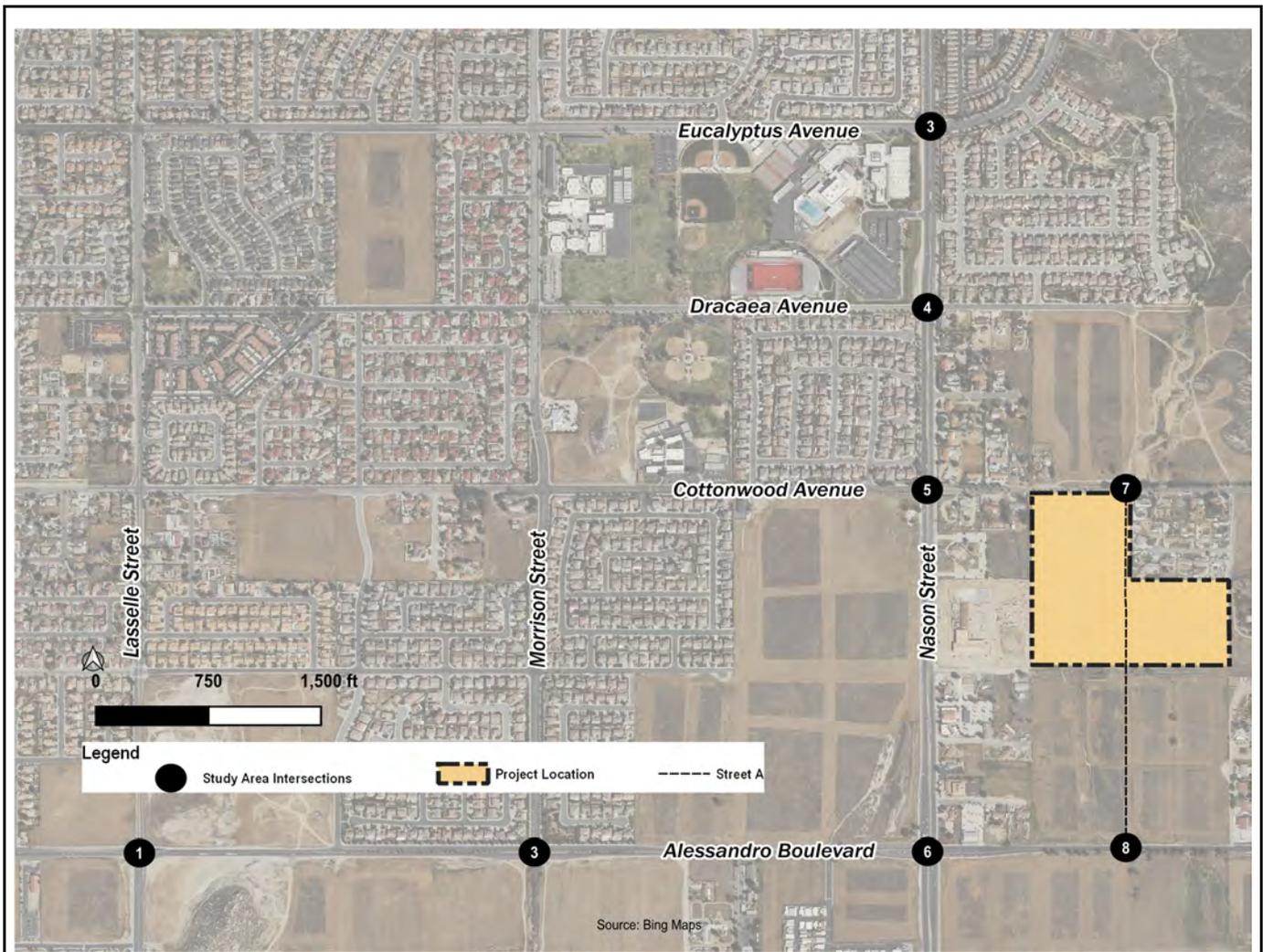
TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case movement.

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	4,314	0.345	A	5,066	A	0.405	0.060
2 . Alessandro Boulevard from Lasselle Street to Morrison Street	D	2U	12,500	25,775	2.062	F *	26,089	F *	2.087	0.025
3 . Alessandro Boulevard from Morrison Street to Nason Street	D	2U	12,500	22,307	1.785	F *	22,647	F *	1.812	0.027
4 . Alessandro Boulevard from Nason to Project's Western Boundary	C	2U	12,500	24,320	1.946	F *	24,546	F *	1.964	0.018

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 38443

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

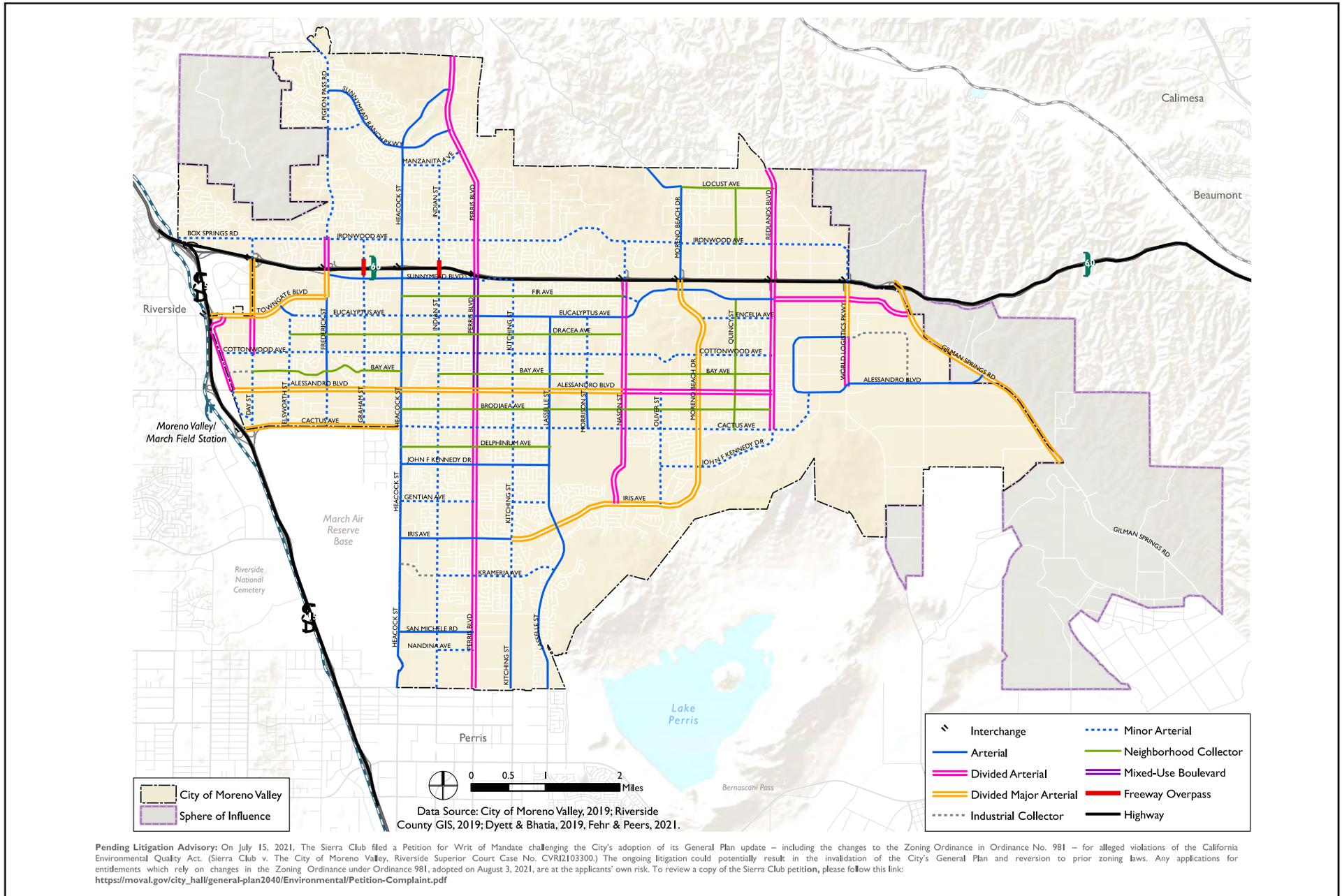
An intersection level of service analysis was conducted for general plan buildout (2040) without project conditions to determine circulation system performance. General plan buildout (2040) without project traffic volumes at study intersections are shown in Figure 19. General plan buildout (2040) without 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.



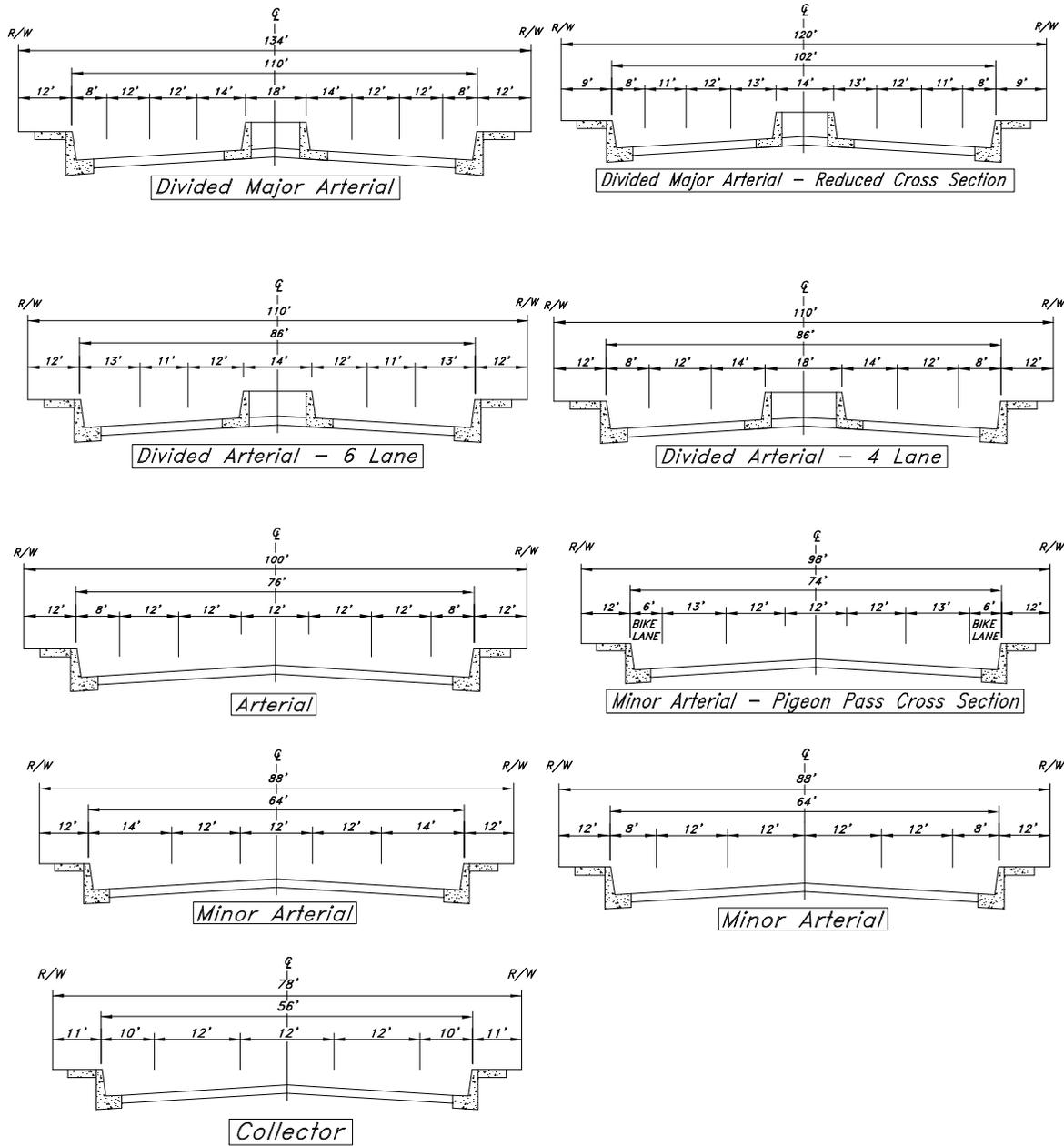
Source: Moreno Valley Circulation Plan

FIGURE 16

Moreno Valley TTM 38443 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

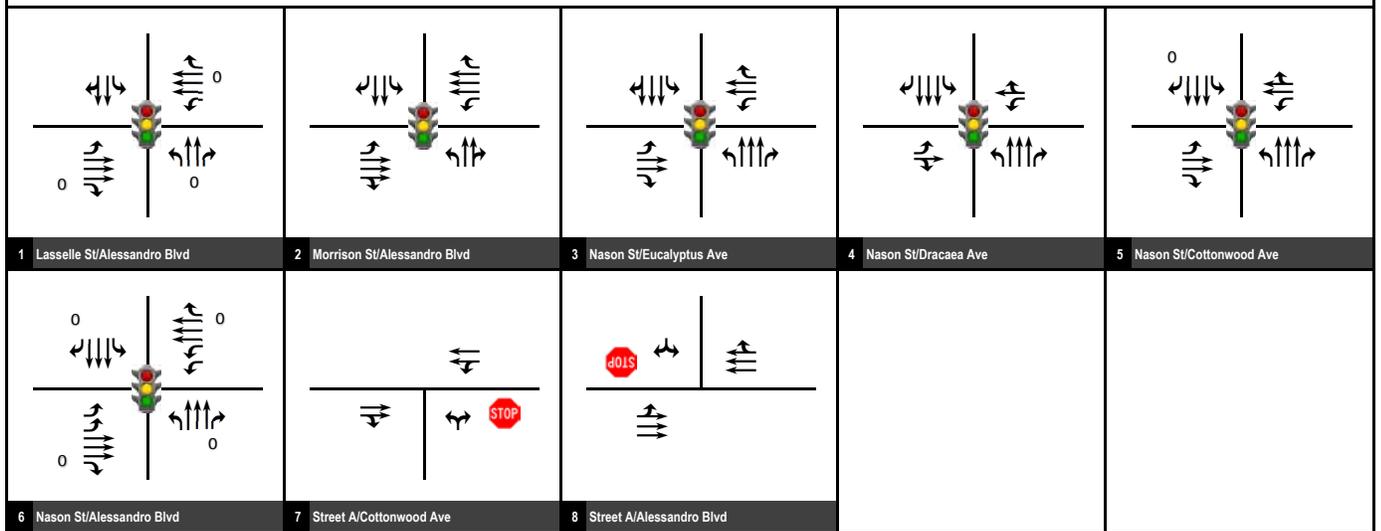
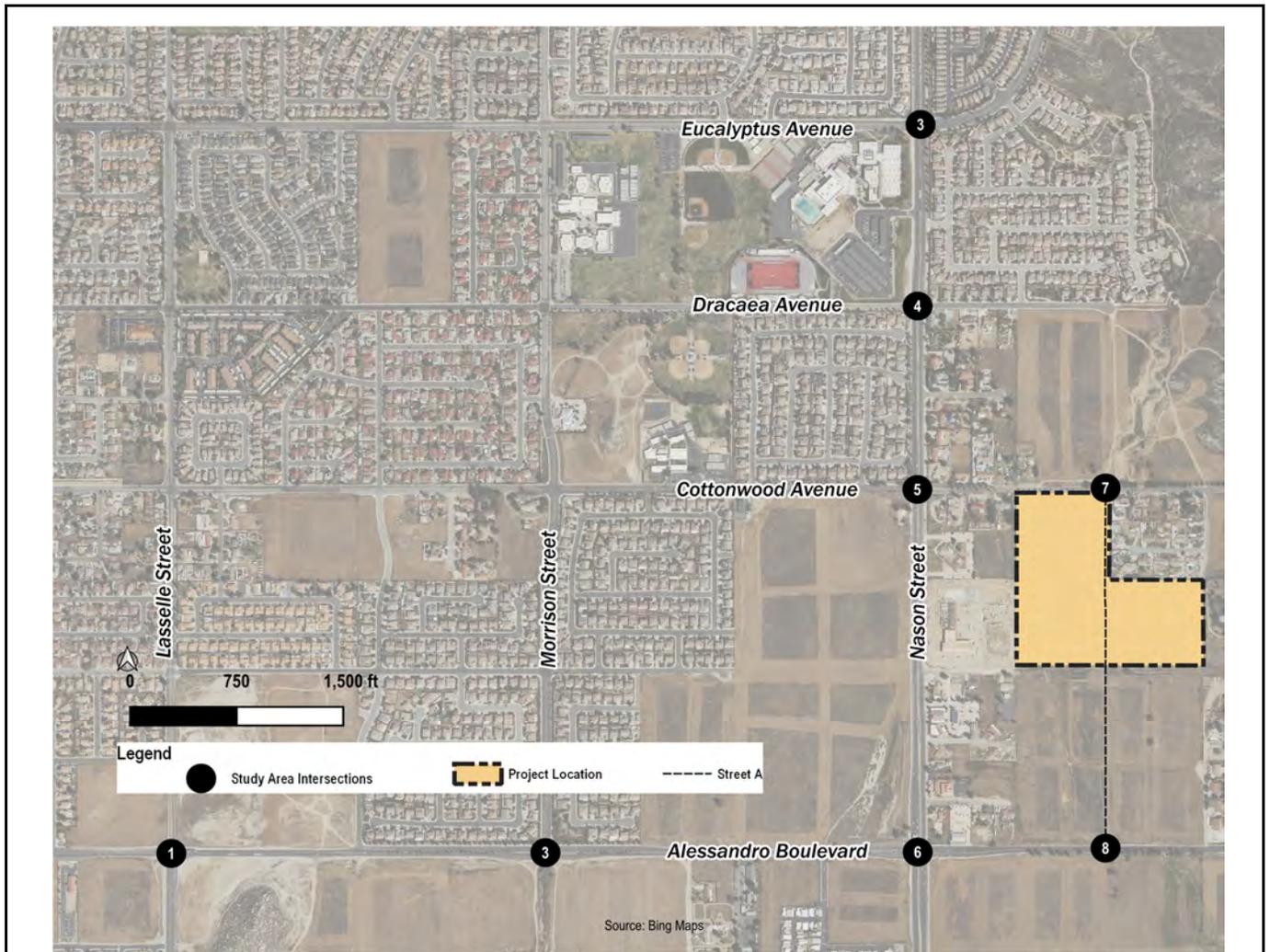


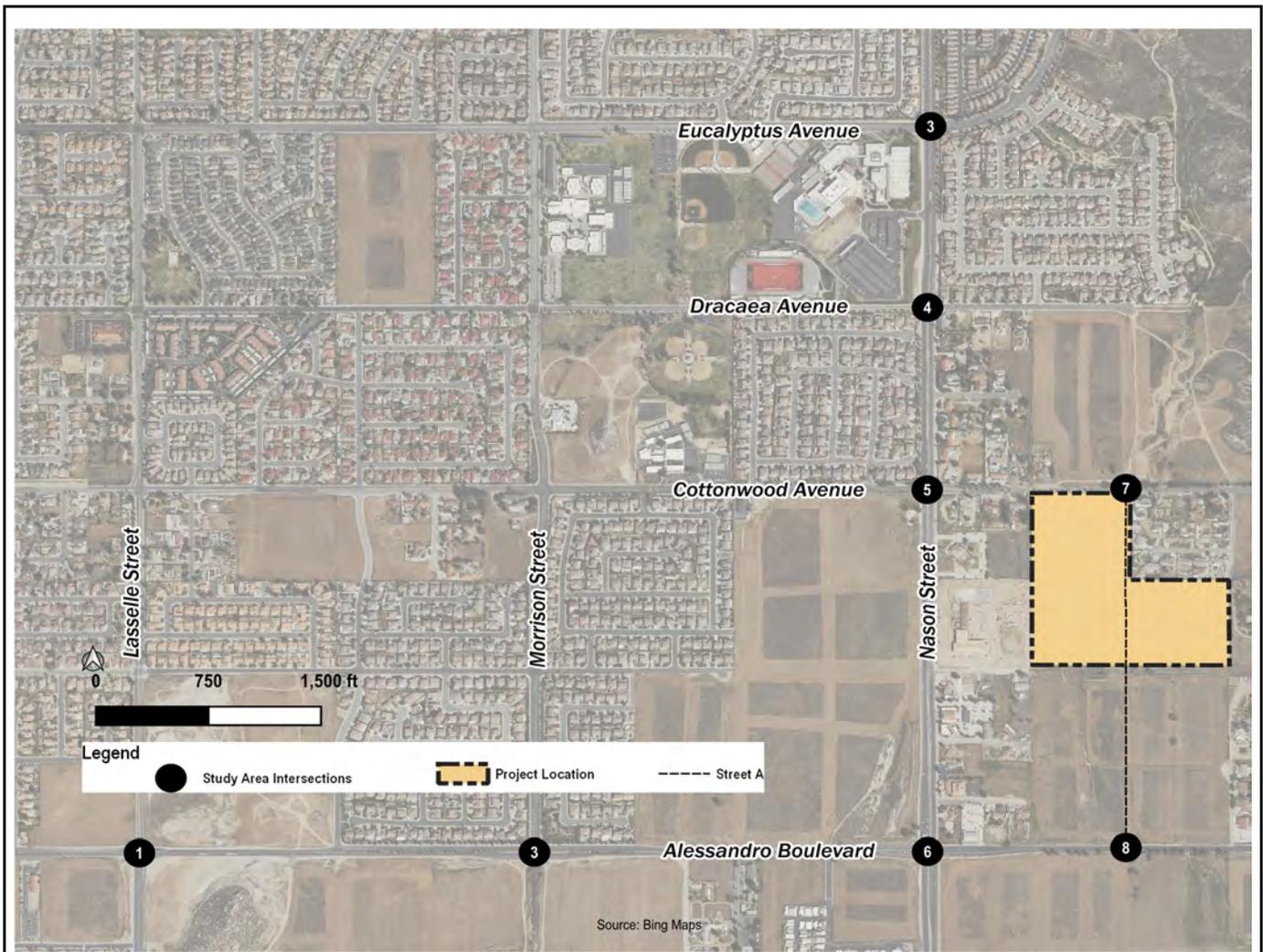
FIGURE 18

Legend

- Signal
- Stop Sign
- overlap

TTM 38443
 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 38443

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	D	67.1	E *	42.2	D	67.1	E *	1.2	0
2 . Morrison St/Alessandro Blvd	Moreno Valley	D	Signal	37.7	D	36.3	D	37.6	D	36.4	D	-0.1	0.1
3 . Nason St/Eucalyptus Ave	Moreno Valley	D	Signal	>100	F *	85.7	F *	>100	F *	86.9	F *	0.1	1.2
4 . Nason St/Dracaea Ave	Moreno Valley	C	Signal	69.4	E *	27.0	C	70	E *	27.9	C	0.6	0.9
5 . Nason St/Cottonwood Ave	Moreno Valley	C	Signal	94	F *	52.4	D *	96.1	F *	54.3	D *	2.1	1.9
6 . Nason St/Alessandro Blvd	Moreno Valley	D	Signal	>100	F *	65.3	E *	>100	F *	68.3	E *	1	3
7 . Street A/Cottonwood Ave	Moreno Valley	C	TWSC	10.7	B	9.9	A	11.6	B	10.7	B	0.9	0.8
8 . Street A/Alessandro Blvd	Moreno Valley	C	TWSC	27.7	D *	24.3	C	38.5	E *	>100	F *	10.8	168.9

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	4,529	0.181	A	5,281	A	0.211	0.030
2 . Alessandro Boulevard from Lasselle Street to Morrison Street	D	6D	56,300	27,063	0.481	A	27,377	A	0.486	0.006
3 . Alessandro Boulevard from Morrison Street to Nason Street	D	6D	56,300	23,099	0.410	A	23,439	A	0.416	0.006
4 . Alessandro Boulevard from Nason to Project's Western Boundary	C	6D	56,300	25,536	0.454	A	25,762	A	0.458	0.004

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:

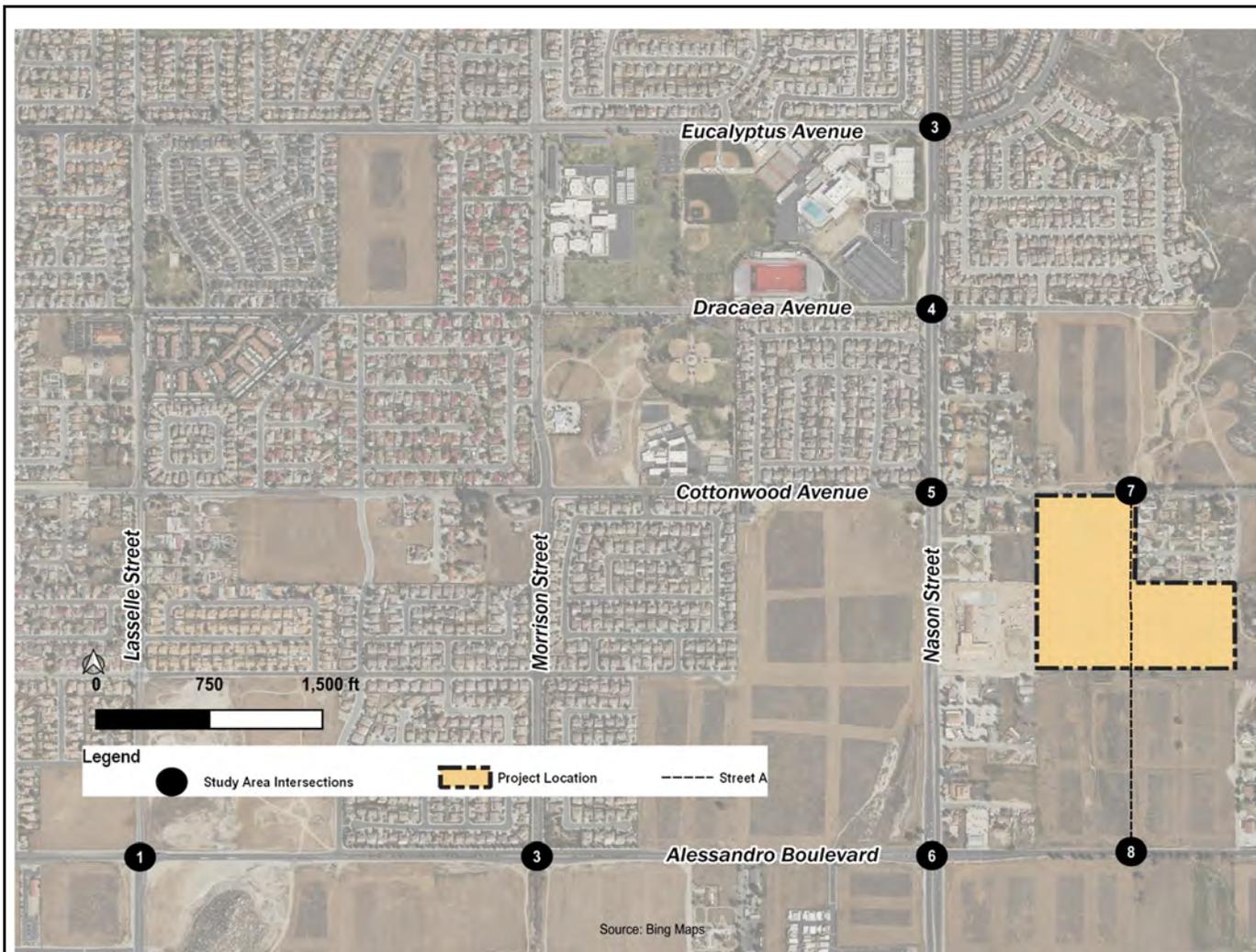
- Street A and Alessandro Boulevard: Modify the southbound approach by restricting outbound traffic to right-out access only.

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>↑</td><td>142/114</td></tr> <tr><td>412/554</td><td>↓</td><td>978/849</td></tr> <tr><td>109/141</td><td>↔</td><td>229/158</td></tr> <tr><td>104/125</td><td>↔</td><td></td></tr> <tr><td>724/984</td><td>↔</td><td></td></tr> <tr><td>497/386</td><td>↔</td><td></td></tr> <tr><td>281/526</td><td>↔</td><td></td></tr> <tr><td>458/496</td><td>↔</td><td></td></tr> <tr><td>212/214</td><td>↔</td><td></td></tr> </table>	141/98	↑	142/114	412/554	↓	978/849	109/141	↔	229/158	104/125	↔		724/984	↔		497/386	↔		281/526	↔		458/496	↔		212/214	↔		<table border="1"> <tr><td>173/93</td><td>↑</td><td>92/60</td></tr> <tr><td>116/155</td><td>↓</td><td>949/953</td></tr> <tr><td>111/66</td><td>↔</td><td>35/38</td></tr> <tr><td>172/110</td><td>↔</td><td></td></tr> <tr><td>788/1002</td><td>↔</td><td></td></tr> <tr><td>78/82</td><td>↔</td><td></td></tr> <tr><td>55/104</td><td>↔</td><td></td></tr> <tr><td>102/132</td><td>↔</td><td></td></tr> <tr><td>42/65</td><td>↔</td><td></td></tr> </table>	173/93	↑	92/60	116/155	↓	949/953	111/66	↔	35/38	172/110	↔		788/1002	↔		78/82	↔		55/104	↔		102/132	↔		42/65	↔		<table border="1"> <tr><td>108/62</td><td>↑</td><td>56/35</td></tr> <tr><td>3252/2316</td><td>↓</td><td>321/402</td></tr> <tr><td>33/64</td><td>↔</td><td>414/475</td></tr> <tr><td>276/59</td><td>↔</td><td></td></tr> <tr><td>409/323</td><td>↔</td><td></td></tr> <tr><td>272/118</td><td>↔</td><td></td></tr> <tr><td>121/95</td><td>↔</td><td></td></tr> <tr><td>1894/3352</td><td>↔</td><td></td></tr> <tr><td>480/583</td><td>↔</td><td></td></tr> </table>	108/62	↑	56/35	3252/2316	↓	321/402	33/64	↔	414/475	276/59	↔		409/323	↔		272/118	↔		121/95	↔		1894/3352	↔		480/583	↔		<table border="1"> <tr><td>313/143</td><td>↑</td><td>35/4</td></tr> <tr><td>3488/2565</td><td>↓</td><td>18/10</td></tr> <tr><td>18/32</td><td>↔</td><td>61/35</td></tr> <tr><td>149/172</td><td>↔</td><td></td></tr> <tr><td>16/4</td><td>↔</td><td></td></tr> <tr><td>128/90</td><td>↔</td><td></td></tr> <tr><td>272/50</td><td>↔</td><td></td></tr> <tr><td>2084/3747</td><td>↔</td><td></td></tr> <tr><td>57/40</td><td>↔</td><td></td></tr> </table>	313/143	↑	35/4	3488/2565	↓	18/10	18/32	↔	61/35	149/172	↔		16/4	↔		128/90	↔		272/50	↔		2084/3747	↔		57/40	↔		<table border="1"> <tr><td>267/329</td><td>↑</td><td>95/67</td></tr> <tr><td>3361/2288</td><td>↓</td><td>141/99</td></tr> <tr><td>66/61</td><td>↔</td><td>103/40</td></tr> <tr><td>368/317</td><td>↔</td><td></td></tr> <tr><td>106/117</td><td>↔</td><td></td></tr> <tr><td>156/106</td><td>↔</td><td></td></tr> <tr><td>275/129</td><td>↔</td><td></td></tr> <tr><td>1962/3484</td><td>↔</td><td></td></tr> <tr><td>74/53</td><td>↔</td><td></td></tr> </table>	267/329	↑	95/67	3361/2288	↓	141/99	66/61	↔	103/40	368/317	↔		106/117	↔		156/106	↔		275/129	↔		1962/3484	↔		74/53	↔	
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FIGURE 20

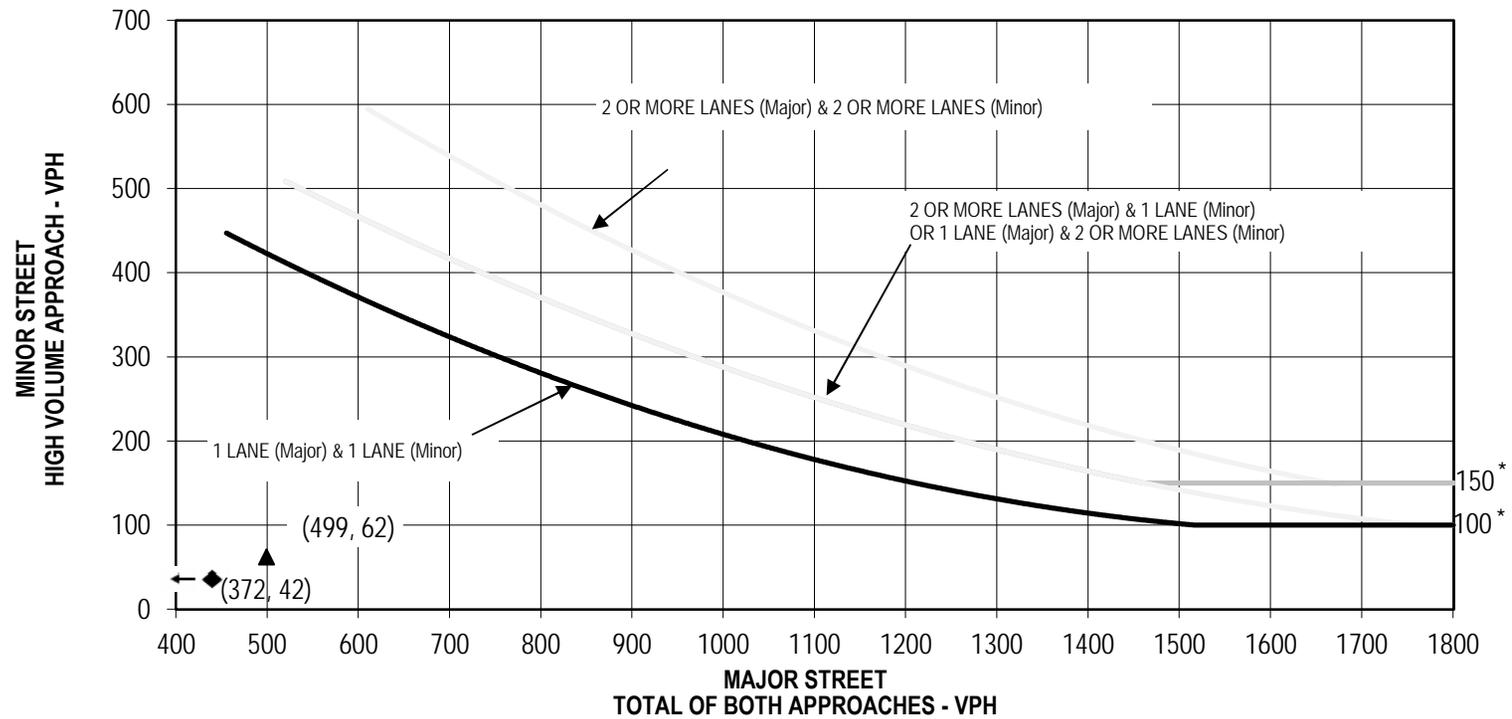
xxx / yyy AM / PM Peak Hour Volume (In PCEs)

TTM 38443

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

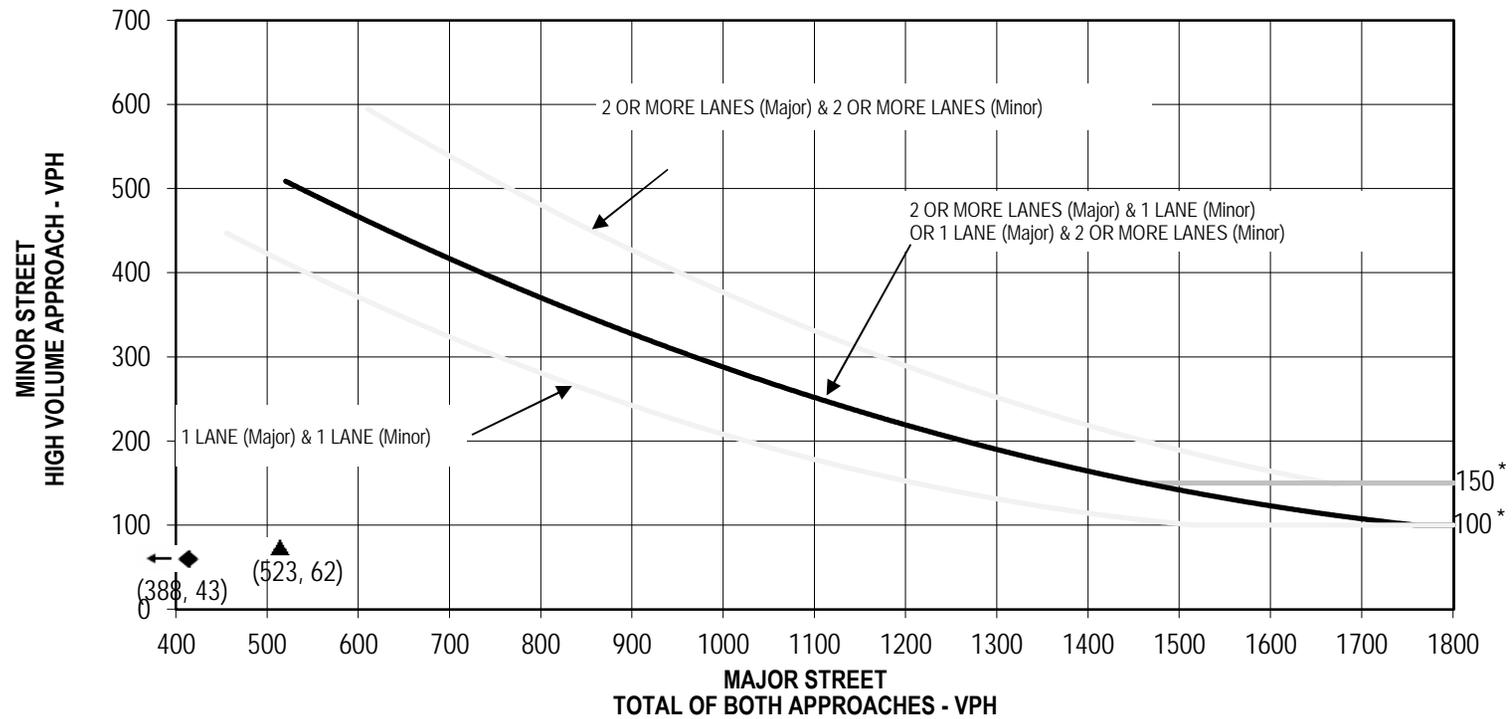
- ▲ AM Peak Hour
- ◆ PM Peak Hour

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

**TTM 38443 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

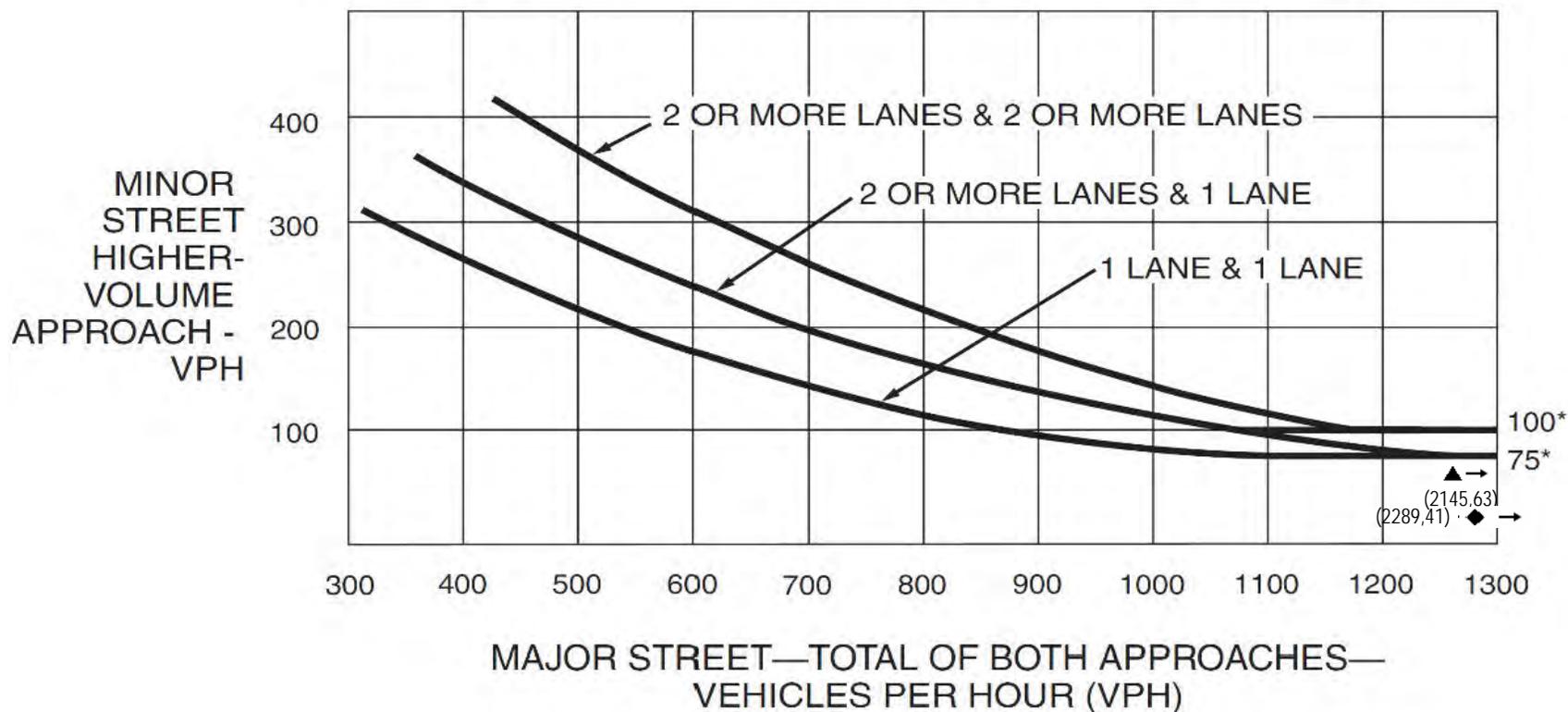
- ▲ AM Peak Hour
- ◆ PM Peak Hour

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

**TTM 38443 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

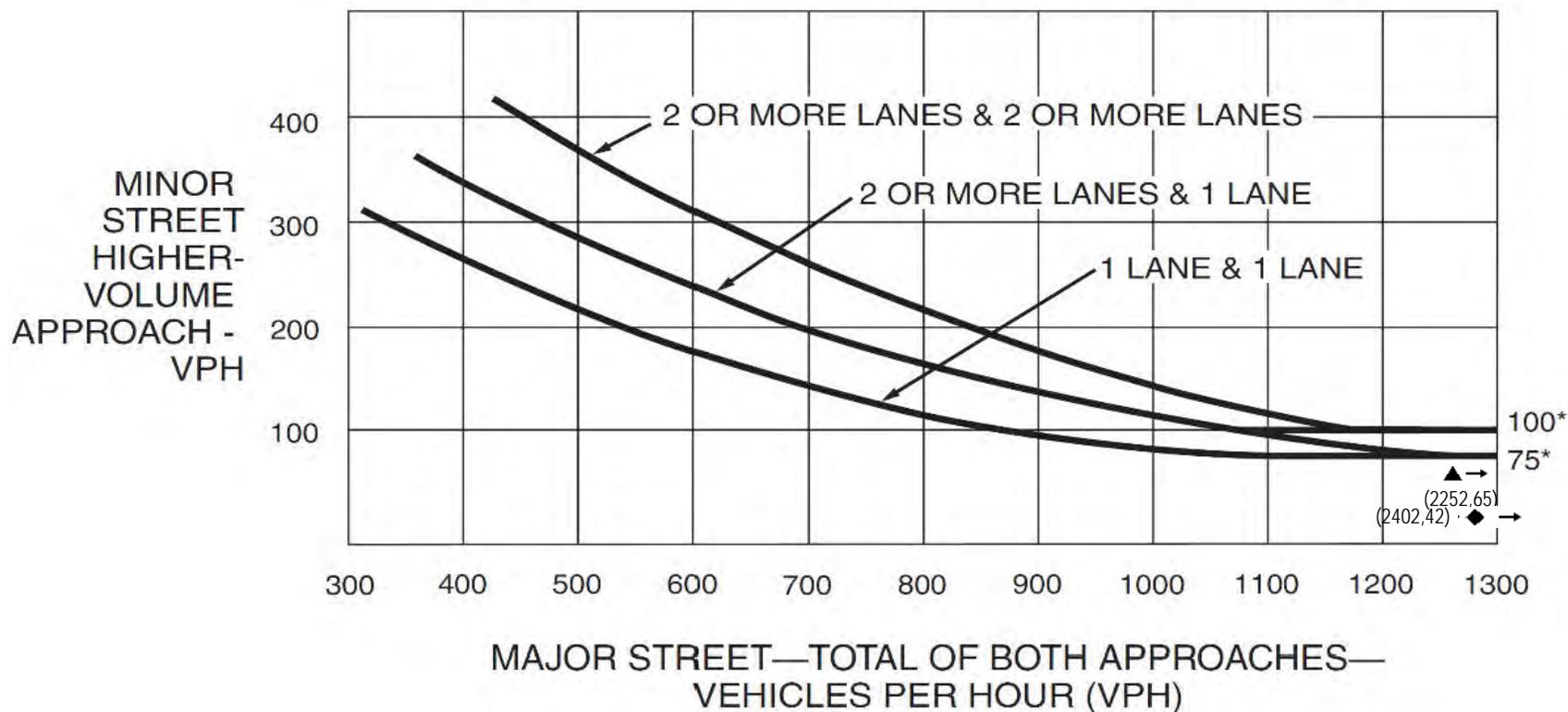
FIGURE 23

- ▲ AM Peak Hour
- ◆ PM Peak Hour



TTM 38443 Moreno Valley Residential
Signal Warrants for Street A/Alessandro Boulevard
Project Completion Year (2024) Without 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 38443 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 *	2	2.8
8 . Street A/Alessandro Blvd	Moreno Valley	C	TWSC	68.2	F *	59.6	F *	45.9	E *	19.8	C	-22.3	-39.8

Notes:

LOS = Level of Service

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

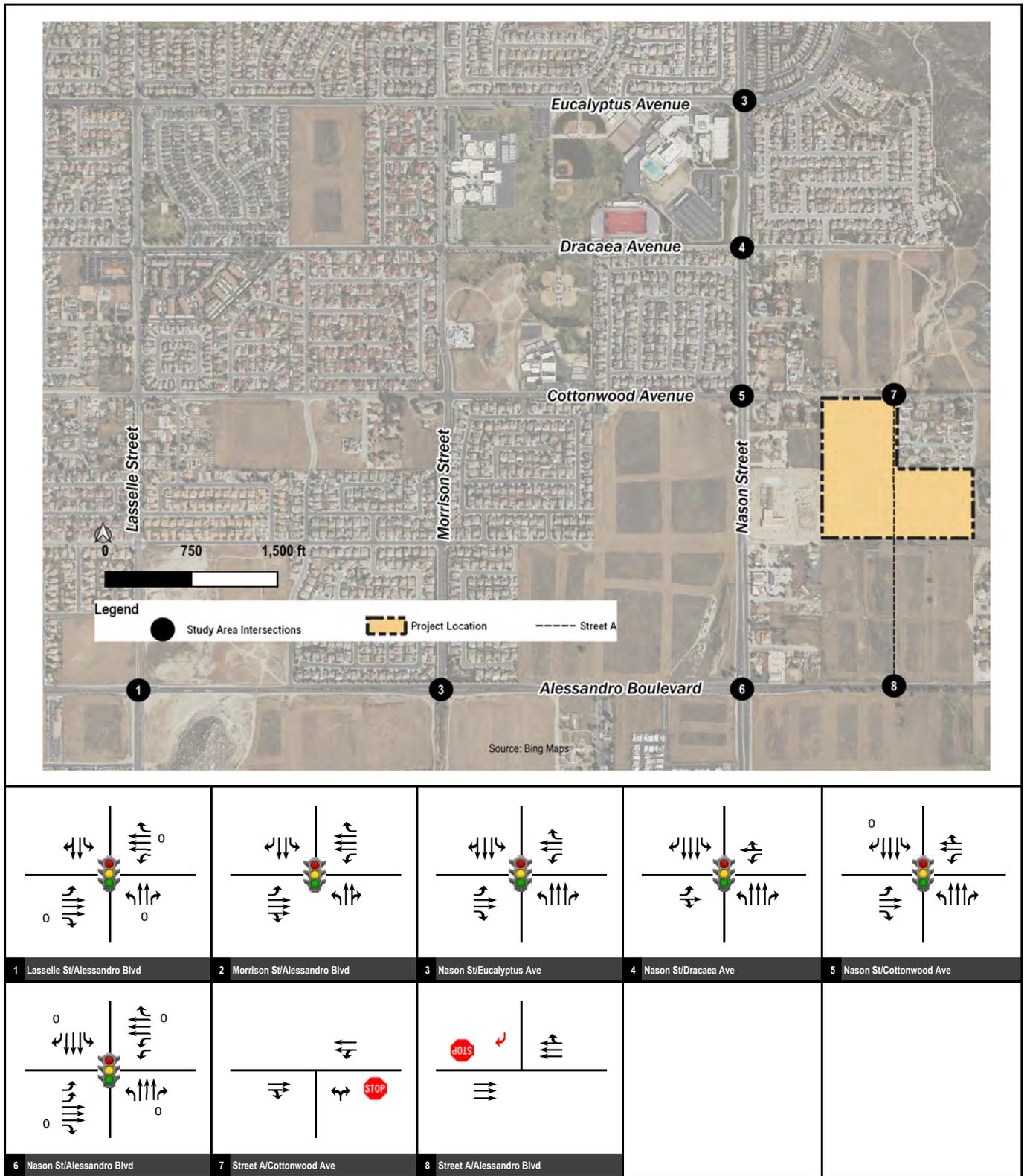


FIGURE 25

Legend

- Signal
- Overlap
- Stop Sign
- Improvements

TTM 38443

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 maximum eastbound left-turn queue does not exceed one vehicle and is not anticipated to cause significant delays. Therefore, it is not recommended to restrict eastbound left-turn movements at the intersection of Street A and Alessandro Boulevard.

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 93 trips during the a.m. peak hour, 125 trips during the p.m. peak hour, and 1,254 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 *	65.3	E *	>100	F *	69.0	E *	3.9	3.7
8 . Street A/Alessandro Blvd	Moreno Valley	C	TWSC	27.7	D *	24.3	C	23.6	C	16.9	C	-4.1	-7.4

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	405	307	369	313
	WBR	50	16	19	16	19
2 . Morrison St/Alessandro Blvd	EBL	125	159	83	151	80
	WBR	600	5	6	4	7
3 . Nason St/Eucalyptus Ave	NBL	300	144	43	134	44
	NBL	180	222	19	215	25
4 . Nason St/Dracaea Ave	SBL	280	7	19	7	19
	NBL	200	262	58	258	62
5 . Nason St/Cottonwood Ave	SBL	240	17	23	19	39
	EBL	240	177	96	179	108
6 . Nason St/Alessandro Blvd	EBR	200	57	35	54	30
	SBL	250	50	105	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	317	292	334	296
	WBR	50	0	1	0	4
2 . Morrison St/Alessandro Blvd	EBL	125	210	145	220	139
	WBR	600	7	4	7	4
3 . Nason St/Eucalyptus Ave	NBL	300	238	71	241	72
	NBL	180	153	30	173	31
4 . Nason St/Dracaea Ave	SBL	280	10	25	10	25
	NBL	200	454	87	478	87
5 . Nason St/Cottonwood Ave	SBL	240	31	46	33	69
	EBL	240	168	190	165	197
6 . Nason St/Alessandro Blvd	EBR	200	123	4	137	5
	SBL	250	80	215	84	209
	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 Concourse, 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
 %	 %	 %	 %

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)

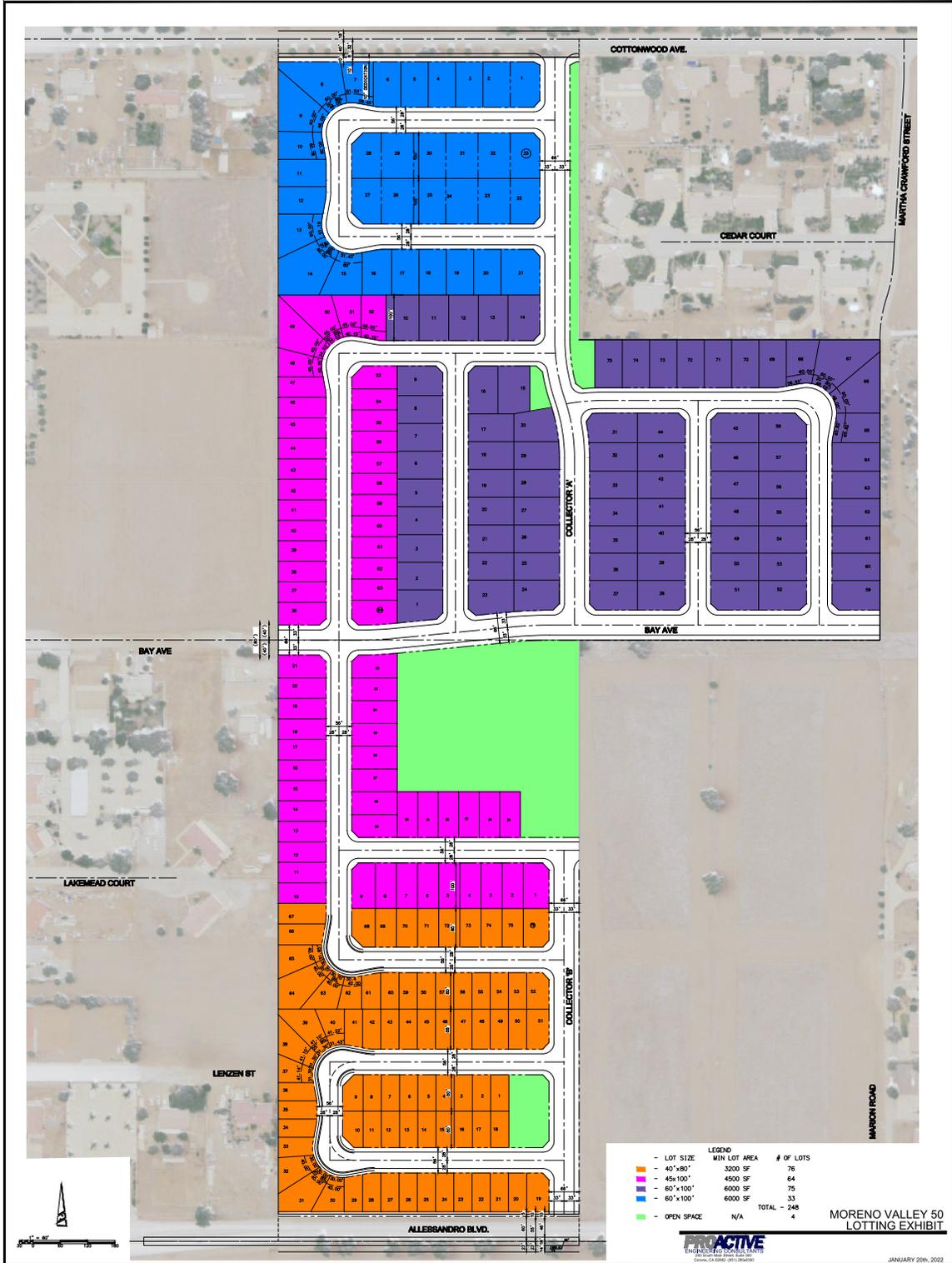


FIGURE 1

Highpointe Moreno Valley Residential Site Plan

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).

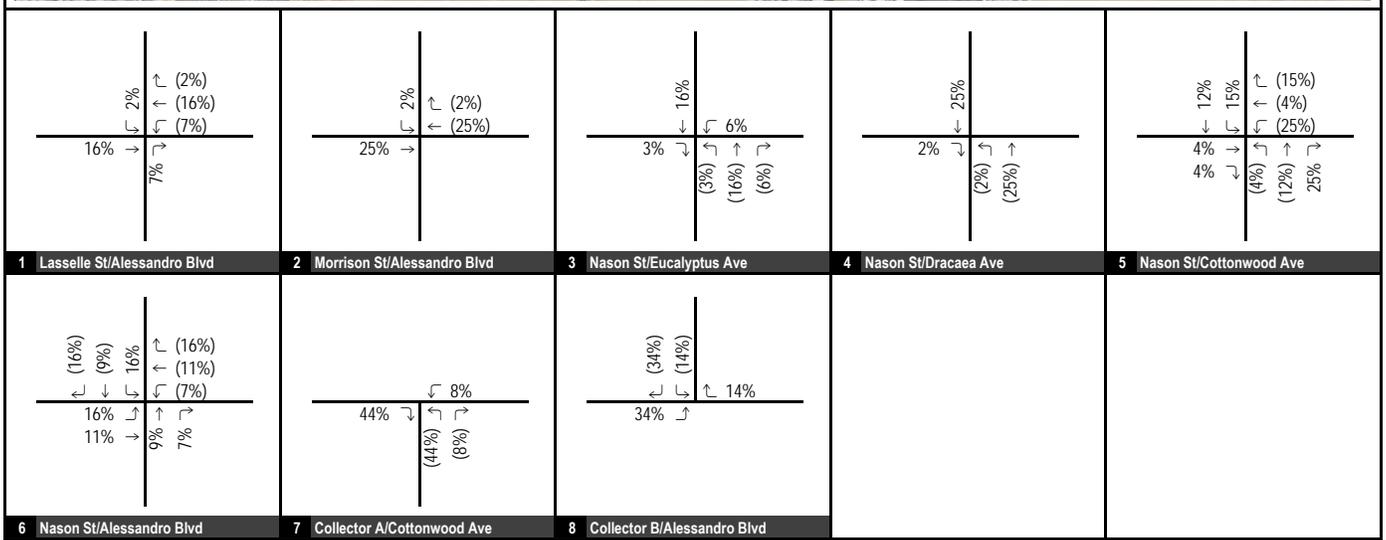
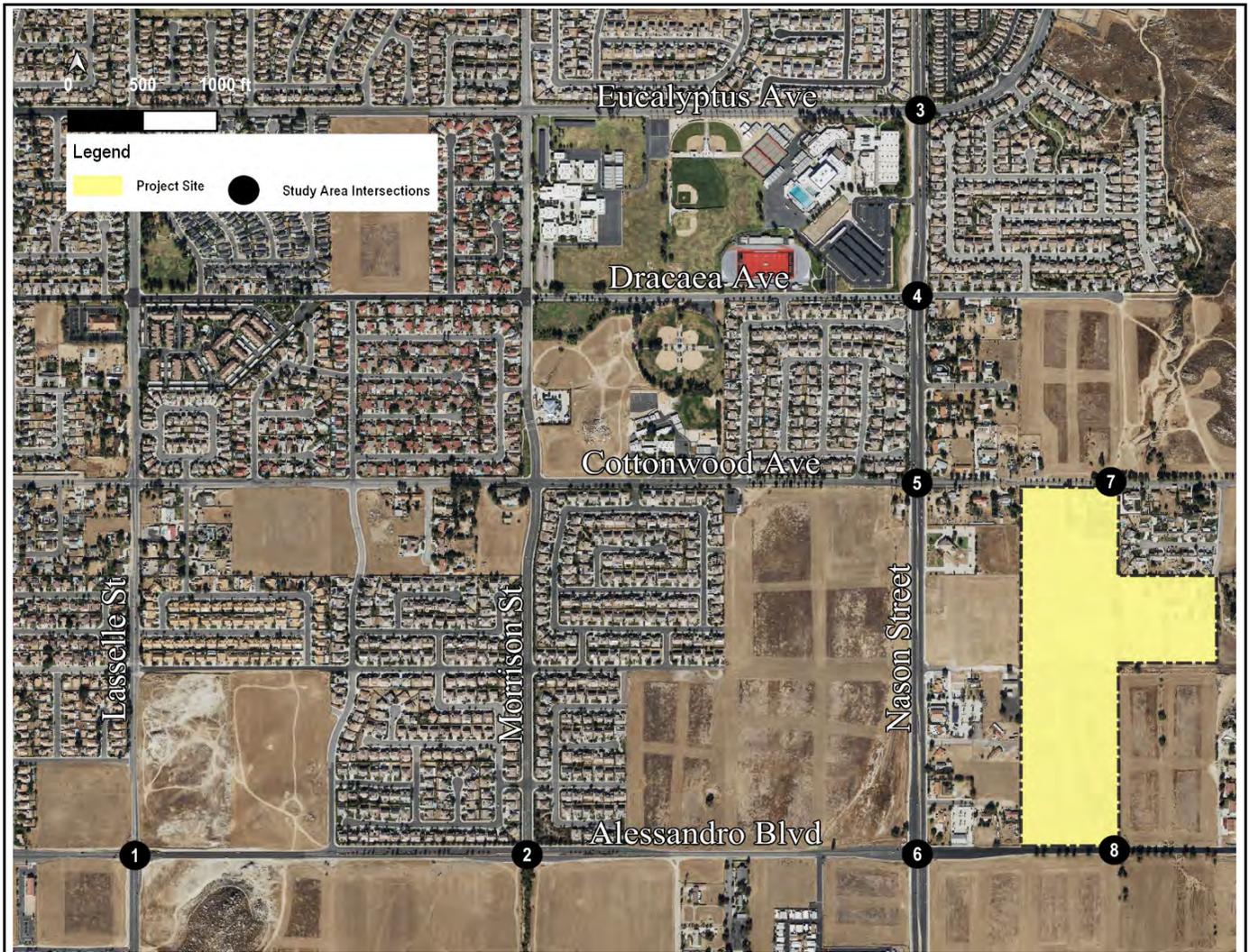
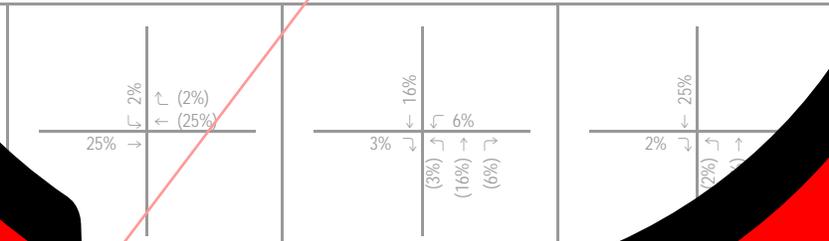


FIGURE 2

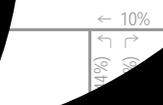
xx%(yy%) Inbound%(Outbound%) Distribution

Highpointe Moreno Valley Residential Project Trip Distribution





on St/Alessandro Blvd 3 Nason St/Eucalyptus Ave





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)

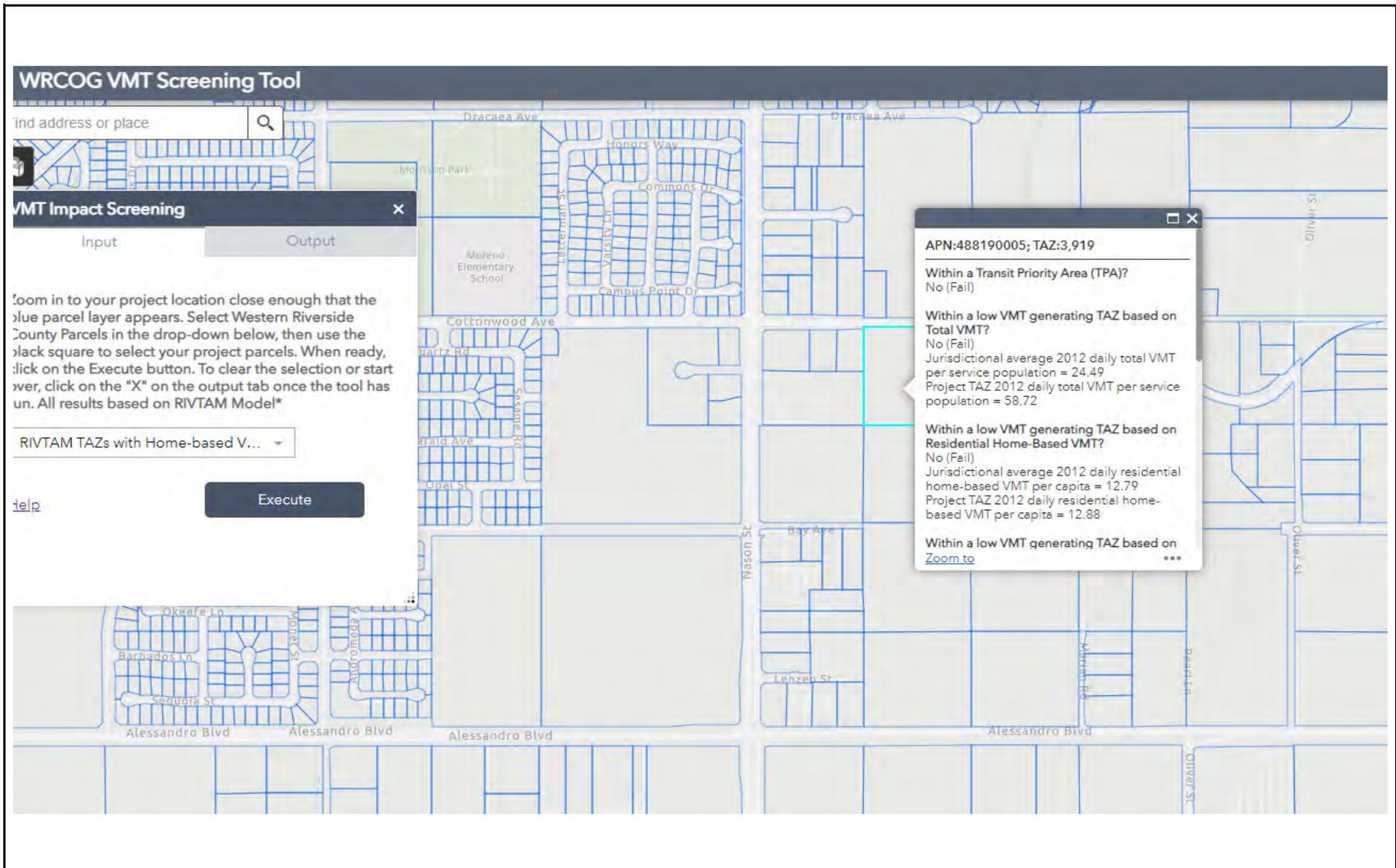


FIGURE 4

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: TRAFFIC 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	

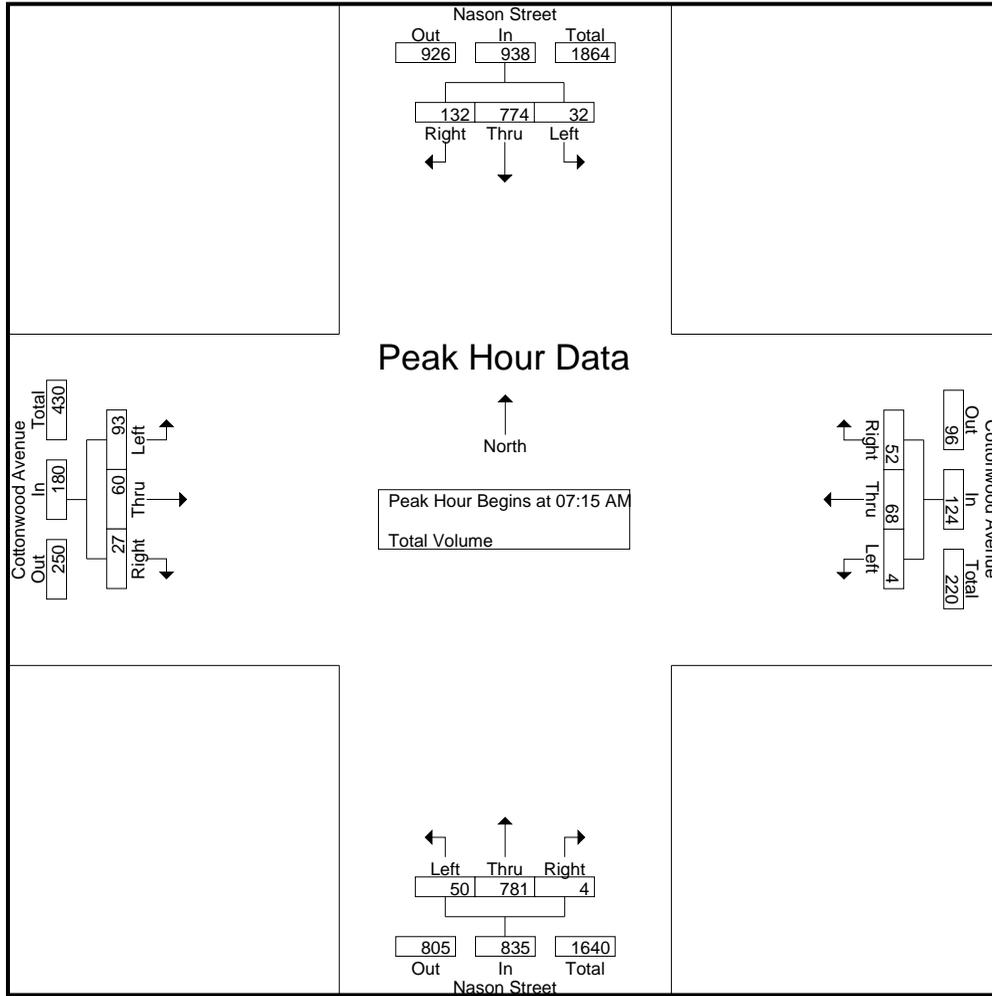
Start Time	Nason Street Southbound				Cottonwood Avenue Westbound				Nason Street Northbound				Cottonwood Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:15 AM	6	183	13	202	0	11	10	21	4	169	0	173	14	4	0	18	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_MRV_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	

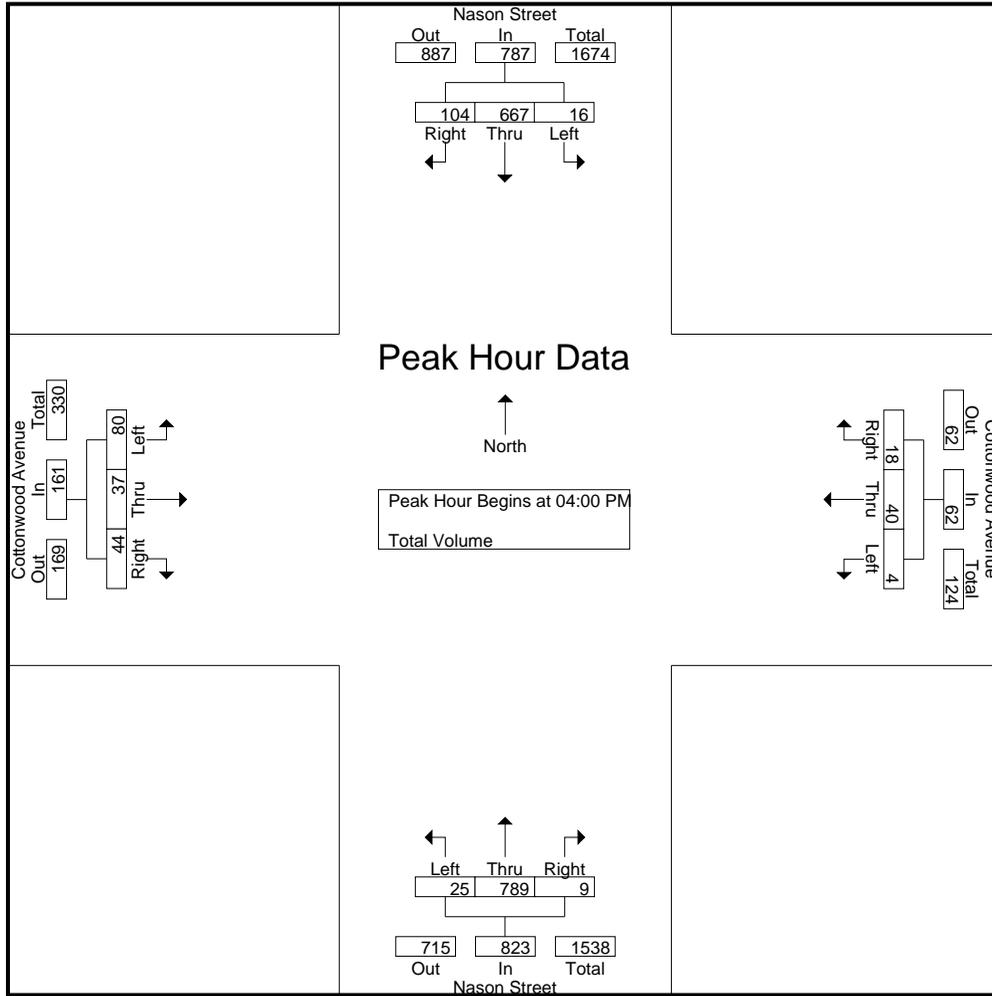
Start Time	Nason Street Southbound				Cottonwood Avenue Westbound				Nason Street Northbound				Cottonwood Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	3	166	24	193	1	10	9	20	8	183	2	193	22	12	9	43	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/ Morrison Street - Nason Street
24 Hour Directional Volume Count

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

MRV003
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		11	82			17	68				
12:15		15	114			7	80				
12:30		9	77			3	57				
12:45		5	82	40	355	8	79	35	284	75	639
01:00		7	87			7	80				
01:15		9	70			9	86				
01:30		3	83			3	79				
01:45		5	73	24	313	6	81	25	326	49	639
02:00		5	99			9	84				
02:15		6	111			7	95				
02:30		3	96			4	93				
02:45		5	98	19	404	1	126	21	398	40	802
03:00		1	132			3	119				
03:15		2	133			5	126				
03:30		6	104			13	77				
03:45		6	97	15	466	10	76	31	398	46	864
04:00		9	100			10	105				
04:15		12	103			8	83				
04:30		24	102			17	89				
04:45		14	90	59	395	23	83	58	360	117	755
05:00		22	101			19	84				
05:15		19	103			23	84				
05:30		11	101			26	71				
05:45		27	90	79	395	31	77	99	316	178	711
06:00		28	101			24	63				
06:15		28	91			51	66				
06:30		42	85			52	68				
06:45		59	76	157	353	65	57	192	254	349	607
07:00		62	78			57	43				
07:15		56	67			102	55				
07:30		83	70			128	46				
07:45		110	76	311	291	136	76	423	220	734	511
08:00		93	52			115	60				
08:15		108	61			103	48				
08:30		81	61			98	49				
08:45		62	47	344	221	84	37	400	194	744	415
09:00		41	43			57	35				
09:15		51	46			52	44				
09:30		62	42			57	38				
09:45		67	43	221	174	68	32	234	149	455	323
10:00		54	36			55	25				
10:15		47	27			53	34				
10:30		57	16			57	16				
10:45		59	18	217	97	53	20	218	95	435	192
11:00		56	13			72	5				
11:15		76	11			67	14				
11:30		78	14			62	16				
11:45		67	19	277	57	65	12	266	47	543	104
Total		1763	3521	1763	3521	2002	3041	2002	3041	3765	6562
Combined Total		5284		5284		5043		5043		10327	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	394	-	-	-	482	-	-	-	-	-
P.H.F.	-	0.895	-	-	-	0.886	-	-	-	-	-
PM Peak	-	-	02:45	-	-	-	02:30	-	-	-	-
Vol.	-	-	467	-	-	-	464	-	-	-	-
P.H.F.	-	-	0.878	-	-	-	0.921	-	-	-	-
Percentage		33.4%	66.6%			39.7%	60.3%				
ADT/AADT		ADT 10,327		AADT 10,327							

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			2 Axle	3 Axle	4 Axle			
5 . Nason St/Cottonwood Ave												
NBL	0	0	0	0	0	0	0	0	0	0	0	
NBT	0	0	0	0	0	0	0	0	0	0	0	
NBR	0	0	0	0	0	0	0	0	0	0	0	
SBL	0	0	0	0	0	0	0	0	0	0	0	
SBT	0	0	0	0	0	0	0	0	0	0	0	
SBR	0	0	0	0	0	0	0	0	0	0	0	
EBL	0	0	0	0	0	0	0	0	0	0	0	
EBT	0	0	0	0	0	0	0	0	0	0	0	
EBR	0	0	0	0	0	0	0	0	0	0	0	
WBL	0	0	0	0	0	0	0	0	0	0	0	
WBT	0	0	0	0	0	0	0	0	0	0	0	
WBR	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	
Departure	0	0	0	0	0	0	0	0	0	0	0	
Total	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	
Departure	0	0	0	0	0	0	0	0	0	0	0	
Total	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	
Departure	0	0	0	0	0	0	0	0	0	0	0	
Total	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	
Departure	0	0	0	0	0	0	0	0	0	0	0	
Total	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	
Departure	0	0	0	0	0	0	0	0	0	0	0	
Total	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	2	149	98	6	104
SBL	28	0	28	15	2	17
SBT	327	0	327	336	0	336
SBR	69	0	69	32	0	32
EBL	38	0	38	49	0	49
EBT	284	4	288	377	13	390
EBR	162	0	162	202	0	202
WBL	126	5	131	80	3	83
WBT	454	11	465	285	7	292
WBR	27	1	28	15	1	16
North Leg						
Approach	424	0	424	383	2	385
Departure	385	1	386	412	1	413
Total	809	1	810	795	3	798
South Leg						
Approach	637	2	639	596	6	602
Departure	615	5	620	618	3	621
Total	1,252	7	1,259	1,214	9	1,223
East Leg						
Approach	607	17	624	380	11	391
Departure	459	6	465	490	21	511
Total	1,066	23	1,089	870	32	902
West Leg						
Approach	484	4	488	628	13	641
Departure	693	11	704	467	7	474
Total	1,177	15	1,192	1,095	20	1,115
Total Approaches						
Approach	2,152	23	2,175	1,987	32	2,019
Departure	2,152	23	2,175	1,987	32	2,019
Total	4,304	46	4,350	3,974	64	4,038

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	2	46
SBT	0	0	0	0	0	0
SBR	148	0	148	65	0	65
EBL	132	0	132	78	0	78
EBT	314	6	320	372	20	392
EBR	0	0	0	0	0	0
WBL	0	0	0	0	0	0
WBT	428	17	445	323	12	335
WBR	71	1	72	45	1	46
North Leg						
Approach	245	0	245	109	2	111
Departure	203	1	204	123	1	124
Total	448	1	449	232	3	235
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	18	517	368	13	381
Departure	411	6	417	416	22	438
Total	910	24	934	784	35	819
West Leg						
Approach	446	6	452	450	20	470
Departure	576	17	593	388	12	400
Total	1,022	23	1,045	838	32	870
Total Approaches						
Approach	1,190	24	1,214	927	35	962
Departure	1,190	24	1,214	927	35	962
Total	2,380	48	2,428	1,854	70	1,924

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	11	683	777	7	784
NBR	183	4	187	214	3	217
SBL	15	0	15	37	0	37
SBT	912	4	916	688	13	701
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	5	146
WBT	145	0	145	134	0	134
WBR	25	0	25	14	0	14
North Leg						
Approach	1,018	4	1,022	776	13	789
Departure	950	11	961	837	7	844
Total	1,968	15	1,983	1,613	20	1,633
South Leg						
Approach	925	17	942	1,041	11	1,052
Departure	1,248	6	1,254	876	20	896
Total	2,173	23	2,196	1,917	31	1,948
East Leg						
Approach	307	1	308	289	5	294
Departure	412	4	416	352	3	355
Total	719	5	724	641	8	649
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	23	2,939	2,300	31	2,331
Departure	2,916	23	2,939	2,300	31	2,331
Total	5,832	46	5,878	4,600	62	4,662

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	17	723	855	12	867
NBR	31	0	31	19	0	19
SBL	13	0	13	19	0	19
SBT	852	6	858	747	20	767
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	2	48
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	6	1,118	860	20	880
Departure	819	17	836	975	12	987
Total	1,931	23	1,954	1,835	32	1,867
South Leg						
Approach	956	18	974	900	13	913
Departure	934	6	940	803	22	825
Total	1,890	24	1,914	1,703	35	1,738
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	2	167
Departure	468	1	469	126	1	127
Total	668	1	669	291	3	294
Total Approaches						
Approach	2,279	24	2,303	1,944	35	1,979
Departure	2,279	24	2,303	1,944	35	1,979

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	0	50	25	0	25
NBT	811	0	811	810	0	810
NBR	4	6	10	9	20	29
SBL	32	6	38	16	21	37
SBT	803	0	803	685	0	685
SBR	132	0	132	104	0	104
EBL	93	0	93	80	0	80
EBT	60	2	62	37	6	43
EBR	27	0	27	44	0	44
WBL	4	17	21	4	12	16
WBT	68	6	74	40	4	44
WBR	52	19	71	18	12	30
North Leg						
Approach	967	6	973	805	21	826
Departure	956	19	975	908	12	920
Total	1,923	25	1,948	1,713	33	1,746
South Leg						
Approach	865	6	871	844	20	864
Departure	834	17	851	733	12	745
Total	1,699	23	1,722	1,577	32	1,609
East Leg						
Approach	124	42	166	62	28	90
Departure	96	14	110	62	47	109
Total	220	56	276	124	75	199
West Leg						
Approach	180	2	182	161	6	167
Departure	250	6	256	169	4	173
Total	430	8	438	330	10	340
Total Approaches						
Approach	2,136	56	2,192	1,872	75	1,947
Departure	2,136	56	2,192	1,872	75	1,947

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	2	559	700	7	707
NBR	21	2	23	62	6	68
SBL	71	0	71	77	0	77
SBT	700	6	706	591	4	595
SBR	86	11	97	80	7	87
EBL	99	4	103	89	13	102
EBT	223	3	226	247	9	256
EBR	104	0	104	69	0	69
WBL	102	5	107	23	3	26
WBT	334	8	342	227	5	232
WBR	139	0	139	53	0	53
North Leg						
Approach	857	17	874	748	11	759
Departure	795	6	801	842	20	862
Total	1,652	23	1,675	1,590	31	1,621
South Leg						
Approach	653	4	657	827	13	840
Departure	906	11	917	683	7	690
Total	1,559	15	1,574	1,510	20	1,530
East Leg						
Approach	575	13	588	303	8	311
Departure	315	5	320	386	15	401
Total	890	18	908	689	23	712
West Leg						
Approach	426	7	433	405	22	427
Departure	495	19	514	372	12	384
Total	921	26	947	777	34	811
Total Approaches						
Approach	2,511	41	2,552	2,283	54	2,337
Departure	2,511	41	2,552	2,283	54	2,337

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	41	41	0	28	28
NBT	0	0	0	0	0	0
NBR	0	6	6	0	4	4
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	14	14	0	47	47
WBL	0	2	2	0	6	6
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	47	47	0	32	32
Departure	0	16	16	0	53	53
Total	0	63	63	0	85	85
East Leg						
Approach	124	2	126	62	6	68
Departure	96	6	102	62	4	66
Total	220	8	228	124	10	134
West Leg						
Approach	96	14	110	62	47	109
Departure	124	41	165	62	28	90
Total	220	55	275	124	75	199
Total Approaches						
Approach	220	63	283	124	85	209
Departure	220	63	283	124	85	209

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	10	10	0	6	6
SBT	0	0	0	0	0	0
SBR	0	12	12	0	8	8
EBL	0	4	4	0	14	14
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	11	11
North Leg						
Approach	0	22	22	0	14	14
Departure	0	7	7	0	25	25
Total	0	29	29	0	39	39
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	11	314
Departure	315	10	325	386	6	392
Total	890	13	903	689	17	706
West Leg						
Approach	315	4	319	386	14	400
Departure	575	12	587	303	8	311
Total	890	16	906	689	22	711
Total Approaches						
Approach	890	29	919	689	39	728
Departure	890	29	919	689	39	728

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	39	192	2	194	98	4	102	96	198	6	204
SBL	28	1	29	62	91	0	91	15	1	16	116	132	2	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	357	652	4	656	377	15	392	533	925	13	938
EBR	162	6	168	305	473	0	473	202	8	210	158	368	0	368
WBL	126	5	131	82	213	5	218	80	3	83	65	148	3	151
WBT	454	18	472	449	921	11	932	285	11	296	462	758	7	765
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	255	653	2	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	481	1,308	3	1,311
South Leg														
Approach	637	26	663	208	871	2	873	596	24	620	516	1,136	6	1,142
Departure	615	24	639	448	1,087	5	1,092	618	24	642	302	944	3	947
Total	1,252	50	1,302	656	1,958	7	1,965	1,214	48	1,262	818	2,080	9	2,089
East Leg														
Approach	607	24	631	637	1,268	17	1,285	380	15	395	619	1,014	11	1,025
Departure	459	18	477	458	935	6	941	490	20	510	745	1,255	21	1,276
Total	1,066	42	1,108	1,095	2,203	23	2,226	870	35	905	1,364	2,269	32	2,301
West Leg														
Approach	484	19	503	721	1,224	4	1,228	628	25	653	750	1,403	13	1,416
Departure	693	28	721	590	1,311	11	1,322	467	18	485	867	1,352	7	1,359
Total	1,177	47	1,224	1,311	2,535	15	2,550	1,095	43	1,138	1,617	2,755	20	2,775
Total Approaches														
Approach	2,152	86	2,238	1,739	3,977	23	4,000	1,987	79	2,066	2,140	4,206	32	4,238
Departure	2,152	86	2,238	1,739	3,977	23	4,000	1,987	79	2,066	2,140	4,206	32	4,238
Total	4,304	172	4,476	3,478	7,954	46	8,000	3,974	158	4,132	4,280	8,412	64	8,476

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	15	61	2	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	442	769	6	775	372	15	387	548	935	20	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	443	888	17	905	323	13	336	560	896	12	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	32	146	2	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	65	307	3	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	456	975	18	993	368	15	383	569	952	13	965
Departure	411	17	428	447	875	6	881	416	17	433	563	996	22	1,018
Total	910	37	947	903	1,850	24	1,874	784	32	816	1,132	1,948	35	1,983
West Leg														
Approach	446	18	464	469	933	6	939	450	18	468	572	1,040	20	1,060
Departure	576	23	599	454	1,053	17	1,070	388	16	404	577	981	12	993
Total	1,022	41	1,063	923	1,986	23	2,009	838	34	872	1,149	2,021	32	2,053
Total Approaches														
Approach	1,190	48	1,238	941	2,179	24	2,203	927	38	965	1,173	2,138	35	2,173
Departure	1,190	48	1,238	941	2,179	24	2,203	927	38	965	1,173	2,138	35	2,173
Total	2,380	96	2,476	1,882	4,358	48	4,406	1,854	76	1,930	2,346	4,276	70	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	1,094	1,793	11	1,804	777	31	808	2,378	3,186	7	3,193
NBR	183	7	190	107	297	4	301	214	9	223	272	495	3	498
SBL	15	1	16	15	31	0	31	37	1	38	23	61	0	61
SBT	912	36	948	2,145	3,093	4	3,097	688	28	716	1,477	2,193	13	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	154	301	5	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	2,168	3,227	4	3,231	776	31	807	1,506	2,313	13	2,326
Departure	950	38	988	1,121	2,109	11	2,120	837	34	871	2,396	3,267	7	3,274
Total	1,968	79	2,047	3,289	5,336	15	5,351	1,613	65	1,678	3,902	5,580	20	5,600
South Leg														
Approach	925	37	962	1,241	2,203	17	2,220	1,041	42	1,083	2,677	3,760	11	3,771
Departure	1,248	49	1,297	2,441	3,738	6	3,744	876	36	912	1,659	2,571	20	2,591
Total	2,173	86	2,259	3,682	5,941	23	5,964	1,917	78	1,995	4,336	6,331	31	6,362
East Leg														
Approach	307	12	319	335	654	1	655	289	12	301	228	529	5	534
Departure	412	17	429	155	584	4	588	352	14	366	376	742	3	745
Total	719	29	748	490	1,238	5	1,243	641	26	667	604	1,271	8	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	3,822	6,855	23	6,878	2,300	93	2,393	4,520	6,913	31	6,944
Departure	2,916	117	3,033	3,822	6,855	23	6,878	2,300	93	2,393	4,520	6,913	31	6,944
Total	5,832	234	6,066	7,644	13,710	46	13,756	4,600	186	4,786	9,040	13,826	62	13,888

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	1,235	1,969	17	1,986	855	34	889	2,668	3,557	12	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	2,430	3,316	6	3,322	747	30	777	1,647	2,424	20	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	24	72	2	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	2,441	3,598	6	3,604	860	35	895	1,654	2,549	20	2,569
Departure	819	32	851	1,238	2,089	17	2,106	975	39	1,014	2,677	3,691	12	3,703
Total	1,931	77	2,008	3,679	5,687	23	5,710	1,835	74	1,909	4,331	6,240	32	6,272
South Leg														
Approach	956	38	994	1,299	2,293	18	2,311	900	36	936	2,707	3,643	13	3,656
Departure	934	37	971	2,490	3,461	6	3,467	803	32	835	1,694	2,529	22	2,551
Total	1,890	75	1,965	3,789	5,754	24	5,778	1,703	68	1,771	4,401	6,172	35	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	33	205	2	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	61	364	3	367
Total Approaches														
Approach	2,279	91	2,370	3,803	6,173	24	6,197	1,944	78	2,022	4,417	6,439	35	6,474
Departure	2,279	91	2,370	3,803	6,173	24	6,197	1,944	78	2,022	4,417	6,439	35	6,474
Total	4,558	182	4,740	7,606	12,346	48	12,394	3,888	156	4,044	8,834	12,878	70	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	210	262	0	262	25	1	26	97	123	0	123
NBT	811	32	843	1,025	1,868	0	1,868	810	32	842	2,476	3,318	0	3,318
NBR	4	0	4	61	65	6	71	9	0	9	22	31	20	51
SBL	32	1	33	9	42	6	48	16	1	17	21	38	21	59
SBT	803	32	835	2,366	3,201	0	3,201	685	27	712	1,467	2,179	0	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	37	99	2	101	37	1	38	68	106	6	112
EBR	27	1	28	121	149	0	149	44	2	46	55	101	0	101
WBL	4	0	4	78	82	17	99	4	0	4	23	27	12	39
WBT	68	3	71	58	129	6	135	40	2	42	48	90	4	94
WBR	52	2	54	19	73	19	92	18	1	19	14	33	12	45
North Leg														
Approach	967	38	1,005	2,492	3,497	6	3,503	805	32	837	1,693	2,530	21	2,551
Departure	956	38	994	1,297	2,291	19	2,310	908	36	944	2,709	3,653	12	3,665
Total	1,923	76	1,999	3,789	5,788	25	5,813	1,713	68	1,781	4,402	6,183	33	6,216
South Leg														
Approach	865	34	899	1,296	2,195	6	2,201	844	33	877	2,595	3,472	20	3,492
Departure	834	33	867	2,565	3,432	17	3,449	733	29	762	1,545	2,307	12	2,319
Total	1,699	67	1,766	3,861	5,627	23	5,650	1,577	62	1,639	4,140	5,779	32	5,811
East Leg														
Approach	124	5	129	155	284	42	326	62	3	65	85	150	28	178
Departure	96	3	99	107	206	14	220	62	2	64	111	175	47	222
Total	220	8	228	262	490	56	546	124	5	129	196	325	75	400
West Leg														
Approach	180	7	187	411	598	2	600	161	6	167	342	509	6	515
Departure	250	10	260	385	645	6	651	169	7	176	350	526	4	530
Total	430	17	447	796	1,243	8	1,251	330	13	343	692	1,035	10	1,045
Total Approaches														
Approach	2,136	84	2,220	4,354	6,574	56	6,630	1,872	74	1,946	4,715	6,661	75	6,736
Departure	2,136	84	2,220	4,354	6,574	56	6,630	1,872	74	1,946	4,715	6,661	75	6,736
Total	4,273	168	4,441	8,708	13,149	112	13,261	3,744	148	3,892	9,430	13,322	150	13,472

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	622	1,201	2	1,203	700	28	728	2,140	2,868	7	2,875
NBR	21	1	22	134	156	2	158	62	2	64	483	547	6	553
SBL	71	3	74	101	175	0	175	77	3	80	147	227	0	227
SBT	700	28	728	1,930	2,658	6	2,664	591	24	615	973	1,588	4	1,592
SBR	86	3	89	75	164	11	175	80	3	83	122	205	7	212
EBL	99	4	103	137	240	4	244	89	4	93	86	179	13	192
EBT	223	9	232	206	438	3	441	247	10	257	289	546	9	555
EBR	104	4	108	119	227	0	227	69	3	72	72	144	0	144
WBL	102	4	106	420	526	5	531	23	1	24	234	258	3	261
WBT	334	13	347	220	567	8	575	227	9	236	293	529	5	534
WBR	139	6	145	162	307	0	307	53	2	55	114	169	0	169
North Leg														
Approach	857	34	891	2,106	2,997	17	3,014	748	30	778	1,242	2,020	11	2,031
Departure	795	32	827	921	1,748	6	1,754	842	34	876	2,340	3,216	20	3,236
Total	1,652	66	1,718	3,027	4,745	23	4,768	1,590	64	1,654	3,582	5,236	31	5,267
South Leg														
Approach	653	26	679	799	1,478	4	1,482	827	33	860	2,758	3,618	13	3,631
Departure	906	36	942	2,469	3,411	11	3,422	683	28	711	1,279	1,990	7	1,997
Total	1,559	62	1,621	3,268	4,889	15	4,904	1,510	61	1,571	4,037	5,608	20	5,628
East Leg														
Approach	575	23	598	802	1,400	13	1,413	303	12	315	641	956	8	964
Departure	315	13	328	441	769	5	774	386	15	401	919	1,320	15	1,335
Total	890	36	926	1,243	2,169	18	2,187	689	27	716	1,560	2,276	23	2,299
West Leg														
Approach	426	17	443	462	905	7	912	405	17	422	447	869	22	891
Departure	495	19	514	338	852	19	871	372	15	387	550	937	12	949
Total	921	36	957	800	1,757	26	1,783	777	32	809	997	1,806	34	1,840
Total Approaches														
Approach	2,511	100	2,611	4,169	6,780	41	6,821	2,283	92	2,375	5,088	7,463	54	7,517
Departure	2,511	100	2,611	4,169	6,780	41	6,821	2,283	92	2,375	5,088	7,463	54	7,517
Total	5,022	200	5,222	8,338	13,560	82	13,642	4,566	184	4,750	10,176	14,926	108	15,034

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	11	11	41	52	0	0	0	7	7	28	35
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	4	4	6	10	0	0	0	3	3	4	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	4	4	14	18	0	0	0	12	12	47	59
WBL	0	0	0	2	2	2	4	0	0	0	5	5	6	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	15	15	47	62	0	0	0	10	10	32	42
Departure	0	0	0	6	6	16	22	0	0	0	17	17	53	70
Total	0	0	0	21	21	63	84	0	0	0	27	27	85	112
East Leg														
Approach	124	5	129	148	277	2	279	62	2	64	81	145	6	151
Departure	96	4	100	106	206	6	212	62	2	64	101	165	4	169
Total	220	9	229	254	483	8	491	124	4	128	182	310	10	320
West Leg														
Approach	96	4	100	106	206	14	220	62	2	64	110	174	47	221
Departure	124	5	129	157	286	41	327	62	2	64	83	147	28	175
Total	220	9	229	263	492	55	547	124	4	128	193	321	75	396
Total Approaches														
Approach	220	9	229	269	498	63	561	124	4	128	201	329	85	414
Departure	220	9	229	269	498	63	561	124	4	128	201	329	85	414
Total	440	18	458	538	996	126	1,122	248	8	256	402	658	170	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	8	8	10	18	0	0	0	5	5	6	11
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	33	33	12	45	0	0	0	22	22	8	30
EBL	0	0	0	12	12	4	16	0	0	0	38	38	14	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	9	9	11	20
North Leg														
Approach	0	0	0	41	41	22	63	0	0	0	27	27	14	41
Departure	0	0	0	15	15	7	22	0	0	0	47	47	25	72
Total	0	0	0	56	56	29	85	0	0	0	74	74	39	113
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	629	944	11	955
Departure	315	13	328	438	766	10	776	386	15	401	886	1,287	6	1,293
Total	890	36	926	1,208	2,134	13	2,147	689	27	716	1,515	2,231	17	2,248
West Leg														
Approach	315	13	328	442	770	4	774	386	15	401	919	1,320	14	1,334
Departure	575	23	598	800	1,398	12	1,410	303	12	315	642	957	8	965
Total	890	36	926	1,242	2,168	16	2,184	689	27	716	1,561	2,277	22	2,299
Total Approaches														
Approach	890	36	926	1,253	2,179	29	2,208	689	27	716	1,575	2,291	39	2,330
Departure	890	36	926	1,253	2,179	29	2,208	689	27	716	1,575	2,291	39	2,330
Total	1,780	72	1,852	2,506	4,358	58	4,416	1,378	54	1,432	3,150	4,582	78	4,660

**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	Future Year 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 Pk. Per. Pk. Hr. Change Change		2022 to 2040 Link Vol Growth ¹	2040 Link Volume
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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		2022 to 2040 Link Vol Growth ¹	2040 Link Volume
					Pk. Per. Change	Pk. Hr. Change		

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 PCE	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck PCE	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	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck	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	192	210	133	198	208
SBL	109	91	109	77	132	139
SBT	412	401	412	554	428	554
SBR	141	122	141	84	93	98
EBL	96	99	104	125	110	125
EBT	720	652	720	918	925	971
EBR	132	473	497	159	368	386
WBL	144	213	224	148	148	155
WBT	838	921	967	842	758	842
WBR	96	134	141	90	108	113
North Leg						
Approach	662	614	662	715	653	790
Departure	650	644	703	711	655	734
Total	1,312	1,258	1,365	1,426	1,308	1,525
South Leg						
Approach	795	871	949	734	1,136	1,230
Departure	688	1,087	1,132	861	944	1,096
Total	1,483	1,958	2,082	1,595	2,080	2,326
East Leg						
Approach	1,078	1,268	1,331	1,080	1,014	1,111
Departure	1,039	935	1,039	1,128	1,255	1,318
Total	2,117	2,203	2,370	2,208	2,269	2,429
West Leg						
Approach	948	1,224	1,321	1,202	1,403	1,483
Departure	1,106	1,311	1,389	1,031	1,352	1,466
Total	2,054	2,535	2,710	2,233	2,755	2,948
Total Approaches						
Approach	3,483	3,977	4,263	3,731	4,206	4,614
Departure	3,483	3,977	4,263	3,731	4,206	4,614
Total	6,966	7,954	8,527	7,462	8,412	9,227

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	61	64
SBT	116	0	116	155	0	155
SBR	155	165	173	93	85	93
EBL	117	164	172	69	105	110
EBT	782	769	782	918	935	982
EBR	78	0	78	82	0	82
WBL	35	0	35	38	0	38
WBT	818	888	932	872	896	941
WBR	47	87	91	26	56	59
North Leg						
Approach	326	271	401	291	146	312
Departure	266	251	366	227	161	301
Total	592	522	766	518	307	613
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	975	1,059	936	952	1,038
Departure	879	875	935	1,026	996	1,111
Total	1,779	1,850	1,994	1,962	1,948	2,148
West Leg						
Approach	977	933	1,032	1,069	1,040	1,174
Departure	1,028	1,053	1,161	1,069	981	1,138
Total	2,005	1,986	2,193	2,138	2,021	2,312
Total Approaches						
Approach	2,402	2,179	2,691	2,597	2,138	2,825
Departure	2,402	2,179	2,691	2,597	2,138	2,825

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
Total	4,804	4,358	5,381	5,194	4,276	5,649

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	1,793	1,883	845	3,186	3,345
NBR	476	297	476	580	495	580
SBL	25	31	33	54	61	64
SBT	1,043	3,093	3,248	766	2,193	2,303
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	301	470
WBT	321	208	321	402	195	402
WBR	42	53	56	24	33	35
North Leg						
Approach	1,154	3,227	3,388	871	2,313	2,429
Departure	1,043	2,109	2,214	928	3,267	3,439
Total	2,197	5,336	5,603	1,799	5,580	5,868
South Leg						
Approach	1,368	2,203	2,477	1,519	3,760	4,019
Departure	1,679	3,738	3,931	1,352	2,571	2,889
Total	3,047	5,941	6,409	2,871	6,331	6,908
East Leg						
Approach	728	654	789	896	529	907
Departure	910	584	918	957	742	967
Total	1,638	1,238	1,707	1,853	1,271	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	6,855	7,611	3,784	6,913	7,853
Departure	4,147	6,855	7,611	3,784	6,913	7,853

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
Total	8,294	13,710	15,222	7,568	13,826	15,705

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/Dracaea Ave						
NBL	271	270	271	49	48	49
NBT	1,101	1,969	2,067	1,284	3,557	3,735
NBR	41	54	57	40	38	40
SBL	18	14	18	32	20	32
SBT	1,215	3,316	3,482	1,175	2,424	2,545
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	72	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	3,598	3,813	1,350	2,549	2,720
Departure	1,285	2,089	2,251	1,460	3,691	3,911
Total	2,831	5,687	6,064	2,810	6,240	6,631
South Leg						
Approach	1,413	2,293	2,395	1,373	3,643	3,824
Departure	1,368	3,461	3,671	1,280	2,529	2,668
Total	2,781	5,754	6,066	2,653	6,172	6,492
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	205	264
Departure	602	540	602	202	159	202
Total	859	794	895	466	364	466
Total Approaches						
Approach	3,330	6,173	6,615	3,018	6,439	6,857
Departure	3,330	6,173	6,615	3,018	6,439	6,857

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
Total	6,660	12,346	13,230	6,036	12,878	13,713

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	262	275	27	123	129
NBT	1,219	1,868	1,962	1,241	3,318	3,484
NBR	7	65	68	17	31	33
SBL	60	42	60	35	38	40
SBT	1,169	3,201	3,361	1,106	2,179	2,288
SBR	171	254	267	134	313	329
EBL	117	350	368	105	302	317
EBT	83	99	104	59	106	111
EBR	29	149	156	51	101	106
WBL	5	82	86	11	27	28
WBT	75	129	135	87	90	95
WBR	76	73	76	55	33	55
North Leg						
Approach	1,400	3,497	3,688	1,275	2,530	2,657
Departure	1,412	2,291	2,405	1,401	3,653	3,856
Total	2,812	5,788	6,093	2,676	6,183	6,512
South Leg						
Approach	1,283	2,195	2,305	1,285	3,472	3,645
Departure	1,203	3,432	3,604	1,168	2,307	2,422
Total	2,486	5,627	5,909	2,453	5,779	6,068
East Leg						
Approach	156	284	298	153	150	178
Departure	150	206	232	111	175	184
Total	306	490	530	264	325	362
West Leg						
Approach	229	598	628	215	509	534
Departure	303	645	677	248	526	552
Total	532	1,243	1,305	463	1,035	1,087
Total Approaches						
Approach	3,068	6,574	6,918	2,928	6,661	7,014
Departure	3,068	6,574	6,918	2,928	6,661	7,014

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
Total	6,136	13,149	13,837	5,856	13,322	14,029

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	1,201	1,261	889	2,868	3,011
NBR	26	156	164	36	547	574
SBL	76	175	184	47	227	238
SBT	925	2,658	2,791	856	1,588	1,667
SBR	214	164	214	286	205	286
EBL	231	240	252	340	179	340
EBT	426	438	460	438	546	573
EBR	247	227	247	290	144	290
WBL	82	526	552	19	258	271
WBT	505	567	595	455	529	555
WBR	110	307	322	39	169	177
North Leg						
Approach	1,215	2,997	3,189	1,189	2,020	2,192
Departure	1,203	1,748	1,835	1,268	3,216	3,529
Total	2,418	4,745	5,024	2,457	5,236	5,721
South Leg						
Approach	1,110	1,478	1,647	1,148	3,618	3,809
Departure	1,254	3,411	3,590	1,165	1,990	2,228
Total	2,364	4,889	5,237	2,313	5,608	6,037
East Leg						
Approach	697	1,400	1,470	513	956	1,004
Departure	528	769	807	521	1,320	1,386
Total	1,225	2,169	2,277	1,034	2,276	2,390
West Leg						
Approach	904	905	959	1,068	869	1,203
Departure	941	852	1,031	964	937	1,064
Total	1,845	1,757	1,990	2,032	1,806	2,268
Total Approaches						
Approach	3,926	6,780	7,264	3,918	7,463	8,208
Departure	3,926	6,780	7,264	3,918	7,463	8,208

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
Total	7,852	13,560	14,529	7,836	14,926	16,415

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	2	212	208	6	214
SBL	109	0	109	139	2	141
SBT	412	0	412	554	0	554
SBR	141	0	141	98	0	98
EBL	104	0	104	125	0	125
EBT	720	4	724	971	13	984
EBR	497	0	497	386	0	386
WBL	224	5	229	155	3	158
WBT	967	11	978	842	7	849
WBR	141	1	142	113	1	114
North Leg						
Approach	662	0	662	790	2	792
Departure	703	1	704	734	1	735
Total	1,365	1	1,366	1,525	3	1,528
South Leg						
Approach	949	2	951	1,230	6	1,236
Departure	1,132	5	1,137	1,096	3	1,099
Total	2,082	7	2,089	2,326	9	2,335
East Leg						
Approach	1,331	17	1,348	1,111	11	1,122
Departure	1,039	6	1,045	1,318	21	1,339
Total	2,370	23	2,393	2,429	32	2,461
West Leg						
Approach	1,321	4	1,325	1,483	13	1,496
Departure	1,389	11	1,400	1,466	7	1,473
Total	2,710	15	2,725	2,948	20	2,968
Total Approaches						
Approach	4,263	23	4,286	4,614	32	4,646
Departure	4,263	23	4,286	4,614	32	4,646
Total	8,527	46	8,573	9,227	64	9,291

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	64	2	66
SBT	116	0	116	155	0	155
SBR	173	0	173	93	0	93
EBL	172	0	172	110	0	110
EBT	782	6	788	982	20	1,002
EBR	78	0	78	82	0	82
WBL	35	0	35	38	0	38
WBT	932	17	949	941	12	953
WBR	91	1	92	59	1	60
North Leg						
Approach	401	0	401	312	2	314
Departure	366	1	367	301	1	302
Total	766	1	767	613	3	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	1,059	18	1,077	1,038	13	1,051
Departure	935	6	941	1,111	22	1,133
Total	1,994	24	2,018	2,148	35	2,183
West Leg						
Approach	1,032	6	1,038	1,174	20	1,194
Departure	1,161	17	1,178	1,138	12	1,150
Total	2,193	23	2,216	2,312	32	2,344
Total Approaches						
Approach	2,691	24	2,715	2,825	35	2,860
Departure	2,691	24	2,715	2,825	35	2,860
Total	5,381	48	5,429	5,649	70	5,719

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	1,883	11	1,894	3,345	7	3,352
NBR	476	4	480	580	3	583
SBL	33	0	33	64	0	64
SBT	3,248	4	3,252	2,303	13	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	5	475
WBT	321	0	321	402	0	402
WBR	56	0	56	35	0	35
North Leg						
Approach	3,388	4	3,392	2,429	13	2,442
Departure	2,214	11	2,225	3,439	7	3,446
Total	5,603	15	5,618	5,868	20	5,888
South Leg						
Approach	2,477	17	2,494	4,019	11	4,030
Departure	3,931	6	3,937	2,889	20	2,909
Total	6,409	23	6,432	6,908	31	6,939
East Leg						
Approach	789	1	790	907	5	912
Departure	918	4	922	967	3	970
Total	1,707	5	1,712	1,874	8	1,882
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	7,611	23	7,634	7,853	31	7,884
Departure	7,611	23	7,634	7,853	31	7,884
Total	15,222	46	15,268	15,705	62	15,767

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	2,067	17	2,084	3,735	12	3,747
NBR	57	0	57	40	0	40
SBL	18	0	18	32	0	32
SBT	3,482	6	3,488	2,545	20	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	2	90
WBL	61	0	61	35	0	35
WBT	18	0	18	10	0	10
WBR	35	0	35	4	0	4
North Leg						
Approach	3,813	6	3,819	2,720	20	2,740
Departure	2,251	17	2,268	3,911	12	3,923
Total	6,064	23	6,087	6,631	32	6,663
South Leg						
Approach	2,395	18	2,413	3,824	13	3,837
Departure	3,671	6	3,677	2,668	22	2,690
Total	6,066	24	6,090	6,492	35	6,527
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	2	266
Departure	602	1	603	202	1	203
Total	895	1	896	466	3	469
Total Approaches						
Approach	6,615	24	6,639	6,857	35	6,892
Departure	6,615	24	6,639	6,857	35	6,892
Total	13,230	48	13,278	13,713	70	13,783

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	275	0	275	129	0	129
NBT	1,962	0	1,962	3,484	0	3,484
NBR	68	6	74	33	20	53
SBL	60	6	66	40	21	61
SBT	3,361	0	3,361	2,288	0	2,288
SBR	267	0	267	329	0	329
EBL	368	0	368	317	0	317
EBT	104	2	106	111	6	117
EBR	156	0	156	106	0	106
WBL	86	17	103	28	12	40
WBT	135	6	141	95	4	99
WBR	76	19	95	55	12	67
North Leg						
Approach	3,688	6	3,694	2,657	21	2,678
Departure	2,405	19	2,424	3,856	12	3,868
Total	6,093	25	6,118	6,512	33	6,545
South Leg						
Approach	2,305	6	2,311	3,645	20	3,665
Departure	3,604	17	3,621	2,422	12	2,434
Total	5,909	23	5,932	6,068	32	6,100
East Leg						
Approach	298	42	340	178	28	206
Departure	232	14	246	184	47	231
Total	530	56	586	362	75	437
West Leg						
Approach	628	2	630	534	6	540
Departure	677	6	683	552	4	556
Total	1,305	8	1,313	1,087	10	1,097
Total Approaches						
Approach	6,918	56	6,974	7,014	75	7,089
Departure	6,918	56	6,974	7,014	75	7,089
Total	13,837	112	13,949	14,029	150	14,179

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	1,261	2	1,263	3,011	7	3,018
NBR	164	2	166	574	6	580
SBL	184	0	184	238	0	238
SBT	2,791	6	2,797	1,667	4	1,671
SBR	214	11	225	286	7	293
EBL	252	4	256	340	13	353
EBT	460	3	463	573	9	582
EBR	247	0	247	290	0	290
WBL	552	5	557	271	3	274
WBT	595	8	603	555	5	560
WBR	322	0	322	177	0	177
North Leg						
Approach	3,189	17	3,206	2,192	11	2,203
Departure	1,835	6	1,841	3,529	20	3,549
Total	5,024	23	5,047	5,721	31	5,752
South Leg						
Approach	1,647	4	1,651	3,809	13	3,822
Departure	3,590	11	3,601	2,228	7	2,235
Total	5,237	15	5,252	6,037	20	6,057
East Leg						
Approach	1,470	13	1,483	1,004	8	1,012
Departure	807	5	812	1,386	15	1,401
Total	2,277	18	2,295	2,390	23	2,413
West Leg						
Approach	959	7	966	1,203	22	1,225
Departure	1,031	19	1,050	1,064	12	1,076
Total	1,990	26	2,016	2,268	34	2,302
Total Approaches						
Approach	7,264	41	7,305	8,208	54	8,262
Departure	7,264	41	7,305	8,208	54	8,262
Total	14,529	82	14,611	16,415	108	16,523

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	12	41	53	7	28	35
NBT	0	0	0	0	0	0
NBR	4	6	10	3	4	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	4	14	18	13	47	60
WBL	2	2	4	5	6	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	16	47	63	11	32	43
Departure	6	16	22	18	53	71
Total	22	63	85	28	85	113
East Leg						
Approach	291	2	293	152	6	158
Departure	216	6	222	173	4	177
Total	507	8	515	326	10	336
West Leg						
Approach	216	14	230	183	47	230
Departure	300	41	341	154	28	182
Total	517	55	572	337	75	412
Total Approaches						
Approach	523	63	586	345	85	430
Departure	523	63	586	345	85	430
Total	1,046	126	1,172	691	170	861

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	8	10	18	5	6	11
SBT	0	0	0	0	0	0
SBR	35	12	47	23	8	31
EBL	13	4	17	40	14	54
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	9	11	20
North Leg						
Approach	43	22	65	28	14	42
Departure	16	7	23	49	25	74
Total	59	29	88	78	39	117
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	991	11	1,002
Departure	804	10	814	1,351	6	1,357
Total	2,241	13	2,254	2,343	17	2,360
West Leg						
Approach	809	4	813	1,386	14	1,400
Departure	1,468	12	1,480	1,005	8	1,013
Total	2,276	16	2,292	2,391	22	2,413
Total Approaches						
Approach	2,288	29	2,317	2,406	39	2,445
Departure	2,288	29	2,317	2,406	39	2,445
Total	4,576	58	4,634	4,811	78	4,889

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	-	-	138	340	478	420	221	641	6,434
		Trip Generation Rates ²	-	-	286	198	484	273	315	589	5,882
		Trip Generation	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	0.10	0.30	0.40	0.32	0.19	0.51	6.74
		Trip Generation Rates ⁴	-	-	41	129	170	137	81	218	2,871
		Trip Generation	-	-	-	-	-	-	-	-	-
5	TR31590 - Del Sol	Single Family Residential	96	DU	0.18	0.52	0.70	0.59	0.35	0.94	9.43
		Trip Generation Rates ⁵	-	-	17	50	67	57	34	91	905
		Trip Generation	-	-	-	-	-	-	-	-	-
6	TR32408 - Moothart	Single Family Residential	80	DU	0.18	0.52	0.70	0.59	0.35	0.94	9.43
		Trip Generation Rates ⁵	-	-	15	41	56	47	29	76	754
		Trip Generation	-	-	-	-	-	-	-	-	-
7	Arco Gas Station	Gas Station with Convenience Market	16.0	VFP	8.03	8.03	16.06	9.21	9.21	18.42	265.12
		Trip Generation Rates ⁶	-	-	128	129	257	147	148	295	4,242
		Trip Generation	-	-	-80	-80	-160	-83	-83	-166	-1061
		Pass-by ⁶	-	-	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	-	-	204	184	388	210	201	411	4,482
		Trip Generation	-	-	-	-	-	-	-	-	-

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 38442 Residential	Single Family Residential	108	DU							
		Trip Generation Rates ⁵			0.18	0.52	0.70	0.59	0.35	0.94	9.43
		Trip Generation			20	56	76	64	38	102	1,018
Total Net Cumulative Project Trip Generation					7,984	6,282	14,284	7,706	9,729	17,436	186,205

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	752	2,552	2,603
2 . Alessandro Boulevard from Lasselle Street to Morrison Street	10,658	424	11,082	1,060	11,718	314	11,396	12,032
3 . Alessandro Boulevard from Morrison Street to Nason Street	9,879	448	10,327	1,120	10,999	340	10,667	11,339
4 . Alessandro Boulevard from Nason to Project's Western Boundary	8,671	361	9,032	903	9,574	226	9,258	9,800

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	2,225	4,314	752	5,066
2 . Alessandro Boulevard from Lasselle Street to Morrison Street	11,718	469	12,187	0	164	13,424	25,775	314	26,089
3 . Alessandro Boulevard from Morrison Street to Nason Street	10,999	440	11,439	0	164	10,704	22,307	340	22,647
4 . Alessandro Boulevard from Nason to Project's Western Boundary	9,574	383	9,957	0	164	14,200	24,320	226	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 Link Volume	Truck %	Pass. Veh.	Trucks	Truck PCE	Total PCE
1 . Cottonwood Avenue from Nason Street to Project's Western Boundary	2,877	1.90%	2,822	55	138	2,959
2 . Alessandro Boulevard from Lasselle Street to Morrison Street	23,570	3.82%	22,669	901	2,253	24,922
3 . Alessandro Boulevard from Morrison Street to Nason Street	21,688	4.34%	20,747	941	2,353	23,099
4 . Alessandro Boulevard from Nason to Project's Western Boundary	12,515	4.00%	12,015	500	1,250	13,265

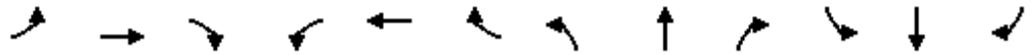
Table C-16: General Plan Build-Out (2040) Roadway Segment Daily PCE Volume Summary

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	4,314	4,529	752	5,281
2 . Alessandro Boulevard from Lasselle Street to Morrison Street	24,922	25,775	27,063	314	27,377
3 . Alessandro Boulevard from Morrison Street to Nason Street	23,099	22,307	23,099	340	23,439
4 . Alessandro Boulevard from Nason to Project's Western Boundary	13,265	24,320	25,536	226	25,762

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(l)	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

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)	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

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↕↔		↙	↕↕
Traffic Vol, veh/h	0	2	791	0	3	847
Future Vol, veh/h	0	2	791	0	3	847
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	140	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	2	965	0	4	1033

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1490	483	0	0	965
Stage 1	965	-	-	-	-
Stage 2	525	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	*229	535	-	-	722
Stage 1	*335	-	-	-	-
Stage 2	*699	-	-	-	-
Platoon blocked, %	1	-	-	-	-
Mov Cap-1 Maneuver	*227	535	-	-	722
Mov Cap-2 Maneuver	*227	-	-	-	-
Stage 1	*335	-	-	-	-
Stage 2	*695	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	535	722
HCM Lane V/C Ratio	-	-	-	0.005	0.005
HCM Control Delay (s)	-	-	0	11.8	10
HCM Lane LOS	-	-	A	B	B
HCM 95th %tile Q(veh)	-	-	-	0	0

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

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



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+1/2), 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



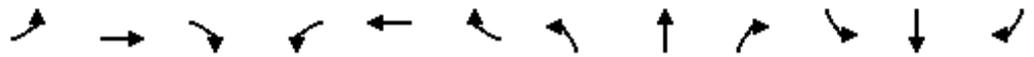
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑	↗	↔↔	↑	↗	↖	↑↑	↗	↖	↑↑↑	↗
Traffic Volume (veh/h)	89	247	69	23	227	53	65	700	62	77	591	80
Future Volume (veh/h)	89	247	69	23	227	53	65	700	62	77	591	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		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									

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

Highpointe MV Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	652	473	213	921	134	268	411	192	91	401	122
Future Volume (veh/h)	99	652	473	213	921	134	268	411	192	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	758	550	248	1071	156	312	478	223	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	758	550	248	1071	156	312	478	223	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	2.0	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	2.0	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	1.06	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	52.0	20.2	251.8	192.0	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	29.7	17.8	16.4	61.0	1.9	21.5	13.6	2.8	3.9	0.0	27.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	123.0	89.5	55.8	306.3	228.0	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		1423			1475			1013			714	
Approach Delay, s/veh		79.2			218.1			129.8			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	140.9											
HCM 6th LOS	F											

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



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↕	↖	↘	↗
Traffic Volume (veh/h)	164	769	888	87	106	165
Future Volume (veh/h)	164	769	888	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	938	1083	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	938	1083	106	129	201
Grp Sat Flow(s),veh/h/ln	1810	1900	1805	1610	1810	1610
Q Serve(g_s), s	12.2	45.8	31.3	5.1	6.2	11.6
Cycle Q Clear(g_c), s	12.2	45.8	31.3	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	31.7	23.8	29.4	31.2
Incr Delay (d2), s/veh	3.1	6.2	4.0	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	13.5	2.0	2.8	11.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.0	24.4	35.7	24.3	30.3	33.4
LnGrp LOS	D	C	D	C	C	C
Approach Vol, veh/h		1138	1189		330	
Approach Delay, s/veh		28.6	34.7		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		47.8		13.6	14.2	33.3
Green Ext Time (p_c), s		7.0		1.0	0.3	6.1
Intersection Summary						
HCM 6th Ctrl Delay			31.8			
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)	263	256	252	393	208	53	113	1793	297	31	3093	103
Future Volume (veh/h)	263	256	252	393	208	53	113	1793	297	31	3093	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	2214	367	38	3819	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	1592	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	3113	502	1810	3566	118
Grp Volume(v), veh/h	325	316	311	485	160	162	140	1257	1324	38	1922	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	165.3	195.6	5.0	522.1	532.9
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	28.5	3.9	10.0	45.6	3.9	4.0	8.0	66.5	74.4	1.2	153.1	162.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	705.1	40.1	58.1	936.5	38.7	38.9	222.4	194.6	225.0	61.3	552.5	563.2
LnGrp LOS	F	D	E	F	D	D	F	F	F	E	F	F
Approach Vol, veh/h		952			807			2721			3984	
Approach Delay, s/veh		273.0			578.3			210.8			553.2	
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	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		414.0										
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)	117	15	122	23	2	3	270	1969	54	14	3316	268
Future Volume (veh/h)	117	15	122	23	2	3	270	1969	54	14	3316	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	2290	63	16	3856	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	1146	1207	16	2031	2137
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(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	890.9	1.7	1.8	0.5	330.7	351.2
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/ln	0.0	0.0	5.0	0.9	0.0	0.2	29.0	0.6	0.6	0.5	141.7	152.1
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	364.6	385.1
LnGrp LOS	D	A	E	E	A	E	F	A	A	E	F	F
Approach Vol, veh/h		295			32			2667			4184	
Approach Delay, s/veh		56.0			59.3			112.7			373.9	
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	20.4		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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	99	149	82	129	73	262	1868	65	42	3201	254
Future Volume (veh/h)	350	99	149	82	129	73	262	1868	65	42	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	118	177	98	154	87	312	2224	77	50	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	211	222	188	174	219	117	151	2159	74	86	2059	918
Arrive On Green	0.12	0.12	0.12	0.10	0.10	0.10	0.08	0.61	0.61	0.03	0.38	0.38
Sat Flow, veh/h	1810	1900	1610	1810	2270	1216	1810	3560	123	1810	3610	1610
Grp Volume(v), veh/h	417	118	177	98	121	120	312	1121	1180	50	3811	302
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1805	1681	1810	1805	1878	1810	1805	1610
Q Serve(g_s), s	14.0	7.0	10.9	6.2	7.8	8.4	10.0	72.8	72.8	3.3	68.4	15.9
Cycle Q Clear(g_c), s	14.0	7.0	10.9	6.2	7.8	8.4	10.0	72.8	72.8	3.3	68.4	15.9
Prop In Lane	1.00		1.00	1.00		0.72	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	211	222	188	174	174	162	151	1094	1139	86	2059	918
V/C Ratio(X)	1.98	0.53	0.94	0.56	0.69	0.74	2.07	1.02	1.04	0.58	1.85	0.33
Avail Cap(c_a), veh/h	211	602	510	174	526	490	151	1094	1139	106	2059	918
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	53.0	49.9	36.2	51.8	52.5	52.8	55.0	23.6	23.6	56.9	37.1	20.8
Incr Delay (d2), s/veh	455.5	2.0	19.2	4.1	4.9	6.5	503.2	33.6	36.6	0.6	383.2	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	32.9	3.4	5.2	2.9	3.7	3.7	25.5	36.8	39.2	1.5	139.9	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	508.5	51.9	55.4	55.9	57.4	59.3	558.2	57.2	60.2	57.5	420.3	20.9
LnGrp LOS	F	D	E	E	E	E	F	F	F	E	F	C
Approach Vol, veh/h	712			339			2613			4163		
Approach Delay, s/veh	320.2			57.6			118.4			387.0		
Approach LOS	F			E			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	76.8	15.6	18.0	14.0	72.4	18.0	15.6				
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	11.0	38.0	10.0	45.0	14.0	35.0					
Max Q Clear Time (g_c+1), s	74.8	8.2	12.9	12.0	70.4	16.0	10.4					
Green Ext Time (p_c), s	0.0	0.0	0.0	1.1	0.0	0.0	0.0	1.2				
Intersection Summary												
HCM 6th Ctrl Delay	277.0											
HCM 6th LOS	F											

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

Highpointe MV Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖↗	↑	↖	↖	↑↑	↖	↖	↑↑↑	↖
Traffic Volume (veh/h)	240	438	227	524	567	298	121	1202	155	172	2660	164
Future Volume (veh/h)	240	438	227	524	567	298	121	1202	155	172	2660	164
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	503	261	602	652	343	139	1382	178	198	3057	189
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	485	676	573	136	1212	540	181	1871	581
Arrive On Green	0.08	0.29	0.29	0.14	0.36	0.36	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	276	503	261	602	652	343	139	1382	178	198	3057	189
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	16.6	40.4	15.5	9.0	40.3	6.9	12.0	43.3	7.9
Cycle Q Clear(g_c), s	9.0	30.5	13.1	16.6	40.4	15.5	9.0	40.3	6.9	12.0	43.3	7.9
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	263	557	472	485	676	573	136	1212	540	181	1871	581
V/C Ratio(X)	1.05	0.90	0.55	1.24	0.96	0.60	1.02	1.14	0.33	1.09	1.63	0.33
Avail Cap(c_a), veh/h	263	665	564	485	681	577	136	1212	540	181	1871	581
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	51.7	37.9	17.4	55.5	39.9	14.3	54.0	38.4	16.8
Incr Delay (d2), s/veh	68.7	14.1	1.0	125.4	25.7	1.7	83.8	73.6	1.6	94.3	287.9	1.5
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	6.4	15.7	4.8	15.5	22.4	5.6	7.2	29.4	3.8	10.0	67.2	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	124.2	54.9	23.9	177.1	63.6	19.1	139.3	113.5	15.9	148.3	326.2	18.3
LnGrp LOS	F	D	C	F	E	B	F	F	B	F	F	B
Approach Vol, veh/h		1040			1597			1699			3444	
Approach Delay, s/veh		65.5			96.8			105.4			299.1	
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	44.3	20.6	39.2	13.0	47.3	13.0	46.7				
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	42.0	40.0	10.0	42.0	9.0	43.0	9.0	43.0				
Max Q Clear Time (g_c+M), s	42.0	42.3	18.6	32.5	11.0	45.3	11.0	42.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.4				

Intersection Summary

HCM 6th Ctrl Delay	184.0
HCM 6th LOS	F

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	202	4	2	275	11	4
Future Vol, veh/h	202	4	2	275	11	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	220	4	2	299	12	4

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	224	0	525	222
Stage 1	-	-	-	-	222	-
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	-	-	1357	-	516	823
Stage 1	-	-	-	-	820	-
Stage 2	-	-	-	-	754	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1357	-	515	823
Mov Cap-2 Maneuver	-	-	-	-	515	-
Stage 1	-	-	-	-	820	-
Stage 2	-	-	-	-	752	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	572	-	-	1357	-
HCM Lane V/C Ratio	0.029	-	-	0.002	-
HCM Control Delay (s)	11.5	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	8	758	1365	3	8	22
Future Vol, veh/h	8	758	1365	3	8	22
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	9	824	1484	3	9	24

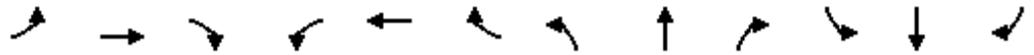
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1487	0	-	0	2328 1486
Stage 1	-	-	-	-	1486 -
Stage 2	-	-	-	-	842 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	458	-	-	-	41 155
Stage 1	-	-	-	-	209 -
Stage 2	-	-	-	-	426 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	458	-	-	-	40 155
Mov Cap-2 Maneuver	-	-	-	-	40 -
Stage 1	-	-	-	-	201 -
Stage 2	-	-	-	-	426 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	68.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	458	-	-	-	88
HCM Lane V/C Ratio	0.019	-	-	-	0.371
HCM Control Delay (s)	13	0	-	-	68.2
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	1.5

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

Highpointe 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	925	368	148	758	108	501	437	198	132	428	93
Future Volume (veh/h)	110	925	368	148	758	108	501	437	198	132	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	984	391	157	806	115	533	465	211	140	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	712	256	648	656	167	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	984	391	157	806	115	533	465	211	140	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	3.5	17.0	25.6	2.3	9.1	0.0	35.0
Cycle Q Clear(g_c), s	7.6	44.0	24.4	8.0	42.0	3.5	17.0	25.6	2.3	9.1	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	712	256	648	656	167	0	537
V/C Ratio(X)	0.78	1.41	0.66	1.30	1.21	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	712	256	648	656	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	34.5	12.1	53.6	0.0	42.5
Incr Delay (d2), s/veh	22.0	194.1	5.8	183.3	109.0	0.5	498.8	6.7	1.3	23.3	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	56.6	10.0	9.7	38.4	1.5	43.0	12.5	2.6	5.1	0.0	22.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.9	232.1	37.5	239.3	148.0	10.4	550.3	41.2	13.4	76.8	0.0	89.8
LnGrp LOS	E	F	D	F	F	B	F	D	B	E	A	F
Approach Vol, veh/h		1492			1078			1209			694	
Approach Delay, s/veh		168.8			146.6			260.8			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	15.1	44.9				
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	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	11.1	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	175.7
HCM 6th LOS	F

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



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↕	↖	↘	↖
Traffic Volume (veh/h)	105	935	896	56	61	85
Future Volume (veh/h)	105	935	896	56	61	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	1016	974	61	66	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	1016	974	61	66	92
Grp Sat Flow(s),veh/h/ln	1810	1900	1805	1610	1810	1610
Q Serve(g_s), s	7.1	54.0	24.0	2.6	3.1	4.9
Cycle Q Clear(g_c), s	7.1	54.0	24.0	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	19.8	24.1	18.3	28.4	29.0
Incr Delay (d2), s/veh	2.8	9.6	1.5	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	8.3	23.3	9.9	0.9	1.4	5.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	52.7	29.4	25.7	18.5	28.8	29.7
LnGrp LOS	D	C	C	B	C	C
Approach Vol, veh/h		1130	1035		158	
Approach Delay, s/veh		31.8	25.2		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		56.0		6.9	9.1	26.0
Green Ext Time (p_c), s		6.8		0.5	0.1	7.1
Intersection Summary						
HCM 6th Ctrl Delay			28.7			
HCM 6th LOS			C			

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

Highpointe MV 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	301	195	33	79	3186	495	61	2193	59
Future Volume (veh/h)	48	186	77	301	195	33	79	3186	495	61	2193	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	307	199	34	81	3251	505	62	2238	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	3144	476	1810	3592	96
Grp Volume(v), veh/h	49	190	79	307	115	118	81	1830	1926	62	1120	1178
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	74.0	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	74.0	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	22.5	22.6
Incr Delay (d2), s/veh	6.0	2.7	4.9	278.0	1.3	1.3	3.6	276.4	310.6	13.0	26.0	27.6
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	1.6	2.8	2.4	20.9	3.2	3.3	2.5	114.0	125.4	2.1	34.7	37.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.1	56.4	58.4	331.5	48.6	48.8	59.5	298.7	332.9	69.0	48.5	50.3
LnGrp LOS	E	E	E	F	D	D	E	F	F	E	D	F
Approach Vol, veh/h		318			540			3837			2360	
Approach Delay, s/veh		57.8			209.5			310.8			49.9	
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	204.4
HCM 6th LOS	F

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

Highpointe MV 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	72	33	6	3	48	3557	38	20	2424	105
Future Volume (veh/h)	131	2	72	33	6	3	48	3557	38	20	2424	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	80	37	7	3	53	3952	42	22	2693	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	2518	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	82	37	0	10	53	1946	2048	22	1369	1441
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(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	56.5	6.5	6.5
Incr Delay (d2), s/veh	7.3	0.0	2.3	3.7	0.0	0.6	0.6	255.4	258.0	0.4	60.5	67.8
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	90.9	96.3	0.6	24.2	27.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.9	0.0	53.3	59.4	0.0	55.5	55.6	260.5	263.1	56.9	67.1	74.4
LnGrp LOS	E	A	D	E	A	E	E	F	F	E	F	F
Approach Vol, veh/h		228			47			4047			2832	
Approach Delay, s/veh		57.5			58.6			259.1			70.7	
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	176.8
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)	302	106	101	27	90	33	123	3318	31	38	2179	313
Future Volume (veh/h)	302	106	101	27	90	33	123	3318	31	38	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	114	109	29	97	35	132	3568	33	41	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	226	282	239	65	157	54	158	2341	22	79	2147	957
Arrive On Green	0.13	0.15	0.15	0.04	0.06	0.06	0.09	0.64	0.64	0.06	0.79	0.79
Sat Flow, veh/h	1810	1900	1610	1810	2633	908	1810	3665	34	1810	3610	1610
Grp Volume(v), veh/h	325	114	109	29	65	67	132	1754	1847	41	2343	337
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1805	1737	1810	1805	1894	1810	1805	1610
Q Serve(g_s), s	15.0	6.5	7.4	1.9	4.2	4.5	8.6	76.6	76.6	2.6	71.4	3.8
Cycle Q Clear(g_c), s	15.0	6.5	7.4	1.9	4.2	4.5	8.6	76.6	76.6	2.6	71.4	3.8
Prop In Lane	1.00		1.00	1.00		0.52	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	226	282	239	65	107	103	158	1153	1210	79	2147	957
V/C Ratio(X)	1.44	0.40	0.46	0.44	0.61	0.65	0.83	1.52	1.53	0.52	1.09	0.35
Avail Cap(c_a), veh/h	226	618	523	166	526	506	166	1153	1210	136	2147	957
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	52.5	46.3	46.7	56.6	55.1	55.2	53.9	21.7	21.7	55.3	12.5	1.6
Incr Delay (d2), s/veh	220.0	0.9	1.4	4.6	5.4	6.6	28.2	239.3	241.2	0.5	42.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.5	3.1	0.1	0.9	2.0	2.1	5.1	103.7	109.5	1.2	24.1	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	272.5	47.2	48.0	61.3	60.4	61.8	82.1	261.0	262.9	55.8	54.6	1.7
LnGrp LOS	F	D	D	E	E	E	F	F	F	E	F	A
Approach Vol, veh/h		548			161			3733			2721	
Approach Delay, s/veh		181.0			61.2			255.6			48.0	
Approach LOS		F			E			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	80.6	8.3	21.8	14.5	75.4	19.0	11.1				
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	45.0	11.0	39.0	11.0	43.0	15.0	35.0					
Max Q Clear Time (g_c+1), s	78.6	3.9	9.4	10.6	73.4	17.0	6.5					
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay											166.7	
HCM 6th LOS											F	

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

Highpointe MV Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑	↗	↔↔	↑	↗	↖	↑↑	↗	↖	↑↑↑	↗
Traffic Volume (veh/h)	179	546	144	257	529	163	203	2871	545	217	1590	205
Future Volume (veh/h)	179	546	144	257	529	163	203	2871	545	217	1590	205
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	201	613	162	289	594	183	228	3226	612	244	1787	230
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	258	640	542	234	627	531	226	1372	612	151	1755	545
Arrive On Green	0.07	0.34	0.34	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	201	613	162	289	594	183	228	3226	612	244	1787	230
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1755	1900	1610	1810	1805	1610	1810	1729	1610
Q Serve(g_s), s	6.8	37.9	6.3	8.0	36.6	8.0	15.0	45.6	35.8	10.0	40.6	10.4
Cycle Q Clear(g_c), s	6.8	37.9	6.3	8.0	36.6	8.0	15.0	45.6	35.8	10.0	40.6	10.4
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	258	640	542	234	627	531	226	1372	612	151	1755	545
V/C Ratio(X)	0.78	0.96	0.30	1.23	0.95	0.34	1.01	2.35	1.00	1.62	1.02	0.42
Avail Cap(c_a), veh/h	258	649	550	234	649	550	226	1372	612	151	1755	545
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	39.0	14.8	56.0	39.2	18.3	52.5	37.2	22.9	55.0	39.7	19.0
Incr Delay (d2), s/veh	14.1	25.2	0.3	136.9	22.9	0.4	61.9	610.6	36.5	306.5	26.2	2.4
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	8.4	21.0	3.2	7.9	20.0	3.8	10.5	135.3	18.5	17.3	20.6	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.8	64.2	15.1	192.9	62.1	18.7	114.4	647.8	59.4	361.5	65.9	21.4
LnGrp LOS	E	E	B	F	E	B	F	F	F	F	F	C
Approach Vol, veh/h		976			1066			4066			2261	
Approach Delay, s/veh		57.0			90.1			529.3			93.3	
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	49.6	12.0	44.4	19.0	44.6	12.8	43.6				
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	45.0	8.0	41.0	15.0	40.0	8.0	41.0				
Max Q Clear Time (g_c+M), s	47.6	47.6	10.0	39.9	17.0	42.6	8.8	38.6				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.0	0.0	0.0	1.0				

Intersection Summary

HCM 6th Ctrl Delay	300.5
HCM 6th LOS	F

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	162	12	5	140	7	3
Future Vol, veh/h	162	12	5	140	7	3
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	13	5	152	8	3

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	189	0	345
Stage 1	-	-	-	-	183
Stage 2	-	-	-	-	162
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1397	-	656
Stage 1	-	-	-	-	853
Stage 2	-	-	-	-	872
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1397	-	653
Mov Cap-2 Maneuver	-	-	-	-	653
Stage 1	-	-	-	-	853
Stage 2	-	-	-	-	869

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	705	-	-	1397	-
HCM Lane V/C Ratio	0.015	-	-	0.004	-
HCM Control Delay (s)	10.2	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	25	1282	935	9	5	15
Future Vol, veh/h	25	1282	935	9	5	15
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	27	1393	1016	10	5	16

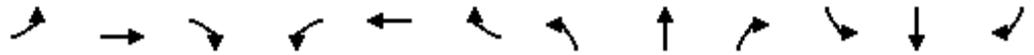
Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1026	0	0 2468 1021
Stage 1	-	-	- 1021 -
Stage 2	-	-	- 1447 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	685	-	- 34 289
Stage 1	-	-	- 351 -
Stage 2	-	-	- 219 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	685	-	- 28 289
Mov Cap-2 Maneuver	-	-	- 28 -
Stage 1	-	-	- 290 -
Stage 2	-	-	- 219 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	59.6
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	685	-	-	-	87
HCM Lane V/C Ratio	0.04	-	-	-	0.25
HCM Control Delay (s)	10.5	0	-	-	59.6
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

Highpointe MV Residential
 08/04/2022

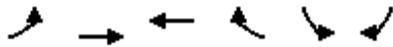


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Traffic Volume (veh/h)	99	656	473	218	932	135	268	411	194	91	401	122
Future Volume (veh/h)	99	656	473	218	932	135	268	411	194	91	401	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	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



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



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



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



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(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	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	11.0	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



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	6.5	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+1/2p_c), s	11.2	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

Highpointe 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	938	368	151	765	109	501	437	204	134	428	93
Future Volume (veh/h)	110	938	368	151	765	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	814	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	814	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	90.8	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	36.6	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	128.8	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			1091			1215			697	
Approach Delay, s/veh		179.3			134.4			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	175.9											
HCM 6th LOS	F											

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



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

Highpointe MV 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	79	306	195	33	80	3193	498	61	2206	59
Future Volume (veh/h)	48	186	79	306	195	33	80	3193	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	3258	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	1931	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	278.4	312.8	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	114.7	126.2	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	300.7	335.1	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			3848			2373	
Approach Delay, s/veh		57.8			216.9			312.8			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	206.5
HCM 6th LOS	F

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

Highpointe MV 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	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

Highpointe MV Residential
 08/04/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑↑		↘	↑↑		↘	↑↑	↗
Traffic Volume (veh/h)	302	112	101	39	94	45	123	3318	51	59	2179	313
Future Volume (veh/h)	302	112	101	39	94	45	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	48	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	160	72	136	2333	36	93	2229	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	2422	1088	1810	3639	56	1810	3610	1610
Grp Volume(v), veh/h	325	120	109	42	74	75	132	1765	1858	63	2343	337
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1805	1704	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	77.0	77.0	4.1	74.1	6.6
Cycle Q Clear(g_c), s	13.0	7.0	7.6	2.7	4.8	5.2	8.7	77.0	77.0	4.1	74.1	6.6
Prop In Lane	1.00		1.00	1.00		0.64	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	196	248	210	80	119	112	136	1157	1212	93	2229	994
V/C Ratio(X)	1.66	0.48	0.52	0.53	0.62	0.67	0.97	1.52	1.53	0.68	1.05	0.34
Avail Cap(c_a), veh/h	196	602	510	181	557	525	136	1157	1212	136	2229	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	48.7	56.1	54.6	54.8	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	240.7	244.1	0.8	24.4	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	28.1	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	50.7	61.5	59.8	61.5	124.0	262.2	265.6	56.8	47.4	3.4
LnGrp LOS	F	D	D	E	E	E	F	F	F	E	F	A
Approach Vol, veh/h		554			191			3755			2743	
Approach Delay, s/veh		238.5			60.8			259.0			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	10.1	81.0	9.3	19.6	13.0	78.1	17.0	11.9				
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	45.0	12.0	38.0	9.0	45.0	13.0	37.0					
Max Q Clear Time (g_c+1), s	79.0	4.7	9.6	10.7	76.1	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	170.1
HCM 6th LOS	F

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)	192	555	144	261	534	169	203	2875	553	227	1592	212
Future Volume (veh/h)	192	555	144	261	534	169	203	2875	553	227	1592	212
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	238
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	268	661	560	234	643	545	226	1391	620	121	1696	526
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	238
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	38.3	6.2	8.0	36.6	8.5	15.0	46.2	36.2	8.0	39.2	11.0
Cycle Q Clear(g_c), s	7.3	38.3	6.2	8.0	36.6	8.5	15.0	46.2	36.2	8.0	39.2	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	268	661	560	234	643	545	226	1391	620	121	1696	526
V/C Ratio(X)	0.81	0.94	0.29	1.25	0.93	0.35	1.01	2.32	1.00	2.11	1.05	0.45
Avail Cap(c_a), veh/h	268	697	590	234	697	590	226	1391	620	121	1696	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	54.6	38.0	14.1	56.0	38.4	19.0	52.5	36.9	22.6	56.0	40.4	19.8
Incr Delay (d2), s/veh	16.4	20.9	0.3	143.6	18.8	0.4	61.9	597.2	36.4	528.1	37.9	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	20.5	3.2	8.1	19.4	3.9	10.5	134.5	18.6	21.3	21.8	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.0	58.9	14.4	199.6	57.2	19.4	114.4	634.1	59.0	584.1	78.3	22.6
LnGrp LOS	E	E	B	F	E	B	F	F	F	F	F	C
Approach Vol, veh/h		1002			1083			4079			2282	
Approach Delay, s/veh		54.3			89.1			517.5			129.0	
Approach LOS		D			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	50.2	12.0	45.8	19.0	43.2	13.2	44.6				
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	44.0	44.0	8.0	44.0	15.0	37.0	8.0	44.0				
Max Q Clear Time (g_c+M), s	48.2	48.2	10.0	40.3	17.0	41.2	9.3	38.6				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.5	0.0	0.0	0.0	2.0				

Intersection Summary

HCM 6th Ctrl Delay		302.7										
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					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	52	1282	935	20	11	30
Future Vol, veh/h	52	1282	935	20	11	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	12	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	160.1
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	678	-	-	-	60
HCM Lane V/C Ratio	0.083	-	-	-	0.743
HCM Control Delay (s)	10.8	0	-	-	160.1
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.3	-	-	-	3.2

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

Highpointe 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	720	497	224	967	141	281	458	210	109	412	141
Future Volume (veh/h)	104	720	497	224	967	141	281	458	210	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	720	497	224	967	141	281	458	210	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	1513	725	226	1599	684	287	1203	738	211	772	261
Arrive On Green	0.11	0.29	0.29	0.13	0.31	0.31	0.16	0.33	0.33	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	720	497	224	967	141	281	458	210	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	13.7	8.5	14.8	19.0	0.0	18.6	11.6	5.8	6.8	15.6	15.9
Cycle Q Clear(g_c), s	6.5	13.7	8.5	14.8	19.0	0.0	18.6	11.6	5.8	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	1513	725	226	1599	684	287	1203	738	211	526	507
V/C Ratio(X)	0.53	0.48	0.69	0.99	0.60	0.21	0.98	0.38	0.28	0.52	0.53	0.54
Avail Cap(c_a), veh/h	196	1513	725	226	1599	684	287	1203	738	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	35.0	11.3	52.4	35.3	21.7	50.3	30.5	8.8	49.8	35.6	35.7
Incr Delay (d2), s/veh	2.7	1.1	5.2	57.0	1.7	0.7	47.7	0.9	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	5.7	6.3	10.1	7.9	2.5	11.9	5.0	2.4	3.1	7.1	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.3	36.0	16.6	109.4	37.0	22.4	98.0	31.5	9.8	52.0	39.4	39.8
LnGrp LOS	D	D	B	F	D	C	F	C	A	D	D	D
Approach Vol, veh/h		1321			1332			949			662	
Approach Delay, s/veh		30.1			47.6			46.4			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	39.0	23.0	39.0	17.0	41.0	18.0	44.0				
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	35.0	19.0	35.0	13.0	37.0	14.0	40.0				
Max Q Clear Time (g_c+I1), s	16.8	15.7	20.6	17.9	8.5	21.0	8.8	13.6				
Green Ext Time (p_c), s	0.0	6.2	0.0	2.7	0.1	5.9	0.1	3.5				
Intersection Summary												
HCM 6th Ctrl Delay			41.0									
HCM 6th LOS			D									

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

Highpointe 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	782	78	35	932	91	55	102	42	111	116	173
Future Volume (veh/h)	172	782	78	35	932	91	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										
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	172	782	78	35	932	91	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	334	1811	180	73	1210	376	89	314	123	588	1444	644
Arrive On Green	0.18	0.38	0.38	0.04	0.23	0.23	0.05	0.12	0.12	0.32	0.40	0.40
Sat Flow, veh/h	1810	4797	476	1810	5187	1610	1810	2534	993	1810	3610	1610
Grp Volume(v), veh/h	172	563	297	35	932	91	55	71	73	111	116	173
Grp Sat Flow(s),veh/h/ln	1810	1729	1814	1810	1729	1610	1810	1805	1721	1810	1805	1610
Q Serve(g_s), s	10.3	14.5	14.6	2.3	20.2	2.7	3.6	4.3	4.6	5.3	2.4	8.7
Cycle Q Clear(g_c), s	10.3	14.5	14.6	2.3	20.2	2.7	3.6	4.3	4.6	5.3	2.4	8.7
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	334	1305	685	73	1210	376	89	224	213	588	1444	644
V/C Ratio(X)	0.52	0.43	0.43	0.48	0.77	0.24	0.62	0.32	0.34	0.19	0.08	0.27
Avail Cap(c_a), veh/h	334	1305	685	106	1210	376	136	271	258	588	1444	644
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	44.1	27.8	27.8	56.4	43.0	8.9	56.0	47.9	48.1	29.1	22.3	24.2
Incr Delay (d2), s/veh	1.4	1.0	2.0	4.9	4.8	1.5	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	4.6	5.9	6.4	1.1	8.8	2.3	1.8	2.0	2.1	2.4	1.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.5	28.8	29.8	61.2	47.8	10.5	62.8	48.7	49.0	29.8	22.4	25.2
LnGrp LOS	D	C	C	E	D	B	E	D	D	C	C	C
Approach Vol, veh/h		1032			1058			199			400	
Approach Delay, s/veh		31.9			45.0			52.7			25.7	
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	49.3	9.9	52.0	26.1	32.0	43.0	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	40.0	9.0	48.0	19.0	28.0	39.0	18.0					
Max Q Clear Time (g_c+1), s	16.6	5.6	10.7	12.3	22.2	7.3	6.6					
Green Ext Time (p_c), s	0.0	5.1	0.0	1.3	0.2	2.9	0.3	0.5				

Intersection Summary

HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

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)	276	409	271	413	321	56	119	1883	476	33	3248	108
Future Volume (veh/h)	276	409	271	413	321	56	119	1883	476	33	3248	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	271	413	321	56	119	1883	476	33	3248	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	196	551	246	196	551	246	357	2118	832	357	2106	69
Arrive On Green	0.11	0.15	0.15	0.11	0.15	0.15	0.39	0.82	0.82	0.20	0.41	0.41
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	5187	1610	1810	5158	170
Grp Volume(v), veh/h	276	409	271	413	321	56	119	1883	476	33	2166	1190
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1810	1729	1610	1810	1729	1869
Q Serve(g_s), s	13.0	13.0	12.6	13.0	9.9	2.5	5.5	29.2	5.0	1.8	49.0	49.0
Cycle Q Clear(g_c), s	13.0	13.0	12.6	13.0	9.9	2.5	5.5	29.2	5.0	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	196	551	246	196	551	246	357	2118	832	357	1412	763
V/C Ratio(X)	1.41	0.74	1.10	2.11	0.58	0.23	0.33	0.89	0.57	0.09	1.53	1.56
Avail Cap(c_a), veh/h	196	1053	470	196	1053	470	357	2118	832	357	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	53.5	48.6	24.1	53.5	47.3	21.2	30.8	9.2	1.9	39.4	35.5	35.5
Incr Delay (d2), s/veh	211.1	2.0	64.8	515.0	1.0	0.5	0.4	4.8	2.2	0.1	243.9	258.0
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	7.3	5.9	9.1	33.8	4.5	1.5	2.2	4.5	1.3	0.8	67.1	75.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	264.6	50.6	88.9	568.5	48.3	21.6	31.2	14.0	4.1	39.5	279.4	293.5
LnGrp LOS	F	D	F	F	D	C	C	B	A	D	F	F
Approach Vol, veh/h		956			790			2478			3389	
Approach Delay, s/veh		123.2			318.3			12.9			282.0	
Approach LOS		F			F			B			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	37.7	53.0	17.0	22.3	27.7	53.0	17.0	22.3				
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	49.0	13.0	35.0	7.0	49.0	13.0	35.0					
Max Q Clear Time (g_c+1), s	31.2	15.0	15.0	7.5	51.0	15.0	11.9					
Green Ext Time (p_c), s	0.0	13.3	0.0	3.3	0.0	0.0	0.0	2.1				

Intersection Summary

HCM 6th Ctrl Delay	178.2
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)	149	16	128	61	18	35	271	2067	57	18	3482	313
Future Volume (veh/h)	149	16	128	61	18	35	271	2067	57	18	3482	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	271	2067	57	18	3482	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	106	3493	1084	48	3326	1033
Arrive On Green	0.10	0.11	0.11	0.06	0.07	0.07	0.06	0.67	0.67	0.02	0.43	0.43
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	271	2067	57	18	3482	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	7.0	26.0	1.4	1.2	77.0	15.3
Cycle Q Clear(g_c), s	9.7	0.0	10.3	3.9	0.0	3.6	7.0	26.0	1.4	1.2	77.0	15.3
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	106	3493	1084	48	3326	1033
V/C Ratio(X)	0.82	0.00	0.81	0.58	0.00	0.47	2.57	0.59	0.05	0.38	1.05	0.30
Avail Cap(c_a), veh/h	528	0	478	528	0	495	106	3493	1084	106	3326	1033
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	0.00	1.00	1.00	0.00	1.00	0.34	0.34	0.34	0.09	0.09	0.09
Uniform Delay (d), s/veh	52.9	0.0	52.3	55.1	0.0	54.0	56.5	10.6	6.6	58.0	34.2	16.6
Incr Delay (d2), s/veh	8.8	0.0	8.4	4.9	0.0	3.0	714.7	0.3	0.0	0.4	22.1	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	24.1	8.5	0.5	0.5	39.2	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.7	0.0	60.7	60.0	0.0	57.0	771.2	10.9	6.7	58.4	56.3	16.7
LnGrp LOS	E	A	E	E	A	E	F	B	A	E	F	B
Approach Vol, veh/h		293			114			2395			3813	
Approach Delay, s/veh		61.2			58.6			96.8			53.1	
Approach LOS		E			E			F			D	
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	11.0	81.0	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	7.0	27.0	35.0	35.0					
Max Q Clear Time (g_c+1), s	28.0	5.9	12.3	9.0	79.0	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	69.4
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)	368	104	156	86	135	76	275	1962	68	60	3361	267
Future Volume (veh/h)	368	104	156	86	135	76	275	1962	68	60	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	104	156	86	135	76	275	1962	68	60	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	486	217	109	197	105	181	1988	617	522	2965	1095
Arrive On Green	0.11	0.13	0.13	0.06	0.09	0.09	0.10	0.38	0.38	0.38	0.76	0.76
Sat Flow, veh/h	1810	3610	1610	1810	2277	1210	1810	5187	1610	1810	5187	1610
Grp Volume(v), veh/h	368	104	156	86	105	106	275	1962	68	60	3361	267
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1682	1810	1729	1610	1810	1729	1610
Q Serve(g_s), s	13.0	3.1	11.1	5.6	6.8	7.3	12.0	45.0	2.6	2.6	68.6	1.9
Cycle Q Clear(g_c), s	13.0	3.1	11.1	5.6	6.8	7.3	12.0	45.0	2.6	2.6	68.6	1.9
Prop In Lane	1.00		1.00	1.00		0.72	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	196	486	217	109	156	146	181	1988	617	522	2965	1095
V/C Ratio(X)	1.88	0.21	0.72	0.79	0.67	0.72	1.52	0.99	0.11	0.11	1.13	0.24
Avail Cap(c_a), veh/h	196	1083	483	181	526	491	181	1988	617	522	2965	1095
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	53.5	46.3	49.8	55.6	53.2	53.4	54.0	36.7	15.0	27.1	14.4	1.2
Incr Delay (d2), s/veh	413.5	0.2	4.5	11.7	5.0	6.7	260.0	17.3	0.4	0.0	60.5	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	4.6	2.9	3.2	3.3	18.4	21.1	1.3	1.1	30.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	467.0	46.5	54.2	67.3	58.1	60.1	314.0	54.0	15.4	27.1	74.9	1.2
LnGrp LOS	F	D	D	E	E	E	F	D	B	C	F	A
Approach Vol, veh/h		628			297			2305			3688	
Approach Delay, s/veh		294.8			61.5			83.9			68.8	
Approach LOS		F			E			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	38.6	50.0	11.2	20.2	16.0	72.6	17.0	14.4				
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	40.0	46.0	12.0	36.0	12.0	44.0	13.0	35.0				
Max Q Clear Time (g_c+1), s	14.6	47.0	7.6	13.1	14.0	70.6	15.0	9.3				
Green Ext Time (p_c), s	0.0	0.0	0.1	1.0	0.0	0.0	0.0	1.1				

Intersection Summary

HCM 6th Ctrl Delay	94.0
HCM 6th LOS	F

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)	252	460	247	550	595	313	222	1262	163	181	2793	214
Future Volume (veh/h)	252	460	247	550	595	313	222	1262	163	181	2793	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	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	252	460	247	550	595	313	222	1262	163	181	2793	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	1120	671	293	1120	533	363	2346	862	208	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	252	460	247	550	595	313	222	1262	163	181	2793	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	8.5	9.2	2.5	10.0	12.2	19.4	13.4	21.1	6.3	11.8	44.0	4.6
Cycle Q Clear(g_c), s	8.5	9.2	2.5	10.0	12.2	19.4	13.4	21.1	6.3	11.8	44.0	4.6
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	1120	671	293	1120	533	363	2346	862	208	1902	725
V/C Ratio(X)	0.86	0.41	0.37	1.88	0.53	0.59	0.61	0.54	0.19	0.87	1.47	0.30
Avail Cap(c_a), veh/h	293	1772	873	293	1772	736	363	2346	862	226	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	54.3	40.5	12.3	55.0	41.7	33.3	43.7	23.8	14.4	52.2	38.0	8.1
Incr Delay (d2), s/veh	22.1	0.2	0.3	408.8	0.4	1.0	3.0	0.9	0.5	26.9	213.8	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	4.5	3.8	2.8	20.9	5.0	7.3	6.1	8.4	2.2	6.8	55.2	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.4	40.7	12.6	463.8	42.1	34.4	46.7	24.7	14.9	79.1	251.8	9.1
LnGrp LOS	E	D	B	F	D	C	D	C	B	E	F	A
Approach Vol, veh/h		959			1458			1647			3188	
Approach Delay, s/veh		42.9			199.5			26.7			225.7	
Approach LOS		D			F			C			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.8	58.3	14.0	29.9	28.1	48.0	14.0	29.9				
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	15.0	38.0	10.0	41.0	9.0	44.0	10.0	41.0				
Max Q Clear Time (g_c+M), s	11.8	23.1	12.0	11.2	15.4	46.0	10.5	21.4				
Green Ext Time (p_c), s	0.1	7.6	0.0	3.7	0.0	0.0	0.0	4.5				

Intersection Summary

HCM 6th Ctrl Delay	151.0
HCM 6th LOS	F

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Vol, veh/h	212	4	2	289	12	4
Future Vol, veh/h	212	4	2	289	12	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	230	4	2	314	13	4

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	234	0	393
Stage 1	-	-	-	-	232
Stage 2	-	-	-	-	161
Critical Hdwy	-	-	4.1	-	6.8
Critical Hdwy Stg 1	-	-	-	-	5.8
Critical Hdwy Stg 2	-	-	-	-	5.8
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1345	-	589
Stage 1	-	-	-	-	791
Stage 2	-	-	-	-	857
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1345	-	588
Mov Cap-2 Maneuver	-	-	-	-	588
Stage 1	-	-	-	-	791
Stage 2	-	-	-	-	855

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	646	-	-	1345	-
HCM Lane V/C Ratio	0.027	-	-	0.002	-
HCM Control Delay (s)	10.7	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑↑↑ ↑↑↑				↑	
Traffic Vol, veh/h	8	796	1433	3	8	23
Future Vol, veh/h	8	796	1433	3	8	23
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	9	865	1558	3	9	25

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1561	0	-	0	1924 781
Stage 1	-	-	-	-	1560 -
Stage 2	-	-	-	-	364 -
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	212	-	-	-	105 293
Stage 1	-	-	-	-	111 -
Stage 2	-	-	-	-	622 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	212	-	-	-	96 293
Mov Cap-2 Maneuver	-	-	-	-	96 -
Stage 1	-	-	-	-	102 -
Stage 2	-	-	-	-	622 -

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	27.7
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	212	-	-	-	192
HCM Lane V/C Ratio	0.041	-	-	-	0.175
HCM Control Delay (s)	22.7	0.6	-	-	27.7
HCM Lane LOS	C	A	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

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

Highpointe 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	971	386	155	842	113	526	496	208	139	554	98
Future Volume (veh/h)	125	971	386	155	842	113	526	496	208	139	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	971	386	155	842	113	526	496	208	139	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	632	377	1471	763	167	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	971	386	155	842	113	526	496	208	139	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	19.3	0.0	8.0	16.3	4.0	25.0	11.3	2.2	9.1	18.7	18.8
Cycle Q Clear(g_c), s	8.0	19.3	0.0	8.0	16.3	4.0	25.0	11.3	2.2	9.1	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	632	377	1471	763	167	526	526
V/C Ratio(X)	1.04	0.62	0.47	1.28	0.54	0.18	1.40	0.34	0.27	0.83	0.62	0.62
Avail Cap(c_a), veh/h	121	1556	819	121	1556	632	377	1471	763	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	36.2	19.1	56.0	35.1	13.2	47.5	24.4	8.7	53.5	36.7	36.8
Incr Delay (d2), s/veh	91.9	1.9	1.9	176.9	1.4	0.6	193.4	0.6	0.9	12.7	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	8.1	7.0	9.5	6.7	1.7	31.1	4.8	2.0	4.6	8.6	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	147.9	38.1	21.0	232.9	36.5	13.8	240.9	25.0	9.6	66.3	42.1	42.2
LnGrp LOS	F	D	C	F	D	B	F	C	A	E	D	D
Approach Vol, veh/h		1482			1110			1230			791	
Approach Delay, s/veh		42.9			61.6			114.7			46.4	
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	15.1	52.9				
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	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	21.3	27.0	20.8	10.0	18.3	11.1	13.3				
Green Ext Time (p_c), s	0.0	6.5	0.0	3.0	0.0	5.2	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

Highpointe 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	982	82	38	941	59	104	132	65	64	155	93
Future Volume (veh/h)	110	982	82	38	941	59	104	132	65	64	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		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	110	982	82	38	941	59	104	132	65	64	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	1885	157	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	4878	407	1810	5187	1610	1810	2388	1116	1810	3610	1610
Grp Volume(v), veh/h	110	696	368	38	941	59	104	98	99	64	155	93
Grp Sat Flow(s),veh/h/ln	1810	1729	1827	1810	1729	1610	1810	1805	1699	1810	1805	1610
Q Serve(g_s), s	6.6	18.5	18.6	2.5	19.3	1.5	6.8	6.1	6.6	3.0	3.4	3.0
Cycle Q Clear(g_c), s	6.6	18.5	18.6	2.5	19.3	1.5	6.8	6.1	6.6	3.0	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	706	76	1426	443	130	204	192	588	1324	590
V/C Ratio(X)	0.40	0.52	0.52	0.50	0.66	0.13	0.80	0.48	0.51	0.11	0.12	0.16
Avail Cap(c_a), veh/h	278	1336	706	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	28.3	28.3	56.3	38.5	6.9	54.9	49.9	50.1	28.3	25.1	10.9
Incr Delay (d2), s/veh	0.9	1.5	2.7	5.0	2.4	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	7.5	8.2	1.2	8.1	1.4	3.6	2.9	2.9	1.3	1.5	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.7	29.7	31.0	61.3	40.9	7.5	67.9	51.6	52.2	28.7	25.3	11.4
LnGrp LOS	D	C	C	E	D	A	E	D	D	C	C	B
Approach Vol, veh/h	1174		1038		301		312					
Approach Delay, s/veh	31.7		39.8		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	20.6	8.8	5.4	8.6	21.3	5.0	8.6					
Green Ext Time (p_c), s	0.0	6.2	0.1	1.2	0.1	4.6	0.1	0.7				

Intersection Summary

HCM 6th Ctrl Delay	36.3
HCM 6th LOS	D

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

Highpointe 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	116	470	402	35	94	3345	580	64	2303	62
Future Volume (veh/h)	59	323	116	470	402	35	94	3345	580	64	2303	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	116	470	402	35	94	3345	580	64	2303	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	118	2991	929	93	2925	78
Arrive On Green	0.05	0.12	0.12	0.12	0.19	0.19	0.06	0.58	0.58	0.05	0.56	0.56
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	5187	1610	1810	5194	139
Grp Volume(v), veh/h	59	323	116	470	402	35	94	3345	580	64	1531	834
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	7.0	14.0	12.2	2.2	6.1	69.2	16.2	4.2	41.6	42.0
Cycle Q Clear(g_c), s	3.8	10.4	7.0	14.0	12.2	2.2	6.1	69.2	16.2	4.2	41.6	42.0
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	118	2991	929	93	1947	1056
V/C Ratio(X)	0.65	0.73	0.59	2.23	0.59	0.12	0.80	1.12	0.62	0.69	0.79	0.79
Avail Cap(c_a), veh/h	136	1053	470	211	1203	537	121	2991	929	106	1947	1056
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	36.0	53.0	44.5	40.4	55.3	25.4	5.4	56.0	20.5	20.6
Incr Delay (d2), s/veh	7.6	2.4	2.8	566.9	0.8	0.2	3.5	53.7	0.3	14.8	3.3	6.0
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	1.9	4.7	0.2	39.5	5.4	0.9	2.9	39.7	4.3	2.2	16.0	18.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.5	53.2	38.8	619.9	45.3	40.6	58.8	79.1	5.7	70.7	23.8	26.7
LnGrp LOS	E	D	D	F	D	D	E	F	A	E	C	C
Approach Vol, veh/h		498			907			4019			2429	
Approach Delay, s/veh		51.1			342.9			68.1			26.0	
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	11.8	71.6	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	8.0	47.0	9.0	40.0					
Max Q Clear Time (g_c+1), s	71.2	16.0	12.4	8.1	44.0	5.8	14.2					
Green Ext Time (p_c), s	0.0	0.0	0.0	2.3	0.0	2.7	0.0	2.6				

Intersection Summary

HCM 6th Ctrl Delay	85.7
HCM 6th LOS	F

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

Highpointe 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	88	35	10	4	49	3735	40	32	2545	143
Future Volume (veh/h)	172	4	88	35	10	4	49	3735	40	32	2545	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	88	35	10	4	49	3735	40	32	2545	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	85	3409	1058	69	3364	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	1550	1810	1291	516	1810	5187	1610	1810	5187	1610
Grp Volume(v), veh/h	172	0	92	35	0	14	49	3735	40	32	2545	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	6.4	2.2	0.0	0.9	3.1	0.0	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	11.2	0.0	6.4	2.2	0.0	0.9	3.1	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	85	3409	1058	69	3364	1044
V/C Ratio(X)	0.84	0.00	0.50	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	3364	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	2.1	1.8	0.0	0.6	0.6	43.5	0.0	0.4	0.1	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	13.7	0.0	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.9	0.0	52.2	56.1	0.0	54.3	53.8	43.5	0.0	54.7	0.1	0.0
LnGrp LOS	E	A	D	E	A	D	D	F	A	D	A	A
Approach Vol, veh/h		264			49			3824			2720	
Approach Delay, s/veh		57.9			55.6			43.2			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	9.6	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	8.4	5.1	2.0	13.2	2.9				
Green Ext Time (p_c), s	0.0	24.6	0.1	0.5	0.0	20.7	0.4	0.0				

Intersection Summary

HCM 6th Ctrl Delay	27.0
HCM 6th LOS	C

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)	317	111	106	28	95	55	129	3484	33	40	2288	329
Future Volume (veh/h)	317	111	106	28	95	55	129	3484	33	40	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		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	111	106	28	95	55	129	3484	33	40	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	226	290	129	202	151	82	121	3278	1018	78	3155	1181
Arrive On Green	0.13	0.08	0.08	0.11	0.07	0.07	0.07	0.63	0.63	0.04	0.61	0.61
Sat Flow, veh/h	1810	3610	1610	1810	2262	1223	1810	5187	1610	1810	5187	1610
Grp Volume(v), veh/h	317	111	106	28	74	76	129	3484	33	40	2288	329
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1680	1810	1729	1610	1810	1729	1610
Q Serve(g_s), s	15.0	3.5	6.7	1.7	4.8	5.3	8.0	75.8	0.5	2.6	37.1	3.1
Cycle Q Clear(g_c), s	15.0	3.5	6.7	1.7	4.8	5.3	8.0	75.8	0.5	2.6	37.1	3.1
Prop In Lane	1.00		1.00	1.00		0.73	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	226	290	129	202	120	112	121	3278	1018	78	3155	1181
V/C Ratio(X)	1.40	0.38	0.82	0.14	0.62	0.67	1.07	1.06	0.03	0.51	0.73	0.28
Avail Cap(c_a), veh/h	226	1233	550	202	526	490	121	3278	1018	121	3155	1181
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	0.60	0.60	0.60
Uniform Delay (d), s/veh	52.5	52.4	39.7	48.1	54.5	54.7	56.0	22.1	2.2	56.2	16.5	1.5
Incr Delay (d2), s/veh	205.1	0.8	12.0	0.3	5.1	6.9	101.8	35.6	0.1	3.1	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	19.6	1.6	3.5	0.8	2.3	2.4	7.0	36.7	0.3	1.2	13.2	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	257.6	53.2	51.7	48.4	59.6	61.6	157.8	57.7	2.3	59.3	17.4	1.9
LnGrp LOS	F	D	D	D	E	E	F	F	A	E	B	A
Approach Vol, veh/h		534			178			3646			2657	
Approach Delay, s/veh		174.3			58.7			60.7			16.1	
Approach LOS		F			E			E			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	79.8	17.4	13.6	12.0	77.0	19.0	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	46.0	46.0	9.0	41.0	8.0	46.0	15.0	35.0				
Max Q Clear Time (g_c+1), s	14.6	77.8	3.7	8.7	10.0	39.1	17.0	7.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.0	0.0	6.3	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	52.4
HCM 6th LOS	D

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)	340	573	290	270	555	171	223	3015	572	228	1670	286
Future Volume (veh/h)	340	573	290	270	555	171	223	3015	572	228	1670	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	573	290	270	555	171	223	3015	572	228	1670	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	261	828	751	234	788	365	556	2933	1018	136	1729	657
Arrive On Green	0.07	0.16	0.16	0.07	0.15	0.15	0.31	0.57	0.57	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	573	290	270	555	171	223	3015	572	228	1670	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	8.9	12.5	0.0	8.0	12.2	8.5	11.7	67.8	11.9	9.0	38.0	6.4
Cycle Q Clear(g_c), s	8.9	12.5	0.0	8.0	12.2	8.5	11.7	67.8	11.9	9.0	38.0	6.4
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	261	828	751	234	788	365	556	2933	1018	136	1729	657
V/C Ratio(X)	1.30	0.69	0.39	1.15	0.70	0.47	0.40	1.03	0.56	1.68	0.97	0.44
Avail Cap(c_a), veh/h	261	1772	1045	234	1772	671	556	2933	1018	136	1729	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	55.5	47.6	20.8	56.0	48.3	24.8	32.9	26.1	6.0	55.5	39.3	25.6
Incr Delay (d2), s/veh	161.0	1.0	0.3	106.6	1.2	0.9	0.5	24.3	2.2	335.9	14.9	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	9.7	5.3	5.0	6.9	5.2	3.2	5.0	31.2	3.9	16.7	17.7	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	216.5	48.7	21.1	162.6	49.5	25.8	33.3	50.4	8.2	391.4	54.3	27.7
LnGrp LOS	F	D	C	F	D	C	C	F	A	F	D	C
Approach Vol, veh/h		1203			996			3810			2184	
Approach Delay, s/veh		89.5			76.1			43.1			86.0	
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	71.8	12.0	23.2	40.8	44.0	12.9	22.2				
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	69.8	10.0	14.5	13.7	40.0	10.9	14.2					
Green Ext Time (p_c), s	0.0	0.0	0.0	4.6	0.1	0.0	0.0	4.0				
Intersection Summary												
HCM 6th Ctrl Delay					65.3							
HCM 6th LOS					E							

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	170	13	5	147	7	3
Future Vol, veh/h	170	13	5	147	7	3
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	14	5	160	8	3

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	199	0	282
Stage 1	-	-	-	-	192
Stage 2	-	-	-	-	90
Critical Hdwy	-	-	4.1	-	6.8
Critical Hdwy Stg 1	-	-	-	-	5.8
Critical Hdwy Stg 2	-	-	-	-	5.8
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1385	-	690
Stage 1	-	-	-	-	828
Stage 2	-	-	-	-	929
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1385	-	687
Mov Cap-2 Maneuver	-	-	-	-	687
Stage 1	-	-	-	-	828
Stage 2	-	-	-	-	925

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	748	-	-	1385	-
HCM Lane V/C Ratio	0.015	-	-	0.004	-
HCM Control Delay (s)	9.9	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑↑↑		↑↑↑		↑	
Traffic Vol, veh/h	26	1346	982	9	5	16
Future Vol, veh/h	26	1346	982	9	5	16
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	28	1463	1067	10	5	17

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1077	0	-	0	1713 539
Stage 1	-	-	-	-	1072 -
Stage 2	-	-	-	-	641 -
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	365	-	-	-	136 421
Stage 1	-	-	-	-	222 -
Stage 2	-	-	-	-	448 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	365	-	-	-	80 421
Mov Cap-2 Maneuver	-	-	-	-	80 -
Stage 1	-	-	-	-	131 -
Stage 2	-	-	-	-	448 -

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	24.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	365	-	-	-	209
HCM Lane V/C Ratio	0.077	-	-	-	0.109
HCM Control Delay (s)	15.7	2	-	-	24.3
HCM Lane LOS	C	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.4

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

Highpointe 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	724	497	229	978	142	281	458	212	109	412	141
Future Volume (veh/h)	104	724	497	229	978	142	281	458	212	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	724	497	229	978	142	281	458	212	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	724	497	229	978	142	281	458	212	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	6.1	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	6.1	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	0.47	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	10.3	52.0	39.4	39.8
LnGrp LOS	D	D	B	F	D	C	F	C	B	D	D	D
Approach Vol, veh/h		1325			1349			951			662	
Approach Delay, s/veh		29.6			48.1			51.8			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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑↑ ↗		↖	↖	↑↑		↖	↑↑	↖
Traffic Volume (veh/h)	172	788	78	35	949	92	55	102	42	111	116	173
Future Volume (veh/h)	172	788	78	35	949	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	788	78	35	949	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	174	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	300	35	949	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	15.0	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	15.0	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	28.6	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	2.2	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	30.8	61.2	46.5	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	1038			1076			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	17.0	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

Highpointe 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	480	33	3252	108
Future Volume (veh/h)	276	409	272	414	321	56	121	1894	480	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	480	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	480	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	5.9	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	5.9	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	0.60	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(l)	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			2495			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											178.3	
HCM 6th LOS											F	

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

Highpointe 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	2084	57	18	3488	313
Future Volume (veh/h)	149	16	128	61	18	35	272	2084	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	2084	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	2084	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			2413			3819	
Approach Delay, s/veh		61.2			58.6			58.5			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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↑↑↑	↗	↘	↑↑↑	↗
Traffic Volume (veh/h)	368	106	156	103	141	95	275	1962	74	66	3361	267
Future Volume (veh/h)	368	106	156	103	141	95	275	1962	74	66	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	103	141	95	275	1962	74	66	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	214	128	203	128	151	3169	984	94	3006	1107
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	2122	1341	1810	5187	1610	1810	5187	1610
Grp Volume(v), veh/h	368	106	156	103	119	117	275	1962	74	66	3361	267
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1659	1810	1729	1610	1810	1729	1610
Q Serve(g_s), s	13.0	3.1	11.2	6.7	7.6	8.3	10.0	28.4	2.2	4.3	69.5	3.8
Cycle Q Clear(g_c), s	13.0	3.1	11.2	6.7	7.6	8.3	10.0	28.4	2.2	4.3	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	214	128	172	159	151	3169	984	94	3006	1107
V/C Ratio(X)	1.88	0.22	0.73	0.80	0.69	0.74	1.82	0.62	0.08	0.70	1.12	0.24
Avail Cap(c_a), veh/h	196	1113	496	166	526	484	151	3169	984	106	3006	1107
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	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	19.3	4.8	6.6	395.4	0.9	0.1	1.7	53.7	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	2.0	44.4	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	467.0	46.7	54.6	74.2	57.3	59.5	450.4	15.5	9.7	58.7	90.4	3.5
LnGrp LOS	F	D	D	E	E	E	F	B	A	E	F	A
Approach Vol, veh/h		630			339			2311			3694	
Approach Delay, s/veh		294.2			63.2			67.1			83.6	
Approach LOS		F			E			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.2	77.3	12.5	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	7.0	49.0	11.0	37.0	10.0	46.0	13.0	35.0				
Max Q Clear Time (g_c+10), s	10.3	30.4	8.7	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	96.1
HCM 6th LOS	F

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

Highpointe 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	225
Future Volume (veh/h)	256	463	247	557	603	322	222	1263	166	184	2797	225
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	225
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	225
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	4.9
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	4.9
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	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	0.31
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	8.2
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	1.1
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	4.7	3.8	2.8	21.3	5.1	7.5	6.2	8.5	2.3	6.8	55.4	1.9
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	9.3
LnGrp LOS	E	D	B	F	D	C	D	C	B	E	F	A
Approach Vol, veh/h		966			1482			1651			3206	
Approach Delay, s/veh		43.4			202.6			27.3			225.5	
Approach LOS		D			F			C			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.1	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	152.0
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	18	4	289	53	10
Future Vol, veh/h	212	18	4	289	53	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	20	4	314	58	11

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	250	0	405 125
Stage 1	-	-	-	-	240 -
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	-	-	1327	-	579 909
Stage 1	-	-	-	-	783 -
Stage 2	-	-	-	-	853 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1327	-	577 909
Mov Cap-2 Maneuver	-	-	-	-	577 -
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)	613	-	-	1327	-
HCM Lane V/C Ratio	0.112	-	-	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	1.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑↑↑		↑↑↑		↑	
Traffic Vol, veh/h	17	796	1433	6	18	47
Future Vol, veh/h	17	796	1433	6	18	47
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	18	865	1558	7	20	51

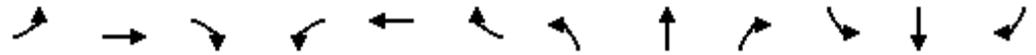
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1565	0	-	0	1944 783
Stage 1	-	-	-	-	1562 -
Stage 2	-	-	-	-	382 -
Critical Hdwy	5.3	-	-	-	5.7 7.1
Critical Hdwy Stg 1	-	-	-	-	6.6 -
Critical Hdwy Stg 2	-	-	-	-	6 -
Follow-up Hdwy	3.1	-	-	-	3.8 3.9
Pot Cap-1 Maneuver	211	-	-	-	103 292
Stage 1	-	-	-	-	110 -
Stage 2	-	-	-	-	609 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	211	-	-	-	86 292
Mov Cap-2 Maneuver	-	-	-	-	86 -
Stage 1	-	-	-	-	92 -
Stage 2	-	-	-	-	609 -

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	38.5
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	211	-	-	-	176
HCM Lane V/C Ratio	0.088	-	-	-	0.401
HCM Control Delay (s)	23.7	1.2	-	-	38.5
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

Highpointe 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	849	114	526	496	214	141	554	98
Future Volume (veh/h)	125	984	386	158	849	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	849	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	849	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	0.55	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	35.2	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			1121			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

Highpointe 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		
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

Highpointe 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	475	402	35	95	3352	583	64	2316	62
Future Volume (veh/h)	59	323	118	475	402	35	95	3352	583	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	475	402	35	95	3352	583	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	475	402	35	95	3352	583	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	577.4	0.8	0.2	9.6	54.8	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	40.1	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	630.4	45.3	40.6	65.8	80.2	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			912			4030			2442	
Approach Delay, s/veh		51.2			349.9			69.1			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	30.2	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	86.9
HCM 6th LOS	F

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

Highpointe 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	90	35	10	4	50	3747	40	32	2565	143
Future Volume (veh/h)	172	4	90	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	90	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	69	1552	1810	1291	516	1810	5187	1610	1810	5187	1610
Grp Volume(v), veh/h	172	0	94	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	6.6	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	6.6	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	105	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(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	52.1	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	52.4	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		266			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	8.6	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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↑↑↑	↗	↘	↑↑↑	↗
Traffic Volume (veh/h)	317	117	106	40	99	67	129	3484	53	61	2288	329
Future Volume (veh/h)	317	117	106	40	99	67	129	3484	53	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	40	99	67	129	3484	53	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	169	155	97	151	3336	1036	92	3167	1144
Arrive On Green	0.10	0.08	0.08	0.09	0.07	0.07	0.08	0.64	0.64	0.05	0.61	0.61
Sat Flow, veh/h	1810	3610	1610	1810	2130	1335	1810	5187	1610	1810	5187	1610
Grp Volume(v), veh/h	317	117	106	40	83	83	129	3484	53	61	2288	329
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1660	1810	1729	1610	1810	1729	1610
Q Serve(g_s), s	12.0	3.7	6.5	2.5	5.3	5.9	8.4	77.2	0.8	4.0	36.9	3.6
Cycle Q Clear(g_c), s	12.0	3.7	6.5	2.5	5.3	5.9	8.4	77.2	0.8	4.0	36.9	3.6
Prop In Lane	1.00		1.00	1.00		0.80	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	181	286	128	169	131	121	151	3336	1036	92	3167	1144
V/C Ratio(X)	1.75	0.41	0.83	0.24	0.63	0.69	0.86	1.04	0.05	0.66	0.72	0.29
Avail Cap(c_a), veh/h	181	1203	537	181	602	553	151	3336	1036	106	3167	1144
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	50.4	54.1	54.3	54.3	21.4	2.4	56.0	16.3	1.9
Incr Delay (d2), s/veh	360.1	0.9	12.7	0.7	4.9	6.8	35.4	28.7	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	23.5	1.7	3.5	1.1	2.5	2.6	5.2	34.9	0.5	2.0	13.1	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	414.1	53.5	50.8	51.1	59.0	61.1	89.7	50.2	2.5	63.4	17.1	2.2
LnGrp LOS	F	D	D	D	E	E	F	F	A	E	B	A
Approach Vol, veh/h		540			206			3666			2678	
Approach Delay, s/veh		264.7			58.3			50.9			16.4	
Approach LOS		F			E			D			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	80.1	81.2	15.2	13.5	14.0	77.3	16.0	12.7				
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	45.0	12.0	40.0	10.0	42.0	12.0	40.0					
Max Q Clear Time (g_c+1), s	79.2	4.5	8.5	10.4	38.9	14.0	7.9					
Green Ext Time (p_c), s	0.0	0.0	0.0	1.0	0.0	2.9	0.0	0.9				

Intersection Summary

HCM 6th Ctrl Delay	54.3
HCM 6th LOS	D

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)	353	582	290	274	560	177	223	3018	580	238	1671	293
Future Volume (veh/h)	353	582	290	274	560	177	223	3018	580	238	1671	293
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	353	582	290	274	560	177	223	3018	580	238	1671	293
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	353	582	290	274	560	177	223	3018	580	238	1671	293
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	38.0	6.8
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	38.0	6.8
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)	1.34	0.69	0.39	1.17	0.70	0.48	0.40	1.03	0.57	1.75	0.97	0.45
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	39.3	25.7
Incr Delay (d2), s/veh	175.6	1.0	0.3	112.8	1.2	1.0	0.5	25.9	2.3	367.6	15.0	2.2
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/ln	10.3	5.4	5.0	7.1	5.2	3.3	5.1	31.6	4.1	17.9	17.7	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	231.1	48.5	21.1	168.8	49.4	25.8	33.5	52.1	8.6	423.1	54.4	27.8
LnGrp LOS	F	D	C	F	D	C	C	F	A	F	D	C
Approach Vol, veh/h		1225			1011			3821			2202	
Approach Delay, s/veh		94.7			77.6			44.4			90.7	
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	40.0	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												68.3
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	60	11	147	35	7
Future Vol, veh/h	170	60	11	147	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	185	65	12	160	38	8

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	250	0	322	125
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	-	-	1327	-	652	909
Stage 1	-	-	-	-	803	-
Stage 2	-	-	-	-	915	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1327	-	645	909
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)	678	-	-	1327	-
HCM Lane V/C Ratio	0.067	-	-	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	6.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑	
Traffic Vol, veh/h	54	1346	982	20	11	31
Future Vol, veh/h	54	1346	982	20	11	31
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	59	1463	1067	22	12	34

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1089	0	-	0	1781 545
Stage 1	-	-	-	-	1078 -
Stage 2	-	-	-	-	703 -
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	-	-	-	-	416 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	360	-	-	-	16 417
Mov Cap-2 Maneuver	-	-	-	-	16 -
Stage 1	-	-	-	-	28 -
Stage 2	-	-	-	-	416 -

Approach	EB	WB	SB
HCM Control Delay, s	4.9	0	193.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	360	-	-	-	55
HCM Lane V/C Ratio	0.163	-	-	-	0.83
HCM Control Delay (s)	16.9	4.4	-	-	193.2
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

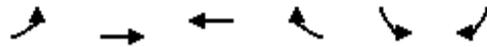
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

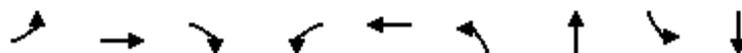
Queue shown is maximum after two cycles.



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

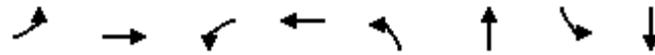
m Volume for 95th percentile queue is metered by upstream signal.



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

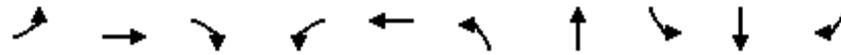
- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



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	Existing AM Peak Hour	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.



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

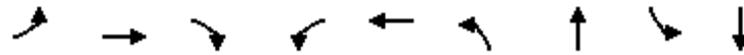


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	85	404	351	49	48	71
v/c Ratio	0.45	0.35	0.20	0.06	0.08	0.12
Control Delay	57.9	7.2	7.5	1.0	28.7	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.9	7.2	7.5	1.0	28.7	7.0
Queue Length 50th (ft)	69	186	22	0	26	0
Queue Length 95th (ft)	m120	181	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

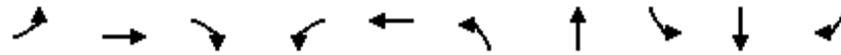
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



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



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

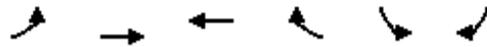
Int.1: Lasselle St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	115	758	550	248	1071	156	312	478	223	106	608
v/c Ratio	0.96	1.06	0.81	1.50	1.41	0.19	1.60	0.79	0.31	0.74	1.12
Control Delay	127.8	89.0	37.0	285.0	213.6	1.6	327.7	48.0	9.5	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	89.0	37.0	285.0	213.6	1.6	327.7	48.0	9.5	82.4	114.1
Queue Length 50th (ft)	90	-648	307	-274	-1146	13	-345	337	45	81	-536
Queue Length 95th (ft)	#196	#820	423	m#405	#1318	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	1.06	0.81	1.50	1.41	0.19	1.60	0.79	0.31	0.71	1.12

Intersection Summary

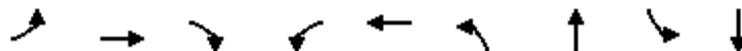
- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	200	938	1083	106	129	201
v/c Ratio	0.61	0.81	0.77	0.15	0.22	0.30
Control Delay	43.1	15.1	23.2	3.3	30.7	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	15.1	23.2	3.3	30.7	5.3
Queue Length 50th (ft)	146	621	252	2	72	0
Queue Length 95th (ft)	m159	m603	m266	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	2581	38	3946
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	160.7	59.7	677.8
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	160.7	59.7	677.8
Queue Length 50th (ft)	~415	116	150	~648	106	114	~1394	29	~2715
Queue Length 95th (ft)	#526	128	192	#758	118	m#144	#1434	57	#2482
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

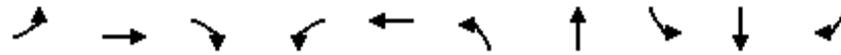
- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	136	159	27	5	314	2353	16	4168
v/c Ratio	0.63	0.49	0.23	0.04	0.47	0.92	0.15	3.33
Control Delay	62.5	15.4	57.7	39.8	34.9	22.5	50.4	1065.9
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	34.9	22.5	50.4	1065.9
Queue Length 50th (ft)	102	12	20	1	245	582	13	-2953
Queue Length 95th (ft)	153	64	48	14	m222	m#595	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	3.33

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	118	177	98	241	312	2301	50	3811	302
v/c Ratio	1.99	0.58	0.55	0.48	0.56	0.64	1.08	0.37	2.82	0.44
Control Delay	488.6	61.8	15.0	58.2	36.7	57.9	60.2	59.8	834.1	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	488.6	61.8	15.0	58.2	36.7	57.9	60.2	59.8	834.1	4.8
Queue Length 50th (ft)	~502	88	6	73	60	226	~1082	42	~2612	9
Queue Length 95th (ft)	#644	134	57	117	86	m262	m#1104	m17	m120	m2
Internal Link Dist (ft)		517			319		2097		1246	
Turn Bay Length (ft)	90		50	300		200		240		300
Base Capacity (vph)	210	601	626	203	1057	491	2122	135	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	1.99	0.20	0.28	0.48	0.23	0.64	1.08	0.37	2.82	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)	276	503	261	602	652	343	139	1382	178	198	3057	189
v/c Ratio	1.01	0.87	0.43	1.34	0.97	0.50	1.03	1.15	0.28	1.10	1.65	0.29
Control Delay	93.4	37.2	6.7	209.8	66.2	17.1	139.9	114.1	10.1	110.3	311.9	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	93.4	37.2	6.7	209.8	66.2	17.1	139.9	114.1	10.1	110.3	311.9	3.8
Queue Length 50th (ft)	~119	375	56	~327	490	97	~115	~662	24	~166	~1298	39
Queue Length 95th (ft)	m#177	404	m57	#473	#688	174	#234	#756	71	m50	m256	m9
Internal Link Dist (ft)		1525			272			428			382	
Turn Bay Length (ft)	240		200	240		240	275		275	250		300
Base Capacity (vph)	274	665	675	448	680	689	135	1203	626	180	1858	644
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	1.01	0.76	0.39	1.34	0.96	0.50	1.03	1.15	0.28	1.10	1.65	0.29

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	984	391	157	806	115	533	465	211	140	554
v/c Ratio	0.78	1.41	0.59	1.31	1.21	0.15	2.09	0.74	0.31	0.76	1.02
Control Delay	86.7	226.1	25.0	218.3	126.9	1.8	530.5	44.2	11.6	77.8	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	226.1	25.0	218.3	126.9	1.8	530.5	44.2	11.6	77.8	84.6
Queue Length 50th (ft)	90	~1025	169	~161	~788	12	~653	321	50	106	~437
Queue Length 95th (ft)	#190	#1276	273	#307	#1041	19	#869	449	91	#200	#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	784	255	628	683	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	0.78	1.41	0.59	1.31	1.21	0.15	2.09	0.74	0.31	0.72	1.02

Intersection Summary

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

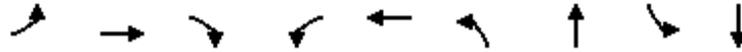
95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	114	1016	974	61	66	92
v/c Ratio	0.54	0.88	0.59	0.08	0.11	0.16
Control Delay	44.6	14.3	21.7	6.6	29.1	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.6	14.3	21.7	6.6	29.1	6.4
Queue Length 50th (ft)	91	732	193	4	36	0
Queue Length 95th (ft)	m83	m566	m225	m6	70	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.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	49	190	79	307	233	81	3756	62	2298
v/c Ratio	0.37	0.54	0.34	1.57	0.43	0.48	1.77	0.42	1.13
Control Delay	60.6	57.0	14.0	317.2	46.2	51.9	368.1	60.5	91.1
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	317.2	46.2	51.9	368.1	60.5	91.1
Queue Length 50th (ft)	37	75	0	~337	82	67	~2306	47	~1091
Queue Length 95th (ft)	76	111	44	#518	123	m43	m#665	90	#1311
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	1.57	0.21	0.48	1.77	0.42	1.13

Intersection Summary

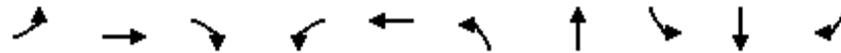
- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	146	82	37	10	53	3994	22	2810
v/c Ratio	0.65	0.30	0.30	0.08	0.39	1.62	0.19	1.20
Control Delay	62.5	13.0	58.7	44.1	69.8	303.5	54.0	111.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.5	13.0	58.7	44.1	69.8	303.5	54.0	111.6
Queue Length 50th (ft)	109	1	28	5	39	~2503	19	~1458
Queue Length 95th (ft)	171	46	62	23	m19	m#932	m19	m#1311
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	0.15	0.07	0.02	0.39	1.62	0.19	1.20

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.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	325	114	109	29	132	132	3601	41	2343	337
v/c Ratio	0.60	0.17	0.17	0.25	0.45	0.61	2.28	0.32	1.75	0.48
Control Delay	42.2	30.9	6.6	58.0	43.6	79.0	592.6	32.6	369.9	30.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.2	30.9	6.6	58.0	43.6	79.0	592.6	32.6	369.9	30.6
Queue Length 50th (ft)	220	66	0	22	38	108	~2447	28	~1421	186
Queue Length 95th (ft)	325	115	43	53	70	m58	m#951	m23	m#1161	m164
Internal Link Dist (ft)		517			319		2097		1246	
Turn Bay Length (ft)	90		50	300		200		240		300
Base Capacity (vph)	544	699	663	165	1035	219	1579	142	1339	703
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	0.16	0.16	0.18	0.13	0.60	2.28	0.29	1.75	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)	201	613	162	289	594	183	228	3226	612	244	1787	230
v/c Ratio	0.75	0.96	0.26	1.13	0.94	0.29	1.01	2.38	0.83	1.63	1.03	0.34
Control Delay	56.3	43.0	5.6	146.5	63.8	8.3	115.7	646.4	33.4	327.2	37.0	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	56.3	43.0	5.6	146.5	63.8	8.3	115.7	646.4	33.4	327.2	37.0	4.0
Queue Length 50th (ft)	83	499	34	~143	438	18	~182	~2162	298	~265	~562	49
Queue Length 95th (ft)	m96	m#597	m35	#229	#644	67	#340	#2248	#471	m#105	m210	m16
Internal Link Dist (ft)		1525			272			428			382	
Turn Bay Length (ft)	240		200	240		240	275		275	250		300
Base Capacity (vph)	269	649	629	255	649	649	225	1353	735	150	1729	675
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	0.75	0.94	0.26	1.13	0.92	0.28	1.01	2.38	0.83	1.63	1.03	0.34

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.

Queues

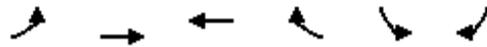
Int.1: Lasselle St & Alessandro Blvd



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

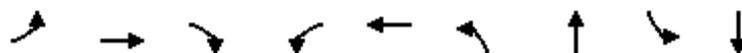
- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



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.



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

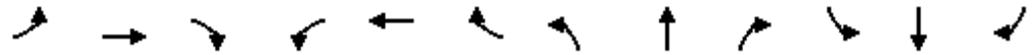
- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



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	814	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	230.3	109.0	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	230.3	109.0	1.8	530.5	44.3	12.2	78.9	84.6
Queue Length 50th (ft)	92	~1047	169	~169	~771	12	~653	321	54	109	~437
Queue Length 95th (ft)	#214	#1300	273	#313	#1023	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.

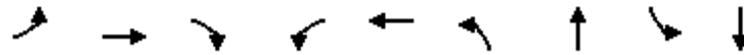
Queue shown is maximum after two cycles.



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	20.3	5.8	29.2	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.6	15.1	20.3	5.8	29.2	6.4
Queue Length 50th (ft)	91	747	182	4	37	0
Queue Length 95th (ft)	m80	m575	m237	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	3766	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	370.0	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	370.0	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

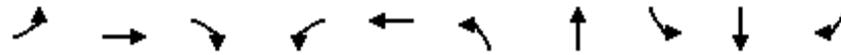
- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



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	~2419	18	~1478
Queue Length 95th (ft)	171	46	62	23	m25	m#794	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

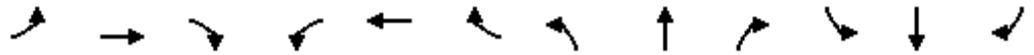
- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	325	120	109	42	149	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	40.9	46.3	661.2	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	40.9	46.3	661.2	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#974	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)	558	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	238
v/c Ratio	0.69	0.94	0.25	1.02	0.92	0.29	1.01	2.44	0.86	2.12	1.12	0.37
Control Delay	52.3	35.0	4.5	112.8	57.8	7.4	115.7	671.8	36.3	531.5	112.4	31.9
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	52.3	35.0	4.5	112.8	57.8	7.4	115.7	671.8	36.3	531.5	112.4	31.9
Queue Length 50th (ft)	90	469	29	~146	426	16	~182	~2178	312	~325	~603	127
Queue Length 95th (ft)	m#108	m#488	m30	#233	#617	64	#340	#2263	#521	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)	311	696	666	287	696	692	225	1323	723	120	1599	639
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	0.69	0.90	0.24	1.02	0.86	0.27	1.01	2.44	0.86	2.13	1.12	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

08/04/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	104	720	497	224	967	141	281	458	210	109	553
v/c Ratio	0.53	0.48	0.61	1.00	0.60	0.18	0.99	0.38	0.26	0.52	0.53
Control Delay	61.4	36.2	13.3	89.0	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	89.0	17.1	0.6	100.7	31.7	5.2	59.4	35.1
Queue Length 50th (ft)	77	168	120	139	165	0	220	142	22	81	175
Queue Length 95th (ft)	137	208	191	m#317	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	809	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	0.61	1.00	0.60	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



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	172	860	35	932	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	75.4	20.0	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	75.4	20.0	2.1	64.7	33.9	30.3	22.5	4.1
Queue Length 50th (ft)	131	131	29	131	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	1883	476	33	3356
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	138.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	253.5	50.3	37.6	546.9	46.8	4.3	181.0	24.9	10.5	62.5	138.2
Queue Length 50th (ft)	~287	158	119	~508	121	0	~110	498	207	25	~1172
Queue Length 95th (ft)	#460	192	197	#706	152	17	#238	588	393	60	#1379
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	2067	57	18	3482	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	13.4	1.7	40.0	422.1	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	13.4	1.7	40.0	422.1	36.8
Queue Length 50th (ft)	111	11	46	14	98	76	0	13	~1430	173
Queue Length 95th (ft)	173	70	89	54	m153	m649	m8	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.

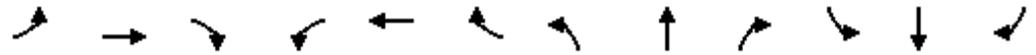
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	368	104	156	86	211	275	1962	68	60	3361	267
v/c Ratio	0.65	0.09	0.24	0.56	0.58	1.53	0.93	0.09	0.43	1.77	0.23
Control Delay	42.5	29.6	5.8	66.4	39.8	298.8	37.8	0.5	68.8	376.9	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
Total Delay	42.5	29.6	5.8	66.4	39.8	298.8	37.8	0.5	68.8	376.9	2.9
Queue Length 50th (ft)	245	30	0	65	53	~289	562	0	50	~1469	24
Queue Length 95th (ft)	370	52	49	118	91	m#454	#674	m2	m31	m576	m10
Internal Link Dist (ft)		517			319		2097			1246	
Turn Bay Length (ft)	90		50	300		200		150	240		300
Base Capacity (vph)	567	1201	641	180	1049	180	2109	726	150	1901	1150
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	0.24	0.48	0.20	1.53	0.93	0.09	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)	252	460	247	550	595	313	222	1262	163	181	2793	214
v/c Ratio	0.87	0.54	0.55	1.89	0.70	0.51	1.64	0.52	0.16	0.68	0.99	0.20
Control Delay	58.2	31.5	10.4	443.6	51.6	24.4	355.6	24.4	2.6	77.8	25.9	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	58.2	31.5	10.4	443.6	51.6	24.4	355.6	24.4	2.6	77.8	25.9	0.1
Queue Length 50th (ft)	99	125	61	~335	160	139	~249	246	0	150	254	1
Queue Length 95th (ft)	#168	160	123	#447	195	199	#407	335	34	m80	m26	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	449	291	1772	621	135	2437	1014	277	2820	1047
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	0.87	0.26	0.55	1.89	0.34	0.50	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.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	125	971	386	155	842	113	526	496	208	139	652
v/c Ratio	1.04	0.62	0.42	1.29	0.54	0.16	1.40	0.36	0.26	0.67	0.63
Control Delay	148.0	38.3	14.2	206.2	9.0	0.4	231.5	27.9	6.5	65.9	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	6.5	65.9	39.0
Queue Length 50th (ft)	~105	236	132	~158	37	0	~545	144	29	104	224
Queue Length 95th (ft)	#230	285	206	m#292	46	m1	#761	196	60	170	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	1386	786	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	0.62	0.42	1.29	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.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	110	1064	38	941	59	104	197	64	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	26.0	51.1	24.7	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	26.0	51.1	24.7	0.9	68.2	33.7	29.1	24.8	2.8
Queue Length 50th (ft)	88	277	22	284	1	78	50	35	41	0
Queue Length 95th (ft)	m145	327	m47	m319	m4	137	87	68	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	3345	580	64	2365
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	266.5	6.1	79.5	115.4
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	266.5	6.1	79.5	115.4
Queue Length 50th (ft)	44	126	2	358	122	0	71	-1361	120	49	-801
Queue Length 95th (ft)	90	168	54	#628	166	0	m71	m#1275	m52	#112	#895
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	3735	40	32	2545	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	63.4	41.4	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	63.4	41.4	0.0	38.3	29.4	14.5
Queue Length 50th (ft)	126	3	26	7	39	~449	0	21	561	52
Queue Length 95th (ft)	193	49	59	29	m30	m121	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	111	106	28	150	129	3484	33	40	2288	329
v/c Ratio	0.59	0.11	0.20	0.11	0.49	0.65	1.52	0.04	0.31	1.15	0.27
Control Delay	42.4	39.8	10.7	39.4	38.6	79.1	250.8	0.0	56.2	103.1	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	39.8	10.7	39.4	38.6	79.1	250.8	0.0	56.2	103.1	2.0
Queue Length 50th (ft)	216	28	0	21	37	107	~1386	0	33	~745	6
Queue Length 95th (ft)	315	73	54	40	70	m87	m#889	m0	m46	#841	78
Internal Link Dist (ft)		517			319		2097			1246	
Turn Bay Length (ft)	90		50	300		200		150	240		300
Base Capacity (vph)	535	1386	685	277	1033	200	2295	780	133	1988	1197
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	0.10	0.15	0.65	1.52	0.04	0.30	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	573	290	270	555	171	223	3015	572	228	1670	286
v/c Ratio	0.47	0.69	0.51	0.38	0.69	0.34	0.99	1.52	0.58	1.06	0.85	0.27
Control Delay	35.9	24.8	4.5	43.5	52.4	11.3	110.6	264.6	9.2	98.0	6.8	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	35.9	24.8	4.5	43.5	52.4	11.3	110.6	264.6	9.2	98.0	6.8	0.3
Queue Length 50th (ft)	138	132	0	98	151	31	175	-1193	103	137	34	0
Queue Length 95th (ft)	190	143	4	133	184	67	#337	#1278	184	m#215	m71	m0
Internal Link Dist (ft)		1525			272			428				382
Turn Bay Length (ft)	240		200	240		240	275		275	250		300
Base Capacity (vph)	730	1772	570	713	1772	503	225	1988	989	215	1958	1046
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	1.06	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	724	497	229	978	142	281	458	212	109	553
v/c Ratio	0.53	0.47	0.62	1.02	0.60	0.18	1.04	0.39	0.27	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	167	121	~139	180	0	~235	143	23	81	175
Queue Length 95th (ft)	137	207	192	m#334	288	m0	#409	191	54	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	0.47	0.62	1.02	0.60	0.18	1.04	0.39	0.27	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	866	35	949	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	44.9	12.8	75.6	17.3	1.8	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	44.9	12.8	75.6	17.3	1.8	64.7	33.9	29.5	21.9	4.0
Queue Length 50th (ft)	133	167	29	131	3	41	36	61	28	0
Queue Length 95th (ft)	#220	218	m56	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	480	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	187	25	~1174
Queue Length 95th (ft)	#448	192	196	#708	154	18	#241	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	2084	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	m173	664	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

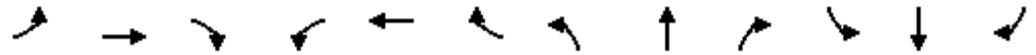
- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	368	106	156	103	236	275	1962	74	66	3361	267
v/c Ratio	0.65	0.09	0.25	0.67	0.61	1.83	0.89	0.10	0.63	1.69	0.23
Control Delay	43.0	29.7	5.8	74.6	37.8	429.1	32.8	0.8	31.9	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	43.0	29.7	5.8	74.6	37.8	429.1	32.8	0.8	31.9	345.9	1.5
Queue Length 50th (ft)	246	30	0	78	55	~315	530	4	51	~1443	10
Queue Length 95th (ft)	373	53	49	#149	95	m#478	#605	m0	m33	m#661	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	615	165	1056	150	2213	756	105	1988	1173
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	0.62	0.22	1.83	0.89	0.10	0.63	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	225
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	0.22
Control Delay	59.4	30.1	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	30.1	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	m46	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	0.22

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	849	114	526	496	214	141	652
v/c Ratio	1.04	0.63	0.45	1.32	0.55	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	0.55	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



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	52.5	25.7	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	52.5	25.7	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	475	402	35	95	3352	583	64	2378
v/c Ratio	0.47	0.66	0.37	0.97	0.31	0.06	0.90	1.55	0.70	0.61	1.15
Control Delay	66.0	55.6	12.6	77.0	29.6	0.2	92.5	267.7	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	77.0	29.6	0.2	92.5	267.7	6.4	79.5	107.5
Queue Length 50th (ft)	44	126	4	363	122	0	73	~1367	169	49	~795
Queue Length 95th (ft)	90	168	56	#637	166	0	m72	m#1273	m45	#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	0.97	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	94	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	13.8	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	13.8	58.6	46.1	65.9	43.9	0.0	38.2	29.2	14.4
Queue Length 50th (ft)	126	3	26	7	40	~520	0	21	562	52
Queue Length 95th (ft)	193	50	59	29	m31	m77	m0	m25	m575	m45
Internal Link Dist (ft)		639		926		1246			1241	
Turn Bay Length (ft)	200		100		180		150	280		150
Base Capacity (vph)	526	538	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

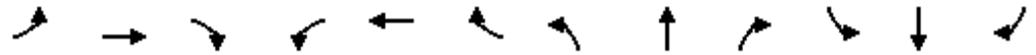
- ~ Volume exceeds capacity, queue is theoretically infinite.
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- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	317	117	106	40	166	129	3484	53	61	2288	329
v/c Ratio	0.57	0.21	0.31	0.09	0.52	0.59	1.62	0.07	0.41	1.23	0.28
Control Delay	40.7	50.8	12.2	32.2	37.0	76.6	296.6	0.0	56.2	140.7	2.4
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	50.8	12.2	32.2	37.0	76.6	296.6	0.0	56.2	140.7	2.4
Queue Length 50th (ft)	211	46	0	23	38	106	~1384	0	51	~765	20
Queue Length 95th (ft)	318	76	54	51	73	m87	m#884	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	1299	649	463	1174	218	2153	718	148	1856	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	0.09	0.16	0.09	0.14	0.59	1.62	0.07	0.41	1.23	0.28

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	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	353	582	290	274	560	177	223	3018	580	238	1671	293
v/c Ratio	0.47	0.69	0.51	0.37	0.69	0.36	0.99	1.52	0.58	1.20	0.87	0.28
Control Delay	35.9	25.1	4.5	43.0	52.3	11.8	110.6	265.3	9.2	144.9	5.8	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	35.9	25.1	4.5	43.0	52.3	11.8	110.6	265.3	9.2	144.9	5.8	0.1
Queue Length 50th (ft)	143	130	0	99	152	34	175	-1194	109	148	20	0
Queue Length 95th (ft)	197	147	5	136	185	70	#337	#1279	193	m#209	m27	m0
Internal Link Dist (ft)		1525			272			428				382
Turn Bay Length (ft)	240		200	240		240	275		275	250		300
Base Capacity (vph)	757	1772	573	737	1772	491	225	1988	998	199	1914	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	0.47	0.33	0.51	0.37	0.32	0.36	0.99	1.52	0.58	1.20	0.87	0.28

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.