

December 13, 2024

Mr. Nick Towstopiat
David J. Powers & Associates, Inc.
1871 The Alameda, Suite 200
San Jose, CA 95126

Re: Review of the Lane Avenue Loading Dock Safety Measures for the 749 West El Camino Real Project

Dear Mr. Towstopiat:

Hexagon Transportation Consultants, Inc. has reviewed the Lane Avenue loading dock safety measures for the 749 West El Camino Real Mixed-Used Project. The project's multi-modal transportation analysis (MTA) report, dated October 25, 2024, stated that a residential loading dock/driveway on Lane Avenue was not recommended because it would create conflict areas for children using the designated suggested route to Graham Middle School. Also, it would create visibility conflicts with cyclists, pedestrians, and vehicles using the adjacent garage entrance and sidewalk. If the loading dock were to be built on Lane Avenue, the City has identified the attached safety measures to address the issues identified in the MTA. The safety measures will help mitigate conflicts and create additional visibility for cyclists, pedestrians and vehicles. Hexagon concurs with the City recommendations.

The project's MTA recommended moving the garage gates farther into the garage to provide adequate inbound stacking space. However, subsequent to the MTA being drafted, the site plans were revised and the garage gates are no longer proposed as part of the project. Therefore, this recommendation no longer applies.

Sincerely,

HEXAGON TRANSPORTATION CONSULTANTS, INC.

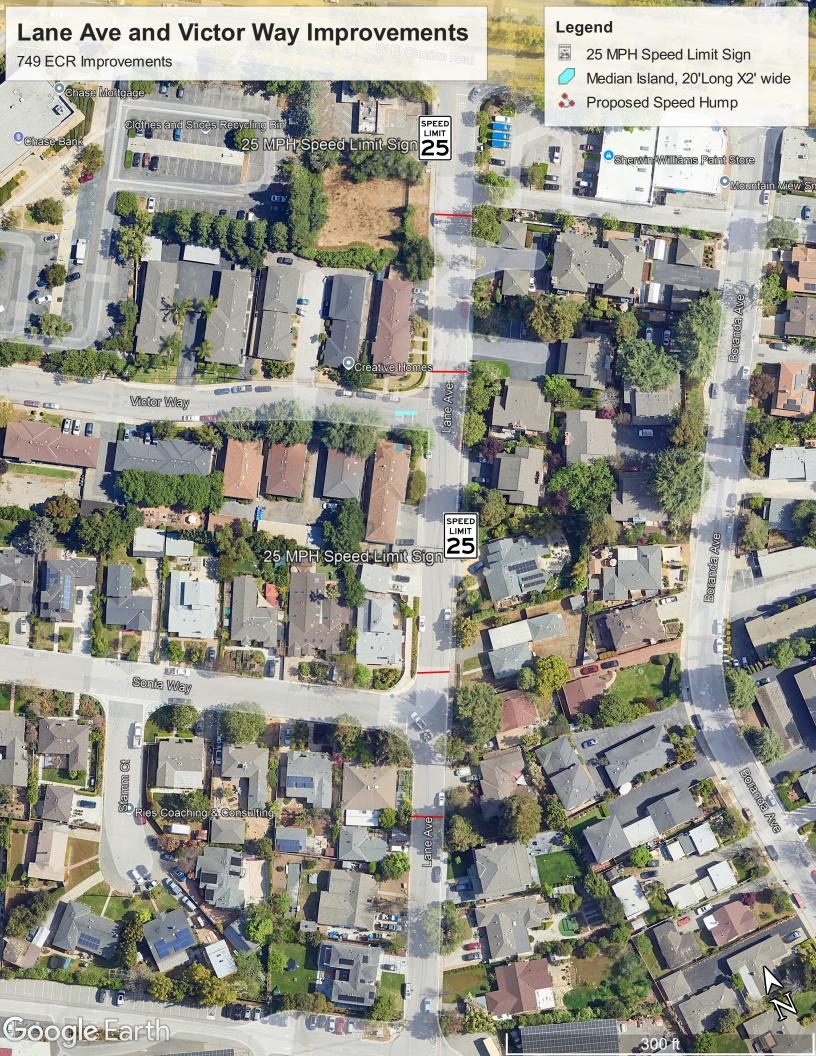
Kai-Ling Kuo Senior Associate

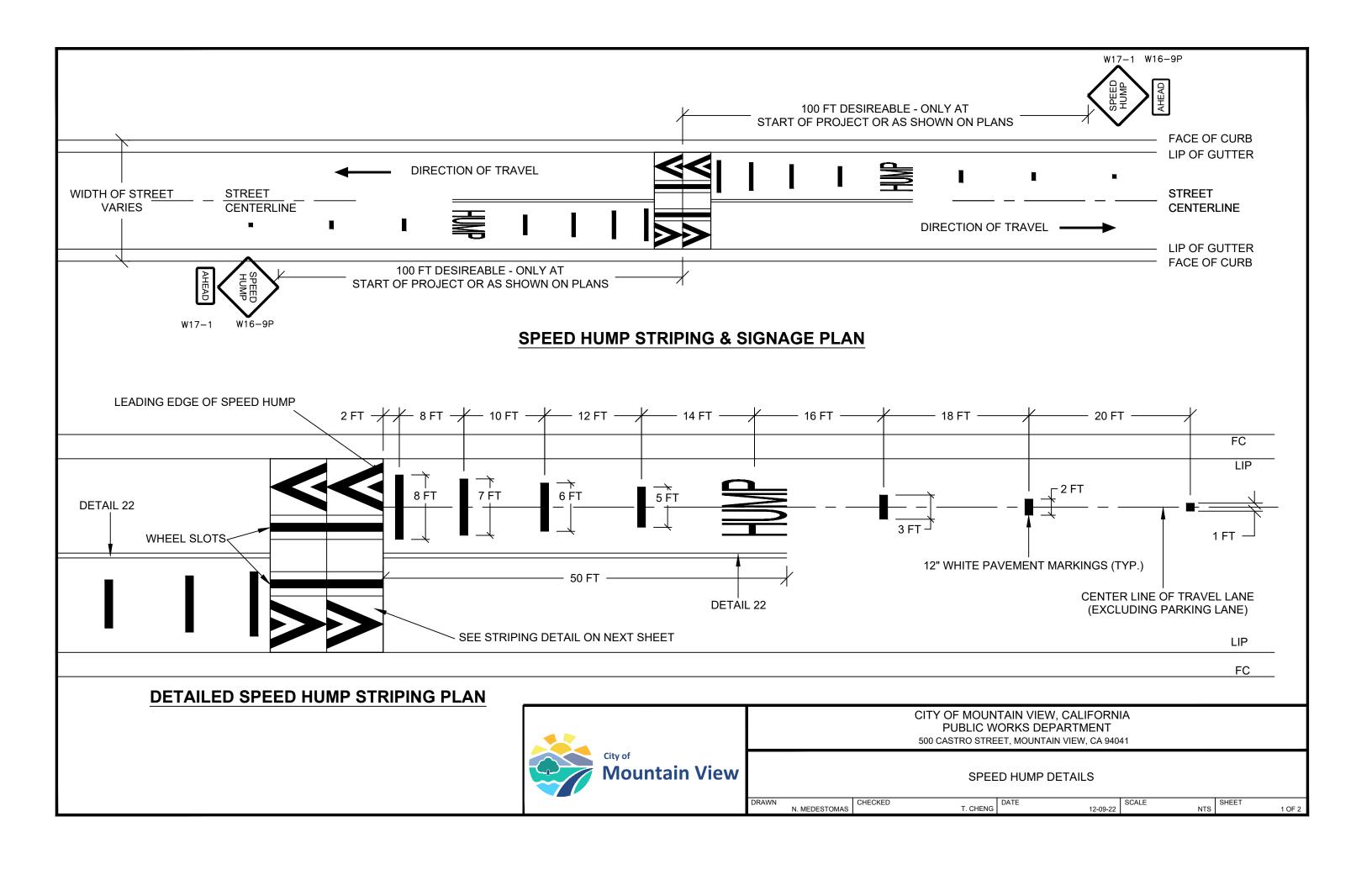
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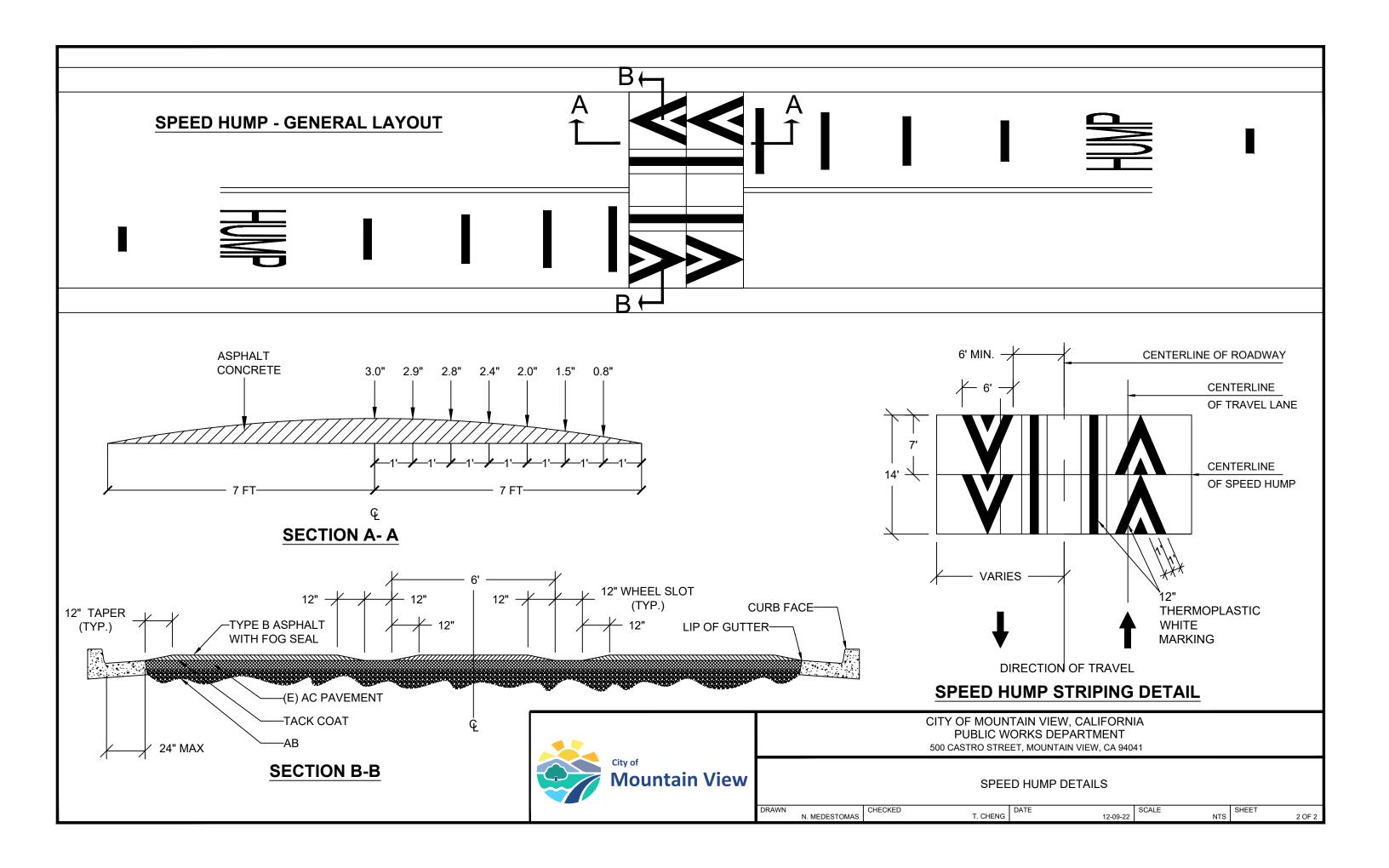
Attachments: Lane Avenue Loading Dock Safety Measures

749 W El Camino Real, Greystar - Lane Ave Residential Loading Dock Summary of Safety Measures

LOCATION	MEASURES	IMPLEMENTATION			
Operational					
	Scheduled use of loading dock by appointment only to be managed by apartment management staff.				
On-site	Established blackout times corresponding to school dropoff/pickup windows when loading dock cannot be scheduled for used. Blackout times on school days: 7:30-9AM (90-min period starting with first bell) and 2-4PM (120-minute period starting with early release bell).	Project COA; Prior to building permit issuance, provide Operational Plan which identifies			
	Management staff to be present on moving truck arrival to unlock loading dock door and act as flagger to guide moving trucks in/out of loading dock driveway.	these measures to be followed by the apartment management.			
	Moving trucks required to back into loading dock fully (no parking in driveway to block sight distance safety triangle for residential garage driveway users).				
Off-site	Provide 5 years of funding to City for a school crossing guard at the Lane Ave/Alley intersection during school drop-off/pick-up times. Per year cost is \$24,000.	Project COA; Funding to be collected prior to building permit issuance.			
Improvements					
	Add signage near/on loading dock on Lane Ave visible to the exterior, identifying restricted uses, by appointment, hours, etc.	Project COA; Show on future on-			
On-site	Add gate with arm at residential garage exit to ensure that vehicles come to a complete stop prior to entering Lane Ave.	site building plans and for reference only, on off-site			
	Add removable bollard at mouth of loading dock driveway to maintain sight distance safety triangle for residential garage driveway users.	improvement plans.			
	Add four speed humps along Lane Ave from El Camino Real to Graham Middle School to reduce overall vehicle speeds. See exhibit for approximate locations.				
Off-site	Add median island on Victor Way at Lane Ave intersection to slow vehicles down and organize traffic entering Lane Ave.	Project COA; Show on future off- site improvement plans.			
	Remove of 1-2 parking spaces on the east side of Lane Ave., north of the Alley, for sight distance visibility.	,			
	Add two speed limit signs on Lane Ave. See exhibit for approximate locations.				













749 W. El Camino Real Mixed-Use Development



Prepared for:

David J. Powers & Associates

October 25, 2024













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Phone: 408.971.6100

Hexagon Job Number: 22KK18

Client Name: David J. Powers & Associates, Inc.

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Areawide Circulation Plans Corridor Studies Pavement Delineation Plans Traffic Handling Plans Impact Fees Interchange Analysis Parking
Transportation Planning Traffic Calming Traffic Control Plans Traffic Simulation Traffic Impact Analysis Traffic Signal Design Travel Demand Forecasting

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Executive Summary

This report presents the results of the multi-modal transportation analysis (MTA) conducted for the proposed mixed-use development at 749 W. El Camino Real in Mountain View, California. The project is located within the village center area of the El Camino Real Precise Plan (ECRPP) area. The site is located on the southeast corner of the El Camino Real and Castro Street intersection. The project proposes to demolish the existing Chase Bank and restaurant on-site and construct two new buildings on site: a 6-story mixed-use building with 299 apartment units and 11,500 square feet (s.f.) of ground-floor commercial uses and a two-story 11,500 s.f. replacement Chase bank. Vehicle access to the site would be provided via a right-turn only driveway on El Camino Real and a full-access driveway on Victor Way for the commercial uses and a full-access driveway on Lane Avenue for the apartments.

The MTA evaluates potential transportation effects of the project in accordance with the standards and methodologies set forth by the City of Mountain View's *MTA Handbook*. The MTA includes an analysis of the traffic operational effects of the project on the key intersections in the vicinity of the site, an evaluation of ECRPP conformance, a review of site access and on-site circulation, an evaluation of potential adverse effects on transit services and pedestrian and bicycle facilities, an evaluation of traffic effects on neighborhood streets, and a parking evaluation.

VMT Analysis

The Mountain View Vehicle Miles Traveled (VMT) Policy establishes screening criteria for developments that are expected to cause a less-than-significant transportation impact under the California Environmental Quality Act (CEQA). The project would meet the screening criteria for projects located within one-half mile of transit and therefore additional VMT analysis is not required.

The proximity to transit screening criterion was developed based on the CEQA Guidelines Section 15064.3, subdivision (b)(1), which states lead agencies generally should presume that certain projects proposed within a half mile of an existing major transit stop or an existing stop along a high-quality transit corridor will have a less-than-significant impact on VMT. The project is located within a half mile of the bus stops for VTA Routes 22 and 522 along El Camino Real, which is considered a high-quality transit corridor, and complies with the Mountain View VMT Policy.

Project Trip Estimates

Trip generation estimates for the proposed project were based on trip rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 11th Edition. After applying the applicable reductions and existing trip credits, the net new project trips would be 1,611 new daily trips, including 128 new trips (37 inbound and 91 outbound) during the AM peak hour and 149 new trips (87 inbound and 62 outbound) during the PM peak hour.



Intersection Level of Service Analysis

The results of the intersection level of service analysis (see Table ES-1) show that all study intersections would operate at an acceptable level of service with and without the project.

Intersection Queuing Analysis

The results of the intersection queuing analysis indicate that the following intersections would have queuing deficiencies caused or exacerbated by the project:

- Westbound left turn from El Camino Real to southbound Castro Street
- Eastbound left turn from El Camino Real to northbound SR 237

Castro Street and El Camino Real – Westbound Left Turn

The existing storage capacity for the westbound left-turn lane on El Camino Real at Castro Street is approximately 350 feet (14 vehicles). The project would add one vehicle to the PM peak-hour queue compared to the background conditions, causing the queue to exceed the storage lane by two vehicles. The small increase is not expected to affect the westbound through traffic as there are three westbound through lanes.

SR 237/Grant Road and El Camino Real – Eastbound Left Turn

The existing storage capacity for the eastbound left-turn lanes on El Camino Real at SR 237 is approximately 500 feet (20 vehicles). Field observation showed that the vehicle queues during both the AM and PM peak hours occasionally exceeded the storage lanes by 10 to 20 vehicles, and 4 to 10 vehicles required two cycles to clear the intersection. However, the through traffic was not affected because there are three eastbound through lanes. Vehicles were typically able to go around the left-turn queue to continue straight through the intersection. In addition, most vehicles in the leftmost lane approaching the intersection were typically planning to make a left turn.

The project would add four vehicles to the AM and PM peak-hour queues, causing the queue to exceed the storage lane by 22 and 23 vehicles during the AM and PM peak hours, respectively. The inner turn lane could be extended by 600 feet by modifying the existing landscaped median, which would be sufficient to accommodate the entire 95th percentile queue under background and background plus project conditions. The intersection is maintained and operated by Caltrans, and therefore projects proposed at this intersection fall under the State's jurisdiction and would move forward only with Caltrans design and approval.

Freeway Segment Capacity Analysis

The results of the freeway segment analysis show that the project is not projected to add traffic volumes representing one percent or more of the freeway capacity. Based on CMP freeway impact criteria, none of the freeway segments would be adversely affected by the project.

Pedestrian and Bicycle Operations

The project would have an adverse effect on pedestrian operations because the project is expected to add vehicle trips to nearby street segments that have a pedestrian quality of service (PQOS) score of 3 or more, including El Camino Real and Castro Street. The project would provide wider sidewalks with landscaping along the project frontages to enhance the pedestrian environment. The project would also build curb bulbouts, new crosswalks, and new ADA curb ramps along the project frontages. It is



expected these project improvements would address the project's adverse effects on pedestrian operations.

The project would create an adverse effect on bicycle operations, as the project is expected to add vehicle trips to El Camino Real, El Monte Avenue, and Shoreline Boulevard/Miramonte Avenue, which have a bicycle level of service (BLTS) of 3 or 4. The ECRPP proposes to implement buffered bike lanes on El Camino Real where the project would add vehicle trips. The project would install a buffered bike lane along the project frontage on El Camino Real, which would address the project's adverse effects.

Other Transportation Issues

Hexagon has the following recommendations resulting from the site access, circulation, and neighborhood street evaluations.

Recommendations

- The project should reduce the El Camino Real and Victor Way driveway widths to 22 feet.
- The garage gates on Victor Way and El Camino Real should be moved farther into the garage to provide inbound stacking space (at least 50 feet) for two vehicles between the gate and sidewalk, or keep the garage entry gates open during retail business hours (typically from 6:00 AM to 9:00 PM) with a minimum of 20 feet of stacking space. If the gates open towards the street, the stacking space shall be measured between the back of sidewalk and the extended fully open length of the gate.
- The garage gate on Lane Avenue should be moved farther into the garage to provide inbound stacking space (at least 50 feet) for two vehicles between the gate and sidewalk, or keep the garage entry gates open during the time period of the day when most inbound vehicle trips are likely to occur (typically from 3:00 PM to 7:00 PM) with a minimum of 20 feet of stacking space. If the gates open towards the street, the stacking space shall be measured between the back of sidewalk and the extended fully open length of the gate.
- The Victor Way driveways could be consolidated to one driveway, and the Lane Avenue driveways could be consolidated into two driveways.
- The loading driveway on Lane Avenue is not recommended, because it would create additional
 conflict areas for children using the designated suggested route to Graham Middle School.
 Additionally, the proposed loading driveway would create maneuver and visibility conflicts with
 cyclists, pedestrians, and vehicles using the adjacent garage entrance and sidewalk.
- The current design does not meet City Standard detail A-22. The project should remove obstructions including building encroachment within the pedestrian triangle of safety at each driveway to ensure compliance with City Standard detail A-22.
- The curbs along the entire project frontage on Lane Avenue should be red zone with no parking.
- The curbs on Victor Way between the project driveways and Castro Street should be red zone with no parking.
- The project should provide a turnaround space at the dead-end aisles in Levels P1 and P2 of the garage to provide adequate circulation or assign parking spaces to residents to avoid residents entering the dead-end aisle without finding a parking space.
- The project should designate some parking spaces in the ground-floor parking garage as short-term passenger loading spaces for residential and commercial uses.



- The project should design the trash staging/pick-up area to accommodate rear load garbage trucks or widen the Lane Avenue driveway to the trash staging area to 20 feet to accommodate front load garbage trucks. Turning templates have to be verified with final design and curb alignment.
- To minimize potential confusion with access and use of the Victor Way driveway for the transformer maintenance/service area, the 13-foot driveway can be designed as a rolled curb rather than a standard driveway cut.



Table ES-1 Intersection Level of Service Summary

				Exis	ting	Backgr	ound	В	ackgro	ound+Proj	ect	Cumul	ative	c	umula	itive+Proj	ect
ID	Intersection	LOS Standard	Peak Hour	Avg. Delay ¹	LOS	Avg. Delay ¹	LOS	Avg. Delay ¹	LOS	Incr. In Crit. Del.	Incr. In Crit. V/C	Avg. Delay ¹	LOS	Avg. Delay ¹	LOS	Incr. In Crit. Del.	Incr. In Crit. V/C
1	El Monte Ave and El Camino Real*	E	AM PM	43.7 32.9	D C	43.7 32.9	D C	43.7 33.1	D C	0.1 0.3	0.005 0.008	44.5 33.7	D C	44.5 33.9	D C	0.2 0.3	0.005 0.008
2	Shoreline Blvd and El Camino Real*	E	AM PM	50.4 51.5	D D	50.6 51.9	D D	50.2 51.8	D D	0.5 -0.2	0.001 0.005	51.8 53.5	D D	51.7 53.4	D D	-0.3 -0.1	0.007 0.005
3	Castro St and El Camino Real*	Е	AM PM	42.4 40.7	D D	43.3 42.5	D D	44.7 44.6	D D	1.1 3.2	0.014 0.052	44.3 43.7	D D	45.7 45.8	D D	0.9 3.3	0.012 0.052
4	Calderon Ave and El Camino Real	D	AM PM	31.7 32.1	C C	31.6 31.8	C C	31.4 31.7	C C	-0.3 -0.1	0.009 0.006	32.4 32.7	C C	32.2 32.6	C C	-0.2 0.0	0.009 0.006
5	SR 237 and El Camino Real*	Е	AM PM	50.8 57.9	D E	51.0 58.1	D E	51.6 58.4	D E	1.1 0.8	0.013 0.017	55.5 61.2	E E	56.6 61.8	E E	2.2 1.4	0.013 0.017
6	Castro St and Victor Way (unsignalized)	D	AM PM	15.0 12.4	C B	15.6 13.0	C B	17.2 14.6	C B	-		17.0 13.7	C B	18.9 15.6	C C	 	-
7	Lane Ave and El Camino Real (unsignalized)	D	AM PM	13.0 13.4	B B	13.1 13.5	B B	14.3 14.6	B B	 	 	14.0 14.6	B B	15.5 15.9	C C	 	-
8	Lane Ave and Victor Way (unsignalized)	D	AM PM	9.4 8.8	A A	9.4 8.8	A A	9.5 8.9	A A	- -	 	9.5 8.8	A A	9.7 8.9	A A	 	- -

Notes:



^{*} Denotes VTA CMP intersection.

^{1.} Weighted average control delay measured in seconds per vehicle for signalized intersections. Worst approach delay (seconds per vehicle) and LOS are reported for side stop-controlled intersections.

1.

Introduction

This report presents the results of the multi-modal transportation analysis (MTA) conducted for the proposed mixed-use development at 749 W. El Camino Real in Mountain View, California (see Figure 1). The approximately 3.05-acre project site is located at the southeast corner of the El Camino Real and Castro Street intersection. The project proposes to demolish the existing Chase Bank and restaurant on-site and construct two new buildings on site: a 6-story mixed-use building with 299 apartment units and 11,500 square feet (s.f.) of ground-floor commercial uses and a two-story 11,500 s.f. replacement Chase bank. Existing buildings on-site include an 18,302 s.f. Chase bank and a 1,487 s.f. restaurant that is vacant. Vehicle access to the site would be provided via a right-turn only driveway on El Camino Real and a full-access driveway on Victor Way for the commercial uses and a full-access driveway on Lane Avenue for the apartments.

The project site is located within the village center area of the El Camino Real Precise Plan (ECRPP) and is consistent with the development assumptions in the ECRPP.

Scope of Study

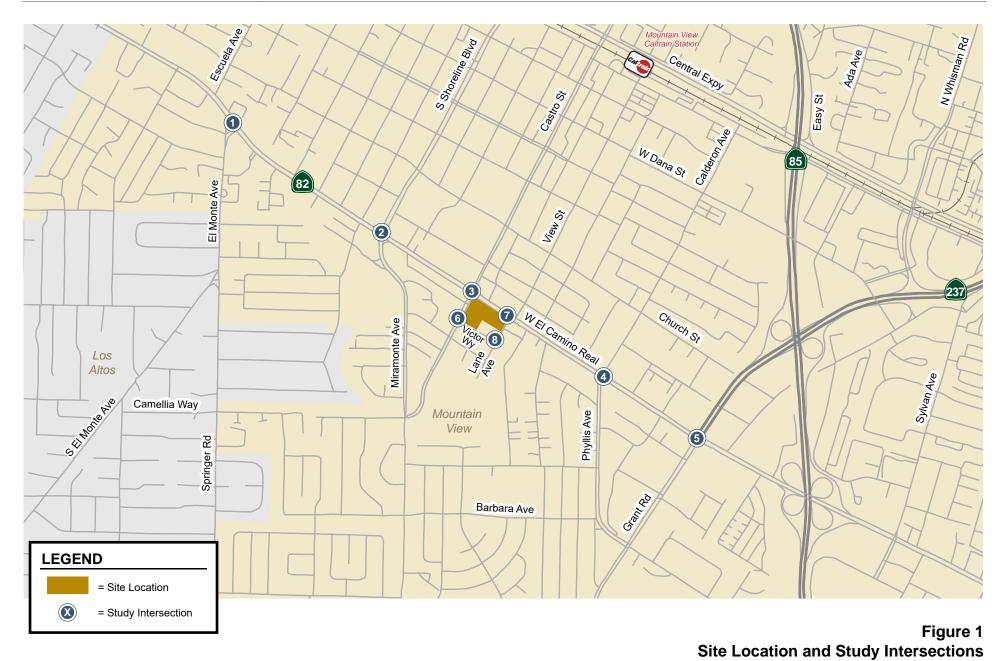
The purpose of the study is to evaluate potential transportation effects of the project in accordance with the standards and methodologies set forth by the City of Mountain View and the Santa Clara Valley Transportation Authority (VTA). The VTA administers the Congestion Management Program (CMP).

The MTA was prepared based on the City's MTA Handbook (February 2021). The MTA includes an analysis of the traffic operational effects of the project on the key intersections and freeway segments in the project area, an evaluation of ECRPP conformance, a review of site access and on-site circulation, an evaluation of potential adverse effects on transit services and pedestrian and bicycle facilities, an evaluation of traffic effects on neighborhood streets, and a parking evaluation.

Study Intersections

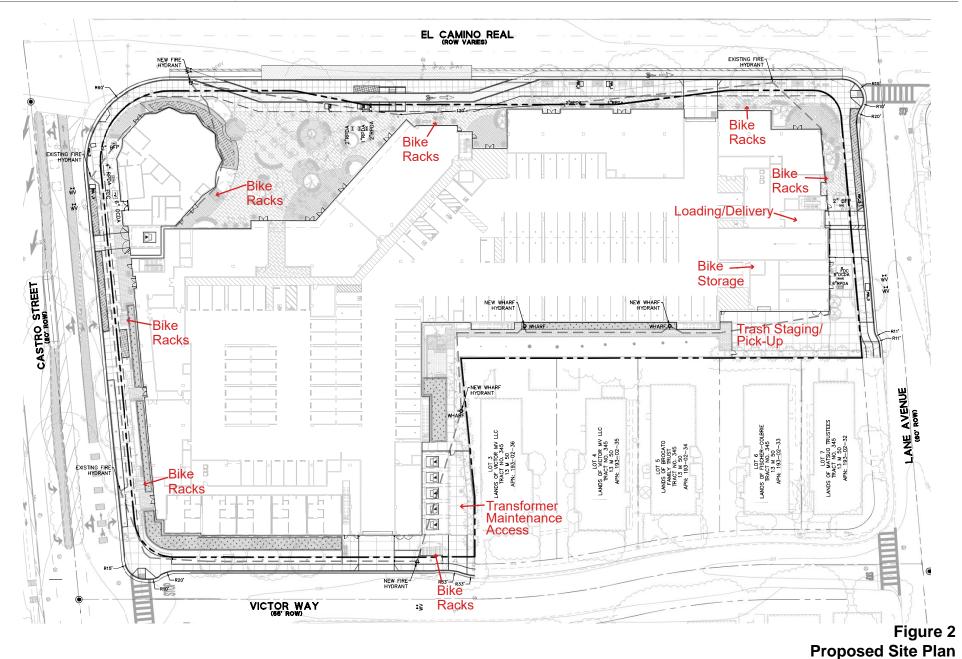
The study intersections were selected in accordance with the City's *MTA Handbook*, VTA's *Transportation Impact Analysis (TIA) Guidelines* (October 2014), and in consultation with Mountain View staff. The study includes those intersections that would experience a traffic increase of 10 or more peak-hour trips per lane. The study intersections are listed below and shown on Figure 1. Four study intersections are designated as CMP intersections.















- 1. El Monte Avenue and El Camino Real (CMP)
- 2. Shoreline Boulevard-Miramonte Avenue and El Camino Real (CMP)
- 3. Castro Street and El Camino Real (CMP)
- 4. Calderon Avenue-Phyllis Avenue and El Camino Real
- 5. SR 237-Grant Road and El Camino Real (CMP)
- 6. Castro Street and Victor Way (unsignalized)
- 7. Lane Avenue and El Camino Real (unsignalized)
- 8. Lane Avenue and Victor Way (unsignalized)

Traffic conditions at the study intersections were analyzed for the weekday AM and PM peak hours of traffic. Locally, the AM peak hour of traffic is usually between 7:00 and 10:00 AM, and the PM peak hour is typically between 4:00 and 7:00 PM. It is during these periods that the most congested traffic conditions occur on an average weekday.

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 November 2022.
- 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. The added traffic from approved but not yet constructed developments
 was based on the list of approved projects provided by the Cities of Mountain View, Los Altos,
 and Sunnyvale.
- 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 adverse
 effects.
- **Cumulative No Project Conditions.** Cumulative conditions represent future traffic volumes projected to occur due to the approved developments and other proposed but not yet approved (pending) developments in the study area. The cumulative no project traffic volumes were estimated by applying a compound growth factor of two 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 project.

Study Freeway Segments

The City is required to conform to the requirements of the VTA which establishes a uniform program for evaluating the transportation impacts of land use decisions on the designated CMP Roadway System. The VTA's CMP has yet to adopt and implement guidelines and standards for the evaluation of the CMP roadway system using VMT. Therefore, the effects of the proposed project on freeway segments in the vicinity of the project area following the current methodologies as outlined in the VTA *TIA Guidelines*, was completed. However, this analysis is presented for informational purposes only.

A freeway segment capacity analysis was conducted for the following freeway segments in the project vicinity for the AM and PM peak hours.

- SR 85 between Central Expressway and Fremont Avenue
- SR 237 between El Camino Real and Maude Avenue



Intersection Operations Analysis Methodology

This section presents the methods used to determine traffic conditions at the study intersections. 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 Mountain View, Los Altos, and Sunnyvale, Google Earth, and field observations. The following data were collected from these sources:

- Intersection traffic volumes,
- Lane geometries,
- Signal timing and phasing, and
- A list of approved but not yet constructed developments

Intersection Level of Service Analysis Methodologies 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.

Signalized Intersections

For signalized intersections, the level of service method evaluates intersection operations on the basis of average control delay time for all vehicles at the intersection based on the methodology described in the 2000 Highway Capacity Manual (HCM). Table 1 presents the level of service definitions for signalized intersections.

This study utilizes the TRAFFIX software to determine intersection levels of service based on the 2000 HCM methodology. Since TRAFFIX is approved by VTA as the level of service analysis software for CMP signalized intersections, the City of Mountain View employs the CMP default values for the analysis parameters. TRAFFIX software was used to analyze intersection operations and intersection adverse effects based on the increases in critical-movement delay and the volume-to-capacity ratio (v/c) between no-project and project scenarios.

According to the City's *MTA Handbook*, the standard for signalized intersections is LOS D, except for CMP intersections and facilities, County Expressway intersections, and intersections in the Downtown and San Antonio Center planning areas, where the standard is LOS E.

Unsignalized Intersections

Level of service analysis at unsignalized intersections is generally used to determine the need for modifications in the type of intersection control (i.e., all-way stop or signalization). As part of the evaluation, traffic volumes, delays and traffic signal warrants are evaluated to determine if the existing intersection control is appropriate.

For unsignalized intersections, level of service depends on the average delay experienced by vehicles on the stop-controlled approaches. For side street stop-controlled intersections (two-way or T-intersections), operations are defined by the average control delay experienced by vehicles entering the intersection from the stop-controlled approaches on minor streets or from left-turn approaches on major streets. The level of service is reported based on the average delay for the worst approach. For all-way stop-controlled intersections, the level of service is based on the average delay for all the intersection approaches. The level of service definitions for unsignalized intersections is shown in Table 2. This



study utilizes the TRAFFIX software to determine intersection levels of service based on the *2000 HCM* methodology for unsignalized intersections.

The City of Mountain View does not have an adopted level of service standard for unsignalized intersections. However, the City strives to maintain LOS D for unsignalized intersections.

Table 1
Signalized Intersection Level of Service Definitions Based on Average Control Delay

Level of Service	Description	Average Control Delay (seconds/vehicle)
А	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	10.0 or less
В	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 20.0
С	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	Operations with high delays indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	55.1 to 80.0
F	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths.	greater than 80.0
Source: Tra	ansportation Research Board, 2000 Highway Capacity Manual (Washin	gton, D.C., 2000), p.10-16.



Table 2
Unsignalized Intersection Level of Service Definitions Based on Average Delay

Level of Service	Description	Average Delay Per Vehicle (Sec.)						
А	Little or no traffic delay	10.0 or less						
В	Short traffic delays	10.1 to 15.0						
С	Average traffic delays	15.1 to 25.0						
D	Long traffic delays	25.1 to 35.0						
E	Very long traffic delays	35.1 to 50.0						
F	Extreme traffic delays	greater than 50.0						
Source: Transportation Research Board, 2000 Highway Capacity Manual (Washington, D.C., 2000) p17-2.								

Intersection Vehicle Queuing Analysis

The analysis of intersection operations was supplemented with a vehicle queuing analysis at intersections where the project would add a substantial number of trips to the left-turn movements or stop-controlled approaches. The vehicle queuing analysis is used to determine the appropriate storage lengths for the high demand turn lanes where the project would add a substantial number of trips. Vehicle queues were estimated 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 for a particular left-turn 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 left-turn movement. This analysis thus provides a basis for estimating future turn pocket storage requirements at intersections.

For signalized 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). Thus, 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. Vehicle queuing at unsignalized intersections is evaluated based on the delay experienced by the specific study turn movement.



Definition of Adverse Intersection Operational Effects

Adverse operational effects at signalized intersections are based on the City of Mountain View level of service standards. For the unsignalized intersections, the City of Mountain View has applied adverse effect criteria in other traffic studies even though there is no formally adopted level of service policy for unsignalized intersections.

Signalized Intersections

According to the City of Mountain View level of service standards, a development is said to create an adverse operational effect on traffic conditions at a signalized intersection if for either peak hour, either 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 all local intersections in Mountain View and Sunnyvale and LOS E or better for CMP and expressway 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, <u>and</u> 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 is negative. In this case, the threshold is when the project increases the critical v/c value by 0.01 or more.

Unsignalized Intersections

The project is said to create an adverse operational effect on traffic conditions at an unsignalized intersection in the City of Mountain View if for either peak hour:

- The addition of project traffic causes the average intersection delay for all-way stop-controlled or the worst movement/approach for side-street stop-controlled intersections to degrade to LOS F, and
- 2. The intersection satisfies the *California Manual of Uniform Traffic Control Devices (CA MUTCD)* peak-hour volume signal warrant.

Report Organization

This report has a total of four chapters. Chapter 2 describes existing conditions including the existing roadway network, transit service, and bicycle and pedestrian facilities. Chapter 3 presents the vehicle operational analysis including the method by which project traffic is estimated, the project's traffic effects on the intersection operations, a vehicle queuing analysis, and a freeway segment capacity analysis. Chapter 4 presents the analyses of other transportation-related issues, including conformance with the ECRPP, site access and on-site circulation, potential effects on bicycle, pedestrian, and transit facilities, effects on surrounding neighborhood streets, and parking.



2.

Existing Transportation Conditions

This chapter describes 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 SR 85 and SR 237. Local access to the project site is provided via El Camino Real (SR 82), El Monte Avenue, Shoreline Boulevard, Miramonte Avenue, Castro Street, Calderon/Phyllis Avenue, Lane Avenue, and Victor Way.

State Route 85 (SR 85) is a six-lane freeway in the vicinity of the project site that extends from US 101 in Mountain View to US 101 in San Jose. SR 85 provides access to the project site via SR 237 and the interchange at El Camino Real. Caltrans is solely responsible for the operation and maintenance of SR 85.

SR 237 is a four-lane to six-lane freeway that extends west from El Camino Real in Mountain View to I-880 in Milpitas. In the project vicinity, SR 237 has two mixed-flow lanes in each direction and ends at El Camino Real, transitioning into Grant Road. SR 237 provides access to the project site via El Camino Real. Caltrans is solely responsible for the operation and maintenance of SR 237.

El Camino Real (SR 82) is a six-lane arterial that extends from Santa Clara County northerly to San Mateo County. El Camino Real is oriented in an approximately east-west direction in the project vicinity. In the project vicinity, El Camino Real has a raised, landscaped median with left-turn pockets provided at some intersections. On-street parking is permitted east of Lane Avenue along the south side of El Camino Real. The speed limit is 35 miles per hour (mph). El Camino Real provides access to the site with a proposed commercial parking garage driveway. Caltrans is solely responsible for the operation and maintenance of signals and intersections along El Camino Real.

El Monte Avenue is a north-south residential collector between Elena Road/Moody Road in the south and El Camino Real in the north. El Monte Avenue continues southwesterly south of Jay Street to the City of Los Altos. El Monte Avenue has four lanes north of Jay Street with a speed limit of 35 mph. South of Jay Street, El Monte Avenue is a two-lane road with a 25-mph speed limit. Bike lanes exist along the west side south of Marich Way and along the east side of the street in the project vicinity. Sidewalks exist on both sides of the street north of University Avenue. On-street parking is prohibited along both sides of the entire street. Access to the project site would be provided via its intersection with El Camino Real. El Monte Avenue in the study area is on the suggested route to Graham Middle School and Mountain View High School.



Shoreline Boulevard is a north-south arterial that extends northward from El Camino Real (SR 82) across US 101 to Shoreline Park on the Bay side. Shoreline Boulevard is a four to six-lane roadway with a landscaped median and left-turn pockets at some intersections between El Camino Real and Stierlin Road. North of Stierlin Road, Shoreline Boulevard is a four-lane undivided roadway. Shoreline Boulevard has bike lanes and sidewalks on both sides of the street. On-street parking is prohibited on Shoreline Boulevard in the project vicinity. The speed limit is 35 mph. Access to the project site would be provided via its intersection with El Camino Real.

Miramonte Avenue is a north-south collector that extends southward from El Camino Real to Fremont Avenue. Miramonte Avenue has four lanes between El Camino Real and Amalfi Way, where it transitions into a two-lane roadway. North of Castro Street, Miramonte Way has a landscaped median. Miramonte Avenue has bike lanes on both sides of the street south of Harpster Drive. In the study area, sidewalks are present on both sides of the street. On-street parking is permitted on the west side of Miramonte Avenue south of Sonia Way and on the east side south of Harpster Drive. The speed limit is 25 mph north of Trophy Drive and 35 mph south of Trophy Drive. Miramonte Avenue provides access to the project site via its intersection with Castro Street. Miramonte Avenue in the study area is on the suggested route to Bubb Elementary School, Graham Middle School, and Mountain View High School.

Castro Street is a two-lane north-south collector street starting from Miramonte Avenue in the south and transitioning into Moffett Boulevard at Central Expressway in the north. Castro Street has a landscaped median with left-turn pockets at intersections south of El Camino Real and north of Church Street. Bike lanes are provided south of El Camino Real. There are sidewalks along both sides of the entire street in the project vicinity. On-street parking is prohibited near the project site. The speed limit is 25 mph. Castro Street currently is closed to vehicular traffic between California Street and Evelyn Avenue in the northbound direction and between Central Expressway and California Street in the southbound direction. Castro Street, between California Street and Evelyn Avenue, will be permanently closed to northbound and southbound vehicle traffic; cross-streets (at Dana and Villa Streets) will remain open to eastbound and westbound vehicle traffic. Access to the project site would be provided via its intersection with El Camino Real. Castro Street in the study area is on the suggested route to Bubb Elementary School, Graham Middle School, and Mountain View High School.

Calderon Avenue is a north-south two-lane collector between El Camino Real and Evelyn Avenue. South of El Camino Real, it becomes Phyllis Avenue. Bike lanes exist along both sides of the street for the entire length. Sidewalks exist along both sides of the street. On-street parking is prohibited along both sides of the street. The posted speed limit is 25 mph. Calderon Avenue provides access to the project site via its intersection with El Camino Real. Calderon Avenue in the study area is on the suggested route to Mountain View High School. Phyllis Avenue in the study area is on the suggested route to Bubb Elementary School, Graham Middle School, and Mountain View High School.

Lane Avenue is a two-lane north-south local street between El Camino Real and Graham Middle School. Sidewalks exist along both sides of the street. On-street parking is permitted along both sides of the street. The posted speed limit is 25 mph. Lane Avenue provides direct access to the proposed residential parking garage of the project. Lane Avenue in the study area is on the suggested route to Bubb Elementary School, Graham Middle School, and Mountain View High School.

Victor Way is a two-lane east-west local street between Castro Street and Lane Avenue. Sidewalks exist along both sides of the street. On-street parking is permitted along both sides of the street. The posted speed limit is 25 mph. Victor Way provides direct access to the proposed commercial parking garage of the project.



Existing Transit Services

Existing public transit services in the study area are provided by the VTA and the City of Mountain View. VTA operates bus services in Santa Clara County. Also, Google, partnering with Mountain View, provides free community shuttle service in the City.

The VTA bus routes and MV community shuttle routes in the project vicinity near the project site are summarized in Table 3 and shown on Figure 3.

The project site is also within one mile of the Mountain View Transit Center.

Table 3 **Existing Transit Services**

Route	Route Description	Weekday Hours of Operation	Headways (minutes)		Walking Distance from Nearest Stop to Project Site (feet)
VTA Bus Routes					
Local Route 21	Stanford Shopping Center - Santa Clara Transit Center	5:30 AM - 9:50 PM	30	California St & Hope St	2,475
Frequent Route 22	Palo Alto Transit Center - Eastridge	4:15 AM - 3:00 AM (next day)	15	Project Frontage, El Camino Real El Camino Real & Castro St	Project Frontage
Local Route 51	Moffet Field/Ames Center - West Valley College	6:00 AM - 7:20 PM	22-60	Project Frontage, Castro St	Project Frontage
Local Route 52	Foothill College - Mountain View Transit Center via El Monte	7:05 AM - 6:30 PM	30-35	El Camino Real & Castro St Castro St north of Yosemite Ave	430 (southbound) 815 (northbound)
Frequent Route 522	Palo Alto Transit Center - Eastridge	5:20 AM - 11:10 PM	15	Project Frontage, El Camino Real El Camino Real & Castro St	Project Frontage
Mountain View Com	munity Shuttle ²				
MVCS	Throughout Mountain View	7:00 AM - 6:55 PM	30	Project Frontage, Castro St	Project Frontage
Notes:					

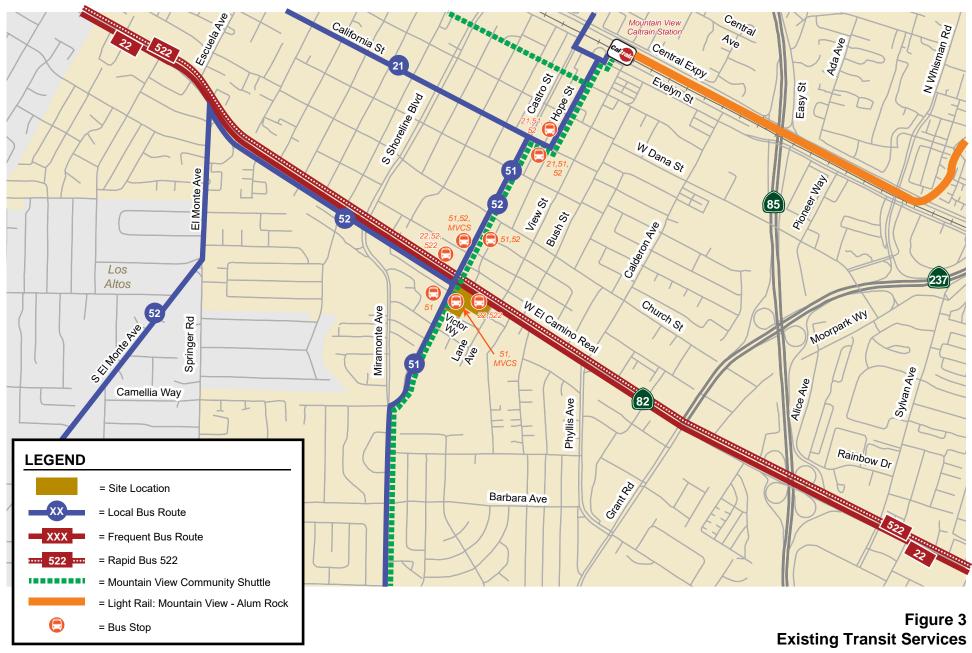
VTA Bus Service

VTA Local Routes 21, 22, 51, 52, and 522 serve the project area with bus stops in each direction along El Camino Real, Castro Street, and California Street. The bus stops closest to the project site are along the project frontages on El Camino Real and Castro Street for routes 22, 51, and 522. Routes 21, 51, and 52 also stop at the Mountain View Transit Center, approximately 0.8 mile from the site.



^{1.} Headways during weekday peak periods as of April 2023.

^{2.} Operated by Mountain View and Google. It provides free transportation connections between many residential neighborhoods, senior residences and services, city offices, library, park and recreational facilities, medical offices, shopping centers, and entertainment venues throughout Mountain View.







Mountain View Community Shuttle

The Mountain View Community Shuttle provides service to many residential neighborhoods, senior residences and services, city offices, library, recreational facilities, medical offices, shopping centers, and entertainment venues in the City. The shuttle stops closest to the project site are on Castro Street along the project frontage. The MVCS also stops at the Mountain View Transit Center, approximately 0.8 mile from the site.

Mountain View Transit Center

The Mountain View Transit Center provides connections to Caltrain, VTA LRT, several VTA bus routes (Routes 21, 40, 51, and 52), MVgo shuttle routes, and the Mountain View Community Shuttle. The transit center is approximately 0.8 mile from the project site.

Caltrain Commuter Train Service

Caltrain provides frequent commuter train service between San Jose and San Francisco seven days a week, with stops at most cities in between. During the AM peak period between 7:00 and 10:00, there are six northbound trains (three limited-stop trains and three local trains) and six southbound trains (three limited-stop trains and three local trains) serving the Mountain View station. During the PM peak period between 4:00 and 7:00, there are six northbound trains (three limited-stop trains and three local trains) and six southbound trains (three limited-stop trains and three local trains) serving the Mountain View station. Bicycles are permitted on Caltrain, and there are bicycle racks and bicycle lockers available at the Mountain View Transit Center.

Existing Pedestrian Facilities

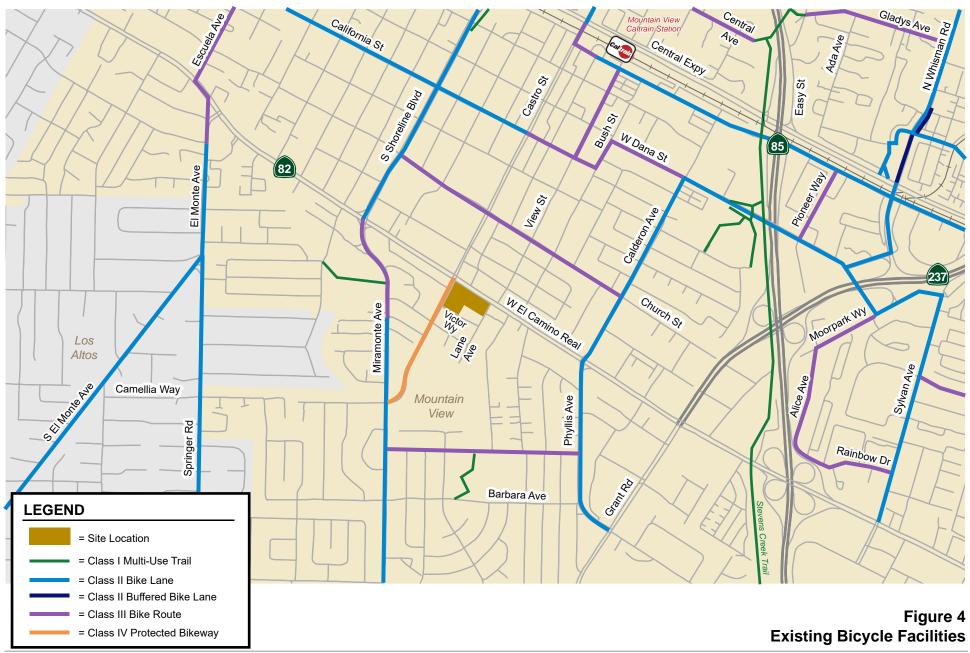
Pedestrian facilities consist of sidewalks and crosswalks, which are present along most roadways in the project vicinity, and at signalized and unsignalized intersections. Pedestrian signal heads and push buttons are present at the signalized intersections in the project vicinity. Sidewalks are present along El Camino Real, Castro Street, Victor Way, and Lane Avenue. Sidewalks are also present on virtually all other streets in the area. Crosswalks exist across Victor Way at Castro Street and Lane Avenue. The crosswalk at Castro Street and Victor Way is a high-visibility crosswalk.

Within a typical walking distance (a half mile or 10 minutes), continuous pedestrian facilities are present between the project and the surrounding land uses, including restaurants, retail shops, bus stops, and offices in the area.

Existing Bicycle Facilities

The bicycle facilities that exist within one mile of the project site (see Figure 4) include a multi-use trail (Class I bikeway), striped bike lanes (Class II bikeway), shared bike routes (Class III bikeway), and protected bike lanes (Class IV bikeway). Bike paths or 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 signed bike routes where bicyclists share a travel lane with motorists. Protected bike lanes are lanes on roadways that provide separation between bicyclists and vehicles through posts, parked cars, planters, etc.









The Stevens Creek trail runs from the North Bayshore Area north of US 101 to Dale Avenue/Heatherstone Way in the south. The trail is shared between pedestrians and bicyclists and separated from motor vehicle traffic. The trail includes an overcrossing at SR 237 and an underpass at El Camino Real in the project area. Access to the trail is available from El Camino Real, just west of SR 85.

Striped bike lanes are present along the following street segments:

- El Monte Avenue, south of Marich Way
- Springer Road, for the entire street
- Shoreline Boulevard, for the entire street
- Miramonte Avenue, south of Harpster Drive
- Calderon Avenue, for the entire street
- Phyllis Avenue, for the entire street
- California Street, west of Castro Street

Bike routes are typically designated with sharrows (shared-lane pavement markings), and bikes may take the travel lane. Bike routes are appropriate for low-volume streets with slow travel speeds, especially those on which motorist volumes are low enough that passing maneuvers can use the full street width; on roadways with bicycle demand but without adequate space for bike lanes; and as "gap fillers" where there are short breaks in bike lanes due to right-of-way constraints. Bike routes are indicated with signs along the following streets:

- Escuela Avenue between El Camino Real and California Street
- Miramonte Avenue north of Harpster Drive
- Hans Avenue, for the entire street
- Church Street, for the entire street

The City's Bike Map shows El Monte Avenue north of Marich Way and El Camino Real between El Monte Avenue and Escuela Avenue are designated as existing bike routes. However, there are no signs or sharrows on either street to indicate a bike route.

Castro Street provides protected bike lanes along both sides of the street, south of El Camino Real.

Existing Lane Configurations and Traffic Volumes

The existing lane configurations at the study intersections were obtained from field observations (see Figure 5).

Existing traffic volumes were obtained from turning movement counts collected on a typical weekday November 16, 2022, between 7:00 and 10:00 AM and between 4:00 and 7:00 PM (see Figure 6). The intersection turning-movement counts conducted for this analysis are presented in Appendix A.

Existing traffic counts along eastbound El Camino Real west of Lane Avenue were also collected on November 16, 2022, for 24 hours. The counts showed that the AM peak hour was from 8:00 to 9:00 and the PM peak hour was from 4:00 to 5:00, with 1,182 and 1,348 vehicles, respectively. Field observations showed that the eastbound traffic was able to travel along El Camino Real without heavy delays during both the AM and PM peak hours. Therefore, vehicles from Lane Avenue were able to turn onto El Camino Real with little to no delay. Occasionally, a queue of 2 to 3 vehicles would form along Lane Avenue when the eastbound traffic was heavy. However, vehicles were able to find gaps once the traffic cleared.







Existing Lane Configurations





Existing Intersection Levels of Service

The results of the intersection level of service analysis show that all the study intersections currently are operating at acceptable levels of service (see Table 4). The intersection level of service calculation sheets for the project are included in Appendix B.

Table 4
Existing Intersection Levels of Service

					Exis	ting
ID	Intersection	LOS Standard	Peak Hour	Count Date	Avg. Delay ¹	LOS
1	El Monte Ave and El Camino Real*	Е	AM PM	11/16/22 11/16/22	43.7 32.9	D C
2	Shoreline Blvd and El Camino Real*	Е	AM PM	11/16/22 11/16/22	50.4 51.5	D D
3	Castro St and El Camino Real*	E	AM PM	11/16/22 11/16/22	42.4 40.7	D D
4	Calderon Ave and El Camino Real	D	AM PM	11/16/22 11/16/22	31.7 32.1	C C
5	SR 237 and El Camino Real*	E	AM PM	11/16/22 11/16/22	50.8 57.9	D E
6	Castro St and Victor Way (unsignalized)	D	AM PM	11/16/22 11/16/22	15.0 12.4	C B
7	Lane Ave and El Camino Real (unsignalized)	D	AM PM	11/16/22 11/16/22	13.0 13.4	B B
8	Lane Ave and Victor Way (unsignalized)	D	AM PM	11/16/22 11/16/22	9.4 8.8	A A

Notes:



^{*} Denotes VTA CMP intersection.

^{1.} Weighted average control delay measured in seconds per vehicle for signalized intersections. Worst approach delay (seconds per vehicle) and LOS are reported for side stop-controlled intersections.

3.

Vehicle Operational Analysis

This chapter presents the vehicle traffic operational analysis including the method by which project traffic is estimated, the results of intersection level of service analysis for background, background plus project, cumulative, and cumulative plus project, any adverse effects to intersection level of service caused by the project, an intersection vehicle queuing analysis, and a freeway segment capacity analysis. A potential adverse operational effect on a study intersection and freeway segment is not considered a CEQA impact.

Project Trip Estimates

Through empirical research, data have been collected that show trip generation rates for many types of land uses. The data are published in the Institute of Transportation Engineers' (ITE) manual entitled *Trip Generation Manual,* 11th Edition. The magnitude of traffic added to the roadway system by a particular development is estimated by multiplying the applicable trip generation rates by the size of the development. Trip generation estimates for the project (see Table 5) are based on standard trip generation rates published in the ITE *Trip Generation Manual* for "Mid-Rise Multifamily Housing" (Land use 221) and "Strip Retail Plaza" (Land use 822). The "Mid-Rise Multifamily Housing" category refers to apartments and condominiums located within the same building that have between four and 10 levels. The "Strip Retail Plaza" category refers to an integrated group of commercial establishments. This category includes the trip data for retail/commercial uses less than 40,000 s.f. The trip generation estimate for the Chase Bank is based on existing driveway counts.

Trip Adjustments and Reductions

Because the project would provide residential and retail mixed-use on site, some residents would patronize the retail businesses. Per the Santa Clara Valley Transportation Authority (VTA)'s *Transportation Impact Analysis (TIA) Guidelines*, an internal trip reduction of 15% between the retail and residential uses was applied to the project. The trip reduction factor was first applied to the smaller trip generator (retail); then the same trips were subtracted from the larger trip generator (residential) to account for both trip ends.

The project is located within 2,000 feet of major bus stops that serve VTA Routes 22 and 522. A major bus stop is defined as a stop where six or more buses per hour from the same or different routes stop during the peak period. Therefore, per the VTA TIA Guidelines, a 2% transit reduction was applied to the residential use.



Table 5
Project Trip Generation Estimates

		Da	aily	AM Peak Hour					PM Pe	ak Hoı	ır
		Trip		Trip		Trips		Trip		Trips	
Land Use	Size	Rate	Trips	Rate	In	Out	Total	Rate	ln	Out	Total
Proposed Use											
Mid-Rise Multifamily Residential ¹	299 units	4.54	1,357	0.37	25	86	111	0.39	71	46	117
- Residential/Retail Internal Cap	ture (15%) ³		-94		-2	-2	-4		-6	-5	-11
- Transit Reduction (2%) ⁴			-25		0	-2	-2		-1	-1	-2
` ′	l Residential	•	1,238	_	23	82	105	•	64	40	104
Retail ²	11.500 ksf	54.45	626	2.36	16	11	27	6.59	38	38	76
- Residential/Retail Internal Cap	ture (15%) ³		-94		-2	-2	-4		-5	-6	-11
- Pass-By Reduction (30%) ⁵			-160		0	0	0		-10	-10	-20
Sub	-Total Retail	•	372	_	14	9	23	•	23	22	45
Chase Bank ⁶	11.500 ksf		399		21	16	37		40	46	86
Gross Proposed Trips			2,009		58	107	165		127	108	235
Existing Use											
Chase Bank ⁶	18.302 ksf		399		21	16	37		40	46	86
Net Project Trips			1,611		37	91	128		87	62	149

Source: ITE Trip Generation Manual, 11th Edition, 2021.

- 1. Multifamily Housing Not Close to Rail Transit (Mid-Rise) (Land Use 221): average trip rates in trips per dwelling unit (du) are used.
- 2. Strip Retail Plaza (<40k) (Land Use 822): average rates in trips per 1,000 s.f. are used.
- 3. Residential/retail internal trip reductions were applied to the project per the 2014 Santa Clara VTA TIA Guidelines.
- 4. Per VTA TIA Guidelines, a transit trip reduction is applied to the project that is within 2,000 feet of a major bus stop.
- 5. Pass-by trip reduction is based on the maximum allowable pass-by trip reduction rate in the VTA TIA Guidelines, October 2014 for the daily and PM peak hour. Hexagon assumes no pass-by trip reduction during the AM peak hour for
- 6. AM and PM peak-hour trips were based on the driveway counts conducted on November 17, 2022. Daily trips were estimated based on the average ratio of ITE daily to AM and PM peak-hour trip rates for Drive-in Bank (ITE Land Use 912).

In addition, trip generation for retail uses is typically adjusted to account for pass-by trips. Pass-by trips are trips that would already be on the adjacent roadways (and are therefore already counted in the existing traffic) but would turn into the site while passing by. Pass-by trips are therefore excluded from the traffic projections (although pass-by traffic is accounted for at the site entrances). The ITE *Trip Generation Manual* includes pass-by data for various retail land uses based on numerous surveys. For retail uses, the average pass-by rate for a shopping plaza (40,000-150,000 s.f.) is 31% during the PM peak hour. Although surveys were not conducted for strip retail plazas (less than 40,000 s.f.), the pass-by reduction is reasonable to be applied to the project site. The surveys were only conducted for the PM peak period, and it is presumed that daily trips would have the same pass-by rate. However, the VTA TIA Guidelines cap the pass-by rate at 30%, so that is the value that was used.

Existing Trip Credits

The project site is currently occupied by a Chase Bank building and a vacant restaurant. Because the Chase Bank would continue to operate in the proposed mixed-use building, vehicle trips generated by the Chase Bank were obtained from AM and PM peak-hour driveway counts conducted in November 2022. Although the square footage of the Chase Bank would be reduced from 18,302 s.f. to 11,500 s.f.,



it was assumed the new Chase Bank would generate the same number of trips as the existing bank because there would be no changes in services offered by the bank.

Net Project Trips

After applying the trip reductions and existing trip credits, the proposed project is estimated to generate 1,611 new daily trips, including 128 new trips (37 inbound and 91 outbound) during the AM peak hour and 149 new trips (87 inbound and 62 outbound) during the PM peak hour (see Table 5).

Trip Distribution and Assignment

The trip distribution for the project was estimated based on existing travel patterns on the surrounding roadway network and the locations of complementary land uses (see Figure 7). The peak-hour trips generated by the proposed project were assigned to the roadway system based on the directions of approach and departure, the roadway network connections, and the location of project driveways (see Figure 8). The residential and commercial parking garages would be separated and not connected. The commercial driveways would be provided on El Camino Real and Victor Way. The residential driveway would be provided on Lane Avenue. Although Castro Street is closed to vehicular traffic north of California Street, motor vehicle trips to/from the Downtown area are expected to use Castro Street as the connecting road between the project site and the Downtown, and the trip distribution is taking into account overall Downtown access.

El Camino Real has a raised median, so only right turns in and out are possible. Inbound project traffic traveling westbound on El Camino Real and wanting to enter the site via the El Camino Real driveway would need to either make a U-turn at Castro Street or continue southbound on Castro Street to the driveway on Victor Way. Outbound project traffic destined to westbound El Camino Real would need to make a U-turn at Bonita Avenue or use the Victor Way driveway and make a left turn from Castro Street.

Forty percent of the inbound commercial traffic traveling westbound on El Camino Real was assumed to make a left turn on Castro Street and continue to Victor Way to the project driveway. The remaining 60 percent of inbound commercial traffic was assumed to make a U-turn at Castro Street and enter the site via the El Camino Real driveway. All outbound commercial traffic traveling to the west on El Camino Real was assumed to use the Victor Way driveway and make a left turn from Castro Street to westbound El Camino Real.

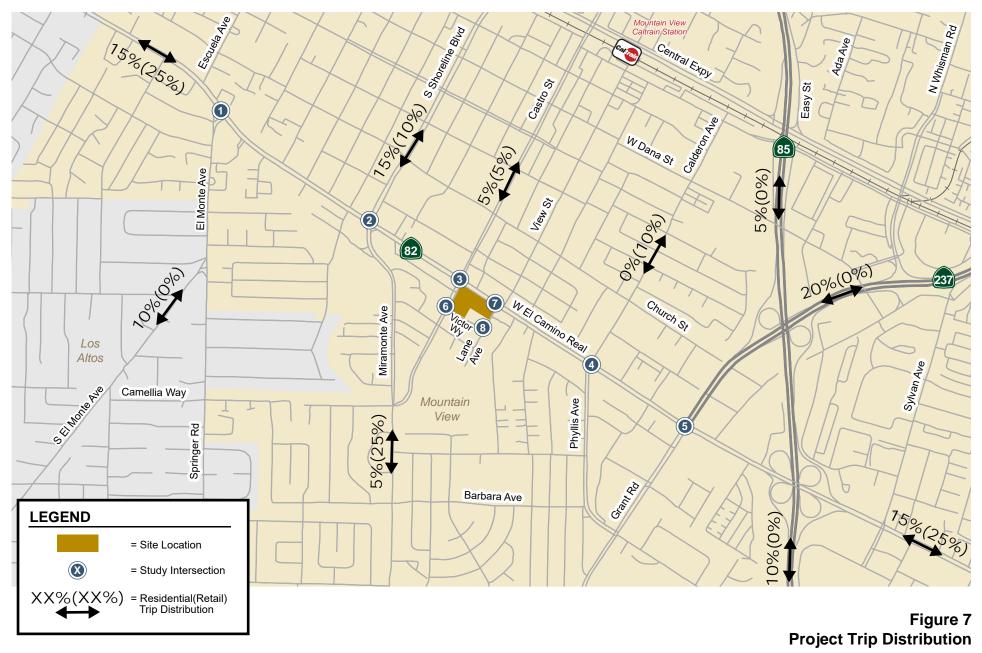
All inbound residential traffic traveling westbound on El Camino Real was assumed to make a U-turn at Castro Street to access the residential driveway on Lane Avenue. Twenty-five percent of outbound residential traffic wanting to travel along westbound El Camino Real was assigned to make a U-turn at Bonita Avenue, and the remaining 75 percent was assigned to travel westbound on Victor Way and make a left turn from Castro Street to westbound El Camino Real.

Roadway Network

The lane configurations of the study intersections under background, cumulative, and project conditions would be the same as existing conditions. Although there are planned and funded transportation improvements in the study area as listed below, these improvements would not change the study intersection lane configurations, and the project would not alter the existing intersection lane configurations.

- Road diet for El Monte Avenue, approach at El Camino Real will continue to have two left turn lanes and one right turn lane.
- Road diet on Miramonte Avenue between Castro Street and Cuesta Drive









749 W. El Camino Real Mixed-Use Development Calderon SR 237 Ramps 2 3 5 4 6(16) 1(2) **←** 13(8) ← 15(12) ← 23(16) ← 15(38) ← 9(22) El Camino Real El Camino Real El Camino El Camino El Camino **12(31)** Real 1(2) 21(10) 23(16) -7(15) -9(22) 4(13) 43(26) 2(6) 10(21) Miramonte Ave Castro St Phyllis Ave Grant Rd 6 S Shoreline Blug 41(51) ← 26(45) El Camino **←** 10(19) WEI Camino Real Dwy Real Victor Wy Castro St 3(8) — 19(52) -50(25) -5(-10) 10(19) El Monte Ave View St Castro St 2 Los 82 Altos 8 85 3 32(16) 7 9/5) 5 Church St 6 Miramonte Ave Victor 8 Victor Wy Bonita Ave 4(12) 4 237 Camellia Way Mountain Phyllis Ave Lane Ave View **(5) LEGEND** = Site Location = Study Intersection Figure 8 XX(XX) = AM(PM) Peak-Hour Trips **Project Trip Assignment**





- El Camino Real Streetscape (Caltrans project)
- Castro Pedestrian Mall

Traffic Volumes

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 Mountain View, Los Altos, and Sunnyvale. 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. The approved projects considered for the study are listed in Appendix C. Vehicle trips from the approved projects were obtained from the project's TIA or environmental document (Initial Study or EIR), if available. For projects without a traffic study, trip estimates were developed using rates published in the *Trip Generation Manual*. The estimated trips were assigned to the study intersections according to distributions identified in the development traffic studies, if available, or knowledge of the study area.

The approved trips and traffic volumes for all components of traffic are tabulated in Appendix C.

Background Plus Project Traffic Volumes

Project trips, as represented in the above project trip assignment, were added to background traffic volumes to obtain background plus project traffic volumes (see Figure 10).

Cumulative Traffic Volumes

The cumulative no project traffic volumes were estimated by first applying a two percent growth factor per year for 5 years to existing traffic volumes. (With compounding, this yields a factor of 1.104.) This growth assumption was furnished by the City of Mountain View Planning Department. The annual growth factor accounts for the volumes from known pending development projects, smaller ministerial activities, as well as general growth in the area, and is evaluated yearly by the City's Public Works Department. The trips generated by the approved projects in the vicinity were then added to obtain cumulative no project traffic volumes (see Figure 11).

Cumulative Plus Project Traffic Volumes

Project trips, as represented in the above project trip assignment, were added to cumulative traffic volumes to obtain cumulative plus project traffic volumes (see Figure 12).















749 W. El Camino Real Mixed-Use Development SR 237 Ramps 2 5 3 4 79(63) 127(128) 109(150) 195(296) 381(293) 222(200) 47(92) 80(114) 132(268) 748(647) 878(869) 173(397) 118(138) 233(156) **←** 79(113) 32(35) **—** 1279(1227) — 1236(1247) **-** 908(982) **←** 1306(1341) **←** 1575(1547) El Camino Real El Camino Real El Camino Real El Camino Real El Camino 502(572) 179(272) 110(119) 172(222) 346(393) Real 4(10) 343(375) 81(115) 87(76) 735(672) 971(1498) 1420(1535) 984(1325) 1110(1456) 1061(1303) 407(264) 335(325) 167(175) 279(319) 40(40) 150(107) 131(104) 260(159) 93(93) 1128(921) 338(382) 103(96) 115(111) 49(74) 40(56) Miramonte Ave El Monte Ave Castro St Phyllis Ave Grant Rd 6 S Shoreline Blug 0(19) 265(236) 39(107) 1 ₹_ 55(81) **←** 1656(1674) El Camino WEI Camino Real Dwy Real Victor Wy 18(4) Castro St 3(0) 2(2) 1618(1667) 128(119) 0(2) 449(248) 16(26) 58(90) El Monte Ave View St Castro St 2 Lane Ave Los 82 Altos 8 85 3 45(25) 99(14) Church St 7 **6** Miramonte Ave Springer Rd Victor 8 Victor 23(36) 4 237 Camellia Way Mountain Phyllis Ave Lane Ave View **(5) LEGEND** = Site Location = Study Intersection Figure 12 XX(XX) = AM(PM) Peak-Hour Traffic Volumes **Cumulative Plus Project Traffic Volumes**





Intersection Levels of Service

The results of the intersection level of service analysis (see Tables 6 and 7) show that all study intersections, would operate at acceptable levels during both the AM and PM peak hours of traffic under background and cumulative conditions, with and without the project. The critical delay and v/c increase for unsignalized intersections are not calculated, as these values only determine the adverse effect at signalized intersections. The intersection level of service calculation sheets for the project are included in Appendix B.

There are some signalized intersections for which the average delay under project conditions is shown to be less than under no project conditions during at least one peak hour. The decrease in average delay can be less under project conditions because the intersection delay is a weighted average of all intersection movements. The addition of project traffic to movements with delays lower than the average intersection delay can reduce the average delay for the entire intersection.

Table 6
Background Plus Project Intersection Levels of Service

				Backgı	round		Background+Project			
		LOS	Peak	Avg.		Avg.		Incr. In	Incr. In	
ID	Intersection	Standard	Hour	Delay ¹	LOS	Delay'	LOS	Crit. Delay	Crit. V/C	
1	El Monte Ave and El Camino Real*	Е	AM	43.7	D	43.7	D	0.1	0.005	
			PM	32.9	С	33.1	С	0.3	0.008	
2	Shoreline Blvd and El Camino Real*	Е	AM	50.6	D	50.2	D	0.5	0.001	
			PM	51.9	D	51.8	D	-0.2	0.005	
3	Castro St and El Camino Real*	Ε	AM	43.3	D	44.7	D	1.1	0.014	
			PM	42.5	D	44.6	D	3.2	0.052	
4	Calderon Ave and El Camino Real	D	AM	31.6	С	31.4	С	-0.3	0.009	
			PM	31.8	С	31.7	С	-0.1	0.006	
5	SR 237 and El Camino Real*	Ε	AM	51.0	D	51.6	D	1.1	0.013	
			PM	58.1	Е	58.4	Е	0.8	0.017	
6	Castro St and Victor Way	D	AM	15.6	С	17.2	С		-	
	(unsignalized)		PM	13.0	В	14.6	В		-	
7	Lane Ave and El Camino Real	D	AM	13.1	В	14.3	В			
	(unsignalized)		PM	13.5	В	14.6	В			
8	Lane Ave and Victor Way	D	AM	9.4	Α	9.5	Α		-	
	(unsignalized)		PM	8.8	Α	8.9	Α	-	-	

Notes:



^{*} Denotes VTA CMP intersection.

^{1.} Weighted average control delay measured in seconds per vehicle for signalized intersections. Worst approach delay (seconds per vehicle) and LOS are reported for side stop-controlled intersections.

Table 7
Cumulative Plus Project Intersection Levels of Service

				Cumul	ative	Cumulative+Project			ect
ID	Intersection	LOS Standard		Avg. Delay ¹	LOS	Avg. Delay ¹	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C
1	El Monte Ave and El Camino Real*	E	AM PM	44.5 33.7	D C	44.5 33.9	D C	0.2 0.3	0.005 0.008
2	Shoreline Blvd and El Camino Real*	Е	AM PM	51.8 53.5	D D	51.7 53.4	D D	-0.3 -0.1	0.007 0.005
3	Castro St and El Camino Real*	Е	AM PM	44.3 43.7	D D	45.7 45.8	D D	0.9 3.3	0.012 0.052
4	Calderon Ave and El Camino Real	D	AM PM	32.4 32.7	C C	32.2 32.6	C C	-0.2 0.0	0.009 0.006
5	SR 237 and El Camino Real*	Е	AM PM	55.5 61.2	E E	56.6 61.8	E E	2.2 1.4	0.013 0.017
6	Castro St and Victor Way (unsignalized)	D	AM PM	17.0 13.7	C B	18.9 15.6	C C	 	-
7	Lane Ave and El Camino Real (unsignalized)	D	AM PM	14.0 14.6	B B	15.5 15.9	C C		
8	Lane Ave and Victor Way (unsignalized)	D	AM PM	9.5 8.8	A A	9.7 8.9	A A	 	

Notes:

Signal Warrant Analysis At Unsignalized Intersections

Traffic operations at the unsignalized intersections were also analyzed on the basis of the Peak-Hour Volume Signal Warrant. (Warrant #3) described in the California Manual on Uniform Traffic Control Devices (MUTCD), 2014 Edition. This method makes no evaluation of intersection level of service, but simply provides an indication whether peak-hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal. The results of the peak-hour volume signal warrant analysis (see Table 8) indicate that the Castro Street/Victor Way and Lane Avenue/Victor Way intersections would not meet the warrant under any scenario. The Lane Avenue/El Camino Real intersection would meet the volume thresholds that warrant signalization under background plus project and cumulative plus project conditions during both AM and PM peak hours if both the eastbound and westbound volumes are considered. However, because the intersection would operate at an acceptable LOS B with the existing configuration (i.e. divided eastbound and westbound traffic) under background plus project conditions and LOS C under cumulative plus project conditions, installation of a traffic signal is not recommended for the intersection. Note that the assessment for a signal is based on a standard intersection with traffic from a side street across the major street. However, traffic from Lane Avenue can only make right turns as there is a median along El Camino Real, prohibiting any through or left-turn movement from Lane Avenue. The intersection would not meet the warrant based on the current configuration with the median along El Camino Real.

Based on field observations, traffic from Lane Avenue may have some delay turning right onto El Camino Real during the PM peak hour when the eastbound traffic on El Camino Real is heavy. However, vehicles on El Camino Real quickly cleared the intersections along El Camino Real, providing



^{*} Denotes VTA CMP intersection.

^{1.} Weighted average control delay measured in seconds per vehicle for signalized intersections. Worst approach delay (seconds per vehicle) and LOS are reported for side stop-controlled intersections.

gaps for turning vehicles on Lane Avenue. Vehicle traffic from Lane Avenue was low during both the AM and PM peak hour, with an average queue of one vehicle. The peak-hour signal warrant sheets are contained in Appendix D.

Table 8
Signal Warrant Analysis Results

	Signal Warrant Met ¹								
Intersection	Existing	Background	Background Plus Project	Cumulative	Cumulative Plus Project				
Castro Street & Victor Way	No	No	No	No	No				
Lane Avenue & El Camino Real	No	No	Yes	No	Yes				
Lane Avenue & Victor Way	No	No	No	No	No				
Note: 1. Based on the California Manua	al on Uniform	Traffic Control Dev	ices for Streets and	l Highways, Warra	nt 3 - Peak Hour				

Stop Warrant Analysis At Lane Avenue and Victor Way

A potential all-way stop at the Lane Avenue and Victor Way intersection was evaluated under existing, background, background plus project, cumulative, and cumulative plus project conditions, based on the criteria described in the City's stop warrant analysis worksheet. The criteria include:

I. **Volume Warrant:** The vehicular volume entering the intersection from all approaches is at least 300 vehicles per hour for the highest 8 hours of an average day, AND the combined vehicular volume entering the intersection from the minor street approaches is at least 100 vehicles per hour for the same 8 hours.

OR

The vehicular volume entering the intersection from all approaches is at least 300 vehicles per hour for the highest 8 hours of an average day, AND the total pedestrian volume entering the intersection is at least 100 pedestrians per hour for the same 8 hours.

If the intersection is located in a residential area, the above volume thresholds are decreased by 40%.

- II. Crash Warrant: 3 or more reported crashes/collisions in a 12-month period.
- III. **Line of Sight Warrant:** 150 feet or less sight distance on one or more approaches of the major street.

An intersection qualifies as a residential area if ALL of the following conditions exist:

- Both streets have residential frontage and have a 25-mph speed limit.
- Neither street is an adopted through street as defined in the CVC (California Vehicle Code).
- Neither street has more than one travel lane in each direction.
- No stop sign or traffic signal exists within 500 feet along the major street.
- The installation of a 4-way stop sign is compatible with overall traffic circulation.

The Lane Avenue/Victor Way intersection does not qualify as a residential area because Lane Avenue (the major street) has a stop sign at El Camino Real, 325 feet north of the intersection.

Based on the City's stop warrant criteria, the intersection would not meet any of the three warrants under any scenario. The stop warrant analysis worksheets are included in Appendix D.



Intersection Queuing Analysis

The analysis of intersection operations was supplemented with a vehicle queuing analysis for intersections where the project would add a substantial number of trips to the left-turn movements or stop-controlled movements. This analysis provides a basis for estimating future storage requirements at the intersections under existing, background, and project conditions. Vehicle queues were estimated using a Poisson probability distribution, described in Chapter 1. The following left-turn movements were evaluated, and the results of the queueing analysis are summarized in Table 9:

- Southbound left turn from Shoreline Boulevard to eastbound El Camino Real
- Westbound left turn from El Camino Real to southbound Castro Street
- Eastbound left turn from El Camino Real to northbound SR 237
- Southbound left turn from Castro Street to Victor Way
- Westbound Victor Way at Castro Street

The queuing analysis indicates that the following intersections would have queuing deficiencies caused or exacerbated by the project:

- Westbound left turn from El Camino Real to southbound Castro Street
- Eastbound left turn from El Camino Real to northbound SR 237

Castro Street and El Camino Real – Westbound Left Turn

The existing storage capacity for the westbound left-turn lane on El Camino Real at Castro Street is approximately 350 feet (14 vehicles). Under existing conditions, the 95th percentile queue exceeds the storage lane by 25 feet, or one vehicle, during the PM peak hour. Field observations were consistent with the analysis, and all vehicles within the queue were able to clear the intersection within one cycle. Through traffic was not affected as there are three through lanes, and the queue extended out of the storage lane by only one vehicle. Under background conditions, the queue would remain the same. The project would add one vehicle to the PM peak-hour queue. The small increase is not expected to affect the westbound through traffic as there are three westbound through lanes.

SR 237/Grant Road and El Camino Real – Eastbound Left Turn

The existing storage capacity for the eastbound left-turn lanes on El Camino Real at SR 237 is approximately 200 feet in the inner lane and 300 feet in the outer left-turn lane for a total of 500 feet (20 vehicles). Under existing conditions, the analysis shows the 95th percentile queue exceeds the storage lanes by 450 feet, or 18 vehicles, during the AM peak hour and 19 vehicles during the PM peak hour. Field observations showed that the vehicle queues during both the AM and PM peak hours occasionally exceeded the storage lanes by 10 to 20 vehicles, and 4 to 10 vehicles required two cycles to clear the intersection. However, the through traffic was not affected because there are three eastbound through lanes. Vehicles were typically able to go around the left-turn queue to continue straight through the intersection. In addition, most vehicles in the leftmost lane approaching the intersection were typically planning to make a left turn.

Under background conditions, the queue would remain the same. The project would add four vehicles to the AM and PM peak-hour queues. The inner turn lane could be extended by 600 feet by modifying the existing landscaped median, which would be sufficient to accommodate the entire 95th percentile queue under existing, background, and background plus project conditions. The intersection is maintained and operated by Caltrans, and therefore projects proposed at this intersection would require Caltrans design and approval.



Table 9 Intersection Queuing Analysis Summary

		ne Blvd amino		St & El o Real	SR 23 Camin		Ca	stro St &	Victor W	/ ay
	SBL		WBL		EBL ²		SBL		WBL/T/R ³	
Analysis Scenario	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Existing										
Cycle (sec)	180	178	180	170	163	180	8.1	7.8	12.2	9.9
Volume (vph)	195	167	141	196	644	595	12	46	19	25
Number of lanes	1	1	1	1	1	1	1	1	1	1
Volume (vphpl)	195	167	141	196	644	595	12	46	19	25
95th %. Queue (veh/ln)	15	13	12	15	38	39	1	1	1	1
95th %. Queue ¹ (ft/ln)	375	325	300	375	950	975	25	25	25	25
Storage (ft/ln)	450	450	350	350	500	500	75	75	150	150
Adequate (Y/N)	Υ	Υ	Υ	N	N	N	Υ	Υ	Υ	Υ
Background										
Cycle (sec)	180	178	180	170	163	180	8.2	7.8	12.4	10.0
Volume (vph)	197	171	148	207	647	600	22	69	19	25
Number of lanes	1	1	1	1	1	1	1	1	1	1
Volume (vphpl)	197	171	148	207	647	600	22	69	19	25
95th %. Queue (veh/ln)	15	13	12	15	38	39	1	1	1	1
95th %. Queue ¹ (ft/ln)	375	325	300	375	950	975	25	25	25	25
Storage (ft/ln)	450	450	350	350	500	500	75	75	150	150
Adequate (Y/N)	Υ	Υ	Υ	N	N	N	Υ	Υ	Υ	Υ
Background Plus Proje	ect									
Cycle (sec)	180	178	180	170	163	180	8.2	7.9	12.9	11.7
Volume (vph)	217	188	163	227	714	662	23	74	21	27
Number of lanes	1	1	1	1	1	1	1	1	1	1
Volume (vphpl)	217	188	163	227	714	662	23	74	21	27
95th %. Queue (veh/ln)	17	15	13	16	42	43	1	1	1	1
95th %. Queue ¹ (ft/In)	425	375	325	400	1050	1075	25	25	25	25
Storage (ft/ln)	450	450	350	350	500	500	75	75	150	150
Adequate (Y/N)	Υ	Υ	Υ	N	N	N	Υ	Υ	Υ	Υ

Notes:

SBL = southbound left-turn movement; EBL = eastbound left-turn movement; WBL = westbound left-turn movement; WBT = westbound through movement; WBR = westbound right-turn movement.

Freeway Segment Capacity Analysis

The City is still required to conform to the requirements of the VTA that establishes a uniform program for evaluating the transportation impacts of land use decisions on the designated CMP Roadway System. The VTA's CMP has yet to adopt and implement guidelines and standards for the evaluation of the CMP roadway system using VMT. Therefore, the effects of the proposed project on freeway



¹ Assumes 25 feet per vehicle queued.

² The storage length includes the total of the 2 storage lanes.

³ The storage length is measured from the intersection to the proposed project driveway.

segments in the vicinity of the project area following the current methodologies as outlined in the VTA *TIA Guidelines*, was completed. However, this analysis is not relevant to CEQA.

Traffic volumes on the study freeway segments with the project were estimated by adding project trips to the freeway segment volumes obtained from the 2018 CMP Annual Monitoring Report. The analysis assumes 90 percent of the project traffic would travel on the mixed-flow lanes, and 10 percent of the project traffic would travel in the HOV lanes. The results of the freeway segment analysis show that the project trips represent less than one percent of capacity of the freeway segments on SR 237 and SR 85 in the project vicinity (See Table 10). Thus, the project would not have an adverse effect on the traffic operations on nearby freeway segments.



Table 10 Freeway Segment Traffic Operations

				Existing Conditions						Project Trips			
				N	lixed-Flow		ŀ	HOV Lane		Mixe	d-Flow	HO\	/ Lane
			Peak	# of			# of			Project	% of	Project	% of
Freeway	Segment	Dir	Hour	Lanes ¹	Capacity ²	LOS ³	Lanes ¹	Capacity ²	LOS ³	Trips	Capacity	Trips	Capacity
SR 237	El Camino Real to SR 85	EB	AM	2	4,400	E				21	0.5%		
			PM	2	4,400	D				10	0.2%		
SR 237	SR 85 to Moorpark Way	EB	AM	2	4,400	E				16	0.4%		
			PM	2	4,400	D				8	0.2%		
SR 237	Moorpark Way to Maude Ave	EB	AM	2	4,400	E				16	0.4%		
			PM	2	4,400	D				8	0.2%		
SR 237	Maude Ave to Whisman Rd	WB	AM	2	4,400	E				5	0.1%		
			PM	2	4,400	D				12	0.3%		
SR 237	Whisman Rd to SR 85	WB	AM	2	4,400	D				5	0.1%		
			PM	2	4,400	F				12	0.3%		
SR 237	SR 85 to El Camino Real	WB	AM	2	4,400	F				6	0.1%		
			PM	2	4,400	D				15	0.3%		
SR 85	W. Fremont Ave to EL	NB	AM	2	4,400	F	1	1,650	F	2	0.0%	0	0.0%
	Camino Real		PM	2	4,400	D	1	1,650	Α	5	0.1%	1	0.1%
SR 85	EL Camino Real to SR 237	NB	AM	2	4,400	F	1	1,650	D	0	0.0%	0	0.0%
			PM	2	4,400	D	1	1,650	Α	0	0.0%	0	0.0%
SR 85	SR 237 to Central Expwy	NB	AM	2	4,400	D	1	1,650	С	4	0.1%	0	0.0%
			PM	2	4,400	D	1	1,650	Α	2	0.0%	0	0.0%
SR 85	Central Expwy to SR 237	SB	AM	2	4,400	В	1	1,650	Α	1	0.0%	0	0.0%
			PM	2	4,400	F	1	1,650	F	3	0.1%	0	0.0%
SR 85	SR 237 to EL Camino Real	SB	AM	3	6,900	D	1	1,650	В	0	0.0%	0	0.0%
			PM	3	6,900	F	1	1,650	F	0	0.0%	0	0.0%
SR 85	EL Camino Real to W.	SB	AM	2	4,400	D	1	1,650	В	7	0.2%	1	0.1%
	Fremont Ave		PM	2	4,400	F	1	1,650	Е	4	0.1%	0	0.0%

Notes:

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

- 1. Number of lanes on each segment are taken from the Google Earth software.
- 2. Capacity is based on the capacities cited in VTA's Transportation Impact Analysis Guidelines (2014).
- 3. Level of service (LOS) of each segment are taken from VTA's 2018 CMP Monitoring Report.

Bold indicates a substandard level of service.



4.

Other Transportation Issues

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

- Conformance with the El Camino Real Precise Plan
- Site access and circulation
- Effects on pedestrians, bicycles, and transit facilities
- Effects on surrounding neighborhood streets
- Parking

The analyses in this chapter are based on the City's *MTA Handbook* and professional judgment in accordance with the standards and methods employed by the traffic engineering community.

Conformance with El Camino Real Precise Plan (ECRPP)

The project is located within the ECRPP area, which includes parcels immediately fronting El Camino Real (excluding those in the San Antonio Center and Downtown) and adjacent parcels where the ECRPP can facilitate new connections and neighborhood transitions. The project is in conformance with the ECRPP, as described below:

- Village Center public plazas. The project is located in the Village Center zone. Village Center public plazas are special street-facing open areas that act as gathering spaces for surrounding neighborhoods. They should be associated with active commercial frontages, such as restaurant and retail uses, and key pedestrian access routes to transit and surrounding neighborhoods. The project would provide a public plaza east of the Chase Bank and would have amenities such as benches and play areas. The transit stop would be along the plaza.
- Crossings. For crossings in Village Centers, there should be high-visibility crosswalk markings.
 The project would provide new high-visibility crosswalks at Lane Avenue/El Camino Real and
 Lane Avenue/Victor Way and upgrade the existing standard crosswalk to a high visibility
 crosswalk at Castro Street/Victor Way.
- **Ground floor commercial.** Ground floor commercial spaces are required in Village Centers. The project would have retail uses and a Chase Bank fronting El Camino Real.
- Wider sidewalks. The project would provide wider sidewalks along its frontages on El Camino Real, Castro Street, Victor Way, and Lane Avenue. The sidewalks along El Camino Real would be 7 and 12 feet wide. The 7-foot sidewalk section would front the proposed bus island with the sidewalk directly adjacent to the bike lane, and the 12-foot sidewalk section would include a 7foot sidewalk with 5 feet of landscaping separating the vehicular travel lanes/bicycle travel lanes



and the sidewalk. The sidewalk on Castro Street would be 12 feet wide (7 feet of walk zone and 5 feet of landscaping). The sidewalks along the project frontages on Lane Avenue and Victor Way would be 10 feet wide (5 feet walk zone and 5 feet of landscaping).

- **Curb cuts.** A maximum of one curb cut per 200 feet of frontage is allowed. The project should provide a maximum one curb cut on El Camino Real, one curb cut on Victor Way, and one curb cut on Lane Avenue.
- Commercial pedestrian entrances. Building entrances should face the primary street frontage
 or be oriented toward public open spaces. The project's commercial development would have
 front doors facing El Camino Real.
- Parking frontage. Parking and vehicle areas should be located behind or under buildings. The
 project would provide a parking garage on the ground level for the retail use and an
 underground garage for the residential use. Although the retail parking would be located on the
 ground level, it would be located behind the stores.
- Loading and service areas. Loading docks should be screened from the right-of-way and
 adjacent properties. Service access would be provided on Lane Avenue along the eastern
 project boundary and on Victor Way along the southern project boundary. There would be
 screen walls and landscape buffers along the property lines to screen the service areas from
 adjacent properties. Both areas would also be gated with decorative gates to screen the service
 areas from the right-of-way.

The ECRPP specifies that all new Tier 2 developments (except office) should provide a Transportation Demand Management (TDM) plan with programs and measures to reduce vehicle trips. Therefore, the project would be required to prepare and implement a TDM plan and become a member of the Mountain View Transportation Management Association (TMA).

Site Access and Circulation

A review of the project site plan was performed to determine if adequate vehicle site access and on-site circulation would be provided and to identify any access or circulation issues that should be improved. This review is based on the site plan prepared by Arris, dated October 26, 2022, presented on Figure 2 and in accordance with generally accepted traffic engineering standards.

Vehicular Site Access

Vehicle access to the project site would be provided via new driveways on El Camino Real, Victor Way, and Lane Avenue. The project would remove the existing driveways along El Camino Real, Lane Avenue, and Castro Street. The project would provide one driveway on El Camino Real for access to the commercial/retail garage, two driveways on Victor Way (access to the commercial/retail garage and transformer maintenance/service area from west to east), and three driveways on Lane Avenue (access to the commercial loading and residential moving area, residential garage, and garbage staging/pick-up area from north to south). According to the ECRPP, driveways should be a maximum of 20 feet wide, or the minimum required for emergency vehicle access, for a two-way driveway. Garage entrances at grade facing the street should be a maximum of 22 feet wide. The El Camino Real driveway is shown to be 24 feet wide, the Victor Way driveways are shown to be 25.3 feet wide for the commercial/retail garage and 13 feet wide for the transformer maintenance/service area, and the Lane Avenue driveways are shown to be 10 feet wide for the loading area, 22 feet wide for the residential garage, and 15 feet wide for the garbage staging/pick-up are. Thus, the El Camino Real and Victor Way driveways should be reduced to 22 feet wide.



Traffic Operations at Project Driveways

Traffic operations at the project driveways were evaluated to identify whether there would be vehicle queuing issues. The gross site trips that would occur at the project driveways are 58 inbound trips and 107 outbound trips during the AM peak hour, and 137 inbound trips and 118 outbound trips during the PM peak hour (see Figure 13). The PM peak-hour trips include the pass-by trips.

El Camino Real Driveway

At the El Camino Real driveway, there would be 13 inbound trips and 5 outbound trips during the AM peak hour and 33 inbound trips and 19 outbound trips during the PM peak hour from the project, which includes the pass-by trips. Because the driveway is limited to right turns only, significant operational issues related to vehicle queueing and vehicle delay for inbound and outbound traffic are not expected to occur. Vehicles turning right into the project site from eastbound El Camino Real may slow traffic in the outside travel lane momentarily due to vehicles slowing down to turn into the driveway. However, given the estimated 33 inbound trips in the PM peak hour at the driveway, which calculates to about one inbound trip every 2 minutes, the probability of two or more inbound vehicles entering the site at the same time would be low. Therefore, the inbound vehicle queue is not expected to adversely affect the eastbound traffic flow. The proposed bus pad on El Camino Real would begin approximately 150 feet west of the driveway. The bus stop would be separated from the travel lane with 10 feet of vehicle travel lane next to the bus stop. The inbound vehicle queue is not expected to extend to the bus stop or adversely affect bus access.

Similarly, given the estimated 19 outbound trips in the PM peak hour at the driveway, which calculates to about one outbound trip every 3 minutes, the probability of two or more outbound vehicles exiting the site at the same time would be low. The outbound vehicle queue is not expected to affect on-site circulation.

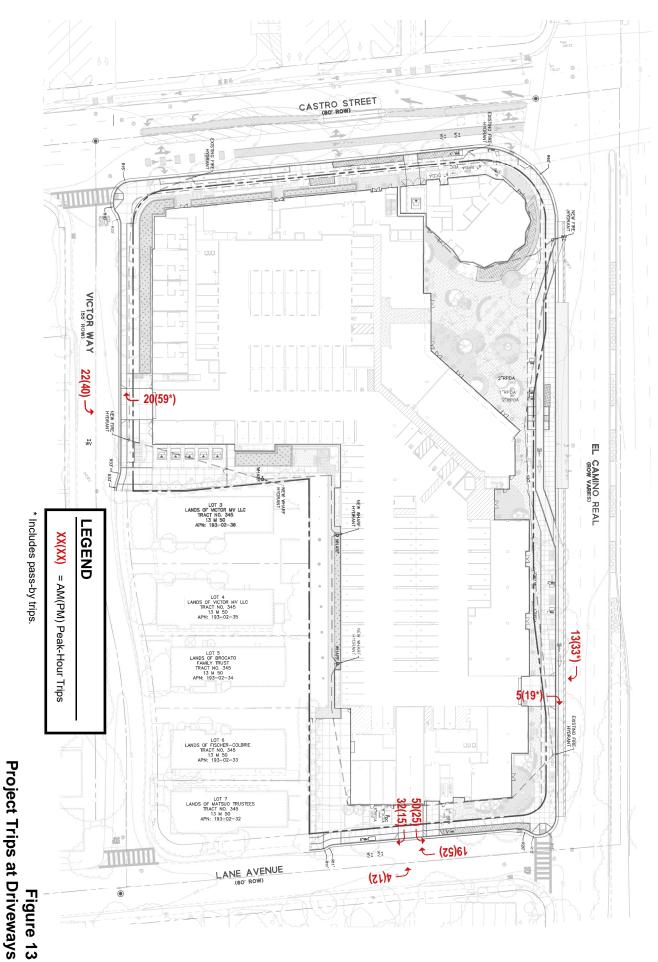
Developments should provide adequate stacking space between the sidewalk and any entry gates. This prevents vehicles from queuing onto the street. The El Camino Real driveway shows 17 feet of vehicle stacking space between the sidewalk and the gate, which could not accommodate even one vehicle without blocking the sidewalk. The gate should be moved farther into the garage to provide inbound stacking space (at least 50 feet) for two vehicles between the gate and sidewalk, or keep the garage entry gate open during retail business hours (typically from 6:00 AM to 9:00 PM) with a minimum of 20 feet of stacking space. If the gates open towards the street, the stacking space shall be measured between the back of sidewalk and the extended fully open length of the gate.

Victor Way Commercial Driveway

The project trips that are estimated to occur at the Victor Way driveway are 22 inbound trips and 20 outbound trips during the AM peak hour and 40 inbound trips and 59 outbound trips during the PM peak hour, which includes the pass-by trips. All of the traffic is expected to make a left turn into the driveway from eastbound Victor Way, and make a right-turn out of the driveway to westbound Victor Way. It is assumed that the project traffic traveling to eastbound El Camino Real would use the El Camino Real driveway to bypass the Castro Street/El Camino Real signal. Because the traffic along Victor Way is low, there is expected to be minimal delay for any southbound left turn traffic out of the driveway and eastbound left turn traffic into the driveway. The eastbound left-turn trips are expected to have a vehicle delay of 7.3 seconds per vehicle during the AM and PM peak hours with a 95th percentile queue of no more than 2 vehicles. The driveway would be approximately 150 feet east of the Castro Street intersection and based on the queuing analysis at Castro Street/Victor Way, the westbound queue at the intersection would not extend to the driveway and would not block the eastbound inbound traffic. The eastbound queue at the project driveway would not extend to Castro Street.









Given the estimated 59 outbound trips in the PM peak hour at the driveway, which calculates to about one outbound trip every minute, the probability of two or more outbound vehicles exiting the site at the same time would be low. The outbound queue is not expected to affect the on-site circulation.

The Victor Way driveway would have 23 feet of vehicle stacking space between the sidewalk and the gate, which could accommodate a vehicle queue of one vehicle. The gate should be moved farther into the garage to provide inbound stacking space (at least 50 feet) for two vehicles between the gate and sidewalk, or keep the garage entry gates open during retail business hours (typically from 6:00 AM to 9:00 PM) with a minimum of 20 feet of stacking space. If the gates open towards the street, the stacking space shall be measured between the back of sidewalk and the extended fully open length of the gate.

Lane Avenue Residential Driveway

The project trips that are estimated to occur at the Lane Avenue driveway are 23 inbound trips and 82 outbound trips during the AM peak hour and 64 inbound trips and 40 outbound trips during the PM peak hour. The northbound left-turn trips (4 AM and 12 PM peak-hour trips) are expected to have a vehicle delay of 7.3 seconds and 7.4 seconds per vehicle during the AM and PM peak hours, respectively. Because of the small number of left-turn trips accessing the driveway, the short delay is not expected to affect traffic flow on northbound Lane Avenue. Vehicles turning right into the project site from southbound Lane Avenue may slow traffic in the travel lane momentarily due to vehicles slowing down to turn into the driveway. However, this would not have a significant effect on traffic operations because of the small amount of traffic on Lane Avenue.

Some minor on-site vehicle queuing could occur at the gate for outbound traffic. Given the estimated 82 outbound trips in the AM peak hour at the driveway, which calculates to about one outbound trip every 44 seconds, the probability of three or more outbound vehicles exiting the site at the same time would be low. The garage access ramp between the gate and the drive aisle in the parking level would accommodate three vehicles. Therefore, the outbound vehicle queue is not expected to affect the on-site circulation.

The Lane Avenue driveway shows 25 feet of vehicle stacking space between the sidewalk and the gate, which could accommodate a vehicle queue of one vehicle without blocking the sidewalk. The security gate should be moved farther into the garage to provide inbound stacking space (at least 50 feet) for two vehicles between the gate and sidewalk, or keep the garage entry gates open during the time period of the day when most inbound vehicle trips are likely to occur (typically from 3:00 PM to 7:00 PM) with a minimum of 20 feet of stacking space. If the gates open towards the street, the stacking space shall be measured between the back of sidewalk and the extended fully open length of the gate.

Driveway Consolidation

As previously discussed, the project would provide one driveway on El Camino Real, two driveways on Victor Way, and three driveways on Lane Avenue. Mountain View has a goal to minimize the number of driveways to reduce conflict points with bicyclists and pedestrians. Accordingly, the Victor Way driveways could be consolidated to one driveway, and the Lane Avenue driveways could be consolidated into two driveways. However, other driveway configurations may be acceptable as determined by the City, but the goal would be to reduce the number of proposed project driveways in order to reduce conflict points.



El Camino Real Driveway

Access to the commercial/retail garage could be consolidated by removing the Victor Way driveway to provide sole access on El Camino Real. However, it may not be feasible to remove the Victor Way driveway due to access that needs to be provided for the bank component of the project.

Providing only one driveway on El Camino Real for the commercial/retail garage would increase the outbound traffic at the El Camino Real driveway and all traffic traveling to westbound El Camino Real probably would make a U-turn at Bonita Avenue. There would be 73 inbound and 78 outbound vehicles at the El Camino Real driveway during the PM peak hour if the Victor Way driveway were removed. As previously discussed, field observations showed that the eastbound traffic along El Camino Real provided gaps for turning vehicles from side streets/driveways. Thus, vehicles could still find a gap along El Camino Real.

Of the 78 outbound trips, 13 trips would make a U-turn at Bonita Avenue if the Victor Way driveway were removed. Field observations showed that there were no difficulties for vehicles to make a U-turn because there were gaps in westbound traffic. The vehicle queue was only 2 to 3 vehicles in the lane during the PM peak hour, and the left-turn lane (150 feet) can accommodate a vehicle queue of 6 vehicles. Therefore, the vehicle queue with the added project traffic would still be accommodated within the left-turn lane.

To prevent the inbound vehicles from stacking onto El Camino Real from the garage gate, the gate should be moved farther into the garage to provide inbound stacking space (at least 50 feet) for two vehicles between the gate and sidewalk, or keep the garage entry gate open during retail business hours (typically from 6:00 AM to 9:00 PM) with a minimum of 20 feet of stacking space. If the gates open towards the street, the stacking space shall be measured between the back of sidewalk and the extended fully open length of the gate.

Lane Avenue Driveway

The loading driveway north of the residential garage is not recommended due to the following safety concerns:

- 1. Lane Avenue is a designated safe route to school for Graham Middle School and the proposed loading driveway would create an additional conflict point for children using the route to walk or bike to school.
- 2. Maneuvers in- and out- of the loading space on a narrow street like Lane Avenue will be challenging for motorists driving large moving and delivery vehicles and can be unsafe due to limited visibility for trucks.
- 3. The large vehicle would use the entire depth of the loading space, leaving insufficient space for loading and unloading of materials. This would result in trucks encroaching outside the loading space and creating a visibility obstruction between vehicles using the adjacent driveway and pedestrians/bicyclists along this safe route to school.
- 4. The additional driveway would create additional conflict areas with pedestrians and cyclists on Lane Avenue and the location of the driveway immediately adjacent to the garage entrance can cause confusion to motorists.

Sight Distance at Project Driveways

The project driveways should be free and clear of any obstructions to provide adequate sight distance, thereby ensuring that exiting vehicles can see pedestrians on the sidewalk and vehicles and bicycles traveling on El Camino Real, Victor Way, and Lane Avenue. Providing the appropriate sight distance



reduces the likelihood of a collision at a driveway and provides drivers with the ability to locate sufficient gaps in traffic and exit a driveway.

According to the City's Standard Detail A-22, any landscaping, structures and signage within the pedestrian triangle and vehicle triangle at the driveway should be no taller than 3 feet and located in such a way to ensure an unobstructed view for drivers exiting the site, and street trees must have a high canopy of at least 6 feet. The landscaping features shown on the site plan are not expected to obstruct the vision of exiting drivers provided the landscaping is also kept at a low level within the pedestrian triangle and vehicle triangle at the driveways.

As discussed below, all driveways are shown to have an adequate sight distance within the vehicle triangles, so exiting vehicles at the driveways can see approaching vehicles and bicycles on the streets. However, parts of the building at each driveway are within the pedestrian triangles and are likely to limit visibility for exiting vehicles to see pedestrians on the sidewalks. Pedestrian triangles are measured 25 feet from the back of the sidewalk and 25 feet to both sides of a driveway. The site plan shows that the project proposes to install audio and visual light systems at the driveway entrances in lieu of direct line of sight for pedestrians. However, the systems are not official traffic control devices, can malfunction, and may distract motorists from using safe driving practices. Reliance on the constrained capabilities of systems may provide a false sense of security to pedestrians and motorists. Therefore, the systems should not be used in lieu of providing adequate visibility and compliance with the sight triangles. Therefore, the project should remove obstructions including building encroachment within the pedestrian sight triangles at each driveway to ensure compliance with the City's standard detail A-22.

El Camino Real Driveway

According to the City's Standard Detail A-22, the stopping sight distance on El Camino Real should be 250 feet due to the 35-mph speed limit. Thus, a driver must be able to see 250 feet looking left out of the driveway to locate a sufficient gap to turn out of the driveway. There is no roadway curve on El Camino Real that would obstruct the vision of exiting drivers, and on-street parking along the project frontage on El Camino Real is prohibited. The bus pad would begin approximately 150 feet west of the driveway. Because Routes 22 and 522 both stop at this bus stop, it is likely that there would be a bus every 5 to 10 minutes. However, because the bus pad would be separated from the travel lane, buses stopping at the bus stop would not block the line of sight for vehicles approaching in the travel lanes. Thus, adequate vehicle sight distance is provided at the El Camino Real driveway.

Victor Way and Lane Avenue Driveways

The speed limits on Victor Way and Lane Avenue are 25 mph. According to the Standard Detail A-22, the stopping sight distance for a 25-mph roadway is 150 feet. There are no roadway curves on Victor Way or Lane Avenue that would obstruct the vision of exiting drivers. On-street parking is permitted along the project frontages on Victor Way and Lane Avenue. However, the project would paint 25 to 26 feet of red curbs on both sides of the driveways to provide adequate sight distance. Thus, adequate sight distance would be provided at the Victor Way and Lane Avenue driveways.

However, on Lane Avenue, due to the driveways' proximity to El Camino Real and the presence of multiple project driveways, the curbs along the entire Lane Avenue project frontage should be red zone with no parking. On Victor Way, due to the driveways' proximity to Castro Street, the westbound curbs between the project driveways and Castro Street should be red zone with no parking.

Corner Visibility at Intersections

The project site fronts the corners of the Castro Street/El Camino Real, Lane Avenue/El Camino Real, and Castro Street/Victor Way intersections. The intersection corners should be free and clear of any obstructions to optimize corner visibility per the City's Standard Details A-23, thereby ensuring the



vehicles approaching the intersection can see other vehicles or bicycles traveling on the cross street. Any landscaping and signage within the safety visibility triangle at the intersection corners should be no taller than 3 feet and in such a way to ensure an unobstructed view for drivers on the street.

According to the site plan, the landscape plan shows street trees would be added to the corners, 35 feet back from the right-of-way. The type and location of the street trees would be determined by the City of Mountain View Public Works Department at the implementation stage. Note that street trees have a high canopy and would not obstruct the view of drivers. No building structure would be located within the corner visibility triangles (35 feet from the right-of-way) and the landscaping provided at the corners would be less than 3 feet tall within the corner visibility triangles, which would maintain the required sight distance.

Vehicle On-Site Circulation

Within the site, a two-way 24-foot drive aisle would be provided within the parking garages. The width of all drive aisles meets the City of Mountain View minimum requirement (24 feet) for 90-degree parking spaces on double-loaded drive aisles with two-way traffic. The parking stalls throughout the site would be 90-degree uniform parking stalls. The stall depth (18 feet) of the parking spaces in the ground and underground parking garages would meet City standards (18 feet).

The ramps to the underground residential garage are shown to be 24 feet wide, which is adequate for two-way traffic. The site plan shows one ramp within each level of the residential garage (see Figure 14). The slope of the ramp between the ground level and level P1 would be 16 percent with an 8 percent transition slope to prevent vehicles from bottoming out. The slope between levels P1 and P2 is smaller and would not need a transition slope.

On-site vehicle circulation was also evaluated to identify whether there are dead-end aisles within the parking garages (see Figures 2 and 14). Dead-end aisles are undesirable because drivers can enter the aisle, and upon discovering that there is no available parking, must back out or conduct three-point turns. The residential garage shows a dead-end aisle on both levels P1 and P2. The project should provide a turnaround space at the dead-end aisles to provide adequate circulation or assign parking spaces to residents to avoid residents entering the dead-end aisle without finding a parking space.

Passenger Loading

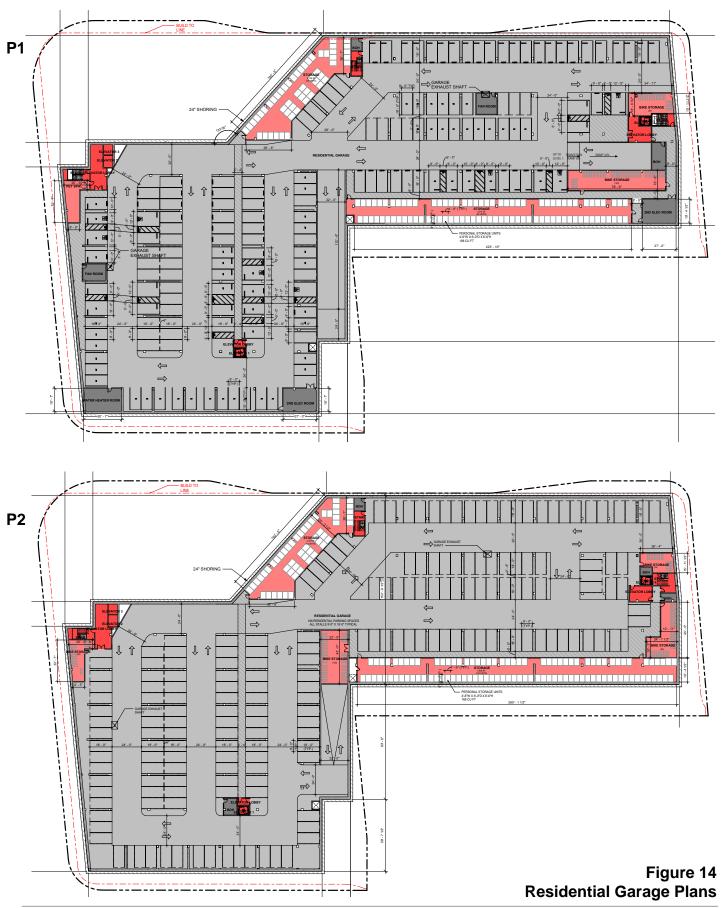
The site plan does not indicate passenger loading zones along the project frontages or within the site, which would be inconvenient for people accessing the site using Uber/Lyft or other rideshare apps (e.g., Scoop, Waze Carpool). The project should designate some parking spaces in the ground-floor parking garage as short-term passenger loading spaces for residential and commercial uses.

Truck Access and Circulation

Emergency response vehicles would access the project site from El Camino Real, Lane Avenue, Victor Way, Castro Street, and all project driveways.

The City requires one loading space for commercial, industrial, institutional, and service uses of 10,000 to 30,000 square feet. Thus, the commercial uses would require one loading space. The site plan indicates one loading area for delivery and residential moving vehicles. Access to the loading area would be provided via a 10-foot driveway north of the driveway to the residential garage on Lane Avenue. Loading spaces are required to be at least 10 feet wide, 25 feet long, and 12 feet high. The area would be 10 feet wide, 28 feet long, and 12 feet high.









As indicated under existing conditions, Lane Avenue is a designated safe route to school for Graham Middle School and therefore introducing large vehicle conflicts, especially where backing up is necessary to enter or exit, is not recommended. Instead, truck loading is recommended to be accessed through the project site on Victor Way. This would ensure oversize vehicle conflicting maneuvers do not encroach onto public sidewalk or roadway where young children are expected. The project should develop a detailed loading operations plan for City review and approval that demonstrates how the impact to the public right of way would be minimized.

The project would provide one residential trash room in the southwest corner, one commercial trash room in the southeast corner, and one residential trash room in the middle of the western section on the ground level of the building. Staff would move the trash bins from the trash enclosures to the staging area accessed from Lane Avenue on garbage collection days. Garbage trucks would access the staging area and collect trash on-site via the driveway south of the driveway to the residential garage.

Truck access to the staging area was reviewed using the City's truck turning template for a 35-foot garbage truck, which are typically larger and heavier than other vehicles, including fire trucks. Figure 15 shows that garbage trucks coming from southbound Lane Avenue would be able to back into the staging area and head out to northbound Lane Avenue without going over the curb. Front load garbage trucks that need to head into the staging area would go over the curb (see Figure 16), and the driveway would need to be widened to 20 feet to accommodate the front load garbage trucks. The project should design the staging area to accommodate rear load garbage trucks or widen the driveway to 20 feet. Turning templates have to be verified with final design and curb alignment.

The site plan shows a transformer maintenance/service area on Victor Way with driveway access east of the driveway to the commercial garage. It is expected that maintenance/service vehicles accessing the area would be small trucks and would access the area infrequently. The proposed driveway width of 13 feet would be able to accommodate the maintenance/service vehicles. To minimize potential confusion with access and use of the driveway, this 13-foot section can be designed as a rolled curb rather than a standard driveway cut.

Pedestrian, Bicycle, and Transit Facility Assessment

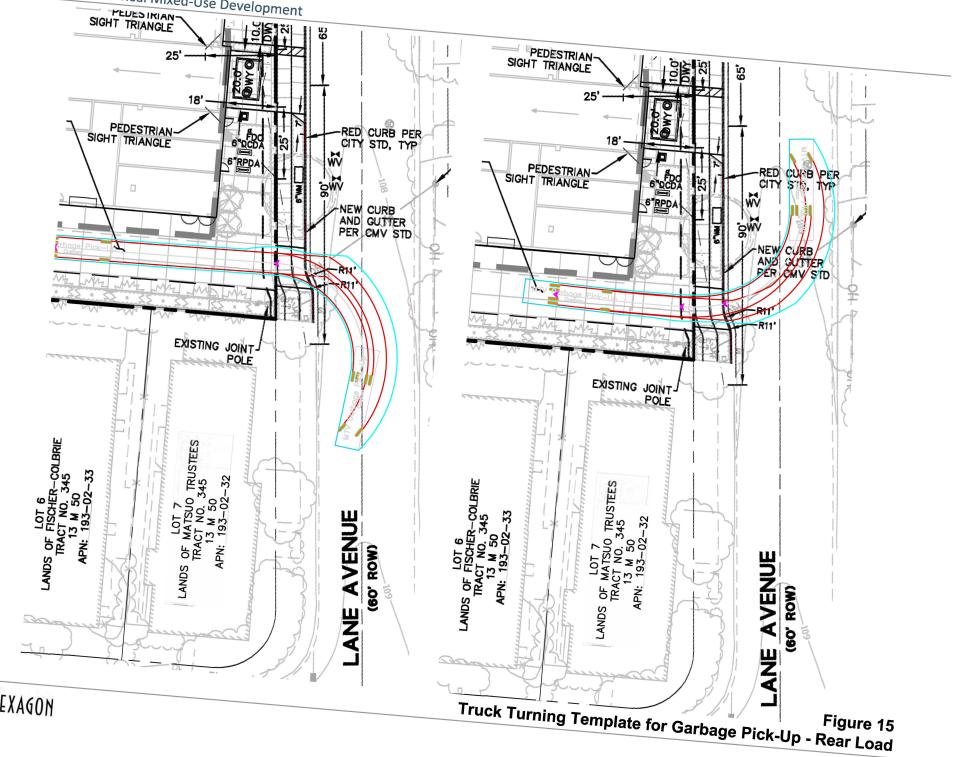
The following describes the transit, pedestrian and bicycle facilities that serve the site and evaluates whether appropriate bicycle and pedestrian access and transit service are provided between the site and nearby destinations.

Pedestrian Operations

Pedestrian Access and Circulation

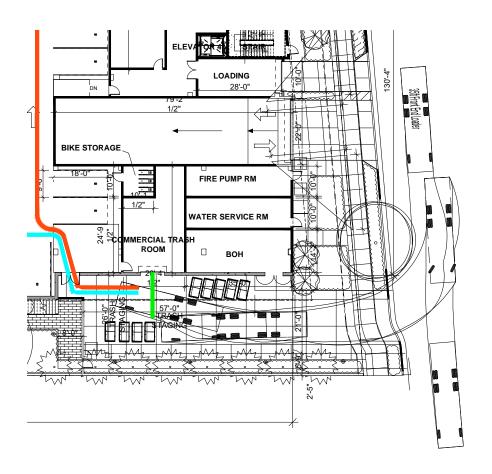
Pedestrian access to the project site is provided via sidewalks on El Camino Real, Castro Street, Victor Way, Lane Avenue, and surrounding streets. Pedestrian walkways would be provided through the site that provide pedestrian access from the project frontage streets to elevators and stairways to the residential units, amenities, and retail uses (see Figure 2). The project would provide 7- to 12-foot-wide sidewalks on El Camino Real, 12-foot sidewalks (7-foot sidewalks and 5 feet of landscaping) on Castro Street, and 10-foot sidewalks (5-foot walk zone and 5 feet of landscaping) on Victor Way and Lane Avenue. The project would also build bulbouts along the project frontage at Lane Avenue/El Camino Real and Castro Street/Victor Way with high visibility crosswalks. The project would provide a high visibility crosswalk across Victor Way at Lane Avenue.

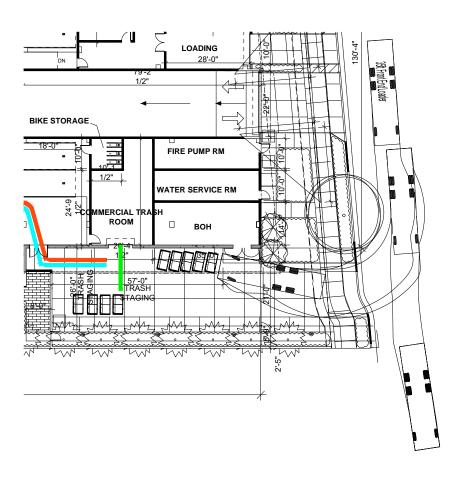












FRONT LOAD TRUCK STUDY - WASTE FRONT LOAD TRUCK STUDY - RECYCLE Level 1 1/2/2 = 1/4/2

Figure 16
Truck Turning Template for Garbage Pick-Up - Front Load





ADA Access

Within 0.5 mile of the project site, ADA curb ramps are present at the intersections on El Camino Real between Shoreline Boulevard and Calderon Avenue, Castro Street/Victor Way, Miramonte Avenue/Castro Street, Castro Street/Church Street, Castro Street/Mercy Street, Castro Street/California Street, and Calderon Street/Church Street. Some corners meet current ADA curb ramp designs, such as truncated domes and adequate curb ramp slopes. Truncated domes are the standard design requirement for detectable warnings which enable people with visual disabilities to determine the boundary between the sidewalk and the street.

The following intersections in the project vicinity include at least one corner that does not include truncated domes, and the ramp slope of these ramps do not appear to meet the current ADA standard:

- Shoreline Boulevard and El Camino Real
- Lane Avenue and El Camino Real
- Calderon Avenue and El Camino Real
- Lane Avenue and Victor Way
- Midblock crossing on Castro Street, south of Mercy Street
- · Castro Street and Mercy Street,
- Midblock crossing on Castro Street south of California Street,
- Castro Street and California Street
- West leg of Calderon Avenue and Church Street

The project would build a bulbout and new curb ramp at the southwest corner of Lane Avenue and El Camino Real and the northeast corner of Castro Street and Victor Way. The project would also build new curb ramps to cross the bike lane between the proposed bus island and the sidewalk along the project frontage on El Camino Real. The new curb ramps would be built to ADA standards.

Pedestrian Infrastructure, Safety, and User Experience

Pedestrian facilities in the study area consist of sidewalks and crosswalks. A complete network of sidewalks is present along all of the surrounding streets. Crosswalks with pedestrian signal heads are located at all of the signalized intersections in the project vicinity.

As discussed in the ECRPP, the project is located along a primary pedestrian area. Thus, the frontage should include continuous wide sidewalks, pedestrian-scaled lighting, crosswalk and corner design features, and bicycle parking. The project would update the southwest corner of Lane Avenue and El Camino Real and the northeast corner of Castro Street and Victor Way with new curb ramps and a high visibility crosswalk. The project would also build curb bulbouts at Lane Avenue/El Camino Real and Castro Street/Victor Way along the project frontage.

According to the 2012 General Plan, a neighborhood is walkable when people can travel comfortably and safely on foot to many destinations. Convenient walking distance is considered to be a half mile to a mile, a walk that would take 10 to 20 minutes. Within a half mile of the project site, there are a few restaurants and retail stores (on El Camino Real) and bus stops on El Camino Real and Castro Street.

Although located within one-half mile, access to some of the surrounding land uses and bus stops would require crossing busy arterial streets (El Camino Real). The wide street might be uncomfortable for some pedestrians to cross, but signalized crosswalks are available at the Castro Street/El Camino Real intersection.



Pedestrian Quality of Service

Pedestrian quality of service (PQOS) identifies the level of comfort for pedestrians on any given roadway. Mountain View's Comprehensive Modal Plan (AccessMV), published in May 2021, includes a PQOS map (see Figure 17) that shows continuity or gaps in the pedestrian facilities as indicated with a PQOS score ranging from 1 to 5. A higher PQOS score indicates a low quality of service.

The PQOS metric in the AccessMV document covers the following factors:

- Proximity to a variety of destinations and amenities
- Street connectivity and directness of routes to destinations
- Presence of a continuous network of pedestrian facilities
- Motor vehicle traffic speed; and
- Street width and intersection conditions

Based on the PQOS map, the following streets in the project vicinity have a PQOS greater than 2, which is not desirable:

- El Camino Real (PQOS 5)
- El Monte Street (PQOS 4-5)
- Shoreline Boulevard north of El Camino Real (PQOS 4-5)
- Miramonte Avenue south of Harpster Drive (PQOS 4-5)
- Castro Street between El Camino Real and Miramonte Avenue (PQOS 3-4)

The project would have an adverse effect on pedestrian operations because the project is expected to add vehicle trips to these street segments that have a PQOS score of 3 or more.

The project would provide wider sidewalks with landscaping along the project frontage to enhance the pedestrian environment. The project would also build curb bulbouts, new crosswalks, and new ADA curb ramps along the project frontage. Taking these factors into account, the project is expected to improve the PQOS along El Camino Real and Castro Street along the project frontage.

Bicycle Operations

Bicycle Access and Circulation

Bicycle access to the project site is via bike lanes on Shoreline Boulevard and Castro Street south of El Camino Real that connect cyclists from the project site to the surrounding areas. The site plan shows that the project would install a buffered bike lane along El Camino Real (see Figure 2). The project would provide secure bicycle storage in the ground level parking garage for the commercial/retail use and in both levels of the underground parking garage for residents.

Short-term bicycle racks would be placed in well-lit, highly visible locations in front of the residents' lounge in the northeast corner of the building, in front of the retail doors along El Camino Real, within the plaza, near the residential lobby along Castro Street, and on Victor Way east of the driveway.

Bicycle Infrastructure and Safety

In the immediate project vicinity, there are bike lanes on Calderon Avenue/Phyllis Avenue, Shoreline Boulevard, and Castro Street. A buffered bicycle lane is proposed by the project along El Camino Real. The bike lane would run along the south side of the proposed bus island, which would avoid any conflicts between the bus and bicyclists.







Site Location

Source: Access MV, City of Mountain View, 2021

Figure 17 Pedestrian Quality of Service Map





The 2015 Bicycle Transportation Plan Update evaluates the quality of the bicycle network in the City in terms of connectivity gaps and low stress gaps. The plan identifies spot gaps, corridor gaps, and quality gaps along El Camino Real, Castro Street, and Calderon Avenue. Spot gaps refer to point-specific locations lacking dedicated bicycle facilities or other treatments to accommodate safe and comfortable bicycle travel. Corridor gaps are missing links longer than one mile, while quality gaps are links of an existing bikeway that are deficient or have operational shortcomings. The ECRPP proposes to implement buffered bike lanes on El Camino Real with improved bicycle crossings. It is expected that this bicycle-friendly infrastructure would improve the quality of the bicycle network in the area.

Bicycle Level of Traffic Stress

The City's AccessMV report includes a bicycle level of traffic stress (BLTS) map (see Figure 18) to identify the perceived comfort and safety of existing roads and bikeway facilities from the perspective of cyclists, as indicated with a BLTS score ranging from 1 to 4. A higher BLTS score indicates that the bikeway is comfortable for a more confident adult. A BLTS score of 1 is comfortable for all ages and abilities, a BLTS score of 2 is comfortable for an average adult, while a BLTS score of 4 indicates that the streets are comfortable only for highly confident riders. The metric (ranging from 1 to 4) in the AccessMV document covers the following factors:

- Number of through lanes or street width
- Posted speed limit or prevailing vehicle speed
- Presence and type of bicycle facilities
- Presence of traffic signals

Based on the BLTS map, the following streets in the project vicinity have a BLTS greater than 2, which is undesirable:

- El Camino Real (BLTS 4)
- El Monte Avenue north of Hollingsworth Drive (BLTS 4)
- Shoreline Boulevard/Miramonte Avenue (BLTS 3)

The project would create an adverse effect on bicycle operations, as the project is expected to add vehicle trips to these streets.

The AccessMV report also includes a BLTS map considering the planned bicycle facilities listed in the Caltrans District 4 Bike Plan (2018), the VTA Countywide Bicycle Plan (2018), the City of Mountain View Bicycle Transportation Plan (2015), the Caltrain Bicycle Access and Parking Plan (2008), and several area precise plans, including the ECRPP. With the planned improvements identified in these documents, Miramonte Avenue is expected to continue to have a BLTS score of 3. All other streets in the project area would have a BLTS score of 2 or lower.

The ECRPP proposes to implement buffered bike lanes on El Camino Real, where the project would add vehicle trips. The project would install a buffered bike lane along the project frontage on El Camino Real, which would address the project's adverse effects.





Source: Access MV, City of Mountain View, 2021

Figure 18 Bicycle Level of Traffic Stress





Pedestrian and Bicycle Access to Schools and Eagle Park

The project site is located within the boundary of Bubb Elementary School, Graham Middle School, and Mountain View High School, which are about 0.6-mile south, 0.3-mile south, and 2.3 miles southeast of the project site, respectively. Continuous sidewalks and crosswalks are present between the site and the elementary and middle schools. According to the City's suggested routes to schools, elementary school students would use the alleyway between El Camino Real and Victor Way, Boranda Avenue, and the crossing at the Hans Avenue/Boranda Avenue intersection. Middle School students would use Lane Avenue. Some high school students may wish to bike to school. Bicyclists would have to travel with caution along El Camino Real until reaching the Stevens Creek Trail and following the City's suggested route using Franklin Avenue, Derick Drive, and Brower Avenue to Mountain View High School.

The project site is approximately 0.3 mile away from Eagle Park, located in the northwest corner of Shoreline Boulevard and High School Way. Pedestrian access to Eagle Park would be provided by Castro Street and High School Way. There are continuous sidewalks between Eagle Park and the project site, and high visibility crosswalks are available crossing Castro Street and High School Way/Yosemite Avenue. There are no bicycle facilities between the site and the park. However, bicyclists could travel along Castro Street and High School Way.

Transit Operations

Transit Facilities, Service, and Access

The project site is served by VTA Routes 21, 22, 51, 52, and 522 with bus stops located on El Camino Real, Castro Street, and California Street and is located within one mile of the Mountain View Transit Center. According to the California Public Resources Code Section 21155, a high-quality transit corridor is defined as a corridor with fixed route bus service with a frequency of service interval of 15 minutes or less during peak commute periods. Therefore, the project is located in a transit proximity area because it is within a half mile of bus stops along El Camino Real that serve routes 22 and 522.

The project would relocate the bus shelter/stop along the project frontage on Castro Street 30 feet south of the existing shelter. The shelter would be located near the building behind the sidewalk with a 7-foot walking zone for pedestrians between the shelter and a 5-foot landscaping zone. Thus, adequate pedestrian access would be provided adjacent to the bus stop along the project frontage.

The project would relocate the bus stop along the project frontage on El Camino Real 120 feet west of the existing bus stop. The bus stop would be redesigned to include a bus island to reduce conflicts between bicycles and buses. To access the bus stop, pedestrians would have to cross the proposed bike lane from the sidewalk. Adequate pedestrian access would be provided across the bike lane with ADA curb ramps.

Transit Vehicle Delay

It is expected that the project would generate some transit trips to get to the Mountain View Transit Center or to other destinations. Based on the trip generation estimates shown in Table 5, it was assumed that 2 percent of the residential trips would take transit, which equates to 2 new transit riders during the AM and PM peak hours. This new ridership generated by the project could be accommodated by these existing services.

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 delays with the addition of the project traffic. VTA has not established policies or adverse effect criteria related to transit vehicle delay. Therefore, this analysis is



presented for information purposes only. The results show that the project would result in a minimal increase (less than 5 seconds per vehicle) in transit travel time for the bus routes in the study area.

Table 11
Transit Vehicle Delay in Study Area

			Projected Change in Transi Vehicle Delay (sec/veh)			
Bus Route	Study Area Street(s)	Direction	AM	PM		
22	El Camino Real	Eastbound Westbound	1.1 0.8	4.1 0.4		
51	Castro Street	Northbound Southbound	-1.0 0.5	0.5 2.4		
52	El Camino Real, Castro Street	Northbound Southbound	0.1 -0.8	-0.3 2.3		
522	El Camino Real	Eastbound Westbound	1.1 0.8	4.1 0.4		

Note:

Projected increase in transit delay based on a comparison of background vs. background plus project intersection movement delays calculated by TRAFFIX.

El Camino Real Bus Island Design

There is an existing bus duck out located along the project frontage on El Camino Real for VTA Routes 22 and 522. The project would relocate the bus stop 120 feet west of the existing bus stop and redesign the duck out to include a bus island. With the project, the proposed bus pad would be starting 130 feet east of the Castro Street/El Camino Real intersection. Because the bus duck out would be separated from the travel lane with 10 feet of vehicle travel lane next to the bus duck out, buses accessing the bus stop are not expected to block the travel lane. Therefore, although the bus stop would be closer to the Castro Street/El Camino Real intersection, it is not expected to adversely affect the eastbound traffic flow on El Camino Real.

The bus pad is proposed to be 150 feet long, which would fit two buses with a maximum length of 60 feet. Based on the 15-minute headway of Routes 22 and 522, it is likely that there would be a bus every 5 to 10 minutes. Therefore, the probability of two or more buses at the same time would be low, and the buses at the stop are not expected to spill out the bus pad or block the travel lane.

With the bus island, the bus would not have to cross the bike lane to arrive at the bus stop, which provides added safety for bicyclists. Although pedestrians would have to cross the bike lane to get to the bus island from the sidewalk along the project frontage, it is not expected to cause an issue because bicycles typically travel with a lower speed and adequate sight distance would be provided at the crossing.

Effects on Surrounding Neighborhood Streets

Direct access to the project site is via El Camino Real, Victor Way, and Lane Avenue. El Camino Real is a major arterial and already serving office and commercial uses in the project vicinity. Victor Way and Lane Avenue are short local streets that only serve residential developments, including the project's residential use. Based on the site location and driveway locations, it is unlikely that the retail trips would use Victor Way or Lane Avenue to get to El Camino Real. Vehicles accessing eastbound El Camino Real would be more likely to exit the site via the El Camino Real driveway. Lane Avenue would not



provide access to the retail garage. Retail trips at the Victor Way driveway would make a left turn into the driveway and a right turn out of the driveway, using the Castro Street/Victor Way intersection. The residential trips traveling to and from Castro Street in the south and to El Camino Real to the west would have to use Victor Way and Lane Avenue but should not be considered cut-through traffic.

Neighborhood Traffic Assessment

Hexagon conducted average daily traffic and speed counts along Victor Way west of Lane Avenue and along Lane Avenue south of El Camino Real in November 2022. A summary of these counts and the 85th percentile travel speed is shown in Table 12. The speed and volume counts are included in Appendix A.

The City of Mountain View's *Neighborhood Traffic Management Program* (NTMP) provides a set of criteria to determine if traffic calming is warranted on neighborhood streets. The segments along Victor Way and Lane Avenue are considered local residential streets with a speed limit of 25 mph. Criteria for these streets, provided in Step 2 of the NTMP, states that a speed survey would verify traffic concerns and warrant further evaluation if 15 percent of the vehicles on the street exceed 31 mph. Based on the speed counts, the 85th percentile speeds on Victor Way and Lane Avenue were found to be below the City's threshold.

Lane Avenue currently carries 1,103 vehicles per day, and the project is expected to add 366 daily trips to Lane Avenue between the residential driveway and Victor Way, based on the ratio of daily project trips to the total AM and PM peak hour trips. The project traffic would add about 25 percent to the existing traffic on the street. However, the total daily traffic would still be within the range for local residential streets. The Mountain View's NTMP does not define the average daily traffic (ADT) range for a local residential street. However, based on the traffic calming programs in local jurisdictions, streets with a posted speed limit of 25 mph and ADT ranging from 1,000 to 2,000 vehicles per day are typically considered residential streets.

Table 12
Average Daily Traffic and Speed on Lane Avenue and Victor Way

Street Segment	Dir	85th Percentile Speed (mph)	Existing ADT Counts ¹	Project Trips	Existing Plus Project	% Change
Lane Avenue between the project	NB	24	656	93	749	
driveway and Victor Way	SB	20	447	273	720	
	Total		1,103	366	1,469	25%
Victor Way between Lane Avenue	EB	19	259	93	352	
and the project driveway	WB	18	163	273	436	
	Total		422	366	788	46%

Notes:

ADT = Average Daily Traffic

1. 24-hour tube counts were conducted on November 16, 2022.

Victor Way currently carries 422 vehicles per day, and the project is expected to add 366 daily trips to Victor Way between the commercial driveway and Lane Avenue. Because traffic on Victor Way is low, the project traffic would add about 46 percent to the existing traffic on the street. However, the total daily traffic would still be within the range for local residential streets.



Because the project trips accessing the site via Victor Way and Lane Avenue are not considered cutthrough traffic, and the 85th percentile speeds on Victor Way and Lane Avenue are below the City's threshold for traffic calming measures, traffic calming measures are not recommended for Victor Way and Lane Avenue adjacent to the site.

The project would implement high visibility crosswalks at the Lane Avenue/El Camino Real and Lane Avenue/Victor Way intersections. Curb bulbouts would also be installed at the southwest corner of the Lane Avenue/El Camino Real intersection and the northeast corner of the Castro Street/Victor Way intersection. High visibility crosswalks increase awareness of pedestrians and alert drivers to slow down. Curb bulbouts create narrowed roadways and reduce turn radii at the intersections, which may also reduce the vehicle travel speed. These project features would provide traffic calming for vehicles traveling though Victor Way and Lane Avenue next to the project site.

Cut-Through Traffic on Alleyway

Community members have expressed concerns about cut through traffic along the alleyway between Bonita Avenue and Lane Avenue, south of El Camino Real. Drivers traveling westbound on El Camino Real can turn left at Bonita Avenue and use the alley to reach southbound Lane Avenue instead of making a U-turn at Castro Street. Because the project's residential driveway would be located across from the alleyway, the project's residents could also use this cut-through route. There would potentially be up to an additional 12 trips during the AM peak hour and 31 trips during the PM peak hour that would use the alleyway.

Parking

Vehicle Parking

Vehicle parking for the project was reviewed per the City of Mountain View requirements (see Table 13). For multi-family residential units, the ECRPP requires one space for each studio and one-bedroom unit and two spaces for two- or more bedroom units. Fifteen percent of the required parking must be available for guests. The ECRPP does not have a requirement for banks and retail parking; thus, the City's Zoning Code requirements were used. The Zoning Code requires one space for 300 s.f. plus one space per ATM for banks and one space for 250 s.f. of gross floor area for retail. Thus, based on the City's requirements, the project should provide 373 spaces for residential use (including 56 spaces for residential guests) and 104 spaces for commercial use. Because the project is located within 1,000 feet of the bus stops along El Camino Real for Routes 22 and 522, the ECRPP allows up to a 10 percent reduction in the parking requirements if applicants provide a map or calculation and evidence showing that the project will benefit from the transit access. With the parking reduction, the project should provide 335 spaces for residential use (including 50 spaces for residential guests) and 95 spaces for commercial use.



Table 13 Vehicle Parking Requirements

Land Use	Required Parking Rate ¹	Size	Required Spaces	With Reduction ²				
	1 space per studio and 1-	49 studio units	49	44				
Residential	bedroom, 2 spaces per 2+	176 1-bedroom units	176	158				
	bedroom	74 2-bedroom units	148	133				
Residential S	ubtotal	299 units	373	335				
Proposed Res	sidential Spaces		3	344				
Retail	1 space per 250 s.f.	8,747 s.f.	35	32				
Restaurant	1 space per 100 s.f. + 1 space per 2.5 seats	2,497 s.f. 10 seats	25 4	23 4				
Bank	1 space per 300 s.f. + 1 space per ATM	11,109 s.f. 3 ATMs	37 3	33 3				
Commercial S	Subtotal		104	95				
Proposed Co	Proposed Commercial Spaces 117							
								

Notes:

- s.f. = square feet
- 1. Vehicular parking requirements per the ECRPP and the City's Zoning Code.
- 2. Because the project is located within 1,000 feet of a rapid bus bus stop, it can qualify for up to a 10 percent reduction in the parking requirement if applicants provide a map or calculation and evidence that the project will benefit from the transit access.

The project proposes a total of 461 parking spaces: 344 spaces for residential use (including 51 spaces for residential guests in Level P1) and 117 spaces for commercial use (including 11 spaces for the residential leasing office). The proposed number of off-street parking spaces would meet the ECRPP parking requirements with the 10 percent reduction from being within 1,000 feet of rapid bus stops.

The existing Chase Bank would remain open during construction, and therefore, sufficient parking should continue to be provided. The project would provide 20 surface parking spaces during construction (see Figure 19). The bank would provide 3 ATMs, and based on the City's parking requirement described above, the interim parking plan would be sufficient.

Bicycle Parking

The bicycle parking requirements for the project were calculated based on the City of Mountain View Zoning Ordinance, Section 36.32.50 (see Table 14). The residential bicycle parking requirement is one long-term space per unit and one short-term space per 10 units. Thus, the residential use would require 299 long-term spaces and 30 short-term spaces. The project would provide 380 long-term residential bicycle parking spaces within bicycle storage rooms on levels P1 and P2 of the residential garage. The project would provide 12 bike racks (24 short-term parking spaces) within the site near residential entrances. Therefore, the proposed bicycle parking spaces would meet the City's bicycle parking requirement.





Figure 19 Chase Bank Interim Parking Plan





The zoning code does not specify the requirements for long-term and short-term parking for commercial uses, which are based on the City's Bicycle Parking Guidelines. The project would require one long-term space for the bank and 4 short-term spaces for retail, restaurant, and the bank. The project would provide 12 long-term commercial parking spaces within the ground level of the garage and 10 short-term spaces in well-lit, highly visible locations surrounding the property.

Table 14
Bicycle Parking Requirements

Land Use	Required Parking Rate ¹	Size		uired Sp Short- Term	aces ² Total
Residential	1 space per unit + 1 space per 10 units for guests	299 d.u	299	30	329
Retail	5 percent of vehicle spaces	35 spaces	0	2	2
Restaurant	5 percent of vehicle spaces	29 spaces	0	1	1
Bank	5 percent of vehicle spaces	40 spaces	1	1	2
Total Required	d Spaces		300	34	334
Proposed Spa	ces		392	34	426

Notes:

d.u. = dwelling units

- 1. Bicycle parking requirements per the Mountain View Zoning Code
- 2. According to the City's Bicycle Parking Guidelines, 60% of the required bicycle parking spaces should be provided in short-term bicycle parking facilities for restaurants and banks and 80% should be provided in short-term bicycle parking for retail.

Recommendations

Table 15 summarizes the recommended changes to the project based on the analysis and evaluation discussed previously.



Table 15
Recommended Changes to Project

Section	Recommendation
Project Driveways	Reduce the El Camino Real and Victor Way driveways to 22 feet. Move the garage gates on Victor Way and El Camino Real farther into the garage to provide inbound stacking space (at least 50 feet) for two vehicles between the gate and sidewalk, or keep the garage entry gates open during retail business hours (typically from 6:00 AM to 9:00 PM) with a minimum of 20 feet of stacking space. If the gates open towards the street, the stacking space shall be measured between the back of sidewalk and the extended fully open length of the gate. Move the garage gate on Lane Avenue farther into the garage to provide inbound stacking space (at least 50 feet) for two vehicles between the gate and sidewalk, or keep the garage entry gates open during the time period of the day when most inbound vehicle trips are likely to occur (typically from 3:00 PM to 7:00 PM) with a minimum of 20 feet of stacking space. If the gates open towards the street, the stacking space shall be measured between the back of sidewalk and the extended fully open length of the gate. Consolidate the Victor Way driveways into one driveway and the Lane Avenue driveways into two driveways to reduce conflict points with bicyclists and pedestrians. Remove obstructions including building encroachment within the pedestrian sight triangles at each driveway to ensure compliance with the City's standard detail A-22.
	Install red curbs along the entire project frontage on Lane Avenue.
On-Site Circulation	Install red curbs on Victor Way between the project driveways and Castro Street. Provide a turnaround space at the dead-end aisles in the P1 and P2 levels of the residential garage to provide adequate circulation or assign parking spaces to residents to avoid residents entering the dead-end aisle without finding a parking space.
Passenger Loading	Designate some parking spaces in the ground-floor parking garage as short-term passenger loading spaces for residential and commercial uses.
Truck Access and Circulation	Widen the Lane Avenue driveway to the trash staging/pick-up area to 20 feet to accommodate the front load garbage trucks or design the staging area to accommodate rear load garbage trucks. Turning templates have to be verified with final design and curb alignment. The loading driveway on Lane Ave shall be removed, because it would create additional conflict areas for children using the designated suggested route to Graham Middle School. Additionally, the proposed loading driveway would create maneuver and visibility conflicts with cyclists, pedestrians and vehicles using the adjacent garage entrance and sidewalk. Design the 13-foot driveway on Victor Way for the transformer maintenance/service area as a rolled curb rather than a standard driveway cut, to minimize potential confusion with access and use of the Victor Way driveway for the transformer maintenance/service



749 W. El Camino Real Office and Hotel Development Multi-modal Transportation Analysis

Technical Appendices

June 8, 2023

Appendix A

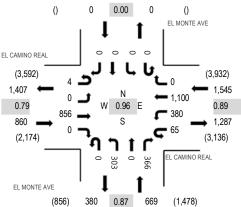
Traffic Counts



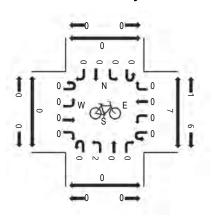
Location: 1 EL MONTE AVE & EL CAMINO REAL AM

Date: Wednesday, November 16, 2022 **Peak Hour:** 08:00 AM - 09:00 AM **Peak 15-Minutes:** 08:30 AM - 08:45 AM

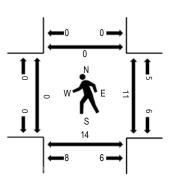
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

	EL	CAMIN	IO REA	٩L	EL (CAMIN	O REAL	Е	L MON	TE AVE		Е	L MON	TE AVE	Ē						
Interval		Eastb	ound			Westb	ound		Northb	ound			South	oound			Rolling	Ped	lestrian	Crossir	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	1	0	117	0	14	37	182	0	15	0	31	0	0	0	0	397	2,115	0	0	2	0
7:15 AM	1	0	99	0	12	50	245	0 0	20	0	32	0	0	0	0	459	2,478	0	1	2	0
7:30 AM	1	0	148	0	10	74	252	0 0	31	0	42	0	0	0	0	558	2,776	0	3	2	0
7:45 AM	0	0	220	0	15	106	248	0 0	50	0	62	0	0	0	0	701	3,018	0	4	4	0
8:00 AM	0	0	184	0	23	104	310	0 0	53	0	86	0	0	0	0	760	3,074	0	2	3	0
8:15 AM	1	0	177	0	15	104	295	0 0	74	0	91	0	0	0	0	757	2,916	0	4	1	0
8:30 AM	2	0	271	0	11	93	225	0	96	0	102	0	0	0	0	800	2,751	0	5	3	0
8:45 AM	1	0	224	0	16	79	270	0 0	80	0	87	0	0	0	0	757	2,538	0	0	7	0
9:00 AM	2	0	176	0	20	47	199	0 0	72	0	86	0	0	0	0	602	2,395	0	5	4	0
9:15 AM	0	0	189	0	17	55	207	0 0	68	0	56	0	0	0	0	592		0	3	3	0
9:30 AM	1	0	160	0	13	54	223	0 0	72	0	64	0	0	0	0	587		0	4	1	0
9:45 AM	3	0	196	0	16	53	238	0 0	54	0	54	0	0	0	0	614		0	2	0	0

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	3	0	0	0	4	0	0	0	0	1	0	0	0	0	8
Lights	4	0	820	0	65	376	1,074	0	0	301	0	355	0	0	0	0	2,995
Mediums	0	0	33	0	0	4	22	0	0	2	0	10	0	0	0	0	71
Total	4	0	856	0	65	380	1,100	0	0	303	0	366	0	0	0	0	3,074

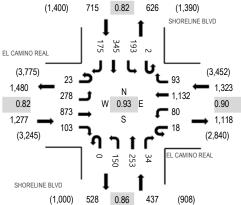


Location: 2 SHORELINE BLVD & EL CAMINO REAL AM

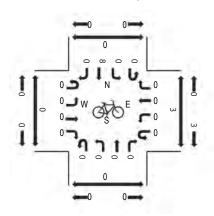
Date: Wednesday, November 16, 2022 **Peak Hour:** 07:45 AM - 08:45 AM

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

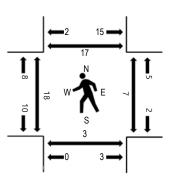
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

		EL	CAMIN	IO REA	λL	EL (CAMING	O REAL		SH	ORELIN	IE BLV	D	SH	ORELI	NE BLV	/D						
	Interval		Eastb	ound			Westbo	ound			Northb	ound			South	oound			Rolling	Ped	estrian	Crossi	ngs
_	Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru R	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
	7:00 AM	2	28	117	11	2	5	204	9	0	8	8	1	0	19	15	18	447	2,520	1	3	0	0
	7:15 AM	1	22	132	13	1	8	246	12	0	18	13	0	0	24	31	24	545	3,078	0	0	1	1
	7:30 AM	4	34	152	11	3	20	281	12	0	12	14	2	0	37	38	21	641	3,505	3	0	1	3
	7:45 AM	6	58	204	27	3	25	286	14	0	33	43	6	0	47	93	42	887	3,752	8	2	2	1
	8:00 AM	4	54	193	41	5	23	319	28	0	53	71	8	2	53	106	45	1,005	3,750	3	0	0	2
	8:15 AM	3	67	193	22	4	15	281	28	0	35	93	13	0	51	111	56	972	3,455	3	1	0	10
	8:30 AM	10	99	283	13	6	17	246	23	0	29	46	7	0	42	35	32	888	3,189	4	4	1	4
	8:45 AM	9	79	247	14	6	22	244	12	0	45	78	8	2	26	52	41	885	2,928	5	1	1	1
	9:00 AM	9	66	186	16	4	17	201	19	0	35	70	8	3	29	31	16	710	2,735	2	0	1	0
	9:15 AM	9	65	207	10	3	16	238	12	0	21	27	6	1	35	31	25	706		0	1	0	0
	9:30 AM	6	37	183	15	4	13	226	17	0	13	24	3	0	26	28	32	627		1	2	0	0
	9:45 AM	3	47	213	20	7	15	231	19	0	25	31	1	3	30	20	27	692		0	3	3	2

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	4	1	0	0	3	0	0	0	0	0	0	1	0	0	9
Lights	23	271	847	98	18	79	1,092	89	0	150	253	34	1	187	345	172	3,659
Mediums	0	7	22	4	0	1	37	4	0	0	0	0	1	5	0	3	84
Total	23	278	873	103	18	80	1,132	93	0	150	253	34	2	193	345	175	3,752

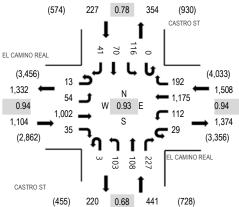


Location: 3 CASTRO ST & EL CAMINO REAL AM

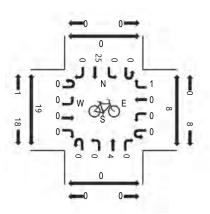
Date: Wednesday, November 16, 2022 **Peak Hour:** 07:45 AM - 08:45 AM

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

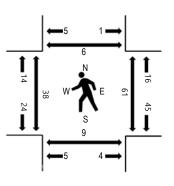
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

	EL	CAMIN	IO REA	λL	EL (CAMIN	O REAL			CASTR	O ST			CAST	RO ST							
Interval		Eastbo	ound			Westb	ound			Northbo	ound			South	oound			Rolling	Ped	lestrian	Crossin	ngs
 Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru R	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	4	4	132	3	3	6	205	28	0	1	5	5	0	13	2	4	415	2,317	4	1	1	0
7:15 AM	1	6	150	3	3	9	247	31	0	4	2	9	0	14	3	8	490	2,757	6	5	2	0
7:30 AM	2	5	181	7	2	19	286	46	0	3	10	14	0	21	11	14	621	3,149	3	3	6	1
7:45 AM	3	13	244	8	5	35	323	38	0	16	14	49	0	25	14	4	791	3,280	9	14	4	0
8:00 AM	2	11	240	15	9	23	308	42	2	30	40	67	0	29	26	11	855	3,265	9	30	3	1
8:15 AM	4	14	245	5	7	32	291	47	1	49	28	83	0	37	26	13	882	3,060	8	10	1	3
8:30 AM	4	16	273	7	8	22	253	65	0	8	26	28	0	25	4	13	752	2,853	12	7	1	2
8:45 AM	2	24	274	3	8	23	271	67	2	3	21	26	0	43	4	5	776	2,704	5	2	5	1
9:00 AM	8	14	202	6	7	20	241	59	1	5	9	30	0	25	14	9	650	2,615	5	7	3	0
9:15 AM	5	16	233	12	5	13	240	52	2	9	24	10	0	34	6	14	675		15	7	1	2
9:30 AM	1	14	189	4	6	14	237	39	0	11	9	23	0	34	14	8	603		10	10	1	0
9:45 AM	2	20	225	6	7	20	260	51	0	5	20	24	0	30	8	9	687		10	4	4	0

		Eas	tbound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	8
Lights	13	53	973	34	29	111	1,139	191	3	100	103	227	0	115	62	37	3,190
Mediums	0	1	25	1	0	1	32	1	0	3	5	0	0	1	8	4	82
Total	13	54	1,002	35	29	112	1,175	192	3	103	108	227	0	116	70	41	3,280

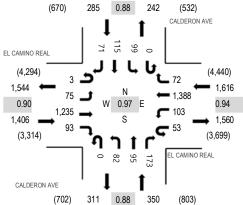


Location: 4 CALDERON AVE & EL CAMINO REAL AM

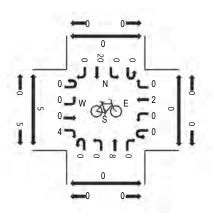
Date: Wednesday, November 16, 2022 Peak Hour: 08:00 AM - 09:00 AM

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

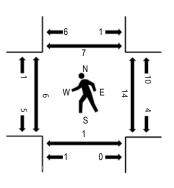
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

	Interval	EL	CAMIN Eastb	IO REA	AL		CAMING Westbo		-	CA	ALDER(Northb		•	C	ALDER South	ON AV	E		D 11:	Dod	lootrion	Crossir	200
	Start Time	U-Turn	Left		Right	U-Turn			Right	U-Turn	Left		Right	U-Turn	Left	Thru	Right	Total	Rolling Hour				North
_	7:00 AM	3	2	100	9	6	8	226	6	0	10	12	15	0	12	9	10	428	2,626	1	3	3	0
	7:15 AM	3	5	193	15	3	14	310	9	0	15	10	24	0	19	5	6	631	3,108	2	2	1	1
	7:30 AM	0	7	194	14	5	20	365	13	0	9	12	25	0	24	18	13	719	3,424	2	6	2	1
	7:45 AM	0	13	234	22	9	38	379	8	0	22	13	31	0	20	39	20	848	3,578	2	8	1	0
	8:00 AM	0	17	283	29	10	22	349	15	0	24	19	53	0	30	39	20	910	3,657	4	3	0	0
	8:15 AM	2	13	342	33	10	32	348	15	0	15	20	35	0	24	46	12	947	3,487	0	7	0	4
	8:30 AM	0	17	283	17	13	23	338	21	0	20	32	47	0	18	25	19	873	3,266	2	2	1	1
	8:45 AM	1	28	327	14	20	26	353	21	0	23	24	38	0	27	5	20	927	3,119	0	2	0	2
	9:00 AM	0	12	240	14	15	10	309	19	1	20	16	40	0	22	10	12	740	2,944	0	2	0	1
	9:15 AM	6	13	236	21	12	7	299	17	0	16	17	30	0	23	16	13	726		0	3	0	1
	9:30 AM	0	10	255	21	11	14	295	21	0	17	13	23	1	26	10	9	726		4	1	0	2
	9:45 AM	3	7	231	25	13	14	326	23	0	21	11	30	0	18	17	13	752		0	6	0	2

		Eas	tbound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	6	0	0	0	5	0	0	0	0	0	0	0	0	0	11
Lights	3	74	1,203	92	52	103	1,345	71	0	82	93	171	0	98	113	70	3,570
Mediums	0	1	26	1	1	0	38	1	0	0	2	2	0	1	2	1	76
Total	3	75	1,235	93	53	103	1,388	72	0	82	95	173	0	99	115	71	3,657



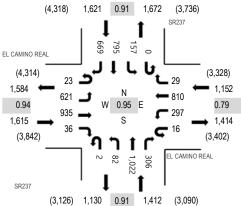
Location: 5 SR237 & EL CAMINO REAL AM

Date: Wednesday, November 16, 2022

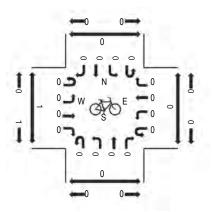
Peak Hour: 08:00 AM - 09:00 AM

Peak 15-Minutes: 08:45 AM - 09:00 AM

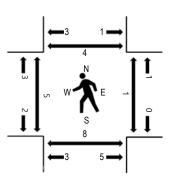
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

	EL	CAMIN	IO REA	ΑL	EL (CAMING	O REAL			SR2	37			SR	237							
Interval		Eastb	ound			Westbo	ound			Northb	ound			South	bound			Rolling	Ped	estrian	Crossir	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru Ri	ight	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	1	54	96	8	1	62	141	3	1	9	77	33	1	26	130	117	760	4,242	0	0	2	1
7:15 AM	1	78	129	2	0	48	141	9	1	9	93	30	0	30	207	140	918	4,951	3	2	5	1
7:30 AM	2	109	155	1	5	69	200	1	0	15	142	37	0	29	263	189	1,217	5,432	2	0	5	0
7:45 AM	7	118	197	6	1	96	286	4	0	21	161	75	0	25	189	161	1,347	5,628	0	2	0	1
8:00 AM	4	152	218	12	5	64	190	7	0	19	247	100	0	42	214	195	1,469	5,800	1	0	4	2
8:15 AM	7	145	226	8	6	83	202	7	0	10	202	58	0	43	237	165	1,399	5,588	2	0	4	2
8:30 AM	8	153	247	7	2	56	208	6	1	31	284	73	0	32	142	163	1,413	5,300	2	0	0	0
8:45 AM	4	171	244	9	3	94	210	9	1	22	289	75	0	40	202	146	1,519	4,953	0	1	0	0
9:00 AM	3	130	189	9	3	79	188	13	0	13	213	80	0	39	189	109	1,257	4,536	3	0	1	0
9:15 AM	4	148	193	6	5	73	174	17	0	23	144	56	0	27	134	107	1,111		2	0	4	0
9:30 AM	5	104	152	10	3	63	186	8	1	18	170	56	2	47	140	101	1,066		6	2	2	2
9:45 AM	4	132	168	6	7	71	208	11	1	20	121	58	1	36	131	127	1,102		2	0	0	0

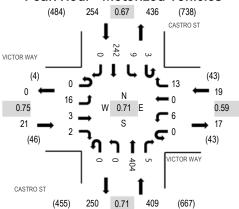
		East	bound			Westb	ound			North	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	2	1	1	0	0	0	0	0	0	0	1	0	0	3	2	10
Lights	23	610	918	34	16	294	797	29	2	80	1,012	302	0	155	777	647	5,696
Mediums	0	9	16	1	0	3	13	0	0	2	10	3	0	2	15	20	94
Total	23	621	935	36	16	297	810	29	2	82	1,022	306	0	157	795	669	5,800



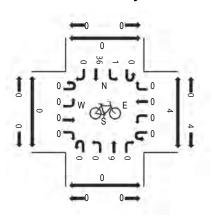
Location: 6 CASTRO ST & VICTOR WAY AM Date: Wednesday, November 16, 2022 Peak Hour: 07:45 AM - 08:45 AM

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

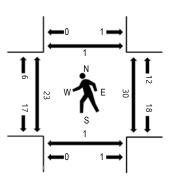
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

	V	ICTOF	R WAY			CTOR				CASTR				CAST								
Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Ped	estrian	Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	0	0	2	0	1	0	2	0	0	9	0	0	2	10	0	26	275	2	4	0	0
7:15 AM	0	0	0	1	0	0	0	1	0	0	13	0	2	1	11	0	29	498	3	2	0	0
7:30 AM	0	4	1	1	0	1	0	2	0	0	23	0	1	4	41	0	78	687	1	2	0	0
7:45 AM	0	3	2	0	0	2	0	5	0	0	76	1	3	1	49	0	142	703	12	10	1	1
8:00 AM	0	5	0	1	0	3	0	5	0	0	132	2	0	4	97	0	249	651	6	8	0	0
8:15 AM	0	3	0	0	0	1	0	0	0	0	143	1	0	2	68	0	218	495	3	11	0	0
8:30 AM	0	5	1	1	0	0	0	3	0	0	53	1	0	2	28	0	94	343	2	1	0	0
8:45 AM	0	2	0	0	0	2	0	4	0	1	48	2	1	1	29	0	90	323	4	3	0	0
9:00 AM	0	3	0	0	0	2	0	2	0	0	52	0	1	5	27	1	93	314	3	2	0	0
9:15 AM	0	4	0	4	0	0	0	2	0	0	28	0	3	4	19	2	66		2	2	0	0
9:30 AM	0	0	0	1	0	0	0	2	0	0	42	0	3	4	22	0	74		5	2	0	1
9:45 AM	0	2	0	0	0	1	0	2	0	0	40	0	4	2	30	0	81		6	5	0	2

		East	bound			Westb	ound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Lights	0	16	3	2	0	6	0	13	0	0	400	5	3	8	230	0	686
Mediums	0	0	0	0	0	0	0	0	0	0	4	0	0	0	12	0	16
Total	0	16	3	2	0	6	0	13	0	0	404	5	3	9	242	0	703

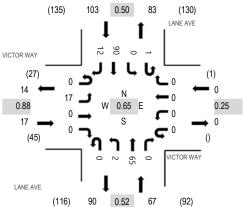


Location: 7 LANE AVE & VICTOR WAY AM Date: Wednesday, November 16, 2022

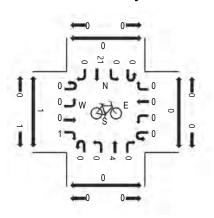
Peak Hour: 07:30 AM - 08:30 AM

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

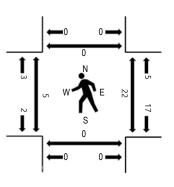
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

		V	ICTOR	R WAY		V	ICTOR	WAY			LANE	AVE			LANE	AVE							
	Interval		Eastbo	ound			Westb	ound			Northb	ound			Southl	oound			Rolling	Ped	lestrian	Crossi	ngs
_	Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru Rig	ght	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
	7:00 AM	0	3	0	0	0	0	0	0	0	0	4	0	0	0	4	2	13	81	0	1	0	0
	7:15 AM	0	4	0	1	0	0	0	0	0	0	4	0	0	0	4	0	13	140	0	1	0	0
	7:30 AM	0	2	0	0	0	0	0	0	0	0	6	0	0	0	11	3	22	187	0	3	0	0
	7:45 AM	0	6	0	0	0	0	0	0	0	0	11	0	0	0	13	3	33	176	3	5	0	0
	8:00 AM	0	3	0	0	0	0	0	0	0	2	16	0	1	0	45	5	72	150	1	9	0	0
	8:15 AM	0	6	0	0	0	0	0	0	0	0	32	0	0	0	21	1	60	93	1	5	0	0
	8:30 AM	1	4	0	1	0	0	0	0	0	0	0	0	0	0	2	3	11	39	0	0	0	0
	8:45 AM	0	2	0	0	0	0	0	0	0	1	1	0	0	0	2	1	7	39	0	1	0	0
	9:00 AM	0	3	0	0	0	0	0	0	0	0	3	0	0	0	6	3	15	42	0	0	0	0
	9:15 AM	0	3	0	0	0	0	0	0	0	0	1	0	0	0	1	1	6		0	0	0	0
	9:30 AM	0	4	0	1	0	0	0	0	0	0	4	0	0	0	2	0	11		0	0	0	0
	9:45 AM	0	1	0	0	0	1	0	0	0	1	6	0	0	0	1	0	10		0	0	0	0

		East	bound			West	oound			Northb	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	16	0	0	0	0	0	0	0	2	64	0	1	0	86	12	181
Mediums	0	1	0	0	0	0	0	0	0	0	1	0	0	0	4	0	6
Total	0	17	0	0	0	0	0	0	0	2	65	0	1	0	90	12	187

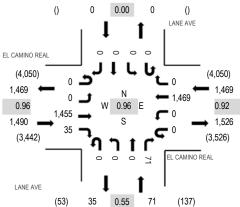


Location: 8 LANE AVE & EL CAMINO REAL AM

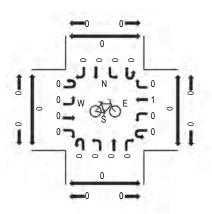
Date: Wednesday, November 16, 2022 Peak Hour: 08:00 AM - 09:00 AM

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

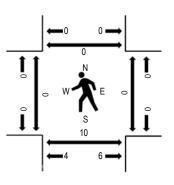
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

	EL		IO REA	AL	EL (O REAL			LANE					AVE							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Ped	lestriar	Crossir	ngs
 Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru F	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	0	146	0	0	0	240	0	0	0	0	8	0	0	0	0	394	2,215	0	0	2	0
7:15 AM	0	0	174	3	0	0	300	0	0	0	0	8	0	0	0	0	485	2,606	0	0	2	0
7:30 AM	0	0	219	3	0	0	356	0	0	0	0	9	0	0	0	0	587	2,896	1	0	2	0
7:45 AM	0	0	324	6	0	0	406	0	0	0	0	13	0	0	0	0	749	3,026	0	0	3	0
8:00 AM	0	0	363	24	0	0	374	0	0	0	0	24	0	0	0	0	785	3,030	0	0	3	0
8:15 AM	0	0	364	7	0	0	366	0	0	0	0	38	0	0	0	0	775	2,851	0	0	1	0
8:30 AM	0	0	354	1	0	0	355	0	0	0	0	7	0	0	0	0	717	2,659	0	0	2	0
8:45 AM	0	0	374	3	0	0	374	0	0	0	0	2	0	0	0	0	753	2,517	0	0	4	0
9:00 AM	0	0	268	2	0	0	328	0	0	0	0	8	0	0	0	0	606	2,384	0	0	1	0
9:15 AM	0	0	262	2	0	0	315	0	0	0	0	4	0	0	0	0	583		0	0	0	0
9:30 AM	0	0	261	0	0	0	304	0	0	0	0	10	0	0	0	0	575		0	0	1	0
9:45 AM	0	0	280	2	0	0	332	0	0	0	0	6	0	0	0	0	620		0	0	2	0

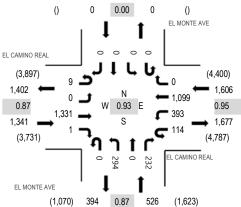
		Eas	tbound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	18	1	0	0	3	0	0	0	0	1	0	0	0	0	23
Lights	0	0	1,417	34	0	0	1,433	0	0	0	0	68	0	0	0	0	2,952
Mediums	0	0	20	0	0	0	33	0	0	0	0	2	0	0	0	0	55
Total	0	0	1,455	35	0	0	1,469	0	0	0	0	71	0	0	0	0	3,030



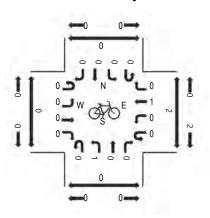
Location: 1 EL MONTE AVE & EL CAMINO REAL PM

Date: Wednesday, November 16, 2022 **Peak Hour:** 05:15 PM - 06:15 PM **Peak 15-Minutes:** 05:15 PM - 05:30 PM

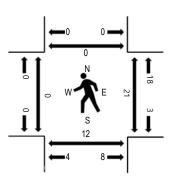
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

		EL	CAMIN	IO REA	\L	EL	CAMIN	O REAL	I	EL MON	TE AVE		Е	L MON	TE AVI	Ε						
	Interval		Eastb	ound			Westb	ound		Northb	ound			South	oound			Rolling	Ped	lestrian	Crossin	ngs
_	Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru Righ	: U-Turr	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
	4:00 PM	0	0	310	0	26	92	232	0 (83	0	68	0	0	0	0	811	3,216	0	8	5	0
	4:15 PM	2	0	286	0	26	70	246	0 (83	0	78	0	0	0	0	791	3,273	0	4	7	0
	4:30 PM	0	0	304	0	19	99	216	0 (93	0	88	0	0	0	0	819	3,414	0	5	5	0
	4:45 PM	1	0	282	0	28	88	259	0 (63	0	74	0	0	0	0	795	3,445	0	7	11	0
	5:00 PM	2	0	346	1	30	92	246	0 (83	0	68	0	0	0	0	868	3,459	0	1	5	0
	5:15 PM	4	0	383	1	25	108	286	0 (67	0	58	0	0	0	0	932	3,473	0	6	2	0
	5:30 PM	1	0	316	0	29	95	265	0 (84	0	60	0	0	0	0	850	3,314	0	4	2	0
	5:45 PM	3	0	295	0	32	96	249	0 (79	0	55	0	0	0	0	809	3,193	0	3	3	0
	6:00 PM	1	0	337	0	28	94	299	0 (64	0	59	0	0	0	0	882	3,079	0	8	5	0
	6:15 PM	2	0	304	0	21	92	247	0 (48	0	59	0	0	0	0	773		0	4	8	0
	6:30 PM	1	0	268	0	27	78	249	0 (56	0	50	0	0	0	0	729		0	8	7	0
	6:45 PM	4	0	276	1	18	63	230	0 (49	0	54	0	0	0	0	695		0	4	4	0

		Eas	tbound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	9	0	1,316	1	114	391	1,090	0	0	293	0	228	0	0	0	0	3,442
Mediums	0	0	15	0	0	2	9	0	0	1	0	4	0	0	0	0	31
Total	9	0	1,331	1	114	393	1,099	0	0	294	0	232	0	0	0	0	3,473

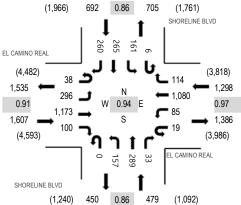


Location: 2 SHORELINE BLVD & EL CAMINO REAL PM

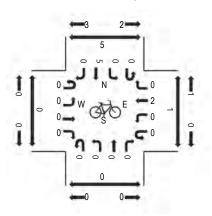
Date: Wednesday, November 16, 2022 Peak Hour: 04:30 PM - 05:30 PM

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

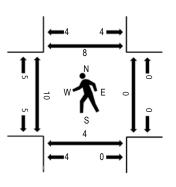
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval	EL	CAMIN Eastb	IO REA	AL		CAMING Westbo	O REAL	-	SH	ORELIN Northb		'D	SH	ORELI South	NE BL\	/D		Rolling	Ped	lestrian	Crossir	าตร
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru I	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour		East		North
4:00 PM	12	70	312	18	3	21	266	30	0	41	55	12	3	37	57	48	985	3,790	5	0	1	1
4:15 PM	10	43	259	19	3	15	235	15	2	44	52	6	1	50	71	49	874	3,862	3	0	1	0
4:30 PM	9	85	297	19	3	18	231	17	0	24	57	7	3	44	64	48	926	4,076	2	0	2	1
4:45 PM	10	52	281	22	6	26	292	29	0	39	62	11	1	44	71	59	1,005	4,076	1	0	2	2
5:00 PM	7	71	291	21	4	22	296	36	0	48	82	9	2	38	60	70	1,057	4,024	4	0	0	2
5:15 PM	12	88	304	38	6	19	261	32	0	46	88	6	0	35	70	83	1,088	4,027	3	0	0	3
5:30 PM	9	59	262	24	9	16	248	29	0	38	51	3	5	26	70	77	926	3,832	4	0	0	0
5:45 PM	10	52	285	30	3	22	284	35	0	39	35	6	2	35	57	58	953	3,768	4	0	0	0
6:00 PM	16	72	311	30	6	18	288	31	0	33	36	5	6	52	86	70	1,060	3,655	2	0	1	2
6:15 PM	14	79	265	17	4	17	277	21	0	17	25	5	1	38	54	59	893		3	0	0	5
6:30 PM	10	55	264	19	5	9	301	35	0	22	20	3	2	29	30	58	862		0	2	0	0
6:45 PM	13	66	249	32	8	11	227	28	0	23	37	3	5	42	45	51	840		1	2	0	2

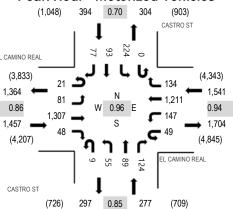
		Eas	tbound			West	bound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	4	0	0	0	0	0	0	0	1	0	0	0	0	0	5
Lights	38	293	1,148	100	19	85	1,066	114	0	157	288	33	6	158	265	260	4,030
Mediums	0	3	21	0	0	0	14	0	0	0	0	0	0	3	0	0	41
Total	38	296	1 173	100	19	85	1 080	114	0	157	289	33	6	161	265	260	4 076



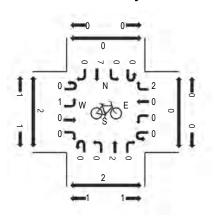
Location: 3 CASTRO ST & EL CAMINO REAL PM

Date: Wednesday, November 16, 2022 **Peak Hour:** 04:45 PM - 05:45 PM **Peak 15-Minutes:** 05:00 PM - 05:15 PM

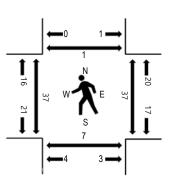
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

					_																	
	EL	CAMIN	O REA	L	EL C	CAMING	O REAI	L		CASTR	O ST			CASTF	RO ST							
Interval		Eastbo	ound			Westbo	ound			Northb	ound			Southb	ound			Rolling	Ped	estrian	Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
4:00 PM	4	30	383	12	18	26	280	53	2	9	15	32	0	61	16	13	954	3,477	4	17	10	5
4:15 PM	1	14	306	13	12	24	226	27	1	10	14	25	0	57	17	15	762	3,482	12	6	5	0
4:30 PM	7	19	284	17	12	32	260	33	1	18	31	37	0	49	11	17	828	3,594	17	16	14	1
4:45 PM	6	16	353	9	14	33	326	36	0	14	15	26	0	49	24	12	933	3,669	11	3	2	0
5:00 PM	5	31	332	9	13	32	289	27	1	8	28	43	0	80	27	34	959	3,616	12	12	3	1
5:15 PM	6	13	310	11	8	44	298	28	2	13	29	31	0	49	20	12	874	3,563	9	14	0	0
5:30 PM	4	21	312	19	14	38	298	43	6	20	17	24	0	46	22	19	903	3,477	5	8	2	0
5:45 PM	7	24	319	11	14	30	287	31	1	14	30	25	0	47	21	19	880	3,409	9	14	2	5
6:00 PM	6	18	329	17	20	28	295	32	2	16	22	21	0	59	22	19	906	3,214	10	3	1	1
6:15 PM	7	16	280	7	15	21	286	42	1	10	18	9	0	44	11	21	788		9	8	4	1
6:30 PM	2	20	293	9	9	19	340	35	0	5	16	18	0	41	13	15	835		7	6	1	5
6:45 PM	7	13	269	6	3	23	239	30	0	3	16	10	0	40	15	11	685		2	3	2	2

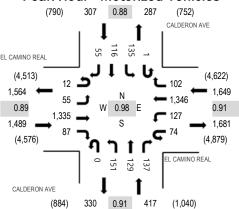
		Eas	tbound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lights	21	80	1,282	48	49	147	1,196	133	9	55	85	124	0	224	88	75	3,616
Mediums	0	1	23	0	0	0	15	1	0	0	4	0	0	0	5	2	51
Total	21	81	1.307	48	49	147	1.211	134	9	55	89	124	0	224	93	77	3.669



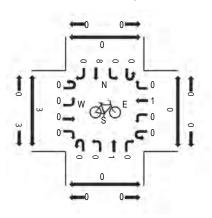
Location: 4 CALDERON AVE & EL CAMINO REAL PM

Date: Wednesday, November 16, 2022 **Peak Hour:** 04:45 PM - 05:45 PM **Peak 15-Minutes:** 05:15 PM - 05:30 PM

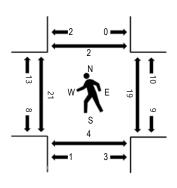
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

		EL	CAMIN	IO REA	λL	EL (CAMIN	O REAL		CA	ALDERO	ON AVE		CA	ALDER	ON AV	E						
	Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	oound			Rolling	Ped	lestrian	Crossir	ngs
_	Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru Ri	ight	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
	4:00 PM	6	11	348	30	8	25	370	24	0	34	35	19	0	34	23	12	979	3,752	3	5	1	2
	4:15 PM	5	13	411	23	9	18	274	14	0	26	27	25	0	24	21	17	907	3,738	3	2	3	3
	4:30 PM	3	10	333	21	20	25	327	15	0	34	20	30	0	16	20	7	881	3,818	2	4	1	1
	4:45 PM	4	18	339	22	17	30	342	36	0	41	37	36	0	28	23	12	985	3,862	5	5	2	1
	5:00 PM	6	12	357	28	18	32	296	23	0	43	27	37	1	42	29	14	965	3,786	8	4	0	0
	5:15 PM	1	10	341	16	21	31	377	23	0	29	32	27	0	30	34	15	987	3,839	5	6	2	1
	5:30 PM	1	15	298	21	18	34	331	20	0	38	33	37	0	35	30	14	925	3,739	3	4	0	0
	5:45 PM	13	16	304	34	16	33	261	26	0	41	42	26	0	38	30	29	909	3,596	3	5	0	2
	6:00 PM	25	28	382	31	15	26	337	26	0	31	23	25	0	29	21	19	1,018	3,490	1	0	0	0
	6:15 PM	5	20	291	26	14	27	359	20	0	28	15	29	0	19	19	15	887		0	6	0	0
	6:30 PM	12	10	305	13	7	22	294	16	0	28	9	16	0	23	10	17	782		2	1	0	7
	6:45 PM	5	11	327	15	16	24	283	22	0	24	12	24	0	15	17	8	803		1	1	0	3

		Eas	tbound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Lights	12	55	1,317	86	74	127	1,330	102	0	151	129	137	1	135	116	54	3,826
Mediums	0	0	15	1	0	0	16	0	0	0	0	0	0	0	0	1	33
Total	12	55	1,335	87	74	127	1,346	102	0	151	129	137	1	135	116	55	3,862

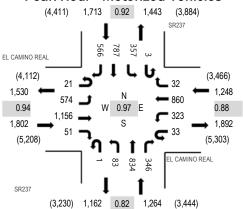


Location: 5 SR237 & EL CAMINO REAL PM Date: Wednesday, November 16, 2022

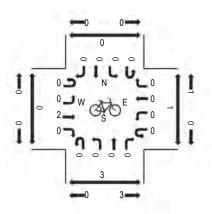
Peak Hour: 05:00 PM - 06:00 PM

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

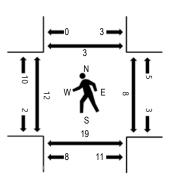
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

		EL	CAMIN	IO REA	ΑL	EL (CAMIN	O REAL			SR2	37			SR	237							
	Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Ped	lestrian	Crossir	ngs
_	Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru F	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
	4:00 PM	1	122	216	9	5	67	179	13	1	28	213	97	1	50	175	103	1,280	5,502	0	2	2	2
	4:15 PM	2	160	337	11	3	45	133	4	0	25	194	84	1	71	152	105	1,327	5,752	7	0	0	0
	4:30 PM	6	133	282	7	5	76	219	7	0	13	235	90	0	78	183	145	1,479	5,971	7	2	3	3
	4:45 PM	6	139	330	16	3	91	258	15	1	12	148	84	0	43	140	130	1,416	5,982	6	4	6	1
	5:00 PM	4	150	242	12	7	60	194	6	1	38	252	98	0	105	219	142	1,530	6,027	6	1	3	2
	5:15 PM	5	151	302	14	12	96	263	13	0	17	186	78	0	93	173	143	1,546	5,820	0	3	6	1
	5:30 PM	8	136	312	12	6	97	216	7	0	12	195	94	1	71	184	139	1,490	5,662	4	1	7	0
	5:45 PM	4	137	300	13	8	70	187	6	0	16	201	76	2	88	211	142	1,461	5,350	2	3	3	0
	6:00 PM	6	113	279	13	6	88	171	9	2	21	174	82	1	78	192	88	1,323	5,000	0	1	0	2
	6:15 PM	13	138	315	9	9	92	198	3	2	29	125	87	0	50	205	113	1,388		3	1	2	5
	6:30 PM	9	119	249	8	7	72	157	4	1	28	149	73	0	63	145	94	1,178		1	1	2	2
	6:45 PM	3	104	240	11	5	98	169	7	2	29	108	43	2	47	154	89	1,111		0	0	2	3

		Eas	tbound			Westk	ound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lights	21	564	1,144	51	33	322	850	32	1	83	817	342	3	356	784	565	5,968
Mediums	0	10	11	0	0	1	10	0	0	0	17	4	0	1	3	1	58
Total	21	574	1.156	51	33	323	860	32	1	83	834	346	3	357	787	566	6 027

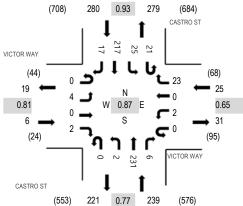


Location: 6 CASTRO ST & VICTOR WAY PM Date: Wednesday, November 16, 2022

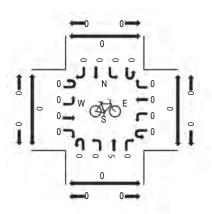
Peak Hour: 05:00 PM - 06:00 PM

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

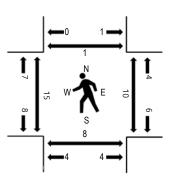
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

	V	'ICTOR	R WAY		V	ICTOR	WAY			CASTR	O ST			CAST	RO ST							
Interval		Eastbo	ound			Westb	ound			Northb	ound			South	bound			Rolling	Ped	lestrian	Crossir	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru F	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
4:00 PM	0	3	0	0	0	1	0	7	0	1	46	2	3	7	42	2	114	457	3	3	0	1
4:15 PM	0	0	1	0	0	1	0	4	0	1	41	3	4	7	40	3	105	501	2	4	0	0
4:30 PM	0	0	0	0	0	1	0	7	0	0	64	1	7	4	41	2	127	516	5	8	0	0
4:45 PM	0	4	0	0	0	0	0	4	0	0	38	2	6	2	53	2	111	521	10	0	0	2
5:00 PM	0	2	0	0	0	0	0	3	0	0	77	1	5	8	57	5	158	550	3	2	2	0
5:15 PM	0	1	0	0	0	1	0	3	0	0	50	0	5	4	51	5	120	524	4	6	0	1
5:30 PM	0	0	0	0	0	0	0	10	0	1	48	1	5	7	55	5	132	486	5	1	5	0
5:45 PM	0	1	0	2	0	1	0	7	0	1	56	4	6	6	54	2	140	443	3	1	1	0
6:00 PM	0	2	2	0	0	1	0	3	0	1	48	1	5	12	53	4	132	369	6	3	0	0
6:15 PM	0	3	0	0	0	0	0	3	0	0	25	2	3	5	37	4	82		4	1	0	0
6:30 PM	0	2	1	0	0	1	0	5	0	0	32	1	5	6	34	2	89		2	0	0	0
6:45 PM	0	0	0	0	0	2	0	3	0	0	27	1	1	4	25	3	66		1	0	0	0

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	4	0	2	0	2	0	23	0	2	226	6	21	25	213	17	541
Mediums	0	0	0	0	0	0	0	0	0	0	5	0	0	0	4	0	9
Total	0	4	0	2	0	2	0	23	0	2	231	6	21	25	217	17	550

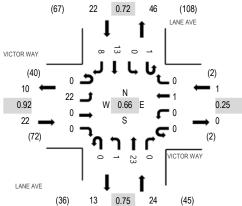


Location: 7 LANE AVE & VICTOR WAY PM Date: Wednesday, November 16, 2022

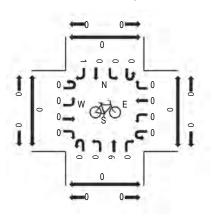
Peak Hour: 04:00 PM - 05:00 PM

Peak 15-Minutes: 04:15 PM - 04:30 PM

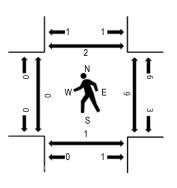
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

	V	'ICTOF	R WAY		V	ICTOR	WAY			LANE	AVE			LANE	AVE							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	lestrian	Crossir	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
4:00 PM	0	4	0	0	0	0	1	0	0	1	7	0	1	0	2	3	19	69	0	3	0	1
4:15 PM	0	12	0	0	0	0	0	0	0	0	7	0	0	0	6	1	26	64	0	2	0	1
4:30 PM	0	2	0	0	0	0	0	0	0	0	5	0	0	0	3	3	13	48	0	4	1	0
4:45 PM	0	4	0	0	0	0	0	0	0	0	4	0	0	0	2	1	11	49	0	0	0	0
5:00 PM	0	5	0	0	0	1	0	0	0	0	2	0	1	0	3	2	14	59	0	1	0	0
5:15 PM	0	3	0	0	0	0	0	0	0	1	3	0	0	0	2	1	10	64	0	1	0	0
5:30 PM	0	5	0	0	0	0	0	0	0	0	3	0	0	0	2	4	14	68	0	1	0	1
5:45 PM	0	6	0	2	0	0	0	0	0	1	2	1	0	0	3	6	21	69	0	2	0	2
6:00 PM	0	9	0	0	0	0	0	0	0	0	4	1	1	0	2	2	19	58	0	0	0	0
6:15 PM	0	5	0	3	0	0	0	0	0	1	0	0	0	0	2	3	14		1	0	0	0
6:30 PM	0	8	0	0	0	0	0	0	0	0	0	0	0	0	2	5	15		0	0	0	0
6:45 PM	0	4	0	0	0	0	0	0	0	1	1	0	0	0	1	3	10		1	0	0	0

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	22	0	0	0	0	1	0	0	1	23	0	1	0	13	8	69
Mediums	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	22	0	0	0	0	1	0	0	1	23	0	1	0	13	8	69

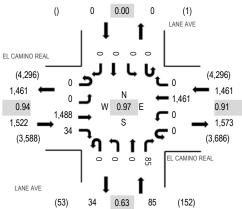


Location: 8 LANE AVE & EL CAMINO REAL PM

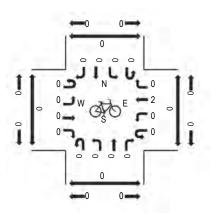
Date: Wednesday, November 16, 2022 **Peak Hour:** 05:00 PM - 06:00 PM

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

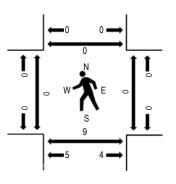
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

		EL		IO REA	AL	EL (O REAL			LANE					AVE							
	Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Ped	lestrian	Crossir	ıgs
_	Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru F	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
	4:00 PM	0	0	144	0	0	0	368	0	0	0	1	8	0	0	0	0	521	2,337	0	0	2	0
	4:15 PM	0	0	177	3	0	0	295	0	0	0	0	8	0	0	0	0	483	2,582	0	0	2	0
	4:30 PM	0	0	231	3	0	0	332	0	0	0	0	9	0	0	0	0	575	2,888	1	0	2	0
	4:45 PM	0	0	326	5	0	0	413	0	0	0	0	14	0	0	0	0	758	3,052	0	0	2	0
	5:00 PM	0	0	345	22	0	0	362	0	0	0	0	37	0	0	0	0	766	3,068	0	0	2	0
	5:15 PM	0	0	377	8	0	0	365	0	0	0	0	39	0	0	0	0	789	2,993	0	0	1	0
	5:30 PM	0	0	364	1	0	0	367	0	0	0	0	7	0	0	0	0	739	2,865	0	0	2	0
	5:45 PM	0	0	402	3	0	0	367	0	0	0	0	2	0	0	0	0	774	2,811	0	0	4	0
	6:00 PM	0	0	308	2	0	0	373	0	0	0	0	8	0	0	0	0	691	2,631	0	0	0	0
	6:15 PM	0	0	295	2	0	0	360	0	0	0	0	4	0	0	0	0	661		0	0	3	0
	6:30 PM	0	0	276	2	0	0	397	0	0	0	0	10	0	0	0	0	685		0	0	0	0
	6:45 PM	0	0	290	2	0	0	297	0	0	0	0	5	0	0	0	0	594		0	0	5	0

		East	bound			West	bound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	15	0	0	0	0	0	0	0	0	1	0	0	0	0	16
Lights	0	0	1,456	34	0	0	1,447	0	0	0	0	84	0	0	0	0	3,021
Mediums	0	0	17	0	0	0	14	0	0	0	0	0	0	0	0	0	31
Total	0	0	1,488	34	0	0	1,461	0	0	0	0	85	0	0	0	0	3,068

All Traffic Data Services, LLC

www.alltrafficdata.net

Site Code: 9 LANE AVE S.O EL CAMINO REAL

NB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
11/16/22	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
05:00	0	4	1	1	0	0	0	0	0	0	0	0	0	0	6	16-25	5
06:00	3	0	3	1	0	0	0	0	0	0	0	0	0	0	7	21-30	4
07:00	19	21	14	1	1	0	0	0	0	0	0	0	0	0	56	16-25	35
08:00	15	34	32	6	1	0	0	0	0	0	0	0	0	0	88	16-25	66
09:00	5	13	13	3	0	0	0	0	0	0	0	0	0	0	34	16-25	26
10:00	2	11	8	4	0	0	0	0	0	0	0	0	0	0	25	16-25	19
11:00	4	20	18	6	0	0	0	0	0	0	0	0	0	0	48	16-25	38
12 PM	9	11	17	4	0	0	0	0	0	0	0	0	0	0	41	16-25	28
13:00	8	15	11	4	0	0	0	0	0	0	0	0	0	0	38	16-25	26
14:00	8	10	25	3	1	0	0	0	0	0	0	0	0	0	47	16-25	35
15:00	39	39	18	8	0	0	0	0	0	0	0	0	0	0	104	16-25	57
16:00	11	21	17	4	0	0	0	0	0	0	0	0	0	0	53	16-25	38
17:00	3	16	11	2	0	0	0	0	0	0	0	0	0	0	32	16-25	27
18:00	10	11	9	0	0	0	0	0	0	0	0	0	0	0	30	16-25	20
19:00	2	3	6	2	0	0	0	0	0	0	0	0	0	0	13	16-25	9
20:00	2	4	8	2	0	0	0	0	0	0	0	0	0	0	16	16-25	12
21:00	2	1	4	1	0	0	0	0	0	0	0	0	0	0	8	16-25	5
22:00	0	2	0	1	0	0	0	0	0	0	0	0	0	0	3	10-19	2
23:00	1	1	0	1	0	0	0	0	0	0	0	0	0	0	3	15-24	1_
Total	144	238	217	54	3	0	0	0	0	0	0	0	0	0	656		
Percent	22.0%	36.3%	33.1%	8.2%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	08:00	08:00	08:00	07:00										08:00		
Vol.	19	34	32	6	1										88		
PM Peak	15:00	15:00	14:00	15:00	14:00										15:00		
Vol.	39	39	25	8	1										104		
Total	144	238	217	54	3	0	0	0	0	0	0	0	0	0	656		
Percent	22.0%	36.3%	33.1%	8.2%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile: 10 MPH 50th Percentile: 18 MPH 85th Percentile: 24 MPH

95th Percentile : 27 MPH

Stats 10 MPH Pace Speed: 16-25 MPH Number in Pace: 455

Percent in Pace : 69.4%

Number of Vehicles > 25 MPH : 57

Percent of Vehicles > 25 MPH : 8.7%

Mean Speed(Average) : 18 MPH

All Traffic Data Services, LLC

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Site Code: 9 LANE AVE S.O EL CAMINO REAL

SB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
11/16/22	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
05:00	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	*	2
06:00	9	2	1	0	0	0	0	0	0	0	0	0	0	0	12	6-15	6
07:00	42	5	3	0	0	1	0	0	0	0	0	0	0	0	51	6-15	28
08:00	59	12	16	3	0	0	0	0	0	0	0	0	0	0	90	6-15	39
09:00	8	4	2	0	1	0	0	0	0	0	0	0	0	0	15	11-20	7
10:00	15	3	5	1	0	0	0	0	0	0	0	0	0	0	24	1-10	10
11:00	11	5	2	1	0	0	0	0	0	0	0	0	0	0	19	11-20	9
12 PM	10	3	6	1	1	0	0	0	0	0	0	0	0	0	21	16-25	9
13:00	17	1	5	0	0	0	0	0	0	0	0	0	0	0	23	6-15	11
14:00	16	6	2	1	0	0	0	0	0	0	0	0	0	0	25	11-20	11
15:00	27	19	8	0	0	0	0	0	0	0	0	0	0	0	54	11-20	28
16:00	22	2	2	0	0	0	0	0	0	0	0	0	0	0	26	1-10	15
17:00	20	4	0	0	0	0	0	0	0	0	0	0	0	0	24	6-15	13
18:00	18	1	2	0	0	0	0	0	0	0	0	0	0	0	21	1-10	12
19:00	5	2	0	0	0	0	0	0	0	0	0	0	0	0	7	9-18	4
20:00	7	1	3	1	1	0	0	0	0	0	0	0	0	0	13	1-10	5
21:00	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6-15	3
22:00	5	1	1	0	0	0	0	0	0	0	0	0	0	0	7	8-17	3
23:00	1	1	1	0	0	0	0	0	0	0	0	0	0	0	3	13-22	2
Total	301	75	59	8	3	1	0	0	0	0	0	0	0	0	447		
Percent	67.3%	16.8%	13.2%	1.8%	0.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	08:00	08:00	09:00	07:00									08:00		
Vol.	59	12	16	3	1	1									90		
PM Peak	15:00	15:00	15:00	12:00	12:00										15:00		
Vol.	27	19	8	1	1										54		
Total	301	75	59	8	3	1	0	0	0	0	0	0	0	0	447		
Percent	67.3%	16.8%	13.2%	1.8%	0.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile: 3 MPH 50th Percentile: 11 MPH

85th Percentile: 20 MPH 95th Percentile: 24 MPH

Stats 10 MPH Pace Speed: 1-10 MPH Number in Pace : 201

Percent in Pace : 45.0% Number of Vehicles > 25 MPH: 12 Percent of Vehicles > 25 MPH: 2.7% 12 MPH

Mean Speed(Average):

All Traffic Data Services, LLC www.alltrafficdata.net

Site Code: 9 LANE AVE S.O EL CAMINO REAL

Start Time	16-Nov-22 Wed	NB	SB							Total
12:00 AM		1	1							2
01:00		1	1							2
02:00		0	0							(
03:00		1	1							2
04:00		1	1							2
05:00		6	3							ę
06:00		7	12							19
07:00		56	51							107
08:00		88	90							178
09:00		34	15							49
10:00		25	24							49
11:00		48	19							67
12:00 PM		41	21							62
01:00		38	23							61
02:00		47	25							72
03:00		104	54							158
04:00		53	26							79
05:00		32	24							56
06:00		30	21							51
07:00		13	7							20
08:00		16	13							29
09:00		8	5							13
10:00		3	7							10
11:00		3	3							6
Total		656	447							1103
Percent		59.5%	40.5%							
AM Peak	-	08:00	08:00	-	-	-	-	-	-	08:00
Vol.	-	88	90	-	-	-	-	-	-	178
PM Peak	-	15:00	15:00	-	-	-	-	-	-	15:00
Vol.	-	104	54	-	-	-	-	-	-	158
rand Total		656	447			·				1103
Percent		59.5%	40.5%							
ADT		ADT 1,103		AADT 1,103						

All Traffic Data Services, LLC

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Site Code: 10 VICTOR WAY W.O LANE AVE

EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
11/16/22	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	15-24	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
05:00	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3	15-24	2
06:00	2	2	0	0	0	0	0	0	0	0	0	0	0	0	4	11-20	3
07:00	12	2	0	0	0	0	0	0	0	0	0	0	0	0	14	6-15	8
08:00	9	8	0	0	0	0	0	0	0	0	0	0	0	0	17	11-20	11
09:00	9	3	0	0	0	0	0	0	0	0	0	0	0	0	12	1-10	6
10:00	4	5	0	0	0	0	0	0	0	0	0	0	0	0	9	12-21	6
11:00	6	8	1	0	0	0	0	0	0	0	0	0	0	0	15	11-20	10
12 PM	5	9	3	0	0	0	0	0	0	0	0	0	0	0	17	15-24	12
13:00	5	10	2	0	0	0	0	0	0	0	0	0	0	0	17	11-20	12
14:00	7	13	2	0	0	0	0	0	0	0	0	0	0	0	22	15-24	15
15:00	8	10	0	0	0	0	0	0	0	0	0	0	0	0	18	11-20	13
16:00	10	10	1	0	0	0	0	0	0	0	0	0	0	0	21	11-20	13
17:00	11	9	2	0	0	0	0	0	0	0	0	0	0	0	22	11-20	13
18:00	16	12	1	0	0	0	0	0	0	0	0	0	0	0	29	11-20	17
19:00	5	7	0	0	0	0	0	0	0	0	0	0	0	0	12	11-20	9
20:00	3	9	0	0	0	0	0	0	0	0	0	0	0	0	12	11-20	10
21:00	3	2	1	0	0	0	0	0	0	0	0	0	0	0	6	16-25	3
22:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	14-23	2
23:00	1	3	0	0	0	0	0	0	0	0	0	0	0	0	4	15-24	3
Total	119	126	14	0	0	0	0	0	0	0	0	0	0	0	259		
Percent	45.9%	48.6%	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	08:00	11:00												08:00		
Vol.	12	8	1												17		
PM Peak	18:00	14:00	12:00												18:00		
Vol.	16	13	3												29		
Total	119	126	14	0	0	0	0	0	0	0	0	0	0	0	259		
Percent	45.9%	48.6%	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
			Eth Daraant	dia .	4 MOLL												

15th Percentile: 4 MPH 50th Percentile: 15 MPH 85th Percentile: 19 MPH 95th Percentile: 20 MPH

 Stats
 10 MPH Pace Speed : Number in Pace : 166
 11-20 MPH Pace : 166

 Percent in Pace : 64.1%
 64.1%

Number of Vehicles > 25 MPH: 0.0%
Percent of Vehicles > 25 MPH: 0.0%
Mean Speed(Average): 14 MPH

All Traffic Data Services, LLC

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Site Code: 10 VICTOR WAY W.O LANE AVE

WB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
11/16/22	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6-15	3
07:00	1	5	1	0	0	0	0	0	0	0	0	0	0	0	7	13-22	6
08:00	4	11	2	0	0	0	0	0	0	0	0	0	0	0	17	13-22	13
09:00	4	1	0	0	0	0	0	0	0	0	0	0	0	0	5	1-10	3
10:00	6	3	0	0	0	0	0	0	0	0	0	0	0	0	9	9-18	5
11:00	3	3	0	0	0	0	0	0	0	0	0	0	0	0	6	10-19	4
12 PM	3	4	1	0	0	0	0	0	0	0	0	0	0	0	8	11-20	5
13:00	7	4	0	0	0	0	0	0	0	0	0	0	0	0	11	11-20	6
14:00	9	3	0	0	0	0	0	0	0	0	0	0	0	0	12	1-10	6
15:00	9	11	1	0	0	0	0	0	0	0	0	0	0	0	21	11-20	14
16:00	6	5	0	0	0	0	0	0	0	0	0	0	0	0	11	11-20	7
17:00	5	10	0	0	0	0	0	0	0	0	0	0	0	0	15	11-20	12
18:00	6	8	1	0	0	0	0	0	0	0	0	0	0	0	15	11-20	10
19:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	10-19	2
20:00	5	2	1	0	0	0	0	0	0	0	0	0	0	0	8	9-18	4
21:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8-17	1
22:00	2	1	2	0	0	0	0	0	0	0	0	0	0	0	5	15-24	3
23:00	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3	15-24	2
Total	78	76	9	0	0	0	0	0	0	0	0	0	0	0	163		
Percent	47.9%	46.6%	5.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	08:00	08:00												08:00		
Vol.	6	11	2												17		
PM Peak	14:00	15:00	22:00												15:00		
Vol.	9	11	2												21		
Total	78	76	9	0	0	0	0	0	0	0	0	0	0	0	163		
Percent	47.9%	46.6%	5.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile: 4 MPH 50th Percentile: 15 MPH 85th Percentile: 18 MPH 95th Percentile: 20 MPH

Stats 10 MPH Pace Speed: 11-20 MPH Number in Pace: 102

All Traffic Data Services, LLC www.alltrafficdata.net

Site Code: 10 VICTOR WAY W.O LANE AVE

Start	16-Nov-22									
Time	Wed	EB	WB							Total
12:00 AM		2	1							,
01:00		0	0							
02:00		0	0							
03:00		0	0							
04:00		1	0							
05:00		3	0							,
06:00		4	5							9
07:00		14	7							2
08:00		17	17							34
09:00		12	5							1
10:00		9	9							18
11:00		15	6							2
12:00 PM		17	8							2
01:00		17	11							28
02:00		22	12							34
03:00		18	21							39
04:00		21	11							3
05:00		22	15							3
06:00		29	15							4
07:00		12	2							14
08:00		12	8							20
09:00		6	2							
10:00		2	5							-
11:00		4	3							•
Total		259	163							42
Percent		61.4%	38.6%							
AM Peak	_	08:00	08:00	-	-	=	-	-	-	08:00
Vol.	_	17	17	-	_	-	_	-	_	3
PM Peak	_	18:00	15:00	-	_	-	_	-	_	18:00
Vol.	_	29	21	-	_	-	_	-	_	4
and Total		259	163							42
Percent		61.4%	38.6%							
ADT		ADT 422		AADT 422						

All Traffic Data Services, LLC

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Site Code: 11 EB EL CAMINO REAL W.O LANE AVE

EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
11/16/22	0	0	1	1	14	26	20	12	5	2	0	1	0	0	82	36-45	46
01:00	0	1	1	2	4	10	14	5	3	0	0	0	0	0	40	36-45	24
02:00	0	0	0	2	8	8	10	7	1	0	0	0	0	0	36	35-44	18
03:00	0	1	0	1	3	9	7	4	1	0	0	0	0	0	26	36-45	16
04:00	0	0	0	2	5	22	16	7	5	0	0	0	0	0	57	36-45	38
05:00	0	0	3	2	18	49	28	24	7	0	0	0	0	0	131	36-45	77
06:00	0	5	9	9	48	77	102	40	7	5	2	0	0	0	304	36-45	179
07:00	0	11	24	63	168	287	148	42	11	0	0	0	0	0	754	31-40	455
08:00	7	29	50	218	412	337	97	27	5	0	0	0	0	0	1182	31-40	749
09:00	0	4	14	91	330	282	150	33	5	0	0	1	0	0	910	31-40	612
10:00	2	8	18	87	287	300	140	40	4	2	0	0	0	0	888	31-40	587
11:00	0	3	14	127	360	311	131	24	5	2	0	1	0	0	978	31-40	671
12 PM	0	3	31	127	384	355	123	28	8	1	0	0	0	0	1060	31-40	739
13:00	2	10	57	171	371	285	106	18	7	0	0	0	0	0	1027	31-40	656
14:00	1	5	38	182	326	294	127	23	4	1	0	0	0	0	1001	31-40	620
15:00	3	15	63	264	465	272	73	14	3	1	0	0	0	0	1173	31-40	737
16:00	4	13	113	361	481	284	73	15	3	1	0	0	0	0	1348	26-35	842
17:00	42	93	207	426	321	139	22	6	4	0	0	0	0	0	1260	26-35	747
18:00	0	25	112	288	410	265	79	11	2	1	0	0	0	0	1193	26-35	698
19:00	1	10	36	227	350	254	84	20	1	1	0	0	0	0	984	31-40	604
20:00	3	1	10	94	257	268	109	36	2	0	0	0	0	0	780	31-40	525
21:00	1	1	19	59	196	170	58	12	4	0	0	0	0	0	520	31-40	366
22:00	0	2	6	35	80	136	71	21	2	1	0	0	0	0	354	31-40	216
23:00	0	2	3	4	39	64	45	17	8	1	0	0	0	0	183	36-45	109
Total	66	242	829	2843	5337	4504	1833	486	107	19	2	3	0	0	16271		
Percent	0.4%	1.5%	5.1%	17.5%	32.8%	27.7%	11.3%	3.0%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	08:00	08:00	08:00	08:00	09:00	07:00	07:00	06:00	06:00	00:00			08:00		
Vol.	7	29	50	218	412	337	150	42	11	5	2	1			1182		
PM Peak	17:00	17:00	17:00	17:00	16:00	12:00	14:00	20:00	12:00	12:00					16:00		
Vol.	42	93	207	426	481	355	127	36	8	11					1348		
Total	66	242	829	2843	5337	4504	1833	486	107	19	2	3	0	0	16271		
Percent	0.4%	1.5%	5.1%	17.5%	32.8%	27.7%	11.3%	3.0%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%			

 5.1%
 17.5%
 32.8%

 15th Percentile :
 27 MPH

 50th Percentile :
 33 MPH

 85th Percentile :
 40 MPH

95th Percentile: 44 MPH

Stats

All Traffic Data Services, LLC www.alltrafficdata.net

Site Code: 11 EB EL CAMINO REAL W.O LANE AVE

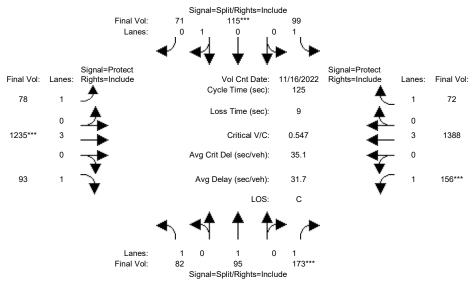
Start	16-Nov-22								
Time	Wed	EB							
12:00 AM		82							
01:00		40							
02:00		36							
03:00		26							
04:00		57							
05:00		131							
06:00		304							
07:00		754							
08:00		1182							
09:00		910							
10:00		888							
11:00		978							
12:00 PM		1060							
01:00		1027							
02:00		1001							
03:00		1173							
04:00		1348							
05:00		1260							
06:00		1193							
07:00		984							
08:00		780							
09:00		520							
10:00		354							
11:00		183							
Total		16271							
AM Peak	-	08:00		-	-	-	-	-	-
Vol.	-	1182		-	-	-	-	-	_
PM Peak	-	16:00		-	-	-	-	-	-
Vol.	-	1348		 -	-	-	-	-	-
Grand Total		16271							
ADT		ADT 16,271	AADT 16,271						

Appendix B

Level of Service Calculations

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

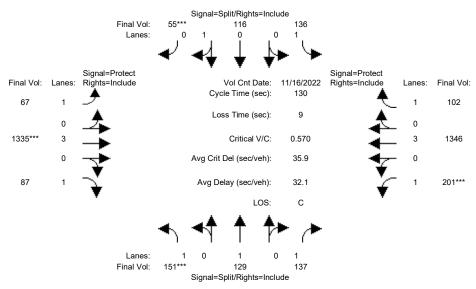
Intersection #4: Calderon Ave and El Camino Real



						ound						
Movement:		- T ·		ь .	- T	- R		- T	- R 		- T	
Min. Green:					10			10		'	10	10
Y+R:			4.0	4.0				4.0			4.0	
Volume Module	· : >>	Count	Date:	16 No	ov 202	.2 <<						
Base Vol:	82	95	173	99	115	71	78	1235	93	156	1388	72
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:		95	173	99	115	71	78	1235	93	156	1388	72
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:	82	95	173	99	115	71	78	1235	93	156	1388	72
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
PHF Volume:	82	95	173	99	115	71	78	1235	93	156	1388	72
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	95	173	99	115	71	78	1235	93	156	1388	72
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	1.00	1.00
FinalVolume:			173	99		71			93		1388	72
	ı											
Saturation Fl												
Sat/Lane:		1900	1900		1900	1900		1900	1900		1900	1900
_	0.92		0.92	0.92		0.95		1.00	0.92		1.00	0.92
Lanes:	1.00		1.00		0.62	0.38		3.00	1.00		3.00	1.00
Final Sat.:			1750		1113	687		5700	1750		5700	1750
Capacity Anal	-			0 06	0 10	0 10	0 04	0 00	0 05	0 00	0 04	0 04
Vol/Sat:	0.05	0.05	0.10	0.06	0.10	0.10	0.04	0.22	0.05	0.09 ****	0.24	0.04
Crit Moves:	00 6	00 6				02.6	10 1		40 5		F.C. 0	F.C. 0
	22.6		22.6		23.6	23.6		49.5	49.5		56.8	56.8
	0.26		0.55		0.55	0.55		0.55	0.13		0.54	0.09
Delay/Veh:	44.5		48.6		47.7	47.7		29.4	24.2		24.8	19.5
User DelAdj:			1.00	1.00		1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:			48.6		47.7	47.7		29.4	24.2		24.8	19.5
LOS by Move:			D	D	D	D	D	C	C	D	C	В
	3		7	4	7	7	3		2	6	12	2
Note: Queue 1	report	ted is	the n	umber	oi ca	rs per	lane	•				

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

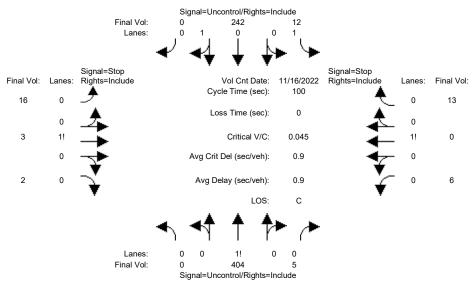
Intersection #4: Calderon Ave and El Camino Real



Approach:	No	rth Bo	und	Sou	uth Bo	und	Εa	ast Bo	und	We	est Bo	und
Movement:		- T				- R					- T	
Min. Green:	•	10			 10			10		•	 10	10
Y+R:		4.0			4.0				4.0		4.0	
Volume Module										ı		ı
Base Vol:	151	129	137	136	116	55	67	1335	87	201	1346	102
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:	151	129	137	136	116	55	67	1335	87	201	1346	102
	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:			137	136	116	55		1335	87		1346	102
User Adj:		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
PHF Volume:		129	137	136	116	55		1335	87		1346	102
	0		0	0	0	0	0	0	0	0		0
Reduced Vol:			137	136	116	55		1335	87		1346	102
PCE Adj:	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
FinalVolume:			137					1335	87			102
Saturation F												
Saturation F. Sat/Lane:			1900	1000	1900	1900	1000	1900	1900	1000	1900	1900
Adjustment:			0.92		0.95	0.95		1.00	0.92		1.00	0.92
	1.00		1.00		0.68	0.32		3.00	1.00		3.00	1.00
Final Sat.:			1750			579		5700	1750		5700	1750
Capacity Ana				I		ı	1		'	I		ı
Vol/Sat:		0.07	0.08	0.08	0.10	0.10	0.04	0.23	0.05	0.11	0.24	0.06
Crit Moves:	****					****		****		****		
Green Time:	19.7	19.7	19.7	21.7	21.7	21.7	14.8	53.4	53.4	26.2	64.9	64.9
Volume/Cap:	0.57	0.45	0.52	0.47	0.57	0.57	0.34	0.57	0.12	0.57	0.47	0.12
Delay/Veh:	54.2	51.3	52.6	50.1	52.5	52.5	54.1	29.8	23.8	49.0	21.5	17.4
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:	54.2	51.3	52.6	50.1	52.5	52.5	54.1	29.8	23.8	49.0	21.5	17.4
LOS by Move:			D	D	D	D	D	С	С	D	С	В
HCM2kAvgQ:	7	5	6	6	7	7	3	14	2	7	11	2
Note: Queue	repor	ted is	the n	umber	of ca	ırs per	lane	•				

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

Intersection #6: Castro St and Victor Way



	rth Bound - T - R	South B L - T			Bound T – R	West Bo L - T	
Volume Module: >>	Count Date:	16 Nov 20	22 <<				
Base Vol: 0	404 5	12 242	0	16	3 2	6 0	13
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	404 5	12 242	0	16	3 2	6 0	13
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	404 5	12 242	0	16	3 2	6 0	13
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	404 5	12 242	0	16	3 2	6 0	13
Reduct Vol: 0	0 0	0 0	0	0	0 0	0 0	0
FinalVolume: 0	404 5	12 242	0	16	3 2	6 0	13
Critical Gap Modu	le:						
Critical Gp:xxxxx	xxxx xxxxx	4.1 xxxx	xxxxx	7.1 6	.5 6.2	7.1 6.5	6.2
FollowUpTim:xxxxx	xxxx xxxxx	2.2 xxxx	xxxxx	3.5 4	.0 3.3	3.5 4.0	3.3
Capacity Module:	•						•
Cnflict Vol: xxxx	xxxx xxxxx	409 xxxx	xxxxx	679 6	75 242	675 673	407
Potent Cap.: xxxx		1161 xxxx	xxxxx	368 3	78 802	371 379	649
Move Cap.: xxxx	XXXX XXXXX	1161 xxxx	XXXXX	358 3	74 802	364 375	649
Volume/Cap: xxxx	xxxx xxxx	0.01 xxxx	xxxx	0.04 0.	01 0.00	0.02 0.00	0.02
Level Of Service I	Module:						
2Way95thQ: xxxx	XXXX XXXXX	0.0 xxxx	XXXXX	xxxx xx	xx xxxx	xxxx xxxx	xxxxx
Control Del:xxxxx	xxxx xxxxx	8.1 xxxx	XXXXX	xxxxx xx	xx xxxx	xxxxx xxxx	xxxxx
LOS by Move: *	* *	A *	*	*	* *	* *	*
Movement: LT	- LTR - RT	LT - LTR	- RT	LT - L	TR - RT	LT - LTR	- RT
Shared Cap.: xxxx	xxxx xxxxx	xxxx xxxx	xxxxx	xxxx 3	80 xxxxx	xxxx 521	XXXXX
SharedQueue:xxxxx	XXXX XXXXX	xxxxx xxxx	XXXXX	xxxxx 0	.2 xxxxx	xxxxx 0.1	xxxxx
Shrd ConDel:xxxxx	XXXX XXXXX	xxxxx xxxx	XXXXX	xxxxx 15	.0 xxxxx	xxxxx 12.2	xxxxx
Shared LOS: *	* *	* *	*	*	C *	* B	*
ApproachDel: xx	xxxxx	xxxxx		15	.0	12.2	
ApproachLOS:	*	*			С	В	
Note: Queue report	ted is the n	number of c	ars per	lane.			
_	Peak Hou	ır Delay Si	gnal Wa	arrant Re	port		
******	******	******	*****	*****	*****	*****	*****
Intersection #6 Ca							
******	*****	*****	*****	*****	*****	*****	*****
Future Volume Alte	ernative: Pe	ak Hour Wa	rrant N	NOT Met			

with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=19]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=703]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Castro St and Victor Way

Future Volume Alternative: Peak Hour Warrant NOT Met

Minor Approach Volume: 21
Minor Approach Volume Threshold: 426

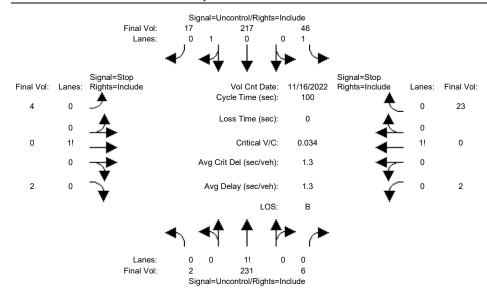
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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

Intersection #6: Castro St and Victor Way



Approach:	No	rth Bo	ound	Sou	ath Bo	ound	E	ast Bo	ound	We	est Bo	ound
Movement:			- R			- R			- R			- R
Volume Module										_		
Base Vol:	2		6	46	217	17	4	0	2	2	0	23
_		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:	2	231	6	46	217	17	4	0	2	2	0	23
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
Initial Fut:		231	6	46	217	17	4	•	2	2	0	23
		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
3		1.00	1.00		1.00	1.00		1.00			1.00	1.00
PHF Volume:	2		6	46	217	17	4	0	2	2	0	23
Reduct Vol:	0	-	0	0	0	0	0	0	0	0	0	0
FinalVolume:		231	6	46		17	4	0	2	2	0	23
Critical Gap												
Critical Gp:											6.5	6.2
FollowUpTim:						xxxxx			3.3			3.3
Capacity Modu												
Cnflict Vol:										557		234
Potent Cap.:						XXXXX				444		810
			XXXXX			XXXXX		425	819	431	422	810
Volume/Cap:						XXXX		0.00			0.00	0.03
Level Of Serv												
2Way95thQ:									XXXXX			
Control Del:			XXXXX						XXXXX			
LOS by Move:	A		*	A		*		*	*	*	*	*
Movement:			- RT								- LTR	
Shared Cap.:												XXXXX
SharedQueue:x									XXXXX			XXXXX
Shrd ConDel:x											9.9	XXXXX
Shared LOS:	*	*	*	*	*	*	*	В	*	*	A	*
ApproachDel:	X	XXXXX		X	XXXXX			12.4			9.9	
ApproachLOS:		*			*			В			A	
Note: Queue r	report											
******	****		eak Hou							*****	*****	*****
Intersection												
*********					_		*****	****	*****	*****	****	*****
Future Volume	e Alte	ernat:	ive: Pe	ak Hoi	ır Waı	rant 1	NOT Me	t				

```
South Bound East Bound West Bound L - T - R L - T - R
           North Bound South Bound L - T - R L - T - R
Approach:
Movement:
-----||-----||-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Lanes: 0 0 1! 0 0 1 0 0 1 0 0 0 1! 0 0 0 0 1! 0 0
Initial Vol: 2 231 6 46 217 17 4 0 2 2 0 ApproachDel: xxxxxx xxxx 12.4 9.9
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
  FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=6]
  FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=550]
  FAIL - Total volume less than 650 for intersection
```

with less than four approaches. _____

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=25]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=550]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Castro St and Victor Way

Future Volume Alternative: Peak Hour Warrant NOT Met

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Lanes: 0 0 1! 0 0 1 0 0 1 0 0 1! 0 0 0 1! 0 0 Initial Vol: 2 231 6 46 217 17 4 0 2 2 0 23 -----|----||------| 519 Major Street Volume: Minor Approach Volume:

Minor Approach Volume Threshold: 511

SIGNAL WARRANT DISCLAIMER

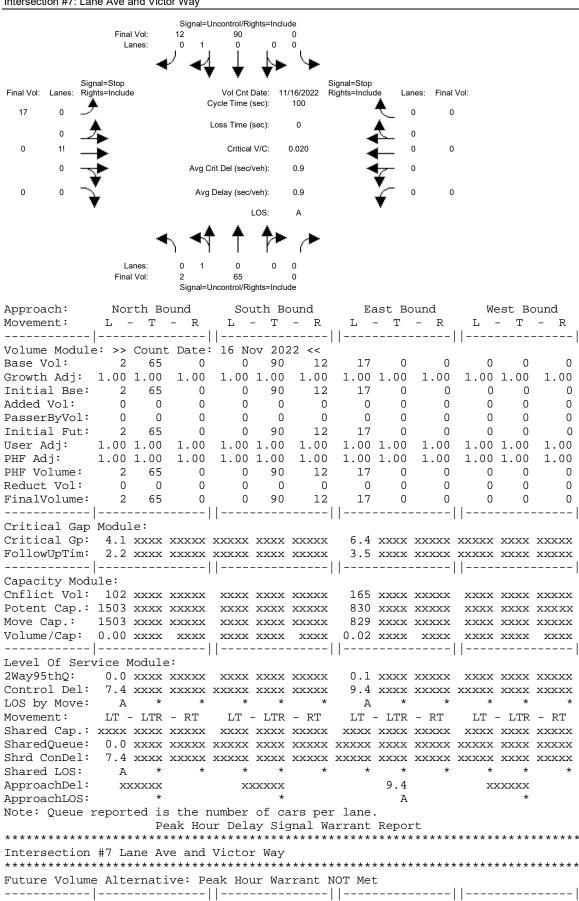
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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749 W El Camino Real Hexagon Transportation Consultants, Inc.

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

Intersection #7: Lane Ave and Victor Way



Approach:	Nor	th Bour	nd	Sout	h Bo	und	Eas	st Bour	ıd	We	st Boun	ıd
Movement:	L -	Т -	R	L -	T	- R	L -	Т -	R	L -	Т -	R
Control:	Unc	ontrol	led .	Unco	ntro	lled	Sto	op Sign	1	Sto	op Sign	ι .
Lanes:	0 1	0 0	0	0 0	0	1 0	1 0	0 0	0	0 0	0 0	0
Initial Vol:	2	65	0	0	90	12	17	0	0	0	0	0
ApproachDel:	XX	XXXX		XXX	XXXX			9.4		XX	XXXX	
Approach[east	bound][lanes	s=1][c	control	L=Sto	p Sign	.]			•		

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=17]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=186]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Lane Ave and Victor Way

Future Volume Alternative: Peak Hour Warrant NOT Met

-----||-----||-----| North Bound South Bound East Bound West Bound L - T - R L - T - R Approach: Movement: -----||-----||-----| -----|----|-----||------|

Major Street Volume: 169 Minor Approach Volume: 17 Minor Approach Volume Threshold: 694

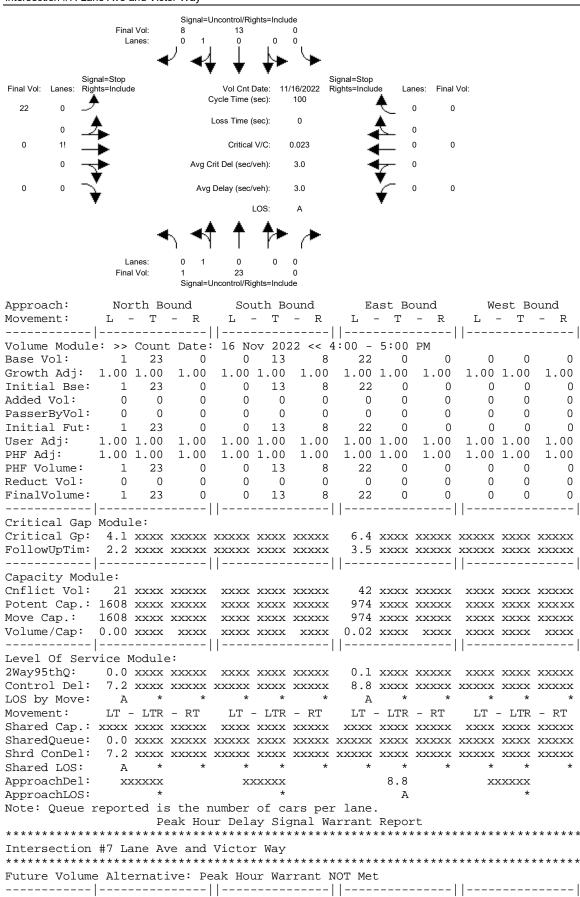
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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

Intersection #7: Lane Ave and Victor Way



Approach:	N	ort	h Bo	oun	d	S	out	h Bo	oun	d		Eas	t B	ound	d		We	st F	Bound	d	
Movement:	L	_	Т	_	R	L	_	Т	_	R	L	_	Т	_	R	Ι		Т	_	R	
Control:	U	nco	ntro	o11	ed ''	U	nco	ntro	11	ed ''		Sto	p S	ign	'		St	op S	Sign	'	
Lanes:	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	C	0	0	0	0	
Initial Vol:		1	23		0		0	13		8	2	22	0		0		0	C)	0	
ApproachDel:		xxx	xxx				xxx	xxx					8.8				XX	XXXX	2		
Approach[east	bou	nd]	[lai	nes	=1][c	ont	rol	=Sto	go	Sign]											
Signal Warran	nt R	ule	#1	: [vehic	le-	hou	rs=(0.1]											
FAIL - Veh	nicl	e-h	our	s 1	ess t	han	١ 4	for	on	e lan	ie a	appr	oac	h.							
Signal Warrar	+ D	1110	#2	• г	annro	agh	370	1 1 1 m	-2	21											

Signal Warrant Rule #2: [approach volume=22]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=67]

FAIL - Total volume less than 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Lane Ave and Victor Way

Major Street Volume: 45
Minor Approach Volume: 22
Minor Approach Volume Threshold: 1046

SIGNAL WARRANT DISCLAIMER

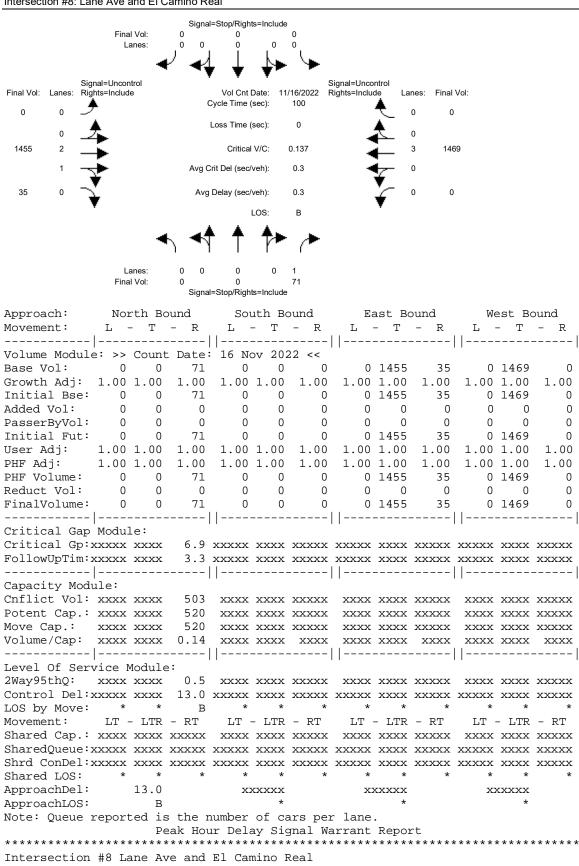
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

749 W El Camino Real Hexagon Transportation Consultants, Inc.

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

Intersection #8: Lane Ave and El Camino Real



Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	Nort	h Bour	d	S	outh	ı Bou	nd		Eas	t Boı	und		West	Boun	d
Movement:	L -	Т -	R	L	_	Т -	R	L	_	Т -	- R	L	- 7	. –	R
Control:	Sto	p Sign			Stop	Sig:	n	U	ncoı	ntro	lled	U	ncont	roll	ed
Lanes:	0 0	0 0	1	0	0	0 0	0	0	0	2	L 0	0	0 3	0	0
Initial Vol:	0	0	71		0	0	0		0 1	455	35		0 146	9	0
ApproachDel:		13.0			XXXX	XXX			XXX	XXX			XXXXX	X	
Approach[nort	hbound	l][lane	s=1]	[con	trol	_=Sto	o Sign	n]							
Signal Warran	t Rule	#1: [vehic	cle-	hour	rs=0.	3]								
FAIL - Veh	icle-h	nours 1	ess t	than	. 4 f	or o	ne lai	ne a	ppr	oach.					
Signal Warran	t Rule	#2: [appro	oach	vol	ume=	71]								
FAIL - App	roach	volume	less	s th	an 1	.00 f	or one	e la	ne a	appro	oach.				
Signal Warrar	t Rule	#3: [appro	oach	cou	int=3][tota	al v	olur	me=30	030]				
SUCCEED -	Total	volume	grea	ater	tha	an or	equa:	l to	650	0 for	inte	rsec	tion		

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

with less than four approaches.

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Lane Ave and El Camino Real

Major Street Volume: 2959
Minor Approach Volume: 71

Minor Approach Volume Threshold: -89 [less than minimum of 100]

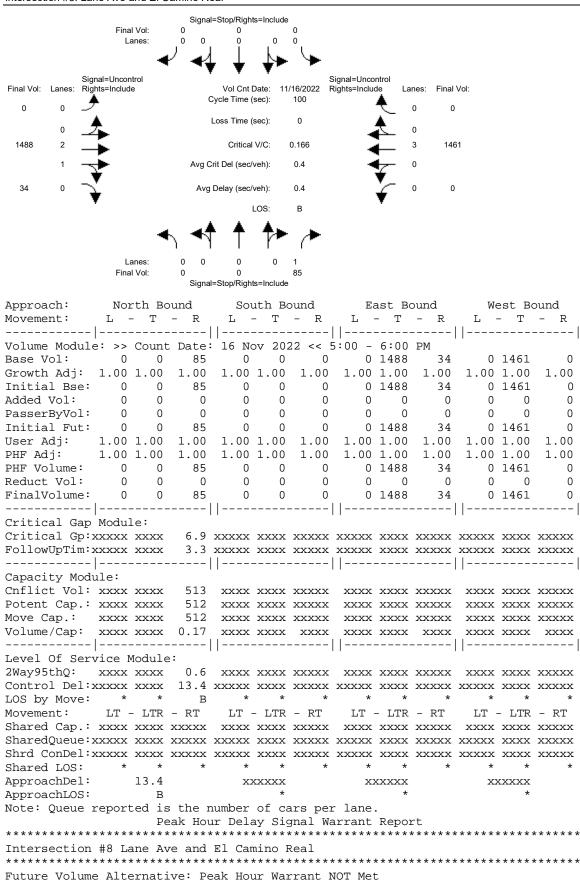
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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

Intersection #8: Lane Ave and El Camino Real



-----|----|-----||------|

Approach:	Nort	h Boun	d	Sout	ch Bo	ounc	E		Eas	st B	oun	d		Wes	st B	oun	d	
Movement:	L -	Т -	R	L -	T	-	R	L	_	Т	_	R	L	-	Т	_	R	
Control:	Sto	p Sign		Sto	s qc	ign		Ţ	Jnco	ntr	011	ed		Unco	ntr	oll	ed	
Lanes:	0 0	0 0	1	0 0	0	0	0	0	0	2	1	0	0	0	3	0	0	
Initial Vol:	0	0	85	0	0		0		0 1	488		34		0 1	L461		0	
ApproachDel:	1	3.4		XXX	xxxx				XXX	xxx				XXX	κxxx	:		
																. – – –		
Approach[nort	hbound	l][lane	s=1]	contro	ol=S	top	Sign	.]										
Signal Warrar	nt Rule	#1: [vehic	cle-ho	ırs=	0.3]											
FAIL - Veh	nicle-h	ours 1	ess t	than 4	for	one	e lan	ie a	appr	coac	h.							
Signal Warrar	nt Rule	#2: [appro	oach vo	olume	e=85	5]											
	,	-	-	1.1.	100	_		-				,						

FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=3068]

SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Lane Ave and El Camino Real

Future Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----||-----||-----|

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Lanes: 0 0 0 0 1 0 0 0 0 0 0 0 2 1 0 0 0 3 0 0
Initial Vol: 0 0 85 0 0 0 0 1488 34 0 1461 0 -----||-----||-----|

Major Street Volume: 2983 Minor Approach Volume: 85

Minor Approach Volume Threshold: -92 [less than minimum of 100]

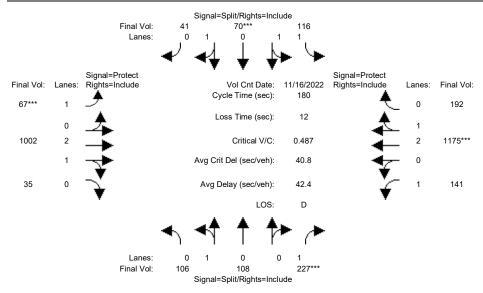
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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

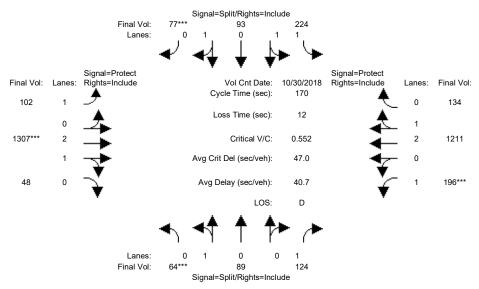
Intersection #1001: El Camino Real and Castro Street



Min. Green: 10 10 10 10 10 10 10 10 7 10 10 7 10 10 7 10 10 10 10 10 10 10 10 10 10 7 10 10 10 7 10 10 10 10 10 10 10 10 10 7 10 10 10 7 10 10 10 10 10 10 10 10 10 10 7 10 10 10 7 10 10 10 10 10 10 10 10 10 10 10 10 10	Approach: Movement:	L -	- T	- R	L ·	- T	- R	L	- T	- R	L ·	- T	- R
Volume Module: > Count Date: 16 Nov 2022 < Base Vol: 106 108 227 116 70 41 67 1002 35 141 1175 192 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
Volume Module: >> Count Date: 16 Nov 2022 << Base Vol: 106 108 227 116 70 41 67 1002 35 141 1175 192 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
Base Vol: 106 108 227 116 70 41 67 1002 35 141 1175 192 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0								67	1002	35	141	1175	192
Initial Bse:	Growth Adj:	1.00	1.00	1.00	1.00	1.00							
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 101 101 115 115	_						41	67	1002	35			192
Initial Fut:	Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
PHF Adj:				227	116	70	41	67	1002	35	141	1175	192
PHF Volume: 106 108 227 116 70 41 67 1002 35 141 1175 192 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 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
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	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
Reduced Vol: 106 108 227 116 70 41 67 1002 35 141 1175 192 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	PHF Volume:	106	108	227	116	70	41	67	1002	35	141	1175	192
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Reduced Vol:	106	108	227	116	70	41	67	1002	35	141	1175	192
FinalVolume: 106 108 227 116 70 41 67 1002 35 141 1175 192				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Saturation Flow Module: Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 190	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
Saturation Flow Module: Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 190													
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 190													
Adjustment: 0.95 0.95 0.92 0.93 0.95 0.95 0.92 0.98 0.95 0.92 0.99 0.95 Lanes: 0.50 0.50 1.00 1.55 0.91 0.54 1.00 2.90 0.10 1.00 2.56 0.44 Final Sat.: 892 908 1750 2734 1650 966 1750 5411 189 1750 4812 786	Saturation F												
Lanes: 0.50 0.50 1.00 1.55 0.91 0.54 1.00 2.90 0.10 1.00 2.56 0.44 Final Sat.: 892 908 1750 2734 1650 966 1750 5411 189 1750 4812 786													
Final Sat.: 892 908 1750 2734 1650 966 1750 5411 189 1750 4812 786	_												
Capacity Analysis Module: Vol/Sat: 0.12 0.12 0.13 0.04 0.04 0.04 0.09 0.19 0.19 0.08 0.24 0.24 Crit Moves: **** **** **** **** Green Time: 47.9 47.9 47.9 15.7 15.7 15.7 14.1 72.7 72.7 31.6 90.2 90.2 Volume/Cap: 0.45 0.45 0.49 0.49 0.49 0.49 0.49 0.40 0.46 0.46 0.46 0.49 0.49 Delay/Veh: 55.6 55.6 56.5 79.1 79.1 79.1 82.2 39.4 39.4 67.6 29.7 29.7 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
Capacity Analysis Module: Vol/Sat: 0.12 0.12 0.13 0.04 0.04 0.04 0.09 0.19 0.19 0.08 0.24 0.24 Crit Moves: **** **** **** **** **** Green Time: 47.9 47.9 47.9 15.7 15.7 15.7 14.1 72.7 72.7 31.6 90.2 90.2 Volume/Cap: 0.45 0.45 0.49 0.49 0.49 0.49 0.49 0.46 0.46 0.46 0.49 0.49 Delay/Veh: 55.6 55.6 56.5 79.1 79.1 79.1 82.2 39.4 39.4 67.6 29.7 29.7 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
Vol/Sat: 0.12 0.12 0.12 0.13 0.04 0.04 0.04 0.04 0.09 0.19 0.19 0.08 0.24 0.24 Crit Moves: ***** ***** <t< td=""><td></td><td></td><td></td><td></td><td> </td><td></td><td> </td><td> </td><td></td><td> </td><td> </td><td></td><td> </td></t<>													
Crit Moves:		-			0 04	0 04	0 04	0 04	0 10	0 10	0 00	0 04	0 04
Green Time: 47.9 47.9 47.9 15.7 15.7 15.7 14.1 72.7 72.7 31.6 90.2 90.2 Volume/Cap: 0.45 0.45 0.49 0.49 0.49 0.49 0.49 0.46 0.46 0.46 0.49 0.49 Delay/Veh: 55.6 55.6 56.5 79.1 79.1 79.1 82.2 39.4 39.4 67.6 29.7 29.7 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		0.12	0.12						0.19	0.19	0.08		0.24
Volume/Cap: 0.45 0.45 0.49 0.49 0.49 0.49 0.49 0.46 0.46 0.46 0.49 0.49 Delay/Veh: 55.6 55.6 56.5 79.1 79.1 79.1 82.2 39.4 39.4 67.6 29.7 29.7 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		45 0	45 0						50 5	50 5	21 6		00 0
Delay/Veh: 55.6 55.6 56.5 79.1 79.1 79.1 82.2 39.4 39.4 67.6 29.7 29.7 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
AdjDel/Veh: 55.6 55.6 56.5 79.1 79.1 79.1 82.2 39.4 39.4 67.6 29.7 29.7 LOS by Move: E E E E E F D D E C C	- ·												
LOS by Move: E E E E E F D D E C C	_												
-	-												
HOWENTHARD OF THE THE OF TO TO	-												
Note: Queue reported is the number of cars per lane.										14	0	10	10

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

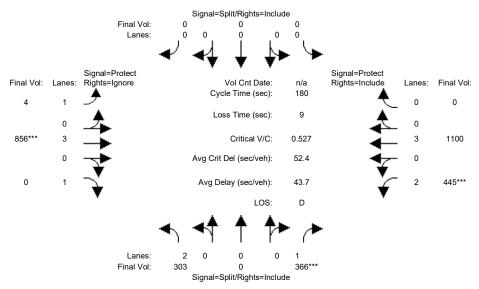
Intersection #1001: El Camino Real and Castro Street



Approach:	Noi	rth Boi	und	Sou	ıth Bo	und	Ea	ast Bo	und	We	est Bo	und
Movement:		- T ·				- R		- T			- T	
						10		10	1.0			
Min. Green: Y+R:		10 4.0			10 4.0			4.0			10 4.0	10 4.0
1+R•												
Volume Module												
Base Vol:	64	89	124	224	93	.0 \\ 77		1307	48	196	1211	134
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:		89	124	224	93	77		1307	48		1211	134
Added Vol:	0	0	0	0	0	0	0	1307	0	0	0	0
PasserByVol:				0		0	0	0	0	0	0	0
Initial Fut:	64	89	124	224	93	77	-	1307	48		1211	134
User Adj:			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
PHF Volume:		89	124	224	93	77		1307	48		1211	134
	0		0	0	0	0	0	0	0	0	0	0
Reduced Vol:		89	124	224	93	77		1307	48		1211	134
PCE Adj:			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
FinalVolume:			124	224		77		1307	48			134
Saturation Flo				I		I	I		ı	I		I
			1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
		0.95	0.92		0.95	0.95		0.98	0.95		0.99	0.95
_		0.58	1.00			0.58		2.89	0.11		2.69	0.31
Final Sat.:			1750		1263	1045		5401	198		5041	558
Capacity Analy				ı		į	1		'	1		ı
		0.09	0.07	0.07	0.07	0.07	0.06	0.24	0.24	0.11	0.24	0.24
Crit Moves:	****					****		****		****		
	26.2	26.2	26.2	22.7	22.7	22.7	21.3	74.6	74.6	34.5	87.8	87.8
Volume/Cap:	0.55	0.55	0.46	0.55	0.55	0.55	0.47	0.55	0.55	0.55	0.47	0.47
_		68.9	66.7	69.8	69.8	69.8	70.6	35.6	35.6	62.7	26.3	26.3
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:			66.7	69.8	69.8	69.8	70.6	35.6	35.6	62.7	26.3	26.3
LOS by Move:			E	E	E	E		D	D	E	С	С
HCM2kAvgQ:	8	8	7	7	7	7	5	17	17	10	15	15
Note: Queue r	eport	ed is	the n	umber	of ca	rs per	lane					

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

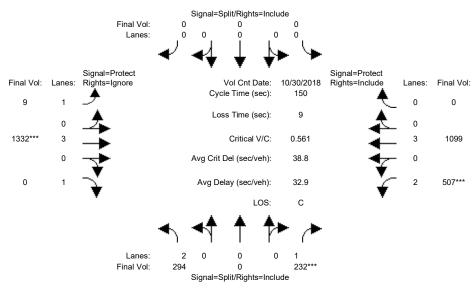
Intersection #1002: El Camino Real and El Monte Avenue



Approach:		rth Bo				ound					est Bo	
Movement:		- T				- R 		- T			- T	- R l
Min. Green:	10		10		0	0		10	10	•	10	0
Y+R:	4.0		4.0		4.0			4.0	4.0		4.0	4.0
Volume Modul												
Base Vol:	303	0	366	0	0	0	4		0		1100	0
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:		0	366	0	0	0	4		0		1100	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
Initial Fut:	303		366	0	0	0	4		0		1100	0
User Adj:		1.00	1.00		1.00	1.00		1.00	0.00		1.00	1.00
PHF Adj:		1.00	1.00		1.00	1.00		1.00	0.00		1.00	1.00
PHF Volume:		0	366	0	0	0	4		0		1100	0
Reduct Vol:	0		0	0	0	0	0		0	0	0	0
Reduced Vol:		0	366	0	0	0	4		0		1100	0
PCE Adj:	1.00	1.00	1.00		1.00	1.00		1.00	0.00		1.00	1.00
MLF Adj:			1.00	1.00	1.00	1.00		1.00	0.00		1.00	1.00
FinalVolume:			366	. 0	0	0		856	0		1100	0
	I											
Saturation F												
Sat/Lane:		1900	1900		1900	1900		1900	1900		1900	1900
Adjustment:		1.00	0.92		1.00	0.92		1.00	0.92		1.00	0.92
	2.00		1.00		0.00	0.00		3.00	1.00		3.00	0.00
Final Sat.:			1750	. 0	0	0		5700	1750		5700	0
	1											
Capacity Ana					0 00	0 00		0 1 5	0 00	0 1 4	0 10	0 00
Vol/Sat:	0.10	0.00	0.21	0.00	0.00	0.00	0.00	0.15	0.00	0.14 ****	0.19	0.00
Crit Moves:												
Green Time:		0.0	71.4	0.0	0.0	0.0		51.3	0.0		82.9	0.0
Volume/Cap:		0.00	0.53		0.00	0.00		0.53	0.00		0.42	0.00
Delay/Veh:	36.3		42.1	0.0	0.0	0.0		54.5	0.0		32.6	0.0
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:				0.0	0.0	0.0		54.5	0.0		32.6	0.0
LOS by Move:			D	A		A	E	_	A	E	-	A
HCM2kAvgQ:	6		16	0	0	0	0		0	12	13	0
Note: Queue	repor	ted is	the n	umber	of ca	ars per	lane	•				

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

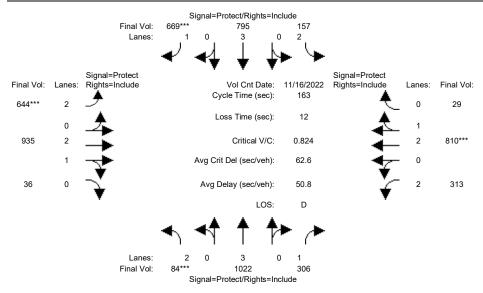
Intersection #1002: El Camino Real and El Monte Avenue



Approach:	Noi	rth Bou	und	Sou	uth Bo	ound			ound	We	est Bo	ound
Movement:	L -		- R	L .		- R 		- T			- T	
Min. Green:	10	0	10	0	0	0	7		 10	10	10	0
Y+R:	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0
Volume Module	I		- 1	I		ا 18 << 5	I			1		1
Base Vol:	294	0	232	0	0	0	9	1332	0	507	1099	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:	294	0	232	0	0	0	9	1332	0	507	1099	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:	294	0	232	0	0	0	9	1332	0	507	1099	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	294	0	232	0	0	0	9	1332	0	507	1099	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	294	0	232	0	0	0	9	1332	0	507	1099	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	294	0	232	0	0	0	9	1332	0	507	1099	0
Saturation Fl	low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	1.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:		0	1750	. 0	0	0		5700	1750		5700	0
Capacity Anal	-											
Vol/Sat:	0.09	0.00	0.13	0.00	0.00	0.00	0.01	0.23	0.00		0.19	0.00
Crit Moves:			****					****		****		
Green Time:	35.5	0.0	35.5	0.0	0.0	0.0		62.5	0.0		85.0	0.0
Volume/Cap:	0.39		0.56	0.00	0.00	0.00		0.56	0.00		0.34	0.00
Delay/Veh:	48.6	0.0	52.2	0.0	0.0	0.0		33.6	0.0		17.5	0.0
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:		0.0	52.2	0.0	0.0	0.0		33.6	0.0		17.5	0.0
LOS by Move:		A	D	A	A	A	E	С	A	D	В	A
HCM2kAvgQ:	7	0	10	0	0	0	0	15	0	11	9	0
Note: Queue 1	report	ced is	the n	umber	of ca	ars per	Lane	•				

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

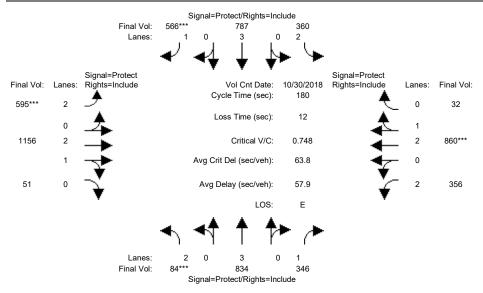
Intersection #1003: El Camino Real and Grant Road/SR-237



Approach: North Movement: L -	Γ – R L	- T - R	L - T	- R	L - T	- R
Min. Green: 7 Y+R: 4.0 4	10 10 7 .0 4.0 4.0	7 10 10 0 4.0 4.0	7 10 4.0 4.0	10 4.0	$ \begin{array}{ccc} 7 & 10 \\ 4.0 & 4.0 \end{array} $	10 4.0
Volume Module: >> Con				2.6	212 010	0.0
Base Vol: 84 10:				36	313 810	29
Growth Adj: 1.00 1.0		1.00 1.00			1.00 1.00	1.00
Initial Bse: 84 103 Added Vol: 0					313 810	29
				0 0	0 0	0
PasserByVol: 0						0
Initial Fut: 84 10:				36	313 810	29
User Adj: 1.00 1.0		1.00 1.00			1.00 1.00	1.00
PHF Adj: 1.00 1.0) 1.00 1.00 7 795 669		1.00 36	1.00 1.00 313 810	1.00 29
PHF Volume: 84 10:				0		
Reduct Vol: 0 Reduced Vol: 84 10				36	0 0 313 810	0 29
PCE Adj: 1.00 1.0 MLF Adj: 1.00 1.0	00 1.00 1.00				1.00 1.00	1.00
FinalVolume: 84 10) 1.00 1.00 7 795 669		36	1.00 1.00 313 810	1.00 29
Finalvolume: 84 10.						
Saturation Flow Modu	1 1					
Sat/Lane: 1900 19		1900 1900	1900 1900	1900	1900 1900	1900
Adjustment: 0.83 1.		3 1.00 1900 3 1.00 0.92			0.83 0.98	0.95
Lanes: 2.00 3.		3.00 0.92			2.00 2.89	0.33
Final Sat.: 3150 57) 5700 1.00) 5700 1750		208	3150 5406	194
Capacity Analysis Moo	1 1		11	1.1		I
Vol/Sat: 0.03 0.1		5 0.14 0.38	0.20 0.17	0.17	0.10 0.15	0.15
Crit Moves: ****	10 0.17 0.05	****		0.17	****	0.13
Green Time: 7.0 64	.0 64.0 17.8	3 74.7 74.7	40.0 44.0	44.0	25.2 29.3	29.3
Volume/Cap: 0.62 0.4		5 0.30 0.83			0.64 0.83	0.83
Delay/Veh: 85.3 36		27.8 46.2			67.6 70.6	70.6
User DelAdj: 1.00 1.		1.00 1.00			1.00 1.00	1.00
AdjDel/Veh: 85.3 36		27.8 46.2			67.6 70.6	70.6
LOS by Move: F					E E	70.0 E
-	12 12 5	-		14	10 16	16
Note: Queue reported						

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

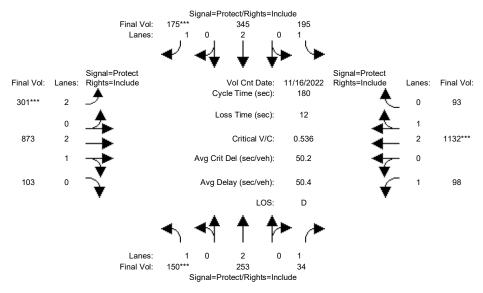
Intersection #1003: El Camino Real and Grant Road/SR-237



Approach: Movement:	L ·	- T	- R	L ·	- T	- R	L	- T	- R	L ·	- T	- R
	7	10	10	7	10	10	7	10	10	7	10	10
Y+R: 		4.0				4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module												
		834		360		566		1156	51	356	860	32
Growth Adj:				1.00		1.00		1.00			1.00	1.00
Initial Bse:				360			595			356		32
	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:	84	834	346	360	787	566	595	1156	51	356	860	32
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:	84	834	346	360	787	566	595	1156	51	356	860	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:			346	360	787	566	595	1156	51	356	860	32
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:						566		1156		356		32
Saturation Fl												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900			1900	1900
Adjustment:			0.92	0.83	1.00	0.92	0.83	0.98	0.95	0.83	0.98	0.95
Lanes:			1.00		3.00	1.00		2.87	0.13		2.89	0.11
Final Sat.:						1750		5363	237		5399	201
Capacity Anal	_											
Vol/Sat:		0.15	0.20	0.11	0.14			0.22	0.22		0.16	0.16
Crit Moves:						****	****				****	
Green Time:			53.6		77.5	77.5		54.8			38.2	38.2
Volume/Cap:			0.66		0.32	0.75		0.71	0.71		0.75	0.75
Delay/Veh: 1			58.6		33.9	47.3		56.9	56.9		69.2	69.2
User DelAdj:				1.00		1.00		1.00	1.00		1.00	1.00
AdjDel/Veh: 1				72.8		47.3		56.9	56.9		69.2	69.2
LOS by Move:				E		D	E		E		E	E
HCM2kAvgQ:			18	12	9		18		20	12	17	17
Note: Queue 1	report	ted is	the n	umber	oi ca	rs per	Lane					

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

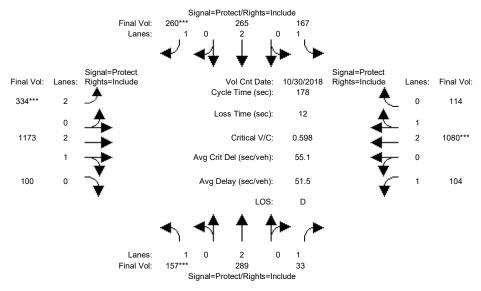
Intersection #1004: El Camino Real and Shoreline Boulevard/Miramonte Avenue



Approach:												
Movement:	L ·	- T	- R	L ·	- T	- R	L				- T	
Min. Green:		10			10			10			10	10
Y+R:	4.0		4.0		4.0	4.0		4.0	4.0		4.0	4.0
Volume Modul							201	0.77	100	0.0	1120	0.2
Base Vol:	150		34	195	345	175	301		103		1132	93
Growth Adj:		1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:		253	34	195	345	175	301	873	103		1132	93
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
Initial Fut:			34	195	345	175	301	873	103		1132	93
User Adj:		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
PHF Volume:		253	34	195	345	175	301	873	103		1132	93
	0		0	0	0	0	0	-	0	0	0	0
Reduced Vol:			34	195	345	175	301	873	103		1132	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		1.00	1.00	1.00		1.00
FinalVolume:			34	195	345	175	301	873	103		1132	93
	1											
Saturation F			1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Sat/Lane:		1900	1900		1900	1900		1900	1900	1900		1900
Adjustment:		1.00	0.92		1.00	0.92		0.99	0.95	0.92		0.95
Lanes:		2.00	1.00		2.00	1.00		2.67	0.33	1.00		0.24
Final Sat.:		3800	1750		3800	1750		5008	591	1750		425
	1											
Capacity Ana	_			0 11	0 00	0 10	0 10	0 1 17	0 10	0 06	0 00	0 00
Vol/Sat:		0.07	0.02	0.11	0.09	0.10	****	0.17	0.17	0.06	0.22 ****	0.22
Crit Moves:	****	00.0	00.0	20 1	22.6			50 0	F0 0	05.5		F0 F
Green Time:		23.3	23.3		33.6	33.6		79.9	79.9	25.7		73.5
Volume/Cap:		0.51	0.15		0.49	0.54		0.39	0.39	0.39		0.54
Delay/Veh:		74.0	69.8		66.0	67.9		33.8	33.8	71.1		40.6
User DelAdj:			1.00		1.00	1.00		1.00	1.00	1.00		1.00
AdjDel/Veh:		74.0	69.8		66.0	67.9		33.8	33.8	71.1		40.6
LOS by Move:			E	E	E	E	E	C	C	Ε	D	D
HCM2kAvgQ:	9		2	10	9	10	9		12	5	17	17
Note: Queue	repor	ted is	the n	umber	oi ca	rs per	lane	•				

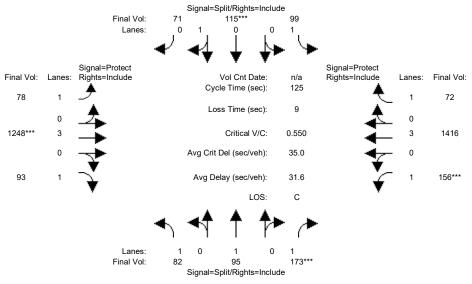
Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing PM

Intersection #1004: El Camino Real and Shoreline Boulevard/Miramonte Avenue



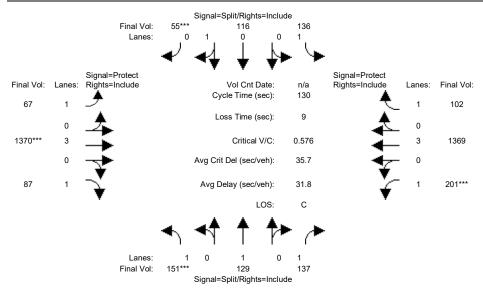
Approach: Movement:									ound – R		est Bo - T	
Min. Green:		10			10				10		10	
Y+R:		4.0	4.0		4.0				4.0	4.0	4.0	4.0
Volume Module										1		ı
Base Vol:	157	289	33	167	265	260		1173		104	1080	114
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:			33	167	265	260		1173	100	104	1080	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:			33	167	265	260	334	1173	100	104	1080	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:	157	289	33	167	265	260	334	1173	100	104	1080	114
	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:			33	167	265	260	334	1173	100	104	1080	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
FinalVolume:			33	167	265	260	334	1173	100	104	1080	114
Saturation F	low Mo	odule:				'						
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	0.83	0.99	0.95	0.92	0.99	0.95
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.76	0.24	1.00	2.70	0.30
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	5160	440	1750	5065	535
Capacity Anal	lysis	Module	e:									
Vol/Sat:	0.09	0.08	0.02	0.10	0.07	0.15	0.11	0.23	0.23	0.06	0.21	0.21
Crit Moves:	* * * *					****	****				***	
Green Time:	26.7	31.5	31.5	39.5	44.2	44.2	31.6	75.4	75.4	19.7	63.5	63.5
Volume/Cap:	0.60	0.43	0.11	0.43	0.28	0.60	0.60	0.54	0.54	0.54	0.60	0.60
Delay/Veh:	74.4	65.7	61.6	60.4	54.2	61.3	69.2	38.5	38.5	77.8	47.3	47.3
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:	74.4	65.7	61.6	60.4	54.2	61.3	69.2	38.5	38.5	77.8	47.3	47.3
LOS by Move:			E	E	D	E	E	D	D	E	D	D
HCM2kAvgQ:	9	7	2	8	6	14	10	17	17	6	17	17
Note: Queue	report	ted is	the n	umber	of ca	rs per	lane					

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



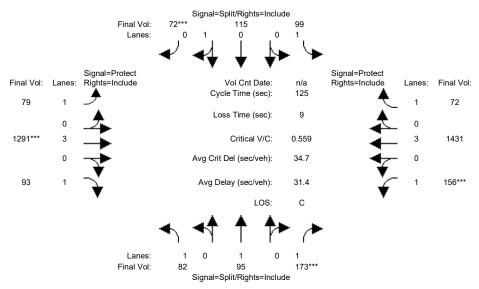
Approach: Movement:		rth Boi				und – R			und – R		
Min. Green:	10	10	10	10	10	10	7	10	10	7 10	10
Y+R:		4.0				4.0			4.0		
Volume Module											
Base Vol:	82		173		115	71		1248	93	156 1416	
Growth Adj:			1.00	1.00	1.00	1.00		1.00	1.00	1.00 1.00	
Initial Bse:			173	99	115	71		1248	93	156 1416	72
	0		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:	82	95	173	99	115	71	78	1248	93	156 1416	72
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:	82	95	173	99	115	71	78	1248	93	156 1416	72
Reduct Vol:	0	0	0	0	0	0	0	0	0	0 0	0
Reduced Vol:	82	95	173	99	115	71	78	1248	93	156 1416	72
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:	82	95	173	99	115	71	78	1248	93	156 1416	72
Saturation F	low Mo	odule:					•			'	'
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900 1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92	0.92 1.00	0.92
Lanes:	1.00	1.00	1.00	1.00	0.62	0.38	1.00	3.00	1.00	1.00 3.00	1.00
Final Sat.:			1750	1750	1113	687	1750	5700	1750	1750 5700	1750
Capacity Anal	lysis	Module	e: '				•			•	
Vol/Sat:	0.05	0.05	0.10	0.06	0.10	0.10	0.04	0.22	0.05	0.09 0.25	0.04
Crit Moves:			***		****			****		****	
Green Time:	22.5	22.5	22.5	23.5	23.5	23.5	12.9	49.8	49.8	20.3 57.2	57.2
Volume/Cap:	0.26	0.28	0.55	0.30	0.55	0.55	0.43	0.55	0.13	0.55 0.54	0.09
Delay/Veh:	44.6	44.7	48.7	44.2	47.9	47.9		29.3	24.0	50.5 24.7	19.3
User DelAdj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00
AdjDel/Veh:					47.9	47.9		29.3	24.0	50.5 24.7	
LOS by Move:				D		D	D		C	D C	
HCM2kAvgQ:				4			3	_		6 12	
Note: Queue 1			the n	umber	of ca	rs per	lane				
	-					-					

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



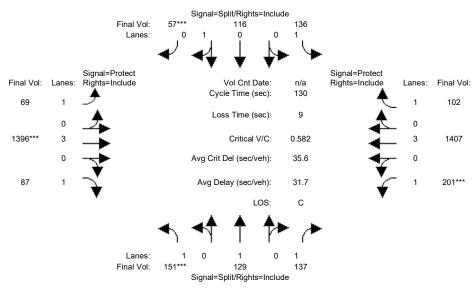
Approach: North Movement: L -	T - R L	- T - R	L - T	- R I	- T	- R
Min. Green: 10 Y+R: 4.0 4	10 10 10 .0 4.0 4.0	10 10 10 0 4.0 4.0	7 10 4.0 4.0	10 4.0 4	7 10	10 4.0
Volume Module:						
	29 137 136	5 116 55	67 1370	87 2	01 1369	102
Growth Adj: 1.00 1.	00 1.00 1.00	1.00 1.00	1.00 1.00		00 1.00	1.00
Initial Bse: 151 1	29 137 136	5 116 55	67 1370	87 2	01 1369	102
Added Vol: 0	0 0		0 0		0 0	0
PasserByVol: 0	0 0 0	0 0	0 0	0	0 0	0
Initial Fut: 151 1	29 137 136	5 116 55	67 1370	87 2	01 1369	102
User Adj: 1.00 1.		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
	29 137 136		67 1370		01 1369	102
Reduct Vol: 0		0 0	0 0		0 0	0
	29 137 136	5 116 55	67 1370	87 2	01 1369	102
PCE Adj: 1.00 1.	00 1.00 1.00	1.00 1.00	1.00 1.00		00 1.00	1.00
MLF Adj: 1.00 1.		1.00 1.00	1.00 1.00		00 1.00	1.00
FinalVolume: 151 1		5 116 55		87 2		102
Saturation Flow Modu						
Sat/Lane: 1900 19		1900 1900	1900 1900		00 1900	1900
Adjustment: 0.92 1.		2 0.95 0.95	0.92 1.00		92 1.00	0.92
Lanes: 1.00 1.		0.68 0.32	1.00 3.00		00 3.00	1.00
Final Sat.: 1750 19) 1221 579	1750 5700		50 5700	1750
Capacity Analysis Mo Vol/Sat: 0.09 0.		3 0.10 0.10	0.04 0.24	0.05 0.	11 0.24	0.06
Crit Moves: ****	07 0.08 0.08	****	0.04 0.24 ****		**	0.00
Green Time: 19.5 19	.5 19.5 21.4	1 21.4 21.4	14.7 54.2		.9 65.4	65.4
Volume/Cap: 0.58 0.		7 0.58 0.58	0.34 0.58		58 0.48	0.12
Delay/Veh: 54.6 51		1 52.9 52.9	54.2 29.4		.5 21.2	17.1
User DelAdj: 1.00 1.		1.00 1.00	1.00 1.00		00 1.00	1.00
AdjDel/Veh: 54.6 51		1 52.9 52.9	54.2 29.4		0.5 21.2	17.1
LOS by Move: D		D D D			D C	17.1
HCM2kAvgQ: 7	5 6 6		D C 3 14	2	7 11	2
Note: Queue reported				_		_

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



Approach:						ound					est Bo	
Movement:		- T -				- R		- T			- T	- R
Min. Green:	10	10	10	1	10		I	10		7		10
Y+R:		4.0		4.0				4.0			4.0	4.0
Volume Module	e:			•								
Base Vol:	82	95	173	99	115	71	78	1248	93	156	1416	72
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:	82	95	173	99	115	71	78	1248	93	156	1416	72
Added Vol:	0	0	0	0	0	1	1	43	0	0	15	0
PasserByVol:			0	0	0	0	0	0	0	0	0	0
Initial Fut:	82	95	173	99	115	72	79	1291	93	156	1431	72
User Adj:	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
PHF Volume:	82	95	173	99	115	72	79	1291	93	156	1431	72
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	95	173	99	115	72	79	1291	93	156	1431	72
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:			173		115	72		1291	93		1431	72
	I											
Saturation F												
Sat/Lane:	1900		1900		1900			1900	1900	1900		1900
_	0.92		0.92	0.92		0.95		1.00	0.92	0.92		0.92
Lanes:	1.00		1.00		0.61	0.39		3.00	1.00	1.00		1.00
Final Sat.:			1750		1107			5700	1750	1750		1750
	I		I									
Capacity Ana	-											
Vol/Sat:	0.05	0.05	0.10	0.06	0.10	0.10	0.05	0.23	0.05	0.09	0.25	0.04
Crit Moves:			****			****		****		****		
Green Time:		22.1	22.1	23.2		23.2		50.7	50.7	19.9		57.7
	0.26		0.56	0.30		0.56		0.56	0.13	0.56		0.09
Delay/Veh:		45.0	49.3	44.4		48.3		28.9	23.4	51.0		18.9
User DelAdj:			1.00	1.00		1.00		1.00	1.00	1.00		1.00
AdjDel/Veh:			49.3	44.4		48.3		28.9	23.4	51.0		18.9
LOS by Move:			D	D	D		D	C	C	D	C	В
	3		7	. 4	7		4		2	6	12	2
Note: Queue 1	report	ted is	the n	umber	of c	ars per	Lane	•				

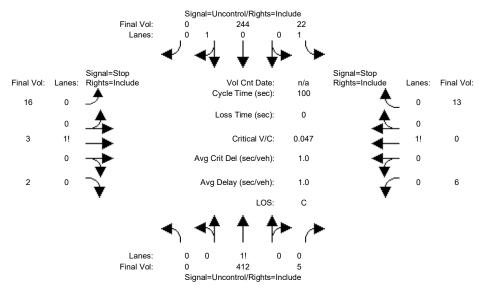
Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + Prj PM



Approach:										We	est Bo	und
Movement:		- T				- R					- T	
Min. Green:			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 Modul												
	151		137		116	55		1370	87		1369	102
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:			137	136	116	55		1370	87		1369	102
Added Vol:	0	0	0	0	0	2	2	26	0	0	38	0
PasserByVol:			0	0			0		0	0		0
Initial Fut:			137		116			1396	87			102
User Adj:			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
PHF Volume:			137	136	116	57		1396	87		1407	102
Reduct Vol:			0	0		0	0		0	0		0
Reduced Vol:			137	136	116			1396	87		1407	102
PCE Adj:	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
FinalVolume:					116					201		102
Saturation F				1000	1000	1000	1000	1000	1000	1000	1000	1000
	1900		1900		1900	1900		1900	1900		1900	1900
Adjustment:			0.92		0.95	0.95 0.33		1.00	0.92		1.00	0.92 1.00
Lanes: Final Sat.:			1.00 1750			593		3.00 5700	1750		3.00 5700	1750
Final Sat												
Capacity Ana												
Vol/Sat:		0.07		0.08	0.10	0.10	0.04	0.24	0.05	0.11	0.25	0.06
Crit Moves:		0.07	0.00	0.00	0.10		0.01		0.00	****	0.25	0.00
Green Time:		19.3	19.3	21.4	21.4	21.4	14.4	54.7	54.7	25.6	65.9	65.9
Volume/Cap:			0.53		0.58	0.58		0.58	0.12		0.49	0.11
Delay/Veh:			53.2	50.4	53.1	53.1	54.7	29.3	23.0	49.9	21.1	16.8
User DelAdj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:				50.4		53.1		29.3	23.0	49.9	21.1	16.8
LOS by Move:				D			D	С	С	D	C	В
HCM2kAvgQ:	7	5		6		7	3	14	2	7	12	2
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane					

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

Intersection #6: Castro St and Victor Way



Approach: Movement:			ound - R			ound - R			ound - R		est Bo	
Volume Module												'
Base Vol:	0	412	5	22	244	0	16	3	2	6	0	13
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	412	5	22	244	0	16	3	2	6	0	13
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
Initial Fut:			5	22	244	0	16	3	2	6	0	13
User Adj:		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
PHF Volume:	0	412	5	22	244	0	16	3	2	6	0	13
Reduct Vol:			0	0	-	0	0	0	0	0	0	0
FinalVolume:			5	22		0	16	3	2	6	0	13
Critical Gap				1 1			7 1	<i>c</i> г	6 0	7 1	с г	6.0
Critical Gp:: FollowUpTim::						XXXXX	7.1		6.2 3.3	7.1	6.5 4.0	6.2 3.3
									3.3		4.0	3.3 l
Capacity Mod	1											
Cnflict Vol:		vvvv	YYYYY	417	YYYY	xxxxx	709	705	244	705	703	415
Potent Cap.:						XXXXX		363	800	354	365	642
Move Cap.:						XXXXX	339	357	800	346	358	642
Volume/Cap:						XXXX		0.01	0.00		0.00	0.02
Level Of Ser	1			1 1			1 1			1 1		į
2Way95thQ:				0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	- LTR	- RT	LT ·	- LTR	- RT	$_{ m LT}$	- LTR	- RT	LT ·	- LTR	- RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	XXXX	362	xxxxx	xxxx	505	XXXXX
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx	xxxxx	0.1	XXXXX
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	15.6	xxxxx	xxxxx	12.4	XXXXX
Shared LOS:	*	*	*	*	*	*	*	C	*	*	В	*
ApproachDel:	X	xxxxx		X	xxxxx			15.6			12.4	
ApproachLOS:		*			*			С			В	
Note: Queue :	repor					_						
			eak Hoi									
*****							*****	****	*****	*****	****	*****
Intersection ******							*****	****	*****	*****	****	*****
Future Volume							-	t				
	1			l I			11			l I		

```
North Bound South Bound East Bound West Bound L - T - R L - T - R
Approach:
Movement:
-----||-----||------|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Lanes: 0 0 0 1 0 1 0 0 1 0 0 0 1! 0 0 0 0 1! 0 0
Initial Vol: 0 412 5 22 244 0 16 3 2 6 0
ApproachDel: xxxxxx xxxx 15.6 12.4
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
  FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=21]
  FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=723]
  FAIL - Total volume less than 650 for intersection
        with less than four approaches.
_____
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
```

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=19]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=723]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Castro St and Victor Way

Future Volume Alternative: Peak Hour Warrant NOT Met

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Lanes: 0 0 0 1 0 1 0 0 1 0 0 0 1! 0 0 0 0 1! 0 0 Initial Vol: 0 412 5 22 244 0 16 3 2 6 0 13 -----|----|-----||------| Major Street Volume: 683

Minor Approach Volume: Minor Approach Volume Threshold: 416

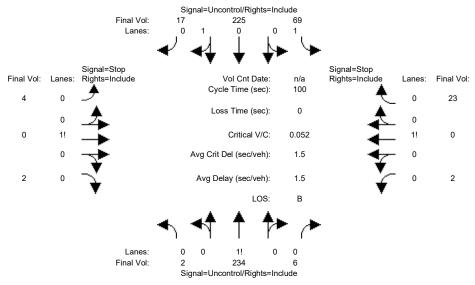
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Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Background PM

Intersection #6: Castro St and Victor Way



Approach: Movement:			ound – R			ound - R			ound - R		est Bo - T	
Volume Module				' '			' '			' '		'
Base Vol:		234	6	69	225	17	4	0	2	2	0	23
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:		234	6	69	225	17	4	0	2	2	0	23
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:	2	234	6	69	225	17	4	0	2	2	0	23
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:	2	234	6	69	225	17	4	0	2	2	0	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	2	234	6	69	225	17	4	0	2	2	0	23
Critical Gap	Modu.	le:										
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:						xxxxx			3.3	3.5		3.3
Capacity Mod	ule:											
Cnflict Vol:	242	xxxx	xxxxx	240	xxxx	xxxxx	624	616	234	614	621	237
Potent Cap.:	1336	xxxx	xxxxx	1339	xxxx	xxxxx	401	409	811	407	406	807
Move Cap.:	1336	xxxx	xxxxx	1339	xxxx	xxxxx	374	387	811	390	385	807
Volume/Cap:	0.00	xxxx	xxxx	0.05	xxxx	xxxx	0.01	0.00	0.00	0.01	0.00	0.03
Level Of Serv	vice N	Module	e:									
2Way95thQ:	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	XXXXX
Control Del:	7.7	xxxx	xxxxx	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	XXXXX
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT ·	- LTR	- RT	LT ·	- LTR	- RT	LT	- LTR	- RT	LT -	- LTR	- RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	455	xxxxx	xxxx	743	XXXXX
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	0.1	XXXXX
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	13.0	xxxxx	xxxxx	10.0	XXXXX
Shared LOS:	*	*	*	*	*	*	*	В	*	*	В	*
ApproachDel:	X	xxxxx		x	xxxxx			13.0			10.0	
ApproachLOS:		*			*			В			В	
Note: Queue	report	ted is	s the r	number	of ca	ars pei	r lane					
	_		eak Hou						ct			
*****	****									*****	****	*****
Intersection	#6 Ca	astro	St and	d Victo	or Way	7						
******	****	****	*****	****	****	*****	*****	****	*****	*****	****	*****
Future Volume												

```
North Bound South Bound East Bound West Bound L - T - R L - T - R
Approach:
Movement:
-----||-----||------|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Lanes: 0 0 1! 0 0 1 0 0 1 0 0 0 1! 0 0 0 0 1! 0 0
Initial Vol: 2 234 6 69 225 17 4 0 2 2 0
ApproachDel: xxxxxx xxxx 13.0 10.0
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
  FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=6]
  FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=584]
  FAIL - Total volume less than 650 for intersection
        with less than four approaches.
_____
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
```

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=25]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=584]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Castro St and Victor Way

Future Volume Alternative: Peak Hour Warrant NOT Met

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Lanes: 0 0 1! 0 0 1 0 0 1 0 0 1! 0 0 0 1! 0 0 Initial Vol: 2 234 6 69 225 17 4 0 2 2 0 23 -----|----||------| 553 Major Street Volume:

Minor Approach Volume: Minor Approach Volume Threshold: 489

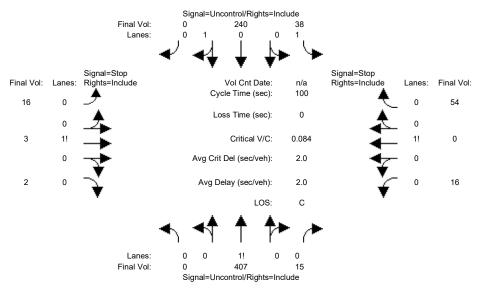
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Background + Prj AM

Intersection #6: Castro St and Victor Way



Approach: Movement:			ound - R			ound - R			ound - R		est Bo	ound - R
Volume Module				' '			' '			' '		'
Base Vol:	0	412	5	22	244	0	16	3	2	6	0	13
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	412	5	22	244	0	16	3	2	6	0	13
Added Vol:	0	-5	10	16	-4	0	0	0	0	10	0	41
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	407	15	38	240	0	16	3	2	16	0	54
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	407	15	38	240	0	16	3	2	16	0	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	407	15	38	240	0	16	3	2	16	0	54
Critical Gap	Modu.	le:										
Critical Gp::	xxxxx	xxxx	XXXXX	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:						xxxxx			3.3	3.5	4.0	3.3
Capacity Mod	ule:											
Cnflict Vol:	xxxx	xxxx	XXXXX	422	xxxx	xxxxx	758	738	240	733	731	415
Potent Cap.:	xxxx	xxxx	xxxxx	1148	xxxx	xxxxx	326	348	804	339	351	642
Move Cap.:	xxxx	XXXX	XXXXX	1148	xxxx	XXXXX	291	336	804	327	340	642
Volume/Cap:	xxxx	xxxx	XXXX	0.03	xxxx	XXXX	0.05	0.01	0.00	0.05	0.00	0.08
Level Of Ser	vice 1	Modul	e:									
2Way95thQ:	XXXX	XXXX	XXXXX	0.1	xxxx	XXXXX	XXXX	xxxx	xxxxx	XXXX	xxxx	XXXXX
Control Del:	xxxxx	XXXX	XXXXX	8.2	xxxx	XXXXX	XXXXX	xxxx	xxxxx	xxxxx	xxxx	XXXXX
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	- LTR	- RT	LT ·	- LTR	- RT	LT ·	- LTR	- RT	LT ·	- LTR	- RT
Shared Cap.:	XXXX	XXXX	XXXXX	XXXX	xxxx	XXXXX	XXXX	317	xxxxx	XXXX	526	XXXXX
SharedQueue:									xxxxx			XXXXX
Shrd ConDel:	XXXXX	XXXX									12.9	XXXXX
Shared LOS:	*	*	*	*	*	*	*	С	*	*	В	*
ApproachDel:	X	xxxxx		X	xxxxx			17.2			12.9	
ApproachLOS:		*			*			С			В	
Note: Queue	repor		s the r eak Hou						rt.			
*****	****									*****	****	*****
Intersection	#6 C	astro	St and	d Victo	or Was	y						
*****					-		****	****	*****	*****	****	*****
Future Volume	_											
	e Alt	ernat:	ive: Pe	eak Hoi	ır Wa:	rrant 1	NOT Met	t				

```
North Bound South Bound East Bound West Bound L - T - R L - T - R
                                                        West Bound
Approach:
Movement:
-----||-----||------|
Control: Uncontrolled Lanes: 0 0 0 1 0
                          Uncontrolled Stop Sign 1 0 0 1 0 0 0 1! 0 0
                                                         Stop Sign
                                                         0 0 1! 0 0
Initial Vol: 0 407 15 38 240 0 16 3 2 16 0
ApproachDel: xxxxxx xxxx 17.2 12.9
-----||-----||------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
  FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=21]
  FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=791]
  FAIL - Total volume less than 650 for intersection
        with less than four approaches.
```

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=70]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=791]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Castro St and Victor Way

Future Volume Alternative: Peak Hour Warrant NOT Met

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Lanes: 0 0 0 1 0 1 0 0 1 0 0 0 1! 0 0 0 0 1! 0 0 Initial Vol: 0 407 15 38 240 0 16 3 2 16 0 54 -----|----||------| 700 Major Street Volume:

Minor Approach Volume: Minor Approach Volume Threshold: 408

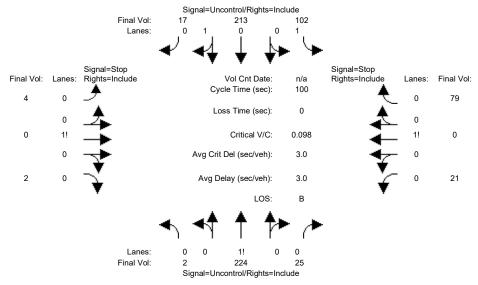
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Background + Prj PM

Intersection #6: Castro St and Victor Way



Approach: Movement:			ound - R			ound - R			ound - R		est Bo - T	
	I											
Volume Module				1 1			1 1			1 1		ı
Base Vol:		234	6	69	225	17	4	0	2	2	0	23
Growth Adj:		1.00	1.00		1.00	1.00		1.00	1.00	1.00	-	1.00
Initial Bse:			6	69	225	17	4	0	2	2	0	23
Added Vol:	0		19	33	-12	0	0	0	0	19	0	51
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	5
Initial Fut:			25	102	213	17	4	0	2	21	0	79
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:	2	224	25	102	213	17	4	0	2	21	0	79
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	2	224	25	102	213	17	4	0	2	21	0	79
Critical Gap	Modu	le:										
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Mod												
Cnflict Vol:	230	xxxx	xxxxx	249	xxxx	xxxxx	706	679	222	667	675	237
Potent Cap.:	1350	xxxx	xxxxx	1328	xxxx	xxxxx	354	376	823	375	378	807
Move Cap.:	1350	xxxx	xxxxx	1328	xxxx	xxxxx	300	347	823	352	349	807
Volume/Cap:				0.08	xxxx	xxxx	0.01	0.00	0.00	0.06	0.00	0.10
Level Of Ser	vice 1	Modul	e:									
2Way95thQ:	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	XXXXX
Control Del:	7.7	xxxx	xxxxx	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	XXXXX
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	$_{ m LT}$	- LTR	- RT	LT ·	- LTR	- RT	LT	- LTR	- RT	LT ·	- LTR	- RT
Shared Cap.:	xxxx	xxxx	xxxxx	XXXX	xxxx	xxxxx	XXXX	380	xxxxx	XXXX	635	XXXXX
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	0.6	XXXXX
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	14.6	xxxxx	xxxxx	11.7	XXXXX
Shared LOS:	*	*	*	*	*	*	*	В	*	*	В	*
ApproachDel:	x	xxxxx		X	xxxxx			14.6			11.7	
ApproachLOS:		*			*			В			В	
Note: Queue :	repor	ted is	s the r	number	of ca	ars pei	r lane					
			eak Hoi									
*******	****	****	*****	*****	****	*****	*****	* * * * *	*****	*****	****	*****
Intersection					-							
******	****	****	****	*****	****	*****	*****	****	*****	*****	****	*****
Future Volume							-					

COMPARE Fri Apr 21 14:53:25 2023 Page 3-34

North Bound South Bound East Bound West Bound L - T - R L - T - R Approach: Movement: -----||-----||-----| Control: Uncontrolled Uncontrolled Stop Sign
Lanes: 0 0 1! 0 0 1 0 0 1 0 0 1! 0 0 Stop Sign 0 0 1! 0 0 Initial Vol: 2 224 25 102 213 17 4 0 2 21 0
ApproachDel: xxxxxx xxxx xxxxx 14.6 11.7 XXXXXX -----||-----||------| Approach[eastbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.0] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=6] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=689] FAIL - Total volume less than 650 for intersection with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=100]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=689]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Castro St and Victor Way

Future Volume Alternative: Peak Hour Warrant NOT Met

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Lanes: 0 0 1! 0 0 1 0 0 1 0 0 0 1! 0 0 0 0 1! 0 0 Initial Vol: 2 224 25 102 213 17 4 0 2 21 -----||-----||-----| 583 Major Street Volume:

Minor Approach Volume: Minor Approach Volume Threshold: 471

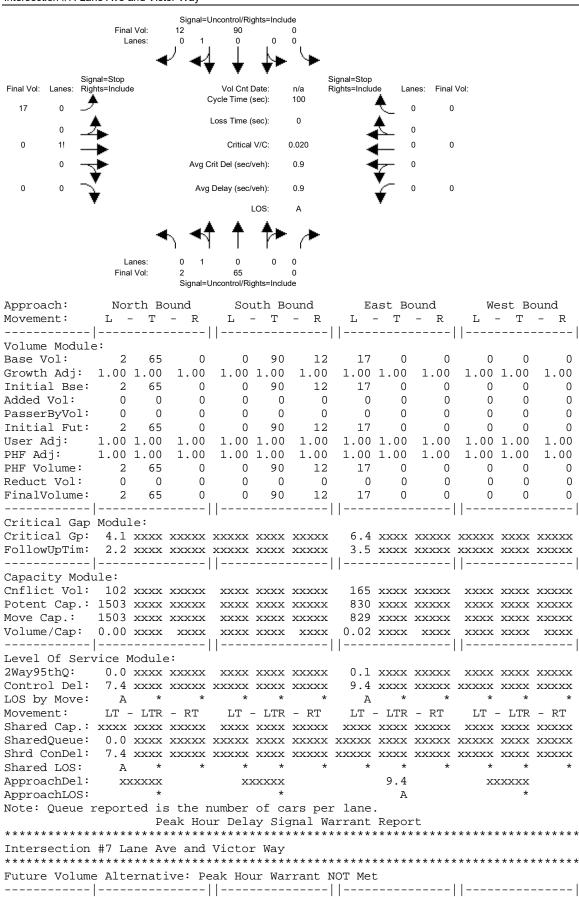
SIGNAL WARRANT DISCLAIMER

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

Intersection #7: Lane Ave and Victor Way



Approach:	N	ort	h B	oun	d	2	Sout	h Bo	oun	.d	Eas	st B	oun	d		Wes	t B	oun	f
Movement:	L	-	Т	-	R	L	-	T	_	R	L -	T	_	R	L	_	T	_	R
Control:	U	nco	ntr	011	ed	Ţ	Jnco	ntro	511	ed	Sto	p S	ign			Sto	p S	ign	
Lanes:	0	1	0	0	0	0	0	0	1	0	1 0	0	0	0	0	0	0	0	0
Initial Vol:		2	65		0		0	90		12	17	0		0		0	0		0
ApproachDel:		xxx	xxx				xxx	xxx				9.4				XXX	xxx		
Approach[east	bou	ind]	[la	nes	=1][cont	rol	=Sto	gc	Sign]									
Signal Warrar	nt R	ule	#1	: [vehi	cle-	-hou	rs=	0.0]									
FAIL - Veh	nicl	e-h	our	s l	ess t	thar	1 4	for	on	e lan	le appr	oacl	h.						

Signal Warrant Rule #2: [approach volume=17]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=186]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Lane Ave and Victor Way

Future Volume Alternative: Peak Hour Warrant NOT Met -----||-----||-----|

North Bound South Bound East Bound West Bound L - T - R L - T - R Approach: Movement: -----||-----||-----|

-----|----|-----||------| Major Street Volume: 169 Minor Approach Volume: 17

Minor Approach Volume Threshold: 694 ______

SIGNAL WARRANT DISCLAIMER

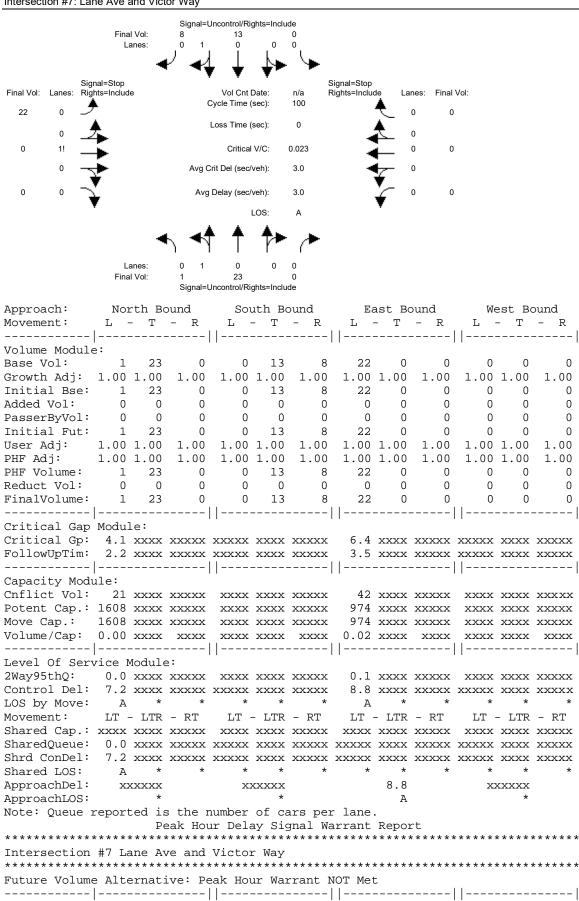
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749 W El Camino Real Hexagon Transportation Consultants, Inc.

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

Intersection #7: Lane Ave and Victor Way



Approach:	1	Nort	h B	oun	d	2	Sout	h Bo	oun	d		Eas	t Bo	oun	d		Wes	t B	oun	b
Movement:	L	_	Т	_	R	L	_	Т	_	R	L	_	Т	_	R	L	. –	T	-	R
Control:	τ	Jnco	ntr	011	ed	τ	Jnco	ntro	11	ed		Sto	p S	ign		•	Sto	p S	ign	
Lanes:	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
Initial Vol:		1	23		0		0	13		8	2	22	0		0		0	0		0
ApproachDel:		XXX	xxx				xxx	xxx					8.8				XXX	xxx		
Approach[east	bou	and]	[la	nes	=1][c	cont	rol	=Sto	go	Sign]										
Signal Warrar	nt E	Rule	#1	: [vehic	:le-	-hou	rs=	0.1]										
1. 1.				-		,		_		-			,							

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=22]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=67]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Lane Ave and Victor Way

Minor Approach Volume Threshold: 1046

Major Street Volume: 45
Minor Approach Volume: 22

SIGNAL WARRANT DISCLAIMER

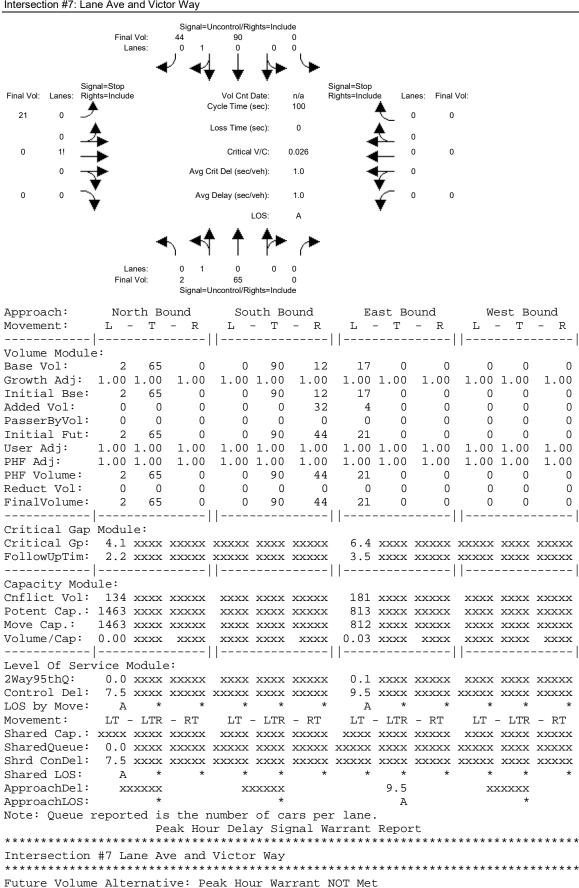
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749 W El Camino Real Hexagon Transportation Consultants, Inc.

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Background + Prj AM

Intersection #7: Lane Ave and Victor Way



-----|----|-----||------|

Approach:	North Bound South Bound											Eas	t B	oun	d			Wes	t Bo	oun	Ŀ
Movement:	L	-	Т	_	R	L	-	T	-	R]	<u> -</u>	Т	-	R		L	-	Т	-	R
			ontrolled Uncontrolled													-					
Control:												Sto	p S	ign				Sto	p Si	ign	
Lanes:	0	1	0	0	0	0	0	-	L 0	0	0	0		0	0	0	0	0			
Initial Vol:		2	65		0		21	0		0			0	0		0					
ApproachDel:		XXX	xxx				XXX	XXX					9.5				:	XXX	xxx		
																–					
Approach[east	bou	nd]	[laː	nes	=1][c	cont	crol	=St	gc	Sign]										
Signal Warrar	nt R	ule	#1	: [vehic	:le-	-hou	rs=	0.1]											

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=21]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=222]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Lane Ave and Victor Way

Future Volume Alternative: Peak Hour Warrant NOT Met -----||-----||-----|

North Bound South Bound East Bound West Bound L - T - R L - T - R Approach: Movement: -----||-----||-----|

-----||-----||-----| Major Street Volume: 201

Minor Approach Volume: 21 Minor Approach Volume Threshold: 647

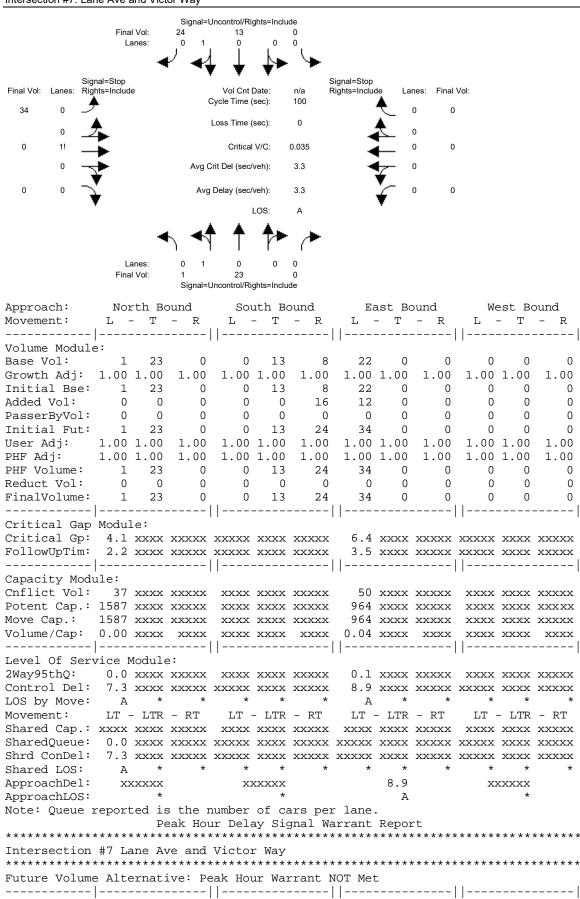
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Background + Prj PM

Intersection #7: Lane Ave and Victor Way



Approach:	Nort	h Boun	ıd	Sout			Eas	t Bo	oun	d		Wes	t Bo	oun	d			
Movement:	L -	Т -	R	L -	Т	_	R	L	_	T	_	R	L	_	T	_	R	
Control:	Unco	ntroll	.ed	Unco	ntro	olle	d		Sto	p S	ign			Sto	p S	ign		
Lanes:	0 1	0 0	0	0 0	0	0	0	0	0	0	0	0	0					
Initial Vol:	1	23	0	0	13		24	3	4	0		0		0	0		0	
ApproachDel:	XXX	XXX		XXX	xxx					8.9				XXX	xxx			
Approach[east	bound	[lanes	=1][c	ontrol	=Sto	op S	ign]											
Signal Warrar	nt Rule	#1: [vehic	le-hou	rs=(0.1]												
FAIL - Veh	nicle-h	ours 1	ess t	han 4	for	one	lan	e a	ppr	oacl	h.							
Signal Warrar	ıt Rule	#2: [appro	ach vo	lume	==34]											

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=95]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Lane Ave and Victor Way

Future Volume Alternative: Peak Hour Warrant NOT Met

Major Street Volume: 61
Minor Approach Volume: 34
Minor Approach Volume Threshold: 965

SIGNAL WARRANT DISCLAIMER

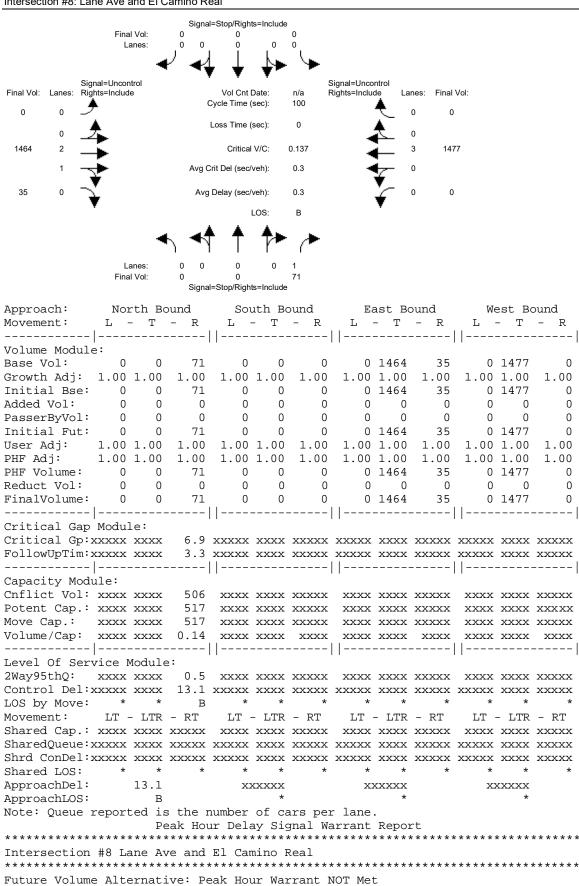
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749 W El Camino Real Hexagon Transportation Consultants, Inc.

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

Intersection #8: Lane Ave and El Camino Real



-----|----|-----||------|

OOMI 7111L								1 11 7	tpi Z i	14.00.2	-0 2	-020										
Approach:	1	Nort	h B	oun	d		Sout	h B	oun	d			Eas	st E	our.	ıd			Wes	t B	oun	d
Movement:	L	_	Т	_	R	L	_	Т	_	R		L	_	Т	_	R		L	_	Т	_	R
											. -						-					
Control:		Sto	p S	ign		•	Sto	p S	ign		·	U	nco	ntr	011	.ed		U	nco	ntr	oll	ed
Lanes:	$\begin{array}{cccccccccccccccccccccccccccccccccccc$												0	0	3	0	0					
Initial Vol:		0	0		71		0	0		0			0 1	464	:	35			0 1	477		0
ApproachDel:	13.1 xxxxxx xxxxxx															xxx	xxx					
	13.1 xxxxxx xxxxxx												-									
Approach[nort	hb	ound][1	ane	s=1]	[co:	ntro	1=S	top	Sig	jn]]										
Signal Warrar	nt I	Rule	#1	: [vehi	cle	-hou	rs=	0.3]												
FAIL - Veh	nic:	le-h	our	s l	ess	tha	n 4	for	on	e la	ıne	e a	ppr	oac	h.							
Signal Warrar	nt I	Rule	#2	: [appr	oac	h vo	lum	e=7	1]												
FAIL - App	roa	ach	vol	ume	les	s t	han	100	fo	r on	ıe	la	ne	app	roa	ch.						
Signal Warrar	nt I	Rule	#3	: [appr	oac	h co	unt	=3]	[tot	:a]	l v	olı	ıme=	304	7]						
SUCCEED -	Tot	cal	vol	ume	gre	ate	r th	an	or	equa	11	to	65	50 f	or	int	ers	sec	tic	n		

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

with less than four approaches.

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Lane Ave and El Camino Real

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 1 0 0 0 0 0 0 2 1 0 0 0 3 0 0 Initial Vol: 0 0 71 0 0 0 0 1464 35 0 1477 0

Major Street Volume: 2976
Minor Approach Volume: 71

Minor Approach Volume Threshold: -91 [less than minimum of 100]

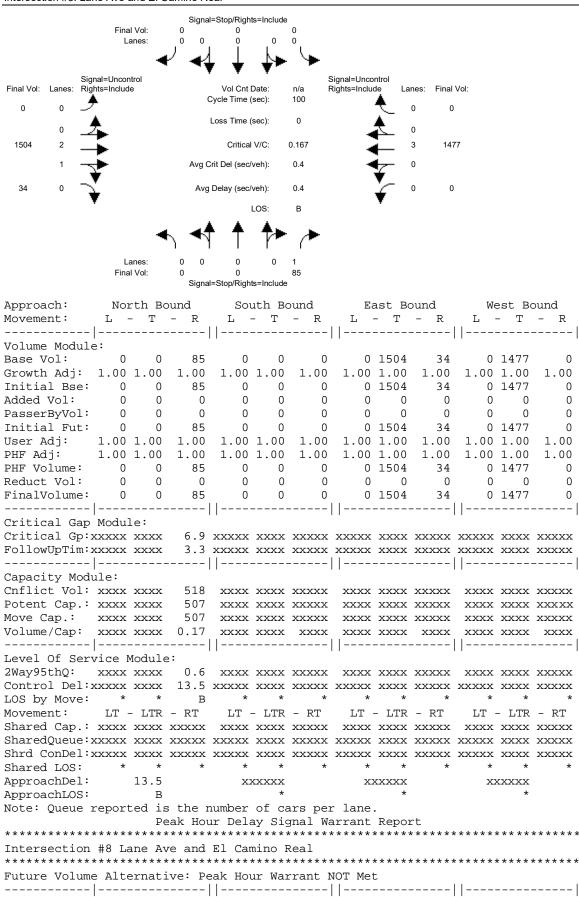
SIGNAL WARRANT DISCLAIMER

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

Intersection #8: Lane Ave and El Camino Real



Approach:	N	Nort.	h B	oun				h B	oun	d		Ε	as	t B	oun	d		1	Wes	t B	oun	d	
Movement:	L	_	Т	_	R	L	_	Т	_	R		L	-	T	_	R		L	_	Т	_	R	
											-						-						. [
Control:		Sto	p S	ign			Sto	p S	ign			Un	COI	ntr	011	ed		U:	nco	ntr	oll	ed	
Lanes:	0	0	0	0	1	0	0	0	0	0		0	0	2	1	0		0	0	3	0	0	
Initial Vol:		0	0		85		0	0		0		0	1	504		34			0 1	477		0	
ApproachDel:		0 0 85 0 0 0 0 1504 13.5 xxxxxx xxxxx														XXX	xxx						
											-						-						.
Approach[nort	hbo	ound][1	ane	s=1]	[co	ntro	1=S	top	Sig	n]												
Signal Warrar	nt F	≀ule	#1	: [vehi	cle	-hou	rs=	0.3]													
FAIL - Vel	nicl	le-h	our	s l	ess	thai	n 4	for	on	e la	ne	ap	pr	oac	h.								
Signal Warrar	nt F	≀ule	#2	: [appr	oacl	n vo	lum	e=8	5]		_	_										
FAIL - App	oroa	ach	vol	ume	les	s tl	nan	100	fo	r on	.e	lan	e a	app	roa	ch.							
Signal Warrar	nt F	≀ule	#3	: [appr	oacl	n co	unt	=3]	[tot	al	vo	lui	me=	310	0]							

with less than four approaches.

SUCCEED - Total volume greater than or equal to 650 for intersection

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Lane Ave and El Camino Real

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 1 0 0 0 0 0 0 2 1 0 0 0 3 0 0 Initial Vol: 0 0 85 0 0 0 0 1504 34 0 1477 0

Major Street Volume: 3015
Minor Approach Volume: 85

Minor Approach Volume Threshold: -95 [less than minimum of 100]

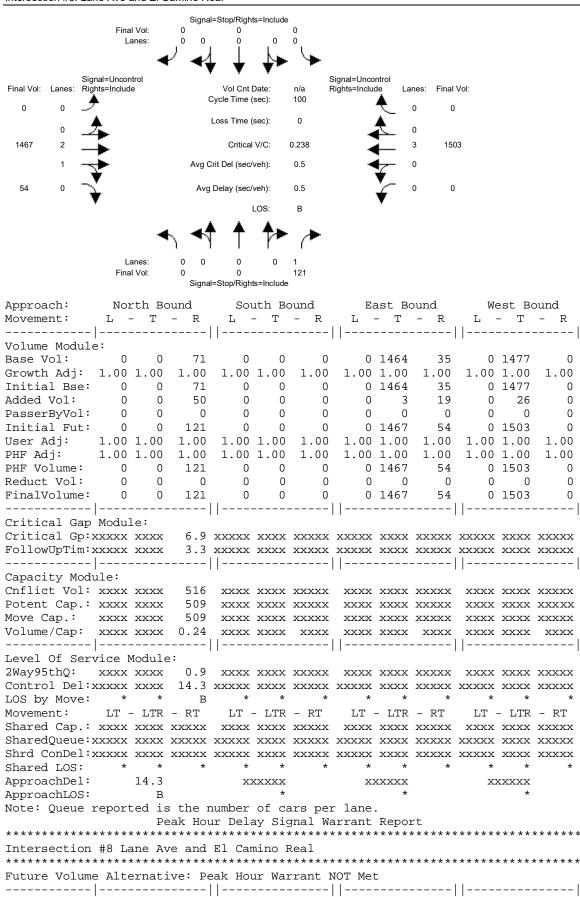
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Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Background + Prj AM

Intersection #8: Lane Ave and El Camino Real



Approach:	1	Vort	h B	our	ıd		Sou	th E	3oun	.d		E	as	t B	oun	d		We	est	Bou	.nd
Movement:	L	_	T	_	R	I	_	T	_	R		L	-	\mathbf{T}	_	R	L		- '	Г -	R
											-										
Control:		Stop Sign					St	op S	Sign			Un	CO	ntr	011	ed		Un	con	rol	led
Lanes:	0	0	0	0	1	(0 (0	0	0		0	0	2	1	0	0	(O :	3 0	0
Initial Vol:		0	0		121		0	C)	0		0	1	467		54		0	15)3	0
ApproachDel:		1	4.3				XX	XXXX	2			X	хх	xxx				X	xxx	ΚX	
											-										
a 1. F	1.1	-	1 [1		- 1	1 .		7 6		~ ·											

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.5]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=121]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=3145]

SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Lane Ave and El Camino Real

Future Volume Alternative: Peak Hour Warrant Met

Major Street Volume: 3024
Minor Approach Volume: 121

Minor Approach Volume Threshold: -96 [less than minimum of 100]

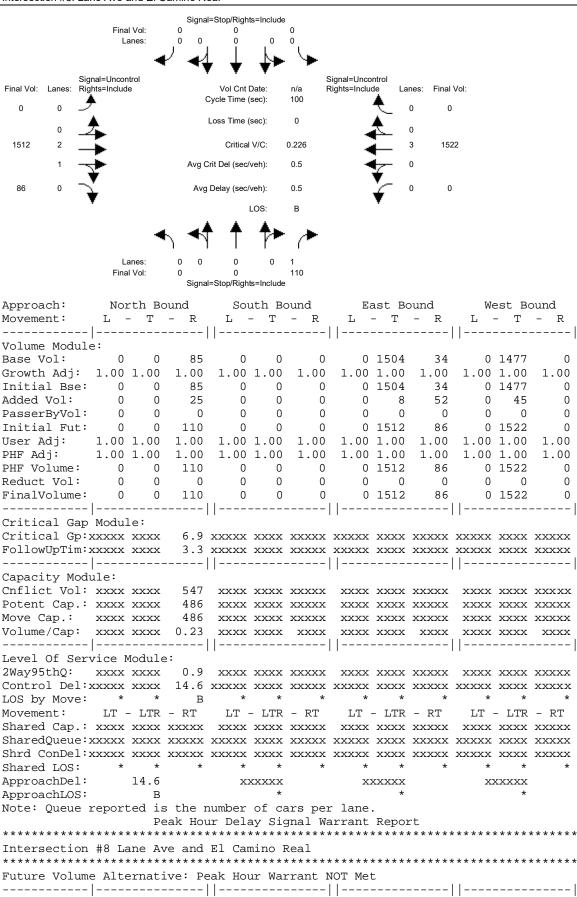
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Background + Prj PM

Intersection #8: Lane Ave and El Camino Real



Approach:	1	Vort	h B	our	ıd		Sout	h B	oun	d		Εä	ast	t Bo	oun	d		We	est	Βοι	ınd	
Movement:	L	_	T	_	R	L	-	Т	-	R		L	_	T	_	R	L		_	Т -	- ;	R
											-											
Control:		Stop Sign					Sto	p S	ign			Un	cor	ntro	o11	ed		Un	con	trol	lle	d
Lanes:	0	0	0	0	1	0	0	0	0	0		0	0	2	1	0	0	(О	3 ()	0
Initial Vol:		0	0		110		0	0		0		0	15	512		86		0	15	22		0
ApproachDel:		1	4.6				XXX	xxx				X	XXX	xxx				X	xxx	XX		
											-											
a 1. F	1.1	-	1 [7			1 .		7 0		~ '												

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.4]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=110]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=3230]

SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Lane Ave and El Camino Real

Future Volume Alternative: Peak Hour Warrant Met

Major Street Volume: 3120
Minor Approach Volume: 110

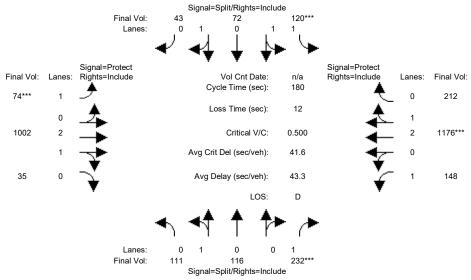
Minor Approach Volume Threshold: -107 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

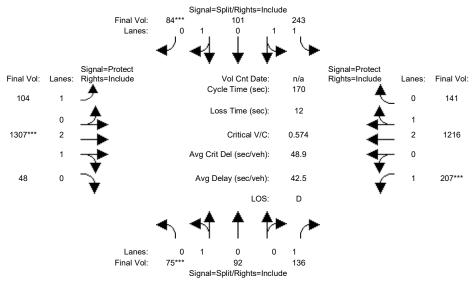
The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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



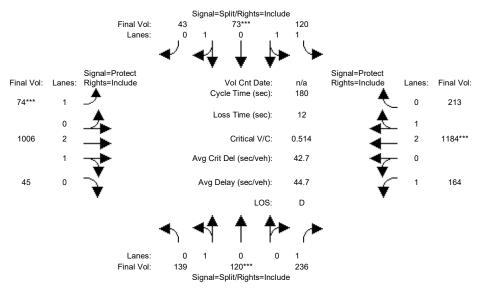
Approach:	Noi	rth Boi	und	Sot	uth Bo	ound	Ea	ast Bo	ound	We	est Bo	ound
Movement:		- T ·			- T			- T			- T	- R
	I		I							1		
Min. Green:	10		10		10	10		10	10		10	10
Y+R:	4.0		4.0	4.0		4.0		4.0	4.0		4.0	4.0
Volume Module	I											
Base Vol:	111	116	232	120	72	43	74	1002	35	148	1176	212
Growth Adj:	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:	111	116	232	120	72	43	74	1002	35	148	1176	212
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:	111	116	232	120	72	43	74	1002	35	148	1176	212
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:	111	116	232	120	72	43	74	1002	35	148	1176	212
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	111	116	232	120	72	43	74	1002	35	148	1176	212
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:	111	116	232	120	72	43	74	1002	35	148	1176	212
Saturation F												
Sat/Lane:		1900	1900		1900	1900		1900	1900		1900	1900
Adjustment:	0.95		0.92		0.95	0.95		0.98	0.95		0.99	0.95
Lanes:	0.49		1.00		0.91	0.54		2.90	0.10		2.52	0.48
Final Sat.:			1750		1639	979		5411	189		4744	855
	1											
Capacity Anal	-			0 04	0 04	0 04	0 04	0 10	0 10	0 00	0 05	0 05
Vol/Sat:	0.13	0.13	0.13	0.04 ****	0.04	0.04	0.04 ****	0.19	0.19	0.08	0.25	0.25
Crit Moves:	40 0	40 0			15 0	15 0		- 1 -	D1 D	20.0		00 0
	47.7		47.7		15.8	15.8		71.7	71.7		89.2	89.2
	0.48		0.50		0.50	0.50		0.46	0.46		0.50	0.50
Delay/Veh:			56.9		79.2	79.2		40.1	40.1		30.6	30.6
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:			56.9		79.2	79.2		40.1	40.1		30.6	30.6
LOS by Move:	E	E	E	E	E	E	F	D	D	E	C	C
HCM2kAvgQ:	11	11	12	5	5	5	1		14	8	17	17
Note: Queue 1	report	Lea 15	the n	umber	or ca	ırs per	_ane	•				

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



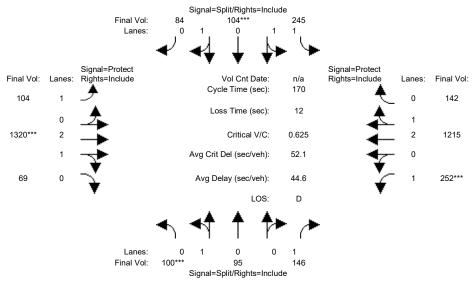
Approach:	No	rth Bo	und	Son	uth Bo	und	Ea	ast Bo	und	We	est Bo	und
Movement:		- T				- R					- T	
 Min. Green:			 10	10	10	10	7	10			10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Modul												
Base Vol:	75		136	243		84		1307	48		1216	141
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:		92	136	243	101	84		1307	48		1216	141
Added Vol:			0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0		0	0	0	0	0		0
Initial Fut:			136	243				1307	48		1216	141
User Adj:			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
PHF Volume:			136	243	101	84		1307	48		1216	141
Reduct Vol:			0	0		0	0		0	0	0	0
Reduced Vol:			136	243	101	84		1307	48		1216	141
PCE Adj:	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
FinalVolume:			136	243		84			48			141
Saturation F												
Sat/Lane:			1900		1900	1900		1900	1900		1900	1900
Adjustment:			0.92		0.95	0.95		0.98	0.95		0.99	0.95
	0.45		1.00		0.70	0.58		2.89	0.11		2.68	0.32
Final Sat.:			1750		1262	1050		5401	198			582
Capacity Ana				0 00	0 00	0 00	0 06	0 04	0 24	0 10	0 04	0 04
Vol/Sat:	****	0.09	0.08	0.08	0.08	0.08 ***	0.06	0.24	0.24	U.⊥∠ ****	0.24	0.24
Crit Moves:		07 5	27 -	22 7	00 7		01 0				05 0	05 0
Green Time:		27.5	27.5		23.7	23.7		71.7	71.7		85.8	85.8
Volume/Cap:			0.48		0.57	0.57		0.57	0.57		0.48	0.48 27.7
Delay/Veh:			66.0		69.5	69.5		37.8	37.8		27.7	
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:				69.5 E		69.5		37.8	37.8		27.7	27.7
LOS by Move:				E:		E	E 5			E		C 1 E
HCM2kAvgQ:		9							18	11	15	15
Note: Queue	repor	tea is	the n	umber	OI CS	ırs per	rane	•				

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



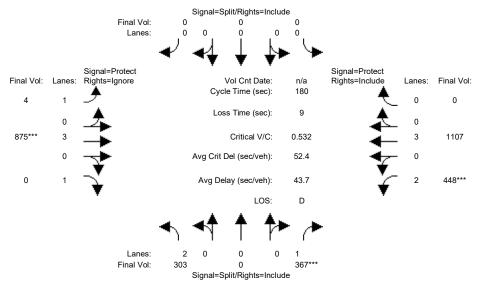
Approach:	No	rth Bo	und	Son	uth Bo	und	Ea	ast Bo	und	We	est Bo	und
Movement:		- T				- R		- T			- T	
 Min. Green:			10	10	10	10	7	10			10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Modul	e:											
Base Vol:	111			120	72	43		1002	35		1176	212
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:			232	120	72	43		1002	35		1176	212
Added Vol:		4	4	0	1	0	0	4	10	16	8	1
PasserByVol:				0			0		0	0	0	0
Initial Fut:			236	120	, 5	43		1006	45		1184	213
User Adj:			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
PHF Volume:			236	120	73	43		1006	45		1184	213
Reduct Vol:			0	0	0	0	0	0	0	0		0
Reduced Vol:			236	120				1006	45		1184	213
PCE Adj:	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
FinalVolume:			236					1006	45			213
Saturation F				1000	1000	1000	1000	1000	1000	1000	1000	1000
Sat/Lane:			1900		1900	1900		1900	1900		1900	1900
Adjustment:			0.92		0.95	0.95		0.98	0.95		0.99	0.95
	0.54		1.00			0.54		2.87	0.13		2.53	0.47
Final Sat.:						975 I		5360	240		4745	854 I
Capacity Ana												
Vol/Sat:		0.14		0 04	0.04	0.04	0 04	0.19	0.19	0 09	0.25	0.25
Crit Moves:						0.01	****		0.10	0.05	****	0.23
Green Time:					15.4	15.4	14.8	68.1	68.1	34.0	87.4	87.4
Volume/Cap:			0.48		0.51	0.51		0.50	0.50		0.51	0.51
Delay/Veh:			54.7	79.7	79.7	79.7	82.3	43.0	43.0	66.5	31.9	31.9
User DelAdj:					1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:				79.7		79.7	82.3	43.0	43.0	66.5	31.9	31.9
LOS by Move:			D		E	E	F		D	E	С	С
HCM2kAvgQ:			12	5	5	5	4	14	14	9	17	17
Note: Queue		ted is	the n	umber	of ca	rs per	lane					

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



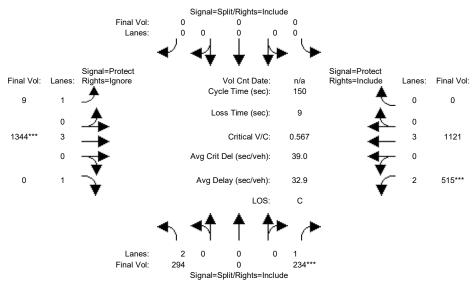
Approach:	No	rth Bo	und							We	est Bo	und
Movement:		- T				- R					- T	
Min. Green:	•				10			10			10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Modul												
Base Vol:	75			243		84		1307	48		1216	141
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:	75	92	136	243	101	84		1307	48		1216	141
Added Vol:	20	3	10	2		0	0	13	21	40	4	1
PasserByVol:			0	0		0	0	0		5		0
Initial Fut:			146	245				1320	69			142
User Adj:			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
PHF Volume:			146	245	104	84		1320	69		1215	142
Reduct Vol:			0	0		0	0		0	0		0
Reduced Vol:			146	245				1320	69		1215	142
PCE Adj:	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
FinalVolume:						84		1320		252		142
Saturation F												
Sat/Lane:			1900		1900	1900		1900	1900		1900	1900
Adjustment:			0.92		0.95	0.95		0.98	0.95		0.99	0.95
	0.51		1.00			0.58		2.85	0.15		2.67	0.33
Final Sat.:			1750		1285	1038		5321	278			586
Capacity Ana				0 00	0 00	0 00	0 06	0 05	0 25	0 1 4	0 04	0 04
Vol/Sat:	****	0.11		0.08	U.U8	0.08	0.06	0.25	0.25	V.14	0.24	0.24
Crit Moves:		00 4				22.0	01 0				05 6	05 6
Green Time:		29.4			22.0	22.0		67.4	67.4		85.6	85.6
Volume/Cap:			0.48		0.63	0.63		0.63	0.63		0.48	0.48
Delay/Veh:			64.6		71.9	71.9		41.7	41.7		27.8	27.8 1.00
User DelAdj:			1.00	71.9	1.00	1.00		1.00	$\frac{1.00}{41.7}$		1.00	27.8
AdjDel/Veh:				/1.9 E		71.9 E	/1.1 E	41.7		61.9 E		27.8 C
LOS by Move: HCM2kAvgQ:			E 8	E 8			<u>н</u> 5		19			
						_	_		19	13	15	15
Note: Queue	rebor.	rea is	the n	unber	or ca	ıs per	тапе	•				

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



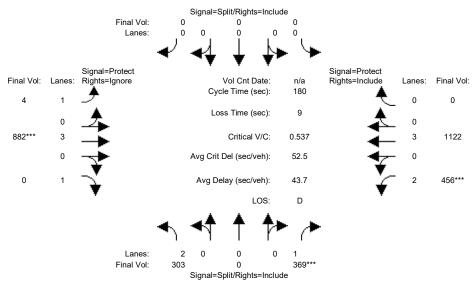
Approach:	Noi	rth Bo	und	Sou	uth Bo	ound	Ea	ast Bo	und	We	est Bo	und
Movement:	. L -		- R		- T			- T		. L ·	- T	- R
Min. Green:	10	0	 10	0		0	7		 10	7	10	0
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	4.0
M-d-1-1	I											
Volume Module Base Vol:	303	0	367	0	0	0	4	875	0	448	1107	0
Growth Adj:	1.00		1.00		1.00	1.00	_	1.00	1.00		1.00	1.00
Initial Bse:		0	367	0	0	0	4	875	0		1107	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:	303	0	367	0	0	0	4	875	0	448	1107	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	303	0	367	0	0	0	4	875	0	448	1107	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	303	0	367	0	0	0	4	875	0		1107	0
PCE Adj:	1.00		1.00		1.00	1.00		1.00	0.00		1.00	1.00
MLF Adj:	1.00		1.00	1.00		1.00		1.00	0.00		1.00	1.00
FinalVolume:		0	367	0	0	0		875	0		1107	0
Saturation F	I											
Saturation F. Sat/Lane:		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:		1.00	0.92		1.00	0.92		1.00	0.92		1.00	0.92
Lanes:		0.00	1.00		0.00	0.00		3.00	1.00		3.00	0.00
Final Sat.:	3150	0	1750	0	0	0		5700	1750		5700	0
Capacity Ana	lysis	Module	e:				•					
Vol/Sat:	0.10	0.00	0.21	0.00	0.00	0.00	0.00	0.15	0.00		0.19	0.00
Crit Moves:			***					****		****		
Green Time:	70.9	0.0	70.9	0.0	0.0	0.0	16.7	51.9	0.0	48.1	83.4	0.0
Volume/Cap:		0.00	0.53		0.00	0.00		0.53	0.00		0.42	0.00
Delay/Veh:	36.7		42.6	0.0	0.0	0.0		54.2	0.0		32.3	0.0
User DelAdj:			1.00	1.00		1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:	36.7		42.6	0.0	0.0	0.0		54.2	0.0		32.3	0.0
LOS by Move:	D	A	D	A	A	A	E	D	A	E	C	A
HCM2kAvgQ:	6	0	16	0	0	0	0	13	0	12	13	0
Note: Queue	report	tea is	tne n	umber	oi ca	ars per	ıane	•				

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



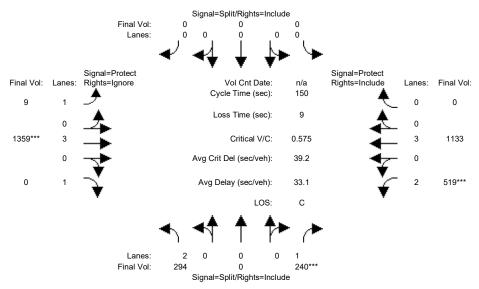
Approach:	No:	rth Bo	und	Sou	uth Bo	ound	Ea	ast Bo	und	₩e	est Bo	ound
Movement:		- T				- R		- T		_	- T	- R
Min. Green:	10		10		 0	0		 10	10	1	10	0
Y+R:	4.0		4.0		4.0			4.0	4.0	4.0		4.0
Volume Modul												
Base Vol:	294	0	234	0	0	0		1344	0		1121	0
Growth Adj:			1.00		1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:		0	234	0	0	0		1344	0		1121	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
Initial Fut:		0	234	1 00	0	0		1344	0		1121	0
User Adj:		1.00	1.00		1.00	1.00		1.00	0.00	1.00		1.00
PHF Adj: PHF Volume:	294	1.00	1.00 234	1.00	1.00	1.00		1.00 1344	0.00	1.00	1121	1.00
Reduct Vol:	294	-	234 0	0	-	0	0	1344	-	212	1121	0
Reduced Vol:		0	234	0	0	0	-	1344	0	-	1121	0
PCE Adj:			1.00		1.00	1.00		1.00	0.00	1.00		1.00
MLF Adj:	1 00	1 00	1.00	1.00		1.00		1.00	0.00	1.00		1.00
FinalVolume:			234	0	0	0		1344	0.00		1121	0
Saturation F	I					I	1					
Sat/Lane:		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:		1.00	0.92		1.00	0.92		1.00	0.92	0.83		0.92
Lanes:		0.00	1.00		0.00	0.00		3.00	1.00	2.00		0.00
Final Sat.:		0	1750	0	0	0		5700	1750	3150		0
Capacity Ana	İysis	Modul	e:	'		,						'
Vol/Sat:	0.09	0.00	0.13	0.00	0.00	0.00	0.01	0.24	0.00	0.16	0.20	0.00
Crit Moves:			***					****		****		
Green Time:	35.4	0.0	35.4	0.0	0.0	0.0	20.3	62.4	0.0	43.3	85.4	0.0
Volume/Cap:	0.40	0.00	0.57	0.00	0.00	0.00	0.04	0.57	0.00	0.57	0.35	0.00
Delay/Veh:	48.7	0.0	52.4	0.0	0.0	0.0	56.5	33.8	0.0	46.3	17.4	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:	48.7	0.0	52.4	0.0	0.0	0.0	56.5	33.8	0.0	46.3	17.4	0.0
LOS by Move:	D	A	D	A	A	A	E	С	A	D	В	A
HCM2kAvgQ:	7		11	0	0	0	0		0	12	9	0
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane	•				

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



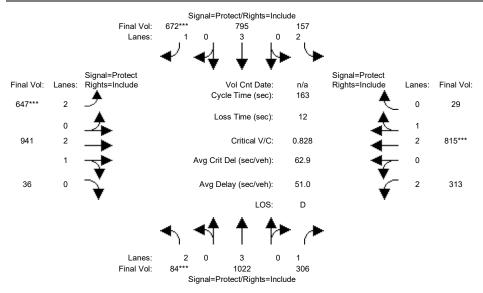
Approach:	No:	rth Bo	und	Sou	uth Bo	und	Ea	ast Bo	und	W∈	est Bo	und
Movement:			- R			- R		- T			- Т	- R
Min. Green:	10		 10		0	0		10	 10	7		0
Y+R:	4.0		4.0			4.0		4.0	4.0	4.0		4.0
Volume Modul	1		1	ı		1	I		- 1	I		1
Base Vol:	303	0	367	0	0	0	4	875	0	448	1107	0
Growth Adj:		1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:		0	367	0	0	0	4	875	0		1107	0
Added Vol:	0	0	2	0	0	0	0	7	0	8	15	0
PasserByVol:		0	0	0	0	0	0	0	0	0	0	0
Initial Fut:		0	369	0	0	0	4		0		1122	0
User Adj:		1.00	1.00		1.00	1.00		1.00	0.00	1.00		1.00
PHF Adj:		1.00	1.00		1.00	1.00		1.00	0.00	1.00		1.00
PHF Volume:	303	0	369	0	0	0	4	882	0		1122	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:		0	369	0	0	0	4		0		1122	0
PCE Adj:			1.00		1.00	1.00		1.00	0.00	1.00		1.00
MLF Adj:			1.00		1.00	1.00		1.00	0.00	1.00		1.00
FinalVolume:			369	. 0	0	0		882	0		1122	0
	1											
Saturation F				1000	1000	1000	1000	1000	1000	1000	1000	1000
Sat/Lane:		1900	1900		1900	1900		1900	1900	1900		1900
Adjustment:		1.00	0.92		1.00	0.92		1.00	0.92	0.83		0.92
Lanes:		0.00	1.00		0.00	0.00		3.00	1.00	2.00		0.00
Final Sat.:		0	1750	0	0	0		5700	1750	3150		0
Capacity Ana												
Vol/Sat:	-	0.00	0.21	0 00	0.00	0.00	0 00	0.15	0.00	0.14	0 20	0.00
Crit Moves:	0.10	0.00	****	0.00	0.00	0.00	0.00	****	0.00	****	0.20	0.00
Green Time:	70.6	0.0	70.6	0.0	0.0	0.0	16.6	51.8	0.0	48.5	83.8	0.0
Volume/Cap:		0.00	0.54		0.00	0.00		0.54	0.00	0.54		0.00
Delay/Veh:	36.9		42.9	0.0	0.0	0.0		54.3	0.0	56.8		0.0
User DelAdj:			1.00		1.00	1.00		1.00	1.00	1.00		1.00
AdjDel/Veh:			42.9	0.0	0.0	0.0		54.3	0.0	56.8		0.0
LOS by Move:			D	0.0 A		A	E	D	Α.	50.0 E	C	Α.
HCM2kAvqQ:	6		17	0	0	0	0	_	0	12	13	0
Note: Queue :				-		-	-		•	- -	_3	,
-	-					-						

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



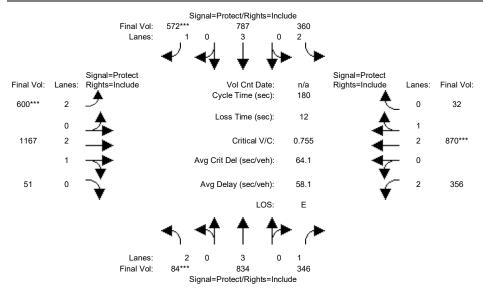
Approach:						ound				We		
Movement:		- T				- R 		- T			Т	
	10				0			10		•	10	0
Y+R:		4.0			4.0			4.0			4.0	4.0
Volume Module												
Base Vol:	294			0	0	0		1344	0	515		0
Growth Adj:			1.00		1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:		0	234	0	0	0		1344	0	515		0
	0		6	0	0	0	0	15	0	4	12	0
PasserByVol:			0	0	0	0	0	0	0	-	0	0
Initial Fut:			240	0	0	0		1359	0	519		0
User Adj:		1.00	1.00		1.00	1.00		1.00	0.00	1.00		1.00
PHF Adj:			1.00		1.00	1.00		1.00	0.00	1.00		1.00
PHF Volume:		0	240	0	0	0		1359	0	519		0
Reduct Vol:	0		0	0	0	0	0	0	0	-	0	0
Reduced Vol:			240	0	0	0		1359	0	519		0
PCE Adj:	1.00	1.00	1.00		1.00	1.00		1.00	0.00	1.00		1.00
MLF Adj:			1.00	1.00		1.00		1.00	0.00	1.00		1.00
FinalVolume:			240	. 0	0	0		1359	0	519		0
	I											
Saturation F				1000	1000	1000	1000	1000	1000	1000	1000	1000
Sat/Lane:			1900		1900	1900		1900	1900	1900		1900
Adjustment:		1.00	0.92		1.00	0.92		1.00	0.92	0.83		0.92
	2.00		1.00		0.00	0.00		3.00	1.00	2.00		0.00
Final Sat.:			1750		-	0		5700	1750 	3150		0
Capacity Ana	1		I									
Vol/Sat:		0.00	e. 0.14	0 00	0.00	0.00	0 01	0.24	0.00	0.16	0 20	0.00
Crit Moves:	0.09	0.00	****	0.00	0.00	0.00	0.01	****	0.00	****	0.20	0.00
Green Time:	35.8	0.0	35.8	0.0	0.0	0.0	20 0	62.2	0.0	43.0	85 2	0.0
Volume/Cap:			0.57		0.00	0.00		0.57	0.00	0.57		0.00
Delay/Veh:			52.4	0.0	0.0	0.0		34.1	0.0	46.6		0.0
User DelAdj:			1.00	1.00		1.00		1.00	1.00	1.00		1.00
AdjDel/Veh:				0.0	0.0	0.0		34.1	0.0	46.6		0.0
LOS by Move:			J2.4 D	0.0 A		0.0 A	50.7 E		0.0 A	10.0	т7.3 В	0.0 A
HCM2kAvqQ:		0	11	0	0	0	0	_	0	12	9	0
Note: Queue					-		_		0	12		J
itouch gacac .	LCPOI	cca ib	C11C 11	. G.IIDCI	01 00	TO PCI	<i>-</i> 411C	•				

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



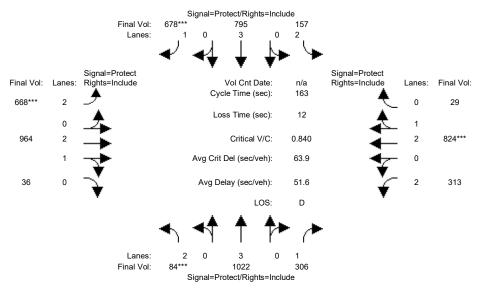
Approach: Movement:	L	- T	- R	L ·	- T	- R	L ·	- T	- R	L -	- T	- R
Y+R:	7 4.0	10 4.0	10 4.0	7 4.0	10 4.0	10	7 4.0	10 4.0	10 4.0	7 4.0	10 4.0	10 4.0
Volume Module												
Base Vol:		1022	306	157	795	672	647	941	36	313	815	29
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:			306	157		672	647			313		29
	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:			306	157	795	672	647		36	313	815	29
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:	84	1022	306	157	795	672	647	941	36	313	815	29
Reduct Vol:			0	0	0	0	0	0	0	0	0	0
Reduced Vol:			306	157	795	672	647	941	36	313	815	29
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:						672				313		29
Saturation F	low M	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:			0.92	0.83	1.00	0.92	0.83	0.98	0.95	0.83	0.98	0.95
Lanes:			1.00		3.00	1.00		2.89	0.11		2.89	0.11
Final Sat.:					5700	1750		5393	206		5407	192
Capacity Ana	-											
Vol/Sat:		0.18	0.17	0.05	0.14			0.17	0.17			0.15
Crit Moves:	****					****	****				****	
Green Time:			63.9		74.7	74.7		44.1	44.1		29.3	29.3
Volume/Cap:			0.45		0.30	0.84		0.64	0.64		0.84	0.84
Delay/Veh:			36.9		27.9	46.6		53.5	53.5		70.8	70.8
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:				69.1		46.6		53.5	53.5		70.8	70.8
LOS by Move:			D			D	E		D		E	E
HCM2kAvgQ:			12	, 5	8	33	19		14	10	16	16
Note: Queue	repor	tea is	tne n	umper	oi ca	rs per	Tane	•				

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



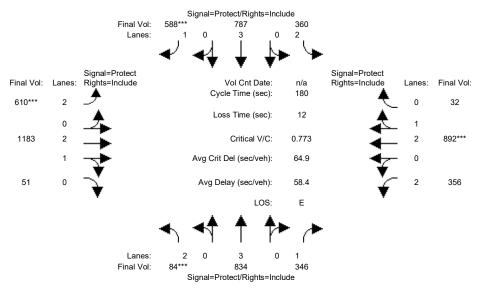
Approach: Movement:	L ·	- T	- R	L ·	- T	- R	L ·	- T	- R	L -	- T	- R
Y+R:	7 4.0	10 4.0	10 4.0	7 4.0	10 4.0	10	7 4.0	10 4.0	10 4.0	7 4.0	10 4.0	10 4.0
Volume Module												
		834	346	360	787	572	600	1167	51	356	870	32
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Initial Bse:			346	360	787	572	600	1167	51	356	870	32
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:	84	834	346	360	787	572	600	1167	51	356	870	32
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:	84	834	346	360	787	572	600	1167	51	356	870	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:			346	360	787	572	600	1167	51	356	870	32
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
FinalVolume:						572		1167		356		32
Saturation F												
			1900		1900	1900		1900	1900		1900	1900
Adjustment:			0.92		1.00	0.92		0.98	0.95		0.98	0.95
Lanes:			1.00		3.00	1.00		2.87	0.13		2.89	0.11
Final Sat.:					5700	1750		5365	234		5401	199
Capacity Anal	_			0 11	0 1 4	0 22	0 10	0 00	0 00	0 11	0 16	0 16
Vol/Sat:		0.15	0.20	0.11	0.14	0.33	0.19 ****	0.22	0.22	0.11	U.16	0.16
Crit Moves:		F2 6	F2 6	21 0				F 4 0	F 4 0	00 5		20.0
Green Time:			53.6		77.6	77.6		54.9	54.9		38.2	38.2 0.76
Volume/Cap:			0.66		0.32	0.76		0.71	0.71		0.76	
Delay/Veh:			58.6		33.9	47.8		57.0	57.0		69.4	69.4
User DelAdj:			1.00	72.8	1.00	1.00 47.8		1.00 57.0	1.00 57.0		1.00 69.4	1.00 69.4
AdjDel/Veh: 1 LOS by Move:				/2.8 E		47.8 D	66.6 E		5/.U E		69.4 E	69.4 E
HCM2kAvgQ:	F ⊿	12	18	12	9		18		20	12		17
Note: Queue 1									∠ ∪	12	Ι/	Ι/
More. Saene 1	-ebor	Leu IS	cire II	uniber	OT Ca	re her	Tane	•				

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



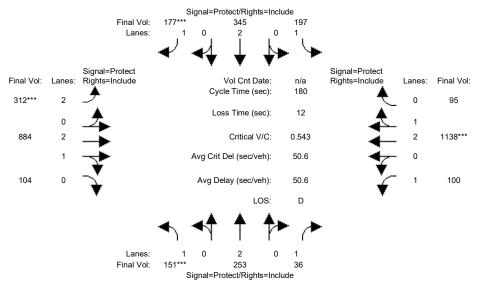
Approach:	No	rth Bo	und	Sou	uth Bo	ound	Ea	ast Bo	und	We	est Bo	und
Movement:		- T				- R					- T	
 Min. Green:		10	10	7	10	10	7	10		7		
Y+R:		4.0			4.0				4.0		4.0	
Volume Module	e:											
Base Vol:		1022	306		795	672	647		36	313		29
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:			306	157	795	672	647		36	313		29
Added Vol:		0	0	0	0	6	21		0	0	9	0
PasserByVol:	0	0	0	0	0	0	0	-	0	0		0
Initial Fut:			306	157		678	668		36	313		29
User Adj:		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
PHF Volume:			306	157	795	678	668	964	36	313	824	29
Reduct Vol:			0	0	0	0		0	0	0		0
Reduced Vol:			306	157		678	668	964	36	313		29
PCE Adj:	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
FinalVolume:				157		678				313		29
Saturation F				1000	1000	1000	1000	1000	1000	1000	1000	1000
	1900		1900		1900	1900		1900	1900		1900	1900
Adjustment:			0.92		1.00	0.92		0.98	0.95		0.98	0.95
	2.00		1.00 1750		3.00 5700	1.00 1750		2.89 5398	0.11		2.89 5409	0.11 190
Final Sat.:												
Capacity Ana												
Vol/Sat:		0.18		0.05	0.14	0.39	0.21	0.18	0.18	0.10	0.15	0.15
Crit Moves:	****	0.10	0.1.	0.00	0.11	****		0.10	0.10	0.10	****	0.10
	7.0	63.5	63.5	17.7	74.2	74.2	40.6	44.8	44.8	25.0	29.2	29.2
Volume/Cap:			0.45		0.31	0.85		0.65	0.65		0.85	0.85
Delay/Veh:			37.2		28.2	48.2		53.1	53.1		71.9	71.9
User DelAdj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:				69.2		48.2		53.1	53.1		71.9	71.9
LOS by Move:			D				E			E		E
HCM2kAvgQ:		12	12	5	8	34	20		15	10		16
Note: Queue	report	ted is	the n	umber	of ca	ars per	lane					

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



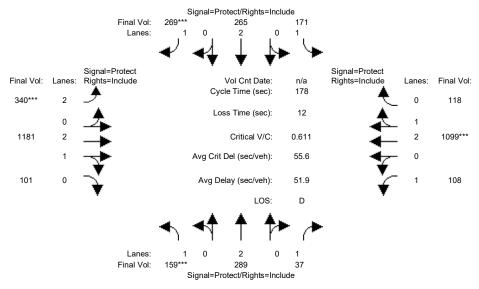
Approach:										W∈	est Bo	und
Movement:		- T				- R					- T	
Min. Green:				7	10	10	7	10		7		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Modul												
Base Vol:		834		360	787	572		1167	51	356		32
Growth Adj:			1.00	1.00		1.00		1.00	1.00	1.00		1.00
Initial Bse:			346	360	787	572		1167	51	356	870	32
Added Vol:	0		0	0	0	16	10	16	0	0	22	0
PasserByVol:	0	0		0	0	0	0		0	0	0	0
Initial Fut:			346	360				1183	51	356		32
User Adj:			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
PHF Volume:			346	360	787	588		1183	51	356	892	32
Reduct Vol:			0	0	0	0	0	-	0	0	0	0
Reduced Vol:			346	360	787			1183	51	356		32
PCE Adj:	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
FinalVolume:				360		588				356		32
Saturation F				1000	1000	1000	1000	1000	1000	1000	1000	1000
			1900		1900	1900		1900	1900	1900		1900
Adjustment:			0.92		1.00	0.92		0.98	0.95	0.83		0.95
Lanes:			1.00		3.00	1.00		2.87	0.13	2.00		0.11
Final Sat.:			1750		5700	1750		5368	231	3150		194
Capacity Ana												
Vol/Sat:			0.20	0 11	0.14	0.34	0 10	0.22	0.22	0.11	0 17	0.17
Crit Moves:		0.15	0.20	0.11	0.14	****		0.22	0.22	0.11	****	0.17
Green Time:		53 8	53.8	31 1	77.9	77.9		54.9	54.9	28.2		38.2
Volume/Cap:			0.66		0.32	0.78		0.72	0.72	0.72		0.78
Delay/Veh:			58.3	72.6		48.7		57.3	57.3	77.4		70.1
User DelAdj:					1.00	1.00		1.00	1.00	1.00		1.00
AdjDel/Veh:				72.6		48.7		57.3	57.3	77.4		70.1
LOS by Move:				/2.0 E		10.7 D	07.0 E		57.5 E	//. I		70.1 E
HCM2kAvgQ:			18	12		30	19		20	12		18
Note: Queue :									20	12	10	10
1.000 Queue	- CPOT	ccu is	C11C 11	ــــــــــــــــــــــــــــــــــــــ	01 00	TD PCI	Tanc	•				

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



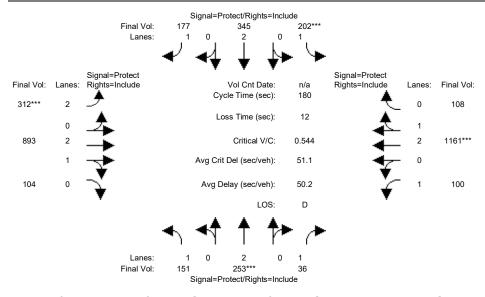
Approach: Movement:	L - T	- R L	- T	- R	L -	- Т	- R	L -	- Т	- R
	7 10	10 7	7 10	10	7	10	10	7	10	10
Y+R: -		4.0 4.0					4.0		4.0	
Volume Module:										
		36 197	345	177	312	884	104	100	1138	95
Growth Adj: 1			1.00	1.00	1.00		1.00	1.00		1.00
Initial Bse:	151 253	36 197	345	177	312	884	104	100	1138	95
Added Vol:		0 (0	0	0	0	0	0	0	0
PasserByVol:	0 0	0 (0	0	0	0	0	0	0	0
Initial Fut:	151 253	36 197	345	177	312	884	104	100	1138	95
User Adj: 1		1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj: 1		1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:		36 197		177	312	884	104	100	1138	95
Reduct Vol:	0 0	0 0	0	0	0	0	0	0	0	0
Reduced Vol:		36 197	345	177	312	884	104	100	1138	95
PCE Adj: 1	.00 1.00		1.00	1.00	1.00		1.00	1.00		1.00
MLF Adj: 1				1.00	1.00		1.00			1.00
FinalVolume:				177			104			95
Saturation Flo										
			1900	1900	1900		1900	1900		1900
Adjustment: 0			1.00	0.92	0.83		0.95	0.92		0.95
	.00 2.00		2.00	1.00	2.00		0.33	1.00		0.24
Final Sat.: 1			3800	1750	3150		589	1750		431
- Capacity Analy										
		0.02 0.11	0 00	0.10	0.10	0 10	0.18	0.06	0 22	0.22
	***	0.02 0.11	. 0.09	****	****	0.10	0.10	0.00	****	0.22
CIIC MOVED	8.6 23.1	22 1 20 1	33.5	33.5	32.8	80 O	80.0	25.9		73.0
Volume/Cap: 0			2 0.49	0.54	0.54		0.40	0.40		0.54
Delay/Veh: 7			66.1	68.2	67.8		33.9	71.0		41.0
User DelAdj: 1			1.00	1.00	1.00		1.00	1.00		1.00
AdjDel/Veh: 7				68.2	67.8		33.9	71.0		41.0
LOS by Move:		E E		E			33.5 C		D	71.0 D
HCM2kAvgQ:	9 7	2 10			9		12	5	17	17
Note: Queue re								3		

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



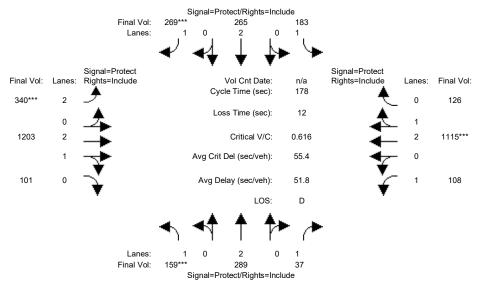
Approach: Movement:	L -	Т -	R	L -	- T	- R	L ·	- T	- R	L -	- T	- R
Y+R:	7 4.0 4	10 4.0	10 4.0	7 4.0	10 4.0	10 4.0	7 4.0	10 4.0	10 4.0	7 4.0	10 4.0	10 4.0
Volume Module												
	159 2	289	37	171	265	269	340	1181	101	108	1099	118
Growth Adj:			.00	1.00		1.00		1.00	1.00		1.00	1.00
Initial Bse:		289	37	171	265	269		1181	101		1099	118
			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:	159 2	289	37	171	265	269	340	1181	101	108	1099	118
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:	159 2	289	37	171	265	269	340	1181	101	108	1099	118
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	159 2	289	37	171	265	269	340	1181	101	108	1099	118
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:				171		269			101			118
Saturation F												
Sat/Lane:	1900 19			1900	1900	1900		1900	1900		1900	1900
Adjustment:				0.92		0.92		0.99	0.95		0.99	0.95
	1.00 2			1.00		1.00		2.75	0.25		2.70	0.30
Final Sat.:				1750		1750		5158	441			543
Capacity Ana	-											
Vol/Sat:		.08 0	0.02	0.10	0.07			0.23	0.23	0.06	0.22	0.22
Crit Moves:	****					****	****				****	
Green Time:	26.5 31		31.2	40.1		44.8		74.6	74.6		63.3	63.3
Volume/Cap:			1.12	0.43		0.61		0.55	0.55		0.61	0.61
Delay/Veh:			52.0	60.0		61.4		39.2	39.2		47.8	47.8
User DelAdj:				1.00		1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:				60.0		61.4		39.2	39.2		47.8	47.8
LOS by Move: HCM2kAvgQ:	E	E	E	E 9		E		D	D		D	D
			_	_	6	14	10		17	6	18	18
Note: Queue	reported	ı ıs t	ne nu	mber	or ca	rs per	_ane	•				

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



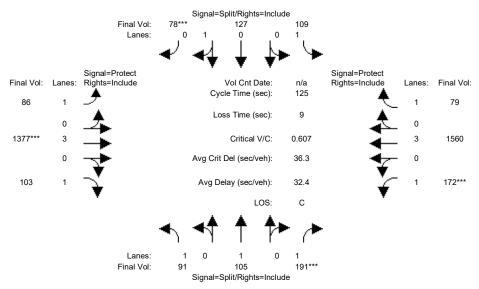
Approach:	No	rth Bo	und	Sot	uth Bo	und	Εá	ast Bo	und	We	est Bo	und
Movement:		- T				- R		- T		L ·	- T	- R
										1		
Min. Green:		10			10	10		10	10		10	10
Y+R:	4.0		4.0		4.0	4.0	4.0		4.0	4.0		4.0
	I											
Volume Module		0.50	2.5	100	2.45	100	210	004	104	100	1100	0.5
Base Vol:	151		36	197	345	177	312	884	104		1138	95
Growth Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:		253	36	197	345	177	312	884	104		1138	95
Added Vol:	0	-	0	5	0	0	0	9	0	0	23	13
PasserByVol:			0	0	0	0	0	0	0	0	0	0
Initial Fut:		253	36	202	345	177	312	893	104		1161	108
User Adj:		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
PHF Volume:	151	253	36	202	345	177	312	893	104		1161	108
Reduct Vol:	0		0	0	0	0	0	0	0	0	0	0
Reduced Vol:		253	36	202	345	177	312	893	104		1161	108
PCE Adj:		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
FinalVolume:			36	202	345	177	312	893	104		1161	108
	1											
Saturation F												
Sat/Lane:		1900	1900		1900	1900		1900	1900		1900	1900
Adjustment:		1.00	0.92		1.00	0.92		0.99	0.95		0.99	0.95
Lanes:		2.00	1.00		2.00	1.00		2.68	0.32		2.74	0.26
Final Sat.:		3800	1750		3800	1750		5015	584		5123	477
	I											
Capacity Ana	-											
Vol/Sat:		0.07	0.02		0.09	0.10		0.18	0.18	0.06	0.23	0.23
Crit Moves:				****			****				****	
Green Time:		22.0	22.0		32.5	32.5		81.6	81.6		75.0	75.0
Volume/Cap:		0.54	0.17		0.50	0.56		0.39	0.39		0.54	0.54
Delay/Veh:		75.6	71.1		67.1	69.5		32.8	32.8		39.9	39.9
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:		75.6	71.1		67.1	69.5		32.8	32.8		39.9	39.9
LOS by Move:			E	E	E	E	E	С	С	E	D	D
HCM2kAvgQ:	9		2	11	9	10	9		12	5	17	17
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane	•				

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



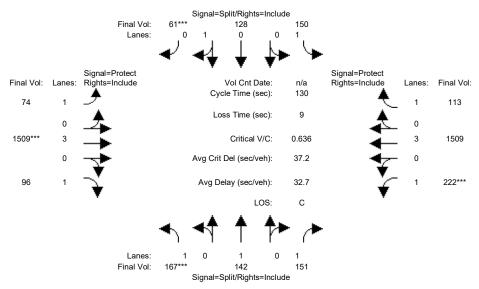
Approach: Movement:	L -	- T ·	- R	L ·	- T	- R	L ·	- T	- R	L -	- T	- R
Y+R:	7 4.0	10 4.0	10	7 4.0	10 4.0	10	7 4.0	10 4.0	10 4.0	7 4.0	10 4.0	10
Volume Module												
	ء٠ 159	289	37	171	265	269	340	1181	101	108	1099	118
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:			37	171	265	269		1181	101		1099	118
Added Vol:		0	0	12	0	0	0	22	0	0	16	8
PasserByVol:			0	0		0	0	0		0	0	0
Initial Fut:			37	183	265	269	340	1203	101		1115	126
User Adj:			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:		289	37	183	265	269	340	1203	101	108	1115	126
Reduct Vol:		0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:		289	37	183	265	269	340	1203	101	108	1115	126
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:	159	289	37	183	265	269	340	1203	101	108	1115	126
Saturation F	low Mo	odule:				·						
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:			0.92	0.92	1.00	0.92	0.83	0.99	0.95	0.92	0.99	0.95
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.76	0.24	1.00	2.68	0.32
Final Sat.:			1750		3800	1750		5166	434		5031	568
	1											
Capacity Anal	-											
Vol/Sat:		0.08	0.02	0.10	0.07	0.15		0.23	0.23	0.06	0.22	0.22
Crit Moves:	****					****	****				****	
Green Time:	26.3		29.8	40.9		44.4		75.3	75.3		64.1	64.1
Volume/Cap:			0.13	0.45		0.62	0.62		0.55		0.62	0.62
Delay/Veh:			63.2		54.0	61.8		38.9	38.9		47.4	47.4
User DelAdj:			1.00	1.00		1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:				59.7		61.8		38.9	38.9		47.4	47.4
LOS by Move:	E	E	E	Ε		E	Е		D	E	D	D
HCM2kAvgQ:			2	. 9	-	14	10	17	17	6	18	18
Note: Queue	report	ed is	the n	umber	of ca	rs per	lane	•				

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



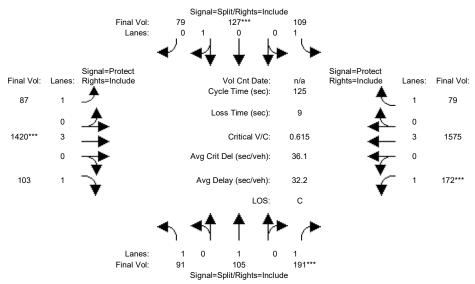
Approach:												
Movement:		- T				- R					- T	
Min. Green:	•			10				10		7		
Y+R:		4.0			4.0				4.0		4.0	
Volume Module	e:											
Base Vol:	91		191		127	78		1377	103		1560	79
Growth Adj:			1.00		1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:			191	109	127	78		1377	103		1560	79
Added Vol:	0		0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0		0	0		0	0	0	0
Initial Fut:			191	109		78		1377		172		79
User Adj:			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
PHF Volume:			191	109	127	78		1377	103		1560	79
Reduct Vol:			0	0	0	0	0	0	0	0	0	0
Reduced Vol:			191	109		78		1377	103			79
PCE Adj:	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
FinalVolume:			191			78		1377		172		79
Catalantian D												
Saturation F				1000	1000	1000	1000	1000	1000	1000	1000	1900
	1900		1900		1900	1900		1900	1900	1900		
Adjustment:			0.92		0.95	0.95		1.00	0.92	0.92		0.92 1.00
	1.00		1.00 1750			0.38 685		3.00 5700	1750	1.00 1750		1750
Final Sat.:												
Capacity Ana												
Vol/Sat:		0.06	0.11	0.06	0.11	0.11	0.05	0.24	0.06	0.10	0.27	0.05
Crit Moves:	0.00	0.00	****	0.00	0.11	****	0.00	****	0.00	****	0.2.	0.00
Green Time:	22.5	22.5	22.5	23.5	23.5	23.5	11.9	49.8	49.8	20.3	58.1	58.1
Volume/Cap:			0.61		0.61	0.61		0.61	0.15	0.61		0.10
Delay/Veh:			50.6	44.6	49.7	49.7	56.6	30.3	24.1	52.4	25.0	18.8
User DelAdj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:				44.6		49.7	56.6	30.3	24.1	52.4	25.0	18.8
LOS by Move:				D		D	E			D		В
HCM2kAvgQ:				4		8	4	14	3	6	14	2
Note: Queue			the n	umber	of ca	rs per	lane					

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



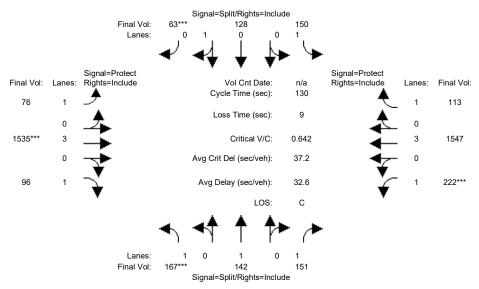
Approach:										We	est Bo	und
Movement:		- T				- R					- T	
 Min. Green:			10	10	10	10	7	10			10	
Y+R:		4.0			4.0				4.0		4.0	
Volume Module	e:		·			·						
Base Vol:			151	150		61		1509	96		1509	113
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:			151	150	128	61		1509	96		1509	113
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:			0	0			0	0	0	0		0
Initial Fut:			151	150				1509	96		1509	113
User Adj:		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
PHF Volume:			151	150	128	61		1509	96		1509	113
Reduct Vol:			0	0		0	0		0	0	0	0
Reduced Vol:			151	150	128			1509		222		113
PCE Adj: 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	1.00		1.00	1.00
FinalVolume:			151			61				222		113
Saturation F												
	1900		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:			0.92		0.95	0.95		1.00	0.92		1.00	0.92
	1.00		1.00			0.32		3.00	1.00		3.00	1.00
Final Sat.:			1750			581		5700	1750		5700	1750
Capacity Ana	İysis	Modul	e:			·	•			•		·
Vol/Sat:	0.10	0.07	0.09	0.09	0.11	0.11	0.04	0.26	0.05	0.13	0.26	0.06
Crit Moves:	****					****		****		****		
Green Time:	19.5	19.5	19.5	21.5	21.5	21.5	13.5	54.1	54.1	25.9	66.5	66.5
Volume/Cap:	0.64	0.50	0.58	0.52	0.64	0.64	0.41	0.64	0.13	0.64	0.52	0.13
Delay/Veh:	57.0	52.1	54.5	51.2	55.1	55.1	56.0	30.7	23.5	51.6	21.3	16.6
User DelAdj:					1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:				51.2		55.1		30.7	23.5		21.3	16.6
LOS by Move:							E		С		С	В
HCM2kAvgQ:		6		6	8		3		2	8	12	2
Note: Queue	repor	ted is	the n	umber	of ca	ars per	lane	•				

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cumul + Prj AM



Approach:	No	rth Bo	und	Son	uth Bo	und	Ea	ast Bo	und	We	est Bo	und
Movement:	L	- T	- R	L ·	- T	- R	L	- T	- R	L ·	- T	- R
 Min. Green:		10			 10			 10		•	 10	10
Y+R:		4.0			4.0			4.0	4.0		4.0	4.0
Volume Modul	e:											
Base Vol:	91		191	109	127	78		1377	103		1560	79
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:		105	191	109	127	78		1377	103		1560	79
Added Vol:	0		0	0	0	1	1		0	0	15	0
PasserByVol:			0	0	0	0	0	0	0	0	0	0
Initial Fut:			191	109		79		1420	103		1575	79
User Adj:		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
PHF Volume:		105	191	109	127	79		1420	103		1575	79
	0		0	0	0	0	0	0	0	0	0	0
Reduced Vol:			191	109	127	79		1420	103		1575	79
PCE Adj:	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
FinalVolume:			191			79		1420	103			79
Saturation F				1000	1000	1000	1000	1000	1000	1000	1000	1000
Sat/Lane:		1900	1900		1900	1900		1900	1900		1900	1900
Adjustment:			0.92		0.95	0.95		1.00	0.92		1.00	0.92
Lanes:		1.00	1.00		0.62	0.38		3.00	1.00		3.00	1.00
Final Sat.:			1750			690		5700	1750		5700	1750
Capacity Ana												
Vol/Sat:	-	0.06	0.11	0 06	0.11	0.11	0 05	0.25	0.06	0 10	0.28	0.05
Crit Moves:	0.03	0.00		0.00		0.11	0.05	****	0.00	****	0.20	0.03
Green Time:	22.2	22.2	22.2		23.2	23.2	11 0	50.6	50.6		58.7	58.7
Volume/Cap:			0.62		0.62	0.62		0.62	0.15		0.59	0.10
Delay/Veh:			51.1		50.2	50.2		30.0	23.6		24.7	18.5
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:			51.1		50.2	50.2		30.0	23.6		24.7	18.5
LOS by Move:			D D	44.0 D	50.2 D	50.2 D		30.0 C	23.0 C	53.0 D		10.5
HCM2kAvqQ:		4	8	4	_	8	4		_	6	-	2
Note: Queue :				_	-		_		3	0	14	4
Note: Queue	rcbor	ccu is	CIIC II	MINUCL	or ca	TO PCI	Tane	•				

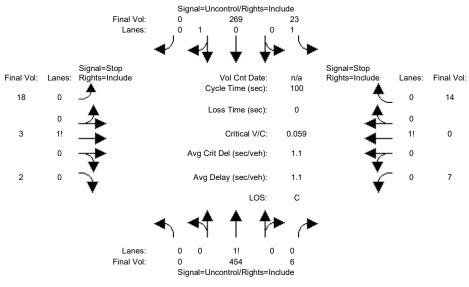
Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cumul + Prj PM



Approach:										We	est Bo	und
Movement:		- T				- R					- T	
Min. Green:			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 Modul												
Base Vol:		142		150		61		1509	96		1509	113
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:			151	150	128	61		1509	96		1509	113
Added Vol:	0	0	0	0	0	2	2	26	0	0	38	0
PasserByVol:			0	0			0		0	0		0
Initial Fut:			151	150				1535	96		1547	113
User Adj:			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
PHF Volume:			151	150	128	63		1535	96		1547	113
Reduct Vol:			0	0		0	0		0	0		0
Reduced Vol:			151	150	128		76		96		1547	113
PCE Adj:	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
FinalVolume:			151							222		113
Saturation F				1000	1000	1000	1000	1000	1000	1000	1000	1000
	1900		1900		1900	1900		1900	1900		1900	1900
Adjustment:			0.92		0.95	0.95		1.00	0.92		1.00	0.92
Lanes:			1.00 1750			0.33 594		3.00 5700	1.00 1750		3.00 5700	1.00 1750
Final Sat.:												
Capacity Ana				1								
Vol/Sat:		0.07		0.09	0.11	0.11	0.04	0.27	0.05	0.13	0.27	0.06
Crit Moves:		0.07	0.05	0.05	0.11	****	0.01		0.00	****	0.27	0.00
Green Time:		19.3	19.3	21.5	21.5	21.5	13.3	54.5	54.5	25.7	66.9	66.9
Volume/Cap:			0.58		0.64	0.64		0.64	0.13		0.53	0.13
Delay/Veh:			54.9	51.2	55.4	55.4	56.4	30.6	23.3	52.0	21.2	16.4
User DelAdj:					1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:						55.4	56.4	30.6	23.3	52.0	21.2	16.4
LOS by Move:								С	С		C	В
HCM2kAvgQ:	8	6	7	6	8	8	4	16	2	8	13	2
Note: Queue			the n	umber	of ca	rs per	lane					

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Cumul AM

Intersection #6: Castro St and Victor Way



Approach:	No:	rth B	ound	Soi	ıth Bo	nund	E:	agt Ro	ound	Me	est Bo	ound
Movement:			- R	T.	ден D. - Т	- R	Τ.		- R		- T	
Volume Module				' '			' '			' '		'
Base Vol:	0	454	6	23	269	0	18	3	2	7	0	14
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	454	6	23	269	0	18	3	2	7	0	14
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	454	6	23	269	0	18	3	2	7	0	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:	0	454	6	23	269	0	18	3	2	7	0	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:			6	23		0	18	3		7	0	14
	1											
Critical Gap	Modu.	le:										
Critical Gp:										7.1		6.2
FollowUpTim:										3.5		3.3
Capacity Mod	ule:											
Cnflict Vol:	XXXX	XXXX	xxxxx	460	xxxx	xxxxx	779			775	772	457
Potent Cap.:	XXXX	XXXX	XXXXX			XXXXX		331		318	333	608
Move Cap.:	XXXX	XXXX	XXXXX			XXXXX				310	326	608
Volume/Cap:						XXXX		0.01			0.00	0.02
Level Of Ser												
2Way95thQ:									XXXXX			
Control Del:									xxxxx			XXXXX
LOS by Move:				A			*	*	*	*		*
Movement:			- RT			- RT			- RT		- LTR	
Shared Cap.:												XXXXX
SharedQueue:									xxxxx			XXXXX
Shrd ConDel:	xxxxx *	XXXX *	xxxxx *	xxxxx *		xxxxx *	xxxxx		xxxxx *	xxxxx *		XXXXX
Shared LOS:			*			*	*	C	*	*	ם	*
ApproachDel:	X	XXXXX *		X	XXXXX *			17.0			13.2	
ApproachLOS:							. 1	C			В	
Note: Queue	repor					_			m+			
*****	****		eak Hou							*****	****	*****
Intersection	#6 C	astro	St and	d Victo	or Wa	7						
*****							****	****	*****	****	****	*****
Future Volum												
	•											'

```
North Bound South Bound East Bound West Bound L - T - R L - T - R
Approach:
Movement:
-----||-----||------|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Lanes: 0 0 0 1 0 1 0 0 1 0 0 0 1! 0 0 0 0 1! 0 0
Initial Vol: 0 454 6 23 269 0 18 3 2 7 0
ApproachDel: xxxxxx xxxxx 17.0 13.2
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
  FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=23]
  FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=796]
  FAIL - Total volume less than 650 for intersection
        with less than four approaches.
_____
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
```

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=21]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=796]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Castro St and Victor Way

Future Volume Alternative: Peak Hour Warrant NOT Met

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Lanes: 0 0 0 1 0 1 0 0 1 0 0 0 1! 0 0 0 0 1! 0 0 Initial Vol: 0 454 6 23 269 0 18 3 2 7 0 14 -----|----|-----||------| 752 Major Street Volume:

Minor Approach Volume: Minor Approach Volume Threshold: 383

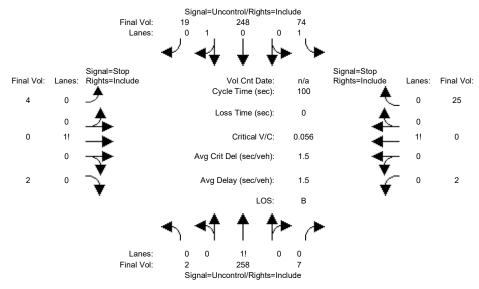
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Cumul PM

Intersection #6: Castro St and Victor Way



Approach: Movement:			ound - R			ound - R			ound - R	West Bound L - T - R				
Volume Module	I			1 1			1 1			1 1		1		
Base Vol:	2	258	7	74	248	19	4	0	2	2	0	25		
Growth Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Bse:	2	258	7	74	248	19	4	0	2	2	0	25		
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:	2	258	7	74	248	19	4	0	2	2	0	25		
User Adi:	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:	2	258	7	74	248	19	4	0	2	2	0	25		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
FinalVolume:	2	258	7	74	248	19	4	0	2	2	0	25		
Critical Gap	Modu	le:										·		
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2		
FollowUpTim:			XXXXX			xxxxx		4.0	3.3	3.5	4.0	3.3		
Capacity Mod	ule:													
Cnflict Vol:	267	xxxx	XXXXX	265	xxxx	xxxxx	684	675	258	672	681	262		
Potent Cap.:	1308	xxxx	xxxxx	1311	xxxx	xxxxx	366	378	786	372	375	782		
Move Cap.:			xxxxx	1311	xxxx	xxxxx	338	356	786	355	354	782		
Volume/Cap:	0.00	xxxx	XXXX	0.06	xxxx	XXXX	0.01	0.00	0.00	0.01	0.00	0.03		
Level Of Ser	vice 1	Modul	e:											
2Way95thQ:	0.0	xxxx	xxxxx	0.2	XXXX	xxxxx	XXXX	xxxx	xxxxx	XXXX	xxxx	XXXXX		
Control Del:	7.8		XXXXX						XXXXX			XXXXX		
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*		
Movement:	LT	- LTR	- RT	LT ·	- LTR	- RT	LT	- LTR			- LTR	- RT		
Shared Cap.:						XXXXX			XXXXX			XXXXX		
SharedQueue:									XXXXX			XXXXX		
Shrd ConDel:												XXXXX		
Shared LOS:	*	*	*	*	*	*	*	В	*	*	В	*		
ApproachDel:	X	xxxxx		X	XXXXX			13.7			10.2			
ApproachLOS:		*			*		_	В			В			
Note: Queue	repor					_								
			eak Hou											
******							****	****	*****	*****	****	*****		
Intersection														
									*****	*****	****	*****		
Future Volume					ır Wai	rrant 1	NOT Met	t				1		

```
North Bound South Bound East Bound West Bound L - T - R L - T - R
Approach:
Movement:
-----||-----||-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Lanes: 0 0 1! 0 0 1 0 0 1 0 0 0 1! 0 0 0 0 1! 0 0
Initial Vol: 2 258 7 74 248 19 4 0 2 2 0
ApproachDel: xxxxxx xxxxx 13.7 10.2
-----||-----||------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
  FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=6]
  FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=641]
  FAIL - Total volume less than 650 for intersection
        with less than four approaches.
```

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=27]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=641]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Castro St and Victor Way

Future Volume Alternative: Peak Hour Warrant NOT Met

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Lanes: 0 0 1! 0 0 1 0 0 1 0 0 1! 0 0 0 1! 0 0 Initial Vol: 2 258 7 74 248 19 4 0 2 2 0 25 -----||-----||-----| Major Street Volume: 608

Minor Approach Volume: Minor Approach Volume Threshold: 456

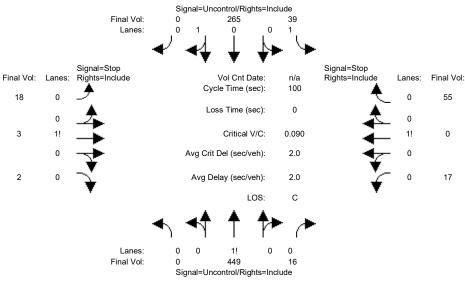
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Cumul + Prj AM

Intersection #6: Castro St and Victor Way



Signal=Uncontrol/Rights=Include															
Approach:	No	rth Bo	ound	Soi	uth Bo	ound	Ea	ast Bo	ound	West Bound					
Movement:	L	- T	- R	L ·	- T	- R			- R	L	- T	- R			
Volume Module	e:														
Base Vol:	0	454	6	23	269	0	18	3	2	7	0	14			
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	454	6	23	269	0	18	3	2	7	0	14			
Added Vol:	0	-5	10	16	-4	0	0	0	0	10	0	41			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	0	449	16	39	265	0	18	3	2	17	0	55			
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	449	16	39	265	0	18	3	2	17	0	55			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
FinalVolume:	0	449	16	39		0	18	3		17	0	55			
Critical Gap Module:															
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2			
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3			
Capacity Module:															
Cnflict Vol:	xxxx	xxxx	xxxxx	465	xxxx	xxxxx	828	808	265	803	800	457			
Potent Cap.:	xxxx	xxxx	xxxxx	1107	xxxx	xxxxx	293	317	779	304	320	608			
Move Cap.:	xxxx	xxxx	xxxxx	1107	xxxx	xxxxx	259	306	779	293	309	608			
Volume/Cap:	xxxx	xxxx	xxxx	0.04	xxxx	xxxx	0.07	0.01	0.00	0.06	0.00	0.09			
Level Of Ser	vice 1	Modul	e:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	XXXX	xxxx	xxxxx	XXXX	xxxx	XXXXX			
Control Del:	xxxxx	xxxx	xxxxx	8.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	XXXXX			
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*			
Movement:	LT	- LTR	- RT	LT ·	- LTR	- RT	LT	- LTR	- RT	LT	- LTR	- RT			
Shared Cap.:	xxxx	xxxx	xxxxx	XXXX	xxxx	xxxxx	XXXX	281	xxxxx	XXXX	485	XXXXX			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.3	xxxxx	xxxxx	0.5	XXXXX			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	18.9	xxxxx	xxxxx	13.7	XXXXX			
Shared LOS:	*	*	*	*	*	*	*	С	*	*	В	*			
ApproachDel:	x	xxxxx		X	xxxxx			18.9			13.7				
ApproachLOS:		*			*			С			В				
Note: Queue	repor	ted i	s the 1	number	of ca	ars pei	r lane								
		P	eak Hoi	ır Dela	ay Sig	gnal Wa	arrant	Repo	rt						
******	****	****	****	*****	****	*****	*****	****	*****	*****	****	*****			
Intersection															
******	****	****	****	*****	****	*****	*****	****	*****	*****	****	*****			
Future Volume	e Alt	ernat	ive: Pe	eak Ho	ır Wai	rrant 1	NOT Me	t							

```
Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - T - R L - T - T - R L - T - T - R L - T - T - R L - T - T R L - T - T - R L - T - T - R L - T - T - R L - T - T - R L - T - T - R L - T - T - R L - T - T - R L - T - T - R L - T - T
```

with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=72]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=864]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Castro St and Victor Way

Future Volume Alternative: Peak Hour Warrant NOT Met

Minor Approach Volume: 72
Minor Approach Volume Threshold: 375

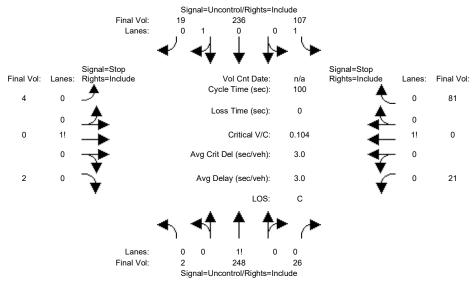
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Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Cumul + Prj PM

Intersection #6: Castro St and Victor Way



Approach: Movement:			ound - R			ound - R			ound - R	West Bound L - T - R				
	I													
Volume Module				1 1			1 1			1 1		I		
Base Vol:		258	7	74	248	19	4	0	2	2	0	25		
Growth Adj:		1.00	1.00		1.00	1.00		1.00	1.00	1.00	-	1.00		
Initial Bse:			7	74	248	19	4	0	2	2	0	25		
Added Vol:	0		19	33	-12	0	0	0	0	19	0	51		
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	5		
Initial Fut:			26	107	236	19	4	0	2	21	0	81		
User Adi:	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:	2	248	26	107	236	19	4	0	2	21	0	81		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
FinalVolume:	2	248	26	107	236	19	4	0	2	21	0	81		
Critical Gap	Modu	le:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2		
FollowUpTim:						xxxxx				3.5	4.0	3.3		
Capacity Mod														
Cnflict Vol:	255	xxxx	xxxxx	274	xxxx	xxxxx	765	738	246	726	734	261		
Potent Cap.:	1322	xxxx	xxxxx	1301	xxxx	xxxxx	323	348	798	343	350	783		
Move Cap.:	1322	xxxx	xxxxx	1301	xxxx	xxxxx	271	319	798	320	321	783		
Volume/Cap:	0.00	xxxx	xxxx	0.08	xxxx	xxxx	0.01	0.00	0.00	0.07	0.00	0.10		
Level Of Ser	vice 1	Modul	e:											
2Way95thQ:	0.0	xxxx	xxxxx	0.3	xxxx	xxxxx	XXXX	xxxx	xxxxx	xxxx	xxxx	XXXXX		
Control Del:	7.7	xxxx	XXXXX	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	XXXXX		
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*		
Movement:	$_{ m LT}$	- LTR	- RT	LT ·	- LTR	- RT	LT	- LTR	- RT	LT ·	- LTR	- RT		
Shared Cap.:	XXXX	xxxx	xxxxx	XXXX	xxxx	xxxxx	XXXX	347	xxxxx	XXXX	603	XXXXX		
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.6	XXXXX		
Shrd ConDel:	xxxxx	XXXX	XXXXX	xxxxx	xxxx	XXXXX	xxxxx	15.6	XXXXX	xxxxx	12.2	XXXXX		
Shared LOS:	*	*	*	*	*	*	*	С	*	*	В	*		
ApproachDel:	X	xxxxx		X	xxxxx			15.6			12.2			
ApproachLOS:		*			*			С			В			
Note: Queue	repor		s the r eak Hou						rt.					
*****	****									*****	****	*****		
Intersection	#6 C	astro	St and	d Victo	or Way	7								
*****					_		****	****	*****	*****	****	*****		
Future Volum														
I acarc voraii	e Alt	ernat	ive: Pe	eak Ho	ır Wai	rrant 1	NOT Me	t						

```
North Bound South Bound East Bound West Bound L - T - R L - T - R
Approach:
Movement:
-----||-----||-----|
Control: Uncontrolled Uncontrolled Stop Sign
Lanes: 0 0 1! 0 0 1 0 0 1 0 0 1! 0 0
                                                        Stop Sign
                                                        0 0 1! 0 0
Initial Vol: 2 248 26 107 236 19 4 0 2 21 0
ApproachDel: xxxxxx xxxxx 15.6 12.2
                     xxxxxx
-----||-----||-----|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
  FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=6]
  FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=746]
  FAIL - Total volume less than 650 for intersection
```

with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=102]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=746]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Castro St and Victor Way

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound Movement: L - T - R

SIGNAL WARRANT DISCLAIMER

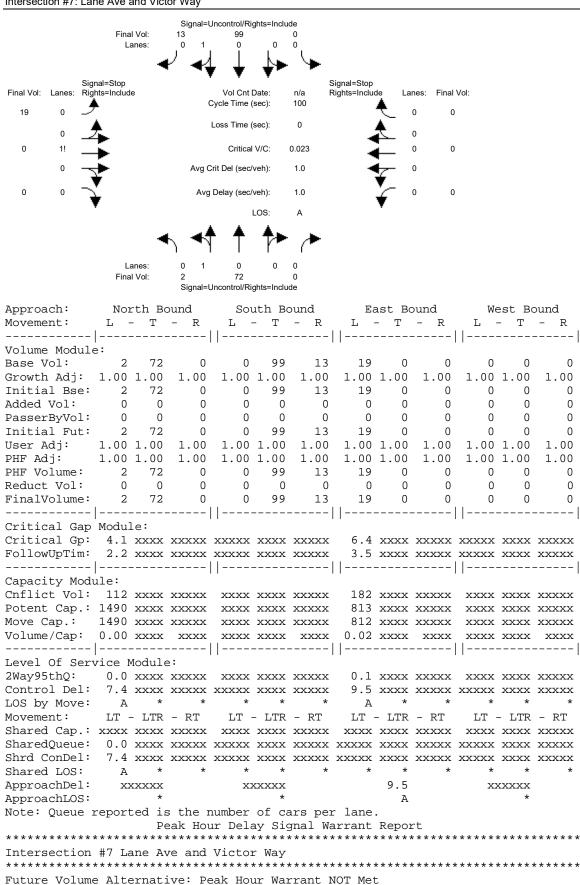
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749 W El Camino Real Hexagon Transportation Consultants, Inc.

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Cumul AM

Intersection #7: Lane Ave and Victor Way



-----|----|-----||------|

Approach:	No	ort	h Bo	oun	d	South Bound						Eas	t B	oun	d		West Bound					
Movement:	L	_	Т	_	R	L	_	T	_	R	L	_	T	_	R	I	<u> </u>	T	-	R		
Control:	Uı	nco	ntro	oll	ed .	τ	Uncontrolled					Sto	p S	ign		Stop Sign						
Lanes:	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	(0 (0	0	0		
Initial Vol:	:	2	72		0		0	99		13		19	0		0		0	0		0		
ApproachDel:	xxxxxx xxxxxx								9.5						xxxxxx							
Approach[east	boui	nd]	[lai	nes	=1][c	cont	trol	=St	gc	Sign]	j											
Cianal Warrar	- D-	- 7 -	ш1	• г	h	- 7 -	h		Λ 1	1												

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=19]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=205]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Lane Ave and Victor Way

Future Volume Alternative: Peak Hour Warrant NOT Met

-----||-----||-----| North Bound South Bound East Bound West Bound L - T - R L - T - R Approach: Movement: -----||-----||-----| -----|----|-----||------|

Major Street Volume: 186 Minor Approach Volume: 19 Minor Approach Volume Threshold: 668

SIGNAL WARRANT DISCLAIMER

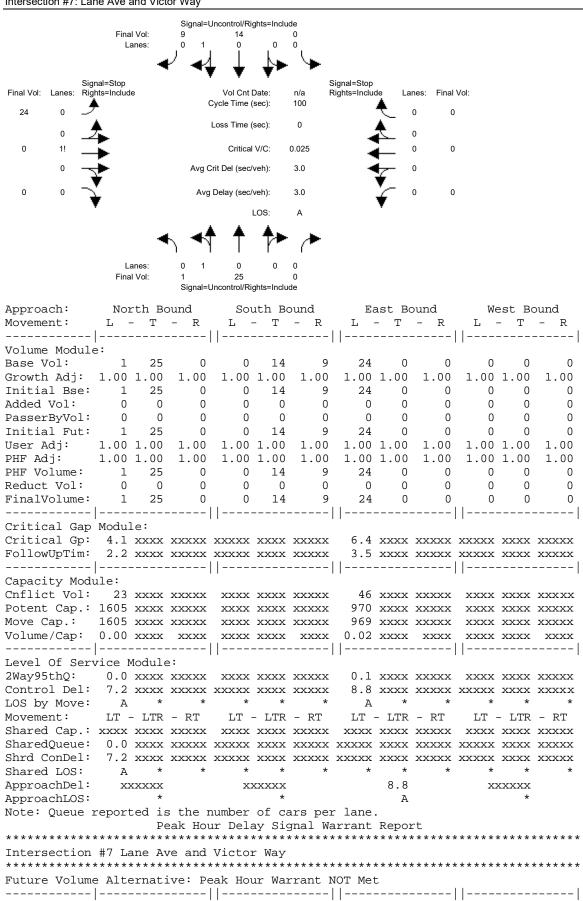
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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749 W El Camino Real Hexagon Transportation Consultants, Inc.

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Cumul PM

Intersection #7: Lane Ave and Victor Way



Approach:	Nort	h Bour	nd	Sout	h Bo	ounc	i	Ea	st B	oun	d		Wes	st B	oun	d	
Movement:	L -	Т -	R	L -	Т	_	R	L -	T	-	R	L	-	T	-	R	
Control:	Unco	ntroll	.ed	Unco	ntro	11ϵ	ed	St	op S	ign			Sto	p S	ign		
Lanes:	0 1	0 0	0	0 0	0	1	0	1 0	0	0	0	0	0	0	0	0	
Initial Vol:	1	25	0	0	14		9	24	0		0		0	0		0	
ApproachDel:	XXX	XXXX		XXX	xxx				8.8				XXX	xxx			
																	l
Approach[east	tbound :	[lanes	s=1][c	control	=Sto	p S	Sign]]									
Signal Warra	nt Rule	e #1: [vehic	le-hou	rs=(1.1]										
FAIL - Vel	hicle-h	nours]	ess t	han 4	for	one	e lar	ne app	roac	h.							
Signal Warra	nt Rule	e #2: [appro	ach vo	lume	=24	1]										
E3.TT 3	1.	-	7	1.1.	100	_		-			,						

FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=73]

FAIL - Total volume less than 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Lane Ave and Victor Way

Future Volume Alternative: Peak Hour Warrant NOT Met

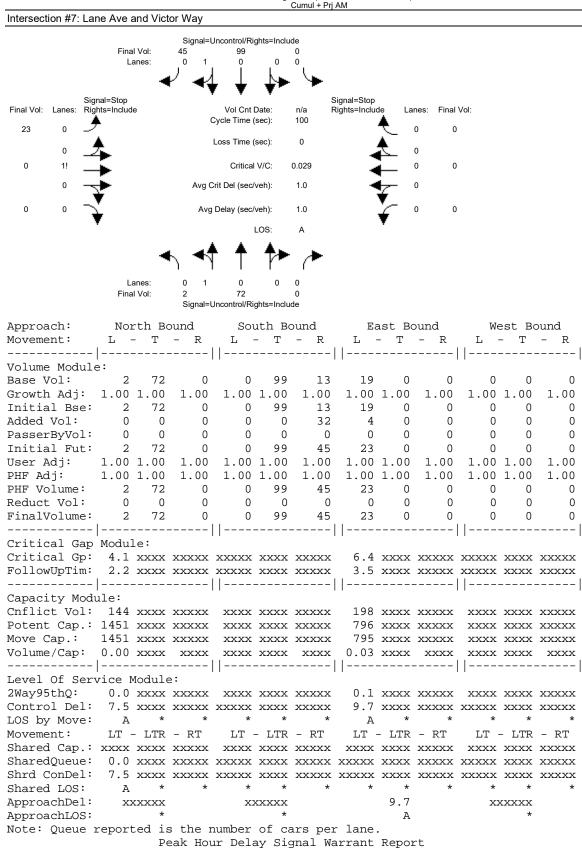
Major Street Volume: 49
Minor Approach Volume: 24
Minor Approach Volume Threshold: 1024

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative)



Intersection #7 Lane Ave and Victor Way

Future Volume Alternative: Peak Hour Warrant NOT Met

-----|----|-----||------|

Approach:	N	Iort	h B	oun	ıd	S	Sout	h B	oun	.d		Eas	t B	oun	d		Wes	st B	ound	d
Movement:	L	-	Т	_	R	L	-	T	-	R	L	_	Т	_	R	I	_	Т	-	R
Control:	U	Inco	ntr	011	ed	τ	Jnco	ntr	o11	ed		Sto	рS	ign			Sto	p S	ign	
Lanes:	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
Initial Vol:		2	72		0		0	99		45		23	0		0		0	0		0
ApproachDel:		xxx	xxx				XXX	xxx					9.7				XXX	xxx		
Approach[east	bou	ınd]	[la:	nes	s=1][c	cont	trol	=St	gc	Sign]										
Signal Warrar	nt R	ule	#1	: [vehic	cle	-hou	rs=	0.1	.]										
,				-		-		_		-										

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=23]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=241]

FAIL - Total volume less than 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Lane Ave and Victor Way

Future Volume Alternative: Peak Hour Warrant NOT Met -----||-----||-----| East Bound West Down
T - R L - T - R North Bound South Bound East Bound L - T - R L - T - R Approach: Movement:

Uncontrolled Stop Sign Uncontrolled Initial Vol: 2 72 0 0 99 45 23 0 0 0 0 -----||-----||-----|

Major Street Volume: 218 Minor Approach Volume: 23 Minor Approach Volume Threshold: 626

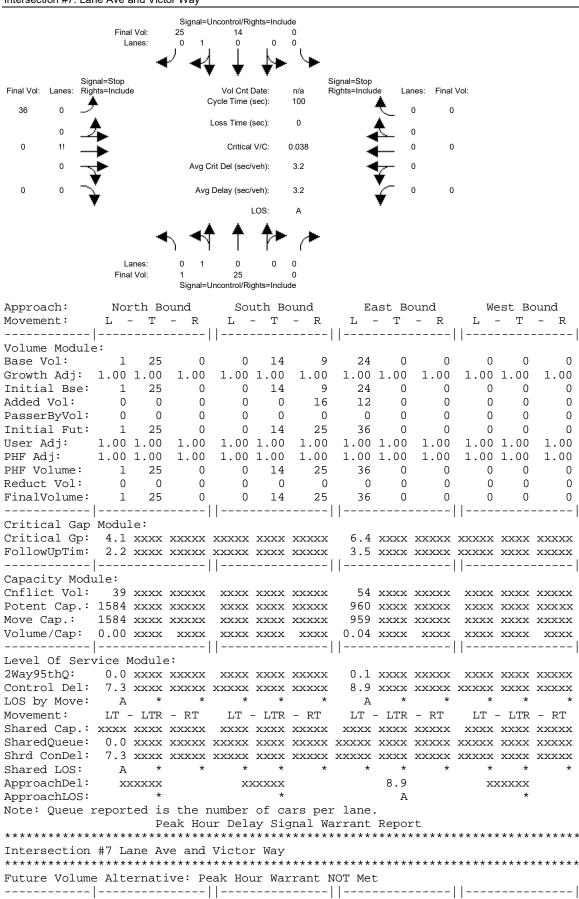
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Cumul + Prj PM

Intersection #7: Lane Ave and Victor Way



Approach:	Nort	h Bour	nd	Sout	h Bo	oun	d	Εa	ast E	Boun	.d		Wes	t Bo	oun	b
Movement:	L -	Т -	R	L -	T	-	R	L	- T	-	R	L	_	T	-	R
Control:	Unco	ntrol	Led	Unco	ntro	511	ed	S	top S	ign			Sto	p S:	ign	
Lanes:	0 1	0 0	0	0 0	0	1	0	1	0 C	0	0	0	0	0	0	0
Initial Vol:	1	25	0	0	14		25	36	()	0		0	0		0
ApproachDel:	XXX	XXXX		XXX	xxx				8.9)			XXX	xxx		
Approach[east	bound]	[lanes	s=1][c	control	=Sto	gc	Sign	j								
Cianal Warrar	+ Dul	\ #1 · I	trob i c	alo hou	I	n 1	1									

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=36]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=101]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Lane Ave and Victor Way

Future Volume Alternative: Peak Hour Warrant NOT Met

North Bound South Bound East Bound West Bound L - T - R L - T - R Approach: Movement: -----||-----||-----| -----||-----||-----|

Major Street Volume: Minor Approach Volume: 36 Minor Approach Volume Threshold: 948

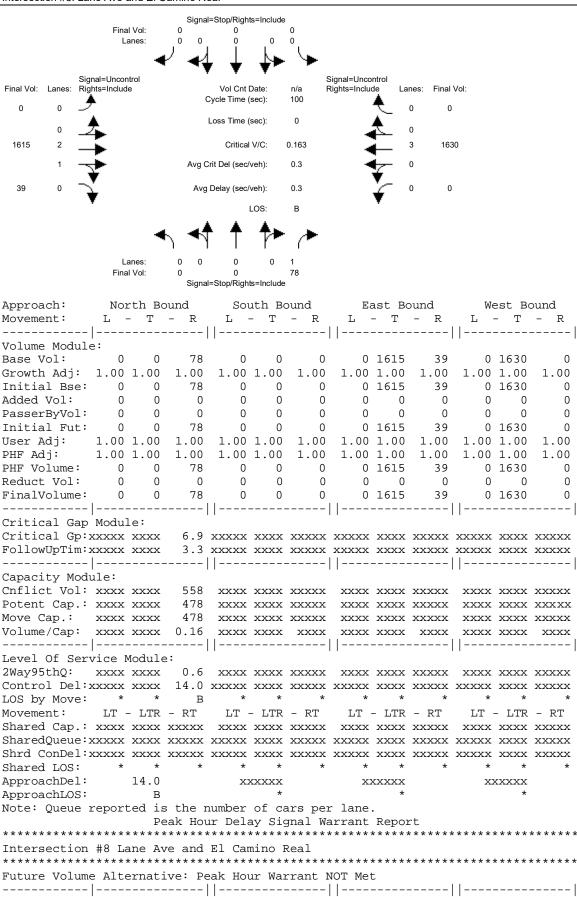
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Cumul AM

Intersection #8: Lane Ave and El Camino Real



									·F·			-									
Approach:	N	Jort	h B	oun	d	2	Sout	h B	oun	d		Eas	st B	oun	.d		₩e	st	Bour	ıd	
Movement:	L	_	Т	_	R	L	_	T	_	R	L	_	Т	_	R		ь -	- Т	_	R	
																-					
Control:		Sto	рS	ign			Sto	p S	ign			Unco	ntr	oll	ed		Unc	ont	roll	.ed	
Lanes:	0	0	0	0	1	0	0	0	0	0	0	0	2	1	0	(0 0	3	0	0	
Initial Vol:		0	0		78		0	0		0		0 1	615		39		0	163	0	0	
ApproachDel:		14.0 xxxxxx xxxxxx															XX	XXX	X		
																-					
Approach[nort	hbc	ound][1	ane	s=1]	[cor	ntro	1=S	top	Sig	n]										
Signal Warrar	nt R	≀ule	#1	: [vehi	cle-	-hou	rs=	0.3]											
FAIL - Veh	nicl	-e-h	our	s l	ess	thar	n 4	for	on	e la:	ne	appı	coac	h.							
Signal Warrar	nt R	≀ule	#2	: [appr	oacl	ı vo	lume	e=7	8]											
FAIL - App	roa	ıch	vol	ume	les	s th	nan	100	fo	r on	e 1	ane	app	roa	ch.						
Signal Warrar	nt R	≀ule	#3	: [appr	oacl	n co	unt:	=3]	[tota	al ·	volu	ıme=	336	2]						

with less than four approaches. ______

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

SUCCEED - Total volume greater than or equal to 650 for intersection

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Lane Ave and El Camino Real

Future Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----||-----||-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 1 0 0 0 0 0 0 0 2 1 0 0 0 3 0 0 Initial Vol: 0 0 78 0 0 0 0 1615 39 0 1630 0

-----||-----||-----| Major Street Volume: 3284 78

Minor Approach Volume Threshold: -125 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

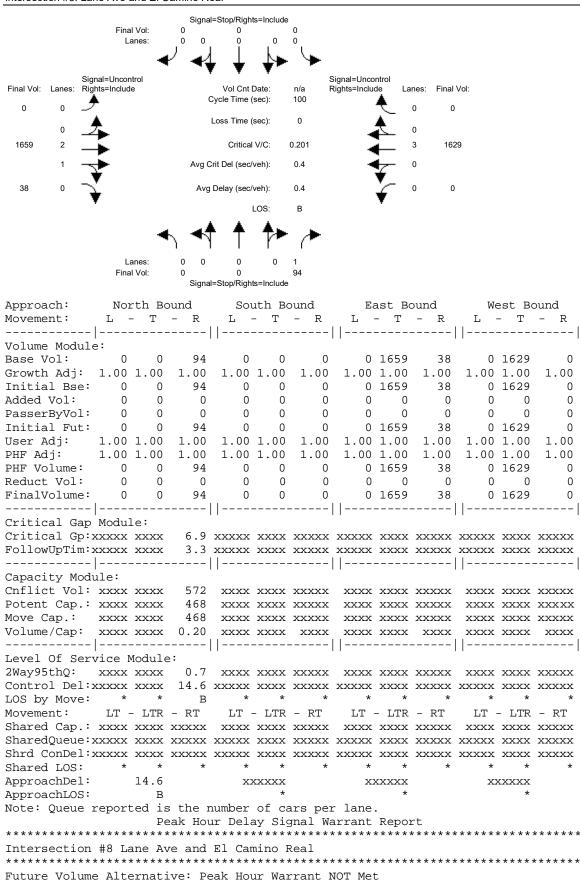
Minor Approach Volume:

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Cumul PM

Intersection #8: Lane Ave and El Camino Real



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									•		-	-									
Approach:	1	Nort	h B	oun	d	(Sout	h B	oun	d		Eas	st B	oun	d		W	est	Bour	ıd	
Movement:	L	_	Т	_	R	L	_	Т	_	R	Ι		T	_	R		L	- 7	. –	R	
																-					1
Control:	•	Sto	p S	ign		•	Sto	p S	ign			Unco	ntr	011	ed		Un	cont	rol	.ed	Ċ
Lanes:	0	0	0	0	1	0	0	0	0	0	C	0	2	1	0		0	0 3	0	0	
Initial Vol:		0	0		94		0	0		0		0 1	659		38		0	162	9	0	
ApproachDel:		1	4.6				xxx	xxx				XXX	xxx				x	xxxx	x		
																-					1
Approach[nort	hbo	ound][1	ane	s=1]	[coi	ntro	1=S	top	Sig	n]										
Signal Warra	nt F	Rule	#1	: [vehi	cle.	-hou	rs=	0.4]											
FAIL - Vel	nic	le-h	our	s l	ess	thai	n 4	for	on	e la	ne	appr	oac	h.							
Signal Warra	nt F	Rule	#2	: [appr	oacl	n vo	lum	e=9	4]											
FAIL - App	proa	ach	vol	ume	les	s tl	nan	100	fo	r on	e l	ane	app	roa	ch.						
Signal Warra	nt F	Rule	#3	: [appr	oacl	n co	unt	=3]	[tot	al	volu	ıme=	342	0]						
SUCCEED -	Tot	al	vol	ume	gre	atei	r th	an	or (equa	l t	0 65	0 f	or	inte	ers	ect	ion			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

with less than four approaches.

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Lane Ave and El Camino Real

-----|
Major Street Volume: 3326
Minor Approach Volume: 94

Minor Approach Volume Threshold: -129 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

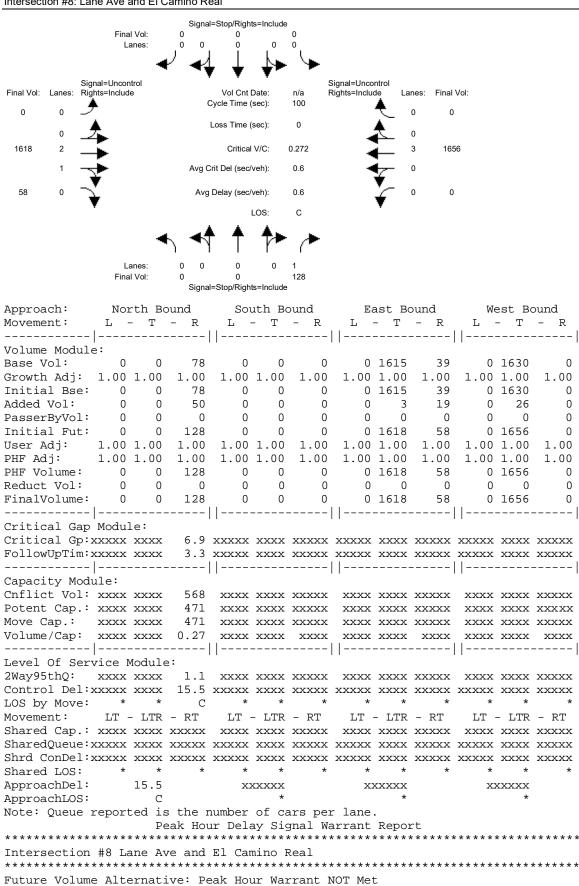
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749 W El Camino Real Hexagon Transportation Consultants, Inc.

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Cumul + Prj AM

Intersection #8: Lane Ave and El Camino Real



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Approach:	1	Jort	h Bo	oun	d	Š	Sout	h Bo	oun	d		Εa	as'	t B	oun	d		W	est	В	oun	d
Movement:	L	_	Т	_	R	L	-	T	-	R	I		_	Т	-	R	L	1	_	Т	-	R
Control:		Sto	p S:	ign			Sto	p S	ign			Und	COI	ntr	011	ed		Un	con	tro	o11	ed
Lanes:	0	0	0	0	1	0	0	0	0	0	C	(С	2	1	0	0		0	3	0	0
Initial Vol:		0	0		128		0	0		0		0	1	518		58		0	16	56		0
ApproachDel:		1	5.5				XXX	xxx				X	XX:	xxx				X	XXX	XX		
		_				-					-											

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.6]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=128]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=3460]

SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Lane Ave and El Camino Real

Future Volume Alternative: Peak Hour Warrant Met

Major Street Volume: 3332 Minor Approach Volume: 128

Minor Approach Volume Threshold: -130 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

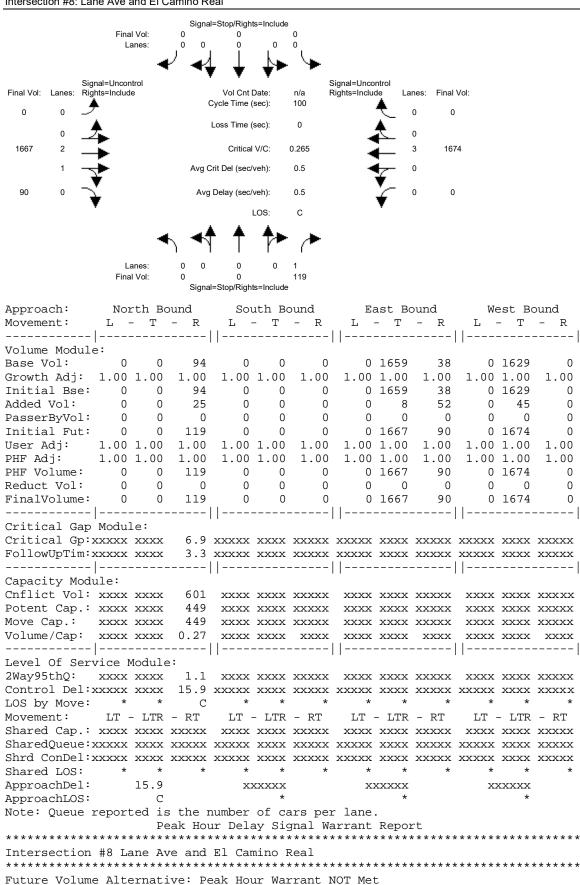
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749 W El Camino Real Hexagon Transportation Consultants, Inc.

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Cumul + Prj PM

Intersection #8: Lane Ave and El Camino Real



-----|----|-----||------|

Approach:	1	Jort	h Bo	oun	d	Š	Sout	h B	oun	d		E	as	t B	oun	d		W	est	: В	oun	d
Movement:	L	_	T	_	R	L	_	Т	-	R	I	J	-	T	-	R	L	ı	_	Т	-	R
Control:		Sto	p Si	ign	·		Sto	p S	ign			Un	CO	ntr	011	ed		Un	cor	ntr	011	ed
Lanes:	0	0	0	0	1	0	0	0	0	0	C)	0	2	1	0	0		0	3	0	0
Initial Vol:		0	0		119		0	0		0		0	1	667		90		0	16	574		0
ApproachDel:		1	5.9				XXX	xxx				X	XX.	xxx				X	XXX	ΧX		
		_						_			_											

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.5]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=119]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=3550]

SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Lane Ave and El Camino Real

Future Volume Alternative: Peak Hour Warrant Met

Major Street Volume: 3431 Minor Approach Volume: 119

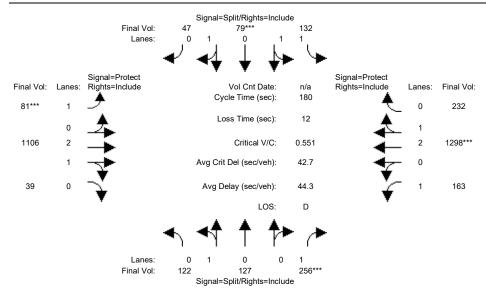
Minor Approach Volume Threshold: -140 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

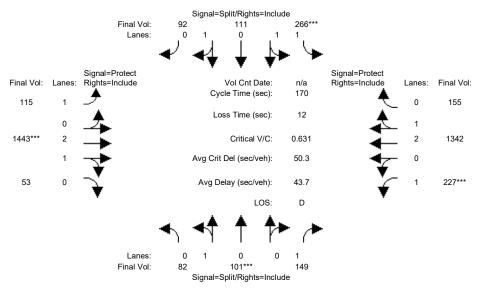
The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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



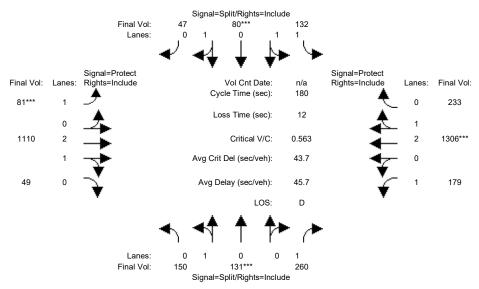
Approach:	No	rth Boi	und	Sou	ath Bo	und	Εá	ast Bo	und	We	est Bo	und
Movement:		- T ·				- R		- T			- T	- R
	1		I							1		
Min. Green:		10	10		10	10		10	10		10	10
Y+R:	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0		4.0
	1											
Volume Module		1.00	056	120		4.5	0.1	1106	2.0	1.50	1000	000
Base Vol:	122		256	132	79	47		1106	39		1298	232
Growth Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:	122	127	256	132	79	47		1106	39		1298	232
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:	122	127	256	132	79	47		1106	39		1298	232
User Adj:		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
PHF Volume:	122	127	256	132	79	47		1106	39		1298	232
	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:		127	256	132	79	47		1106	39		1298	232
PCE Adj:		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
FinalVolume:			256	132	79	47		1106	39		1298	232
	1											
Saturation F												
Sat/Lane:		1900	1900		1900	1900		1900	1900		1900	1900
Adjustment:	0.95		0.92	0.93		0.95		0.98	0.95		0.99	0.95
Lanes:		0.51	1.00		0.91	0.54		2.89	0.11		2.53	0.47
Final Sat.:			1750		1638	975		5409	191		4750	849
	1		I									
Capacity Ana	_											
Vol/Sat:	0.14	0.14	0.15	0.05	0.05	0.05		0.20	0.20	0.09	0.27	0.27
Crit Moves:			****		****		****				***	
	47.8		47.8		15.8	15.8		71.7	71.7		89.3	89.3
Volume/Cap:		0.52	0.55		0.55	0.55		0.51	0.51		0.55	0.55
Delay/Veh:		57.4	58.3		80.1	80.1		41.1	41.1		31.7	31.7
User DelAdj:			1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00
AdjDel/Veh:		57.4	58.3		80.1	80.1		41.1	41.1		31.7	31.7
LOS by Move:	E	E	\mathbf{E}	F	F	F	F	D	D	E	С	С
HCM2kAvgQ:	12	12	13	5	5	5	5		16	9	19	19
Note: Queue	report	ted is	the n	umber	of ca	rs per	lane	•				

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



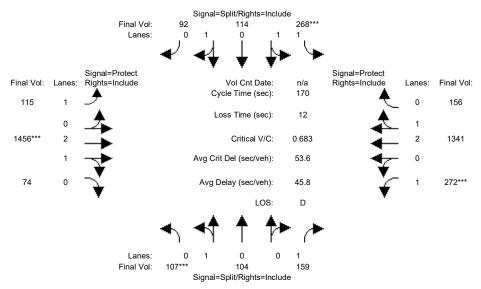
Approach:	No	rth Bo	und							We	est Bo	und
Movement:		- T				- R					- T	
 Min. Green:			10	10	10	10	7	10			10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Modul												
Base Vol:	82		149	266		92		1443	53		1342	155
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:			149	266	111	92		1443	53		1342	155
Added Vol:	0		0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0		0	0	0	0	0		0
Initial Fut:			149	266		92		1443	53		1342	155
User Adj:			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
PHF Volume:			149	266	111	92		1443	53		1342	155
Reduct Vol:			0	0		0	0		0	0	0	0
Reduced Vol:			149	266	111	92		1443	53		1342	155
PCE Adj:	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
FinalVolume:			149			92			53			155
Saturation F												
Sat/Lane:			1900		1900	1900		1900	1900		1900	1900
Adjustment:			0.92		0.95	0.95		0.98	0.95		0.99	0.95
	0.45		1.00		0.70	0.58		2.89	0.11		2.68	0.32
Final Sat.:			1750		1266	1049		5401	198			580
Capacity Ana				0 00	0 00	0 00	0 07	0 07	0 27	0 12	0 07	0 27
Vol/Sat:		0.10	0.09	0.09	0.09	0.09	0.07	0.27	0.27	U.13	0.27	0.27
Crit Moves:			07.4		22 6	22 6	01 1				05 0	05 0
Green Time:			27.4		23.6	23.6		72.0	72.0		85.9	85.9
Volume/Cap:			0.53		0.63	0.63		0.63	0.63		0.53	0.53 28.6
Delay/Veh:			67.2		70.8	70.8		39.1	39.1		28.6	
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:				70.8		70.8		39.1	39.1		28.6	28.6
LOS by Move:			E	E 9			Е б			E		C 17
HCM2kAvgQ:			-	-	-				20	12	17	17
Note: Queue	repor	tea is	the n	umber	or ca	rs per	rane	•				

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cumul + Prj AM



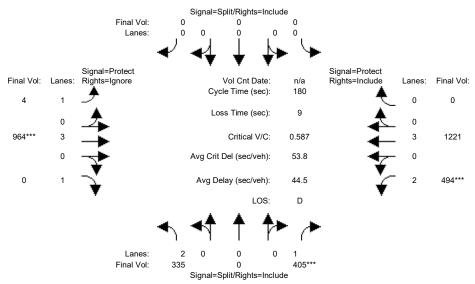
Approach:	No	rth Bo	und	Son	uth Bo	und	Ea	ast Bo	und	We	est Bo	und
Movement:		- T				- R		- T			- T	
Min. Green:	•	10			10			10			10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	•											
Volume Module		1.00	056	1 2 2		4.5	0.1	1106	2.0	1.50	1000	000
Base Vol:	122			132	79	47		1106	39		1298	232
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:			256	132	79	47		1106	39		1298	232
Added Vol:			4	0	1	0 0	0		10 0	16	8 0	1
PasserByVol:			0	1 2 2						170	U	0
Initial Fut:		131 1.00	260 1.00	132	80 1.00	47 1.00		1110	49		1306	233 1.00
User Adj: PHF Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
			260	132	80	47		1110	49		1306	233
PHF Volume: Reduct Vol:	150		260	132	0	0	0	1110	0	1/9		⊿33 0
Reduced Vol:			260	132	80	47		1110	49		1306	233
PCE Adj:			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
FinalVolume:				132				1110	49			233
rinarvorume:												
Saturation F				1								
Sat/Lane:			1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:			0.92		0.95	0.95		0.98	0.95		0.99	0.95
Lanes:		0.47	1.00			0.54		2.87	0.13		2.53	0.47
Final Sat.:			1750			971		5363	237		4751	848
Capacity Ana				•		'	'		'	1		'
Vol/Sat:		0.16		0.05	0.05	0.05	0.05	0.21	0.21	0.10	0.27	0.27
Crit Moves:		****			****		****				***	
Green Time:	49.9	49.9	49.9	15.5	15.5	15.5	14.8	68.7	68.7	33.9	87.8	87.8
Volume/Cap:	0.56	0.56	0.54	0.56	0.56	0.56	0.56	0.54	0.54	0.54	0.56	0.56
Delay/Veh:	57.2	57.2	56.4	80.6	80.6	80.6	84.6	43.7	43.7	67.8	32.8	32.8
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:	57.2	57.2	56.4	80.6	80.6	80.6	84.6	43.7	43.7	67.8	32.8	32.8
LOS by Move:		E	E	F	F	F	F		D	E	С	C
HCM2kAvgQ:	14	14	13	6	6	6	5	16	16	10	20	20
Note: Queue	report	ted is	the n	umber	of ca	rs per	lane	•				

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cumul + Prj PM



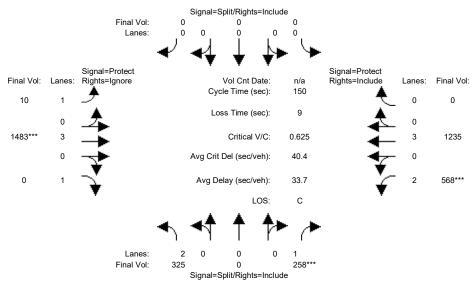
Approach:												
Movement:		- T ·				- R		- T			- T	
Min. Green:		10			10			10		•	10	10
Y+R:	4.0				4.0			4.0			4.0	
Volume Module	•									•		'
Base Vol:	82	101	149	266	111	92	115	1443	53	227	1342	155
Growth Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:			149	266	111	92	115	1443	53	227	1342	155
Added Vol:		3	10	2		0	0	13	21	40	4	1
PasserByVol:			0	0		0	0	0	0		-5	0
Initial Fut:			159	268			115		74		1341	156
User Adj:			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
PHF Volume:		104	159	268	114	92		1456	74		1341	156
	0		0	0		0	0	0	0	0	0	0
Reduced Vol:			159	268	114	92			74		1341	156
PCE Adj:	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
FinalVolume:						92			74			156
	I		I									
Saturation F												
Sat/Lane:		1900	1900		1900	1900		1900	1900		1900	1900
Adjustment:			0.92		0.95	0.95		0.98	0.95		0.99	0.95
Lanes:			1.00		0.71	0.58		2.85	0.15		2.68	0.32
Final Sat.:			1750		1287	1038		5329	271		5016	583
Capacity Anal												
Vol/Sat:		0.12	0.09	0 00	0.09	0.09	0 07	0.27	0.27	0 16	0.27	0.27
Crit Moves:	****	0.12	0.09	****	0.09	0.09	0.07	****	0.27	****	0.27	0.27
		29.2	29.2		22.1	22.1	21 1	68.0	68.0		85.7	85.7
Volume/Cap:			0.53		0.68	0.68		0.68	0.68		0.53	0.53
Delay/Veh:			65.9		73.4	73.4	72.3		43.0		28.7	28.7
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:				73.4		73.4	72.3		43.0		28.7	28.7
LOS by Move:				/J.4 E			/Z.3		73.0 D	04.0 E		20.7 C
HCM2kAvgQ:				9			6		22	15	17	17
Note: Queue			_	-	-				22		Ξ,	- /
~ - ~	·											

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



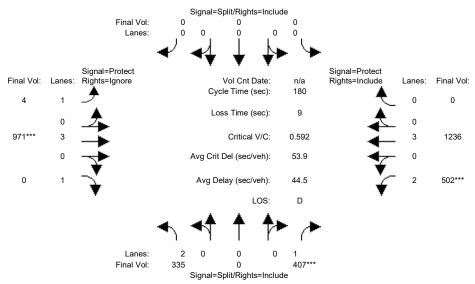
Approach:	No:	rth Bo	und	Sot	uth Bo	ound	Ea	ast Bo	und	We	est Bo	und
Movement:		- T				- R		- T			- T	- R
Min. Green:	10		10		 0	0		 10	10	7		0
Y+R:	4.0		4.0			4.0		4.0	4.0	4.0		4.0
Volume Modul												
Base Vol:	335	0	405	0	0	0	4		0		1221	0
Growth Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:		0	405	0	0	0	4	964	0		1221	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
Initial Fut:		0	405	0	0	0	4		0		1221	0
User Adj:		1.00	1.00		1.00	1.00		1.00	0.00		1.00	1.00
PHF Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00		1.00	1.00
PHF Volume:	335	0	405	0	0	0	4	964	0	494	1221	0
Reduct Vol:	0	0	0	0	0	0	0	-	0	0	0	0
Reduced Vol:	335	0	405	0	0	0	4	964	0	494	1221	0
PCE Adj:			1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:			405	. 0	0	0		964	0		1221	0
	1											
Saturation F												
Sat/Lane:		1900	1900		1900	1900		1900	1900		1900	1900
Adjustment:		1.00	0.92		1.00	0.92		1.00	0.92		1.00	0.92
Lanes:		0.00	1.00		0.00	0.00		3.00	1.00		3.00	0.00
Final Sat.:		0	1750	. 0	0	0		5700	1750		5700	0
	1											
Capacity Ana					0 00	0 00	0 00	0 1 5	0 00	0 16	0 01	0 00
Vol/Sat:	0.11	0.00	0.23	0.00	0.00	0.00	0.00	0.17	0.00		0.21	0.00
Crit Moves:			****					****		****		
Green Time:	71.0		71.0	0.0	0.0	0.0		51.9	0.0		84.6	0.0
Volume/Cap:		0.00	0.59		0.00	0.00		0.59	0.00		0.46	0.00
Delay/Veh:			44.3	0.0	0.0	0.0		55.4	0.0		32.3	0.0
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:			44.3	0.0	0.0	0.0		55.4	0.0		32.3	0.0
LOS by Move:			D	A		A	E	E	A	E	С	A
HCM2kAvgQ:	7		19	0	0	0	0		0	14	14	0
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane	•				

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



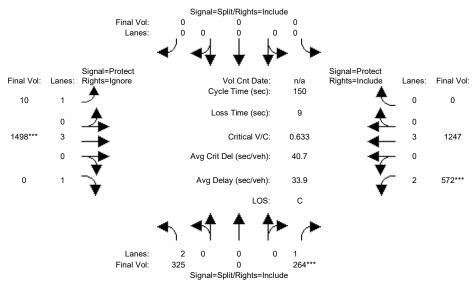
Approach:	No:	rth Bo	und				East Bound L - T - R					
Movement:		- T								_	- T	- R
Min. Green:	10		10		0	0		 10	 10	1	 10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Modul	1											
Base Vol:	325	0	258	0	0	0	10	1483	0	568	1235	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	325	0	258	0	0	0	10	1483	0	568	1235	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:	325	0	258	0	0	0	10	1483	0	568	1235	0
User Adj:		1.00	1.00		1.00	1.00		1.00	0.00		1.00	1.00
PHF Adj:		1.00	1.00		1.00	1.00		1.00	0.00		1.00	1.00
PHF Volume:	325	0	258	0	0	0		1483	0		1235	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:		0	258	0	0	0		1483	0		1235	0
PCE Adj:	1.00	1.00	1.00		1.00	1.00		1.00	0.00		1.00	1.00
MLF Adj:			1.00		1.00	1.00		1.00	0.00		1.00	1.00
FinalVolume:			258	. 0	0	0		1483	0		1235	0
Saturation F	1											
Saturation F		1900	1900	1000	1900	1900	1000	1900	1900	1000	1900	1900
Adjustment:		1.00	0.92		1.00	0.92		1.00	0.92		1.00	0.92
Lanes:		0.00	1.00		0.00	0.00		3.00	1.00		3.00	0.92
Final Sat.:		0.00	1750	0.00	0.00	0.00		5700	1750		5700	0.00
				-		-						-
Capacity Ana	I			1		1	ı		'	ı		ı
Vol/Sat:	0.10	0.00	0.15	0.00	0.00	0.00	0.01	0.26	0.00	0.18	0.22	0.00
Crit Moves:			***					****		* * * *		
Green Time:	35.4	0.0	35.4	0.0	0.0	0.0	18.7	62.4	0.0	43.2	86.9	0.0
Volume/Cap:	0.44	0.00	0.63	0.00	0.00	0.00	0.05	0.63	0.00	0.63	0.37	0.00
Delay/Veh:	49.3	0.0	54.4	0.0	0.0	0.0	57.9	35.1	0.0	47.7	17.0	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:	49.3	0.0	54.4	0.0	0.0	0.0	57.9	35.1	0.0	47.7	17.0	0.0
LOS by Move:	D	A	D	A	A	A	E	D	A	D	В	A
HCM2kAvgQ:	8	0	12	0	0	0	0	18	0	13	10	0
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane	•				

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cumul + Prj AM



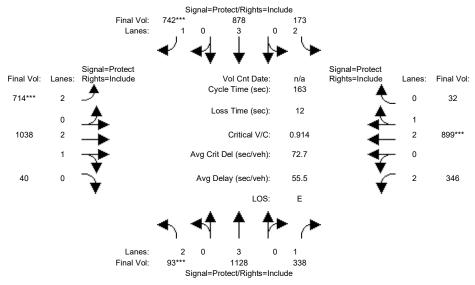
Approach:	Noi	rth Bo	und	Sou	uth Bo	ound	East Bound			West Bound		
Movement:	L -		- R		- T			- T	- R		- T	- R
	I		I	1			I			I	1.0	
Min. Green:	10 4.0	0 4.0	10	0 4.0		0	7 4.0	10 4.0	10 4.0	7	10 4.0	0
Y+R:		4.0	4.0			4.0			4.0			4.0
Volume Module	I			1								
Base Vol:	335	0	405	0	0	0	4	964	0	494	1221	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:	335	0	405	0	0	0	4	964	0	494	1221	0
Added Vol:	0	0	2	0	0	0	0	7	0	8	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	335	0	407	0	0	0	4	971	0	502	1236	0
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	335	0	407	0	0	0	4	971	0	502	1236	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	335	0	407	0	0	0	4	971	0	502	1236	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	335	0	407	0	0	0	4	971	0	502	1236	0
Saturation F												
Sat/Lane:	1900	1900	1900		1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83		0.92		1.00	0.92		1.00	0.92		1.00	0.92
Lanes:	2.00		1.00		0.00	0.00		3.00	1.00	2.00	3.00	0.00
Final Sat.:		0	1750	. 0	0	0		5700	1750		5700	0
	I		- 1									
Capacity Anal												
Vol/Sat:	0.11	0.00	0.23	0.00	0.00	0.00	0.00	0.17	0.00		0.22	0.00
Crit Moves:			****					****		****		
Green Time:	70.7	0.0	70.7	0.0	0.0	0.0		51.8	0.0		85.0	0.0
Volume/Cap:	0.27		0.59		0.00	0.00		0.59	0.00		0.46	0.00
Delay/Veh:	37.2	0.0	44.6	0.0	0.0	0.0		55.6	0.0		32.1	0.0
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:	37.2	0.0	44.6	0.0	0.0	0.0	75.6	55.6	0.0	58.3	32.1	0.0
LOS by Move:	D	A	D	A		A	E	E	A	E	С	A
HCM2kAvgQ:	7	0	19	0	0	0	0	15	0	14	15	0
Note: Queue	report	ted is	the n	umber	of ca	ars per	lane	•				

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cumul + Prj PM



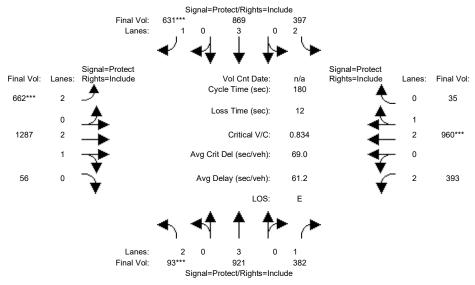
Approach:	No:	rth Bo	und										
Movement:		- T						- T		_	- T	- R	
Min. Green:	10		10		0	0		 10	10	1	10	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Talima Madul	1												
Volume Module Base Vol:	e. 325	0	258	0	0	0	10	1483	0	568	1235	0	
Growth Adj:			1.00		1.00	1.00		1.00	1.00	1.00		1.00	
Initial Bse:		0	258	0	0	0		1483	0		1235	0	
Added Vol:	0	0	6	0	0	0	0	15	0	4	12	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	325	0	264	0	0	0	10	1498	0	572	1247	0	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	
PHF Volume:	325	0	264	0	0	0	10	1498	0	572	1247	0	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:		0	264	0	0	0		1498	0		1247	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00		1.00	0.00	1.00		1.00	
MLF Adj:			1.00	1.00		1.00		1.00	0.00	1.00		1.00	
FinalVolume:			264	. 0	0	0		1498	0		1247	0	
Cotumetics E	I												
Saturation F Sat/Lane:		1900	1900	1000	1900	1900	1000	1900	1900	1900	1000	1900	
Adjustment:		1.00	0.92		1.00	0.92		1.00	0.92	0.83		0.92	
Lanes:		0.00	1.00		0.00	0.92		3.00	1.00	2.00		0.92	
Final Sat.:			1750	0.00	0.00	0.00		5700	1750	3150		0.00	
				-		-						-	
Capacity Ana				1		ļ	1		'	ı		'	
Vol/Sat:	0.10	0.00	0.15	0.00	0.00	0.00	0.01	0.26	0.00	0.18	0.22	0.00	
Crit Moves:			****					****		* * * *			
Green Time:	35.7	0.0	35.7	0.0	0.0	0.0	18.5	62.3	0.0	43.0	86.8	0.0	
Volume/Cap:	0.43	0.00	0.63	0.00	0.00	0.00	0.05	0.63	0.00	0.63	0.38	0.00	
Delay/Veh:	48.9	0.0	54.4	0.0	0.0	0.0	58.1	35.4	0.0	48.1	17.1	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:		0.0	54.4	0.0	0.0	0.0		35.4	0.0	48.1	17.1	0.0	
LOS by Move:			D	A		A	E	D	A	D	В	A	
HCM2kAvgQ:	8	0	12	0	0	0	0		0	13	10	0	
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane	•					

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



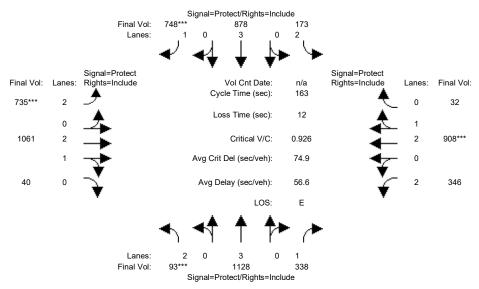
Approach:	No	rth Bo	und	South Bound R L - T - R				ast Bo	und				
Movement:		- T						- T			- T		
Min. Green:		10				10		10		7			
Y+R:		4.0			4.0				4.0		4.0		
Volume Module	e:		·						·				
Base Vol:		1128	338		878	742		1038	40	346		32	
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Initial Bse:			338	173	878	742		1038	40	346		32	
Added Vol:	0	0	0	0	0	0	0		0	0	0	0	
PasserByVol:	0	0	0	0	0	0	0	-	0	0		0	
Initial Fut:			338	173		742		1038		346		32	
User Adj:		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	
PHF Volume:			338	173	878	742		1038	40	346	899	32	
Reduct Vol:			0	0	0	0	0		0	0		0	
Reduced Vol:			338	173	878		714		40	346		32	
PCE Adj:	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	
FinalVolume:						742		1038		346		32	
Saturation F													
Saturation F. Sat/Lane:			1900	1000	1900	1900	1000	1900	1900	1000	1900	1900	
Adjustment:			0.92		1.00	0.92		0.98	0.95		0.98	0.95	
	2.00		1.00		3.00	1.00		2.88	0.95		2.89	0.95	
Final Sat.:			1750		5700	1750		5392	208		5407	192	
rillai sat.:													
Capacity Ana				I		I	I		I	I		I	
Vol/Sat:		0.20	0.19	0.05	0.15	0.42	0.23	0.19	0.19	0.11	0.17	0.17	
Crit Moves:	****					****	****				****		
	7.0	64.0	64.0	17.8	74.7	74.7	40.0	44.1	44.1	25.2	29.3	29.3	
Volume/Cap:			0.49		0.34	0.92		0.71	0.71		0.92	0.92	
Delay/Veh:			37.8	69.7	28.3	57.8	76.9	55.3	55.3	70.4	79.5	79.5	
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00	
AdjDel/Veh:			37.8			57.8	76.9	55.3	55.3	70.4	79.5	79.5	
LOS by Move:			D	E	С	E		E		E		E	
HCM2kAvgQ:		14	13	5	9	41	22	16	16	11	19	19	
Note: Queue	repor	ted is	the n	umber	of ca	ars per	lane						

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



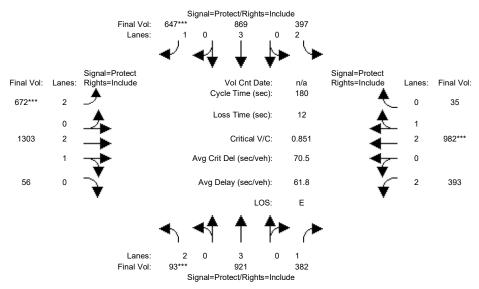
Approach:	No	rth Bo	und	South Bound R L - T - R				ast Bo	und				
Movement:		- T						- T			- T		
Min. Green:	•	10		7				10			10		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Modul													
Base Vol:	93			397		631		1287	56	393		35	
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Initial Bse:			382	397	869	631		1287	56	393	960	35	
Added Vol:			0	0	0	0	0	0	0	0	0	0	
PasserByVol:			0	0	0	0	0	0	0	0	0	0	
Initial Fut:		921	382	397		631		1287	56	393		35	
User Adj:			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	
PHF Volume:			382	397	869	631		1287	56	393	960	35	
Reduct Vol:			0	0	0	0	0	0	0	0		0	
Reduced Vol:			382	397		631		1287	56	393		35	
PCE Adj:	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	
FinalVolume:					869					393		35	
Saturation F													
	1900		1900		1900	1900		1900	1900		1900	1900	
Adjustment:			0.92		1.00	0.92		0.98	0.95		0.98	0.95	
	2.00		1.00		3.00	1.00		2.87	0.13		2.89	0.11	
Final Sat.:			1750		5700	1750		5366	233		5403	197	
Capacity Ana				0 10	0 1 5	0 26	0 01	0 04	0 04	0 10	0 10	0 10	
Vol/Sat:		0.16	0.22	0.13	0.15	0.36 ***	****		0.24	0.12	0.18	0.18	
Crit Moves:		F 2 6	F2 6	21 0				54 0	540	00.6		20.0	
Green Time:			53.6		77.6	77.6		54.9	54.9		38.2	38.2	
Volume/Cap:			0.73		0.35	0.84		0.79	0.79		0.84	0.84	
Delay/Veh:			62.1		34.5	53.7		59.7	59.7		73.2	73.2	
User DelAdj:					1.00	1.00		1.00	1.00		1.00	1.00	
AdjDel/Veh:				75.7		53.7		59.7	59.7		73.2	73.2	
LOS by Move:			E	E		D	E		E	F		E	
HCM2kAvgQ:		14	21	, 14		35	21		23	14	20	20	
Note: Queue	repor	ted is	the n	umber	oi ca	rs per	lane	•					

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cumul + Prj AM



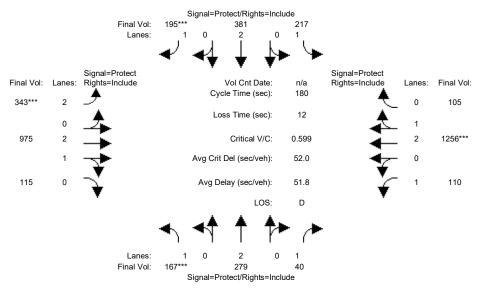
Approach:	No	rth Bo	und	South Bound R L - T - R									
Movement:		- T									- T		
 Min. Green:		10	10	7	10	10	7	10		7			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Modul													
Base Vol:		1128	338		878	742		1038	40	346		32	
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Initial Bse:			338	173	878	742		1038	40	346		32	
Added Vol:		0	0	0	0	6	21		0	0	9	0	
PasserByVol:	0	0	0	0	0	0	0		0	0		0	
Initial Fut:			338	173		748		1061		346		32	
User Adj:		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	
PHF Volume:			338	173	878	748		1061	40	346	908	32	
Reduct Vol:			0	0	0	0	0		0	0		0	
Reduced Vol:			338	173	878			1061	40	346		32	
PCE Adj:	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	
FinalVolume:						748		1061		346		32	
Saturation F													
Sat/Lane:			1900		1900	1900		1900	1900		1900	1900	
Adjustment:			0.92		1.00	0.92		0.98	0.95		0.98	0.95	
	2.00		1.00		3.00	1.00		2.89	0.11		2.89	0.11	
Final Sat.:			1750		5700	1750		5396	203		5409	191	
Capacity Ana													
Vol/Sat:		0.20	e. 0.19	0 05	0.15	0.43	0 22	0.20	0.20	0 11	0.17	0.17	
Crit Moves:	****	0.20	0.19	0.05	0.15	****		0.20	0.20	0.11	U.1/	0.17	
	7.0	62 6	63.6	17 7	74.3	74.3		44.7	44.7	25 0	29.2	29.2	
Volume/Cap:			0.49		0.34	0.94		0.72	0.72		0.94	0.94	
Delay/Veh:			38.1		28.6	60.7		55.1	55.1		81.7	81.7	
User DelAdi:					1.00	1.00		1.00	1.00		1.00	1.00	
AdiDel/Veh:				69.8		60.7		55.1	55.1		81.7	81.7	
LOS by Move:				09.8 E				55.I E		70.7 E		81.7 F	
HCM2kAvqQ:		14	14	5		42	23		16	11		19	
				_					Τ0	TT	19	19	
Note: Queue	rebor	rea is	cire II	unber	OT G	rrs ber	тапе	•					

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cumul + Prj PM



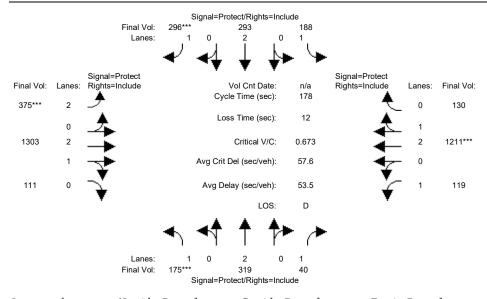
Approach:	No	rth Bo	und	South Bound R L - T - R				ast Bo	und			
Movement:		- T									- T	
Min. Green:			 10	7	 10	10		10			10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Modul												
Base Vol:	93		382		869	631		1287	56	393		35
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:			382	397	869	631		1287	56	393	960	35
Added Vol:			0	0	0	16	10	16	0	0	22	0
PasserByVol:	0	0	0	0	0	0	0		0	0	0	0
Initial Fut:			382	397				1303	56	393		35
User Adj:			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
PHF Volume:			382	397	869	647		1303	56	393	982	35
Reduct Vol:			0	0	0	0	0		0	0		0
Reduced Vol:			382	397			672		56	393		35
PCE Adj:	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
FinalVolume:										393		35
Saturation F												
			1900		1900	1900		1900	1900		1900	1900
Adjustment:			0.92		1.00	0.92		0.98	0.95		0.98	0.95
Lanes:			1.00		3.00	1.00		2.87	0.13		2.89	0.11
Final Sat.:			1750		5700	1750		5369	231		5407	193
Capacity Ana												
Vol/Sat:				0.13	0 1 5	0.37	0 21	0 24	0.24	0.12	0 10	0.18
Crit Moves:		0.10	0.22	0.13	0.15	****		0.24	0.24	0.12	****	0.10
Green Time:		E2 0	53.8	21 1	77.8	77.8		54.9	54.9	20 2	38.2	38.2
Volume/Cap:			0.73		0.35	0.85		0.80	0.80		0.85	0.85
Delay/Veh:				75.5		55.4		60.1	60.1		74.5	74.5
User DelAdi:					1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:				75.5		55.4		60.1	60.1		74.5	74.5
LOS by Move:				75.5 E		55.4 E	73.5 E			от.о F		/4.5 E
HCM2kAvgQ:		14	21	14		36	22			14		20
Note: Queue :									23	7.4	20	20
Nocco gadae .	r CPOT	ccu is	CIIC II	LULLI	OI Ca	TP PCT	Tane	•				

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



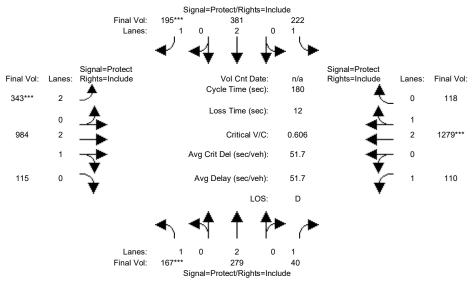
				South Bound								
Movement:												
		10			10			10			10	
Y+R:		4.0			4.0				4.0		4.0	4.0
Volume Module												
Base Vol:	167		40	217	381	195	343		115		1256	105
_		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:		279	40	217	381	195	343	975	115		1256	105
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:		0	0	0	0	0	0	-	0	0	0	0
Initial Fut:	167	279	40	217	381	195	343	975	115	110	1256	105
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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:	167	279	40	217	381	195	343	975	115	110	1256	105
	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	167	279	40	217	381	195	343	975	115	110	1256	105
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	1.00	1.00
FinalVolume:	167	279	40	217	381	195	343	975	115	110	1256	105
Saturation Fl	Low Mo	odule:	•	•			•					
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	0.83	0.99	0.95	0.92	0.99	0.95
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.67	0.33		2.76	0.24
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	5008	591	1750	5167	432
Capacity Anal				•		'	•			•		
		0.07		0.12	0.10	0.11	0.11	0.19	0.19	0.06	0.24	0.24
Crit Moves:	***					****	****				***	
Green Time:	28.7	23.1	23.1	39.1	33.5	33.5	32.7	80.0	80.0	25.8	73.1	73.1
Volume/Cap:	0.60	0.57	0.18	0.57	0.54	0.60	0.60	0.44	0.44	0.44	0.60	0.60
_		75.4	70.3		67.1	70.2		34.6	34.6		42.4	42.4
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdiDel/Veh:			70.3		67.1	70.2		34.6	34.6		42.4	42.4
LOS by Move:		, 3 . I	, o . s	E E	E	E	E E	C	C C	E	D	D
HCM2kAvq0:	10	8	2	12	10	11	10	13	13	6	19	19
Note: Queue r										Ü		

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



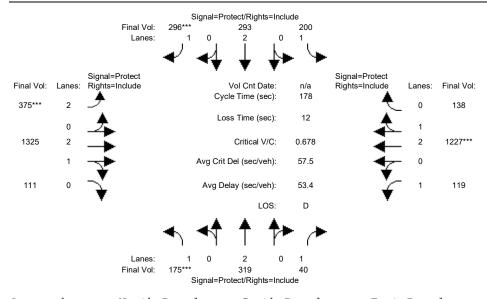
Movement: L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R Min. Green: 7 10 10 10 10 10 10 10 10 10 10 10 10 10	Approach:	No	rth Bo	und	South Bound				East Bound			West Bound		
Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10 7 10 10 7 10 10 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	Movement:	L	- T	- R	L ·	- T	- R	L	- T	- R	L ·	- T	- R	
Y+R:														
Volume Module: Base Vol: 175 319 40 188 293 296 375 1303 111 119 1211 130 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10	
Volume Module: Base Vol: 175 319	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	
Base Vol: 175 319 40 188 293 296 375 1303 111 119 1211 130 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0														
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Volume Module	e:		·			·				•		·	
Initial Bse: 175 319	Base Vol:	175	319	40	188	293	296	375	1303	111	119	1211	130	
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 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	
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Initial Bse:	175	319	40	188	293	296	375	1303	111	119	1211	130	
Initial Fut: 175 319	Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Initial Fut:	175	319	40	188	293	296	375	1303	111	119	1211	130	
PHF Volume: 175 319 40 188 293 296 375 1303 111 119 1211 130 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 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	
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	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	
Reduced Vol: 175 319	PHF Volume:	175	319	40	188	293	296	375	1303	111	119	1211	130	
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Reduced Vol:	175	319	40	188	293	296	375	1303	111	119	1211	130	
FinalVolume: 175 319 40 188 293 296 375 1303 111 119 1211 130	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	
Saturation Flow Module: Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 190	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	
Saturation Flow Module: Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 190	FinalVolume:	175	319	40	188	293	296	375	1303	111	119	1211	130	
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 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 0.83 0.99 0.95 0.92 0.99 0.95 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 2.00 2.76 0.24 1.00 2.70 0.30 Final Sat.: 1750 3800 1750 1750 3800 1750 3150 5160 440 1750 5056 543	Saturation F	low M	odule:											
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 2.00 2.76 0.24 1.00 2.70 0.30 Final Sat.: 1750 3800 1750 1750 3800 1750 3150 5160 440 1750 5056 543	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Final Sat.: 1750 3800 1750 1750 3800 1750 3150 5160 440 1750 5056 543	Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	0.99	0.95	0.92	0.99	0.95	
Capacity Analysis Module: Vol/Sat: 0.10 0.08 0.02 0.11 0.08 0.17 0.12 0.25 0.25 0.07 0.24 0.24 Crit Moves: **** Green Time: 26.4 31.2 31.2 40.0 44.7 44.7 31.5 74.7 74.7 20.1 63.3 63.3 Volume/Cap: 0.67 0.48 0.13 0.48 0.31 0.67 0.67 0.60 0.60 0.60 0.67 0.67 Delay/Veh: 78.5 66.6 62.1 60.9 54.2 64.1 71.7 40.5 40.5 80.2 49.5 49.5 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.76	0.24	1.00	2.70	0.30	
Capacity Analysis Module: Vol/Sat: 0.10 0.08 0.02 0.11 0.08 0.17 0.12 0.25 0.25 0.07 0.24 0.24 Crit Moves: **** Green Time: 26.4 31.2 31.2 40.0 44.7 44.7 31.5 74.7 74.7 20.1 63.3 63.3 Volume/Cap: 0.67 0.48 0.13 0.48 0.31 0.67 0.67 0.60 0.60 0.60 0.67 0.67 Delay/Veh: 78.5 66.6 62.1 60.9 54.2 64.1 71.7 40.5 40.5 80.2 49.5 49.5 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Final Sat.:	1750	3800	1750	1750	3800	1750	3150	5160	440	1750	5056	543	
Vol/Sat: 0.10 0.08 0.02 0.11 0.08 0.17 0.12 0.25 0.25 0.07 0.24 0.24 Crit Moves: **** **** **** **** **** **** Green Time: 26.4 31.2 31.2 40.0 44.7 44.7 31.5 74.7 74.7 20.1 63.3 63.3 Volume/Cap: 0.67 0.48 0.13 0.48 0.31 0.67 0.60 0.60 0.60 0.60 0.67 0.67 Delay/Veh: 78.5 66.6 62.1 60.9 54.2 64.1 71.7 40.5 40.5 80.2 49.5 49.5 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 1.00 1.00 1.00 AdjDel/Veh: 78.5 66.6 62.1 60.9 54.2 64.1 71.7 40.5 40.5 80.2 49.5 49.5 LOS by Move: E E E E E E E E E E E E E E E E E E E														
Crit Moves: **** **** **** **** Green Time: 26.4 31.2 31.2 40.0 44.7 44.7 31.5 74.7 74.7 20.1 63.3 63.3 Volume/Cap: 0.67 0.48 0.13 0.48 0.31 0.67 0.67 0.60 0.60 0.60 0.67 0.67 Delay/Veh: 78.5 66.6 62.1 60.9 54.2 64.1 71.7 40.5 40.5 80.2 49.5 49.5 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 40.5 80.2 49.5 49.5 LOS by Move: E E E E D E E E D D D F D D	Capacity Ana	lysis	Modul	e:										
Green Time: 26.4 31.2 31.2 40.0 44.7 44.7 31.5 74.7 74.7 20.1 63.3 63.3 Volume/Cap: 0.67 0.48 0.13 0.48 0.31 0.67 0.67 0.60 0.60 0.60 0.67 0.67 Delay/Veh: 78.5 66.6 62.1 60.9 54.2 64.1 71.7 40.5 40.5 80.2 49.5 49.5 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Vol/Sat:	0.10	0.08	0.02	0.11	0.08	0.17	0.12	0.25	0.25	0.07	0.24	0.24	
Volume/Cap: 0.67 0.48 0.13 0.48 0.31 0.67 0.60 0.60 0.60 0.60 0.67 0.67 Delay/Veh: 78.5 66.6 62.1 60.9 54.2 64.1 71.7 40.5 40.5 80.2 49.5 49.5 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Crit Moves:	****					****	****				****		
Delay/Veh: 78.5 66.6 62.1 60.9 54.2 64.1 71.7 40.5 40.5 80.2 49.5 49.5 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Green Time:	26.4	31.2	31.2	40.0	44.7	44.7	31.5	74.7	74.7	20.1	63.3	63.3	
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Volume/Cap:	0.67	0.48	0.13	0.48	0.31	0.67	0.67	0.60	0.60	0.60	0.67	0.67	
AdjDel/Veh: 78.5 66.6 62.1 60.9 54.2 64.1 71.7 40.5 40.5 80.2 49.5 49.5 LOS by Move: E E E E D E D D F D D	Delay/Veh:	78.5	66.6	62.1	60.9	54.2	64.1	71.7	40.5	40.5	80.2	49.5	49.5	
LOS by Move: E E E E D E E D D F D D	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	
<u>-</u>	AdjDel/Veh:	78.5	66.6	62.1	60.9	54.2	64.1	71.7	40.5	40.5	80.2	49.5	49.5	
1100001-7	LOS by Move:	E	E	E	E	D	E	E	D	D	F	D	D	
HCMZKAVGQ. II 8 2 IU 6 IG II I9 / 20 20	HCM2kAvgQ:	11	8	2	10	6	16	11	19	19	7	20	20	
Note: Queue reported is the number of cars per lane.	Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane						

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cumul + Prj AM



	North Bound L - T - R			South Bound L - T - R									
Movement:				ь.	- T	- R 	L		- R 				
Min Granni										1		10	
Min. Green: Y+R:	4.0	10 4.0	4.0		10 4.0	4.0		10 4.0	4.0		10 4.0	10 4.0	
1+K•													
Volume Modul				1									
Base Vol:	167	279	40	217	381	195	343	975	115	110	1256	105	
Growth Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Initial Bse:	167	279	40	217	381	195	343	975	115		1256	105	
Added Vol:	0	0	0	5	0	0	0	9	0	0	23	13	
PasserByVol:	_	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:			40	222	381	195	343	984	115		1279	118	
User Adj:		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:	167	279	40	222	381	195	343	984	115	110	1279	118	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	167	279	40	222	381	195	343	984	115	110	1279	118	
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:	167	279	40	222	381	195	343	984	115	110	1279	118	
Saturation F	low M	odule:											
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		0.99	0.95		0.99	0.95	
Lanes:		2.00	1.00		2.00	1.00		2.67	0.33		2.74	0.26	
Final Sat.:		3800	1750		3800	1750		5013	586		5126	473	
	1												
Capacity Ana	_												
Vol/Sat:		0.07	0.02	0.13	0.10	0.11		0.20	0.20	0.06	0.25	0.25	
Crit Moves:	****					****	****				***		
Green Time:		22.5	22.5		33.1	33.1		80.7	80.7		74.2	74.2	
Volume/Cap:		0.59	0.18		0.54	0.61		0.44	0.44		0.61	0.61	
Delay/Veh:		76.2	70.9		67.5	70.7		34.2	34.2		41.9	41.9	
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00	
AdjDel/Veh:		76.2	70.9		67.5	70.7		34.2	34.2		41.9	41.9	
LOS by Move:		E	E	E	E	E	E	C	C	E	D	D	
HCM2kAvgQ:	10		2 +ho.n	12	10	11	10		13	6	20	20	
Note: Queue	repor	tea IS	the n	uilber	or ca	ıs per	тапе	•					

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cumul + Prj PM



Approach:	No	rth Bo	und	South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L ·	- T	- R	L	- T	- R	L	- T	- R
Min. Green:	. 7	10	10	. 7	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	ė:			•		·				•		,
Base Vol:	175	319	40	188	293	296	375	1303	111	119	1211	130
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:	175	319	40	188	293	296	375	1303	111	119	1211	130
Added Vol:	0	0	0	12	0	0	0	22	0	0	16	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	175	319	40	200	293	296	375	1325	111	119	1227	138
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:	175	319	40	200	293	296	375	1325	111	119	1227	138
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	175	319	40	200	293	296	375	1325	111	119	1227	138
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:	175	319	40	200	293	296	375	1325	111	119	1227	138
Saturation F	low M	odule:										
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	0.83	0.99	0.95	0.92	0.99	0.95
Lanes:		2.00	1.00	1.00	2.00	1.00		2.76	0.24		2.69	0.31
Final Sat.:		3800	1750		3800	1750	3150	5167	433	1750	5033	566
Capacity Ana	_											
Vol/Sat:		0.08	0.02	0.11	0.08	0.17		0.26	0.26	0.07	0.24	0.24
Crit Moves:	****					****	****				****	
Green Time:		29.9	29.9		44.4	44.4		75.3	75.3		64.0	64.0
Volume/Cap:		0.50	0.14		0.31	0.68		0.61	0.61		0.68	0.68
Delay/Veh:		67.8	63.2		54.5	64.6		40.3	40.3		49.2	49.2
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:	78.9	67.8	63.2	60.7	54.5	64.6	72.0	40.3	40.3	80.6	49.2	49.2
LOS by Move:	E	E	E	E	D	E	E	D	D	F	D	D
HCM2kAvgQ:	11	8	2	10	6	16	11	20	20	7	21	21
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane	•				

Appendix C

Volume Summary

Intersection Number: Traffix Node Number: Intersection Name: El Monte Ave and El Camino Real Peak Hour: 04/18/23 AMDate of Analysis: Count Date: 11/16/22 Annual Growth Rate 2% Number of Years Movements Southbound Approach Westbound Approach Northbound Approach Eastbound Approach TH LT RT TH LT RT TH LT ΤH Total Scenario Existing Conditions 1100 445 Approved Project Trips 855 - 1023 West El Camino Real (MV) 590 Castro Street (MV) 1313 and 1347 West El Camino Real (MV) Total Approved Trips Background Conditions Proposed Project Trips Background + Project Conditions Cumulative Growth Cumulative No Project Conditions 1236 502 Cumualtive + Project Conditions Intersection Number: Traffix Node Number: Intersection Name: Shoreline Blvd and El Camino Real 04/18/23 Peak Hour: Date of Analysis: ΑM Count Date: 11/16/22 Annual Growth Rate 2% Number of Years Movements Southbound Approach Westbound Approach Northbound Approach Eastbound Approach TH LT RT TH LT RT TH LT TH LT Total Scenario Existing Conditions 175 345 93 1132 Approved Project Trips 855 - 1023 West El Camino Real (MV) 590 Castro Street (MV) 1313 and 1347 West El Camino Real (MV) Total Approved Trips Background Conditions Proposed Project Trips Background + Project Conditions Cumulative Growth Cumulative No Project Conditions 195 381 217 105 1256 110 Cumualtive + Project Conditions 195 381 118 1279 110 Intersection Number: Traffix Node Number: Intersection Name: Castro St and El Camino Real Peak Hour: AMDate of Analysis: 04/18/23 Count Date: 11/16/22 Annual Growth Rate Number of Years Movements Southbound Approach Westbound Approach Northbound Approach Eastbound Approach RT TH RT TH TH Scenario LT ΤH LT RT LT Total **Existing Conditions** 1175 141 Approved Project Trips 855 - 1023 West El Camino Real (MV) 590 Castro Street (MV) 1313 and 1347 West El Camino Real (MV) Total Approved Trips Background Conditions Proposed Project Trips Background + Project Conditions 213 1184 164 Cumulative Growth Cumulative No Project Conditions Cumualtive + Project Conditions 1306 179

Intersection Number: Traffix Node Number: Intersection Name: Calderon Ave and El Camino Real Peak Hour: 04/18/23 AMDate of Analysis: Count Date: 11/16/22 Annual Growth Rate 2% Number of Years Movements Southbound Approach Westbound Approach Northbound Approach Eastbound Approach TH LT RT TH LT RT TH LT ΤH Total Scenario Existing Conditions Approved Project Trips 855 - 1023 West El Camino Real (MV) 590 Castro Street (MV) 1313 and 1347 West El Camino Real (MV) Total Approved Trips Background Conditions Proposed Project Trips Background + Project Conditions Cumulative Growth Cumulative No Project Conditions 1575 172 Cumualtive + Project Conditions Intersection Number: Traffix Node Number: SR 237 and El Camino Real Intersection Name: 04/18/23 Peak Hour: Date of Analysis: ΑM Count Date: 11/16/22 Annual Growth Rate 2% Number of Years Movements Eastbound Approach Southbound Approach Westbound Approach Northbound Approach TH LT RT TH LT RT TH LT RT TH LT Total Scenario Existing Conditions 669 795 810 313 306 1022 Approved Project Trips 855 - 1023 West El Camino Real (MV) 590 Castro Street (MV) 1313 and 1347 West El Camino Real (MV) Total Approved Trips Background Conditions Proposed Project Trips Background + Project Conditions Cumulative Growth 70 Cumulative No Project Conditions 742 878 338 1128 93 1038 714 Cumualtive + Project Conditions 748 878 338 1128 1061 735 Intersection Number: Traffix Node Number: Intersection Name: Castro St and Victor Way Peak Hour: Date of Analysis: 04/18/23 Count Date: 11/16/22 Annual Growth Rate Number of Years Movements Southbound Approach Westbound Approach Northbound Approach Eastbound Approach TH RT TH RT TH Scenario ΤH LT RT LT Total LT **Existing Conditions** Approved Project Trips 855 - 1023 West El Camino Real (MV) 590 Castro Street (MV) 1313 and 1347 West El Camino Real (MV) Total Approved Trips Background Conditions Proposed Project Trips -5 Background + Project Conditions Cumulative Growth Cumulative No Project Conditions Cumualtive + Project Conditions

Intersection Number: Traffix Node Number: Intersection Name: Lane Ave and El Camino Real Peak Hour: AMDate of Analysis: 04/18/23 Count Date: 11/16/22 Annual Growth Rate 2% Number of Years Movements Eastbound Approach Southbound Approach Westbound Approach Northbound Approach Scenario TH LT RT TH LT RT TH LT RT TH Total Existing Conditions Approved Project Trips 855 - 1023 West El Camino Real (MV) 590 Castro Street (MV) 1313 and 1347 West El Camino Real (MV) Total Approved Trips Background Conditions Proposed Project Trips Background + Project Conditions Cumulative Growth Cumulative No Project Conditions Cumualtive + Project Conditions Intersection Number: Traffix Node Number: Intersection Name: Lane Ave and Victor Way Peak Hour: Date of Analysis: 04/18/23 AM Count Date: 11/16/22 Annual Growth Rate 2% Number of Years Movements Southbound Approach Westbound Approach Northbound Approach Eastbound Approach RT RT TH RT TH LT TH LT TH LT LT Total Scenario Existing Conditions Approved Project Trips 855 - 1023 West El Camino Real (MV) 590 Castro Street (MV) 1313 and 1347 West El Camino Real (MV) Total Approved Trips Background Conditions Proposed Project Trips Background + Project Conditions Cumulative Growth Cumulative No Project Conditions

Cumualtive + Project Conditions

Intersection Number: Traffix Node Number: El Monte Ave and El Camino Real Intersection Name: Date of Analysis: 04/18/23 Peak Hour: PMCount Date: 11/16/22 Annual Growth Rate Number of Years Movements Southbound Approach Westbound Approach Northbound Approach Eastbound Approach Scenario TH RT TH LT RT TH LT RT TH LT LT Total Existing Conditions 1099 507 Approved Project Trips 855 - 1023 West El Camino Real (MV) 590 Castro Street (MV) 1313 and 1347 West El Camino Real (MV) Total Approved Trips Background Conditions 1121 515 Proposed Project Trips Passby Trips Background + Project Conditions Cumulative Growth Cumulative No Project Conditions 1235 568 0 1483 Cumualtive + Project Conditions 1247 572 Intersection Number: Traffix Node Number: Intersection Name: Shoreline Blvd and El Camino Real PMDate of Analysis: 04/18/23 Peak Hour: 11/16/22 Count Date: Annual Growth Rate 2% Number of Years Movements Southbound Approach Westbound Approach Northbound Approach Eastbound Approach TH Scenario ΤH ΤH LT RT ΤH LT Total LT 114 1080 104 100 1173 334 Existing Conditions Approved Project Trips 855 - 1023 West El Camino Real (MV) 590 Castro Street (MV) 1313 and 1347 West El Camino Real (MV) Total Approved Trips Background Conditions 101 1181 340 Proposed Project Trips Passby Trips Background + Project Conditions 126 1115 108 101 1203 340 Cumulative Growth 27 Cumulative No Project Conditions 130 1211 119 111 1303 375 Cumualtive + Project Conditions 296 293 138 1227 119 319 175 111 1325 375 Intersection Number: Traffix Node Number: Castro St and El Camino Real Intersection Name: Peak Hour: PMDate of Analysis: 04/18/23 Count Date: 11/16/22 Annual Growth Rate 2% Number of Years Movements Southbound Approach Westbound Approach Scenario TH TH TH RT TH LT RT Total Existing Conditions 134 1211 196 48 1307 102 Approved Project Trips 855 - 1023 West El Camino Real (MV) 590 Castro Street (MV) 1313 and 1347 West El Camino Real (MV) Total Approved Trips Background Conditions 141 1216 207 48 1307 104 Proposed Project Trips Passby Trips -5 Background + Project Conditions 142 1215 252 69 1320 104 Cumulative Growth 53 1443 115 155 1342 227 Cumulative No Project Conditions Cumualtive + Project Conditions 156 1341 272 1456 115

Intersection Number: Traffix Node Number: Calderon Ave and El Camino Real Intersection Name: Date of Analysis: 04/18/23 Peak Hour: PMCount Date: 11/16/22 Annual Growth Rate Number of Years Movements Southbound Approach Westbound Approach Northbound Approach Eastbound Approach TH LT RT TH LT RT TH LT RT TH LT Scenario Total Existing Conditions 102 1346 201 1335 67 Approved Project Trips 855 - 1023 West El Camino Real (MV) 590 Castro Street (MV) 1313 and 1347 West El Camino Real (MV) Total Approved Trips Background Conditions 102 1369 201 1370 67 Proposed Project Trips Passby Trips Background + Project Conditions Cumulative Growth 113 1509 222 Cumulative No Project Conditions 96 1509 74 Cumualtive + Project Conditions 113 1547 222 Intersection Number: Traffix Node Number: Intersection Name: SR 237 and El Camino Real PMDate of Analysis: 04/18/23 Peak Hour: 11/16/22 Count Date: Annual Growth Rate 2% Number of Years Movements Southbound Approach Westbound Approach Northbound Approach Eastbound Approach TH Scenario ΤH ΤH LT RT ΤH LT Total LT 51 1156 595 Existing Conditions Approved Project Trips 855 - 1023 West El Camino Real (MV) 590 Castro Street (MV) 1313 and 1347 West El Camino Real (MV) Total Approved Trips Background Conditions 51 1167 600 Proposed Project Trips Passby Trips Background + Project Conditions 892 356 51 1183 610 Cumulative Growth 59 Cumulative No Project Conditions 56 1287 662 Cumualtive + Project Conditions 647 869 382 921 56 1303 672 Intersection Number: Traffix Node Number: Castro St and Victor Way Intersection Name: Peak Hour: Date of Analysis: 04/18/23 PMCount Date: 11/16/22 Annual Growth Rate 2% Number of Years Movements Southbound Approach Westbound Approach Scenario TH RT TH TH RT TH LT RT Total Existing Conditions Approved Project Trips 855 - 1023 West El Camino Real (MV) 590 Castro Street (MV) 1313 and 1347 West El Camino Real (MV) Total Approved Trips Background Conditions Proposed Project Trips -12 -10 Passby Trips Background + Project Conditions Cumulative Growth Cumulative No Project Conditions Cumualtive + Project Conditions

Intersection Number: Traffix Node Number: Lane Ave and El Camino Real Intersection Name: Date of Analysis: 04/18/23 Peak Hour: PMCount Date: 11/16/22 Annual Growth Rate Number of Years Movements Eastbound Approach Southbound Approach Westbound Approach Northbound Approach Scenario RT TH LT RT TH LT RT TH LT RT TH LT Total Existing Conditions Approved Project Trips 855 - 1023 West El Camino Real (MV) 590 Castro Street (MV) 1313 and 1347 West El Camino Real (MV) Total Approved Trips Background Conditions 34 1504 Proposed Project Trips Passby Trips Background + Project Conditions 86 1512 Cumulative Growth Cumulative No Project Conditions 38 1659 Cumualtive + Project Conditions Intersection Number: Traffix Node Number: Intersection Name: Lane Ave and Victor Way Peak Hour: PMDate of Analysis: 04/18/23 Count Date: 11/16/22 Annual Growth Rate 2% Number of Years Movements Southbound Approach Westbound Approach Northbound Approach Eastbound Approach TH RT TH RT TH TH Total Scenario LT LT LT Existing Conditions Approved Project Trips 855 - 1023 West El Camino Real (MV) 590 Castro Street (MV) 1313 and 1347 West El Camino Real (MV) Total Approved Trips Background Conditions Proposed Project Trips Passby Trips Background + Project Conditions Cumulative Growth 1 1 0 0 2 Cumulative No Project Conditions Cumualtive + Project Conditions 0 0

Appendix D

Signal and Stop Warrant Analyses

TRAFFIC SIGNAL WARRANTS WORKSHEET

	AM PEAK PERIOD	☑ Urban (U)
In built	up area of isolated community of < 10,000 population	
Critical	speed of major street traffic > 50 mph (64 km/h)	☐ ☑ } Rural (R)
		*Posted Speed.
Minor Street:	Victor Way	Critical Approach Speed* (mph) 25
Major Street:	Castro St	Critical Approach Speed* (mph) 25
		Analyst: <u>JL</u> date: <u>4/17/23</u>

Warrant 3 - Peak Hour

The need for a traffic control signal should be considered if an engineering study finds that the criteria in either of the following two categories (Parts A and B) are met:

PART A

(All parts 1, 2, and 3 below must be satisfied)

	AM PEAK PERIOD								
	Existing	Background	Bkgd+Project	Cumulative	Cum+Project				
Minor Street Approach Direction w/ Highest Delay		WB	WB	WB	WB				
Highest Minor Street Average Delay (sec/veh)		15.6	17.3	17.1	19.1				
Corresponding Minor Street Approach Volume (veh/hr)		19	70	21	72				
Minor Street Total Delay (veh-hrs)	0.1	0.1	0.3	0.1	0.4				
Total Entering Volume (veh/hr)	703	723	793	796	864				
The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; AND	No	No	No	No	No				
 The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; AND 	No	No	No	No	No				
 The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches. 	No	No	No	No	Yes				
Signal Warranted based on Part A?	No	No	No	No	No				

PART B

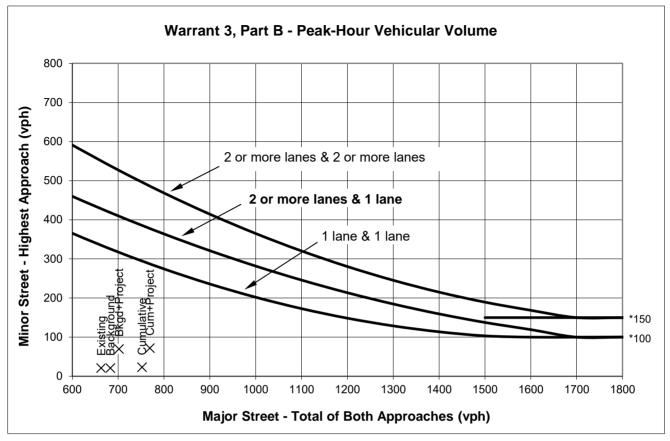
Minor Street - Highest Approach	Victor Way	based on Part B?		No	No	No	No			
Minor Street Highest Approach	Viotor May		21	21	70	23	72			
Major Street - Both Approaches	Castro St	Х	663	683	702	752	769			
		 roach nes 2 or More	Existing	Background	Bkgd+Project	Cumulative	Cum+Project			
			AM PEAK PERIOD							

The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

Source: California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2009 Edition, as amended for use in California).

File: 6 Castro & Victor Signal Warrant Tab: Signal Warrants 3 (AM)





Source: Figure 4C-3 California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2009 Edition, as amended for use in California).

Warrant 3, Part B - Peak-Hour Vehicular Volume

					AM PE	AK PE	RIOD		
		roach nes 2 or More	Existing	Background	Bkgd+Project	Cumulative	Cum+Project		
Major Street - Both Approaches Castro St		Х	663	683	702	752	769		
Minor Street - Highest Approach Victor Way	Х		21	21	70	23	72		
Signal Warranted Based on Part B - Peak-Hour Volumes?			No	No	No	No	No		

^{*}Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

File: 6 Castro & Victor Signal Warrant Tab: Warrant 3, Part B-Graph (AM)

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

TRAFFIC SIGNAL WARRANTS WORKSHEET

		Anaiysi.	JL	uale.	4/11/23
Major Street:	Castro St	Critical Approach	Speed*	(mph)	25
Minor Street:	Victor Way	Critical Approach			
			,	Posted	Speed.
	speed of major street traffic > 50 mph (64 km/h)up area of isolated community of < 10,000 population	or Rural (R)			
	7 32	✓ Urban (U)			
	PM PEAK HOUR				

Warrant 3 - Peak Hour

The need for a traffic control signal should be considered if an engineering study finds that the criteria in either of the following two categories (Parts A and B) are met:

PART A

(All parts 1, 2, and 3 below must be satisfied)

	PM PEAK HOUR									
	Existing	Background	Bkgd+Project	Cumulative	Cum+Project					
Minor Street Approach Direction w/ Highest Delay		WB	WB	WB	WB					
Highest Minor Street Average Delay (sec/veh)	12.4	13.0	14.7	13.8	15.7					
Corresponding Minor Street Approach Volume (veh/hr)	25	25	100	27	102					
Minor Street Total Delay (veh-hrs)		0.1	0.4	0.1	0.4					
Total Entering Volume (veh/hr)	550	584	692	641	746					
The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; AND	No	No	No	No	No					
 The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; AND 	No	No	Yes	No	Yes					
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches.	No	No	No	No	No					
Signal Warranted based on Part A?	No	No	No	No	No					

PART B

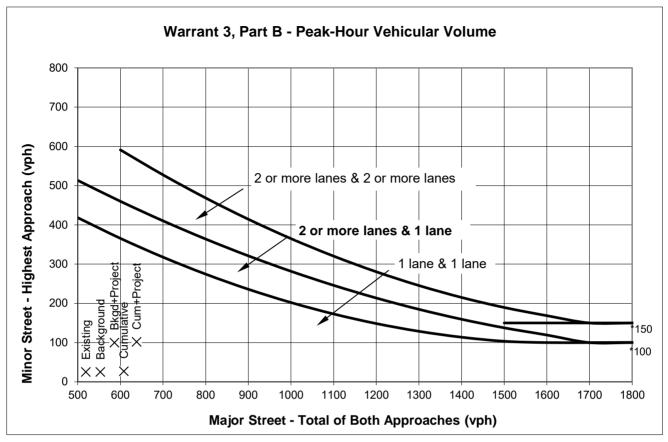
				PM PEAK HOUR							
			oach nes 2 or More	Existing	ackground	Bkgd+Project	Cumulative	Cum+Project			
		TI One	IVIOIC	ш	В	ш					
Major Street - Both Approaches	Castro St		Х	519	553	586	608	638			
Minor Street - Highest Approach	Victor Way	Х		25	25	100	27	102			
	Signal Warranted based on Part B?			No	No	No	No	No			

The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

Source: California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2009 Edition, as amended for use in California).

File: 6 Castro & Victor Signal Warrant Tab: Signal Warrants 3 (PM) C





Source: Figure 4C-3 California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2009 Edition, as amended for use in California).

Warrant 3, Part B - Peak-Hour Vehicular Volume

					PM P	EAK F	HOUR		
	Approach Lanes 2 or One More		Existing	Background	Bkgd+Project	Cumulative	Cum+Project		
Major Street - Both Approaches Castro St		Х	519	553	586	608	638		
Minor Street - Highest Approach Victor Way	х		25	25	100	27	102		
Signal Warranted Based on Part B - Peak-Hour Volumes?				No	No	No	No		

^{*}Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

File: 6 Castro & Victor Signal Warrant Tab: Warrant 3, Part B-Graph (PM)

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

TRAFFIC SIGNAL WARRANTS WORKSHEET

		Analyst:	JL	date: 4/17/23	
Major Street:	El Camino Real	Critical Approach	Speed*	(mph) 35	
Minor Street:	Lane Ave	Critical Approach			
			*	Posted Speed.	
Critical	speed of major street traffic > 50 mph (64 km/h)	or Rural (R)			
In built	up area of isolated community of < 10,000 population				
		✓ Urban (U)			
	AM PEAK PERIOD				

Warrant 3 - Peak Hour

The need for a traffic control signal should be considered if an engineering study finds that the criteria in either of the following two categories (Parts A and B) are met:

PART A

(All parts 1, 2, and 3 below must be satisfied)

	AM PEAK PERIOD									
	Existing	Background	Bkgd+Project	Cumulative	Cum+Project					
Minor Street Approach Direction w/ Highest Delay		NB	NB	NB	NB					
Highest Minor Street Average Delay (sec/veh)	13.0	13.1	14.3	14.0	15.5					
Corresponding Minor Street Approach Volume (veh/hr)	71	71	121	78	128					
Minor Street Total Delay (veh-hrs)	0.3	0.3	0.5	0.3	0.6					
Total Entering Volume (veh/hr)	3030	3047	3145	3362	3460					
The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; AND	No	No	No	No	No					
 The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; AND 	No	No	Yes	No	Yes					
 The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches. 	Yes	Yes	Yes	Yes	Yes					
Signal Warranted based on Part A?	No	No	No	No	No					

PART B

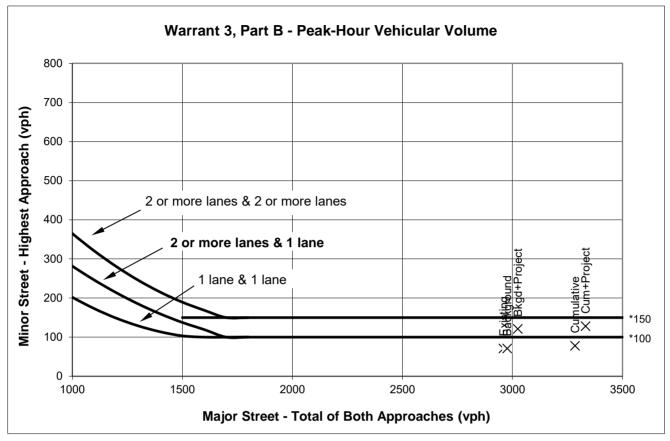
				AM PEAK PERIOD							
			oach nes 2 or More	Existing	Background	Bkgd+Project	Sumulative	Cum+Project			
Major Street - Both Approaches	El Camino Real		Х	2959	2976	3024	3284	3332			
Minor Street - Highest Approach	Lane Ave	Х		71	71	121	78	128			
	Signal Warranted based on Part B?			No	No	Yes	No	Yes			

The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

Source: California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2009 Edition, as amended for use in California).

File: 7 Lane & ECR Signal Warrant Tab: Signal Warrants 3 (AM) El Camino Real & Lane Ave

AM PEAK PERIOD



Source: Figure 4C-3 California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2009 Edition, as amended for use in California).

Warrant 3, Part B - Peak-Hour Vehicular Volume

						AM PE	AK PE	ERIOD		
			oach nes 2 or More	Existing	Background	Bkgd+Project	Cumulative	Cum+Project		
Major Street - Both Approaches	El Camino Real		х	2959	2976	3024	3284	3332		
Minor Street - Highest Approach	Lane Ave	Х		71	71	121	78	128		
Signal Warranted Based on Part B - Peak-Hour Volumes?				No	No	Yes	No	Yes		

^{*}Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

File: 7 Lane & ECR Signal Warrant Tab: Warrant 3, Part B-Graph (AM)

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

date: 4/17/23

Analyst: JL

Critical Approach Speed* (mph)

0

Major Street: El Camino Real

TRAFFIC SIGNAL WARRANTS WORKSHEET

Minor Street:	Lane Ave		С	ritical A	proach	Speed	* (mph)	25	_
							*Posted	Speed.	
Critical s	speed of major street traffic > 50 mph (64 km/h)		\bigcup_{or}	Rural (F	٥١				
In built u	ip area of isolated community of < 10,000 population		Ŭ ∫	Kurai (i	V)				
	,		7	Urban (U)				
	PM PEAK HO	UR		•	•				
	ak Hour traffic control signal should be considered if an eng categories (Parts A and B) are met:	ineerin	g study	finds t	hat the	criteria	a in eith	ner of th	ne
PART A (All parts 1, 2, a	and 3 below must be satisfied)								
			1	1	PM PEA	K HOUF	₹		
		Existing	Background	Bkgd+Project	Cumulative	Cum+Project			
	Minor Street Approach Direction w/ Highest Delay	NB	NB	NB	NB	NB			
	Highest Minor Street Average Delay (sec/veh)	•	13.5	14.6	14.6	15.9			
	Corresponding Minor Street Approach Volume (veh/hr)	85	85	110	94	119			
	Minor Street Total Delay (veh-hrs)	0.3	0.3	0.4	0.4	0.5			
	Total Entering Volume (veh/hr)	3068	3100	3230	3420	3550			
1. The tota	I delay experienced for traffic on one minor street approach	No	No	No	No	No		-	

controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; <u>AND</u>

2. The volume on the same minor street approach equals or exceeds

100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes;

3. The total entering volume serviced during the hour equals or exceeds

800 vph for intersections with 4 or more approaches or 650 vph for

intersections with 3 approaches.

PART B

				PM PEAK HOUR							
		1. 1	roach nes 2 or More	Existing	Background	Bkgd+Project	Cumulative	Cum+Project			
Major Street - Both Approaches	El Camino Real		Х	2983	3015	3120	3326	3431			
Minor Street - Highest Approach	Lane Ave	Х		85	85	110	94	119			
	Signal Warranted b	ased on	Part B?	No	No	Yes	No	Yes			

Signal Warranted based on Part A?

No

Yes

No

No

Yes

No

Yes

Yes

No

No

Yes

No

Yes

Yes

No

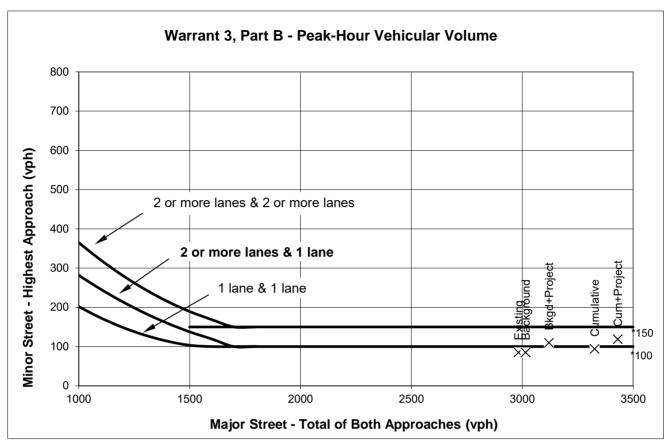
The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

Source: California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2009 Edition, as amended for use in California).

File: 7 Lane & ECR Signal Warrant Tab: Signal Warrants 3 (PM)

El Camino Real & Lane Ave

PM PEAK HOUR



Source: Figure 4C-3 California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2009 Edition, as amended for use in California).

Warrant 3, Part B - Peak-Hour Vehicular Volume

						PM P	EAK F	IOUR		
			oach nes 2 or More	Existing	Background	Bkgd+Project	Cumulative	Cum+Project		
Major Street - Both Approaches	El Camino Real		Х	2983	3015	3120	3326	3431		
Minor Street - Highest Approach	Lane Ave	х		85	85	110	94	119		
Signal Warranted Based on	Signal Warranted Based on Part B - Peak-Hour Volumes?					Yes	No	Yes		

^{*}Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

File: 7 Lane & ECR Signal Warrant Tab: Warrant 3, Part B-Graph (PM)

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

TRAFFIC SIGNAL WARRANTS WORKSHEET

		Anaiyst:	JL	date: 4/17/23	
Major Street:	Victor Way	Critical Approach	Speed*	(mph) 25	
Minor Street:	Lane Ave	Critical Approach	Speed*	(mph) 25	
			:	*Posted Speed.	
Critical	speed of major street traffic > 50 mph (64 km/h)	or Rural (R)			
In built	up area of isolated community of < 10,000 population				
		✓ Urban (U)			
	AM PEAK PERIOD				
		·		•	

Warrant 3 - Peak Hour

The need for a traffic control signal should be considered if an engineering study finds that the criteria in either of the following two categories (Parts A and B) are met:

PART A

(All parts 1, 2, and 3 below must be satisfied)

			Α	M PEAK	(PERIO	D	
	Existing	Background	Bkgd+Project	Cumulative	Cum+Project		
Minor Street Approach Direction w/ Highest Delay		EB	EB	EB	EB		
Highest Minor Street Average Delay (sec/veh)	9.4	9.4	9.5	9.5	9.7		
Corresponding Minor Street Approach Volume (veh/hr)		17	21	19	23		
Minor Street Total Delay (veh-hrs)	0.0	0.0	0.1	0.1	0.1		
Total Entering Volume (veh/hr)	186	186	222	205	241		
The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; AND	No	No	No	No	No		
 The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; AND 	No	No	No	No	No		
 The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches. 	No	No	No	No	No		
Signal Warranted based on Part A?	No	No	No	No	No		

PART B

				AM PEAK PERIOD							
			roach nes 2 or More	Existing	Background	Bkgd+Project	Cumulative	Cum+Project			
Major Street - Both Approaches	Victor Way	X	l l	169	169	201	186	218			
Minor Street - Highest Approach	Lane Ave	X		17	17	21	19	23			
Signal Warranted based on Part B?				No	No	No	No	No			1

The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

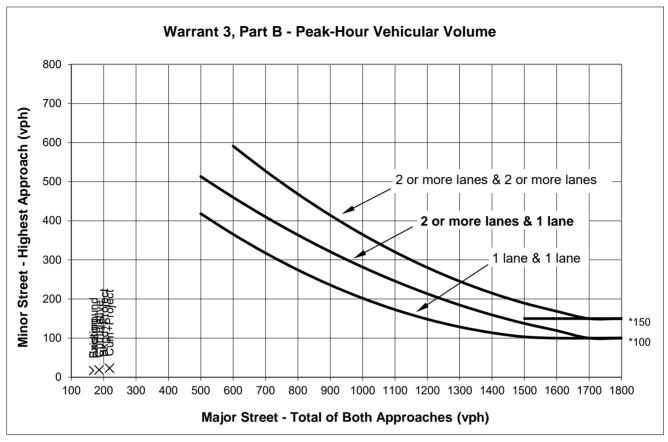
Source: California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2009 Edition, as amended for use in California).

File: 8 Lane & Victor Signal Warrant Tab: Signal Warrants 3 (AM)

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Victor Way & Lane Ave

AM PEAK PERIOD



Source: Figure 4C-3 California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2009 Edition, as amended for use in California).

Warrant 3, Part B - Peak-Hour Vehicular Volume

					AM PE	AK PE	ERIOD		
		roach nes 2 or More	Existing	Background	Bkgd+Project	Cumulative	Cum+Project		
Major Street - Both Approaches Victor Way	×		169	169	201	186	218		
Minor Street - Highest Approach Lane Ave	Х		17	17	21	19	23		
Signal Warranted Based on Part B - Peak-Ho	ur Volu	mes?	No	No	No	No	No		

^{*}Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

File: 8 Lane & Victor Signal Warrant Tab: Warrant 3, Part B-Graph (AM)

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

TRAFFIC SIGNAL WARRANTS WORKSHEET

		Analyst: JL date: 4/17/23	
Major Street:	Victor Way	Critical Approach Speed* (mph) 25	
Minor Street:	Lane Ave	Critical Approach Speed* (mph) 25	
		*Posted Speed.	
	speed of major street traffic > 50 mph (64 km/h)up area of isolated community of < 10,000 population	or Rural (R)	
III Dulit	up area or isolated community of < 10,000 population	☑ Urban (U)	
	PM PEAK HOUR	* *	
	_		

Warrant 3 - Peak Hour

The need for a traffic control signal should be considered if an engineering study finds that the criteria in either of the following two categories (Parts A and B) are met:

PART A

(All parts 1, 2, and 3 below must be satisfied)

	PM PEAK HOUR							
	Existing	Background	Bkgd+Project	Cumulative	Cum+Project			
Minor Street Approach Direction w/ Highest Delay	EB	EB	EB	EB	EB			
Highest Minor Street Average Delay (sec/veh)		8.8	8.9	8.8	8.9			
Corresponding Minor Street Approach Volume (veh/hr)	22	22	34	24	36			
Minor Street Total Delay (veh-hrs)	0.1	0.1	0.1	0.1	0.1			
Total Entering Volume (veh/hr)	67	67	95	73	101			
The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; AND	No	No	No	No	No			
 The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; AND 	No	No	No	No	No			
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches.	No	No	No	No	No			
Signal Warranted based on Part A?	No	No	No	No	No			

PART B

				PM PEAK HOUR							
			oach nes 2 or More	Existing	Background	Bkgd+Project	Cumulative	Cum+Project			
Major Street - Both Approaches	Victor Way	Х		45	45	61	49	65			
Minor Street - Highest Approach	Lane Ave	Х		22	22	34	24	36			
	Signal Warranted based on Part B?				No	No	No	No			

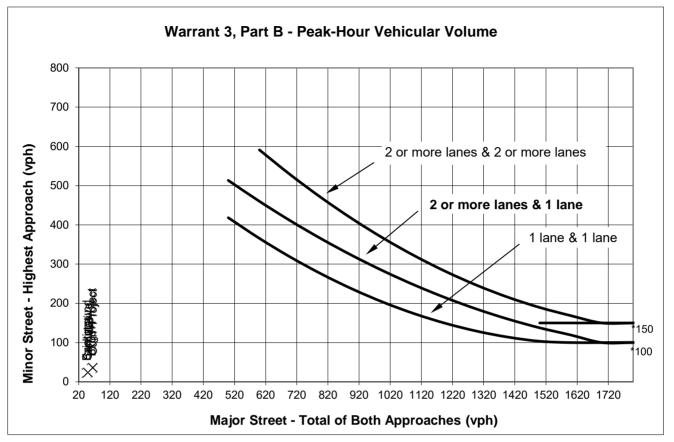
The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

Source: California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2009 Edition, as amended for use in California).

File: 8 Lane & Victor Signal Warrant Tab: Signal Warrants 3 (PM)

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Source: Figure 4C-3 California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2009 Edition, as amended for use in California).

Warrant 3, Part B - Peak-Hour Vehicular Volume

			PM PEAK HOUR						
	Approach Lanes 2 o One Mor	Existing	Background	Bkgd+Project	Cumulative	Cum+Project			
Major Street - Both Approaches Victor Way	×	45	45	61	49	65			
Minor Street - Highest Approach Lane Ave	х	22	22	34	24	36			
Signal Warranted Based on Part B - Peak-H	Signal Warranted Based on Part B - Peak-Hour Volumes								

^{*}Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

File: 8 Lane & Victor Signal Warrant Tab: Warrant 3, Part B-Graph (PM)

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

FOR

LANE AVENUE AND VICTOR WAY (Existing Condition)

I. VOLUME WARRANT

Min. **300 vph** on ALL APPROACHES for *highest 8 hrs* AND min. **100 vph** on MINOR STREET for the *same 8 hrs*. OR

Min. **300 vph** on ALL APPROACHES for *highest 8 hrs* AND min. **100 pedestrians per hour** at the intersection for the *same 8 hrs*.

*If intersection is located in residential area, then decrease above volumes by 40%

				, .			J	
Time [hr]	7	8	13	14	15	16	17	18
Major Street	65	132	41	47	103	45	36	28
Minor Street	16	16	17	22	18	22	21	29
Total	81	148	58	69	121	67	57	57
Meet Warrant?	No	No	No	No	No	No	No	No
Pedestrian Counts ¹	13	17	N/A	N/A	N/A	12	8	2
Meet Ped. Warrant?	No	No	No	No	No	No	No	No

^{1.} Pedestrian flows for the intersection are fewer than 100 pedestrians per hour during the peak hours. Thus, pedestrian flows are expected to be fewer than 100 pedestrians per hour during remaining off-peak hours for the highest 8 hours.

WARRANT MET? No. The total approach volumes for the highest 8 hours are less than 300 vph, and the minor street approach volumes and total intersection pedestrian volumes are fewer than 100 units per hour. (The intersection does not qualify as a residential area.)

II. ACCIDENT WARRANT:

3 or more reported accidents in *last one* (1) *year*

Number of actual correctable accidents in the last year: 0 (1/01/2022 - 12/31/2022)

WARRANT MET? No

III. LINE OF SIGHT WARRANT:

150 feet or less on one or more approaches of the MAJOR STREET

Actual field conditions: On-street parking is permitted on Lane Avenue and Victor Way. Vehicles legally parked on the street do not restrict the line-of-sight distance for approaching vehicles on Victor Way. Vehicles on Victor Way would have at least 150 feet looking both ways on Lane Avenue.

- Both streets have residential frontage and have a 25-mph speed limit.
- Neither street is an adopted through street as defined in the CVC.
- Neither street has more than one travel lane in each direction.
- No existing stop sign or traffic signal within 500' along the major street. <u>A stop sign exists along Lane Street, 325 feet north of the intersection at El Camino Real.</u>
- The installation of a 4-way stop sign is compatible with overall traffic circulation.

CONCLUSION: The intersection does not meet any warrant.

FOR

LANE AVENUE AND VICTOR WAY (Background Condition)

I. VOLUME WARRANT

Min. **300 vph** on ALL APPROACHES for *highest 8 hrs* AND min. **100 vph** on MINOR STREET for the *same 8 hrs*. OR

Min. **300 vph** on ALL APPROACHES for *highest 8 hrs* AND min. **100 pedestrians per hour** at the intersection for the *same 8 hrs*.

*If intersection is located in residential area, then decrease above volumes by 40%

Time [hr]	7	8	13	14	15	16	17	18
Major Street	65	132	41	47	103	45	36	28
Minor Street	16	16	17	22	18	22	21	29
Total	81	148	58	69	121	67	57	57
Meet Warrant?	No	No	No	No	No	No	No	No
Pedestrian Counts ¹	13	17	N/A	N/A	N/A	12	8	2
Meet Ped. Warrant?	No	No	No	No	No	No	No	No

^{1.} Pedestrian flows for the intersection are fewer than 100 pedestrians per hour during the peak hours. Thus, pedestrian flows are expected to be fewer than 100 pedestrians per hour during remaining off-peak hours for the highest 8 hours.

WARRANT MET? No. The total approach volumes for the highest 8 hours are less than 300 vph, and the minor street approach volumes and total intersection pedestrian volumes are fewer than 100 units per hour. (The intersection does not qualify as a residential area.)

II. ACCIDENT WARRANT:

3 or more reported accidents in *last one* (1) *year*

Number of actual correctable accidents in the last year: 0 (1/01/2022 - 12/31/2022)

WARRANT MET? No

III. LINE OF SIGHT WARRANT:

150 feet or less on one or more approaches of the MAJOR STREET

Actual field conditions: On-street parking is permitted on Lane Avenue and Victor Way. Vehicles legally parked on the street do not restrict the line-of-sight distance for approaching vehicles on Victor Way. Vehicles on Victor Way would have at least 150 feet looking both ways on Lane Avenue.

- Both streets have residential frontage and have a 25-mph speed limit.
- Neither street is an adopted through street as defined in the CVC.
- Neither street has more than one travel lane in each direction.
- No existing stop sign or traffic signal within 500' along the major street. <u>A stop sign exists along Lane Street, 325 feet north of the intersection at El Camino Real.</u>
- The installation of a 4-way stop sign is compatible with overall traffic circulation.

CONCLUSION: The intersection does not meet any warrant.

FOR

LANE AVENUE AND VICTOR WAY (Background+Project Condition)

I. VOLUME WARRANT

Min. **300 vph** on ALL APPROACHES for *highest 8 hrs* AND min. **100 vph** on MINOR STREET for the *same 8 hrs*. OR

Min. **300 vph** on ALL APPROACHES for *highest 8 hrs* AND min. **100 pedestrians per hour** at the intersection for the *same 8 hrs*.

*If intersection is located in residential area, then decrease above volumes by 40%

Time [hr]	7	8	13	14	15	16	17	18
Major Street	86	164	51	57	113	61	46	37
Minor Street	21	20	23	30	24	29	29	41
Total	107	184	74	87	137	90	75	78
Meet Warrant?	No	No	No	No	No	No	No	No
Pedestrian Counts ¹	13	17	N/A	N/A	N/A	12	8	2
Meet Ped. Warrant?	No	No	No	No	No	No	No	No

^{1.} Pedestrian flows for the intersection are fewer than 100 pedestrians per hour during the peak hours. Thus, pedestrian flows are expected to be fewer than 100 pedestrians per hour during remaining off-peak hours for the highest 8 hours.

WARRANT MET? No. The total approach volumes for the highest 8 hours are less than 300 vph except for two hours, and the minor street approach volumes and total intersection pedestrian volumes are fewer than 100 units per hour. (The intersection does not qualify as a residential area.)

II. ACCIDENT WARRANT:

3 or more reported accidents in *last one* (1) *year*

Number of actual correctable accidents in the last year: 0 (1/01/2022 - 12/31/2022)

WARRANT MET? No

III. LINE OF SIGHT WARRANT:

150 feet or less on one or more approaches of the MAJOR STREET

Actual field conditions: On-street parking is permitted on Lane Avenue and Victor Way. Vehicles legally parked on the street do not restrict the line-of-sight distance for approaching vehicles on Victor Way. Vehicles on Victor Way would have at least 150 feet looking both ways on Lane Avenue.

- Both streets have residential frontage and have a 25-mph speed limit.
- Neither street is an adopted through street as defined in the CVC.
- Neither street has more than one travel lane in each direction.
- No existing stop sign or traffic signal within 500' along the major street. <u>A stop sign exists along Lane Street, 325 feet north of the intersection at El Camino Real.</u>
- The installation of a 4-way stop sign is compatible with overall traffic circulation.

CONCLUSION: The intersection does not meet any warrant.

FOR

LANE AVENUE AND VICTOR WAY (Cumulative Condition)

I. VOLUME WARRANT

Min. **300 vph** on ALL APPROACHES for *highest 8 hrs* AND min. **100 vph** on MINOR STREET for the *same 8 hrs*. OR

Min. **300 vph** on ALL APPROACHES for *highest 8 hrs* AND min. **100 pedestrians per hour** at the intersection for the *same 8 hrs*.

*If intersection is located in residential area, then decrease above volumes by 40%

Time [hr]	7	8	1113	14	15	16	17	18
Major Street	72	145	45	52	114	49	39	31
Minor Street	18	18	19	24	20	24	23	32
Total	90	163	64	76	134	73	62	63
Meet Warrant?	No	No	No	No	No	No	No	No
Pedestrian Counts ¹	13	17	N/A	N/A	N/A	12	8	2
Meet Ped. Warrant?	No	No	No	No	No	No	No	No

^{1.} Pedestrian flows for the intersection are fewer than 100 pedestrians per hour during the peak hours. Thus, pedestrian flows are expected to be fewer than 100 pedestrians per hour during remaining off-peak hours for the highest 8 hours.

WARRANT MET? No. The total approach volumes for the highest 8 hours are less than 300 vph, and the minor street approach volumes and total intersection pedestrian volumes are fewer than 100 units per hour. (The intersection does not qualify as a residential area.)

II. ACCIDENT WARRANT:

3 or more reported accidents in *last one* (1) *year*

Number of actual correctable accidents in the last year: 0 (1/01/2022 - 12/31/2022)

WARRANT MET? No

III. LINE OF SIGHT WARRANT:

150 feet or less on one or more approaches of the MAJOR STREET

Actual field conditions: On-street parking is permitted on Lane Avenue and Victor Way. Vehicles legally parked on the street do not restrict the line-of-sight distance for approaching vehicles on Victor Way. Vehicles on Victor Way would have at least 150 feet looking both ways on Lane Avenue.

- Both streets have residential frontage and have a 25-mph speed limit.
- Neither street is an adopted through street as defined in the CVC.
- Neither street has more than one travel lane in each direction.
- No existing stop sign or traffic signal within 500' along the major street. <u>A stop sign exists along Lane Street, 325 feet north of the intersection at El Camino Real.</u>
- The installation of a 4-way stop sign is compatible with overall traffic circulation.

CONCLUSION: The intersection does not meet any warrant.

FOR

LANE AVENUE AND VICTOR WAY (Cumulative Plus Project Condition)

I. VOLUME WARRANT

Min. **300 vph** on ALL APPROACHES for *highest 8 hrs* AND min. **100 vph** on MINOR STREET for the *same 8 hrs*. OR

Min. **300 vph** on ALL APPROACHES for *highest 8 hrs* AND min. **100 pedestrians per hour** at the intersection for the *same 8 hrs*.

*If intersection is located in residential area, then decrease above volumes by 40%

Time [hr]	7	8	13	14	15	16	17	18
Major Street	93	177	55	62	124	65	49	40
Minor Street	23	22	25	32	26	31	31	44
Total	116	199	80	94	150	96	80	84
Meet Warrant?	No	No	No	No	No	No	No	No
Pedestrian Counts ¹	13	17	N/A	N/A	N/A	12	8	2
Meet Ped. Warrant?	No	No	No	No	No	No	No	No

^{1.} Pedestrian flows for the intersection are fewer than 100 pedestrians per hour during the peak hours. Thus, pedestrian flows are expected to be fewer than 100 pedestrians per hour during remaining off-peak hours for the highest 8 hours.

WARRANT MET? No. The total approach volumes for the highest 8 hours are less than 300 vph, and the minor street approach volumes and total intersection pedestrian volumes are fewer than 100 units per hour. (The intersection does not qualify as a residential area.)

II. ACCIDENT WARRANT:

3 or more reported accidents in *last one* (1) *year*

Number of actual correctable accidents in the last year: 0 (1/01/2022 - 12/31/2022)

WARRANT MET? No

III. LINE OF SIGHT WARRANT:

150 feet or less on one or more approaches of the MAJOR STREET

Actual field conditions: On-street parking is permitted on Lane Avenue and Victor Way. Vehicles legally parked on the street do not restrict the line-of-sight distance for approaching vehicles on Victor Way. Vehicles on Victor Way would have at least 150 feet looking both ways on Lane Avenue.

- Both streets have residential frontage and have a 25-mph speed limit.
- Neither street is an adopted through street as defined in the CVC.
- Neither street has more than one travel lane in each direction.
- No existing stop sign or traffic signal within 500' along the major street. <u>A stop sign exists along Lane Street, 325 feet north of the intersection at El Camino Real.</u>
- The installation of a 4-way stop sign is compatible with overall traffic circulation.

CONCLUSION: The intersection does not meet any warrant.