

Appendix F Transportation Supporting Information

Contains:

- Hexagon Transportation Consultants, Inc. 2021. Traffic Study for the Proposed Senior Living Project at 14500 Fruitvale Avenue in Saratoga, California. San Jose, California. Dated January 22, 2021.
- Hexagon Transportation Consultants, Inc. 2023. Senior Living Project Traffic Study at 14500 Fruitvale Avenue – Impact of Alternate Site Plan. San Jose, California. Dated April 21, 2023.

Page left blank to facilitate double-sided printing



HEXAGON TRANSPORTATION CONSULTANTS, INC.

Memorandum

Date: January 22, 2021

To: Mr. John Tamminga, Pacific Retirement Services

From: Ollie Zhou
Shikha Jain

Subject: Traffic Study for the Proposed Senior Living Project at 14500 Fruitvale Avenue in Saratoga, California.

Hexagon Transportation Consultants, Inc. has completed a traffic study for the proposed senior living project at 14500 Fruitvale Avenue in Saratoga, California (see Figure 1). The project proposes to construct 52 senior independent living apartment units, a 4,792 s.f. meeting room, and a fitness building. The project proposes to remove several existing parking spaces throughout the project site. The project would provide a parking garage under each of the 3 new independent living apartment buildings, as well as a parking garage under the new meeting room building, with additional parking distributed throughout the project site. Access to the site is provided by the existing driveways at the project site (see Figure 2).

Scope of Study

The purpose of the traffic study is to satisfy the requirements of the City of Saratoga. This study determined the traffic impacts of the proposed project on key intersections near the project site during the weekday AM and PM peak periods of traffic (7-9 AM and 4-6 PM). The study intersections are listed below:

Study Intersections

1. Fruitvale Avenue and Allendale Avenue
2. Fruitvale Avenue and San Marcos Road (unsignalized)
3. Fruitvale Avenue and Los Gatos-Saratoga Road

Traffic conditions were evaluated for the scenarios described below:

Scenario 1: Existing Conditions. Existing conditions are based on new traffic counts collected at the study intersections in February 2019, when schools were in session.

Scenario 2: Existing Plus Project Conditions. Existing plus project conditions were estimated by adding to existing traffic volumes the additional traffic generated by the project. Existing plus project conditions were evaluated relative to existing conditions in order to determine the effects the project would have on the existing roadway network.

Traffic studies typically include analysis of a “background” scenario which includes traffic generated by approved or under construction projects in the project vicinity. Per City staff, there are no approved or under construction projects within the project vicinity. Therefore, a background scenario was not evaluated.

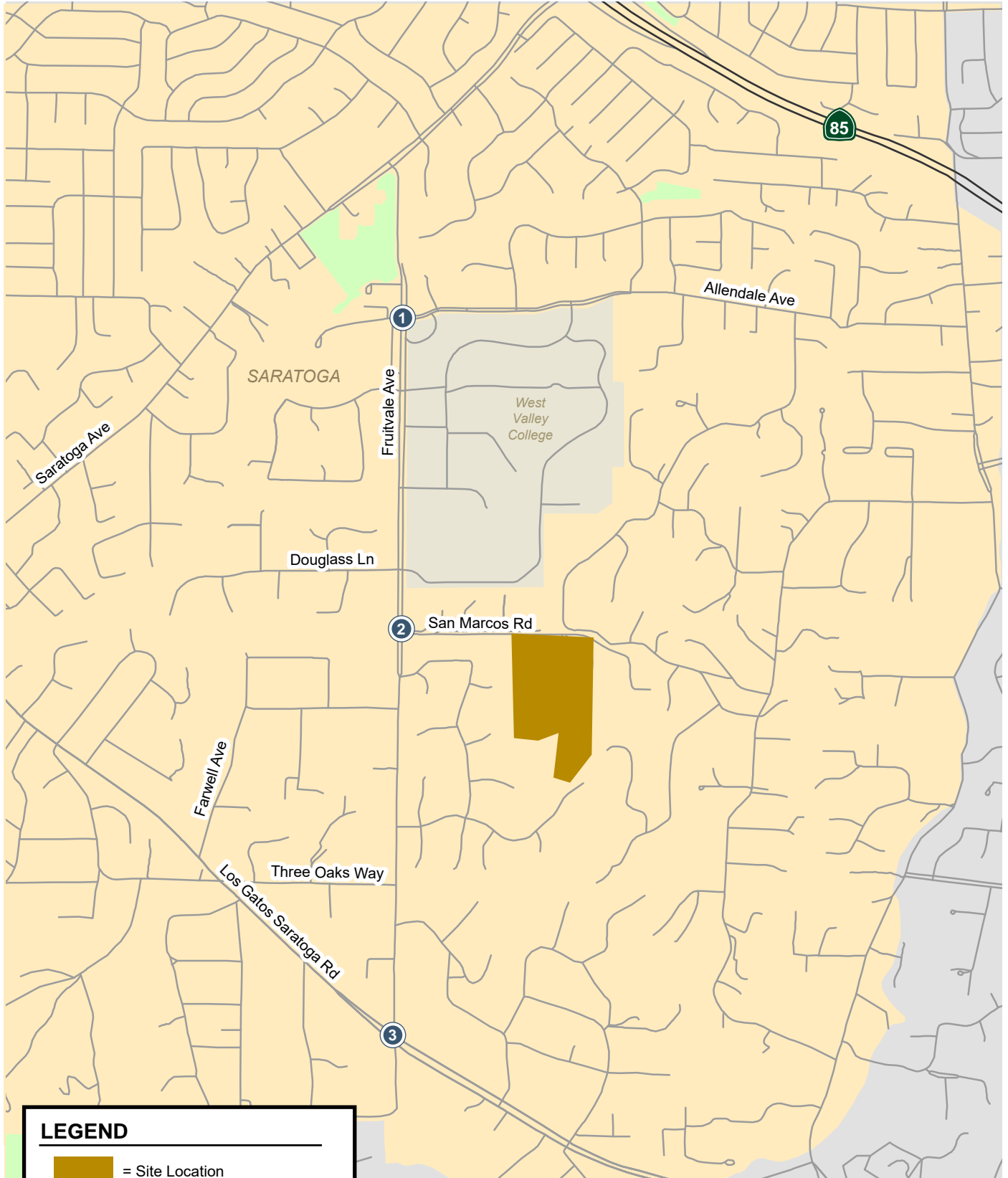


Figure 1
Site Location and Study Intersections

LEGEND

- = New Driveway
- = New Road
- = New Crosswalk
- = New Parking Area

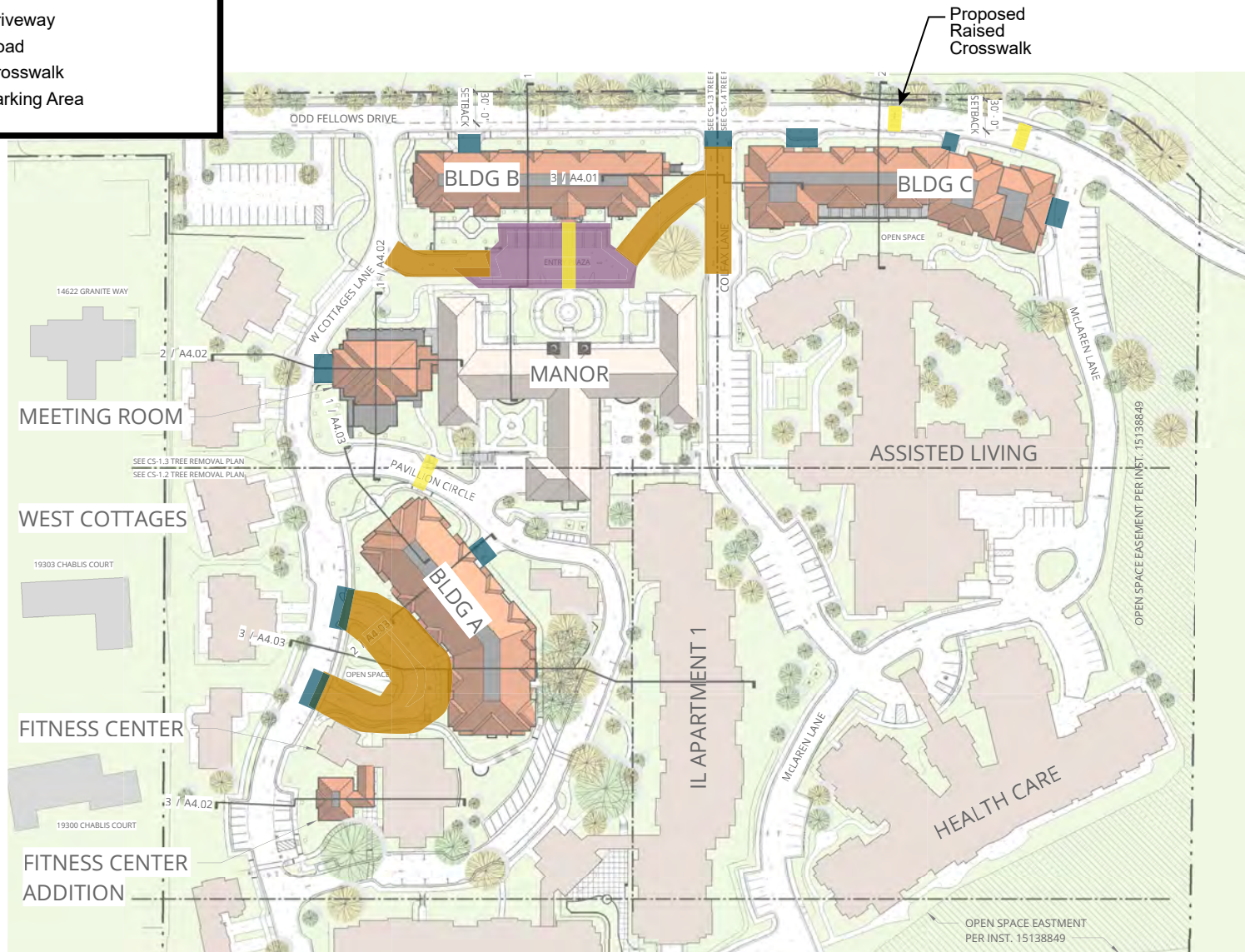


Figure 2
Site Plan

Since this project is estimated to generate fewer than 100 net peak hour trips, an analysis in accordance with the Valley Transportation Authority (VTA) Congestion Management Program (CMP)'s Transportation Impact Analysis (TIA) guidelines is not required. Thus, this study does not include an analysis of freeway segments or an evaluation of cumulative conditions.

Vehicle Miles Traveled (VMT) Analysis

Per California Senate Bill 743, the California Natural Resources Agency, with assistance from the Governor's Office of Planning and Research (OPR), adopted new CEQA guidelines in December 2018. The new guidelines state that automobile delay, as measured by level of service (LOS), will no longer constitute a significant environmental impact under CEQA, and that VMT is considered the most appropriate metric to evaluate a project's transportation impacts. The legislation is intended to promote infill development, a diversity of land uses, transit, active transportation modes while reducing greenhouse gas emissions. OPR recommends the following threshold for residential projects:

"A proposed project exceeding a level of 15 percent below existing VMT per capita may indicate a significant transportation impact. Existing VMT per capita may be measured as regional VMT per capita or a city VMT per capita."

Notwithstanding OPR's recommended threshold, lead agencies have the discretion to choose the VMT analysis methodology and to set or apply their own thresholds of significance. Cities have until July 2020 to adopt the new procedures and thresholds related to VMT. The City of Saratoga has not yet adopted any thresholds or guidelines related to VMT. However, the City has been requiring projects to study VMT as part of a traffic study. Therefore, an analysis of VMT for this project is presented for informational purposes only to aid decision makers during this transition period from LOS to VMT. Because the City has not adopted thresholds of significance for VMT, it is not intended to provide any indication of the transportation impacts of the project under SB 743, and the intersection level of service/traffic operations analysis is performed to identify the potential transportation issues related to the project. The City's final SB 743 implementation guidelines and approach may differ once approved.

Methodology

This section presents the method used to determine the traffic conditions for each scenario described above. It includes descriptions of the data requirements, the analysis methodologies, and the applicable level of service standards.

Data Requirements

The data required for this traffic study were obtained from the City of Saratoga, field observations and new traffic counts. The following data were collected from these sources:

- Existing traffic volumes,
- Existing lane configurations,
- Signal timing and phasing, and
- Applicable trip generation rates.

Level of Service Standards and Analysis Methodologies

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The level of service analysis was supplemented with a queuing analysis for selected movements at the study intersections in the study area. The various analysis methods are described in further detail below.

Signalized Study Intersections

The City of Saratoga level of service methodology for signalized intersections is the *Highway Capacity Manual* (HCM) 2000 method using TRAFFIX software. This method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. The City of Saratoga level of service standard for signalized intersections is LOS D or better. Table 1 shows the level of service definitions for signalized intersections.

Unsignalized Intersections

The City of Saratoga does not have an adopted level of service standard for unsignalized intersections. The correlation between average control delay and level of service for unsignalized, stop-controlled intersections is presented in Table 2. Note that for unsignalized intersections under two-way stop control, the level of service is reported for the approach with the worst delay. Level of service analysis at unsignalized intersections is generally used to determine the need for modification 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.

Level of service calculations at the unsignalized intersection were based on the HCM 2000 method using TRAFFIX software. At side street stop-controlled intersections, control delay is calculated separately for each stop-controlled approach, not for the intersection as a whole, and the worst approach's control delay is reported.

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

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	10.0 or less
B	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 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 many still pass through the intersection without stopping.	20.1 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 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 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.

Table 2
Unsignalized Intersection Level of Service Definitions Based on Delay

Level of Service	Description	Average Control Delay per Vehicle (sec) ¹
A	Little or no traffic delay	10.0 or less
B	Short traffic delays	10.1 to 15.0
C	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, Highway Capacity Manual 2000 (Washington, D.C., 2000) p17-2.

¹ At side street stop-controlled intersections, control delay is calculated separately for each stop-controlled approach, not for the intersection as a whole, and the worst approach's control delay is reported.

City of Saratoga Significant Intersection Impact Criteria

Significance criteria are used to establish what constitutes an impact. For this analysis, the criteria used to determine significant impacts on signalized intersections are based on the City of Saratoga's level of service standards.

The project is said to create a significant adverse impact on traffic conditions at a signalized intersection in the City of Saratoga if for either peak hour:

1. The level of service at the intersection degrades from an acceptable level (LOS D or better for non-CMP intersections and LOS E or better for CMP intersections) under existing conditions to an unacceptable LOS E or F under existing plus project conditions, or
2. The level of service at the intersection is an unacceptable level (LOS E or F at non-CMP intersections and LOS F at CMP intersections) under existing conditions and the addition of project trips causes both the critical-movement delay at the intersection to increase by four or more seconds *and* the demand-to-capacity ratio (V/C) to increase by .01 or more.

An exception to the second rule applies when the addition of project traffic reduces the amount of average delay for critical movements (i.e. the change in average delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by .01 or more.

Vehicle Queuing

The analysis of signalized intersection level of service is often supplemented with an analysis of intersection operations for selected intersections where the project would add a significant number of left-turning or U-turning vehicles. The operations analysis is based on vehicle queuing for high-demand turning-movements at stop-controlled intersections. Vehicle queues are 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 = Avg. # of vehicles in the queue per lane (vehicles per hour per lane/signal cycles per hour)

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

Existing Conditions

Existing traffic volumes at the study intersections (see Figure 3) were obtained through new traffic counts collected in February 2019, when schools were in session. Intersection turning-movement counts for this analysis are presented in Appendix A.

Existing intersection lane configurations were verified during field observations and are shown on Figure 3.

Existing Intersection Levels of Service

As shown on Table 3, the results of the analysis show that the two signalized study intersections are currently operating at acceptable levels. The unsignalized study intersection is currently operating at favorable conditions, and a signal warrant analysis is thus not needed. Hexagon conducted field observations at the three study intersections and determined that the calculated levels of service reflect existing operating conditions.

Table 3
Existing Intersection Levels of Service Summary

#	Intersection	Peak Hour	Count Date	LOS Std.	Existing Conditions	
					Avg. Delay (sec)	LOS
1	Fruitvale Avenue & Allendale Avenue	AM	02/07/19	D	37.0	D
		PM	02/07/19		38.0	D
2	Fruitvale Avenue & San Marcos Road (unsignalized)	AM	02/07/19	-	13.1	B
		PM	02/07/19		10.0	B
3	Fruitvale Avenue & Los Gatos-Saratoga Road	AM	02/07/19	D	10.9	B
		PM	02/07/19		20.1	C

Notes:
LOS and delay reported for unsignalized intersections represent the worst approach.

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

14500 Fruitvale Avenue Traffic Study

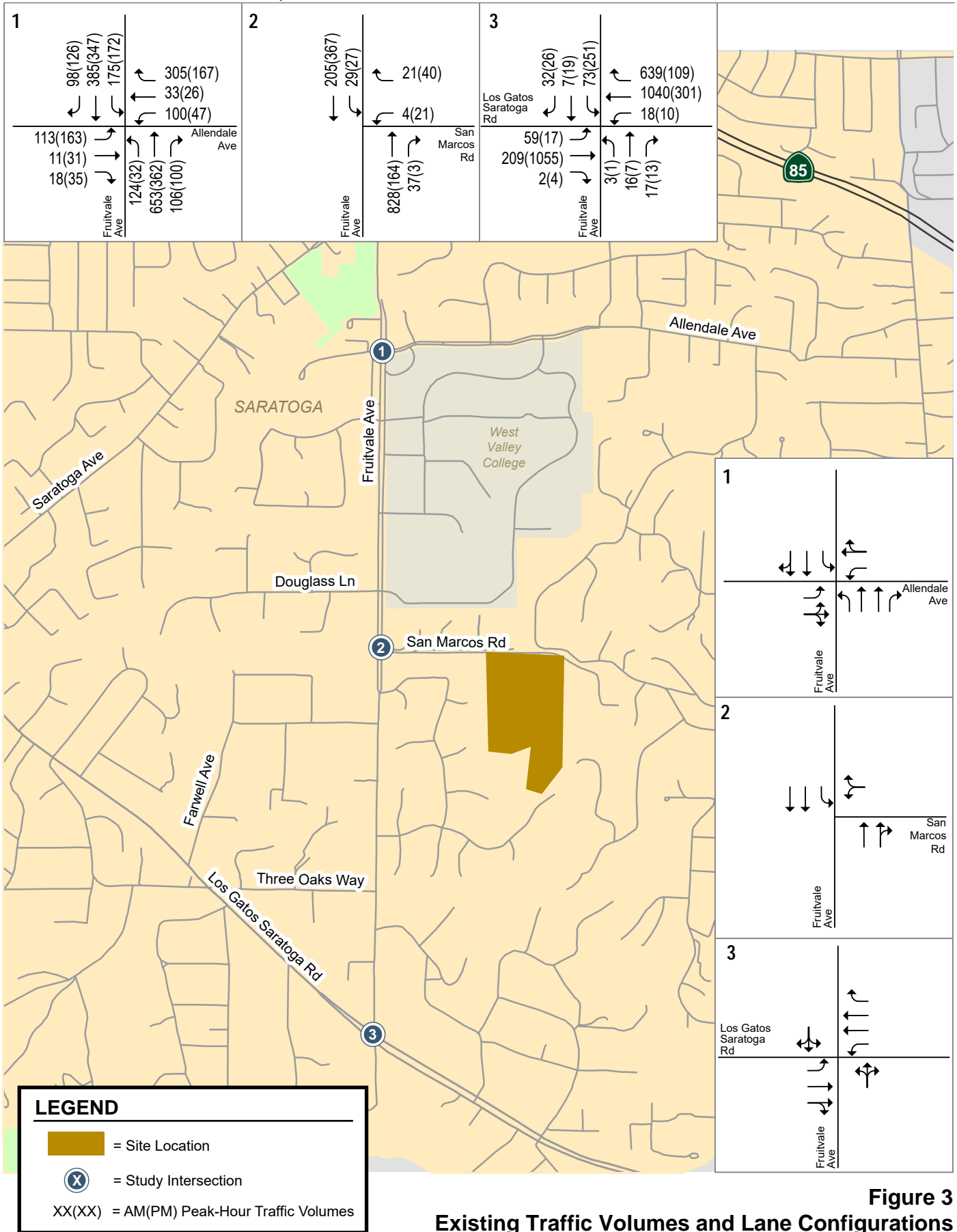


Figure 3
Existing Traffic Volumes and Lane Configurations

Project Conditions

The project proposes to construct 52 senior independent living apartment units, a 4,792s.f. meeting room, and a fitness building. The project proposes to remove several existing parking spaces throughout the project site. The project would provide a parking garage under each of the 3 new independent living apartment buildings and the meeting room with additional parking distributed throughout the project site. Access to the site is provided by the existing driveways at the project site.

Project Trip Estimates

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

Trip Generation

Through empirical research, data have been collected that quantify the amount of traffic produced by many types of land uses. Thus, for many types of land uses, there are standard trip generation rates that can be applied to help predict the future traffic increases that would result from a new development. These trip generation rates are published by the Institute of Transportation Engineers' (ITE) in the manual entitled *Trip Generation, 10th Edition*. The ITE manual includes rates for five land use categories related to senior housing: two are for senior adult housing (independent living), one for congregate care facility, one for assisted living, and one for continuing care retirement community (a community offering a combination of the above accommodations). Only the categories for independent living facilities contained more than ten data points. Among the two, the category "Senior Adult Housing – Attached" (Land Use Code 252) better reflects the proposed land uses, as the majority of the proposed buildings are for attached units.

Hexagon also conducted trip generation counts at the existing senior living center in February 2019 during both the AM and PM peak periods. The purpose of the trip generation counts was to determine whether the existing senior living center is generating trips at rates higher than the ITE published rates. As shown on Table 4, the existing senior living center is generating trips at rates lower than the ITE rates during the AM and PM peak hours. It should be noted that the existing senior living center includes living accommodations ranging from independent detached living to assisted living. It was not feasible to separate the trips generated by each type of living accommodations. It is assumed that estimating trip generation using the ITE trip generation rates would result in a conservative approach.

**Table 4
Comparison of Counted and ITE Trip Generation Rates**

Land Use	Size	Unit ²	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Counted Trip Generation ¹	343	d.u./beds	43	20	63	28	39	67
Counted Trip Generation Rates (per d.u./bed):					0.184	0.195		
ITE Senior Adult Housing - Attached Rates ³ (per d.u.):					0.200	0.260		
Notes:								
<i>d.u. = dwelling unit</i>								
1. Existing trip generation counts conducted in February 2019 on a typical weekday when schools were in session.								
2. The community consists of a combination of dwelling units for independent members and beds for assisted living members.								
3. ITE Trip Generation, 10th Edition. Land Use Code 252: Senior Adult Housing - Attached (General Urban/Suburban). Average rates expressed in trips per dwelling unit.								

Using the ITE trip generation rates, the proposed 52 independent senior living units is estimated to generate a total of 10 trips (4 in and 6 out) during the AM peak hour and 14 trips (8 in and 6 out) during the PM peak hour (see Table 5). The proposed meeting room and fitness building are assumed to primarily serve the residents living on site. Thus, there will be no dedicated employees for the meeting room.

The meeting room will also be available for public use for small gatherings with a maximum occupancy of 25 people. The community gatherings will only occur during the evening on weekdays between 5 PM and 9 PM with no more than one booking per day. Since the community use of the meeting room is expected to be after peak hours, it is assumed that it would not generate new project trips during typical AM and PM peak hours. A detailed site access discussion for the meeting room is provided in later sections.

**Table 5
Trip Generation Estimates**

Land Use	Size	Unit	Rate	AM Peak Hour			PM Peak Hour			
				In	Out	Total	Rate	In	Out	Total
Net Project Trips ¹	52	d.u.	0.2	4	6	10	0.26	8	6	14
Notes:										
1. ITE Trip Generation, 10th Edition . Land Use Code 252: Senior Adult Housing - Attached (General Urban/Suburban). Average rates expressed in trips per dwelling unit.										

1995 Master Plan

The 1995 Master Plan proposed a total of 99 beds and 307 assisted living and independent living residential units on the project site. Based on the trip generation developed in the 1995 Master Plan EIR, the project would generate 69 trips in the PM peak hour. The 1995 Master Plan EIR does not provide trip estimates for the AM peak hour. The master plan update proposes a total of 103 assisted living units, 195 independent living units, and 52 beds. In comparison to the original 1995 Master Plan EIR, the buildout of the proposed project would generate an additional 20 trips in the PM peak hour as shown in Table 6. The current study uses the latest available trip generation rates published in *ITE Trip Generation, 10th Edition*. These rates are higher by approximately 50% compared to rates used in the original EIR.

**Table 6
Master Plan Comparison**

Land Use	Size	Unit	PM Peak Hour				
			Rate	In%	In	Out	Total
Proposed Master Plan							
Assisted Living ¹	103	d.u./beds	0.26	38%	10	17	27
Independent Living ² (252)	195	d.u.	0.26	55%	28	23	51
Nursing Home ³ (620)	52	beds	0.22	33%	4	7	11
Total					42	47	89
1995 Master Plan⁴							
Assisted Living/Independent Living	307	d.u.	--		29	23	52
Nursing Home	99	beds	--		7	10	17
Total					36	33	69
Net Project Trips					6	14	20
Notes:							
1. ITE <i>Trip Generation, 10th Edition</i> . Land Use Code 254: Assisted Living (General Urban/Suburban). Average rates expressed in trips per bed. Each dwelling unit was assumed to have one bed.							
2. ITE <i>Trip Generation, 10th Edition</i> . Land Use Code 252: Senior Adult Housing - Attached (General Urban/Suburban). Average rates expressed in trips per dwelling unit.							
3. ITE <i>Trip Generation, 10th Edition</i> . Land Use Code 620: Nursing Home (General Urban/Suburban) used for skilled nursing facility (SNF) beds. Average rates expressed in trips per bed.							
4. Approved PM trips from the 1995 Master Plan Table 3.3-2.							

Trip Distribution and Assignment

Peak hour project traffic was distributed to the transportation network and assigned to the study intersections based on the existing trip distribution patterns in the project vicinity (see Figure 4). The Odd Fellows Master Plan stated that 67 percent of traffic came from the north approach on Fruitvale Avenue and 33 percent of traffic came from the south approach on Fruitvale Avenue. Further distributions were based on access to the site from regional highways.

Project Conditions Intersection Levels of Service

Project trips, as represented in the above project trip assignment, were added to the existing traffic volumes to obtain existing plus project traffic volumes (see Figure 5).

As shown on Table 7, the results of the analysis show that, under existing plus project conditions, the two signalized study intersections would continue to operate at acceptable levels. The unsignalized study intersection would continue to operate at favorable conditions, and a signal warrant analysis is thus not needed. Because the study intersections are expected to operate at acceptable levels under project conditions, the project would not create a significant intersection impact.

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

14500 Fruitvale Avenue Traffic Study

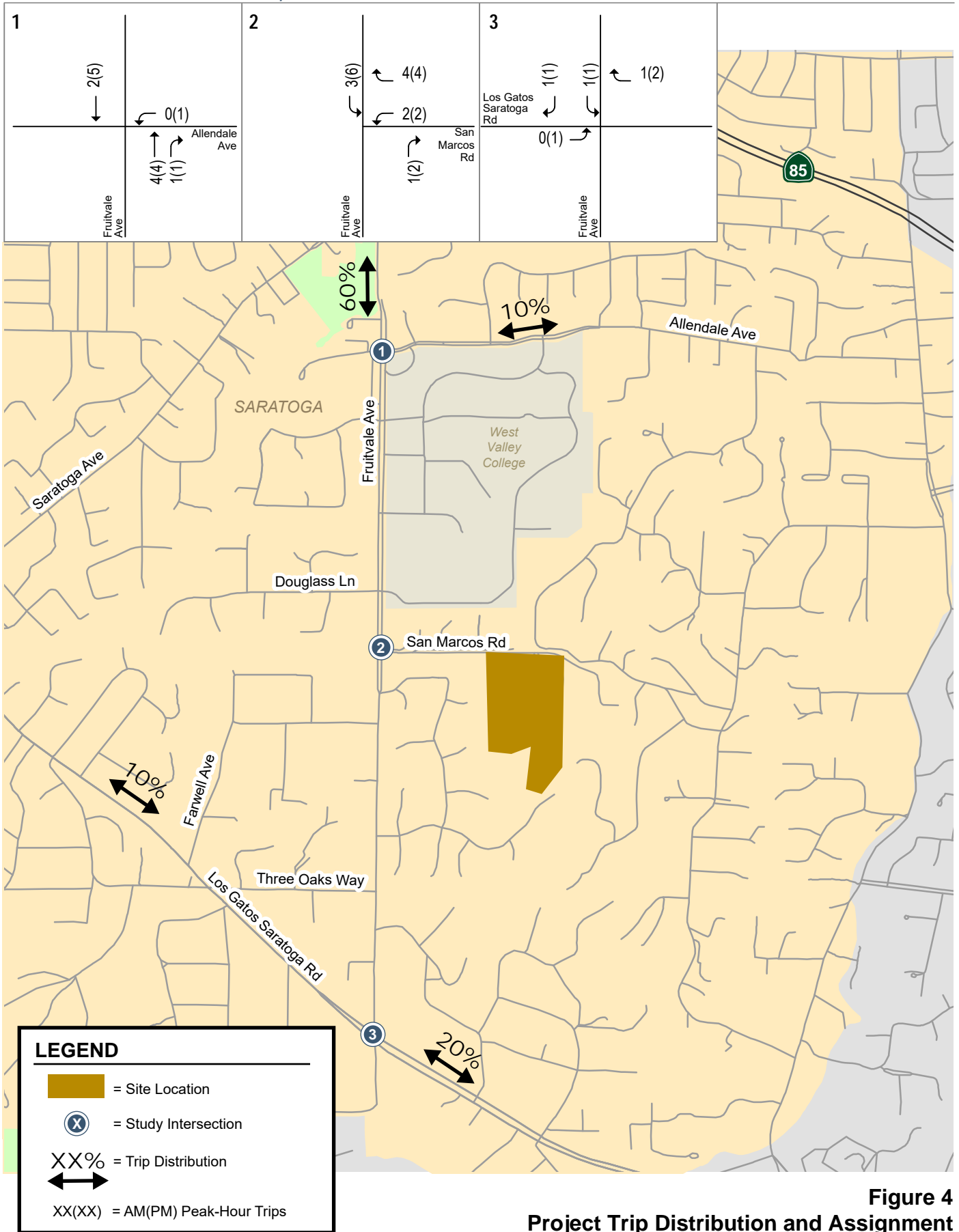


Figure 4
Project Trip Distribution and Assignment

14500 Fruitvale Avenue Traffic Study

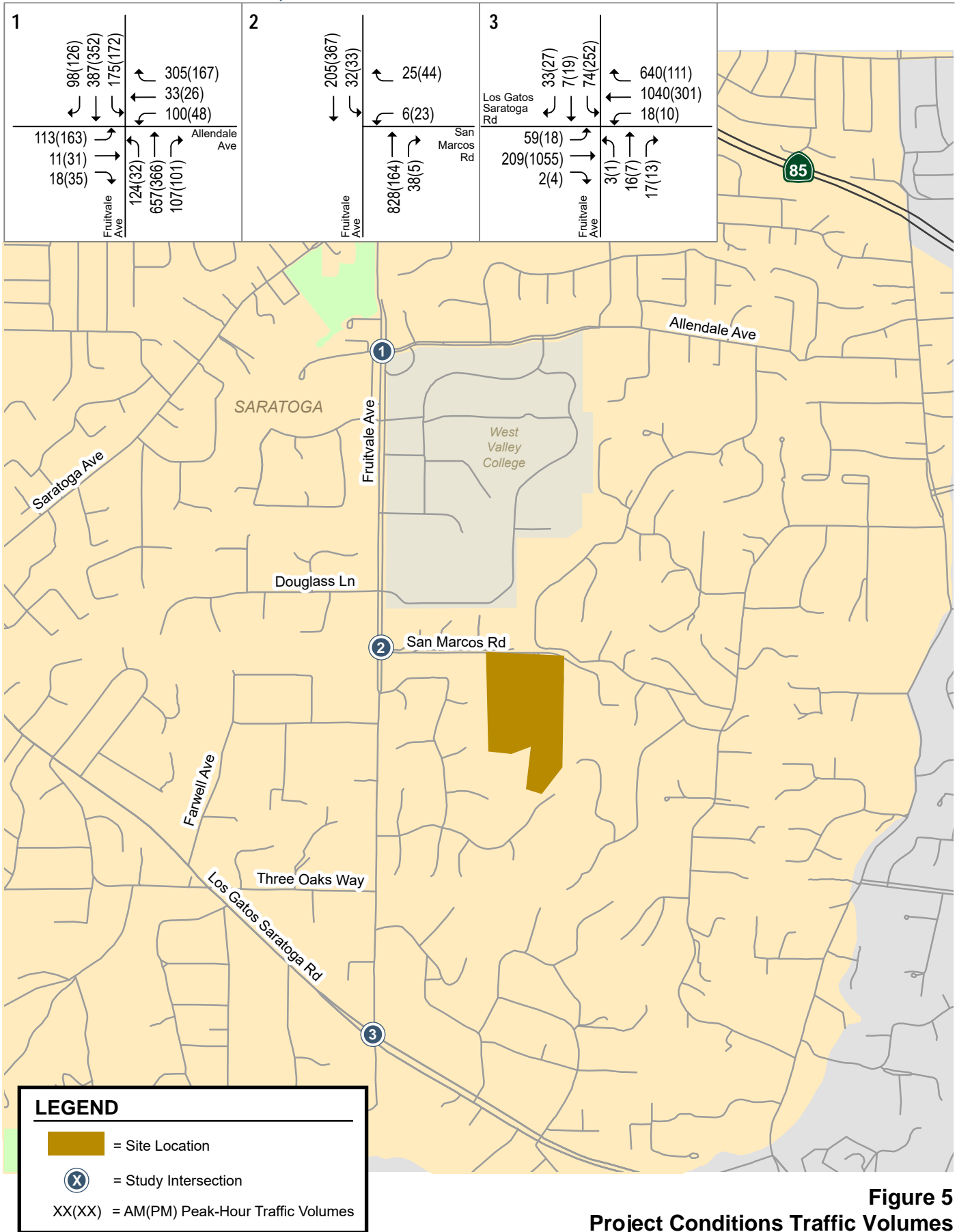


Figure 5
Project Conditions Traffic Volumes

**Table 7
Project Conditions Intersection Levels of Service Summary**

#	Intersection	Peak Hour	Count Date	LOS Std.	Existing Conditions		Existing plus Project Conditions			
					Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Incr. In Crit. Delay (sec)	Incr. In Crit. V/C
1	Fruitvale Avenue & Allendale Avenue	AM	02/07/19	D	37.0	D	37.0	D	0.0	0.001
		PM	02/07/19		38.0	D	37.9	D	0.0	0.001
2	Fruitvale Avenue & San Marcos Road (unsignalized)	AM	02/07/19	-	13.1	B	13.7	B	-	-
		PM	02/07/19		10.0	B	10.1	B	-	-
3	Fruitvale Avenue & Los Gatos-Saratoga Road	AM	02/07/19	D	10.9	B	10.9	B	0.2	0.002
		PM	02/07/19		20.1	C	20.2	C	0.1	0.001

Notes:
LOS and delay reported for unsignalized intersections represent the worst approach.

VMT Analysis

Average daily VMT for the project area was estimated using the Valley Transportation Authority’s (VTA)’s VMT database, which includes the forecasted VMT for each transportation analysis zone (TAZ) in urbanized areas in Santa Clara County. The VMT database provides two types of VMT forecasts: the average daily VMT per capita based on location of residence and the average daily VMT per worker based on location of work. Because the project VMT would be generated by residents, the average daily VMT per capita based on location of residence is used to evaluate the project’s VMT level by comparing with the City average VMT per capita. The simulated VMT by place of residence for the Year 2020 was used to calculate the average VMT per capita for (a) the TAZ in which the project is located and (b) the City of Saratoga.

As stated previously, the City of Saratoga has not adopted any impact thresholds related to VMT, so this comparison is provided for informational purposes only. The TAZ containing the proposed project (TAZ 1333) is estimated to have an average daily VMT per capita of 18.22. The average daily VMT per capita for the City of Saratoga is 17.97. However, the TAZ encompassing the project site consists mostly of single-family homes. Therefore, the ITE daily trip generation rate for single-family homes (9.44/d.u.) was compared to the ITE daily trip generation rate for senior adult housing (3.7/d.u.). The daily trip rate for senior adult housing is 61 percent lower than the daily trip rate for single-family homes. Based on the compared rate, the daily VMT per capita for the project site would be 7.14, which is more than 15% below the average daily VMT per capita for the City of Saratoga (17.97). Although the general trip characteristics for single-family homes and senior adult housing are different, the trip lengths were assumed to be the same for purposes of this analysis.

Vehicle Queuing

The analysis of intersection levels of service was supplemented with a vehicle queuing analysis for intersection turning movements where the project would add a substantial number of trips. This analysis provides a basis for estimating future storage requirements at the intersections. Vehicle queues were estimated using a Poisson probability distribution. The following turn movements were selected for evaluation:

- Fruitvale Avenue and San Marcos Road – southbound left turn and westbound lane

As shown on Table 8, the existing 95th percentile queues at the southbound left-turn and at the westbound lane do not exceed the available storage space during both the AM and PM peak hours. The 95th percentile queues would not be extended under project conditions.

Table 8
Queuing Summary

Measurement	Fruitvale Ave & San Marcos Rd			
	Southbound Left		Westbound	
	AM	PM	AM	PM
Existing				
Delay ¹ (sec)	9.8	7.6	13.1	10.0
Volume (vphpl)	29	27	25	61
Avg. Queue (veh./ln.)	0.0	0.0	0.0	0.0
Avg. Queue ² (ft./ln.)	0	0	0	0
95th % Queue (veh./ln.)	1	1	1	1
95th % Queue (ft./ln.)	25	25	25	25
Storage (ft./ ln.)	80	80	330	330
Adequate (Y/N)	Y	Y	Y	Y
Existing plus Project				
Cycle/Delay ¹ (sec)	9.8	7.6	13.7	10.1
Volume (vphpl)	32	33	31	67
Avg. Queue (veh./ln.)	0.0	0.0	0.0	0.0
Avg. Queue ² (ft./ln.)	0	0	0	0
95th % Queue (veh./ln.)	1	1	1	1
95th % Queue (ft./ln.)	25	25	25	25
Storage (ft./ ln.)	80	80	330	330
Adequate (Y/N)	Y	Y	Y	Y
1. Vehicle queue calculations based on movement delay for unsignalized intersections.				
2. Assumes 25 Feet Per Vehicle Queued				

Site Access and On-Site Circulation

The evaluation of site access and on-site circulation is based on the plan set prepared by Ankrom Moisan Architects, Inc. in June 2020. Site access and on-site circulation were reviewed in accordance with generally accepted traffic engineering standards.

Site Access

Vehicular access to the site is provided by four main driveways. One of these, Colfax Lane, would be realigned with the project, and three new driveways would be added. The two proposed buildings fronting Odd Fellows Drive (Buildings B and C) would each have one driveway on Odd Fellows Drive for access into the garages under each building. Building C would also have a driveway on McLaren Lane to access the lower level of the garage. New Building A would have a one-way counter-clockwise loop access road in front, connecting to W. Cottages Lane. Access to the underground parking garage would be via a new driveway off Pavilion Circle.

Sight Distance at the Project Driveways

The project access points should be free and clear of any obstructions to optimize sight distance, thereby ensuring that exiting vehicles can see pedestrians on the sidewalk and other roadway users travelling on adjacent roadways. Landscaping and parking should not conflict with a driver's ability to locate a gap in traffic and see oncoming pedestrians and bicyclists. Adequate corner sight distance (sight distance triangles) should be provided at all site access points in accordance with Caltrans standards. Figure 6 shows the available sight distance triangles at the new driveways.

There are two existing driveways and three proposed new driveways on Odd Fellows Drive. Odd Fellows Drive has a speed limit of 25 miles per hour. The Caltrans recommended stopping sight distance is 150 feet. At the driveway to Building C, there is a roadway grade and curve preventing drivers from seeing 150 feet to the west as they exit the driveway. The project proposes a raised crosswalk approximately 50 feet west of the proposed garage ramp to slow traffic to about 10 miles per hour. The Caltrans recommended stopping sight distance for a 10 miles per hour speed is 50 feet. With this raised crosswalk, sight distance would be adequate as vehicles would be slowed down. There currently exists a stop sign along the westbound approach of Odd Fellows Drive at Colfax Lane. However, Colfax Lane will be realigned approximately 95 feet west. Colfax Lane still provides an adequate 150 feet of sight distance.

There is a new entry plaza proposed in front of Building B with access to W. Cottages Lane. W. Cottages Lane has a speed limit of 25 mph. Therefore, the stopping sight distance is 150 feet. Vehicles exiting the entry plaza would have approximately 150 feet of sight distance looking south and 130 feet of sight distance looking north. However, vehicles would not be traveling at a speed of 25 mph or greater when turning onto W. Cottages Lane. Thus, the sight distance would be adequate. There would be another driveway to the entry plaza from Colfax Lane, which has a speed limit of 25 mph. That driveway would have at least 150 feet of sight distance. There also would be parking beneath the new meeting room and a driveway to W. Cottages Lane. The driveway out of the meeting room building would have approximately 230 feet of sight distance looking south, given that landscaping does not block the sight distance.

There is a new driveway out of Building A on Pavilion Circle. Pavilion Circle is a one-way counter-clockwise loop with a speed of 20 miles per hour. The Caltrans recommended stopping sight distance is 125 feet for this speed. There is approximately 125 feet of sight distance east of the driveway before Pavilion Circle bends. Therefore, sight distance at this driveway is adequate.

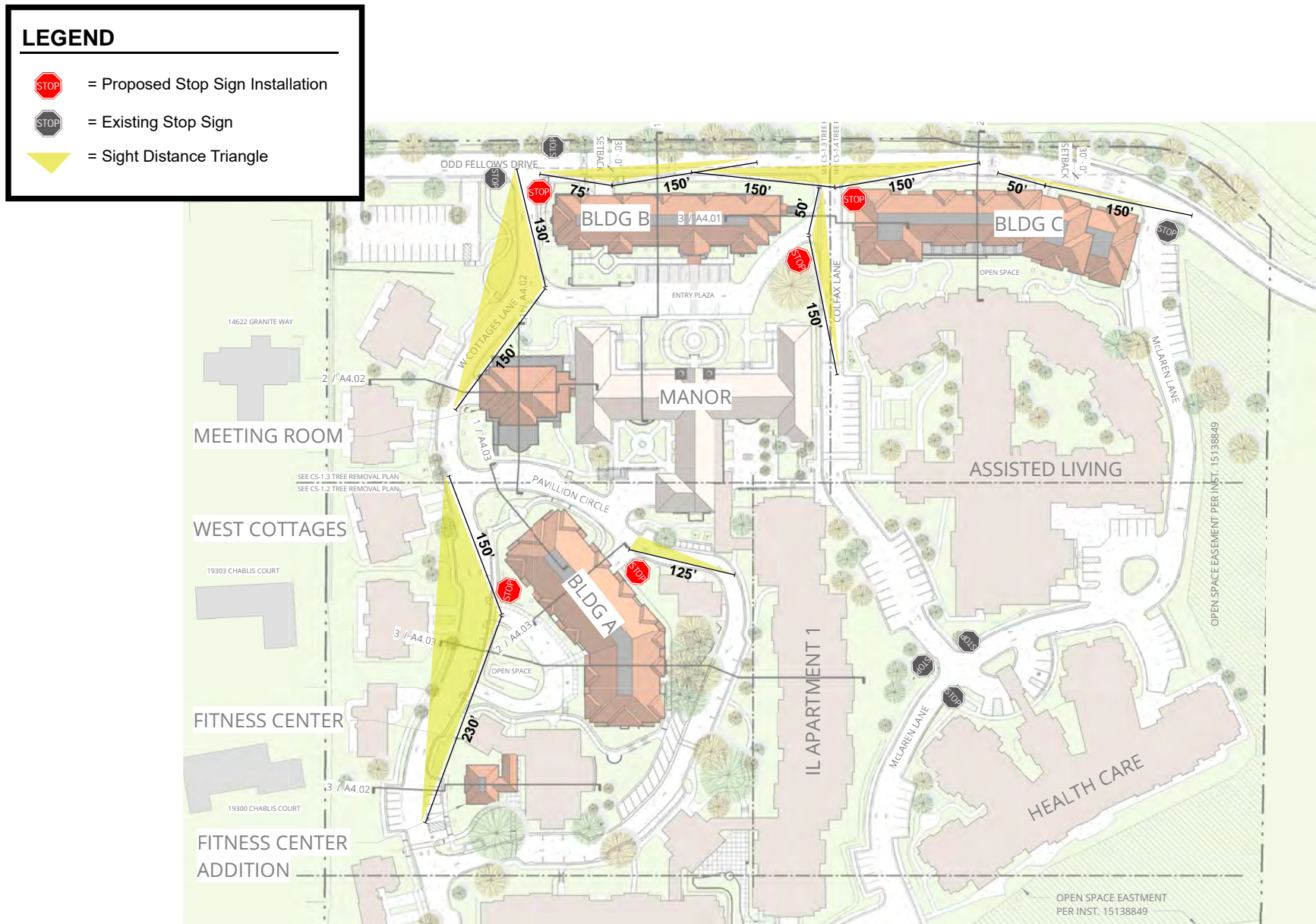


Figure 6
Sight Distance Triangles and Proposed Stop Sign Installation

Recommendation

It is recommended that the project applicant ensure that there is no tall vegetation near the driveways that would block a driver's sight distance in accordance with Caltrans stopping sight distance based on the roadway speed.

Site Circulation

Under the proposed expansion of the retirement community, there would be some changes to on-site circulation, but most roads and parking areas would remain unchanged (see Figure 2) The project proposes four new garages, one underneath each proposed building. The parking stalls in the garages are all shown to measure approximately 9.5 feet wide by 18.5 to 19 feet long, which meets the City of Saratoga's Zoning Code, Section 15-35.040. Grades for the garage ramps are not shown on the current plans. Each parking garage would have dead-end aisles but would provide adequate turnaround space.

The project is located within the Single-Family Residential zoning district but is planned for senior housing. Therefore, per the City's Zoning Code, Section 15-35.040, the driveways must meet the Fire District's requirements. All driveways entering the underground garages are shown to be at least 16 feet or greater, and the one-way driveways on the Building A frontage loop would be 14 feet wide. The Saratoga Fire District has reviewed the driveway widths.

The driveways leading to the new entry plaza in front of Building B would create two new intersections: one with W. Cottages Lane, and one with Colfax Lane. The new plaza in front of Building B would be one-way counter-clockwise between W. Cottages Lane and Colfax Lane. The proposed loop road in front of Building A would create two new intersections on W. Cottages Lane. All of these intersections should have stop signs for exiting vehicles.

The intersection with Colfax Lane is shown to be skewed. However, this intersection would be outbound only, traveling onto Colfax Lane. Aligning the intersection to be at a right angle would provide better circulation but doing so would result in a grade drop of more than 35 feet over just 76 feet in length. In addition, realigning this outbound driveway would require removal of the existing redwood Heritage Tree. Therefore, it would not be practical to realign the intersection to be at a right angle.

There is an existing drop-off area in front of the main manor building on Manor Circle. Under project conditions, the site plan shows that a section of the drop-off area would remain directly in front of the Main Manor building and the surrounding road would be converted to parking spaces.

Recommendation

Stop signs should be installed for exiting vehicles at all new intersections (see Figure 6).

Traffic Calming Measures

The campus has several existing speed bumps which will help reduce the speed of vehicles in the campus and increase pedestrian safety (see Figure 7). Two speed bumps are located on Odd Fellows Drive between Fruitvale Avenue and W. Cottages Drive west of the campus. One speed bump is located east of McLaren Lane east of the campus. Within the campus, there are two speed bumps located on Odd Fellows Drive between West Cottages Lane and Colfax Lane. The project proposes a raised crosswalk between Colfax Lane and McLaren Lane. There are two speed bumps located on McLaren Lane north of the Assisted Living Center and one speed bump on Colfax Lane near the Manor Building. There is also a speed bump located on Eucalyptus Lane.

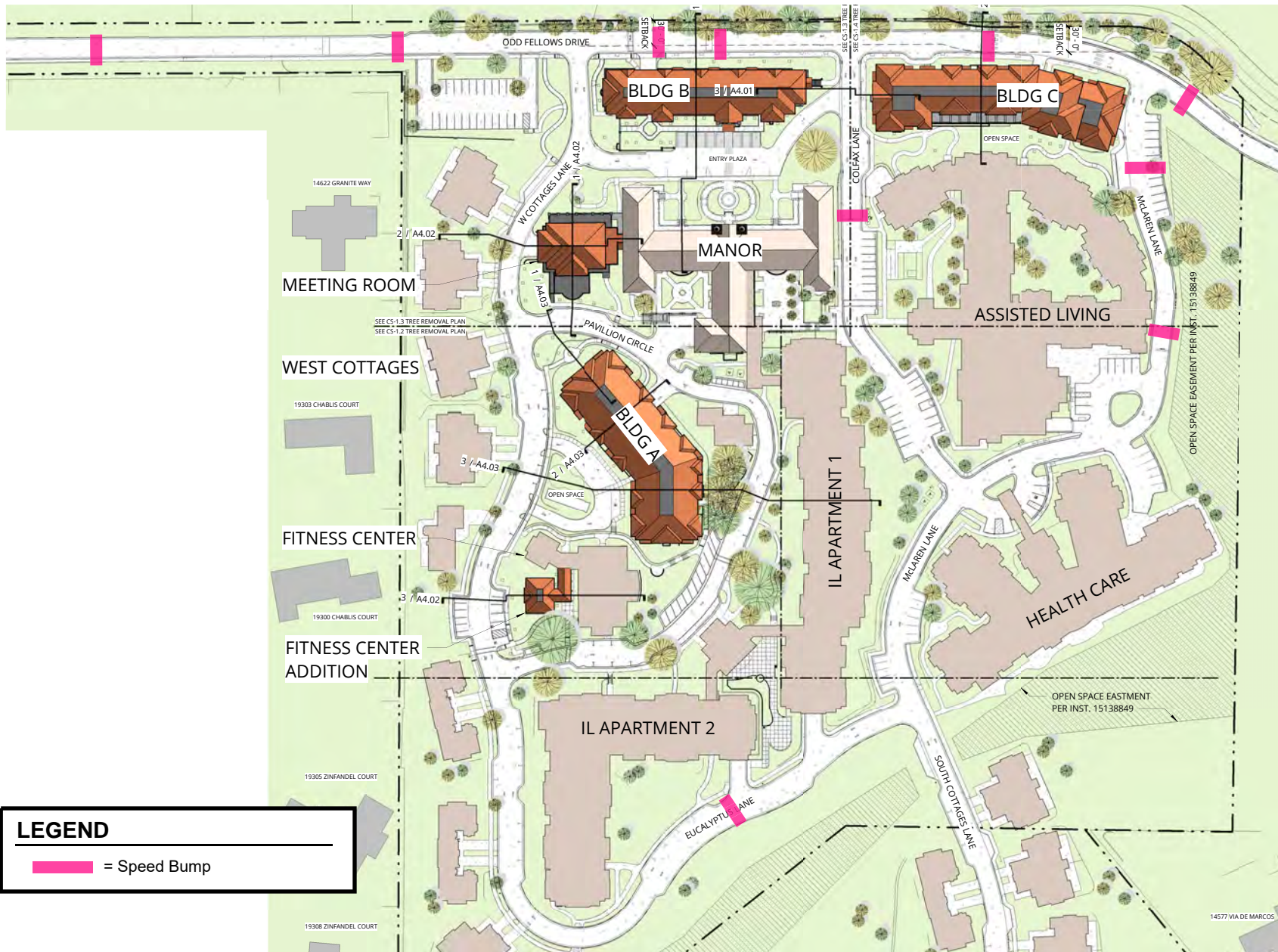


Figure 7
Campus Traffic Calming

Site Operations

Employee

The total number of employees working on the campus is 296. Currently, the employees work in three different shifts, and the shifts are staggered for each of the main service components. Those components include the Assisted Living and Memory Care Building, the Skilled Nursing Healthcare Building, the Independent Living Buildings, and the Manor Building which provides Administration & Services. The day shift is largest with a total of 153 employees on site. The employees typically arrive and leave outside commute peak hours. With the proposed plan, the employee totals would remain the same for all buildings with the exception of the reduction of 6 employees (from 124 employees to 118 employees) at the Skilled Nursing Building, due to the reduction of 42 beds. Employee staffing by building and shift is provided in Appendix C.

Resident

Nearly all the residents on campus are retired. Their trips have a very minor impact on peak traffic times since they typically do not commute to work. This is also shown by the project trip generation estimates in above sections. The same will remain true with the proposed development.

Loading Zones

The City Zoning Code Section 15.35.060(a) requires two loading zones for nursing homes and offices up to 150,000 s.f. of area. The total area of the Health Center (39,893 s.f.), Assisted Living Facility (106,192 s.f.), and the offices at the Manor Building (3,972 s.f.) totals 149,757 s.f. requiring two loading spaces. There are two loading zones provided on the campus meeting the City's requirement. The main loading area for the campus is at the back of the Manor Building. There is one loading space plus additional room there for smaller trucks. The Assisted Living Center has one loading zone. The loading zones are designed to be 12'x45' with 14' overhead clearance as required by Section 15.35.070 of the zoning code. The loading areas shown are within the central portion of the campus and are well screened from any adjacent properties.

The existing and proposed Independent Living Buildings do not receive recurrent deliveries of goods by truck, and per Section 15.35.060(e) of the zoning code they do not require loading spaces. The Fitness Building, the proposed fitness addition, and the proposed meeting room also do not receive recurrent deliveries.

Deliveries

Food Deliveries are made to the backside of the Manor Building along Pavilion Circle and the Assisted Living Center via smaller trucks and are staggered throughout the week at different days and times to avoid conflicts. USPS delivery goes to the front entrance of each building. The front of the Manor Building has parallel parking spaces for short term parking, which can also be used by delivery vehicles like UPS, Fed Ex, and other small deliveries all day Monday to Saturday.

In case a loading zone is occupied, and a truck is unable to make its delivery, the truck can visit the other loading zone, make its delivery at that location, and then circle back to the initially occupied loading zone to complete its delivery, thus, providing flexibility for the delivery vehicles.

Plans showing the loading zones and detailed delivery schedules are provided in Appendix D.

Recommendation

According to campus staff, delivery trucks to the backside of the manor building were observed to back into the one-way Pavilion Circle from the one-way exit, instead of driving south to enter the entrance of Pavilion Circle. It is recommended that a sign indicating one-way travel be installed at the driveway. It is also recommended that the project applicant clearly communicate with the delivery vehicles that they need to follow the one-way vehicular flow, and park in designated areas on site to unload.

Garbage Collection

Trash and recycling pick-up occur three times a week at the two loading areas where dumpsters are located. The majority of the refuse is created by the commercial kitchens at the Manor Building and the Assisted Living Building, which are near the loading areas. The Independent Living Buildings have trash chutes that take refuse to the trash rooms in the garages, which is then moved to the loading areas by staff. Trash from individual cottages is also picked up by the staff and is taken to the loading areas.

Emergency Access

Currently, there is an emergency evacuation plan for each building in case of fire or another emergency event. Those plans are posted in each building. The proposed new buildings would have similar evacuation plans. The fire department has reviewed the design of the roads including widths and the proposed means of emergency access for the campus. The main fire access would be from Fruitvale Avenue with secondary access from Chester Avenue. The emergency vehicle road network will also serve private autos and vehicles. Fire access plans are provided in Appendix E.

Meeting Room

Community users to the meeting room will be directed to use the lower-level garage parking at Building B. Since Building B is closest to the Meeting Room and is near the entry to the campus, visitor circulation through the campus will be avoided. Carpooling for the visitors will also be encouraged.

Pedestrian Access and Circulation

Pedestrian access to the project site from the existing roadway network is provided by sidewalks along eastbound Odd Fellows Drive. The project proposes sidewalks along its project frontage along Odd Fellows Drive. Pedestrian facilities on-site comprise of mostly existing sidewalks and crosswalks providing continuous pedestrian circulation on site.

New or revised midblock pedestrian crossings are shown on the site plan in a couple of locations. A new north/south crosswalk is proposed on Odd Fellows Drive just west of McLaren Lane to align with the winding walkway north of Odd Fellows Drive. Current proposed location for the crosswalk has adequate visibility for drivers traveling on Odd Fellows Drive. The midblock crossing between the Building A and the meeting room would provide direct access between buildings for residents. The existing midblock crossing on W. Cottages Lane is approximately 10 feet south of the intersection with the entry plaza driveway. However, the sidewalk is designed to provide ADA access up the hill with a maximum 5 percent grade. Moving the crosswalk to the intersection would not be practical given the physical constraints and the need to provide pedestrians ease to travel throughout the site.

Bicycle Access and Circulation

There are no dedicated bicycle facilities on Fruitvale Avenue or Odd Fellows Drive. The project proposes no bicycle facilities on the site. The City's General Plan proposes a new Class II bicycle lane along Fruitvale Avenue between Saratoga Avenue and Burgundy Way. Given the lack of dedicated bicycle facilities on Fruitvale Avenue and Odd Fellows Drive, as well as on site, it is anticipated that bicycle usage would be low.

Transit Access and Circulation

There are no public transit systems within walking distance of the project site. The retirement community provides its own shuttle buses for its residents as needed for their daily activities.

Shuttle Operations

The project would continue to provide shuttles for residents to travel within the site and off-site as well. Shuttles would take residents to the on-site dining room and to off-site excursions and appointments. The shuttles do not have fixed routes or stops on site and function more as an on-

Parking

The project site currently provides 460 parking spaces with no off-site parking provided for staff. Based on the City's Zoning Code (Section 15-35.030) off-street parking requirements, the development would require a total of 554 parking spaces (see Table 9). The project proposes to provide 569 parking spaces. This would meet the City's parking requirement.

Compact parking spaces have been provided at Building B (16 spaces of 64 total spaces) and Building C (5 spaces of 77 total spaces). Per the City's zoning code, only 25 percent of the parking spaces provided can be allocated as compact parking. The project allocates 25 percent of Building B parking spaces and seven percent of Building C parking spaces as compact parking, meeting the City's requirement for each building independently. For the campus as a whole, the project provides approximately four percent compact parking spaces. The compact parking spaces are designed to be 8 feet wide and 16 feet long, meeting the City's code.

Although the parking code requires 120 parking spaces for the meeting room and 64 parking spaces for the fitness center, only the residents and their guests would be using these spaces, with the exception of the meeting room being available for public use in the evening on weekdays through prior scheduling. 46 visitor parking stalls would be provided in the lower level of Building B, which is closest to the Manor Building and the Meeting Room. Therefore, parking is not provided exclusively for these uses and instead will be allocated to residents. Furthermore, there will be no dedicated employees that run the Meeting Room. The administrative personnel that work in the Manor Building offices will staff the new Meeting Room, just as they currently staff the existing Meeting Room. No additional parking space will be needed for this staff person.

Table 9
Vehicular Parking Requirements

Land Use	Size		Unit	Required Parking Rate ¹	Parking Spaces
	Existing	Proposed			Required
Assisted Living/Nursing Home	200	155	beds	1 space per 3 beds	51
	65	51	staff	1 space per 2 staff ²	26
Independent Living	143	195	units	1.5 spaces per unit	293
Meeting Room ³	–	4,792	s.f.	1 space per 40 square feet	120
	–	0	staff	1 space per 2 staff	0
Fitness Center ³	8,592	9,657	s.f.	1 space per 150 square feet	64
Total Required Spaces					554
Proposed Parking Spaces					569
<p><u>Notes:</u> s.f. = square feet 1. Vehicular parking requirements per Section 15-35.030 of the Saratoga Zoning Code 2. Staff includes doctors and employees 3. The meeting room and fitness center would mainly be used by residents and parking is not provided exclusively for these uses. The parking would be allocated to residents. There will be no dedicated employees that run the Meeting Room. The Administrative personnel that work in the Manor offices will staff the new Meeting Room, just as they currently staff the existing Meeting Room. No additional parking space will be needed for this staff person.</p>					

Construction Activities

Typical activities related to the construction of any development could include lane narrowing and/or lane closures, and sidewalk and pedestrian crosswalk closures. In the past parking spaces have been leased from the adjacent West Valley College during construction activities. It is expected that the applicant will coordinate with City staff to develop adequate parking schemes during construction periods. The project applicant has also initiated discussion with West Valley College to lease parking spaces during construction for construction employees and for staff members. A Construction Management Plan has been provided as a part of the overall submittal.

In the event of any type of closure, clear signage (e.g., closure and detour signs) must be provided to ensure vehicles, pedestrians and bicyclists are able to adequately reach their intended destinations safely. The project should submit a construction management plan for City approval that addresses the construction schedule (i.e. limiting construction traffic during peak school and commute times), street closures and/or detours, construction staging areas and parking, and the planned truck routes.

Conclusions

Hexagon has completed a traffic study for the proposed senior living project at 14500 Fruitvale Avenue in Saratoga, California. The proposed project would not create significant intersection impacts at nearby study intersections. Based on our site plan review, Hexagon makes the following recommendations:

- It is recommended that the project applicant ensure that there is no tall vegetation near the driveways that would block a driver's sight distance for 150 feet.

- Stop signs should be installed for exiting vehicles at all new intersections, and a drop-off area be maintained in front of the manor building.
- It is recommended that a sign indicating one-way travel be installed at the driveway. It is also recommended that the project applicant clearly communicate with the delivery vehicles that they need to park in designated areas on site.

**14500 Fruitvale Avenue Senior Living Project Traffic
Study
Technical Appendices**

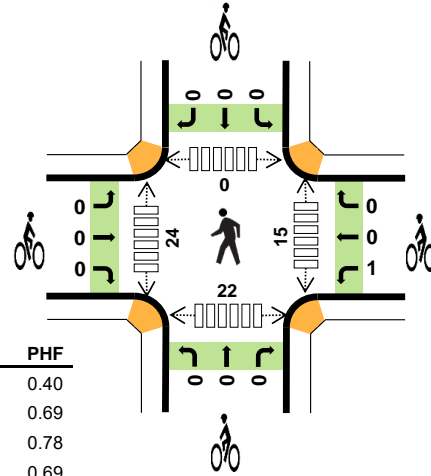
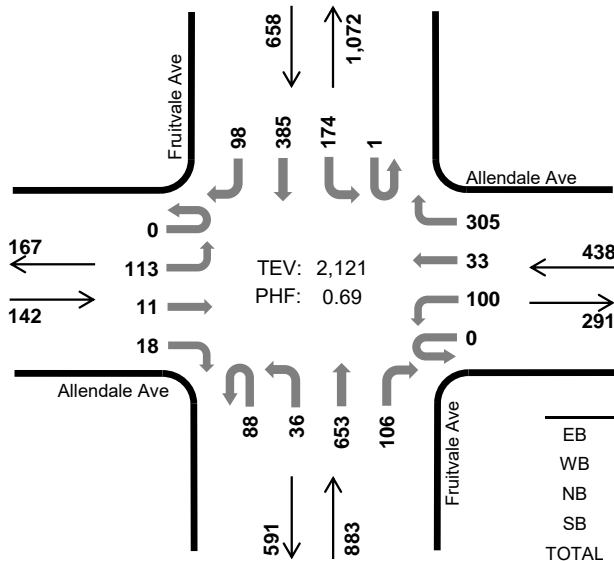
Appendix A Traffic Counts

Fruitvale Ave Allendale Ave



Peak Hour

Date: 02-07-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	0.7%	0.40
WB	1.1%	0.69
NB	2.3%	0.78
SB	2.1%	0.69
TOTAL	1.9%	0.69

Two-Hour Count Summaries

Interval Start	Allendale Ave Eastbound				Allendale Ave Westbound				Fruitvale Ave Northbound				Fruitvale Ave Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	7	1	3	0	7	1	18	3	7	70	6	0	9	35	18	185	0	
7:15 AM	0	32	5	5	0	9	10	48	2	7	100	12	0	29	51	31	341	0	
7:30 AM	0	5	2	4	0	14	4	62	3	6	91	22	0	38	56	8	315	0	
7:45 AM	0	26	2	2	0	18	5	91	28	10	183	37	1	47	129	39	618	1,459	
8:00 AM	0	77	4	8	0	54	21	84	55	18	189	20	0	37	155	47	769	2,043	
8:15 AM	0	5	3	4	0	14	3	68	2	2	190	27	0	52	45	4	419	2,121	
8:30 AM	0	3	2	3	0	11	3	60	0	3	101	12	0	46	53	13	310	2,116	
8:45 AM	0	6	0	2	0	18	3	42	0	4	111	30	0	58	101	12	387	1,885	
Count Total	0	161	19	31	0	145	50	473	93	57	1,035	166	1	316	625	172	3,344	0	
Peak Hour	All	0	113	11	18	0	100	33	305	88	36	653	106	1	174	385	98	2,121	0
	HV	0	0	0	1	0	3	0	2	0	1	13	6	0	5	8	1	40	0
	HV%	-	0%	0%	6%	-	3%	0%	1%	0%	3%	2%	6%	0%	3%	2%	1%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	5	1	6	0	0	0	0	0	1	0	0	5	6
7:15 AM	0	0	0	3	3	0	0	1	0	1	0	1	0	1	2
7:30 AM	1	1	6	5	13	0	1	0	0	1	0	1	0	3	4
7:45 AM	0	0	7	3	10	0	0	0	0	0	6	10	0	3	19
8:00 AM	0	4	2	2	8	0	0	0	0	0	8	12	0	15	35
8:15 AM	0	0	5	4	9	0	0	0	0	0	1	1	0	1	3
8:30 AM	0	0	2	1	3	0	0	0	1	1	0	0	0	0	0
8:45 AM	1	0	5	3	9	0	0	0	0	0	0	1	0	3	4
Count Total	2	5	32	22	61	0	1	1	1	3	16	26	0	31	73
Peak Hour	1	5	20	14	40	0	1	0	0	1	15	24	0	22	61

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Allendale Ave				Allendale Ave				Fruitvale Ave				Fruitvale Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	3	2	0	0	1	0	6	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	0
7:30 AM	0	0	0	1	0	1	0	0	0	1	3	2	0	1	4	0	13	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	6	1	0	1	2	0	10	32
8:00 AM	0	0	0	0	0	2	0	2	0	0	0	2	0	1	0	1	8	34
8:15 AM	0	0	0	0	0	0	0	0	0	0	4	1	0	2	2	0	9	40
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	3	30
8:45 AM	0	0	0	1	0	0	0	0	0	0	4	1	0	1	2	0	9	29
Count Total	0	0	0	2	0	3	0	2	0	1	21	10	0	9	12	1	61	0
Peak Hour	0	0	0	1	0	3	0	2	0	1	13	6	0	5	8	1	40	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Allendale Ave			Allendale Ave			Fruitvale Ave			Fruitvale Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
7:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	3	0
Peak Hour	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0

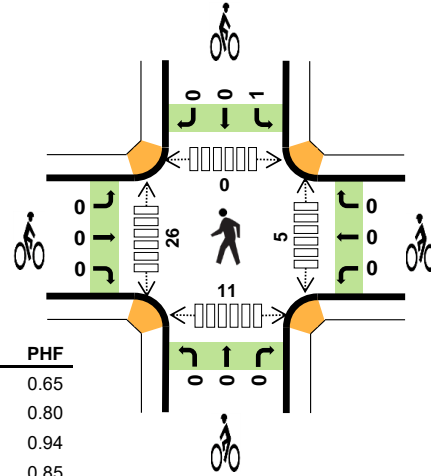
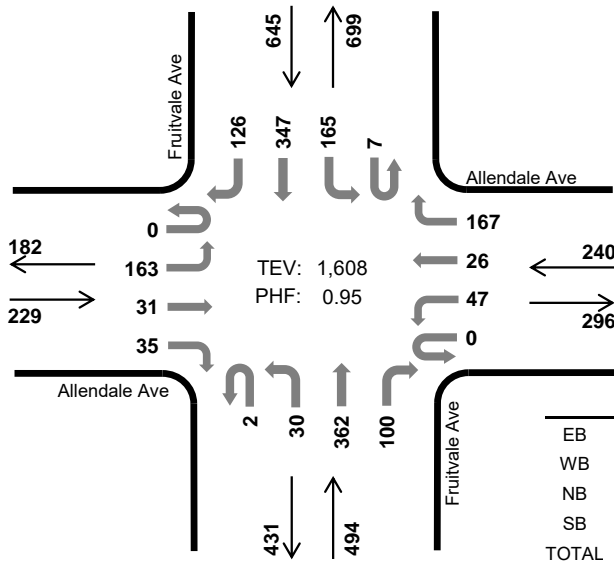
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Fruitvale Ave Allendale Ave



Peak Hour

Date: 02-07-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	0.4%	0.65
WB	0.4%	0.80
NB	2.2%	0.94
SB	1.2%	0.85
TOTAL	1.3%	0.95

Two-Hour Count Summaries

Interval Start	Allendale Ave Eastbound				Allendale Ave Westbound				Fruitvale Ave Northbound				Fruitvale Ave Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	26	8	7	0	16	8	51	0	9	101	22	0	37	91	25	401	0	
4:15 PM	0	26	3	12	0	13	7	44	1	5	81	24	0	30	87	31	364	0	
4:30 PM	0	40	11	8	0	8	6	30	0	11	96	23	4	58	88	40	423	0	
4:45 PM	0	71	9	8	0	10	5	42	1	5	84	31	3	40	81	30	420	1,608	
5:00 PM	0	11	2	8	0	15	7	49	3	2	80	23	2	50	74	13	339	1,546	
5:15 PM	0	18	5	8	0	7	1	33	0	0	66	32	0	51	96	13	330	1,512	
5:30 PM	0	21	5	6	0	12	6	46	4	2	107	21	0	83	104	22	439	1,528	
5:45 PM	0	29	8	10	0	13	3	34	0	7	74	18	0	75	127	19	417	1,525	
Count Total	0	242	51	67	0	94	43	329	9	41	689	194	9	424	748	193	3,133	0	
Peak Hour	All	0	163	31	35	0	47	26	167	2	30	362	100	7	165	347	126	1,608	0
	HV	0	0	0	1	0	1	0	0	0	1	6	4	0	5	3	0	21	0
	HV%	-	0%	0%	3%	-	2%	0%	0%	0%	3%	2%	4%	0%	3%	1%	0%	1%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	4	3	7	0	0	0	0	0	1	10	0	4	15
4:15 PM	1	1	1	0	3	0	0	0	0	0	1	2	0	2	5
4:30 PM	0	0	2	1	3	0	0	0	1	1	1	9	0	1	11
4:45 PM	0	0	4	4	8	0	0	0	0	0	2	5	0	4	11
5:00 PM	0	0	3	2	5	0	0	0	1	1	2	2	0	2	6
5:15 PM	0	0	3	1	4	0	1	2	0	3	0	1	0	2	3
5:30 PM	0	0	1	0	1	0	0	0	1	1	1	0	0	1	2
5:45 PM	0	0	3	2	5	0	0	0	0	0	1	0	0	3	4
Count Total	1	1	21	13	36	0	1	2	3	6	9	29	0	19	57
Peak Hour	1	1	11	8	21	0	0	0	1	1	5	26	0	11	42

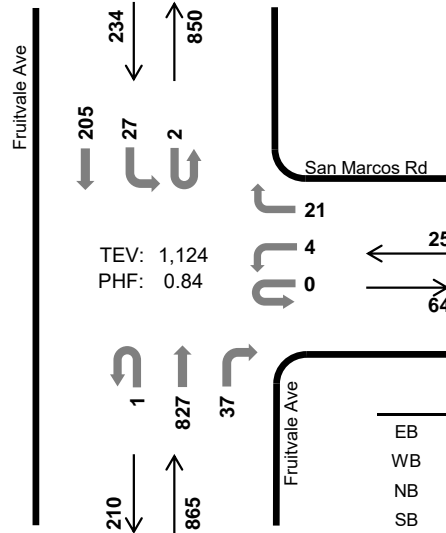
Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Allendale Ave				Allendale Ave				Fruitvale Ave				Fruitvale Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	1	2	1	0	3	0	0	7	0
4:15 PM	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	3	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	3	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	3	1	0	1	3	0	8	21
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	1	1	0	5	19
5:15 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	1	0	4	20
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	18
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	1	1	0	5	15
Count Total	0	0	0	1	0	1	0	0	0	1	12	8	0	7	6	0	36	0
Peak Hour	0	0	0	1	0	1	0	0	0	1	6	4	0	5	3	0	21	0
Two-Hour Count Summaries - Bikes																		
Interval Start	Allendale Ave			Allendale Ave			Fruitvale Ave			Fruitvale Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	2
5:15 PM	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	3	5	5
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	5	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
Count Total	0	0	0	0	1	0	0	0	2	0	0	0	2	1	0	6	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
<i>Note: U-Turn volumes for bikes are included in Left-Turn, if any.</i>																		

Fruitvale Ave San Marcos Rd



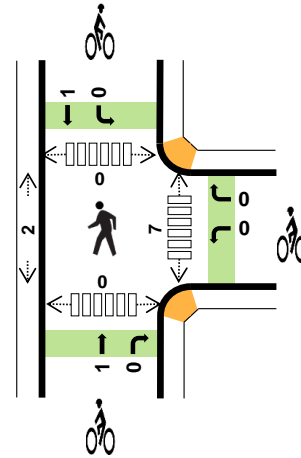
Peak Hour

Date: 02-07-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM



TEV: 1,124
PHF: 0.84

	HV %:	PHF
EB	-	-
WB	16.0%	0.57
NB	0.8%	0.83
SB	2.6%	0.59
TOTAL	1.5%	0.84



Two-Hour Count Summaries

Interval Start	0				San Marcos Rd				Fruitvale Ave				Fruitvale Ave				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	0	0	0	1	0	11	0	0	88	4	0	13	21	0	138	0	
7:15 AM	0	0	0	0	0	2	0	7	0	0	118	9	0	5	22	0	163	0	
7:30 AM	0	0	0	0	0	0	0	2	0	0	186	10	2	4	17	0	221	0	
7:45 AM	0	0	0	0	0	1	0	4	0	0	255	7	0	13	53	0	333	855	
8:00 AM	0	0	0	0	0	1	0	6	1	0	217	11	0	5	94	0	335	1,052	
8:15 AM	0	0	0	0	0	2	0	9	0	0	169	9	0	5	41	0	235	1,124	
8:30 AM	0	0	0	0	0	5	0	9	0	0	149	8	0	10	28	0	209	1,112	
8:45 AM	0	0	0	0	0	1	0	9	0	0	175	12	1	13	24	0	235	1,014	
Count Total	0	0	0	0	0	13	0	57	1	0	1,357	70	3	68	300	0	1,869	0	
Peak Hour	All	0	0	0	0	0	4	0	21	1	0	827	37	2	27	205	0	1,124	0
	HV	0	0	0	0	0	2	0	2	0	0	4	3	0	3	3	0	17	0
	HV%	-	-	-	-	-	50%	-	10%	0%	-	0%	8%	0%	11%	1%	-	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	1	1	0	2	0	0	0	0	0	3	0	0	0	3
7:15 AM	0	0	3	0	3	0	0	1	1	2	0	1	0	0	1
7:30 AM	0	0	1	2	3	0	0	0	1	1	3	1	0	0	4
7:45 AM	0	1	4	1	6	0	0	0	0	0	3	1	0	0	4
8:00 AM	0	1	1	2	4	0	0	0	0	0	1	0	0	0	1
8:15 AM	0	2	1	1	4	0	0	1	0	1	0	0	0	0	0
8:30 AM	0	4	2	1	7	0	0	0	0	0	2	0	0	0	2
8:45 AM	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2
Count Total	0	10	13	7	30	0	0	2	2	4	14	3	0	0	17
Peak Hr	0	4	7	6	17	0	0	1	1	2	7	2	0	0	9

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				San Marcos Rd				Fruitvale Ave				Fruitvale Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	3	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	0
7:45 AM	0	0	0	0	0	1	0	0	0	0	3	1	0	1	0	0	6	14
8:00 AM	0	0	0	0	0	1	0	0	0	0	0	1	0	1	1	0	4	16
8:15 AM	0	0	0	0	0	0	0	2	0	0	0	1	0	1	0	0	4	17
8:30 AM	0	0	0	0	0	4	0	0	0	0	1	1	0	1	0	0	7	21
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	16
Count Total	0	0	0	0	0	6	0	4	0	0	6	7	0	4	3	0	30	0
Peak Hour	0	0	0	0	0	2	0	2	0	0	4	3	0	3	3	0	17	0

Two-Hour Count Summaries - Bikes																	
Interval Start	0			San Marcos Rd			Fruitvale Ave			Fruitvale Ave			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	4	0
Peak Hour	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0

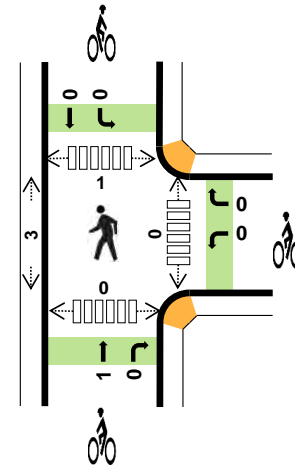
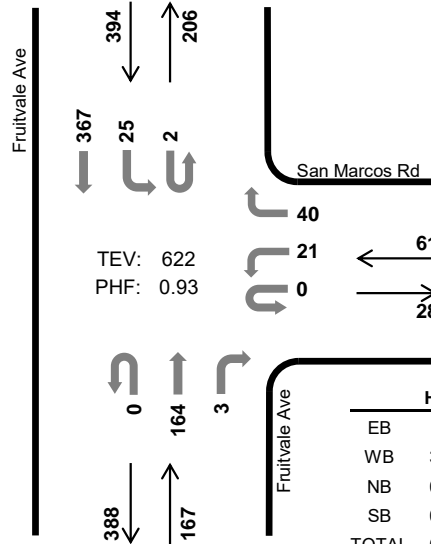
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Fruitvale Ave San Marcos Rd



Peak Hour

Date: 02-07-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	-	-
WB	3.3%	0.64
NB	0.0%	0.93
SB	0.3%	0.93
TOTAL	0.5%	0.93

Two-Hour Count Summaries

Interval Start	0				San Marcos Rd				Fruitvale Ave				Fruitvale Ave				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	0	0	0	9	0	17	0	0	51	1	0	10	82	0	170	0	
4:15 PM	0	0	0	0	0	4	0	9	0	0	47	2	0	13	84	0	159	0	
4:30 PM	0	0	0	0	0	3	0	14	1	0	45	1	0	7	71	0	142	0	
4:45 PM	0	0	0	0	0	2	0	12	0	0	39	3	1	7	76	0	140	611	
5:00 PM	0	0	0	0	0	4	0	4	0	0	38	2	0	7	87	0	142	583	
5:15 PM	0	0	0	0	0	8	0	16	0	0	39	1	1	6	82	0	153	577	
5:30 PM	0	0	0	0	0	4	0	12	0	0	45	0	0	4	102	0	167	602	
5:45 PM	0	0	0	0	0	5	0	8	0	0	42	0	1	8	96	0	160	622	
Count Total	0	0	0	0	0	39	0	92	1	0	346	10	3	62	680	0	1,233	0	
Peak Hour	All	0	0	0	0	0	21	0	40	0	0	164	3	2	25	367	0	622	0
	HV	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	3	0
	HV%	-	-	-	-	-	0%	-	5%	-	-	0%	0%	0%	4%	0%	-	0%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	1	0	1	0	0	0	0	0	1	0	0	0	1
4:15 PM	0	1	0	1	2	0	0	0	0	0	2	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4
4:45 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:15 PM	0	2	0	1	3	0	0	1	0	1	0	1	1	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	3	1	3	7	0	0	1	0	1	7	3	1	0	11
Peak Hr	0	2	0	1	3	0	0	1	0	1	0	3	1	0	4

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				San Marcos Rd				Fruitvale Ave				Fruitvale Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	3	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Count Total	0	0	0	0	0	1	0	2	0	0	1	0	0	2	1	0	7	0
Peak Hour	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	3	0

Two-Hour Count Summaries - Bikes																	
Interval Start	0			San Marcos Rd			Fruitvale Ave			Fruitvale Ave			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
Peak Hour	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0

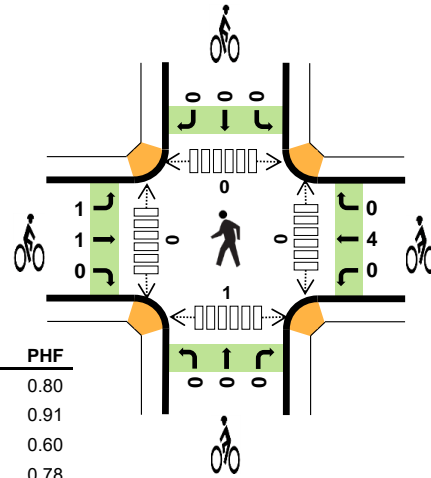
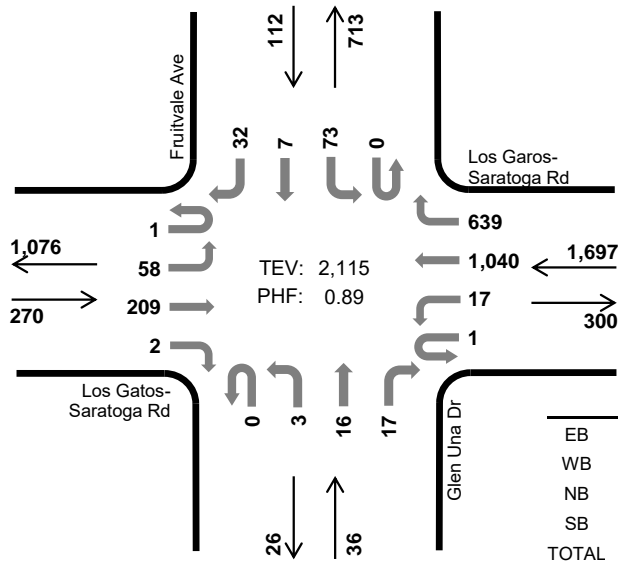
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Fruitvale Ave Los Gatos-Saratoga Rd



Peak Hour

Date: 02-07-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	2.6%	0.80
WB	1.7%	0.91
NB	0.0%	0.60
SB	3.6%	0.78
TOTAL	1.9%	0.89

Two-Hour Count Summaries

Interval Start	Los Gatos-Saratoga Rd				Los Garos-Saratoga Rd				Glen Una Dr				Fruitvale Ave				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Northbound		Southbound		UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	1	0	16	1	0	5	192	60	0	0	0	1	0	10	0	0	286	0	
7:15 AM	0	0	30	0	0	7	283	124	0	1	1	5	0	10	2	1	464	0	
7:30 AM	0	2	30	0	0	4	274	162	0	1	2	3	0	12	2	0	492	0	
7:45 AM	0	21	55	1	0	5	276	185	0	1	9	5	0	23	2	9	592	1,834	
8:00 AM	1	26	57	0	1	5	252	152	0	0	2	5	0	20	2	14	537	2,085	
8:15 AM	0	9	67	1	0	3	238	140	0	1	3	4	0	18	1	9	494	2,115	
8:30 AM	0	1	68	1	0	1	202	144	0	1	3	6	0	20	0	6	453	2,076	
8:45 AM	0	5	52	0	0	5	207	165	0	1	4	5	0	11	2	4	461	1,945	
Count Total	2	64	375	4	1	35	1,924	1,132	0	6	24	34	0	124	11	43	3,779	0	
Peak Hour	All	1	58	209	2	1	17	1,040	639	0	3	16	17	0	73	7	32	2,115	0
	HV	0	1	6	0	0	0	23	6	0	0	0	0	0	4	0	0	40	0
	HV%	0%	2%	3%	0%	0%	0%	2%	1%	-	0%	0%	0%	-	5%	0%	0%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	5	1	0	7	0	1	0	0	1	0	0	0	0	0
7:30 AM	2	3	0	1	6	0	0	0	0	0	0	0	0	0	0
7:45 AM	2	10	0	2	14	0	0	0	0	0	0	0	0	1	1
8:00 AM	1	6	0	1	8	0	4	0	0	4	0	0	0	0	0
8:15 AM	2	10	0	0	12	2	0	0	0	2	0	0	0	0	0
8:30 AM	2	4	0	2	8	0	3	0	0	3	0	0	0	0	0
8:45 AM	1	3	0	0	4	0	3	0	0	3	0	0	0	0	0
Count Total	11	41	1	6	59	2	11	0	0	13	0	0	0	1	1
Peak Hour	7	29	0	4	40	2	4	0	0	6	0	0	0	1	1

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Los Gatos-Saratoga Rd				Los Garos-Saratoga Rd				Glen Una Dr				Fruitvale Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	1	0	0	0	1	4	0	0	0	1	0	0	0	0	7	0
7:30 AM	0	0	2	0	0	0	1	2	0	0	0	0	0	1	0	0	6	0
7:45 AM	0	1	1	0	0	0	7	3	0	0	0	0	0	2	0	0	14	27
8:00 AM	0	0	1	0	0	0	6	0	0	0	0	0	0	1	0	0	8	35
8:15 AM	0	0	2	0	0	0	9	1	0	0	0	0	0	0	0	0	12	40
8:30 AM	0	0	2	0	0	0	3	1	0	0	0	0	0	2	0	0	8	42
8:45 AM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	4	32
Count Total	0	1	10	0	0	0	30	11	0	0	0	1	0	6	0	0	59	0
Peak Hour	0	1	6	0	0	0	23	6	0	0	0	0	0	4	0	0	40	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Los Gatos-Saratoga Rd				Los Garos-Saratoga Rd				Glen Una Dr				Fruitvale Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	LT	TH	RT		LT	TH	RT		LT	TH	RT		LT	TH	RT			
7:00 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
7:15 AM	0	0	0		0	1	0		0	0	0		0	0	0		1	0
7:30 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
7:45 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	1
8:00 AM	0	0	0		0	4	0		0	0	0		0	0	0		4	5
8:15 AM	1	1	0		0	0	0		0	0	0		0	0	0		2	6
8:30 AM	0	0	0		0	3	0		0	0	0		0	0	0		3	9
8:45 AM	0	0	0		0	3	0		0	0	0		0	0	0		3	12
Count Total	1	1	0		0	11	0		0	0	0		0	0	0		13	0
Peak Hour	1	1	0		0	4	0		0	0	0		0	0	0		6	0

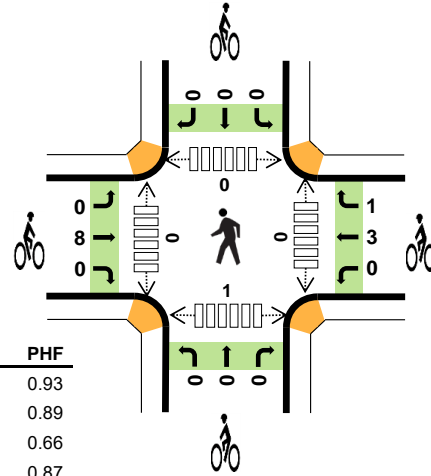
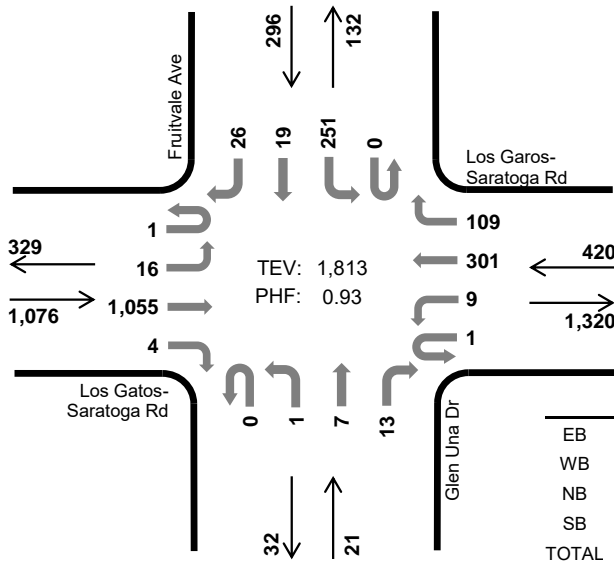
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Fruitvale Ave Los Gatos-Saratoga Rd



Peak Hour

Date: 02-07-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	0.7%	0.93
WB	0.5%	0.89
NB	0.0%	0.66
SB	0.0%	0.87
TOTAL	0.5%	0.93

Two-Hour Count Summaries

Interval Start	Los Gatos-Saratoga Rd				Los Gatos-Saratoga Rd				Glen Una Dr				Fruitvale Ave				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Northbound		Southbound		UT		LT		TH		RT				
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	9	249	1	1	3	67	32	0	1	3	9	0	58	1	8	442	0	
4:15 PM	0	3	296	1	1	0	56	25	0	0	4	5	0	53	2	8	454	0	
4:30 PM	0	7	214	0	0	2	57	21	0	0	1	2	0	43	1	7	355	0	
4:45 PM	0	4	229	1	0	2	60	21	0	1	1	1	0	54	6	5	385	1,636	
5:00 PM	0	4	246	1	1	1	64	21	0	0	2	2	0	54	5	2	403	1,597	
5:15 PM	0	5	284	1	0	4	84	30	0	1	3	4	0	63	3	7	489	1,632	
5:30 PM	1	3	255	0	0	1	76	27	0	0	2	2	0	70	5	2	444	1,721	
5:45 PM	0	4	270	2	0	3	77	31	0	0	0	5	0	64	6	15	477	1,813	
Count Total	1	39	2,043	7	3	16	541	208	0	3	16	30	0	459	29	54	3,449	0	
Peak Hour	All	1	16	1,055	4	1	9	301	109	0	1	7	13	0	251	19	26	1,813	0
	HV	0	0	7	0	0	0	0	2	0	0	0	0	0	0	0	0	9	0
	HV%	0%	0%	1%	0%	0%	0%	0%	2%	-	0%	0%	0%	-	0%	0%	0%	0%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	1	0	0	2	1	1	0	1	3	0	0	0	0	0
4:15 PM	1	1	0	1	3	0	0	0	0	0	0	0	0	0	0
4:30 PM	1	0	0	0	1	2	0	0	0	2	0	0	0	0	0
4:45 PM	0	0	0	0	0	1	2	0	0	3	0	0	1	0	1
5:00 PM	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0
5:15 PM	4	0	0	0	4	2	3	0	0	5	0	0	0	0	0
5:30 PM	2	1	0	0	3	2	1	0	0	3	0	0	0	0	0
5:45 PM	1	1	0	0	2	2	0	0	0	2	0	0	0	1	1
Count Total	10	4	0	1	15	12	7	0	1	20	0	0	1	1	2
Peak Hour	7	2	0	0	9	8	4	0	0	12	0	0	0	1	1

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Los Gatos-Saratoga Rd				Los Garos-Saratoga Rd				Glen Una Dr				Fruitvale Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0
4:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	3	0
4:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:15 PM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	5
5:30 PM	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	3	7
5:45 PM	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2	9
Count Total	0	0	10	0	0	0	1	3	0	0	0	0	0	1	0	0	15	0
Peak Hour	0	0	7	0	0	0	0	2	0	0	0	0	0	0	0	0	9	0

Two-Hour Count Summaries - Bikes																
Interval Start	Los Gatos-Saratoga Rd			Los Garos-Saratoga Rd			Glen Una Dr			Fruitvale Ave			15-min Total	Rolling One Hour		
	Eastbound			Westbound			Northbound			Southbound						
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT				
4:00 PM	0	1	0	0	1	0	0	0	0	1	0	0	3	0		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	0		
4:45 PM	0	1	0	0	2	0	0	0	0	0	0	0	3	8		
5:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	7		
5:15 PM	0	2	0	0	2	1	0	0	0	0	0	0	5	12		
5:30 PM	0	2	0	0	1	0	0	0	0	0	0	0	3	13		
5:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	12		
Count Total	0	12	0	0	6	1	0	0	0	1	0	0	20	0		
Peak Hour	0	8	0	0	3	1	0	0	0	0	0	0	12	0		

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

IDAX Data Solutions

19054 - Saratoga - TMCs and Trip Gen

Driveway In's/Out's

Date: 2/07/19

	Dwy 1	
	In	Outs
7:00	0	0
7:15	0	0
7:30	3	0
7:45	0	0
8:00	1	0
8:15	3	0
8:30	2	0
8:45	0	0
4:00	0	1
4:15	1	0
4:30	0	0
4:45	0	0
5:00	0	0
5:15	0	0
5:30	0	1
5:45	0	0
Total	10	2

	Dwy 2	
	In	Outs
7:00	0	0
7:15	0	0
7:30	0	0
7:45	0	0
8:00	0	0
8:15	0	0
8:30	0	0
8:45	0	0
4:00	0	3
4:15	0	0
4:30	0	1
4:45	0	2
5:00	0	0
5:15	0	1
5:30	1	3
5:45	0	0
Total	1	10

	Dwy 3	
	In	Outs
7:00	2	0
7:15	3	6
7:30	4	1
7:45	5	2
8:00	8	2
8:15	4	4
8:30	3	1
8:45	6	6
4:00	7	5
4:15	3	3
4:30	4	6
4:45	4	8
5:00	2	4
5:15	3	3
5:30	2	5
5:45	1	2
Total	61	58

	Dwy 4	
	In	Outs
7:00	0	1
7:15	0	0
7:30	0	1
7:45	0	0
8:00	0	4
8:15	0	0
8:30	0	0
8:45	0	1
4:00	2	2
4:15	0	0
4:30	0	0
4:45	0	0
5:00	0	0
5:15	0	0
5:30	0	1
5:45	0	1
Total	2	11

	Dwy 5	
	In	Outs
7:00	3	2
7:15	0	0
7:30	2	0
7:45	6	0
8:00	2	2
8:15	3	0
8:30	3	0
8:45	3	0
4:00	2	1
4:15	4	2
4:30	1	2
4:45	0	2
5:00	1	2
5:15	0	3
5:30	0	6
5:45	0	3
Total	30	25

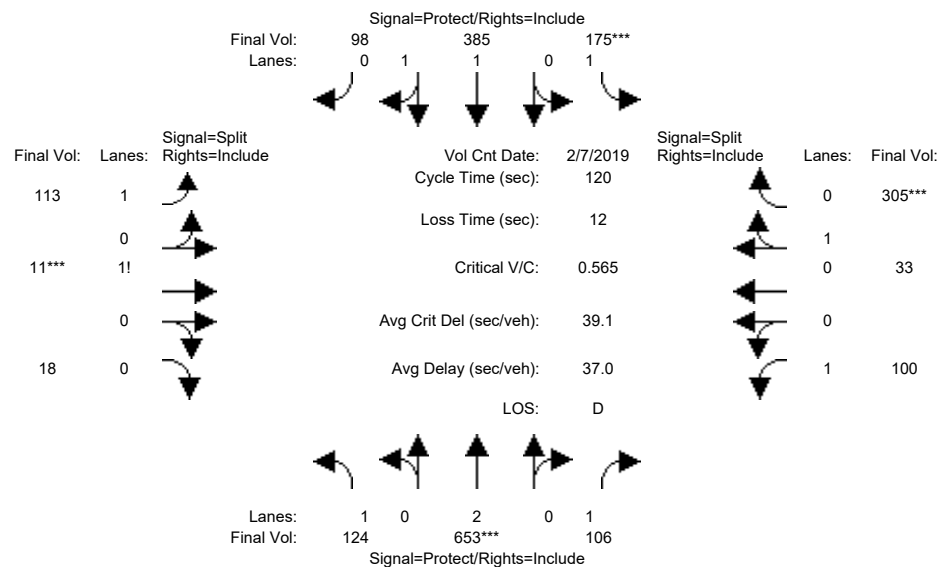
	Parking Lot	
	Parking	Leaving
7:00	0	0
7:15	1	1
7:30	0	0
7:45	0	0
8:00	1	0
8:15	0	0
8:30	2	0
8:45	2	0
4:00	0	0
4:15	0	1
4:30	0	0
4:45	0	0
5:00	0	1
5:15	0	3
5:30	0	2
5:45	0	0
Total	6	8

Appendix B

Intersection Level of Service Calculations

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

Intersection #1: Fruitvale Ave/Allendale Ave



Approach:	North Bound			South Bound			East Bound			West Bound		
	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:	7 Feb 2019	<<	7:30 AM - 8:30 AM						
Base Vol:	124	653	106	175	385	98	113	11	18	100	33	305
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:	124	653	106	175	385	98	113	11	18	100	33	305
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:	124	653	106	175	385	98	113	11	18	100	33	305
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:	124	653	106	175	385	98	113	11	18	100	33	305
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	124	653	106	175	385	98	113	11	18	100	33	305
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:	124	653	106	175	385	98	113	11	18	100	33	305

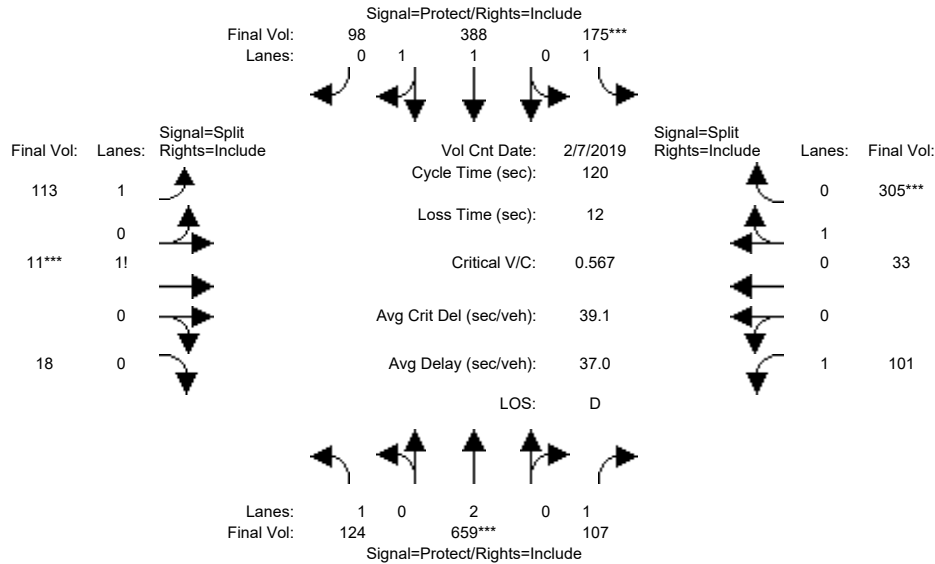
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	0.92	0.92	0.92	0.95	0.95
Lanes:	1.00	2.00	1.00	1.00	1.58	0.42	1.66	0.13	0.21	1.00	0.10	0.90
Final Sat.:	1750	3800	1750	1750	2949	751	2906	225	368	1750	176	1624

Capacity Analysis Module:												
Vol/Sat:	0.07	0.17	0.06	0.10	0.13	0.13	0.04	0.05	0.05	0.06	0.19	0.19
Crit Moves:		****		****				****				****
Green Time:	20.3	36.5	36.5	21.2	37.4	37.4	10.4	10.4	10.4	39.9	39.9	39.9
Volume/Cap:	0.42	0.56	0.20	0.56	0.42	0.42	0.45	0.56	0.56	0.17	0.56	0.56
Uniform Del:	44.6	35.1	30.9	45.2	32.7	32.7	52.1	52.6	52.6	28.4	32.9	32.9
IncrcmntDel:	1.0	0.7	0.2	2.4	0.2	0.2	1.0	3.0	3.0	0.1	1.3	1.3
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:	45.5	35.7	31.1	47.6	32.9	32.9	53.1	55.6	55.6	28.5	34.2	34.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.5	35.7	31.1	47.6	32.9	32.9	53.1	55.6	55.6	28.5	34.2	34.2
LOS by Move:	D	D	C	D	C	C	D	E	E	C	C	C
HCM2k95thQ:	8	18	6	13	14	14	6	8	8	6	20	20

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

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

Intersection #1: Fruitvale Ave/Allendale Ave



Approach:	North Bound			South Bound			East Bound			West Bound		
	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:	7 Feb 2019	<<	7:30 AM - 8:30 AM						
Base Vol:	124	653	106	175	385	98	113	11	18	100	33	305
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:	124	653	106	175	385	98	113	11	18	100	33	305
Added Vol:	0	6	1	0	3	0	0	0	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	124	659	107	175	388	98	113	11	18	101	33	305
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:	124	659	107	175	388	98	113	11	18	101	33	305
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	124	659	107	175	388	98	113	11	18	101	33	305
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:	124	659	107	175	388	98	113	11	18	101	33	305

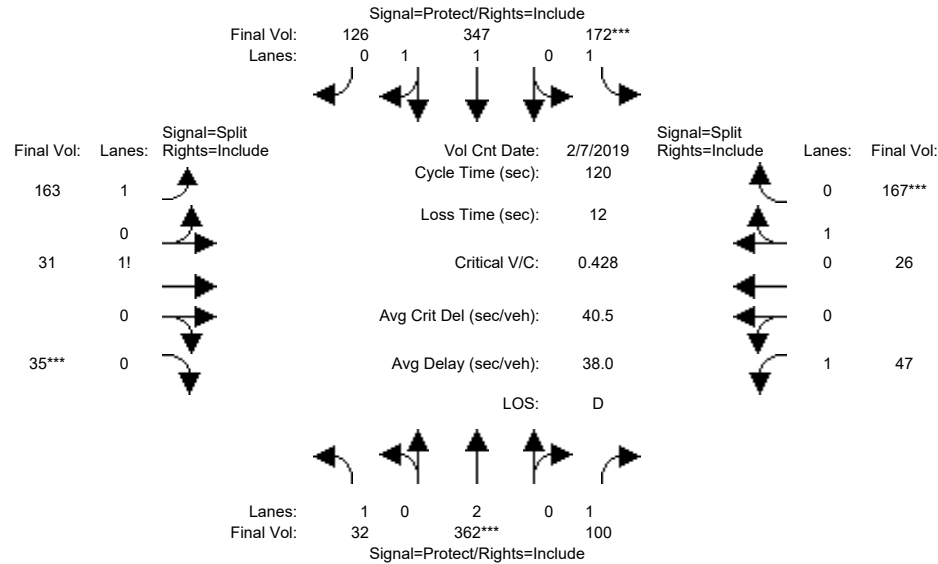
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	0.92	0.92	0.92	0.95	0.95
Lanes:	1.00	2.00	1.00	1.00	1.59	0.41	1.66	0.13	0.21	1.00	0.10	0.90
Final Sat.:	1750	3800	1750	1750	2953	746	2906	225	368	1750	176	1624

Capacity Analysis Module:												
Vol/Sat:	0.07	0.17	0.06	0.10	0.13	0.13	0.04	0.05	0.05	0.06	0.19	0.19
Crit Moves:	****			****			****			****		
Green Time:	20.3	36.7	36.7	21.2	37.6	37.6	10.3	10.3	10.3	39.8	39.8	39.8
Volume/Cap:	0.42	0.57	0.20	0.57	0.42	0.42	0.45	0.57	0.57	0.17	0.57	0.57
Uniform Del:	44.6	35.0	30.8	45.2	32.6	32.6	52.1	52.7	52.7	28.5	33.0	33.0
IncrcmntDel:	1.0	0.7	0.2	2.5	0.2	0.2	1.0	3.0	3.0	0.1	1.3	1.3
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:	45.6	35.6	31.0	47.7	32.8	32.8	53.2	55.7	55.7	28.6	34.3	34.3
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:	45.6	35.6	31.0	47.7	32.8	32.8	53.2	55.7	55.7	28.6	34.3	34.3
LOS by Move:	D	D	C	D	C	C	D	E	E	C	C	C
HCM2k95thQ:	8	18	6	13	14	14	6	8	8	6	20	20

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: Fruitvale Ave/Allendale Ave



Approach:	North Bound			South Bound			East Bound			West Bound		
	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:	7 Feb 2019	<<	4:00 PM - 5:00 PM						
Base Vol:	32	362	100	172	347	126	163	31	35	47	26	167
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:	32	362	100	172	347	126	163	31	35	47	26	167
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:	32	362	100	172	347	126	163	31	35	47	26	167
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:	32	362	100	172	347	126	163	31	35	47	26	167
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	362	100	172	347	126	163	31	35	47	26	167
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:	32	362	100	172	347	126	163	31	35	47	26	167

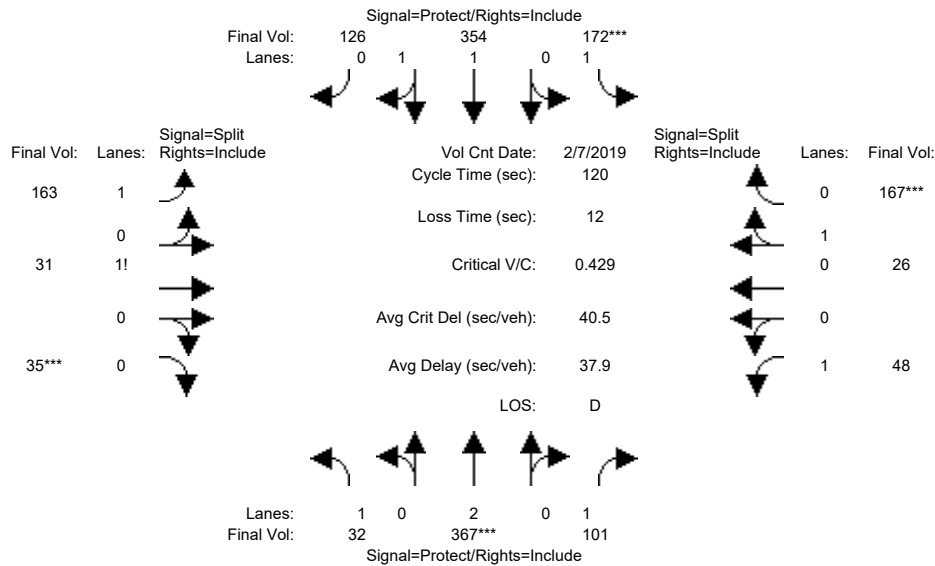
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	0.92	0.92	0.92	0.95	0.95
Lanes:	1.00	2.00	1.00	1.00	1.45	0.55	1.55	0.21	0.24	1.00	0.13	0.87
Final Sat.:	1750	3800	1750	1750	2714	985	2717	368	415	1750	242	1558

Capacity Analysis Module:												
Vol/Sat:	0.02	0.10	0.06	0.10	0.13	0.13	0.06	0.08	0.08	0.03	0.11	0.11
Crit Moves:	****			****			****			****		
Green Time:	17.0	26.7	26.7	27.6	37.3	37.3	23.6	23.6	23.6	30.1	30.1	30.1
Volume/Cap:	0.13	0.43	0.26	0.43	0.41	0.41	0.30	0.43	0.43	0.11	0.43	0.43
Uniform Del:	45.0	40.1	38.5	39.5	32.7	32.7	41.2	42.2	42.2	34.6	37.7	37.7
IncrcmntDel:	0.2	0.3	0.4	0.7	0.2	0.2	0.2	0.6	0.6	0.1	0.7	0.7
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:	45.3	40.4	38.8	40.2	32.9	32.9	41.4	42.8	42.8	34.7	38.4	38.4
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:	45.3	40.4	38.8	40.2	32.9	32.9	41.4	42.8	42.8	34.7	38.4	38.4
LOS by Move:	D	D	D	D	C	C	D	D	D	C	D	D
HCM2k95thQ:	2	11	6	12	14	14	7	11	11	3	12	12

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

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

Intersection #1: Fruitvale Ave/Allendale Ave



Approach:	North Bound			South Bound			East Bound			West Bound		
	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:	7 Feb 2019	<<	4:00 PM - 5:00 PM						
Base Vol:	32	362	100	172	347	126	163	31	35	47	26	167
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:	32	362	100	172	347	126	163	31	35	47	26	167
Added Vol:	0	5	1	0	7	0	0	0	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	32	367	101	172	354	126	163	31	35	48	26	167
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:	32	367	101	172	354	126	163	31	35	48	26	167
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	367	101	172	354	126	163	31	35	48	26	167
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:	32	367	101	172	354	126	163	31	35	48	26	167

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	0.92	0.92	0.92	0.95	0.95
Lanes:	1.00	2.00	1.00	1.00	1.46	0.54	1.55	0.21	0.24	1.00	0.13	0.87
Final Sat.:	1750	3800	1750	1750	2728	971	2717	368	415	1750	242	1558

Capacity Analysis Module:												
Vol/Sat:	0.02	0.10	0.06	0.10	0.13	0.13	0.06	0.08	0.08	0.03	0.11	0.11
Crit Moves:	****			****			****			****		
Green Time:	16.9	27.0	27.0	27.5	37.6	37.6	23.6	23.6	23.6	30.0	30.0	30.0
Volume/Cap:	0.13	0.43	0.26	0.43	0.41	0.41	0.31	0.43	0.43	0.11	0.43	0.43
Uniform Del:	45.1	39.9	38.2	39.6	32.5	32.5	41.2	42.3	42.3	34.7	37.8	37.8
IncrementDel:	0.2	0.3	0.3	0.7	0.2	0.2	0.2	0.6	0.6	0.1	0.7	0.7
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:	45.4	40.2	38.6	40.3	32.8	32.8	41.5	42.9	42.9	34.8	38.5	38.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.4	40.2	38.6	40.3	32.8	32.8	41.5	42.9	42.9	34.8	38.5	38.5
LOS by Move:	D	D	D	D	C	C	D	D	D	C	D	D
HCM2k95thQ:	2	11	6	12	14	14	7	11	11	3	12	12

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

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

Intersection #2: Fruitvale Ave/San Marcos Road

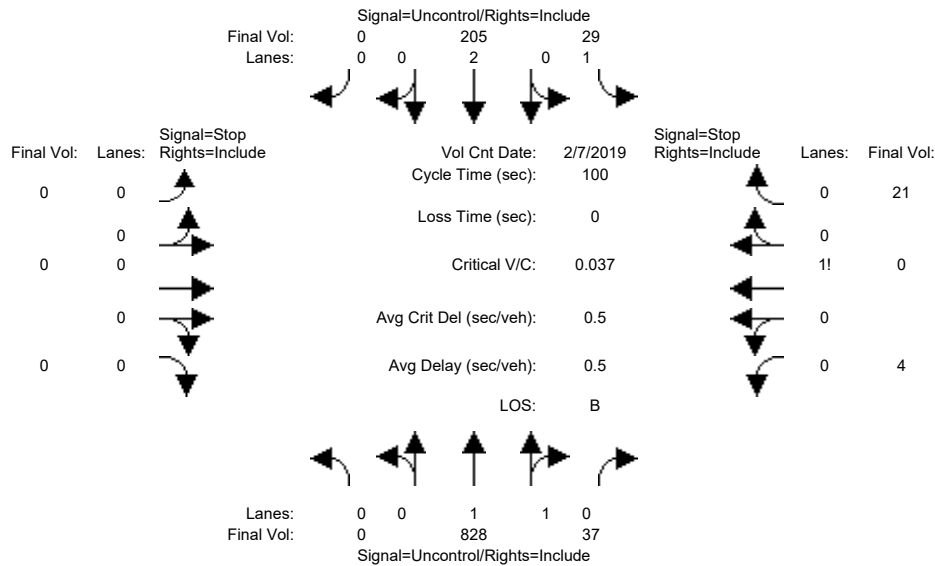


Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table for Critical Gap Module showing Critical Gap and FollowUpTim values for different movements.

Table for Capacity Module showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. for various movements.

Table for Level Of Service Module showing 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

Intersection #2 Fruitvale Ave/San Marcos Road
Future Volume Alternative: Peak Hour Warrant NOT Met

Summary table for Approach (North, South, East, West Bound) with columns for Movement (L, T, R).

Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Lanes:	0	0	1	1	0	0	0	0	0	0	0	0	
Initial Vol:	0	0	828	37	29	205	0	0	0	0	4	0	21
ApproachDel:	xxxxxxx			xxxxxxx			xxxxxxx			13.1			

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=3][total volume=1124]
 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 #2 Fruitvale Ave/San Marcos Road

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	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1	1	0	0	0	0	0	0	1	0
Initial Vol:	0	0	828	37	29	205	0	0	0	0	4	21
Major Street Volume:	1099											
Minor Approach Volume:	25											
Minor Approach Volume Threshold:	252											

 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 plus Project AM

Intersection #2: Fruitvale Ave/San Marcos Road

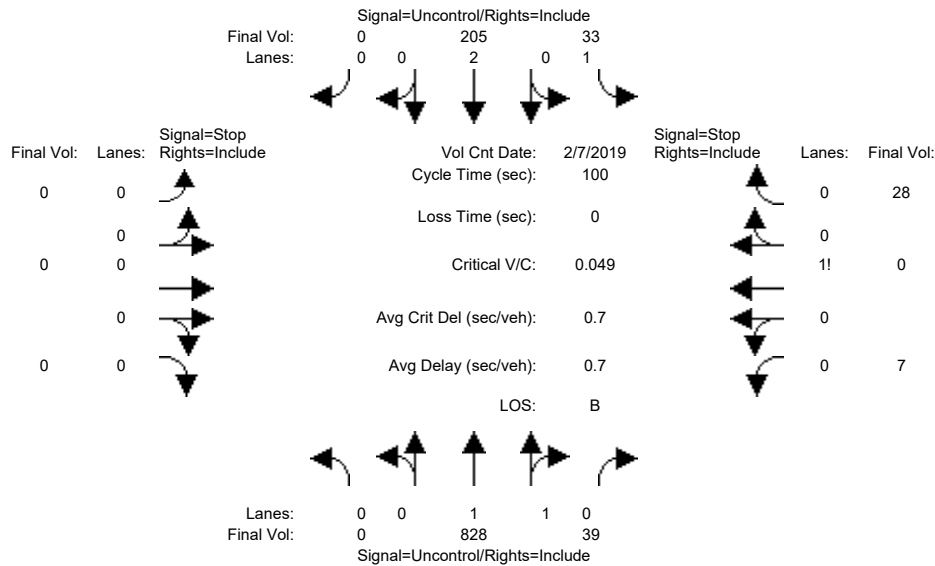


Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Volume Module, Critical Gap Module, Capacity Module, and Level Of Service Module.

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

Peak Hour Delay Signal Warrant Report

Intersection #2 Fruitvale Ave/San Marcos Road
Future Volume Alternative: Peak Hour Warrant NOT Met

Summary table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R).

Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1	1	0	2	0	0	0	0	0	0
Initial Vol:	0	0	828	39	33	205	0	0	0	0	7	0
ApproachDel:	xxxxxxx			xxxxxxx			xxxxxxx			13.8		

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=35]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1140]
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 #2 Fruitvale Ave/San Marcos Road

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	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1	1	0	2	0	0	0	0	0	0
Initial Vol:	0	0	828	39	33	205	0	0	0	0	7	0

Major Street Volume: 1105
Minor Approach Volume: 35
Minor Approach Volume Threshold: 250

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 #2: Fruitvale Ave/San Marcos Road

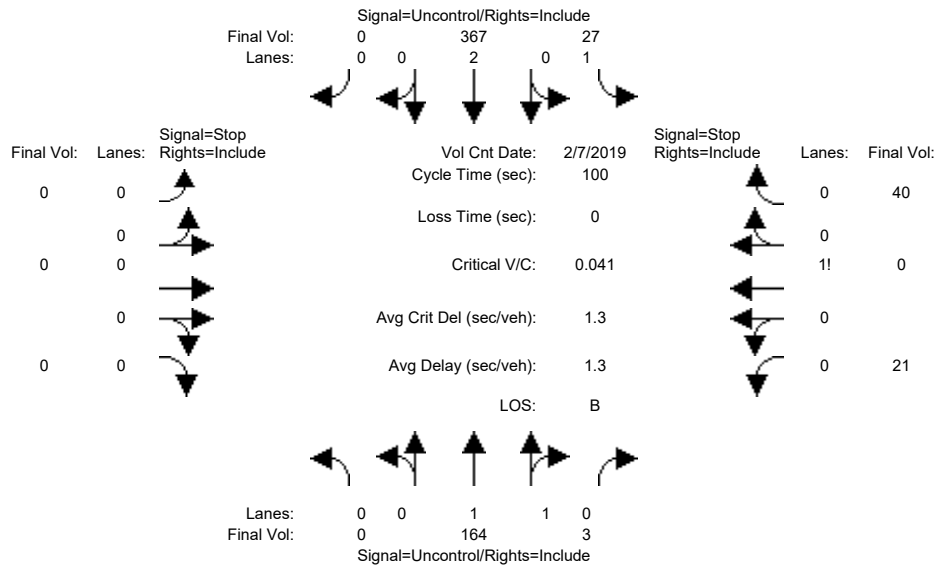


Table with 4 main columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L, T, R), Volume Module (Count, Date, Base Vol, Growth Adj, etc.), and Final Volume.

Critical Gap Module table showing Critical Gap and FollowUpTim values for different movements.

Capacity Module table showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. for various movements.

Level Of Service Module table showing 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

Intersection #2 Fruitvale Ave/San Marcos Road
Future Volume Alternative: Peak Hour Warrant NOT Met

Summary table with 4 columns: North Bound, South Bound, East Bound, West Bound.

Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1	1	0	0	0	0	0	0	1	0
Initial Vol:	0	0	164	3	27	367	0	0	0	21	0	40
ApproachDel:	xxxxxxx			xxxxxxx			xxxxxxx			10.0		

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

Signal Warrant Rule #1: [vehicle-hours=0.2]

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

Signal Warrant Rule #2: [approach volume=61]

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

Signal Warrant Rule #3: [approach count=3][total volume=622]

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 #2 Fruitvale Ave/San Marcos Road

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	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1	1	0	0	0	0	0	0	1	0
Initial Vol:	0	0	164	3	27	367	0	0	0	21	0	40

Major Street Volume: 561
Minor Approach Volume: 61
Minor Approach Volume Threshold: 484

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 plus Project PM

Intersection #2: Fruitvale Ave/San Marcos Road

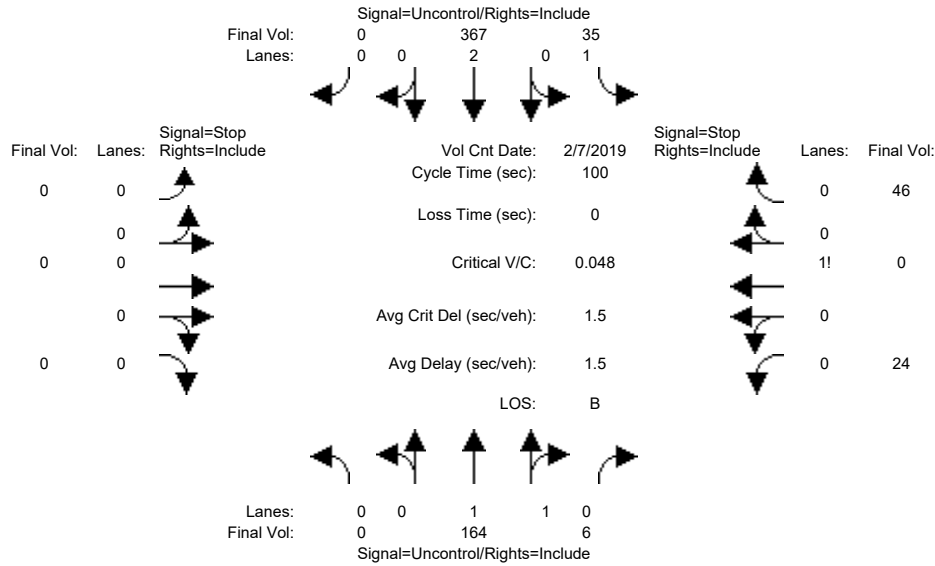


Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table for Critical Gap Module showing Critical Gp and FollowUpTim for North, South, East, and West bounds.

Table for Capacity Module showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap for North, South, East, and West bounds.

Table for Level Of Service Module showing 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS for North, South, East, and West bounds.

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

Peak Hour Delay Signal Warrant Report

Intersection #2 Fruitvale Ave/San Marcos Road
Future Volume Alternative: Peak Hour Warrant NOT Met

Summary table for Approach (North, South, East, West Bound) with columns for L, T, R movements.

Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1	1	0	0	0	0	0	0	0	0
Initial Vol:	0	0	164	6	35	367	0	0	0	24	0	46
ApproachDel:	xxxxxxx			xxxxxxx			xxxxxxx			10.1		

```

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
  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=3][total volume=642]
  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 #2 Fruitvale Ave/San Marcos Road

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	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1	1	0	2	0	0	0	0	0	0
Initial Vol:	0	0	164	6	35	367	0	0	0	24	0	46

```

Major Street Volume:          572
Minor Approach Volume:        70
Minor Approach Volume Threshold: 477

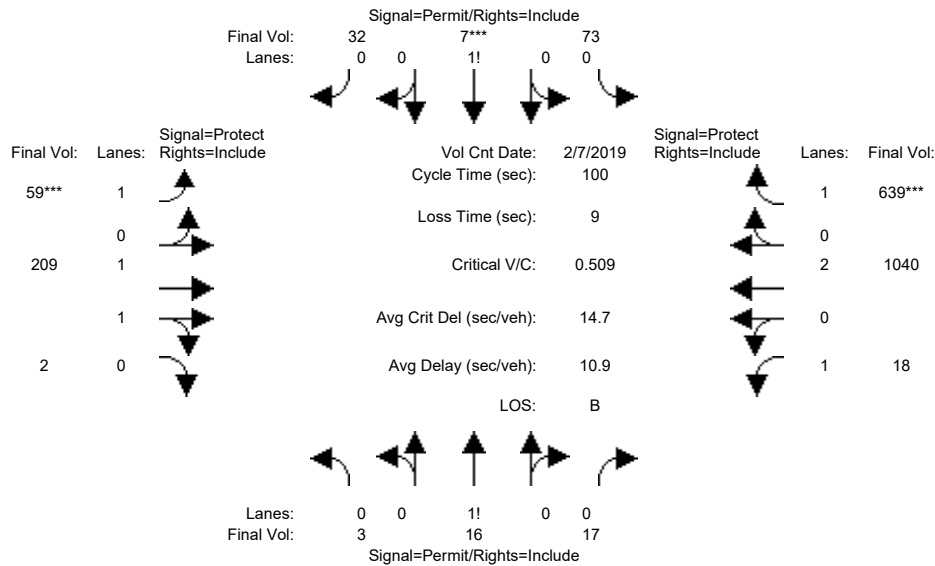
```

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 #3: Fruitvale Avenue/Los Gatos-Saratoga Road



Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	7 Feb 2019	<<	7:30 AM - 8:30 AM						
Base Vol:	3	16	17	73	7	32	59	209	2	18	1040	639
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	16	17	73	7	32	59	209	2	18	1040	639
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	16	17	73	7	32	59	209	2	18	1040	639
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	16	17	73	7	32	59	209	2	18	1040	639
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	16	17	73	7	32	59	209	2	18	1040	639
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	3	16	17	73	7	32	59	209	2	18	1040	639

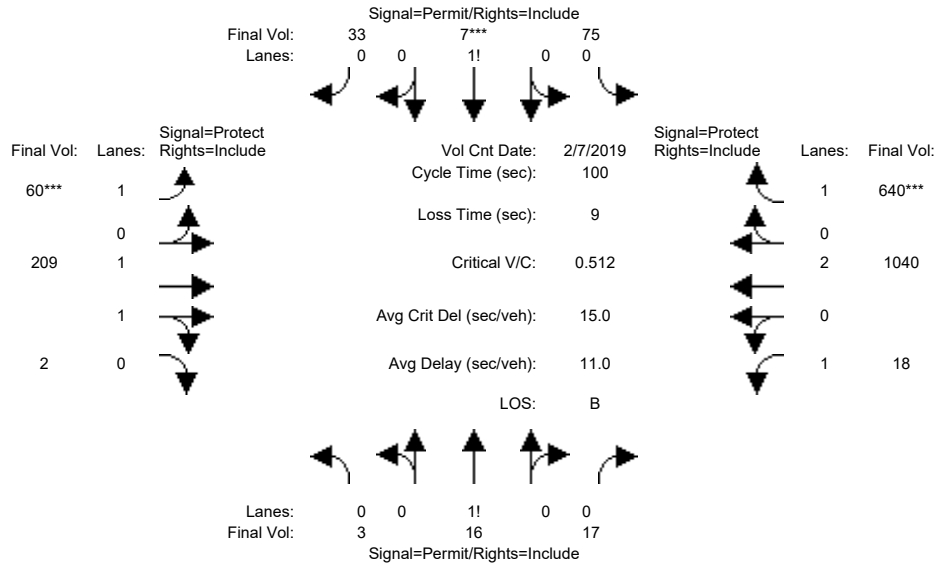
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.95	0.92	1.00	0.92
Lanes:	0.08	0.44	0.48	0.65	0.06	0.29	1.00	1.98	0.02	1.00	2.00	1.00
Final Sat.:	146	778	826	1141	109	500	1750	3665	35	1750	3800	1750

Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.06	0.06	0.06	0.03	0.06	0.06	0.01	0.27	0.37
Crit Moves:				****			****					****
Green Time:	12.5	12.5	12.5	12.5	12.5	12.5	7.0	46.2	46.2	32.3	71.5	71.5
Volume/Cap:	0.16	0.16	0.16	0.51	0.51	0.51	0.48	0.12	0.12	0.03	0.38	0.51
Uniform Del:	39.1	39.1	39.1	40.9	40.9	40.9	44.8	15.4	15.4	23.1	5.6	6.4
IncrementDel:	0.4	0.4	0.4	2.0	2.0	2.0	3.0	0.0	0.0	0.0	0.1	0.4
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:	39.4	39.4	39.4	42.9	42.9	42.9	47.7	15.4	15.4	23.2	5.7	6.8
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:	39.4	39.4	39.4	42.9	42.9	42.9	47.7	15.4	15.4	23.2	5.7	6.8
LOS by Move:	D	D	D	D	D	D	D	B	B	C	A	A
HCM2k95thQ:	2	2	2	7	7	7	5	4	4	1	12	18

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

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

Intersection #3: Fruitvale Avenue/Los Gatos-Saratoga Road



Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	7 Feb 2019	<<	7:30 AM - 8:30 AM						
Base Vol:	3	16	17	73	7	32	59	209	2	18	1040	639
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	16	17	73	7	32	59	209	2	18	1040	639
Added Vol:	0	0	0	2	0	1	1	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	16	17	75	7	33	60	209	2	18	1040	640
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	16	17	75	7	33	60	209	2	18	1040	640
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	16	17	75	7	33	60	209	2	18	1040	640
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	3	16	17	75	7	33	60	209	2	18	1040	640

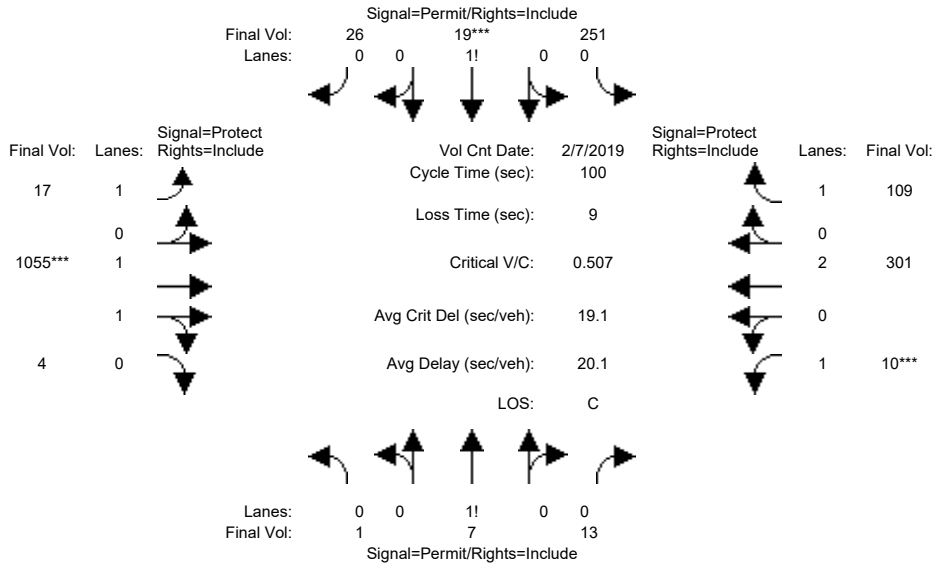
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.95	0.92	1.00	0.92
Lanes:	0.08	0.44	0.48	0.65	0.06	0.29	1.00	1.98	0.02	1.00	2.00	1.00
Final Sat.:	146	778	826	1141	107	502	1750	3665	35	1750	3800	1750

Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.07	0.07	0.07	0.03	0.06	0.06	0.01	0.27	0.37
Crit Moves:				****	****	****	****	****	****	****	****	****
Green Time:	12.8	12.8	12.8	12.8	12.8	12.8	7.0	46.0	46.0	32.2	71.2	71.2
Volume/Cap:	0.16	0.16	0.16	0.51	0.51	0.51	0.49	0.12	0.12	0.03	0.38	0.51
Uniform Del:	38.8	38.8	38.8	40.7	40.7	40.7	44.8	15.5	15.5	23.2	5.7	6.5
IncrementDel:	0.3	0.3	0.3	2.0	2.0	2.0	3.1	0.0	0.0	0.0	0.1	0.4
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:	39.2	39.2	39.2	42.7	42.7	42.7	47.8	15.5	15.5	23.2	5.8	6.9
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:	39.2	39.2	39.2	42.7	42.7	42.7	47.8	15.5	15.5	23.2	5.8	6.9
LOS by Move:	D	D	D	D	D	D	D	B	B	C	A	A
HCM2k95thQ:	2	2	2	7	7	7	5	4	4	1	12	18

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

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

Intersection #3: Fruitvale Avenue/Los Gatos-Saratoga Road



Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	7 Feb 2019	<<	5:00 PM - 6:00 PM
Base Vol:	1	7	13	251	19	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	7	13	251	19	26
Added Vol:	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0
Initial Fut:	1	7	13	251	19	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	7	13	251	19	26
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	1	7	13	251	19	26
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	1	7	13	251	19	26

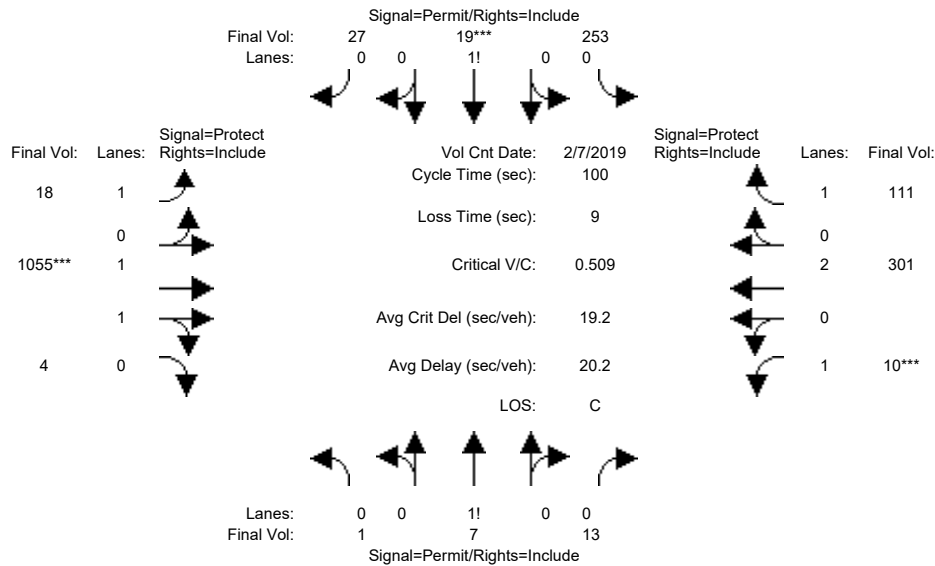
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.95	0.92	1.00	0.92
Lanes:	0.05	0.33	0.62	0.85	0.06	0.09	1.00	1.99	0.01	1.00	2.00	1.00
Final Sat.:	83	583	1083	1484	112	154	1750	3686	14	1750	3800	1750

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.01	0.01	0.01	0.17	0.17	0.17	0.01	0.29	0.29	0.01	0.08	0.06
Crit Moves:				****				****			****	
Green Time:	31.2	31.2	31.2	31.2	31.2	31.2	24.6	52.8	52.8	7.0	35.2	35.2
Volume/Cap:	0.04	0.04	0.04	0.54	0.54	0.54	0.04	0.54	0.54	0.08	0.23	0.18
Uniform Del:	24.0	24.0	24.0	28.5	28.5	28.5	28.7	15.6	15.6	43.5	22.8	22.4
IncrementDel:	0.0	0.0	0.0	1.1	1.1	1.1	0.0	0.3	0.3	0.3	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:	24.0	24.0	24.0	29.6	29.6	29.6	28.7	15.9	15.9	43.8	22.9	22.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.0	24.0	24.0	29.6	29.6	29.6	28.7	15.9	15.9	43.8	22.9	22.5
LOS by Move:	C	C	C	C	C	C	C	B	B	D	C	C
HCM2k95thQ:	1	1	1	15	15	15	1	20	20	1	6	5

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

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

Intersection #3: Fruitvale Avenue/Los Gatos-Saratoga Road



Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>> Count			Date:	7 Feb 2019			<< 5:00 PM - 6:00 PM				
Base Vol:	1	7	13	251	19	26	17	1055	4	10	301	109
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:	1	7	13	251	19	26	17	1055	4	10	301	109
Added Vol:	0	0	0	2	0	1	1	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	7	13	253	19	27	18	1055	4	10	301	111
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:	1	7	13	253	19	27	18	1055	4	10	301	111
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	7	13	253	19	27	18	1055	4	10	301	111
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:	1	7	13	253	19	27	18	1055	4	10	301	111

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.95	0.92	1.00	0.92
Lanes:	0.05	0.33	0.62	0.85	0.06	0.09	1.00	1.99	0.01	1.00	2.00	1.00
Final Sat.:	83	583	1083	1481	111	158	1750	3686	14	1750	3800	1750

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.01	0.01	0.01	0.17	0.17	0.17	0.01	0.29	0.29	0.01	0.08	0.06
Crit Moves:				****			****			****		
Green Time:	31.4	31.4	31.4	31.4	31.4	31.4	24.5	52.6	52.6	7.0	35.1	35.1
Volume/Cap:	0.04	0.04	0.04	0.54	0.54	0.54	0.04	0.54	0.54	0.08	0.23	0.18
Uniform Del:	23.8	23.8	23.8	28.4	28.4	28.4	28.8	15.7	15.7	43.5	22.9	22.5
IncrementDel:	0.0	0.0	0.0	1.1	1.1	1.1	0.0	0.3	0.3	0.3	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:	23.8	23.8	23.8	29.5	29.5	29.5	28.8	16.1	16.1	43.8	23.0	22.7
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:	23.8	23.8	23.8	29.5	29.5	29.5	28.8	16.1	16.1	43.8	23.0	22.7
LOS by Move:	C	C	C	C	C	C	C	B	B	D	C	C
HCM2k95thQ:	1	1	1	15	15	15	1	20	20	1	6	5

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

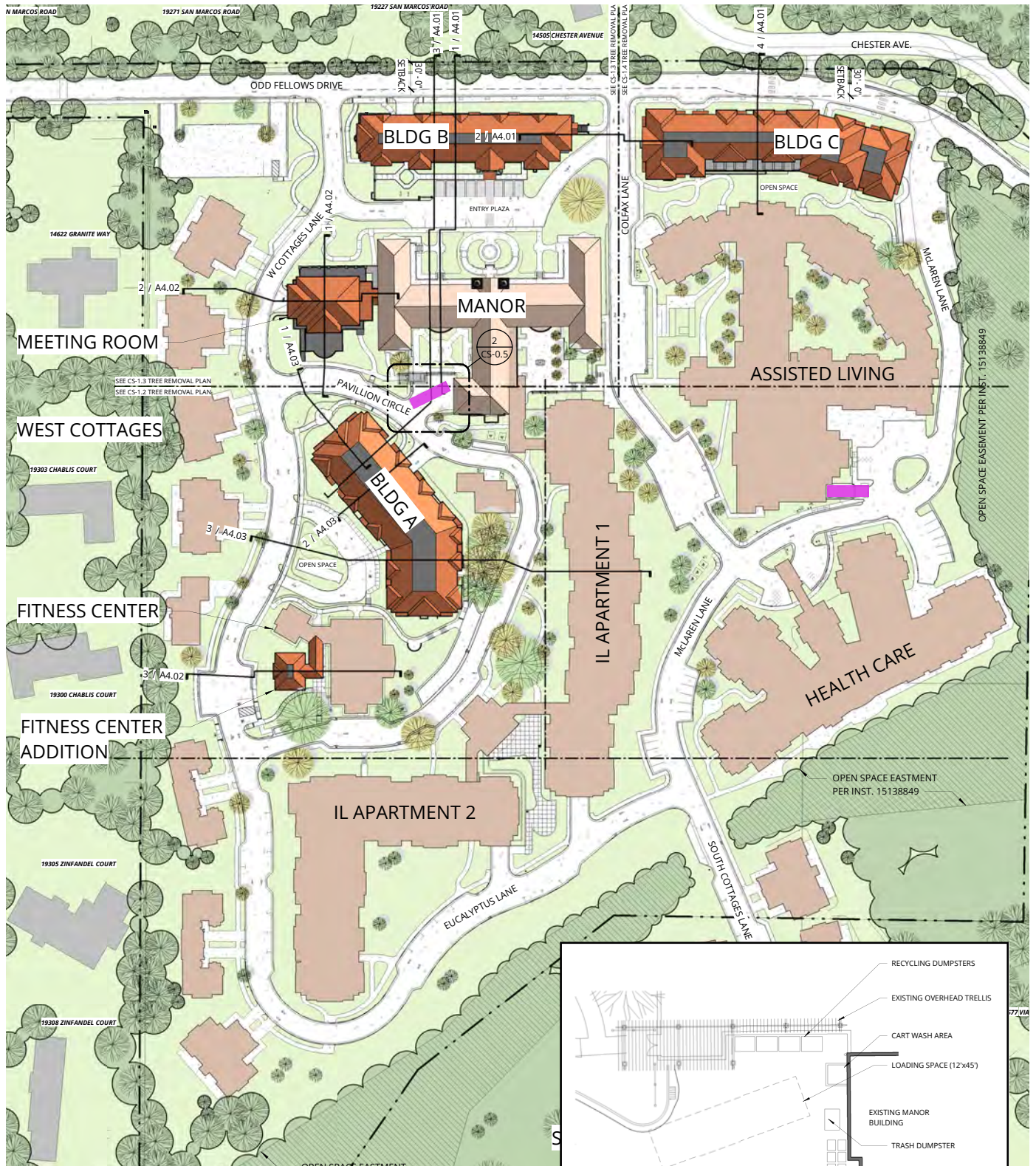
Appendix C Employee Staffing

SRC Current Employee Staffing by Building and Shift

Zip	DESCRIPTION OF OPERATIONS/SERVICES RENDERED AT THIS LOCATION	TOTAL # OF EE'S AT THIS LOCATION	# of Shifts	# OF EE'S PER SHIFT
95070	Building 1000-The Manor-Independent Living-	44	2	1st Shift - 31 2nd Shift - 13 3rd Shift - On Call -
95070	Building 2000-Assisted Living-	110	3	1st Shift - 69 2nd Shift - 36 3rd Shift - 5 On Call -
95070	Building 3000-Skilled Nursing-	124	3	1st Shift - 37 2nd Shift - 39 3rd Shift - 11 On Call -
95070	Building 4000-East Apts.-	5	1	1st Shift - 5 2nd Shift - 3rd Shift - On Call -
95070	Building 5000-Apts-Independent Living-	6	1	1st Shift - 6 2nd Shift - 3rd Shift - On Call -
95070	Building 6000-Cottages-Independent Living-	3	1	1st Shift - 3 2nd Shift - 3rd Shift - On Call -
95070	Building 8000-Physical Plant-	2	1	1st Shift - 2 2nd Shift - 3rd Shift - On Call -

Appendix D Deliveries

14500 Fruitvale Avenue Traffic Study



LEGEND

= Loading Docks

Figure D-1
Loading Spaces

Delivery Information

Sysco Food Delivery: Tuesday and Friday between 8 and 10 AM.

Produce Delivery: Monday through Saturday between 9 and Noon.

Seafood Delivery: Monday through Friday between 12 and 1 PM.

Meat Delivery: Tuesday and Thursday between 10 and 12 PM.

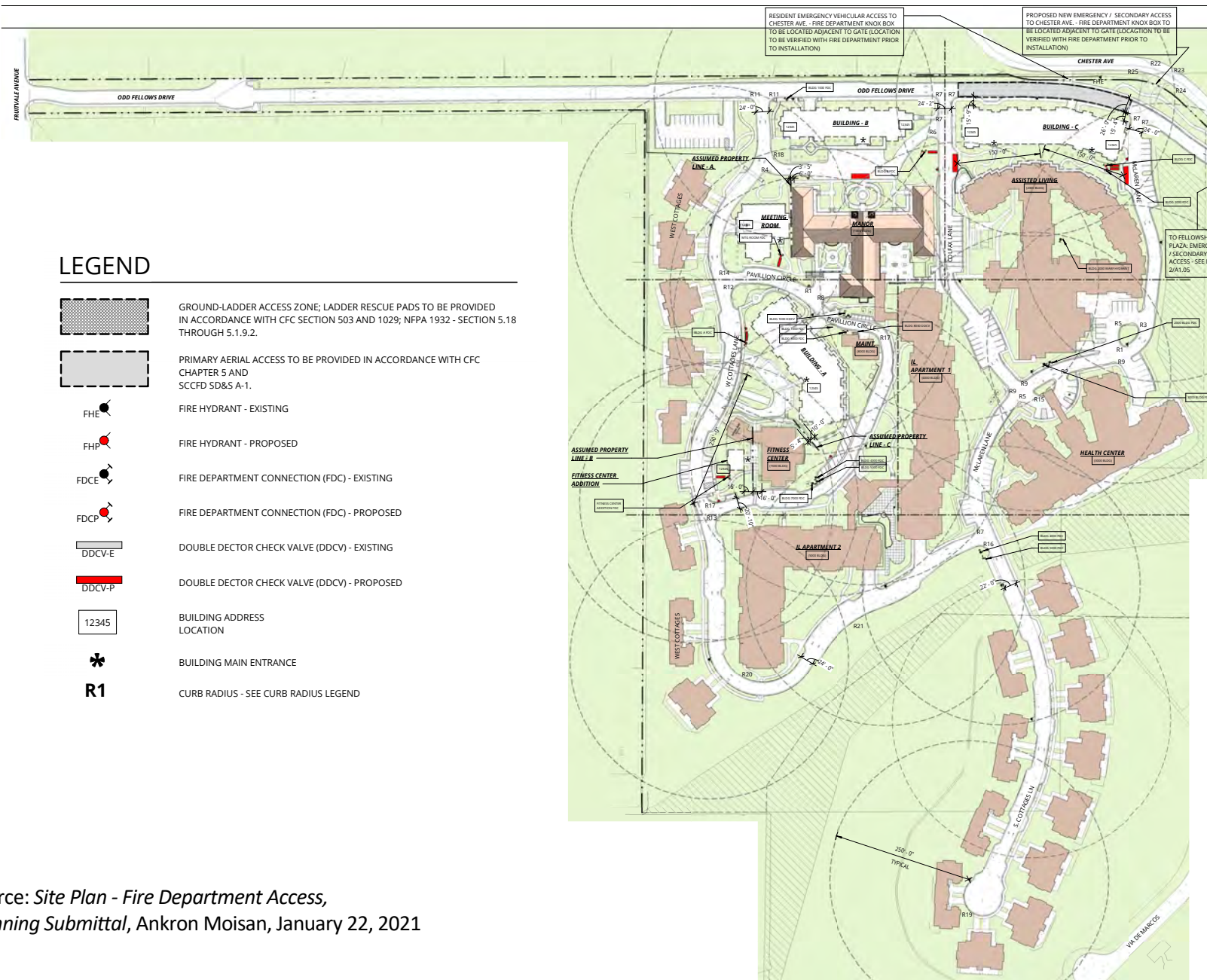
Postal Delivery: To the Main Entry of each building address.

UPS and FedEx: To the Main Entry of the Manor.

Med-care Delivery: Once a week to the Healthcare Building

Source: Ankrom Moison, 4th December, 2020

Appendix E **Fire Access**



Source: Site Plan - Fire Department Access, Planning Submittal, Ankrón Moisan, January 22, 2021

Figure E-1
Fire Access



HEXAGON TRANSPORTATION CONSULTANTS, INC.

April 21, 2023

Ms. Sarah Stel, Executive Director
Pacific Retirement Services
Saratoga Retirement Community
14500 Fruitvale Avenue
Saratoga, CA 95070

Re: *Senior Living Project Traffic Study at 14500 Fruitvale Avenue – Impact of Alternate Site Plan*

Dear Ms. Stel:

Hexagon Transportation Consultants, Inc. has reviewed the revised site for the proposed mixed-senior living project at 14500 Fruitvale Avenue in Saratoga, California. In the Traffic Study report dated June 1, 2021, the project was analyzed assuming an additional 52 senior independent living units, a 4,792 square feet (s.f.) meeting room, and a fitness building. It is our understanding that an EIR alternative to the proposed site plan would remove Building B and build Building D with no change to the proposed living units. The impact of this EIR alternative is discussed below.

Trip Generation, Distribution, and Assignment

Trip generation for the original project estimated 10 net AM peak hour trips and 14 net PM peak hour trips. The EIR alternative does not change the number or type of living units. Therefore, the trips generated will not change. There are also no changes to the proposed distribution of project trips so the trip assignment will also remain unchanged.

Intersection Analysis

Intersection analysis is determined by the added project trips to the surrounding network. As the trip generation, distribution, and assignment have not changed, the intersection level of service analysis for project conditions will also remain unchanged.

VMT Analysis

The VMT analysis was determined by comparing the senior adult housing daily trip rate, which is 61 percent lower, to the daily trip rate for single-family homes. As the trips generated have not changed, the VMT will still be 15% below the average daily VMT per capita for the City of Saratoga.

Vehicle Queuing

Vehicle queuing was determined for turning movements where project would add a substantial number of trips. As the trip generation, distribution, and assignment have not changed, the queuing analysis with project conditions will also remain unchanged.

Site Access and On-Site Circulation

The evaluation of site access and on-site circulation was based on the site plan dated April 1, 2020. The EIR Alternative's site plan, dated March 24, 2023, would eliminate the surface parking lot at the northwest corner of the site, and build Building D. The surface parking lot is currently served by two driveways. Building D would consolidate the driveways down to one. There would



not be any site access issues. The remainder of the campus has not significantly changed in terms of circulation. The site circulation in front of the manor building now consists of the existing curved one-way road that leads to the entry plaza, as well as a one-way road that leads to 15 angled parking spaces. Both roads would meet at Colfax Lane, which is proposed to run north-south in this area. To ensure vehicular operations in this area, Hexagon proposed the following (also displayed in Figure 1):

- Install a painted nose as the loop road and the new parking lane meet, to ensure vehicles on both roadways stay within their own lanes before they turn onto Colfax Lane
- Install stop signs at the end of the loop road and the new parking lane to establish intersection operation orders at the Colfax Lane intersection.
- Ensure there are no tall vegetations or objects that would prevent a driver's ability to see vehicles turning onto Colfax Lane from Odd Fellows Drive. Vehicles making the turn from Odd Fellows Drive are expected to turn at around 5-10 miles per hour, which corresponds to a Caltrans-recommended stopping sight distance of 50 feet. This recommendation would ensure sufficient stopping sight distance is provided.
- Ensure there are no tall vegetations or objects that would prevent a driver's ability to see at least 150 feet south on Colfax Lane. Colfax Lane is assumed to have a speed limit of 25 miles per hour, which corresponds to a Caltrans-recommended stopping sight distance of 150 feet. This recommendation would ensure sufficient stopping sight distance is provided.

Parking

The project was initially going to provide 569 parking space. It was determined that 547 parking spaces were needed to meet the City's parking requirement. The proposed site plan will provide 550 parking spaces with no off-site parking provided for staff. Therefore, the project still meets the City's parking requirement.

Conclusion

The conclusions of the original traffic study completed for the proposed project, dated June 1, 2021, would remain the same for the analyzed EIR Alternative.

Sincerely,

HEXAGON TRANSPORTATION CONSULTANTS, INC.

A handwritten signature in black ink, appearing to read 'Olli Zhou'.

Olli Zhou, T.E.
Vice President



Figure 1
Recommended Improvements

