



HEXAGON TRANSPORTATION CONSULTANTS, INC.

June 17, 2019

Mr. Sean Gallegos
City of Los Altos
1 North San Antonio Road
Los Altos, CA 94022

Subject: Traffic Report for the Proposed Residential Project at 4898 El Camino Real, Los Altos

Dear Mr. Gallegos:

Hexagon Transportation Consultants, Inc. has completed this traffic report for the proposed residential project at 4898 El Camino Real, Los Altos (see Figure 1). The project is proposing a total of 21 residential units to replace the existing building on site that includes a 3,480 s.f. furniture store, 2,606 s.f. of retail space, and 2,310 s.f. of office space.

The purpose of this analysis is to identify any potentially significant traffic impacts at the intersection of El Camino Real and Jordan Avenue and to analyze roadway improvements that may be necessary to support the proposed uses. A trip generation analysis was conducted for the purpose of identifying the change in traffic due to the proposed development of the site. This study also includes an evaluation of site access and on-site circulation. The trip generation estimates and traffic impact analysis were calculated for the weekday AM and PM peak hours of traffic. The AM peak hour of traffic is generally between 7:00 and 9:00 AM, and the PM peak hour is typically between 4:00 and 6:00 PM. It is during these periods that the most congested traffic conditions occur on an average day.

Scope of Study

The impacts of the project were evaluated following the standards and methodologies set forth by the City of Los Altos. The study determined the traffic impacts of the proposed residential development on the intersection of El Camino Real and Jordan Avenue during the weekday AM and PM peak hours of traffic (7:00-9:00 AM and 4:00-6:00 PM). The project driveway would be located on Jordan Avenue.

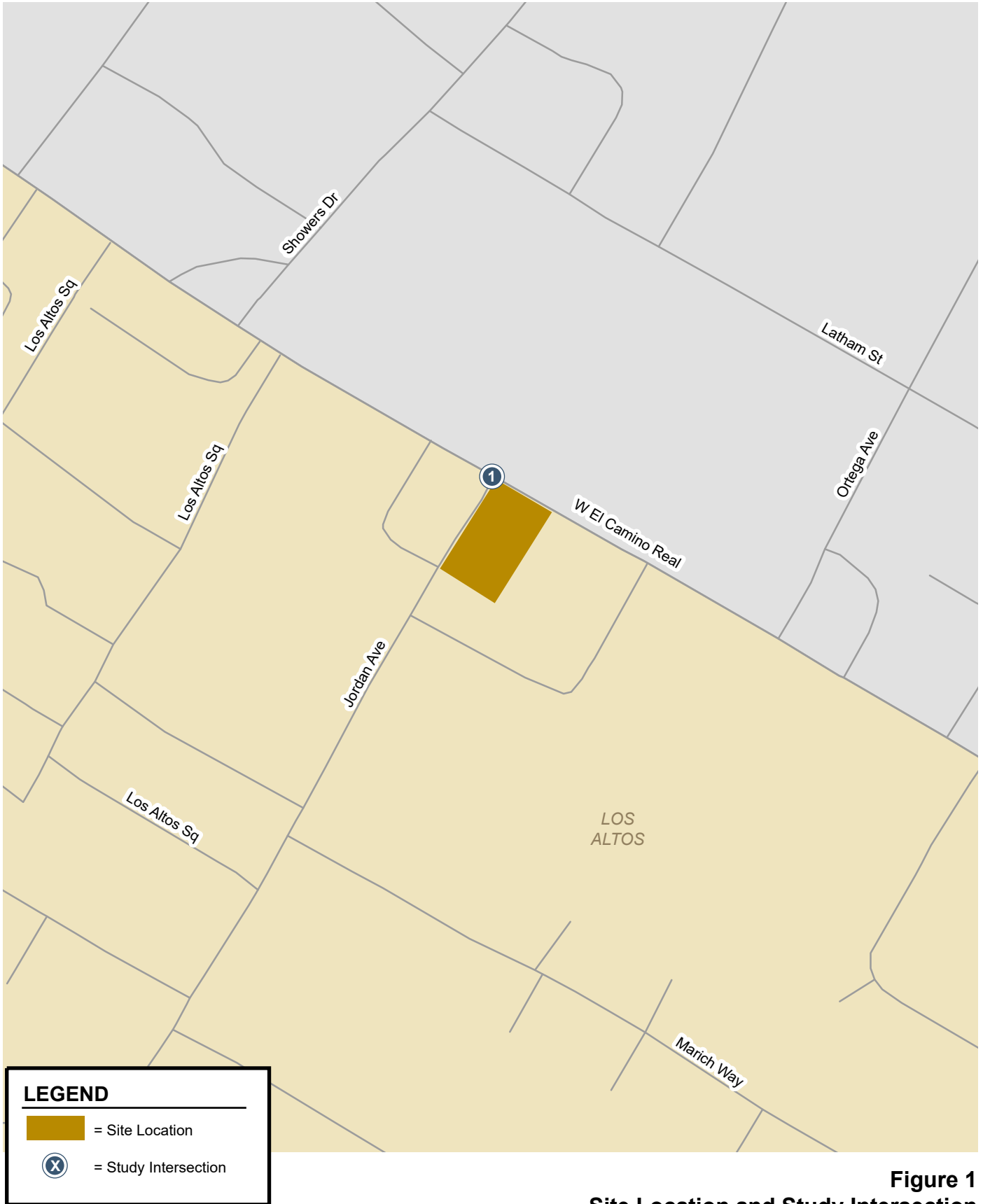


Figure 1
Site Location and Study Intersection

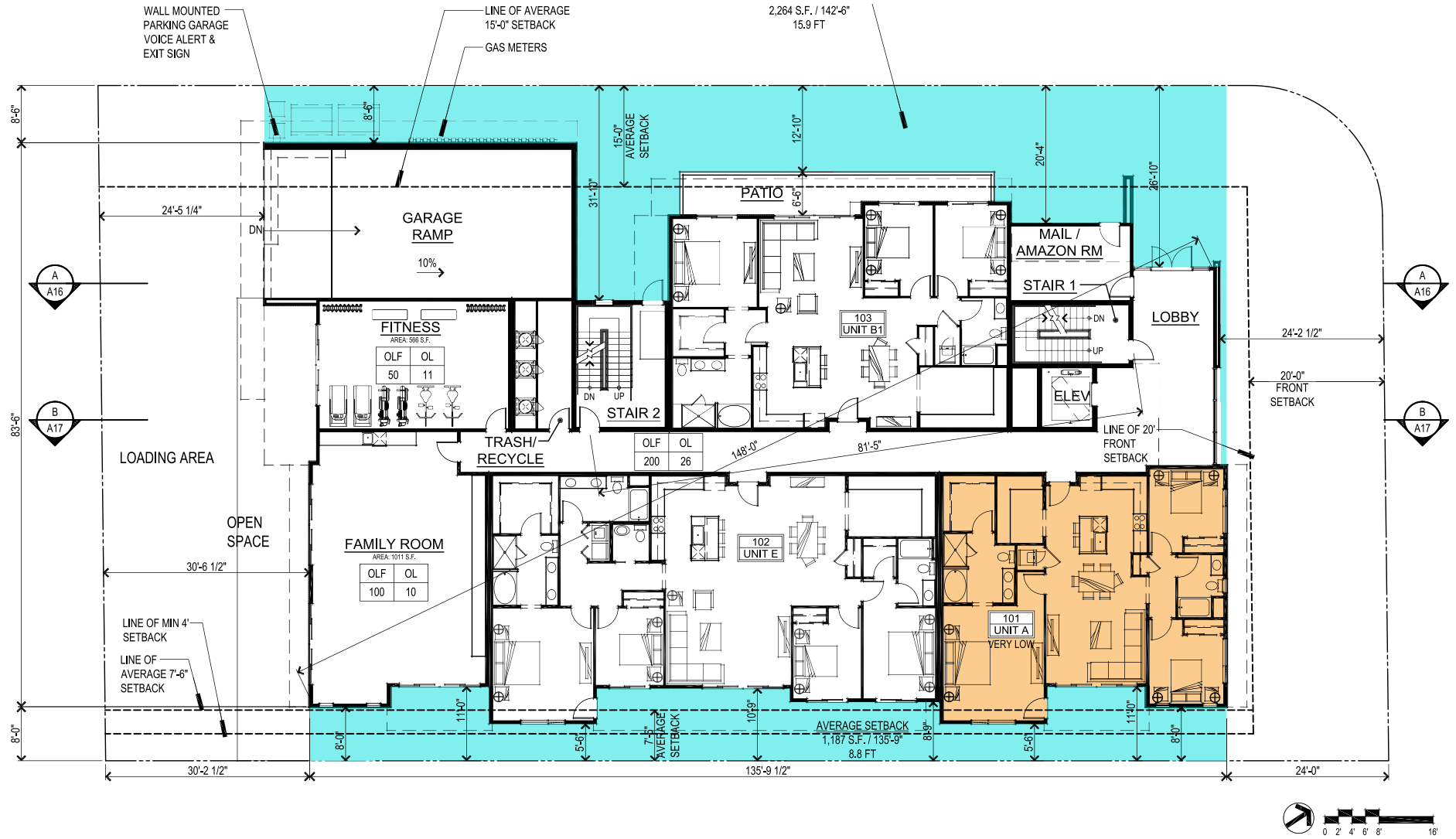


Figure 2
Proposed Site Plan



Traffic conditions at the study intersection were analyzed for the weekday AM (7:00 AM to 9:00 AM) and PM (4:00 PM to 6:00 PM) peak hours of commute traffic, which represent the peak hours of traffic for the roadway network and the peak period of trip generation for the proposed project. Traffic conditions were evaluated for the following scenarios:

- Scenario 1:** *Existing Conditions.* Existing traffic volumes were obtained from traffic counts conducted in May 2019 for this study.
- Scenario 2:** *Existing Plus Project Conditions.* Existing plus project traffic volumes were estimated by adding to existing traffic volumes the trips associated with the proposed development. Existing plus project conditions were evaluated relative to existing conditions in order to determine potential project impacts.
- Scenario 3:** *Near-Term Conditions.* Near-Term traffic volumes were estimated by applying a growth factor (2 percent per year) for two years to existing traffic volumes.
- Scenario 4:** *Near-Term plus Project Conditions.* Near-Term traffic volumes with the project were estimated by adding to near-term traffic volumes the additional traffic generated by the project. Near-term plus project conditions were evaluated relative to near-term conditions in order to determine potential project impacts.

Methodology

This section describes the methods used to determine the traffic conditions for each scenario described above. It includes descriptions of the analysis methodologies and the applicable level of service standards.

Level of Service Standards and Methodology

Traffic conditions at the study intersection were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The analysis methods are described below.

The City of Los Altos evaluates intersection levels of service using the TRAFFIX software, which is based on the Highway Capacity Manual (HCM) 2000 method, for signalized intersections. Since TRAFFIX is the level of service methodology for the CMP-designated intersections, the City of Los Altos employs the CMP default values for the analysis parameters. The HCM method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. This average delay can then be correlated to a level of service. Table 1 presents the current VTA level of service definitions for signalized intersections, which replaced the older standards found in the Los Altos General Plan. The City of Los Altos level of service standard for signalized intersections is LOS D or better.



Table 1
Signalized Intersection Level of Service Definitions Based on Delay

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

Source: Transportation Research Board, *2000 Highway Capacity Manual* (Washington, D.C., 2000) p10-16. VTA Traffic Level of Service Analysis Guidelines (June 2003), Table 2.

Signalized Intersection Impact Criteria

According to City of Los Altos level of service standards, a development is said to create a significant adverse impact on traffic conditions at a signalized intersection if for either peak hour, either of the following conditions occurs:

1. The level of service at the intersection degrades from an acceptable level (LOS D or better for local intersections) under no-project conditions to an unacceptable level (LOS E or F for local intersections) under project conditions, or
2. The level of service at the intersection is an unacceptable level under no-project conditions and the addition of project trips causes the average critical delay to increase by four (4) or



more seconds and causes the critical-movement volume-to-capacity ratio (V/C) to increase by one percent (.01) or more.

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

Existing Intersection Levels of Service

The existing lane configurations at the study intersections were obtained from field observations. Existing traffic volumes were obtained from traffic counts conducted on May 9, 2019. The existing AM and PM peak hour intersection volumes are shown graphically on Figure 3. Volumes under existing conditions are presented in Appendix A.

Intersection levels of service were evaluated against the Los Altos standards (see Tables 2). The results of the analysis show that the study intersection currently operates at acceptable levels during both AM and PM peak periods. The intersection level of service calculation sheets are included in Appendix B.

Table 2
Existing Intersection Level of Service Summary

#	Intersection	LOS Standards	Peak Hour	Count Date	Existing	
					Avg Delay	LOS
1	El Camino Real & Jordan Ave	D	AM	5/9/2019	19.7	B -
			PM	5/9/2019	14.2	B

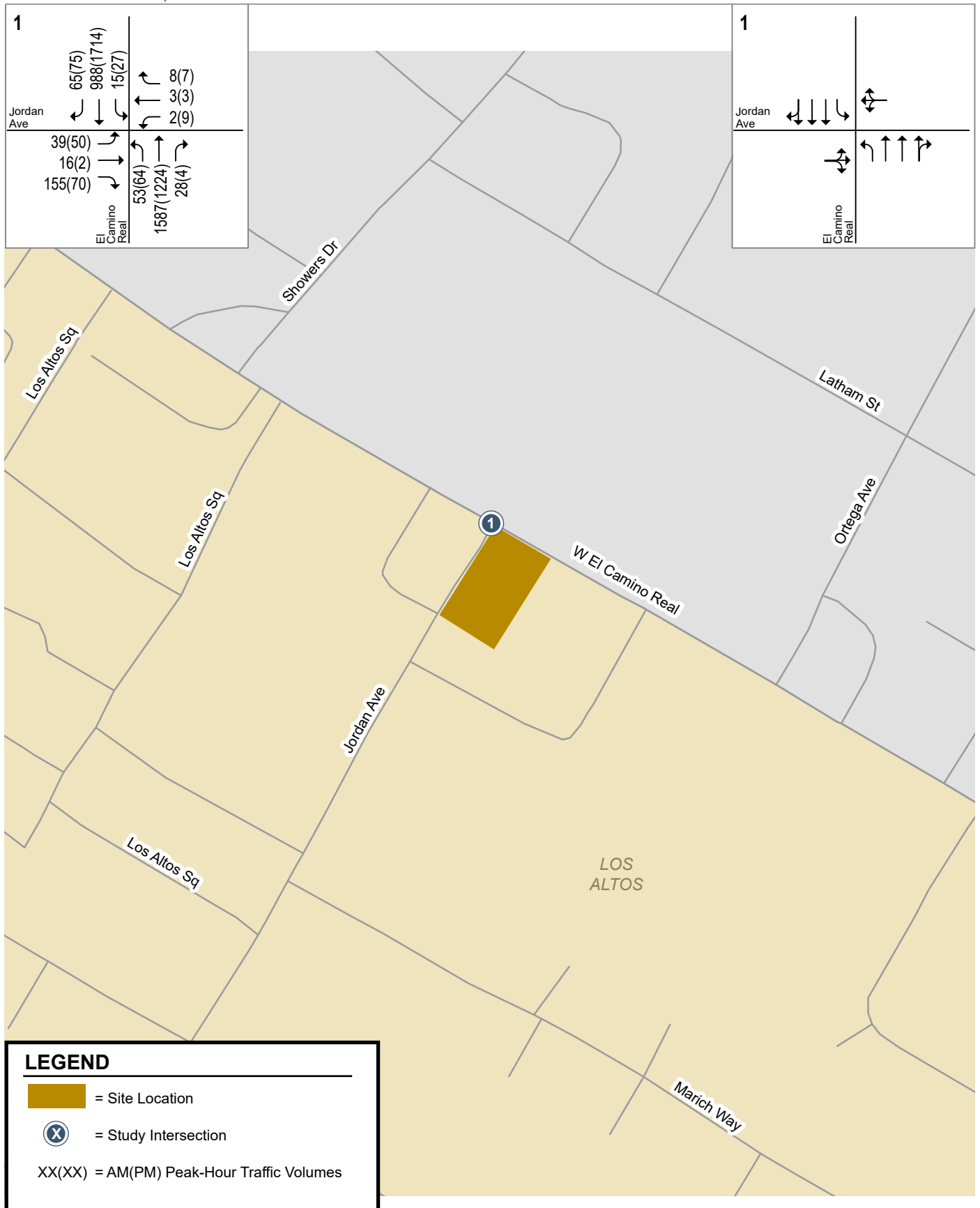


Figure 3
Existing Intersection Lane Configurations and Traffic Volumes



Near-Term Conditions

Near-term peak hour traffic volumes were estimated by applying a growth factor (2 percent per year) for five years to existing traffic volumes. Since there are numerous projects in the Cities of Los Altos and Mountain View that would add traffic, and El Camino Real is a major regional route, a 2 percent per year growth factor was used to represent the added traffic along El Camino Real. This is a very high growth factor and is expected to account for all known projects plus regional growth. Volumes under background conditions are presented in Appendix C. The results of the intersection level of service analysis under near-term conditions are summarized in Table 3. The results of the analysis show that the study intersection would operate at acceptable levels of service during both AM and PM peak periods under background conditions. The intersection level of service calculation sheets are included in Appendix B.

Table 3
Near-Term Condition Intersection Level of Service Summary

#	Intersection	LOS Standards	Peak Hour	Existing		Near-Term	
				Avg Delay	LOS	Avg Delay	LOS
1	El Camino Real & Jordan Ave	D	AM	19.7	B -	20.0	B -
			PM	14.2	B	14.3	B

Project Trip Generation

The magnitude of traffic generated by the project was estimated by multiplying the applicable trip generation rates by the size of the development. The Institute of Transportation Engineers (ITE) manual entitled *Trip Generation, 10th Edition* was used for the analysis. The trip generation rates used for the proposed development are based on the rates published for “Multi-Family Housing -- Mid-Rise” (ITE Code 221). Based on these rates, the proposed project would generate 114 daily trips with 8 trips during the AM peak hour and 9 trips during the PM peak hour (see Table 1).

Traffic counts at the existing site driveways were conducted on April 30, 2019 to quantify the peak-hour trips generated by the existing uses (see Appendix A). Based on the driveway counts, the existing uses on site generate 0 trips during the AM peak hour and 16 trips during the PM peak hour. These trips were deducted from the estimated number of trips generated by the proposed new residential development, which results in a net increase of 34 daily trips with 8 more trips in the AM peak hour and 7 fewer trips in the PM peak hour. The project trip generation estimates are presented in Table 4. Since the proposed project would add fewer than 50 new daily trips, a full transportation impact analysis is not required per the Los Altos General Plan’s Circulation Element.



Table 4
Trip Generation Estimates for 4898 El Camino Real, Los Altos

Land Use	Size	Unit	Daily Rate		AM Peak Hour			PM Peak Hour				
			Rate	Trips	Rate	In	Out	Trips	Rate	In	Out	Trips
<i>Proposed Project</i>												
Residential ¹	21	units	5.44	114	0.36	2	6	8	0.44	5	4	9
<i>Existing Uses</i>												
Retail and Office ²	8.396	ksf		80		0	0	0	0	8	8	16
<i>Total Existing</i>	8.396	ksf		80		0	0	0		8	8	16
Net Project				34		2	6	8		-3	-4	-7
Notes:												
All rates are from: Institute of Transportation Engineers, <i>Trip Generation, 10th Edition, 2017</i>												
1. Land Use Code 221: Multifamily Housing (Mid-Rise) (average rates, expressed in trips per unit)												
2. Based on driveway counts. Daily estimated as 10 times average of AM and PM.												

Project Trip Distribution and Assignment

The project trips were assigned to the surrounding roadway network based on existing travel patterns in the study area and the locations of complementary land uses (see Figure 4).

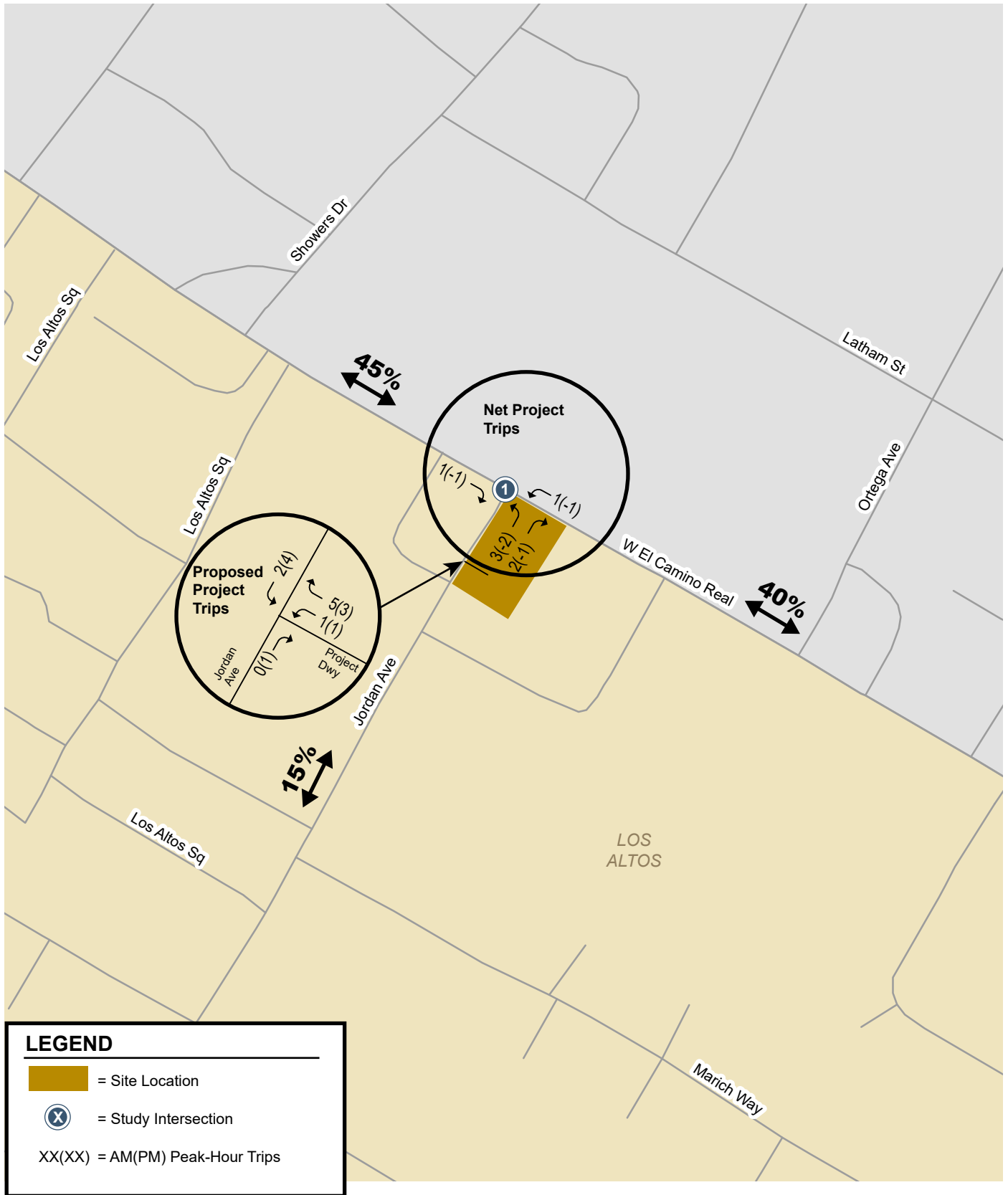


Figure 4
Project Trip Distribution Patterns and Project Trip Assignment



Project Conditions Intersection Levels of Service

Project impacts were evaluated relative to both (1) existing traffic volumes and (2) near-term traffic volumes. For the existing plus project scenario, the net new trips generated by the proposed developments were added to the existing traffic volumes to derive the existing plus project traffic volumes (see Figure 5). For the near-term plus project scenario, the net new trips generated by the proposed development were added to the near-term traffic volumes to derive the near-term plus project traffic volumes (see Figure 6).

The results of the analysis indicate that the project would not create a significant impact at the study intersection under any scenarios. Table 5 summarizes the results of the peak-hour intersection level of service analysis. The intersection of El Camino Real and Jordan Avenue would operate at LOS C during the AM peak hour and LOS B during the PM peak hour under both existing plus project conditions and near-term plus project conditions. The intersection level of service calculation sheets are included in Appendix B.

Table 5
Intersection Level of Service Summary

#	Intersection	LOS Standards	Peak Hour	Existing		Existing Plus Project				Near-Term		Near-Term Plus Project			
				Avg Delay	LOS	Avg Delay	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Avg Delay	LOS	Avg Delay	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C
1	El Camino Real & Jordan Ave	D	AM	19.7	B -	20.0	B -	0.3	0.003	20.0	B -	20.3	C+	0.3	0.003
			PM	14.2	B	13.9	B	-0.3	-0.003	14.3	B	14.1	B	-0.3	-0.003

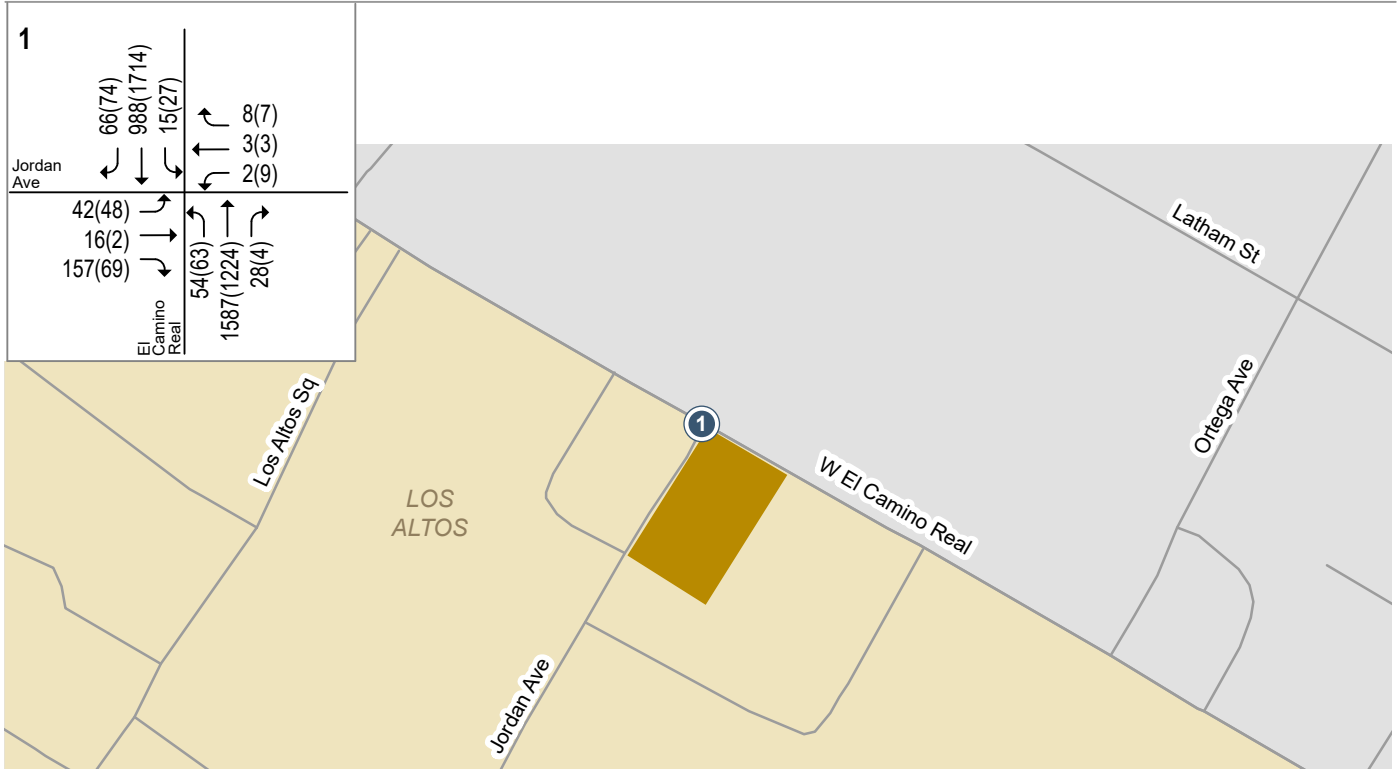


Figure 5
Existing Plus Project Traffic Volumes

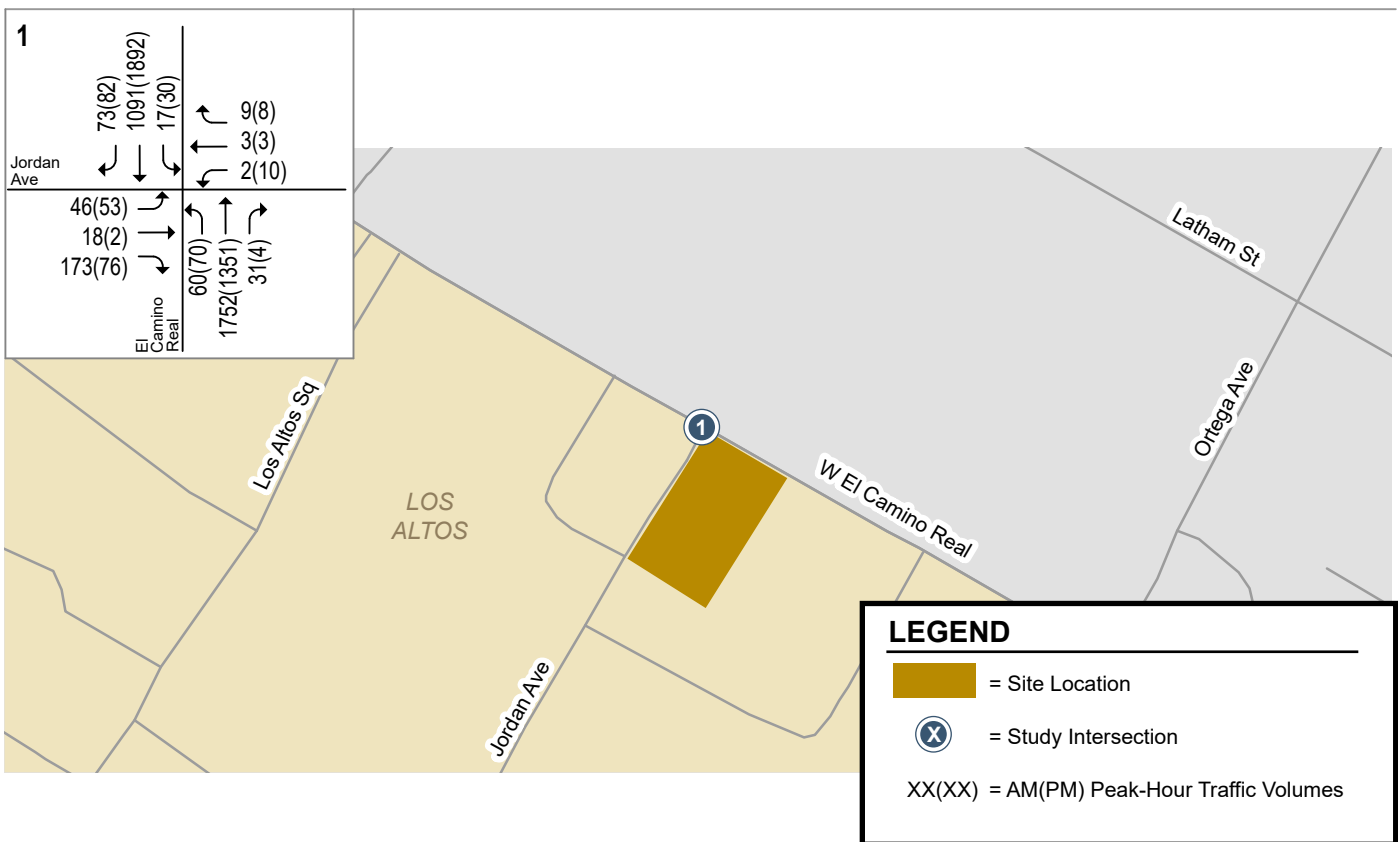


Figure 6
Near-Term Plus Project Traffic Volumes



Parking

The proposed project would provide 4 Below Market Rate (BMR) units, which is more than 10 percent of the total number of units. According to the Los Altos Municipal Code Ordinance 14.28.040 (C), the project would be eligible for a density bonus and would be qualified for a parking reduction. According to the Los Altos Municipal Code, Ordinance 14.28.040 (G), for any development eligible for a density bonus, upon the request of the developer, the city shall not impose a parking requirement, inclusive of handicapped and guest parking, of a development, that exceeds the following requirements:

- i. For zero to one bedroom, one onsite parking space.
- ii. For two to three bedrooms, two onsite parking spaces.
- iii. For four and more bedrooms, two and one-half parking spaces.

According to the city code, the project would require a total of 45 parking spaces (32 for two- and three-bedroom units and 13 for four- and more-bedroom units). The site plan shows a two-level underground parking garage with a total of 55 parking spaces. Of the 55 parking spaces, there would be 53 regular spaces and 2 handicapped accessible spaces. The site plan also shows that 21 spaces would be installed with charging station for electric vehicles. Thus, the parking would meet the City requirement.

Project Site Circulation and Access

The project's site circulation and access were evaluated in accordance with generally accepted traffic engineering standards based on project plans dated January 15, 2019. The project would provide a single two-way driveway onto Jordan Avenue. Parking would be provided in a two-level basement garage as shown on Figures 7A and 7B. A description of the various design elements of the site circulation and access is provided below.

Driveway Design. The project driveway on Jordan Avenue would be approximately 24 feet wide leading in and out of the basement parking garage. This width is adequate for a low-volume, two-way driveway, and for truck access, as described below. The low volume of project traffic would result in only brief delays for exiting vehicles. Outbound vehicle queues would rarely exceed one or two vehicles. Sight distance at the project driveway would be adequate provided (1) the landscaping is kept at a low level within 10 feet of the curb face on Jordan Avenue and (2) sight distance is not blocked by parked vehicles. There already is a red zone to the left of the driveway (when exiting). In addition, a red zone should be painted for 19 feet to the right of the driveway to provide adequate sight distance. A stop sign and stop bar should be provided where the driveway intersects Jordan Avenue to help with the safety of pedestrians and bicycles. In addition, an audible and visible warning sign should be installed to alert pedestrians and bicycles when a vehicle is exiting the garage.

Ramp Design. The proposed garage ramps were measured to be 22 feet wide, which meets the minimum width for a two-way drive aisle set forth by the City of Los Altos Zoning Code (14.74.200). The proposed garage ramp is shown to have a maximum slope of 20% with 10% transitions on each side. These dimensions are acceptable. Commonly cited parking publications recommend grades of up to 16% on ramps where no parking is permitted, but grades of up to 20% are cited as acceptable when ramps are covered (i.e. protected from weather) and not used for pedestrian walkways. It should be noted that the vast majority of ramp users will be residents, and thus, will quickly become accustomed to steeper grades.



Garage Design. On each level of the parking garage, there would be two rows of parking to the west of the ramp. On both rows, parking would be provided at 90 degrees to the main drive aisle. The drive aisles through the parking garage are shown to be 26 feet wide, which would provide sufficient room for vehicles to enter or back out of the 90-degree parking stalls. Site access and circulation were evaluated using AutoTurn with vehicle turning movement templates for a typical AASHTO Passenger Car defined in AASHTO handbook 2011. Some examples of this type of vehicles are: 2018 Cadillac Escalade, 2018 GMC Yukon, 2018 Chevrolet Suburban, 2018 Ford Expedition, and 2018 Toyota Sequoia. The turning template check shows that passenger vehicles (18 feet in length) would be able to access, circulate, and exit the garage (see Figures 7A and 7B).

The plan specifies a total of 9 guest parking spaces within the upper level of the garage. 1 of those 9 parking spaces will be ADA accessible. The parking area has dead-end aisles, but there is 26 feet between the two rows of parking spaces, which would allow cars to make a multi-point turn to exit. Residents parking spaces would be assigned.

Truck Access. A 15' x 25' loading space is shown adjacent to the project driveway. This meets the City's minimum requirement of 10' x 25' for a loading area. Hexagon checked the turning radius with vehicle turning movement templates, and the results show that a small delivery truck (SU-30) would be able to back into and exit the loading area without any issues. Figure 8 shows a potential turning path created using AutoTurn with vehicle turning movement templates for a typical AASHTO vehicle.

Bike Parking. The Valley Transportation Authority (VTA) provides guidelines for bike parking in its publication *Bike Technical Guidelines*. Class I spaces are defined as spaces that protect the entire bike and its components from theft, such as in a secure designated room or a bike locker. Class II spaces provide an opportunity to secure at least one wheel and the frame using a lock, such as bike racks. For multi-family dwelling units, VTA recommends one Class I space per three dwelling units and one Class II space per 15 dwelling units. For the proposed project, this would equate to 7 Class I spaces and 2 Class II spaces. The project site plan shows a bicycle storage room on the lower level of the garage that would accommodate 42 bicycles and 8 bike racks with 110V electric outlets for charging electric bikes. The 20% grade of the bike ramp is too steep for bicycles, therefore cyclists would need to use the elevator to get to and from the bicycle storage room.

Pedestrian Access. The project would provide a paved walkway between the existing sidewalk on Jordan Avenue and the building entrance.

Generally, the design of the project site circulation and access is consistent with urban design practices. The presence of the garage ramp, short onsite drive aisles, and "confined" feel of the parking garage would serve to keep vehicles operating at very low speeds. In addition, the low traffic volume onsite means that the frequency of vehicle conflicts would be relatively low.

Conclusions

This analysis produced the following conclusions:

- The proposed development would not result in any significant impacts to the study intersection during the AM and PM peak hours under both existing plus project and near-term plus project conditions.



- Relative to the existing use, the project would generate 34 fewer daily trips, including 8 new trips during the AM peak hour and 7 fewer trips during the PM peak hour. The amount of additional traffic generated would be low, and there would be no impact on the greater transportation network.
- The project meets the city requirements for the number of parking spaces.
- Commonly cited parking publications recommend grades of up to 16% on ramps where no parking is permitted, but grades of up to 20% are cited as acceptable under conditions that are present here. The grade of the garage access ramp is acceptable.
- The proposed plan shows good circulation through the two levels of the garage. The drive aisle is shown to be 26 feet wide and would provide sufficient room for vehicles to back out of the 90-degree parking stalls. The vehicle turning paths would result in minimal encroachment, which is not expected to be a problem.
- The driveway is shown to be 24 feet, which will allow trucks to back into and exit the loading zone without any obstructions.
- Outbound at the project driveway on Jordan Avenue, the low volume of traffic would result in brief delays and short vehicle queues. Sight distance at the project driveway would be adequate provided (1) the landscaping is kept at a low level within 10 feet of the curb face on Jordan Avenue and (2) sight distance is not blocked by parked vehicles. Parking should be prohibited on Jordan Avenue within 15 feet west of the driveway. Currently, a 15-foot long red curb is marked on Jordan Avenue west of the project driveway. Hexagon recommends installing red curbs within 19 feet east of the driveway.
- It is recommended to install a STOP sign and stop bar at the garage exit to advise motorists to STOP before exiting the driveway. A "Car Coming" warning sign should be provided on the wall next to the parking garage entrance to alert pedestrians and bicyclists of vehicles exiting the garage.
- The project would exceed the bike parking standards recommended by VTA.

This concludes Hexagon's transportation analysis of the proposed project at 4898 El Camino Real.

Sincerely,

HEXAGON TRANSPORTATION CONSULTANTS, INC.

A handwritten signature in black ink, appearing to read "Gary K. Black", with a long horizontal flourish extending to the right.

Gary K. Black
President

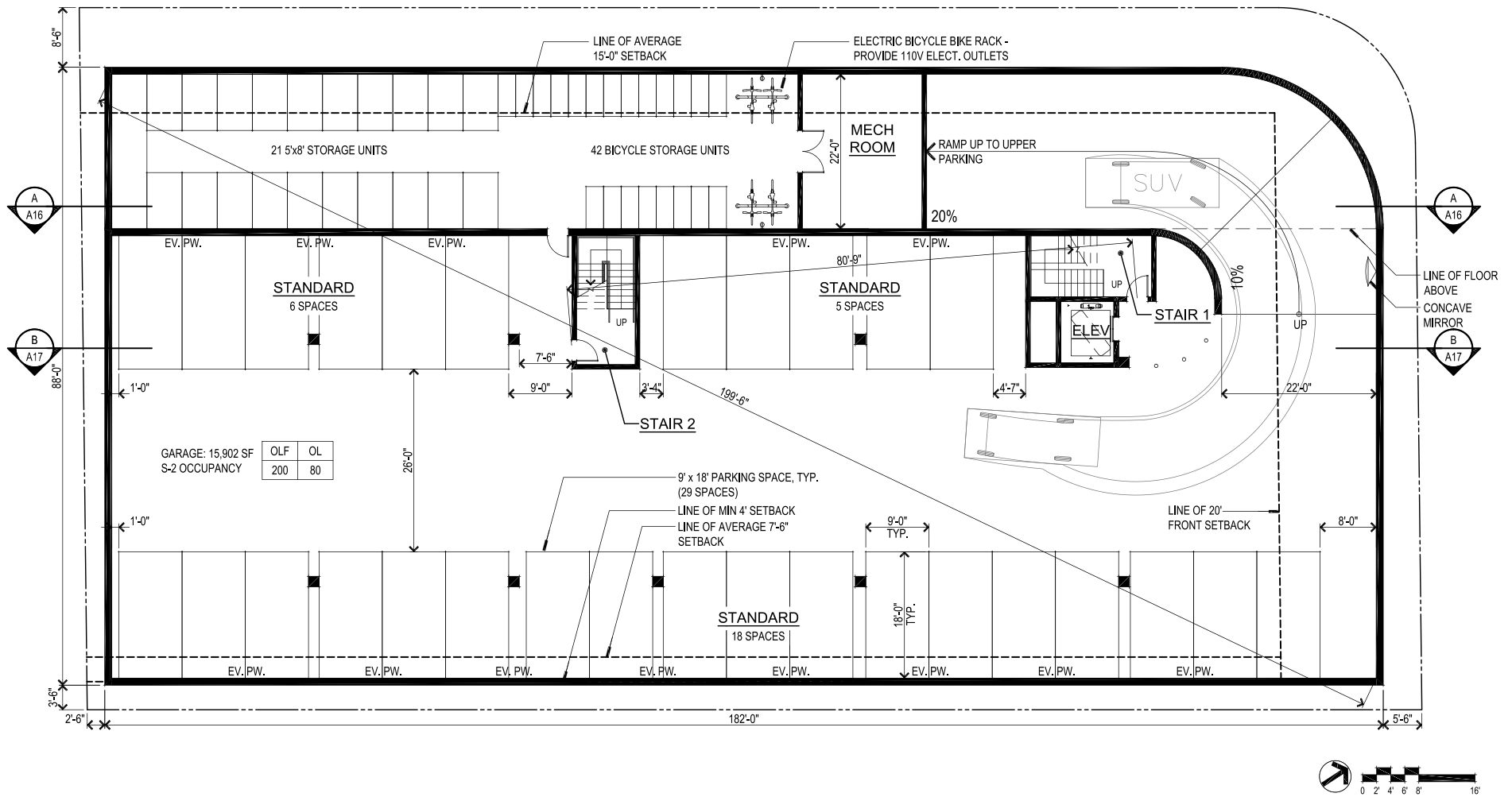


Figure 7A
Lower Level Basement Turning Movements

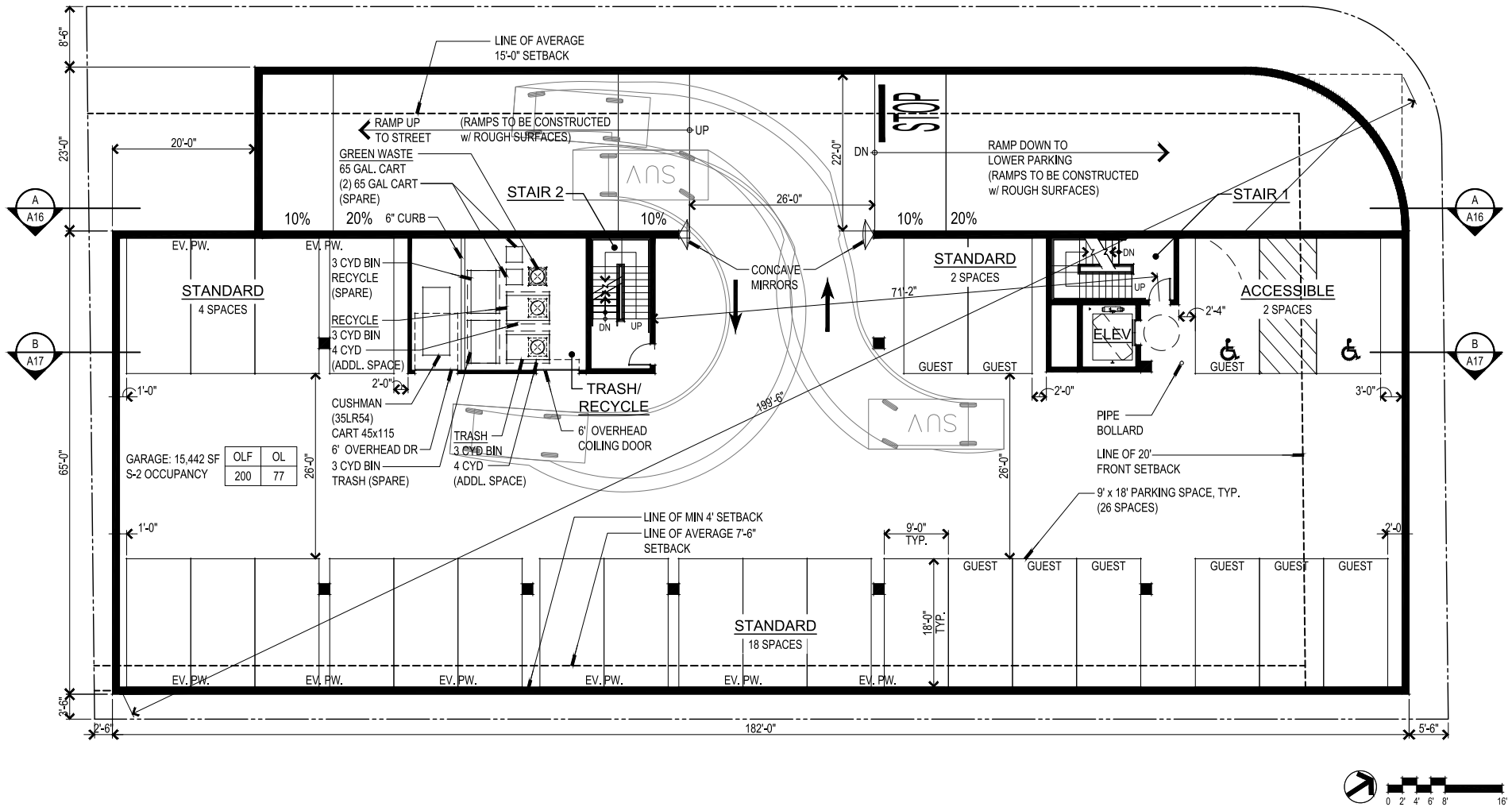


Figure 7B
Upper Level Basement Turning Movements

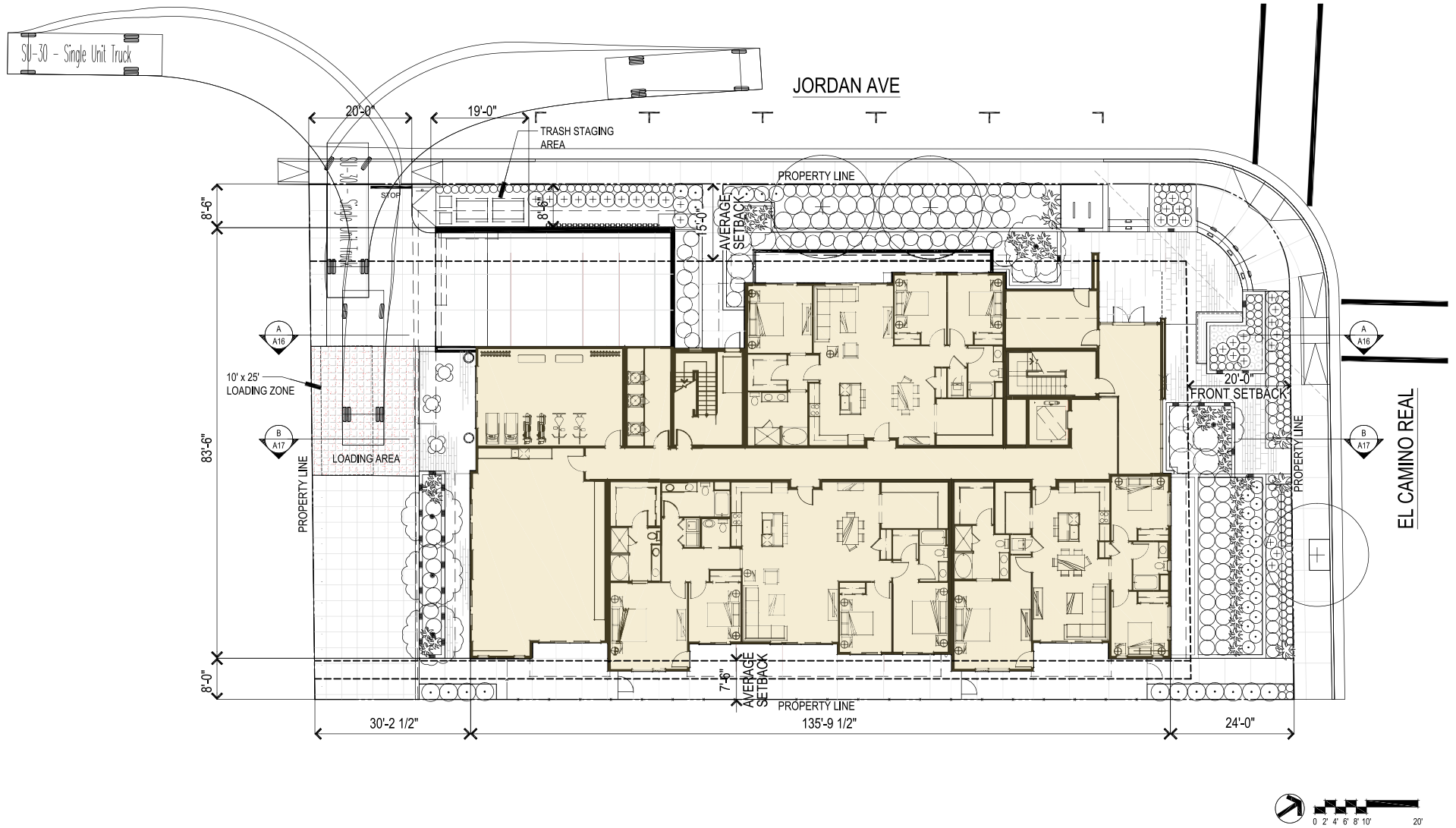


Figure 8
Loading Zone Turning Movement



Appendix A

Traffic Counts



(303) 216-2439
www.alltrafficdata.net

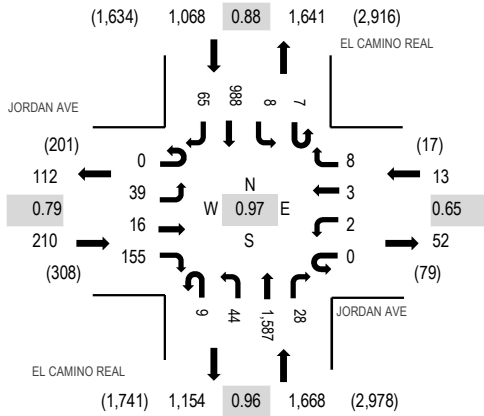
Location: 1 EL CAMINO REAL & JORDAN AVE AM

Date: Thursday, May 9, 2019

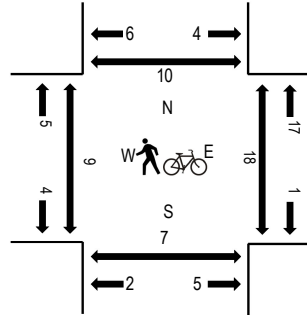
Peak Hour: 08:00 AM - 09:00 AM

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

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	JORDAN AVE Eastbound				JORDAN AVE Westbound				EL CAMINO REAL Northbound				EL CAMINO REAL Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
7:00 AM	0	1	0	5	0	0	0	0	0	1	7	265	4	1	0	83	10	377	1,978	3	3	0	0
7:15 AM	0	6	1	7	0	0	0	1	1	1	8	299	6	0	1	96	11	437	2,334	2	2	0	2
7:30 AM	0	3	2	15	0	1	0	1	1	1	9	315	3	3	1	148	8	510	2,636	0	1	2	2
7:45 AM	0	3	3	52	0	0	1	0	0	0	8	377	6	0	0	177	27	654	2,890	2	5	0	0
8:00 AM	0	6	1	42	0	0	1	0	3	7	417	8	1	2	224	21	733	2,959	2	1	2	0	
8:15 AM	0	8	2	43	0	0	0	2	1	9	362	7	2	2	277	24	739		1	6	0	7	
8:30 AM	0	18	6	50	0	2	2	1	2	18	393	5	4	1	252	10	764		1	8	0	2	
8:45 AM	0	7	7	20	0	0	0	5	3	10	415	8	0	3	235	10	723		5	2	2	0	

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	7	0	0	0	5	0	12
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	39	16	155	0	2	3	7	9	43	1,550	28	7	7	950	63	2,879
Mediums	0	0	0	0	0	0	0	1	0	1	30	0	0	1	33	2	68
Total	0	39	16	155	0	2	3	8	9	44	1,587	28	7	8	988	65	2,959



(303) 216-2439
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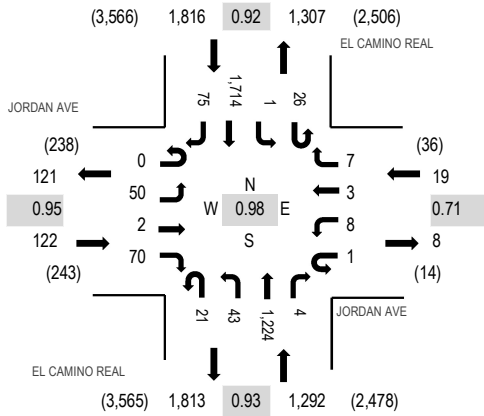
Location: 1 EL CAMINO REAL & JORDAN AVE PM

Date: Thursday, May 9, 2019

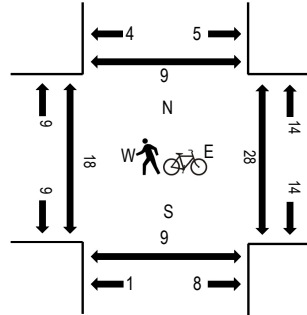
Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:45 PM - 06:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	JORDAN AVE Eastbound				JORDAN AVE Westbound				EL CAMINO REAL Northbound				EL CAMINO REAL Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	13	0	22	0	0	2	2	6	11	294	1	8	1	369	16	745	3,074	4	2	2	2
4:15 PM	0	12	0	23	0	0	2	2	7	15	256	1	6	0	477	13	814	3,143	8	3	0	2
4:30 PM	0	11	0	10	0	1	1	3	4	8	259	0	8	1	423	16	745	3,143	6	5	0	0
4:45 PM	0	15	0	15	0	0	1	3	5	15	302	2	5	0	390	17	770	3,191	4	3	3	4
5:00 PM	0	14	0	18	0	3	0	1	0	10	288	1	5	0	455	19	814	3,249	8	7	3	3
5:15 PM	0	11	0	20	0	2	2	1	5	8	334	1	9	0	401	20	814		4	6	0	1
5:30 PM	0	11	1	16	0	3	0	4	6	11	311	1	7	0	401	21	793		3	3	1	1
5:45 PM	0	14	1	16	1	0	1	1	10	14	291	1	5	1	457	15	828		2	8	0	3

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	50	2	69	1	8	3	6	21	43	1,206	4	26	1	1,691	74	3,205
Mediums	0	0	0	1	0	0	0	1	0	0	16	0	0	0	22	1	41
Total	0	50	2	70	1	8	3	7	21	43	1,224	4	26	1	1,714	75	3,249

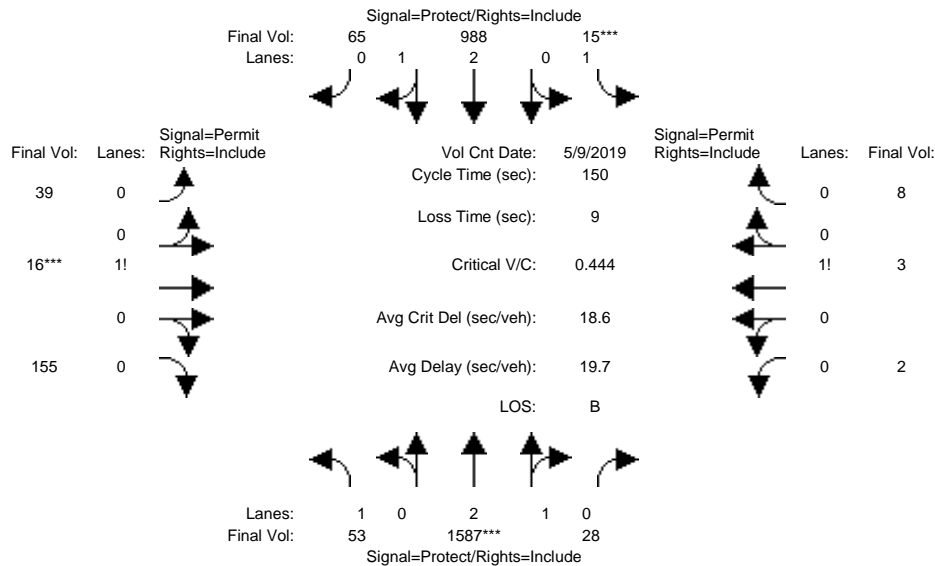


Appendix B

Level of Service Calculations

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

Intersection #1: El Camino Real & Jordan Ave



Street Name:	El Camino Real						Jordan Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	9 May 2019	<<												
Base Vol:	53	1587	28	15	988	65	39	16	155	2	3	8					
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
Initial Bse:	53	1587	28	15	988	65	39	16	155	2	3	8					
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0					
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0					
Initial Fut:	53	1587	28	15	988	65	39	16	155	2	3	8					
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
PHF Volume:	53	1587	28	15	988	65	39	16	155	2	3	8					
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0					
Reduced Vol:	53	1587	28	15	988	65	39	16	155	2	3	8					
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
FinalVolume:	53	1587	28	15	988	65	39	16	155	2	3	8					

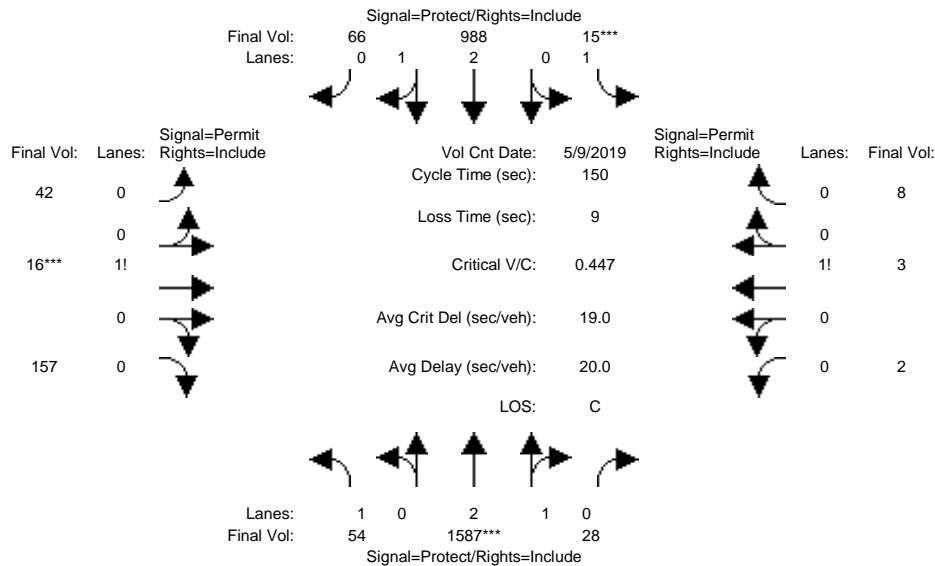
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	2.95	0.05	1.00	2.81	0.19	0.18	0.08	0.74	0.15	0.23	0.62
Final Sat.:	1750	5503	97	1750	5254	346	325	133	1292	269	404	1077

Capacity Analysis Module:												
Vol/Sat:	0.03	0.29	0.29	0.01	0.19	0.19	0.12	0.12	0.12	0.01	0.01	0.01
Crit Moves:	****			****			****					
Green Time:	20.2	94.6	94.6	7.0	81.4	81.4	39.4	39.4	39.4	39.4	39.4	39.4
Volume/Cap:	0.22	0.46	0.46	0.18	0.35	0.35	0.46	0.46	0.46	0.03	0.03	0.03
Uniform Del:	57.9	14.4	14.4	68.8	19.3	19.3	46.4	46.4	46.4	41.1	41.1	41.1
IncrcmntDel:	0.5	0.1	0.1	1.1	0.1	0.1	0.7	0.7	0.7	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	58.4	14.5	14.5	69.8	19.4	19.4	47.1	47.1	47.1	41.1	41.1	41.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.4	14.5	14.5	69.8	19.4	19.4	47.1	47.1	47.1	41.1	41.1	41.1
LOS by Move:	E	B	B	E	B	B	D	D	D	D	D	D
HCM2k95thQ:	5	23	23	2	17	17	16	16	16	1	1	1

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

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

Intersection #1: El Camino Real & Jordan Ave



Street Name:	El Camino Real						Jordan Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	9 May 2019	<<												
Base Vol:	53	1587	28	15	988	65	39	16	155	2	3	8					
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
Initial Bse:	53	1587	28	15	988	65	39	16	155	2	3	8					
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0					
Proj Trips:	1	0	0	0	0	1	3	0	2	0	0	0					
Initial Fut:	54	1587	28	15	988	66	42	16	157	2	3	8					
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
PHF Volume:	54	1587	28	15	988	66	42	16	157	2	3	8					
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0					
Reduced Vol:	54	1587	28	15	988	66	42	16	157	2	3	8					
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
Final Volume:	54	1587	28	15	988	66	42	16	157	2	3	8					

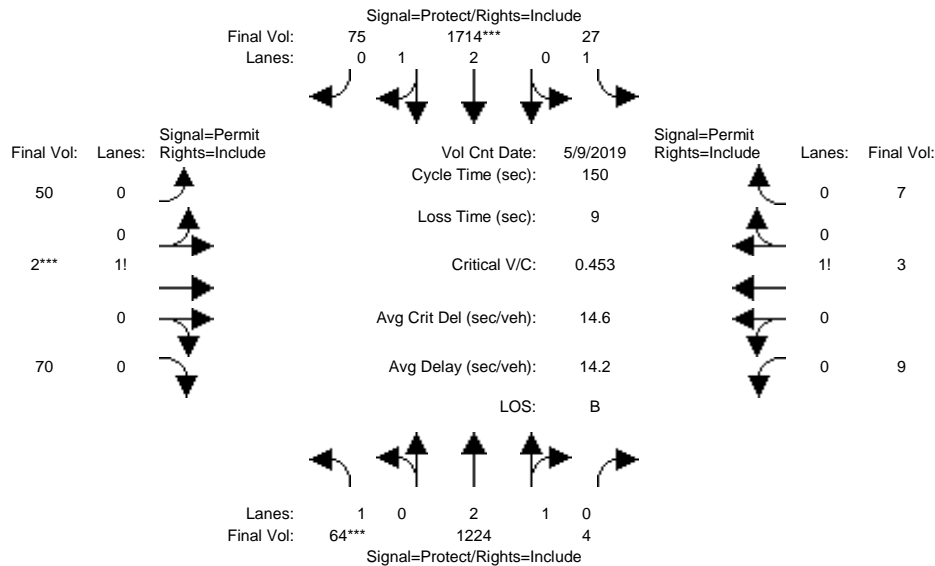
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	2.95	0.05	1.00	2.81	0.19	0.20	0.07	0.73	0.15	0.23	0.62
Final Sat.:	1750	5503	97	1750	5249	351	342	130	1278	269	404	1077

Capacity Analysis Module:												
Vol/Sat:	0.03	0.29	0.29	0.01	0.19	0.19	0.12	0.12	0.12	0.01	0.01	0.01
Crit Moves:	****			****			****					
Green Time:	20.1	94.0	94.0	7.0	80.9	80.9	40.0	40.0	40.0	40.0	40.0	40.0
Volume/Cap:	0.23	0.46	0.46	0.18	0.35	0.35	0.46	0.46	0.46	0.03	0.03	0.03
Uniform Del:	58.1	14.7	14.7	68.8	19.6	19.6	46.0	46.0	46.0	40.6	40.6	40.6
IncrcmntDel:	0.5	0.1	0.1	1.1	0.1	0.1	0.7	0.7	0.7	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	58.6	14.8	14.8	69.8	19.7	19.7	46.7	46.7	46.7	40.6	40.6	40.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.6	14.8	14.8	69.8	19.7	19.7	46.7	46.7	46.7	40.6	40.6	40.6
LOS by Move:	E	B	B	E	B	B	D	D	D	D	D	D
HCM2k95thQ:	5	23	23	2	17	17	17	17	17	1	1	1

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

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

Intersection #1: El Camino Real & Jordan Ave



Street Name:	El Camino Real						Jordan Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	9 May 2019	<<												
Base Vol:	64	1224	4	27	1714	75	50	2	70	9	3	7					
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
Initial Bse:	64	1224	4	27	1714	75	50	2	70	9	3	7					
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0					
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0					
Initial Fut:	64	1224	4	27	1714	75	50	2	70	9	3	7					
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
PHF Volume:	64	1224	4	27	1714	75	50	2	70	9	3	7					
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0					
Reduced Vol:	64	1224	4	27	1714	75	50	2	70	9	3	7					
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
Final Volume:	64	1224	4	27	1714	75	50	2	70	9	3	7					

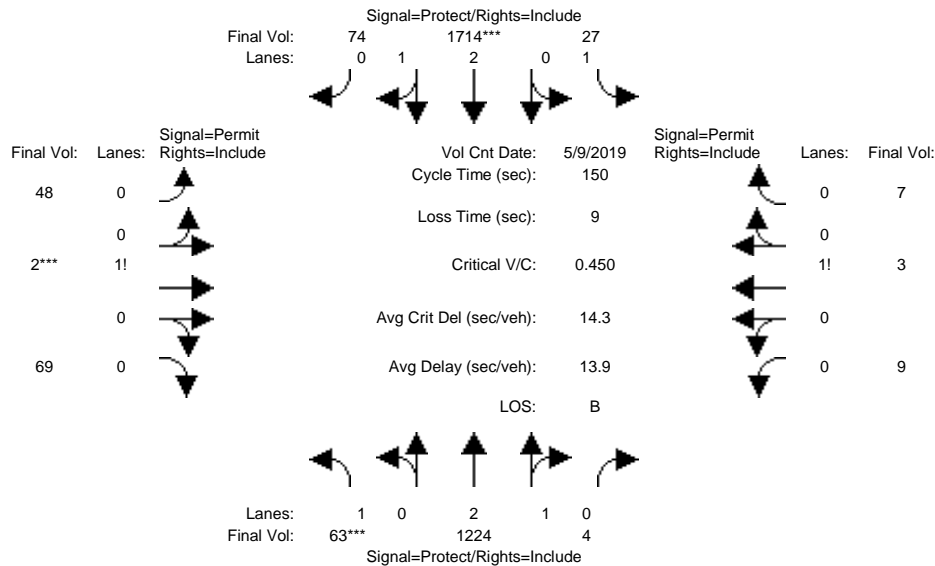
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	2.99	0.01	1.00	2.87	0.13	0.41	0.02	0.57	0.47	0.16	0.37
Final Sat.:	1750	5582	18	1750	5365	235	717	29	1004	829	276	645

Capacity Analysis Module:												
Vol/Sat:	0.04	0.22	0.22	0.02	0.32	0.32	0.07	0.07	0.07	0.01	0.01	0.01
Crit Moves:	****						****					
Green Time:	12.1	97.2	97.2	20.7	106	105.8	23.1	23.1	23.1	23.1	23.1	23.1
Volume/Cap:	0.45	0.34	0.34	0.11	0.45	0.45	0.45	0.45	0.45	0.07	0.07	0.07
Uniform Del:	65.8	11.9	11.9	56.6	9.6	9.6	57.7	57.7	57.7	54.3	54.3	54.3
IncrcmntDel:	2.3	0.1	0.1	0.2	0.1	0.1	1.2	1.2	1.2	0.1	0.1	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	68.1	11.9	11.9	56.8	9.7	9.7	58.9	58.9	58.9	54.4	54.4	54.4
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:	68.1	11.9	11.9	56.8	9.7	9.7	58.9	58.9	58.9	54.4	54.4	54.4
LOS by Move:	E	B	B	E	A	A	E	E	E	D	D	D
HCM2k95thQ:	7	16	16	2	21	21	11	11	11	2	2	2

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

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

Intersection #1: El Camino Real & Jordan Ave



Street Name:	El Camino Real						Jordan Ave					
Approach:	North Bound			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	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	9 May 2019	<<											
Base Vol:	64	1224	4	27	1714	75	50	2	70	9	3	7				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Initial Bse:	64	1224	4	27	1714	75	50	2	70	9	3	7				
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Proj Trips:	-1	0	0	0	0	-1	-2	0	-1	0	0	0				
Initial Fut:	63	1224	4	27	1714	74	48	2	69	9	3	7				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Volume:	63	1224	4	27	1714	74	48	2	69	9	3	7				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	63	1224	4	27	1714	74	48	2	69	9	3	7				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
FinalVolume:	63	1224	4	27	1714	74	48	2	69	9	3	7				

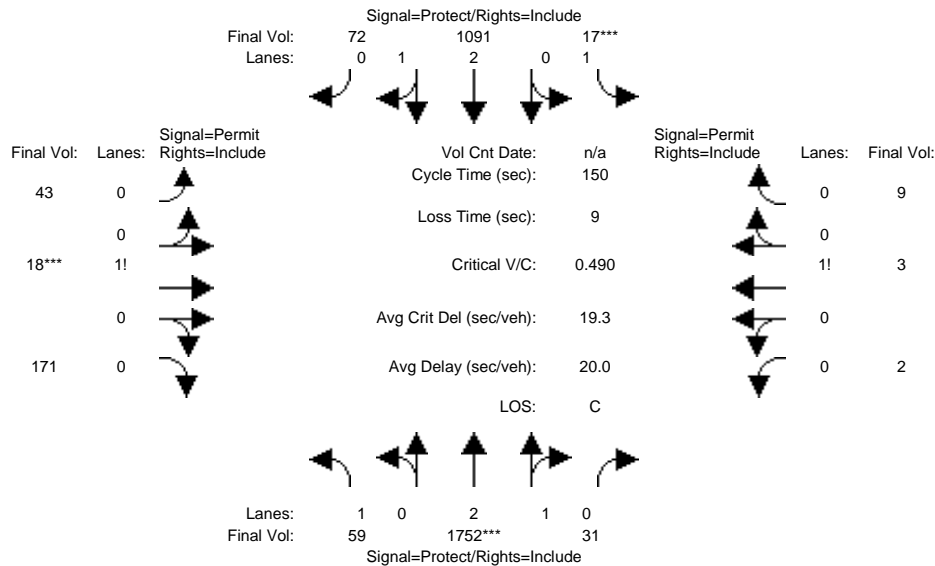
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	2.99	0.01	1.00	2.87	0.13	0.40	0.02	0.58	0.47	0.16	0.37
Final Sat.:	1750	5582	18	1750	5368	232	706	29	1015	829	276	645

Capacity Analysis Module:												
Vol/Sat:	0.04	0.22	0.22	0.02	0.32	0.32	0.07	0.07	0.07	0.01	0.01	0.01
Crit Moves:	****						****					
Green Time:	12.0	97.6	97.6	20.8	106	106.4	22.7	22.7	22.7	22.7	22.7	22.7
Volume/Cap:	0.45	0.34	0.34	0.11	0.45	0.45	0.45	0.45	0.45	0.07	0.07	0.07
Uniform Del:	65.9	11.7	11.7	56.5	9.3	9.3	58.0	58.0	58.0	54.7	54.7	54.7
IncrcmntDel:	2.3	0.1	0.1	0.2	0.1	0.1	1.2	1.2	1.2	0.1	0.1	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	68.2	11.8	11.8	56.7	9.4	9.4	59.2	59.2	59.2	54.8	54.8	54.8
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:	68.2	11.8	11.8	56.7	9.4	9.4	59.2	59.2	59.2	54.8	54.8	54.8
LOS by Move:	E	B	B	E	A	A	E	E	E	D	D	D
HCM2k95thQ:	7	16	16	2	21	21	11	11	11	2	2	2

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

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Near-Term AM

Intersection #1: El Camino Real & Jordan Ave



Street Name:	El Camino Real						Jordan Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	59	1752	31	17	1091	72	43	18	171	2	3	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	1752	31	17	1091	72	43	18	171	2	3	9
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	59	1752	31	17	1091	72	43	18	171	2	3	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	59	1752	31	17	1091	72	43	18	171	2	3	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	1752	31	17	1091	72	43	18	171	2	3	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	59	1752	31	17	1091	72	43	18	171	2	3	9

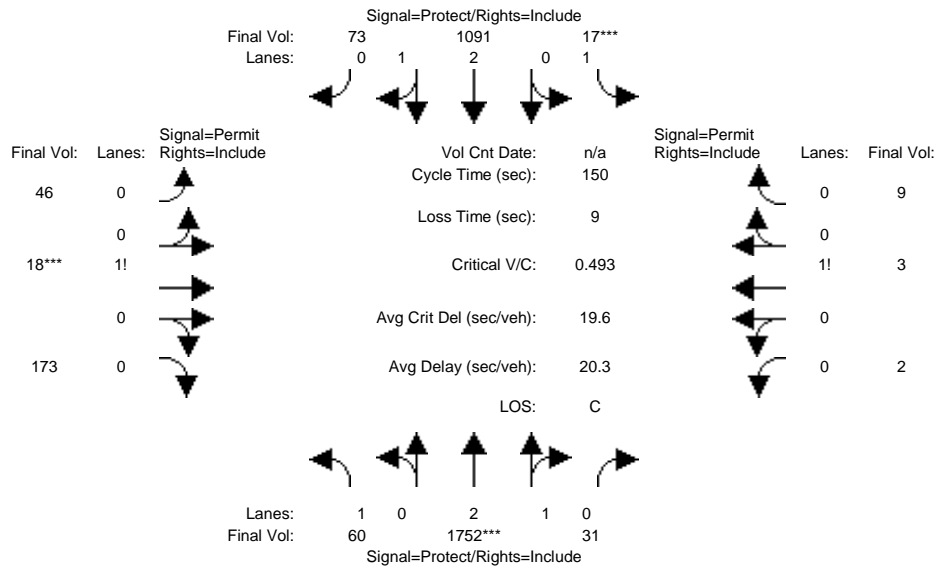
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	2.95	0.05	1.00	2.81	0.19	0.18	0.08	0.74	0.14	0.21	0.65
Final Sat.:	1750	5503	97	1750	5253	347	324	136	1290	250	375	1125

Capacity Analysis Module:												
Vol/Sat:	0.03	0.32	0.32	0.01	0.21	0.21	0.13	0.13	0.13	0.01	0.01	0.01
Crit Moves:	****			****			****					
Green Time:	18.6	94.6	94.6	7.0	83.0	83.0	39.4	39.4	39.4	39.4	39.4	39.4
Volume/Cap:	0.27	0.50	0.50	0.21	0.38	0.38	0.50	0.50	0.50	0.03	0.03	0.03
Uniform Del:	59.5	15.0	15.0	68.8	18.9	18.9	47.0	47.0	47.0	41.1	41.1	41.1
IncrementDel:	0.7	0.1	0.1	1.3	0.1	0.1	0.9	0.9	0.9	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	60.2	15.1	15.1	70.1	19.0	19.0	47.9	47.9	47.9	41.1	41.1	41.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	60.2	15.1	15.1	70.1	19.0	19.0	47.9	47.9	47.9	41.1	41.1	41.1
LOS by Move:	E	B	B	E	B	B	D	D	D	D	D	D
HCM2k95thQ:	6	26	26	2	18	18	18	18	18	1	1	1

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

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Near-Term +Proj AM

Intersection #1: El Camino Real & Jordan Ave



Street Name:	El Camino Real						Jordan Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	59	1752	31	17	1091	72	43	18	171	2	3	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	1752	31	17	1091	72	43	18	171	2	3	9
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Proj Trips:	1	0	0	0	0	1	3	0	2	0	0	0
Initial Fut:	60	1752	31	17	1091	73	46	18	173	2	3	9
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:	60	1752	31	17	1091	73	46	18	173	2	3	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	1752	31	17	1091	73	46	18	173	2	3	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	60	1752	31	17	1091	73	46	18	173	2	3	9

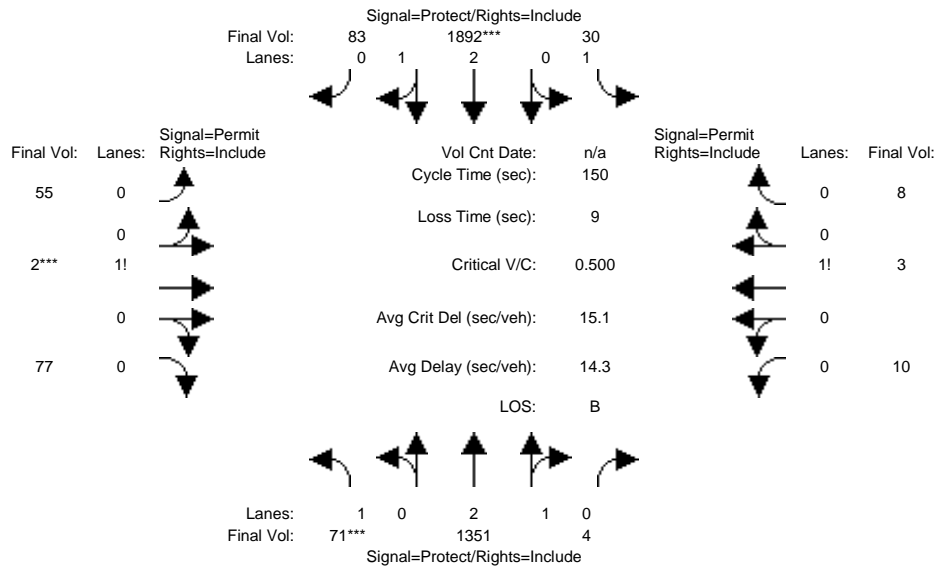
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	2.95	0.05	1.00	2.80	0.20	0.19	0.08	0.73	0.14	0.21	0.65
Final Sat.:	1750	5503	97	1750	5248	351	340	133	1277	250	375	1125

Capacity Analysis Module:												
Vol/Sat:	0.03	0.32	0.32	0.01	0.21	0.21	0.14	0.14	0.14	0.01	0.01	0.01
Crit Moves:	****			****			****					
Green Time:	18.5	94.0	94.0	7.0	82.5	82.5	40.0	40.0	40.0	40.0	40.0	40.0
Volume/Cap:	0.28	0.51	0.51	0.21	0.38	0.38	0.51	0.51	0.51	0.03	0.03	0.03
Uniform Del:	59.7	15.3	15.3	68.8	19.2	19.2	46.7	46.7	46.7	40.7	40.7	40.7
IncrementDel:	0.7	0.1	0.1	1.3	0.1	0.1	0.9	0.9	0.9	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	60.4	15.5	15.5	70.1	19.3	19.3	47.6	47.6	47.6	40.7	40.7	40.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	60.4	15.5	15.5	70.1	19.3	19.3	47.6	47.6	47.6	40.7	40.7	40.7
LOS by Move:	E	B	B	E	B	B	D	D	D	D	D	D
HCM2k95thQ:	6	26	26	2	18	18	19	19	19	1	1	1

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

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Near-Term PM

Intersection #1: El Camino Real & Jordan Ave



Street Name:	El Camino Real						Jordan Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	71	1351	4	30	1892	83	55	2	77	10	3	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	71	1351	4	30	1892	83	55	2	77	10	3	8
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	71	1351	4	30	1892	83	55	2	77	10	3	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	71	1351	4	30	1892	83	55	2	77	10	3	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	1351	4	30	1892	83	55	2	77	10	3	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	71	1351	4	30	1892	83	55	2	77	10	3	8

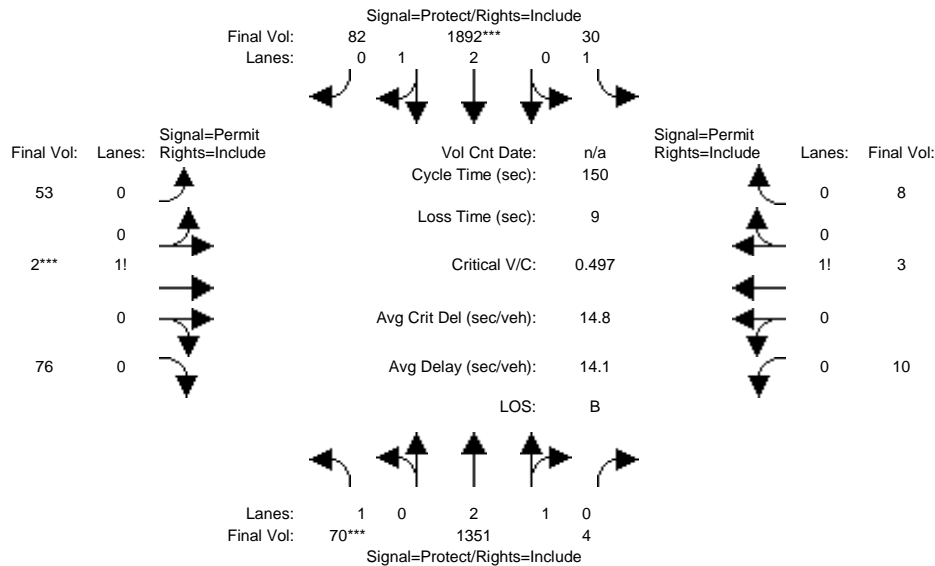
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	2.99	0.01	1.00	2.87	0.13	0.41	0.01	0.58	0.48	0.14	0.38
Final Sat.:	1750	5583	17	1750	5364	235	718	26	1006	833	250	667

Capacity Analysis Module:												
Vol/Sat:	0.04	0.24	0.24	0.02	0.35	0.35	0.08	0.08	0.08	0.01	0.01	0.01
Crit Moves:	****				****			****				
Green Time:	12.2	98.9	98.9	19.1	106	105.8	23.0	23.0	23.0	23.0	23.0	23.0
Volume/Cap:	0.50	0.37	0.37	0.13	0.50	0.50	0.50	0.50	0.50	0.08	0.08	0.08
Uniform Del:	66.0	11.5	11.5	58.1	10.0	10.0	58.2	58.2	58.2	54.4	54.4	54.4
IncrementDel:	2.8	0.1	0.1	0.3	0.1	0.1	1.5	1.5	1.5	0.1	0.1	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	68.7	11.5	11.5	58.4	10.1	10.1	59.7	59.7	59.7	54.6	54.6	54.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	68.7	11.5	11.5	58.4	10.1	10.1	59.7	59.7	59.7	54.6	54.6	54.6
LOS by Move:	E	B	B	E	B	B	E	E	E	D	D	D
HCM2k95thQ:	8	17	17	3	24	24	12	12	12	2	2	2

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

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Near-Term +Proj PM

Intersection #1: El Camino Real & Jordan Ave



Street Name:	El Camino Real						Jordan Ave					
Approach:	North Bound			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	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	El Camino Real NB			El Camino Real SB			Jordan Ave EB			Jordan Ave WB		
Base Vol:	71	1351	4	30	1892	83	55	2	77	10	3	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	71	1351	4	30	1892	83	55	2	77	10	3	8
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Proj Trips:	-1	0	0	0	0	-1	-2	0	-1	0	0	0
Initial Fut:	70	1351	4	30	1892	82	53	2	76	10	3	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	70	1351	4	30	1892	82	53	2	76	10	3	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	1351	4	30	1892	82	53	2	76	10	3	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	70	1351	4	30	1892	82	53	2	76	10	3	8

Saturation Flow Module:	El Camino Real NB			El Camino Real SB			Jordan Ave EB			Jordan Ave WB		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	2.99	0.01	1.00	2.87	0.13	0.40	0.02	0.58	0.48	0.14	0.38
Final Sat.:	1750	5583	17	1750	5367	233	708	27	1015	833	250	667

Capacity Analysis Module:	El Camino Real NB			El Camino Real SB			Jordan Ave EB			Jordan Ave WB		
Vol/Sat:	0.04	0.24	0.24	0.02	0.35	0.35	0.07	0.07	0.07	0.01	0.01	0.01
Crit Moves:	****			****			****					
Green Time:	12.1	99.3	99.3	19.1	106	106.3	22.6	22.6	22.6	22.6	22.6	22.6
Volume/Cap:	0.50	0.37	0.37	0.13	0.50	0.50	0.50	0.50	0.50	0.08	0.08	0.08
Uniform Del:	66.1	11.3	11.3	58.1	9.8	9.8	58.5	58.5	58.5	54.8	54.8	54.8
IncrementDel:	2.7	0.1	0.1	0.3	0.1	0.1	1.5	1.5	1.5	0.1	0.1	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	68.8	11.4	11.4	58.3	9.9	9.9	60.0	60.0	60.0	54.9	54.9	54.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	68.8	11.4	11.4	58.3	9.9	9.9	60.0	60.0	60.0	54.9	54.9	54.9
LOS by Move:	E	B	B	E	A	A	E	E	E	D	D	D
HCM2k95thQ:	8	17	17	3	24	24	12	12	12	2	2	2

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



Appendix C

Volume Spreadsheet

Intersection Number: **1**
 Traffic Node Number: 1
 Intersection Name: ECR & Jordan Ave
 Peak Hour: AM
 Count Date: 05/09/19
 Scenario:
 Growth Factor Per Year: **2%**
Date of Analysis: 05/16/19
Near Term Buildout: **5**

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	65	988	15	8	3	2	28	1587	53	155	16	39	2959
Background Conditions	72	1091	17	9	3	2	31	1752	59	171	18	43	3267
Project Trips	1	0	0	0	0	0	0	0	1	2	0	3	7
Existing + Project	66	988	15	8	3	2	28	1587	54	157	16	42	2966
Background + Project	73	1091	17	9	3	2	31	1752	60	173	18	46	3274

Intersection Number: **1**
 Traffic Node Number: 1
 Intersection Name: ECR & Jordan Ave
 Peak Hour: PM
 Count Date: 05/09/19
 Scenario:
 Growth Factor Per Year: **2%**
Date of Analysis: 05/16/19
Near Term Buildout: **5**

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	75	1714	27	7	3	9	4	1224	64	70	2	50	3249
Background Conditions	83	1892	30	8	3	10	4	1351	71	77	2	55	3587
Project Trips	-1	0	0	0	0	0	0	0	-1	-1	0	-2	-5
Existing + Project	74	1714	27	7	3	9	4	1224	63	69	2	48	3244
Background + Project	82	1892	30	8	3	10	4	1351	70	76	2	53	3582