

Appendix F

Traffic Impact Study



HEXAGON TRANSPORTATION CONSULTANTS, INC.



1700-1730 Embarcadero Road Audi and Mercedes Benz Dealerships



Transportation Impact Analysis

Prepared for:

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Table of Contents

Executive Summary	i
1. Introduction	1
2. Existing Conditions	9
3. Existing Plus Project Conditions	16
4. Background Conditions	22
5. Background Plus Project Conditions	25
6. Cumulative Conditions	28
7. Other Transportation Issues	35
8. Conclusions	44

Appendices

Appendix A	Traffic Counts
Appendix B	Volume Summary
Appendix C	Level of Service Calculations

List of Tables

Table ES-1	Intersection Levels of Service Summary	iv
Table 1	Freeway Segment Capacity Evaluation	5
Table 2	Signalized Intersection Level of Service Definitions Based on Average Control Delay	6
Table 3	Existing Intersection Levels of Service	14
Table 4	Project Trip Generation Estimates	17
Table 5	Existing Plus Project Intersection Levels of Service	20
Table 6	Background Intersection Levels of Service	24
Table 7	Background Plus Project Intersection Levels of Service	27
Table 8	Cumulative plus Project Levels of Service	32
Table 9	Queuing Analysis Summary	40
Table 10	Driveway Traffic Operations under Background Plus Project Conditions	41
Table 11	Increase in Transit Vehicle Delay	43

List of Figures

Figure 1	Site Location and Study Intersections	2
Figure 2	Proposed Site Plan	3
Figure 3	Existing Bicycle Facilities	11
Figure 4	Existing Lane Configurations	12
Figure 5	Existing Traffic Volumes	13
Figure 6	Project Trip Distribution	18
Figure 7	Net Project Trip Assignment and Gross Driveway Trips	19
Figure 8	Existing Plus Project Traffic Volumes	21
Figure 9	Background Traffic Volumes	23
Figure 10	Background Plus Project Traffic Volumes	26
Figure 11	Cumulative No Project Traffic Volumes	29
Figure 12	Cumulative Plus Project Traffic Volumes	30

Figure 13	Conceptual Signal Improvements at E. Bayshore Road and Embarcadero Road.....	33
Figure 14	Conceptual Roundabout Design at E. Bayshore Road and Embarcadero Road.....	34
Figure 15	Audi and Mercedes Benz Dealerships in the Region.....	37

Executive Summary

This report presents the results of the transportation impact analysis (TIA) conducted for the proposed Mercedes Benz dealership and the existing Audi dealership at 1700-1730 Embarcadero Road in Palo Alto, California. The project site is currently occupied by a vacant restaurant building at 1700 Embarcadero Road and an existing Audi dealership at 1730 Embarcadero Road. The project would replace the restaurant building and a portion of the Audi dealership buildings and construct the site with a new Mercedes Benz dealership and an expanded Audi dealership. Vehicle access to the Mercedes Benz dealership would be provided via a proposed driveway on Embarcadero Road with right-in access only and an existing full-access driveway on E. Bayshore Road. The new driveway on Embarcadero Road would be at the Geng Road/Embarcadero Road intersection opposite Geng Road. Vehicle access to the Audi dealership is and would continue to be provided via the existing full-access driveway on Embarcadero Road.

The potential impacts of the project were evaluated in accordance with the standards set forth by the the Cities of Palo Alto and East Palo Alto, the Santa Clara Valley Transportation Authority (VTA), and the City/County Association of Governments of San Mateo County (C/CAG). The study analyzes the traffic impacts of the proposed development on the key intersections and freeway segments during the weekday AM and PM peak hours of traffic. In addition, the study includes a freeway ramp traffic operations analysis, a vehicle queuing analysis at selected intersections, a review of site access and circulation, an evaluation of potential impacts to transit services and pedestrian and bicycle facilities, and an evaluation of potential impacts on vehicle miles traveled (VMT).

As required by the VTA's TIA Guidelines, an Auto Trip Reduction Statement (ATRS) form is included at the end of the Executive Summary.

Project Trip Estimates

Trip generation for the proposed auto dealerships was estimated based on driveway counts conducted at the Mercedes Benz dealership in Belmont, the Honda dealership in Palo Alto, and the existing Audi dealership at the project site. The proposed Mercedes Benz dealership is estimated to produce 138 new trips in the AM peak hour (81 inbound and 57 outbound) and 177 new trips in the PM peak hour (70 inbound and 107 outbound). The expansion at the existing Audi dealership is estimated to add 66 new trips in the AM peak hour (36 inbound and 30 outbound) and 90 new trips in the PM peak hour (35 inbound and 55 outbound). Both Audi and Mercedes Benz dealerships together would produce 204 new trips in the AM peak hour (117 inbound and 87 outbound) and 267 new trips in the PM peak hour (105 inbound and 162 outbound).

Intersection Level of Service Analysis

The results of the intersection level of service analysis (see Table ES-1) show that the E. Bayshore Road/Embarcadero Road intersection is operating at an unacceptable LOS F during the PM peak hour and would continue to operate at LOS F under background and cumulative conditions. The addition of project-generated traffic would create a significant impact at the intersection during the PM peak hour under background plus project and cumulative plus project conditions. The proposed improvement to mitigate the impact is described below.

Mitigation Measure at E. Bayshore Road and Embarcadero Road

Mitigation of the impact under background plus project conditions could be achieved by reconfiguring the northbound approach from one left-turn and one through/right-turn lane to one left-turn and one all movement lane. The level of service analysis shows that the intersection delay would improve from LOS F to LOS E under background plus project conditions. In addition to the restriping, the improvement should include sidewalk, crosswalk, and signal improvements to bring the intersection up to current standards. This would include a new crosswalk on the north leg, a right-turn overlap phase (right turn arrow) for the southbound E. Bayshore to westbound Embarcadero right turn, and a right-turn overlap phase for the eastbound Embarcadero to southbound E. Bayshore right turn.

Under cumulative plus project conditions additional mitigation would be required. Mitigation could be accomplished by widening the intersection and maintaining signal control or by building a roundabout. To increase the intersection capacity with signal control, it would be necessary to restripe the eastbound approach to provide two left-turn lanes, one through lane, and one right-turn lane. The westbound leg would need to be widened to provide one left-turn lane, two through lanes, and a right-turn lane. These changes would allow the signal to operate with protected left-turn phasing rather than split phasing on Embarcadero. Some right-of-way would be required. The level of service analysis shows that the intersection would operate at a better LOS F under cumulative plus project conditions with this improvement.

An alternative mitigation would be to replace the existing signal control with a two-lane roundabout at the intersection. The improvement should also consider straightening the horizontal curve and increasing the length of the two northbound receiving lanes on the north leg on E. Bayshore Road. Some right-of-way would be required. The level of service analysis shows that the intersection would operate at a better LOS F under cumulative plus project conditions with a roundabout. It should be noted that the roundabout level of service analysis does not account for the vehicle delay caused by the dropped northbound receiving lanes on E. Bayshore Road and the northbound traffic congestion between Pulgas Avenue and Embarcadero Road. It is expected that the roundabout improvement would also include lengthening the two northbound receiving lanes and improving the signal timing on E. Bayshore Road at Laura Lane and Pulgas Avenue to reduce the vehicle queuing on this segment. If the downstream northbound vehicle congestion cannot be improved and vehicle queues would spill back into the E. Bayshore Road/Embarcadero Road intersection, the roundabout would not operate well and would not provide effective reduction in vehicle delay.

The selected alternative should be decided in the future when more information and understanding of the prevailing conditions at that time are taken into consideration. The effectiveness of the signal improvement option would be less likely to be affected by the prevailing conditions of the traffic spillback, while effectiveness of the roundabout would depend whether the spillback can be improved. Both options require right-of-way acquisition. The right-of-way acquisition needs would affect future decisions.

The intersection is listed in the City's Transportation Impact Fee (TIF) program for an improvement that would be funded through the TIF. Currently the improvement is listed as a modification to the signalized

intersection, but a roundabout could be added as an alternative. With the TIF, the improvement would be implemented, and the cumulative impact would be mitigated. The project's payment of the TIF would constitute a fair-share contribution to the cost of the recommended improvement.

Freeway Segment Capacity Analysis

The project would contribute trips equivalent to less than one percent of the capacity on each of the studied freeway segments. Thus, the project would have an insignificant impact on nearby freeway segments.

Freeway Ramp Operations Analysis

The existing vehicle storage on the metered on-ramp and signal-controlled off-ramp near the project site is adequate to serve the existing vehicle queues that develop due to ramp metering and intersection signal, and they would continue to adequately serve the estimated vehicle queues that would develop with the addition of background traffic and project-generated traffic.

Vehicle Queuing Analysis

A vehicle queuing analysis was performed for the northbound to westbound left-turn movement at the E. Bayshore Road/Embarcadero Road intersection. Field observations show that during the PM peak hour, the vehicle queue in the northbound lanes extends more than 1,500 feet (or 60 vehicles).

The project would add 86 vehicles to the left-turn lane and 17 vehicles to the through and right-turn lane during the PM peak hour. The added project trips would increase the 95th percentile queue length in the northbound left-turn lane by 4 vehicles and in the northbound lane by one vehicle. It is infeasible to extend the left-turn pocket to 575 feet long because the roadway is not wide enough to accommodate three lanes and bike lanes. As described above, a roundabout is recommended as a mitigation for the intersection. With two northbound lanes approaching the roundabout (one left-turn lane and one northbound lane for all movements), the vehicle queues would be reduced to 9 vehicles (or 225 feet) under background plus project conditions, which could be accommodated within the existing left-turn pocket.

Vehicle Miles Traveled Analysis

The project would result in a less-than-significant transportation impact on VMT. Most of vehicle trips generated by the project are and would continue to be from the vehicle owners bringing in their cars for maintenance and repair. The project would reduce the VMT generated by the service trips by placing a new Mercedes Benz dealership in the project area and expanding the Audi dealership to meet the service demand in the project area. Although the project could increase the VMT generated by employees, the reduction in the VMT generated by car service trips would be more than enough to offset the increase in employee-related VMT. Therefore, the project would result in an overall reduction in VMT.

Other Transportation Issues

The site plan shows adequate site access and circulation, and no significant traffic operational issues are expected to occur as a result of the project. The project would not have an adverse effect on the existing transit, pedestrian, or bicycle facilities in the study area.

Table ES-1
Intersection Levels of Service Summary

				Existing		Existing+Projec		Backgroun		Background+Project				Cumulative		Cumulative+Project			
ID	Intersection (Jurisdiction)	LOS Standard	Peak Hour	Avg. Delay ¹	LOS	Avg. Delay ¹	LOS	Avg. Delay ¹	LOS	Avg. Delay ¹	LOS	Incr. Crit. Del.	Incr. Crit. V/C	Avg. Delay ¹	LOS	Avg. Delay ¹	LOS	Incr. Crit. Del.	Incr. Crit. V/C
1	Geng Road and Embarcadero Road (Palo Alto)	D	AM	7.6	A	7.5	A	7.6	A	7.5	A	-0.2	0.010	7.6	A	7.5	A	-0.2	0.010
			PM	9.8	A	9.1	A	16.0	B	15.2	B	-0.2	0.018	16.0	B	15.3	B	-0.2	0.018
2	E. Bayshore Road and Embarcadero Road (Palo Alto)	D	AM	35.8	D+	36.4	D+	35.9	D+	36.5	D+	0.3	0.022	37.2	D+	37.9	D+	0.3	0.021
			PM	81.5	F	88.1	F	80.2	F	88.2	F	12.3	0.085	85.9	F	97.7	F	18.8	0.085
	Mitigation Measure Options:																		
	- With A Two-Lane Roundabout																		
	- With NB Lane Configuration Modification																		
	- With NB, EB and WB Lane Configuration Modification																		
3	St. Francis Drive and Embarcadero Road (Palo Alto)	D	AM	24.1	C	24.1	C	24.1	C	24.1	C	0.0	0.004	24.8	C	24.8	C	0.0	0.004
			PM	15.7	B	15.6	B	15.4	B	15.3	B	-0.1	0.003	15.7	B	15.6	B	0.0	0.003
4	W. Bayshore Road and Oregon Expressway (Palo Alto)	D	AM	14.6	B	14.6	B	14.6	B	14.5	B	-0.1	0.005	14.9	B	14.9	B	0.0	0.005
			PM	16.8	B	16.7	B	16.7	B	16.7	B	-0.1	0.004	17.4	B	17.3	B	-0.1	0.004
5	Middlefield Road and Oregon Expressway* (Palo Alto)	E	AM	55.7	E+	56.1	E+	56.1	E+	56.5	E+	0.4	0.005	59.2	E+	59.7	E+	0.5	0.005
			PM	59.5	E+	59.9	E+	60.3	E	60.7	E	0.4	0.005	62.8	E	63.2	E	0.5	0.005
6	Pulgas Avenue and E. Bayshore Road (East Palo Alto)	D	AM	34.4	C-	35.0	C-	34.5	C-	35.1	D+	0.8	0.007	40.5	D	41.4	D	1.2	0.007
			PM	41.7	D	43.4	D	45.5	D	47.5	D	2.7	0.012	60.4	E	62.9	E	3.3	0.012
Notes:																			
* Denotes VTA CMP intersection																			
¹ Overall weighted average control delay (seconds per vehicle) is reported for signalized intersections.																			
Bold indicates a substandard level of service.																			
Outline indicates a significant project impact.																			

AUTO TRIP REDUCTION STATEMENT

UPDATED: October 2014



PROJECT INFORMATION		<i>Relevant TIA Section:</i>	
Project Name:			
Location:			
Description:			
Size (net new):	D.U. Residential	Sq. Ft. Comm.	Acres (Gr.)
Density:	D.U. / Acre	Floor Area Ratio (FAR)	
Located within 2000 feet walking distance of an LRT, BRT, BART or Caltrain station or major bus stop?			

PROJECT AUTO TRIP GENERATION		<i>Relevant TIA Section:</i>	
Auto Trips Generated:	AM Pk Hr	PM Pk Hr	Total Weekday
Methodology (check one)	☐ ITE	☐ Other (Please describe below)	

AUTO TRIP REDUCTION APPROACH		<i>Relevant TIA Section:</i>	
☐ Standard Complete Table A below	☐ Peer/Study-Based Complete Table B below	☐ Target-Based Complete Table C below	☐ None Taken

TRIP REDUCTION REQUIREMENTS		<i>Relevant TIA Section:</i>	
Is the project required to meet any trip reduction requirements or targets?		If so, specify percent:	
Reference code or requirement:			

TRIP REDUCTION APPROACHES

A. STANDARD APPROACH		<i>Relevant TIA Section:</i>	
Type of Reduction <i>Specify reduction. See Table 2 in TIA Guidelines</i>	% Reduction from ITE Rates	Total Trips Reduced (AM/PM/Daily)	TOTAL REDUCTION CLAIMED
Transit			% Trips
Mixed-Use			
Financial Incentives			
Shuttle			

B. PEER/STUDY-BASED APPROACH		<i>Relevant TIA Section:</i>	
Basis of Reduction		TOTAL REDUCTION CLAIMED	
		%	Trips

Last updated 11/4/2014

C. TARGET-BASED APPROACH		<i>Relevant TIA Section:</i>				
Type of Reduction (check all that apply)					TOTAL REDUCTION CLAIMED	
☐ % Trip Reduction	☐ % SOV mode share	☐ Trip Cap		%	Trips	
Description						
Time period for reduction	Peak Hour	Peak Period	Full Day			
	☐	☐	☐			

OTHER TDM/REDUCTION MEASURES			
Bicycle/Pedestrian		<i>Relevant TIA Section:</i>	
Parking Management		<i>Relevant TIA Section:</i>	
Transit		<i>Relevant TIA Section:</i>	
Site Planning and Design		<i>Relevant TIA Section:</i>	
TDM Program		<i>Relevant TIA Section:</i>	

IMPLEMENTATION		<i>Relevant TIA Section:</i>	
Have the project sponsor and Lead Agency agreed to any of the following measures?			
☐ Monitoring			
☐ Enforcement			
☐ Data Sharing			

1.

Introduction

This report presents the results of the transportation impact analysis (TIA) conducted for the proposed Mercedes Benz dealership and the existing Audi dealership at 1700-1730 Embarcadero Road in Palo Alto, California (see Figure 1). The project site is currently occupied by a vacant restaurant building at 1700 Embarcadero Road and an existing Audi dealership at 1730 Embarcadero Road. The project would replace the restaurant building and a portion of the Audi dealership buildings and construct the site with a new Mercedes Benz dealership and an expanded Audi dealership (see Figure 2). Vehicle access to the Mercedes Benz dealership would be provided via a proposed driveway on Embarcadero Road with right-in access only and an existing full-access driveway on E. Bayshore Road. The new driveway on Embarcadero Road would be at the Geng Road/Embarcadero Road intersection opposite Geng Road. Vehicle access to the Audi dealership is and would continue to be provided via the existing full-access driveway on Embarcadero Road.

Scope of Study

The purpose of the study is to identify potential traffic impacts related to the proposed development. The potential impacts of the project were evaluated in accordance with the standards and methodologies set forth by the Cities of Palo Alto and East Palo Alto, the Santa Clara Valley Transportation Authority (VTA), and the City/County Association of Governments of San Mateo County (C/CAG). The VTA and C/CAG administer the Congestion Management Program (CMP) for Santa Clara and San Mateo Counties, respectively. The study analyzes the traffic impacts of the proposed development on the key intersections and freeway segments in the vicinity of the site during the weekday AM and PM peak hours of traffic. Locally, the AM peak hour of traffic is usually between 7:00 and 9:00 AM, and the PM peak hour is typically between 4:00 and 6:00 PM. It is during these periods that the most congested traffic conditions occur on an average weekday.

Study Intersections

The study intersections were selected in accordance with VTA's *Transportation Impact Analysis Guidelines* (October 2014) and in consultation with Palo Alto staff. The study includes those intersections that provide primary access to the project site and intersections that would experience a traffic increase of 10 or more peak-hour trips per lane. The six study intersections are listed below and shown on Figure 1. The Middlefield Road/Oregon Expressway intersection is designated as a CMP intersection by VTA, and the Pulgas Avenue/E. Bayshore Road intersection is within the jurisdiction of East Palo Alto. Four other study intersections are within the jurisdiction of Palo Alto.

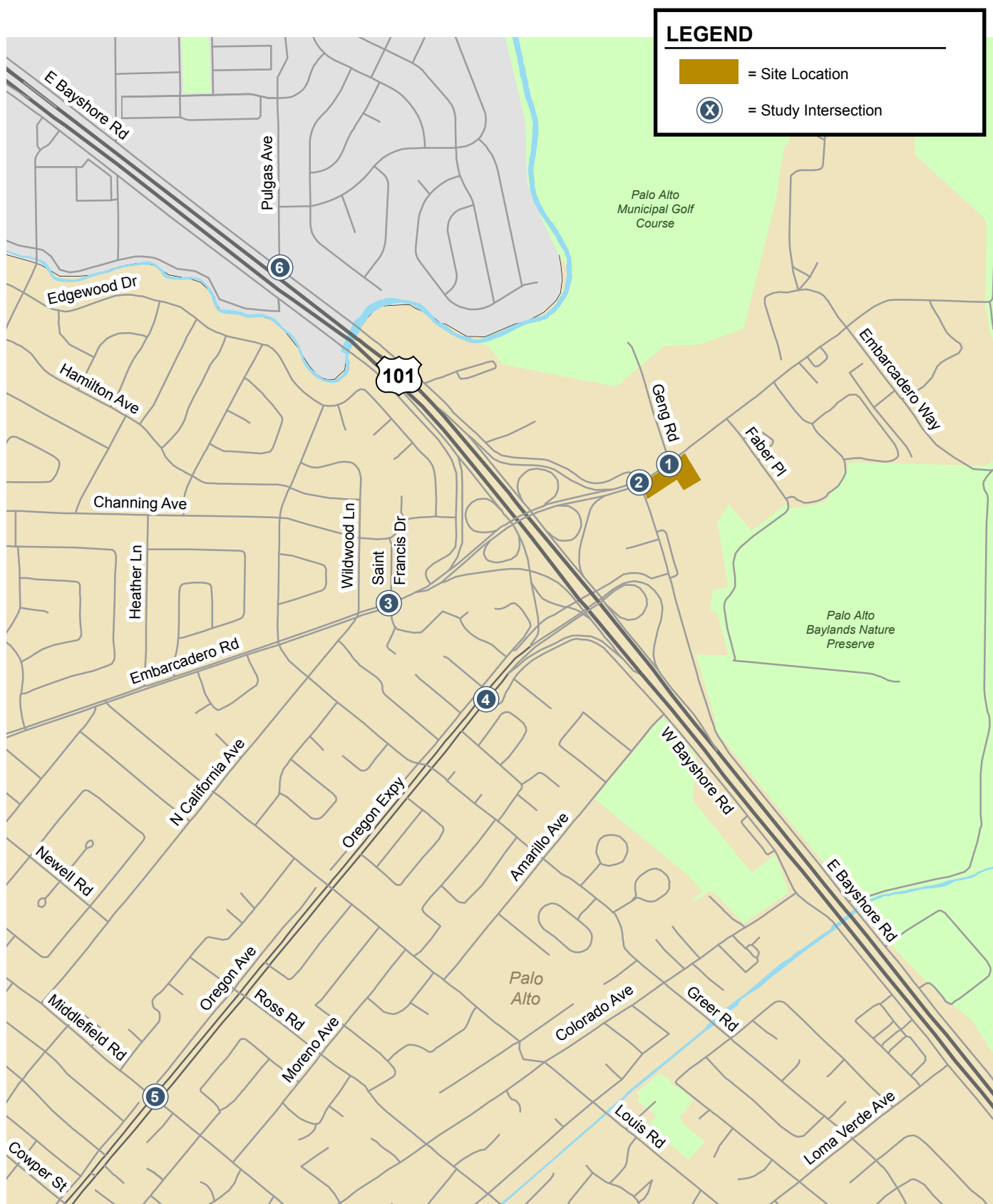


Figure 1
Site Location and Study Intersections

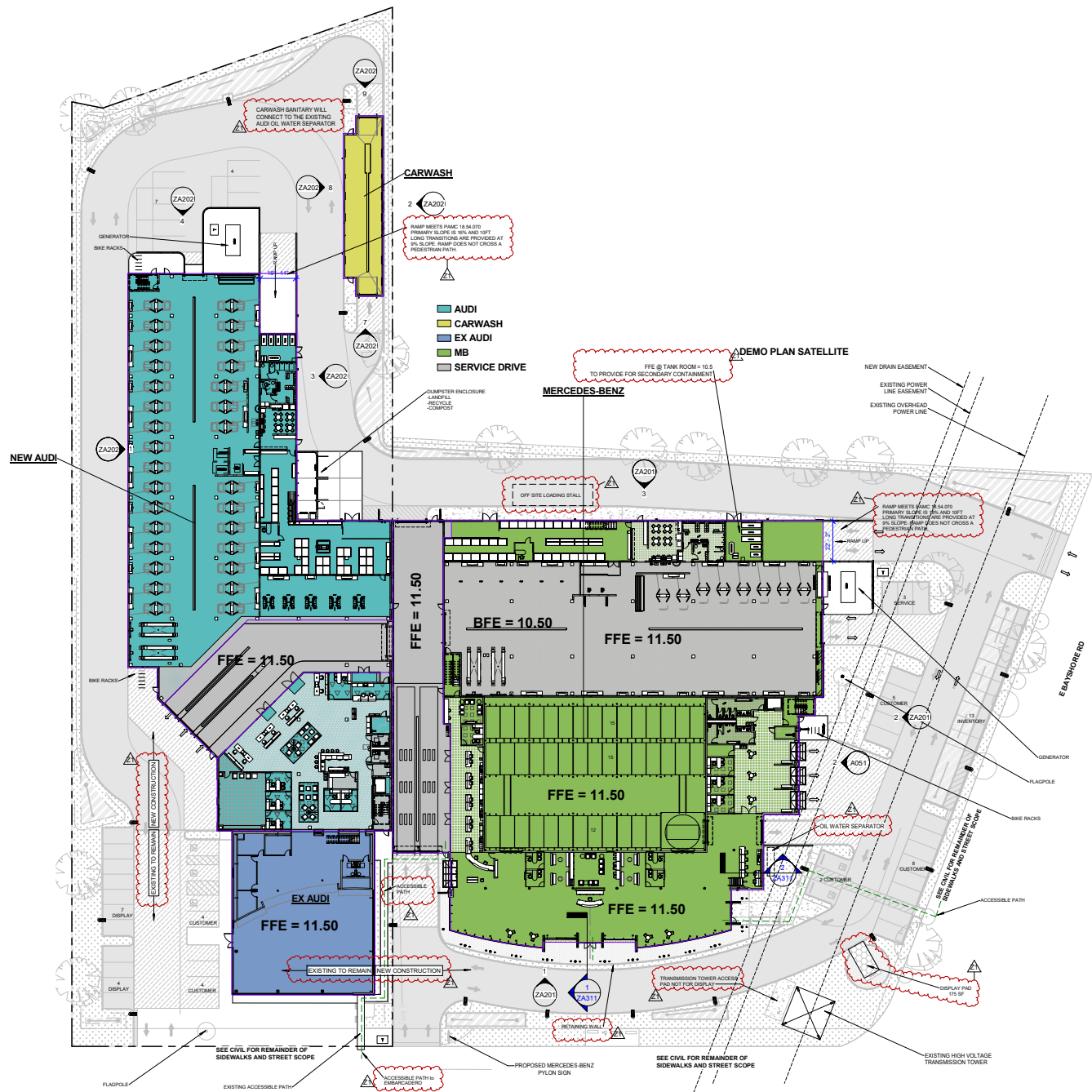


Figure 2
Proposed Site Plan

1. Geng Road and Embarcadero Road
2. E. Bayshore Road and Embarcadero Road
3. St. Francis Drive and Embarcadero Road
4. W. Bayshore Road and Oregon Expressway
5. Middlefield Road and Oregon Expressway (CMP)
6. Pulgas Avenue and E. Bayshore Road (City of East Palo Alto)

Intersection traffic conditions were evaluated for the following scenarios:

- **Existing Conditions.** Existing AM and PM peak-hour traffic volumes were obtained from new turning-movement counts conducted in August 2018. The study intersections were evaluated with a level of service analysis using TRAFFIX software in accordance with the *2000 Highway Capacity Manual* methodology.
- **Existing Plus Project Conditions.** Existing plus project traffic volumes were estimated by adding the additional traffic generated by the project.
- **Background Conditions.** Background traffic volumes were estimated by adding to existing traffic volumes the projected volumes from approved but not yet constructed developments in the vicinity of the project. Lists of approved but not yet constructed developments were provided by the Cities of Palo Alto and East Palo Alto.
- **Background Plus Project Conditions.** Background plus project traffic volumes were estimated by adding the additional traffic generated by the project. Background plus project conditions were evaluated relative to background conditions in order to determine potential project impacts.
- **Cumulative No Project Conditions.** The cumulative no project traffic volumes were estimated by applying a compound growth factor of 1.4 percent per year for 5 years to existing traffic volumes and adding trips generated by the approved projects.
- **Cumulative Plus Project Conditions.** Cumulative plus project traffic volumes were estimated by adding the new traffic generated by the proposed project. Cumulative plus project conditions were evaluated relative to cumulative conditions in order to determine potential project impacts.

Study Freeway Segments

According to VTA and C/CAG technical guidelines, an analysis of freeway segment levels of service is required if a project is estimated to add trips to a freeway segment equal to or greater than one percent of the capacity of that segment. Based on the trip generation and trip distribution included in Chapter 3, the proposed project trips represent less than one percent of capacity to freeway segments on US 101 in the project vicinity (See Table 1). Thus, the project would have an insignificant impact on nearby freeway segments, and an analysis of freeway segment levels of service was not performed.

Study Freeway Ramps

Based on VTA TIA Guidelines, a TIA should include a queuing analysis for freeway on-ramps with existing or planned ramp meters, and off-ramps controlled by signals at junctions with local streets. The US 101/Embarcadero Road interchange provides direct access to the freeway system from the project site. Therefore, a freeway ramp traffic operations analysis was conducted for the following ramps:

- US 101 northbound on-ramp from westbound Embarcadero Road.
- US 101 northbound off-ramp to eastbound Embarcadero Road.

The US 101 southbound off-ramp to eastbound Embarcadero Road is not controlled by a traffic signal, and the US 101 southbound on-ramp from westbound Embarcadero Road is not metered during the AM or PM commute period. Therefore, these two ramps were not included in the analysis.

Table 1
Freeway Segment Capacity Evaluation

Freeway Segment				Existing Conditions						Project Trips	
				Mixed-Flow			HOV Lane			Mixed-Flow	
				# of Lanes ¹	Capacity ²	LOS ¹	# of Lanes ¹	Capacity ²	LOS ¹	Project Trips ³	% of Capacity
Dir	Peak Hour										
US 101 San Antonio Ave to Oregon Expwy	NB	AM	3	6,900	E	2	3,300	D	35	0.5%	
		PM	3	6,900	F	2	3,300	D	32	0.5%	
US 101 Oregon Expwy to Embarcadero Rd	NB	AM	3	6,900	F	1	1,650	F	35	0.5%	
		PM	3	6,900	F	1	1,650	F	32	0.5%	
US 101 Embarcadero Rd to University Ave	NB	AM	3	6,900	F	1	1,650	F	22	0.3%	
		PM	3	6,900	F	1	1,650	F	41	0.6%	
US 101 University Ave to Embarcadero Rd	SB	AM	3	6,900	F	1	1,650	F	29	0.4%	
		PM	3	6,900	F	1	1,650	F	26	0.4%	
US 101 Embarcadero Rd to Oregon Expwy	SB	AM	3	6,900	D	1	1,650	D	26	0.4%	
		PM	3	6,900	F	1	1,650	F	49	0.7%	
US 101 Oregon Expwy to San Antonio Ave	SB	AM	3	6,900	D	2	3,300	C	26	0.4%	
		PM	3	6,900	F	2	3,300	D	49	0.7%	

Notes:

HOV = high-occupancy vehicle; LOS = level of service.

1. Number of lanes and level of service (LOS) for the segments in Santa Clara County are based on VTA's 2016 CMP Monitoring Report. LOS for the segment in San Mateo County is based on C/CAG's 2015 CMP Monitoring Report.

2. Capacity is based on the capacities cited in VTA's Transportation Impact Analysis Guidelines (2014).

3. Project trips are assumed to be single-occupancy vehicle trips.

Bold indicates a substandard level of service.

Other Transportation Issues

The study includes a queuing analysis at the E. Bayshore Road/Embarcadero Road intersection, a review of site access and circulation, an evaluation of potential impacts to transit services and pedestrian and bicycle facilities, and an evaluation of potential impacts on vehicle miles traveled (VMT).

Methodology

This section presents the methods used to determine traffic conditions at the study intersections and the traffic impacts of the project. It includes descriptions of the data requirements, the analysis methodologies, and the applicable level of service standards.

Data Requirements

The data required for the analysis were obtained from new traffic counts, the Cities of Palo Alto and East Palo Alto, the CMP Annual Monitoring Report, field observations. The following data were collected from these sources:

- Intersection traffic volumes,
- Lane geometries,
- Signal timing and phasing, and
- Approved but not yet constructed developments.

Intersection Level of Service Methodology and Standards

Traffic conditions at the study intersections were evaluated using level of service (LOS). Level of service is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays.

The Cities of Palo Alto and East Palo Alto and the VTA evaluate level of service at signalized intersections based on the 2000 Highway Capacity Manual (HCM) level of service methodology using TRAFFIX software. This method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. Table 2 shows the level of service definitions for signalized intersections.

Table 2
Signalized Intersection Level of Service Definitions Based on Average Control Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	10.0 or less
B+	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 12.0
B		12.1 to 18.0
B-		18.1 to 20.0
C+	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though may still pass through the intersection without stopping.	20.1 to 23.0
C		23.1 to 32.0
C-		32.1 to 35.0
D+	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 39.0
D		39.1 to 51.0
D-		51.1 to 55.0
E+	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.	55.1 to 60.0
E		60.1 to 75.0
E-		75.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes of such delay levels.	greater than 80.0
Source: Transportation Research Board, <i>2000 Highway Capacity Manual</i> (Washington, D.C., 2000) p10-16. VTA Traffic Level of Service Analysis Guidelines (June 2003), Table 2.		

The intersections located in the Cities of Palo Alto and East Palo Alto are subject to the level of service standard of LOS D or better for city-controlled signalized intersections. The Middlefield Road/Oregon Expressway intersection is subject to the CMP level of service standard of LOS E or better.

Intersection Vehicle Queuing Analysis

The analysis of intersection levels of service was supplemented with a vehicle queuing analysis at intersections where the project would add a substantial number of trips to the left-turn movements. Vehicle queues were calculated using a Poisson probability distribution, which estimates the probability of “n” vehicles for a vehicle movement using the following formula:

$$P(x = n) = \frac{\lambda^n e^{-\lambda}}{n!}$$

Where:

$P(x = n)$ = probability of “n” vehicles in queue per lane

n = number of vehicles in the queue per lane

λ = average # of vehicles in the queue per lane (vehicles per hr. per lane/signal cycles per hr.)

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95th percentile maximum number of queued vehicles per signal cycle for a particular movement; (2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the movement. This analysis thus provides a basis for estimating future vehicle storage requirements at intersections.

The 95th percentile queue length value indicates that during the peak hour, a queue of this length or less would occur on 95 percent of the signal cycles. Or, a queue length larger than the 95th percentile queue would only occur on 5 percent of the signal cycles (about 3 cycles during the peak hour for a signal with a 60-second cycle length). Therefore, left-turn pocket storage designs based on the 95th percentile queue length would ensure that storage space would be exceeded only 5 percent of the time for a signalized movement.

Freeway Ramp Operations

A freeway ramp operations analysis was performed to identify the effects of project traffic on the vehicle queues at the metered on-ramp and the signal-controlled off-ramp. Ramp operations at the study ramps were based on field observations during the AM and PM peak hours of traffic. It should be noted that the evaluation of freeway ramps is not required based on the VTA's TIA guidelines, nor are there adopted methodologies and impact criteria for the analysis of freeway ramps.

Significant Impact Criteria for Signalized Intersections

Significance criteria are used to establish what constitutes an impact. Significance criteria for impacts on signalized intersections are based on the level of service standards. According to the Cities of Palo Alto and East Palo Alto and the CMP level of service standards, a development is said to create a significant adverse impact on traffic conditions at a signalized intersection if for either peak hour, one of the following conditions occurs:

1. The level of service at the intersection drops below its respective level of service standard (LOS D or better for local intersections and LOS E or better for CMP intersections) when project traffic is added, or

2. An intersection that operates below its level of service standard under no-project conditions experiences an increase in critical-movement delay of four (4) or more seconds, and an increase in critical volume-to-capacity ratio (V/C) of one percent (0.01) or more when project traffic is added.

The exception to this threshold is when the addition of project traffic reduces the amount of average control delay for critical movements, i.e., the change in average control delay for critical movements are negative. In this case, the threshold is when the project increases the critical v/c value by 0.01 or more.

A significant impact is said to be satisfactorily mitigated when measures are implemented that would restore intersection conditions to its acceptable level of service or to an average delay that is better than no-project conditions.

Report Organization

This report has a total of eight chapters. Chapter 2 describes existing conditions including the existing roadway network, transit service, bicycle and pedestrian facilities. Chapter 3 describes the method used to estimate project traffic, the intersection operations under existing plus project conditions, and the project's impact on the existing roadway network. Chapter 4 describes approved projects and the planned transportation improvements in the study area and presents the intersection operations under background conditions. Chapter 5 presents the intersection operations under background plus project conditions and describes the project's impact on the planned roadway network. Chapter 6 presents the intersection operations under cumulative conditions with and without the project. Chapter 7 presents the analysis of other transportation-related issues, including vehicle queuing at selected intersections, site access and circulation, and potential impacts on bicycle, pedestrian, and transit facilities. Chapter 8 presents the conclusions of the traffic impact analysis.

2. Existing Conditions

This chapter describes the existing conditions for transportation facilities in the vicinity of the site, including the roadway network, transit services, pedestrian and bicycle facilities, and traffic operations at the study intersections.

Existing Roadway Network

Regional access to the project site is provided by US 101. Local access to the project site is provided via Embarcadero Road and E. Bayshore Road.

US 101 is a north-south freeway that extends through and beyond the Bay Area, connecting San Francisco to San Jose. US 101 is eight lanes wide with three mixed-flow lanes and one high-occupancy vehicle (HOV) lane in each direction in the vicinity of the project site. US 101 provides access to the study area via full interchanges at Embarcadero Road.

Embarcadero Road is an east-west arterial that extends eastward from El Camino Real and terminates near the Palo Alto Municipal Airport. In the vicinity of the project site, Embarcadero Road has four lanes with the speed limit is 25 miles per hour (mph). Sidewalks are present on both sides of the street, except the section between W. and E. Bayshore Road where sidewalks are present only on the north side of the street. East of Geng Road, bike lanes are present on both sides of the street with street parking on the south side of the street. Embarcadero Road runs along the northern boundary of the project site and provides access to the Mercedes Benz site via a planned driveway with right-in access only and to the Audi site via a full-access driveway.

E. Bayshore Road is a two-lane frontage road that runs parallel to and immediately east of US 101. The speed limit is 35 mph. In the project vicinity, sidewalks are present on both sides of the street south of Embarcadero Road and on the east side of the street north of Embarcadero Road. Bike lanes are present on both sides of the street south of Embarcadero Road. On-street parking is prohibited on E. Bayshore Road in the project vicinity. E. Bayshore Road runs along the western boundary of the Mercedes Benz site and provides access to the site via one full-access driveway.

Existing Transit Services

Existing transit service to the study area is provided by the City of Palo Alto's shuttle service, which is free and open to everyone. The Embarcadero Shuttle runs on Embarcadero Road and provides weekday peak-hour service between the Palo Alto Caltrain Station and the Baylands Business Parks east of US 101. Local schools and community facilities are also served including Palo Alto High School, Jordan Middle School and Castilleja School. The Embarcadero Shuttle runs approximately every 20

minutes, Monday through Friday during commute hours (7:00 to 10:00 AM and 3:30 to 7:00 PM) and is coordinated with the Caltrain schedule. The nearest shuttle stops are located on Embarcadero Road near Geng Road.

Other transit services (VTA and SamTrans bus services, Stanford University's Marguerite shuttle service, and Caltrain) are provided at the Palo Alto Transit Center/Caltrain Station.

Existing Pedestrian Facilities

Pedestrian facilities consist of sidewalks and crosswalks along the streets in the study area. East of E. Bayshore Road, sidewalks exist along both sides of Embarcadero Road, Geng Road, and E. Bayshore Road south of Embarcadero Road. North of Embarcadero Road, sidewalks exist on the east side of E. Bayshore Road. Between W. and E. Bayshore Road, sidewalks exist only on the north side of Embarcadero Road. West of W. Bayshore Road, sidewalks are found along both sides of Embarcadero Road and most residential roadways.

Crosswalks are present on some legs at all study intersections. However, many intersections lack crosswalks on the north leg. Also, no crosswalks exist at the US101/Embarcadero Road interchange. Pedestrians can cross US 101 via a dedicated pedestrian/bike overcrossing that can be accessed near the St. Francis Drive/Oregon Avenue intersection on the west side of US 101 and via E. Bayshore Road about 700 feet south of Embarcadero Road on the east side of US 101 (see Figure 3).

Existing Bicycle Facilities

The bicycle facilities in the vicinity of the project (see Figure 3) include a multi-use trail (Class I bikeway), striped bike lanes (Class II bikeway), and shared bike routes (Class III bikeway). Multi-use trails are shared between pedestrians and bicyclists and separated from motor vehicle traffic. Bike lanes are lanes on roadways designated for use by bicycles with special lane markings, pavement legends, and signage. Bike routes are existing streets that accommodate bicycles but are not separate from the existing travel lanes. Routes are typically designated only with signs.

The Renzel Trail extends between Faber Place and the Adobe Creek Loop Trail and runs parallel to Bayshore Road. It connects the Adobe Creek Loop Trail with the San Francisquito Creek Trail through bike lanes on Embarcadero Road and Geng Road and bike routes on Faber Place. It is part of the Baylands trail system that traverses through the Baylands open space area of Palo Alto.

Bike lanes exist along both sides of Embarcadero Road east of Geng Road and along both sides of E. Bayshore Road south of Embarcadero Road. Bike routes exist along of E. Bayshore Road north of Embarcadero Road. In addition, bicyclists and pedestrians are able to cross US 101 via a dedicated pedestrian/bike bridge that can be accessed via E. Bayshore Road.

Existing Lane Configurations and Traffic Volumes

The existing lane configurations at the study intersections were obtained from field observations (see Figure 4).

Existing peak-hour intersection volumes (see Figure 5) were obtained from turning movement counts collected in August 2018, between 7:00 and 9:00 AM and between 4:00 and 6:00 PM. The PM peak-hour count for the Middlefield Road/Oregon Expressway intersection was provided by VTA.

The intersection turning-movement counts conducted for this analysis are presented in Appendix A. Traffic volumes for all components of traffic are tabulated in Appendix B.

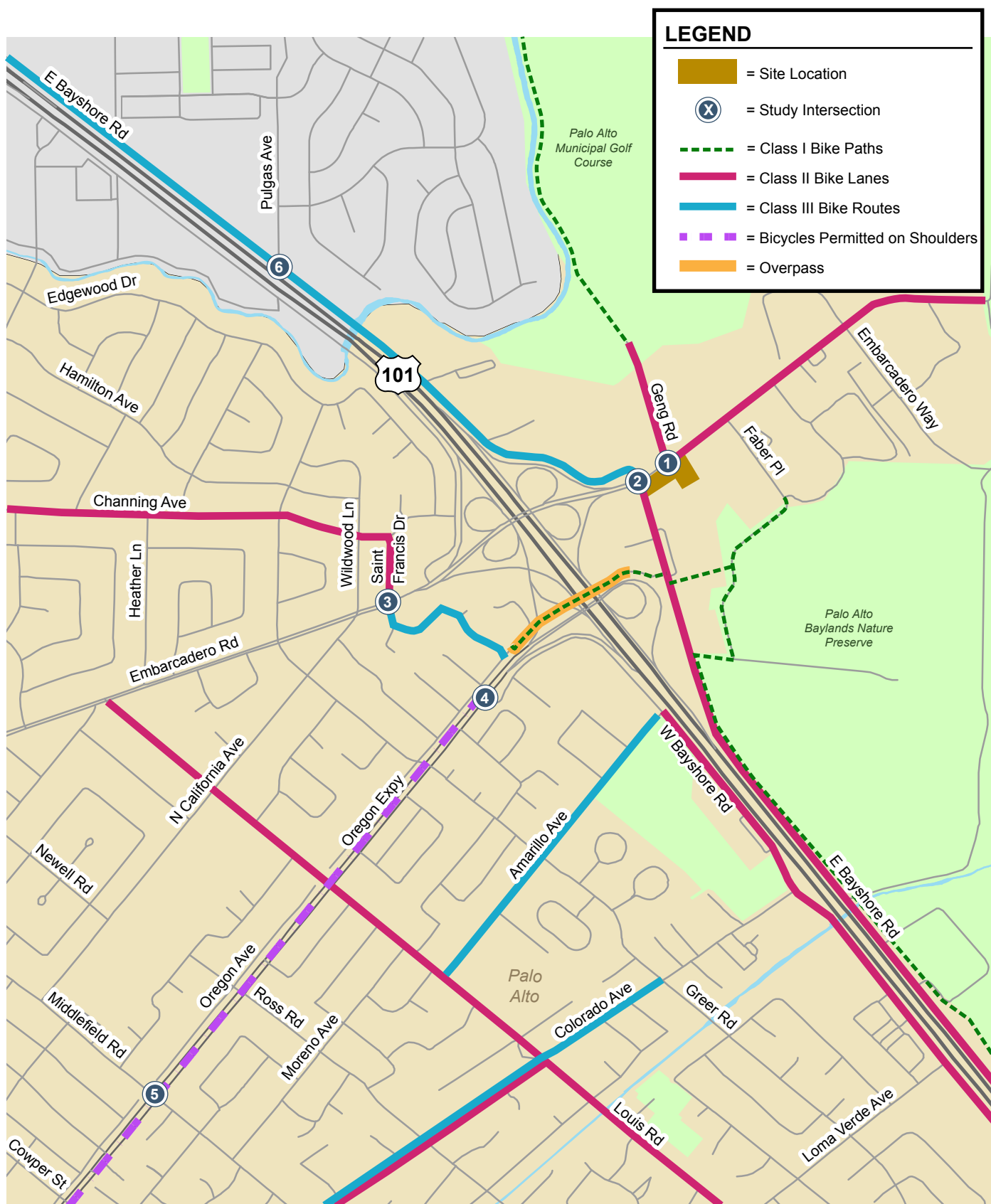


Figure 3
Existing Bicycle Facilities

1700-1730 Embarcadero Road Auto Dealerships

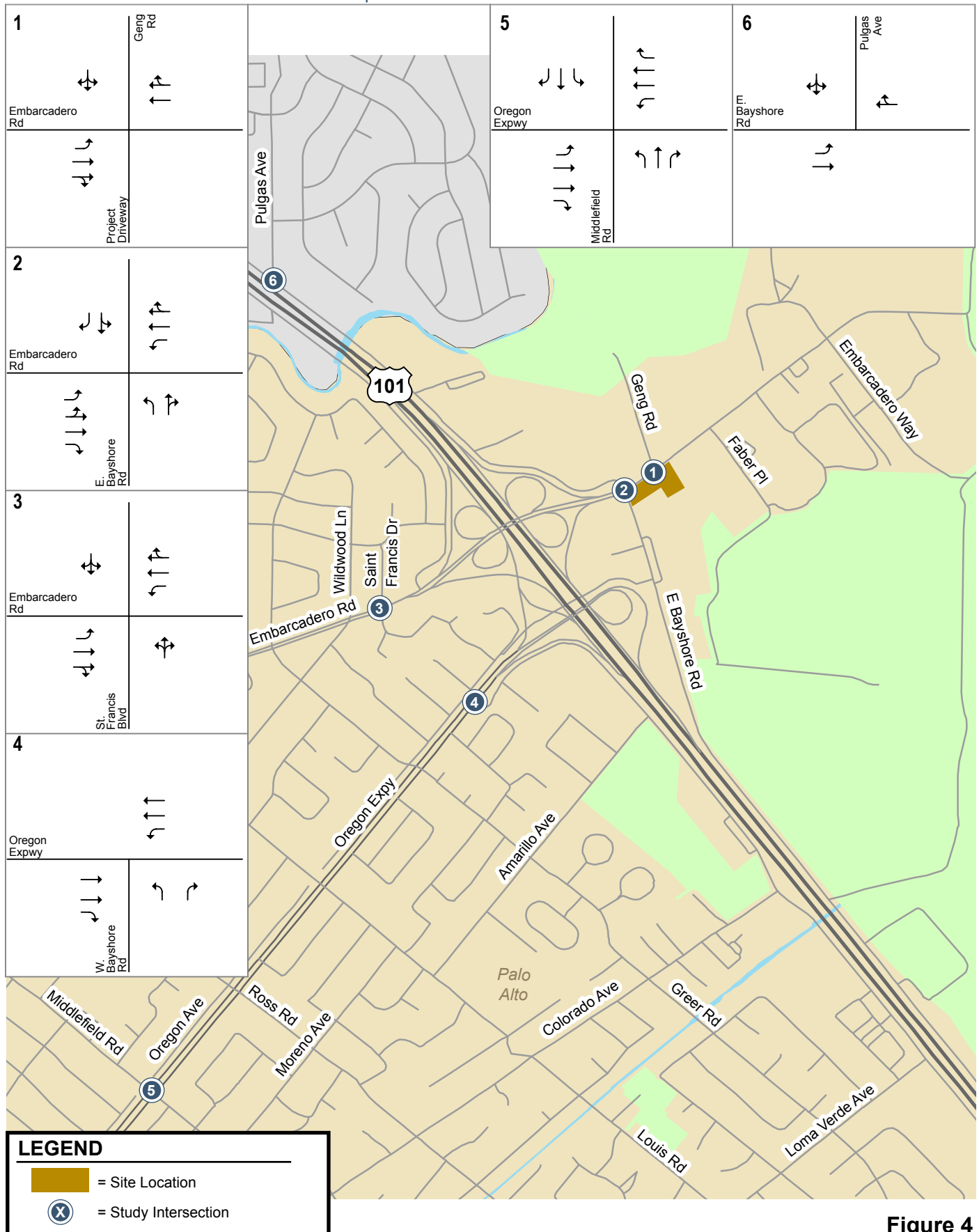


Figure 4
Existing Lane Configurations

1700-1730 Embarcadero Road Auto Dealerships

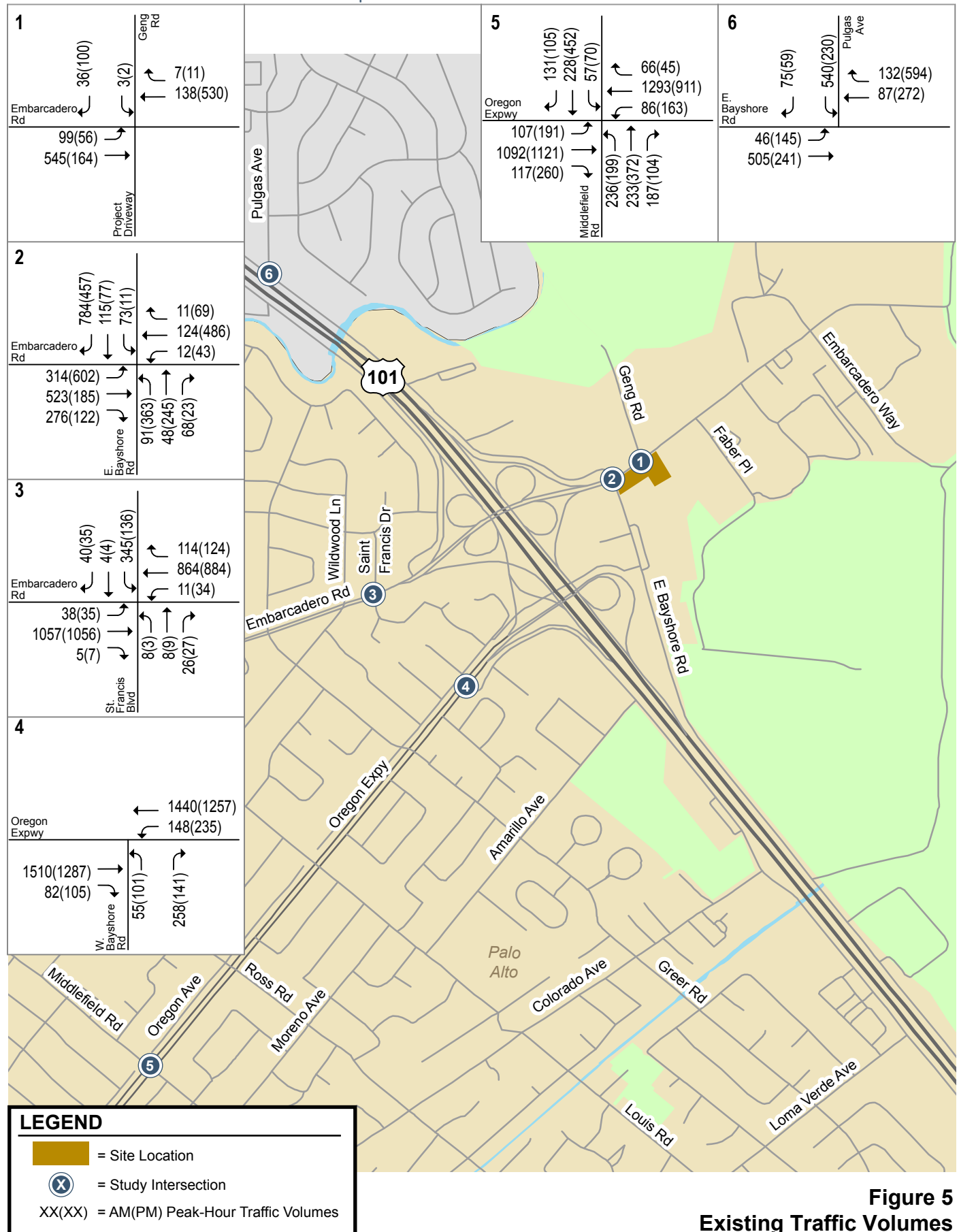


Figure 5
Existing Traffic Volumes

Existing Intersection Levels of Service

Intersection levels of service were evaluated against Cities of Palo Alto and East Palo Alto and CMP standards. The results of the intersection level of service analysis (see Table 3) and field observations show that most of the study intersections currently are operating at acceptable levels, with the exception of the E. Bayshore Road/Embarcadero Road intersection.

Field observations, as described below, indicate during the AM peak hour, a lengthy vehicle queue occurs along southbound E. Bayshore Road between Embarcadero Road and Laura Lane, due to high southbound right-turn traffic volume at the E. Bayshore Road/Embarcadero Road intersection. During the PM peak hour, there were long vehicle queues in the eastbound lanes on Embarcadero Road and the northbound lane on E. Bayshore Road, caused by the northbound traffic congestion on E. Bayshore Road, between Pulgas Avenue and Embarcadero Road. The northbound E. Bayshore vehicle queue that extends back from East Palo Alto into the E. Bayshore Road/Embarcadero Road intersection is due to numerous roadway and US 101 construction projects in Menlo Park, East Palo Alto, and Palo Alto in the project vicinity. The LOS calculations were adjusted to reflect the maximum queue length observed in the field during the AM and PM peak hours. During the PM peak hour, the intersection is shown to operate at an unacceptable LOS F with the adjustments.

The intersection levels of service calculation sheets are included in Appendix C.

Table 3
Existing Intersection Levels of Service

ID	Intersection (Jurisdiction)	LOS Standard	Peak Hour	Count Date	Avg. Delay ¹	LOS
1	Geng Road and Embarcadero Road (Palo Alto)	D	AM PM	08/15/18 08/15/18	7.6 9.8	A A
2	E. Bayshore Road and Embarcadero Road (Palo Alto)	D	AM PM	08/15/18 08/15/18	35.8 81.5	D+ F
3	St. Francis Drive and Embarcadero Road (Palo Alto)	D	AM PM	08/15/18 08/15/18	24.1 15.7	C B
4	W. Bayshore Road and Oregon Expressway (Palo Alto)	D	AM PM	08/15/18 08/15/18	14.6 16.8	B B
5	Middlefield Road and Oregon Expressway* (Palo Alto)	E	AM PM	08/15/18 10/06/16	55.7 59.5	E+ E+
6	Pulgas Avenue and E. Bayshore Road (East Palo Alto)	D	AM PM	08/15/18 08/15/18	34.4 41.7	C- D

Notes:
 * Denotes VTA CMP intersection
¹ Overall weighted average control delay (seconds per vehicle) is reported for signalized intersections.
Bold indicates a substandard level of service.

Observed Existing Traffic Conditions

Traffic conditions were observed in the field in order to identify any existing operational deficiencies and to confirm the accuracy of calculated levels of service. The purpose of this effort was (1) to identify any existing traffic problems that may not be directly related to intersection level of service, and (2) to identify any locations where the level of service analysis does not accurately reflect existing traffic conditions.

Field observations showed that operational issues currently occur at the E. Bayshore Road/Embarcadero Road intersection that may not be reflected when calculating the level of service using the existing volumes.

During the AM peak hour, there was a long vehicle queue in the southbound right-turn lane on E. Bayshore Road due to high traffic volume. Vehicles were observed to take more than one cycle to get through the intersection.

During the PM peak hour, there were long vehicle queues in the eastbound lanes on Embarcadero Road and the northbound lane on E. Bayshore Road. The long vehicle queues were contributed by the high eastbound to northbound left-turn and the northbound through traffic. Two northbound departure lanes on E. Bayshore Road are reduced to one lane immediately north of the intersection, which caused the merging traffic to frequently queue back to the intersection and stopped eastbound left-turn and northbound through traffic entering the intersection even when there were green times left in the cycle. Additional issues along northbound E. Bayshore Road stem from the signalized intersection of E Bayshore Road and Pulgas Avenue, where the northbound queue extends beyond Luran Lane and creates a stop-and-go condition on northbound E. Bayshore Road between Pulgas Avenue and Embarcadero Road.

The long vehicle queue caused by high eastbound left-turn traffic extended beyond the access point of the US101 northbound off-ramp and also resulted in a vehicle queue on the off-ramp because it is difficult for the off-ramp vehicles to merge into the eastbound traffic on Embarcadero Road. Vehicles on eastbound Embarcadero Road and the northbound off-ramp were observed to take two to three signal cycles to clear the intersection, and vehicles on northbound E. Bayshore Road were observed to take three to four cycles to clear the intersection.

The westbound vehicle queue on Embarcadero Road occasionally reached Geng Road and took more than one cycle to clear the intersection during the PM peak hour.

3.

Existing Plus Project Conditions

This chapter describes existing plus project traffic conditions, including the method by which project traffic is estimated.

Roadway Network under Existing Plus Project Conditions

The roadway network under existing plus project conditions would be the same as the existing roadway network.

The project would add a new driveway to the Mercedes Benz dealership at the Geng Road/Embarcadero Road intersection opposite Geng Road. The driveway would be an inbound, right-turn only driveway.

Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear were estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic traveling to and from the proposed satellite parking facility was estimated for the AM and PM peak hours. As part of the project trip distribution, the directions to and from which the project trips would travel were estimated. In the project trip assignment, the project trips were assigned to specific streets and intersections. These procedures are described below.

Trip Generation

Trip generation for the proposed auto dealerships was estimated based on calculating the average trip generation rates for nearby automobile dealerships in Palo Alto and Belmont, based on showroom and office square footage. Driveway counts for Anderson Honda in Palo Alto and Autobahn Motors in Belmont were conducted on June 22 and 23, 2015, and driveway counts for Palo Alto Audi were conducted on July 17, 2018. Using these driveway counts, and the estimated showroom and office sizes, average rates for trips per 1,000 square feet (s.f.) were calculated from the three dealerships. Based on showroom and office size, the nearby automobile dealerships were found to produce 5.26 trips per 1,000 s.f. during the AM peak hour and 6.74 trips per 1,000 s.f. during the PM peak hour. Using these average rates, the proposed Mercedes Benz dealership is estimated to produce 138 new trips in the AM peak hour (81 inbound and 57 outbound) and 177 new trips in the PM peak hour (70 inbound and 107 outbound). No credit was given for the existing restaurant on the site because the restaurant has been closed for several years, and the site is used to store the Audi dealership's vehicles. The expansion at the existing Audi dealership is estimated to add 66 new trips in the AM peak

hour (36 inbound and 30 outbound) and 90 new trips in the PM peak hour (35 inbound and 55 outbound). Both Audi and Mercedes Benz dealerships together would produce 204 new trips in the AM peak hour (117 inbound and 87 outbound) and 267 new trips in the PM peak hour (105 inbound and 162 outbound) (see Table 4).

Table 4
Project Trip Generation Estimates

Land Use	Showroom Size (sq. ft.)	Trip Rate ¹	AM Peak Hour						PM Peak Hour						
			Splits		Trips			Trip Rate ¹	Splits		Trips				
			In	Out	In	Out	Total		In	Out	In	Out	Total		
Proposed Land Uses															
Audi	22,929	5.26	59%	41%	71	50	121	6.74	40%	60%	61	94	155		
Mercedes Benz	26,188				81	57	138				70	107	177		
Total Gross Project Trips					152	107	259						131	201	332
Existing Land Use															
Palo Alto Audi ²	9,764				-35	-20	-55				-26	-39	-65		
Net Project Trips					117	87	204						105	162	267
Notes:															
1. Peak-Hour rates based on trips per 1,000 square feet of showroom/office space from similar auto dealerships in Palo Alto and Belmont.															
2. Existing peak-hour trips at the project site (1700 & 1730 Embarcadero Road) were obtained from the driveway counts conducted on July 17, 2018.															

Trip Distribution and Assignment

The trip distribution pattern for the proposed auto dealerships was estimated based on existing travel patterns on the surrounding roadway system and the locations of complementary land uses (see Figure 6).

The peak-hour trips generated by the project were assigned to the roadway system based on the directions of approach and departure, the roadway network connections, and the locations of project driveways. Project trip assignment assumptions are discussed below:

- The Audi trips would enter and exit the Audi site via the existing full-access driveway on Embarcadero Road.
- The Mercedes Benz trips would access the Mercedes Benz site via a right-in only driveway on Embarcadero Road and an existing full-access driveway on E. Bayshore Road. It was assumed that most Mercedes Benz inbound trips would enter the site via the Embarcadero Road driveway.

Figure 7 show the assignment of the net project traffic at the study intersections and the gross project trips at each driveway.

A tabular summary of project traffic at each study intersection is contained in Appendix B.

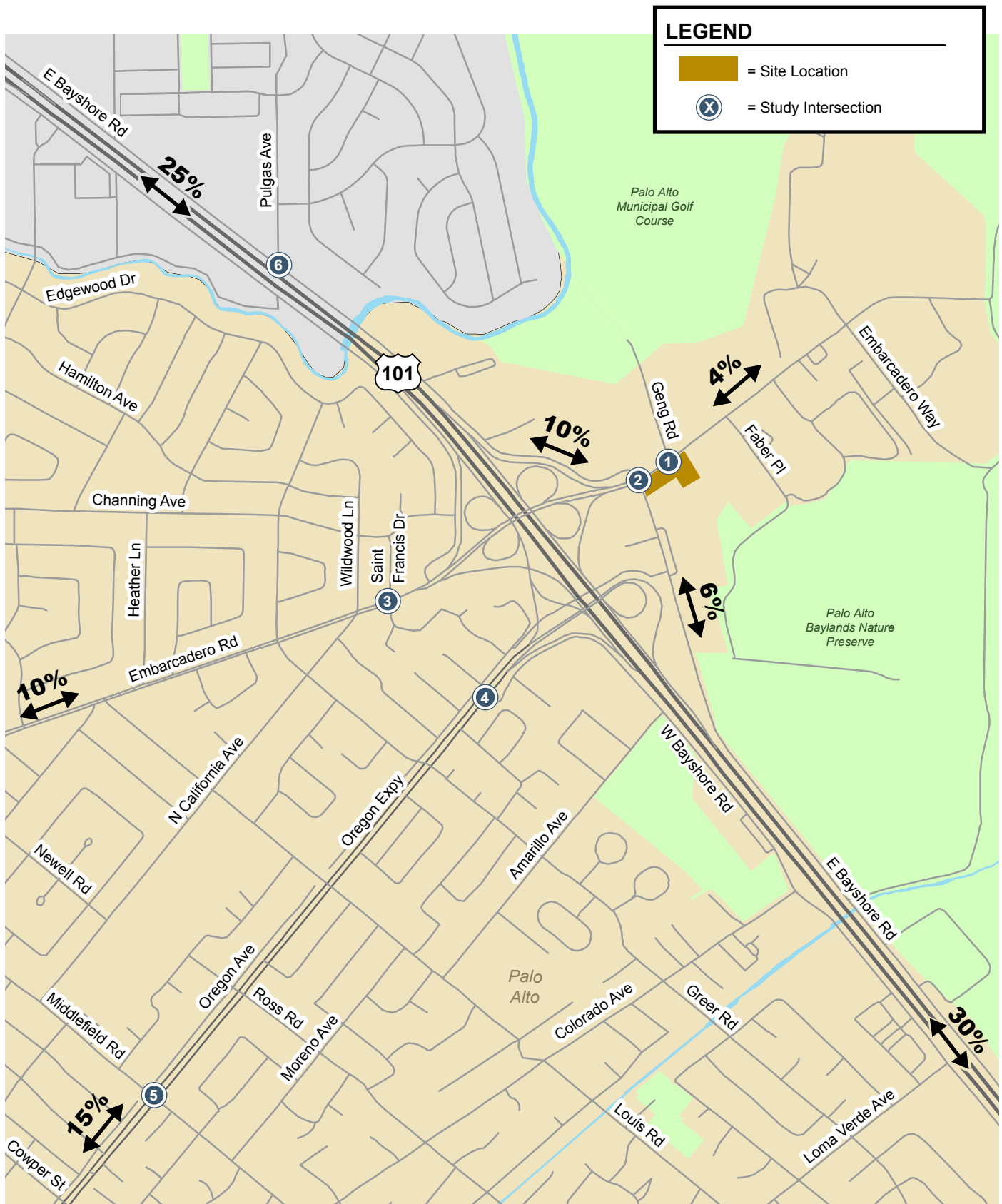


Figure 6
Project Trip Distribution

1700-1730 Embarcadero Road Auto Dealerships

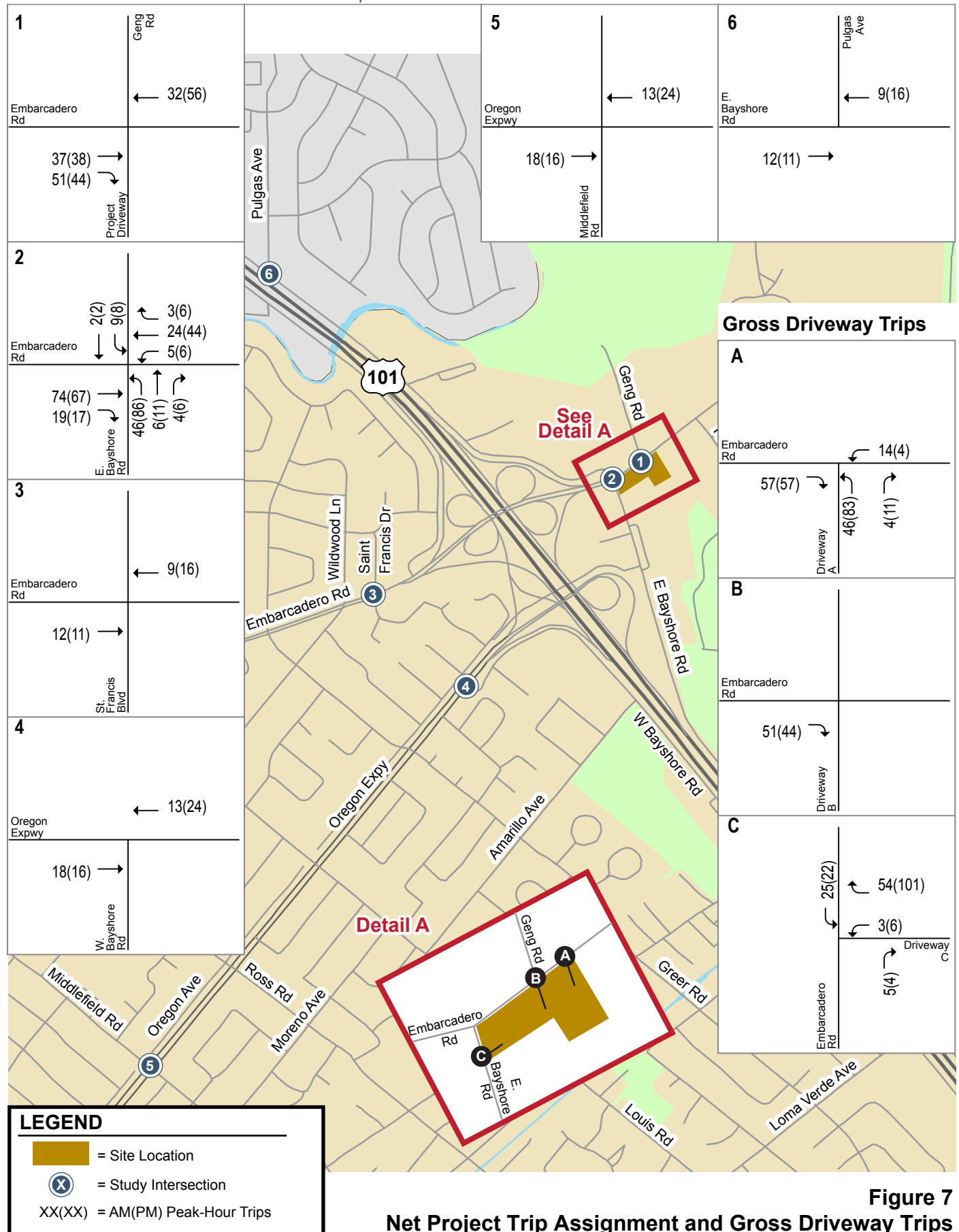


Figure 7

Net Project Trip Assignment and Gross Driveway Trips

Existing Plus Project Traffic Volumes

Project trips, as represented in the above project trip assignment, were added to existing traffic volumes to obtain existing plus project traffic volumes (see Figure 8).

Existing Plus Project Intersection Levels of Service

The level of service analysis under existing plus project conditions analysis is presented for information only as the criteria that define a significant project impact at a signalized intersection are based on background plus project conditions.

The results of the intersection level of service analysis show that the E. Bayshore Road/Embarcadero Road intersection would operate at unacceptable LOS F as under existing conditions (see Table 5).

All other study intersections would operate at acceptable levels during both the AM and PM peak hours of traffic.

Table 5
Existing Plus Project Intersection Levels of Service

ID	Intersection (Jurisdiction)	LOS Standard	Peak Hour	Existing		Existing+Project	
				Avg. Delay ¹	LOS	Avg. Delay ¹	LOS
1	Geng Road and Embarcadero Road (Palo Alto)	D	AM PM	7.6 9.8	A A	7.5 9.1	A A
2	E. Bayshore Road and Embarcadero Road (Palo Alto)	D	AM PM	35.8 81.5	D+ F	36.4 88.1	D+ F
3	St. Francis Drive and Embarcadero Road (Palo Alto)	D	AM PM	24.1 15.7	C B	24.1 15.6	C B
4	W. Bayshore Road and Oregon Expressway (Palo Alto)	D	AM PM	14.6 16.8	B B	14.6 16.7	B B
5	Middlefield Road and Oregon Expressway* (Palo Alto)	E	AM PM	55.7 59.5	E+ E+	56.1 59.9	E+ E+
6	Pulgas Avenue and E. Bayshore Road (East Palo Alto)	D	AM PM	34.4 41.7	C- D	35.0 43.4	C- D

Notes:

* Denotes VTA CMP intersection

¹ Overall weighted average control delay (seconds per vehicle) is reported for signalized intersections.

Bold indicates a substandard level of service.

LEGEND

- = Site Location
- X = Study Intersection
- XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Intersection 1: Embarcadero Rd / Oregon Expwy

Embarcadero Rd	36(100)	3(2)	7(11) 170(586)
Project Driveway	99(56) 582(202) 51(44)		

Intersection 2: Embarcadero Rd / E Bayshore Rd

Embarcadero Rd	784(457) 117(79) 82(19)	14(75) 148(530) 17(49)
E Bayshore Rd	314(602) 597(252) 295(139)	137(449) 54(256) 72(29)

Intersection 3: Embarcadero Rd / St. Francis Blvd

Embarcadero Rd	40(35) 4(4) 345(136)	114(124) 873(900) 11(34)
St. Francis Blvd	38(35) 1069(1067) 5(7)	8(3) 8(9) 26(27)

Intersection 4: Oregon Expwy / W. Bayshore Rd

Oregon Expwy	1453(1281) 148(235)
W. Bayshore Rd	1528(1303) 82(105)

Intersection 5: Oregon Expwy / Middlefield Rd

Oregon Expwy	131(105) 228(452) 57(70)	107(191) 1110(1137) 117(260)
Middlefield Rd	236(199) 233(372) 187(104)	

Intersection 6: E. Bayshore Rd / Pulgas Ave

E. Bayshore Rd	75(59) 46(145) 517(252)	540(230) 132(594) 96(288)
----------------	-------------------------------	---------------------------------

Figure 8

Existing Plus Project Traffic Volumes

4. Background Conditions

This chapter presents background traffic conditions, which are defined as conditions just prior to completion of the proposed project. This chapter describes the procedure used to determine background traffic volumes and the resulting traffic conditions.

Roadway Network Under Background Conditions

The roadway network under background conditions would be the same as the existing roadway network because there are no planned and funded transportation improvements at the study intersections that would alter the existing intersection lane configurations.

Background Traffic Volumes

Background traffic volumes for the study intersections (see Figure 9) were estimated by adding to the existing traffic volumes the trips generated by nearby approved projects that have not been constructed or occupied. Lists of approved projects were obtained from the Cities of Palo Alto and East Palo Alto. Hexagon considered both the location and size of the approved projects in order to eliminate those that were too far away or too small to affect traffic conditions of the study intersections. Vehicle trips from the approved projects were obtained from the project's TIA or environmental document. The estimated trips were assigned to the study intersections according to distributions identified in the development traffic studies. The approved projects considered for the study are listed in Appendix B.

Background Intersection Levels of Service

The results the level of service analysis under background conditions (see Table 6) show that the intersection of E. Bayshore Road and Embarcadero Road would operate at an unacceptable LOS F during the PM peak hour. All other study intersections would operate at acceptable levels of service during both AM and PM peak hours.

Intersection level of service calculation sheets are included in Appendix C.

1700-1730 Embarcadero Road Auto Dealerships

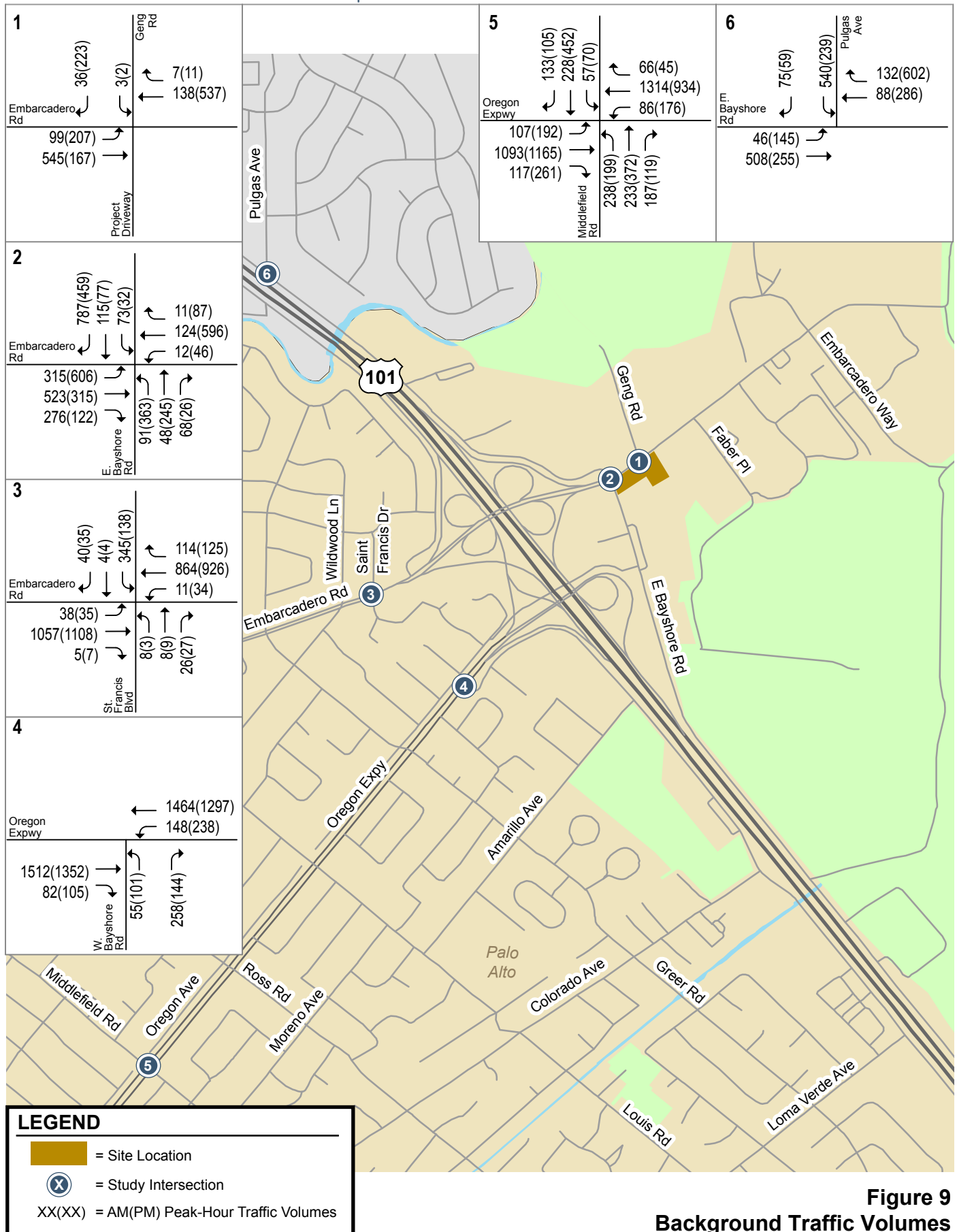


Figure 9
Background Traffic Volumes

Table 6
Background Intersection Levels of Service

ID	Intersection (Jurisdiction)	LOS Standard	Peak Hour	Existing		Background	
				Avg. Delay ¹	LOS	Avg. Delay ¹	LOS
1	Geng Road and Embarcadero Road (Palo Alto)	D	AM PM	7.6 9.8	A A	7.6 16.0	A B
2	E. Bayshore Road and Embarcadero Road (Palo Alto)	D	AM PM	35.8 81.5	D+ F	35.9 80.2	D+ F
3	St. Francis Drive and Embarcadero Road (Palo Alto)	D	AM PM	24.1 15.7	C B	24.1 15.4	C B
4	W. Bayshore Road and Oregon Expressway (Palo Alto)	D	AM PM	14.6 16.8	B B	14.6 16.7	B B
5	Middlefield Road and Oregon Expressway* (Palo Alto)	E	AM PM	55.7 59.5	E+ E+	56.1 60.3	E+ E
6	Pulgas Avenue and E. Bayshore Road (East Palo Alto)	D	AM PM	34.4 41.7	C- D	34.5 45.5	C- D

Notes:
 * Denotes VTA CMP intersection
¹ Overall weighted average control delay (seconds per vehicle) is reported for signalized intersections.
Bold indicates a substandard level of service.

5.

Background Plus Project Conditions

This chapter describes background plus project traffic conditions. Background plus project conditions were evaluated relative to background conditions in order to determine potential project impacts.

Roadway Network Under Background Plus Project Conditions

The roadway network under background plus project conditions would be the same as the existing plus project roadway network as described in Chapter 3.

Project Trip Estimates

The estimated project trip generation, distribution and assignment are the same under background plus project conditions as previously described under existing plus project conditions (see Chapter 3).

Background Plus Project Traffic Volumes

Project trips were added to background traffic volumes to obtain background plus project traffic volumes (see Figure 10).

Background Plus Project Intersection Levels of Service

The results of the level of service analysis under background plus project conditions (see Table 7) show that the E. Bayshore Road/Embarcadero Road intersection would operate at LOS F with an average delay of 80.2 seconds during the PM peak hour under background conditions, and the added project trips would cause the intersection's critical-movement delay to increase by 12.3 seconds and the V/C to increase by 0.085. Based on City of Palo Alto level of service impact criteria described in Chapter 1, this constitutes a significant impact. The proposed improvement to mitigate the impact at the intersection is described below.

All other study intersections would operate at acceptable levels of service during both AM and PM peak hours. Therefore, impacts at these study intersections would be less than significant. Intersection level of service calculation sheets are included in Appendix C.

1700-1730 Embarcadero Road Auto Dealerships

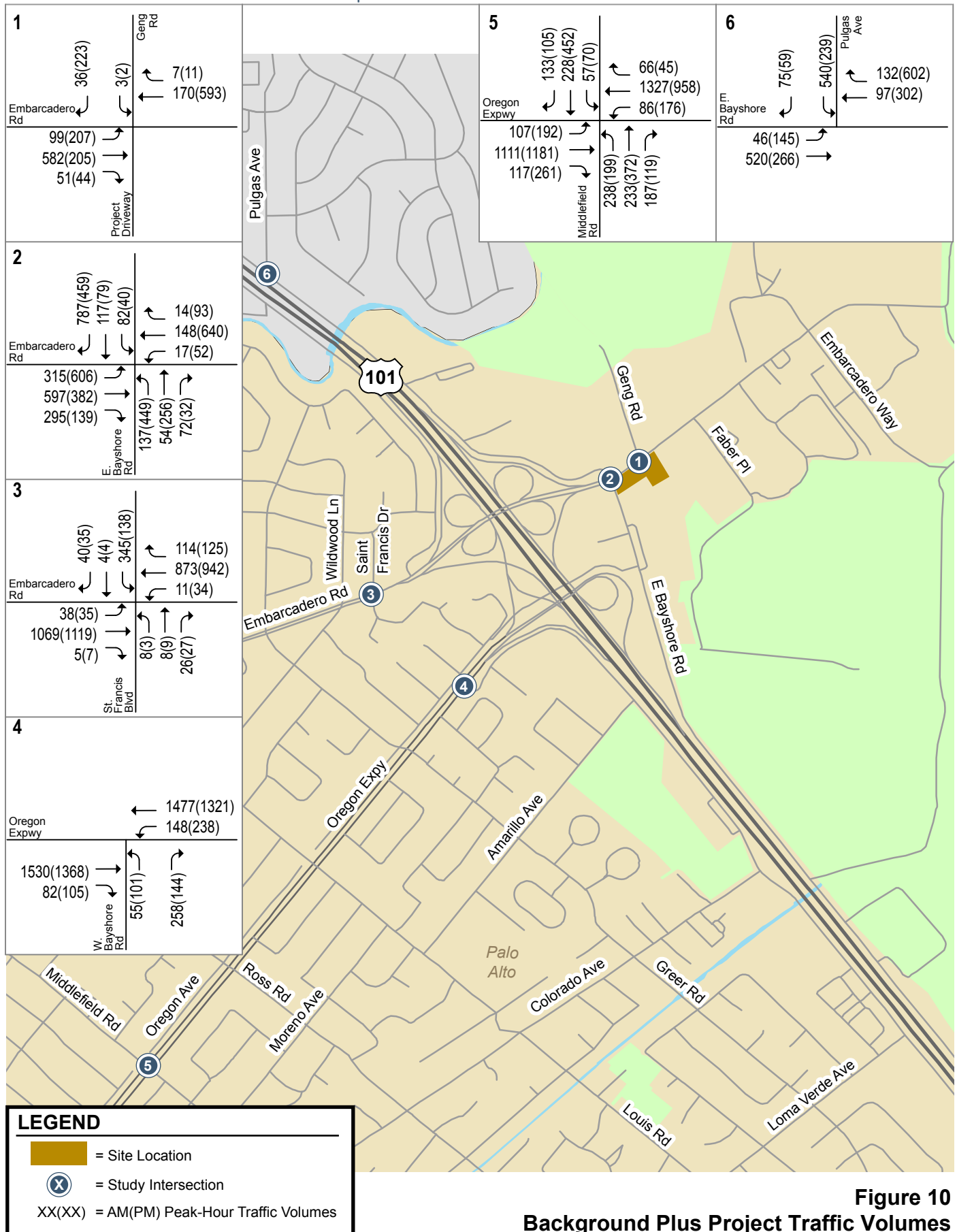


Figure 10
Background Plus Project Traffic Volumes

Table 7
Background Plus Project Intersection Levels of Service

ID	Intersection (Jurisdiction)	LOS Standard	Peak Hour	Background		Background+Project			
				Avg. Delay ¹	LOS	Avg. Delay ¹	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C
1	Geng Road and Embarcadero Road (Palo Alto)	D	AM	7.6	A	7.5	A	-0.2	0.010
			PM	16.0	B	15.2	B	-0.2	0.018
2	E. Bayshore Road and Embarcadero Road (Palo Alto)	D	AM	35.9	D+	36.5	D+	0.3	0.022
			PM	80.2	F	88.2	F	12.3	0.085
	Mitigation Measure: - With NB Lane Configuration Modification					78.7	E-		
3	St. Francis Drive and Embarcadero Road (Palo Alto)	D	AM	24.1	C	24.1	C	0.0	0.004
			PM	15.4	B	15.3	B	-0.1	0.003
4	W. Bayshore Road and Oregon Expressway (Palo Alto)	D	AM	14.6	B	14.5	B	-0.1	0.005
			PM	16.7	B	16.7	B	-0.1	0.004
5	Middlefield Road and Oregon Expressway* (Palo Alto)	E	AM	56.1	E+	56.5	E+	0.4	0.005
			PM	60.3	E	60.7	E	0.4	0.005
6	Pulgas Avenue and E. Bayshore Road (East Palo Alto)	D	AM	34.5	C-	35.1	D+	0.8	0.007
			PM	45.5	D	47.5	D	2.7	0.012
Notes: * Denotes VTA CMP intersection ¹ Overall weighted average control delay (seconds per vehicle) is reported for signalized and roundabout intersections. Bold indicates a substandard level of service. Outline indicates a significant project impact.									

Mitigation Measure at E. Bayshore Road and Embarcadero Road

Mitigation of the impact under background plus project conditions could be achieved by reconfiguring the northbound approach from one left-turn and one through/right-turn lane to one left-turn and one all movement lane. The level of service analysis shows that the intersection delay would improve from LOS F to LOS E under background plus project conditions. In addition to the restriping, the improvement should include sidewalk, crosswalk, and signal improvements to bring the intersection up to current standards. This would include a new crosswalk on the north leg, a right-turn overlap phase (right turn arrow) for the southbound E. Bayshore to westbound Embarcadero right turn, and a right-turn overlap phase for the eastbound Embarcadero to southbound E. Bayshore right turn.

6. Cumulative Conditions

This chapter describes the roadway traffic operations under cumulative no project conditions and cumulative plus project conditions. Cumulative traffic volumes reflect traffic generated by the approved development projects and traffic growth contributed by the pending developments in the study area. Cumulative plus project conditions were evaluated relative to cumulative no project conditions in order to determine potential project impacts.

Roadway Network under Cumulative Conditions

The roadway network under cumulative conditions would be the same as the existing plus project roadway network as described in Chapter 3.

Cumulative Traffic Volumes

The cumulative no project traffic volumes were estimated by first applying a 1.4 percent growth factor per year for 5 years to existing traffic volumes (With compounding, this yields a factor of 1.072). This growth assumption was furnished by the City of Palo Alto. The trips generated by the approved projects in the vicinity were then added to obtain cumulative no project traffic volumes (see Figure 11).

The net project trip estimates in Chapter 3 were then added to the cumulative no project traffic volumes to yield cumulative plus project traffic volumes (see Figure 12). Traffic volumes for all components of traffic are tabulated in Appendix B.

1700-1730 Embarcadero Road Auto Dealerships

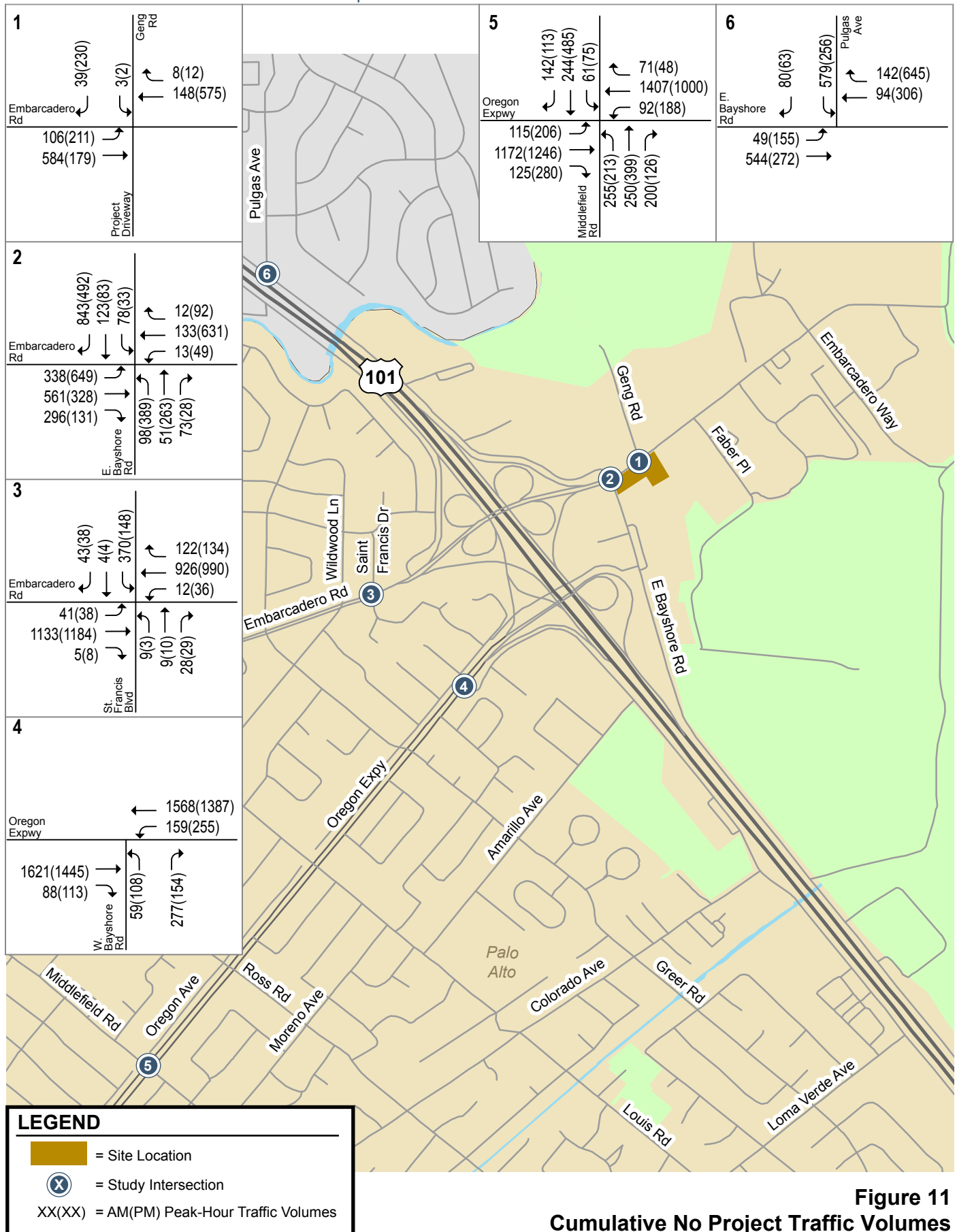


Figure 11
Cumulative No Project Traffic Volumes

1700-1730 Embarcadero Road Auto Dealerships

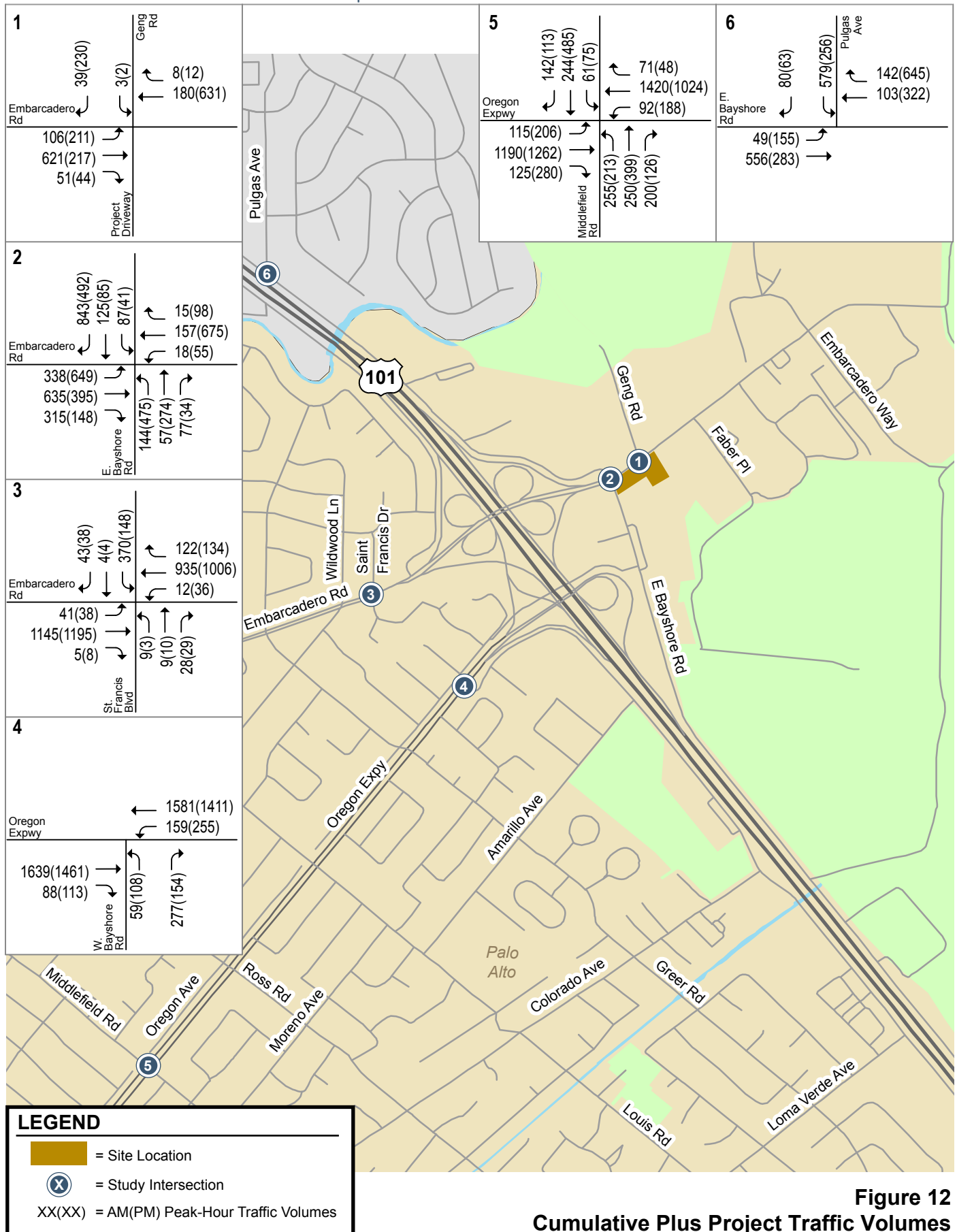


Figure 12
Cumulative Plus Project Traffic Volumes

Cumulative Intersection Levels of Service Analysis

The results of the level of service analysis under cumulative conditions (see Table 8) show that the intersection of E. Bayshore Road and Embarcadero Road would operate at an unacceptable LOS F during the PM peak hour under cumulative conditions, both without and with the project. The added project trips would cause the intersection's critical-movement delay to increase by 18.8 seconds and the V/C to increase by 0.085. Based on City of Palo Alto level of service impact criteria, this constitutes a significant impact.

The intersection of Pulgas Avenue & E. Bayshore Road, which is in East Palo Alto, would operate at LOS E in the PM peak hour, which is worse than the standard of LOS D. However, the project impact would be less than significant. Impacts at all other study intersections would be less than significant. Intersection level of service calculation sheets are included in Appendix C.

Mitigation Measure at E. Bayshore Road and Embarcadero Road

Under cumulative plus project conditions additional mitigation would be required. Mitigation could be accomplished by widening the intersection and maintaining signal control (see Figure 13) or by building a roundabout (see Figure 14). To increase the intersection capacity with signal control, it would be necessary to restripe the westbound approach to provide two left-turn lanes, one through lane, and one right-turn lane. The westbound leg would need to be widened to provide one left-turn lane, two through lanes, and a right-turn lane. These changes would allow the signal to operate with protected left-turn phasing rather than split phasing on Embarcadero. Some right-of-way would be required. The level of service analysis shows that the intersection would operate at a better LOS F under cumulative plus project conditions with this improvement.

An alternative mitigation would be to replace the existing signal control with a two-lane roundabout at the intersection. The improvement should also consider straightening the horizontal curve and increasing the length of the two northbound receiving lanes on the north leg on E. Bayshore Road. Some right-of-way would be required. The level of service analysis shows that the intersection would operate at a better LOS F under cumulative plus project conditions with a roundabout. Traffic operations of the intersection with a two-lane roundabout were evaluated based on the 2010 Highway Capacity Manual roundabout methodology using Synchro software. It should be noted that the roundabout level of service analysis does not account for the vehicle delay caused by the dropped northbound receiving lanes on E. Bayshore Road and the northbound traffic congestion between Pulgas Avenue and Embarcadero Road. It is expected that the roundabout improvement would also include lengthening the two northbound receiving lanes and improving the signal timing on E. Bayshore Road at Laura Lane and Pulgas Avenue to reduce the vehicle queuing on this segment. If the downstream northbound vehicle congestion cannot be improved and vehicle queues would spill back into the E. Bayshore Road/Embarcadero Road intersection, the roundabout would not operate well and would not provide effective reduction in vehicle delay.

The selected alternative should be decided in the future when more information and understanding of the prevailing conditions at that time are taken into consideration. The effectiveness of the signal improvement option would be less likely to be affected by the prevailing conditions of the traffic spillback, while effectiveness of the roundabout would depend whether the spillback can be improved. Both options require right-of-way acquisition. The right-of-way acquisition needs would affect future decisions.

The intersection is listed in the City's Transportation Impact Fee (TIF) program for an improvement that would be funded through the TIF. Currently the improvement is listed as a modification to the signalized intersection, but a roundabout could be added as an alternative. With the TIF, the improvement would

be implemented, and the cumulative impact would be mitigated. The project's payment of the TIF would constitute a fair-share contribution to the cost of the recommended improvement.

Table 8
Cumulative plus Project Levels of Service

ID	Intersection (Jurisdiction)	LOS Standard	Peak Hour	Cumulative		Cumulative+Project			
				Avg. Delay ¹	LOS	Avg. Delay ¹	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C
1	Geng Road and Embarcadero Road (Palo Alto)	D	AM PM	7.6 16.0	A B	7.5 15.3	A B	-0.2 -0.2	0.010 0.018
2	E. Bayshore Road and Embarcadero Road (Palo Alto)	D	AM PM	37.2 85.9	D+ F	37.9 97.7	D+ F	0.3 18.8	0.021 0.085
	Mitigation Measure Options:								
	- With A Two-Lane Roundabout					62.3	F		
	- With NB, EB and WB Lane Configuration Modification					83.9	F		
3	St. Francis Drive and Embarcadero Road (Palo Alto)	D	AM PM	24.8 15.7	C B	24.8 15.6	C B	0.0 0.0	0.004 0.003
4	W. Bayshore Road and Oregon Expressway (Palo Alto)	D	AM PM	14.9 17.4	B B	14.9 17.3	B B	0.0 -0.1	0.005 0.004
5	Middlefield Road and Oregon Expressway* (Palo Alto)	E	AM PM	59.2 62.8	E+ E	59.7 63.2	E+ E	0.5 0.5	0.005 0.005
6	Pulgas Avenue and E. Bayshore Road (East Palo Alto)	D	AM PM	40.5 60.4	D E	41.4 62.9	D E	1.2 3.3	0.007 0.012
Notes:									
* Denotes VTA CMP intersection									
¹ Overall weighted average control delay (seconds per vehicle) is reported for signalized and roundabout intersections.									
Bold indicates a substandard level of service.									
Outline indicates a significant project impact.									

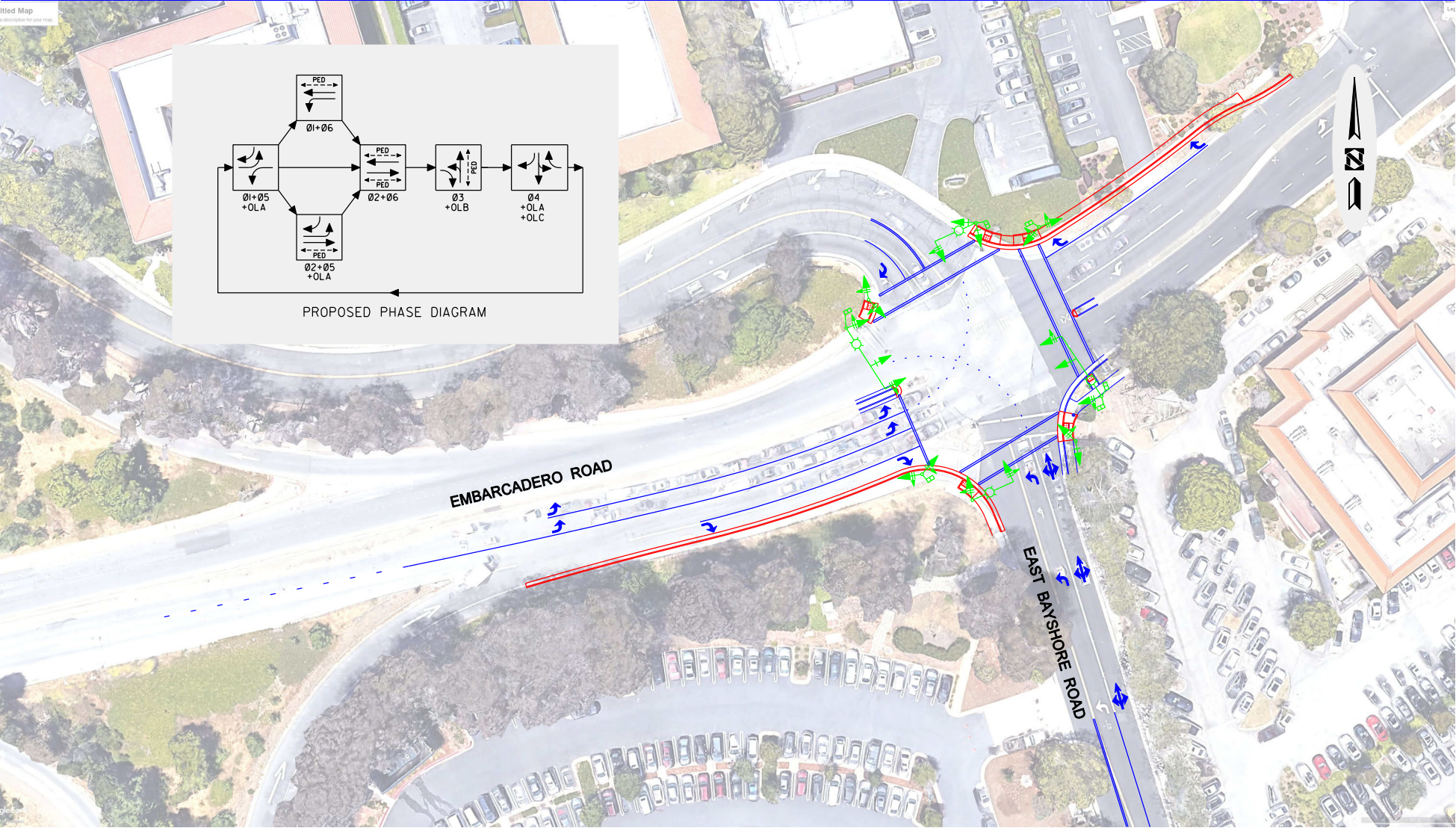


Figure 13
Conceptual Signal Improvements at E. Bayshore Road and Embarcadero Road

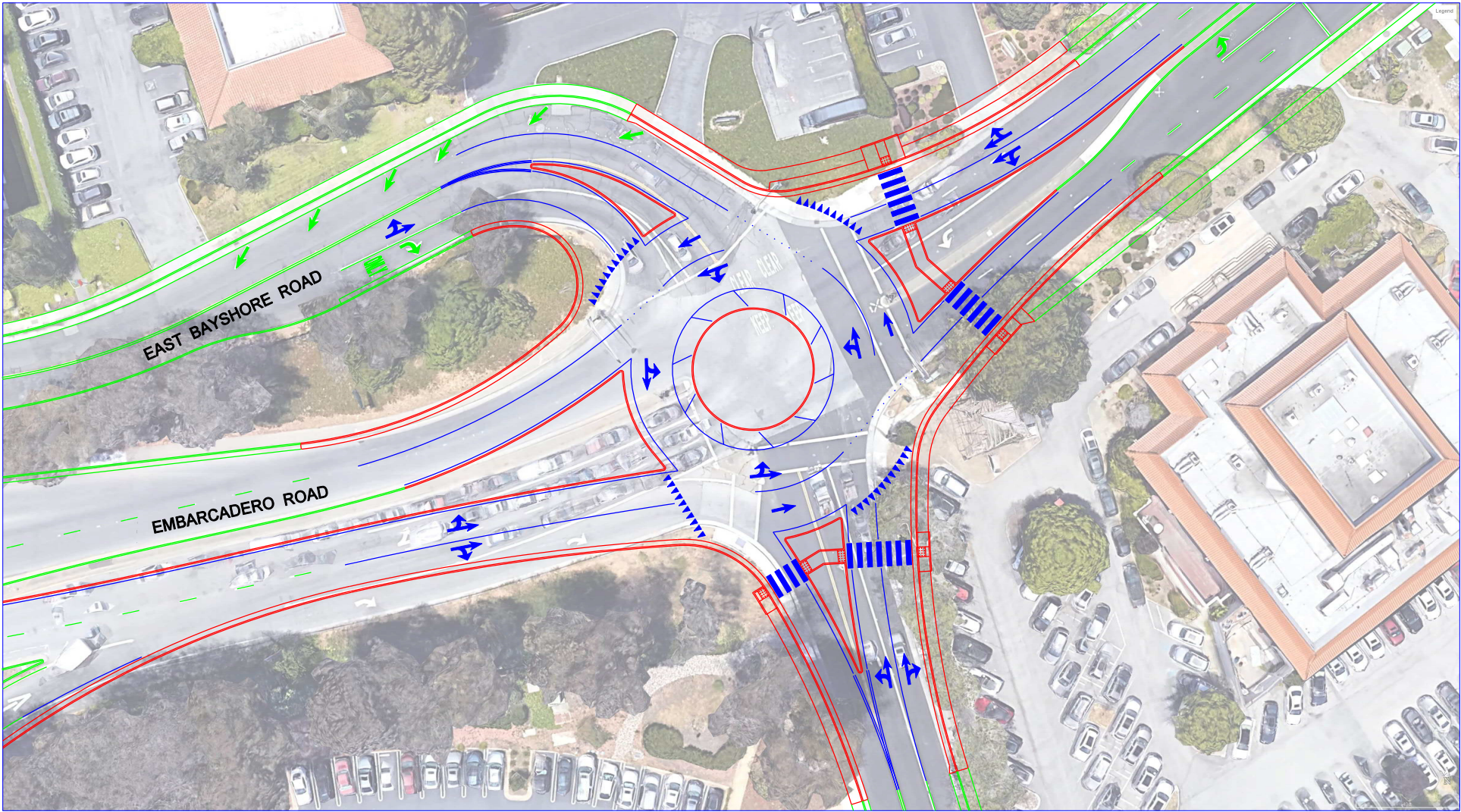


Figure 14
Conceptual Roundabout Design at E. Bayshore Road and Embarcadero Road

Figure 13
Conceptual Signal Improvements at E. Bayshore Road and Embarcadero Road

7. Other Transportation Issues

This chapter presents other transportation issues associated with the project, including:

- Vehicle miles traveled (VMT) analysis
- Freeway ramp traffic operations
- Intersection vehicle queuing analysis
- Site access and circulation
- Effects on pedestrians, bicycles, and transit facilities

Unlike the level of service impact methodology, which is adopted by the City Council, the analyses in this chapter are based on professional judgment in accordance with the standards and methods employed by the traffic engineering community. Although operational issues are not considered CEQA impacts, they do describe traffic conditions that are relevant to describing the project environment.

Vehicle Miles Traveled Analysis

Vehicle Miles Traveled (VMT) is the total miles traveled by motorized vehicles that a development is expected to generate in a day. VMT captures motorized vehicle trips, thereby accounting for the effects of project features. It also captures trip length, thereby accounting for regional location. Typically, development located farther from retail, office, and other uses and with poor access to transit generates more driving than development situated close to complementary uses and transit.

SB 743 signed in 2013 requires the Governor's Office of Planning and Research (OPR) to identify new metrics, aside from vehicle delay and level of service, for identifying and mitigating transportation impacts of a project under California Environmental Quality Act (CEQA). OPR identified VMT per capita, VMT per employee, and net VMT increase as new metrics for transportation impact analysis, and released a revised Technical Advisory on Evaluating Transportation Impacts in CEQA in April, 2018 that contains OPR's technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. OPR has submitted the proposed updates to the CEQA Guidelines to commence the formal rulemaking process. While a public agency could immediately apply the proposed new Guidelines section that implements SB 743, statewide application of the new section is not required until July 2020.

The City of Palo Alto has not adopted a policy or guidelines that evaluate VMT impacts under CEQA. Therefore, the VMT impact of the project is discussed qualitatively based on the OPR's Technical Advisory (April 2018), and is presented for informational purposes only. The OPR recommends the quantified VMT thresholds for evaluating transportation impacts of residential, office, and retail projects

because these projects tend to have the greatest influence on VMT. OPR recommends that lead agencies may develop their own more specific thresholds, which may include other land use types.

Most of vehicle trips generated by auto dealerships are from the existing owners bringing in their cars for maintenance and repair (service). Car owners typically go to a dealership location most convenient to them (close to home or work) for service. Therefore, for the purpose of evaluating the VMT impact, an auto dealership can be analyzed as a retail development. As recommended by the OPR, a net increase in total VMT may indicate a significant transportation impact for retail projects.

The OPR's Technical Advisory also provides the guidelines for evaluating the VMT impacts of a retail project based on whether it's local-serving or regional-serving retail. By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact. Regional-serving retail development, on the other hand, can lead to substitution of longer trips for shorter ones and may have a significant impact.

Because most vehicle trips generated by the project are and would continue to be from the vehicle owners bringing in their cars for service, the project would operate similar to local-serving retail. The VMT analyses for the Audi and Mercedes Benz dealerships are described below.

Mercedes Benz Dealership

There are four Mercedes Benz dealerships in the region (see Figure 15): Autobahn Motors in Belmont, Mercedes-Benz of Stevens Creek in San Jose, Mercedes-Benz of San Jose, and Fletcher Jones Motorcars in Fremont. Because there are no other Mercedes Benz dealerships between Belmont and San Jose, vehicle owners or buyers in the project area need to travel to Autobahn Motors or Mercedes-Benz of Stevens Creek, which are approximately 11 and 14 miles, respectively, from the project site. Placing the proposed Mercedes Benz dealership at the project site would greatly shorten the car service trips for the existing and future owners in the project area.

Although the project could increase the VMT generated by employees, the reduction in the VMT generated by car service trips would be more than enough to offset the increase in employee-related VMT. Therefore, the proposed Mercedes Benz dealership would result in an overall reduction in VMT.

Audi Dealership

The Audi dealership would expand the building with more service stalls and updated facilities because it cannot keep up with the current service volume for the area, and the outdated facilities are not conducive to efficient work.

There are three other Audi dealerships in the region (see Figure 13) in Burlingame, San Jose, and Fremont that are 17, 15, and 17 miles from the project site, respectively. Because the existing facilities cannot keep up with the current service volume, without the facility improvement, the existing and future owners in the project's service area need to go to other Audi dealerships in the region to avoid a long wait. Therefore, it is expected that the proposed expansion would meet the increasing service demand in the area and reduce the car service-related VMT by retaining the service within the area.

Although the project would increase the VMT generated by employees, the reduction in the VMT generated by car service trips would be more than enough to offset the increase in employee-related VMT. Therefore, the proposed expansion at the Audi dealership would result in an overall decrease in VMT.

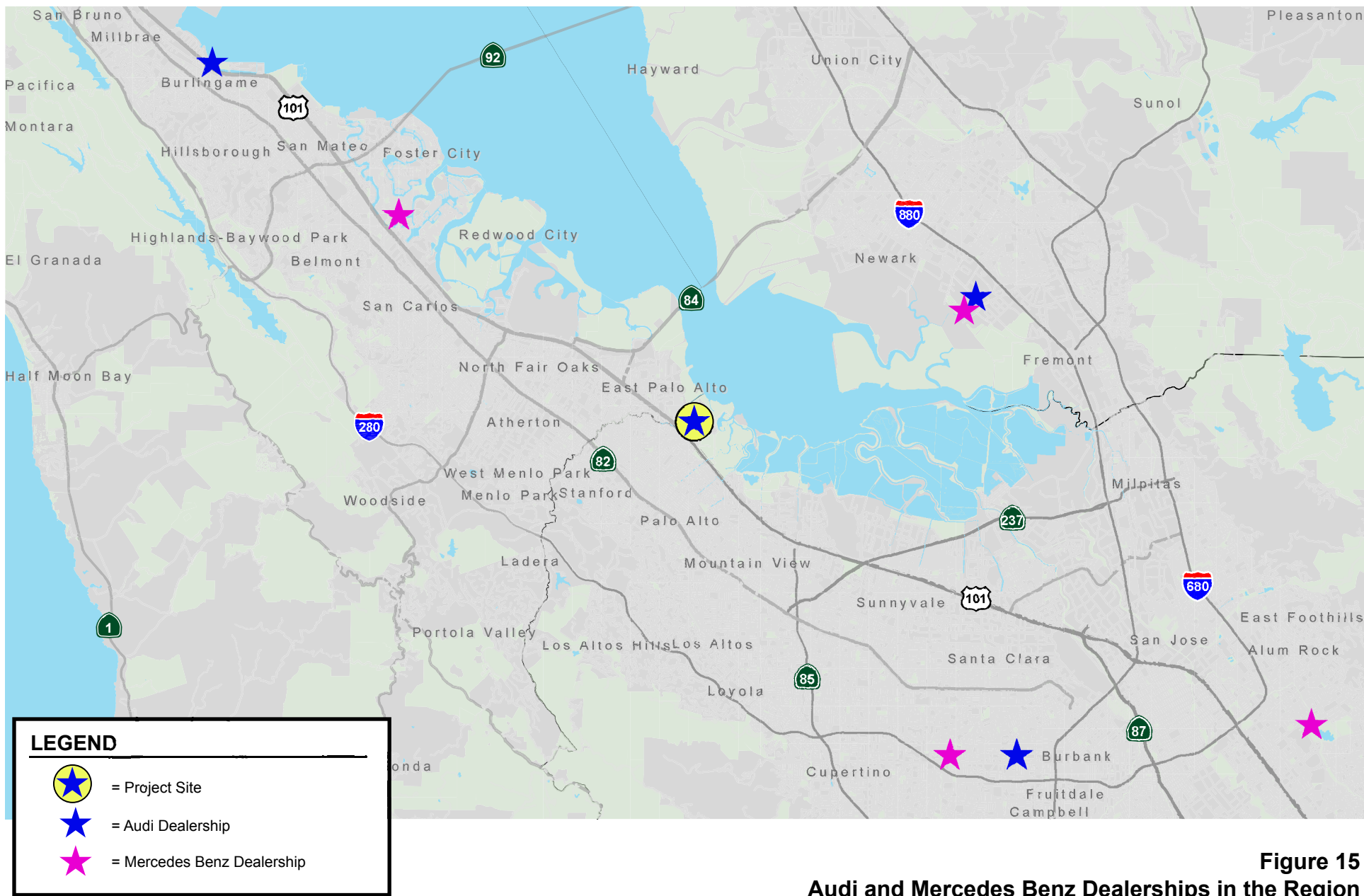


Figure 15
Audi and Mercedes Benz Dealerships in the Region

Freeway Ramp Traffic Operations

Embarcadero Road provides direct access to US 101 from the project site via a full interchange. The US 101 northbound on-ramp from westbound Embarcadero Road is metered during the AM commute period, and the US 101 northbound off-ramp to eastbound Embarcadero Road is controlled by the traffic signal at the E. Bayshore Road/Embarcadero Road intersection. Ramp operations at these ramps were based on observations of vehicle queuing in the field during the AM and PM peak hours of traffic.

The US 101 southbound off-ramp to eastbound Embarcadero Road is not controlled by a traffic signal, and the US 101 southbound on-ramp from westbound Embarcadero Road is not metered during either the AM or PM commute period. Therefore, these two ramps were not included in the analysis.

US 101 northbound on-ramp from westbound Embarcadero Road

The on-ramp is metered in the AM commute period with the meter located 1,350 feet downstream from Embarcadero Road, where the northbound collector-distributor road merges with the US 101 mainline travel lanes. No vehicle queue was observed on the on-ramp until the merge with the northbound collector-distributor road, which is about 1,000 feet downstream from Embarcadero Road. Therefore, there is no vehicle queuing issue for the on-ramp in the AM commute period.

The on-ramp is not metered in the PM commute period. However, because the northbound mainline traffic is highly congested, there are queues on the collector-distributor road. However, the on-ramp vehicle queue (approximately 350 feet) was well contained within the on-ramp (1,000 feet) and was not observed to extend to Embarcadero Road.

The project would add 21 AM and 40 PM peak-hour trips on the on-ramp, which are expected to result in a small increase in vehicle queue length. The vehicle queue with the project traffic would still be accommodated within the on-ramp lane.

US 101 northbound off-ramp to eastbound Embarcadero Road

The northbound off-ramp is indirectly controlled by the traffic signal at the E. Bayshore Road/Embarcadero Road intersection. During the PM commute period, because the eastbound left-turn and through vehicle queues on Embarcadero Road typically extend past the off-ramp, the off-ramp traffic often needs to wait for a gap to merge with eastbound Embarcadero traffic, mostly when the eastbound Embarcadero traffic receives a green light at the E. Bayshore Road intersection, and the eastbound traffic starts to move. The off-ramp traffic often takes two to three signal cycles to clear the intersection. However, the off-ramp vehicle queue (approximately 375 feet) is well contained within the off-ramp lane (725 feet), and was not observed to extend to the collector-distributor road for US 101 northbound traffic.

The project would add 35 AM and 32 PM peak-hour trips on the off-ramp, which is equivalent to one vehicle per signal cycle and is expected to result in a small increase in vehicle queue length. The vehicle queue with the project traffic would still be accommodated within the off-ramp lane.

Based on the on-ramp traffic operations analysis, existing vehicle storage on the on-ramps would be adequate to serve the background vehicle queues that develop due to ramp metering and would continue to adequately serve the estimated vehicle queues that would develop with the addition of project-generated traffic.

Intersection Vehicle Queuing Analysis

The vehicle queuing analysis (see Table 9) was performed for the northbound left-turn movement of the E. Bayshore Road/Embarcadero Road intersection, because the project would add 46 AM and 86 PM peak-hour trips to the left-turn movement. This analysis provides a basis for estimating future storage requirements at the intersection under existing, background, and project conditions. Vehicle queues were estimated using a Poisson probability distribution, described in Chapter 1, and validated based on field observations. The queuing analysis is presented for informational purposes only, since the City has not defined a policy related to queuing.

The existing storage capacity for the northbound left-turn pocket from E. Bayshore Road onto Embarcadero Road is up to 10 vehicles (250 feet). Field observations show that during the PM peak hour, because of the high northbound left-turn and through traffic and the northbound congestion on the north leg of the intersection, the vehicle queue in the northbound lane extends more than 1,500 feet (or 60 vehicles). The northbound through and right-right turn traffic was observed to move to the right edge of the road in the bike lane when approaching the intersection and yield the road width for the northbound left-turn traffic to pass by. The vehicle queue for the left-turn traffic extended beyond the left-turn pocket for a length of 475 feet (or 19 vehicles). Beyond this point, the left-turn vehicles were queued in the northbound lane.

The existing northbound vehicle queues for the left-turn and through movements extend past the project driveway (290 feet from the intersection). The project would add 86 vehicles to the left-turn lane and 17 vehicles to the through and right-turn lane during the PM peak hour. The added project trips would increase the 95th percentile queue length in the northbound left-turn lane by 4 vehicles and in the northbound lane by one vehicle. It is infeasible to extend the left-turn pocket to 575 feet long because the roadway is not wide enough to accommodate three lanes and bike lanes.

As described in the Chapter 5, a roundabout is recommended as a mitigation for the intersection. With one northbound left-turn lane and one northbound lane (for all movements) approaching the roundabout, the vehicle queues would be reduced to 9 vehicles (or 225 feet) under background plus project conditions, which can be accommodated within the existing left-turn pocket.

Site Access and Circulation

A review of site access and circulation was completed based on the site plan dated July 27, 2018 and shown in Figure 2.

Vehicle Site Access and Circulation

Vehicle access to the Audi dealership is and would continue to be provided via the existing full-access driveway on Embarcadero Road. Vehicle access to the Mercedes Benz dealership would be provided via a proposed driveway on Embarcadero Road with right-in access only and an existing full-access driveway on E. Bayshore Road. The new driveway on Embarcadero Road would be at the Geng Road/Embarcadero Road intersection opposite Geng Road. It is expected that most Mercedes Benz inbound trips would enter the site via the Embarcadero Road driveway because it provides direct access to the service drive. Figure 7 show the gross project trips at each driveway.

Table 9
Queuing Analysis Summary

Intersection Movement Peak Hour Period	E. Bayshore Road/Embarcadero Road			
	NB LT AM	NB TH & RT AM	NB LT PM	NB TH & RT PM
Existing and Background				
Cycle/Delay ¹ (sec)	90	90	130	130
Volume (vphpl)	91	116	363	268
Avg. Queue (veh/ln)	2	3	13	48
Avg. Queue ² (ft/ln)	50	75	325	1,200
95th% Queue (veh/ln)	5	6	19	60
95th% Queue ² (ft/ln)	125	150	475	1,500
Storage (ft/ ln)	250	-	250	-
Adequate (Y/N)	Y		N	
Background Plus Project				
Cycle/Delay ¹ (sec)	90	90	130	130
Volume (vphpl)	137	126	449	271
Avg. Queue (veh/ln)	3	3	16	49
Avg. Queue ² (ft/ln)	75	75	400	1,225
95th% Queue (veh/ln)	7	6	23	61
95th% Queue ² (ft/ln)	175	150	575	1,525
Storage (ft/ ln)	250	-	250	-
Adequate (Y/N)	Y		N	
Background Plus Project with Mitigation (a roundabout)				
Volume (vphpl)			449	271
95th% Queue (veh/ln) ³			9	5
95th% Queue ² (ft/ln)			225	125
Storage (ft/ ln)			250	-
Adequate (Y/N)			Y	Y
Notes: NB = northbound. LT = left-turn movement; TH = through movement; RT = right-turn movement. 1. Vehicle queue calculations based on cycle length. 2. Assumes 25 feet per vehicle queued. 3. Vehicle queue is calculated using the Synchro software.				

Table 10 shows the traffic operations (vehicle delay and queue length) at the full-access driveways under background plus project conditions. The analysis indicates that the estimated 95th percentile vehicle queues for the inbound and outbound traffic at the project driveways would be short (1-3 vehicles) in both AM and PM peak hours and are not expected to create any operational issues related to vehicle queueing on the street or on the project site. The right-in access only driveway to the Mercedes Benz site is expected to operate well based on the intersection level of service analysis results for the Geng Road/Embarcadero Road intersection.

The Audi driveway on Embarcadero Road is located approximately 100 feet east of the Geng Road/Embarcadero Road intersection. Field observations indicate that during the PM peak hour, the

westbound vehicle queues at the Geng Road/Embarcadero Road intersection extend past the driveway during the red lights. The vehicle queues dissipate quickly when the westbound traffic light turns green, and the outbound traffic has no difficulty to turn on to Embarcadero Road.

Table 10**Driveway Traffic Operations under Background Plus Project Conditions**

Intersection Movement Peak Hour Period	Embarcadero Rd Driveway at Audi Site				E. Bayshore Rd Driveway at Mercedes Benz Site			
	WB LT ¹	NB	WB LT ¹	NB	SB LT ²	WB	SB LT ²	WB
	AM	AM	PM	PM	AM	AM	PM	PM
Project Trips (vph)	14	50	4	94	25	57	22	107
Average Delay ³ (sec/veh)	8.7	14.8	7.6	12.5	7.7	9.9	8.9	15.1
Level of Service	A	B	A	B	A	A	A	C
95th% Queue (veh)	1	1	2	1	3	1	2	2
95th% Queue ⁴ (ft)	25	25	50	25	75	25	50	50
Notes: NB = northbound; SB = southbound; WB = westbound; LT = left-turn movement. 1. Vehicle queue accounts for the delay of the WB traffic in the inside travel lane. 2. Vehicle queue accounts for the delay of the SB traffic. 3. Average delay of stop-controlled approaches (outbound movement at the project driveway and left-turn inbound movement on the street). 4. Assumes 25 feet per vehicle queued.								

The Mercedes Benz driveway on E. Bayshore Road is located approximately 290 feet south of the E. Bayshore Road/Embarcadero Road intersection. Field observations indicate that during the PM peak hour, the northbound left-turn and through/right-turn queues constantly extend past the driveway and do not clear during most of the peak commute period. It is expected that the northbound vehicle queues would break at the driveway when there are vehicles entering or exiting the site. Additionally, most of the inbound traffic would enter the site via the inbound-only driveway on Embarcadero Road. Therefore, the existing queuing issue on E. Bayshore Road is not expected to cause operational problems at the driveway.

Based on the site plan and field observations, adequate sight distance is available at the project driveways to ensure that exiting vehicles can see pedestrians on the sidewalk, as well as vehicles on the street.

Pedestrian Site Access and Circulation

Pedestrian access to the project site is provided via sidewalks on Embarcadero Road and E. Bayshore Road and crosswalks at the Embarcadero Road/E. Bayshore Road intersection. Pedestrian access on Embarcadero Road between W. Bayshore Road and E. Bayshore Road is inadequate because crosswalks are lacking. However, pedestrians can utilize the pedestrian/bike bridge that crosses US 101 700 feet south of Embarcadero Road. In addition to the bridge, bicycle access to the site is provided via bike lanes on E. Bayshore Road, south of Embarcadero Road, and bike routes on E. Bayshore Road north of Embarcadero Road. Within the site, there would be pedestrian paths between buildings and the streets. The project would provide bike racks near the main entrance and/or in other highly visible areas.

Effects on Pedestrians, Bicycles, and Transit Facilities

Existing pedestrian and bicycle facilities provide adequate access to the project site. Also, as an automobile dealership development, the project is not expected to generate a large number of non-automobile trips.

The Embarcadero Shuttle that provides transit service in the site vicinity is limited to weekday commute hours, and the project is not expected to generate a significant number of transit trips. It is unlikely that the project would by itself generate enough demand for transit service to justify the extension of shuttle hours.

To assess the project's effect on transit vehicle delay, the delay experienced by each route running through the study intersections was estimated based on the average vehicle delay that is calculated as part of the intersection level of service analysis. Table 11 summarizes the bus travel times through the study area and the increase in transit vehicle delay with the addition of the project traffic. VTA does not have significance thresholds to determine impacts on transit vehicle delay. Therefore, this analysis is presented for information purposes only. The results show that the project would result in minimal changes (less than 2 percent) in transit travel time for every bus route in the study area. Thus, it can be concluded that the addition of project-generated traffic is so minor that the delay increases experienced by the bus routes that operate within the study area would be imperceptible.

Table 11
Increase in Transit Vehicle Delay

Bus Route	Direction	Peak Hour	Existing		Delay ² (sec)	Background	Background+Project		
			Travel Time ¹ min / sec			Delay ² (sec)	Delay ² (sec)	Increase in Delay ³ (sec)	% Increase in Travel Time ³
Palo Alto Shuttle E	Eastbound	AM	5	300	57.9	58.0	57.5	-0.5	-0.2%
		PM	7	420	48.6	71.7	80.9	9.2	2.1%
	Westbound	AM	8	480	77.8	77.8	76.7	-1.1	-0.2%
		PM	9	540	76.6	81.2	86.7	5.5	1.0%
Palo Alto Shuttle C	Northbound	AM	2	120	39.1	39.1	39.1	0.0	0.0%
		PM	2	120	50.4	50.4	50.4	0.0	0.0%
	Southbound	AM	3	180	49.1	49.2	49.2	0.0	0.0%
		PM	3	180	56.4	56.4	56.4	0.0	0.0%
VTA Line 35	Northbound	AM	7	420	39.1	39.1	39.1	0.0	0.0%
		PM	6	360	50.4	50.4	50.4	0.0	0.0%
	Southbound	AM	6	360	49.1	49.2	49.2	0.0	0.0%
		PM	6	360	56.4	56.4	56.4	0.0	0.0%
VTA Line 88	Southbound	AM	10	600	25.9	25.9	25.9	0.0	0.0%
		PM	8	480	26.7	26.9	26.9	0.0	0.0%
SamTrans Line 280	Eastbound	AM	16	960	40.8	40.8	42.9	2.1	0.2%
		PM	19	1,140	97.9	105.1	109.2	4.1	0.4%
	Westbound	AM	18	1,080	25.4	25.6	26.6	1.0	0.1%
		PM	17	1,020	74.6	79.8	83.4	3.6	0.4%
AC Transit Line U	Westbound	AM	14	840	24.1	24.1	24.0	-0.1	0.0%
	Eastbound	PM	11	660	10.5	10.4	10.3	-0.1	0.0%
Notes:									
1. Travel time based on the bus schedules for two timepoints closest to each end of the study area.									
2. The total movement delay of all relevant study intersections added together.									
3. Increase in delay/travel time over background conditions.									

8. Conclusions

The potential impacts of the project were evaluated in accordance with the standards set forth by the the Cities of Palo Alto and East Palo Alto, the Santa Clara Valley Transportation Authority (VTA), and the City/County Association of Governments of San Mateo County (C/CAG). The study analyzes the traffic impacts of the proposed development on the key intersections and freeway segments during the weekday AM and PM peak hours of traffic. In addition, the study includes a freeway ramp traffic operations analysis, a vehicle queuing analysis at selected intersections, a review of site access and circulation, an evaluation of potential impacts to transit services and pedestrian and bicycle facilities, and an evaluation of potential impacts on vehicle miles traveled (VMT).

Intersection Level of Service Analysis

The results of the intersection level of service analysis show that the E. Bayshore Road/Embarcadero Road intersection is operating at an unacceptable LOS F during the PM peak hour and would continue to operate at LOS F under background and cumulative conditions. The addition of project-generated traffic would create a significant impact at the intersection during the PM peak hour under background plus project and cumulative plus project conditions. The proposed improvement to mitigate the impact is described below.

Mitigation Measure at E. Bayshore Road and Embarcadero Road

Mitigation of the impact under background plus project conditions could be achieved by reconfiguring the northbound approach from one left-turn and one through/right-turn lane to one left-turn and one all movement lane. The level of service analysis shows that the intersection delay would improve from LOS F to LOS E under background plus project conditions. In addition to the restriping, the improvement should include sidewalk, crosswalk, and signal improvements to bring the intersection up to current standards. This would include a new crosswalk on the north leg, a right-turn overlap phase (right turn arrow) for the southbound E. Bayshore to westbound Embarcadero right turn, and a right-turn overlap phase for the eastbound Embarcadero to southbound E. Bayshore right turn.

Under cumulative plus project conditions additional mitigation would be required. Mitigation could be accomplished by widening the intersection and maintaining signal control or by building a roundabout. To increase the intersection capacity with signal control, it would be necessary to restripe the westbound approach to provide two left-turn lanes, one through lane, and one right-turn lane. The westbound leg would need to be widened to provide one left-turn lane, two through lanes, and a right-turn lane. These changes would allow the signal to operate with protected left-turn phasing rather than split phasing on Embarcadero. Some right-of-way would be required. The level of service analysis

shows that the intersection would operate at a better LOS F under cumulative plus project conditions with this improvement.

An alternative mitigation would be to replace the existing signal control with a two-lane roundabout at the intersection. The improvement should also consider straightening the horizontal curve and increasing the length of the two northbound receiving lanes on the north leg on E. Bayshore Road. Some right-of-way would be required. The level of service analysis shows that the intersection would operate at a better LOS F under cumulative plus project conditions with a roundabout. It should be noted that the roundabout level of service analysis does not account for the vehicle delay caused by the dropped northbound receiving lanes on E. Bayshore Road and the northbound traffic congestion between Pulgas Avenue and Embarcadero Road. It is expected that the roundabout improvement would also include lengthening the two northbound receiving lanes and improving the signal timing on E. Bayshore Road at Laura Lane and Pulgas Avenue to reduce the vehicle queuing on this segment. If the downstream northbound vehicle congestion cannot be improved and vehicle queues would spill back into the E. Bayshore Road/Embarcadero Road intersection, the roundabout would not operate well and would not provide effective reduction in vehicle delay.

The selected alternative should be decided in the future when more information and understanding of the prevailing conditions at that time are taken into consideration. The effectiveness of the signal improvement option would be less likely to be affected by the prevailing conditions of the traffic spillback, while effectiveness of the roundabout would depend whether the spillback can be improved. Both options require right-of-way acquisition. The right-of-way acquisition needs would affect future decisions.

The intersection is listed in the City's Transportation Impact Fee (TIF) program for an improvement that would be funded through the TIF. Currently the improvement is listed as a modification to the signalized intersection, but a roundabout could be added as an alternative. With the TIF, the improvement would be implemented, and the cumulative impact would be mitigated. The project's payment of the TIF would constitute a fair-share contribution to the cost of the recommended improvement.

Freeway Segment Capacity Analysis

The project would contribute trips equivalent to less than one percent of the capacity on each of the studied freeway segments. Thus, the project would have an insignificant impact on nearby freeway segments.

Freeway Ramp Operations Analysis

The existing vehicle storage on the metered on-ramp and signal-controlled off-ramp near the project site is adequate to serve the existing vehicle queues that develop due to ramp metering and intersection signal, and they would continue to adequately serve the estimated vehicle queues that would develop with the addition of background traffic and project-generated traffic.

Vehicle Queuing Analysis

The vehicle queuing analysis was performed for the northbound left-turn movement of the E. Bayshore Road/Embarcadero Road intersection. Field observations show that during the PM peak hour, because of the high northbound left-turn and through traffic and the northbound congestion on the north leg, the vehicle queue in the northbound lane extends more than 1,500 feet (or 60 vehicles).

The project would add 86 vehicles to the left-turn lane and 17 vehicles to the through and right-turn lane during the PM peak hour. As described above, a roundabout is recommended as a mitigation for the

intersection. With two northbound lanes approaching the roundabout (one left-turn lane and one northbound lane for all movements), the vehicle queues would be reduced to 9 vehicles (or 225 feet) under background plus project conditions, which can be accommodated within the existing left-turn pocket.

Vehicle Miles Traveled Analysis

The project would result in an overall reduction in VMT. Most vehicle trips generated by the project are and would continue to be from the vehicle owners bringing in their cars for maintenance and repair. The project would reduce the VMT generated by the service trips by placing a new Mercedes Benz dealership and expanding the Audi dealership to meet the service demand in the project area. Although the project could increase the VMT generated by employees, the reduction in the VMT generated by car service trips would be more than enough to offset the increase in employee-related VMT.

Other Transportation Issues

The site plan shows adequate site access and circulation, and no significant traffic operational issues are expected to occur as a result of the project. The project would not have an adverse effect on the existing transit, pedestrian, or bicycle facilities in the study area.

**1700-1730 Embarcadero Road
Audi and Mercedes Benz Dealerships TIA**

Technical Appendices

February 21, 2019

Appendix A

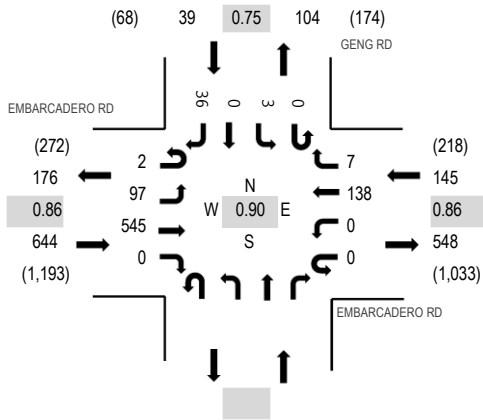
Traffic Counts



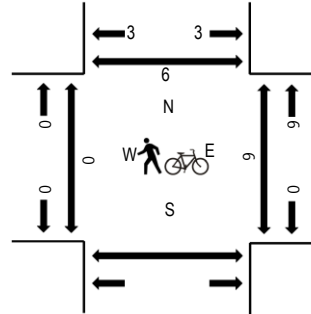
(303) 216-2439
www.alltrafficdata.net

Location: 1 GENG RD & EMBARCADERO RD AM
Date and Start Time: Wednesday, August 15, 2018
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	EMBARCADERO RD Eastbound				EMBARCADERO RD Westbound				Northbound				GENG RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	1	11	84	0	0	0	0	11	1				0	0	0	10	118	651	0	1		1
7:15 AM	0	9	123	0	0	0	0	14	1				0	0	0	4	151	747	0	0		0
7:30 AM	0	13	116	0	0	0	0	22	1				0	1	0	6	159	780	0	0		1
7:45 AM	0	33	159	0	0	0	0	22	1				0	2	0	6	223	820	0	0		3
8:00 AM	0	30	139	0	0	0	0	29	3				0	0	0	13	214	828	0	1		1
8:15 AM	2	22	119	0	0	0	0	35	2				0	0	0	4	184		0	0		1
8:30 AM	0	19	134	0	0	0	0	33	1				0	2	0	10	199		0	1		0
8:45 AM	0	26	153	0	0	0	0	41	1				0	1	0	9	231		0	4		3

Peak Rolling Hour Flow Rates

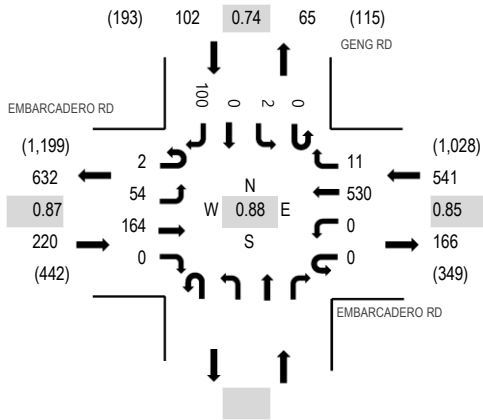
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	5	4	0	0	0	0	5	0				0	0	0	6	20
Lights	2	83	526	0	0	0	0	120	5				0	0	0	16	752
Mediums	0	9	15	0	0	0	0	13	2				0	3	0	14	56
Total	2	97	545	0	0	0	0	138	7				0	3	0	36	828



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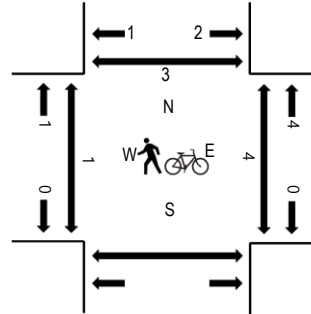
Location: 1 GENG RD & EMBARCADERO RD PM
Date and Start Time: Wednesday, August 15, 2018
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	EMBARCADERO RD Eastbound				EMBARCADERO RD Westbound				Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	2	13	50	0	0	0	0	137	3				0	2	0	23	230	849	0	2		0
4:15 PM	1	10	47	0	0	0	0	134	2				0	1	0	34	229	863	0	0		0
4:30 PM	1	12	32	0	0	0	0	128	5				0	1	0	23	202	836	1	2		1
4:45 PM	0	16	41	0	0	0	0	109	3				0	0	0	19	188	827	0	2		0
5:00 PM	0	16	44	0	0	0	0	159	1				0	0	0	24	244	814	0	0		1
5:15 PM	0	11	43	0	0	0	0	122	3				0	0	0	23	202		0	3		0
5:30 PM	0	13	37	0	0	0	0	120	2				0	2	0	19	193		0	5		2
5:45 PM	0	4	49	0	0	0	0	99	1				0	0	0	22	175		0	1		1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0					0	0	0	0	0
Lights	2	54	160	0	0	0	0	524	11				0	2	0	96	849
Mediums	0	0	4	0	0	0	0	6	0				0	0	0	4	14
Total	2	54	164	0	0	0	0	530	11				0	2	0	100	863



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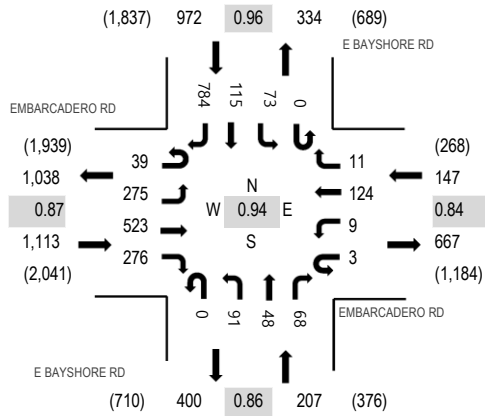
Location: 2 E BAYSHORE RD & EMBARCADERO RD AM

Date and Start Time: Wednesday, August 15, 2018

Peak Hour: 07:45 AM - 08:45 AM

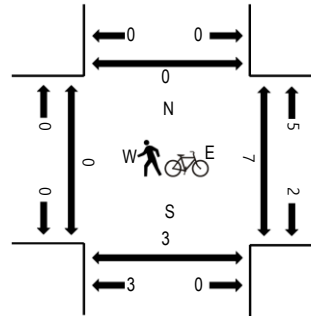
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	EMBARCADERO RD Eastbound				EMBARCADERO RD Westbound				E BAYSHORE RD Northbound				E BAYSHORE RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	10	63	82	35	1	1	17	4	0	12	6	5	0	9	17	141	403	2,112	0	0	0	0
7:15 AM	6	84	97	38	1	3	15	1	0	16	12	9	0	23	18	187	510	2,309	0	0	3	0
7:30 AM	4	70	102	42	0	3	22	2	0	14	23	4	0	14	28	222	550	2,363	0	0	0	0
7:45 AM	9	83	161	68	0	1	26	0	0	16	11	15	0	22	25	212	649	2,439	0	2	0	0
8:00 AM	11	61	128	64	1	4	33	2	0	14	9	14	0	20	25	214	600	2,410	0	0	2	0
8:15 AM	11	61	122	53	1	4	34	4	0	34	14	20	0	10	25	171	564		0	0	0	0
8:30 AM	8	70	112	91	1	0	31	5	0	27	14	19	0	21	40	187	626		0	0	1	0
8:45 AM	19	70	120	86	0	9	36	6	0	23	14	31	0	19	30	157	620		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	11	0	0	0	8	0	0	1	0	0	0	0	0	3	23
Lights	39	272	490	268	0	8	98	11	0	79	45	67	0	72	115	776	2,340
Mediums	0	3	22	8	3	1	18	0	0	11	3	1	0	1	0	5	76
Total	39	275	523	276	3	9	124	11	0	91	48	68	0	73	115	784	2,439



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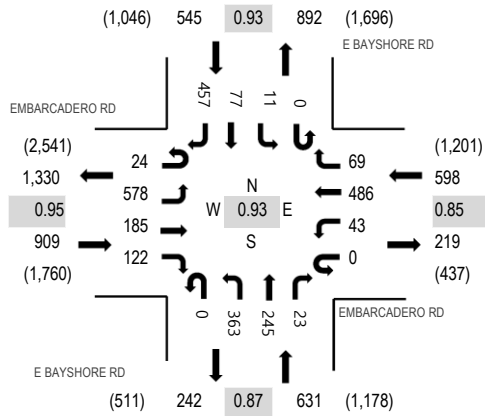
Location: 2 E BAYSHORE RD & EMBARCADERO RD PM

Date and Start Time: Wednesday, August 15, 2018

Peak Hour: 04:45 PM - 05:45 PM

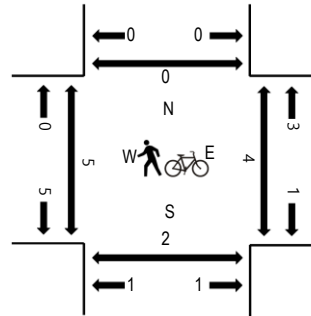
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	EMBARCADERO RD Eastbound				EMBARCADERO RD Westbound				E BAYSHORE RD Northbound				E BAYSHORE RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	4	138	59	27	0	7	115	15	0	99	50	3	0	4	14	85	620	2,557	0	0	0	0
4:15 PM	3	152	46	30	0	23	150	15	0	70	46	8	0	2	23	84	652	2,655	0	0	0	0
4:30 PM	4	109	35	30	0	22	115	21	0	94	47	4	0	5	37	110	633	2,674	0	0	0	0
4:45 PM	6	152	47	35	0	17	95	12	0	74	63	6	0	2	22	121	652	2,683	1	0	0	0
5:00 PM	6	144	55	28	0	9	136	22	0	120	57	5	0	2	16	118	718	2,628	1	1	0	0
5:15 PM	7	131	47	30	0	11	133	19	0	91	62	5	0	3	26	106	671		0	2	2	0
5:30 PM	5	151	36	29	0	6	122	16	0	78	63	7	0	4	13	112	642		1	0	0	0
5:45 PM	3	144	45	22	0	6	100	14	0	70	53	3	0	4	28	105	597		0	1	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3
Lights	24	574	180	118	0	42	482	69	0	362	245	22	0	11	77	453	2,659
Mediums	0	3	4	4	0	1	4	0	0	1	0	1	0	0	0	3	21
Total	24	578	185	122	0	43	486	69	0	363	245	23	0	11	77	457	2,683



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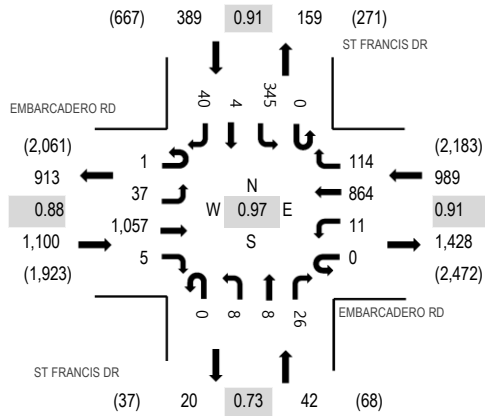
Location: 3 ST FRANCIS DR & EMBARCADERO RD AM

Date and Start Time: Wednesday, August 15, 2018

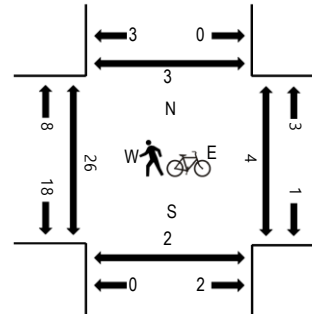
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:30 AM - 08:45 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	EMBARCADERO RD Eastbound				EMBARCADERO RD Westbound				ST FRANCIS DR Northbound				ST FRANCIS DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	3	138	0	0	3	312	17	0	0	0	4	0	43	2	10	532	2,382	3	2	2	1
7:15 AM	0	7	177	1	0	2	293	26	0	1	0	6	0	59	0	13	585	2,496	4	0	0	0
7:30 AM	0	3	236	1	0	1	280	17	0	0	4	5	0	70	0	11	628	2,500	2	1	0	0
7:45 AM	0	7	258	0	0	2	235	26	0	5	4	6	0	79	0	15	637	2,520	9	1	0	0
8:00 AM	0	13	249	2	0	4	242	22	0	1	2	4	0	98	2	7	646	2,459	5	0	1	0
8:15 AM	1	8	249	2	0	2	180	35	0	2	1	10	0	88	1	10	589		5	0	0	1
8:30 AM	0	9	301	1	0	3	207	31	0	0	1	6	0	80	1	8	648		0	1	0	1
8:45 AM	0	13	242	2	0	3	219	21	0	0	1	5	0	59	2	9	576		2	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4
Lights	1	37	1,035	5	0	11	820	112	0	8	8	26	0	340	4	38	2,445
Mediums	0	0	22	0	0	0	40	2	0	0	0	0	0	5	0	2	71
Total	1	37	1,057	5	0	11	864	114	0	8	8	26	0	345	4	40	2,520



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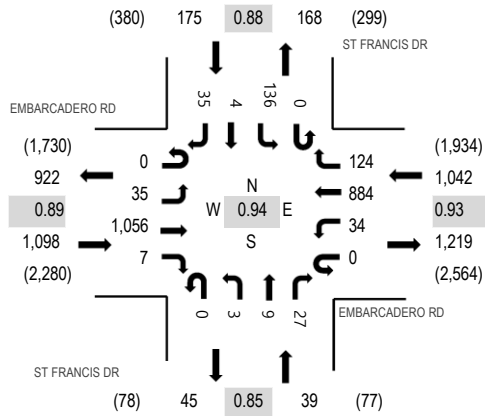
Location: 3 ST FRANCIS DR & EMBARCADERO RD PM

Date and Start Time: Wednesday, August 15, 2018

Peak Hour: 05:00 PM - 06:00 PM

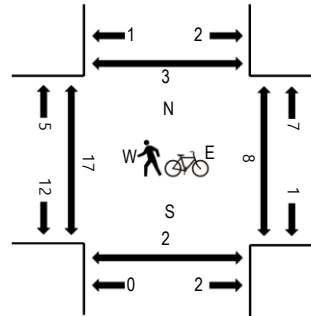
Peak 15-Minutes: 05:15 PM - 05:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	EMBARCADERO RD				EMBARCADERO RD				ST FRANCIS DR				ST FRANCIS DR				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West East South North			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	10	323	0	0	6	174	17	0	0	1	7	0	43	3	12	596	2,317	3	3	2	1
4:15 PM	0	5	309	0	0	7	197	23	0	2	0	10	0	48	0	5	606	2,244	1	3	1	0
4:30 PM	0	7	259	2	0	4	190	34	0	1	2	7	0	40	3	5	554	2,264	2	4	3	1
4:45 PM	0	6	257	4	0	4	212	24	0	1	2	5	0	37	0	9	561	2,301	2	2	0	1
5:00 PM	0	9	226	2	0	12	189	26	0	0	3	8	0	39	0	9	523	2,354	1	1	1	0
5:15 PM	0	6	298	2	0	5	225	33	0	2	2	6	0	35	2	10	626		3	0	0	1
5:30 PM	0	8	257	2	0	6	236	30	0	1	0	6	0	35	2	8	591		2	3	1	0
5:45 PM	0	12	275	1	0	11	234	35	0	0	4	7	0	27	0	8	614		2	1	0	2

Peak Rolling Hour Flow Rates

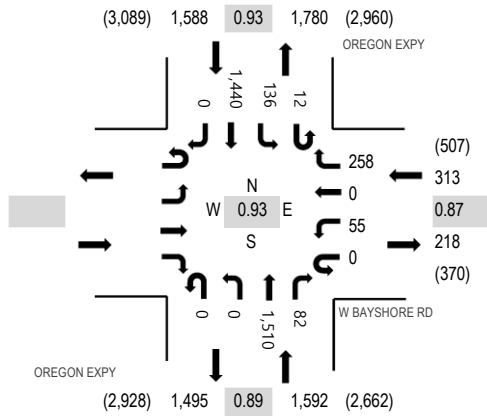
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	35	1,042	7	0	34	877	124	0	3	9	27	0	135	4	35	2,332
Mediums	0	0	14	0	0	0	7	0	0	0	0	0	0	1	0	0	22
Total	0	35	1,056	7	0	34	884	124	0	3	9	27	0	136	4	35	2,354



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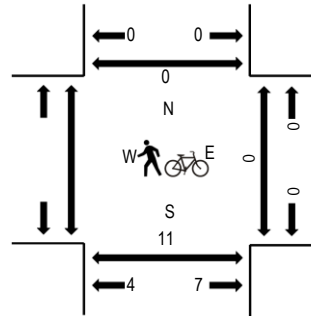
Location: 4 OREGON EXPY & W BAYSHORE RD AM
Date and Start Time: Wednesday, August 15, 2018
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	W BAYSHORE RD								OREGON EXPY				OREGON EXPY				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West	East	South	North
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right						
7:00 AM					0	8	0	20	0	0	161	10	1	13	364	0	577	2,812		0	0	0
7:15 AM					0	10	0	31	0	0	222	6	0	25	372	0	666	3,078		0	0	0
7:30 AM					0	13	0	40	0	0	296	5	0	29	365	0	748	3,351		0	0	0
7:45 AM					0	24	0	59	0	0	280	15	3	45	395	0	821	3,493		0	2	0
8:00 AM					0	14	0	41	0	0	376	21	2	26	363	0	843	3,446		0	0	0
8:15 AM					0	4	0	81	0	0	408	22	3	40	381	0	939			0	3	0
8:30 AM					0	13	0	77	0	0	446	24	4	25	301	0	890			0	0	0
8:45 AM					0	14	0	58	0	0	350	20	1	44	287	0	774			0	2	0

Peak Rolling Hour Flow Rates

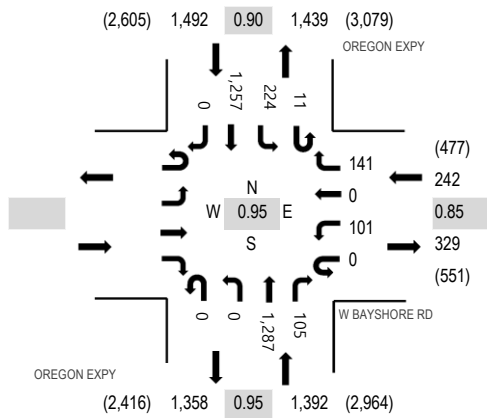
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks					0	0	0	1	0	0	2	0	0	1	8	0	12
Lights					0	54	0	255	0	0	1,472	82	10	130	1,400	0	3,403
Mediums					0	1	0	2	0	0	36	0	2	5	32	0	78
Total					0	55	0	258	0	0	1,510	82	12	136	1,440	0	3,493



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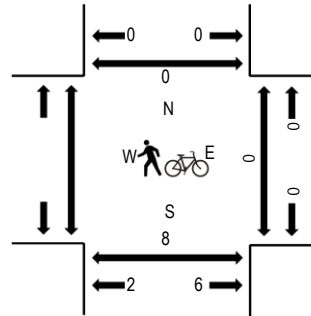
Location: 4 OREGON EXPY & W BAYSHORE RD PM
Date and Start Time: Wednesday, August 15, 2018
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:45 PM - 06:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	W BAYSHORE RD								OREGON EXPY				OREGON EXPY				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West	East	South	North
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right						
4:00 PM					0	23	0	39	0	0	398	15	4	16	198	0	693	2,920		0	2	0
4:15 PM					0	25	0	32	0	0	375	23	4	36	234	0	729	2,971		0	0	0
4:30 PM					0	25	0	35	0	0	348	15	1	41	263	0	728	3,003		0	1	0
4:45 PM					0	20	0	36	0	0	367	31	1	45	270	0	770	3,076		0	0	0
5:00 PM					0	17	0	38	0	0	332	22	4	42	289	0	744	3,126		0	1	0
5:15 PM					0	20	0	33	0	0	333	29	2	59	285	0	761			0	1	0
5:30 PM					0	30	0	33	0	0	313	29	4	56	336	0	801			0	1	0
5:45 PM					0	34	0	37	0	0	309	25	1	67	347	0	820			0	0	0

Peak Rolling Hour Flow Rates

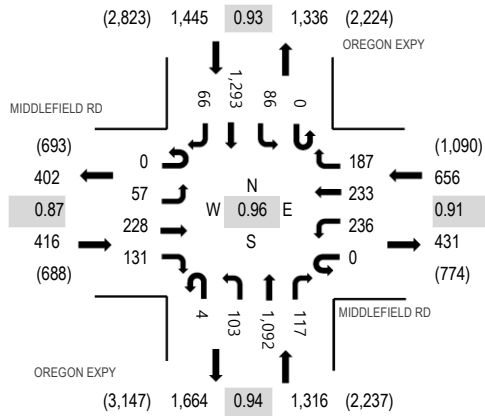
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks					0	0	0	0	0	0	0	0	0	0	0	0	0
Lights					0	101	0	139	0	0	1,269	103	11	223	1,244	0	3,090
Mediums					0	0	0	2	0	0	18	2	0	1	13	0	36
Total					0	101	0	141	0	0	1,287	105	11	224	1,257	0	3,126



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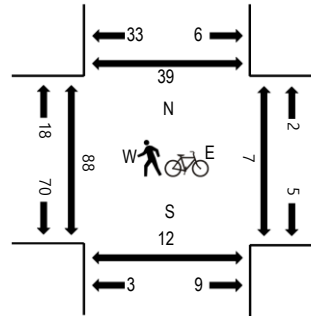
Location: 5 OREGON EXPY & MIDDLEFIELD RD AM
Date and Start Time: Wednesday, August 15, 2018
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	MIDDLEFIELD RD Eastbound				MIDDLEFIELD RD Westbound				OREGON EXPY Northbound				OREGON EXPY Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	4	19	17	0	27	36	18	0	13	110	13	0	23	297	10	587	3,039	0	0	0	0
7:15 AM	0	3	27	12	0	32	32	22	0	9	177	23	0	38	343	10	728	3,450	0	0	2	0
7:30 AM	0	2	25	33	0	40	55	39	0	25	236	24	0	28	301	14	822	3,694	1	0	1	2
7:45 AM	0	10	59	26	0	51	58	47	0	48	212	27	0	24	314	26	902	3,833	2	1	1	3
8:00 AM	0	15	60	36	0	75	63	42	2	18	295	35	0	21	316	20	998	3,799	2	0	0	4
8:15 AM	0	14	64	31	0	59	57	43	0	19	282	33	0	22	339	9	972		2	1	0	3
8:30 AM	0	18	45	38	0	51	55	55	2	18	303	22	0	19	324	11	961		3	1	2	2
8:45 AM	0	12	68	50	0	42	56	35	0	19	230	42	0	13	289	12	868		2	0	2	4

Peak Rolling Hour Flow Rates

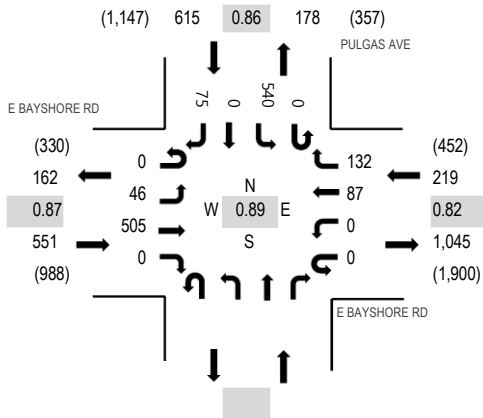
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	2	1	0	0	0	2	1	0	1	2	0	10
Lights	0	57	218	129	0	229	225	183	4	102	1,060	115	0	85	1,263	65	3,735
Mediums	0	0	9	2	0	5	7	4	0	1	30	1	0	0	28	1	88
Total	0	57	228	131	0	236	233	187	4	103	1,092	117	0	86	1,293	66	3,833



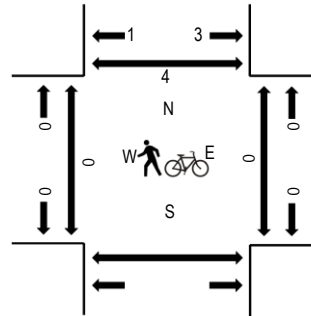
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Location: 6 PULGAS AVE & E BAYSHORE RD AM
Date and Start Time: Wednesday, August 15, 2018
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	E BAYSHORE RD Eastbound				E BAYSHORE RD Westbound				Northbound				PULGAS AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	14	65	0	0	0	0	21	31				0	120	0	26	277	1,351	0	0	0	0
7:15 AM	0	15	93	0	0	0	0	18	34				0	138	0	27	325	1,385	0	0	0	0
7:30 AM	0	8	136	0	0	0	0	28	31				0	165	0	20	388	1,361	0	0	0	0
7:45 AM	0	13	148	0	0	0	0	18	38				0	125	0	19	361	1,293	0	0	2	2
8:00 AM	0	10	128	0	0	0	0	23	29				0	112	0	9	311	1,236	0	0	0	0
8:15 AM	0	15	103	0	0	0	0	24	23				0	122	0	14	301		0	0	0	0
8:30 AM	0	12	110	0	0	0	0	25	46				0	115	0	12	320		0	0	2	2
8:45 AM	0	7	111	0	0	0	0	32	31				0	109	0	14	304		0	0	2	2

Peak Rolling Hour Flow Rates

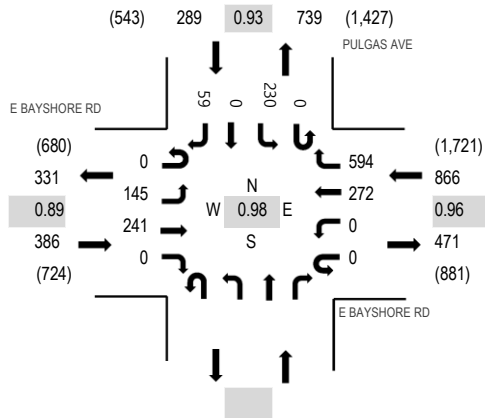
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0					0	2	0	0	2
Lights	0	45	499	0	0	0	86	132					0	527	0	73	1,362
Mediums	0	1	6	0	0	0	1	0					0	11	0	2	21
Total	0	46	505	0	0	0	87	132					0	540	0	75	1,385



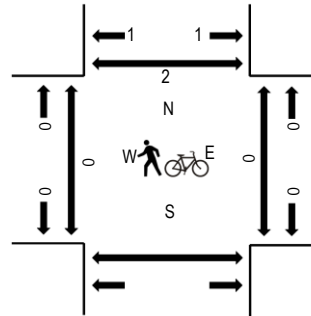
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Location: 6 PULGAS AVE & E BAYSHORE RD PM
Date and Start Time: Wednesday, August 15, 2018
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	E BAYSHORE RD Eastbound				E BAYSHORE RD Westbound				Northbound				PULGAS AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	31	59	0	0	0	0	75	140				0	38	0	18	361	1,487	0	0		1
4:15 PM	0	19	61	0	0	0	0	73	149				0	50	0	17	369	1,519	0	0		0
4:30 PM	0	41	68	0	0	0	0	63	137				0	60	0	18	387	1,541	0	0		0
4:45 PM	0	36	50	0	0	0	0	66	149				0	53	0	16	370	1,518	0	0		1
5:00 PM	0	31	67	0	0	0	0	77	152				0	55	0	11	393	1,501	0	0		0
5:15 PM	0	37	56	0	0	0	0	66	156				0	62	0	14	391		0	0		1
5:30 PM	0	32	60	0	0	0	0	81	131				0	36	0	24	364		0	0		1
5:45 PM	0	28	48	0	0	0	0	48	158				0	58	0	13	353		0	0		1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0					0	0	0	0	0
Lights	0	144	240	0	0	0	271	591					0	228	0	58	1,532
Mediums	0	1	1	0	0	0	1	3					0	2	0	1	9
Total	0	145	241	0	0	0	272	594					0	230	0	59	1,541

Appendix B

Volume Summary

Intersection Number: **1**
 Traffic Node Number: 32
 Intersection Name: Geng Road and Embarcadero Road
 Peak Hour: AM
 Count Date: 08/15/18
 Date of Analysis: 08/08/18
 Annual Growth Rate: 1.4%
 Number of Years: 5

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	36	0	3	7	138	0	0	0	0	0	545	99	828
Approved Project Trips													
Palo Alto Golf Course Reconfiguration	0	0	0	0	0	0	0	0	0	0	0	0	0
1050 Page Mill Road Office (Palo Alto)	0	0	0	0	0	0	0	0	0	0	0	0	0
Four Corners at University Ave/Bay Rd (East Palo Alto)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Background Conditions	36	0	3	7	138	0	0	0	0	0	545	99	828
Proposed Project Trips	0	0	0	0	32	0	0	0	0	51	37	0	120
Existing + Project Conditions	36	0	3	7	170	0	0	0	0	51	582	99	948
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions	36	0	3	7	170	0	0	0	0	51	582	99	948
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative Growth	3	0	0	1	10	0	0	0	0	0	39	7	60
Cumulative No Project Conditions	39	0	3	8	148	0	0	0	0	0	584	106	888
Cumulative + Project Conditions	39	0	3	8	180	0	0	0	0	51	621	106	1008
check	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number: **2**
 Traffic Node Number: 31
 Intersection Name: E. Bayshore Road and Embarcadero Road
 Peak Hour: AM
 Count Date: 08/15/18
 Date of Analysis: 08/08/18
 Annual Growth Rate: 1.4%
 Number of Years: 5

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	784	115	73	11	124	12	68	48	91	276	523	314	2439
Approved Project Trips													
Palo Alto Golf Course Reconfiguration	0	0	0	0	0	0	0	0	0	0	0	0	0
1050 Page Mill Road Office (Palo Alto)	0	0	0	0	0	0	0	0	0	0	0	0	0
Four Corners at University Ave/Bay Rd (East Palo Alto)	3	0	0	0	0	0	0	0	0	0	0	1	4
Total Approved Project Trips	3	0	0	0	0	0	0	0	0	0	0	1	4
Background Conditions	787	115	73	11	124	12	68	48	91	276	523	315	2443
Proposed Project Trips	0	2	9	3	24	5	4	6	46	19	74	0	192
Existing + Project Conditions	784	117	82	14	148	17	72	54	137	295	597	314	2631
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions	787	117	82	14	148	17	72	54	137	295	597	315	2635
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative Growth	56	8	5	1	9	1	5	3	7	20	38	23	176
Cumulative No Project Conditions	843	123	78	12	133	13	73	51	98	296	561	338	2619
Cumulative + Project Conditions	843	125	87	15	157	18	77	57	144	315	635	338	2811
check	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number: **3**
 Traffic Node Number: 36
 Intersection Name: St. Francis Drive and Embarcadero Road
 Peak Hour: AM
 Count Date: 08/15/18
 Date of Analysis: 08/08/18
 Annual Growth Rate 1.4%
 Number of Years 5

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	40	4	345	114	864	11	26	8	8	5	1057	38	2520
Approved Project Trips													
Palo Alto Golf Course Reconfiguration	0	0	0	0	0	0	0	0	0	0	0	0	0
1050 Page Mill Road Office (Palo Alto)	0	0	0	0	0	0	0	0	0	0	0	0	0
Four Corners at University Ave/Bay Rd (East Palo Alto)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Background Conditions	40	4	345	114	864	11	26	8	8	5	1057	38	2520
Proposed Project Trips	0	0	0	0	9	0	0	0	0	0	12	0	21
Existing + Project Conditions	40	4	345	114	873	11	26	8	8	5	1069	38	2541
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions	40	4	345	114	873	11	26	8	8	5	1069	38	2541
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative Growth	3	0	25	8	62	1	2	1	1	0	76	3	182
Cumulative No Project Conditions	43	4	370	122	926	12	28	9	9	5	1133	41	2702
Cumulative + Project Conditions	43	4	370	122	935	12	28	9	9	5	1145	41	2723
check	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number: **4**
 Traffic Node Number: 40
 Intersection Name: W. Bayshore Road and Oregon Expressway
 Peak Hour: AM
 Count Date: 08/15/18
 Date of Analysis: 08/08/18
 Annual Growth Rate 1.4%
 Number of Years 5

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	0	0	0	1440	148	258	0	55	82	1510	0	3493
Approved Project Trips													
Palo Alto Golf Course Reconfiguration	0	0	0	0	0	0	0	0	0	0	0	0	0
1050 Page Mill Road Office (Palo Alto)	0	0	0	0	21	0	0	0	0	0	1	0	22
Four Corners at University Ave/Bay Rd (East Palo Alto)	0	0	0	0	3	0	0	0	0	0	1	0	4
Total Approved Project Trips	0	0	0	0	24	0	0	0	0	0	2	0	26
Background Conditions	0	0	0	0	1464	148	258	0	55	82	1512	0	3519
Proposed Project Trips	0	0	0	0	13	0	0	0	0	0	18	0	31
Existing + Project Conditions	0	0	0	0	1453	148	258	0	55	82	1528	0	3524
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions	0	0	0	0	1477	148	258	0	55	82	1530	0	3550
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative Growth	0	0	0	0	104	11	19	0	4	6	109	0	253
Cumulative No Project Conditions	0	0	0	0	1568	159	277	0	59	88	1621	0	3772
Cumulative + Project Conditions	0	0	0	0	1581	159	277	0	59	88	1639	0	3803
check	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number: **5**
 Traffic Node Number: 41
 Intersection Name: Middlefield Road and Oregon Expressway*
 Peak Hour: AM
 Count Date: 08/15/18
 Date of Analysis: 08/08/18
 Annual Growth Rate: 1.4%
 Number of Years: 5

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	131	228	57	66	1293	86	187	233	236	117	1092	107	3833
Approved Project Trips													
Palo Alto Golf Course Reconfiguration	0	0	0	0	0	0	0	0	0	0	0	0	0
1050 Page Mill Road Office (Palo Alto)	2	0	0	0	21	0	0	0	2	0	1	0	26
Four Corners at University Ave/Bay Rd (East Palo Alto)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Project Trips	2	0	0	0	21	0	0	0	2	0	1	0	26
Background Conditions	133	228	57	66	1314	86	187	233	238	117	1093	107	3859
Proposed Project Trips	0	0	0	0	13	0	0	0	0	0	18	0	31
Existing + Project Conditions	131	228	57	66	1306	86	187	233	236	117	1110	107	3864
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions	133	228	57	66	1327	86	187	233	238	117	1111	107	3890
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative Growth	9	16	4	5	93	6	13	17	17	8	79	8	275
Cumulative No Project Conditions	142	244	61	71	1407	92	200	250	255	125	1172	115	4134
Cumulative + Project Conditions	142	244	61	71	1420	92	200	250	255	125	1190	115	4165
check	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number: **6**
 Traffic Node Number: 42
 Intersection Name: Pulgas Avenue and E. Bayshore Road
 Peak Hour: AM
 Count Date: 08/15/18
 Date of Analysis: 08/08/18
 Annual Growth Rate: 1.4%
 Number of Years: 5

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	75	0	540	132	87	0	0	0	0	0	505	46	1385
Approved Project Trips													
Palo Alto Golf Course Reconfiguration	0	0	0	0	0	0	0	0	0	0	0	0	0
1050 Page Mill Road Office (Palo Alto)	0	0	0	0	0	0	0	0	0	0	0	0	0
Four Corners at University Ave/Bay Rd (East Palo Alto)	0	0	0	0	1	0	0	0	0	0	3	0	4
Total Approved Project Trips	0	0	0	0	1	0	0	0	0	0	3	0	4
Background Conditions	75	0	540	132	88	0	0	0	0	0	508	46	1389
Proposed Project Trips	0	0	0	0	9	0	0	0	0	0	12	0	21
Existing + Project Conditions	75	0	540	132	96	0	0	0	0	0	517	46	1406
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions	75	0	540	132	97	0	0	0	0	0	520	46	1410
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative Growth	5	0	39	10	6	0	0	0	0	0	36	3	99
Cumulative No Project Conditions	80	0	579	142	94	0	0	0	0	0	544	49	1488
Cumulative + Project Conditions	80	0	579	142	103	0	0	0	0	0	556	49	1509
check	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number: **1**
 Traffic Node Number: 32
 Intersection Name: Geng Road and Embarcadero Road
 Peak Hour: PM
 Count Date: 08/15/18
 Date of Analysis: 08/08/18
 Annual Growth Rate 1.4%
 Number of Years 5

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	100	0	2	11	530	0	0	0	0	0	164	56	863
Approved Project Trips													
Palo Alto Golf Course Reconfiguration	123	0	0	0	7	0	0	0	0	0	3	151	284
1050 Page Mill Road Office (Palo Alto)	0	0	0	0	0	0	0	0	0	0	0	0	0
Four Corners at University Ave/Bay Rd (East Palo Alto)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Project Trips	123	0	0	0	7	0	0	0	0	0	3	151	284
Background Conditions	223	0	2	11	537	0	0	0	0	0	167	207	1147
Proposed Project Trips	0	0	0	0	56	0	0	0	0	44	38	0	138
Existing + Project Conditions	100	0	2	11	586	0	0	0	0	44	202	56	1001
	check	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions	223	0	2	11	593	0	0	0	0	44	205	207	1285
	check	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative Growth	7	0	0	1	38	0	0	0	0	0	12	4	62
Cumulative No Project Conditions	230	0	2	12	575	0	0	0	0	0	179	211	1209
Cumulative + Project Conditions	230	0	2	12	631	0	0	0	0	44	217	211	1347
	check	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number: **2**
 Traffic Node Number: 31
 Intersection Name: E. Bayshore Road and Embarcadero Road
 Peak Hour: PM
 Count Date: 08/15/18
 Date of Analysis: 08/08/18
 Annual Growth Rate 1.4%
 Number of Years 5

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	457	77	11	69	486	43	23	245	363	122	185	602	2683
Approved Project Trips													
Palo Alto Golf Course Reconfiguration	0	0	21	18	110	3	3	0	0	0	130	0	285
1050 Page Mill Road Office (Palo Alto)	0	0	0	0	0	0	0	0	0	0	0	0	0
Four Corners at University Ave/Bay Rd (East Palo Alto)	2	0	0	0	0	0	0	0	0	0	0	4	6
Total Approved Project Trips	2	0	21	18	110	3	3	0	0	0	130	4	291
Background Conditions	459	77	32	87	596	46	26	245	363	122	315	606	2974
Proposed Project Trips	0	2	8	6	44	6	6	11	86	17	67	0	253
Existing + Project Conditions	457	79	19	75	530	49	29	256	449	139	252	602	2936
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions	459	79	40	93	640	52	32	256	449	139	382	606	3227
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative Growth	33	6	1	5	35	3	2	18	26	9	13	43	194
Cumulative No Project Conditions	492	83	33	92	631	49	28	263	389	131	328	649	3168
Cumulative + Project Conditions	492	85	41	98	675	55	34	274	475	148	395	649	3421
check	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number: **3**
 Traffic Node Number: 36
 Intersection Name: St. Francis Drive and Embarcadero Road
 Peak Hour: PM
 Count Date: 08/15/18
 Date of Analysis: 08/08/18
 Annual Growth Rate: 1.4%
 Number of Years: 5

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	35	4	136	124	884	34	27	9	3	7	1056	35	2354
Approved Project Trips													
Palo Alto Golf Course Reconfiguration	0	0	2	1	42	0	0	0	0	0	51	0	96
1050 Page Mill Road Office (Palo Alto)	0	0	0	0	0	0	0	0	0	0	0	0	0
Four Corners at University Ave/Bay Rd (East Palo Alto)	0	0	0	0	0	0	0	0	0	0	1	0	1
Total Approved Project Trips	0	0	2	1	42	0	0	0	0	0	52	0	97
Background Conditions	35	4	138	125	926	34	27	9	3	7	1108	35	2451
Proposed Project Trips	0	0	0	0	16	0	0	0	0	0	11	0	27
Existing + Project Conditions	35	4	136	124	900	34	27	9	3	7	1067	35	2381
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions	35	4	138	125	942	34	27	9	3	7	1119	35	2478
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative Growth	3	0	10	9	64	2	2	1	0	1	76	3	171
Cumulative No Project Conditions	38	4	148	134	990	36	29	10	3	8	1184	38	2622
Cumulative + Project Conditions	38	4	148	134	1006	36	29	10	3	8	1195	38	2649
check	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number: **4**
 Traffic Node Number: 40
 Intersection Name: W. Bayshore Road and Oregon Expressway
 Peak Hour: PM
 Count Date: 08/15/18
 Date of Analysis: 08/08/18
 Annual Growth Rate: 1.4%
 Number of Years: 5

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	0	0	0	1257	235	141	0	101	105	1287	0	3126
Approved Project Trips													
Palo Alto Golf Course Reconfiguration	0	0	0	0	36	3	3	0	0	0	43	0	85
1050 Page Mill Road Office (Palo Alto)	0	0	0	0	2	0	0	0	0	0	19	0	21
Four Corners at University Ave/Bay Rd (East Palo Alto)	0	0	0	0	2	0	0	0	0	0	3	0	5
Total Approved Project Trips	0	0	0	0	40	3	3	0	0	0	65	0	111
Background Conditions	0	0	0	0	1297	238	144	0	101	105	1352	0	3237
Proposed Project Trips	0	0	0	0	24	0	0	0	0	0	16	0	40
Existing + Project Conditions	0	0	0	0	1281	235	141	0	101	105	1303	0	3166
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions	0	0	0	0	1321	238	144	0	101	105	1368	0	3277
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative Growth	0	0	0	0	90	17	10	0	7	8	93	0	225
Cumulative No Project Conditions	0	0	0	0	1387	255	154	0	108	113	1445	0	3462
Cumulative + Project Conditions	0	0	0	0	1411	255	154	0	108	113	1461	0	3502
check	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number: **5**
 Traffic Node Number: 41
 Intersection Name: Middlefield Road and Oregon Expressway*
 Peak Hour: PM
 Count Date: 10/06/16
 Date of Analysis: 08/08/18
 Annual Growth Rate: 1.4%
 Number of Years: 5

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	105	452	70	45	911	163	104	372	199	260	1121	191	3993
Approved Project Trips													
Palo Alto Golf Course Reconfiguration	0	0	0	0	21	13	15	0	0	0	25	0	74
1050 Page Mill Road Office (Palo Alto)	0	0	0	0	2	0	0	0	0	1	19	1	23
Four Corners at University Ave/Bay Rd (East Palo Alto)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Project Trips	0	0	0	0	23	13	15	0	0	1	44	1	97
Background Conditions	105	452	70	45	934	176	119	372	199	261	1165	192	4090
Proposed Project Trips	0	0	0	0	24	0	0	0	0	0	16	0	40
Existing + Project Conditions	105	452	70	45	935	163	104	372	199	260	1137	191	4033
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions	105	452	70	45	958	176	119	372	199	261	1181	192	4130
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative Growth	8	33	5	3	66	12	7	27	14	19	81	14	289
Cumulative No Project Conditions	113	485	75	48	1000	188	126	399	213	280	1246	206	4379
Cumulative + Project Conditions	113	485	75	48	1024	188	126	399	213	280	1262	206	4419
check	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number: **6**
 Traffic Node Number: 42
 Intersection Name: Pulgas Avenue and E. Bayshore Road
 Peak Hour: PM
 Count Date: 08/15/18
 Date of Analysis: 08/08/18
 Annual Growth Rate: 1.4%
 Number of Years: 5

Scenario	Movements												Total
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	59	0	230	594	272	0	0	0	0	0	241	145	1541
Approved Project Trips													
Palo Alto Golf Course Reconfiguration	0	0	9	8	10	0	0	0	0	0	12	0	39
1050 Page Mill Road Office (Palo Alto)	0	0	0	0	0	0	0	0	0	0	0	0	0
Four Corners at University Ave/Bay Rd (East Palo Alto)	0	0	0	0	4	0	0	0	0	0	2	0	6
Total Approved Project Trips	0	0	9	8	14	0	0	0	0	0	14	0	45
Background Conditions	59	0	239	602	286	0	0	0	0	0	255	145	1586
Proposed Project Trips	0	0	0	0	16	0	0	0	0	0	11	0	27
Existing + Project Conditions	59	0	230	594	288	0	0	0	0	0	252	145	1568
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions	59	0	239	602	302	0	0	0	0	0	266	145	1613
check	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative Growth	4	0	17	43	20	0	0	0	0	0	17	10	111
Cumulative No Project Conditions	63	0	256	645	306	0	0	0	0	0	272	155	1697
Cumulative + Project Conditions	63	0	256	645	322	0	0	0	0	0	283	155	1724
check	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C

Level of Service Calculations

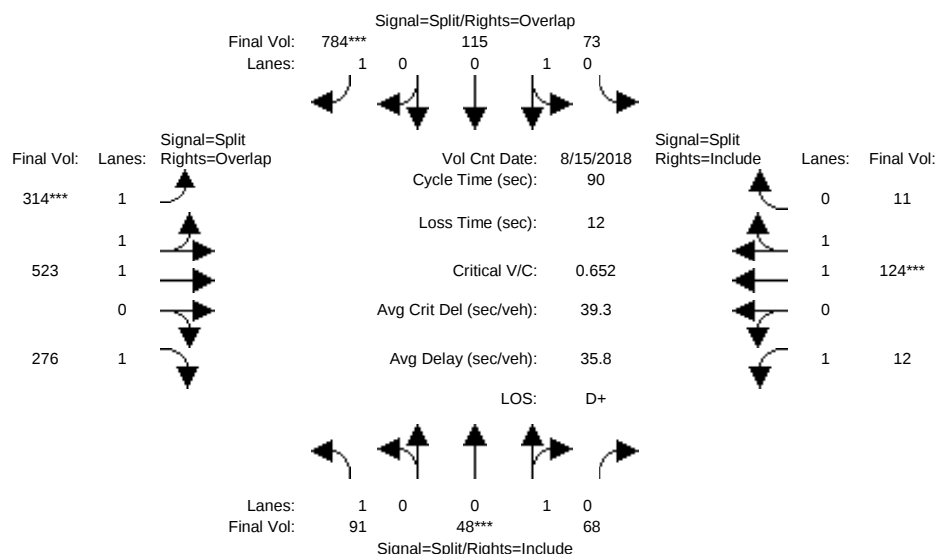
1700-1730 Embarcadero Road Auto Dealerships

Palo Alto, CA

Hexagon Transportation Consultants

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing AM

Intersection #31: E Bayshore Rd/Embarcadero Rd



Street Name: E Bayshore Rd Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 10 10 10 10 10 10 10 10 10 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 7:45 - 8:45 AM

Base Vol:	91	48	68	73	115	784	314	523	276	12	124	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	48	68	73	115	784	314	523	276	12	124	11
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	48	68	73	115	784	314	523	276	12	124	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	91	48	68	73	115	784	314	523	276	12	124	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	48	68	73	115	784	314	523	276	12	124	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	91	48	68	73	115	784	314	523	276	12	124	11

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.78	0.76	0.76	0.95	0.95	0.92	0.74	0.98	0.92	0.92	0.98	0.95
Lanes:	1.00	0.41	0.59	0.39	0.61	1.00	1.33	1.67	1.00	1.00	1.83	0.17
Final Sat.:	1488	596	844	699	1101	1750	1863	3102	1750	1750	3398	301

Capacity Analysis Module:

Vol/Sat:	0.06	0.08	0.08	0.10	0.10	0.45	0.17	0.17	0.16	0.01	0.04	0.04
Crit Moves:	****			****	****					****		
Green Time:	10.4	10.4	10.4	35.9	35.9	57.6	21.7	21.7	32.1	10.0	10.0	10.0
Volume/Cap:	0.53	0.70	0.70	0.26	0.26	0.70	0.70	0.70	0.44	0.06	0.33	0.33
Delay/Veh:	40.7	50.8	50.8	18.3	18.3	44.7	33.0	33.0	22.7	35.9	37.4	37.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.7	50.8	50.8	18.3	18.3	44.7	33.0	33.0	22.7	35.9	37.4	37.4
LOS by Move:	D	D	D	B-	B-	D	C-	C-	C+	D+	D+	D+
HCM2k95thQ:	7	9	9	7	7	27	15	17	12	1	4	4

Note: Queue reported is the number of cars per lane.

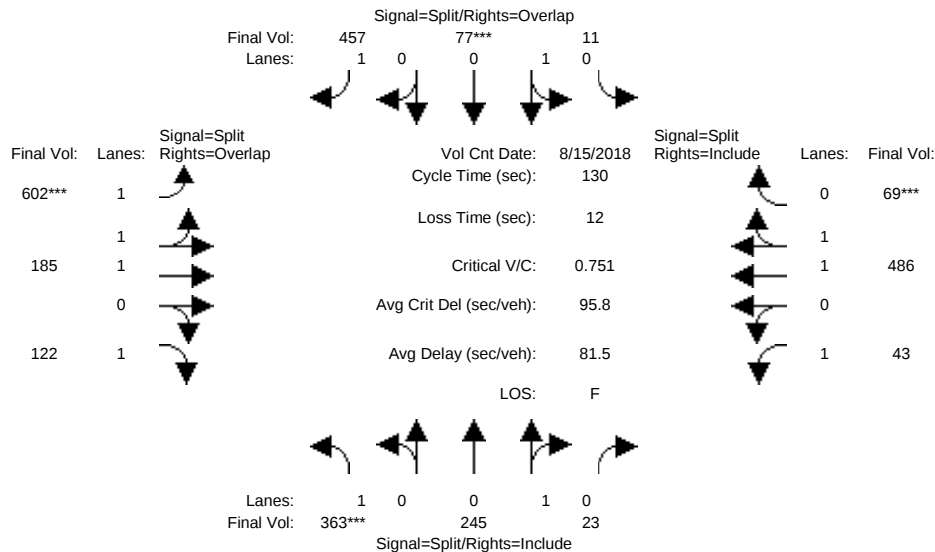
1700-1730 Embarcadero Road Auto Dealerships

Palo Alto, CA

Hexagon Transportation Consultants

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing PM

Intersection #31: E Bayshore Rd/Embarcadero Rd



Street Name: E Bayshore Rd Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 10 10 10 10 10 10 10 10 10 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 4:45 - 5:45 PM

Base Vol:	363	245	23	11	77	457	602	185	122	43	486	69
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	363	245	23	11	77	457	602	185	122	43	486	69
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	363	245	23	11	77	457	602	185	122	43	486	69
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	363	245	23	11	77	457	602	185	122	43	486	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	363	245	23	11	77	457	602	185	122	43	486	69
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	363	245	23	11	77	457	602	185	122	43	486	69

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.78	0.76	0.76	0.95	0.95	0.92	0.66	1.00	0.92	0.92	0.98	0.95
Lanes:	1.00	0.91	0.09	0.12	0.88	1.00	2.00	1.00	1.00	1.00	1.74	0.26
Final Sat.:	1488	1316	124	225	1575	1750	2520	1900	1750	1750	3240	460

Capacity Analysis Module:

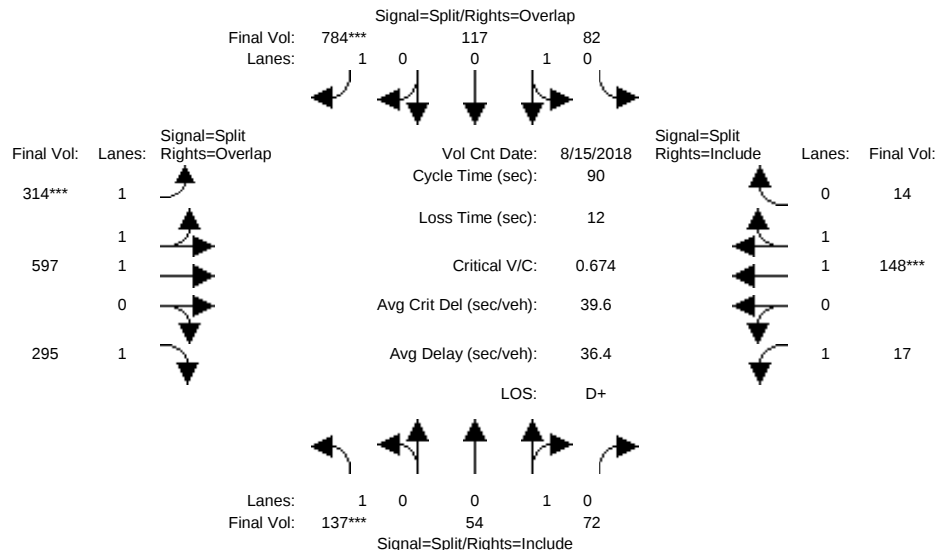
Vol/Sat:	0.24	0.19	0.19	0.05	0.05	0.26	0.24	0.10	0.07	0.02	0.15	0.15
Crit Moves:	****			****		****				****		
Green Time:	41.6	41.6	41.6	10.0	10.0	50.8	40.8	40.8	82.4	25.6	25.6	25.6
Volume/Cap:	0.76	0.58	0.58	0.64	0.64	0.67	0.76	0.31	0.11	0.12	0.76	0.76
Delay/Veh:	166.3	156	38.8	67.6	67.6	35.2	95.9	34.0	9.4	43.1	54.1	54.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	166.3	156	38.8	67.6	67.6	35.2	95.9	34.0	9.4	43.1	54.1	54.1
LOS by Move:	F	F	D+	E	E	D+	F	C-	A	D	D-	D-
HCM2k95thQ:	27	18	18	7	7	28	26	11	4	3	20	20

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project AM

Intersection #31: E Bayshore Rd/Embarcadero Rd



Street Name: E Bayshore Rd Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 10 10 10 10 10 10 10 10 10 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 7:45 - 8:45 AM

Base Vol:	91	48	68	73	115	784	314	523	276	12	124	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	48	68	73	115	784	314	523	276	12	124	11
Added Vol:	46	6	4	9	2	0	0	74	19	5	24	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	137	54	72	82	117	784	314	597	295	17	148	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	137	54	72	82	117	784	314	597	295	17	148	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	137	54	72	82	117	784	314	597	295	17	148	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	137	54	72	82	117	784	314	597	295	17	148	14

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.78	0.76	0.76	0.95	0.95	0.92	0.74	0.97	0.92	0.92	0.98	0.95
Lanes:	1.00	0.43	0.57	0.41	0.59	1.00	1.23	1.77	1.00	1.00	1.82	0.18
Final Sat.:	1488	617	823	742	1058	1750	1723	3276	1750	1750	3380	320

Capacity Analysis Module:

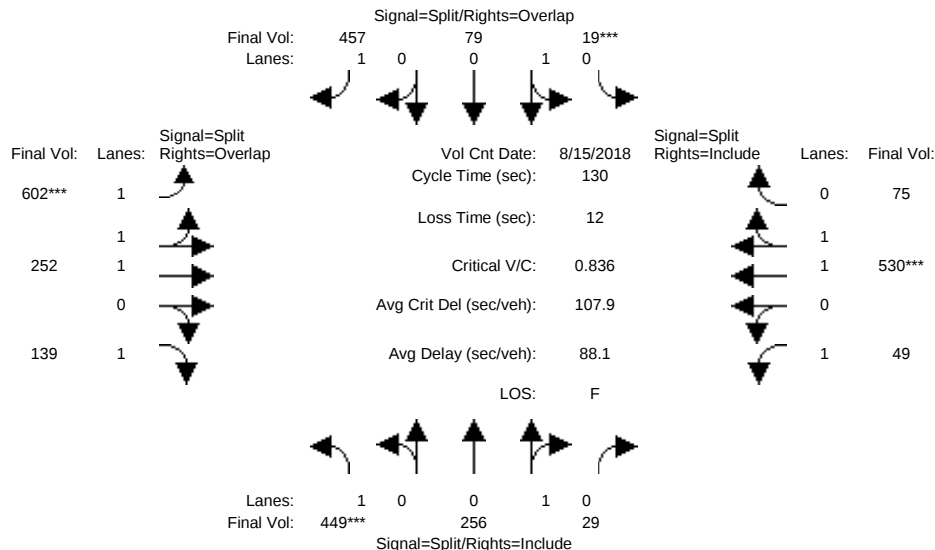
Vol/Sat:	0.09	0.09	0.09	0.11	0.11	0.45	0.18	0.18	0.17	0.01	0.04	0.04
Crit Moves:	****					****	****			****		
Green Time:	11.6	11.6	11.6	33.5	33.5	56.4	22.9	22.9	34.5	10.0	10.0	10.0
Volume/Cap:	0.71	0.68	0.68	0.30	0.30	0.71	0.71	0.71	0.44	0.09	0.39	0.39
Delay/Veh:	49.7	47.2	47.2	20.2	20.2	46.5	32.5	32.5	21.0	36.1	37.8	37.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.7	47.2	47.2	20.2	20.2	46.5	32.5	32.5	21.0	36.1	37.8	37.8
LOS by Move:	D	D	D	C+	C+	D	C-	C-	C+	D+	D+	D+
HCM2k95thQ:	11	10	10	8	8	28	16	19	13	1	4	4

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project PM

Intersection #31: E Bayshore Rd/Embarcadero Rd



Street Name: E Bayshore Rd Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 10 10 10 10 10 10 10 10 10 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 4:45 - 5:45 PM

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	363	245	23	11	77	457	602	185	122	43	486	69
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	363	245	23	11	77	457	602	185	122	43	486	69
Added Vol:	86	11	6	8	2	0	0	67	17	6	44	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	449	256	29	19	79	457	602	252	139	49	530	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	449	256	29	19	79	457	602	252	139	49	530	75
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	449	256	29	19	79	457	602	252	139	49	530	75
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	449	256	29	19	79	457	602	252	139	49	530	75

Saturation Flow Module:

	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.78	0.76	0.76	0.95	0.95	0.92	0.66	1.00	0.92	0.92	0.98	0.95
Lanes:	1.00	0.90	0.10	0.19	0.81	1.00	2.00	1.00	1.00	1.00	1.75	0.25
Final Sat.:	1488	1293	147	349	1451	1750	2520	1900	1750	1750	3241	459

Capacity Analysis Module:

	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.30	0.20	0.20	0.05	0.05	0.26	0.24	0.13	0.08	0.03	0.16	0.16
Crit Moves:	****			****			****			****		
Green Time:	46.3	46.3	46.3	10.0	10.0	46.6	36.6	36.6	82.9	25.1	25.1	25.1
Volume/Cap:	0.85	0.56	0.56	0.71	0.71	0.73	0.85	0.47	0.12	0.15	0.85	0.85
Delay/Veh:	186.1	140	35.0	74.1	74.1	40.5	104.5	38.8	9.3	43.8	60.0	60.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	186.1	140	35.0	74.1	74.1	40.5	104.5	38.8	9.3	43.8	60.0	60.0
LOS by Move:	F	F	C-	E	E	D	F	D+	A	D	E+	E+
HCM2k95thQ:	34	18	18	8	8	30	28	16	5	3	23	23

Note: Queue reported is the number of cars per lane.

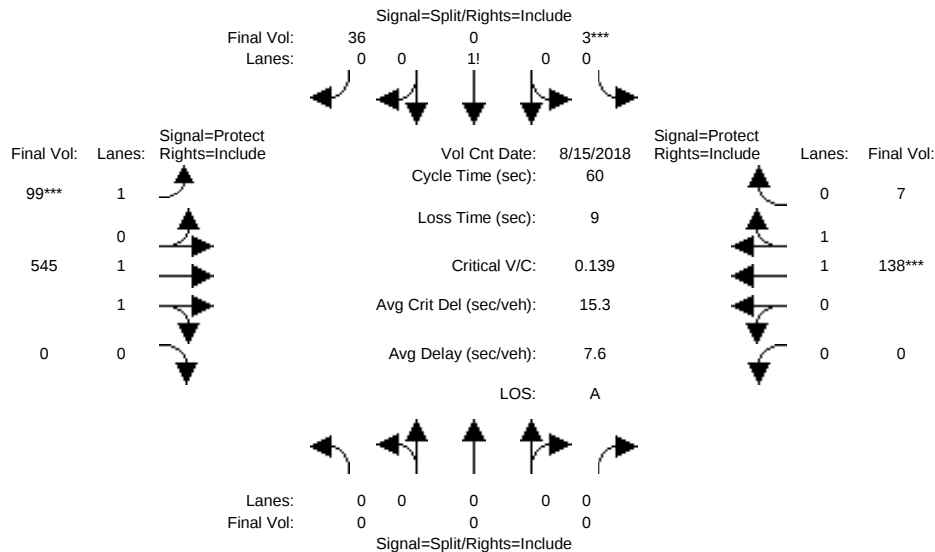
1700-1730 Embarcadero Road Auto Dealerships

Palo Alto, CA

Hexagon Transportation Consultants

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing AM

Intersection #32: Geng Rd/Embarcadero Rd



Street Name: Geng Rd Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 0 0 10 10 10 7 10 10 0 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 8:00 - 9:00 AM

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	3	0	36	99	545	0	0	138	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	3	0	36	99	545	0	0	138	7
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	3	0	36	99	545	0	0	138	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	3	0	36	99	545	0	0	138	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	3	0	36	99	545	0	0	138	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	0	0	3	0	36	99	545	0	0	138	7

Saturation Flow Module:

	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	0.97	0.92	0.92	0.98	0.95
Lanes:	0.00	0.00	0.00	0.08	0.00	0.92	1.00	2.00	0.00	0.00	1.90	0.10
Final Sat.:	0	0	0	135	0	1615	1750	3700	0	0	3521	179

Capacity Analysis Module:

	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.00	0.00	0.02	0.00	0.02	0.06	0.15	0.00	0.00	0.04	0.04
Crit Moves:	****			****			****			****		
Green Time:	0.0	0.0	0.0	10.0	0.0	10.0	24.2	41.0	0.0	0.0	16.8	16.8
Volume/Cap:	0.00	0.00	0.00	0.13	0.00	0.13	0.14	0.22	0.00	0.00	0.14	0.14
Delay/Veh:	0.0	0.0	0.0	21.5	0.0	21.5	11.4	3.6	0.0	0.0	16.3	16.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	21.5	0.0	21.5	11.4	3.6	0.0	0.0	16.3	16.3
LOS by Move:	A	A	A	C+	A	C+	B+	A	A	A	B	B
HCM2k95thQ:	0	0	0	2	0	2	2	4	0	0	2	2

Note: Queue reported is the number of cars per lane.

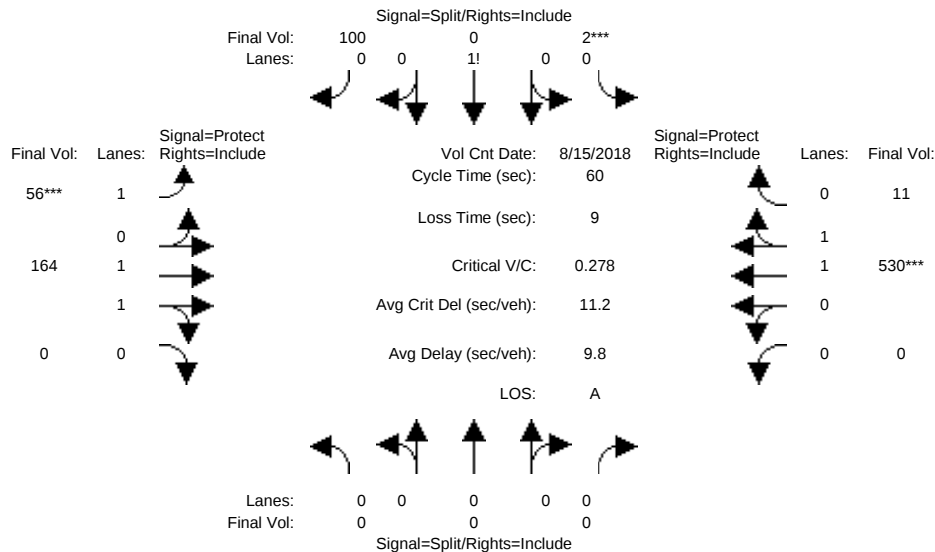
1700-1730 Embarcadero Road Auto Dealerships

Palo Alto, CA

Hexagon Transportation Consultants

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing PM

Intersection #32: Geng Rd/Embarcadero Rd



Street Name: Geng Rd Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 0 0 10 10 10 7 10 10 0 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 4:15 - 5:15 PM

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	2	0	100	56	164	0	0	530	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	2	0	100	56	164	0	0	530	11
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	2	0	100	56	164	0	0	530	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	2	0	100	56	164	0	0	530	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	2	0	100	56	164	0	0	530	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	0	0	2	0	100	56	164	0	0	530	11

Saturation Flow Module:

	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	0.97	0.92	0.92	0.97	0.95
Lanes:	0.00	0.00	0.00	0.02	0.00	0.98	1.00	2.00	0.00	0.00	1.96	0.04
Final Sat.:	0	0	0	34	0	1716	1750	3700	0	0	3625	75

Capacity Analysis Module:

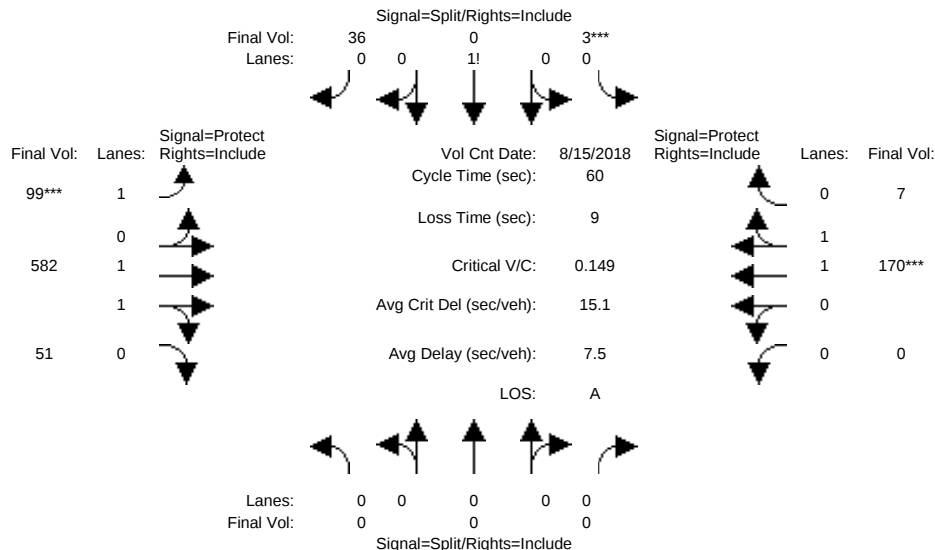
	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.00	0.00	0.06	0.00	0.06	0.03	0.04	0.00	0.00	0.15	0.15
Crit Moves:	****			****			****			****		
Green Time:	0.0	0.0	0.0	12.5	0.0	12.5	7.0	38.5	0.0	0.0	31.5	31.5
Volume/Cap:	0.00	0.00	0.00	0.28	0.00	0.28	0.27	0.07	0.00	0.00	0.28	0.28
Delay/Veh:	0.0	0.0	0.0	20.3	0.0	20.3	24.9	4.1	0.0	0.0	8.0	8.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	20.3	0.0	20.3	24.9	4.1	0.0	0.0	8.0	8.0
LOS by Move:	A	A	A	C+	A	C+	C	A	A	A	A	A
HCM2k95thQ:	0	0	0	4	0	4	2	1	0	0	6	6

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project AM

Intersection #32: Geng Rd/Embarcadero Rd



Street Name: Geng Rd Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 0 0 10 10 10 7 10 10 0 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 8:00 - 9:00 AM

Base Vol:	0	0	0	3	0	36	99	545	0	0	138	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	3	0	36	99	545	0	0	138	7
Added Vol:	0	0	0	0	0	0	0	37	51	0	32	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	3	0	36	99	582	51	0	170	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	3	0	36	99	582	51	0	170	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	3	0	36	99	582	51	0	170	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	0	0	3	0	36	99	582	51	0	170	7

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	0.98	0.95	0.92	0.97	0.95
Lanes:	0.00	0.00	0.00	0.08	0.00	0.92	1.00	1.83	0.17	0.00	1.92	0.08
Final Sat.:	0	0	0	135	0	1615	1750	3402	298	0	3554	146

Capacity Analysis Module:

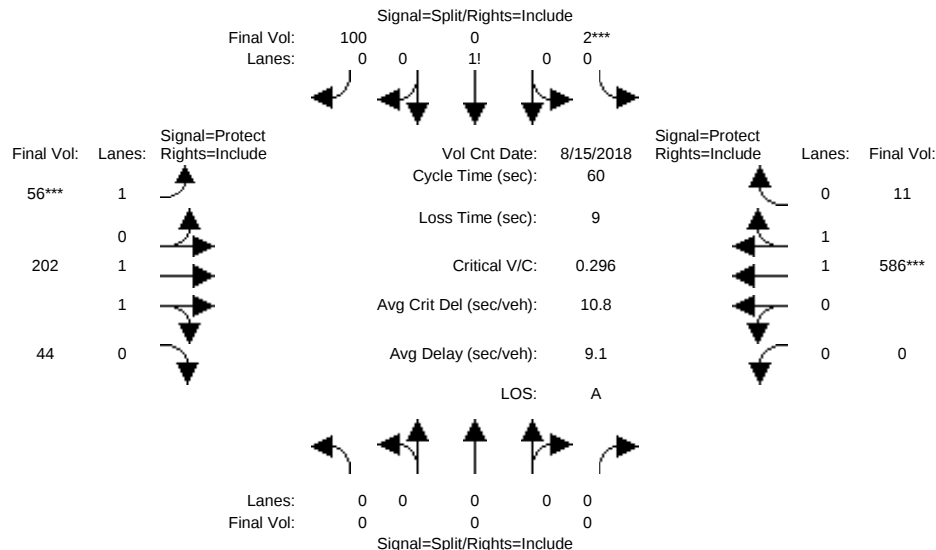
Vol/Sat:	0.00	0.00	0.00	0.02	0.00	0.02	0.06	0.17	0.17	0.00	0.05	0.05
Crit Moves:				****				****				****
Green Time:	0.0	0.0	0.0	10.0	0.0	10.0	22.2	41.0	41.0	0.0	18.8	18.8
Volume/Cap:	0.00	0.00	0.00	0.13	0.00	0.13	0.15	0.25	0.25	0.00	0.15	0.15
Delay/Veh:	0.0	0.0	0.0	21.5	0.0	21.5	12.7	3.7	3.7	0.0	14.9	14.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	21.5	0.0	21.5	12.7	3.7	3.7	0.0	14.9	14.9
LOS by Move:	A	A	A	C+	A	C+	B	A	A	A	B	B
HCM2k95thQ:	0	0	0	2	0	2	3	4	4	0	3	3

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project PM

Intersection #32: Geng Rd/Embarcadero Rd



Street Name: Geng Rd Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 0 0 10 10 10 7 10 10 0 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 4:15 - 5:15 PM

Base Vol: 0 0 0 2 0 100 56 164 0 0 530 11

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 0 0 2 0 100 56 164 0 0 530 11

Added Vol: 0 0 0 0 0 0 0 38 44 0 56 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 2 0 100 56 202 44 0 586 11

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 2 0 100 56 202 44 0 586 11

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 2 0 100 56 202 44 0 586 11

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 0 0 2 0 100 56 202 44 0 586 11

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.92 1.00 0.92 0.92 0.92 0.92 0.92 0.98 0.95 0.92 0.97 0.95

Lanes: 0.00 0.00 0.00 0.02 0.00 0.98 1.00 1.63 0.37 0.00 1.96 0.04

Final Sat.: 0 0 0 34 0 1716 1750 3038 662 0 3632 68

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.06 0.00 0.06 0.03 0.07 0.07 0.00 0.16 0.16

Crit Moves: **** *

Green Time: 0.0 0.0 0.0 11.7 0.0 11.7 7.0 39.3 39.3 0.0 32.3 32.3

Volume/Cap: 0.00 0.00 0.00 0.30 0.00 0.30 0.27 0.10 0.10 0.00 0.30 0.30

Delay/Veh: 0.0 0.0 0.0 21.2 0.0 21.2 24.9 3.8 3.8 0.0 7.7 7.7

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 0.0 0.0 0.0 21.2 0.0 21.2 24.9 3.8 3.8 0.0 7.7 7.7

LOS by Move: A A A C+ A C+ C A A A A A

HCM2k95thQ: 0 0 0 4 0 4 2 2 2 0 6 6

Note: Queue reported is the number of cars per lane.

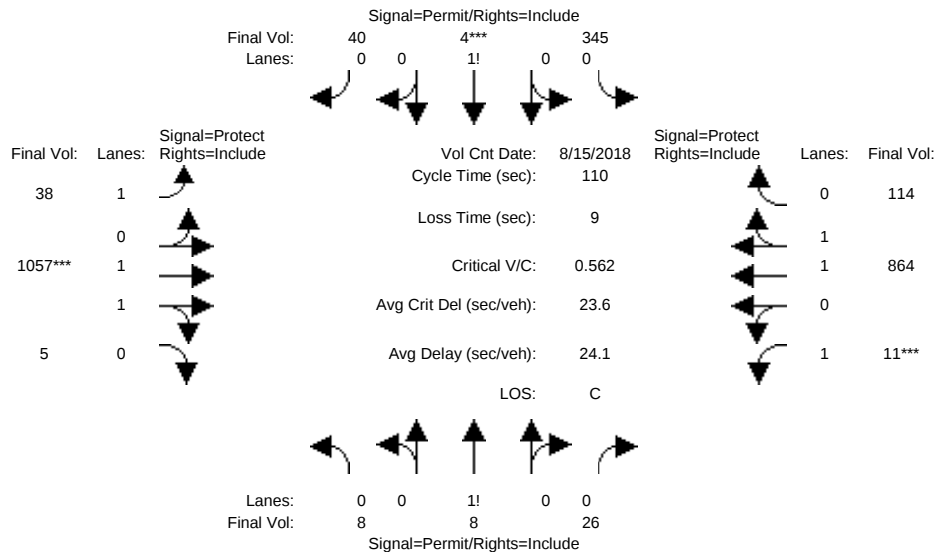
1700-1730 Embarcadero Road Auto Dealerships

Palo Alto, CA

Hexagon Transportation Consultants

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing AM

Intersection #36: St Francis Dr/Embarcadero Rd



Street Name: St Francis Dr Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 10 10 10 10 10 7 10 10 7 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 7:45 - 8:45 AM

Base Vol:	8	8	26	345	4	40	38	1057	5	11	864	114
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	8	26	345	4	40	38	1057	5	11	864	114
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	8	26	345	4	40	38	1057	5	11	864	114
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	8	26	345	4	40	38	1057	5	11	864	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	8	26	345	4	40	38	1057	5	11	864	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	8	8	26	345	4	40	38	1057	5	11	864	114

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.95	0.92	0.98	0.95
Lanes:	0.19	0.19	0.62	0.89	0.01	0.10	1.00	1.99	0.01	1.00	1.76	0.24
Final Sat.:	333	333	1083	1552	18	180	1750	3683	17	1750	3268	431

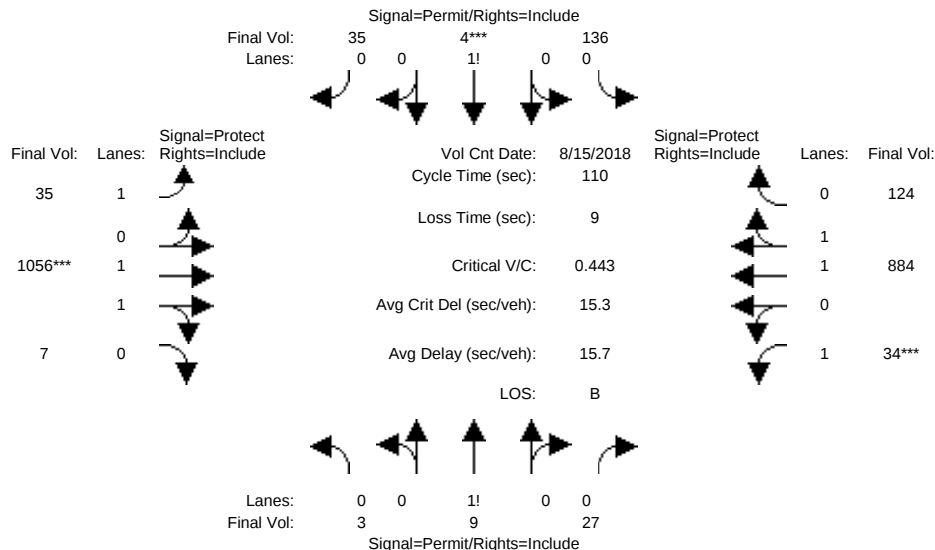
Capacity Analysis Module:

Vol/Sat:	0.02	0.02	0.02	0.22	0.22	0.22	0.02	0.29	0.29	0.01	0.26	0.26
Crit Moves:				****			****		****			
Green Time:	41.0	41.0	41.0	41.0	41.0	41.0	11.6	53.0	53.0	7.0	48.3	48.3
Volume/Cap:	0.06	0.06	0.06	0.60	0.60	0.60	0.21	0.60	0.60	0.10	0.60	0.60
Delay/Veh:	22.2	22.2	22.2	29.3	29.3	29.3	45.5	21.3	21.3	48.9	24.1	24.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.2	22.2	22.2	29.3	29.3	29.3	45.5	21.3	21.3	48.9	24.1	24.1
LOS by Move:	C+	C+	C+	C	C	C	D	C+	C+	D	C	C
HCM2k95thQ:	2	2	2	21	21	21	3	24	24	1	24	24

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #36: St Francis Dr/Embarcadero Rd



Street Name: St Francis Dr Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 10 10 10 10 10 7 10 10 7 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 5:00 - 6:00 PM

Base Vol:	3	9	27	136	4	35	35	1056	7	34	884	124
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	9	27	136	4	35	35	1056	7	34	884	124
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	9	27	136	4	35	35	1056	7	34	884	124
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	9	27	136	4	35	35	1056	7	34	884	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	9	27	136	4	35	35	1056	7	34	884	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	3	9	27	136	4	35	35	1056	7	34	884	124

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.95	0.92	0.98	0.95
Lanes:	0.08	0.23	0.69	0.78	0.02	0.20	1.00	1.99	0.01	1.00	1.75	0.25
Final Sat.:	135	404	1212	1360	40	350	1750	3676	24	1750	3245	455

Capacity Analysis Module:

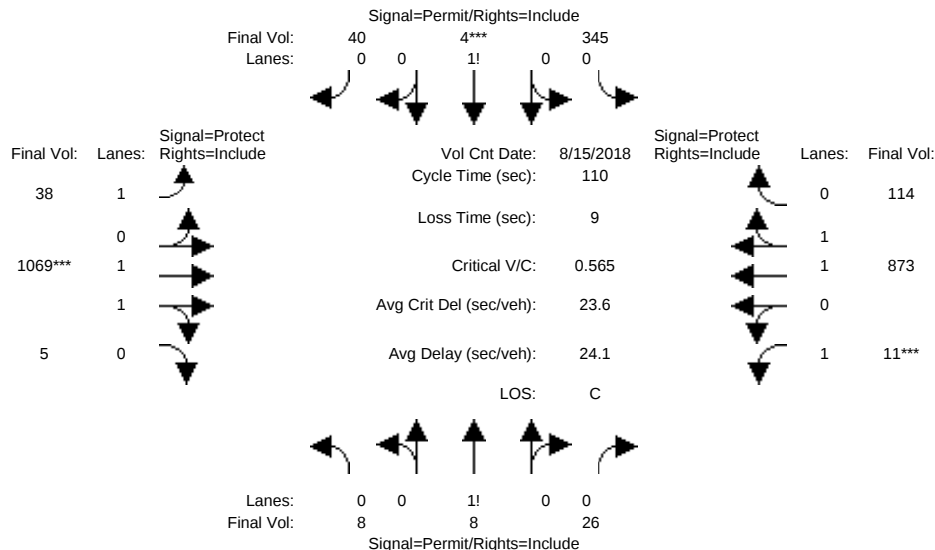
Vol/Sat:	0.02	0.02	0.02	0.10	0.10	0.10	0.02	0.29	0.29	0.02	0.27	0.27
Crit Moves:				****			****		****			
Green Time:	24.3	24.3	24.3	24.3	24.3	24.3	14.5	69.7	69.7	7.0	62.2	62.2
Volume/Cap:	0.10	0.10	0.10	0.45	0.45	0.45	0.15	0.45	0.45	0.31	0.48	0.48
Delay/Veh:	34.3	34.3	34.3	38.0	38.0	38.0	42.6	10.5	10.5	50.7	14.5	14.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.3	34.3	34.3	38.0	38.0	38.0	42.6	10.5	10.5	50.7	14.5	14.5
LOS by Move:	C-	C-	C-	D+	D+	D+	D	B+	B+	D	B	B
HCM2k95thQ:	2	2	2	11	11	11	2	17	17	3	19	19

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project AM

Intersection #36: St Francis Dr/Embarcadero Rd



Street Name: St Francis Dr Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 10 10 10 10 10 7 10 10 7 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 7:45 - 8:45 AM

Base Vol:	8	8	26	345	4	40	38	1057	5	11	864	114
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	8	26	345	4	40	38	1057	5	11	864	114
Added Vol:	0	0	0	0	0	0	0	12	0	0	9	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	8	26	345	4	40	38	1069	5	11	873	114
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	8	26	345	4	40	38	1069	5	11	873	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	8	26	345	4	40	38	1069	5	11	873	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	8	8	26	345	4	40	38	1069	5	11	873	114

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.95	0.92	0.98	0.95
Lanes:	0.19	0.19	0.62	0.89	0.01	0.10	1.00	1.99	0.01	1.00	1.76	0.24
Final Sat.:	333	333	1083	1552	18	180	1750	3683	17	1750	3272	427

Capacity Analysis Module:

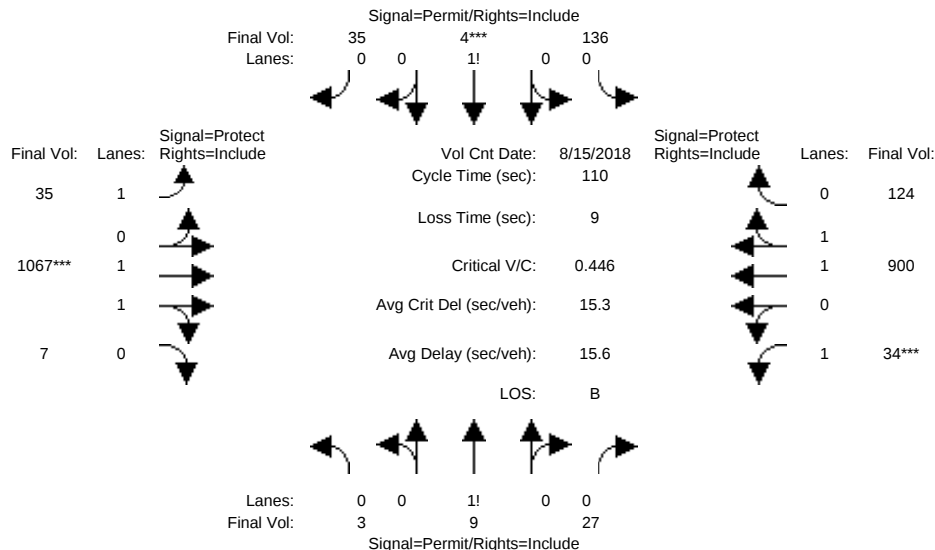
Vol/Sat:	0.02	0.02	0.02	0.22	0.22	0.22	0.02	0.29	0.29	0.01	0.27	0.27
Crit Moves:				****			****		****			
Green Time:	40.8	40.8	40.8	40.8	40.8	40.8	11.6	53.2	53.2	7.0	48.6	48.6
Volume/Cap:	0.06	0.06	0.06	0.60	0.60	0.60	0.21	0.60	0.60	0.10	0.60	0.60
Delay/Veh:	22.4	22.4	22.4	29.6	29.6	29.6	45.5	21.2	21.2	48.9	24.0	24.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.4	22.4	22.4	29.6	29.6	29.6	45.5	21.2	21.2	48.9	24.0	24.0
LOS by Move:	C+	C+	C+	C	C	C	D	C+	C+	D	C	C
HCM2k95thQ:	2	2	2	22	22	22	3	24	24	1	24	24

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project PM

Intersection #36: St Francis Dr/Embarcadero Rd



Street Name: St Francis Dr Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 10 10 10 10 10 7 10 10 7 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 5:00 - 6:00 PM

Base Vol:	3	9	27	136	4	35	35	1056	7	34	884	124
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	9	27	136	4	35	35	1056	7	34	884	124
Added Vol:	0	0	0	0	0	0	0	11	0	0	16	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	9	27	136	4	35	35	1067	7	34	900	124
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	9	27	136	4	35	35	1067	7	34	900	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	9	27	136	4	35	35	1067	7	34	900	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	3	9	27	136	4	35	35	1067	7	34	900	124

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.95	0.92	0.98	0.95
Lanes:	0.08	0.23	0.69	0.78	0.02	0.20	1.00	1.99	0.01	1.00	1.75	0.25
Final Sat.:	135	404	1212	1360	40	350	1750	3676	24	1750	3252	448

Capacity Analysis Module:

Vol/Sat:	0.02	0.02	0.02	0.10	0.10	0.10	0.02	0.29	0.29	0.02	0.28	0.28
Crit Moves:				****			****		****			
Green Time:	24.1	24.1	24.1	24.1	24.1	24.1	14.4	69.9	69.9	7.0	62.5	62.5
Volume/Cap:	0.10	0.10	0.10	0.46	0.46	0.46	0.15	0.46	0.46	0.31	0.49	0.49
Delay/Veh:	34.4	34.4	34.4	38.1	38.1	38.1	42.7	10.4	10.4	50.7	14.3	14.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.4	34.4	34.4	38.1	38.1	38.1	42.7	10.4	10.4	50.7	14.3	14.3
LOS by Move:	C-	C-	C-	D+	D+	D+	D	B+	B+	D	B	B
HCM2k95thQ:	2	2	2	11	11	11	2	18	18	3	19	19

Note: Queue reported is the number of cars per lane.

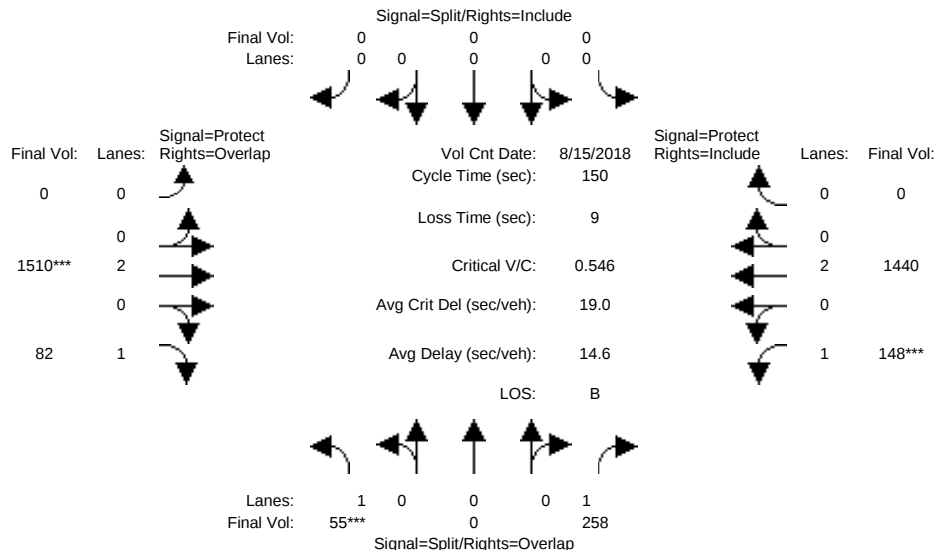
1700-1730 Embarcadero Road Auto Dealerships

Palo Alto, CA

Hexagon Transportation Consultants

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing AM

Intersection #40: W Bayshore Rd/Oregon Expwy



Street Name: W Bayshore Rd Oregon Expwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 0 10 0 0 0 0 10 10 7 10 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 7:45 - 8:45 AM

Base Vol:	55	0	258	0	0	0	0	1510	82	148	1440	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	55	0	258	0	0	0	0	1510	82	148	1440	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	0	258	0	0	0	0	1510	82	148	1440	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	0	258	0	0	0	0	1510	82	148	1440	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	0	258	0	0	0	0	1510	82	148	1440	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	55	0	258	0	0	0	0	1510	82	148	1440	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1750	0	1750	0	0	0	0	3800	1750	1750	3800	0

Capacity Analysis Module:

Vol/Sat:	0.03	0.00	0.15	0.00	0.00	0.00	0.00	0.40	0.05	0.08	0.38	0.00
Crit Moves:	****							****	****			
Green Time:	17.3	0.0	39.0	0.0	0.0	0.0	0.0	102	119.3	21.7	124	0.0
Volume/Cap:	0.27	0.00	0.57	0.00	0.00	0.00	0.00	0.58	0.06	0.58	0.46	0.00
Delay/Veh:	61.4	0.0	49.9	0.0	0.0	0.0	0.0	13.1	3.3	63.4	3.8	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	61.4	0.0	49.9	0.0	0.0	0.0	0.0	13.1	3.3	63.4	3.8	0.0
LOS by Move:	E	A	D	A	A	A	A	B	A	E	A	A
HCM2k95thQ:	5	0	21	0	0	0	0	30	2	14	17	0

Note: Queue reported is the number of cars per lane.

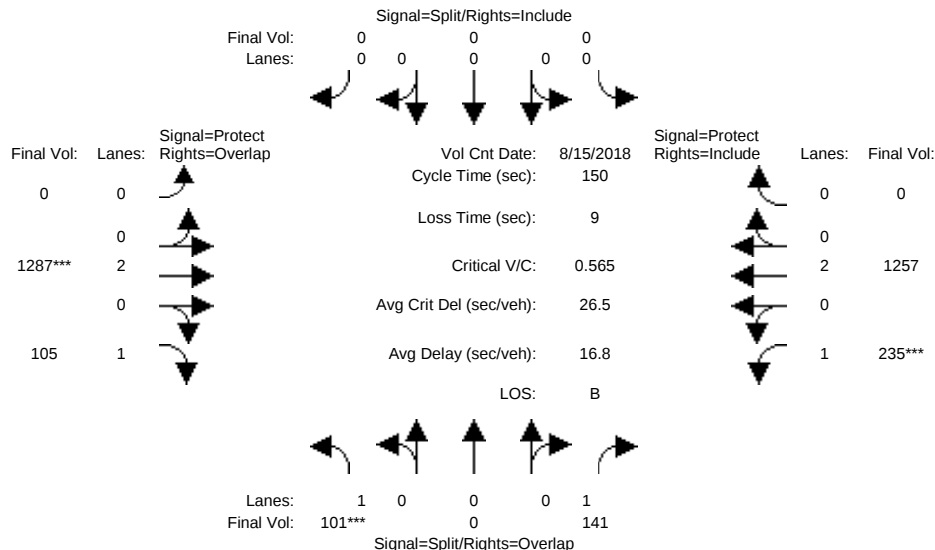
1700-1730 Embarcadero Road Auto Dealerships

Palo Alto, CA

Hexagon Transportation Consultants

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing PM

Intersection #40: W Bayshore Rd/Oregon Expwy



Street Name: W Bayshore Rd Oregon Expwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 0 10 0 0 0 0 10 10 7 10 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 5:00 - 6:00 PM

Base Vol:	101	0	141	0	0	0	0	1287	105	235	1257	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	101	0	141	0	0	0	0	1287	105	235	1257	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	101	0	141	0	0	0	0	1287	105	235	1257	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	101	0	141	0	0	0	0	1287	105	235	1257	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	101	0	141	0	0	0	0	1287	105	235	1257	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	101	0	141	0	0	0	0	1287	105	235	1257	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1750	0	1750	0	0	0	0	3800	1750	1750	3800	0

Capacity Analysis Module:

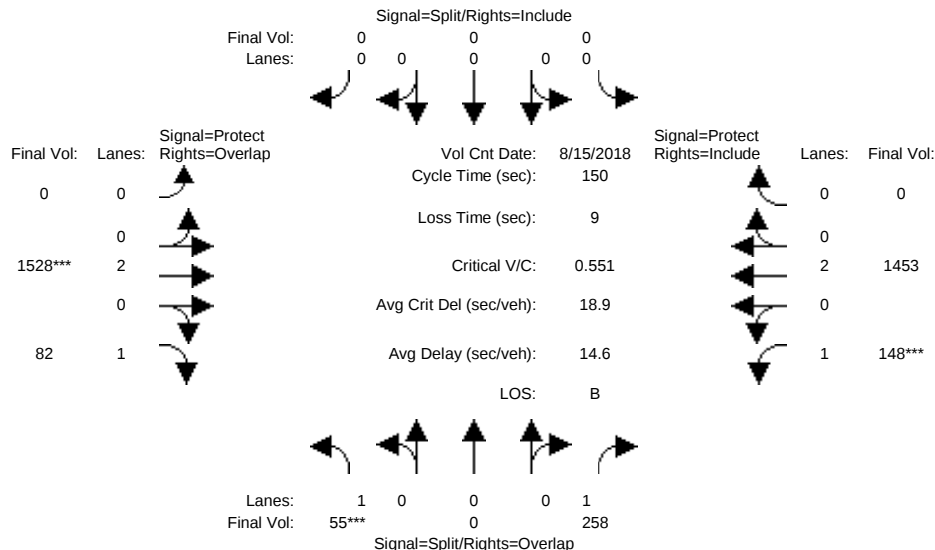
Vol/Sat:	0.06	0.00	0.08	0.00	0.00	0.00	0.00	0.34	0.06	0.13	0.33	0.00
Crit Moves:	****							****	****			
Green Time:	15.3	0.0	51.0	0.0	0.0	0.0	0.0	90.0	105.3	35.7	126	0.0
Volume/Cap:	0.56	0.00	0.24	0.00	0.00	0.00	0.00	0.56	0.09	0.56	0.39	0.00
Delay/Veh:	68.3	0.0	35.7	0.0	0.0	0.0	0.0	18.5	7.1	52.1	3.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	68.3	0.0	35.7	0.0	0.0	0.0	0.0	18.5	7.1	52.1	3.0	0.0
LOS by Move:	E	A	D+	A	A	A	A	B-	A	D-	A	A
HCM2k95thQ:	11	0	10	0	0	0	0	29	3	19	13	0

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project AM

Intersection #40: W Bayshore Rd/Oregon Expwy



Street Name: W Bayshore Rd Oregon Expwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 0 10 0 0 0 0 10 10 7 10 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 7:45 - 8:45 AM

Base Vol:	55	0	258	0	0	0	0	1510	82	148	1440	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	55	0	258	0	0	0	0	1510	82	148	1440	0
Added Vol:	0	0	0	0	0	0	0	18	0	0	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	0	258	0	0	0	0	1528	82	148	1453	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	0	258	0	0	0	0	1528	82	148	1453	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	0	258	0	0	0	0	1528	82	148	1453	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	55	0	258	0	0	0	0	1528	82	148	1453	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1750	0	1750	0	0	0	0	3800	1750	1750	3800	0

Capacity Analysis Module:

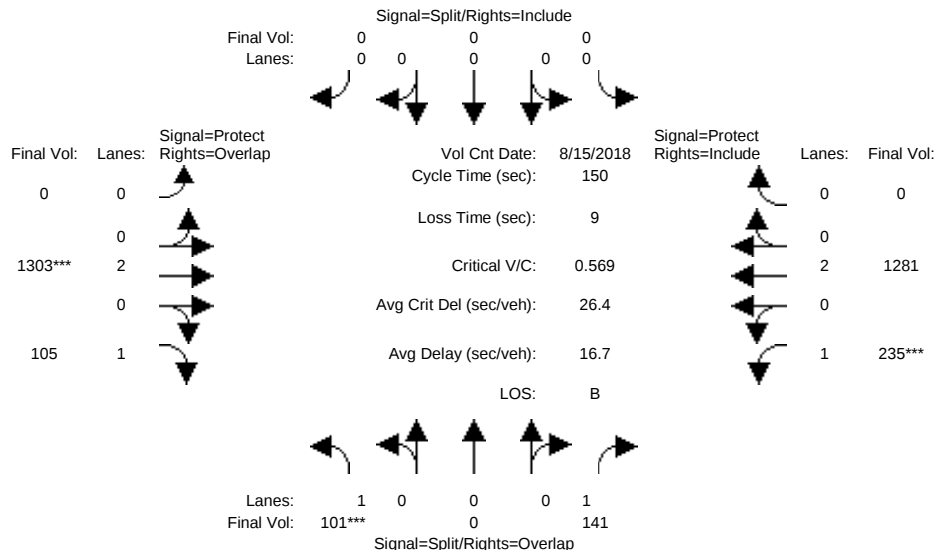
Vol/Sat:	0.03	0.00	0.15	0.00	0.00	0.00	0.00	0.40	0.05	0.08	0.38	0.00
Crit Moves:	****							****	****			
Green Time:	17.1	0.0	38.6	0.0	0.0	0.0	0.0	102	119.5	21.5	124	0.0
Volume/Cap:	0.28	0.00	0.57	0.00	0.00	0.00	0.00	0.59	0.06	0.59	0.46	0.00
Delay/Veh:	61.5	0.0	50.3	0.0	0.0	0.0	0.0	13.0	3.3	63.8	3.8	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	61.5	0.0	50.3	0.0	0.0	0.0	0.0	13.0	3.3	63.8	3.8	0.0
LOS by Move:	E	A	D	A	A	A	A	B	A	E	A	A
HCM2k95thQ:	5	0	21	0	0	0	0	31	2	14	17	0

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project PM

Intersection #40: W Bayshore Rd/Oregon Expwy



Street Name: W Bayshore Rd Oregon Expwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 0 10 0 0 0 0 10 10 7 10 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 5:00 - 6:00 PM

Base Vol:	101	0	141	0	0	0	0	1287	105	235	1257	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	101	0	141	0	0	0	0	1287	105	235	1257	0
Added Vol:	0	0	0	0	0	0	0	16	0	0	24	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	101	0	141	0	0	0	0	1303	105	235	1281	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	101	0	141	0	0	0	0	1303	105	235	1281	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	101	0	141	0	0	0	0	1303	105	235	1281	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	101	0	141	0	0	0	0	1303	105	235	1281	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1750	0	1750	0	0	0	0	3800	1750	1750	3800	0

Capacity Analysis Module:

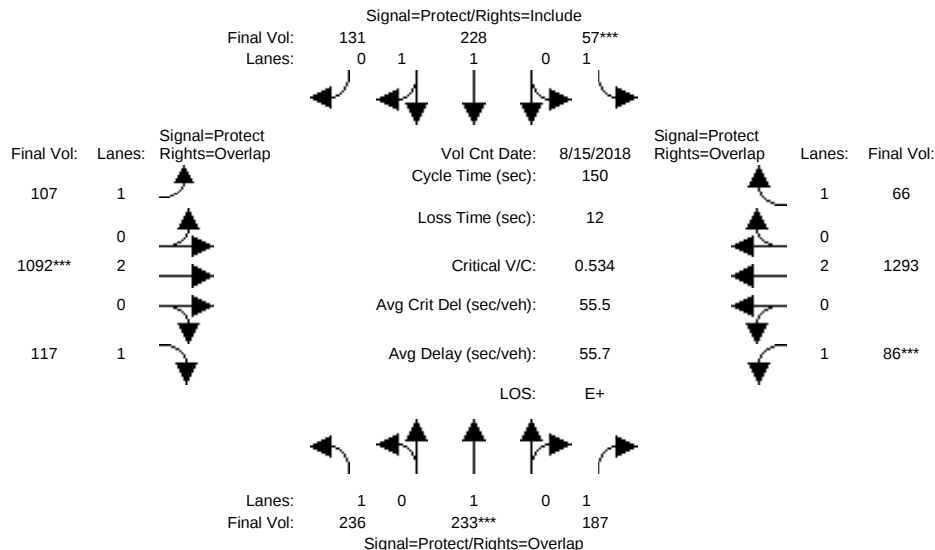
Vol/Sat:	0.06	0.00	0.08	0.00	0.00	0.00	0.00	0.34	0.06	0.13	0.34	0.00
Crit Moves:	****							****	****			
Green Time:	15.2	0.0	50.6	0.0	0.0	0.0	0.0	90.4	105.6	35.4	126	0.0
Volume/Cap:	0.57	0.00	0.24	0.00	0.00	0.00	0.00	0.57	0.09	0.57	0.40	0.00
Delay/Veh:	68.6	0.0	36.0	0.0	0.0	0.0	0.0	18.4	7.0	52.5	3.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	68.6	0.0	36.0	0.0	0.0	0.0	0.0	18.4	7.0	52.5	3.0	0.0
LOS by Move:	E	A	D+	A	A	A	A	B-	A	D-	A	A
HCM2k95thQ:	11	0	10	0	0	0	0	30	3	19	14	0

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #41: Middlefield Rd/Oregon Expwy (CMP 5108)



Street Name: Middlefield Rd Pagemill-Oregon Expwy
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Movement	North Bound	South Bound	East Bound	West Bound
Min. Green:	26 49 49	12 35 35	15 59 59	18 62 62
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 7:45 - 8:45 AM

Base Vol:	236	233	187	57	228	131	107	1092	117	86	1293	66
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	236	233	187	57	228	131	107	1092	117	86	1293	66
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	236	233	187	57	228	131	107	1092	117	86	1293	66
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	236	233	187	57	228	131	107	1092	117	86	1293	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	236	233	187	57	228	131	107	1092	117	86	1293	66
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	236	233	187	57	228	131	107	1092	117	86	1293	66

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.00	1.00	1.00	1.25	0.75	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1750	1900	1750	1750	2349	1350	1750	3800	1750	1750	3800	1750

Capacity Analysis Module:

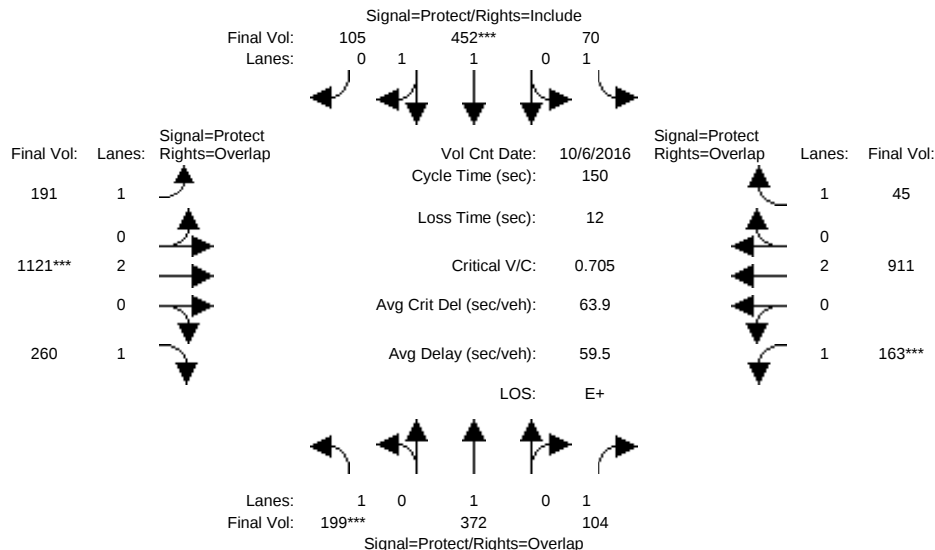
Vol/Sat:	0.13	0.12	0.11	0.03	0.10	0.10	0.06	0.29	0.07	0.05	0.34	0.04
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	26.0	49.0	67.0	12.0	35.0	35.0	15.0	59.0	85.0	18.0	62.0	74.0
Volume/Cap:	0.78	0.38	0.24	0.41	0.42	0.42	0.61	0.73	0.12	0.41	0.82	0.08
Delay/Veh:	71.3	39.1	25.9	67.5	49.1	49.1	75.7	57.4	28.3	67.9	61.2	33.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	71.3	39.1	25.9	67.5	49.1	49.1	75.7	57.4	28.3	67.9	61.2	33.0
LOS by Move:	E	D	C	E	D	D	E-	E+	C	E	E	C-
HCM2k95thQ:	23	15	11	6	14	14	12	40	9	8	47	5

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #41: Middlefield Rd/Oregon Expwy (CMP 5108)



Street Name: Middlefield Rd Pagemill-Oregon Expwy
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Movement	North Bound	South Bound	East Bound	West Bound
Min. Green:	26 50 50	15 39 39	25 63 63	22 60 60
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0

Volume Module: >> Count Date: 6 Oct 2016 << 5:15 - 6:15 PM

Volume	North Bound	South Bound	East Bound	West Bound
Base Vol:	199 372 104	70 452 105	191 1121 260	163 911 45
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	199 372 104	70 452 105	191 1121 260	163 911 45
Added Vol:	0 0 0	0 0 0	0 0 0	0 0 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	199 372 104	70 452 105	191 1121 260	163 911 45
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	199 372 104	70 452 105	191 1121 260	163 911 45
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	199 372 104	70 452 105	191 1121 260	163 911 45
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Volume:	199 372 104	70 452 105	191 1121 260	163 911 45

Saturation Flow Module:

Sat/Lane	North Bound	South Bound	East Bound	West Bound
Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.92 1.00 0.92	0.92 0.98 0.95	0.92 1.00 0.92	0.92 1.00 0.92
Lanes:	1.00 1.00 1.00	1.00 1.61 0.39	1.00 2.00 1.00	1.00 2.00 1.00
Final Sat.:	1750 1900 1750	1750 3002 697	1750 3800 1750	1750 3800 1750

Capacity Analysis Module:

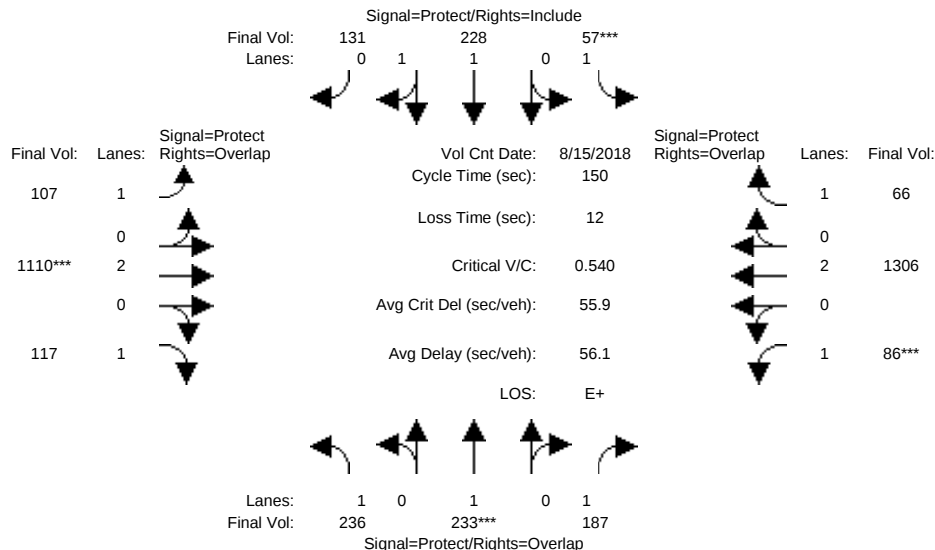
Vol/Sat	North Bound	South Bound	East Bound	West Bound
Vol/Sat:	0.11 0.20 0.06	0.04 0.15 0.15	0.11 0.30 0.15	0.09 0.24 0.03
Crit Moves:	****	****	****	****
Green Time:	24.1 46.3 66.7	13.9 36.1 36.1	23.1 58.3 82.4	20.4 55.6 69.4
Volume/Cap:	0.71 0.63 0.13	0.43 0.63 0.63	0.71 0.76 0.27	0.69 0.65 0.06
Delay/Veh:	72.5 50.4 26.7	71.3 56.4 56.4	81.3 63.4 35.2	81.8 59.9 37.8
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	72.5 50.4 26.7	71.3 56.4 56.4	81.3 63.4 35.2	81.8 59.9 37.8
LOS by Move:	E D C	E E+ E+	F E D+	F E+ D+
HCM2k95thQ:	21 28 6	8 23 23	20 44 21	16 35 4

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project AM

Intersection #41: Middlefield Rd/Oregon Expwy (CMP 5108)



Street Name: Middlefield Rd Pagemill-Oregon Expwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 26 49 49 12 35 35 15 59 59 18 62 62

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 7:45 - 8:45 AM

Base Vol:	236	233	187	57	228	131	107	1092	117	86	1293	66
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	236	233	187	57	228	131	107	1092	117	86	1293	66
Added Vol:	0	0	0	0	0	0	0	18	0	0	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	236	233	187	57	228	131	107	1110	117	86	1306	66
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	236	233	187	57	228	131	107	1110	117	86	1306	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	236	233	187	57	228	131	107	1110	117	86	1306	66
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	236	233	187	57	228	131	107	1110	117	86	1306	66

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.00	1.00	1.00	1.25	0.75	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1750	1900	1750	1750	2349	1350	1750	3800	1750	1750	3800	1750

Capacity Analysis Module:

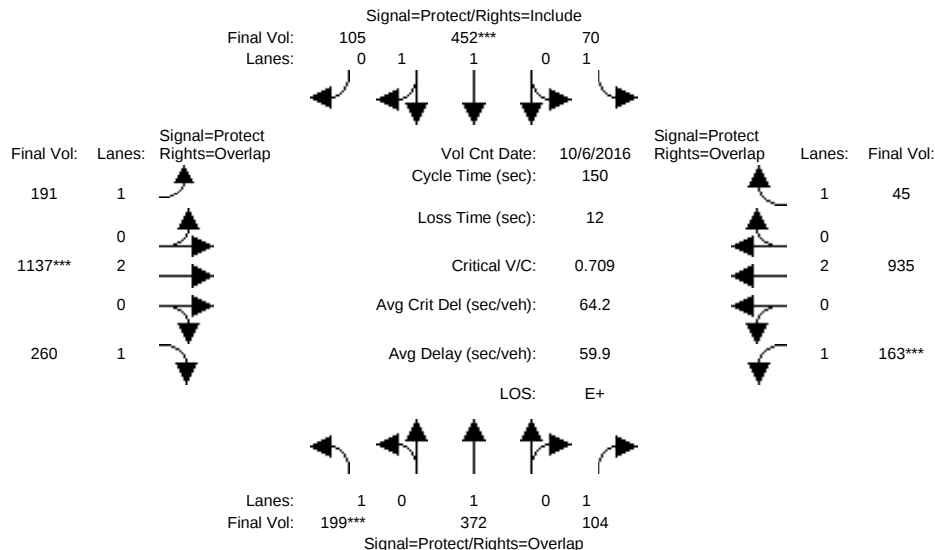
Vol/Sat:	0.13	0.12	0.11	0.03	0.10	0.10	0.06	0.29	0.07	0.05	0.34	0.04
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	26.0	49.0	67.0	12.0	35.0	35.0	15.0	59.0	85.0	18.0	62.0	74.0
Volume/Cap:	0.78	0.38	0.24	0.41	0.42	0.42	0.61	0.74	0.12	0.41	0.83	0.08
Delay/Veh:	71.3	39.1	25.9	67.5	49.1	49.1	75.7	57.9	28.3	67.9	61.7	33.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	71.3	39.1	25.9	67.5	49.1	49.1	75.7	57.9	28.3	67.9	61.7	33.0
LOS by Move:	E	D	C	E	D	D	E-	E+	C	E	E	C-
HCM2k95thQ:	23	15	11	6	14	14	12	41	9	8	48	5

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project PM

Intersection #41: Middlefield Rd/Oregon Expwy (CMP 5108)



Street Name: Middlefield Rd Pagemill-Oregon Expwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 26 50 50 15 39 39 25 63 63 22 60 60

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 6 Oct 2016 << 5:15 - 6:15 PM

Base Vol:	199	372	104	70	452	105	191	1121	260	163	911	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	199	372	104	70	452	105	191	1121	260	163	911	45
Added Vol:	0	0	0	0	0	0	0	16	0	0	24	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	199	372	104	70	452	105	191	1137	260	163	935	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	199	372	104	70	452	105	191	1137	260	163	935	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	199	372	104	70	452	105	191	1137	260	163	935	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	199	372	104	70	452	105	191	1137	260	163	935	45

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.00	1.00	1.00	1.61	0.39	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1750	1900	1750	1750	3002	697	1750	3800	1750	1750	3800	1750

Capacity Analysis Module:

Vol/Sat:	0.11	0.20	0.06	0.04	0.15	0.15	0.11	0.30	0.15	0.09	0.25	0.03
Crit Moves:	****			****			****		****			
Green Time:	24.1	46.3	66.7	13.9	36.1	36.1	23.1	58.3	82.4	20.4	55.6	69.4
Volume/Cap:	0.71	0.63	0.13	0.43	0.63	0.63	0.71	0.77	0.27	0.69	0.66	0.06
Delay/Veh:	72.5	50.4	26.7	71.3	56.4	56.4	81.3	64.0	35.2	81.8	60.5	37.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	72.5	50.4	26.7	71.3	56.4	56.4	81.3	64.0	35.2	81.8	60.5	37.8
LOS by Move:	E	D	C	E	E+	E+	F	E	D+	F	E	D+
HCM2k95thQ:	21	28	6	8	23	23	20	45	21	16	36	4

Note: Queue reported is the number of cars per lane.

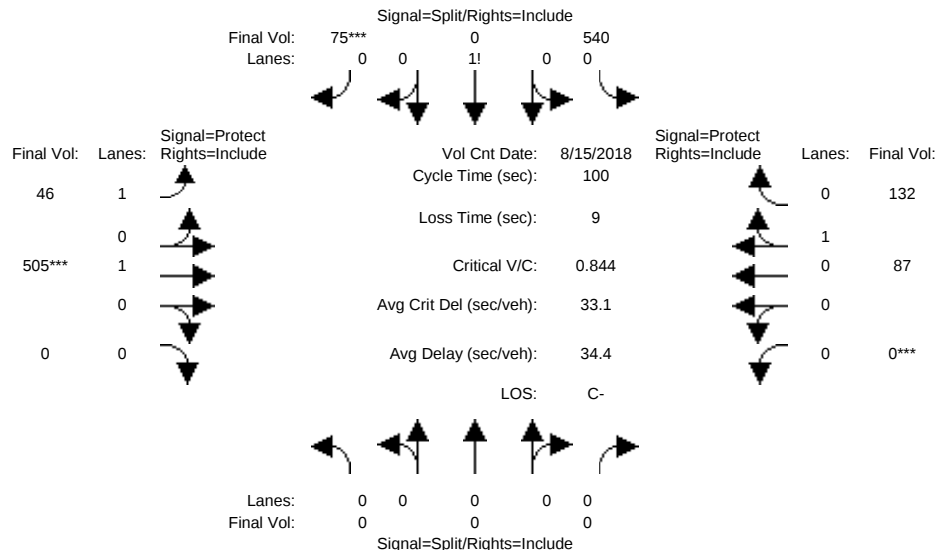
1700-1730 Embarcadero Road Auto Dealerships

Palo Alto, CA

Hexagon Transportation Consultants

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing AM

Intersection #42: Pulgas Ave/E Bayshore Rd



Street Name: Pulgas Ave E Bayshore Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 0 0 10 0 10 7 10 0 0 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 7:15 - 8:15 AM

Base Vol:	0	0	0	540	0	75	46	505	0	0	87	132
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	540	0	75	46	505	0	0	87	132
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	540	0	75	46	505	0	0	87	132
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	540	0	75	46	505	0	0	87	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	540	0	75	46	505	0	0	87	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	540	0	75	46	505	0	0	87	132

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.64	0.92	0.64	0.92	1.00	0.92	0.92	0.95	0.95
Lanes:	0.00	0.00	0.00	0.88	0.00	0.12	1.00	1.00	0.00	0.00	0.40	0.60
Final Sat.:	0	0	0	1076	0	149	1750	1900	0	0	715	1085

Capacity Analysis Module:

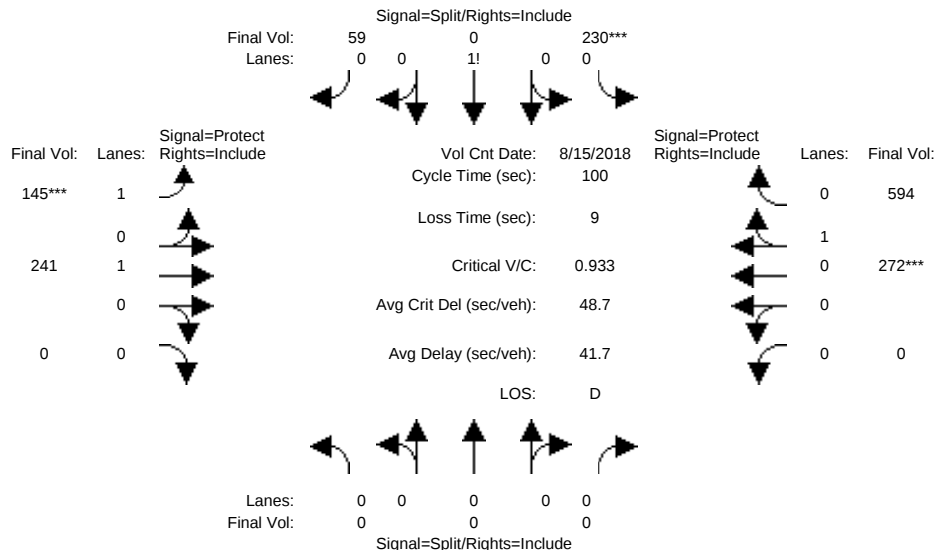
Vol/Sat:	0.00	0.00	0.00	0.50	0.00	0.50	0.03	0.27	0.00	0.00	0.12	0.12
Crit Moves:					****		****		****			
Green Time:	0.0	0.0	0.0	59.5	0.0	59.5	11.5	31.5	0.0	0.0	20.0	20.0
Volume/Cap:	0.00	0.00	0.00	0.84	0.00	0.84	0.23	0.84	0.00	0.00	0.61	0.61
Delay/Veh:	0.0	0.0	0.0	25.4	0.0	25.4	40.8	42.5	0.0	0.0	39.4	39.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	25.4	0.0	25.4	40.8	42.5	0.0	0.0	39.4	39.4
LOS by Move:	A	A	A	C	A	C	D	D	A	A	D	D
HCM2k95thQ:	0	0	0	33	0	33	3	30	0	0	12	12

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #42: Pulgas Ave/E Bayshore Rd



Street Name: Pulgas Ave E Bayshore Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 0 0 10 0 10 7 10 0 0 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 4:30 - 5:30 PM

Base Vol:	0	0	0	230	0	59	145	241	0	0	272	594
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	230	0	59	145	241	0	0	272	594
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	230	0	59	145	241	0	0	272	594
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	230	0	59	145	241	0	0	272	594
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	230	0	59	145	241	0	0	272	594
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	0	0	230	0	59	145	241	0	0	272	594

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	0.76	0.76
Lanes:	0.00	0.00	0.00	0.80	0.00	0.20	1.00	1.00	0.00	0.00	0.31	0.69
Final Sat.:	0	0	0	1393	0	357	1750	1900	0	0	452	988

Capacity Analysis Module:

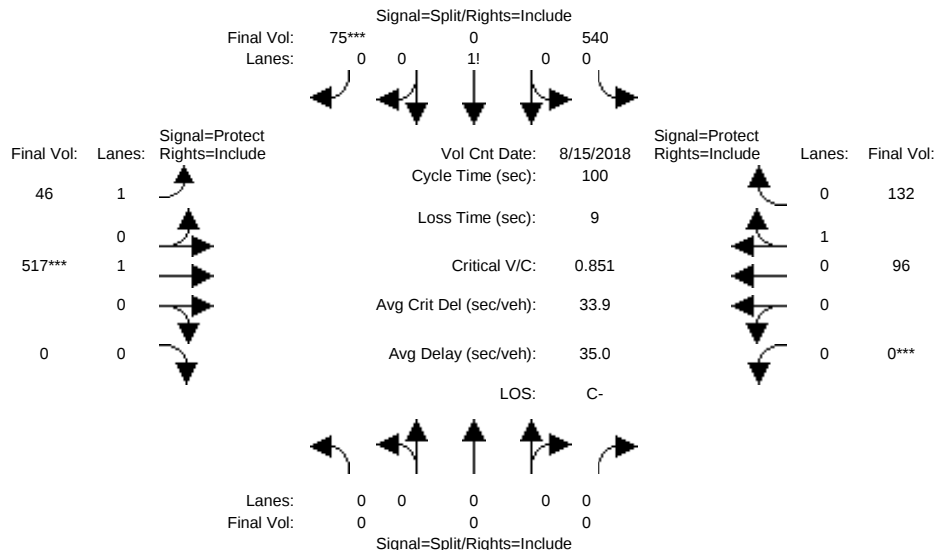
Vol/Sat:	0.00	0.00	0.00	0.17	0.00	0.17	0.08	0.13	0.00	0.00	0.60	0.60
Crit Moves:				****				****				****
Green Time:	0.0	0.0	0.0	17.7	0.0	17.7	8.9	73.3	0.0	0.0	64.4	64.4
Volume/Cap:	0.00	0.00	0.00	0.93	0.00	0.93	0.93	0.17	0.00	0.00	0.93	0.93
Delay/Veh:	0.0	0.0	0.0	74.6	0.0	74.6	97.9	4.1	0.0	0.0	31.7	31.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	74.6	0.0	74.6	97.9	4.1	0.0	0.0	31.7	31.7
LOS by Move:	A	A	A	E	A	E	F	A	A	A	C	C
HCM2k95thQ:	0	0	0	24	0	24	15	5	0	0	43	43

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project AM

Intersection #42: Pulgas Ave/E Bayshore Rd



Street Name: Pulgas Ave E Bayshore Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 0 0 10 0 10 7 10 0 0 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 7:15 - 8:15 AM

Base Vol:	0	0	0	540	0	75	46	505	0	0	87	132
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	540	0	75	46	505	0	0	87	132
Added Vol:	0	0	0	0	0	0	0	12	0	0	9	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	540	0	75	46	517	0	0	96	132
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	540	0	75	46	517	0	0	96	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	540	0	75	46	517	0	0	96	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	0	0	540	0	75	46	517	0	0	96	132

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.64	0.92	0.64	0.92	1.00	0.92	0.92	0.95	0.95
Lanes:	0.00	0.00	0.00	0.88	0.00	0.12	1.00	1.00	0.00	0.00	0.42	0.58
Final Sat.:	0	0	0	1076	0	149	1750	1900	0	0	758	1042

Capacity Analysis Module:

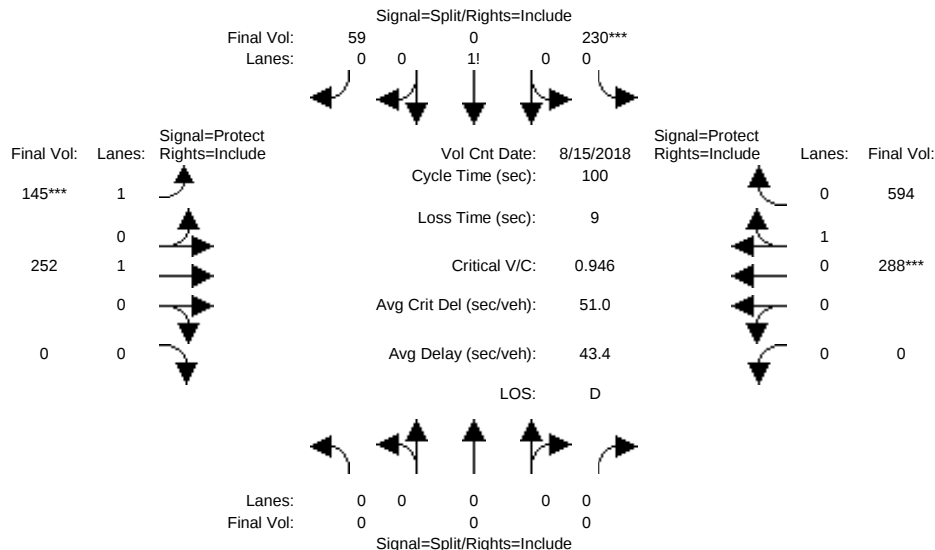
Vol/Sat:	0.00	0.00	0.00	0.50	0.00	0.50	0.03	0.27	0.00	0.00	0.13	0.13
Crit Moves:					****		****		****			
Green Time:	0.0	0.0	0.0	59.0	0.0	59.0	11.4	32.0	0.0	0.0	20.6	20.6
Volume/Cap:	0.00	0.00	0.00	0.85	0.00	0.85	0.23	0.85	0.00	0.00	0.61	0.61
Delay/Veh:	0.0	0.0	0.0	26.3	0.0	26.3	40.9	42.8	0.0	0.0	39.2	39.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	26.3	0.0	26.3	40.9	42.8	0.0	0.0	39.2	39.2
LOS by Move:	A	A	A	C	A	C	D	D	A	A	D	D
HCM2k95thQ:	0	0	0	33	0	33	3	30	0	0	13	13

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project PM

Intersection #42: Pulgas Ave/E Bayshore Rd



Street Name: Pulgas Ave E Bayshore Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 0 0 10 0 10 7 10 0 0 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 15 Aug 2018 << 4:30 - 5:30 PM

Base Vol:	0	0	0	230	0	59	145	241	0	0	272	594
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	230	0	59	145	241	0	0	272	594
Added Vol:	0	0	0	0	0	0	0	11	0	0	16	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	230	0	59	145	252	0	0	288	594
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	230	0	59	145	252	0	0	288	594
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	230	0	59	145	252	0	0	288	594
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	230	0	59	145	252	0	0	288	594

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	0.76	0.76
Lanes:	0.00	0.00	0.00	0.80	0.00	0.20	1.00	1.00	0.00	0.00	0.33	0.67
Final Sat.:	0	0	0	1393	0	357	1750	1900	0	0	470	970

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.17	0.00	0.17	0.08	0.13	0.00	0.00	0.61	0.61
Crit Moves:				****				****				****
Green Time:	0.0	0.0	0.0	17.5	0.0	17.5	8.8	73.5	0.0	0.0	64.8	64.8
Volume/Cap:	0.00	0.00	0.00	0.95	0.00	0.95	0.95	0.18	0.00	0.00	0.95	0.95
Delay/Veh:	0.0	0.0	0.0	77.9	0.0	77.9	101.8	4.1	0.0	0.0	33.8	33.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	77.9	0.0	77.9	101.8	4.1	0.0	0.0	33.8	33.8
LOS by Move:	A	A	A	E-	A	E-	F	A	A	C-	C-	
HCM2k95thQ:	0	0	0	25	0	25	16	5	0	0	44	44

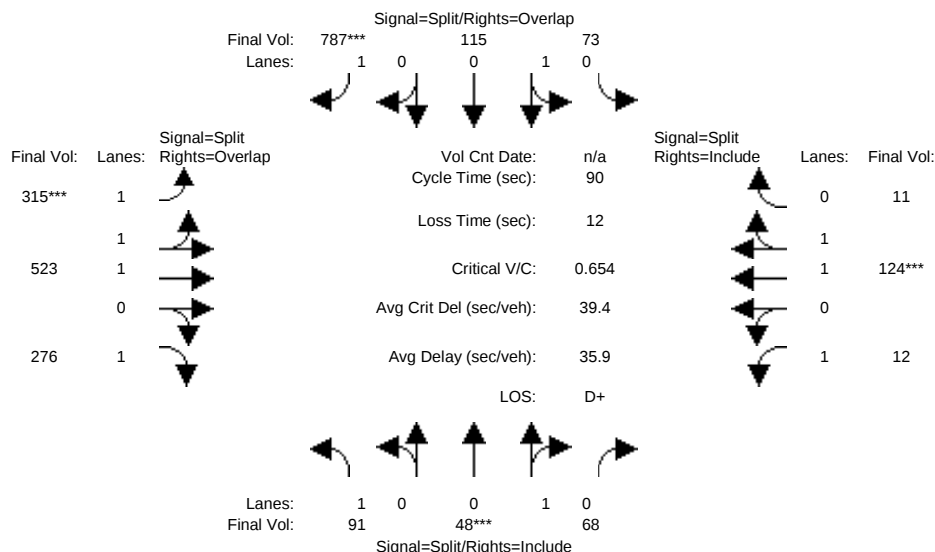
Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA

Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background AM

Intersection #31: E Bayshore Rd/Embarcadero Rd



Street Name: E Bayshore Rd Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 10 10 10 10 10 10 10 10 10 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:

Base Vol:	91	48	68	73	115	787	315	523	276	12	124	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	48	68	73	115	787	315	523	276	12	124	11
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	48	68	73	115	787	315	523	276	12	124	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	91	48	68	73	115	787	315	523	276	12	124	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	48	68	73	115	787	315	523	276	12	124	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	91	48	68	73	115	787	315	523	276	12	124	11

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.78	0.76	0.76	0.95	0.95	0.92	0.74	0.98	0.92	0.92	0.98	0.95
Lanes:	1.00	0.41	0.59	0.39	0.61	1.00	1.33	1.67	1.00	1.00	1.83	0.17
Final Sat.:	1488	596	844	699	1101	1750	1866	3098	1750	1750	3398	301

Capacity Analysis Module:

Vol/Sat:	0.06	0.08	0.08	0.10	0.10	0.45	0.17	0.17	0.16	0.01	0.04	0.04
Crit Moves:	****			****	****					****		
Green Time:	10.3	10.3	10.3	36.0	36.0	57.7	21.6	21.6	32.0	10.0	10.0	10.0
Volume/Cap:	0.53	0.70	0.70	0.26	0.26	0.70	0.70	0.70	0.44	0.06	0.33	0.33
Delay/Veh:	40.8	51.1	51.1	18.3	18.3	44.7	33.1	33.1	22.7	35.9	37.4	37.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.8	51.1	51.1	18.3	18.3	44.7	33.1	33.1	22.7	35.9	37.4	37.4
LOS by Move:	D	D-	D-	B-	B-	D	C-	C-	C+	D+	D+	D+
HCM2k95thQ:	7	9	9	7	7	27	15	17	13	1	4	4

Note: Queue reported is the number of cars per lane.

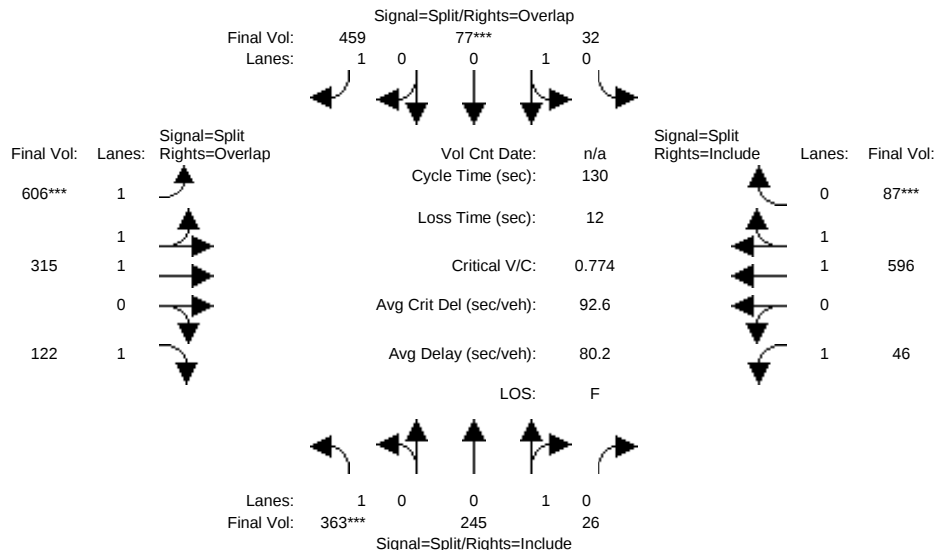
1700-1730 Embarcadero Road Auto Dealerships

Palo Alto, CA

Hexagon Transportation Consultants

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Background PM

Intersection #31: E Bayshore Rd/Embarcadero Rd



Street Name: E Bayshore Rd Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 10 10 10 10 10 10 10 10 10 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:

Base Vol:	363	245	26	32	77	459	606	315	122	46	596	87
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	363	245	26	32	77	459	606	315	122	46	596	87
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	363	245	26	32	77	459	606	315	122	46	596	87
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	363	245	26	32	77	459	606	315	122	46	596	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	363	245	26	32	77	459	606	315	122	46	596	87
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	363	245	26	32	77	459	606	315	122	46	596	87

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.78	0.76	0.76	0.95	0.95	0.92	0.75	1.00	0.92	0.92	0.98	0.95
Lanes:	1.00	0.90	0.10	0.29	0.71	1.00	2.00	1.00	1.00	1.00	1.74	0.26
Final Sat.:	1488	1302	138	528	1272	1750	2839	1897	1750	1750	3228	471

Capacity Analysis Module:

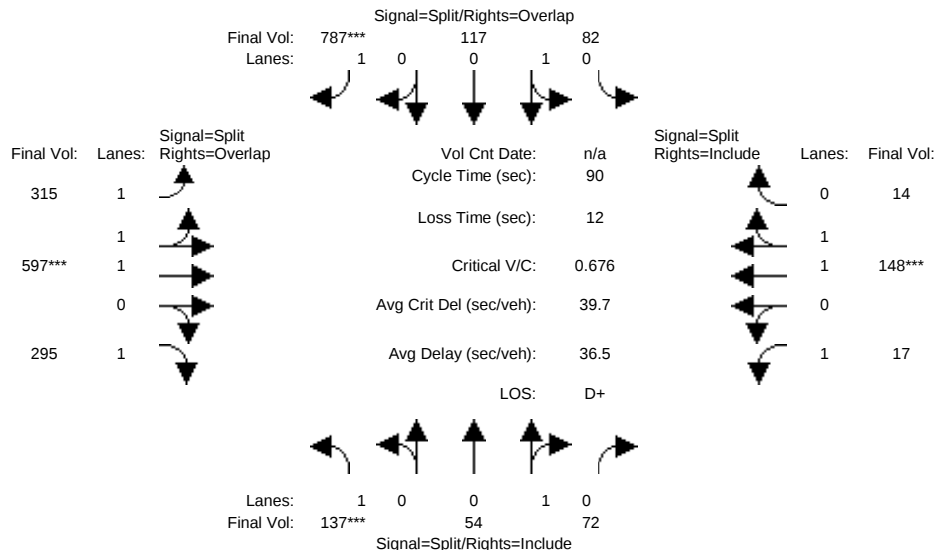
Vol/Sat:	0.24	0.19	0.19	0.06	0.06	0.26	0.21	0.17	0.07	0.03	0.18	0.18
Crit Moves:	****			****		****					****	
Green Time:	41.0	41.0	41.0	10.2	10.2	46.0	35.8	35.8	76.8	31.0	31.0	31.0
Volume/Cap:	0.77	0.60	0.60	0.77	0.77	0.74	0.77	0.60	0.12	0.11	0.77	0.77
Delay/Veh:	176.8	159	39.7	81.8	81.8	41.6	92.0	41.6	11.7	38.8	50.5	50.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	176.8	159	39.7	81.8	81.8	41.6	92.0	41.6	11.7	38.8	50.5	50.5
LOS by Move:	F	F	D	F	F	D	F	D	B+	D+	D	D
HCM2k95thQ:	28	19	19	10	10	30	24	21	5	3	24	24

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project AM

Intersection #31: E Bayshore Rd/Embarcadero Rd

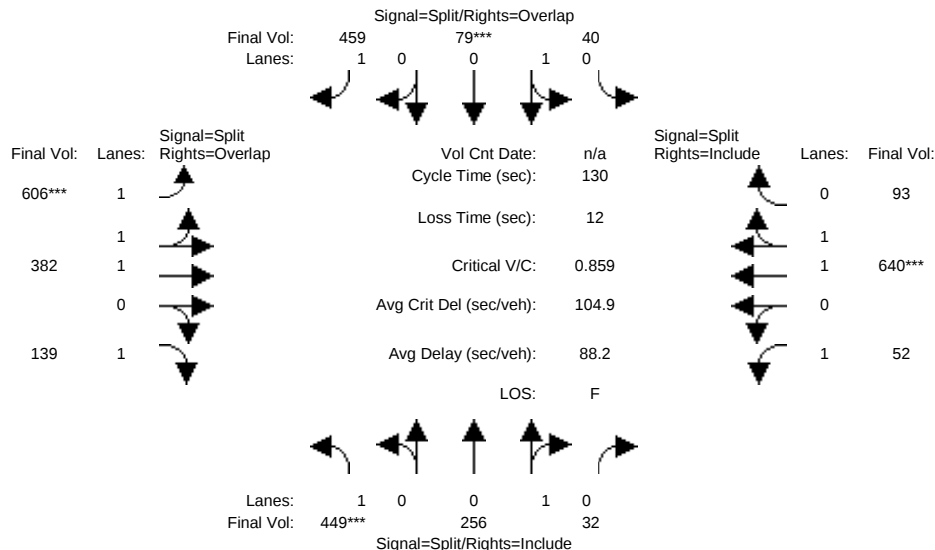


Street Name:	E Bayshore Rd						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	91	48	68	73	115	787	315	523	276	12	124	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	48	68	73	115	787	315	523	276	12	124	11
Added Vol:	46	6	4	9	2	0	0	74	19	5	24	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	137	54	72	82	117	787	315	597	295	17	148	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	137	54	72	82	117	787	315	597	295	17	148	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	137	54	72	82	117	787	315	597	295	17	148	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	137	54	72	82	117	787	315	597	295	17	148	14
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.78	0.76	0.76	0.95	0.95	0.92	0.74	0.97	0.92	0.92	0.98	0.95
Lanes:	1.00	0.43	0.57	0.41	0.59	1.00	1.23	1.77	1.00	1.00	1.82	0.18
Final Sat.:	1488	617	823	742	1058	1750	1727	3272	1750	1750	3380	320
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.11	0.11	0.45	0.18	0.18	0.17	0.01	0.04	0.04
Crit Moves:	****					****	****			****		
Green Time:	11.6	11.6	11.6	33.5	33.5	56.4	22.9	22.9	34.5	10.0	10.0	10.0
Volume/Cap:	0.72	0.68	0.68	0.30	0.30	0.72	0.72	0.72	0.44	0.09	0.39	0.39
Delay/Veh:	49.9	47.4	47.4	20.2	20.2	46.5	32.6	32.6	21.1	36.1	37.8	37.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.9	47.4	47.4	20.2	20.2	46.5	32.6	32.6	21.1	36.1	37.8	37.8
LOS by Move:	D	D	D	C+	C+	D	C-	C-	C+	D+	D+	D+
HCM2k95thQ:	11	10	10	8	8	28	16	19	13	1	4	4
Note: Queue reported is the number of cars per lane.												

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project PM

Intersection #31: E Bayshore Rd/Embarcadero Rd



Street Name:	E Bayshore Rd						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	363	245	26	32	77	459	606	315	122	46	596	87
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	363	245	26	32	77	459	606	315	122	46	596	87
Added Vol:	86	11	6	8	2	0	0	67	17	6	44	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	449	256	32	40	79	459	606	382	139	52	640	93
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	449	256	32	40	79	459	606	382	139	52	640	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	449	256	32	40	79	459	606	382	139	52	640	93
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	449	256	32	40	79	459	606	382	139	52	640	93
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.78	0.76	0.76	0.95	0.95	0.92	0.75	0.99	0.92	0.92	0.98	0.95
Lanes:	1.00	0.89	0.11	0.34	0.66	1.00	2.00	1.00	1.00	1.00	1.74	0.26
Final Sat.:	1488	1280	160	605	1195	1750	2837	1886	1750	1750	3230	469
Capacity Analysis Module:												
Vol/Sat:	0.30	0.20	0.20	0.07	0.07	0.26	0.21	0.20	0.08	0.03	0.20	0.20
Crit Moves:	****			****		****				****		
Green Time:	45.7	45.7	45.7	10.0	10.0	42.3	32.3	32.3	78.0	30.0	30.0	30.0
Volume/Cap:	0.86	0.57	0.57	0.86	0.86	0.81	0.86	0.81	0.13	0.13	0.86	0.86
Delay/Veh:	195.8	142	35.7	97.6	97.6	48.3	100.3	50.4	11.3	39.8	56.7	56.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	195.8	142	35.7	97.6	97.6	48.3	100.3	50.4	11.3	39.8	56.7	56.7
LOS by Move:	F	F	D+	F	F	D	F	D	B+	D	E+	E+
HCM2k95thQ:	35	19	19	11	11	32	27	29	5	3	27	27

Note: Queue reported is the number of cars per lane.

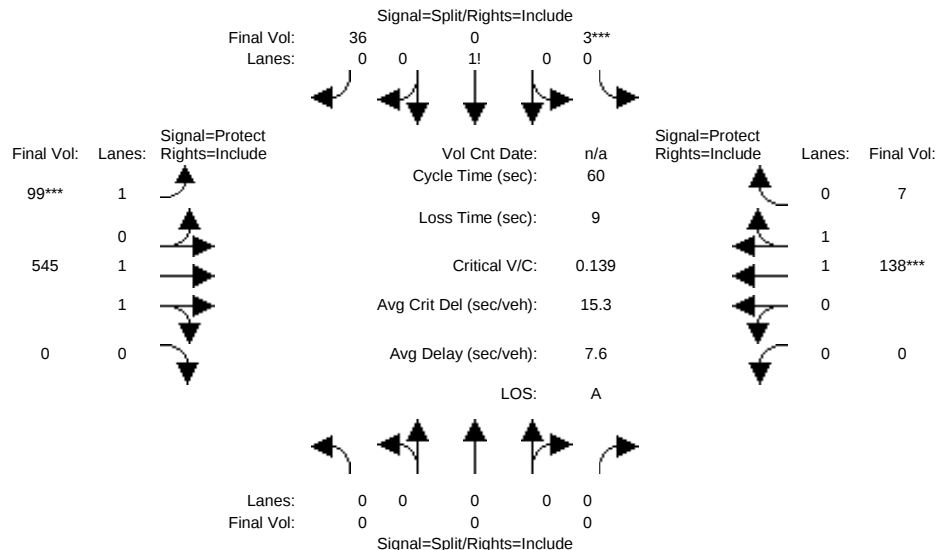
1700-1730 Embarcadero Road Auto Dealerships

Palo Alto, CA

Hexagon Transportation Consultants

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Background AM

Intersection #32: Geng Rd/Embarcadero Rd

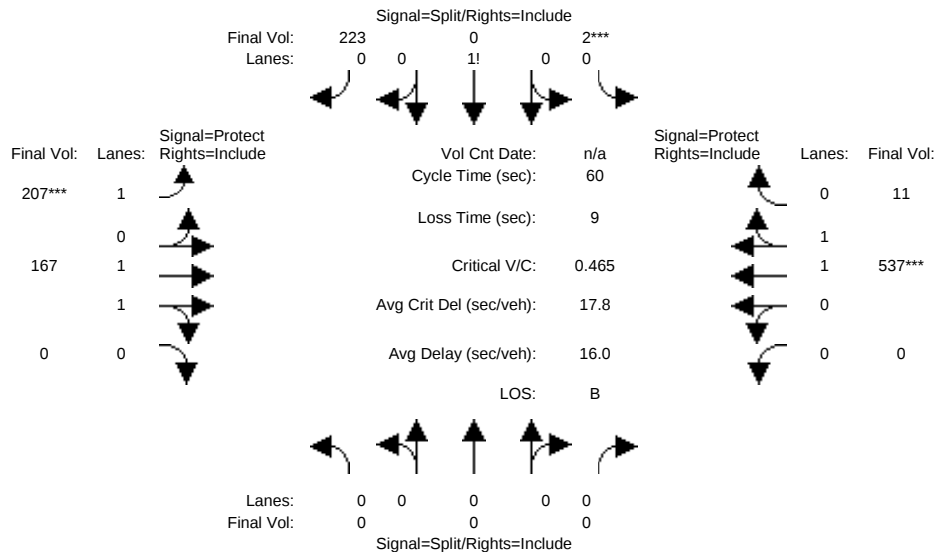


Street Name:	Geng Rd						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	10	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	3	0	36	99	545	0	0	138	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	3	0	36	99	545	0	0	138	7
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	3	0	36	99	545	0	0	138	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	3	0	36	99	545	0	0	138	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	3	0	36	99	545	0	0	138	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	0	0	3	0	36	99	545	0	0	138	7
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	0.97	0.92	0.92	0.98	0.95
Lanes:	0.00	0.00	0.00	0.08	0.00	0.92	1.00	2.00	0.00	0.00	1.90	0.10
Final Sat.:	0	0	0	135	0	1615	1750	3700	0	0	3521	179
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.02	0.00	0.02	0.06	0.15	0.00	0.00	0.04	0.04
Crit Moves:												
Green Time:	0.0	0.0	0.0	10.0	0.0	10.0	24.2	41.0	0.0	0.0	16.8	16.8
Volume/Cap:	0.00	0.00	0.00	0.13	0.00	0.13	0.14	0.22	0.00	0.00	0.14	0.14
Delay/Veh:	0.0	0.0	0.0	21.5	0.0	21.5	11.4	3.6	0.0	0.0	16.3	16.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	21.5	0.0	21.5	11.4	3.6	0.0	0.0	16.3	16.3
LOS by Move:	A	A	A	C+	A	C+	B+	A	A	A	B	B
HCM2k95thQ:	0	0	0	2	0	2	2	4	0	0	2	2

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background PM

Intersection #32: Geng Rd/Embarcadero Rd

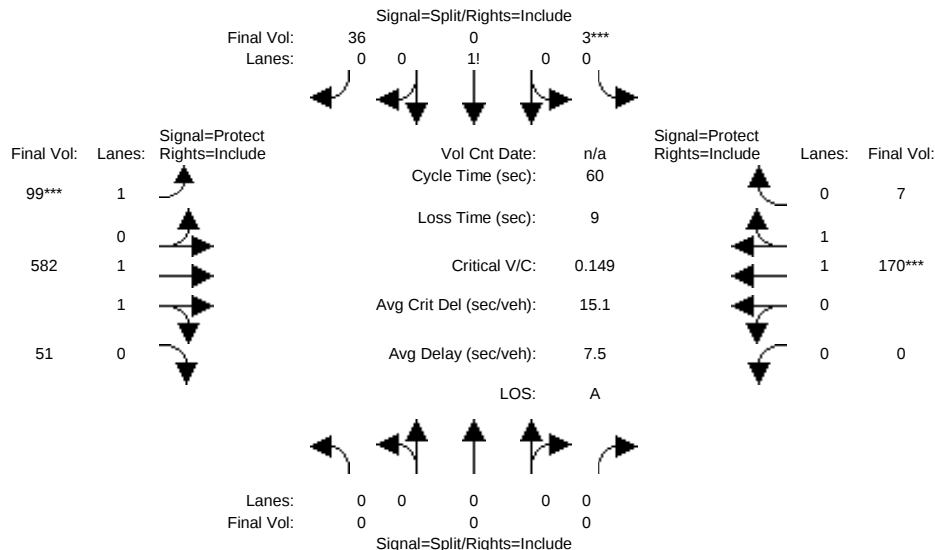


Street Name:	Geng Rd						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	10	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	2	0	223	207	167	0	0	537	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	2	0	223	207	167	0	0	537	11
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	2	0	223	207	167	0	0	537	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	2	0	223	207	167	0	0	537	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	2	0	223	207	167	0	0	537	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	2	0	223	207	167	0	0	537	11
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	0.97	0.92	0.92	0.97	0.95
Lanes:	0.00	0.00	0.00	0.01	0.00	0.99	1.00	2.00	0.00	0.00	1.96	0.04
Final Sat.:	0	0	0	16	0	1734	1750	3700	0	0	3626	74
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.13	0.00	0.13	0.12	0.05	0.00	0.00	0.15	0.15
Crit Moves:				****				****				****
Green Time:	0.0	0.0	0.0	16.6	0.0	16.6	15.3	34.4	0.0	0.0	19.1	19.1
Volume/Cap:	0.00	0.00	0.00	0.46	0.00	0.46	0.46	0.08	0.00	0.00	0.46	0.46
Delay/Veh:	0.0	0.0	0.0	18.7	0.0	18.7	19.7	5.7	0.0	0.0	16.6	16.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	18.7	0.0	18.7	19.7	5.7	0.0	0.0	16.6	16.6
LOS by Move:	A	A	A	B-	A	B-	B-	A	A	A	B	B
HCM2k95thQ:	0	0	0	8	0	8	7	1	0	0	9	9
Note: Queue reported is the number of cars per lane.												

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project AM

Intersection #32: Geng Rd/Embarcadero Rd



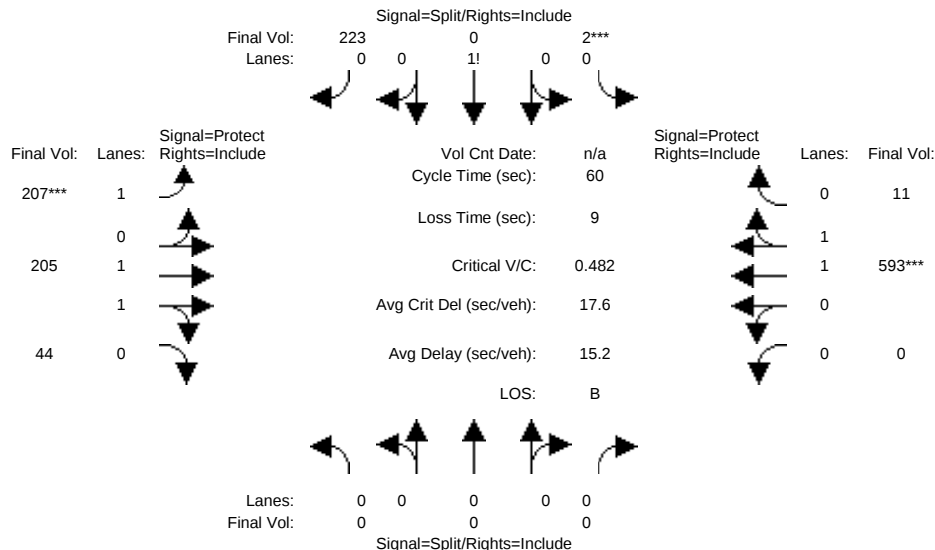
Street Name:	Geng Rd						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	10	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	3	0	36	99	545	0	0	138	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	3	0	36	99	545	0	0	138	7
Added Vol:	0	0	0	0	0	0	0	37	51	0	32	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	3	0	36	99	582	51	0	170	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	3	0	36	99	582	51	0	170	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	3	0	36	99	582	51	0	170	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	0	0	3	0	36	99	582	51	0	170	7
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	0.98	0.95	0.92	0.97	0.95
Lanes:	0.00	0.00	0.00	0.08	0.00	0.92	1.00	1.83	0.17	0.00	1.92	0.08
Final Sat.:	0	0	0	135	0	1615	1750	3402	298	0	3554	146
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.02	0.00	0.02	0.06	0.17	0.17	0.00	0.05	0.05
Crit Moves:												
Green Time:	0.0	0.0	0.0	10.0	0.0	10.0	22.2	41.0	41.0	0.0	18.8	18.8
Volume/Cap:	0.00	0.00	0.00	0.13	0.00	0.13	0.15	0.25	0.25	0.00	0.15	0.15
Delay/Veh:	0.0	0.0	0.0	21.5	0.0	21.5	12.7	3.7	3.7	0.0	14.9	14.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	21.5	0.0	21.5	12.7	3.7	3.7	0.0	14.9	14.9
LOS by Move:	A	A	A	C+	A	C+	B	A	A	A	B	B
HCM2k95thQ:	0	0	0	2	0	2	3	4	4	0	3	3

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project PM

Intersection #32: Geng Rd/Embarcadero Rd



Street Name:	Geng Rd						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	10	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	2	0	223	207	167	0	0	537	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	2	0	223	207	167	0	0	537	11
Added Vol:	0	0	0	0	0	0	0	38	44	0	56	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	2	0	223	207	205	44	0	593	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	2	0	223	207	205	44	0	593	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	2	0	223	207	205	44	0	593	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	0	0	2	0	223	207	205	44	0	593	11
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	0.98	0.95	0.92	0.97	0.95
Lanes:	0.00	0.00	0.00	0.01	0.00	0.99	1.00	1.64	0.36	0.00	1.96	0.04
Final Sat.:	0	0	0	16	0	1734	1750	3046	654	0	3633	67
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.13	0.00	0.13	0.12	0.07	0.07	0.00	0.16	0.16
Crit Moves:				****				****				****
Green Time:	0.0	0.0	0.0	16.0	0.0	16.0	14.7	35.0	35.0	0.0	20.3	20.3
Volume/Cap:	0.00	0.00	0.00	0.48	0.00	0.48	0.48	0.12	0.12	0.00	0.48	0.48
Delay/Veh:	0.0	0.0	0.0	19.3	0.0	19.3	20.2	5.6	5.6	0.0	16.0	16.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	19.3	0.0	19.3	20.2	5.6	5.6	0.0	16.0	16.0
LOS by Move:	A	A	A	B-	A	B-	C+	A	A	A	B	B
HCM2k95thQ:	0	0	0	9	0	9	7	2	2	0	10	10
Note: Queue reported is the number of cars per lane.												

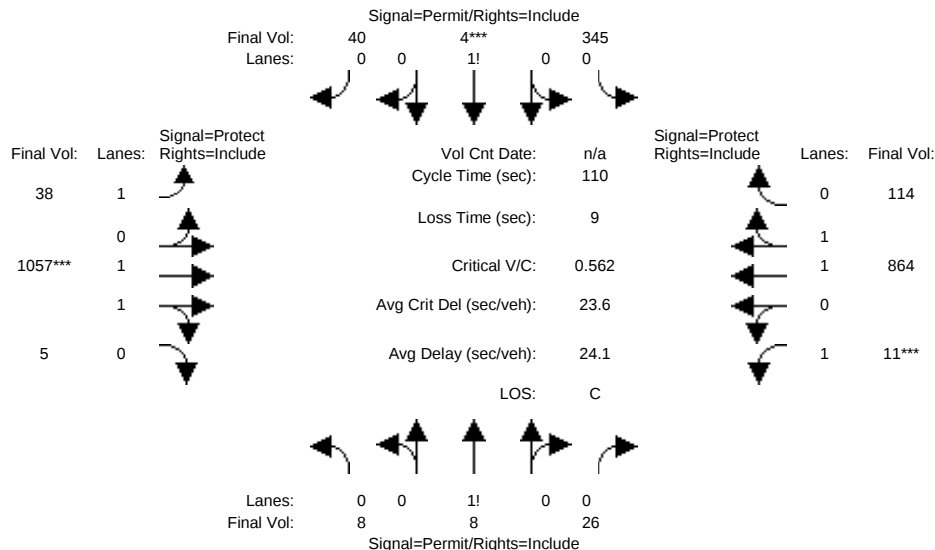
1700-1730 Embarcadero Road Auto Dealerships

Palo Alto, CA

Hexagon Transportation Consultants

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Background AM

Intersection #36: St Francis Dr/Embarcadero Rd



Street Name:	St Francis Dr						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	8	8	26	345	4	40	38	1057	5	11	864	114
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	8	26	345	4	40	38	1057	5	11	864	114
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	8	26	345	4	40	38	1057	5	11	864	114
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	8	26	345	4	40	38	1057	5	11	864	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	8	26	345	4	40	38	1057	5	11	864	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	8	8	26	345	4	40	38	1057	5	11	864	114
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.95	0.92	0.98	0.95
Lanes:	0.19	0.19	0.62	0.89	0.01	0.10	1.00	1.99	0.01	1.00	1.76	0.24
Final Sat.:	333	333	1083	1552	18	180	1750	3683	17	1750	3268	431
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.22	0.22	0.22	0.02	0.29	0.29	0.01	0.26	0.26
Crit Moves:				****			****			****		
Green Time:	41.0	41.0	41.0	41.0	41.0	41.0	11.6	53.0	53.0	7.0	48.3	48.3
Volume/Cap:	0.06	0.06	0.06	0.60	0.60	0.60	0.21	0.60	0.60	0.10	0.60	0.60
Delay/Veh:	22.2	22.2	22.2	29.3	29.3	29.3	45.5	21.3	21.3	48.9	24.1	24.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.2	22.2	22.2	29.3	29.3	29.3	45.5	21.3	21.3	48.9	24.1	24.1
LOS by Move:	C+	C+	C+	C	C	C	D	C+	C+	D	C	C
HCM2k95thQ:	2	2	2	21	21	21	3	24	24	1	24	24

Note: Queue reported is the number of cars per lane.

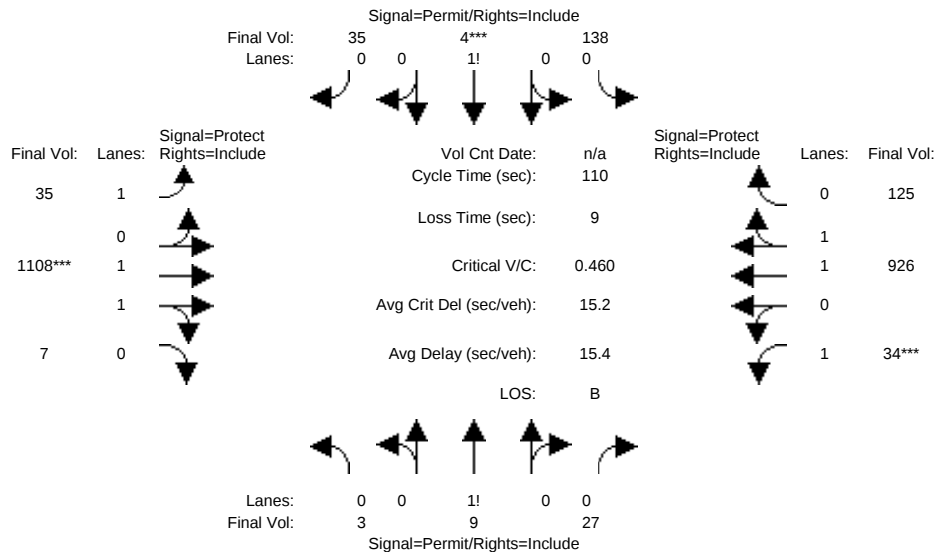
1700-1730 Embarcadero Road Auto Dealerships

Palo Alto, CA

Hexagon Transportation Consultants

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Background PM

Intersection #36: St Francis Dr/Embarcadero Rd



Street Name: St Francis Dr Embarcadero Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 10 10 10 10 10 7 10 10 7 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:

Base Vol:	3	9	27	138	4	35	35	1108	7	34	926	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	9	27	138	4	35	35	1108	7	34	926	125
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	9	27	138	4	35	35	1108	7	34	926	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	9	27	138	4	35	35	1108	7	34	926	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	9	27	138	4	35	35	1108	7	34	926	125
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	3	9	27	138	4	35	35	1108	7	34	926	125

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.95	0.92	0.98	0.95
Lanes:	0.08	0.23	0.69	0.78	0.02	0.20	1.00	1.99	0.01	1.00	1.76	0.24
Final Sat.:	135	404	1212	1364	40	346	1750	3677	23	1750	3260	440

Capacity Analysis Module:

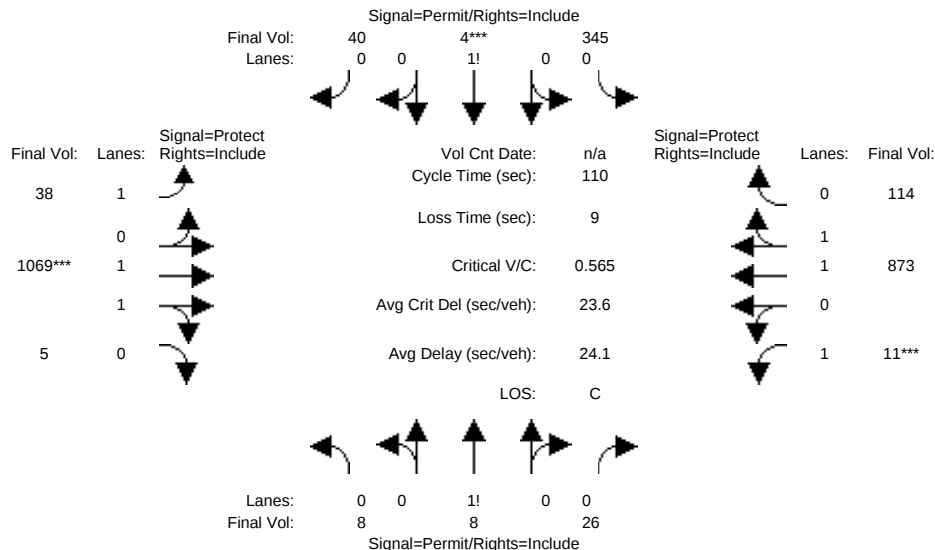
Vol/Sat:	0.02	0.02	0.02	0.10	0.10	0.10	0.02	0.30	0.30	0.02	0.28	0.28
Crit Moves:				****			****		****			
Green Time:	23.6	23.6	23.6	23.6	23.6	23.6	14.2	70.4	70.4	7.0	63.2	63.2
Volume/Cap:	0.10	0.10	0.10	0.47	0.47	0.47	0.16	0.47	0.47	0.31	0.49	0.49
Delay/Veh:	34.8	34.8	34.8	38.7	38.7	38.7	42.9	10.4	10.4	50.7	14.1	14.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.8	34.8	34.8	38.7	38.7	38.7	42.9	10.4	10.4	50.7	14.1	14.1
LOS by Move:	C-	C-	C-	D+	D+	D+	D	B+	B+	D	B	B
HCM2k95thQ:	2	2	2	12	12	12	3	18	18	3	20	20

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project AM

Intersection #36: St Francis Dr/Embarcadero Rd



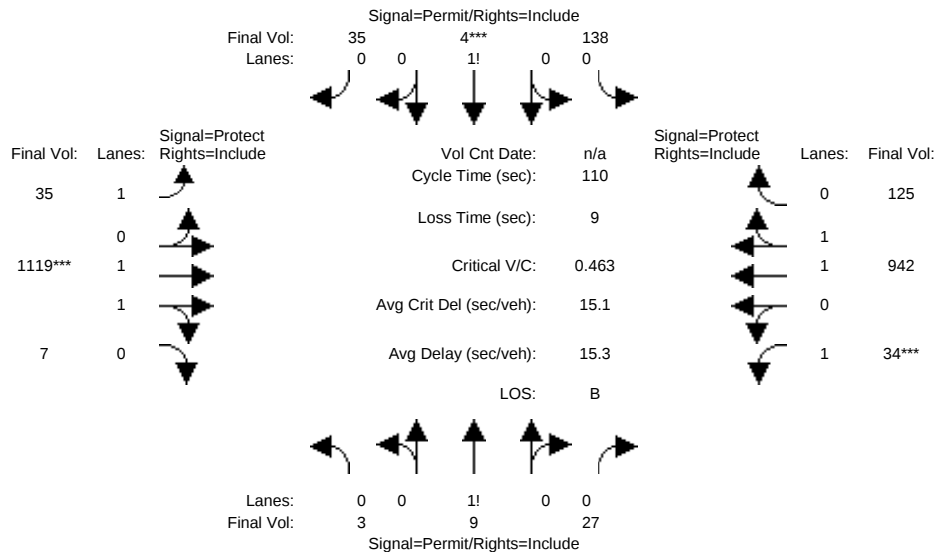
Street Name:	St Francis Dr						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	8	8	26	345	4	40	38	1057	5	11	864	114
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	8	26	345	4	40	38	1057	5	11	864	114
Added Vol:	0	0	0	0	0	0	0	12	0	0	9	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	8	26	345	4	40	38	1069	5	11	873	114
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	8	26	345	4	40	38	1069	5	11	873	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	8	26	345	4	40	38	1069	5	11	873	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	8	8	26	345	4	40	38	1069	5	11	873	114
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.95	0.92	0.98	0.95
Lanes:	0.19	0.19	0.62	0.89	0.01	0.10	1.00	1.99	0.01	1.00	1.76	0.24
Final Sat.:	333	333	1083	1552	18	180	1750	3683	17	1750	3272	427
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.22	0.22	0.22	0.02	0.29	0.29	0.01	0.27	0.27
Crit Moves:				****			****			****		
Green Time:	40.8	40.8	40.8	40.8	40.8	40.8	11.6	53.2	53.2	7.0	48.6	48.6
Volume/Cap:	0.06	0.06	0.06	0.60	0.60	0.60	0.21	0.60	0.60	0.10	0.60	0.60
Delay/Veh:	22.4	22.4	22.4	29.6	29.6	29.6	45.5	21.2	21.2	48.9	24.0	24.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.4	22.4	22.4	29.6	29.6	29.6	45.5	21.2	21.2	48.9	24.0	24.0
LOS by Move:	C+	C+	C+	C	C	C	D	C+	C+	D	C	C
HCM2k95thQ:	2	2	2	22	22	22	3	24	24	1	24	24

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project PM

Intersection #36: St Francis Dr/Embarcadero Rd



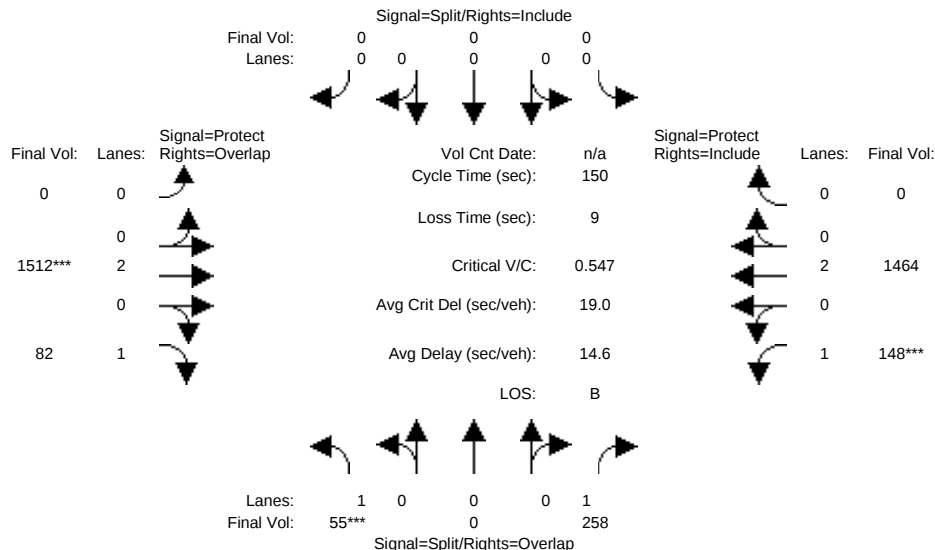
Street Name:	St Francis Dr						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	3	9	27	138	4	35	35	1108	7	34	926	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	9	27	138	4	35	35	1108	7	34	926	125
Added Vol:	0	0	0	0	0	0	0	11	0	0	16	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	9	27	138	4	35	35	1119	7	34	942	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	9	27	138	4	35	35	1119	7	34	942	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	9	27	138	4	35	35	1119	7	34	942	125
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	3	9	27	138	4	35	35	1119	7	34	942	125
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.95	0.92	0.98	0.95
Lanes:	0.08	0.23	0.69	0.78	0.02	0.20	1.00	1.99	0.01	1.00	1.76	0.24
Final Sat.:	135	404	1212	1364	40	346	1750	3677	23	1750	3266	433
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.10	0.10	0.10	0.02	0.30	0.30	0.02	0.29	0.29
Crit Moves:				****			****		****			
Green Time:	23.4	23.4	23.4	23.4	23.4	23.4	14.0	70.6	70.6	7.0	63.5	63.5
Volume/Cap:	0.10	0.10	0.10	0.47	0.47	0.47	0.16	0.47	0.47	0.31	0.50	0.50
Delay/Veh:	35.0	35.0	35.0	38.8	38.8	38.8	43.1	10.3	10.3	50.7	14.0	14.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	35.0	35.0	35.0	38.8	38.8	38.8	43.1	10.3	10.3	50.7	14.0	14.0
LOS by Move:	C-	C-	C-	D+	D+	D+	D	B+	B+	D	B	B
HCM2k95thQ:	2	2	2	12	12	12	3	18	18	3	20	20

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background AM

Intersection #40: W Bayshore Rd/Oregon Expwy



Street Name: W Bayshore Rd Oregon Expwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 0 10 0 0 0 0 10 10 7 10 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:

Base Vol:	55	0	258	0	0	0	0	1512	82	148	1464	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	55	0	258	0	0	0	0	1512	82	148	1464	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	0	258	0	0	0	0	1512	82	148	1464	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	0	258	0	0	0	0	1512	82	148	1464	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	0	258	0	0	0	0	1512	82	148	1464	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	55	0	258	0	0	0	0	1512	82	148	1464	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1750	0	1750	0	0	0	0	3800	1750	1750	3800	0

Capacity Analysis Module:

Vol/Sat:	0.03	0.00	0.15	0.00	0.00	0.00	0.00	0.40	0.05	0.08	0.39	0.00
Crit Moves:	****						****		****			
Green Time:	17.2	0.0	38.9	0.0	0.0	0.0	0.0	102	119.3	21.7	124	0.0
Volume/Cap:	0.27	0.00	0.57	0.00	0.00	0.00	0.00	0.58	0.06	0.58	0.47	0.00
Delay/Veh:	61.4	0.0	49.9	0.0	0.0	0.0	0.0	13.1	3.3	63.4	3.8	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	61.4	0.0	49.9	0.0	0.0	0.0	0.0	13.1	3.3	63.4	3.8	0.0
LOS by Move:	E	A	D	A	A	A	A	B	A	E	A	A
HCM2k95thQ:	5	0	21	0	0	0	0	30	2	14	18	0

Note: Queue reported is the number of cars per lane.

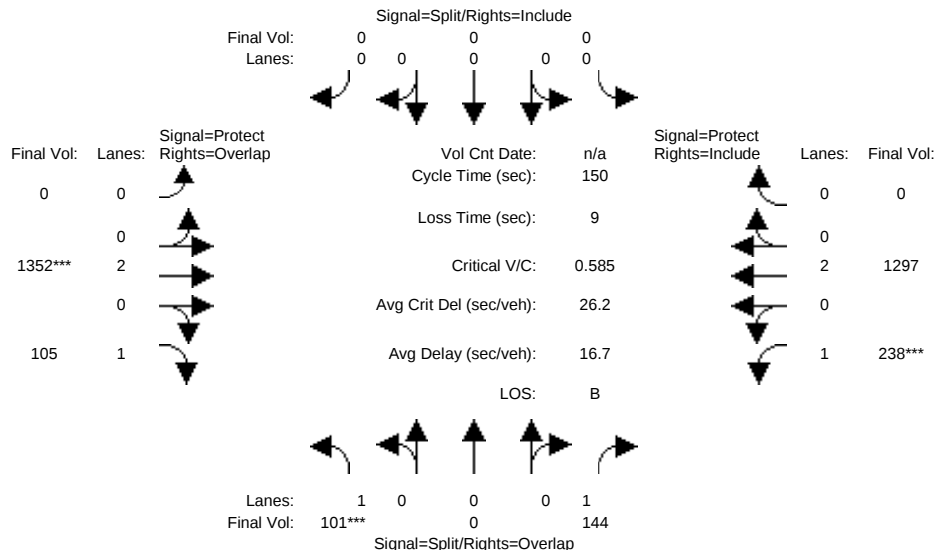
1700-1730 Embarcadero Road Auto Dealerships

Palo Alto, CA

Hexagon Transportation Consultants

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Background PM

Intersection #40: W Bayshore Rd/Oregon Expwy



Street Name: W Bayshore Rd Oregon Expwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 0 10 0 0 0 0 10 10 7 10 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:

Base Vol:	101	0	144	0	0	0	0	1352	105	238	1297	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	101	0	144	0	0	0	0	1352	105	238	1297	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	101	0	144	0	0	0	0	1352	105	238	1297	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	101	0	144	0	0	0	0	1352	105	238	1297	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	101	0	144	0	0	0	0	1352	105	238	1297	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	101	0	144	0	0	0	0	1352	105	238	1297	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1750	0	1750	0	0	0	0	3800	1750	1750	3800	0

Capacity Analysis Module:

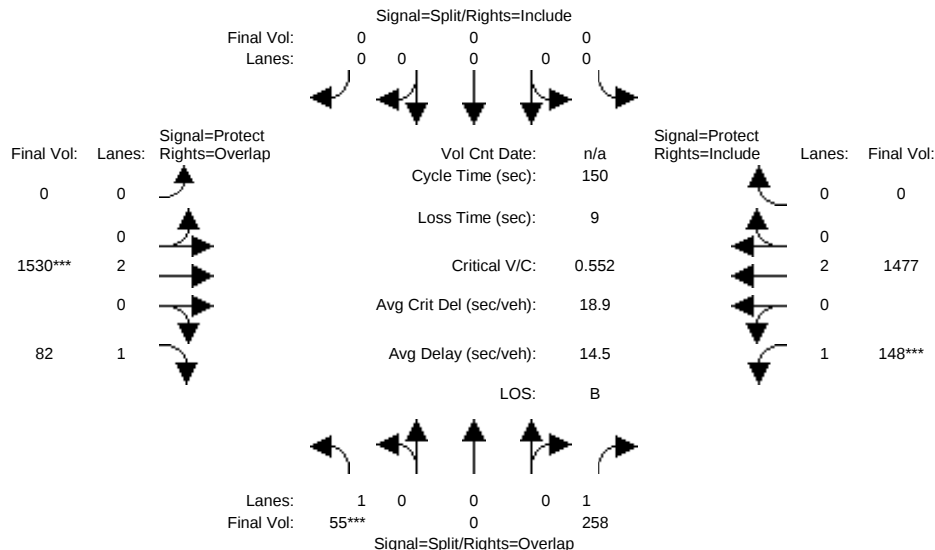
Vol/Sat:	0.06	0.00	0.08	0.00	0.00	0.00	0.00	0.36	0.06	0.14	0.34	0.00
Crit Moves:	****							****	****			
Green Time:	14.8	0.0	49.7	0.0	0.0	0.0	0.0	91.3	106.1	34.9	126	0.0
Volume/Cap:	0.58	0.00	0.25	0.00	0.00	0.00	0.00	0.58	0.08	0.58	0.41	0.00
Delay/Veh:	69.7	0.0	36.8	0.0	0.0	0.0	0.0	18.2	6.9	53.3	3.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.7	0.0	36.8	0.0	0.0	0.0	0.0	18.2	6.9	53.3	3.0	0.0
LOS by Move:	E	A	D+	A	A	A	A	B-	A	D-	A	A
HCM2k95thQ:	11	0	10	0	0	0	0	31	3	20	14	0

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project AM

Intersection #40: W Bayshore Rd/Oregon Expwy



Street Name: W Bayshore Rd Oregon Expwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 0 10 0 0 0 0 10 10 7 10 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:

Base Vol:	55	0	258	0	0	0	0	1512	82	148	1464	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	55	0	258	0	0	0	0	1512	82	148	1464	0
Added Vol:	0	0	0	0	0	0	0	18	0	0	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	0	258	0	0	0	0	1530	82	148	1477	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	0	258	0	0	0	0	1530	82	148	1477	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	0	258	0	0	0	0	1530	82	148	1477	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	55	0	258	0	0	0	0	1530	82	148	1477	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1750	0	1750	0	0	0	0	3800	1750	1750	3800	0

Capacity Analysis Module:

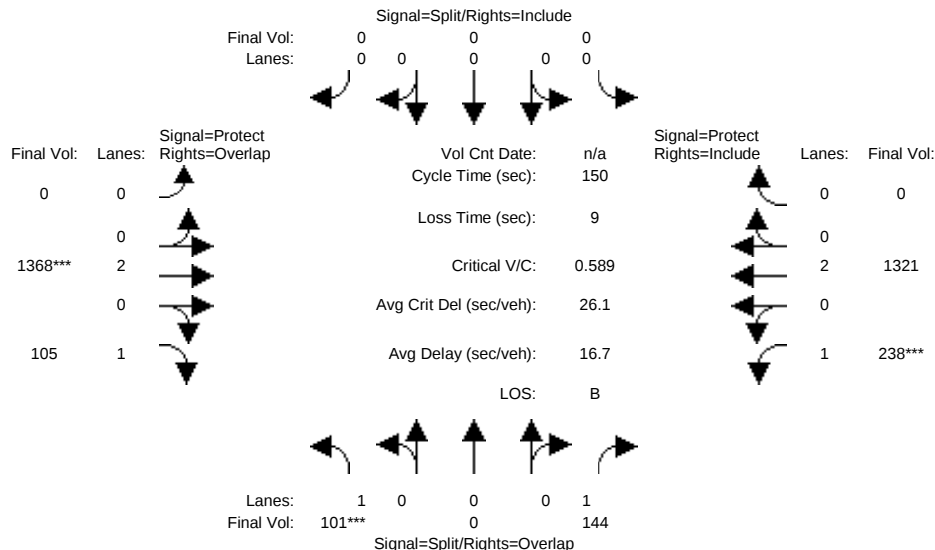
Vol/Sat:	0.03	0.00	0.15	0.00	0.00	0.00	0.00	0.40	0.05	0.08	0.39	0.00
Crit Moves:	****							****	****			
Green Time:	17.1	0.0	38.6	0.0	0.0	0.0	0.0	102	119.5	21.5	124	0.0
Volume/Cap:	0.28	0.00	0.57	0.00	0.00	0.00	0.00	0.59	0.06	0.59	0.47	0.00
Delay/Veh:	61.6	0.0	50.3	0.0	0.0	0.0	0.0	13.0	3.3	63.8	3.8	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	61.6	0.0	50.3	0.0	0.0	0.0	0.0	13.0	3.3	63.8	3.8	0.0
LOS by Move:	E	A	D	A	A	A	A	B	A	E	A	A
HCM2k95thQ:	5	0	21	0	0	0	0	31	2	14	18	0

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project PM

Intersection #40: W Bayshore Rd/Oregon Expwy



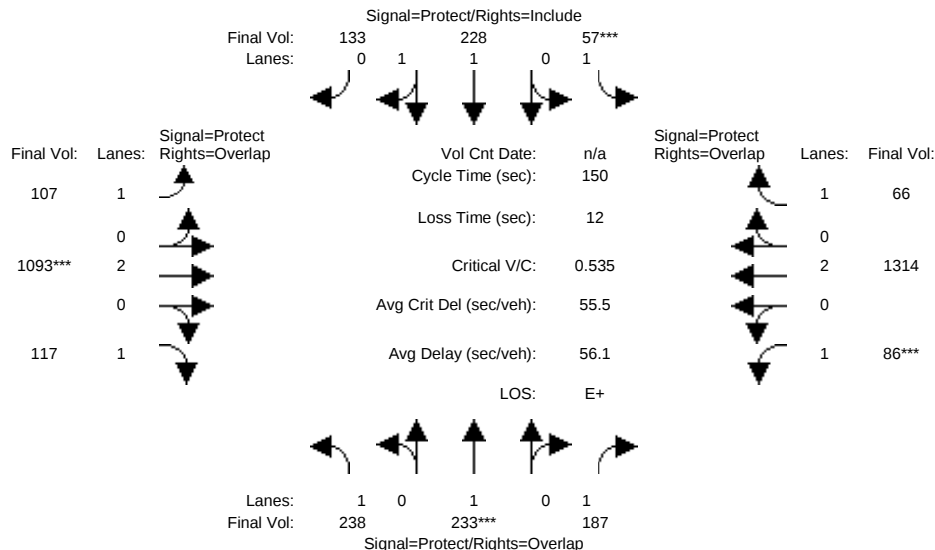
Street Name:	W Bayshore Rd						Oregon Expwy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	0	10	0	0	0	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	101	0	144	0	0	0	0	1352	105	238	1297	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	101	0	144	0	0	0	0	1352	105	238	1297	0
Added Vol:	0	0	0	0	0	0	0	16	0	0	24	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	101	0	144	0	0	0	0	1368	105	238	1321	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	101	0	144	0	0	0	0	1368	105	238	1321	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	101	0	144	0	0	0	0	1368	105	238	1321	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	101	0	144	0	0	0	0	1368	105	238	1321	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1750	0	1750	0	0	0	0	3800	1750	1750	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.08	0.00	0.00	0.00	0.00	0.36	0.06	0.14	0.35	0.00
Crit Moves:	****						****		****			
Green Time:	14.7	0.0	49.3	0.0	0.0	0.0	0.0	91.7	106.4	34.6	126	0.0
Volume/Cap:	0.59	0.00	0.25	0.00	0.00	0.00	0.00	0.59	0.08	0.59	0.41	0.00
Delay/Veh:	70.1	0.0	37.0	0.0	0.0	0.0	0.0	18.1	6.8	53.6	3.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	70.1	0.0	37.0	0.0	0.0	0.0	0.0	18.1	6.8	53.6	3.0	0.0
LOS by Move:	E	A	D+	A	A	A	A	B-	A	D-	A	A
HCM2k95thQ:	11	0	10	0	0	0	0	31	3	20	14	0

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background AM

Intersection #41: Middlefield Rd/Oregon Expwy (CMP 5108)



Street Name: Middlefield Rd Pagemill-Oregon Expwy
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	26	49	49	12	35	35	15	59	59	18	62	62
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:

Base Vol:	238	233	187	57	228	133	107	1093	117	86	1314	66
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	238	233	187	57	228	133	107	1093	117	86	1314	66
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	238	233	187	57	228	133	107	1093	117	86	1314	66
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	238	233	187	57	228	133	107	1093	117	86	1314	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	238	233	187	57	228	133	107	1093	117	86	1314	66
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	238	233	187	57	228	133	107	1093	117	86	1314	66

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.00	1.00	1.00	1.24	0.76	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1750	1900	1750	1750	2336	1363	1750	3800	1750	1750	3800	1750

Capacity Analysis Module:

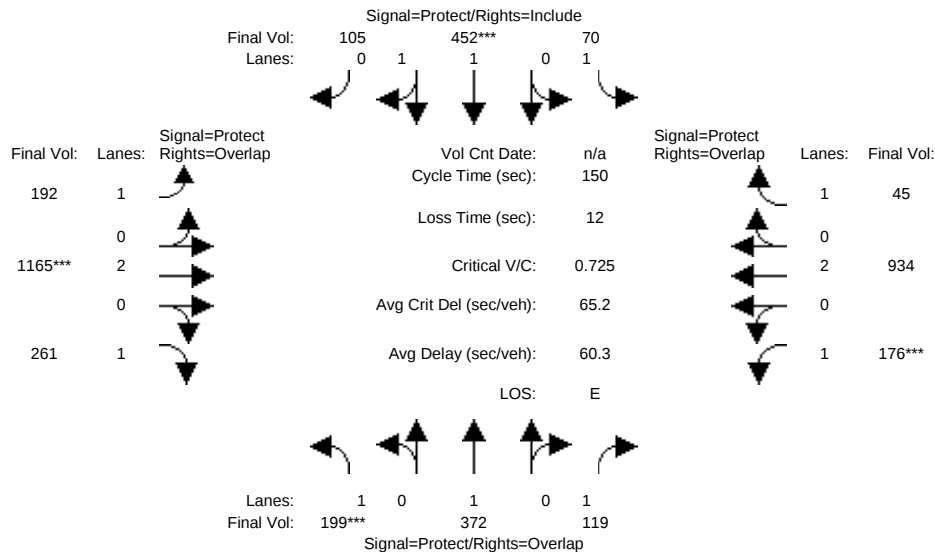
Vol/Sat:	0.14	0.12	0.11	0.03	0.10	0.10	0.06	0.29	0.07	0.05	0.35	0.04
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	26.0	49.0	67.0	12.0	35.0	35.0	15.0	59.0	85.0	18.0	62.0	74.0
Volume/Cap:	0.78	0.38	0.24	0.41	0.42	0.42	0.61	0.73	0.12	0.41	0.84	0.08
Delay/Veh:	71.9	39.1	25.9	67.5	49.2	49.2	75.7	57.4	28.3	67.9	62.1	33.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	71.9	39.1	25.9	67.5	49.2	49.2	75.7	57.4	28.3	67.9	62.1	33.0
LOS by Move:	E	D	C	E	D	D	E-	E+	C	E	E	C-
HCM2k95thQ:	23	15	11	6	14	14	12	40	9	8	48	5

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background PM

Intersection #41: Middlefield Rd/Oregon Expwy (CMP 5108)

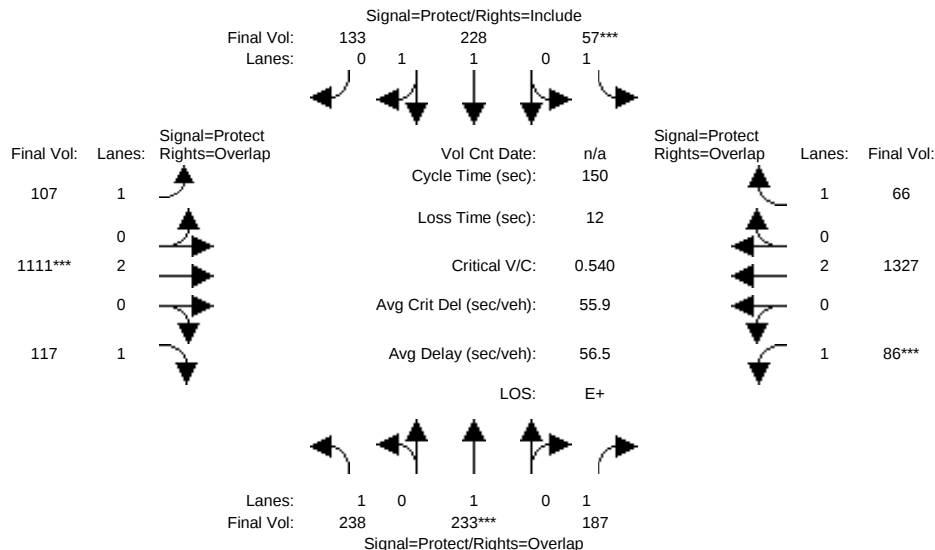


Street Name:	Middlefield Rd			Pagemill-Oregon Expwy		
Approach:	North Bound			South Bound		
Movement:	L	T	R	L	T	R
Min. Green:	26	50	50	15	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:						
Base Vol:	199	372	119	70	452	105
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	199	372	119	70	452	105
Added Vol:	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0
Initial Fut:	199	372	119	70	452	105
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	199	372	119	70	452	105
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	199	372	119	70	452	105
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	199	372	119	70	452	105
Saturation Flow Module:						
Sat/Lane:	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95
Lanes:	1.00	1.00	1.00	1.00	1.61	0.39
Final Sat.:	1750	1900	1750	1750	3002	697
Capacity Analysis Module:						
Vol/Sat:	0.11	0.20	0.07	0.04	0.15	0.15
Crit Moves:	****			****		****
Green Time:	24.1	46.3	66.7	13.9	36.1	36.1
Volume/Cap:	0.71	0.63	0.15	0.43	0.63	0.63
Delay/Veh:	72.5	50.4	26.9	71.3	56.4	56.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	72.5	50.4	26.9	71.3	56.4	56.4
LOS by Move:	E	D	C	E	E+	F
HCM2k95thQ:	21	28	7	8	23	21
Note: Queue reported is the number of cars per lane.						

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project AM

Intersection #41: Middlefield Rd/Oregon Expwy (CMP 5108)



Street Name: Middlefield Rd Pagemill-Oregon Expwy
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

	North Bound			South Bound			East Bound			West Bound		
Min. Green:	26	49	49	12	35	35	15	59	59	18	62	62
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	238	233	187	57	228	133	107	1093	117	86	1314	66
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	238	233	187	57	228	133	107	1093	117	86	1314	66
Added Vol:	0	0	0	0	0	0	0	18	0	0	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	238	233	187	57	228	133	107	1111	117	86	1327	66
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	238	233	187	57	228	133	107	1111	117	86	1327	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	238	233	187	57	228	133	107	1111	117	86	1327	66
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	238	233	187	57	228	133	107	1111	117	86	1327	66

Saturation Flow Module:

	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.00	1.00	1.00	1.24	0.76	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1750	1900	1750	1750	2336	1363	1750	3800	1750	1750	3800	1750

Capacity Analysis Module:

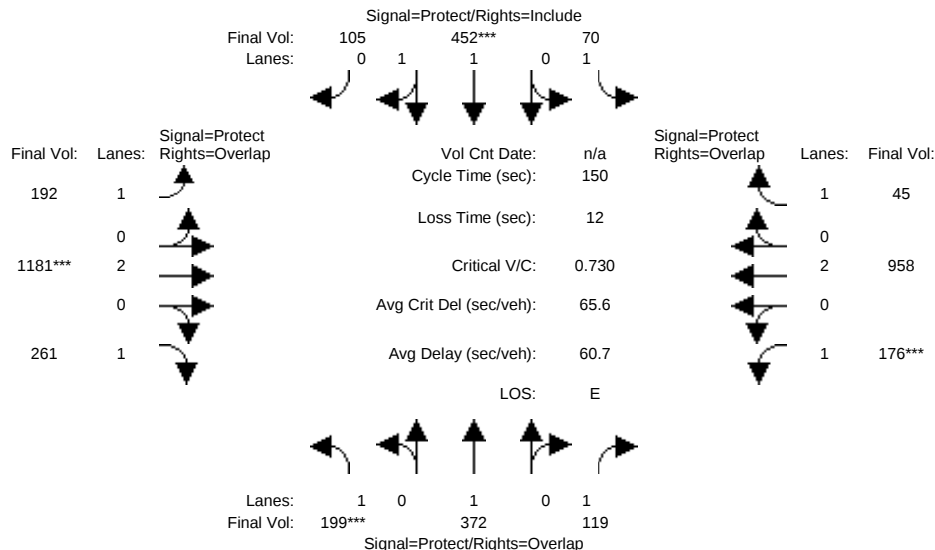
	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.14	0.12	0.11	0.03	0.10	0.10	0.06	0.29	0.07	0.05	0.35	0.04
Crit Moves:	****			****			****			****		
Green Time:	26.0	49.0	67.0	12.0	35.0	35.0	15.0	59.0	85.0	18.0	62.0	74.0
Volume/Cap:	0.78	0.38	0.24	0.41	0.42	0.42	0.61	0.74	0.12	0.41	0.84	0.08
Delay/Veh:	71.9	39.1	25.9	67.5	49.2	49.2	75.7	57.9	28.3	67.9	62.7	33.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	71.9	39.1	25.9	67.5	49.2	49.2	75.7	57.9	28.3	67.9	62.7	33.0
LOS by Move:	E	D	C	E	D	D	E-	E+	C	E	E	C-
HCM2k95thQ:	23	15	11	6	14	14	12	41	9	8	49	5

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project PM

Intersection #41: Middlefield Rd/Oregon Expwy (CMP 5108)



Street Name:	Middlefield Rd					Pagemill-Oregon Expwy				
Approach:	North Bound			South Bound			East Bound		West Bound	
Movement:	L	T	R	L	T	R	L	T	L	T
Min. Green:	26	50	50	15	39	39	25	63	22	60
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:										
Base Vol:	199	372	119	70	452	105	192	1165	261	176
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	199	372	119	70	452	105	192	1165	261	176
Added Vol:	0	0	0	0	0	0	0	16	0	24
PasserByVol:	0	0	0	0	0	0	0	0	0	0
Initial Fut:	199	372	119	70	452	105	192	1181	261	176
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	199	372	119	70	452	105	192	1181	261	176
Reduct Vol:	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	199	372	119	70	452	105	192	1181	261	176
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	199	372	119	70	452	105	192	1181	261	176
Saturation Flow Module:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92	1.00
Lanes:	1.00	1.00	1.00	1.00	1.61	0.39	1.00	2.00	1.00	2.00
Final Sat.:	1750	1900	1750	1750	3002	697	1750	3800	1750	3800
Capacity Analysis Module:										
Vol/Sat:	0.11	0.20	0.07	0.04	0.15	0.15	0.11	0.31	0.15	0.10
Crit Moves:	****			****			****		****	
Green Time:	24.1	46.3	66.7	13.9	36.1	36.1	23.1	58.3	82.4	20.4
Volume/Cap:	0.71	0.63	0.15	0.43	0.63	0.63	0.71	0.80	0.27	0.74
Delay/Veh:	72.5	50.4	26.9	71.3	56.4	56.4	81.5	65.7	35.2	86.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	72.5	50.4	26.9	71.3	56.4	56.4	81.5	65.7	35.2	86.0
LOS by Move:	E	D	C	E	E+	E+	F	E	D+	F
HCM2k95thQ:	21	28	7	8	23	23	21	47	21	18
Note: Queue reported is the number of cars per lane.										

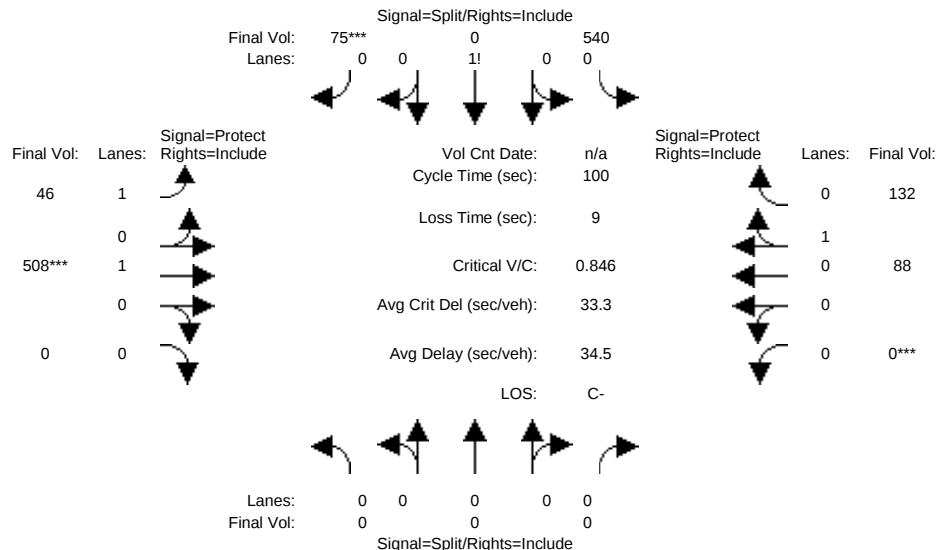
1700-1730 Embarcadero Road Auto Dealerships

Palo Alto, CA

Hexagon Transportation Consultants

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Background AM

Intersection #42: Pulgas Ave/E Bayshore Rd



Street Name:	Pulgas Ave						E Bayshore Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	540	0	75	46	508	0	0	88	132
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	540	0	75	46	508	0	0	88	132
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	540	0	75	46	508	0	0	88	132
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	540	0	75	46	508	0	0	88	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	540	0	75	46	508	0	0	88	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	540	0	75	46	508	0	0	88	132
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.64	0.92	0.64	0.92	1.00	0.92	0.92	0.95	0.95
Lanes:	0.00	0.00	0.00	0.88	0.00	0.12	1.00	1.00	0.00	0.00	0.40	0.60
Final Sat.:	0	0	0	1076	0	149	1750	1900	0	0	720	1080
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.50	0.00	0.50	0.03	0.27	0.00	0.00	0.12	0.12
Crit Moves:	*****											
Green Time:	0.0	0.0	0.0	59.4	0.0	59.4	11.5	31.6	0.0	0.0	20.1	20.1
Volume/Cap:	0.00	0.00	0.00	0.85	0.00	0.85	0.23	0.85	0.00	0.00	0.61	0.61
Delay/Veh:	0.0	0.0	0.0	25.6	0.0	25.6	40.8	42.6	0.0	0.0	39.3	39.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	25.6	0.0	25.6	40.8	42.6	0.0	0.0	39.3	39.3
LOS by Move:	A	A	A	C	A	C	D	D	A	A	D	D
HCM2k95thQ:	0	0	0	33	0	33	3	30	0	0	12	12
Note: Queue reported is the number of cars per lane.												

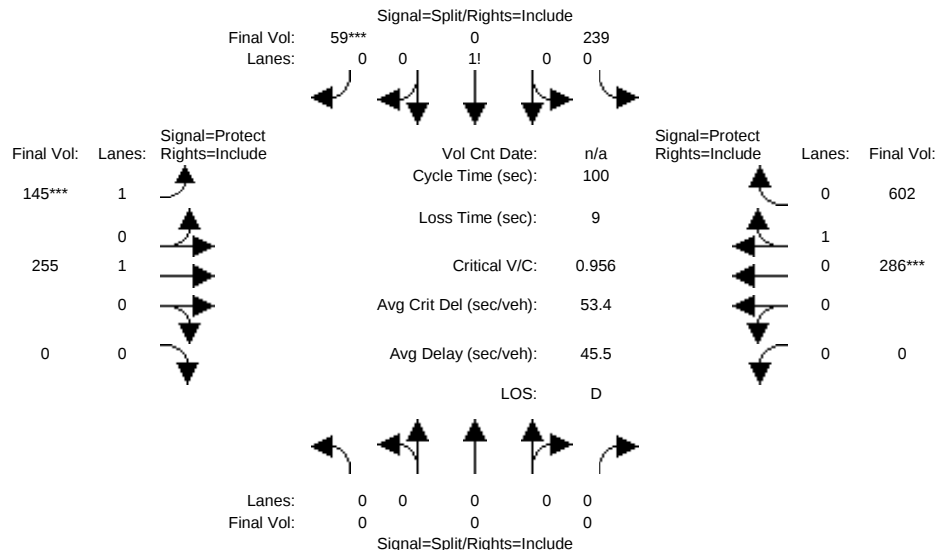
1700-1730 Embarcadero Road Auto Dealerships

Palo Alto, CA

Hexagon Transportation Consultants

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Background PM

Intersection #42: Pulgas Ave/E Bayshore Rd



Street Name: Pulgas Ave E Bayshore Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 0 0 10 0 10 7 10 0 0 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:

Base Vol:	0	0	0	239	0	59	145	255	0	0	286	602
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	239	0	59	145	255	0	0	286	602
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	239	0	59	145	255	0	0	286	602
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	239	0	59	145	255	0	0	286	602
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	239	0	59	145	255	0	0	286	602
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	239	0	59	145	255	0	0	286	602

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	0.76	0.76
Lanes:	0.00	0.00	0.00	0.80	0.00	0.20	1.00	1.00	0.00	0.00	0.32	0.68
Final Sat.:	0	0	0	1404	0	346	1750	1900	0	0	464	976

Capacity Analysis Module:

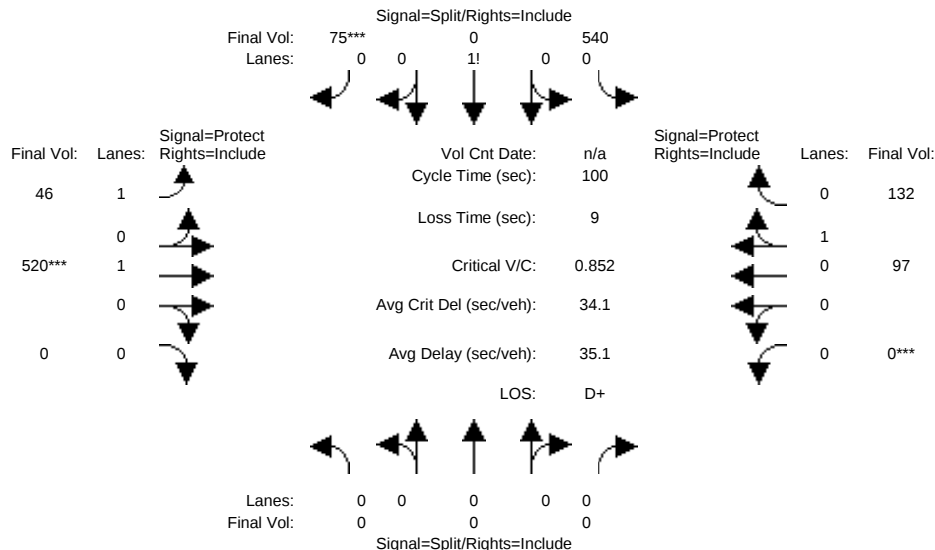
Vol/Sat:	0.00	0.00	0.00	0.17	0.00	0.17	0.08	0.13	0.00	0.00	0.62	0.62
Crit Moves:				****		****				****		
Green Time:	0.0	0.0	0.0	17.8	0.0	17.8	8.7	73.2	0.0	0.0	64.5	64.5
Volume/Cap:	0.00	0.00	0.00	0.96	0.00	0.96	0.96	0.18	0.00	0.00	0.96	0.96
Delay/Veh:	0.0	0.0	0.0	79.8	0.0	79.8	105.1	4.2	0.0	0.0	36.0	36.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	79.8	0.0	79.8	105.1	4.2	0.0	0.0	36.0	36.0
LOS by Move:	A	A	A	E-	A	E-	F	A	A	A	D+	D+
HCM2k95thQ:	0	0	0	25	0	25	16	5	0	0	47	47

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project AM

Intersection #42: Pulgas Ave/E Bayshore Rd



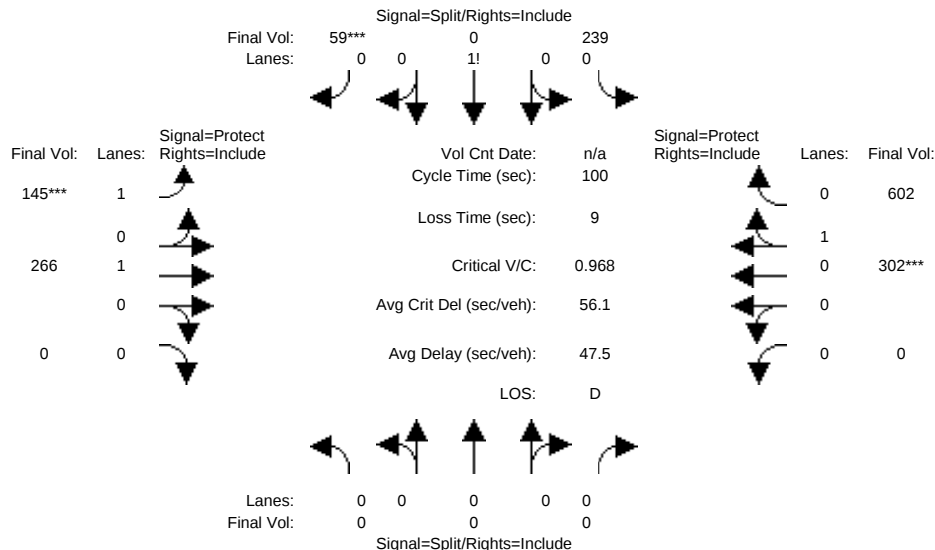
Street Name:	Pulgas Ave						E Bayshore Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	540	0	75	46	508	0	0	88	132
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	540	0	75	46	508	0	0	88	132
Added Vol:	0	0	0	0	0	0	0	12	0	0	9	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	540	0	75	46	520	0	0	97	132
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	540	0	75	46	520	0	0	97	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	540	0	75	46	520	0	0	97	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	0	0	540	0	75	46	520	0	0	97	132
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.64	0.92	0.64	0.92	1.00	0.92	0.92	0.95	0.95
Lanes:	0.00	0.00	0.00	0.88	0.00	0.12	1.00	1.00	0.00	0.00	0.42	0.58
Final Sat.:	0	0	0	1076	0	149	1750	1900	0	0	762	1038
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.50	0.00	0.50	0.03	0.27	0.00	0.00	0.13	0.13
Crit Moves:	*****											
Green Time:	0.0	0.0	0.0	58.9	0.0	58.9	11.4	32.1	0.0	0.0	20.7	20.7
Volume/Cap:	0.00	0.00	0.00	0.85	0.00	0.85	0.23	0.85	0.00	0.00	0.61	0.61
Delay/Veh:	0.0	0.0	0.0	26.6	0.0	26.6	40.9	42.9	0.0	0.0	39.1	39.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	26.6	0.0	26.6	40.9	42.9	0.0	0.0	39.1	39.1
LOS by Move:	A	A	A	C	A	C	D	D	A	A	D	D
HCM2k95thQ:	0	0	0	34	0	34	3	31	0	0	13	13

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project PM

Intersection #42: Pulgas Ave/E Bayshore Rd

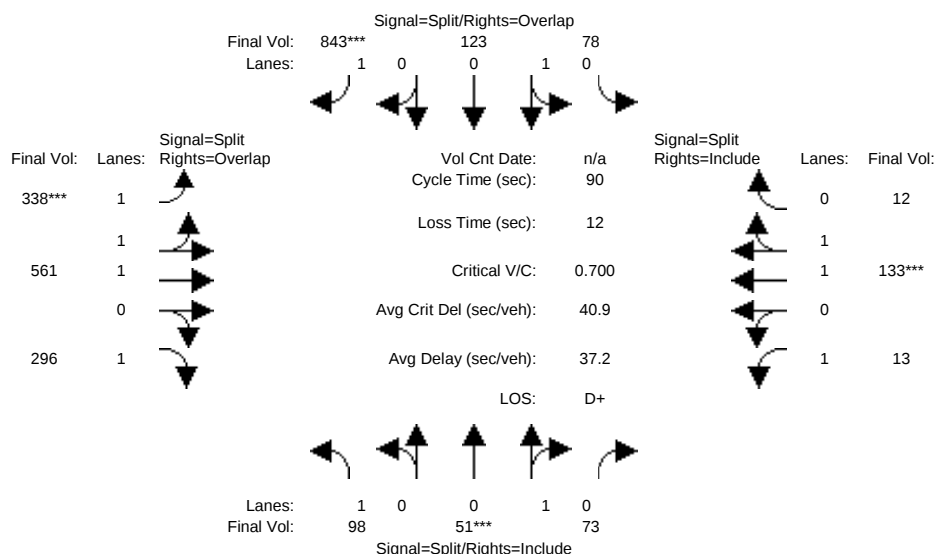


Street Name:	Pulgas Ave						E Bayshore Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	239	0	59	145	255	0	0	286	602
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	239	0	59	145	255	0	0	286	602
Added Vol:	0	0	0	0	0	0	0	11	0	0	16	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	239	0	59	145	266	0	0	302	602
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	239	0	59	145	266	0	0	302	602
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	239	0	59	145	266	0	0	302	602
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	239	0	59	145	266	0	0	302	602
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	0.76	0.76
Lanes:	0.00	0.00	0.00	0.80	0.00	0.20	1.00	1.00	0.00	0.00	0.33	0.67
Final Sat.:	0	0	0	1404	0	346	1750	1900	0	0	481	959
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.17	0.00	0.17	0.08	0.14	0.00	0.00	0.63	0.63
Crit Moves:	*****											
Green Time:	0.0	0.0	0.0	17.6	0.0	17.6	8.6	73.4	0.0	0.0	64.9	64.9
Volume/Cap:	0.00	0.00	0.00	0.97	0.00	0.97	0.97	0.19	0.00	0.00	0.97	0.97
Delay/Veh:	0.0	0.0	0.0	83.4	0.0	83.4	109.2	4.2	0.0	0.0	38.5	38.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	83.4	0.0	83.4	109.2	4.2	0.0	0.0	38.5	38.5
LOS by Move:	A	A	A	F	A	F	F	A	A	A	D+	D+
HCM2k95thQ:	0	0	0	26	0	26	16	5	0	0	47	47
Note: Queue reported is the number of cars per lane.												

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative No Project AM

Intersection #31: E Bayshore Rd/Embarcadero Rd



Street Name: E Bayshore Rd Embarcadero Rd

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:

	98	51	73	78	123	843	338	561	296	13	133	12
Base Vol:	98	51	73	78	123	843	338	561	296	13	133	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	98	51	73	78	123	843	338	561	296	13	133	12
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	98	51	73	78	123	843	338	561	296	13	133	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	98	51	73	78	123	843	338	561	296	13	133	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	98	51	73	78	123	843	338	561	296	13	133	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	98	51	73	78	123	843	338	561	296	13	133	12

Saturation Flow Module:

	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.78	0.76	0.76	0.95	0.95	0.92	0.74	0.98	0.92	0.92	0.98	0.95
Lanes:	1.00	0.41	0.59	0.39	0.61	1.00	1.33	1.67	1.00	1.00	1.83	0.17
Final Sat.:	1488	592	848	699	1101	1750	1866	3098	1750	1750	3394	306

Capacity Analysis Module:

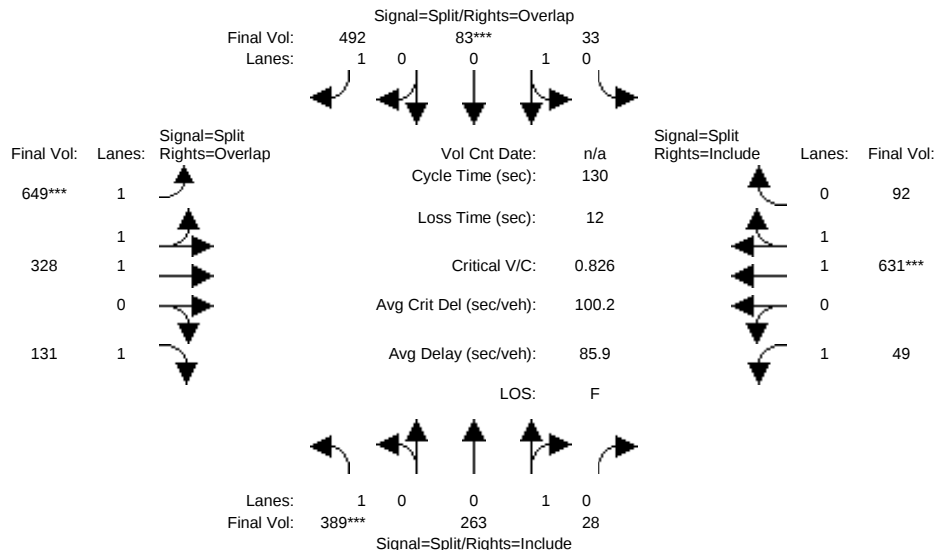
	0.07	0.09	0.09	0.11	0.11	0.48	0.18	0.18	0.17	0.01	0.04	0.04
Vol/Sat:	0.07	0.09	0.09	0.11	0.11	0.48	0.18	0.18	0.17	0.01	0.04	0.04
Crit Moves:	****					****	****			****		
Green Time:	10.3	10.3	10.3	36.0	36.0	57.7	21.7	21.7	32.0	10.0	10.0	10.0
Volume/Cap:	0.57	0.75	0.75	0.28	0.28	0.75	0.75	0.75	0.48	0.07	0.35	0.35
Delay/Veh:	42.5	56.1	56.1	18.5	18.5	46.2	34.4	34.4	23.1	36.0	37.5	37.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.5	56.1	56.1	18.5	18.5	46.2	34.4	34.4	23.1	36.0	37.5	37.5
LOS by Move:	D	E+	E+	B-	B-	D	C-	C-	C	D+	D+	D+
HCM2k95thQ:	7	10	10	8	8	31	17	19	14	1	4	4

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative No Project PM

Intersection #31: E Bayshore Rd/Embarcadero Rd

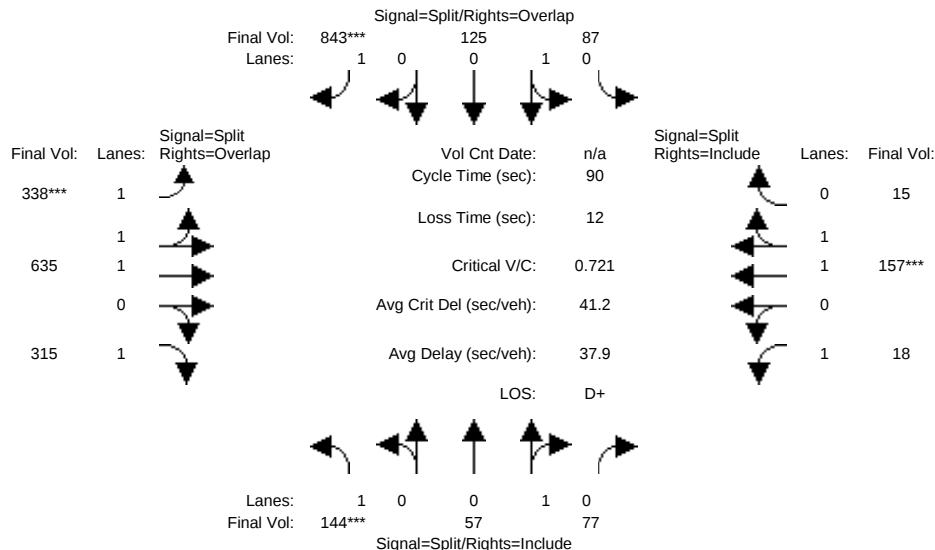


Street Name:	E Bayshore Rd						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	389	263	28	33	83	492	649	328	131	49	631	92
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	389	263	28	33	83	492	649	328	131	49	631	92
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	389	263	28	33	83	492	649	328	131	49	631	92
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	389	263	28	33	83	492	649	328	131	49	631	92
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	389	263	28	33	83	492	649	328	131	49	631	92
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	389	263	28	33	83	492	649	328	131	49	631	92
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.78	0.76	0.76	0.95	0.95	0.92	0.75	1.00	0.92	0.92	0.98	0.95
Lanes:	1.00	0.90	0.10	0.28	0.72	1.00	2.00	1.00	1.00	1.00	1.74	0.26
Final Sat.:	1488	1301	139	512	1288	1750	2840	1899	1750	1750	3229	471
Capacity Analysis Module:												
Vol/Sat:	0.26	0.20	0.20	0.06	0.06	0.28	0.23	0.17	0.07	0.03	0.20	0.20
Crit Moves:	****			****		****				****		
Green Time:	41.1	41.1	41.1	10.1	10.1	46.1	36.0	36.0	77.1	30.8	30.8	30.8
Volume/Cap:	0.83	0.64	0.64	0.83	0.83	0.79	0.83	0.62	0.13	0.12	0.83	0.83
Delay/Veh:	203.7	160	41.1	90.5	90.5	44.6	94.7	41.9	11.7	39.1	53.6	53.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	203.7	160	41.1	90.5	90.5	44.6	94.7	41.9	11.7	39.1	53.6	53.6
LOS by Move:	F	F	D	F	F	D	F	D	B+	D	D-	D-
HCM2k95thQ:	31	20	20	10	10	33	27	22	5	3	26	26
Note: Queue reported is the number of cars per lane.												

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative+Project AM

Intersection #31: E Bayshore Rd/Embarcadero Rd



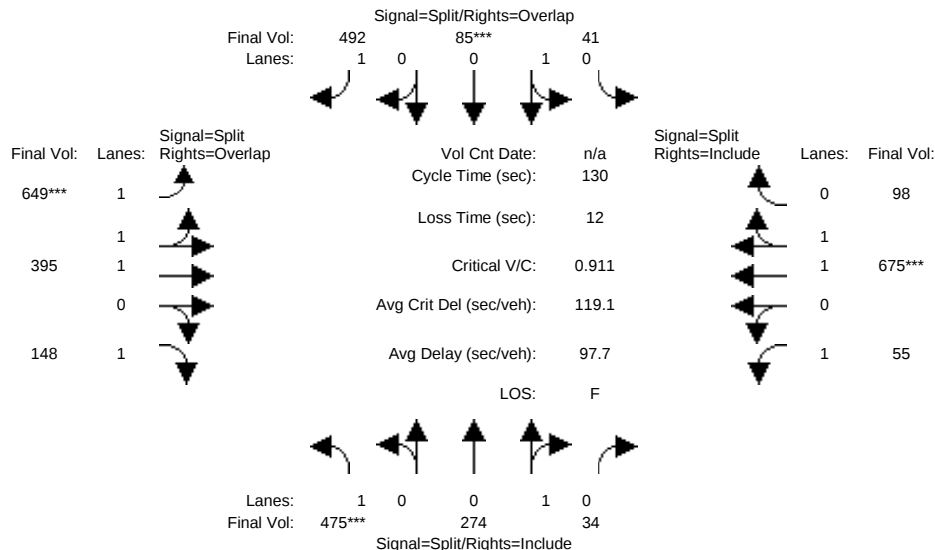
Street Name:	E Bayshore Rd						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	98	51	73	78	123	843	338	561	296	13	133	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	98	51	73	78	123	843	338	561	296	13	133	12
Added Vol:	46	6	4	9	2	0	0	74	19	5	24	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	144	57	77	87	125	843	338	635	315	18	157	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	144	57	77	87	125	843	338	635	315	18	157	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	144	57	77	87	125	843	338	635	315	18	157	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	144	57	77	87	125	843	338	635	315	18	157	15
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.78	0.76	0.76	0.95	0.95	0.92	0.74	0.97	0.92	0.92	0.98	0.95
Lanes:	1.00	0.43	0.57	0.41	0.59	1.00	1.24	1.76	1.00	1.00	1.82	0.18
Final Sat.:	1488	613	827	739	1061	1750	1736	3261	1750	1750	3377	323
Capacity Analysis Module:												
Vol/Sat:	0.10	0.09	0.09	0.12	0.12	0.48	0.19	0.19	0.18	0.01	0.05	0.05
Crit Moves:	****					****	****			****		
Green Time:	11.4	11.4	11.4	33.7	33.7	56.6	22.9	22.9	34.3	10.0	10.0	10.0
Volume/Cap:	0.77	0.74	0.74	0.31	0.31	0.77	0.77	0.77	0.47	0.09	0.42	0.42
Delay/Veh:	55.0	52.4	52.4	20.2	20.2	47.9	33.9	33.9	21.6	36.1	38.0	38.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	55.0	52.4	52.4	20.2	20.2	47.9	33.9	33.9	21.6	36.1	38.0	38.0
LOS by Move:	E+	D-	D-	C+	C+	D	C-	C-	C+	D+	D+	D+
HCM2k95thQ:	12	11	11	8	8	32	18	21	14	1	5	5

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative+Project PM

Intersection #31: E Bayshore Rd/Embarcadero Rd

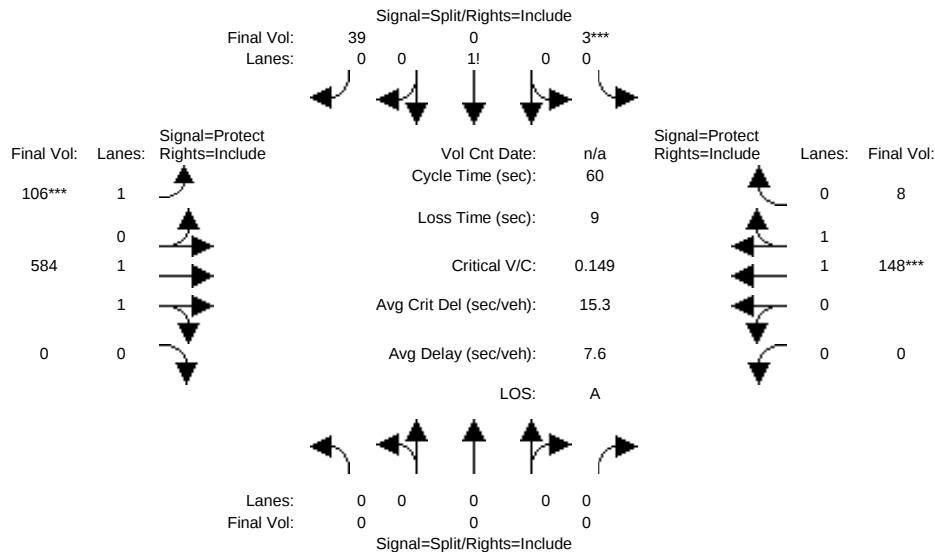


Street Name:	E Bayshore Rd						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	389	263	28	33	83	492	649	328	131	49	631	92
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	389	263	28	33	83	492	649	328	131	49	631	92
Added Vol:	86	11	6	8	2	0	0	67	17	6	44	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	475	274	34	41	85	492	649	395	148	55	675	98
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	475	274	34	41	85	492	649	395	148	55	675	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	475	274	34	41	85	492	649	395	148	55	675	98
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	475	274	34	41	85	492	649	395	148	55	675	98
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.78	0.76	0.76	0.95	0.95	0.92	0.75	0.99	0.92	0.92	0.98	0.95
Lanes:	1.00	0.89	0.11	0.33	0.67	1.00	2.00	1.00	1.00	1.00	1.74	0.26
Final Sat.:	1488	1281	159	586	1214	1750	2837	1888	1750	1750	3231	469
Capacity Analysis Module:												
Vol/Sat:	0.32	0.21	0.21	0.07	0.07	0.28	0.23	0.21	0.08	0.03	0.21	0.21
Crit Moves:	****			****		****				****		
Green Time:	45.6	45.6	45.6	10.0	10.0	42.6	32.6	32.6	78.2	29.8	29.8	29.8
Volume/Cap:	0.91	0.61	0.61	0.91	0.91	0.86	0.91	0.83	0.14	0.14	0.91	0.91
Delay/Veh:	227.7	144	37.1	109.8	110	53.0	112.5	51.1	11.3	40.0	62.7	62.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	227.7	144	37.1	109.8	110	53.0	112.5	51.1	11.3	40.0	62.7	62.7
LOS by Move:	F	F	D+	F	F	D-	F	D-	B+	D	E	E
HCM2k95thQ:	39	20	20	12	12	36	29	30	5	4	29	29
Note: Queue reported is the number of cars per lane.												

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative No Project AM

Intersection #32: Geng Rd/Embarcadero Rd



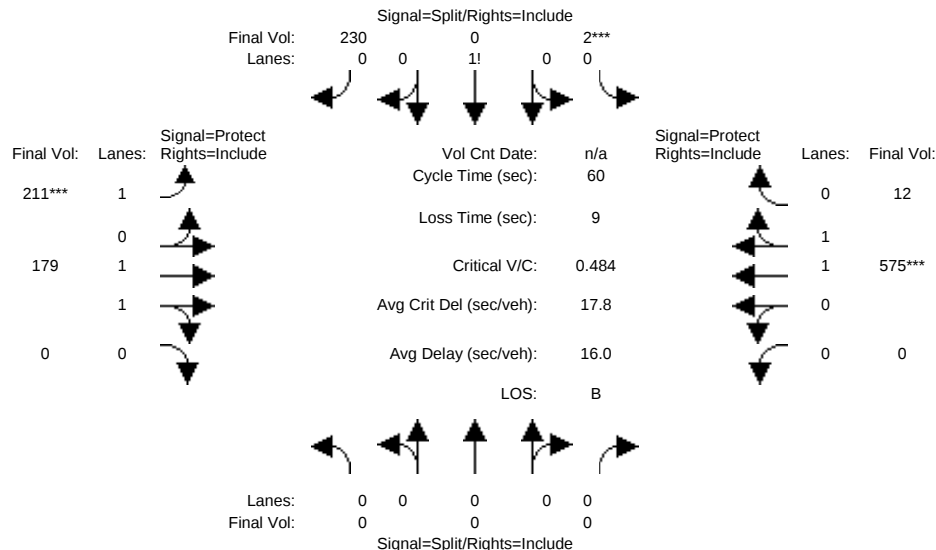
Street Name:	Geng Rd						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	10	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	3	0	39	106	584	0	0	148	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	3	0	39	106	584	0	0	148	8
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	3	0	39	106	584	0	0	148	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	3	0	39	106	584	0	0	148	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	3	0	39	106	584	0	0	148	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	3	0	39	106	584	0	0	148	8
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	0.97	0.92	0.92	0.98	0.95
Lanes:	0.00	0.00	0.00	0.07	0.00	0.93	1.00	2.00	0.00	0.00	1.89	0.11
Final Sat.:	0	0	0	125	0	1625	1750	3700	0	0	3510	190
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.02	0.00	0.02	0.06	0.16	0.00	0.00	0.04	0.04
Crit Moves:	****			****			****			****		
Green Time:	0.0	0.0	0.0	10.0	0.0	10.0	24.2	41.0	0.0	0.0	16.8	16.8
Volume/Cap:	0.00	0.00	0.00	0.14	0.00	0.14	0.15	0.23	0.00	0.00	0.15	0.15
Delay/Veh:	0.0	0.0	0.0	21.6	0.0	21.6	11.5	3.6	0.0	0.0	16.3	16.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	21.6	0.0	21.6	11.5	3.6	0.0	0.0	16.3	16.3
LOS by Move:	A	A	A	C+	A	C+	B+	A	A	A	B	B
HCM2k95thQ:	0	0	0	2	0	2	3	4	0	0	2	2

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative No Project PM

Intersection #32: Geng Rd/Embarcadero Rd



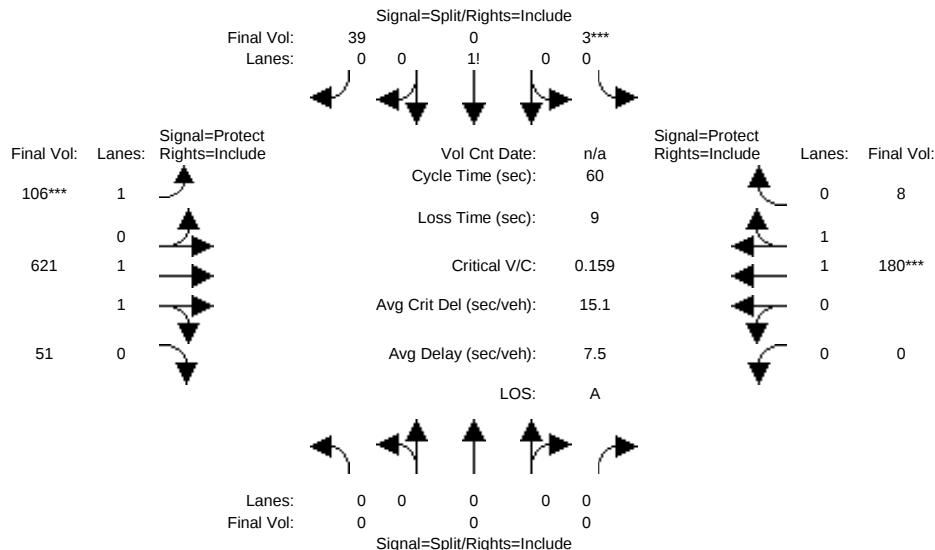
Street Name:	Geng Rd						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	10	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	2	0	230	211	179	0	0	575	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	2	0	230	211	179	0	0	575	12
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	2	0	230	211	179	0	0	575	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	2	0	230	211	179	0	0	575	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	2	0	230	211	179	0	0	575	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	2	0	230	211	179	0	0	575	12
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	0.97	0.92	0.92	0.97	0.95
Lanes:	0.00	0.00	0.00	0.01	0.00	0.99	1.00	2.00	0.00	0.00	1.96	0.04
Final Sat.:	0	0	0	15	0	1735	1750	3700	0	0	3624	76
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.13	0.00	0.13	0.12	0.05	0.00	0.00	0.16	0.16
Crit Moves:				****				****				****
Green Time:	0.0	0.0	0.0	16.4	0.0	16.4	14.9	34.6	0.0	0.0	19.6	19.6
Volume/Cap:	0.00	0.00	0.00	0.48	0.00	0.48	0.48	0.08	0.00	0.00	0.48	0.48
Delay/Veh:	0.0	0.0	0.0	19.0	0.0	19.0	20.1	5.7	0.0	0.0	16.4	16.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	19.0	0.0	19.0	20.1	5.7	0.0	0.0	16.4	16.4
LOS by Move:	A	A	A	B-	A	B-	C+	A	A	A	B	B
HCM2k95thQ:	0	0	0	9	0	9	7	1	0	0	10	10

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative+Project AM

Intersection #32: Geng Rd/Embarcadero Rd



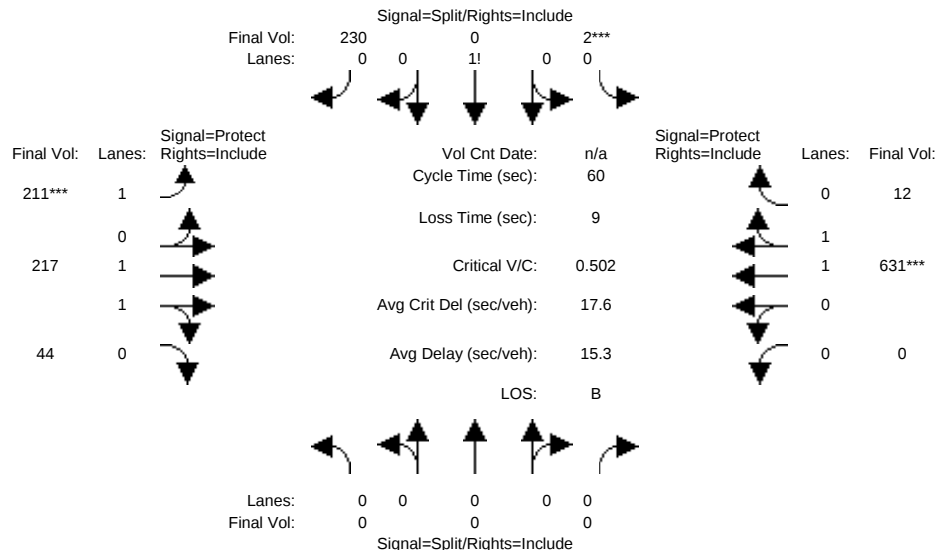
Street Name:	Geng Rd						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	10	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	3	0	39	106	584	0	0	148	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	3	0	39	106	584	0	0	148	8
Added Vol:	0	0	0	0	0	0	0	37	51	0	32	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	3	0	39	106	621	51	0	180	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	3	0	39	106	621	51	0	180	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	3	0	39	106	621	51	0	180	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	3	0	39	106	621	51	0	180	8
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	0.98	0.95	0.92	0.97	0.95
Lanes:	0.00	0.00	0.00	0.07	0.00	0.93	1.00	1.84	0.16	0.00	1.91	0.09
Final Sat.:	0	0	0	125	0	1625	1750	3419	281	0	3542	157
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.02	0.00	0.02	0.06	0.18	0.18	0.00	0.05	0.05
Crit Moves:	****			****			****			****		
Green Time:	0.0	0.0	0.0	10.0	0.0	10.0	22.3	41.0	41.0	0.0	18.7	18.7
Volume/Cap:	0.00	0.00	0.00	0.14	0.00	0.14	0.16	0.27	0.27	0.00	0.16	0.16
Delay/Veh:	0.0	0.0	0.0	21.6	0.0	21.6	12.7	3.7	3.7	0.0	15.0	15.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	21.6	0.0	21.6	12.7	3.7	3.7	0.0	15.0	15.0
LOS by Move:	A	A	A	C+	A	C+	B	A	A	A	B	B
HCM2k95thQ:	0	0	0	2	0	2	3	5	5	0	3	3

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative+Project PM

Intersection #32: Geng Rd/Embarcadero Rd

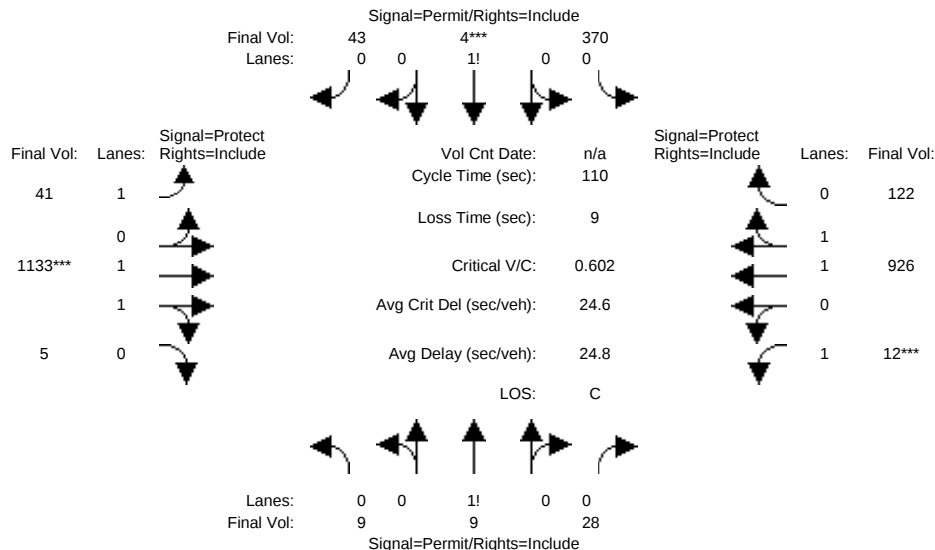


Street Name:	Geng Rd						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	10	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	2	0	230	211	179	0	0	575	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	2	0	230	211	179	0	0	575	12
Added Vol:	0	0	0	0	0	0	0	38	44	0	56	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	2	0	230	211	217	44	0	631	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	2	0	230	211	217	44	0	631	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	2	0	230	211	217	44	0	631	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	2	0	230	211	217	44	0	631	12
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	0.98	0.95	0.92	0.97	0.95
Lanes:	0.00	0.00	0.00	0.01	0.00	0.99	1.00	1.65	0.35	0.00	1.96	0.04
Final Sat.:	0	0	0	15	0	1735	1750	3076	624	0	3631	69
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.13	0.00	0.13	0.12	0.07	0.07	0.00	0.17	0.17
Crit Moves:	****			****			****			****		
Green Time:	0.0	0.0	0.0	15.8	0.0	15.8	14.4	35.2	35.2	0.0	20.8	20.8
Volume/Cap:	0.00	0.00	0.00	0.50	0.00	0.50	0.50	0.12	0.12	0.00	0.50	0.50
Delay/Veh:	0.0	0.0	0.0	19.6	0.0	19.6	20.7	5.6	5.6	0.0	15.8	15.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	19.6	0.0	19.6	20.7	5.6	5.6	0.0	15.8	15.8
LOS by Move:	A	A	A	B-	A	B-	C+	A	A	A	B	B
HCM2k95thQ:	0	0	0	9	0	9	7	2	2	0	10	10
Note: Queue reported is the number of cars per lane.												

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative No Project AM

Intersection #36: St Francis Dr/Embarcadero Rd

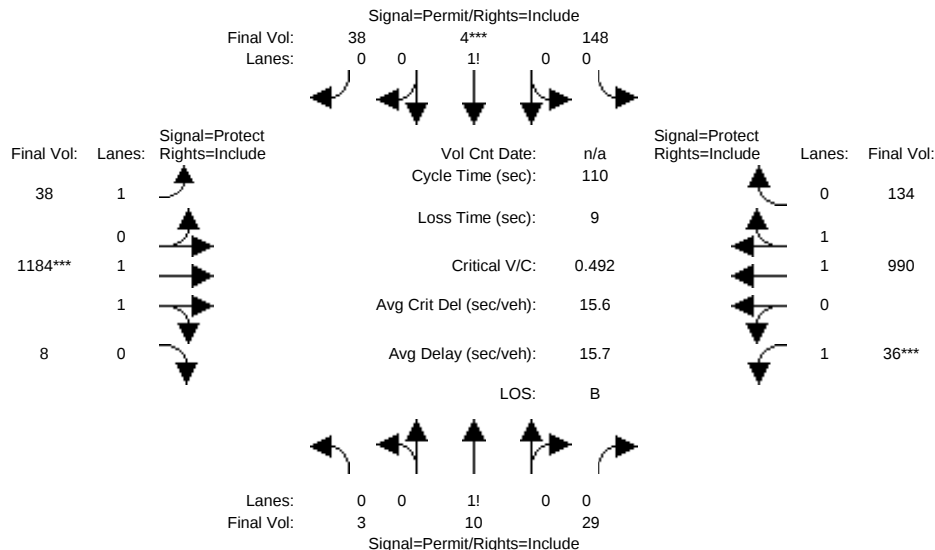


Street Name:	St Francis Dr						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	9	9	28	370	4	43	41	1133	5	12	926	122
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	9	28	370	4	43	41	1133	5	12	926	122
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	9	28	370	4	43	41	1133	5	12	926	122
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	9	9	28	370	4	43	41	1133	5	12	926	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	9	28	370	4	43	41	1133	5	12	926	122
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	9	9	28	370	4	43	41	1133	5	12	926	122
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.95	0.92	0.98	0.95
Lanes:	0.19	0.20	0.61	0.89	0.01	0.10	1.00	1.99	0.01	1.00	1.76	0.24
Final Sat.:	342	342	1065	1553	17	180	1750	3684	16	1750	3269	431
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.03	0.24	0.24	0.24	0.02	0.31	0.31	0.01	0.28	0.28
Crit Moves:				****			****			****		
Green Time:	41.0	41.0	41.0	41.0	41.0	41.0	11.0	53.0	53.0	7.0	49.0	49.0
Volume/Cap:	0.07	0.07	0.07	0.64	0.64	0.64	0.23	0.64	0.64	0.11	0.64	0.64
Delay/Veh:	22.2	22.2	22.2	30.5	30.5	30.5	46.3	22.1	22.1	49.0	24.5	24.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.2	22.2	22.2	30.5	30.5	30.5	46.3	22.1	22.1	49.0	24.5	24.5
LOS by Move:	C+	C+	C+	C	C	C	D	C+	C+	D	C	C
HCM2k95thQ:	2	2	2	23	23	23	3	27	27	1	25	25
Note: Queue reported is the number of cars per lane.												

1700-1730 Embarcadero Road Auto Dealerships
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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative No Project PM

Intersection #36: St Francis Dr/Embarcadero Rd

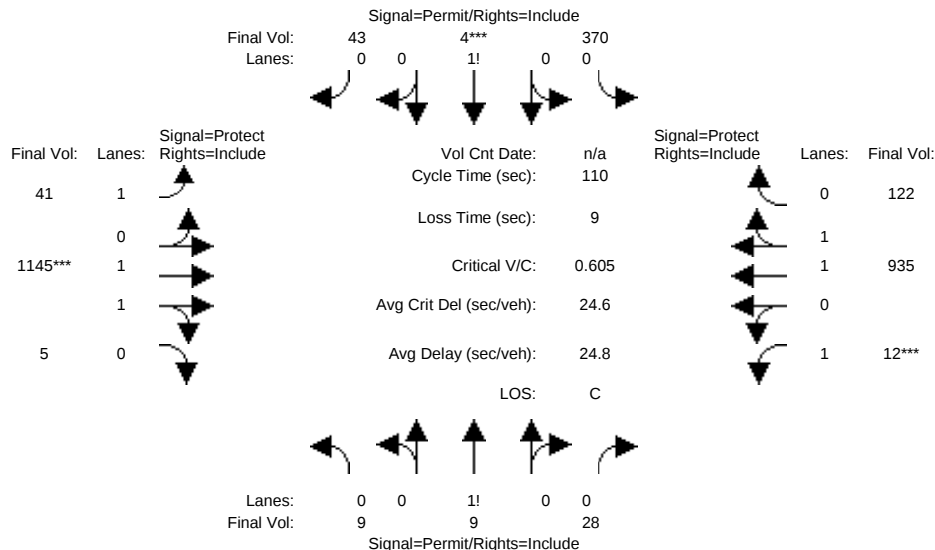


Street Name:	St Francis Dr						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	3	10	29	148	4	38	38	1184	8	36	990	134
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	10	29	148	4	38	38	1184	8	36	990	134
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	10	29	148	4	38	38	1184	8	36	990	134
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	10	29	148	4	38	38	1184	8	36	990	134
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	10	29	148	4	38	38	1184	8	36	990	134
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	3	10	29	148	4	38	38	1184	8	36	990	134
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.95	0.92	0.98	0.95
Lanes:	0.07	0.24	0.69	0.78	0.02	0.20	1.00	1.99	0.01	1.00	1.75	0.25
Final Sat.:	125	417	1208	1363	37	350	1750	3675	25	1750	3259	441
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.11	0.11	0.11	0.02	0.32	0.32	0.02	0.30	0.30
Crit Moves:				****			****			****		
Green Time:	23.7	23.7	23.7	23.7	23.7	23.7	13.4	70.3	70.3	7.0	63.9	63.9
Volume/Cap:	0.11	0.11	0.11	0.50	0.50	0.50	0.18	0.50	0.50	0.32	0.52	0.52
Delay/Veh:	34.8	34.8	34.8	39.1	39.1	39.1	43.8	10.7	10.7	50.9	14.1	14.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.8	34.8	34.8	39.1	39.1	39.1	43.8	10.7	10.7	50.9	14.1	14.1
LOS by Move:	C-	C-	C-	D	D	D	D	B+	B+	D	B	B
HCM2k95thQ:	3	3	3	13	13	13	3	20	20	3	21	21
Note: Queue reported is the number of cars per lane.												

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
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Level Of Service Computation Report
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Intersection #36: St Francis Dr/Embarcadero Rd



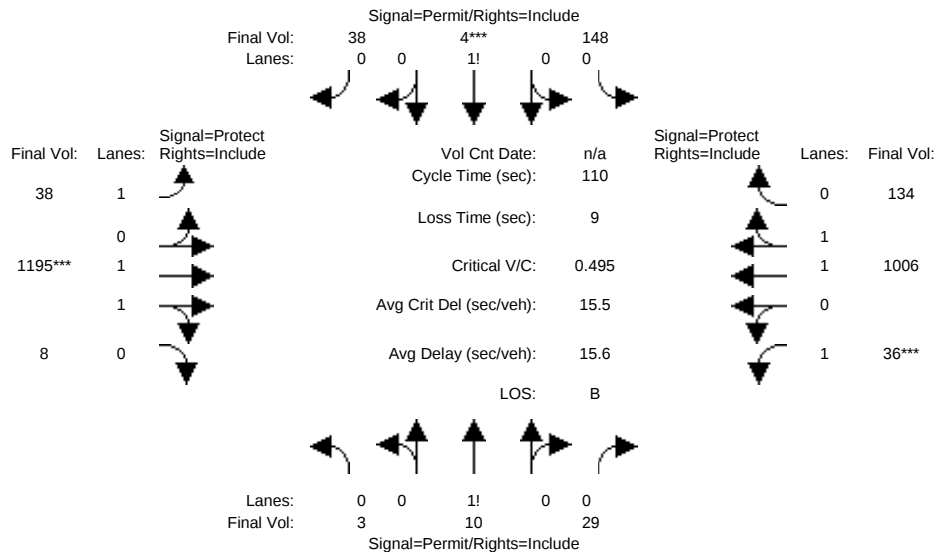
Street Name:	St Francis Dr						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	9	9	28	370	4	43	41	1133	5	12	926	122
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	9	28	370	4	43	41	1133	5	12	926	122
Added Vol:	0	0	0	0	0	0	0	12	0	0	9	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	9	28	370	4	43	41	1145	5	12	935	122
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	9	9	28	370	4	43	41	1145	5	12	935	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	9	28	370	4	43	41	1145	5	12	935	122
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	9	9	28	370	4	43	41	1145	5	12	935	122
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.95	0.92	0.98	0.95
Lanes:	0.19	0.20	0.61	0.89	0.01	0.10	1.00	1.99	0.01	1.00	1.76	0.24
Final Sat.:	342	342	1065	1553	17	180	1750	3684	16	1750	3273	427
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.03	0.24	0.24	0.24	0.02	0.31	0.31	0.01	0.29	0.29
Crit Moves:				****			****		****			
Green Time:	40.8	40.8	40.8	40.8	40.8	40.8	11.0	53.2	53.2	7.0	49.2	49.2
Volume/Cap:	0.07	0.07	0.07	0.64	0.64	0.64	0.23	0.64	0.64	0.11	0.64	0.64
Delay/Veh:	22.4	22.4	22.4	30.8	30.8	30.8	46.3	22.1	22.1	49.0	24.3	24.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.4	22.4	22.4	30.8	30.8	30.8	46.3	22.1	22.1	49.0	24.3	24.3
LOS by Move:	C+	C+	C+	C	C	C	D	C+	C+	D	C	C
HCM2k95thQ:	2	2	2	23	23	23	3	27	27	1	26	26

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative+Project PM

Intersection #36: St Francis Dr/Embarcadero Rd



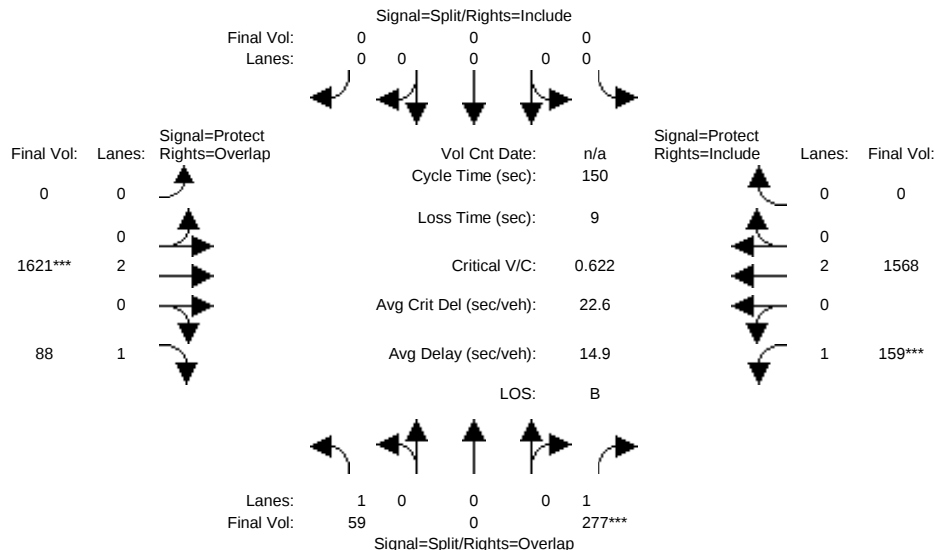
Street Name:	St Francis Dr						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
----- ----- ----- -----												
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
----- ----- ----- -----												
Volume Module:												
Base Vol:	3	10	29	148	4	38	38	1184	8	36	990	134
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	10	29	148	4	38	38	1184	8	36	990	134
Added Vol:	0	0	0	0	0	0	0	11	0	0	16	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	10	29	148	4	38	38	1195	8	36	1006	134
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	10	29	148	4	38	38	1195	8	36	1006	134
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	10	29	148	4	38	38	1195	8	36	1006	134
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	10	29	148	4	38	38	1195	8	36	1006	134
----- ----- ----- -----												
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.95	0.92	0.98	0.95
Lanes:	0.07	0.24	0.69	0.78	0.02	0.20	1.00	1.99	0.01	1.00	1.76	0.24
Final Sat.:	125	417	1208	1363	37	350	1750	3675	25	1750	3265	435
----- ----- ----- -----												
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.11	0.11	0.11	0.02	0.33	0.33	0.02	0.31	0.31
Crit Moves:				****			****		****			
Green Time:	23.5	23.5	23.5	23.5	23.5	23.5	13.3	70.5	70.5	7.0	64.2	64.2
Volume/Cap:	0.11	0.11	0.11	0.51	0.51	0.51	0.18	0.51	0.51	0.32	0.53	0.53
Delay/Veh:	35.0	35.0	35.0	39.3	39.3	39.3	43.9	10.7	10.7	50.9	14.0	14.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	35.0	35.0	35.0	39.3	39.3	39.3	43.9	10.7	10.7	50.9	14.0	14.0
LOS by Move:	C-	C-	C-	D	D	D	D	B+	B+	D	B	B
HCM2k95thQ:	3	3	3	13	13	13	3	20	20	3	21	21
Note: Queue reported is the number of cars per lane.												

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative No Project AM

Intersection #40: W Bayshore Rd/Oregon Expwy



Street Name: W Bayshore Rd Oregon Expwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 0 10 0 0 0 0 10 10 7 10 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:

Base Vol:	59	0	277	0	0	0	0	1621	88	159	1568	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	0	277	0	0	0	0	1621	88	159	1568	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	59	0	277	0	0	0	0	1621	88	159	1568	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	59	0	277	0	0	0	0	1621	88	159	1568	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	0	277	0	0	0	0	1621	88	159	1568	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	59	0	277	0	0	0	0	1621	88	159	1568	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1750	0	1750	0	0	0	0	3800	1750	1750	3800	0

Capacity Analysis Module:

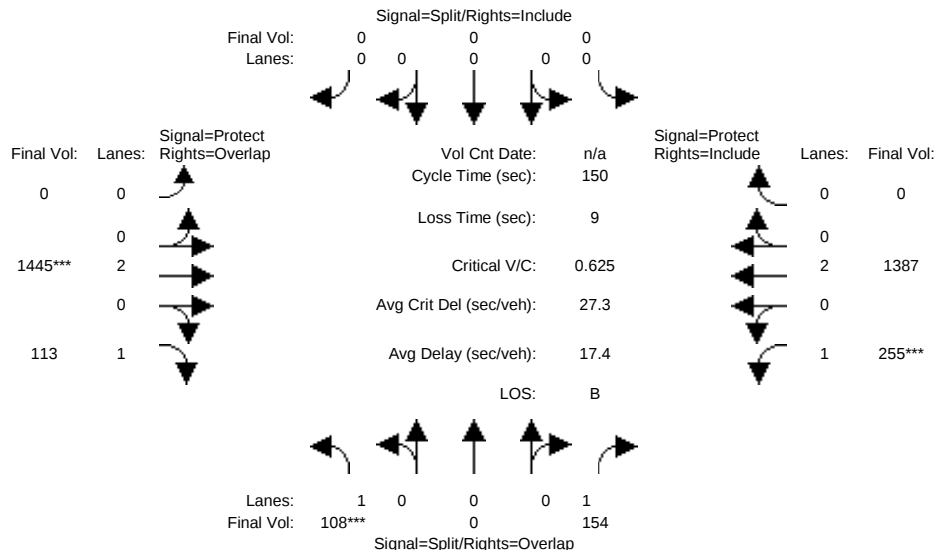
Vol/Sat:	0.03	0.00	0.16	0.00	0.00	0.00	0.00	0.43	0.05	0.09	0.41	0.00
Crit Moves:	****			****			****			****		
Green Time:	16.3	0.0	38.2	0.0	0.0	0.0	0.0	103	119.1	21.9	125	0.0
Volume/Cap:	0.31	0.00	0.62	0.00	0.00	0.00	0.00	0.62	0.06	0.62	0.50	0.00
Delay/Veh:	62.6	0.0	52.3	0.0	0.0	0.0	0.0	13.4	3.4	64.9	3.7	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	62.6	0.0	52.3	0.0	0.0	0.0	0.0	13.4	3.4	64.9	3.7	0.0
LOS by Move:	E	A	D-	A	A	A	A	B	A	E	A	A
HCM2k95thQ:	6	0	23	0	0	0	0	33	2	15	19	0

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative No Project PM

Intersection #40: W Bayshore Rd/Oregon Expwy



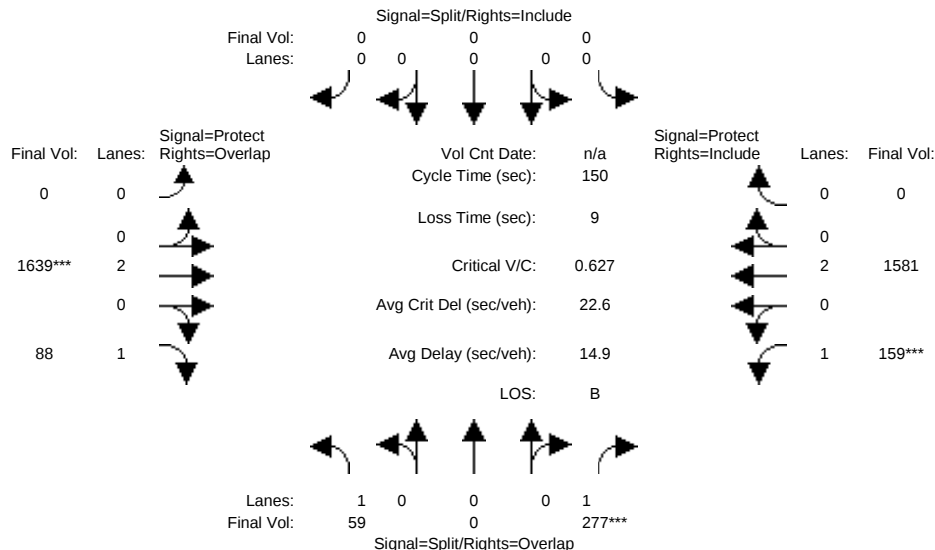
Street Name:	W Bayshore Rd						Oregon Expwy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	0	10	0	0	0	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	108	0	154	0	0	0	0	1445	113	255	1387	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	108	0	154	0	0	0	0	1445	113	255	1387	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	108	0	154	0	0	0	0	1445	113	255	1387	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	108	0	154	0	0	0	0	1445	113	255	1387	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	108	0	154	0	0	0	0	1445	113	255	1387	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	108	0	154	0	0	0	0	1445	113	255	1387	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1750	0	1750	0	0	0	0	3800	1750	1750	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.09	0.00	0.00	0.00	0.00	0.38	0.06	0.15	0.37	0.00
Crit Moves:	****						****		****			
Green Time:	14.8	0.0	49.8	0.0	0.0	0.0	0.0	91.2	106.0	35.0	126	0.0
Volume/Cap:	0.63	0.00	0.27	0.00	0.00	0.00	0.00	0.63	0.09	0.63	0.43	0.00
Delay/Veh:	71.9	0.0	37.0	0.0	0.0	0.0	0.0	19.1	6.9	54.7	3.1	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	71.9	0.0	37.0	0.0	0.0	0.0	0.0	19.1	6.9	54.7	3.1	0.0
LOS by Move:	E	A	D+	A	A	A	A	B-	A	D-	A	A
HCM2k95thQ:	12	0	11	0	0	0	0	34	3	22	15	0

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative+Project AM

Intersection #40: W Bayshore Rd/Oregon Expwy



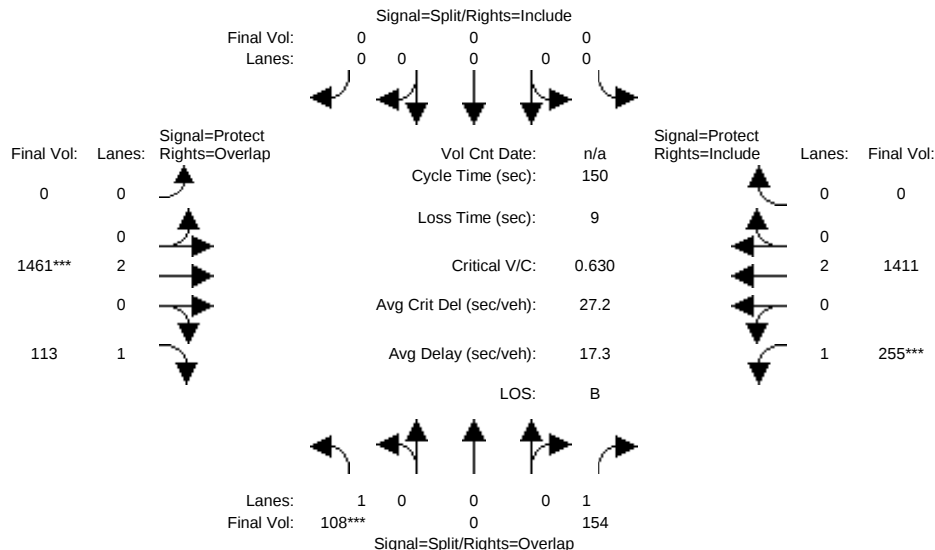
Street Name:	W Bayshore Rd						Oregon Expwy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	0	10	0	0	0	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	59	0	277	0	0	0	0	1621	88	159	1568	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	0	277	0	0	0	0	1621	88	159	1568	0
Added Vol:	0	0	0	0	0	0	0	18	0	0	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	59	0	277	0	0	0	0	1639	88	159	1581	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	59	0	277	0	0	0	0	1639	88	159	1581	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	0	277	0	0	0	0	1639	88	159	1581	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	59	0	277	0	0	0	0	1639	88	159	1581	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1750	0	1750	0	0	0	0	3800	1750	1750	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.16	0.00	0.00	0.00	0.00	0.43	0.05	0.09	0.42	0.00
Crit Moves:	****						****			****		
Green Time:	16.1	0.0	37.9	0.0	0.0	0.0	0.0	103	119.3	21.7	125	0.0
Volume/Cap:	0.31	0.00	0.63	0.00	0.00	0.00	0.00	0.63	0.06	0.63	0.50	0.00
Delay/Veh:	62.8	0.0	52.7	0.0	0.0	0.0	0.0	13.4	3.3	65.2	3.7	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	62.8	0.0	52.7	0.0	0.0	0.0	0.0	13.4	3.3	65.2	3.7	0.0
LOS by Move:	E	A	D-	A	A	A	A	B	A	E	A	A
HCM2k95thQ:	6	0	23	0	0	0	0	33	2	16	19	0

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative+Project PM

Intersection #40: W Bayshore Rd/Oregon Expwy



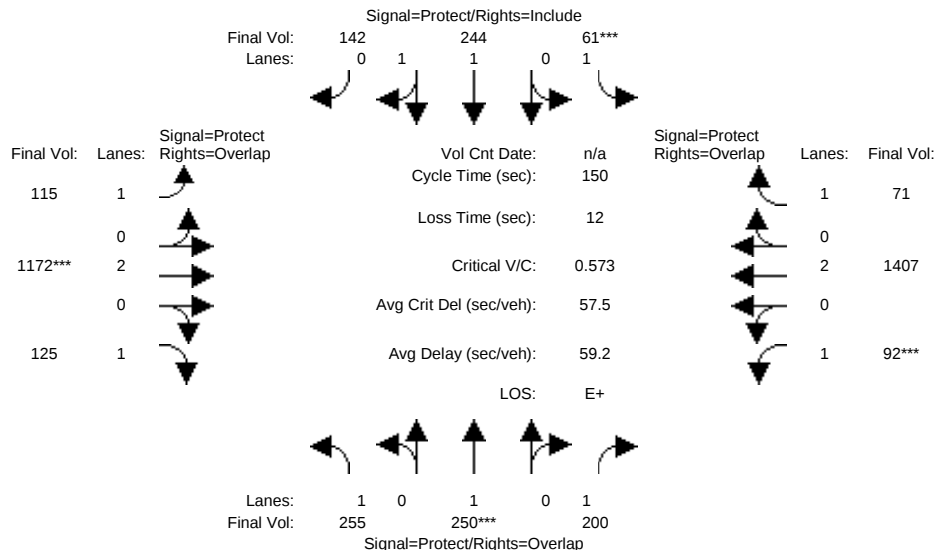
Street Name:	W Bayshore Rd						Oregon Expwy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	0	10	0	0	0	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	108	0	154	0	0	0	0	1445	113	255	1387	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	108	0	154	0	0	0	0	1445	113	255	1387	0
Added Vol:	0	0	0	0	0	0	0	16	0	0	24	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	108	0	154	0	0	0	0	1461	113	255	1411	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	108	0	154	0	0	0	0	1461	113	255	1411	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	108	0	154	0	0	0	0	1461	113	255	1411	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	108	0	154	0	0	0	0	1461	113	255	1411	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1750	0	1750	0	0	0	0	3800	1750	1750	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.09	0.00	0.00	0.00	0.00	0.38	0.06	0.15	0.37	0.00
Crit Moves:	****						****		****			
Green Time:	14.7	0.0	49.4	0.0	0.0	0.0	0.0	91.6	106.3	34.7	126	0.0
Volume/Cap:	0.63	0.00	0.27	0.00	0.00	0.00	0.00	0.63	0.09	0.63	0.44	0.00
Delay/Veh:	72.3	0.0	37.2	0.0	0.0	0.0	0.0	19.0	6.8	55.0	3.1	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	72.3	0.0	37.2	0.0	0.0	0.0	0.0	19.0	6.8	55.0	3.1	0.0
LOS by Move:	E	A	D+	A	A	A	A	B-	A	E+	A	A
HCM2k95thQ:	12	0	11	0	0	0	0	34	3	22	15	0

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative No Project AM

Intersection #41: Middlefield Rd/Oregon Expwy (CMP 5108)

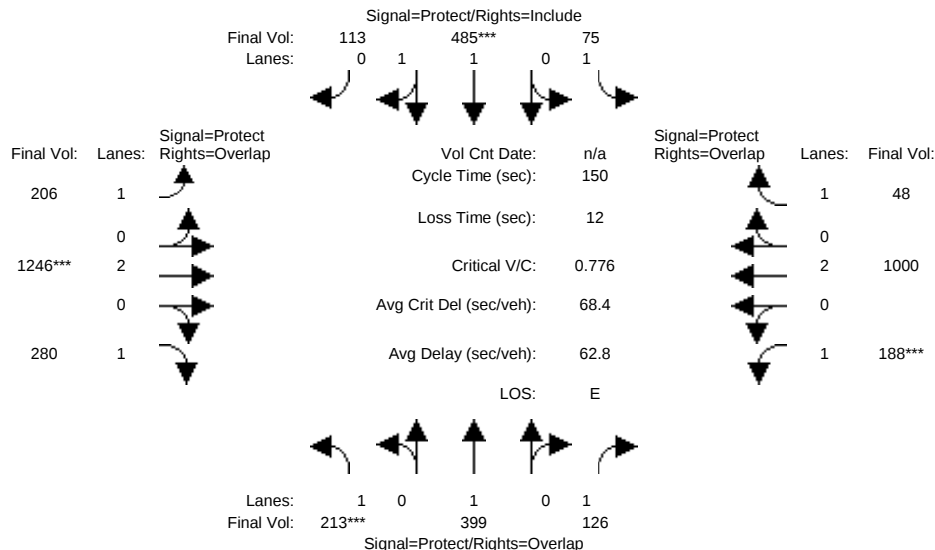


Street Name:	Middlefield Rd						Pagemill-Oregon Expwy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	26	49	49	12	35	35	15	59	59	18	62	62
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	255	250	200	61	244	142	115	1172	125	92	1407	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	255	250	200	61	244	142	115	1172	125	92	1407	71
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	255	250	200	61	244	142	115	1172	125	92	1407	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	255	250	200	61	244	142	115	1172	125	92	1407	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	255	250	200	61	244	142	115	1172	125	92	1407	71
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	255	250	200	61	244	142	115	1172	125	92	1407	71
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.00	1.00	1.00	1.24	0.76	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1750	1900	1750	1750	2338	1361	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.15	0.13	0.11	0.03	0.10	0.10	0.07	0.31	0.07	0.05	0.37	0.04
Crit Moves:	****			****			****			****		
Green Time:	26.0	49.0	67.0	12.0	35.0	35.0	15.0	59.0	85.0	18.0	62.0	74.0
Volume/Cap:	0.84	0.40	0.26	0.44	0.45	0.45	0.66	0.78	0.13	0.44	0.90	0.08
Delay/Veh:	78.5	39.6	26.1	67.9	49.6	49.6	78.6	60.0	28.4	68.3	67.4	33.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	78.5	39.6	26.1	67.9	49.6	49.6	78.6	60.0	28.4	68.3	67.4	33.1
LOS by Move:	E-	D	C	E	D	D	E-	E+	C	E	E	C-
HCM2k95thQ:	26	16	12	7	15	15	13	44	9	9	53	6
Note: Queue reported is the number of cars per lane.												

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative No Project PM

Intersection #41: Middlefield Rd/Oregon Expwy (CMP 5108)



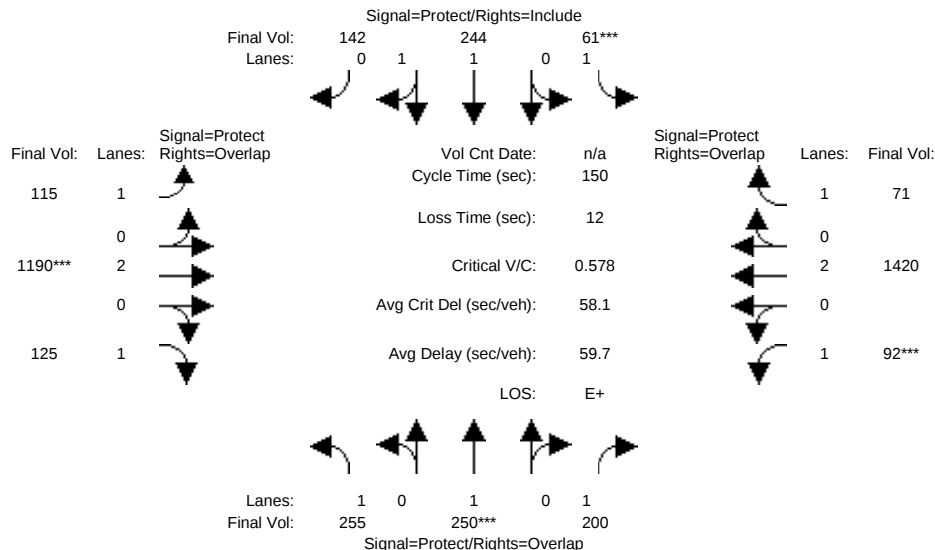
Street Name:	Middlefield Rd			Pagemill-Oregon Expwy		
Approach:	North Bound			South Bound		
Movement:	L	T	R	L	T	R
Min. Green:	26	50	50	15	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:						
Base Vol:	213	399	126	75	485	113
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	213	399	126	75	485	113
Added Vol:	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0
Initial Fut:	213	399	126	75	485	113
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	213	399	126	75	485	113
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	213	399	126	75	485	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	213	399	126	75	485	113
Saturation Flow Module:						
Sat/Lane:	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95
Lanes:	1.00	1.00	1.00	1.00	1.61	0.39
Final Sat.:	1750	1900	1750	1750	3000	699
Capacity Analysis Module:						
Vol/Sat:	0.12	0.21	0.07	0.04	0.16	0.16
Crit Moves:	****			****		****
Green Time:	24.1	46.3	66.7	13.9	36.1	36.1
Volume/Cap:	0.76	0.68	0.16	0.46	0.67	0.67
Delay/Veh:	76.3	52.3	27.0	71.8	57.7	57.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	76.3	52.3	27.0	71.8	57.7	57.7
LOS by Move:	E-	D-	C	E	E+	E+
HCM2k95thQ:	22	30	8	8	25	22

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative+Project AM

Intersection #41: Middlefield Rd/Oregon Expwy (CMP 5108)

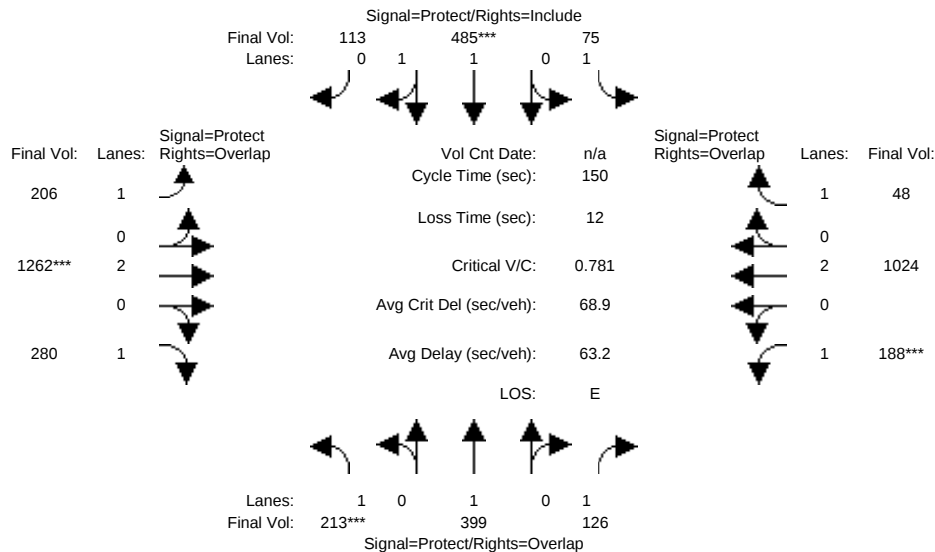


Street Name:	Middlefield Rd						Pagemill-Oregon Expwy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	26	49	49	12	35	35	15	59	59	18	62	62
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	255	250	200	61	244	142	115	1172	125	92	1407	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	255	250	200	61	244	142	115	1172	125	92	1407	71
Added Vol:	0	0	0	0	0	0	0	18	0	0	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	255	250	200	61	244	142	115	1190	125	92	1420	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	255	250	200	61	244	142	115	1190	125	92	1420	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	255	250	200	61	244	142	115	1190	125	92	1420	71
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	255	250	200	61	244	142	115	1190	125	92	1420	71
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.00	1.00	1.00	1.24	0.76	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1750	1900	1750	1750	2338	1361	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.15	0.13	0.11	0.03	0.10	0.10	0.07	0.31	0.07	0.05	0.37	0.04
Crit Moves:	****			****			****		****			
Green Time:	26.0	49.0	67.0	12.0	35.0	35.0	15.0	59.0	85.0	18.0	62.0	74.0
Volume/Cap:	0.84	0.40	0.26	0.44	0.45	0.45	0.66	0.80	0.13	0.44	0.90	0.08
Delay/Veh:	78.5	39.6	26.1	67.9	49.6	49.6	78.6	60.6	28.4	68.3	68.3	33.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	78.5	39.6	26.1	67.9	49.6	49.6	78.6	60.6	28.4	68.3	68.3	33.1
LOS by Move:	E-	D	C	E	D	D	E-	E	C	E	E	C-
HCM2k95thQ:	26	16	12	7	15	15	13	45	9	9	54	6
Note: Queue reported is the number of cars per lane.												

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative+Project PM

Intersection #41: Middlefield Rd/Oregon Expwy (CMP 5108)

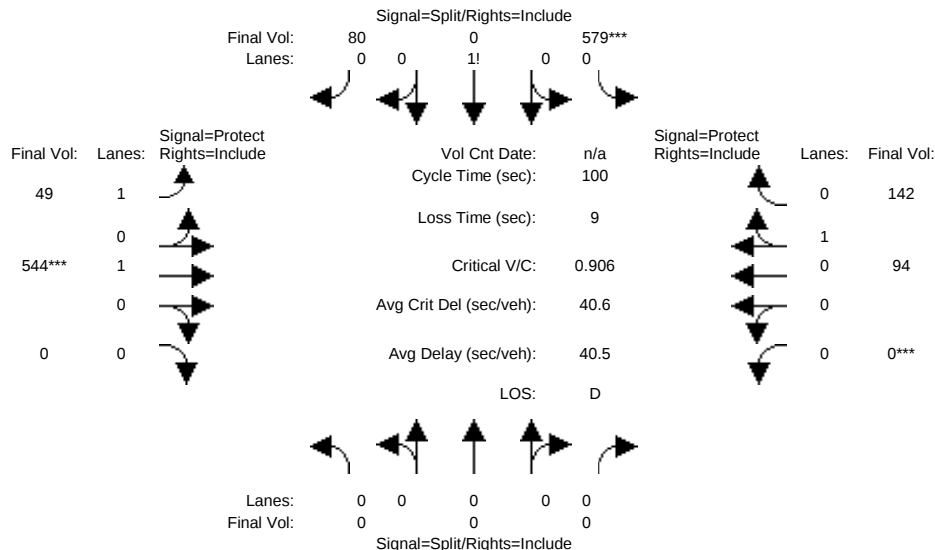


Street Name:	Middlefield Rd						Pagemill-Oregon Expwy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	26	50	50	15	39	39	25	63	63	22	60	60
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	213	399	126	75	485	113	206	1246	280	188	1000	48
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	213	399	126	75	485	113	206	1246	280	188	1000	48
Added Vol:	0	0	0	0	0	0	0	16	0	0	24	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	213	399	126	75	485	113	206	1262	280	188	1024	48
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	213	399	126	75	485	113	206	1262	280	188	1024	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	213	399	126	75	485	113	206	1262	280	188	1024	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	213	399	126	75	485	113	206	1262	280	188	1024	48
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.00	1.00	1.00	1.61	0.39	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1750	1900	1750	1750	3000	699	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.12	0.21	0.07	0.04	0.16	0.16	0.12	0.33	0.16	0.11	0.27	0.03
Crit Moves:	****			****			****		****			
Green Time:	24.1	46.3	66.7	13.9	36.1	36.1	23.1	58.3	82.4	20.4	55.6	69.4
Volume/Cap:	0.76	0.68	0.16	0.46	0.67	0.67	0.76	0.85	0.29	0.79	0.73	0.06
Delay/Veh:	76.3	52.3	27.0	71.8	57.7	57.7	85.7	69.6	35.7	91.2	63.1	37.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	76.3	52.3	27.0	71.8	57.7	57.7	85.7	69.6	35.7	91.2	63.1	37.9
LOS by Move:	E-	D-	C	E	E+	E+	F	E	D+	F	E	D+
HCM2k95thQ:	22	30	8	8	25	25	22	52	22	19	40	4
Note: Queue reported is the number of cars per lane.												

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

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2000 HCM Operations (Future Volume Alternative)
Cumulative No Project AM

Intersection #42: Pulgas Ave/E Bayshore Rd



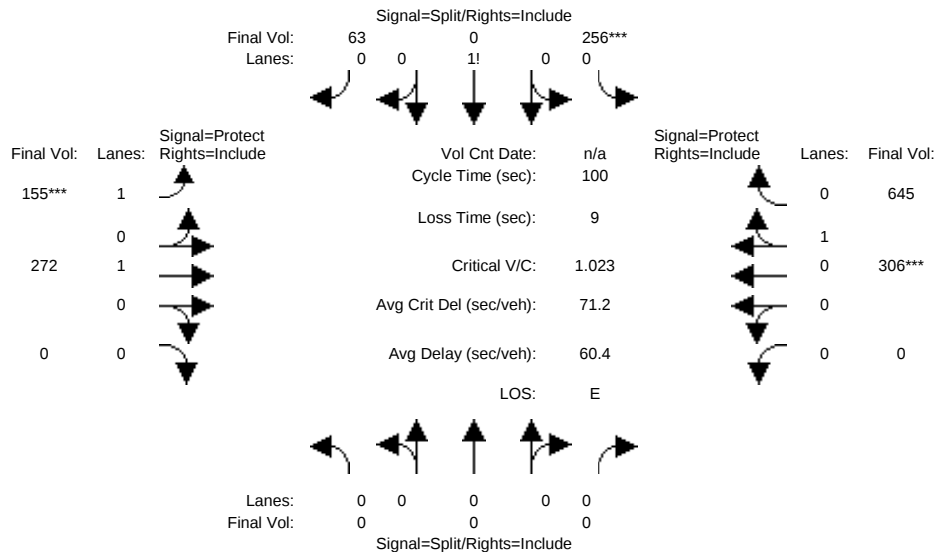
Street Name:	Pulgas Ave						E Bayshore Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	579	0	80	49	544	0	0	94	142
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	579	0	80	49	544	0	0	94	142
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	579	0	80	49	544	0	0	94	142
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	579	0	80	49	544	0	0	94	142
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	579	0	80	49	544	0	0	94	142
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	579	0	80	49	544	0	0	94	142
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.64	0.92	0.64	0.92	1.00	0.92	0.92	0.95	0.95
Lanes:	0.00	0.00	0.00	0.88	0.00	0.12	1.00	1.00	0.00	0.00	0.40	0.60
Final Sat.:	0	0	0	1076	0	149	1750	1900	0	0	717	1083
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.54	0.00	0.54	0.03	0.29	0.00	0.00	0.13	0.13
Crit Moves:				****				****				****
Green Time:	0.0	0.0	0.0	59.4	0.0	59.4	11.0	31.6	0.0	0.0	20.6	20.6
Volume/Cap:	0.00	0.00	0.00	0.91	0.00	0.91	0.25	0.91	0.00	0.00	0.64	0.64
Delay/Veh:	0.0	0.0	0.0	32.8	0.0	32.8	41.4	50.1	0.0	0.0	39.9	39.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	32.8	0.0	32.8	41.4	50.1	0.0	0.0	39.9	39.9
LOS by Move:	A	A	A	C-	A	C-	D	D	A	A	D	D
HCM2k95thQ:	0	0	0	39	0	39	3	34	0	0	13	13

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative No Project PM

Intersection #42: Pulgas Ave/E Bayshore Rd

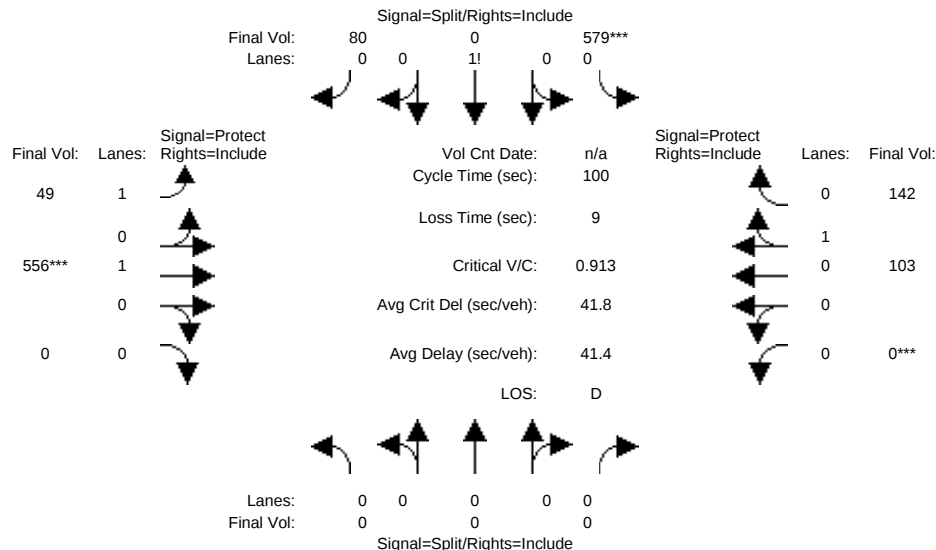


Street Name:	Pulgas Ave						E Bayshore Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	256	0	63	155	272	0	0	306	645
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	256	0	63	155	272	0	0	306	645
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	256	0	63	155	272	0	0	306	645
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	256	0	63	155	272	0	0	306	645
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	256	0	63	155	272	0	0	306	645
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	256	0	63	155	272	0	0	306	645
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	0.76	0.76
Lanes:	0.00	0.00	0.00	0.80	0.00	0.20	1.00	1.00	0.00	0.00	0.32	0.68
Final Sat.:	0	0	0	1404	0	346	1750	1900	0	0	463	977
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.18	0.00	0.18	0.09	0.14	0.00	0.00	0.66	0.66
Crit Moves:	****			****			****			****		
Green Time:	0.0	0.0	0.0	17.8	0.0	17.8	8.7	73.2	0.0	0.0	64.5	64.5
Volume/Cap:	0.00	0.00	0.00	1.02	0.00	1.02	1.02	0.20	0.00	0.00	1.02	1.02
Delay/Veh:	0.0	0.0	0.0	98.2	0.0	98.2	125.1	4.3	0.0	0.0	53.3	53.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	98.2	0.0	98.2	125.1	4.3	0.0	0.0	53.3	53.3
LOS by Move:	A	A	A	F	A	F	F	A	A	A	D-	D-
HCM2k95thQ:	0	0	0	29	0	29	18	5	0	0	57	57
Note: Queue reported is the number of cars per lane.												

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative+Project AM

Intersection #42: Pulgas Ave/E Bayshore Rd



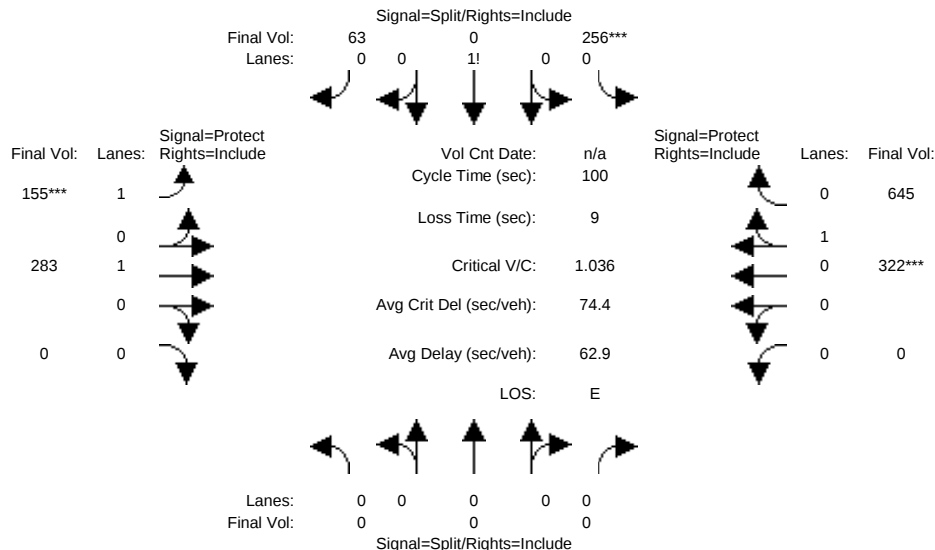
Street Name:	Pulgas Ave						E Bayshore Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	579	0	80	49	544	0	0	94	142
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	579	0	80	49	544	0	0	94	142
Added Vol:	0	0	0	0	0	0	0	12	0	0	9	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	579	0	80	49	556	0	0	103	142
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	579	0	80	49	556	0	0	103	142
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	579	0	80	49	556	0	0	103	142
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	579	0	80	49	556	0	0	103	142
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.64	0.92	0.64	0.92	1.00	0.92	0.92	0.95	0.95
Lanes:	0.00	0.00	0.00	0.88	0.00	0.12	1.00	1.00	0.00	0.00	0.42	0.58
Final Sat.:	0	0	0	1076	0	149	1750	1900	0	0	757	1043
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.54	0.00	0.54	0.03	0.29	0.00	0.00	0.14	0.14
Crit Moves:				****				****				****
Green Time:	0.0	0.0	0.0	58.9	0.0	58.9	10.9	32.1	0.0	0.0	21.2	21.2
Volume/Cap:	0.00	0.00	0.00	0.91	0.00	0.91	0.26	0.91	0.00	0.00	0.64	0.64
Delay/Veh:	0.0	0.0	0.0	34.2	0.0	34.2	41.6	50.8	0.0	0.0	39.7	39.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	34.2	0.0	34.2	41.6	50.8	0.0	0.0	39.7	39.7
LOS by Move:	A	A	A	C-	A	C-	D	D	A	A	D	D
HCM2k95thQ:	0	0	0	39	0	39	3	35	0	0	14	14

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative+Project PM

Intersection #42: Pulgas Ave/E Bayshore Rd



Street Name: Pulgas Ave E Bayshore Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 0 0 10 0 10 7 10 0 0 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:

Base Vol:	0	0	0	256	0	63	155	272	0	0	306	645
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	256	0	63	155	272	0	0	306	645
Added Vol:	0	0	0	0	0	0	0	11	0	0	16	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	256	0	63	155	283	0	0	322	645
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	256	0	63	155	283	0	0	322	645
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	256	0	63	155	283	0	0	322	645
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	256	0	63	155	283	0	0	322	645

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	0.76	0.76
Lanes:	0.00	0.00	0.00	0.80	0.00	0.20	1.00	1.00	0.00	0.00	0.33	0.67
Final Sat.:	0	0	0	1404	0	346	1750	1900	0	0	480	960

Capacity Analysis Module:

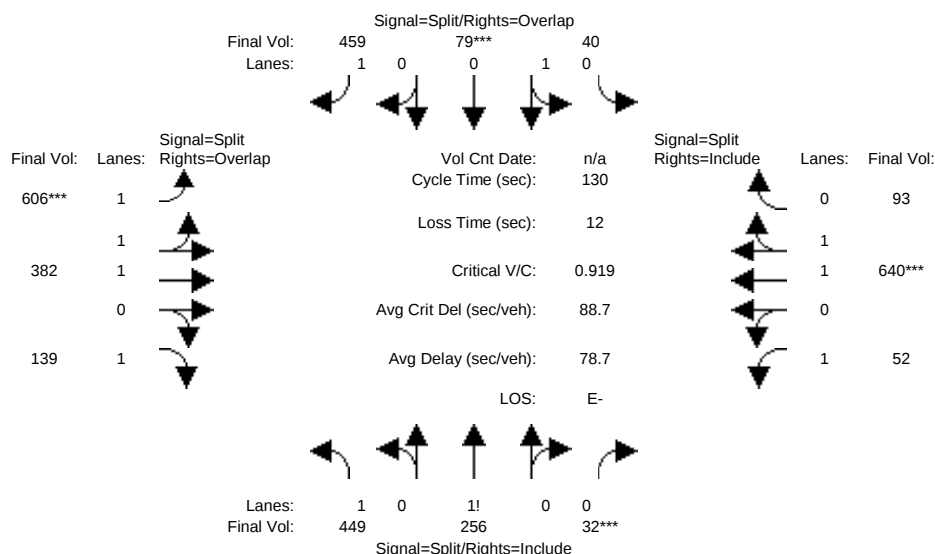
Vol/Sat:	0.00	0.00	0.00	0.18	0.00	0.18	0.09	0.15	0.00	0.00	0.67	0.67
Crit Moves:				****				****				****
Green Time:	0.0	0.0	0.0	17.6	0.0	17.6	8.6	73.4	0.0	0.0	64.8	64.8
Volume/Cap:	0.00	0.00	0.00	1.04	0.00	1.04	1.04	0.20	0.00	0.00	1.04	1.04
Delay/Veh:	0.0	0.0	0.0	102.0	0.0	102.0	129.0	4.2	0.0	0.0	56.6	56.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	102.0	0.0	102.0	129.0	4.2	0.0	0.0	56.6	56.6
LOS by Move:	A	A	A	F	A	F	F	A	A	A	E+	E+
HCM2k95thQ:	0	0	0	29	0	29	18	5	0	0	57	57

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd+Proj PM NB Lane Change Mitigation

Intersection #31: E Bayshore Rd/Embarcadero Rd



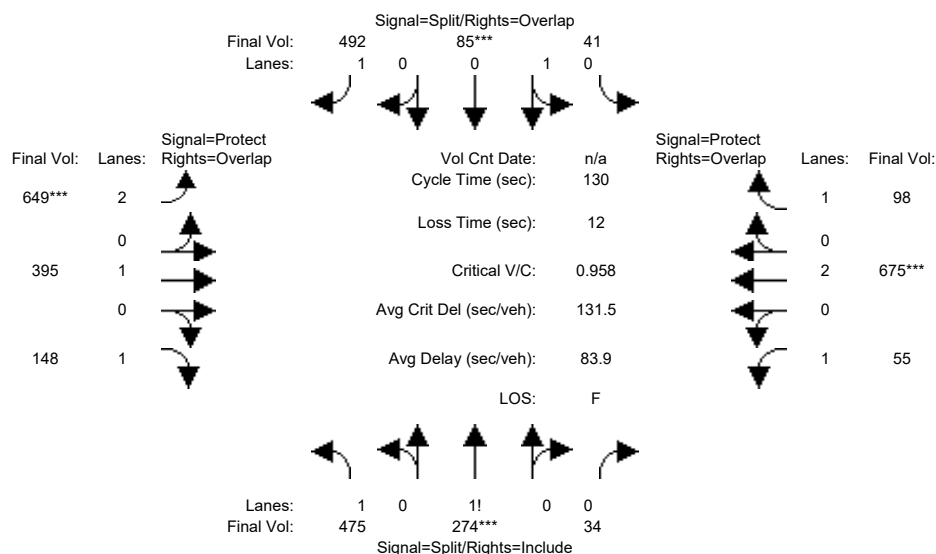
Street Name:	E Bayshore Rd						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	363	245	26	32	77	459	606	315	122	46	596	87
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	363	245	26	32	77	459	606	315	122	46	596	87
Added Vol:	86	11	6	8	2	0	0	67	17	6	44	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	449	256	32	40	79	459	606	382	139	52	640	93
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	449	256	32	40	79	459	606	382	139	52	640	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	449	256	32	40	79	459	606	382	139	52	640	93
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	449	256	32	40	79	459	606	382	139	52	640	93
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.78	0.74	0.74	0.95	0.95	0.92	0.75	0.99	0.92	0.92	0.98	0.95
Lanes:	1.43	0.51	0.06	0.34	0.66	1.00	2.00	1.00	1.00	1.00	1.74	0.26
Final Sat.:	2117	718	90	605	1195	1750	2837	1886	1750	1750	3230	469
Capacity Analysis Module:												
Vol/Sat:	0.21	0.36	0.36	0.07	0.07	0.26	0.21	0.20	0.08	0.03	0.20	0.20
Crit Moves:			****			****			****			****
Green Time:	50.1	50.1	50.1	10.0	10.0	40.0	30.0	30.0	80.2	27.8	27.8	27.8
Volume/Cap:	0.55	0.92	0.92	0.86	0.86	0.85	0.92	0.88	0.13	0.14	0.92	0.92
Delay/Veh:	51.8	156	54.6	97.7	97.7	54.6	129.4	56.2	10.4	41.5	66.6	66.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.8	156	54.6	97.7	97.7	54.6	129.4	56.2	10.4	41.5	66.6	66.6
LOS by Move:	D-	F	D-	F	F	D-	F	E+	B+	D	E	E
HCM2k95thQ:	20	41	41	11	11	34	29	31	5	4	28	28

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Road Auto Dealerships
Palo Alto, CA
Hexagon Transportation Consultants

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+Proj PM NB,EB&WB Lane Change Mitigation

Intersection #31: E Bayshore Rd/Embarcadero Rd



Street Name:	E Bayshore Rd						Embarcadero Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	389	263	28	33	83	492	649	328	131	49	631	92
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	389	263	28	33	83	492	649	328	131	49	631	92
Added Vol:	86	11	6	8	2	0	0	67	17	6	44	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	475	274	34	41	85	492	649	395	148	55	675	98
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	475	274	34	41	85	492	649	395	148	55	675	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	475	274	34	41	85	492	649	395	148	55	675	98
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	475	274	34	41	85	492	649	395	148	55	675	98

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.78	0.74	0.74	0.95	0.95	0.92	0.70	1.00	0.92	0.92	1.00	0.92
Lanes:	1.42	0.52	0.06	0.33	0.67	1.00	2.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	2113	722	90	586	1214	1750	2678	1900	1750	1750	3800	1750

Capacity Analysis Module:												
Vol/Sat:	0.22	0.38	0.38	0.07	0.07	0.28	0.24	0.21	0.08	0.03	0.18	0.06
Crit Moves:	****			****			****			****		
Green Time:	51.3	51.3	51.3	10.0	10.0	42.7	32.7	45.1	96.3	11.7	24.0	34.0
Volume/Cap:	0.57	0.96	0.96	0.91	0.91	0.86	0.96	0.60	0.11	0.35	0.96	0.21
Delay/Veh:	70.6	177	61.2	109.8	110	52.7	136.9	36.6	4.8	57.0	77.6	37.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	70.6	177	61.2	109.8	110	52.7	136.9	36.6	4.8	57.0	77.6	37.8
LOS by Move:	E	F	E	F	F	D-	F	D+	A	E+	E-	D+
HCM2k95thQ:	21	45	45	12	12	35	34	24	4	4	27	6

Note: Queue reported is the number of cars per lane.

1700-1730 Embarcadero Rd
2: E. Bayshore Rd & Embarcadero Rd

Roundabout - Cum+Proj PM
HCM 2010 Roundabout

Intersection									
Intersection Delay, s/veh	62.3								
Intersection LOS	F								
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		1		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	1192		828		783		618		
Demand Flow Rate, veh/h	1216		844		798		631		
Vehicles Circulating, veh/h	185		1425		1107		1255		
Vehicles Exiting, veh/h	1199		480		294		1014		
Follow-Up Headway, s	3.186		3.186		3.186		3.186		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	13.1		198.6		40.3		2.5		
Approach LOS	B		F		E		A		
Lane	Left	Right	Left	Right	Left	Right	Left	Bypass	
Designated Moves	LT	TR	LT	TR	L	LTR	LT		R
Assumed Moves	L	TR	LT	TR	L	LTR	LT		R
RT Channelized									Free
Lane Util	0.544	0.456	0.470	0.530	0.530	0.470	1.000		
Critical Headway, s	4.293	4.113	4.293	4.113	4.293	4.113	4.113		
Entry Flow, veh/h	662	554	397	447	423	375	129		502
Cap Entry Lane, veh/h	984	993	388	417	493	521	469		1938
Entry HV Adj Factor	0.981	0.980	0.980	0.981	0.980	0.981	0.979		0.980
Flow Entry, veh/h	649	543	389	439	415	368	126		492
Cap Entry, veh/h	965	973	380	409	483	511	460		1900
V/C Ratio	0.673	0.558	1.023	1.073	0.859	0.720	0.275		0.259
Control Delay, s/veh	14.7	11.1	168.9	225.1	51.0	28.2	12.2		0.0
LOS	B	B	F	F	F	D	B		A
95th %tile Queue, veh	6	4	26	34	13	7	1		1