

Appendix G

Ventura Mixed-Use Project Traffic Impact Study



Ventura Mixed-Use Project Traffic Impact Assessment

City of Ventura Planning Division
501 Poli Street, Room 117
Ventura, CA 93001

September 2024

Prepared By:

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Table of Contents

I.	Introduction.....	3
	Project Description.....	3
II.	Traffic Operational Analysis Methodology	6
	Study Area.....	6
	Analysis Scenarios	6
	Study Methodology and Analysis Criteria	6
III.	Existing Conditions	10
	Existing Street System.....	10
	Existing (2023) Traffic Volumes	11
	Existing (2023) Operations.....	11
IV.	Proposed Project Conditions	14
	Project Traffic	14
	Project Trip Distribution and Assignment.....	15
	Existing (2023) Plus Project Operations	15
	Horizon Year Operations.....	17
	Horizon Year With Project Operations.....	19
V.	Horizon Year With the Olivas Park Extension	21
	Horizon Year Operations.....	21
	Horizon Year With Project Operations.....	24
V.	Mitigation Measures.....	26
VI.	Traffic Signal Warrant.....	27
	Project Fair Share Contribution Analysis	27
VII.	Vehicle Miles Traveled Analysis.....	28
	Senate Bill 743 (SB 743).....	28
	Screening Criteria	28
	Retail Project Trip Generation Screening.....	29
	Proximity to Transit-Based Screening.....	29
	Residential Land Use Based Screening	30
	Low VMT-Generation Area Screening.....	30
	Screening Conclusion	30
	VMT Impact Criteria.....	30
	Thresholds of Significance Criteria for Residential Land Uses	30
	VMT Methodology.....	30
	VMT Analysis	30
	VMT Mitigations.....	32
	VMT Findings	32
VIII.	Sight Distance Analysis.....	33
IX.	Transit, Pedestrian, and Bicycle Facilities Assessment	36
	Transit Service.....	36
	Pedestrian Facilities.....	36
	Bicycle Facilities.....	37
X.	Summary and Conclusions	39

Figures

Figure 1: Project Location.....	4
Figure 2: Project Site Plan.....	5
Figure 3: VTAM Intersection Location Map	8
Figure 4: Project Study Area.....	9
Figure 5: Existing Lane Configurations.....	12
Figure 6: Existing Peak Hour Volumes	13
Figure 7: Existing Plus Project Peak Hour Volumes	16
Figure 8: Horizon Year Peak Hour Volumes	18
Figure 9: Horizon Year With Project Peak Hour Volumes	20
Figure 10: Horizon Year Peak Hour Volumes with OPDE	22
Figure 11: Horizon Year Lane Configurations With OPDE.....	23
Figure 12: Horizon Year With Project Peak Hour Volumes With OPDE.....	25
Figure 13: VCTC Model Network and Project TAZ Map	31
Figure 14: Seaborg Avenue Sight Distance Analysis	34
Figure 15: Olivas Park Drive Sight Distance Analysis	35
Figure 16: Olivas Park Drive Concept Plan	38

Tables

Table 1: Project Development Summary	3
Table 2: Intersection Level of Service Definitions	7
Table 3: Existing (2023) Intersection Level of Service	11
Table 4: Total Net Project Trip Generation	14
Table 5: Intersection LOS Comparison - Existing (2023) Without Project Vs With Project.....	15
Table 6: Horizon Year Intersection Level of Service (Without Extension)	17
Table 7: Intersection LOS Comparison – Horizon Without Project Vs With Project (No Olivas Park Extension).....	19
Table 8: Horizon Year Intersection Level of Service (With Extension).....	21
Table 9: Intersection LOS Comparison – Horizon Without Project Vs With Project (With Olivas Park Extension).....	24
Table 10: Project Fair Share Cost for Traffic Signal.....	27
Table 11: Project Trip Generation for Residential Component.....	29
Table 12: Project Demographics and VMT	31

Appendices

Appendix A – Approved Memorandum of Understanding.....	42
Appendix B - Turning Movement Counts and Average Daily Traffic Counts.....	50
Appendix C - ICU Worksheets.....	63
Appendix D - Traffic Signal Warrant Study	74
Appendix E - VCTC Model VMT Calculation Worksheet	76
Appendix F – Olivas Park Drive Extension City Plans	78
Appendix G – Additional ICU Analysis for Victoria Avenue & Olivas Park Drive.....	80

I. Introduction

Kimley-Horn and Associates, Inc. (“Kimley-Horn”) was contracted by FPA Ventura Olivas LLC (“Client”) to prepare a Traffic Impact Assessment (TIA) for the proposed mixed-use development (“Project”) located at the northeast corner of Victoria Avenue and Olivas Park Drive in the City of Ventura (“City”). This TIA was prepared in accordance with the memorandum of understanding (MOU) which outlines the methodology, requirements, and impact criteria of the Vehicle Miles Traveled (VMT) and traffic operational analysis for the proposed Project. The MOU was submitted to the City of Ventura and approved on July 24, 2023. The approved MOU is incorporated as a reference in **Appendix A**.

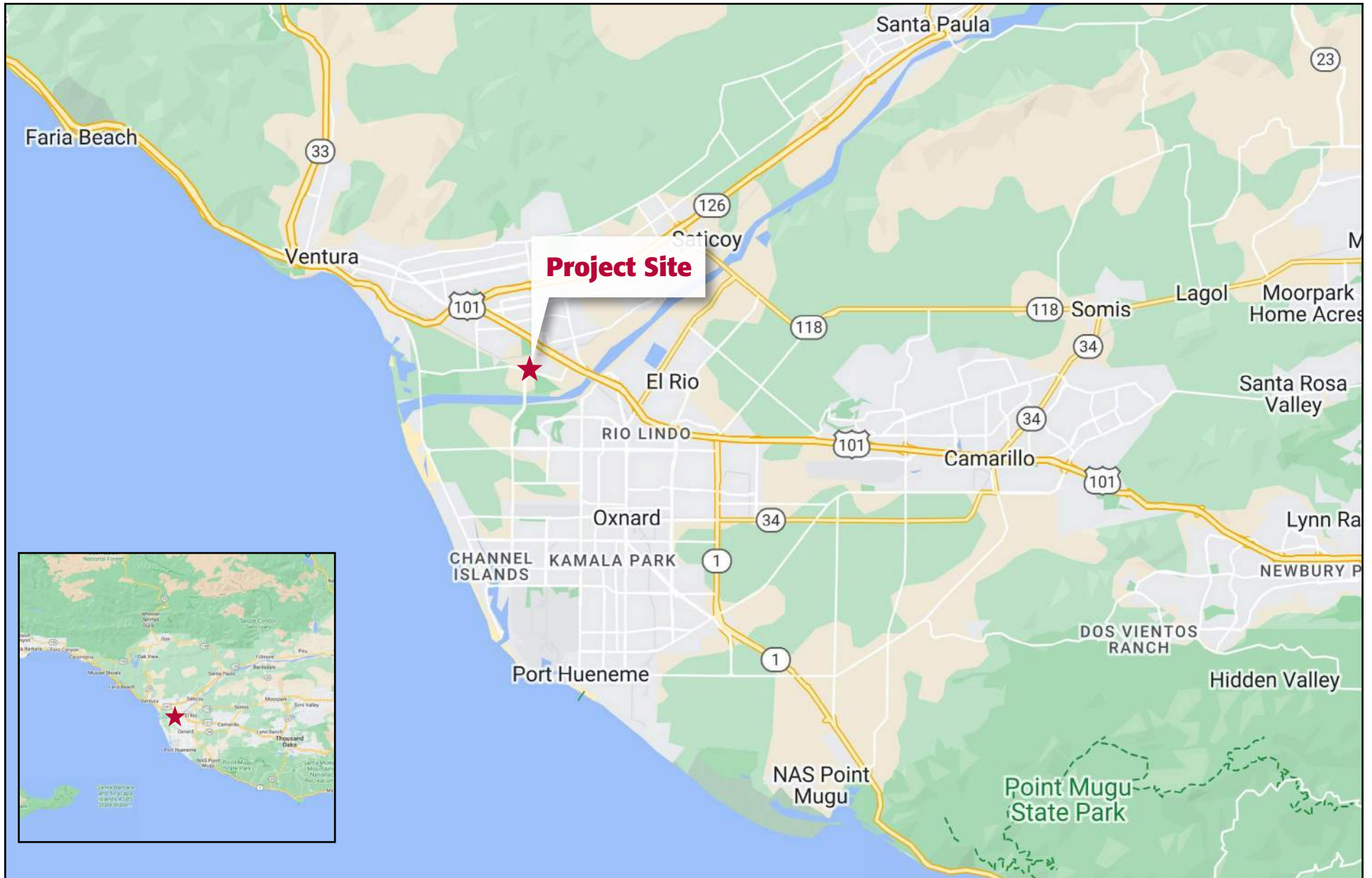
Project Description

The Project is proposing a mixed-use development consisting of residential and commercial space on an empty site in the northeast corner of the intersection of Victoria Avenue and Olivas Park Drive in the City of Ventura. **Figure 1** illustrates the site location. The site is currently zoned as mixed-use. The 266,914 square feet (SF) of residential living area will consist of 181 residential market rate units, 104 units of residential affordable housing, and 13 live-work units. The commercial space will consist of two buildings of restaurants and small commercial retail shops totaling 15,800 SF. The Project proposes three driveways to access the Project Site. One full access driveway is provided along Seaborg Avenue and two driveways are proposed along Olivas Park Drive. The Project Opening Year is 2028. The Project site plan is shown in **Figure 2**. **Table 1** shows the proposed land use breakdown.

Table 1: Project Development Summary

Land Use	Residential (DU)	Commercial Retail (GSF)
Multi-Family Residential Units (Market Rate)	181	
Multi-Family Residential Units (Affordable Housing Rate)	104	
Commercial		15,800
Live/Work Units	13	
Total	297	15,800

DU = dwelling unit; GSF = gross square feet



SOURCE: Google Maps, 2023



FIGURE 1: Regional and Vicinity Map

VENTURA MIXED USE PROJECT

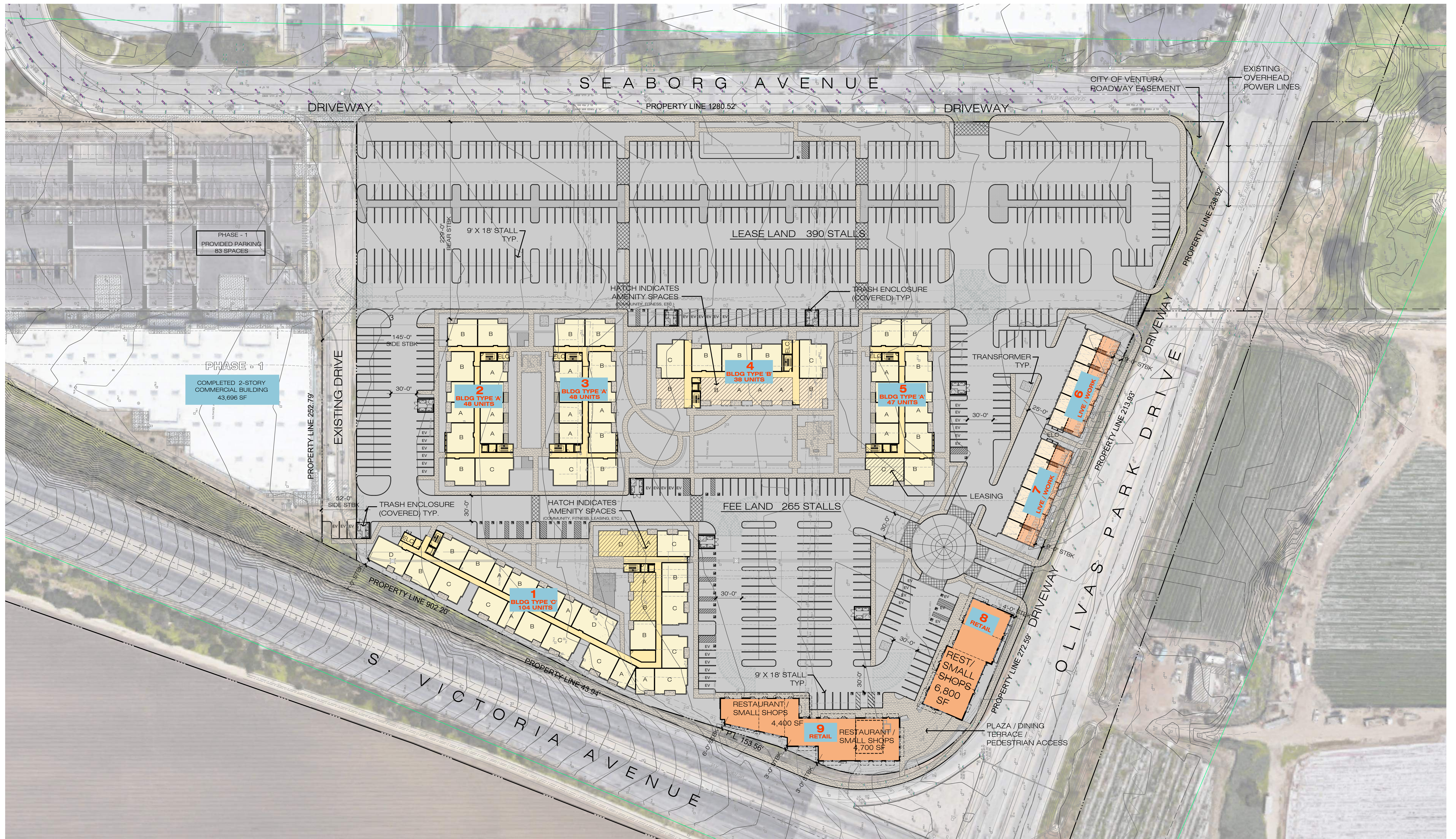


Figure 2 - Overall Site Plan

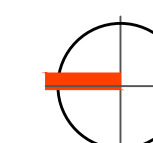
OVERALL SITE PLAN



RED TAIL ACQUISITIONS, LLC
COMMERCIAL REAL ESTATE INVESTMENTS

Ventura Mixed Use
VICTORIA CORPORATE CENTER, VENTURA, CA

scale 1" = 50'
0 50 100 150



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II. Traffic Operational Analysis Methodology

As requested by the City, the City's Ventura Traffic Analysis Model (VTAM) was used for the traffic operational analysis; therefore, only intersections included in the VTAM model, such as those included in **Figure 3**, can be evaluated for operational impacts. The VTAM incorporates the City's 2005 General Plan¹ horizon year and provides the Project's trip generation as well as future volumes. As requested by the City, the future Olivas Park Drive extension (OPDE) from Perkin Avenue to Auto Center Drive was included in the traffic operational analysis.

The Project study area, analysis scenarios, and analysis methodology were established in consultation with City of Ventura staff through a Memorandum of Understanding (MOU) which was approved on July 24, 2023. The approved MOU is incorporated as a reference in **Appendix A**.

Study Area

Based on discussion with the City and review of the Project area, site, and access points, key intersections in the proximity of the Project site were identified for analysis. The study area included the following signalized intersections:

- Victoria Ave and US 101 Northbound Ramps
- Victoria Ave and Valentine Rd
- Victoria Ave and Olivas Park Dr
- Valentine Rd and US 101 Southbound Ramps
- Johnson Dr and US 101 Southbound Ramps

Two driveways are proposed on Olivas Park Drive and one driveway is proposed on Seaborg Avenue per the Site plan (**Figure 2**). There is also an existing driveway to remain on Seaborg Avenue. The Project study area is shown in **Figure 4**.

Analysis Scenarios

This traffic analysis provides an evaluation of weekday morning and evening peak hour operations for the following scenarios:

- Existing Year (2023) conditions
- Existing Year (2023) with Project conditions
- Future (Horizon) Year without Project conditions with Olivas Park Dr extension
- Future (Horizon) Year without Project conditions without Olivas Park Dr extension
- Future (Horizon) Year with Project conditions with Olivas Park Dr extension
- Future (Horizon) Year with Project conditions without Olivas Park Dr extension

The horizon year in this report is identified as the 2005 general plan horizon year.

Study Methodology and Analysis Criteria

Senate Bill 743 (SB 743), approved in 2013, mandated a change in the way transportation impacts are determined according to the California Environmental Quality Act (CEQA). The Governor's Office of Planning and Research (OPR) directed the use of VMT as the replacement for automobile delay-based level of service (LOS) for purposes of determining a significant transportation impact under CEQA. Although traffic delay is no longer considered a significant impact, cities can still use LOS to inform local analysis, such as traffic operations and traffic signal timing needs. Hence, the LOS analysis will be performed for the

¹ City of Ventura 2005 General Plan, Final Environmental Impact Report, City of Ventura, August 2005

traffic operational assessment of the study intersections. A separate VMT analysis is included later in this report as part of the Project.

This traffic analysis focuses on the study intersections near the Project site during the weekday morning (AM) and evening (PM) peak hours. A level of service (LOS) scale was used to identify the operating condition of each study intersection based on Intersection Capacity Utilization (ICU) methodology using the criteria defined in **Table 2** below. The ICU methodology is consistent with the City's 2005 Ventura General Plan.

Table 2: Intersection Level of Service Definitions

LOS	Interpretation	ICU (Volume-to-capacity ratio)
A	Excellent operation. All approaches to the intersection appear quite open, turning movements are easy and nearly all drivers find freedom of operation.	< 0.6
B	Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.	0.61 - 0.7
C	Good operation. Occasionally backups may develop behind turning vehicles. Most drivers feel somewhat restricted.	0.71 – 0.8
D	Fair operation. There are no long-standing traffic queues. This level is typically associated with design practice for peak periods.	0.81 – 0.9
E	Poor operation. Some long-standing vehicular queues develop on critical approaches.	0.91 – 1
F	Forced flow. Represents jammed conditions. Backups from locations downstream or on the cross street may restrict or prevent movements of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop-and-go type traffic flow.	> 1

Source: Highway Capacity Manual, 6th Edition

Table 4.12-1 of the 2005 General Plan Environmental Impact Report (EIR) provides performance criteria for arterial intersections. Per the EIR, the performance standard for intersections is LOS E for freeway ramp intersections and LOS D for Principal Intersections. To determine potential Project impacts, for intersections that are forecasted to operate worse than the LOS D and LOS E performance standards, the Project's impact is considered significant if the Project increases the ICU by more than 0.01.

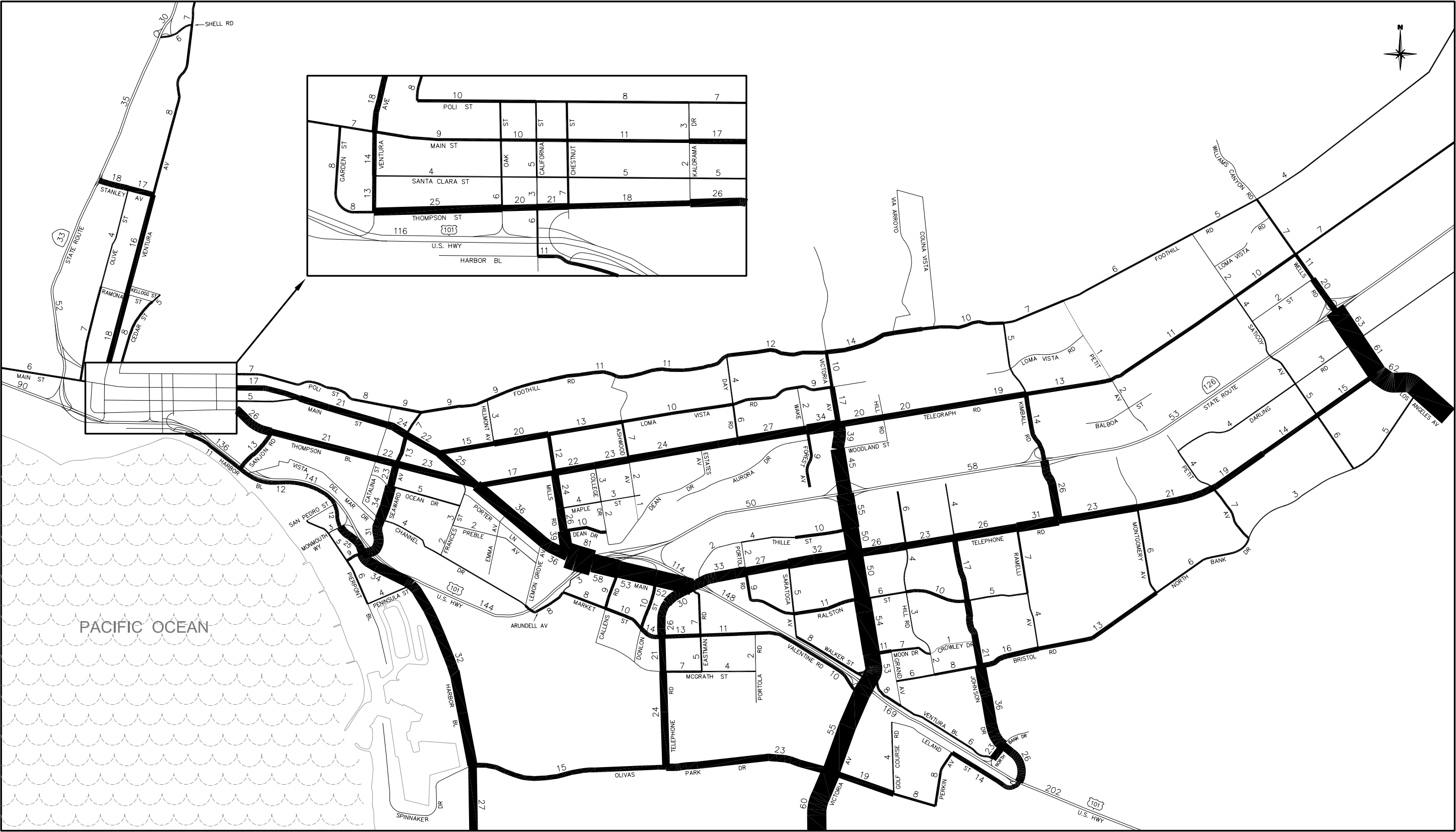


Figure 3-6

VTAM 2025 ADT VOLUMES (000s)



VICINITY MAP

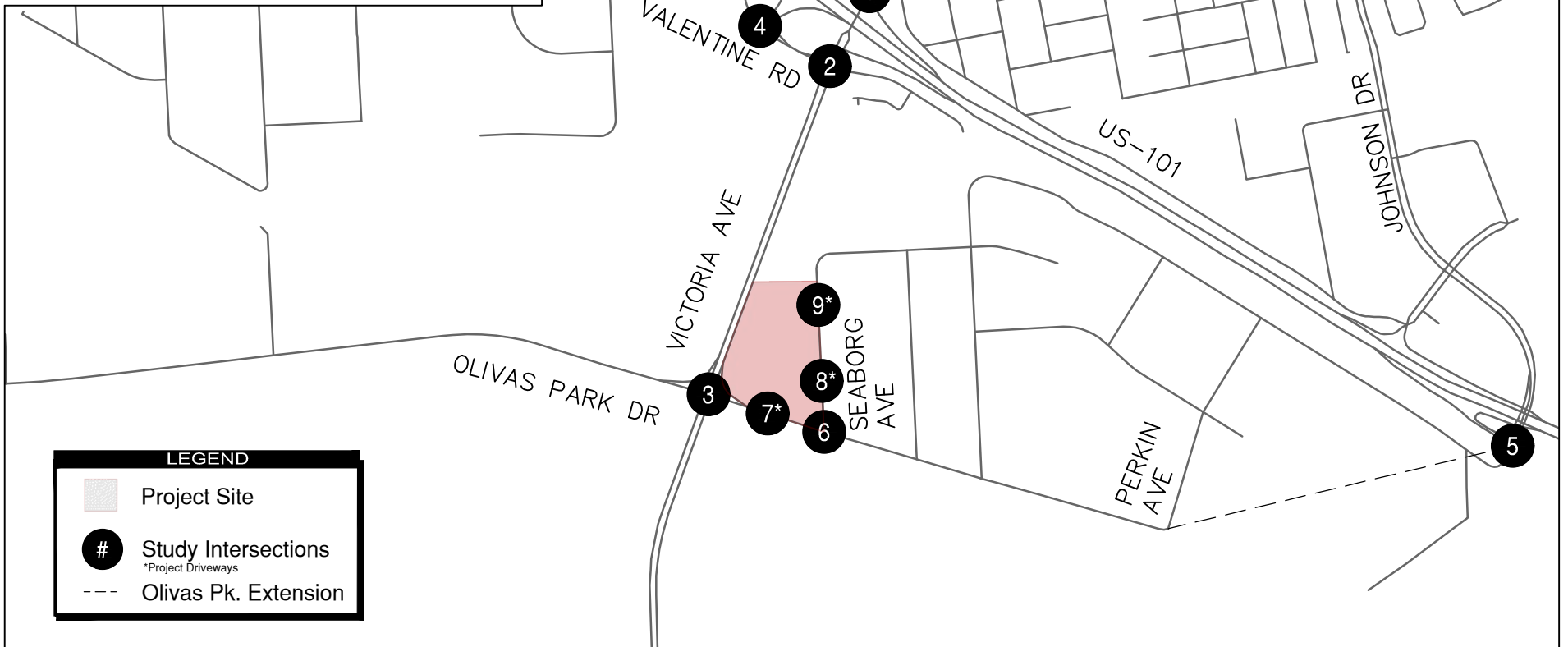


FIGURE 4 - STUDY AREA

III. Existing Conditions

The roadway system in the study area is comprised of a network of arterials, collector streets, and freeway ramps. A brief description of each roadway within the study area is provided below.

Existing Street System

The key roadways in the vicinity of the Project Site and study area are:

- **S. Victoria Avenue** – S. Victoria Avenue is classified as a Primary Arterial in the City of Ventura General Plan. Oriented in the north-south direction, it is located along the west side of the Project Site. It has four travel lanes in the study area, two lanes in each direction. No on-street parking is provided along S. Victoria Avenue within the study area.
- **Olivas Park Drive** – Olivas Park Drive is classified as a Secondary Arterial in the City of Ventura General Plan. Oriented in the east-west direction, it is located along the south side of the Project Site. It mostly has four travel lanes in the study area, two lanes in each direction. At the Seaborg Avenue intersection, there is one travel lane in the westbound direction (3 total lanes). No on-street parking is provided along Olivas Park Drive within the study area.
- **Seaborg Avenue** – Seaborg Avenue is classified as a Collector Street in the City Ventura General Plan. Oriented in the north-south direction, it is located along the east side of the Project Site. It has two travel lanes in the study area, one lane in each direction. On-street parking is allowed on both sides of the street with no current restrictions.
- **Johnson Drive** – Johnson Drive is classified as a collector south of the U.S. 101 freeway and a Primary Arterial north of the U.S. 101 freeway in the City of Ventura General Plan. Oriented in the north-south direction, it is located east of the Project Site. It has two travel lanes in the study area, one lane in each direction. No on-street parking is provided along Johnson Drive within the study area.
- **U.S. Highway 101 (U.S. 101)** - U.S. 101 is a freeway that extends along the California coast between south and north California. Within the study area, regional access from U.S. Highway 101 to the Project site is provided via the interchanges with Johnson Drive, Valentine Road, and S. Victoria Avenue. It has six to eight-lanes and is the principal route between Ventura and Oxnard to the north, and the cities of Camarillo, Thousand Oaks and Los Angeles to the south.

Existing (2023) Traffic Volumes

Weekday morning (7- 9 AM) and evening (4 - 6 PM) peak period intersection turning movement counts were collected at the five (5) study intersections on Tuesday, September 19, 2023. Roadway Average Daily Traffic (ADT) counts were also collected on the same day for roadway segments within the study area as described below:

- ADT Counts (6 segments)
 - S. Victoria Avenue between northbound and southbound U.S. 101 ramps
 - Valentine Road between S. Victoria Avenue and southbound U.S 101 ramp
 - S. Victoria Avenue between Valentine Road and Olivas Park Drive
 - Olivas Park Drive between Seaborg Avenue and Bunsen Avenue
 - Seaborg Avenue north of Olivas Park Drive
 - Olivas Park Drive between S. Victoria Avenue and Seaborg Avenue

The existing intersection lane configurations and control type are shown in **Figure 5**. The existing AM and PM peak hour turning movement volumes are shown in **Figure 6**.

Appendix B contains the intersection traffic count and ADT count sheets. The VTAM model was calibrated to reflect the existing traffic count data and determine the Project and future scenario volumes.

Existing (2023) Operations

Intersection Level of Service analysis was conducted for the weekday morning and evening peak hours using the ICU methodology as previously described in this report. **Table 3** below summarizes the projected volume-to-capacity (V/C) ratio and LOS at the signalized study intersections.

Table 3: Existing (2023) Intersection Level of Service

	Intersection	Control Type	AM Peak Hour		PM Peak Hour	
			V/C	LOS	V/C	LOS
1	Victoria Ave & US 101 NB Ramps	Signalized	0.56	A	0.57	A
2	Victoria Ave & Valentine Rd	Signalized	0.45	A	0.58	A
3	Victoria Ave & Olivas Park Dr	Signalized	0.64	B	0.62	B
4	Valentine Rd & US 101 SB Ramps	Signalized	0.34	A	0.36	A
5	Johnson Dr & US 101 SB Ramps	Signalized	0.41	A	0.39	A

**On the CMP network – LOS E is acceptable*

Shaded – Caltrans/City Shared Intersection

As shown in **Table 3** above, all intersections within the Study area are operating at an acceptable LOS (D/E or better). The detailed ICU worksheets for all conditions are shown in **Appendix C**.

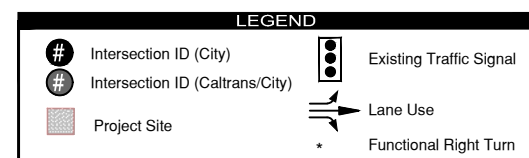
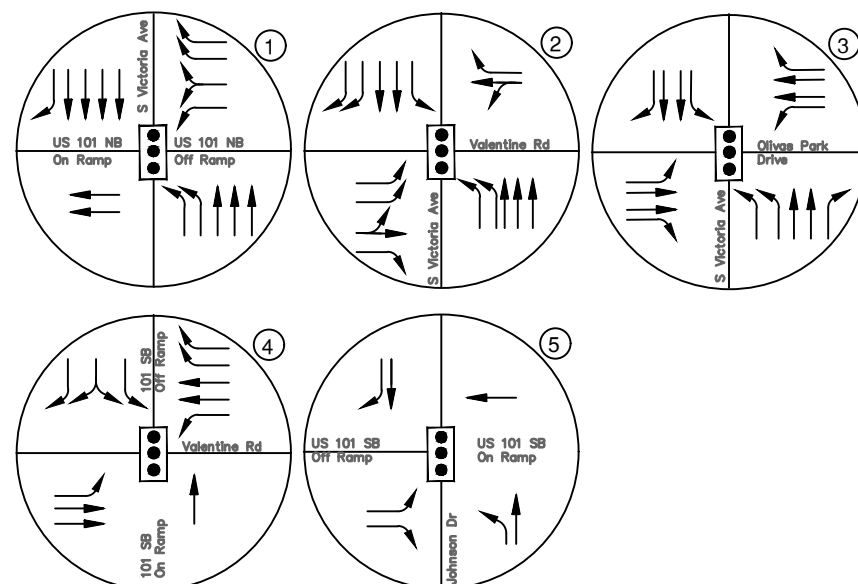
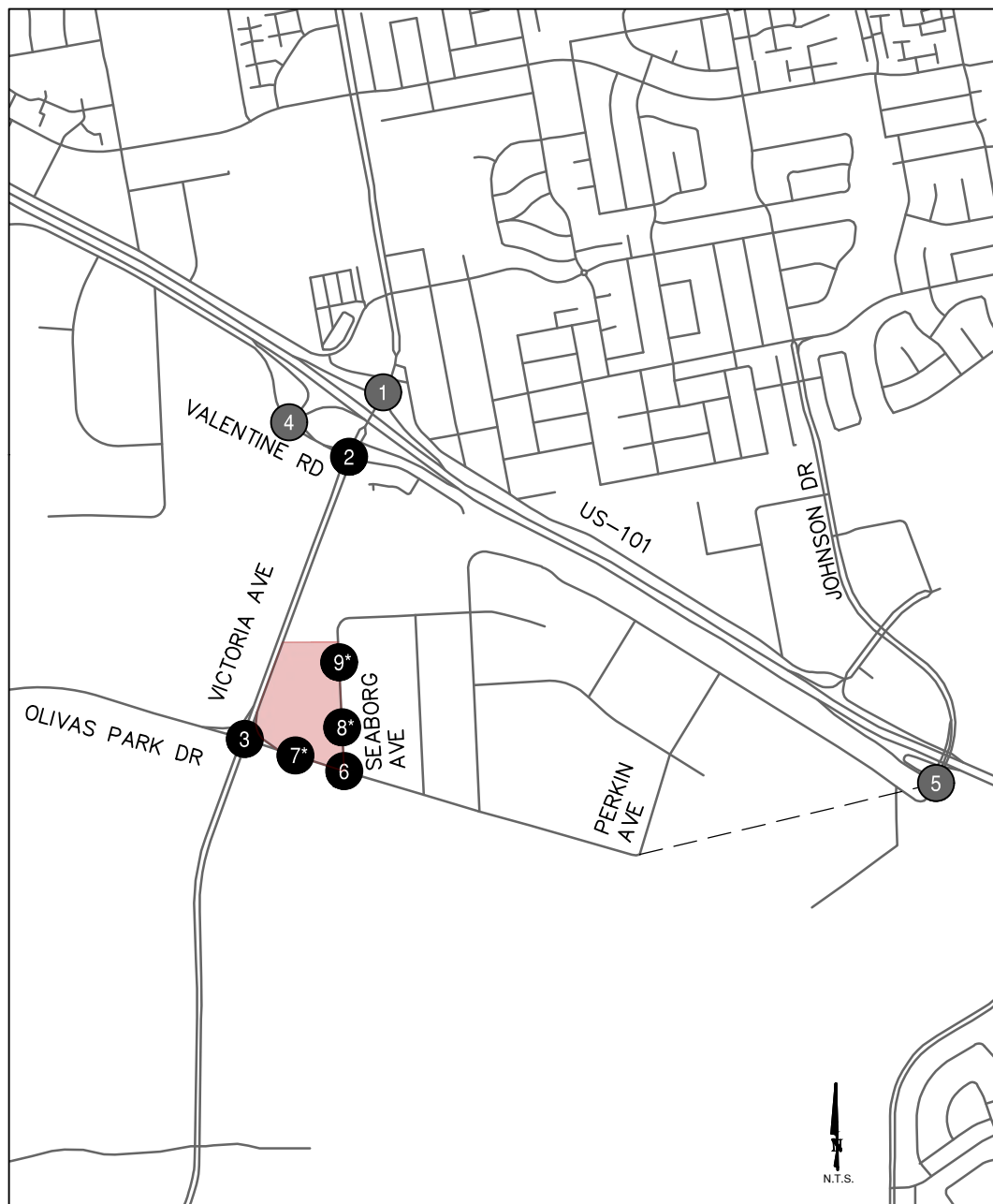


FIGURE 5 - EXISTING INTERSECTION CONFIGURATIONS

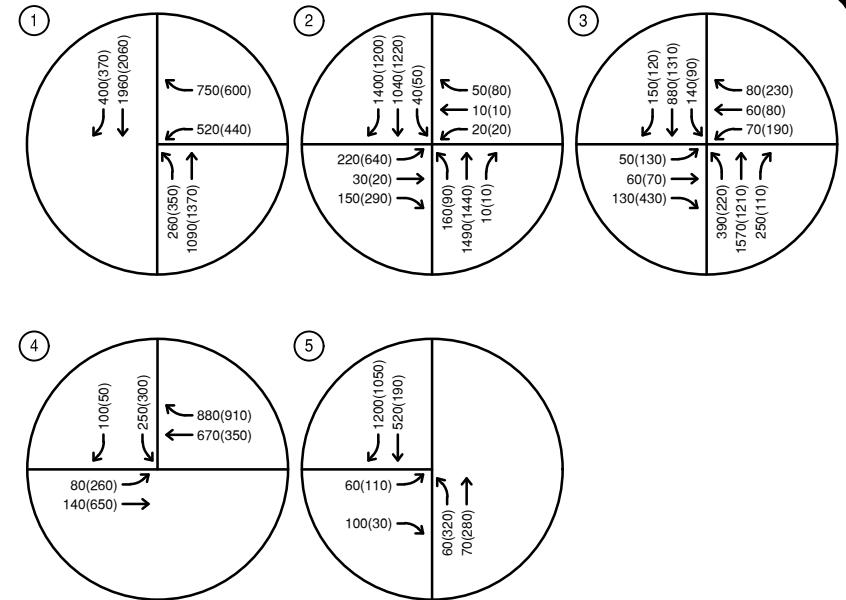
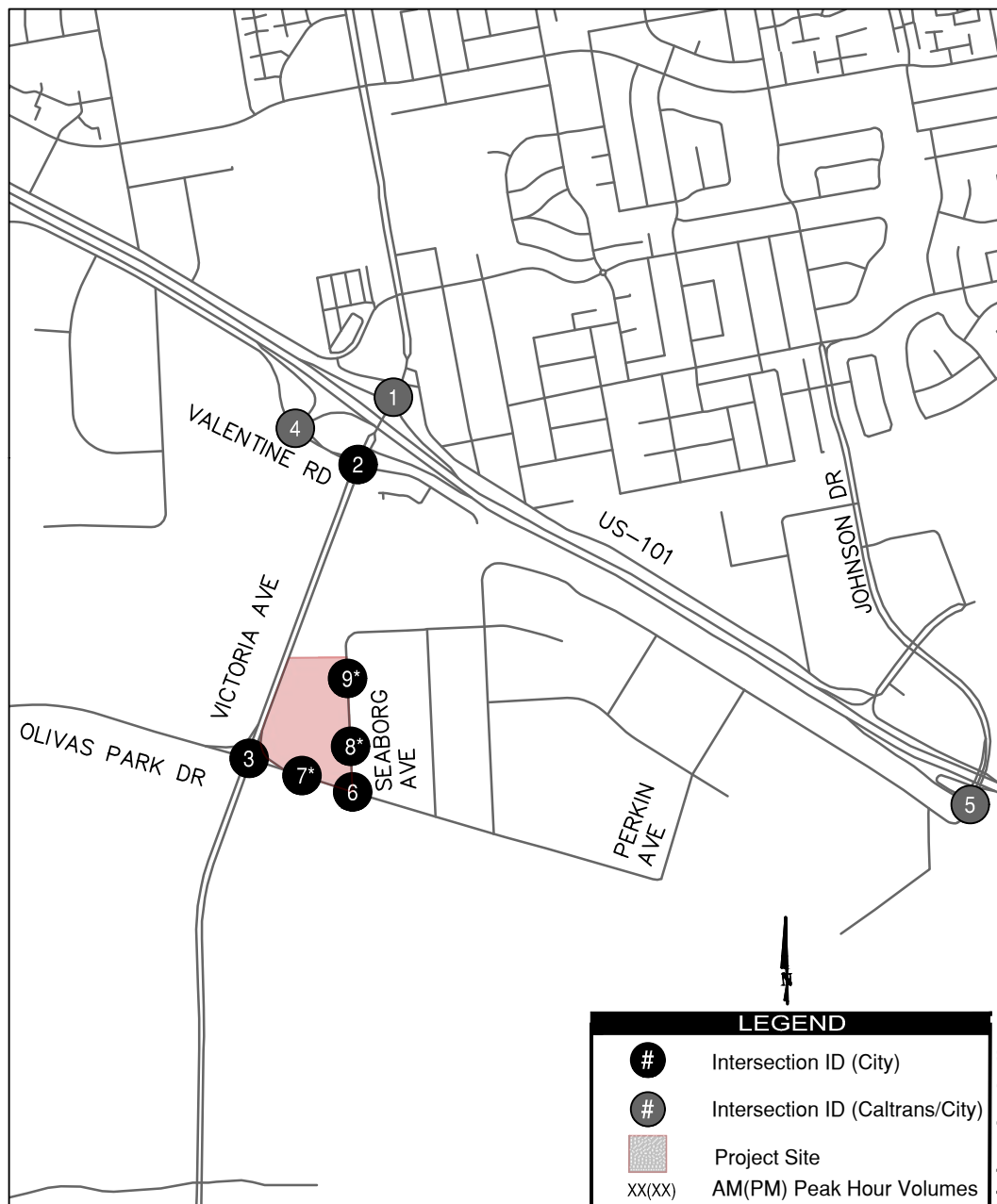


FIGURE 6 - EXISTING INTERSECTION PEAK HOUR VOLUMES

IV. Proposed Project Conditions

Project Traffic

The first step in analyzing the traffic conditions with the Project is to estimate the number of new trips expected to be generated by the proposed Project. Trip generation estimates for the Project are based on daily and peak hour trip generation rates obtained from the City's VTAM model and the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition). **Table 4** summarizes trip generation estimates for the Project and lists the specific land uses for each Project component.

Table 4: Total Net Project Trip Generation

Land Use	Units	Amount	AM Peak Hour			PM Peak Hour			ADT ¹
			In	Out	Total	In	Out	Total	
Proposed Project Trips									
Condominiums	DU	104	7	38	45	37	19	56	609
Apartments	DU	181	14	78	92	76	36	112	1,200
Live/Work Housing	DU	13	1	3	4	3	1	4	46
Retail (Strip Retail)	TSF	6.8	10	6	16	22	22	44	370
Retail (Fast Casual Restaurant)	TSF	9.1	7	7	14	63	51	114	884
Total Trip Generation			39	132	171	201	129	330	3,109
Trip Generation Rates									
Condominiums ²	per DU		0.07	0.37	0.44	0.36	0.18	0.54	5.86
Apartments ²	per DU		0.08	0.43	0.51	0.42	0.20	0.62	6.63
Live/Work Housing	per DU		0.046	0.249	0.295	0.244	0.116	0.360	3.85
Strip Retail ³	per TSF		1.416	0.944	2.360	3.295	3.295	6.590	54.45
Fast Casual Restaurant ⁴	per TSF		0.715	0.715	1.430	6.903	5.648	12.551	97.14

¹ADT=Average Daily Traffic, the daily trips generated by a site, in vehicles.

²Source: Ventura Traffic Analysis Model (VTAM)

³Source: ITE Trip Generation Manual, 11th Edition – ITE Land Use Code 822

⁴Source: ITE Trip Generation Manual, 11th Edition – ITE Land Use Code 930

For the residential land uses, the VTAM model provides trip rates for condominiums and apartments. The condominium trip rates were utilized for the Project's affordable units because of the condominium's lower trip generation rates compared to the apartment trip generation rates. In general, households living in affordable units have lower daily trips than households living in market rate units. The live-work trip generation rate was developed by modifying the VTAM apartment trip generation rate to account for the internal capture of the household living and working in the same unit. The percentage of home-based-work trips, 42%, from the VTAM model was removed from the apartment trip generation rate for the live-work trip generation rate. This analysis assumed that Building 1 contains commercial/retail services while Building 9 contains fast casual restaurant services. Since the Project is comprised of a mix of residential and retail uses, a trip reduction was applied to account for the internalization of trips between the land use components of the Project. The internal capture reduction was calculated using the City's VTAM model. Based on **Table 4** shown above, the proposed Project is anticipated to generate 3,109 net daily trips, 171 weekday AM peak hour trips, and 330 weekday PM peak hour trips.

Project Trip Distribution and Assignment

Project trip distribution and volume assignment within the study area were developed based on the VTAM. Project trip generation estimates were added to the traffic analysis model and select zone model runs were used to assess the trip distribution patterns.

Existing (2023) Plus Project Operations

Existing (2023) with Project conditions add the estimated Project traffic based on the VTAM model to the existing conditions to identify potential traffic impacts associated with the proposed Project. The resulting existing plus Project AM peak and PM peak traffic volumes are shown in **Figure 7. Table 5** below summarizes the projected V/C ratio and LOS at the signalized study intersections and compares it to without Project existing conditions to assess any significant traffic impacts of the Project.

Table 5: Intersection LOS Comparison - Existing (2023) Without Project Vs With Project

No.	Intersection	AM Peak Hour						PM Peak Hour					
		EX		EX WP		Change in ICU	Project Related Effect	EX		EX WP		Change in ICU	Project Related Effect
		ICU	LOS	ICU	LOS			ICU	LOS	ICU	LOS		
1	Victoria Ave & US 101 Northbound Ramps	0.56	A	0.56	A	0.00	No	0.57	A	0.61	B	0.04	No
2	Victoria Ave & Valentine Rd	0.45	A	0.45	A	0.00	No	0.58	A	0.63	B	0.05	No
3	Victoria Ave & Olivas Park Dr	0.64	B	0.68	B	0.04	No	0.62	B	0.69	B	0.07	No
4	Valentine Rd & US 101 SB Ramps	0.34	A	0.34	A	0.00	No	0.36	A	0.37	A	0.01	No
5	Johnson Dr & US 101 SB Ramps	0.41	A	0.41	A	0.00	No	0.39	A	0.40	A	0.01	No

*On the CMP network – LOS E is acceptable
 Shaded – Caltrans/City Shared Intersection

As shown in **Table 5** above, all intersections within the Study area are projected to operate at an acceptable LOS (D/E or better) and the proposed Project is not anticipated to result in any significant impacts under existing with Project conditions. The detailed ICU worksheets for all conditions are shown in **Appendix C**.

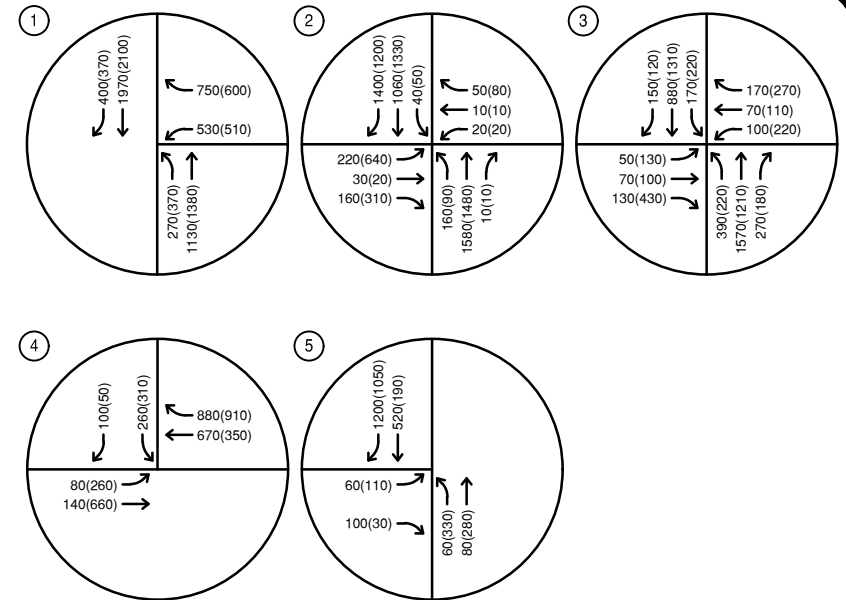
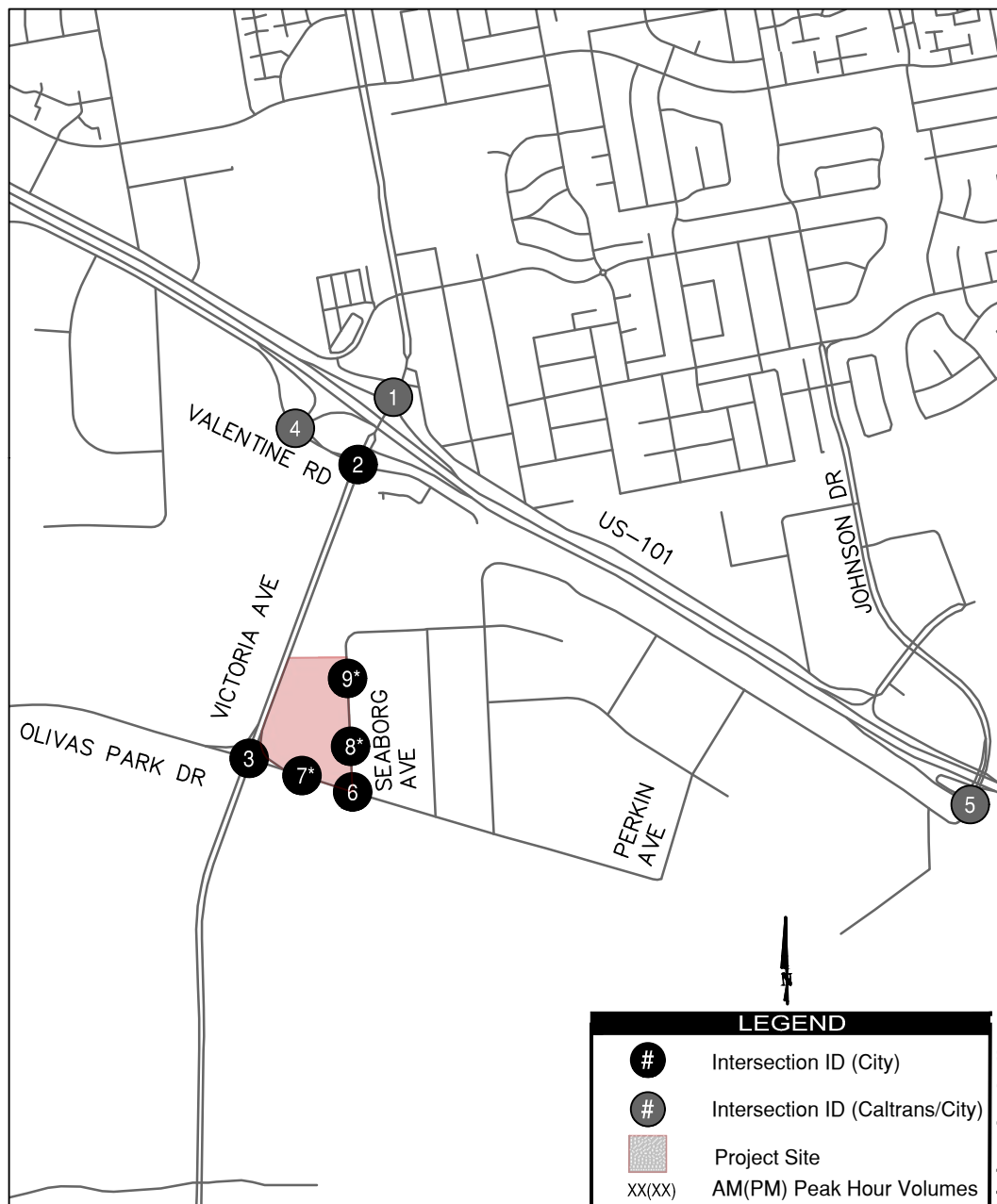


FIGURE 7 - EXISTING WITH PROJECT INTERSECTION PEAK HOUR VOLUMES

Horizon Year Conditions Without the Olivas Park Extension

Horizon Year Operations

Intersection LOS analysis for the future horizon year was conducted for the weekday morning and evening peak hours using the ICU methodology. The resulting Project AM peak and PM peak traffic volumes are shown in **Figure 8. Table 6** below summarizes the projected V/C ratio and LOS at the signalized study intersections for the future horizon year conditions without the planned Olivas Park Drive extension.

Table 6: Horizon Year Intersection Level of Service (Without Extension)

	Intersection	Control Type	AM Peak Hour		PM Peak Hour	
			V/C	LOS	V/C	LOS
1	Victoria Ave & US 101 NB Ramps	Signalized	0.81	D	0.66	B
2	Victoria Ave & Valentine Rd	Signalized	0.69	B	0.79	C
3	Victoria Ave & Olivas Park Dr	Signalized	0.67	B	0.80	C
4	Valentine Rd & US 101 SB Ramps	Signalized	0.48	A	0.55	A
5	Johnson Dr & US 101 SB Ramps	Signalized	0.53	A	0.83	D

**On the CMP network – LOS E is acceptable*

Shaded – Caltrans/City Shared Intersection

As shown in **Table 6** above, all intersections within the Study area are operating at an acceptable LOS (D/E or better). The detailed ICU worksheets for all conditions are shown in **Appendix C**.

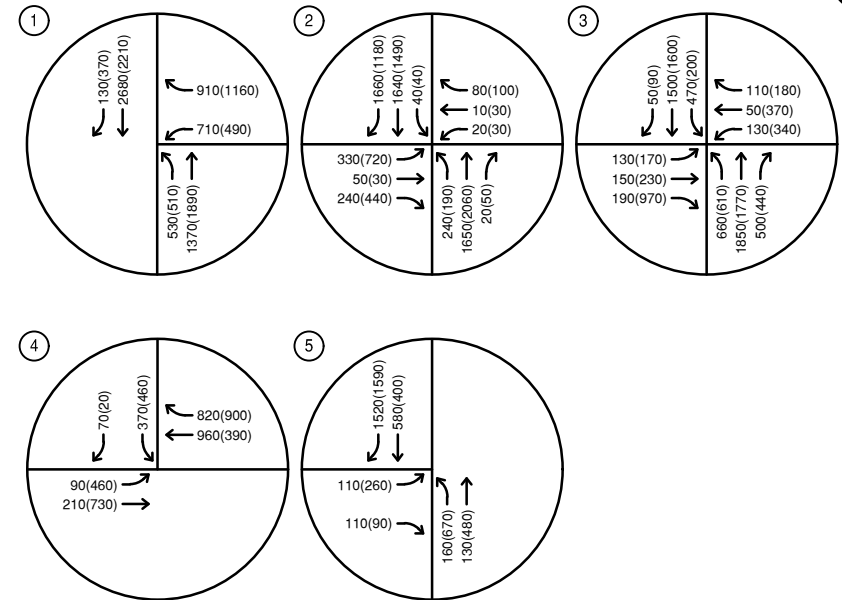
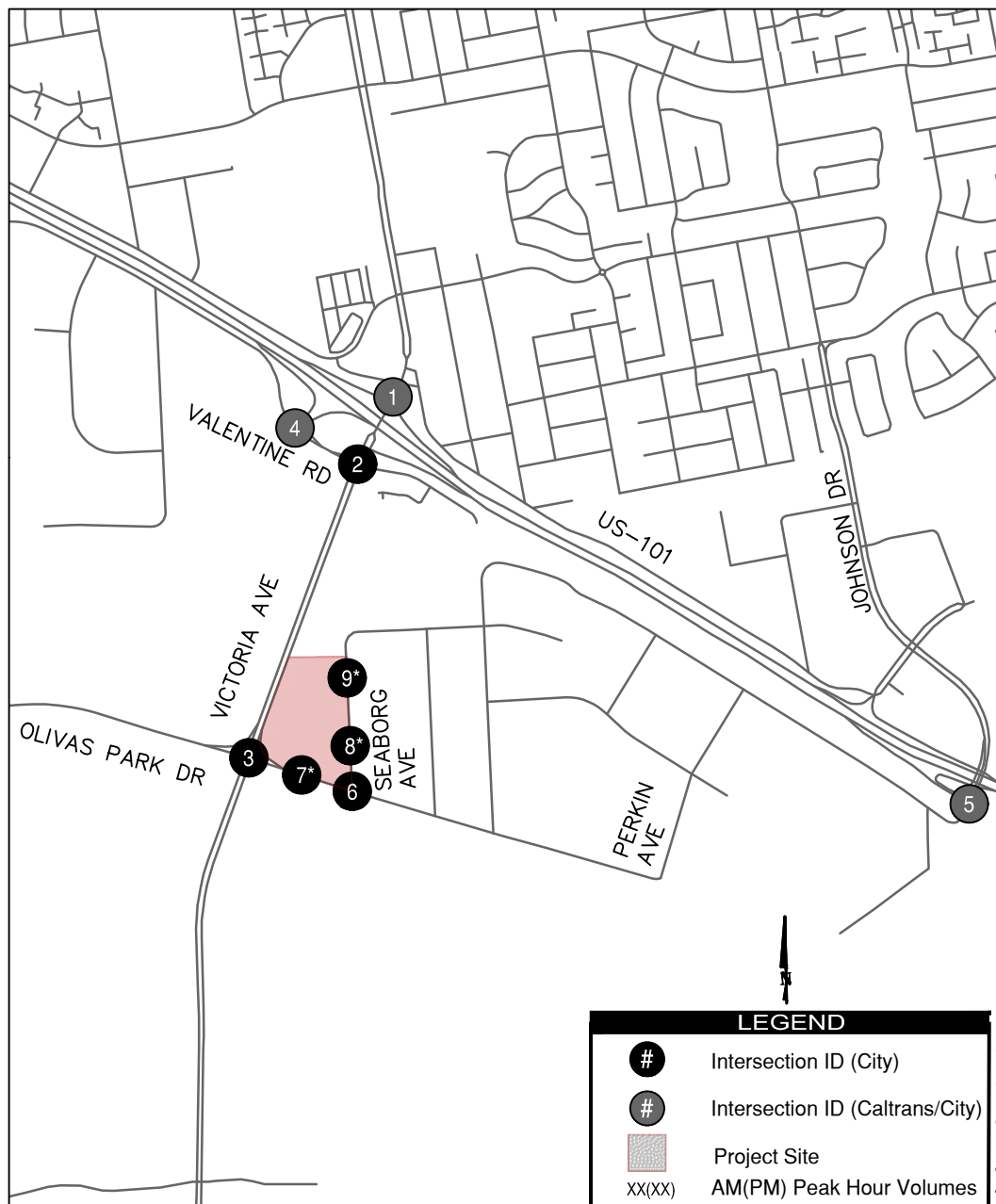


FIGURE 8 - HORIZON YEAR (NO OLIVAS PARK EXTENSION) INTERSECTION PEAK HOUR VOLUMES

Horizon Year With Project Operations

Horizon year with Project conditions add the estimated Project traffic based on the VTAM model to the horizon year without Project conditions to identify potential traffic impacts associated with the proposed Project. The resulting horizon year plus Project AM peak and PM peak traffic volumes are shown in **Figure 9. Table 7** below summarizes the projected V/C ratio and LOS at the signalized study intersections and compares it to without Project horizon year conditions to assess any significant traffic impacts of the Project for the future scenario.

Table 7: Intersection LOS Comparison – Horizon Without Project Vs With Project (No Olivas Park Extension)

	Intersection	AM Peak Hour						PM Peak Hour					
		Horizon Year		Horizon Year WP		Change in ICU	Project Related Effect	Horizon Year		Horizon Year WP		Change in ICU	Project related Effect
		ICU	LOS	ICU	LOS			ICU	LOS	ICU	LOS		
1	Victoria Ave & US 101 Northbound Ramps	0.81	D	0.82	D	0.01	No	0.66	B	0.70	B	0.04	No
2	Victoria Ave & Valentine Rd	0.69	B	0.70	B	0.01	No	0.79	C	0.83	D	0.04	No
3	Victoria Ave & Olivas Park Dr	0.67	B	0.70	B	0.03	No	0.80	C	0.83	D	0.03	No
4	Valentine Rd & US 101 SB Ramps	0.48	A	0.48	A	0.00	No	0.55	A	0.56	A	0.01	No
5	Johnson Dr & US 101 SB Ramps	0.53	A	0.53	A	0.00	No	0.83	D	0.84	D	0.01	No

*On the CMP network – LOS E is acceptable

Shaded – Caltrans/City Shared Intersection

As shown in **Table 7** above, all intersections within the Study area are operating at an acceptable LOS (D/E or better) and the proposed Project is not anticipated to result in any significant impacts under horizon year with Project conditions. The detailed ICU worksheets for all conditions are shown in **Appendix C**.

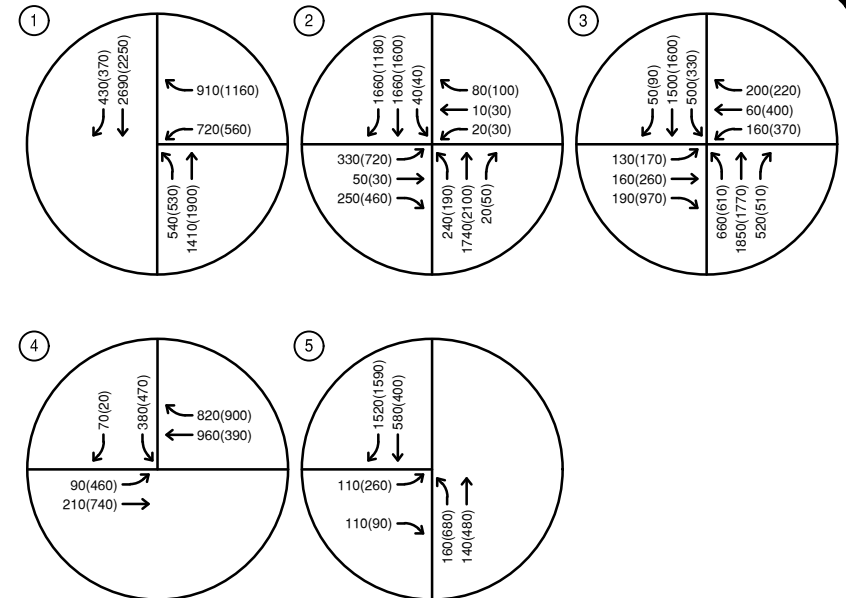
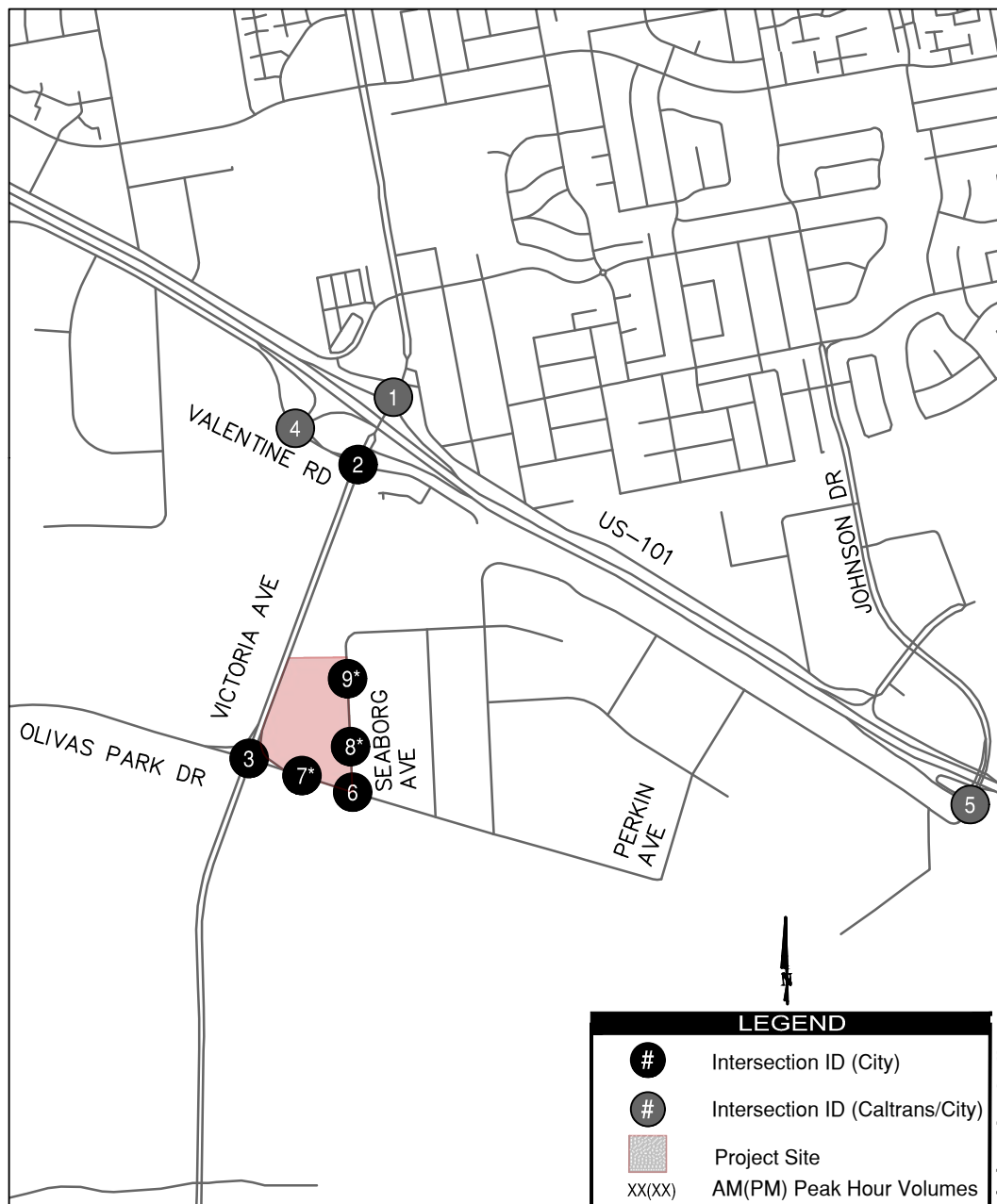


FIGURE 9 - HORIZON YEAR (NO OLIVAS PARK EXTENSION) WITH PROJECT INTERSECTION PEAK HOUR VOLUMES

V. Horizon Year With the Olivas Park Extension

Horizon Year Operations

Intersection LOS analysis for the future horizon year with the planned Olivas Park extension was conducted for the morning and evening peak hours using the ICU methodology. The resulting Project AM peak, PM peak, and daily traffic volumes are shown in **Figure 10**. With the planned Olivas Park Drive extension, there will be no direct northbound left turn to the southbound ramp at the Johnson Drive and U.S. 101 freeway intersection (Study intersection #5). Future horizon year volumes with the extension were reassigned with the following split:

- 80% of forecasted northbound left traffic at the southbound U.S 101 ramp from Olivas Park Drive/Johnson Drive will make a U-turn at the future signalized Motel 6 intersection
- 20% of forecasted northbound left traffic would go to the southbound on-ramp at S. Victoria Avenue (Study intersection #1)

The horizon year with the Olivas Park extension lane configurations and control type are shown in **Figure 11**. **Table 8** below summarizes the projected V/C ratio and LOS at the signalized study intersections for the future horizon year conditions with the planned Olivas Park Drive extension.

Table 8: Horizon Year Intersection Level of Service (With Extension)

	Intersection	Control Type	AM Peak Hour		PM Peak Hour	
			V/C	LOS	V/C	LOS
1	Victoria Ave & US 101 Northbound Ramps	Signalized	0.78	C	0.66	B
2	Victoria Ave & Valentine Rd	Signalized	0.66	B	0.76	C
3	Victoria Ave & Olivas Park Dr	Signalized	0.72	C	0.86	D
4	Valentine Rd & US 101 SB Ramps	Signalized	0.46	A	0.52	A
5	Johnson Dr & US 101 SB Ramps	Signalized	0.57	A	1.07	F

**On the CMP network – LOS E is acceptable*

Shaded – Caltrans/City Shared Intersection

BOLD – Unsatisfactory LOS

As shown in **Table 8** above, most intersections within the Study area are operating at an acceptable LOS (D/E or better). However, the intersection of Johnson Drive and the U.S. 101 southbound ramp is projected to operate at an LOS F during the PM peak hour. The detailed ICU worksheets for all conditions are shown in **Appendix C**.

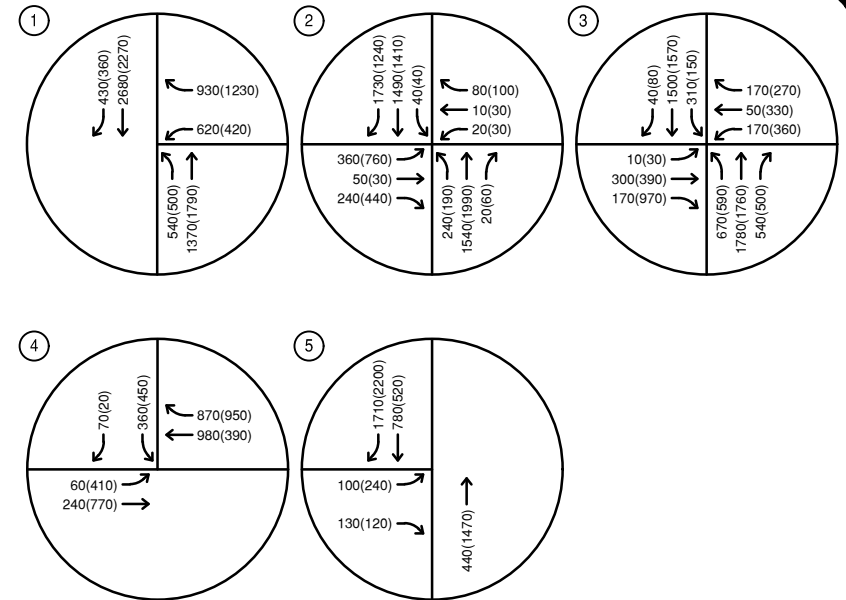
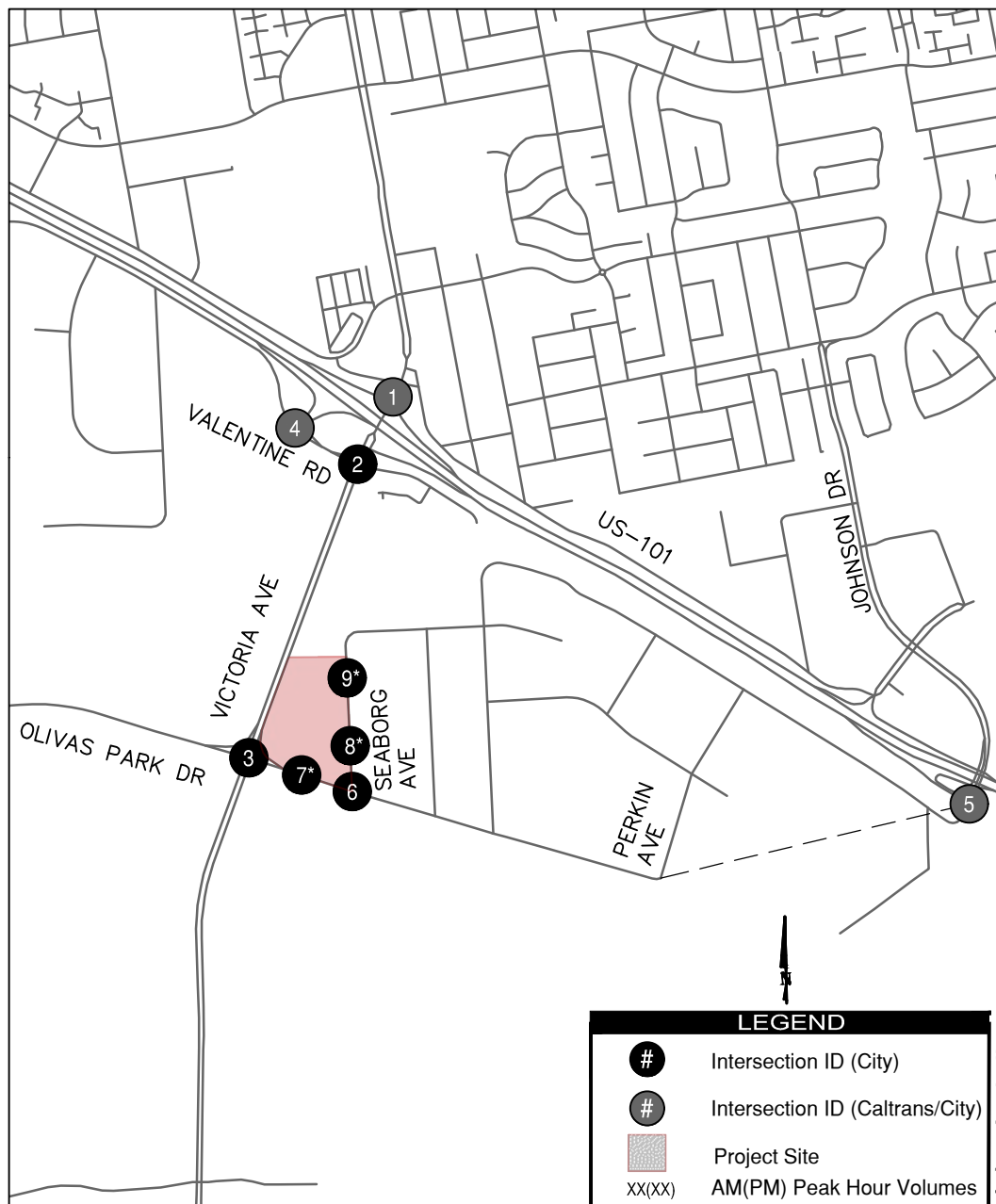


FIGURE 10 - HORIZON YEAR (WITH OLIVAS PARK EXTENSION) INTERSECTION PEAK HOUR VOLUMES

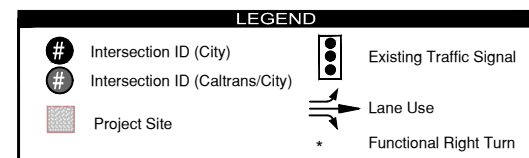
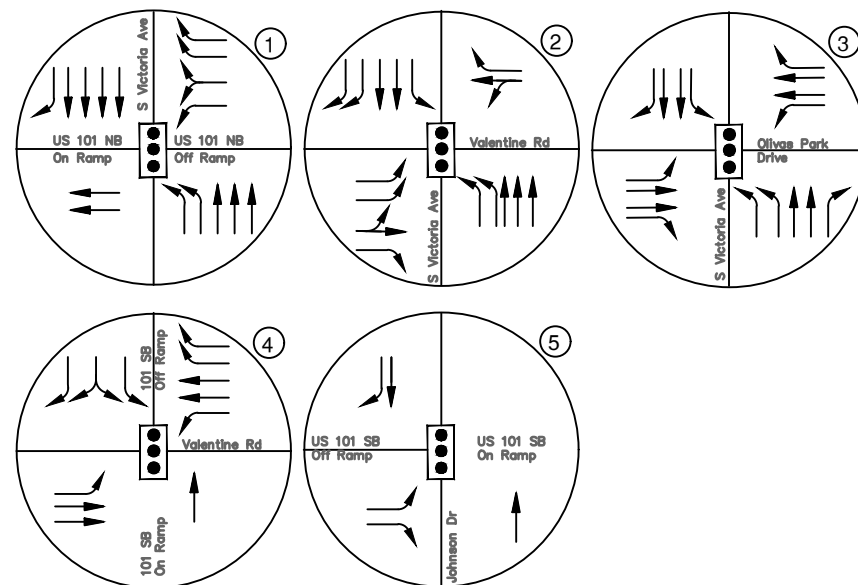
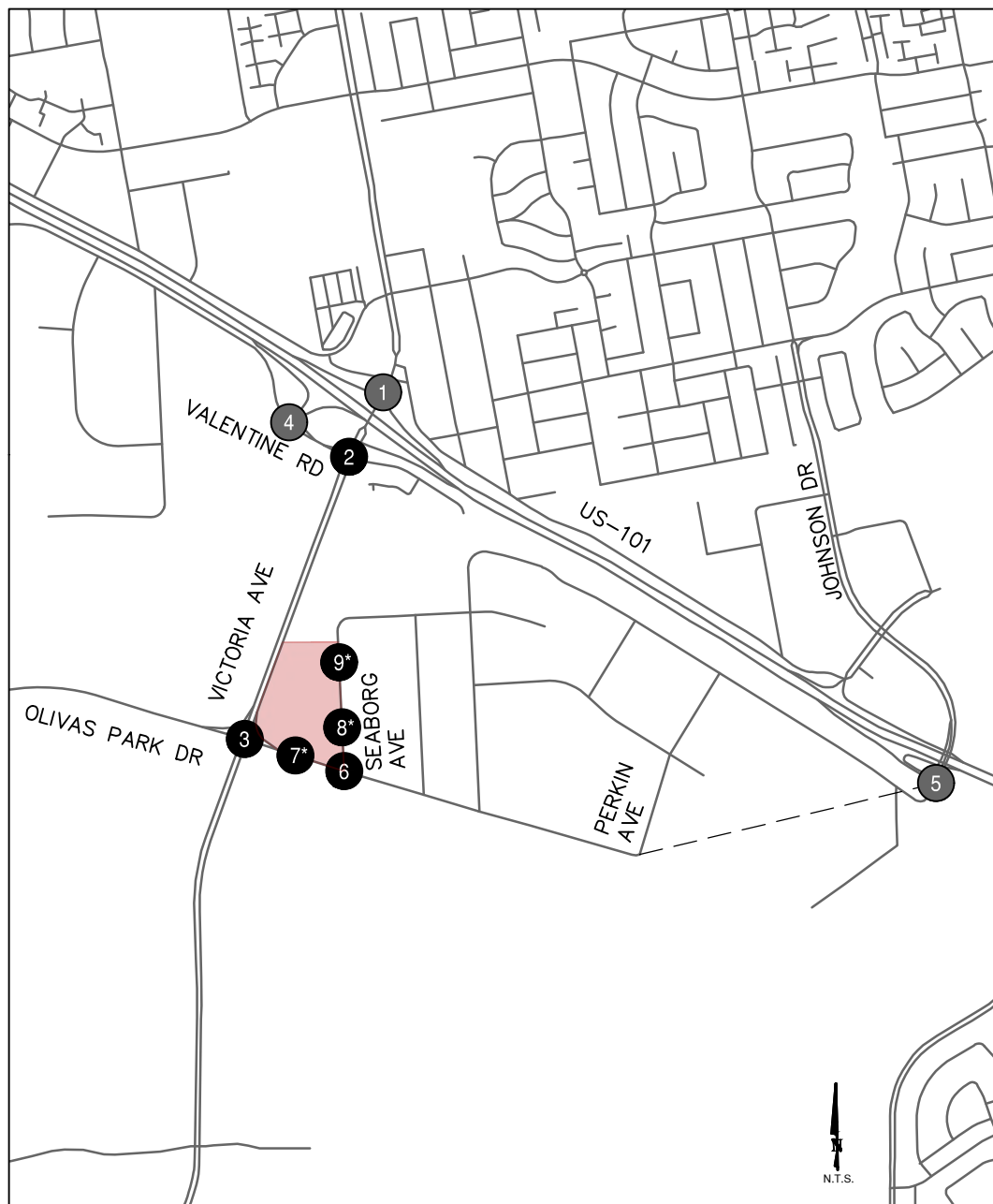


FIGURE 11 - HORIZON YEAR WITH OLIVAS PARK EXTENSION INTERSECTION CONFIGURATIONS

Horizon Year With Project Operations

Horizon year with Project conditions add the estimated Project traffic based on the VTAM model to the horizon year without Project conditions to identify potential traffic impacts associated with the proposed Project. The resulting horizon year plus Project AM peak, PM peak, and daily traffic volumes are shown in **Figure 12. Table 9** below summarizes the projected V/C ratio and LOS at the signalized study intersections and compares it to without Project horizon year conditions to assess any significant traffic impacts of the Project for the future scenario.

Table 9: Intersection LOS Comparison – Horizon Without Project Vs With Project (With Olivas Park Extension)

	Intersection	AM Peak Hour						PM Peak Hour					
		Horizon Year		Horizon Year WP		Change in ICU	Project Related Effect	Horizon Year		Horizon Year WP		Change in ICU	Project related Effect
		ICU	LOS	ICU	LOS			ICU	LOS	ICU	LOS		
1	Victoria Ave & US 101 Northbound Ramps	0.78	C	0.79	C	0.01	No	0.66	B	0.67	B	0.01	No
2	Victoria Ave & Valentine Rd	0.66	B	0.66	B	0.00	No	0.76	C	0.80	C	0.04	No
3	Victoria Ave & Olivas Park Dr	0.72	C	0.73	C	0.01	No	0.86	D	0.88	D	0.02	No
4	Valentine Rd & US 101 SB Ramps	0.46	A	0.47	A	0.01	No	0.52	A	0.52	A	0.00	No
5	Johnson Dr & US 101 SB Ramps	0.57	A	0.57	A	0.00	No	1.07	F	1.09	F	0.02	Yes

*On the CMP network – LOS E is acceptable

Shaded – Caltrans City/Shared Intersection

BOLD – Unsatisfactory LOS

As shown in **Table 9** above, most intersections within the Study area are operating at an acceptable LOS (D/E or better). The proposed Project is anticipated to result in one impact under horizon year with Project conditions. The intersection of Johnson Drive and US 101 southbound ramps is projected to operate at LOS F which is below the acceptable LOS threshold of LOS E for both the with and without Project scenarios. Because the Project increases the ICU by more than 0.01 from without Project to with Project conditions, the Project results in an impact at the Johnson Drive and US 101 southbound ramp intersection. Mitigation for the impacted Johnson Drive and US 101 southbound ramp intersection are described in the mitigation measures section of the report. The detailed ICU worksheets for all conditions are shown in **Appendix C**.

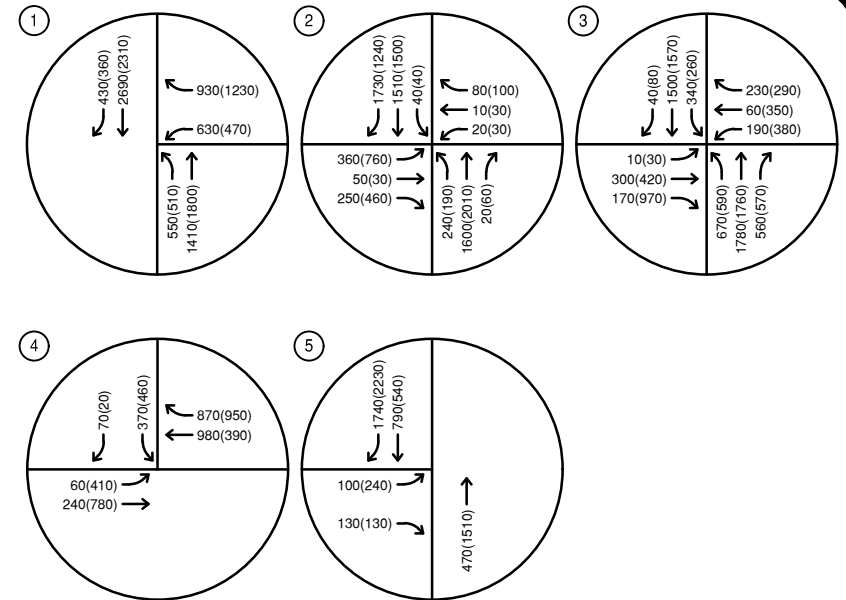
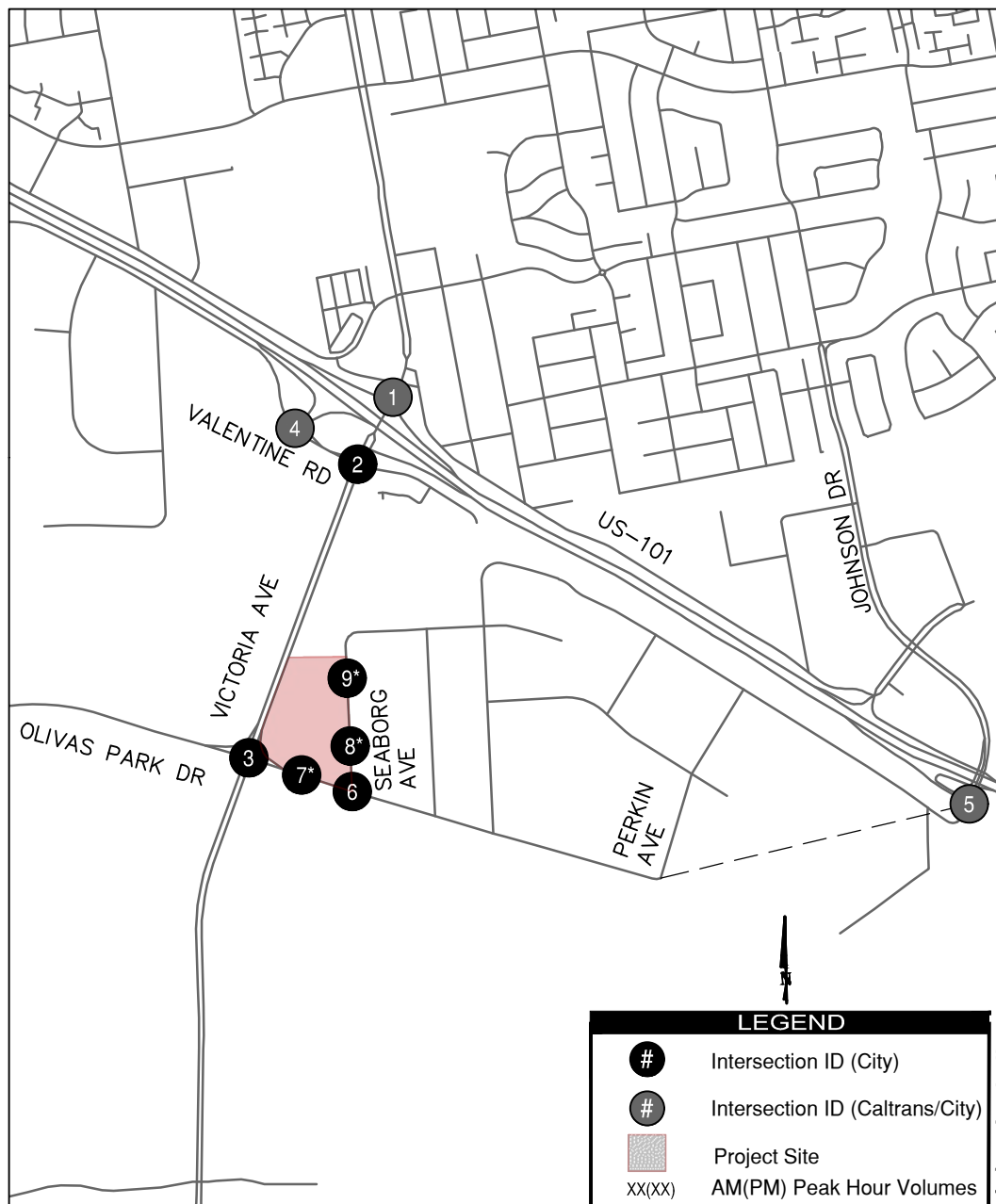


FIGURE 12 - HORIZON YEAR (WITH OLIVAS PARK EXTENSION) WITH PROJECT INTERSECTION PEAK HOUR VOLUMES

VI. Mitigation Measures

Analysis for the Horizon Year With Project with the Olivas Park Drive Extension (OPDE) found that the Project would result in an impact for the Johnson Drive and US 101 southbound ramp study intersection. The intersection is projected to operate at LOS F which is below the acceptable LOS threshold of LOS E for both the with and without Project scenarios. Because the Project increases the ICU by more than 0.01 from without Project to with Project conditions, the Project results in an impact at the intersection for the Horizon Year with Project with the Olivas Park Drive Extension scenario.

To improve operations at the Johnson Drive and US 101 southbound ramp intersection, the City has recommended the installation of an additional northbound through lane on Johnson Drive. The design of the additional lane would be included in the future Olivas Park Drive Extension project. **Appendix F** shows the current proposed OPDE project conceptual plans that would be revised to incorporate the additional through lane on Johnson Drive as a condition of approval for this Project. The condition of approval will require the project to provide a project plan that can be incorporated into the final Olivas Park Drive Extension including the City plan review and approval process of the proposed design plan revision.

VII. Traffic Signal Warrant

A traffic signal warrant analysis was completed based upon the criteria established in the 2014 California Manual for Uniform Traffic Control Devices (CA MUTCD), Chapter 4C. The analysis used Warrant 3, the peak hour warrant, to determine the need for a signal at the intersection of Olivas Park Drive and Seaborg Avenue. The full worksheet analysis can be found in the attached **Appendix D**.

Kimley-Horn used the collected traffic volume data for Olivas Park Drive and Seaborg Avenue to forecast Opening Year (2028) conditions. The Opening Year traffic volumes were analyzed without the addition of the Project, and it was determined that Warrant 3 was met. Although the minor-street delay criteria of Warrant 3 was not met, the intersection met the minimum volume threshold, as shown in the full worksheet analysis.

Since the Opening Year (2028) without Project conditions met the warrant, it can be assumed the Opening Year (2028) with Project conditions would meet the warrant. It should be noted that the ambient growth of traffic on Olivas Park Drive and Seaborg Avenue is the reason Warrant 3 is met and not necessarily the construction of the Project.

Project Fair Share Contribution Analysis

The Project will pay a fair share to implement the installation of a future traffic signal at the Olivas Park Drive and Seaborg Avenue intersection. The methodology and the calculations of the project's pro-rata percentage at the intersection that requires the installation of a traffic signal is summarized in **Table 10**. The method used for these calculations is based on the project buildout (2028) generated traffic volumes on the approaches to the intersection divided by the project plus future buildout (2028) traffic volumes on those same approaches, accounting for ambient growth. The analysis does not include existing traffic volumes. As shown in **Table 10**, the proposed project's contribution towards the future traffic signal is the following:

- Future Traffic Signal at Olivas Park Drive and Seaborg Avenue = 7.9%

Table 10: Project Fair Share Cost for Traffic Signal

Pro-Rata Percentage Methodology			
The project's percentage share is derived by dividing future year (2028) project traffic by future year (2028) traffic without the project. It should be noted that existing traffic volumes are not included in the calculations.			
The following equation is provided to assist in calculating the project's pro-rata percentage to implement roadway mitigation improvement measures:			
where:			
$P = \frac{V_p}{V_p + V_c}$		P = Project's pro-rata percentage of the cumulative mitigation improvement measures	
		Vp = AM and PM Peak Hour volume at the intersection generated by the project	
		Vc = Future (2028 Buildout) AM and PM Peak Hour traffic volume at the intersection	
Ventura Mixed-Use Intersection Calculation			
<u>Intersection</u>	<u>AM and PM Traffic Volumes</u>	<u>Calculation</u>	<u>Fair Share Percentage</u>
<u>Olivas Park Drive and Seaborg Avenue</u>	Vp = <u>198</u> Vc = <u>2327</u>	$P = \frac{198}{(198) + (2327)}$	7.9%

VIII. Vehicle Miles Traveled Analysis

Senate Bill 743 (SB 743)

Senate Bill 743 (SB 743) requires project reviews under CEQA to evaluate the transportation impacts of new developments in terms of greenhouse gas emissions using VMT. As of December 2018, the Natural Resources Agency finalized updates to the State CEQA Guidelines to incorporate SB 743 (i.e., VMT). To assist in implementation of VMT as the primary measure of a transportation impact under CEQA, the OPR published an updated Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR Technical Advisory) in December 2018. Statewide application of the new guidelines went into effect on July 1, 2020.

The City of Ventura is yet to adopt VMT guidelines; therefore, the state's Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018) will be used to provide guidance for the VMT analysis. The OPR Technical Advisory includes guidance on the methodology for VMT analysis including the establishment of thresholds of significance and screening criteria.

Screening Criteria

To identify when a project may be presumed to have a less than significant transportation impact concerning VMT without conducting a detailed study, the OPR Guidelines provide screening criteria for land development projects that meet one of the screening criteria below:

- **Retail Project Site Plan Screening:** The development project contains retail uses fewer than 50,000 SF of gross floor area.
- **Non-Retail Project Trip Generation Screening:** The development project generates a net increase of fewer than 110 daily vehicle trips.
- **Proximity to Transit Based Screening:** The development project is located near (within one-half mile) an existing major transit stop² or a high-quality transit corridor³. This presumption would not apply, however, if project-specific or location-specific information indicates that the project will still generate significant levels of VMT. For example, the presumption might not be appropriate if the project:
 - Has a floor area ratio of less than 0.75;
 - Includes more parking than required by the jurisdiction;
 - Is inconsistent with the applicable Sustainable Communities Strategy;
 - Replaces affordable residential units with a smaller number of market-rate residential units.
- **Residential Land Use Based Screening:** The development project has 100% affordable units excluding manager's units.
- **Low VMT-Generation Area Screening:** The development project is located in a low VMT area.

A development project needs to meet only one of the above screening criteria to be presumed to have a less than significant impact on transportation and circulation, under CEQA and pursuant to SB 743.

² The OPR Technical Advisory defines a "major transit stop" as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods (California Public Resources Code §21064.3).

³ The OPR Technical Advisory defines a "high-quality transit corridor" as a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours (California Public Resources Code §21155).

Retail Project Trip Generation Screening

The Project includes one retail component (15,900 SF). Based on the above screening criteria, the Project's retail component would screen out of VMT analysis because it totals 15,900 SF, which is less than 50,000 gross SF screening criterion. The retail component of the Project can be considered to be local-serving in nature and presumed to have a less than significant VMT impact.

Non-Retail Project Site Plan Screening

Non-retail projects generating less than a net increase of 110 daily vehicle trips would screen out of VMT analysis and presumed to have a less than significant VMT impact. The Project's potential trip generation for the residential land uses was calculated using trip generation rates from the Ventura Traffic Analysis Model (VTAM). The market rate multi-family housing used the apartment trip generation rate and the affordable multi-family housing used the condominium trip generation rate to develop the trip generation. The live-work housing used modified trip generation rates – 58% of the apartment trip generation rates – to account for home-based trip reduction associated with the nature of live-work housing.

Table 11 below shows the Project's estimated daily and peak hour trip generation based on the rates mentioned above.

Table 11: Project Trip Generation for Residential Component

Trip Rates							
Land Use	ADT ¹	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Market Rate Multi-Family Housing (Apartment)	6.63	0.08	0.43	0.510	0.42	0.20	0.62
Affordable Multi-Family Housing (Condominium)	5.86	0.07	0.37	0.44	0.36	0.18	0.54
Live-Work Housing	3.86	0.05	0.25	0.30	0.24	0.12	0.36
Trip Generation							
Land Use	ADT ¹	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Market Rate Multi-Family Housing (Apartment)	1,200	14	78	92	76	36	112
Affordable Multi-Family Housing (Condominium)	609	7	38	45	37	19	56
Live-Work Housing	46	1	3	4	3	1	4
Total Project Trips (Residential Uses)	1,855	22	119	141	116	56	172

¹ADT=Average Daily Traffic, the daily trips generated by a site, in vehicles per 1,000 square feet (KSF).

As shown in **Table 11**, the residential component of the Project is anticipated to generate a net increase of 1,855 daily trips, 141 weekday AM peak hour trips, and 172 weekday PM peak hour trips. The residential component of the Project does not screen out because the daily trips exceed 110 daily trips.

Proximity to Transit-Based Screening

Currently, there are no transit routes near the proposed Project that meet the criteria to be considered a major transit stop or high-quality transit corridor. Therefore, the Project does not screen out of a VMT analysis based on transit priority area screening.

Residential Land Use Based Screening

Residential development projects with 100% affordable units would screen out of VMT analysis and presumed to have a less than significant VMT impact. However, the proposed Project only has 35% affordable units. Therefore, the Project does not screen out of a VMT analysis based on affordable units.

Low VMT-Generation Area Screening

As part of the latest travel demand model update, the Ventura County Transportation Model included VMT analysis for each model zone. However, the model zone representing the Project does not include residential land uses and VMT per capita for the Project model zone is not available. Therefore, the Project does not screen out of a VMT analysis based on low VMT-Generation Area screening.

Screening Conclusion

The proposed Project only meets one of the above screening criteria. The Project's retail component would screen out of further VMT analysis based on the land-use and size and is presumed to have a less than significant transportation impact under CEQA pursuant to SB 743. However, the Project's residential component does not meet any of the above screening criteria. Therefore, a VMT analysis is required for the Project's residential component to further analyze the VMT impacts.

VMT Impact Criteria

The County's VMT Guidelines recommend the following impact criteria:

Thresholds of Significance Criteria for Residential Land Uses

City of Ventura recommends a VMT per capita threshold set at 15 percent below the Countywide average. Using the Ventura County Transportation Commission (VCTC) travel demand model, the average VMT per Capita was estimated. Based on the VCTC baseline model, the existing Countywide average VMT per Capita for all home-based trips is 16.47 miles. Applying the 15 percent reduction yields a VMT Threshold for residential land uses of 14.0 miles.

- 15% below County: $16.47 \times 0.85 = 14.0$ VMT per Capita

VMT Methodology

The VMT analysis was conducted using the latest available VCTC model which was updated in September 2021. The current version of the model has 2016 base year model and 2040 future year model. Both the residential and commercial land use components of the Project were coded into the project traffic analysis zone (TAZ) 60031101 shown in on **Figure 13** the next page. The Project's residential land uses were converted to population based on household sizes in the area and commercial land uses were coded to employment as model inputs. The parent zone did not have any population and households, therefore an average household size of 2.95 was used based on the adjacent zone in the VCTC model. The resulting residential population of 297 residential units is approximately 876 residents.

VMT Analysis

The calculation of vehicle miles traveled has two components: (1) the total number of trips generated and (2) the average trip length of each vehicle. As the proposed Project is mainly residential land use, trip productions were used from all the home-based trip purpose matrices in the VCTC model. Using the peak and off-peak vehicle trip matrices and skim (distances) matrices, VMT was calculated for the Project traffic analysis zone 60031101.

Out of 297 proposed Project residential units, 13 units are live/work, which would reduce home-based work (HBW) VMT. Since the model is not sensitive to the live/work travel behavior, the Project's VMT was

adjusted. To account for the VMT reductions from the live-work units, average Home-Based-Work (HBW) VMT per Employee for the Project zone was used. The average HBW VMT per Employee for the Project zone is 18.6 per employee. To account for residents working in the live-work units, a conservative number of two workers per unit was assumed to work in the live-work space although this number could be higher (for example, a family business where all adult family members are involved). Since there are 13 live work units, it was assumed that 26 workers will work within the Victoria Corporate Center. Therefore, the project VMT will decrease by at least 483 miles ($13 \times 2 \times 18.6$). With the live/work reduction accounted for, the adjusted average VMT per Capita is 16.6. The VMT calculation worksheet is included in **Appendix E. Table 12** summarizes the demographics and VMT results for the Project. As shown in the table, the project area VMT per Capita will remain over the City's adopted thresholds and therefore will require mitigations measures to reduce project generated VMT.

Table 12: Project Demographics and VMT

Efficiency Metric	Proposed Project
Project Zone Population	876
Project Zone Employment	2,712
Project Zone Homebased VMT	15,065
Project Zone Work VMT per Employee	18.6
Project Zone VMT per Capita	17.2
VMT Reduction for 13 live work units (26 X 18.6)	-483
Adjusted Project Zone Homebased VMT	14,584
Adjusted Project Zone VMT per Capita	16.6

VMT Mitigations

As part of the mixed-use development, the project proposes to contribute to local transit by constructing a far-side bus stop and a near-side bus stop at the intersection of Victoria Avenue and Olivas Park Drive in for directions (northbound and southbound Victoria Avenue). By providing transit service to the residential component of the proposed Project, the bus stops serve as a mitigation measure expected to reduce VMT below a significant impact.

VMT Findings

Based on the results of this VMT analysis, the following findings are made:

- The Project's retail component would screen out of further VMT analysis based on the local-serving nature and is presumed to have a less than significant transportation impact concerning VMT.
- The Project's residential component requires VMT analysis.
- Based on the VMT calculation methodology described herein, the Countywide average VMT per Capita for residential projects is 16.47. Therefore, the threshold of significance for new residential project development is 15-percent below the Countywide average, or 14.0 average VMT per Capita.
- The residential component of the proposed Project is anticipated to result in an average VMT per Capita of 16.6 which is more than the County's threshold of significance. The project proposes to construct bus stops as a mitigation measure and are expected to reduce VMT 15-percent below the Countywide average. Therefore, the Project is not expected to have a significant VMT impact.

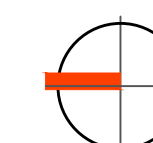
IX. Sight Distance Analysis

A sight distance analysis was conducted for two of the three Project driveways. One full access driveway is provided along Seaborg Avenue and two driveways are proposed along Olivas Park Drive. The analysis identified the potential parking restrictions that will be needed as a part of the Project and will be based on the stopping sight distance criteria established in the latest American Association of State Highway and Transportation Officials (AASHTO) guidelines, *A Policy on Geometric Design of Highways and Streets, 2018*. For Seaborg Avenue, the sight distance analysis assumed a design speed of 35 miles per hour (mph) which requires 250 feet of stopping sight distance. The sight triangles for Seaborg Avenue are shown in **Figure 14** on the next page. To provide a clear line of sight for vehicles exiting the Seaborg Avenue driveway, 195 feet of red curb north of the driveway and 145 feet of red curb south of the driveway is recommended.

Along Olivas Park Drive, on street parking is proposed between the western Project driveway (Driveway 1) and the eastern Project driveway (Driveway 2) for approximately 250 feet, as shown in **Figure 16**. On-street parking is restricted east of Driveway 2 and left turns out of Driveway 2 are restricted; therefore, no sight distance analysis is required for Driveway 2. The sight distance analysis for Driveway 1 was conducted based on the posted speed limit of 45 MPH, which requires 360 feet of stopping sight distance. The sight triangle along Olivas Park Drive for Driveway 1 is shown in **Figure 15**. Based on the analysis, no parking restrictions are required between Driveway 1 and Driveway 2.



Figure 14 - Sight Distance Analysis



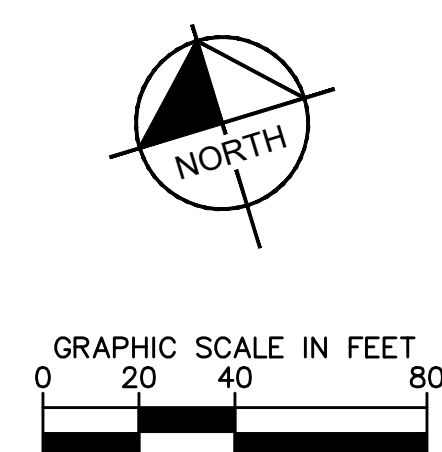
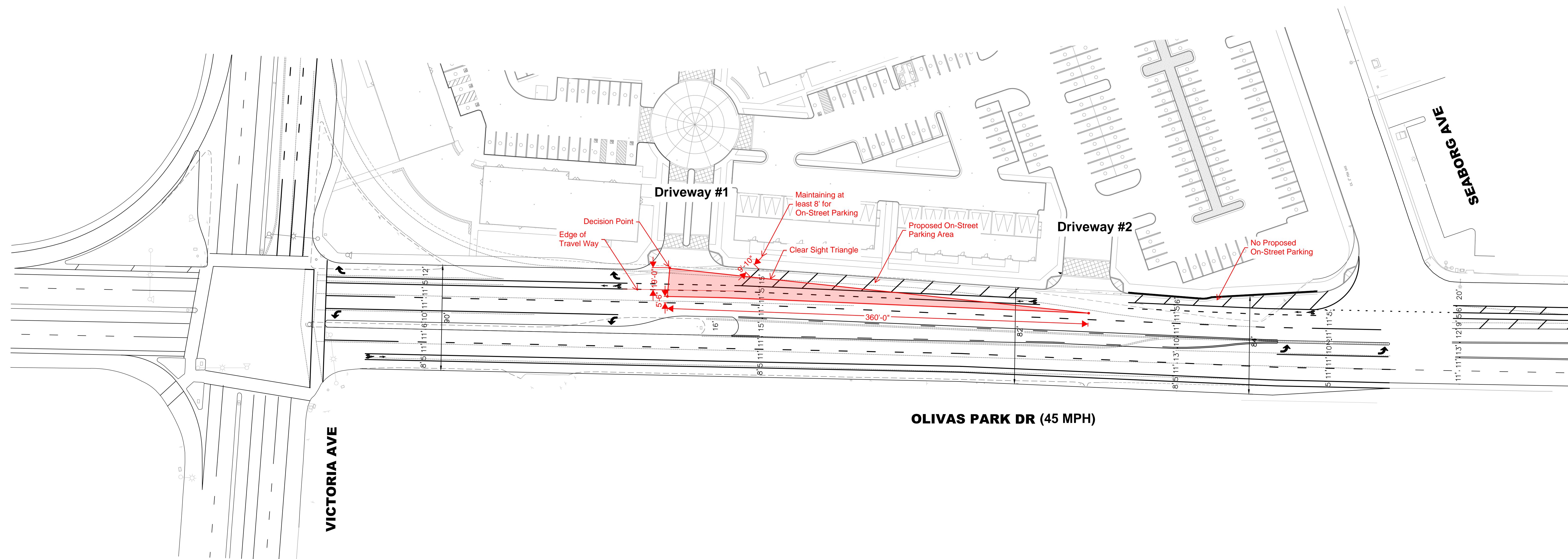


Figure 15 - Olivas Park Sight Distance Analysis

X. Transit, Pedestrian, and Bicycle Facilities Assessment

As requested by the City, a conceptual plan was developed for Olivas Park Drive showing the updated layout of the northeast Project corner at Victoria Avenue and Olivas Park Drive. The conceptual plan includes the removal of the free westbound right turn at the intersection and provides a more standard intersection corner. The removal of the free westbound right turn lane improves pedestrian access and safety at the intersection by reducing the high-speed conflict point between pedestrians and vehicles and requiring westbound right turns to occur at the traffic signal. The proposed layout of Olivas Park Drive is shown in **Figure 16** and shows the improvements which include re-striping, traffic signal modifications, curb ramp modifications, parking restrictions, and updated curb layouts.

An additional intersection level of service analysis was conducted for the weekday morning and evening peak hours using the ICU methodology for the intersection of Victoria Avenue and Olivas Park Drive with a standard westbound right turn lane (no westbound free right turn). The analysis conducted for the standard right turn included an overlap phase for the westbound right movement. Based on the results of the analysis, there was no change in ICU for the intersection of Victoria Avenue and Olivas Park Drive with the conversion of the free westbound right to a standard right turn lane with overlap. Although there is no change to vehicle operations by removing the free right turn and creating a standard right turn lane, pedestrian safety and access for the northwest corner of the intersection would improve. The detailed additional ICU worksheet for all conditions for the intersection is shown in **Appendix G**.

Transit Service

Gold Coast Transit District is the local transit provider for the City of Ventura. Although there are no existing transit stops directly at the Project site, the nearest transit stop serves Route 21 and is located approximately 2,000 feet north of the Project site at the southwest corner of S. Victoria Avenue and Valentine Road. Route 21 provides service from the C Street Transit Center to the Ventura Transit Center every 30 minutes during the weekdays and up to every 55 minutes on the weekend. The Metrolink Ventura County Line is also in the vicinity of the Project and provides service from Downtown Ventura to Los Angeles Union Station. The East Ventura Metrolink Station is approximately one mile away from the Project site and operates on both weekdays and weekends. The Metrolink station provides a regional connection between surrounding counties and promotes the opportunity for users to walk, cycle, to and from the Project site.

The Project has the potential to increase transit ridership and the demand for transit service in the study-area. The existing transit service may not have the capacity to accommodate the potential increase in pedestrian activity near the Project site; therefore, the Project proposes new bus stops for Gold Coast Transit along S. Victoria Avenue adjacent to the Project site. The Project will construct far-side bus stops at the intersection of S. Victoria Avenue and Olivas Park Drive for the northbound direction and near-side bus stops for the southbound direction. The location of the proposed bus stops is shown in **Figure 16**. The Project's implementation of bus stops provides an additional mode shift in addition to walking and biking that reduces VMT associated with the Project. The bus stops will be designed in accordance with Gold Coast Transit bus stop guidelines and City engineering requirements.

Pedestrian Facilities

Currently, there are proposed sidewalks fronting the Project site along S. Victoria Avenue and Olivas Park Drive, as shown in **Figure 16**. The sidewalks at the northeast corner would provide access to the bus stop at the corner from the Project site. Pedestrian crosswalks are provided at the S. Victoria Avenue and Olivas Park Drive signalized intersection adjacent to the Project site. Access to the southbound far-side bus stop would be provided via the pedestrian crosswalk across Victoria Avenue from the Project site.

The Project would not have an adverse effect on the pedestrian facilities in the study-area. The Project would enhance pedestrian facilities by providing curb, gutter, and sidewalk directly adjacent to the Project site along S. Victoria Avenue (east side), Olivas Park Drive (north side), and Seaborg Avenue (west side).

Pedestrians would mainly access the site along Olivas Park Drive and Seaborg Avenue via driveways and plaza areas.

Bicycle Facilities

The City of Ventura is recognized as a bronze level Bicycle Friendly Community by the League of American Bicyclists and S. Victoria Avenue and Olivas Park Drive are identified as part of the City's Bikeway System. Class II bike lanes currently exist along the entirety of Olivas Park Drive and S. Victoria Avenue north of Olivas Park Drive. There is currently an existing bike facility on S. Victoria Avenue south of Olivas Park Drive that is regularly used but it is out of compliance and poorly maintained. The conceptual plan would retain the existing class II bike lanes along Olivas Park Drive but provide a new striping layout.

The Project proposes two additional driveways along Olivas Park Drive which has the potential to create additional bicycle-vehicle conflicts with the existing Class II facilities. The Project's access locations would be designed in compliance with City standards and safety requirements to provide adequate sight distance, warning signage, conflict striping, sidewalks, crosswalks, and pedestrian movement controls. Bicycle parking facilities would be provided on-site as part of the Project.

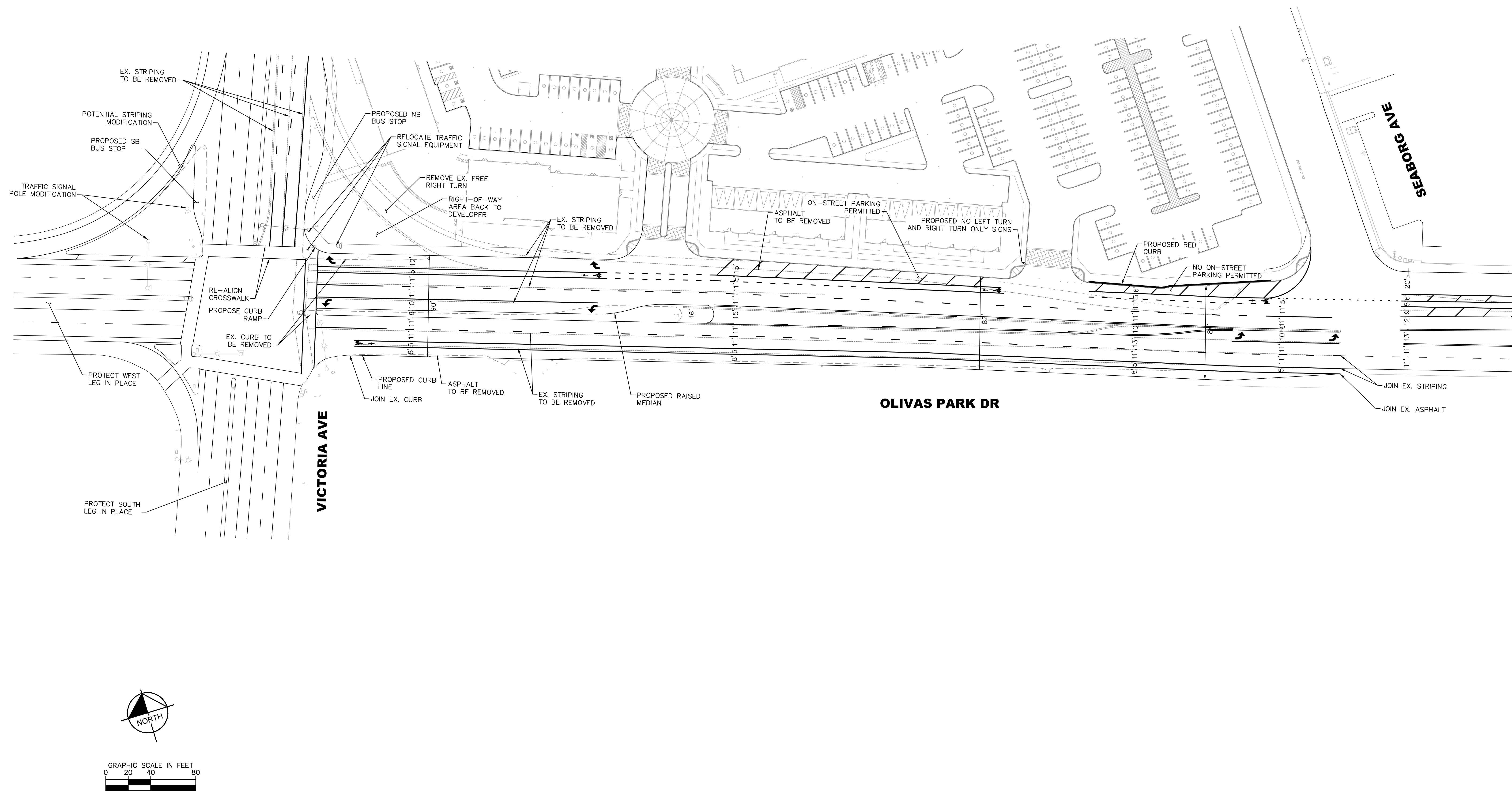


Figure 16 - Olivas Park Conceptual Plans

XI. Summary and Conclusions

This report documents the results of a Traffic Impact Assessment completed for the Project. The following summarizes the results of assessment:

Traffic Operation Analysis

- The traffic impact analysis includes an analysis of five (5) intersections which were selected as per discussions with the City.
- The Project is estimated to generate approximately 3,109 new daily trips, 171 new trips during the AM peak hour and 330 new trips during the PM peak hour.
- Weekday peak hour intersection analysis was conducted for six (6) scenarios including Existing (2023) without Project, Existing (2023) with Project, Future (Horizon) Year without Project conditions with Olivas Park Dr extension, Future (Horizon) Year without Project conditions without Olivas Park Dr extension, Future (Horizon) Year with Project conditions with Olivas Park Dr extension, Future (Horizon) Year with Project conditions without Olivas Park Dr extension.
- Under existing conditions, all intersections operate at LOS D or better during the AM and PM peak periods.
- Under existing conditions with Project, all intersections operate at LOS D or better during the AM and PM peak periods.
- Under Future (Horizon) Year without Project conditions without the Olivas Park Extension, similar to existing, all intersections would operate at LOS D or better during the AM and PM peak periods.
- Under Future (Horizon) Year with Project conditions without the Olivas Park Extension, similar to existing, all intersections would operate at LOS D or better during the AM and PM peak periods.
- Under Future (Horizon) Year without Project conditions with the Olivas Park Extension, all intersections would operate at LOS D or better during the AM and PM peak periods, except the intersection of Johnson Drive and US 101 SB ramps.
- Under Future (Horizon) Year with Project conditions with the Olivas Park Extension, all intersections would operate at LOS D or better during the AM and PM peak periods, except the intersection of Johnson Drive and US 101 SB ramps which is forecasted to operate at LOS F. The proposed Project is anticipated to result in an impact under horizon year with Project conditions for the intersection of Johnson Drive and US 101 southbound ramps. Because the Project increases the ICU by more than 0.01 from without Project to with Project conditions, the Project results in a significant impact at the Johnson Drive and US 101 southbound ramp intersection.
- To improve operations at the Johnson Drive and US 101 southbound ramp intersection, the City has recommended the installation of an additional northbound through lane on Johnson Drive.

City staff has indicated that the project approval will include a condition for the preparation of a design plan for these changes to be incorporated into the City's current design plans for the Olivas Park Drive Extension Project to accomplish this mitigation. The improvements will be constructed by the City as a part of the Olivas Park Drive Extension project, shown in **Appendix A**.

Traffic Signal Warrant

- The intersection meets Warrant 3, Peak Hour, under Opening Year (2028) conditions. Since the Opening Year (2028) without Project conditions meets the warrant, it can be assumed the Opening Year (2028) with Project conditions would meet the warrant. It should be noted that the ambient growth of traffic on Olivas Park Drive and Seaborg Avenue is the reason the warrant is met and not necessarily the construction of the Project.
- The Project will pay a 7.9% fair share percentage to implement the installation of a future traffic signal at the Olivas Park Drive and Seaborg Avenue intersection. City staff has indicated that the fair share dollar amount will be determined and included as a project condition.

VMT Analysis

- The Project proposes 266,914 square feet (SF) of residential living area will consist of 181 residential market rate units, 104 units of residential affordable housing, and 12 live-work units. The commercial space will consist of two buildings of restaurants and small commercial retail shops totaling 15,800 SF.
- The Project's retail component would screen out of further VMT analysis based on the local-serving nature and is presumed to have a less than significant transportation impact concerning VMT.
- The Project's residential component requires VMT analysis.
- The Countywide average VMT per capita for residential projects is 16.47. Therefore, the City's threshold of significance for new residential project development is 15-percent below the Countywide average, or 14.0 average VMT per capita.
- The residential component of the proposed Project is anticipated to result in a home-based VMT per capita of 16.6, which is greater than the City's threshold of significance. Therefore, the Project is expected to have a significant VMT impact if not mitigated.
- The mitigation measure is to reconstruct the north side of the Victoria Avenue and Olivas Park Drive intersection to provide the proposed bus stops for northbound and southbound transit service as well as pedestrian path of travel to the bus stop. This mitigation provides transit service to the residential component of the proposed Project; therefore, mitigating the VMT impact to below the significance threshold.

Sight Distance Analysis

- The Project proposes three driveways to access the Project Site. One full access driveway is provided along Seaborg Avenue and two driveways are proposed along Olivas Park Drive.

- The stopping sight distance along Seaborg Avenue is 250 feet based on the latest American Association of State Highway and Transportation Officials (AASHTO) guidelines, *A Policy on Geometric Design of Highways and Streets, 2018*.
- To provide a clear line of sight for vehicles exiting the Seaborg Avenue driveway, 195 feet of red curb north of the driveway and 145 feet of red curb south of the driveway is recommended.
- The stopping sight distance along Olivas Park Drive is 360 feet based on the latest American Association of State Highway and Transportation Officials (AASHTO) guidelines, *A Policy on Geometric Design of Highways and Streets, 2018*. No Parking restrictions along Olivas Park Drive are required.

Transit, Pedestrian, and Bicycle Facilities Assessment

- A conceptual plan was developed for Olivas Park Drive showing the updated layout of the northeast Project corner at Victoria Avenue and Olivas Park Drive. The conceptual plan re-design includes the removal of the free westbound right turn and shows improvements including re-striping, traffic signal modifications, curb ramp modifications, parking restrictions, and updated curb layouts.
- There is no existing transit service within one-quarter mile of the Project. The Project proposes new bus stops for Gold Coast Transit along Victoria Avenue adjacent to the Project site. The Project will construct a far-side bus stop at the intersection of S. Victoria Avenue and Olivas Park Drive for the northbound direction and a near-side bus stop for the southbound direction.
- There are no existing pedestrian facilities adjacent to the Project site. The Project would enhance pedestrian facilities by providing curb, gutter, and sidewalk directly adjacent to the Project site along Victoria Avenue (east side) leading to the new bus stop, Olivas Park Drive (north side), and Seaborg Avenue (west side), as well as reconstructing part of the intersection of Olivas Park Drive and Victoria Avenue.
- Class II bike lanes currently exist along the entirety of Olivas Park Drive and Victoria Avenue north of Olivas Park Drive. The Project will provide proper signing and striping to reduce the conflicts between vehicles and bicyclists at the two proposed driveways along Olivas Park Drive. The conceptual plan would retain the existing class II bike lanes along Olivas Park Drive but provide a new striping layout.

Appendix A – Approved Memorandum of Understanding

MEMORANDUM

To: Jeff Hereford, PE, TE
Chandra Chandrashaker
City of Ventura

From: Laura Forinash, PE, TE
Angelo Pastelin, EIT

Copy: Ron Wu, FPA Ventura Olivas LLC

Date: July 12, 2023

Subject: Victoria Avenue and Olivas Park Drive Mixed-Use Development – Memorandum of Understanding for Traffic Impact Assessment

INTRODUCTION

Kimley-Horn and Associates, Inc. (“Kimley-Horn”) was contracted by FPA Ventura Olivas LLC (“Client”) to prepare a Traffic Impact Assessment (TIA) for the proposed mixed-use development (“Project”) located at the northeast corner of Victoria Avenue and Olivas Park Drive in the City of Ventura (“City”). This document summarizes the scope of the TIA to be conducted by Kimley-Horn for the Project, which proposes to develop 245,675 square feet of stacked flat residential housing, 21,240 square feet of live/work housing, and 15,800 square feet of commercial/retail on a 14.44-acre site. This traffic study memorandum of understanding (MOU) will describe the requirements of the Vehicle Miles Traveled (VMT) and traffic operational analysis for the proposed Project.

PROJECT DESCRIPTION

The Project is proposing a mixed-use development consisting of residential and commercial space on an empty site that is currently zoned as mixed-use. The 266,914 square feet of residential living area will consist of 181 residential market rate units, 104 units of residential affordable housing, and 12 live-work units. The commercial space will consist of two buildings of restaurants and small shops totaling 15,800 square feet. The Project Opening Year is 2028. The Project site plan is shown in **Figure 1**.

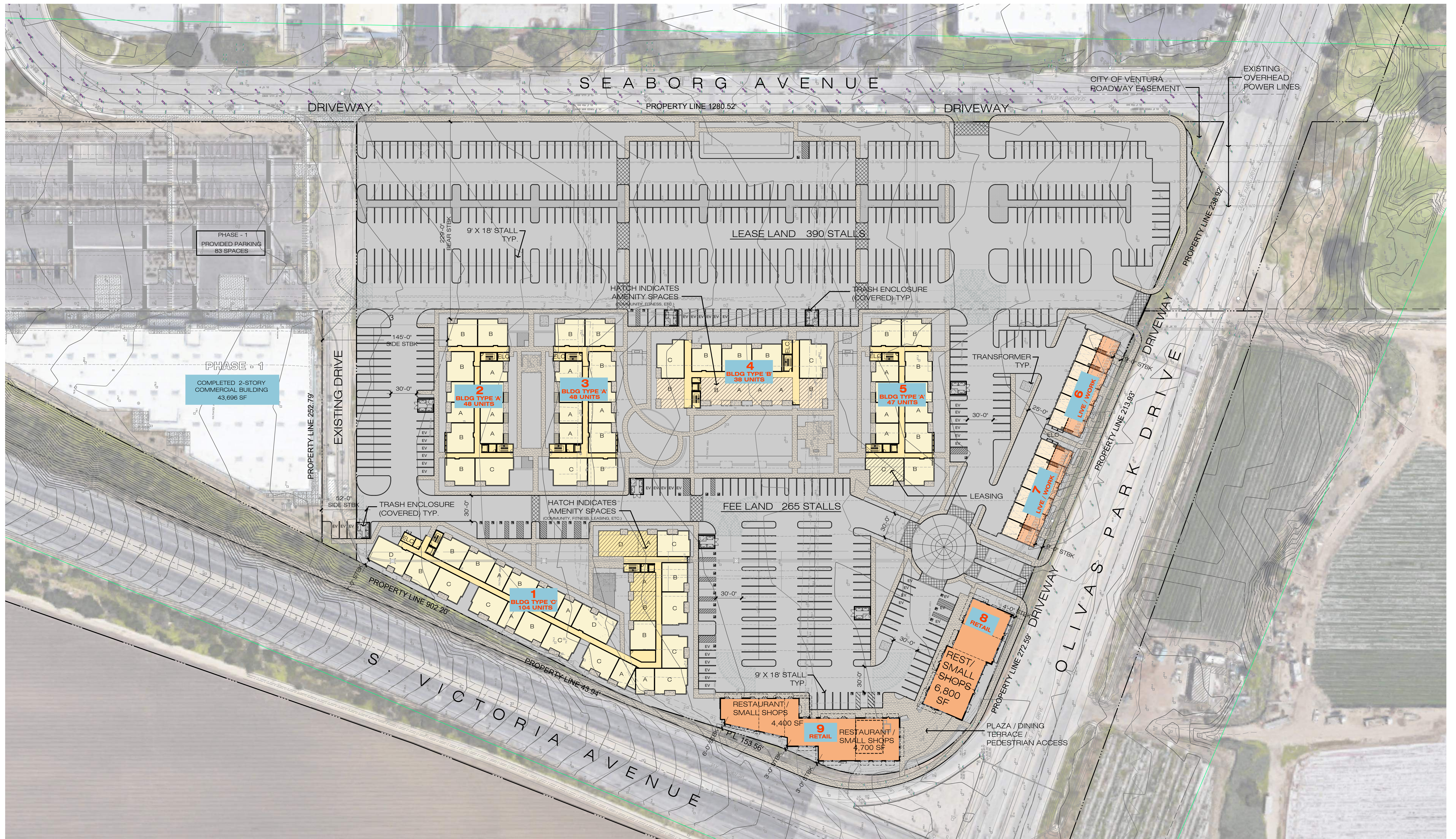


Figure 1 - Overall Site Plan

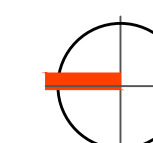
OVERALL SITE PLAN



RED TAIL ACQUISITIONS, LLC
COMMERCIAL REAL ESTATE INVESTMENTS

Ventura Mixed Use
VICTORIA CORPORATE CENTER, VENTURA, CA

scale 1" = 50'
0 50 100 150



WM WITHEE MALCOLM ARCHITECTS
A BSB DESIGN STUDIO
2251 west 190th street | torrance | ca 90504 | 310.217.8885 | witheemalcolm.com
Job No. MU210518.00 (B9054) Date 09.01.2022 00-02
License No. C 9049

TRAFFIC OPERATIONAL ANALYSIS

As requested by the City, the City's Ventura Traffic Analysis Model (VTAM) will be used for the traffic operational analysis; therefore, only intersections included in the VTAM model can be evaluated for operational impacts. Level of service (LOS) will be calculated using the Intersection Capacity Utilization (ICU) methodology for the five study intersections identified in next section. The ICU method is consistent with the City's 2005 Ventura General Plan. The intersection LOS analysis will be completed for the AM and PM weekday peak periods for the following scenarios and sub-scenarios for the Olivas Park Dr extension:

- Existing Year (2023) conditions
- Existing Year (2023) With Project conditions
- Future (Horizon) Year Without Project conditions With Olivas Park Dr extension
- Future (Horizon) Year Without Project conditions Without Olivas Park Dr extension
- Future (Horizon) Year With Project conditions With Olivas Park Dr extension
- Future (Horizon) Year With Project conditions Without Olivas Park Dr extension

As requested by the City, the future Olivas Park Drive extension from Perkin Avenue to Auto Center Drive will be included in the traffic operational analysis. The Project study area is shown in **Figure 2**. The VTAM intersection location map is shown in **Figure 3**.

STUDY AREA

The study area will include the following signalized intersections:

- Victoria Ave and US 101 Northbound Ramps
- Victoria Ave and Valentine Rd
- Victoria Ave and Olivas Park Dr
- Valentine Rd and US 101 Southbound Ramps
- Johnson Dr and US 101 Southbound Ramps

Two full access driveways are proposed on Seaborg Avenue and one right-in-right-out driveway is proposed on Olivas Park Drive. The traffic study will include a discussion regarding site circulation at the three Project driveways as well as internal vehicle circulation within the Project site.

METHODOLOGY

The City's VTAM model will be the basis of the traffic operational analysis. The traffic model incorporates the General Plan build-out year 2025 and will provide the Project's trip generation and future year volumes. The City's VTAM model will provide the ICU values for the five study intersections for the Future Year without Project conditions and with Project conditions. All Future Year scenarios will evaluate the impact of the Project with the Olivas Park Dr extension. For scenarios with the Olivas Park Drive extension, northbound traffic from Olivas Park Dr/Johnson Dr will be prohibited from turning left onto the US 101 southbound on-ramp.

For Existing Year conditions, Kimley-Horn will collect traffic volume counts at the five study intersections and calculate the ICU values for the peak hours. Existing traffic volume counts at the identified study intersections will be collected for the weekday morning (7 – 9 AM) and evening (4 – 6 PM) peak periods. If counts are collected during summer, a seasonal factor will be applied to the existing volumes to represent

typical traffic. Traffic volume data will include vehicles, pedestrians, and bicycle counts. The VTAM model will be calibrated to reflect existing conditions based on the traffic volume counts.

For Existing Year with Project conditions, Kimley-Horn will calculate the ICU by adding the ICU difference between Future Year with Project and Future Year without Project to the Existing Year baseline ICU. ICU values will be assigned a corresponding LOS based on **Table 2**. The City considers LOS D or better to be acceptable for City intersection. For the study intersections that fall within the CMP network, LOS E is acceptable.

Table 1: Intersection Level of Service Definitions

LOS	Interpretation	ICU (Volume-to-capacity ratio)
A	Excellent operation. All approaches to the intersection appear quite open, turning movements are easy and nearly all drivers find freedom of operation.	< 0.6
B	Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.	0.61 - 0.7
C	Good operation. Occasionally backups may develop behind turning vehicles. Most drivers feel somewhat restricted.	0.71 – 0.8
D	Fair operation. There are no long-standing traffic queues. This level is typically associated with design practice for peak periods.	0.81 – 0.9
E	Poor operation. Some long-standing vehicular queues develop on critical approaches.	0.91 – 1
F	Forced flow. Represents jammed conditions. Backups from locations downstream or on the cross street may restrict or prevent movements of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop-and-go type traffic flow.	> 1

Source: Highway Capacity Manual, 6th Edition

Based on the LOS analysis, the project impacts will be identified. Recommendations will be provided to mitigate the impact, as needed.



VICINITY MAP

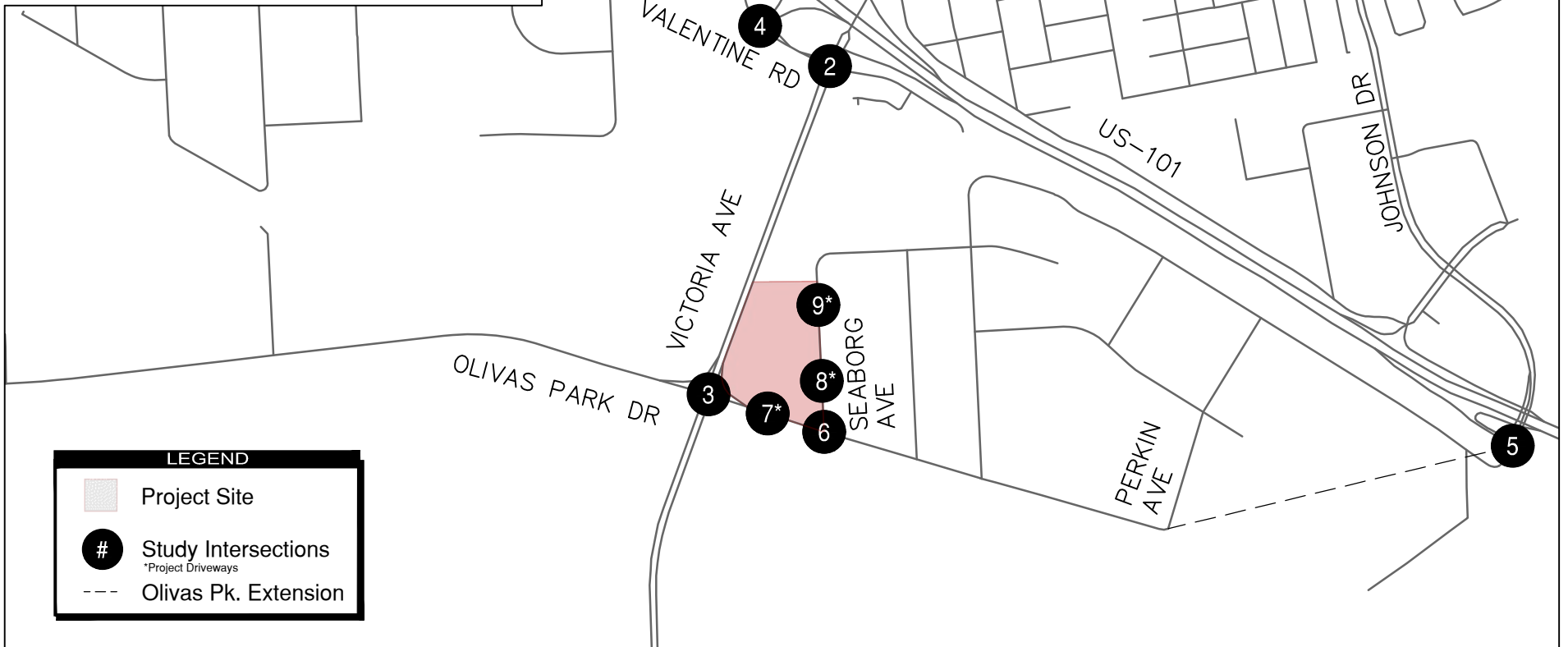
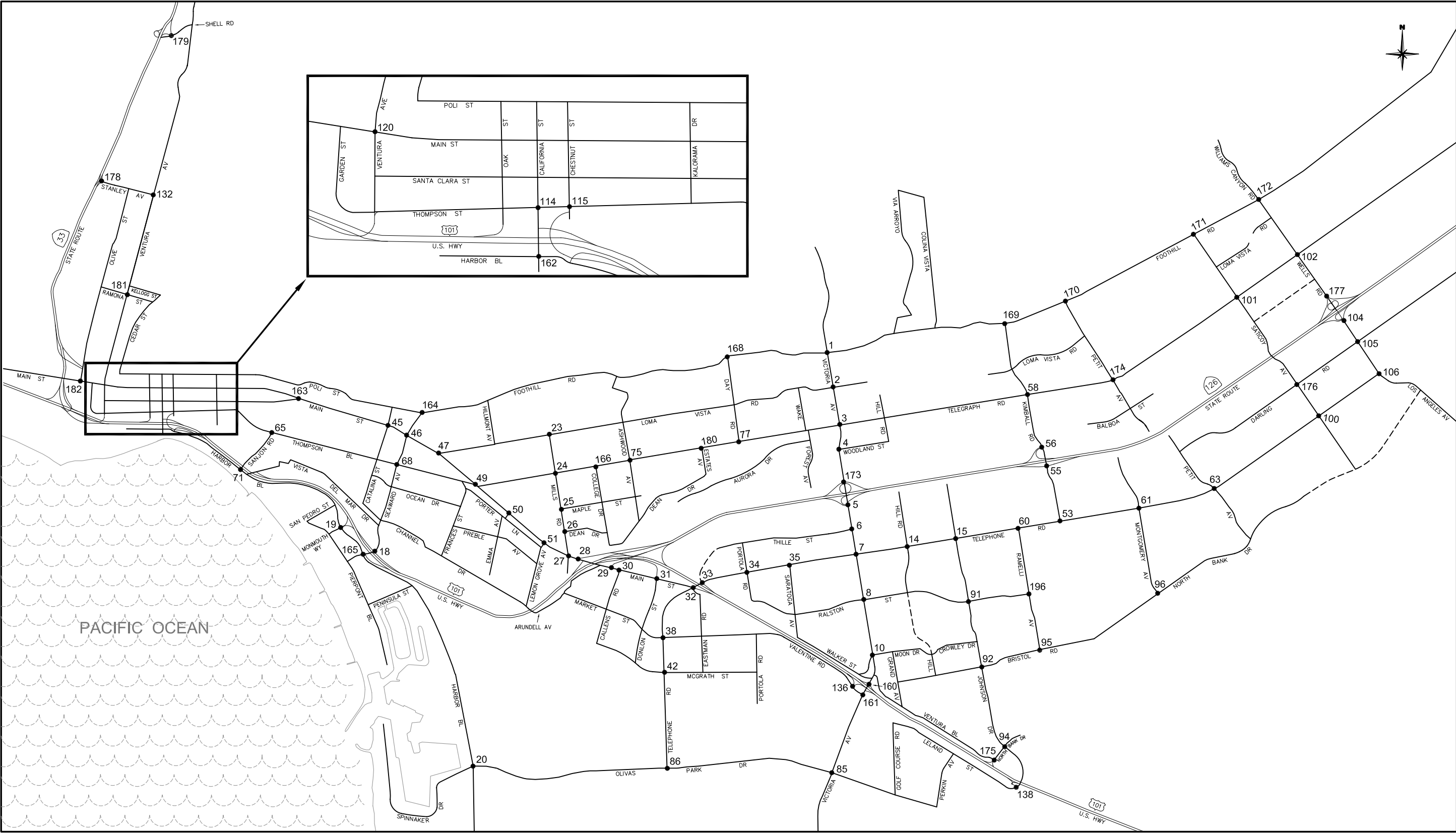


FIGURE 2 - STUDY AREA
VICTORIA AVE & OLIVAS PARK DR MIXED-USE SITE



Legend

Future Roadway

Figure 3-7

2025 INTERSECTION LOCATION MAP

TRAFFIC SIGNAL WARRANT

The traffic signal warrant analysis for Olivas Park Drive and Seaborg Avenue will be based on the criteria established in the latest California Manual for Uniform Traffic Control Devices (CA MUTCD) to determine the potential need for a traffic signal. 24-hour average daily traffic (ADT) bi-directional counts, bicycle and pedestrian counts, and intersection delay study data will be collected along Olivas Park Drive and Seaborg Avenue. Five-year collision data will be obtained from the City and the Statewide Integrated Traffic Records System (SWITRS).

SIGHT DISTANCE ANALYSIS

The sight distance analysis will be conducted for the three Project driveways. The analysis will determine the potential parking restrictions that will be needed as a part of the Project and will be based on the stopping sight distance criteria established in the latest American Association of State Highway and Transportation Officials (AASHTO) guidelines, *A Policy on Geometric Design of Highways and Streets, 2018*.

TRANSIT, PEDESTRIAN, AND BICYCLE FACILITIES ASSESSMENT

A pedestrian facilities assessment will include an internal circulation evaluation of pedestrian paths of travel within the project site. Access to and from the project site for pedestrians and bicyclists, as well as access to the proposed transit stops will also be evaluated.

Additionally, a discussion of transit service and headways for the existing transit facilities and the proposed transit stops at the intersection of Victoria Avenue and Olivas Park Drive will be included. Goldcoast Transit Route 21 provides existing service along Victoria Avenue with peak hour headways of approximately 30 minutes.

CEQA ANALYSIS - VMT SCREENING AND METHODOLOGY

The CEQA Analysis will document the study procedure, methodology, and results of the vehicle miles traveled (VMT) analysis. The City of Ventura is yet to adopt VMT guidelines; therefore, the state's Office of Planning and Research (OPR) Technical Advisory on *Evaluating Transportation Impacts in CEQA* (December 2018) will be used to provide guidance for the VMT analysis.

Because the Project is mixed-use, each land-use will be evaluated separately under their respective threshold and methodology. For the commercial portion of the proposed Project, a less than significant impact can be presumed because local-serving retail development tends to shorten trips and reduce VMT. For the residential portion of the Project, Kimley-Horn will calculate the Project's residential VMT (VMT/capita) using the Ventura County Transportation Model for the 2016 base year. If the Project's VMT/capita exceeds 15 percent below the citywide existing VMT/capita, the Project may have a significant transportation impact. The Project will propose transportation demand management measures to reduce the VMT/capita to below the 15 percent below the citywide existing VMT/capita.

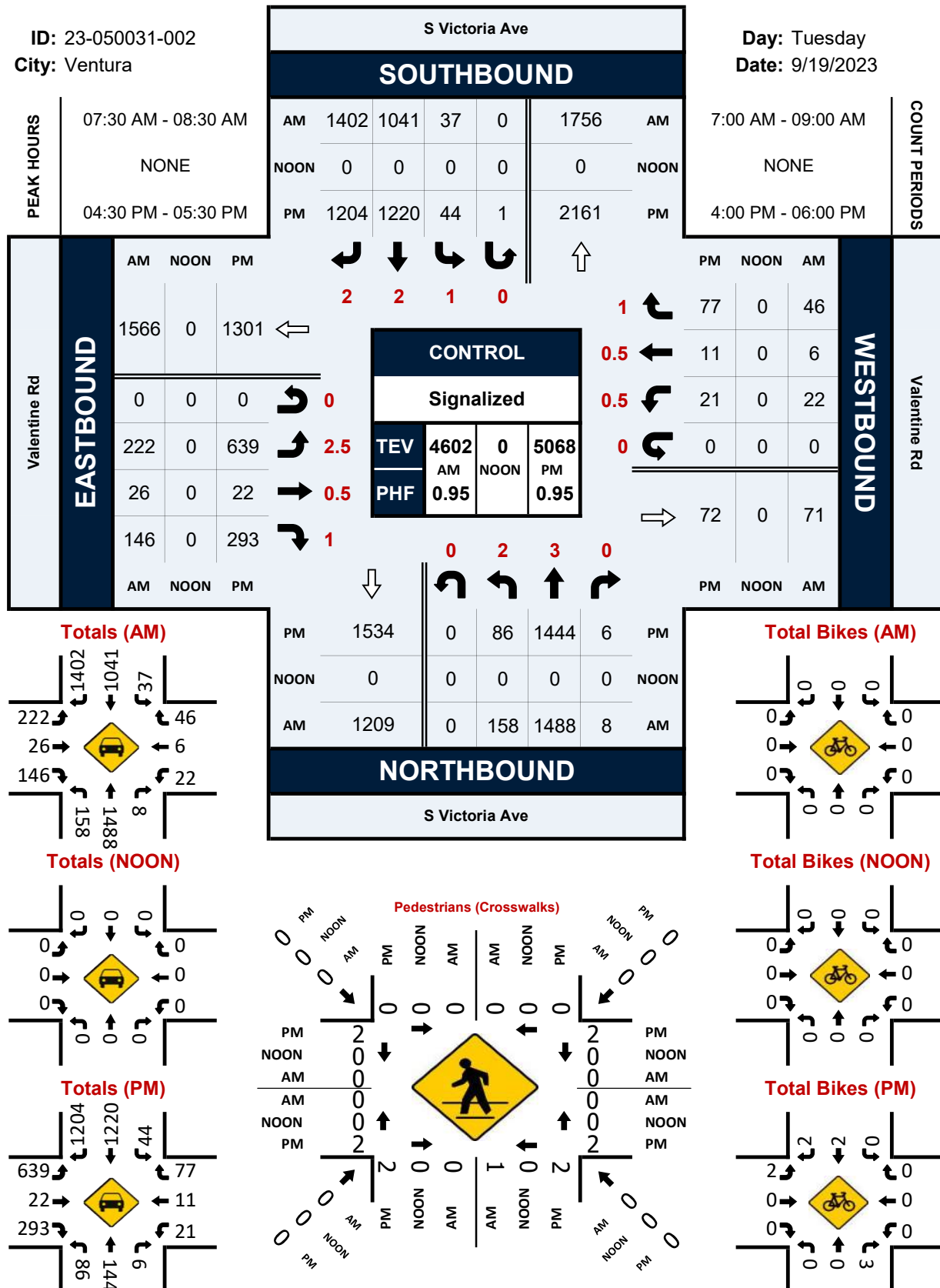
Appendix B - Turning Movement Counts and Average Daily Traffic Counts

S Victoria Ave & Valentine Rd

Peak Hour Turning Movement Count

ID: 23-050031-002
City: Ventura

Day: Tuesday
Date: 9/19/2023

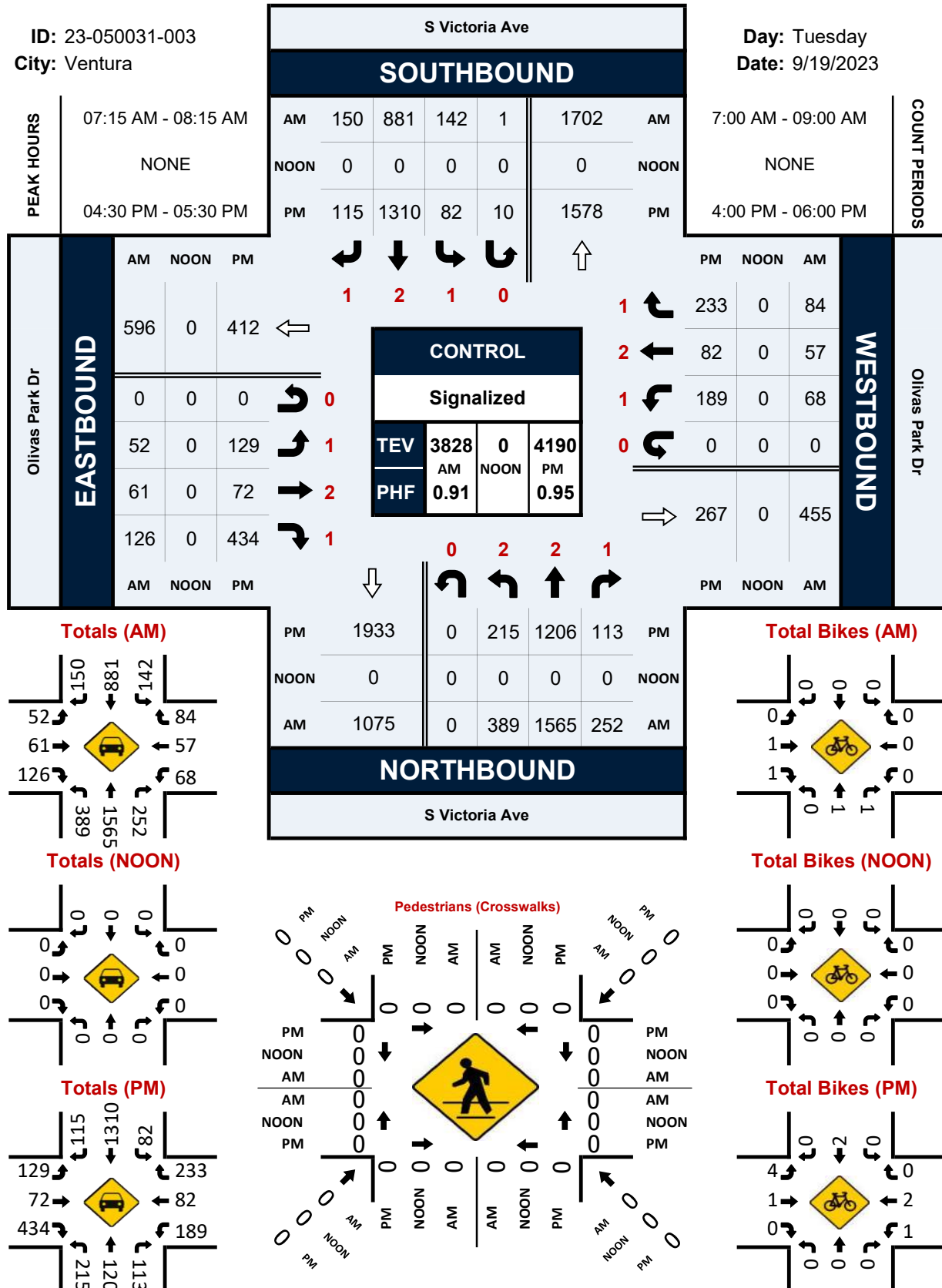


S Victoria Ave & Olivas Park Dr

Peak Hour Turning Movement Count

ID: 23-050031-003
City: Ventura

Day: Tuesday
Date: 9/19/2023

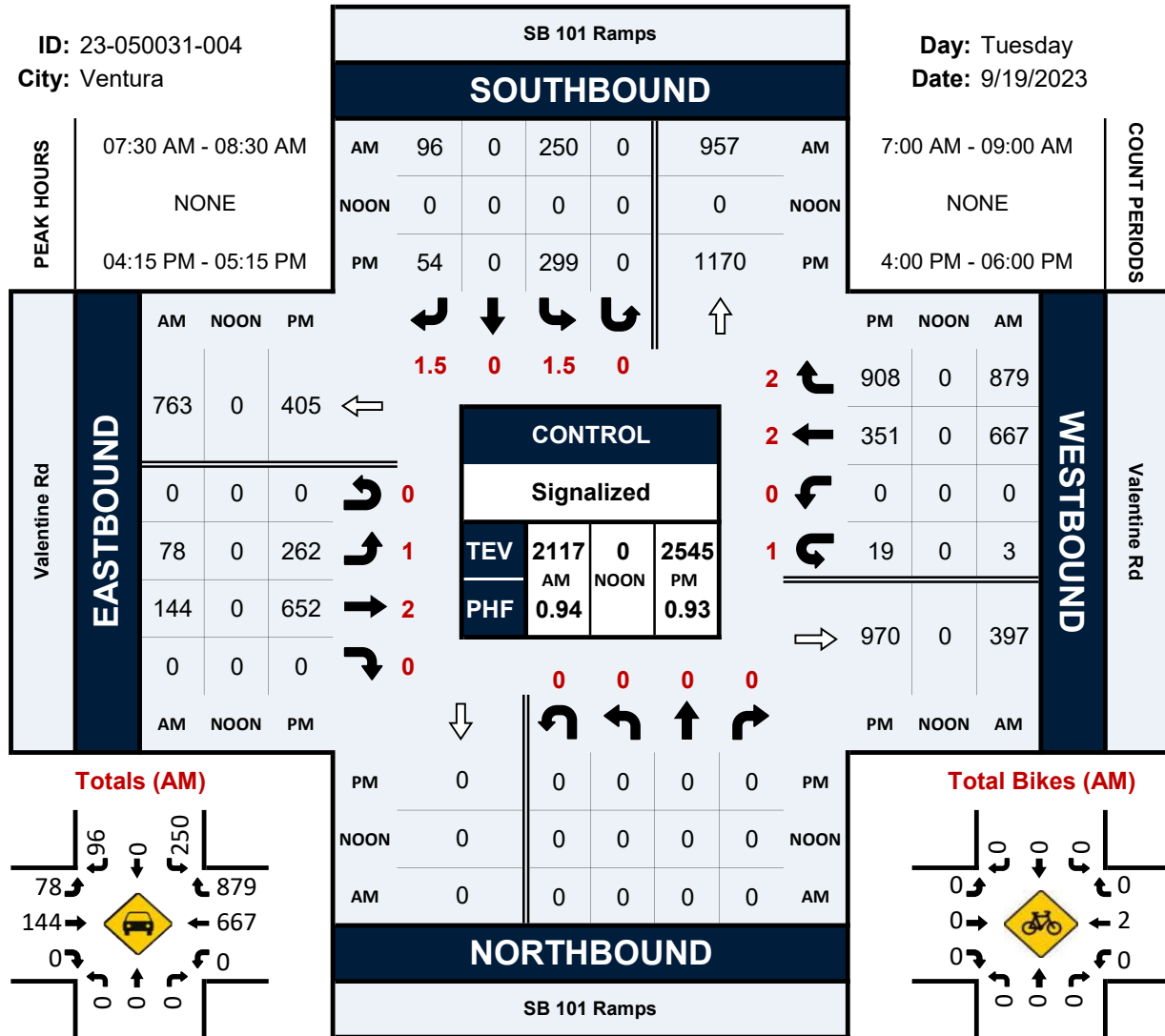


SB 101 Ramps & Valentine Rd

Peak Hour Turning Movement Count

ID: 23-050031-004
City: Ventura

Day: Tuesday
Date: 9/19/2023

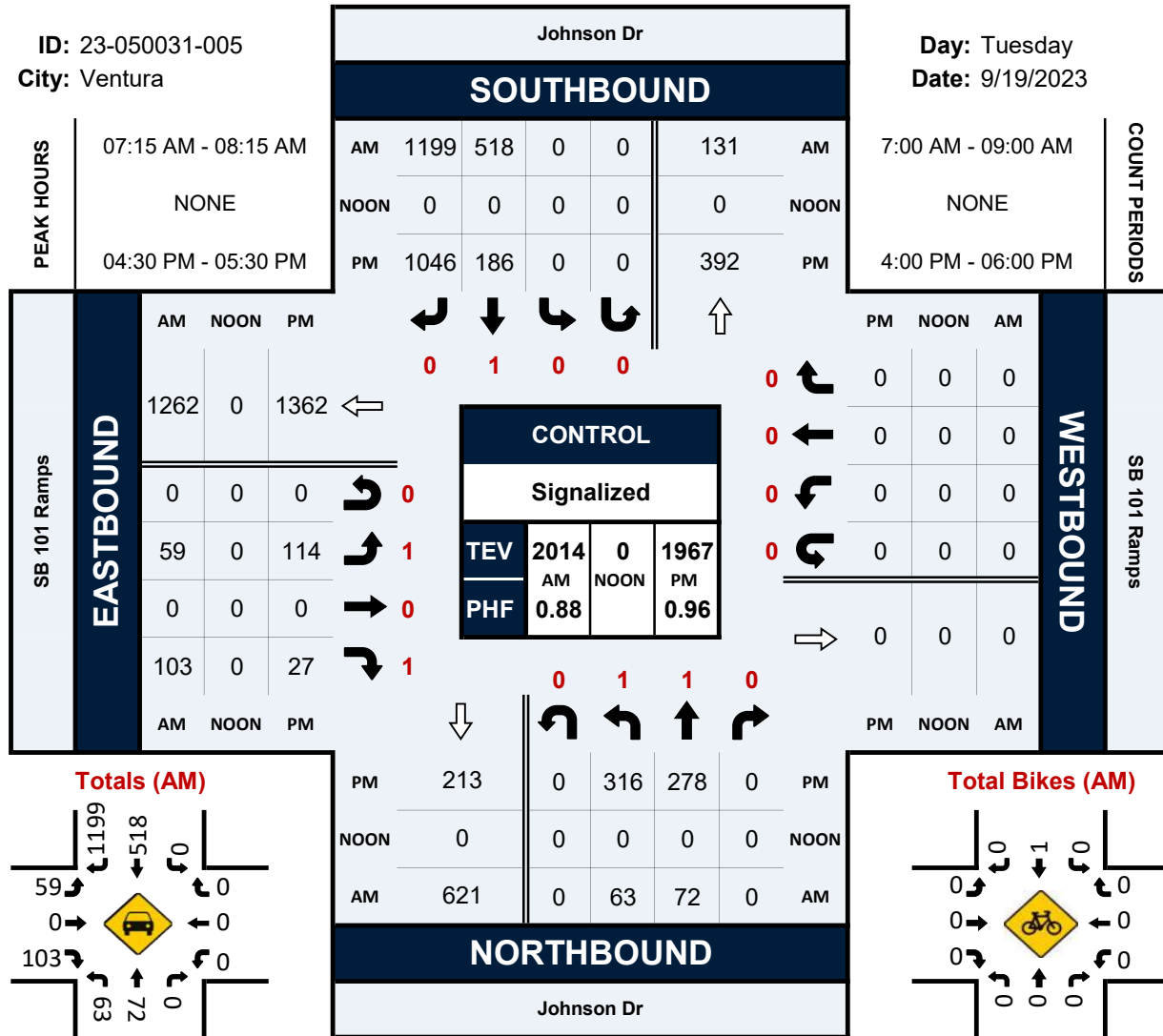


Johnson Dr & SB 101 Ramps

Peak Hour Turning Movement Count

ID: 23-050031-005
City: Ventura

Day: Tuesday
Date: 9/19/2023

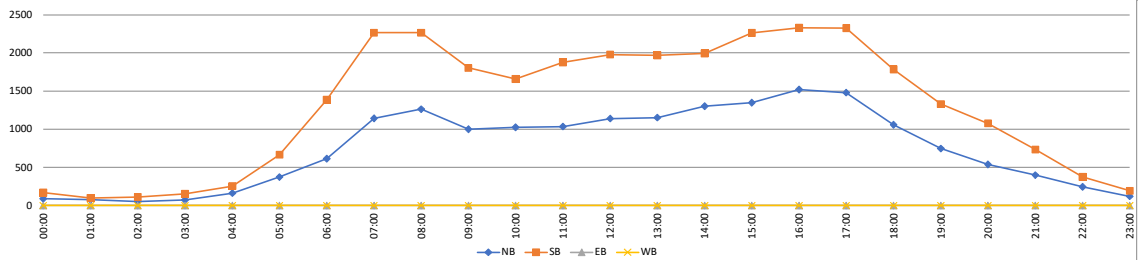


VOLUME**S Victoria Ave Bet. NB 101 Ramps & SB 101 Ramps**

Day: Tuesday
Date: 9/19/2023

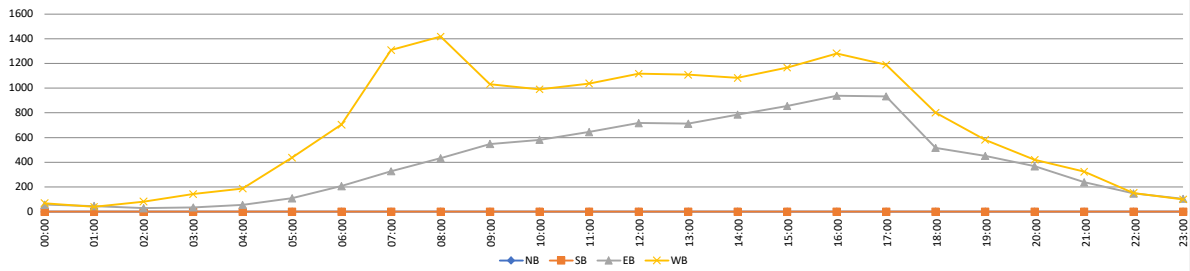
City: Ventura
Project #: CA23_050028_001

DAILY TOTALS						NB				SB				EB				WB				Total		DAILY TOTALS					
						17,944		31,052		0		0		48,996															
15-Minutes Interval												Hourly Intervals																	
TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL												
00:00	28	66			94	12:00	280	476			756	00:00	01:00	90	168		258												
00:15	30	40			70	12:15	313	505			818	01:00	02:00	75	97		172												
00:30	21	32			53	12:30	273	496			769	02:00	03:00	49	110		159												
00:45	11	30			41	12:45	273	502			775	03:00	04:00	71	152		223												
01:00	21	27			48	13:00	284	508			792	04:00	05:00	161	253		414												
01:15	22	25			47	13:15	296	496			792	05:00	06:00	373	665		1038												
01:30	16	20			36	13:30	256	448			704	06:00	07:00	612	1386		1998												
01:45	16	25			41	13:45	316	517			833	07:00	08:00	1141	2267		3408												
02:00	17	22			39	14:00	320	445			765	08:00	09:00	1263	2266		3529												
02:15	10	17			27	14:15	319	469			788	09:00	10:00	1000	1804		2804												
02:30	11	39			50	14:30	342	509			851	10:00	11:00	1024	1657		2681												
02:45	11	32			43	14:45	321	570			891	11:00	12:00	1035	1877		2912												
03:00	16	24			40	15:00	289	556			845	12:00	13:00	1139	1979		3118												
03:15	14	32			46	15:15	329	564			893	13:00	14:00	1152	1969		3121												
03:30	14	48			62	15:30	348	559			907	14:00	15:00	1302	1993		3295												
03:45	27	48			75	15:45	382	583			965	15:00	16:00	1348	2262		3610												
04:00	31	34			65	16:00	348	601			949	16:00	17:00	1521	2332		3853												
04:15	31	42			73	16:15	349	535			884	17:00	18:00	1479	2325		3804												
04:30	31	76			107	16:30	433	583			1016	18:00	19:00	1059	1784		2843												
04:45	68	101			169	16:45	391	613			1004	19:00	20:00	747	1330		2077												
05:00	60	84			144	17:00	397	684			1081	20:00	21:00	538	1076		1614												
05:15	76	127			203	17:15	392	594			986	21:00	22:00	399	733		1132												
05:30	119	172			291	17:30	369	585			954	22:00	23:00	245	374		619												
05:45	118	282			400	17:45	321	462			783	23:00	00:00	121	193		314												
06:00	126	245			371	18:00	281	507			788	STATISTICS																	
06:15	134	306			440	18:15	287	482			769	NB		SB	EB	WB	TOTAL												
06:30	167	377			544	18:30	263	425			688	Peak Period	00:00	to	12:00														
06:45	185	458			643	18:45	228	370			598	Volume	6894	12702			19596												
07:00	174	463			637	19:00	198	366			564	Peak Hour	7:30	7:30			7:30												
07:15	257	524			781	19:15	213	349			562	Peak Volume	1321	2465			3786												
07:30	337	655			992	19:30	182	317			499	Peak Hour Factor	0.885	0.941			0.948												
07:45	373	625			998	19:45	154	298			452	Peak Period	12:00	to	00:00														
08:00	322	583			905	20:00	153	273			426	Volume	11050	18350			29400												
08:15	289	602			891	20:15	138	224			362	Peak Hour	16:30	16:45			16:30												
08:30	309	555			864	20:30	148	310			458	Peak Volume	1613	2476			4087												
08:45	343	526			869	20:45	99	269			368	Peak Hour Factor	0.931	0.905			0.945												
09:00	245	482			727	21:00	125	236			361	Peak Period	07:00	to	09:00														
09:15	237	451			688	21:15	115	182			297	Volume	2404	4533			6937												
09:30	229	382			611	21:30	93	154			247	Peak Hour	7:30	7:30			7:30												
09:45	289	489			778	21:45	66	161			227	Peak Volume	1321	2465			3786												
10:00	233	380			613	22:00	90	117			207	Peak Hour Factor	0.885	0.941			0.948												
10:15	259	445			704	22:15	52	108			160	Peak Period	16:00	to	18:00														
10:30	245	428			673	22:30	52	73			125	Volume	3000	4657			7657												
10:45	287	404			691	22:45	51	76			127	Peak Hour	16:30	16:45			16:30												
11:00	232	469			701	23:00	43	62			105	Peak Volume	1613	2476			4087												
11:15	257	493			750	23:15	32	54			86	Peak Hour Factor	0.931	0.905			0.945												
11:30	252	458			710	23:30	27	45			72																		
11:45	294	457			751	23:45	19	32			51																		
TOTALS	6894	12702	0	0	19596	TOTALS	11050	18350	0	0	29400																		
SPLIT %	35%	65%	0%	0%	40%	SPLIT %	38%	62%	0%	0%	60%																		



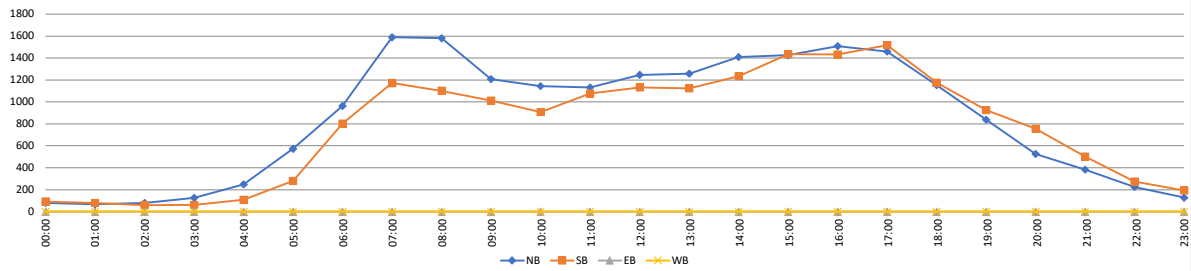
VOLUME**Valentine Rd Bet. S Victoria Ave & SB 101 Ramps**Day: Tuesday
Date: 9/19/2023City: Ventura
Project #: CA23_050028_002

DAILY TOTALS						NB	SB	EB	WB	Total	DAILY TOTALS						
						0	0	9,849	16,785	26,634							
15-Minutes Interval											Hourly Intervals						
TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL
00:00			15	24	39	12:00			196	247	443	00:00 01:00			57	69	126
00:15			18	18	36	12:15			195	282	477	01:00 02:00			46	40	86
00:30			12	19	31	12:30			160	288	448	02:00 03:00			29	82	111
00:45			12	8	20	12:45			167	301	468	03:00 04:00			34	143	177
01:00			10	10	20	13:00			199	292	491	04:00 05:00			55	188	243
01:15			20	8	28	13:15			166	278	444	05:00 06:00			109	438	547
01:30			8	9	17	13:30			188	248	436	06:00 07:00			207	705	912
01:45			8	13	21	13:45			160	291	451	07:00 08:00			327	1309	1636
02:00			6	11	17	14:00			203	243	446	08:00 09:00			434	1418	1852
02:15			7	9	16	14:15			165	240	405	09:00 10:00			549	1033	1582
02:30			8	30	38	14:30			227	300	527	10:00 11:00			582	991	1573
02:45			8	32	40	14:45			191	300	491	11:00 12:00			645	1038	1683
03:00			13	21	34	15:00			200	301	501	12:00 13:00			718	1118	1836
03:15			3	32	35	15:15			224	292	516	13:00 14:00			713	1109	1822
03:30			10	50	60	15:30			242	267	509	14:00 15:00			786	1083	1869
03:45			8	40	48	15:45			190	306	496	15:00 16:00			856	1166	2022
04:00			9	20	29	16:00			257	315	572	16:00 17:00			939	1282	2221
04:15			14	32	46	16:15			217	309	526	17:00 18:00			935	1191	2126
04:30			13	62	75	16:30			266	321	587	18:00 19:00			517	802	1319
04:45			19	74	93	16:45			199	337	536	19:00 20:00			452	582	1034
05:00			19	69	88	17:00			258	332	590	20:00 21:00			368	422	790
05:15			14	74	88	17:15			235	289	524	21:00 22:00			239	324	563
05:30			34	116	150	17:30			249	315	564	22:00 23:00			148	152	300
05:45			42	179	221	17:45			193	255	448	23:00 00:00			104	100	204
06:00			35	132	167	18:00			132	219	351	STATISTICS					
06:15			52	163	215	18:15			134	200	334		NB	SB	EB	WB	TOTAL
06:30			53	172	225	18:30			131	204	335	Peak Period	00:00 to 12:00				
06:45			67	238	305	18:45			120	179	299	Volume					10528
07:00			70	242	312	19:00			125	181	306	Peak Hour	11:00 7:30				7:45
07:15			71	271	342	19:15			122	151	273	Peak Volume	645 1530				1939
07:30			88	381	469	19:30			104	136	240	Peak Hour Factor	0.783 0.922				0.945
07:45			98	415	513	19:45			101	114	215	Peak Period	12:00 to 00:00				
08:00			96	366	462	20:00			96	98	194	Volume					16106
08:15			111	368	479	20:15			107	85	192	Peak Hour	16:30 16:15				16:15
08:30			130	355	485	20:30			92	128	220	Peak Volume	958 1299				2239
08:45			97	329	426	20:45			73	111	184	Peak Hour Factor	0.900 0.964				0.949
09:00			139	303	442	21:00			78	112	190	Peak Period	07:00 to 09:00				
09:15			112	245	357	21:15			66	73	139	Volume					3488
09:30			154	223	377	21:30			46	64	110	Peak Hour	7:45 7:30				7:45
09:45			144	262	406	21:45			49	75	124	Peak Volume	435 1530				1939
10:00			134	221	355	22:00			57	48	105	Peak Hour Factor	0.837 0.922				0.945
10:15			154	276	430	22:15			36	46	82	Peak Period	16:00 to 18:00				
10:30			134	242	376	22:30			29	32	61	Volume					4347
10:45			160	252	412	22:45			26	26	52	Peak Hour	16:30 16:15				16:15
11:00			141	270	411	23:00			36	34	70	Peak Volume	958 1299				2239
11:15			137	262	399	23:15			30	22	52	Peak Hour Factor	0.900 0.964				0.949
11:30			161	266	427	23:30			25	24	49						
11:45			206	240	446	23:45			13	20	33						
TOTALS	0	0	3074	7454	10528	TOTALS	0	0	6775	9331	16106						
SPLIT %	0%	0%	29%	71%	40%	SPLIT %	0%	0%	42%	58%	60%						



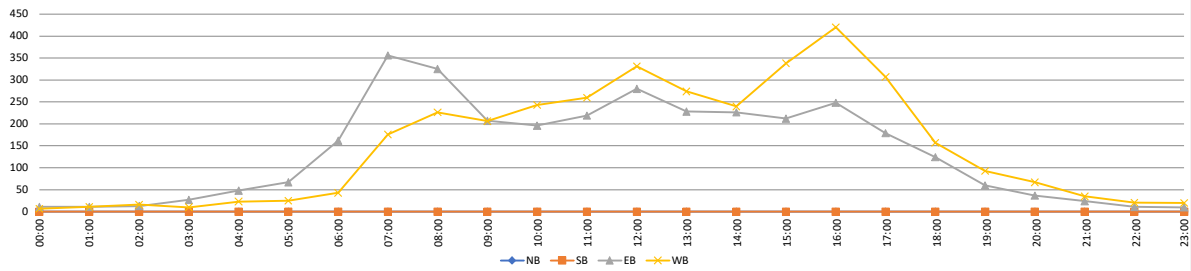
VOLUME**S Victoria Ave Bet. Valentine Rd & Olivas Park Dr**Day: Tuesday
Date: 9/19/2023City: Ventura
Project #: CA23_050028_003

DAILY TOTALS						NB		SB		EB		WB		Total	DAILY TOTALS							
						20,351		18,460		0		0		38,811								
15-Minutes Interval													Hourly Intervals									
TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL					
00:00	22	29			51	12:00	274	282			556	00:00	01:00	80	93		173					
00:15	27	27			54	12:15	333	292			625	01:00	02:00	67	79		146					
00:30	16	20			36	12:30	315	289			604	02:00	03:00	80	60		140					
00:45	15	17			32	12:45	325	270			595	03:00	04:00	126	62		188					
01:00	17	23			40	13:00	283	272			555	04:00	05:00	248	108		356					
01:15	17	27			44	13:15	317	273			590	05:00	06:00	574	282		856					
01:30	14	12			26	13:30	297	291			588	06:00	07:00	964	804		1768					
01:45	19	17			36	13:45	360	287			647	07:00	08:00	1589	1172		2761					
02:00	20	15			35	14:00	339	301			640	08:00	09:00	1580	1101		2681					
02:15	12	13			25	14:15	367	272			639	09:00	10:00	1207	1012		2219					
02:30	20	16			36	14:30	333	304			637	10:00	11:00	1144	908		2052					
02:45	28	16			44	14:45	370	357			727	11:00	12:00	1131	1078		2209					
03:00	23	14			37	15:00	288	372			660	12:00	13:00	1247	1133		2380					
03:15	22	8			30	15:15	369	348			717	13:00	14:00	1257	1123		2380					
03:30	41	18			59	15:30	372	398			770	14:00	15:00	1409	1234		2643					
03:45	40	22			62	15:45	396	318			714	15:00	16:00	1425	1436		2861					
04:00	36	14			50	16:00	368	375			743	16:00	17:00	1508	1432		2940					
04:15	49	24			73	16:15	350	334			684	17:00	18:00	1459	1517		2976					
04:30	55	31			86	16:30	403	368			771	18:00	19:00	1154	1174		2328					
04:45	108	39			147	16:45	387	355			742	19:00	20:00	837	926		1763					
05:00	97	31			128	17:00	385	434			819	20:00	21:00	526	756		1282					
05:15	132	52			184	17:15	392	382			774	21:00	22:00	384	503		887					
05:30	146	75			221	17:30	341	382			723	22:00	23:00	227	273		500					
05:45	199	124			323	17:45	341	319			660	23:00	00:00	128	194		322					
06:00	185	122			307	18:00	297	305			602	STATISTICS										
06:15	238	170			408	18:15	321	333			654			NB	SB	EB	WB	TOTAL				
06:30	262	242			504	18:30	280	276			556	Peak Period	00:00	to	12:00							
06:45	279	270			549	18:45	256	260			516	Volume	8790	6759				15549				
07:00	308	267			575	19:00	245	245			490	Peak Hour	7:15	7:30				7:30				
07:15	363	290			653	19:15	228	238			466	Peak Volume	1675	1191				2859				
07:30	446	325			771	19:30	216	232			448	Peak Hour Factor	0.887	0.916				0.927				
07:45	472	290			762	19:45	148	211			359	Peak Period	12:00	to	00:00							
08:00	394	277			671	20:00	157	210			367	Volume	11561	11701				23262				
08:15	356	299			655	20:15	138	169			307	Peak Hour	16:30	16:45				16:30				
08:30	387	287			674	20:30	136	197			333	Peak Volume	1567	1553				3106				
08:45	443	238			681	20:45	95	180			275	Peak Hour Factor	0.972	0.895				0.948				
09:00	284	260			544	21:00	112	157			269	Peak Period	07:00	to	09:00							
09:15	306	267			573	21:15	108	129			237	Volume	3169	2273				5442				
09:30	287	227			514	21:30	101	105			206	Peak Hour	7:15	7:30				7:30				
09:45	330	258			588	21:45	63	112			175	Peak Volume	1675	1191				2859				
10:00	263	224			487	22:00	82	85			167	Peak Hour Factor	0.887	0.916				0.927				
10:15	298	235			533	22:15	52	79			131	Peak Period	16:00	to	18:00							
10:30	273	235			508	22:30	55	57			112	Volume	2967	2949				5916				
10:45	310	214			524	22:45	38	52			90	Peak Hour	16:30	16:45				16:30				
11:00	276	270			546	23:00	40	59			99	Peak Volume	1567	1553				3106				
11:15	297	280			577	23:15	21	54			75	Peak Hour Factor	0.972	0.895				0.948				
11:30	274	252			526	23:30	38	51			89											
11:45	284	276			560	23:45	29	30			59											
TOTALS	8790	6759	0	0	15549	TOTALS	11561	11701	0	0	23262											
SPLIT %	57%	43%	0%	0%	40%	SPLIT %	50%	50%	0%	0%	60%											



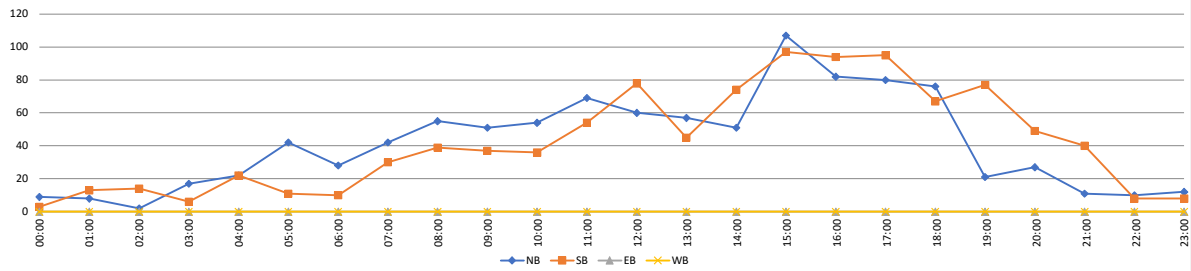
VOLUME**Olivas Park Dr E/O Seaborg Ave**Day: Tuesday
Date: 9/19/2023City: Ventura
Project #: CA23_050028_004

DAILY TOTALS						NB				SB				EB				WB				Total				DAILY TOTALS					
						0				0				3,281				3,549				6,830									
15-Minutes Interval														Hourly Intervals																	
TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL														
00:00			7	1	8	12:00			72	94	166	00:00 01:00			11	7	18														
00:15			0	2	2	12:15			78	87	165	01:00 02:00			11	11	22														
00:30			4	3	7	12:30			74	74	148	02:00 03:00			13	16	29														
00:45			0	1	1	12:45			56	76	132	03:00 04:00			27	10	37														
01:00			0	2	2	13:00			57	58	115	04:00 05:00			48	23	71														
01:15			5	5	10	13:15			66	80	146	05:00 06:00			67	25	92														
01:30			4	3	7	13:30			50	70	120	06:00 07:00			162	43	205														
01:45			2	1	3	13:45			55	66	121	07:00 08:00			356	176	532														
02:00			3	12	15	14:00			55	71	126	08:00 09:00			325	226	551														
02:15			2	0	2	14:15			57	57	114	09:00 10:00			207	206	413														
02:30			2	3	5	14:30			54	52	106	10:00 11:00			196	243	439														
02:45			6	1	7	14:45			60	60	120	11:00 12:00			219	260	479														
03:00			5	3	8	15:00			60	61	121	12:00 13:00			280	331	611														
03:15			4	1	5	15:15			53	63	116	13:00 14:00			228	274	502														
03:30			8	4	12	15:30			45	127	172	14:00 15:00			226	240	466														
03:45			10	2	12	15:45			54	87	141	15:00 16:00			212	338	550														
04:00			11	10	21	16:00			62	102	164	16:00 17:00			248	420	668														
04:15			4	2	6	16:15			72	72	144	17:00 18:00			179	307	486														
04:30			6	3	9	16:30			49	149	198	18:00 19:00			124	157	281														
04:45			27	8	35	16:45			65	97	162	19:00 20:00			60	93	153														
05:00			19	4	23	17:00			46	98	144	20:00 21:00			37	67	104														
05:15			4	7	11	17:15			55	82	137	21:00 22:00			24	35	59														
05:30			9	4	13	17:30			47	79	126	22:00 23:00			11	21	32														
05:45			35	10	45	17:45			31	48	79	23:00 00:00			10	20	30														
06:00			19	9	28	18:00			34	44	78	STATISTICS																			
06:15			30	10	40	18:15			40	35	75								NB	SB	EB	WB	TOTAL								
06:30			40	11	51	18:30			21	48	69	Peak Period	00:00 to 12:00																		
06:45			73	13	86	18:45			29	30	59	Volume			1642	1246	2888														
07:00			75	41	116	19:00			22	26	48	Peak Hour			7:30	11:00	7:45														
07:15			64	51	115	19:15			18	17	35	Peak Volume			400	260	602														
07:30			84	38	122	19:30			14	27	41	Peak Hour Factor			0.752	0.890	0.841														
07:45			133	46	179	19:45			6	23	29																				
08:00			117	53	170	20:00			12	26	38							Peak Period	12:00 to 00:00												
08:15			66	50	116	20:15			12	14	26	Volume			1639	2303	3942														
08:30			71	66	137	20:30			9	10	19	Peak Hour			12:00	16:30	16:00														
08:45			71	57	128	20:45			4	17	21	Peak Volume			280	426	668														
09:00			62	44	106	21:00			7	16	23	Peak Hour Factor			0.897	0.715	0.843														
09:15			57	51	108	21:15			6	7	13																				
09:30			43	61	104	21:30			5	4	9							Peak Period	07:00 to 09:00												
09:45			45	50	95	21:45			6	8	14	Volume			681	402	1083														
10:00			48	62	110	22:00			3	5	8	Peak Hour			7:30	8:00	7:45														
10:15			42	60	102	22:15			4	8	12	Peak Volume			400	226	602														
10:30			55	54	109	22:30			2	4	6	Peak Hour Factor			0.752	0.856	0.841														
10:45			51	67	118	22:45			2	4	6																				
11:00			52	57	109	23:00			5	1	6							Peak Period	16:00 to 18:00												
11:15			43	60	103	23:15			1	4	5	Volume			427	727	1154														
11:30			50	73	123	23:30			2	10	12	Peak Hour			16:00	16:30	16:00														
11:45			74	70	144	23:45			2	5	7	Peak Volume			248	426	668														
TOTALS	0	0	1642	1246	2888	TOTALS	0	0	1639	2303	3942	Peak Hour Factor			0.861	0.715	0.843														
SPLIT %	0%	0%	57%	43%	42%	SPLIT %	0%	0%	42%	58%	58%																				



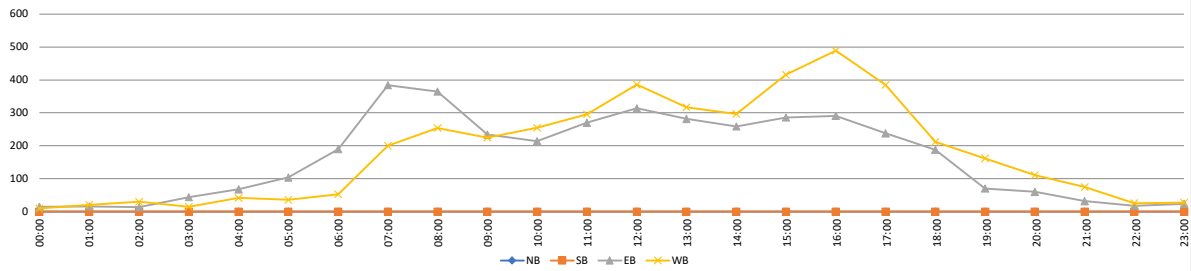
VOLUME**Seaborg Ave N/O Olivas Park Dr**Day: Tuesday
Date: 9/19/2023City: Ventura
Project #: CA23_050028_005

DAILY TOTALS						NB				SB				EB				WB				Total		DAILY TOTALS					
						993		1,007		0		0		2,000															
15-Minutes Interval												Hourly Intervals																	
TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL												
00:00	2	0			2	12:00	18	23			41	00:00	01:00	9	3		12												
00:15	2	1			3	12:15	18	13			31	01:00	02:00	8	13		21												
00:30	2	1			3	12:30	14	32			46	02:00	03:00	2	14		16												
00:45	3	1			4	12:45	10	10			20	03:00	04:00	17	6		23												
01:00	3	2			5	13:00	20	15			35	04:00	05:00	22	22		44												
01:15	2	3			5	13:15	19	8			27	05:00	06:00	42	11		53												
01:30	1	2			3	13:30	9	10			19	06:00	07:00	28	10		38												
01:45	2	6			8	13:45	9	12			21	07:00	08:00	42	30		72												
02:00	0	11			11	14:00	15	23			38	08:00	09:00	55	39		94												
02:15	0	2			2	14:15	13	16			29	09:00	10:00	51	37		88												
02:30	0	1			1	14:30	9	23			32	10:00	11:00	54	36		90												
02:45	2	0			2	14:45	14	12			26	11:00	12:00	69	54		123												
03:00	2	1			3	15:00	20	14			34	12:00	13:00	60	78		138												
03:15	4	2			6	15:15	50	19			69	13:00	14:00	57	45		102												
03:30	4	1			5	15:30	16	45			61	14:00	15:00	51	74		125												
03:45	7	2			9	15:45	21	19			40	15:00	16:00	107	97		204												
04:00	3	6			9	16:00	17	26			43	16:00	17:00	82	94		176												
04:15	2	7			9	16:15	26	14			40	17:00	18:00	80	95		175												
04:30	5	4			9	16:30	24	36			60	18:00	19:00	76	67		143												
04:45	12	5			17	16:45	15	18			33	19:00	20:00	21	77		98												
05:00	9	5			14	17:00	13	28			41	20:00	21:00	27	49		76												
05:15	9	3			12	17:15	18	17			35	21:00	22:00	11	40		51												
05:30	4	1			5	17:30	20	32			52	22:00	23:00	10	8		18												
05:45	20	2			22	17:45	29	18			47	23:00	00:00	12	8		20												
06:00	4	5			9	18:00	20	29			49	STATISTICS																	
06:15	3	0			3	18:15	24	5			29																		
06:30	5	5			10	18:30	16	18			34	Peak Period	00:00	to	12:00														
06:45	16	0			16	18:45	16	15			31	Volume	399	275			674												
07:00	9	7			16	19:00	7	48			55	Peak Hour	11:00	11:00			11:00												
07:15	9	5			14	19:15	9	12			21	Peak Volume	69	54			123												
07:30	8	9			17	19:30	3	6			9	Peak Hour Factor	0.863	0.844			0.904												
07:45	16	9			25	19:45	2	11			13	Peak Period	12:00	to	00:00														
08:00	20	5			25	20:00	8	14			22	Volume	594	732			1326												
08:15	11	12			23	20:15	11	5			16	Peak Hour	15:00	15:15			15:15												
08:30	15	10			25	20:30	5	25			30	Peak Volume	107	109			213												
08:45	9	12			21	20:45	3	5			8	Peak Hour Factor	0.535	0.606			0.772												
09:00	13	12			25	21:00	3	9			12	Peak Period	07:00	to	09:00														
09:15	15	9			24	21:15	4	7			11	Volume	97	69			166												
09:30	12	7			19	21:30	3	14			17	Peak Hour	7:45	8:00			7:45												
09:45	11	9			20	21:45	1	10			11	Peak Volume	62	39			98												
10:00	10	11			21	22:00	2	1			3	Peak Hour Factor	0.775	0.813			0.980												
10:15	14	5			19	22:15	4	2			6	Peak Period	16:00	to	18:00														
10:30	19	10			29	22:30	3	3			6	Volume	162	189			351												
10:45	11	10			21	22:45	1	2			3	Peak Hour	16:00	16:30			16:00												
11:00	18	12			30	23:00	3	2			5	Peak Volume	82	99			176												
11:15	20	14			34	23:15	2	3			5	Peak Hour Factor	0.788	0.688			0.733												
11:30	16	16			32	23:30	5	3			8																		
11:45	15	12			27	23:45	2	0			2																		
TOTALS	399	275	0	0	674	TOTALS	594	732	0	0	1326																		
SPLIT %	59%	41%	0%	0%	34%	SPLIT %	45%	55%	0%	0%	66%																		



VOLUME**Olivas Park Dr W/O Seaborg Ave**Day: Tuesday
Date: 9/19/2023City: Ventura
Project #: CA23_050029_001

DAILY TOTALS						NB	SB	EB	WB	Total	DAILY TOTALS							
						0	0	3,980	4,341	8,321								
15-Minutes Interval											Hourly Intervals							
TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL	
00:00			6	3	9	12:00			83	105	188	00:00 01:00			15	10	25	
00:15			2	2	4	12:15			90	99	189	01:00 02:00			16	21	37	
00:30			4	3	7	12:30			79	99	178	02:00 03:00			14	30	44	
00:45			3	2	5	12:45			62	83	145	03:00 04:00			44	15	59	
01:00			3	3	6	13:00			74	72	146	04:00 05:00			68	42	110	
01:15			5	7	12	13:15			86	90	176	05:00 06:00			104	36	140	
01:30			4	4	8	13:30			59	79	138	06:00 07:00			190	53	243	
01:45			4	7	11	13:45			63	76	139	07:00 08:00			384	200	584	
02:00			3	23	26	14:00			66	89	155	08:00 09:00			365	254	619	
02:15			2	2	4	14:15			62	69	131	09:00 10:00			234	225	459	
02:30			2	4	6	14:30			64	72	136	10:00 11:00			214	255	469	
02:45			7	1	8	14:45			67	67	134	11:00 12:00			270	296	566	
03:00			7	4	11	15:00			75	73	148	12:00 13:00			314	386	700	
03:15			8	3	11	15:15			94	76	170	13:00 14:00			282	317	599	
03:30			12	4	16	15:30			54	167	221	14:00 15:00			259	297	556	
03:45			17	4	21	15:45			63	100	163	15:00 16:00			286	416	702	
04:00			11	15	26	16:00			70	123	193	16:00 17:00			291	489	780	
04:15			7	9	16	16:15			90	81	171	17:00 18:00			238	385	623	
04:30			11	7	18	16:30			60	173	233	18:00 19:00			188	212	400	
04:45			39	11	50	16:45			71	112	183	19:00 20:00			70	162	232	
05:00			28	9	37	17:00			57	121	178	20:00 21:00			60	111	171	
05:15			12	10	22	17:15			69	96	165	21:00 22:00			32	75	107	
05:30			13	5	18	17:30			58	106	164	22:00 23:00			18	26	44	
05:45			51	12	63	17:45			54	62	116	23:00 00:00			24	28	52	
06:00			22	14	36	18:00			51	69	120	STATISTICS						
06:15			35	9	44	18:15			62	38	100		NB	SB	EB	WB	TOTAL	
06:30			47	16	63	18:30			33	61	94	Peak Period	00:00	to	12:00			
06:45			86	14	100	18:45			42	44	86	Volume				1918	1437	3355
07:00			78	44	122	19:00			23	68	91	Peak Hour				7:30	11:00	7:45
07:15			73	55	128	19:15			23	29	52	Peak Volume				438	296	674
07:30			87	47	134	19:30			16	32	48	Peak Hour Factor				0.750	0.892	0.843
07:45			146	54	200	19:45			8	33	41	Peak Period	12:00	to	00:00			
08:00			131	54	185	20:00			19	39	58	Volume				2062	2904	4966
08:15			74	60	134	20:15			21	18	39	Peak Hour				12:00	16:30	16:00
08:30			82	73	155	20:30			12	33	45	Peak Volume				314	502	780
08:45			78	67	145	20:45			8	21	29	Peak Hour Factor				0.872	0.725	0.837
09:00			68	50	118	21:00			9	26	35	Peak Period	07:00	to	09:00			
09:15			63	55	118	21:15			9	14	23	Volume				749	454	1203
09:30			51	64	115	21:30			7	17	24	Peak Hour				7:30	8:00	7:45
09:45			52	56	108	21:45			7	18	25	Peak Volume				438	254	674
10:00			53	69	122	22:00			5	6	11	Peak Hour Factor				0.750	0.870	0.843
10:15			47	58	105	22:15			7	9	16	Peak Period	16:00	to	18:00			
10:30			60	56	116	22:30			4	6	10	Volume				529	874	1403
10:45			54	72	126	22:45			2	5	7	Peak Hour				16:00	16:30	16:00
11:00			71	63	134	23:00			9	4	13	Peak Volume				291	502	780
11:15			55	68	123	23:15			3	7	10	Peak Hour Factor				0.808	0.725	0.837
11:30			61	83	144	23:30			7	12	19							
11:45			83	82	165	23:45			5	5	10							
TOTALS	0	0	1918	1437	3355	TOTALS	0	0	2062	2904	4966							
SPLIT %	0%	0%	57%	43%	40%	SPLIT %	0%	0%	42%	58%	60%							



Appendix C - ICU Worksheets

1. Victoria & US 101 NB Ramps

Existing (2023)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	260	.08*	350	.11*
NBT	3	4800	1090	.23	1370	.29
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	4	6400	1960	.31*	2060	.32*
SBR	1	1600	400	.25	370	.23
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		520		440	.14*
WBT	0	6400	0	{.17}*	0	
WBR	2.5		750		600	{.14}
TOTAL CAPACITY UTILIZATION				.56	.57	

Existing (2023) With Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	270	.08*	370	.12*
NBT	3	4800	1130	.24	1380	.29
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	4	6400	1970	.31*	2100	.33*
SBR	1	1600	400	.25	370	.23
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		530		510	.16*
WBT	0	6400	0	{.17}*	0	
WBR	2.5		750		600	{.13}
TOTAL CAPACITY UTILIZATION				.56	.61	

Horizon Year No Project Without Olivas Park Ext						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	530	.17*	510	.16*
NBT	3	4800	1370	.29	1890	.39
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	4	6400	2680	.42*	2210	.35*
SBR	1	1600	430	.27	370	.23
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	710	.22*	490	.15*
WBT	0	0	0		0	
WBR	3	4800	910	.19	1160	.24
TOTAL CAPACITY UTILIZATION				.81	.66	

Horizon Year With Project Without Olivas Park E						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	540	.17*	530	.17*
NBT	3	4800	1410	.29	1900	.40
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	4	6400	2690	.42*	2250	.35*
SBR	1	1600	430	.27	370	.23
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	720	.23*	560	.18*
WBT	0	0	0		0	
WBR	3	4800	910	.19	1160	.24
TOTAL CAPACITY UTILIZATION				.82	.70	

1. Victoria & US 101 NB Ramps

Horizon Year No Project With Olivas Park Extension						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	540	.17*	500	.16*
NBT	3	4800	1370	.29	1790	.37
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	4	6400	2680	.42*	2270	.35*
SBR	1	1600	430	.27	360	.23
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	620	.19*	420	.13*
WBT	0	0	0		0	
WBR	3	4800	930	.19	1230	.26
Right Turn Adjustment					WBR	.02*
TOTAL CAPACITY UTILIZATION				.78	.66	

Horizon Year With Project With Olivas Park Extension						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	550	.17*	510	.16*
NBT	3	4800	1410	.29	1800	.38
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	4	6400	2690	.42*	2310	.36*
SBR	1	1600	430	.27	360	.23
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	630	.20*	470	.15*
WBT	0	0	0		0	
WBR	3	4800	930	.19	1230	.26
TOTAL CAPACITY UTILIZATION				.79	.67	

2. Victoria & Valentine

Existing (2023)						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	160	.05*	90	.03*
NBT	3	4800	1490	.31	1440	.30
NBR	0	0	10		10	
SBL	1	1600	40	.03	50	.03
SBT	2	3200	1040	.33*	1220	.38*
SBR	f		1400		1200	
EBL	2.5		220		640	
EBT	0.5	4800	30	.05*	20	.14*
EBR	1	1600	150	.09	290	.18
WBL	0	0	20		20	
WBT	1	1600	10	.02*	10	.02*
WBR	1	1600	50	.03	80	.05
Right Turn Adjustment					EBR	.01*
Note: Assumes E/W Split Phasing						
Note: Assumes Right-Turn Overlap for WBR EBR						

TOTAL CAPACITY UTILIZATION .45 .58

Existing (2023) With Project						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	160	.05*	90	.03*
NBT	3	4800	1580	.33	1480	.31
NBR	0	0	10		10	
SBL	1	1600	40	.03	50	.03
SBT	2	3200	1060	.33*	1330	.42*
SBR	f		1400		1200	
EBL	2.5		220		640	
EBT	0.5	4800	30	.05*	20	.14*
EBR	1	1600	160	.10	310	.19
WBL	0	0	20		20	
WBT	1	1600	10	.02*	10	.02*
WBR	1	1600	50	.03	80	.05
Right Turn Adjustment					EBR	.02*
Note: Assumes E/W Split Phasing						
Note: Assumes Right-Turn Overlap for WBR EBR						

TOTAL CAPACITY UTILIZATION .45 .63

Horizon Year No Project Without Olivias Park Extension						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	240	.08*	190	.06*
NBT	3	4800	1650	.35	2060	.44
NBR	0	0	20		50	
SBL	1	1600	40	.03	40	.03
SBT	2	3200	1640	.51*	1490	.47*
SBR	f		1660		1180	
EBL	2.5		330		720	
EBT	0.5	4800	50	.08*	30	.16*
EBR	1	1600	240	.15	440	.28
WBL	0	0	20		30	
WBT	1	1600	10	.02*	30	.04*
WBR	1	1600	80	.05	100	.06
Right Turn Adjustment					EBR	.06*
Note: Assumes E/W Split Phasing						
Note: Assumes Right-Turn Overlap for WBR EBR						

TOTAL CAPACITY UTILIZATION .69 .79

Horizon Year With Project Without Olivias Park Ext.						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	240	.08*	190	.06*
NBT	3	4800	1740	.37	2100	.45
NBR	0	0	20		50	
SBL	1	1600	40	.03	40	.03
SBT	2	3200	1660	.52*	1600	.50*
SBR	f		1660		1180	
EBL	2.5		330		720	
EBT	0.5	4800	50	.08*	30	.16*
EBR	1	1600	250	.16	460	.29
WBL	0	0	20		30	
WBT	1	1600	10	.02*	30	.04*
WBR	1	1600	80	.05	100	.06
Right Turn Adjustment					EBR	.07*
Note: Assumes E/W Split Phasing						
Note: Assumes Right-Turn Overlap for WBR EBR						

TOTAL CAPACITY UTILIZATION .70 .83

2. Victoria & Valentine

Horizon Year No Project With Olivas Park Extension						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	240	.08*	190	.06*
NBT	3	4800	1540	.33	1990	.43
NBR	0	0	20		60	
SBL	1	1600	40	.03	40	.03
SBT	2	3200	1490	.47*	1410	.44*
SBR	f		1730		1240	
EBL	2.5		360		760	
EBT	0.5	4800	50	.09*	30	.16*
EBR	1	1600	240	.15	440	.28
WBL	0	0	20		30	
WBT	1	1600	10	.02*	30	.04*
WBR	1	1600	80	.05	100	.06
Right Turn Adjustment					EBR	.06*
Note: Assumes E/W Split Phasing						
Note: Assumes Right-Turn Overlap for WBR EBR						
TOTAL CAPACITY UTILIZATION			.66		.76	

Horizon Year With Project With Olivas Park Extension						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	240	.08*	190	.06*
NBT	3	4800	1600	.34	2010	.43
NBR	0	0	20		60	
SBL	1	1600	40	.03	40	.03
SBT	2	3200	1510	.47*	1500	.47*
SBR	f		1730		1240	
EBL	2.5		360		760	
EBT	0.5	4800	50	.09*	30	.16*
EBR	1	1600	250	.16	460	.29
WBL	0	0	20		30	
WBT	1	1600	10	.02*	30	.04*
WBR	1	1600	80	.05	100	.06
Right Turn Adjustment					EBR	.07*
Note: Assumes E/W Split Phasing						
Note: Assumes Right-Turn Overlap for WBR EBR						
TOTAL CAPACITY UTILIZATION			.66		.80	

3. Victoria & Olivas Park

Existing (2023)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	390	.12	220	.07*
NBT	2	3200	1570	.49*	1210	.38
NBR	1	1600	250	.16	110	.07
SBL	1	1600	140	.09*	90	.06
SBT	2	3200	880	.28	1310	.41*
SBR	f		150		120	
EBL	1	1600	50	.03	130	.08
EBT	2	3200	60	.02*	70	.02*
EBR	f		130		430	
WBL	1	1600	70	.04*	190	.12*
WBT	2	3200	60	.02	80	.03
WBR	f		80		230	
TOTAL CAPACITY UTILIZATION			.64		.62	

Existing (2023) With Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	390	.12	220	.07
NBT	2	3200	1570	.49*	1210	.38*
NBR	1	1600	270	.17	180	.11
SBL	1	1600	170	.11*	220	.14*
SBT	2	3200	880	.28	1310	.41
SBR	f		150		120	
EBL	1	1600	50	.03	130	.08
EBT	2	3200	70	.02*	100	.03*
EBR	f		130		430	
WBL	1	1600	100	.06*	220	.14*
WBT	2	3200	70	.02	110	.03
WBR	f		170		270	
TOTAL CAPACITY UTILIZATION			.68		.69	

Horizon Year No Project Without Olivas Park Extension						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	660	.21	610	.19*
NBT	3	4800	1850	.39*	1770	.37
NBR	1	1600	500	.31	440	.28
SBL	2	3200	470	.15*	200	.06
SBT	3	4800	1500	.31	1600	.33*
SBR	f		50		90	
EBL	2	3200	130	.04	170	.05
EBT	2	3200	150	.05*	230	.07*
EBR	f		190		970	
WBL	1	1600	130	.08*	340	.21*
WBT	2	3200	50	.02	370	.12
WBR	f		110		180	
TOTAL CAPACITY UTILIZATION			.67		.80	

Horizon Year With Project Without Olivas Park Ext.						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	660	.21	610	.19*
NBT	3	4800	1850	.39*	1770	.37
NBR	1	1600	520	.33	510	.32
SBL	2	3200	500	.16*	330	.10
SBT	3	4800	1500	.31	1600	.33*
SBR	f		50		90	
EBL	2	3200	130	.04	170	.05
EBT	2	3200	160	.05*	260	.08*
EBR	f		190		970	
WBL	1	1600	160	.10*	370	.23*
WBT	2	3200	60	.02	400	.13
WBR	f		200		220	
TOTAL CAPACITY UTILIZATION			.70		.83	

3. Victoria & Olivas Park

Horizon Year No Project With Olivas Park Extension						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	670	.21*	590	.18*
NBT	3	4800	1780	.37	1760	.37
NBR	1	1600	540	.34	500	.31
SBL	2	3200	310	.10	150	.05
SBT	3	4800	1500	.31*	1570	.33*
SBR	f		40		80	
EBL	2	3200	10	.00	30	.01
EBT	2	3200	300	.09*	390	.12*
EBR	f		170		970	
WBL	1	1600	170	.11*	360	.23*
WBT	2	3200	50	.02	330	.10
WBR	f		170		270	
TOTAL CAPACITY UTILIZATION				.72		.86

Horizon Year With Project With Olivas Park Extension						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	670	.21*	590	.18*
NBT	3	4800	1780	.37	1760	.37
NBR	1	1600	560	.35	570	.36
SBL	2	3200	340	.11	260	.08
SBT	3	4800	1500	.31*	1570	.33*
SBR	f		40		80	
EBL	2	3200	10	.00	30	.01
EBT	2	3200	300	.09*	420	.13*
EBR	f		170		970	
WBL	1	1600	190	.12*	380	.24*
WBT	2	3200	60	.02	350	.11
WBR	f		230		290	
TOTAL CAPACITY UTILIZATION				.73		.88

4. US 101 SB Ramps & Valentine

Existing (2023)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		250	.08*	300	.09*
SBT	0	4800	0		0	
SBR	1.5		100	.06	50	
EBL	1	1600	80	.05*	260	.16*
EBT	2	3200	140	.04	650	.20
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	670	.21*	350	.11*
WBR	f		880		910	
TOTAL CAPACITY UTILIZATION			.34		.36	

Existing (2023) With Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		260	.08*	310	.10*
SBT	0	4800	0		0	
SBR	1.5		100	.06	50	
EBL	1	1600	80	.05*	260	.16*
EBT	2	3200	140	.04	660	.21
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	670	.21*	350	.11*
WBR	f		880		910	
TOTAL CAPACITY UTILIZATION			.34		.37	

Horizon Year No Project Without Olivas Park Extension						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		370	.12*	460	.14*
SBT	0	4800	0		0	
SBR	1.5		70		20	
EBL	1	1600	90	.06*	460	.29*
EBT	2	3200	210	.07	730	.23
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	960	.30*	390	.12*
WBR	f		820		900	
TOTAL CAPACITY UTILIZATION			.48		.55	

Horizon Year With Project Without Olivas Park Ext.						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		380	.12*	470	.15*
SBT	0	4800	0		0	
SBR	1.5		70		20	
EBL	1	1600	90	.06*	460	.29*
EBT	2	3200	210	.07	740	.23
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	960	.30*	390	.12*
WBR	f		820		900	
TOTAL CAPACITY UTILIZATION			.48		.56	

4. US 101 SB Ramps & Valentine

Horizon Year No Project With Olivas Park Extension						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		360	.11*	450	.14*
SBT	0	4800	0		0	
SBR	1.5		70	.04	20	
EBL	1	1600	60	.04*	410	.26*
EBT	2	3200	240	.08	770	.24
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	980	.31*	390	.12*
WBR	f		870		950	
TOTAL CAPACITY UTILIZATION				.46		.52

Horizon Year With Project With Olivas Park Extension						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		370	.12*	460	.14*
SBT	0	4800	0		0	
SBR	1.5		70	.04	20	
EBL	1	1600	60	.04*	410	.26*
EBT	2	3200	240	.08	780	.24
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	980	.31*	390	.12*
WBR	f		870		950	
TOTAL CAPACITY UTILIZATION				.47		.52

5. Johnson & US 101 SB Ramps

Existing (2023)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	60	.04*	320	.20*
NBT	1	1600	70	.04	280	.18
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	1	1600	520	.33*	190	.12*
SBR	f		1200		1050	
EBL	1	1600	60	.04*	110	.07*
EBT	0	0	0		0	
EBR	1	1600	100	.06	30	.02
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				.41	.39	

Existing (2023) With Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	60	.04*	330	.21*
NBT	1	1600	80	.05	280	.18
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	1	1600	520	.33*	190	.12*
SBR	f		1200		1050	
EBL	1	1600	60	.04*	110	.07*
EBT	0	0	0		0	
EBR	1	1600	100	.06	30	.02
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				.41	.40	

Horizon Year No Project Without Olivas Park Extension						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	160	.10*	670	.42*
NBT	1	1600	130	.08	480	.30
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	1	1600	580	.36*	400	.25*
SBR	f		1520		1590	
EBL	1	1600	110	.07*	260	.16*
EBT	0	0	0		0	
EBR	1	1600	110	.07	90	.06
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				.53	.83	

Horizon Year With Project Without Olivas Park Ext.						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	160	.10*	680	.43*
NBT	1	1600	140	.09	480	.30
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	1	1600	580	.36*	400	.25*
SBR	f		1520		1590	
EBL	1	1600	110	.07*	260	.16*
EBT	0	0	0		0	
EBR	1	1600	110	.07	90	.06
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				.53	.84	

5. Johnson & US 101 SB Ramps

Horizon Year No Project With Olivas Park Extension						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	1	1600	440	.28	1470	.92*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	1	1600	780	.49*	520	.33
SBR	f		1710		2200	
EBL	1	1600	100	.06*	240	.15*
EBT	0	0	0		0	
EBR	1	1600	130	.08	120	.08
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.02*		
TOTAL CAPACITY UTILIZATION				.57	1.07	

Horizon Year With Project With Olivas Park Extension						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	0	.00	0	.00
NBT	1	1600	470	.29	1510	.94*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	1	1600	790	.49*	540	.34
SBR	f		1740		2230	
EBL	1	1600	100	.06*	240	.15*
EBT	0	0	0		0	
EBR	1	1600	130	.08	130	.08
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.02*		
TOTAL CAPACITY UTILIZATION				.57	1.09	

Appendix D - Traffic Signal Warrant Study

TRAFFIC SIGNAL WARRANT SUMMARY

Form 750-020-01
TRAFFIC ENGINEERING - 07/99
Page 4 of 6

PM Peak

City: Ventura
County: Ventura

Engineer: Kimley-Horn
Date: December 26, 2023

Major Street: Olivas Park Drive
Minor Street: Seaborg Avenue

Lanes: 3 Critical Approach Speed: 45
Lanes: 2

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph)? ☒ Yes ☐ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☒ 70% ☐ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

Unusual condition justifying
use of warrant:

Record hour when criteria are fulfilled
and the corresponding delay or volume
in boxes provided.

Peak Hour		
4:00 PM	1097	146

Criteria

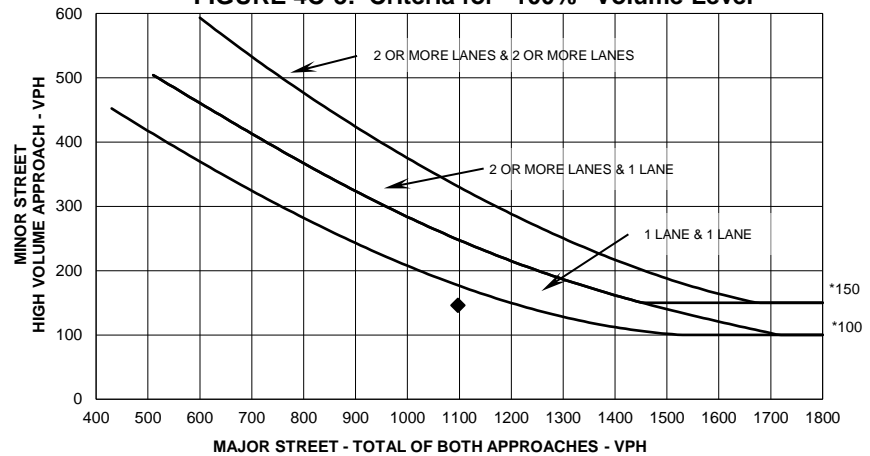
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*	1.0	
Fulfilled?:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*	146	
Fulfilled?:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*	N/A	N/A
Fulfilled?:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

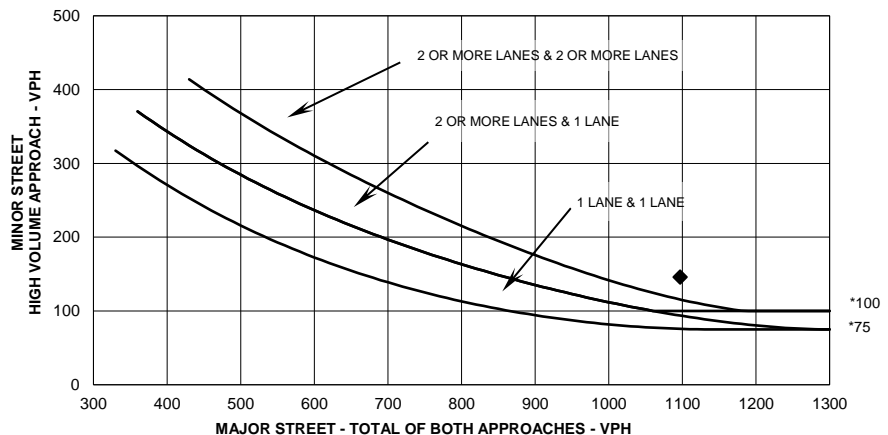
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



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

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (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 threshold for a minor street approach with one lane.

Appendix E - VCTC Model VMT Calculation Worksheet

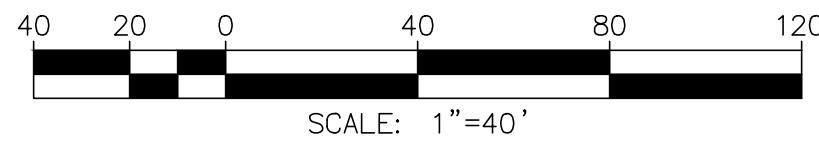
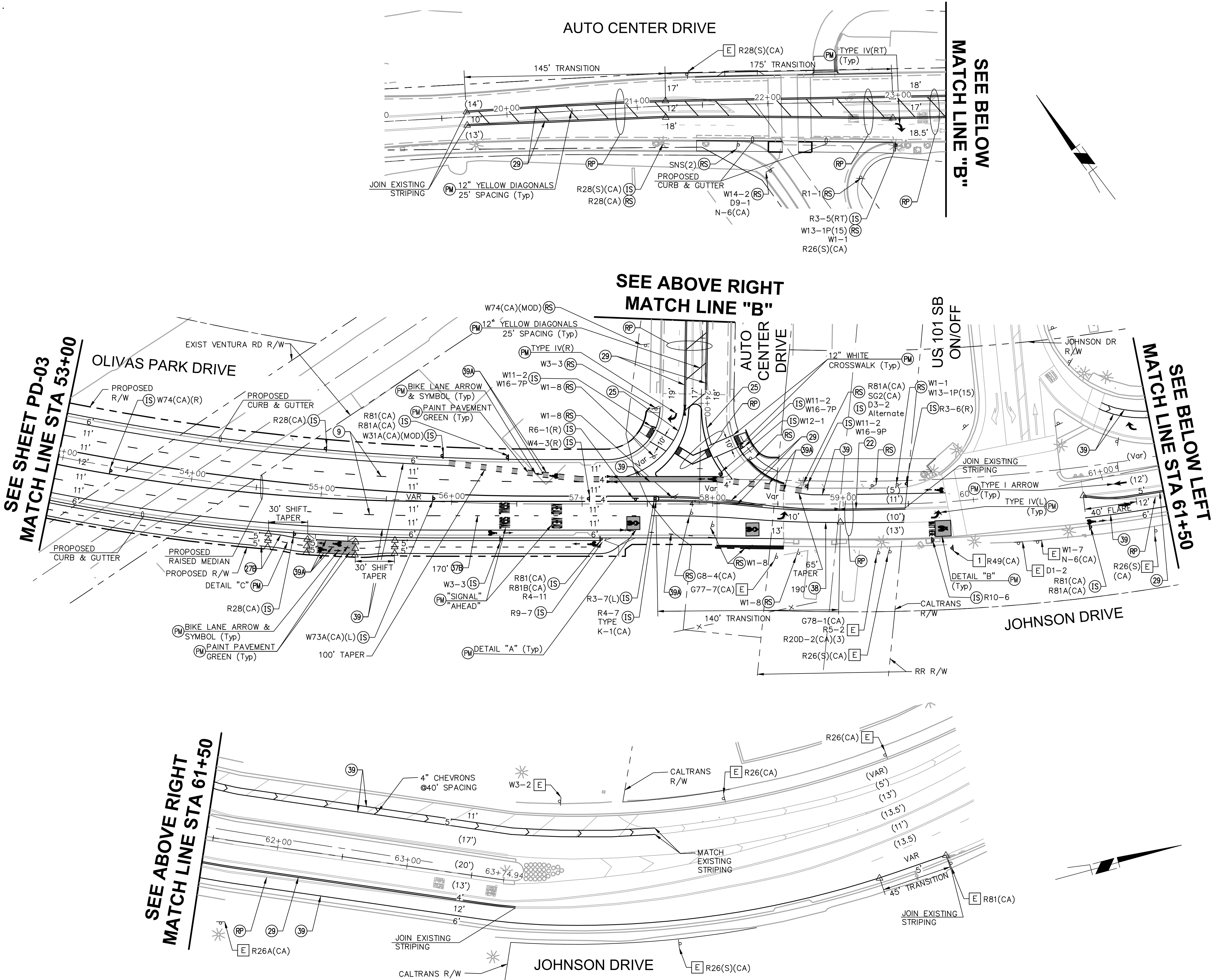
VCTC Model VMT Calculation Worksheet

San Buenaventura TAZ:		60031101	
ID	Purpose	Productions	Attractions
1	Home-based Work	7,829	43,332
2	Home-based School	674	-
3	Home-based University	241	-
4	Home-based Shopping	797	27,018
5	Home-based Social-Recreational	2,428	11,641
6	Home-based Serve Passenger	912	4,820
7	Home-based Other	2,184	17,661
8	Work-Based Other	7,062	4,528
9	Other Based Other	19,503	22,266
Total VMT		41,630	131,265
Total Home-based VMT		15,065	
Total Work-based VMT		50,394	
Total Population		876	
Total Employees		2,712	
Total Home-based VMT/Capita		17.20	

Appendix F: Olivas Park Drive Extension City Plans

SIGNING AND STRIPING NOTES:

1. FOR SIGNING AND STRIPING GENERAL NOTES, CONSTRUCTION NOTES, LEGENDS, AND DETAILS, SEE SHEET PD-01.



PREPARED BY:
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01/03/2023
RCE NO. 73486 DATE

REV.	DESCRIPTION			CK'D	APP DATE
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION					
CITY OF SAN BUENAVENTURA					
OLIVAS PARK DRIVE EXTENSION					
SIGNING & STRIPING PLANS					
DRN. BY: CT		DES. BY: MV		CK'D. BY: MV	
PRINCIPAL TRANSPORTATION ENGINEER R.C.E. 67569				DATE	
SPEC. NUMBER <u>2016-019</u>			PROJECT NO. <u>91019</u>		
SHEET 63 OF 85 DR			DRAWING NO. 2016-D-019		

PD-04

PLOT DATE: 2/20/23 11:23 AM FILE NAME: H:\PD\DATA\145185 CAD\TRANSP\OLIVAS\145185-PD-04.DWG

100% SUBMITTAL

Appendix G: Additional ICU Analysis for Victoria Avenue & Olivas Park Drive

3. Victoria & Olivas Park

Existing (2023)						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	390	.12	220	.07*
NBT	2	3200	1570	.49*	1210	.38
NBR	1	1600	250	.16	110	.07
SBL	1	1600	140	.09*	90	.06
SBT	2	3200	880	.28	1310	.41*
SBR	f		150		120	
EBL	1	1600	50	.03	130	.08
EBT	2	3200	60	.02*	70	.02*
EBR	f		130		430	
WBL	1	1600	70	.04*	190	.12*
WBT	2	3200	60	.02	80	.03
WBR	f		80		230	
TOTAL CAPACITY UTILIZATION				.64		.62

Existing (2023) With Project (With Free WBR converted to a WBR Lane With Overlap)						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	390	.12	220	.07
NBT	2	3200	1570	.49*	1210	.38*
NBR	1	1600	270	.17	180	.11
SBL	1	1600	170	.11*	220	.14*
SBT	2	3200	880	.28	1310	.41
SBR	f		150		120	
EBL	1	1600	50	.03	130	.08
EBT	2	3200	70	.02*	100	.03*
EBR	f		130		430	
WBL	1	1600	100	.06*	220	.14*
WBT	2	3200	70	.02	110	.03
WBR	1	1600	170	.11	270	.17
TOTAL CAPACITY UTILIZATION				.68		.69

Note: Assumes Right-Turn Overlap for WBR

Horizon Year No Project Without Olivas Park Extension						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	660	.21	610	.19*
NBT	3	4800	1850	.39*	1770	.37
NBR	1	1600	500	.31	440	.28
SBL	2	3200	470	.15*	200	.06
SBT	3	4800	1500	.31	1600	.33*
SBR	f		50		90	
EBL	2	3200	130	.04	170	.05
EBT	2	3200	150	.05*	230	.07*
EBR	f		190		970	
WBL	1	1600	130	.08*	340	.21*
WBT	2	3200	50	.02	370	.12
WBR	f		110		180	
TOTAL CAPACITY UTILIZATION				.67		.80

Horizon Year With Project Without Olivas Park Ext. (With Free WBR converted to a WBR Lane With Overlap)						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	660	.21	610	.19*
NBT	3	4800	1850	.39*	1770	.37
NBR	1	1600	520	.33	510	.32
SBL	2	3200	500	.16*	330	.10
SBT	3	4800	1500	.31	1600	.33*
SBR	f		50		90	
EBL	2	3200	130	.04	170	.05
EBT	2	3200	160	.05*	260	.08*
EBR	f		190		970	
WBL	1	1600	160	.10*	370	.23*
WBT	2	3200	60	.02	400	.13
WBR	1	1600	200	.13	220	.14
TOTAL CAPACITY UTILIZATION				.70		.83

Note: Assumes Right-Turn Overlap for WBR

3. Victoria & Olivas Park

Horizon Year No Project With Olivas Park Extension						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	670	.21*	590	.18*
NBT	3	4800	1780	.37	1760	.37
NBR	1	1600	540	.34	500	.31
SBL	2	3200	310	.10	150	.05
SBT	3	4800	1500	.31*	1570	.33*
SBR	f		40		80	
EBL	2	3200	10	.00	30	.01
EBT	2	3200	300	.09*	390	.12*
EBR	f		170		970	
WBL	1	1600	170	.11*	360	.23*
WBT	2	3200	50	.02	330	.10
WBR	f		170		270	
TOTAL CAPACITY UTILIZATION				.72		.86

Horizon Year With Project With Olivas Park Extension (With Free WBR converted to a WBR Lane With Overlap)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	670	.21*	590	.18*
NBT	3	4800	1780	.37	1760	.37
NBR	1	1600	560	.35	570	.36
SBL	2	3200	340	.11	260	.08
SBT	3	4800	1500	.31*	1570	.33*
SBR	f		40		80	
EBL	2	3200	10	.00	30	.01
EBT	2	3200	300	.09*	420	.13*
EBR	f		170		970	
WBL	1	1600	190	.12*	380	.24*
WBT	2	3200	60	.02	350	.11
WBR	1	1600	230	.14	290	.18
TOTAL CAPACITY UTILIZATION				.73		.88

Note: Assumes Right-Turn Overlap for WBR