





Memorandum



Date: March 20, 2019

To: Mr. Jeff Warmoth, 425 First Street Los Altos, LLC.

From: Gary Black

Michelle Hunt

Subject: Traffic Impact Analysis for the Residential Development at 425 First Street in

Los Altos, California

Hexagon Transportation Consultants, Inc. has completed a traffic impact analysis for the proposed residential development at 425 First Street in Los Altos, California (see Figure 1). The project would consist of a three-level residential building with 20 residential units including four studio, eight one-bedroom and eight two-bedroom units. The project proposes to demolish the existing 5,000 square-foot office building on the site. Vehicle access to the parking garage would be provided via a driveway on the alley behind the site (see Figure 2A). The parking would be provided in a two-level underground garage (see Figures 2B and 2C).

The study includes an evaluation of intersection levels of service and also includes an operations analysis, an evaluation of potential impacts to bicycle, pedestrian, and transit facilities, and a review of site access, on-site circulation, and parking demand.

Scope of Study

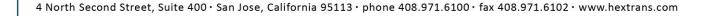
The purpose of the traffic analysis is to satisfy the requirements of the City of Los Altos and the Santa Clara Valley Transportation Authority (VTA). VTA administers the Santa Clara County Congestion Management Program (CMP). Because the project would generate fewer than 100 peak-hour trips, an analysis of impacts on CMP facilities is not required. The traffic analysis includes an analysis of weekday AM and PM peak-hour traffic conditions and determines the traffic impacts of the proposed residential development on key intersections in the vicinity of the site. The intersections are identified below.

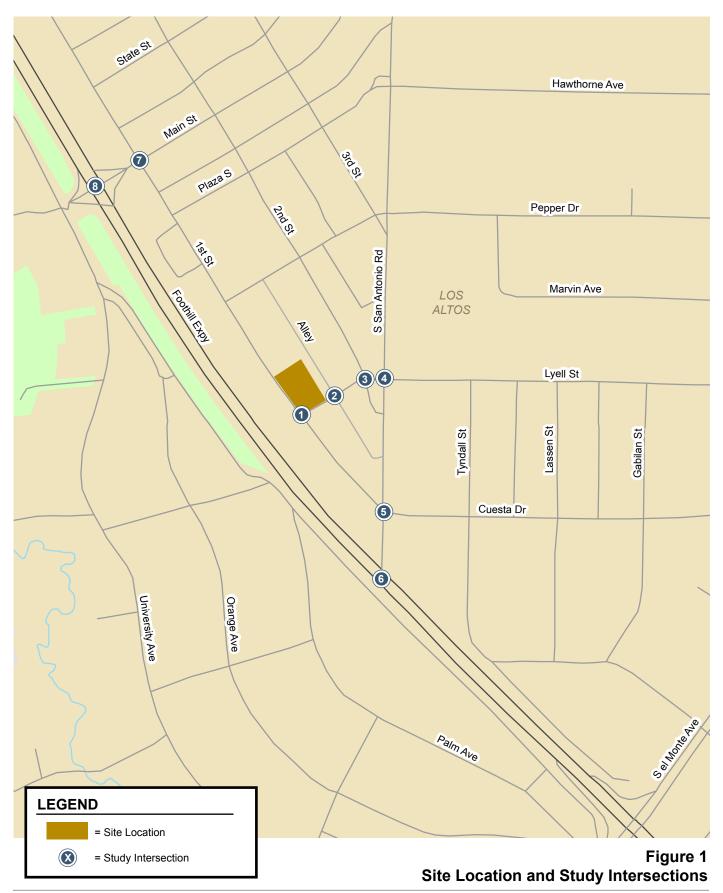
- 1. First Street and Lyell Street (unsignalized)
- 2. Alley and Lyell Street (unsignalized)
- 3. Second Street and Lyell Street (unsignalized)
- 4. San Antonio Road and Lyell Street (unsignalized)
- 5. San Antonio Road and First Street/Cuesta Drive
- 6. San Antonio Road and Foothill Expressway (CMP)
- 7. First Street and Main Street
- 8. Foothill Expressway and Main Street (CMP)

Traffic conditions at the study intersections were analyzed for the weekday AM and PM peak hours of traffic. Locally, the AM peak hour of traffic is usually between 7:00 and 9:00 AM, and the PM peak hour is typically between 4:00 and 6:00 PM. It is during these periods that the most congested traffic conditions occur on an average weekday.













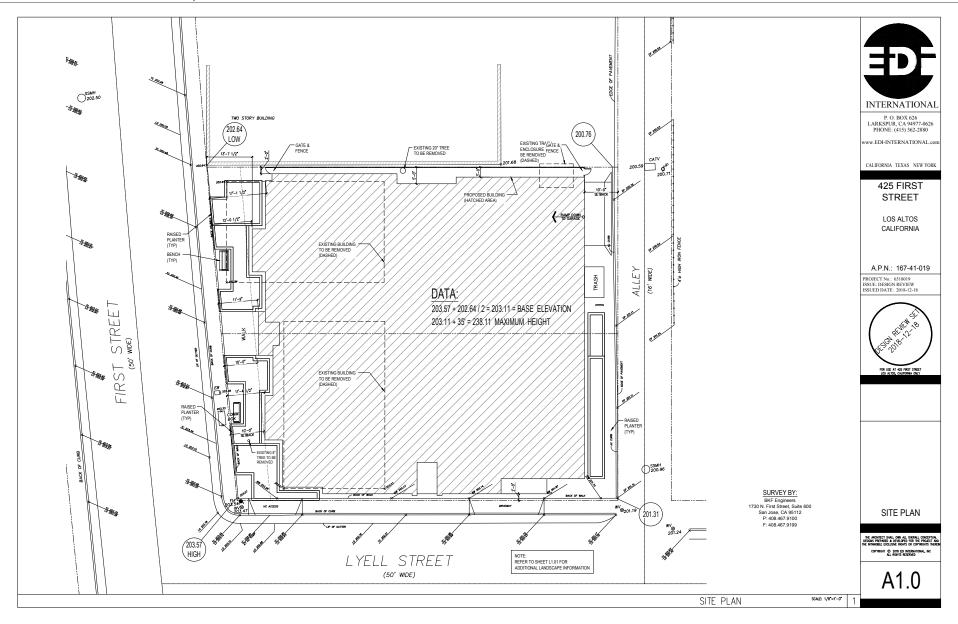


Figure 2A Project Site Plan





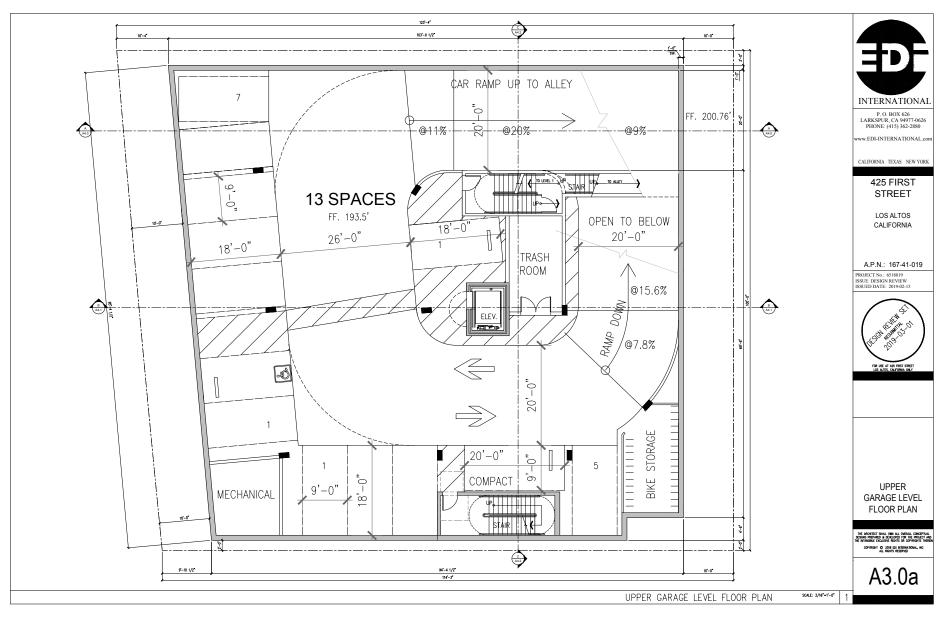


Figure 2B Project Basement Level One Plan



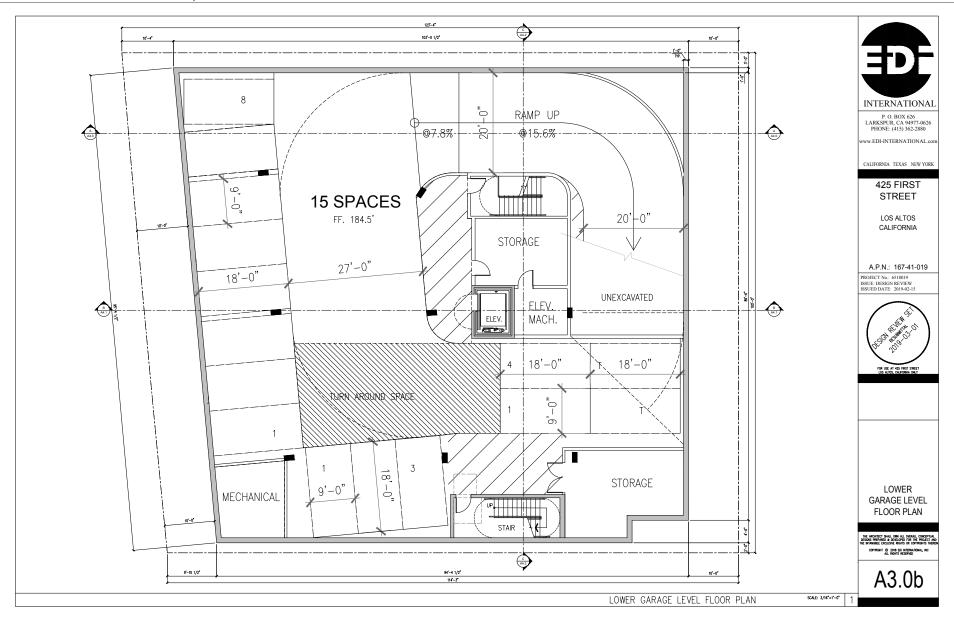


Figure 2C Project Basement Level Two Plan





Traffic conditions were evaluated for the following scenarios:

- Scenario 1: Existing Conditions. Existing AM and PM peak-hour traffic volumes at study intersections were based on new traffic counts collected in June 2018 and March 2019. Because the June 2018 counts were conducted when schools were not in session, the volumes were increased by 10% to represent typical conditions. Existing AM and PM peak-hour traffic volumes at the CMP intersection were obtained from recent counts conducted in April 2017 and the 2016 CMP Annual Monitoring Report, respectively.
- **Scenario 2:** Existing Plus Project Conditions. Existing plus project traffic volumes were estimated by adding to existing traffic volumes the trips associated with the proposed development. Existing plus project conditions were evaluated relative to existing conditions in order to determine potential project impacts.

Methodology

This section describes the methods 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 the analysis were obtained from field observations and new traffic counts. The following data were collected from these sources:

- Existing intersection peak-hour volumes
- Lane configurations
- Signal timing and phasing

Analysis Methodologies

Signalized Intersection Levels of Service

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

The City of Los Altos level of service standard for signalized intersections is LOS D or better. One of the study intersections is a CMP intersection. The CMP level of service standard for signalized intersections is LOS E or better.



Table 1
Signalized Intersection Level of Service Definitions Based on Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
А	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+ B B-	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 12.0 12.1 to 18.0 18.1 to 20.0
C+ C C-	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though may still pass through the intersection without stopping.	20.1 to 23.0 23.1 to 32.0 32.1 to 35.0
D+ D D-	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lenghts, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 39.0 39.1 to 51.0 51.1 to 55.0
E+ E E-	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.	55.1 to 60.0 60.1 to 75.0 75.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes of such delay levels.	greater than 80.0
	ansportation Research Board, <i>2000 Highway Capacity Manual</i> (Washington, D.C. A Traffic Level of Service Analysis Guidelines (June 2003), Table 2.	, 2000) p10-16.

Unsignalized Intersection Levels of Service

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.

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



for unsignalized intersections is shown in Table 2. This study utilizes the TRAFFIX software to determine intersection levels of service based on the 2000 HCM methodology for unsignalized intersections.

The City of Los Altos does not have an adopted level of service standard for unsignalized intersections. For the purpose of this study, the minimum acceptable level of service for unsignalized intersections is LOS D.

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

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

Significant 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 City of Los Altos Level of Service standards. Impacts to the unsignalized study intersections were identified based on engineering judgment. Impacts to pedestrian and bicycle facilities and transit services were evaluated based on the VTA Transportation Impact Analysis (TIA) Guidelines (October 2014) and professional judgment.

City of Los Altos Signalized Intersections

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

- 1. The level of service at the intersection drops below its respective level of service standard (LOS D or better for local intersections) when project traffic is added, or
- 2. An intersection that operates below its level of service standard under no-project conditions experiences an increase in critical-movement delay of four (4) or more seconds, <u>and</u> the volume-to-capacity ratio (v/c) is increased by one percent (0.01) or more when project traffic is added.



A significant impact at a signalized intersection is said to be satisfactorily mitigated when measures are implemented that would restore intersection operations back to background (without the project) conditions or better.

CMP Signalized Intersections

The definition of a significant impact at a CMP intersection is the same as for the City of Los Altos, except that the CMP standard for acceptable level of service at a CMP intersection is LOS E or better. A significant impact by CMP standards is said to be satisfactorily mitigated when measures are implemented that would restore intersection conditions to background conditions or better.

Unsignalized Intersections

The City of Los Altos has not established significant impact criteria for unsignalized intersections. Unlike signalized intersections, which typically represent constraint points for the roadway network, unsignalized intersections rarely limit the potential capacity of a roadway. The determination of appropriate improvements to unsignalized intersections typically includes a qualitative and quantitative analysis of movement delay, movement traffic volumes, intersection safety, and need for signalization. For this reason, significant impacts and the associated improvements to unsignalized intersections are frequently determined on the basis of professional judgment.

Existing Roadway Network

Regional access to the project is provided via Interstate 280 (I-280) and Foothill Expressway. Local access to the project site is provided via San Antonio Road, First Street, Second Street, Lyell Street, and the alley. These facilities are described below.

I-280 is an eight-lane freeway in the study area. It is considered to run north-south between San Francisco and San Jose, although in the project area it runs east-west. In the project vicinity, I-280 has an interchange serving Los Altos at El Monte Avenue.

Foothill Expressway is a four-lane divided expressway that extends between Cupertino and Palo Alto through Los Altos. The City of Los Altos considers Foothill Expressway to be north-south because it is parallel to US 101. It has eight points of access within the Los Altos city limits including an interchange at I-280. The access to the project site from Foothill Expressway is via San Antonio Road or Main Street. The speed limit on Foothill Expressway is 45 mph.

San Antonio Road is a north-south arterial that extends northward from Foothill Expressway to US 101. For the purpose of this study, San Antonio Road is treated as east-west since it intersects with Foothill Expressway, which is considered north-south by the City of Los Altos. In the project vicinity, it is four lanes wide and has landscaped medians with left-turn pockets at intersections and bike lanes and sidewalks on both sides of the street. San Antonio Road provides access to the project site via First Street or Lyell Street. The speed limit on San Antonio Road is 35 mph.

First Street is a two-lane local street that runs parallel to and east of Foothill Expressway between San Antonio Road and Edith Avenue. East of San Antonio Road it becomes Cuesta Drive, and north of Edith Avenue it becomes Los Altos Avenue. First Street provides access to the project site via Lyell Street. First Street provides direct pedestrian access to the project site. On-street parking is available on both sides of First Street. A sidewalk is present along the east side of First Street but is discontinuous on the west side. The speed limit on First Street is 25 mph.



Second Street is a two-lane local street that runs parallel to and east of Foothill Expressway between Lyell Street and Edith Avenue. Second Street provides access to the project site via Lyell Street. Sidewalks are present on both sides of Second Street. The speed limit on Second Street is 25 mph.

Lyell Street is an east-west local street that extends eastward from First Street, through San Antonio Road, and ends in a cul-de-sac. It is two lanes wide and has discontinuous sidewalks. The project frontage has a sidewalk with on-street parking allowed. The speed limit on Lyell Street is 25 mph.

Alley. There is a two-way alley behind the project site that runs between Whitney Street and Lyell Street. The alley is approximately 16 feet wide and provides access to the backs of the buildings along First and Second Street. The project is shown to have its driveway on the alley.

Intersection Lane Configurations and Traffic Volumes

The existing lane configurations at the study intersections were obtained from field observations (see Figure 3).

Existing peak-hour traffic volumes were obtained from new turning-movement counts conducted in June 2018 while schools were not in session. The traffic counts from June 2018 were factored by 10% to represent the school year. In response to comments by the City's Complete Streets Commission, intersection counts were conducted again in March 2019, while schools were in session. As a conservative approach, Hexagon took the higher count between the two counts for intersection analysis. Existing AM and PM peak-hour traffic volumes at the CMP intersection were obtained from recent counts conducted in April 2017 and the 2016 CMP Annual Monitoring Report, respectively (see Figure 4). New intersection turning-movement counts conducted for this analysis are presented in Appendix A. Traffic volumes for all components of traffic are tabulated in Appendix C.

Existing Intersection Levels of Service

The intersection level of service analysis results show that all study intersections currently operate at acceptable levels of service during both AM and PM peak hours (see Table 3). The intersection level of service calculation sheets are included in Appendix B.



Table 3
Existing Intersection Level of Service Summary

Study Number	Intersection	Control	Peak Hour	Count Date	Avg Delay (sec/veh)	LOS
1	First Street and Lyell Street	Two-Way Stop	AM	03/12/19	10.0	Α
	(Unsignalized Intersection)		PM	06/12/18	12.8	В
2	Alley and Lyell Street	Two-Way Stop	AM	06/12/18	8.7	Α
	(Unsignalized Intersection)		PM	03/12/19	8.7	Α
3	Second Street and Lyell Street	Two-Way Stop	AM	06/12/18	10.1	В
	(Unsignalized Intersection)		PM	06/12/18	9.5	Α
4	San Antonio Road and Lyell Street	Two-Way Stop	AM	03/12/19	25.9	D
	(Unsignalized Intersection)		PM	06/12/18	25.0	D
5	San Antonio Road and First Street/Cuesta Drive	Signal	AM	03/12/19	23.7	С
			PM	06/12/18	20.5	C+
6	San Antonio Road and Foothill Expressway*	Signal	AM	04/18/17	10.3	B+
			PM	01/31/17	56.4	E+
7	First Street & Main Street	Signal	AM	03/12/19	19.2	B-
			PM	03/12/19	19.9	B-
8	Foothill Expressway & Main Street *	Signal	AM	03/12/19	20.9	C+
			PM	10/06/16	23.0	C+

Note: For two-way stop controlled intersections, the average delay and LOS is reported for the worst approach.

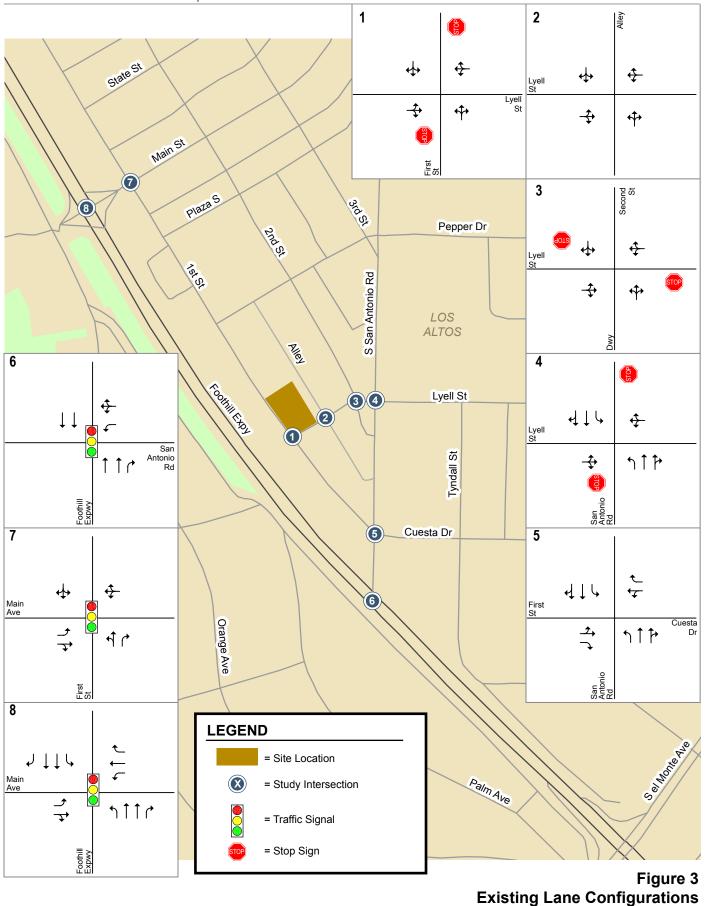
Overall the study intersections operated adequately during both the AM and PM peak hours of traffic, and the level of service analysis appears to accurately reflect actual existing traffic conditions. Field observations showed that some operational issues occurred between the closely-spaced intersections on San Antonio Road. However, the operational issues did not result in operational deficiencies at the intersections.

San Antonio Road between Foothill Expressway and First Street

During the AM and PM peak hours, the westbound vehicle queues on San Antonio Road constantly extended from Foothill Expressway past First Street. However, because the traffic signals at the two intersections are coordinated, the queued vehicles were not observed to block or extend past any downstream intersections. The long westbound vehicle queues at the San Antonio Road/First Street intersection occasionally took more than one cycle to clear both intersections during the PM peak hour. During the AM peak hour, the vehicle queues cleared both intersections in one signal cycle. During the PM peak hour, Foothill Expressway experiences very heavy traffic volumes southbound. This creates stop-and-go conditions on the expressway. Southbound vehicles occasionally required two signal cycles to clear the intersection.

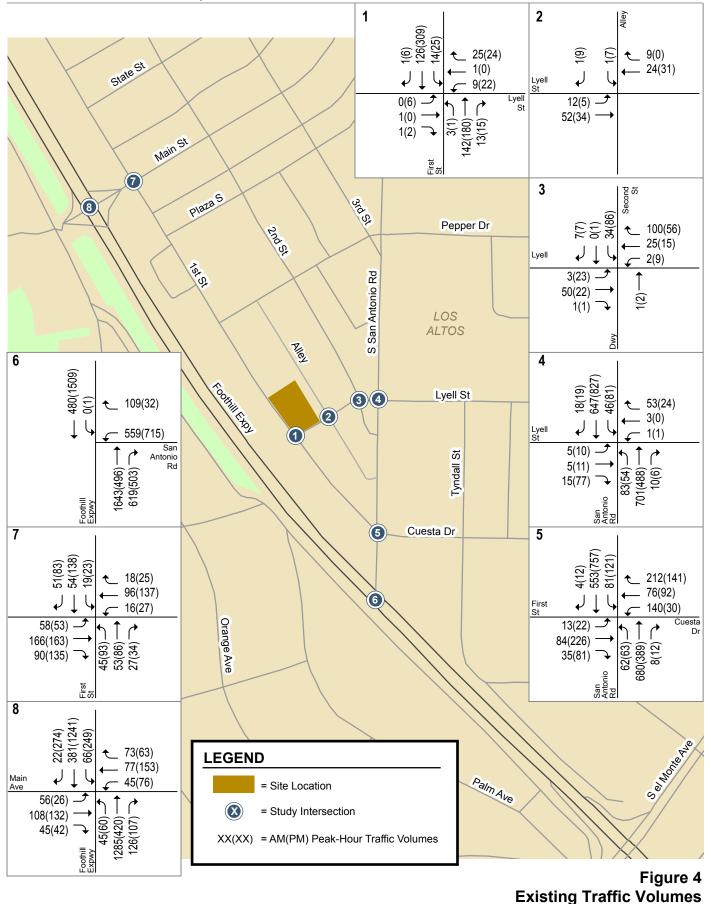


^{*} Denotes a CMP designated intersection













Project Trip Generation

Through empirical research, data have been collected that quantify the amount of traffic produced by common land uses. Thus, for the most common 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. The magnitude of traffic added to the roadway system by a particular development is estimated by multiplying the applicable trip generation rates by the size of the development. The trip generation rates published in the Institute of Transportation Engineers' (ITE) manual entitled *Trip Generation*, *10th Edition* (2017) were used for this analysis. The rates published for Multifamily Housing – Low-Rise (Land Use 220) were used to estimate the trips generated by the proposed multifamily dwelling units. Based on these rates, the proposed project would generate 146 daily trips with 9 trips during the AM peak hour and 11 trips during the PM peak hour (see Table 4).

The magnitude of traffic that is being generated by the existing businesses on the site was estimated based on trip generation rates for Small Office Building (Land Use 712) published in the Institute of Transportation Engineers (ITE) manual entitled *Trip Generation*, *10th Edition*. As shown in Table 4, the existing uses on site are estimated to generate 81 daily trips with 10 trips during the AM peak hour and 12 trips during the PM peak hour.

After accounting for the trips generated by the existing offices, the proposed residential project is estimated to generate 65 new daily trips with a net decrease of one trip in the AM peak hour and a net decrease of one trip in the PM peak hour.

Table 4
Project Trip Generation Estimates

				A	M Pea	ak Hou	r		PM P	eak Ho	our
Land Use	Size	Daily Rate	Daily Trips	Rate	In	Out	Total Trips	Rate	ln	Out	Total Trips
Lanu Ose	Size	Nate	Пръ	Nate	111	Out	пръ	Nate	111	Out	пръ
Proposed Use					_	_					
Townhomes ¹	20 units	7.32	146	0.46	2	7	9	0.56	7	4	11
Existing Land Use											
Office ²	5,000 sq.ft.	16.19	(81)	1.92	(8)	(2)	(10)	2.45	(4)	(8)	(12)
Net New Trips	S:		65		(6)	5	(1)		3	(4)	(1)

Notes:

Trip Distribution and Assignment

The trip distribution pattern for the proposed development was estimated based on existing travel patterns on the surrounding roadway system and the locations of complementary land uses (see Figure 5).



¹ Low-Rise Multifamily Housing (Land Use 220), *ITE Trip Generation Manual*, 10th Edition (2017), average rates for General Urban/Suburban settings are used.

² Small Office Building (Land Use 712), *ITE Trip Generation Manual, 10th Edition (2017)*, average rates for General Urban/Suburban settings are used.

The peak-hour trips generated by the existing and proposed uses were assigned to the roadway system based on the directions of approach and departure, the roadway network connections, and the location of the project driveway (see Figure 6). The trips generated by the existing uses were subtracted from the roadway network prior to assigning project trips.

Intersection Traffic Volumes

Project trips, as represented in the above project trip assignment, were added to existing traffic volumes to obtain existing plus project traffic volumes (see Figure 7). Traffic volumes for all components of traffic are tabulated in Appendix C.

Intersection Levels of Service

The intersection level of service analysis results show that all study intersections would operate at acceptable levels of service during both AM and PM peak hours under existing plus project conditions (see Table 5). It should be noted that, at some study intersections, the average delay under project conditions is shown to be better than under no-project conditions. This occurs because the project would subtract from some traffic movements. The intersection level of service calculation sheets are included in Appendix B.

Table 5 **Existing Plus Project Intersection Levels of Service**

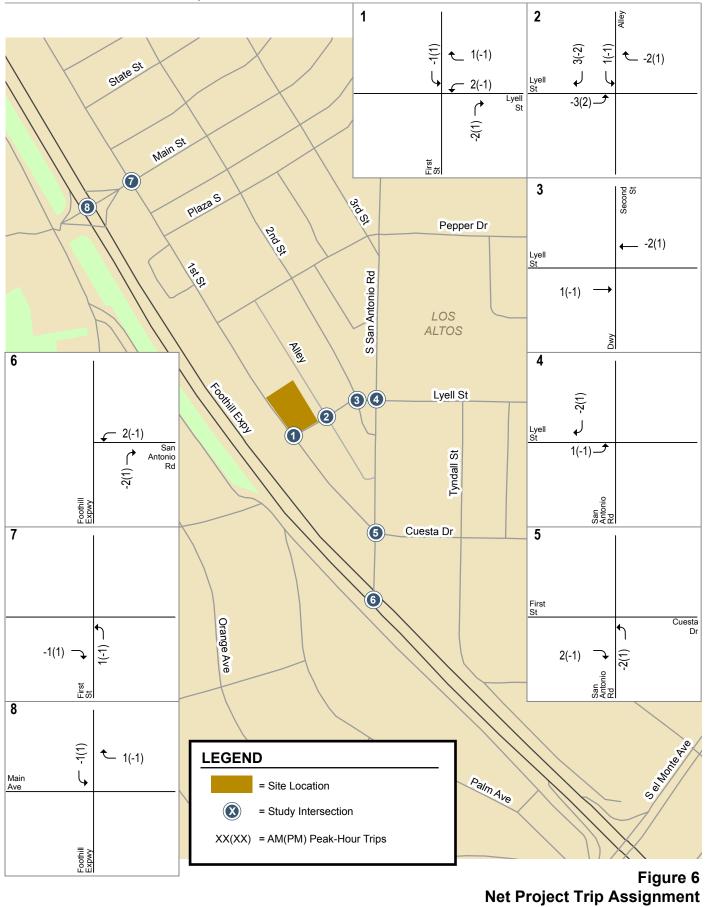
					Existi	ng	Ex	isting ·	+ Project	t e
#	Intersection	Control	Peak Hour	Count Date	Avg Delay (sec/veh)	LOS	Avg Delay (sec/veh)	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C
1	First Street and Lyell Street	Two-Way Stop	AM	03/12/19	10.0	Α	10.0	Α	-	-
	(Unsignalized Intersection)		PM	06/12/18	12.8	В	12.8	В	-	-
2	Alley and Lyell Street	Two-Way Stop	AM	06/12/18	8.7	Α	8.6	Α	-	-
	(Unsignalized Intersection)		PM	03/12/19	8.7	Α	8.7	Α	-	-
3	Second Street and Lyell Street	Two-Way Stop	AM	06/12/18	10.1	В	10.1	В	-	-
	(Unsignalized Intersection)		PM	06/12/18	9.5	Α	9.5	Α	-	-
4	San Antonio Road and Lyell Street	Two-Way Stop	AM	03/12/19	25.9	D	26.9	D	-	-
	(Unsignalized Intersection)		PM	06/12/18	25.0	D	24.4	С	-	-
5	San Antonio Road and First Street/Cuesta Driv	Signal	AM	03/12/19	23.7	С	23.7	С	0.0	-0.001
			PM	06/12/18	20.5	C+	20.5	C+	0.0	0.001
6	San Antonio Road and Foothill Expressway*	Signal	AM	04/18/17	10.3	B+	10.3	B+	0.0	0.001
			PM	01/31/17	56.4	E+	56.2	E+	-0.2	0.000
7	First Street & Main Street	Signal	AM	03/12/19	19.2	B-	19.2	B-	0.0	0.000
			PM	03/12/19	19.9	B-	19.9	B-	0.0	0.000
8	Foothill Expressway & Main Street *	Signal	AM	03/12/19	20.9	C+	20.9	C+	-0.1	-0.001
			PM	10/06/16	23.0	C+	23.0	C+	0.1	0.001

Denotes a CMP designated Intersection













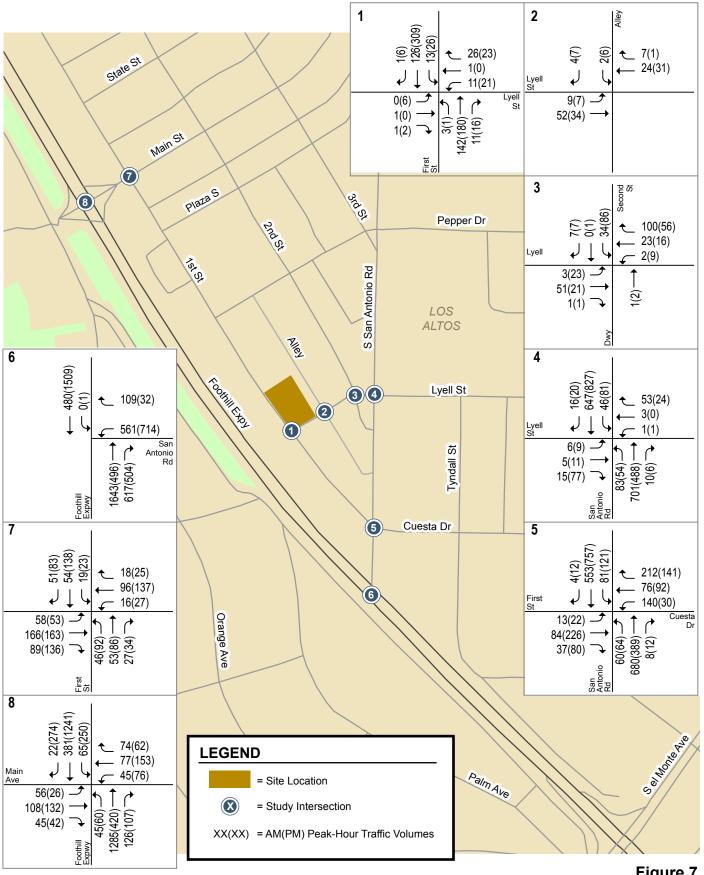


Figure 7
Existing Plus Project Traffic Volumes





Parking Analysis

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

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

According to the city code, the project is required to provide a total of 28 parking spaces (12 for studio and one-bedroom units and 16 for two-bedroom units). The site plan shows a two-level underground parking garage with 28 parking spaces, including 23 standard parking spaces, 2 pairs of tandem parking spaces (4 spaces), and 1 van accessible parking space. Los Altos Municipal Code, Ordinance 14.28.040 (G.5) permits tandem parking for affordable housing developments. Thus, the project would meet the City's overall parking requirement. Even though guest parking is not required, any guest parking would need to occur on-street on Lyell Street and First Street.

The Valley Transportation Authority (VTA) provides guidelines for bike parking in its publication *Bike Technical Guidelines*. Class I spaces are defined as spaces that protect the entire bike and its components from theft, such as in a secure designated room or a bike locker. Class II spaces provide an opportunity to secure at least one wheel and the frame using a lock, such as bike racks. For multi-family dwelling units, VTA recommends one Class I space per three dwelling units and one Class II space per 15 dwelling units. For the proposed project, this equates to 7 Class I spaces and 2 Class II spaces. The project site plan shows a bike room in the underground parking garage with 28 bicycle parking spaces. The project will also provide two Class II spaces with a U-shaped bike rack near the garage entrance on the alley and four Class II spaces along First Street.

Site Access and On-Site Circulation

A review of the project site plan was performed to determine whether adequate site access and onsite circulation would be provided. This review was based on the site plan provided by EDI International, Inc. dated February 15, 2019 (see Figures 2A to 2C).

Site Access

The site access was evaluated to determine the adequacy of the site's driveway with regard to the following: traffic volume, delays, vehicle queues, truck access, pedestrian and bicycle access.

The project site plan shows that the new proposed residential building would be accessed by a driveway on the alley. According to the City's Zoning Code (14.74.200), a two-way driveway should be a minimum of 18 feet wide. Based on the project site plan, the garage driveway would be 20 feet wide, which complies with the City's standards.

The project is estimated to generate 9 trips during the AM peak hour and 11 trips during PM peak hour. This equates to one vehicle every seven minutes during the AM peak hour and one vehicle every five minutes during the PM peak hour. Based on existing traffic counts conducted at the alley and Lyell Street, 23 vehicles use the alley during AM peak hour and 27 vehicles during the PM peak hour. This equates one vehicle every three minutes during the AM peak hour and one vehicle



every two minutes during PM peak hour. The width of the alley adjacent to the project site is 18 feet, which is wide enough for two vehicles to pass each other. Given the low traffic volumes in the alley, vehicle queues entering and exiting the alley would seldom exceed one vehicle. It should be noted that Los Altos requires development on both sides of the alley to dedicate right-of-way such that the ultimate width of the alley will be 20 feet.

Sight distance generally should be provided in accordance with Caltrans design standards. Sight distance requirements vary depending on the roadway speeds. In the vicinity of the project site, the speed limit on the alley is presumably 25 mph. However, traffic was observed to be travelling much slower because of the narrow alley width. The Caltrans recommended sight distance is 150 feet. This means that a driver must be able to see 150 feet down the alley to locate a sufficient gap to turn out of the driveway. The setback between the proposed building and the alley would be approximately 8 feet, which would provide sufficient sight distance for drivers to see oncoming traffic in the alley without their vehicles entering the travelled way. There are no sharp roadway curves or landscaping features shown on the site plan that would obstruct the vision of exiting drivers.

Garage Ramp Design

The proposed garage ramp at the garage entrance is shown to have a maximum slope of 20% with 11% and 9% transitions on the sides. The curved ramp connecting the two basement levels is shown to have a maximum slope of 16% with 8% transitions on both sides. These dimensions are acceptable. Commonly cited parking publications recommend grades of up to 16% on ramps where no parking is permitted, but grades of up to 20% are cited as acceptable when ramps are covered (i.e. protected from weather) and not used for pedestrian walkways. It should be noted that the vast majority of ramp users will be residents, and thus, will quickly become accustomed to steeper grades.

Garbage Collection and Loading Space

The project site plan shows a trash room located in the underground garage. Garbage collection activities for the project are not expected to occur on-site because vehicle access would not be provided to the trash room. Therefore, the trash bins should be moved to the proposed trash pad along the Alley on designated garbage collection days. For loading and unloading, on-street parking is permitted along Lyell Street and First Street; thus, large delivery and service trucks may be able to park on the street, subject to the availability of spaces.

On-Site Circulation

The on-site circulation was reviewed in accordance with generally accepted traffic engineering standards. The project would provide 27 90-degree parking stalls and 1 parallel parking stall. The project site plan shows one standard parking space located at the entrance of the parking garage near the bottom of the ramp. While drivers of compact vehicles could make the sharp turn necessary to pull directly into this space, drivers in full-size passenger vehicles would be required to undertake a three-point turn in order to park in this space. The site plan shows the two-way drive aisle adjacent to 90-degree parking would have a minimum width of 26 feet, which would provide sufficient room for vehicles to back out of the parking stalls and meets the standard set forth in the City's Zoning Code. The ramp between basement levels one and two and the two-way drive aisle adjacent to the parallel parking space is shown to have a width of 20 feet, which is adequate to accommodate two-way flow and vehicle maneuvers to and from the parallel parking space. Basement level two includes a turn-around space at the end of the parking aisle that will allow vehicles that park in the head-in spaces along the southern edge of basement level two to back out



of the space and turn around within basement level two before proceeding forward up the garage ramp.

Potential Impacts on Pedestrians, Bicycles and Transit

Pedestrian facilities within the study area are in the form of sidewalks, signalized crossings, and unsignalized crossings. Local streets in the study area, including First Street and Lyell Street have sidewalks on at least one side of the street. Sidewalks are found on both sides of Second Street and San Antonio Road. Crosswalks with pedestrian signal heads and push buttons are located at the San Antonio Road and First Street/Cuesta Drive signalized study intersection. Crosswalks are also present at the unsignalized study intersections.

Existing pedestrian counts were conducted as part of the peak-hour intersection turning movement counts for the project. The highest pedestrian crossing counts were 26 pedestrians during the AM peak hour at the First Street/Lyell Street intersection and 13 pedestrians during the PM peak hour at the San Antonio Road/Lyell Street intersection.

Bicycle facilities in the study area include bike lanes and a bike route. Bike lanes are lanes on roadways designated for use by bicycles with special lane markings, pavement legends, and signage. Bike routes are existing rights-of-way that accommodate bicycles but are not separate from the existing travel lanes. Routes are typically designated only with signs or pavement markers.

Within the project study area, bike lanes are provided along Foothill Expressway, San Antonio Road, Los Altos Avenue, El Monte Avenue, and westbound Edith Avenue. Eastbound Edith Avenue, Hillview Avenue and Cuesta Drive are marked as bike routes. Local streets near the project site, such as First Street, Second Street and Lyell Street, are not marked as bike lanes or routes, but they carry low traffic volumes and are conducive to bicycling.

Local VTA route 40 provides service between Foothill College in Los Altos Hills and La Avenida Street in Mountain View via San Antonio Road, Lyell Street and First Street (near the project site) with 25 to 40-minute commute hour headways through weekdays and 30 to 60-minute headway on weekends. In the project vicinity, the closest bus stops are located at San Antonio Road and Lyell Street. The distance between the project site and these bus stops is approximately 350 feet.

Conclusions

The proposed residential development would not result in any significant impacts to the study intersections during the AM and PM peak hours under the existing plus project scenario.

The project site plan shows a two-level underground parking garage with 28 parking spaces, including 23 standard parking spaces, 2 pairs of tandem parking spaces, and 1 van accessible parking space. The project site plan was reviewed for site access and on-site circulation and no operational issues were found.



Appendix A Traffic Counts



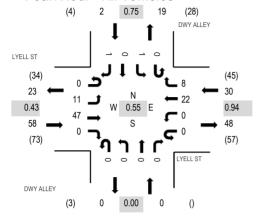
 $\textbf{Location:} \quad \textbf{1} \quad \textbf{DWY ALLEY} \ \& \ \textbf{LYELL ST AM}$

Date and Start Time: Tuesday, June 12, 2018

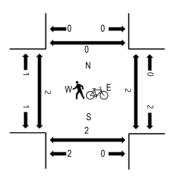
Peak Hour: 08:00 AM - 09:00 AM

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

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

	LYELL ST						_ST			DWY A	LLEY			DWY A	ALLEY							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	destrair	n Crossi	ngs
 Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	0	1	0	0	0	3	1	0	0	0	0	0	0	0	0	5	32	0	0	0	2
7:15 AM	0	0	4	1	0	1	4	0	0	0	0	0	0	0	0	0	10	42	0	0	0	0
7:30 AM	0	2	2	0	0	0	1	1	0	0	0	0	0	0	0	1	7	44	0	0	2	2
7:45 AM	0	2	2	1	0	0	1	3	0	0	0	0	0	0	0	1	10	59	0	0	0	0
8:00 AM	0	3	4	0	0	0	5	2	0	0	0	0	0	1	0	0	15	90	2	0	0	0
8:15 AM	0	0	4	0	0	0	4	4	0	0	0	0	0	0	0	0	12		0	0	0	0
8:30 AM	0	5	8	0	0	0	6	2	0	0	0	0	0	0	0	1	22		0	0	0	0
8:45 AM	0	3	31	0	0	0	7	0	0	0	0	0	0	0	0	0	41		0	2	2	0

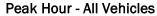
				West	oound			Northb	oound			South	bound				
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	10	46	0	0	0	22	8	0	0	0	0	0	1	0	1	88
Mediums	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	11	47	0	0	0	22	8	0	0	0	0	0	1	0	1	90

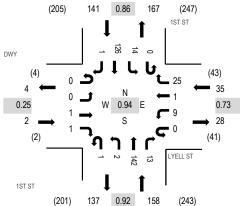


Location: 5 1ST ST & LYELL ST AM Date: Tuesday, March 12, 2019

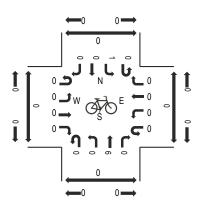
Peak Hour: 08:00 AM - 09:00 AM

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

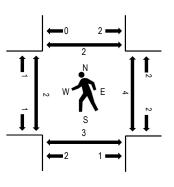




Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

		DV	۷Y			LYELL	ST			1ST	ST			1ST	ST							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	0	0	0	0	1	0	1	0	0	13	3	0	1	5	0	24	157	0	0	0	0
7:15 AM	0	0	0	0	0	2	0	0	0	0	17	0	0	1	16	0	36	211	0	0	1	0
7:30 AM	0	0	0	0	0	1	0	1	0	0	23	3	0	1	10	0	39	260	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	2	0	0	23	3	0	1	29	0	58	310	0	1	1	2
8:00 AM	0	0	0	0	0	1	0	4	0	0	32	4	0	5	32	0	78	336	0	0	0	0
8:15 AM	0	0	0	0	0	2	0	5	0	1	39	3	0	1	34	0	85		2	3	3	1
8:30 AM	0	0	0	0	0	3	1	7	1	0	33	2	0	7	35	0	89		0	0	0	1
8:45 AM	0	0	1	1	0	3	0	9	0	1	38	4	0	1	25	1	84		0	1	0	0

		East	bound			Westh	oound			Northb	ound			South	bound		
Vehicle Type						Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	6	0	0	1	0	0	7
Lights	0	0	1	1	0	7	1	25	1	2	133	12	0	13	119	1	316
Mediums	0	0	0	0	0	2	0	0	0	0	3	1	0	0	6	0	12
Total	0	0	1	1	0	q	1	25	1	2	142	13	0	14	126	1	336



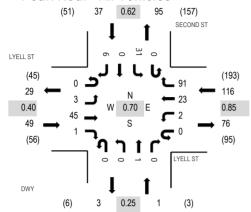
Location: 3 DWY & LYELL ST AM

Date and Start Time: Tuesday, June 12, 2018

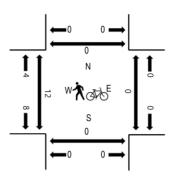
Peak Hour: 08:00 AM - 09:00 AM

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

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		LYEL	LST			LYELL	ST			DW	Υ			SECO	ND ST							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	lestrair	Crossi	ngs
 Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru F	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	0	0	0	0	0	4	10	0	0	0	0	0	6	0	0	20	100	1	0	0	1
7:15 AM	0	0	3	0	0	2	5	20	0	0	1	1	0	1	0	1	34	119	1	0	0	1
7:30 AM	0	0	2	0	0	1	2	15	0	0	0	0	0	3	0	0	23	128	0	0	0	1
7:45 AM	0	1	1	0	0	0	3	15	0	0	0	0	0	2	0	1	23	154	4	0	1	2
8:00 AM	0	0	5	0	0	1	4	22	0	0	0	0	0	4	0	3	39	203	0	0	0	0
8:15 AM	0	0	3	1	0	1	8	25	0	0	0	0	0	5	0	0	43		2	0	0	0
8:30 AM	0	1	8	0	0	0	7	23	0	0	0	0	0	10	0	0	49		6	0	0	0
8:45 AM	0	2	29	0	0	0	4	21	0	0	1	0	0	12	0	3	72		4	0	0	0

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	71						Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	3	44	1	0	2	23	91	0	0	1	0	0	31	0	6	202
Mediums	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	3	45	1	0	2	23	91	0	0	1	0	0	31	0	6	203

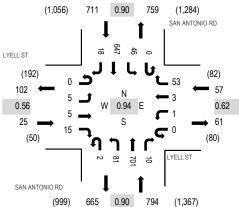


Location: 2 SAN ANTONIO RD & LYELL ST AM

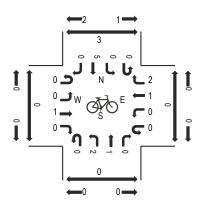
Date: Tuesday, March 12, 2019 **Peak Hour:** 07:45 AM - 08:45 AM

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

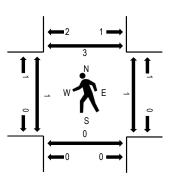




Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

			LYEL	L ST			LYELL	ST		SA	N ANTO	ONIO R	D	SA	N ANT	ONIO F	RD						
	Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	destriar	n Crossi	ngs
	Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
-	7:00 AM	0	0	0	6	0	0	0	2	1	19	103	0	0	1	49	0	181	1,100	0	1	0	4
	7:15 AM	0	1	0	2	0	1	1	4	2	15	110	1	0	6	74	2	219	1,329	0	0	0	1
	7:30 AM	0	2	0	2	0	0	1	4	0	18	153	1	1	3	90	1	276	1,531	0	2	0	0
	7:45 AM	0	3	1	6	0	0	1	12	1	11	206	5	0	5	171	2	424	1,587	0	1	0	0
	8:00 AM	0	0	1	4	0	0	1	9	1	21	171	4	0	18	177	3	410	1,455	1	0	0	1
	8:15 AM	0	0	1	3	0	1	1	21	0	31	175	1	0	17	167	3	421		0	0	0	2
	8:30 AM	0	2	2	2	0	0	0	11	0	18	149	0	0	6	132	10	332		0	0	0	0
	8:45 AM	0	4	0	8	0	1	0	11	0	21	129	0	1	7	98	12	292		1	0	0	5

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
Bicycles on Road	0	0	1	0	0	0	1	2	0	2	1	0	0	0	5	0	12
Lights	0	5	4	15	0	1	2	49	2	79	688	10	0	46	632	16	1,549
Mediums	0	0	0	0	0	0	0	2	0	0	9	0	0	0	10	2	23
Total	0	5	5	15	0	1	3	53	2	81	701	10	0	46	647	18	1,587

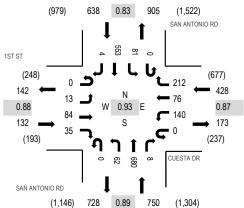


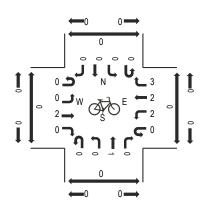
Location: 1 SAN ANTONIO RD & CUESTA DR AM

Date: Tuesday, March 12, 2019 **Peak Hour:** 07:45 AM - 08:45 AM

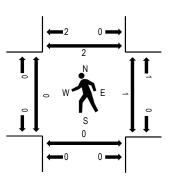
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles Peak Hour - Bicycles





Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

		1ST	ST		C	CUEST	A DR		SA	N ANTO	ONIO R	D	SA	N ANT	ONIO F	RD						
Interval	Interval Eastbound					Westb	ound			Northb	ound			South	oound			Rolling	Ped	destriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	0	4	2	0	8	9	23	0	5	100	3	0	5	44	1	204	1,290	0	0	0	0
7:15 AM	0	2	9	7	0	11	10	21	0	8	109	1	0	6	67	2	253	1,583	0	0	0	0
7:30 AM	0	0	4	5	0	24	14	27	0	12	155	0	0	5	92	2	340	1,852	0	0	0	0
7:45 AM	0	2	22	3	0	45	15	40	0	8	203	1	0	11	143	0	493	1,948	0	0	0	0
8:00 AM	0	6	24	3	0	28	18	53	0	17	153	2	0	29	163	1	497	1,863	0	0	0	0
8:15 AM	0	4	15	15	0	37	25	62	0	18	182	3	0	24	135	2	522		0	1	0	1
8:30 AM	0	1	23	14	0	30	18	57	0	19	142	2	0	17	112	1	436		0	0	0	1
8:45 AM	0	1	14	13	0	41	17	44	0	24	135	2	0	11	104	2	408		0	0	0	1

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	1	0	1	0	0	0	0	0	0	2	0	0	0	1	0	5
Bicycles on Road	0	0	2	0	0	2	2	3	0	0	1	0	0	0	0	0	10
Lights	0	11	80	33	0	138	74	208	0	61	667	8	0	81	544	3	1,908
Mediums	0	1	2	1	0	0	0	1	0	1	10	0	0	0	8	1	25
Total	0	13	84	35	0	140	76	212	0	62	680	8	0	81	553	4	1,948



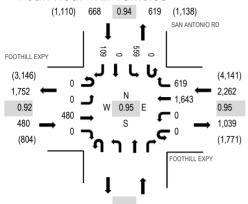
Location: 3 SAN ANTONIO RD & FOOTHILL EXPY AM

Date and Start Time: Tuesday, April 18, 2017

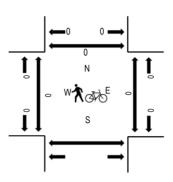
Peak Hour: 08:00 AM - 09:00 AM

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

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

	FC	OTHI	L EXP	Υ	FO	OTHIL	L EXP	/				SA	N ANT	OINC	RD						
Interval		Eastb	ound			Westb	ound			Northb	ound		South	oound			Rolling	Ped	lestrair	Crossin	igs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South N	North
7:00 AM	0	0	48	0	0	0	293	80				0	64	0	9	494	2,645	0	0		0
7:15 AM	0	0	60	0	0	0	325	107				0	77	0	5	574	2,978	0	0		0
7:30 AM	0	0	104	0	0	0	355	163				0	113	0	14	749	3,214	0	0		0
7:45 AM	0	0	112	0	0	0	387	169				0	154	0	6	828	3,359	0	0		0
8:00 AM	0	0	119	0	0	0	412	147				0	131	0	18	827	3,410	0	0		0
8:15 AM	0	0	117	0	0	0	371	144				0	148	0	30	810		0	0		0
8:30 AM	0	0	131	0	0	0	449	147				0	142	0	25	894		0	0		0
8:45 AM	0	0	113	0	0	0	411	181				0	138	0	36	879		0	0		0

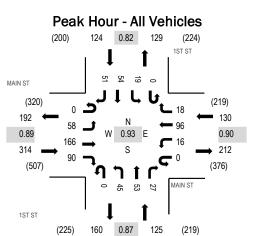
		East	bound			West	bound			North	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	1	1					0	0	0	0	2
Lights	0	0	476	0	0	0	1,627	602					0	551	0	109	3,365
Mediums	0	0	4	0	0	0	15	16					0	8	0	0	43
Total	0	0	480	0	0	0	1,643	619					0	559	0	109	3,410



Location: 6 1ST ST & MAIN ST AM Date: Tuesday, March 12, 2019

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

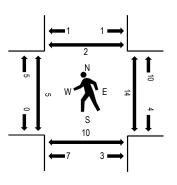
Peak 15-Minutes: 08:30 AM - 08:45 AM



0=

Peak Hour - Bicycles

Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

		MAI	NST.			MAIN	ST			1ST	ST			1ST	ST							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	7	27	4	1	2	12	2	0	6	7	3	0	2	3	14	90	466	0	2	0	0
7:15 AM	0	16	22	10	0	2	16	2	0	2	8	6	0	2	9	5	100	542	0	2	2	2
7:30 AM	0	7	36	4	0	3	13	4	0	7	9	7	0	3	6	8	107	614	0	2	1	3
7:45 AM	0	14	50	19	0	5	20	7	0	10	13	5	0	3	10	13	169	693	0	2	2	2
8:00 AM	0	12	39	23	0	3	26	6	0	8	8	7	0	5	13	16	166	679	0	5	2	0
8:15 AM	0	10	38	21	0	4	19	4	0	12	16	10	0	8	19	11	172		0	3	0	0
8:30 AM	0	22	39	27	0	4	31	1	0	15	16	5	0	3	12	11	186		5	4	6	0
8:45 AM	0	15	36	9	0	3	26	3	0	9	15	15	0	4	10	10	155		1	5	0	4

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
Bicycles on Road	0	2	11	2	0	0	0	0	0	0	2	1	0	1	0	1	20
Lights	0	56	153	87	0	15	95	18	0	44	51	26	0	18	53	48	664
Mediums	0	0	2	1	0	1	1	0	0	1	0	0	0	0	0	1	7
Total	0	58	166	90	0	16	96	18	0	45	53	27	0	19	54	51	693

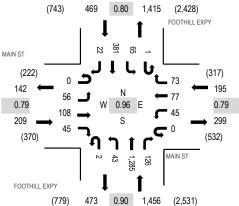


Location: 7 FOOTHILL EXPY & MAIN ST AM

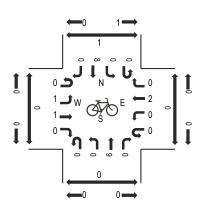
Date: Tuesday, March 12, 2019 **Peak Hour:** 08:00 AM - 09:00 AM

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

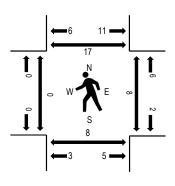




Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

			MAIN	N ST			MAIN	ST		FC	OOTHIL	L EXP	Y	FC	OTHI	L EXP	Υ						
	Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Ped	lestriar	n Crossi	ngs
_	Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
	7:00 AM	0	6	11	3	0	11	8	12	0	6	180	23	0	3	34	2	299	1,632	1	1	1	1
	7:15 AM	0	8	15	7	0	5	8	11	0	6	247	28	0	9	42	4	390	1,942	0	0	2	2
	7:30 AM	0	8	19	7	0	9	7	13	0	13	242	33	0	4	62	1	418	2,083	1	0	2	5
	7:45 AM	0	23	40	14	0	15	13	10	0	9	253	35	0	13	97	3	525	2,272	2	2	4	4
	8:00 AM	0	16	33	7	0	14	23	13	0	11	313	27	0	16	126	10	609	2,329	0	3	2	1
	8:15 AM	0	10	26	9	0	10	20	15	0	12	297	36	0	18	71	7	531		0	1	0	2
	8:30 AM	0	16	34	14	0	16	18	28	2	8	315	31	0	18	103	4	607		0	2	2	7
	8:45 AM	0	14	15	15	0	5	16	17	0	12	360	32	1	13	81	1	582		0	2	4	7

		East	bound			West	ound			North	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Bicycles on Road	0	1	1	0	0	0	2	0	0	0	9	0	0	0	8	0	21
Lights	0	55	107	44	0	42	75	72	2	42	1,264	126	1	63	368	22	2,283
Mediums	0	0	0	1	0	3	0	1	0	1	12	0	0	2	3	0	23
Total	0	56	108	45	0	45	77	73	2	43	1,285	126	1	65	381	22	2,329



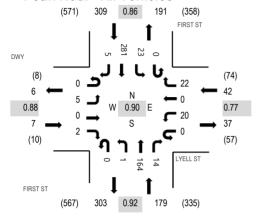
Location: 2 FIRST ST & LYELL ST PM

Date and Start Time: Tuesday, June 12, 2018

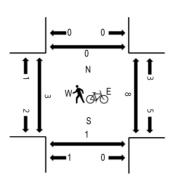
Peak Hour: 04:30 PM - 05:30 PM

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

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		DV	٧Y			LYELI	ST			FIRS1	ΓSΤ			FIRS	TST							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	lestrair	n Crossi	ngs
 Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
4:00 PM	0	0	0	1	0	6	0	2	0	0	38	1	0	6	52	0	106	490	4	4	1	1
4:15 PM	0	1	0	1	0	2	1	7	0	0	40	2	0	1	62	1	118	534	1	2	1	0
4:30 PM	0	1	0	1	0	5	0	2	0	0	42	1	0	5	68	3	128	537	0	2	0	0
4:45 PM	0	2	0	0	0	3	0	11	0	1	45	3	0	9	63	1	138	519	1	1	1	0
5:00 PM	0	1	0	0	0	6	0	6	0	0	44	3	0	3	86	1	150	500	1	2	0	0
5:15 PM	0	1	0	1	0	6	0	3	0	0	33	7	0	6	64	0	121		1	3	0	0
5:30 PM	0	0	0	0	0	1	0	2	0	0	34	3	1	1	68	0	110		2	2	2	0
5:45 PM	0	0	0	0	0	3	0	8	0	0	34	4	0	2	68	0	119		0	1	0	0

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	5	0	2	0	20	0	22	0	1	164	14	0	23	279	5	535
Mediums	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Total	Λ	5	Λ	2	Λ	20	٥	22	Λ	1	164	14	٥	23	281	5	537

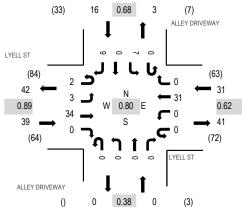


Location: 4 ALLEY DRIVEWAY & LYELL ST PM

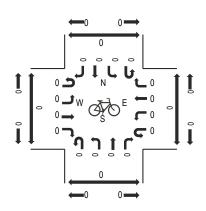
Date: Tuesday, March 12, 2019 **Peak Hour:** 05:00 PM - 06:00 PM

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

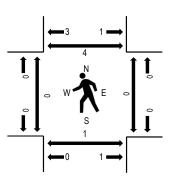
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

			LYEL	LST			LYELL	.ST		ALI	EY DR	IVEWA	λY	ALI	_EY DF	RIVEW	٩Y						
	Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	lestriar	n Crossi	ngs
_	Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
	4:00 PM	0	0	4	0	0	0	12	1	0	1	0	1	0	3	0	3	25	77	4	0	2	3
	4:15 PM	0	1	6	0	0	0	9	0	0	0	0	0	0	1	0	2	19	79	3	1	4	0
	4:30 PM	0	0	4	0	0	0	6	0	0	1	0	0	0	1	0	4	16	80	2	0	2	0
	4:45 PM	0	2	8	0	0	0	4	0	0	0	0	0	0	3	0	0	17	80	0	0	0	1
	5:00 PM	1	1	9	0	0	0	9	0	0	0	0	0	0	3	0	4	27	86	0	0	0	3
	5:15 PM	0	0	11	0	0	0	5	0	0	0	0	0	0	2	0	2	20		0	0	0	0
	5:30 PM	1	0	6	0	0	0	6	0	0	0	0	0	0	1	0	2	16		0	0	0	0
	5:45 PM	0	2	8	0	0	0	11	0	0	0	0	0	0	1	0	1	23		0	0	1	1

		East	bound			West	oound			North	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	2	3	34	0	0	0	31	0	0	0	0	0	0	7	0	9	86
Mediums	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	3	34	0	0	0	31	0	0	0	0	0	0	7	0	9	86



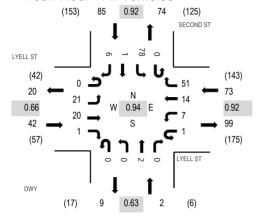
Location: 3 DWY & LYELL ST PM

Date and Start Time: Tuesday, June 12, 2018

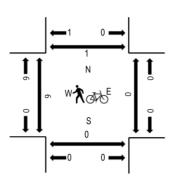
Peak Hour: 04:30 PM - 05:30 PM

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

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		LYEL	L ST			LYELL	ST			DW	Υ			SECO	ND ST							
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	oound			Rolling	Ped	lestrair	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru F	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
4:00 PM	0	2	2	0	0	1	3	14	0	0	0	1	0	13	1	1	38	182	1	1	0	0
4:15 PM	0	0	4	0	1	1	6	12	0	0	1	1	0	19	2	1	48	196	3	0	0	0
4:30 PM	0	1	4	0	0	3	4	14	0	0	1	0	0	21	0	1	49	202	1	0	0	0
4:45 PM	0	4	2	1	0	1	5	12	0	0	1	0	0	19	0	2	47	181	2	0	0	1
5:00 PM	0	8	8	0	1	2	2	12	0	0	0	0	0	17	1	1	52	177	0	0	0	0
5:15 PM	0	8	6	0	0	1	3	13	0	0	0	0	0	21	0	2	54		3	0	0	0
5:30 PM	0	0	1	1	0	1	3	11	0	0	0	1	0	10	0	0	28		3	0	0	0
5:45 PM	0	1	4	0	0	0	7	10	0	0	0	0	0	19	1	1	43		1	0	0	0

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	21	20	1	1	7	14	51	0	0	2	0	0	78	1	6	202
Mediums	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	21	20	1	1	7	14	51	0	0	2	0	0	78	1	6	202

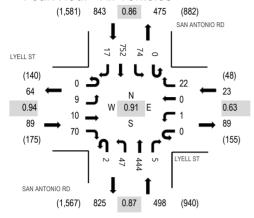


Location: 4 SAN ANTONIO RD & LYELL ST PM Date and Start Time: Tuesday, June 12, 2018

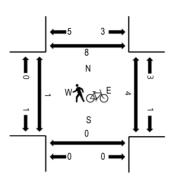
Peak Hour: 05:00 PM - 06:00 PM

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

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		LYEL	L ST			LYELL	ST		SA	N ANTO	ONIO R	D	SA	N ANT	ONIO F	RD						
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	oound			Rolling	Ped	destrair	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
4:00 PM	0	5	1	10	0	1	0	3	0	13	98	0	0	7	139	3	280	1,291	0	1	0	2
4:15 PM	0	3	2	17	0	1	2	2	0	12	102	2	0	20	183	8	354	1,408	2	1	0	0
4:30 PM	0	1	3	23	0	3	2	5	1	14	88	0	0	11	180	5	336	1,397	0	1	0	3
4:45 PM	0	3	2	16	0	1	0	5	1	15	92	4	0	14	166	2	321	1,404	0	1	0	5
5:00 PM	0	3	2	21	0	0	0	2	0	11	110	2	0	19	221	6	397	1,453	0	0	0	0
5:15 PM	0	2	4	21	0	0	0	5	0	12	100	0	0	21	175	3	343		0	0	0	2
5:30 PM	0	1	1	11	0	1	0	6	2	12	104	2	0	20	180	3	343		0	0	0	3
5:45 PM	0	3	3	17	0	0	0	9	0	12	130	1	0	14	176	5	370		0	3	0	2

		bound			Westl	bound			Northb	ound			South	bound			
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	9	10	70	0	1	0	22	2	47	442	5	0	74	748	17	1,447
Mediums	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	6
Total	0	g	10	70	0	1	0	22	2	47	444	5	0	74	752	17	1 453

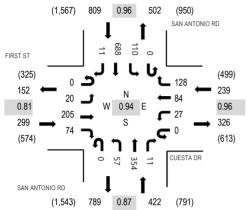


Location: 5 SAN ANTONIO RD & CUESTA DR PM Date and Start Time: Tuesday, June 12, 2018

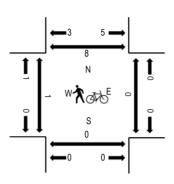
Peak Hour: 05:00 PM - 06:00 PM

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

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		FIRS	TST		(CUEST	A DR		SA	N ANTO	ONIO R	D	SA	N ANT	ONIO F	RD						
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	estrair	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
4:00 PM	0	5	34	24	0	3	27	36	0	12	72	1	0	27	129	3	373	1,662	0	0	0	1
4:15 PM	0	5	41	19	0	11	23	24	0	11	86	0	0	28	174	4	426	1,760	1	1	0	0
4:30 PM	0	1	38	30	0	13	29	26	0	11	81	1	0	31	174	2	437	1,767	0	0	0	2
4:45 PM	0	5	55	18	0	5	34	29	0	14	78	2	0	29	154	3	426	1,753	0	0	0	1
5:00 PM	0	5	63	27	0	5	27	29	0	15	92	1	0	33	169	5	471	1,769	1	0	0	1
5:15 PM	0	4	50	13	0	7	19	35	0	15	73	6	0	25	184	2	433		0	0	0	2
5:30 PM	0	5	40	18	0	6	17	32	0	14	84	1	0	27	176	3	423		0	0	0	2
5:45 PM	0	6	52	16	0	9	21	32	0	13	105	3	0	25	159	1	442		0	0	0	1

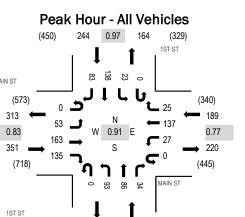
		East	bound			West	ound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Lights	0	20	203	73	0	27	84	127	0	57	353	11	0	110	681	11	1,757
Mediums	0	0	2	1	0	0	0	1	0	0	1	0	0	0	6	0	11
Total	0	20	205	74	0	27	84	128	0	57	354	11	0	110	688	11	1,769



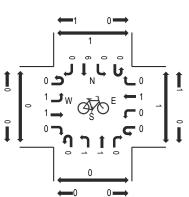
Location: 6 1ST ST & MAIN ST PM Date: Tuesday, March 12, 2019

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

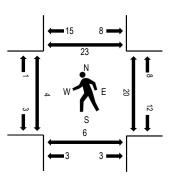
Peak 15-Minutes: 05:45 PM - 06:00 PM



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

0.94

213

(407)

300

Traffic Counts

(568)

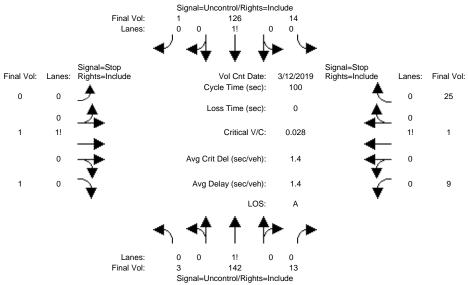
		N ST			MAIN	ST			1ST	ST			1ST	ST								
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	oound			Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
4:00 PM	0	18	50	24	0	5	27	7	0	13	18	13	0	11	24	21	231	918	0	5	1	3
4:15 PM	0	16	27	48	0	2	27	6	0	14	21	8	0	9	19	22	219	917	1	4	5	2
4:30 PM	0	12	27	34	0	5	34	3	0	22	18	16	0	4	24	17	216	946	2	8	3	2
4:45 PM	0	22	41	48	0	6	24	5	0	19	19	13	0	6	29	20	252	976	0	8	4	4
5:00 PM	0	8	35	31	0	5	35	5	0	24	23	6	0	5	32	21	230	997	0	1	2	1
5:15 PM	0	15	46	26	0	3	30	6	0	22	26	11	0	3	43	17	248		3	5	3	5
5:30 PM	0	15	34	33	0	12	24	8	0	27	22	9	0	9	28	25	246		0	8	0	9
5:45 PM	0	15	48	45	0	7	48	6	0	20	15	8	0	6	35	20	273		1	6	1	8

		East	bound			West	ound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Bicycles on Road	0	1	1	0	0	0	1	0	0	1	1	0	0	0	6	0	11
Lights	0	52	162	134	0	27	136	25	0	90	84	34	0	22	129	83	978
Mediums	0	0	0	1	0	0	0	0	0	2	1	0	0	1	2	0	7
Total	0	53	163	135	0	27	137	25	0	93	86	34	0	23	138	83	997

Appendix BIntersection Level of Service Calculations

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

Intersection #1: First Street and Lyell Street



			Signal=l	Jncontrol/Ri	ghts=Inclu	de						
Street Name:			First	Street	t				Lvell	Street	-	
Approach:	No	rth Bo	ound	Soi	ath Bo	ound	Εá	ast Bo			est Bo	ound
									ound - R		- T	
Volume Module	: >>	Count			ar 201	19 << 8	3:00 AI	M - 9	:00 AM			
		142		14	126	1	0	1	1	9	1	25
Growth Adj:					1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:			13	14		1	0	1	_	-	1	25
Added Vol:			0	0	0	0	0		0	0	0	0
PasserByVol:	0	0	0	0	0	0	0				0	0
Initial Fut:	3	142	13	14	126	1	0	1	1	9	1	25
User Adj:						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	142	13	14	126	1		1	_	9	1	25
Reduct Vol:			0	0	0	0	0	0	0	0	0	0
FinalVolume:					126		0			9		25
Critical Gap								6 5		- 1	6 5	
Critical Gp:												
FollowUpTim:												
Capacity Modu				1				21.0	107	210	210	1.40
Cnflict Vol:										310		
Potent Cap.:												904
Move Cap.:										639		
Volume/Cap:												0.03
Level Of Serv				0 0	.,.,,,,,	********	*******	*******	*********	17171717	.,.,,,,,	*********
2Way95thQ: Control Del:	7 5	XXXX	XXXXX	7.5	XXXX	XXXXX	XXXX	XXXX	XXXXX	XXXX	XXXX	XXXXX
LOS by Move:	7.5	XXXX	XXXXX	7.5	XXXX	XXXXX	XXXXX	XXXX	XXXXX	*		
Movement:												
Shared Cap.: SharedOueue:x												
~												XXXXX
Shrd ConDel:x Shared LOS:											9.7 A	XXXXX *
										^	9.7	^
ApproachDel: ApproachLOS:	X.	XXXXX		X.	* * *			10.0				
							. 1	A			A	
Note: Queue r	epor					_			~+			
*******	****		eak Hou							*****	****	*****
Intersection												
******							****	****	****	****	****	*****
Future Volume	Alte	ernati	ive: Pe	eak Ho	ır Waı	rrant 1	NOT Me	t				

```
Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R L - T - R Control: Uncontrolled Uncontrolled Stop Sign Stop Sign Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 0 1 0 0 0 1! 0 0 1 1 0 0 1 1 25 ApproachDel: xxxxxx xxxxx xxxxx 10.0 9.7
```

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

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

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

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

Signal Warrant Rule #3: [approach count=4][total volume=336]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

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

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

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

Signal Warrant Rule #2: [approach volume=35]

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

Signal Warrant Rule #3: [approach count=4][total volume=336]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 First Street and Lyell Street

Future Volume Alternative: Peak Hour Warrant NOT Met

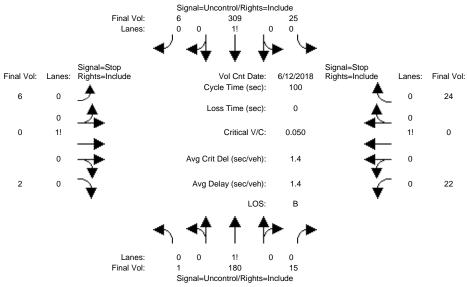
Major Street Volume: 299
Minor Approach Volume: 35
Minor Approach Volume Threshold: 541

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).

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

Intersection #1: First Street and Lyell Street



rinai voi.	Signal=Uncontrol/Rights=Inclu	ude				
Street Name:	First Street			Lvell	Street	
Approach: North Box	und South B	ound	East Bo	ound		Bound
Movement: L - T	- R L - T	- R	L - T	- R		
Volume Module: >> Count	Date: 12 Jun 20	18 << 4:3			0.0	0 04
Base Vol: 1 180			6 0		22	
Growth Adj: 1.00 1.00	1.00 1.00 1.00	1.00 1	.00 1.00		1.00 1.0	
Initial Bse: 1 180 Added Vol: 0 0	15 25 309 0 0 0	6 0	0 0	2		0 24 0
	0 0 0	0	0 0	0	0	0 0
Initial Fut: 1 180			6 0			0 24
User Adj: 1.00 1.00			.00 1.00			
PHF Adj: 1.00 1.00			.00 1.00	1.00		
_	15 25 309		6 0		22	
	0 0 0					0 0
FinalVolume: 1 180						0 24
		-				
Critical Gap Module:						
Critical Gp: 4.1 xxxx :	xxxxx 4.1 xxxx	XXXXX	7.1 6.5	6.2	7.1 6.	5 6.2
FollowUpTim: 2.2 xxxx						
		-				
Capacity Module:						
Cnflict Vol: 315 xxxx						
Potent Cap.: 1257 xxxx x Move Cap.: 1257 xxxx x	xxxxx 1390 xxxx	XXXXX	440 440	733	447 44	3 860
Volume/Cap: 0.00 xxxx						
Level Of Service Module						
		VVVVV V	vvv vvvv	VVVVV	×××× ×××	× ×××××
2Way95thQ: 0.0 xxxx 2 Control Del: 7.9 xxxx 2	xxxxx 7 6 xxxx	XXXXX XX	XXX XXXX	XXXXX	XXXXX XXX	X XXXXX
LOS by Move: A *	* A *	*	* *	*	*	* *
Movement: LT - LTR						
Shared Cap.: xxxx xxxx x						
SharedQueue:xxxxx xxxx x						
Shrd ConDel:xxxxx xxxx x						
Shared LOS: * *	* * *	*	* B	*	*	в *
ApproachDel: xxxxxx ApproachLOS: *	XXXXXX		12.8		11.	6
ApproachLOS: *	*		В			В
Note: Queue reported is						
	ak Hour Delay Si					
******			******	*****	*****	*****
Intersection #1 First S			*****	*****	*****	*****
Future Volume Alternativ	ve: Peak Hour Wa	rrant NOT	Met			

```
Approach: North Bound South Bound East Bound West Bound

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

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0

Initial Vol: 1 180 15 25 309 6 6 0 2 22 0 24

ApproachDel: xxxxxx xxxxx 12.8 11.6
```

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

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

Signal Warrant Rule #2: [approach volume=8]

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

Signal Warrant Rule #3: [approach count=4][total volume=590]

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

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

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

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

Signal Warrant Rule #2: [approach volume=46]

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

Signal Warrant Rule #3: [approach count=4][total volume=590]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 First Street and Lyell Street

Future Volume Alternative: Peak Hour Warrant NOT Met

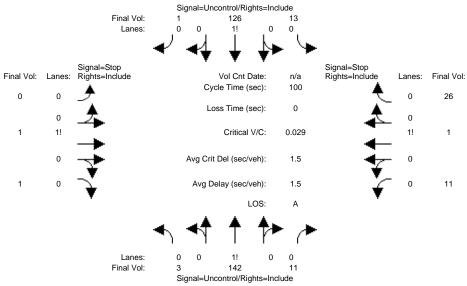
Major Street Volume: 536
Minor Approach Volume: 46
Minor Approach Volume Threshold: 386

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).

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

Intersection #1: First Street and Lyell Street



			Signal=l	Jncontrol/Ri	ghts=Inclu	de						
Street Name:			First	Street	t				Lvell	Street	t	
Approach:	No	rth Bo	ound			ound	Εa	ast Bo			est Bo	ound
Movement:			- R			- R			- R		- T	
Volume Module												
Base Vol:	3	142	13	14	126	1	0	1	1	9	1	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	142	13	14	126	1	0	1	1	9	1	25
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Proj Trips:	0	0	-2	-1	0	0	0	0	0	2	0	1
Initial Fut:	3	142	11	13	126	1	0	1	1	11	1	26
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	142	11	13	126	1	0	1	1	11	1	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	3	142	11	13	126	1	0	1	1	11	1	26
Critical Gap	Modu:	le:										
Critical Gp:	4.1	XXXX	XXXXX	4.1	XXXX	XXXXX	XXXXX	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	XXXX	XXXXX	2.2	XXXX	XXXXX	XXXXX	4.0	3.3	3.5	4.0	3.3
Capacity Mod	ule:											
Cnflict Vol:	127	XXXX	XXXXX	153	XXXX	XXXXX	XXXX	312	127	307	307	148
Potent Cap.:	1472	XXXX	XXXXX	1440	XXXX	XXXXX	XXXX	607	929	649	611	905
Move Cap.:	1472	XXXX	XXXXX	1440	XXXX	XXXXX	XXXX	600	929	642	604	905
Volume/Cap:			XXXX			XXXX		0.00	0.00		0.00	0.03
Level Of Serv												
2Way95thQ:									XXXXX			XXXXX
Control Del:				7.5	XXXX					XXXXX	XXXX	XXXXX
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT ·	- LTR	- RT	LT ·	- LTR	- RT	LT ·	- LTR	- RT	LT ·	- LTR	- RT
Shared Cap.:	XXXX	XXXX	XXXXX	XXXX	XXXX	XXXXX	XXXX	XXXX	729	XXXX	800	XXXXX
SharedQueue:	XXXXX	XXXX	XXXXX	XXXXX	XXXX	XXXXX	XXXXX	XXXX	0.0	XXXXX	0.1	XXXXX
Shrd ConDel:				XXXXX	XXXX	XXXXX	XXXXX	XXXX	10.0	XXXXX	9.7	XXXXX
Shared LOS:		*	*	*	*	*	*	*	A	*	A	*
ApproachDel:	X	xxxxx		X	XXXXX			10.0			9.7	
ApproachLOS:		*			*			A			A	
Note: Queue	repor		s the r eak Hou						rt			
*****	****									****	****	*****
Intersection	#1 F:	irst :	Street	and L	yell S	Street						
*****							****	****	****	****	****	*****

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

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

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

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

Signal Warrant Rule #3: [approach count=4][total volume=336]

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

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

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

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

Signal Warrant Rule #2: [approach volume=38]

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

Signal Warrant Rule #3: [approach count=4][total volume=336]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 First Street and Lyell Street

Future Volume Alternative: Peak Hour Warrant NOT Met

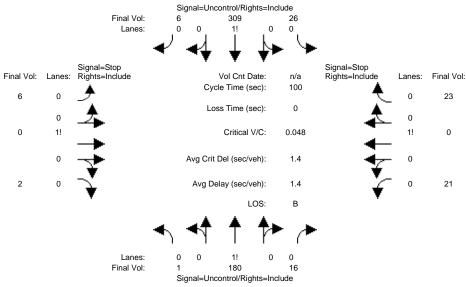
Major Street Volume: 296
Minor Approach Volume: 38
Minor Approach Volume Threshold: 544

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).

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

Intersection #1: First Street and Lyell Street



			Signal=l	Jncontrol/Ri	ghts=Inclu	de						
Street Name:				Street						Street	t	
Approach:	No	rth Bo	ound	Soi	ath Bo	ound	Εā	ast Bo	ound	We	est Bo	ound
Movement:	L ·	- T	- R	L -	- T	- R	L ·	- T	- R		- T	
Volume Module					200	_	_	0	0	2.2	0	0.4
Base Vol:		180	15	25	309		1 00	1 00	2		1 00	24
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:		180	15 0	25 0	309	6	6 0	0	2	22	0	24
Added Vol:	0					0	0	0	-	-1	-	-1
Proj Trips: Initial Fut:				1 26	0	0	6	0	0 2	21	0	23
			16 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		16	26	309	6	6	0	2	21	0	23
Reduct Vol:			0	0 26		0 6	0 6	0	0 2	0 21	0	0 23
FinalVolume:		180	16								0	
Critical Gap				1 1			1 1			1 1		ı
Critical Gp:			xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:								4.0				
Capacity Mod												
Cnflict Vol:											557	188
Potent Cap.:												859
Move Cap.:												
Volume/Cap:									0.00		0.00	
Level Of Serv												
2Way95thQ:				0 1	vvvv	VVVVV	VVVV	vvvv	VVVVV	VVVV	VVVV	VVVVV
Control Del:												
LOS by Move:						*			*		*	*
Movement:			- RT						- RT			- RT
Shared Cap.:												XXXXX
SharedQueue:												
Shrd ConDel:												
Shared LOS:	*	*			*			В			В	*
ApproachDel:		vvvvv		XX				12.8			11.6	
ApproachLOS:		*		Λ2	*			12.0			В	
Note: Queue		ted i	s the r	number	of c	ars ne	r lane	_			D	
			eak Hou			_			rt			
****	****									****	****	*****
Intersection												
*****	****	****	*****	*****	****	****	*****	****	****	****	****	*****

```
Approach: North Bound South Bound East Bound West Bound

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

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0

Initial Vol: 1 180 16 26 309 6 6 0 2 21 0 23

ApproachDel: xxxxxx xxxxx 12.8 11.6
```

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

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

Signal Warrant Rule #2: [approach volume=8]

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

Signal Warrant Rule #3: [approach count=4][total volume=590]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

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

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

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

Signal Warrant Rule #2: [approach volume=44]

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

Signal Warrant Rule #3: [approach count=4][total volume=590]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 First Street and Lyell Street

Future Volume Alternative: Peak Hour Warrant NOT Met

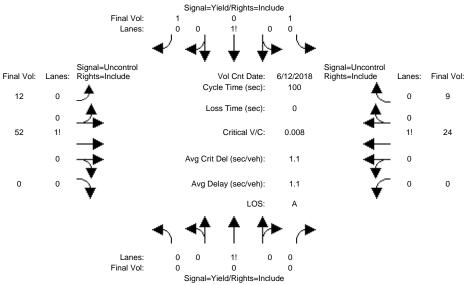
Major Street Volume: 538
Minor Approach Volume: 44
Minor Approach Volume Threshold: 385

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).

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

Intersection #2: Alley and Lyell Street



	Fina	ıl Vol:	0 Signal	0 =Yield/Righ	ts=Include	0						
Street Name:			All							Stree	t	
Approach:						ound					est Bo	ound
Movement:			- R			- R			- R		- T	
Volume Module										_		
Base Vol:	0	0	0	1	0	1	12	52	0	0	24	9
_	1.00		1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:	0	0	0	1	0	1	12	52	0	0	24	9
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0		0	0	0	0
Initial Fut:	0	0	0	1	0	1	12	52	0	0	24	9
User Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Volume:	0	0	0	1	0	1	12	52	0	0	24	9
Reduct Vol:	0	0	0	0	0	0	0		0	0	0	0
FinalVolume:	0	0	0	1	0	1 	12		0	0	24	9
Critical Gap			ı	1		I	ı			1 1		ı
			6.2	6.4	6.5	6.2	4.1	XXXX	xxxxx	xxxxx	xxxx	XXXXX
<pre>Critical Gp: FollowUpTim:</pre>	3.5	4.0	3.3	3.5	4.0	3.3	2.2	XXXX	XXXXX	XXXXX	xxxx	XXXXX
Capacity Modu	ıle:											
Cnflict Vol:		109	52	105	105	29	33	XXXX	XXXXX	XXXX	XXXX	XXXXX
Potent Cap.:	880	785	1021	898	789	1052	1592	XXXX	XXXXX	XXXX	XXXX	XXXXX
Move Cap.:			1021	893			1592	XXXX	XXXXX	XXXX	XXXX	XXXXX
Volume/Cap:						0.00			XXXX			XXXX
Level Of Serv												
2Way95thQ:									XXXXX			XXXXX
Control Del:x									XXXXX			XXXXX
LOS by Move:					*		A				*	*
Movement:			- RT			- RT			- RT		- LTR	- RT
Shared Cap.:			XXXXX			XXXXX			XXXXX			XXXXX
SharedQueue:									XXXXX			
Shrd ConDel:x						XXXXX			XXXXX			XXXXX
Shared LOS:	*	*	*	*	A		A	*	*	*	*	*
ApproachDel:	XX	XXXXX			8.7		X	XXXXX		X	XXXXX	
ApproachLOS:		*			A		_	*			*	
Note: Queue 1	report								+			
*****	****					gnal Wa ******		_		*****	****	*****
Intersection	#2 A	lley a	nd Lve	ell Sti	reet							
****						*****	****	****	****	*****	****	*****

Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----||-----||-----|
 Control:
 Yield Sign
 Yield Sign
 Uncontrolled
 Uncontrolled

 Lanes:
 0 0 1! 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0
 Initial Vol: 0 0 0 1 0 1 12 52 0 0 24
ApproachDel: xxxxx 8.7 xxxxxx xxxxx -----|

Approach[southbound][lanes=1][control=Yield Sign]

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

FAIL - Controller not stop sign.

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

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

Signal Warrant Rule #3: [approach count=3][total volume=99]

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

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 Alley and Lyell Street

Future Volume Alternative: Peak Hour Warrant NOT Met

-----| North Bound South Bound East Bound Uest Bound L - T - R L - T - R Movement: -----||-----||-----| Control: Yield Sign Yield Sign Uncontrolled Uncontrolled Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 1 0 1 12 52 0 0 24 9

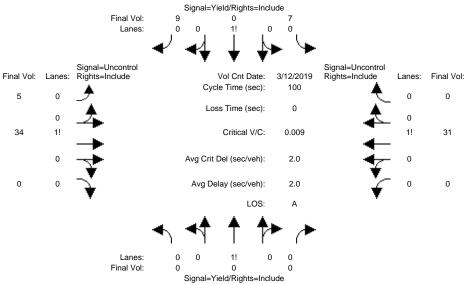
Major Street Volume: 97
Minor Approach Volume: 2 97 Minor Approach Volume Threshold: 842

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).

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

Intersection #2: Alley and Lyell Street



	Fina	al Vol:	0 Signal	0 l=Yield/Righ	ts=Include	0						
Street Name: Approach: Movement:	L ·	- T	- R	Sou L -	- T	ound - R	L ·	- Т	ound - R	L ·	est Bo - T	- R
Volume Module Base Vol: Growth Adj: Initial Bse: Added Vol: PasserByVol: Initial Fut: User Adj: PHF Adj: PHF Volume: Reduct Vol: FinalVolume:	e: >> 0 1.00 0 0 0 0 1.00 1.00 0 0	Count 0 1.00 0 0 0 0 1.00 0 0 0 0 0 0 0 0 0 0	Date: 0 1.00 0 0 0 0 1.00 1.00 1.00 0 0 0 0 0	: 12 Ma 7 1.00 7 0 0 7 1.00 1.00	ar 200 0 1.00 0 0 0 0 1.00 1.00 0 0	19 << 5 9 1.00 9 0 9 1.00 1.00 9 0 9 9 9 9 9 9 9	5:00 PF 5 1.00 5 0 0 5 1.00 1.00 5	M - 6 34 1.00 34 0 0 34 1.00 1.00 34 0	:00 PM 0 1.00 0 0 0 0 0 1.00 0 0 0 0 0 0 0 0 0	0 1.00 0 0 0 0 1.00 1.00	31 1.00 31 0 0 31 1.00 1.00 31 0	1.00 0 0 0 0 0 1.00 1.00
Critical Gap Critical Gp: FollowUpTim:	Modu: 7.1 3.5	le: 6.5 4.0	6.2 3.3	6.4 3.5	6.5 4.0	6.2	4.1	xxxx xxxx	xxxxx xxxxx	xxxxx	xxxx xxxx	xxxxx
Capacity Moder Cnflict Vol: Potent Cap.: Move Cap.: Volume/Cap:	80 914 904 0.00	75 819 817 0.00	34 1045 1045 0.00	75 933 931 0.01	75 819 817 0.00	31 1049 1049 0.01	31 1595 1595 0.00	XXXX XXXX XXXX	***** ***** *****	xxxx xxxx xxxx	XXXX XXXX XXXX	***** *****
Level Of Ser 2Way95thQ: Control Del: LOS by Move: Movement: Shared Cap.: SharedQueue: Shrd ConDel: Shared LOS: ApproachDel: ApproachLOS: Note: Queue:	vice I xxxx xxxxx LT xxxx xxxxx xxxxx xxxxx *	Module	xxxxx xxxxx - RT xxxxx xxxxx xxxxx xxxxx	XXXX XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX	XXXX XXXX * - LTR 994 0.0 8.7 A 8.7 A of ca	xxxxx xxxxx - RT xxxxx xxxxx xxxxx xxxxx	0.0 7.3 A LT xxxx 0.0 7.3 A x:	xxxx xxxx * - LTR xxxx xxxx * xxxxx * . Repo:	xxxxx xxxxx - RT xxxxx xxxxx xxxxx	XXXX XXXXX LT XXXX XXXXX XXXXX	xxxx xxxx * - LTR xxxx xxxx * * *	xxxxx xxxxx + - RT xxxxx xxxxx xxxxx
****						*****	****	****	****	****	****	*****

Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----||-----||-----|
 Control:
 Yield Sign
 Yield Sign
 Uncontrolled
 Uncontrolled

 Lanes:
 0 0 1! 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 0
 Initial Vol: 0 0 0 7 0 9 5 34 0 0 31 ApproachDel: xxxxx 8.7 xxxxxx xxxxx -----|

Approach[southbound][lanes=1][control=Yield Sign]

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

FAIL - Controller not stop sign.

Signal Warrant Rule #2: [approach volume=16]

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

Signal Warrant Rule #3: [approach count=3][total volume=86]

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 Alley and Lyell Street

Future Volume Alternative: Peak Hour Warrant NOT Met

-----| North Bound South Bound East Bound Uest Bound L - T - R L - T - R Movement: -----||-----||-----| Control: Yield Sign Yield Sign Uncontrolled Uncontrolled Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 1 0 0 0 0 1 0 0 Initial Vol: 0 0 0 7 0 9 5 34 0 0 31 0

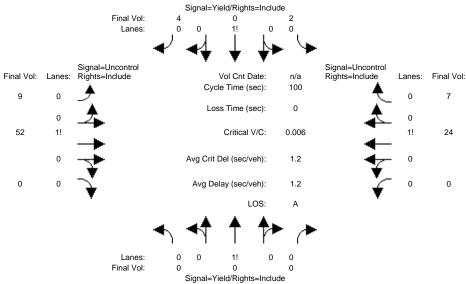
Major Street Volume: 70
Minor Approach Volume: 16 Minor Approach Volume Threshold: 929

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).

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

Intersection #2: Alley and Lyell Street



			Signal	=Yield/Righ	ts=Include	•						
Street Name:			All	ev					Lvell	Stree	t.	
Approach:	Noi	rth Bo	ound		ath Bo	ound	E	ast Bo			est Bo	ound
Movement:			- R	ь -	- T	- R	L ·	- T	- R		- т	
Volume Module	∋:8:00	to 9	9:00 AM	1								
Base Vol:	0	0	0	1	0	1	12	52	0	0	24	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1	0	1	12	52	0	0	24	9
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Proj Trips:	0	0	0	1	0	3	-3	0	0	0	0	-2
Initial Fut:	0	0	0	2	0	4	9	52	0	0	24	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	2	0	4	9	52	0	0	24	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	2		4	9		0	0		7
Critical Car												
Critical Gap			6 2	6 1	6 5	6 2	1 1					
Critical Gp: FollowUpTim:	7.1	4.0	3.3	2.5	4.0	3 3	2 2	XXXX	XXXXX	XXXXX	XXXX	XXXXX
Capacity Modu			'	1			1			1 1		ı
Cnflict Vol:		101	52	98	98	28	31	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:			1021			1054			XXXXX			XXXXX
Move Cap.:			1021			1054			XXXXX			
Volume/Cap:						0.00			XXXX			XXXX
Level Of Serv	vice N	Module	≘:									
2Way95thQ:	XXXX	XXXX	XXXXX	XXXX	XXXX	XXXXX	0.0	XXXX	XXXXX	XXXX	XXXX	XXXXX
Control Del:	XXXXX	XXXX	XXXXX	XXXXX	XXXX	XXXXX	7.3	XXXX	XXXXX	XXXXX	XXXX	XXXXX
						*	A	*	*	*	*	*
Movement:	LT -	- LTR	- RT	LT -	- LTR	- RT	LT ·	- LTR	- RT	LT ·	- LTR	- RT
Shared Cap.:	XXXX	0	XXXXX	XXXX	998	XXXXX	XXXX	XXXX	XXXXX	XXXX	XXXX	XXXXX
SharedQueue:	XXXXX	XXXX	XXXXX	XXXXX	0.0	XXXXX	0.0	XXXX	XXXXX	XXXXX	XXXX	XXXXX
Shrd ConDel:	XXXXX	XXXX				XXXXX	7.3	XXXX	XXXXX	XXXXX	XXXX	XXXXX
Shared LOS:	*	*	*	*	A	*	A	*	*	*	*	*
ApproachDel:	XX	XXXXX			8.6		X	xxxxx		X	XXXXX	
ApproachLOS:		*			A			*			*	
Note: Queue	report	ted is	s the r	number	of ca	ars per	lane					
						gnal Wa						
*****						*****	****	****	*****	*****	****	*****
Intersection						and the state of the state of	المناميان بالمرابات	لتنابيات بالتبات	اد داد داد بات بات بات بات	التعاديان بالإياب بالإياب	اد داد بات بات بات	
*****	****	****	*****	****	****	*****	****	****	*****	*****	****	*****

Approach:	Nort	h Bou	nd	Sou	th Bo	und		Eas	t B	oun	d	W	est	Bour	ıd
Movement:	L -	Т -	R	L -	Т	- R	L	_	Т	_	R	L	- T	-	R
Control:	Yiel	d Sig	n	Yie	ld Si	.gn	Ţ	Jncc	ntr	011	ed	Un	cont	roll	.ed
Lanes:	0 0	1! 0	0	0 0	1!	0 0	0	1	0	0	0	0	0 0	1	0
Initial Vol:	0	0	0	2	0	4		9	52		0	0	2	4	7
ApproachDel:	XXX	XXX			8.6			XXX	XXX			X	XXXX	X	

Approach[southbound][lanes=1][control=Yield Sign]

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

FAIL - Controller not stop sign.

Signal Warrant Rule #2: [approach volume=6]

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

Signal Warrant Rule #3: [approach count=3][total volume=98]

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

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 Alley and Lyell Street

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: Yield Sign Yield Sign Uncontrolled Uncontrolled Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 2 0 4 9 52 0 0 24 7

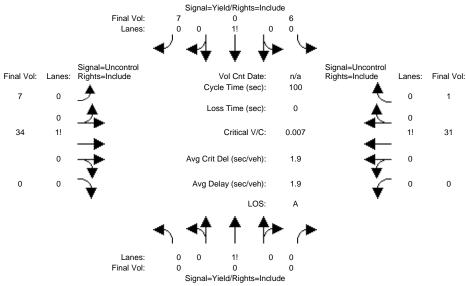
Major Street Volume: 92
Minor Approach Volume: 6
Minor Approach Volume Threshold: 856

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).

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

Intersection #2: Alley and Lyell Street



			Signa	l=Yield/Righ	ts=Include	•						
Street Name:			All	lev					Lvell	Stree	t.	
Approach:	Noi	rth Bo	ound		ath Bo	ound	E	ast Bo			est Bo	ound
Movement:			- R	L -	- T	ound - R	L ·	- T	- R	L ·	- Т	
Volume Module	e:5:00	D PM -	- 6:00	PM								
Base Vol:	0	0	0	7	0	9	5	34	0	0	31	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	7	0	9	5	34	0	0	31	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Proj Trips:	0	0	0	-1	0	_	2		0	0	0	1
Initial Fut:		0	0	6	0	7	7		0	0	31	1
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	1.00
	0	0	0	6	0		7		0	0	31	1
Reduct Vol:		0	0	0		0		0	0	0	-	0
FinalVolume:		0	0	6			7			0	~ -	1
Critical Gap												
Critical Gap			6 2	6 4	6 5	6 2	4 1	VVVV	VVVVV	VVVVV	V V V V	VVVVV
FollowUpTim:	3 5	4 0	3 3	3 5	4 0	3 3	2 2					XXXXX
Capacity Mod			,									
Cnflict Vol:		80	34	80	80	32	32	XXXX	XXXXX	XXXX	XXXX	XXXXX
Potent Cap.:			1045			1048	1593	xxxx	XXXXX	XXXX	XXXX	XXXXX
Move Cap.:			1045	925	811	1048	1593	XXXX	XXXXX	XXXX	XXXX	XXXXX
Volume/Cap:			0.00	0.01	0.00	0.01	0.00	XXXX	XXXX	XXXX	XXXX	XXXX
Level Of Serv	vice N	Module	∋:									
2Way95thQ:								XXXX	XXXXX	XXXX	XXXX	XXXXX
Control Del:					XXXX	XXXXX	7.3	XXXX	XXXXX	XXXXX	XXXX	XXXXX
LOS by Move:						*	A	*	*	*	*	*
Movement:						- RT	LT ·	- LTR	- RT	LT ·	- LTR	- RT
Shared Cap.:	XXXX	0	XXXXX	XXXX	987	XXXXX	XXXX	XXXX	XXXXX	XXXX	XXXX	XXXXX
SharedQueue:							0.0	XXXX	XXXXX	XXXXX	XXXX	XXXXX
Shrd ConDel:						XXXXX	7.3		XXXXX			
Shared LOS:	*	*	*	*			A	*	*	*	*	*
ApproachDel:	XX				8.7		X	XXXXX		X	XXXXX	
ApproachLOS:					A			*			*	
Note: Queue	report											
						gnal Wa						
*****						*****	****	****	****	*****	* * * * * *	*****
Intersection						*****	****	****	*****	*****	****	*****

Approach:	Nort	h Boun	.d	Sout	th Bour	nd		Eas	t B	oun	d		Wes	t Bo	oun	d
Movement:	L -	Т -	R	L -	T -	R	L	-	Т	-	R	L	-	T	-	R
Control:	Yiel	d Sign		Yiel	ld Sigr	ì	Ţ	Jnco	ntr	011	ed	U	nco	ntro	011	ed
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0	1	0	0	0	0	0	0	1	0
Initial Vol:	0	0	0	6	0	7		7	34		0		0	31		1
ApproachDel:	XXX	XXX			8.7			XXX	XXX				XXX	XXX		
			1	I		1	1				1	1				1

Approach[southbound][lanes=1][control=Yield Sign]

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

FAIL - Controller not stop sign.

Signal Warrant Rule #2: [approach volume=13]

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

Signal Warrant Rule #3: [approach count=3][total volume=86]

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

SIGNAL WARRANT DISCLAIMER

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

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Peak Hour Volume Signal Warrant Report [Urban] ********************

Intersection #2 Alley and Lyell Street

Future Volume Alternative: Peak Hour Warrant NOT Met

-----||-----||-----| North Bound South Bound East Bound L - T - R L - T - R Movement: -----||-----||-----| Control: Control: Yield Sign Yield Sign Uncontrolled Uncontrolled Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 6 0 7 7 34 0 0 31 1

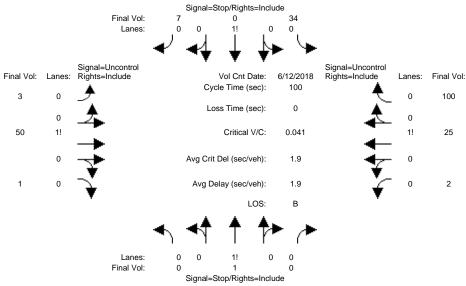
73 Major Street Volume: Minor Approach Volume: 13 Minor Approach Volume Threshold: 917

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).

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

Intersection #3: Second Street and Lyell Street



	Fina	I Vol:	0 Signa	1 I=Stop/Right	ts=Include	0						
Street Name:		S	Second	Street	5				Lyell	Street	t	
			ound								est Bo	
			- R									
-												
Volume Module:										_	0.5	100
Base Vol:	0	1	1 00	34	0	7	1 00		1	2		100
Growth Adj: 1			1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00
Initial Bse: Added Vol:	0	1	0	34	0	0	3		0	0	25	100
PasserByVol:	-	0	0	0	0	0	0	-	0	0	0	0
Initial Fut:		1	-	34	0	7	-	-	1	2	-	100
User Adj: 1				1.00		1.00		1.00	1.00		1.00	1.00
_		1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00
PHF Volume:	0	1	0	34	0	7		50	1	2	25	100
Reduct Vol:	0	0	0	0	0		0		0	0	0	0
FinalVolume:		1	0		0		3		1	2		100
-												
Critical Gap M	1odul	Le:										
Critical Gp:xx	XXXX	6.5	XXXXX	7.1	6.5	6.2	4.1	XXXX	XXXXX	4.1	XXXX	XXXXX
FollowUpTim:xx	XXXX	4.0	XXXXX	3.5	4.0	3.3			XXXXX			XXXXX
-												
Capacity Modul												
Cnflict Vol: x												XXXXX
Potent Cap.: x			XXXXX						XXXXX			XXXXX
Move Cap.: x									XXXXX			XXXXX
Volume/Cap: x									XXXX			XXXX
Level Of Servi												
2Way95thQ: x				~~~~	~~~~	~~~~	0 0	~~~~	vvvvv	0 0	vvvv	vvvv
Control Del:xx									XXXXX			XXXXX
LOS by Move:			*			*			*			*
Movement:												- RT
Shared Cap.: x												XXXXX
SharedQueue:xx												
Shrd ConDel:xx												
Shared LOS:	*	*	*	*	А	*	*	*	*	*	*	*
ApproachDel:					9.4		X	xxxxx		X	XXXXX	
ApproachLOS:		В			А			*			*	
Note: Queue re	eport	ted is	s the r	number	of ca	ars per	r lane					
			eak Hou									
******								****	*****	*****	****	*****
Intersection # ********								****	****	****	****	*****
Future Volume	Alte	ernati	ive: Pe	eak Hou	ır Waı	rrant 1	NOT Me	t				

Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----||-----||-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 1 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 Initial Vol: 0 1 0 34 0 7 3 50 1 2 25 100 ApproachDel: 10.1 9.4 xxxxxx xxxxx -----|

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

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

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

Signal Warrant Rule #2: [approach volume=1]

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

Signal Warrant Rule #3: [approach count=4][total volume=223]

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

Approach[southbound][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=41]

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

Signal Warrant Rule #3: [approach count=4][total volume=223]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #3 Second Street and Lyell Street

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 -----||-----||-----| Initial Vol: 0 1 0 34 0 7 3 50 1 2 25 100 -----||-----||-----|

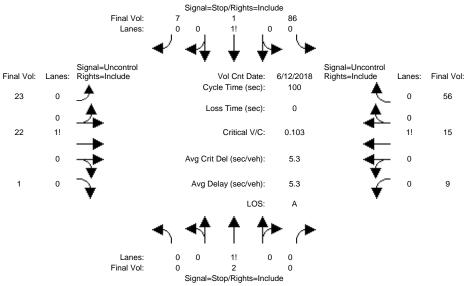
181 Major Street Volume: Minor Approach Volume: Minor Approach Volume Threshold: 675

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).

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

Intersection #3: Second Street and Lyell Street



	ГШ	ai voi.	Signa	l=Stop/Righ	ts=Include	U						
Street Name:		(Second							Stree	t	
Approach:			ound	Sot	ath Bo	ound	E	ast B	ound		est Bo	
Movement:			- R						- R			
 Volume Module												
			. Date: О		111 ZU.				:30 PM	9	15	56
Growth Adi:				1.00				1.00	1.00	-	1.00	1.00
Initial Bse:					1		23	22	1		15	56
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2	0	86	1	7	23	22	1	9	15	56
User Adj:						1.00					1.00	1.00
PHF Adj:				1.00				1.00			1.00	1.00
PHF Volume:				86	1					9		56
Reduct Vol:				0		0				0		0
FinalVolume:										9		
Critical Gap												
Critical Gp:>				7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:>	XXXX	4.0	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2		XXXXX
Capacity Modu												
Cnflict Vol:												
Potent Cap.:												
Move Cap.:												
Volume/Cap:									XXXX			XXXX
Level Of Serv												
2Way95thQ:				xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:>												
LOS by Move:												*
Movement:	LT ·	- LTR	- RT	LT -	- LTR	- RT	LT ·	- LTR	- RT	LT ·	- LTR	- RT
Shared Cap.:	XXXX	XXXX	XXXXX	XXXX	843	XXXXX	XXXX	XXXX	XXXXX	XXXX	XXXX	XXXXX
SharedQueue:x												
Shrd ConDel:>												
Shared LOS:	*	*	*	*	А			*		*	*	*
ApproachDel: ApproachLOS:		10.0			9.8		X	XXXXX		X	XXXXX	
							,	*			*	
Note: Queue r	repor											
******	****		eak Hou							****	****	*****
Intersection												
*******									*****	*****	****	*****
Future Volume	e Alt	ernat	ive: Pe	eak Hou	ır Wa:	rrant l	NOT Me	t				

```
Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
-----||-----||-----|
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 1 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0
Initial Vol: 0 2 0 86 1 7 23 22 1 9 15
ApproachDel: 10.0 9.8 xxxxxx xxxxx
-----|
```

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

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

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

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

Signal Warrant Rule #3: [approach count=4][total volume=222]

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

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

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

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

Signal Warrant Rule #2: [approach volume=94]

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

Signal Warrant Rule #3: [approach count=4][total volume=222]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #3 Second Street and Lyell Street

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----||-----||-----|
 Control:
 Stop Sign
 Stop Sign
 Uncontrolled
 Uncontrolled

 Lanes:
 0 0 1 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0
 0 0 1! 0 0
 0 0 1! 0 0
 Initial Vol: 0 2 0 86 1 7 23 22 1 9 15 56 -----||-----||-----|

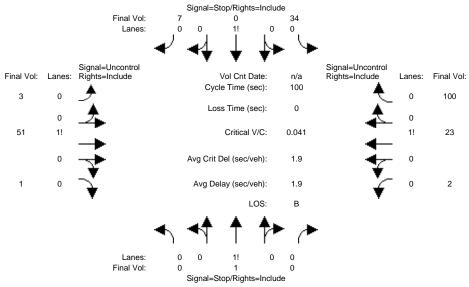
126 Major Street Volume: Minor Approach Volume: Minor Approach Volume Threshold: 772

SIGNAL WARRANT DISCLAIMER

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

Intersection #3: Second Street and Lyell Street



	I IIIa	ii voi.	Signa	l=Stop/Righ	ts=Include	U						
Street Name:			Second						Lyell	Street	Ī.	
			ound								est Bo	
Movement:												
Volume Module												
Base Vol:	0	1		34	0	7	3	50	1	2	25	100
Growth Adj:					1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:		1		34	0	7	3	50	1	2	25	100
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Proj Trips:	0	0	0	0	0	0	0	1	0	0	-2	0
Initial Fut:	0	1	0	34	0	7	3	51	1	2	23	100
User Adj:					1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1	0	34	0	7	3	51	1	2	23	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:		1		34	0	7	-	51		2		
 Critical Gap												
Critical Gap			VVVVV	7 1	6 5	6.2	1 1	vvvv	VVVVV	1 1	VVVV	VVVVV
FollowUpTim:	~~~~~ ~~~~~	4 0	~~~~~	7 - 1	4 0	3 3	2 2	~~~~	~~~~~	2 2		XXXXX
	^^^^	4.0		 اا	4.0		ے ۔ ے - – – – ا ا			ے کے ا		
Capacity Mod				1 1			1 1			1 1		'
Cnflict Vol:		185	XXXXX	135	135	73	123	XXXX	XXXXX	52	XXXX	XXXXX
Potent Cap.:								XXXX	XXXXX	1567	XXXX	XXXXX
Move Cap.:									XXXXX		XXXX	XXXXX
Volume/Cap:								XXXX	XXXX	0.00	XXXX	XXXX
Level Of Serv	vice N	4odul	e:									
2Way95thQ:								XXXX	XXXXX	0.0	XXXX	XXXXX
Control Del:									XXXXX	7.3	XXXX	XXXXX
LOS by Move:	*	В	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	- LTR	- RT	LT -	- LTR	- RT	LT ·	- LTR	- RT	LT -	- LTR	- RT
Shared Cap.:												XXXXX
SharedQueue:												
Shrd ConDel:												
Shared LOS:		*		*			*	*	*	*	*	*
ApproachDel: ApproachLOS:		10.1			9.4		XX	XXXXX		XX	XXXXX	
								*			*	
Note: Queue	report		s the r eak Hou						×+			
*****	****									*****	****	*****
Intersection	#3 Se	econd	Street	and 1	Lyell	Street	-					
*****	****	****	*****	*****	****	*****	*****	****	*****	*****	*****	*****

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

Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----||-----||-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 1 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 Initial Vol: 0 1 0 34 0 7 3 51 1 2 23 100 ApproachDel: 10.1 9.4 xxxxxx xxxxx -----|

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

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

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

Signal Warrant Rule #2: [approach volume=1]

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

Signal Warrant Rule #3: [approach count=4][total volume=222]

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

Approach[southbound][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=41]

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

Signal Warrant Rule #3: [approach count=4][total volume=222]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #3 Second Street and Lyell Street

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 -----||-----||-----| Initial Vol: 0 1 0 34 0 7 3 51 1 2 23 100 -----||-----||-----|

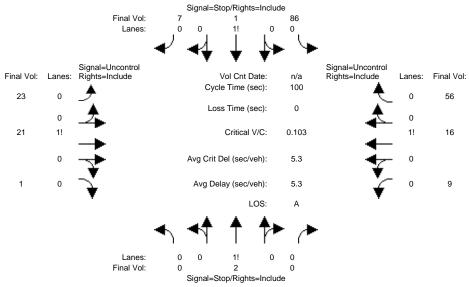
180 Major Street Volume: Minor Approach Volume: Minor Approach Volume Threshold: 677

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).

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

Intersection #3: Second Street and Lyell Street



	Signal=Stop/Rights=Include											
Street Name:			Second						Lyell	Street	_	
			ound								est Bo	
Movement:												
Volume Module												
Base Vol:	e.4.1. 0	2 FM		86	1	7	23	22	1	9	15	56
Growth Adj:					1.00			1.00	1.00		1.00	1.00
Initial Bse:		2		86	1	7	23	22	1	9	15	56
Added Vol:	0	0		0	0	0	0	0	0	0	0	0
Proj Trips:	0	0	0	0	0	0	0	-1	0	0	1	0
Initial Fut:	0	2	0	86	1	7	23	21	1	9	16	56
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	2	0	86	1	7	23	21	1	9	16	56
Reduct Vol:	0	0		0	0	0	0		0	0	0	0
FinalVolume:		2			1					9		56
 Critical Gap												
Critical Gp:			VVVVV	7 1	6 5	6 2	4 1	~~~~	VVVVV	4 1	VVVV	VVVVV
FollowUpTim:	XXXXX	4.0	XXXXX	3.5	4.0	3.3	2.2	XXXX	XXXXX	2.2		XXXXX
Capacity Mod	ule:											
Cnflict Vol:								XXXX	XXXXX	22	XXXX	XXXXX
Potent Cap.:									XXXXX		XXXX	XXXXX
Move Cap.:												XXXXX
Volume/Cap:	XXXX	0.00	XXXX	0.10	0.00	0.01	0.01		XXXX			XXXX
Level Of Serv							0 0			0 0		
2Way95thQ: Control Del:									XXXXX			XXXXX
LOS by Move:									*			*
Movement:						- RT			- RT			- RT
Shared Cap.:												XXXXX
SharedQueue:												
Shrd ConDel:												
Shared LOS:		*		*				*		*		*
		10.0			9 8		X	xxxxx		XX	XXXX	
ApproachDel: ApproachLOS:		А			А			*			*	
Note: Queue						ars per	r lane					
		Pe	eak Hou	ır Dela	ay Si	gnal Wa	arrant	Repo				
*****	****	****	*****	*****	****	*****	*****	****	*****	*****	****	*****
Intersection ******								****	*****	*****	****	*****

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

```
Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R
-----||-----||-----|
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 1 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0
Initial Vol: 0 2 0 86 1 7 23 21 1 9 16
ApproachDel: 10.0 9.8 xxxxxx xxxxx
-----|
```

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

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

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

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

Signal Warrant Rule #3: [approach count=4][total volume=222]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

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

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

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

Signal Warrant Rule #2: [approach volume=94]

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

Signal Warrant Rule #3: [approach count=4][total volume=222]

FAIL - Total volume less than 650 for intersection

with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #3 Second Street and Lyell Street

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----||-----||-----|
 Control:
 Stop Sign
 Stop Sign
 Uncontrolled
 Uncontrolled

 Lanes:
 0 0 1 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0
 0 0 1! 0 0
 0 0 1! 0 0
 Initial Vol: 0 2 0 86 1 7 23 21 1 9 16 56 -----||-----||-----|

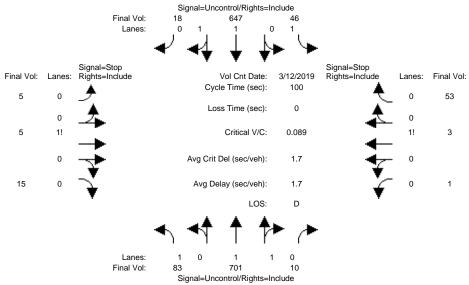
126 Major Street Volume: Minor Approach Volume: Minor Approach Volume Threshold: 772

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).

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

Intersection #4: San Antonio Road and Lyell Street



			Signal=l	Uncontrol/Ri	ghts=Inclu	de						
Street Name:		Sa	an Anto	onio Ro	oad				Lyell	Stree	t	
Approach:	No	rth Bo	ound	Sot	ath Bo	ound	Εć	ast Bo	ound	W	est Bo	ound
Movement:	L ·	- т	- R	L ·	- Т	- R	L ·	- Т	- R	L	- Т	- R
Volume Module	e: >>	Count	t Date:	: 12 Ma	ar 201	19 << "	7:45 AI	8 - M	:45 AM			
Base Vol:	83	701	10	46	647	18	5	5	15	1	3	53
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:	83	701	10	46	647	18	5	5	15	1	3	53
Added Vol:	0		0	0	0	0	0	0	0	0	0	0
PasserByVol:		0	0	0	0	0	0	0	0	0	0	0
Initial Fut:		701	10	46	647	18	5	5	15	1	3	53
_		1.00	1.00		1.00	1.00		1.00			1.00	1.00
PHF Adj:		1.00			1.00	1.00		1.00	1.00		1.00	1.00
PHF Volume:	83		10	46	647	18	5	5	15	1	3	53
Reduct Vol:	0		0	0	-	0	0		-	0	0	0
FinalVolume:		701	10	46		18	5				3	53
Critical Gap								6 5	6 0		6 5	6.0
Critical Gp:										7.5		
FollowUpTim:						XXXXX		4.0				3.3
Capacity Modu				711			1266	1605	333	1200	1629	356
<pre>Cnflict Vol: Potent Cap.:</pre>												647
Move Cap.:								89			89	
Wolume/Cap:									0.02		0.03	
Level Of Serv				1 1			1 1			1 1		I
2Way95thQ:				0 2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:												
			*			*		*			*	
Movement:			- RT			- RT			- RT	LT	- LTR	- RT
Shared Cap.:												
SharedQueue:												
Shrd ConDel:												
Shared LOS:	*	*	*	*	*	*	*	D	*	*	В	*
ApproachDel:	X	XXXXX		X	XXXXX			25.9			14.1	
ApproachLOS:		*			*			D			В	
Note: Queue 1	repor	ted is	s the r	number	of ca	ars per	lane					
		Pe	eak Hou	ır Dela	ay Sig	gnal Wa	arrant	Repo				
*****	****	****	*****	****	****	*****	*****	****	*****	*****	****	*****
Intersection												
*****	****	****	*****	****	****	*****	*****	****	*****	*****	****	*****
Future Volume	e Alt	ernat	ive: Pe	eak Ho	ır Wai	rrant 1	NOT Me	t				

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

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

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

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

Signal Warrant Rule #3: [approach count=4][total volume=1587]

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

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=57]

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

Signal Warrant Rule #3: [approach count=4][total volume=1587]

 ${\tt SUCCEED}$ - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #4 San Antonio Road and Lyell Street

Future Volume Alternative: Peak Hour Warrant NOT Met

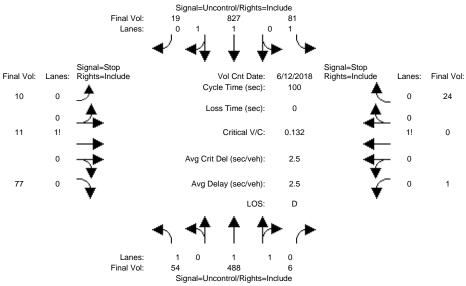
Major Street Volume: 1505
Minor Approach Volume: 57
Minor Approach Volume Threshold: 144

SIGNAL WARRANT DISCLAIMER

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

Intersection #4: San Antonio Road and Lyell Street



	Fina	al Vol:	54 Signal=l	488 Jncontrol/Ri	ghts=Inclu	6 de						
Street Name:		Sa	an Anto	onio Ro	oad				Lyell	Street	t	
Approach:									ound		est Bo	
Movement:									- R			
Volume Module								M - 6				
Base Vol:		488		81			10	11	77	1	0	24
Growth Adj:						1.00		1.00	1.00		1.00	1.00
Initial Bse:			6	81	827	19	10	11	77	1	0	24
Added Vol:			0	0	0	0	0	-	0	0	0	0
PasserByVol:			0	0		0	0	-	0	0	0	0
Initial Fut:						19	10		77	1	-	24
User Adj:						1.00		1.00	1.00		1.00	1.00
PHF Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Volume:	54	488	6	81	827	19	10	11	77	1	0	24
Reduct Vol:			0	-		0	0		0	0	-	0
FinalVolume:				81						1	-	24
Critical Gap												
Critical Gp:			xxxxx	4.1	XXXX	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:							3.5	4.0	3.3	3.5	4.0	3.3
Capacity Modu	ule:											
Cnflict Vol:	846	XXXX	XXXXX	494	XXXX	XXXXX	1351	1601	423	1180	1607	247
Potent Cap.:	800	XXXX	XXXXX	1080	XXXX	XXXXX	111	107	585	148	106	759
Move Cap.:	800	XXXX	XXXXX	1080	XXXX	XXXXX	96	92	585	105	91	759
Volume/Cap:												0.03
Level Of Serv												
2Way95thQ:												
Control Del:												
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:												
Shared Cap.:									XXXXX			XXXXX
SharedQueue:									XXXXX			XXXXX
Shrd ConDel:												
Shared LOS:		*		*			*			*	_	*
ApproachDel:		XXXXX		X	XXXXX			25.0			11.2	
ApproachLOS:		*						D			В	
Note: Queue	repor					_						
*****	****		eak Hou *****							*****	****	*****
Intersection	#4 S	an Ant	tonio I	Road ar	nd Lve	ell Sti	reet					
*****	****	****	****	****	****	*****	****		*****	****	****	*****
Future Volume	e Alt	ernati	rve: Pe	eak Hoi	ır Wai	rrant 1	NO'I' Met	t				

```
Approach: North Bound South Bound East Bound West Bound

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

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1! 0 0 0 1! 0 0

Initial Vol: 54 488 6 81 827 19 10 11 77 1 0 24

ApproachDel: xxxxxx xxxxx 25.0 11.2
```

Signal Warrant Rule #1: [vehicle-hours=0.7]

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

Signal Warrant Rule #2: [approach volume=98]

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

Signal Warrant Rule #3: [approach count=4][total volume=1598]

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

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

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

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

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

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

Signal Warrant Rule #3: [approach count=4][total volume=1598]

 ${\tt SUCCEED}$ - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #4 San Antonio Road and Lyell Street

Future Volume Alternative: Peak Hour Warrant NOT Met

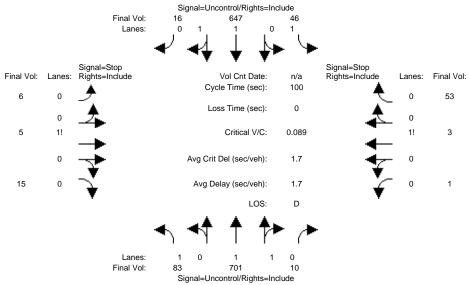
Major Street Volume: 1475
Minor Approach Volume: 98
Minor Approach Volume Threshold: 151

SIGNAL WARRANT DISCLAIMER

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

Intersection #4: San Antonio Road and Lyell Street



Final Vol:	Final Vol: 83 701 10 Signal=Uncontrol/Rights=Include											
Street Name: Sa	n Antonio Ro	oad				Lyell	Street	t				
Approach: North Bo								est Bo				
	- R L -											
Base Vol: 83 701		647	18	5	5	15	1	3	53			
Growth Adj: 1.00 1.00		1.00	1.00		1.00	1.00		1.00	1.00			
Initial Bse: 83 701	10 46		18	5	5	15	1	3	53			
Added Vol: 0 0		0	0	0	0	0	0	0	0			
Proj Trips: 0 0	0 0	-	-2	1	0	0	0	0	0			
Initial Fut: 83 701			16	6	-	15	1	-	53			
User Adj: 1.00 1.00			1.00		1.00	1.00	_	1.00	1.00			
PHF Adi: 1.00 1.00		1.00	1.00		1.00	1.00		1.00	1.00			
PHF Volume: 83 701	10 46		16	6	5	15	1	3	53			
Reduct Vol: 0 0	0 0		0	0		0	0		0			
FinalVolume: 83 701	10 46			6	5		1	3				
Critical Gap Module:												
Critical Gp: 4.1 xxxx					6.5	6.9	7.5	6.5	6.9			
FollowUpTim: 2.2 xxxx						3.3						
Cnflict Vol: 663 xxxx	vvvvv 711	~~~~	vvvvv	1265	1624	332	1290	1627	356			
Potent Cap.: 935 xxxx							123					
Move Cap.: 935 xxxx	VVVVV 898	~~~~	~~~~~	103	90	670	103					
Volume/Cap: 0.09 xxxx									0.08			
Level Of Service Module									,			
2Way95thQ: 0.3 xxxx	xxxxx 0.2	XXXX	XXXXX	XXXX	XXXX	XXXXX	XXXX	XXXX	XXXXX			
Control Del: 9.2 xxxx					XXXX	XXXXX	XXXXX	XXXX	XXXXX			
LOS by Move: A *	* A	*	*	*	*	*	*	*	*			
Movement: LT - LTR	- RT LT	- LTR	- RT	LT ·	- LTR	- RT	LT ·	- LTR	- RT			
Shared Cap.: xxxx xxxx	xxxx xxxx	XXXX	XXXXX	XXXX	190	XXXXX	XXXX	455	XXXXX			
SharedQueue:xxxxx xxxx												
Shrd ConDel:xxxxx xxxx	XXXXX XXXXX	XXXX	XXXXX	XXXXX	26.9	XXXXX	XXXXX	14.0	XXXXX			
Shared LOS: * *	* *			*			*	В	*			
ApproachDel: xxxxxx	X	XXXXX			26.9			14.0				
ApproachLOS: *		*			D			В				
Note: Queue reported is	the number	of ca	ars per	lane								
	ak Hour Dela											
******					****	*****	*****	* * * * * :	*****			
<pre>Intersection #4 San Ant ************************************</pre>					****	*****	****	****	*****			
Future Volume Alternati												

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

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

Signal Warrant Rule #2: [approach volume=26]

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

Signal Warrant Rule #3: [approach count=4][total volume=1586]

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

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=57]

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

Signal Warrant Rule #3: [approach count=4][total volume=1586]

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

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #4 San Antonio Road and Lyell Street

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: 1 0 1 1 0 1 0 1 1 0 0 0 1! 0 0 0 0 1! 0 0 Initial Vol: 83 701 10 46 647 16 6 5 15 1 3 53

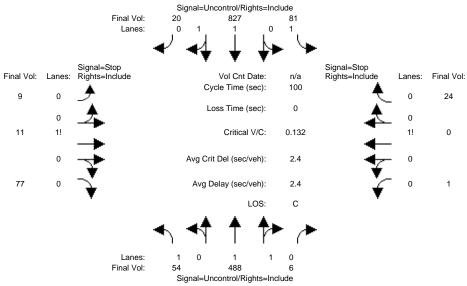
Major Street Volume: 1503
Minor Approach Volume: 57
Minor Approach Volume Threshold: 144

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).

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

Intersection #4: San Antonio Road and Lyell Street



	ГШ	ai voi.	Signal=l	Uncontrol/Ri	ghts=Inclu	de						
Street Name:		Sa	an Anto	onio Ro	oad				Lyell	Street	t	
Approach:	No	rth Bo	ound	Soi	uth Bo	ound	Εa	ast Bo	ound	We	est Bo	
Movement:	L	- T	- R	L ·	- T	- R	L ·	- T	- R	L ·		
Volume Modul					=					_		
			6		827					1	-	
Growth Adj:				1.00		1.00		1.00	1.00		1.00	1.00
Initial Bse:			6	81	827	19		11	77 0	1	-	24 0
Added Vol:			0	0		0				0		
Proj Trips: Initial Fut:						1 20	-1 9			-	-	0 24
User Adi:								1.00			1.00	1.00
PHF Adj:						1.00		1.00			1.00	1.00
PHF Volume:				81		20	9					24
Reduct Vol:				0			0				-	0
FinalVolume:									77			2.4
Critical Gap												
Critical Gp:	4.1	XXXX	XXXXX	4.1	XXXX	XXXXX	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:												
Capacity Mod												
Cnflict Vol:												
Potent Cap.: Move Cap.:	799	XXXX	XXXXX	1080	XXXX	XXXXX	111	107	585	148	106	759
Volume/Cap:												0.03
Level Of Ser												
2Way95thQ:				0.2	vvvv	VVVVV	VVVV	vvvv	VVVVV	VVVV	vvvv	VVVVV
Control Del:												
LOS by Move:	J. 0	*	*	Δ. Δ	*	*	*	*	*	*	*	*
Movement:												
Shared Cap.:												
SharedQueue:												
Shrd ConDel:												
Shared LOS:												
ApproachDel:	X	XXXXX		X	xxxxx			24.4			11.2	
ApproachDel: ApproachLOS:		*			*			С			В	
Note: Queue												
			eak Hou									
*****								****	*****	*****	****	*****
Intersection								****	*****	+***	****	*****
Future Volum	e Alt	ernati	ive: Pe	eak Ho	ur Wa:	rrant 1	NOT Met	t				

Approach:	Nort	th B	Bound South Bound				East Bound					West Bound						
Movement:	L -	T	_	R	L -	Т	_	R	L	-	T	_	R]	_	T	_	R
Control:	Unco	ontr	011	ed	Unc	ontr	011	ed		Sto	p S	ign			Sto	p S	ign	
Lanes:	1 0	1	1	0	1 0	1	1	0	0	0	1!	0	0	(0 (1!	0	0
Initial Vol:	54	488		6	81	827		20		9	11		77		1	C)	24
ApproachDel:	XXX	XXXX		xxxxxx					24.4					11.2				
				11				1	1				1	11				1

Signal Warrant Rule #1: [vehicle-hours=0.7]

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

Signal Warrant Rule #2: [approach volume=97]

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

Signal Warrant Rule #3: [approach count=4][total volume=1598]

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

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

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

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

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

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

Signal Warrant Rule #3: [approach count=4][total volume=1598]

 ${\tt SUCCEED}$ - Total volume greater than or equal to 800 for intersection with four or more 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 #4 San Antonio Road and Lyell Street

Future Volume Alternative: Peak Hour Warrant NOT Met

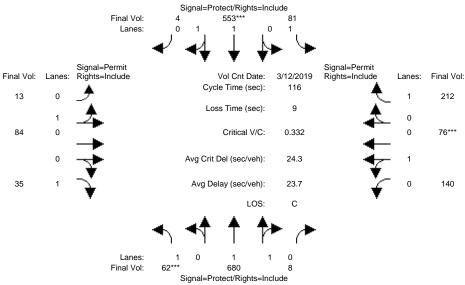
Major Street Volume: 1476
Minor Approach Volume: 97
Minor Approach Volume Threshold: 151

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).

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

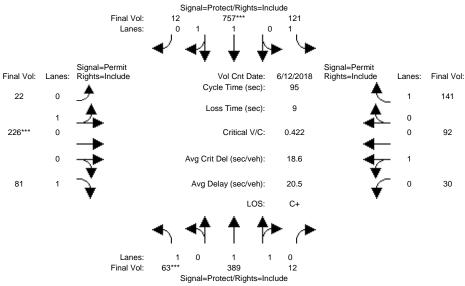
Intersection #5: San Antonio Road and First Street/Cuesta Drive



Signal=Protect/Rights=Include												
Street Name:		Sai	n Anto	nio Ro	oad		F	irst S	treet/	Cuesta	a Driv	e
Approach:	No	rth Bo				und					est Bo	
Movement:		- T			- T			- T		L -	- т	- R
Min. Green:	21		70	12		61		25	25	25		25
Y+R:	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0		4.0
Volume Module										1		1
Base Vol:	62	680	8	81	553	4	13	84	35	140	76	212
Growth Adj:		1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:		680	8	81	553	4	13	84	35	140	76	212
Added Vol:	02	0	0	0	0	0	13	0	0	140	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
-					553		13					
Initial Fut:			8	81		4		84	35	140	76	212
User Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Volume:	62	680	8	81	553	4	13	84	35	140	76	212
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:			8	81	553	4	13	84	35	140	76	212
PCE Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
MLF Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
FinalVolume:			8		553	4	13	84	35	140	76	212
Saturation F	low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.98	0.02	1.00	1.99	0.01	0.13	0.87	1.00	0.65	0.35	1.00
Final Sat.:	1750	3657	43	1750	3673	27	241	1559	1750	1167	633	1750
Capacity Anal	lysis	Module	e:									
Vol/Sat:	_	0.19		0.05	0.15	0.15	0.05	0.05	0.02	0.12	0.12	0.12
Crit Moves:	****				****						* * * *	
Green Time:	21.0	70.0	70.0	12.0	61.0	61.0	25.0	25.0	25.0	25.0	25.0	25.0
Volume/Cap:	0.20		0.31	0.45	0.29	0.29		0.25	0.09	0.56	0.56	0.56
Uniform Del:			11.2		15.3	15.3		37.7	36.4	40.6		40.6
IncremntDel:		0.1	0.1	1.8	0.1	0.1	0.3	0.3	0.1	1.8	1.8	1.9
InitQueuDel:		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
Delay/Veh:		11.3	11.3		15.4	15.4		38.1	36.5	42.4		42.6
-						1.00						
User DelAdj:			1.00		1.00			1.00	1.00		1.00	1.00
AdjDel/Veh:			11.3		15.4	15.4		38.1	36.5		42.4	42.6
LOS by Move:			B+	D	В	В	D+	D+	D+	D	D	D
HCM2kAvgQ:	2		6	3	6	6	3	3	1	8	8	8
Note: Queue	repor	tea 1S	ine n	umper	or ca	rs per	ıane	•				

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

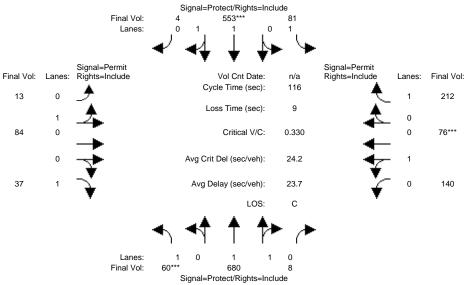
Intersection #5: San Antonio Road and First Street/Cuesta Drive



Signal=Protect/Rights=Include												
Street Name:		Sa	n Anto	nio Ro	oad		F	irst S	treet/	Cuesta	a Driv	re
Approach:	No	rth Bo	und	Soi	ath Bo	und	Εa	ast Bo	und	₩e	est Bo	und
Movement:		- T				- R			- R			- R
Min. Green:	7		41	16	50	50	29		29	29	29	29
Y+R:	4.0		4.0		4.0	4.0	4.0		4.0	4.0		4.0
Volume Module										1		'
Base Vol:	63	389	12	121	757	12	22	226	81	30	92	141
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:	63	389	12	121	757	12	22	226	81	30	92	141
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:	63	389	12	121	757	12	22	226	81	30	92	141
		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
_	63	389	12	121	757	12	22	226	81	30	92	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:			12	121	757	12	22	226	81	30	92	141
		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
MLF Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
FinalVolume:			12	121		12	22		81	30	92	141
Saturation Fl			I	I		ı	I		ı	I		1
		1900	1900	1000	1900	1900	1000	1900	1900	1000	1900	1900
Adjustment:			0.95	0.92		0.95		0.95	0.92		0.95	0.92
_		1.94	0.95		1.97	0.93		0.93	1.00		0.95	1.00
						58						
Final Sat.:			111					1640	1750		1357	1750
Capacity Anal												
	_	0.11		0 07	0.21	0.21	0 1/	0.14	0.05	0 07	0.07	0.08
	****	0.11	0.11	0.07	****	0.21	0.14	****	0.03	0.07	0.07	0.00
OTIC HOVED.		41.0	41.0	16 0	50.0	50.0	29 N	29.0	29.0	29 N	29.0	29.0
		0.25	0.25		0.39	0.39		0.45	0.15		0.22	0.26
Uniform Del:			17.2		13.5	13.5		26.6	24.0		24.6	24.9
IncremntDel:		0.1	0.1	0.9	0.1	0.1	0.6	0.6	0.1	0.2	0.2	0.3
				0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
InitQueuDel:		0.0	0.0						0.0			
Delay Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Delay/Veh:			17.3		13.6	13.6		27.2	24.2		24.8	25.2
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:			17.3		13.6	13.6		27.2	24.2		24.8	25.2
LOS by Move:			В	D+	В	В	С	С	С	С	С	С
HCM2kAvgQ:	2		4	4	7	7	6	6	2	3	3	3
Note: Queue r	report	ted is	the n	umber	of ca	rs per	lane	•				

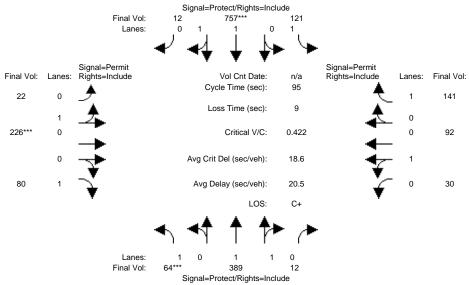
Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing +Project AM

Intersection #5: San Antonio Road and First Street/Cuesta Drive

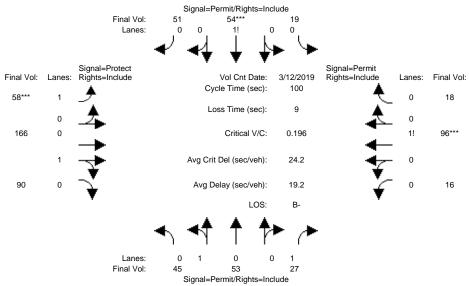


Signal=Protect/Rights=Include Street Name: San Antonio Road First Street/Cuesta Drive													
Street Name: Approach:	Sa North Bo		treet/ und		n Driv								
Movement:	L - T	- R	L -	- T	- R	L -	- T	- R	L -	- T	- R		
Min. Green: Y+R:	21 70 4.0 4.0	70 4.0	12 4.0	61 4.0	61 4.0	25 4.0	25 4.0	25 4.0	25 4.0	25 4.0	25 4.0		
Volume Module													
Base Vol:	62 680	8	81	553	4	13	84	35	140	76	212		
Growth Adj:				1.00	1.00		1.00	1.00	1.00		1.00		
Initial Bse:		8	81	553	4	13	84	35	140	76	212		
Added Vol:	0 0	0	0	0	0	0	0	0	0	0	0		
Proj Trips:		0 8	0	0	0	0	0	2	0	0	0		
<pre>Initial Fut: User Adj:</pre>	60 680 1.00 1.00		81	553 1.00	4 1.00	13	84	37 1.00	140	76	212 1.00		
_	1.00 1.00			1.00	1.00		1.00	1.00	1.00		1.00		
PHF Volume:	60 680	8	81	553	4	13	84	37	140	76	212		
Reduct Vol:	0 0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	60 680	8	81	553	4	13	84	37	140	76	212		
PCE Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
FinalVolume:		8	81		4	13		37	140	76	212		
Saturation F			1 0 0 0	1000	1000	1000	1000	1000	1000	1000	1000		
Sat/Lane: Adjustment:	1900 1900			1900	1900 0.95		1900 0.95	1900 0.92	1900	0.95	1900 0.92		
_	1.00 1.98			1.99	0.93		0.93		0.65		1.00		
Final Sat.:				3673	27		1559	1750	1167		1750		
Capacity Anal	lysis Modul	.e:				•							
Vol/Sat:	0.03 0.19	0.19 (0.05	0.15	0.15	0.05	0.05	0.02	0.12	0.12	0.12		
Crit Moves:	***			****						****			
Green Time:	21.0 70.0		12.0	61.0	61.0		25.0	25.0	25.0		25.0		
-	0.19 0.31			0.29	0.29		0.25	0.10	0.56		0.56		
Uniform Del:				15.3	15.3		37.7	36.5	40.6		40.6		
IncremntDel:		0.1	1.8	0.1	0.1	0.3		0.1	1.8	1.8	1.9		
InitQueuDel:		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		
Delay/Veh: User DelAdj:				15.4	15.4 1.00		38.1	36.6 1.00	42.4		42.6 1.00		
AdjDel/Veh:				15.4	15.4		38.1	36.6	42.4		42.6		
LOS by Move:		B+	D.0	13.4	13.4 B	D+		D+	42.4 D		42.0 D		
HCM2kAvqQ:		6	3	6	6	3		1	8	8	8		
Note: Queue								_	,	-	-		
					-								

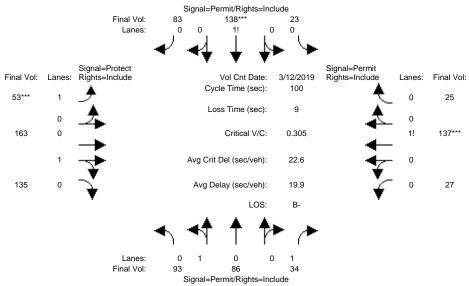
Intersection #5: San Antonio Road and First Street/Cuesta Drive



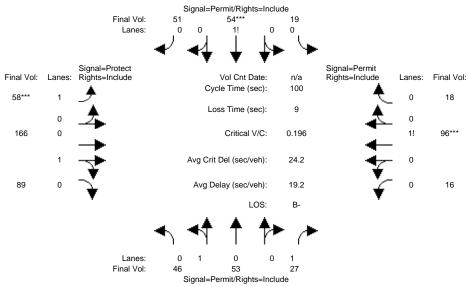
Signal=Protect/Rights=Include													
Street Name:		Sa	n Anto	onio Ro	oad		First Street/Cuesta Drive						
Approach:	No					und					est Bo		
Movement:		- T				- R		- T		L -	- T	- R	
Min. Green:		41		16				29		29		29	
Y+R:	4.0		4.0	4.0		4.0		4.0		4.0		4.0	
Volume Modul						'			'	'		'	
Base Vol:	63		12	121	757	12	22	226	81	30	92	141	
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:			12	121	757	12	22	226	81	30	92	141	
Added Vol:	0		0	0	0	0	0	0	0	0	0	0	
Proj Trips:			0	0	0	0	0	0	-1	0	0	0	
Initial Fut:			12	121	757	12	22	226	80	30	92	141	
User Adi:		1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	
PHF Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
PHF Volume:	64		12	121	757	12	22	226	80	30	92	141	
Reduct Vol:	0		0	0	0	0	0	0	0	0	0	0	
Reduced Vol:			12	121	757	12	22	226	80	30	92	141	
PCE Adj:		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			1.00 757	1.00		1.00				1.00	
FinalVolume:			12			12	22		80	30	92	141	
Saturation F			1 0 0 0	1 0 0 0	1000	1000	1000	1000	1000	1 0 0 0	1 0 0 0	1000	
Sat/Lane:		1900	1900		1900	1900		1900	1900		1900	1900	
Adjustment:			0.95	0.92		0.95		0.95	0.92		0.95	0.92	
Lanes:		1.94	0.06		1.97	0.03		0.91	1.00	0.25		1.00	
Final Sat.:			111		3642	58		1640	1750		1357	1750	
Capacity Ana	_			0 0 0	0 01	0 01	0 1 4	0 1 4	0 0 5	0 0 0	0 0 0	0 00	
Vol/Sat:	0.04 ****	0.11	0.11	0.07	0.21	0.21	0.14	0.14	0.05	0.07	0.07	0.08	
Crit Moves:			41 0	1.0		F0 0	20 0		20 0	20.0	20 0	20.0	
	7.0		41.0		50.0	50.0		29.0	29.0	29.0		29.0	
Volume/Cap:		0.25	0.25		0.39	0.39		0.45	0.15	0.22		0.26	
Uniform Del:			17.2		13.5	13.5		26.6	24.0	24.6		24.9	
IncremntDel:			0.1	0.9		0.1	0.6		0.1	0.2	0.2	0.3	
InitQueuDel:		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4 2	1.00		1.00		1.00	1.00		1.00	1.00	1.00		1.00	
Delay/Veh:		17.3	17.3		13.6	13.6		27.2	24.2	24.8		25.2	
User DelAdj:			1.00		1.00	1.00		1.00	1.00	1.00		1.00	
AdjDel/Veh:			17.3		13.6	13.6		27.2	24.2	24.8		25.2	
LOS by Move:	D		В	D+	В	В	С	С	С	С	С	С	
HCM2kAvgQ:	2	4	4	4	7	7	6	6	2	3	3	3	
Note: Queue	repor	ted is	the r	number	of ca	rs per	lane						



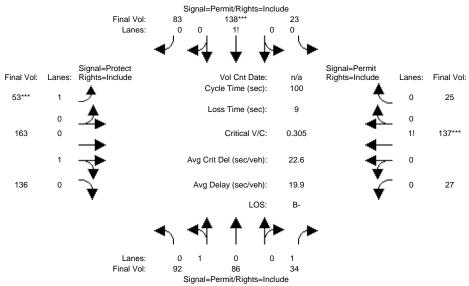
			Signal=I	Permit/Righ	nts=Include							
Street Name:			1st	St					Main	Ave		
	No	rth Bo	und		ıth Bo	und	E	ast Bo			est Bo	nind
Movement:		- T				- R			- R		- T	
Min. Green:		10			10			10		10	10	10
Y+R:	4.0		4.0		4.0	4.0		4.0		4.0		4.0
111.												
Volume Module												
Base Vol:	45	53	27	19	54	51	58	166	90	16	96	18
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
_				19		51	58	166		1.00	96	
Initial Bse:	45 0	53 0	27 0	19	54 0	0	0	100	90	10	96	18
Added Vol:									0			0
PasserByVol:		0	0	0	0	0	0	0	0	0	0	0
Initial Fut:			27	19	54	51	58	166	90	16	96	18
User Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
	45	53	27	19	54	51	58	166	90	16	96	18
	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	53	27	19	54	51	58	166	90	16	96	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:			27	19	54	51	58		90	16		18
Saturation F	low M	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	0.46	0.54	1.00	0.15	0.44	0.41	1.00	0.65	0.35	0.12	0.74	0.14
Final Sat.:	827	973	1750	268	762	720	1750	1167	633	215	1292	242
Capacity Anal	lysis	Module	e:									
	_	0.05		0.07	0.07	0.07	0.03	0.14	0.14	0.07	0.07	0.07
Crit Moves:					***		****				****	
	36.2	36.2	36.2	36.2	36.2	36.2	16.9	54.8	54.8	37.9	37.9	37.9
Volume/Cap:			0.04		0.20	0.20		0.26	0.26		0.20	0.20
Uniform Del:			20.7		21.9	21.9		11.9	11.9		20.8	20.8
IncremntDel:		0.1	0.0	0.2	0.2	0.2	0.3		0.1	0.1		0.1
InitOueuDel:		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
									12.0		21.0	21.0
Delay/Veh:		21.7	20.7		22.1	22.1		12.0				
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:			20.7		22.1	22.1		12.0	12.0		21.0	21.0
LOS by Move:		C+	C+	C+	C+	C+	D+	В	В	C+	C+	C+
HCM2kAvgQ:	2		1	, 3	3	3	2		4	3	3	3
Note: Queue	repor	ted is	the n	umber	oi ca	rs per	lane	•				



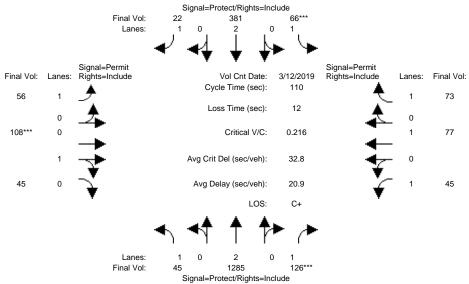
			Signal=	Permit/Righ	nts=Include							
Street Name:			1st	St.			Main Ave					
	No	rth Bo			ıt.h Bo	und	E	ast. Bo			est Bo	und
Movement:		- T				- R			- R		- T	
Min. Green:	10				10			10		10		10
Y+R:		4.0	4.0		4.0	4.0		4.0		4.0		4.0
Volume Module										1		ı
Base Vol:	93	86	34	23	138	83	53	163	135	27	137	25
		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:	93	86	34	23	138	83	53	163	135	27	137	25
Added Vol:	0	0	0	0	130	0	0	0	133	0	137	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:		86	34	23	138	83	53	163	135	27	137	25
_		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
_		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Volume:	93	86	34	23	138	83	53		135	27	137	25
	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	93	86	34	23	138	83	53	163	135	27	137	25
_		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
_		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
FinalVolume:			34		138	83	53		135	27		25
Saturation Fl												
,		1900	1900		1900	1900		1900	1900		1900	1900
-		0.95		0.92		0.92		0.95	0.95		0.92	0.92
		0.48		0.09		0.34		0.55	0.45		0.73	0.13
Final Sat.:		865	1750		990	595	1750		815		1269	231
Capacity Anal	_											
Vol/Sat:	0.10	0.10	0.02	0.14	0.14	0.14		0.17	0.17	0.11	0.11	0.11
Crit Moves:					****		****				****	
Green Time:	45.7	45.7	45.7	45.7	45.7	45.7	9.9	45.3	45.3	35.4	35.4	35.4
Volume/Cap:	0.22	0.22	0.04	0.31	0.31	0.31	0.31	0.37	0.37		0.31	0.31
Uniform Del:	16.4	16.4	15.0	17.1	17.1	17.1	41.8	17.9	17.9	23.4	23.4	23.4
IncremntDel:	0.1	0.1	0.0	0.2	0.2	0.2	1.0	0.3	0.3	0.3	0.3	0.3
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:	16.5	16.5	15.1	17.4	17.4	17.4	42.8	18.2	18.2	23.7	23.7	23.7
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:			15.1	17.4	17.4	17.4	42.8	18.2	18.2	23.7	23.7	23.7
LOS by Move:		В	В	В	В	В	D	B-	B-	С	С	С
HCM2kAvqQ:	3		1	5	5	5	2	6	6	5	5	5
Note: Queue r	epor	ted is		umber	of ca	rs per	lane					
-	-					-						



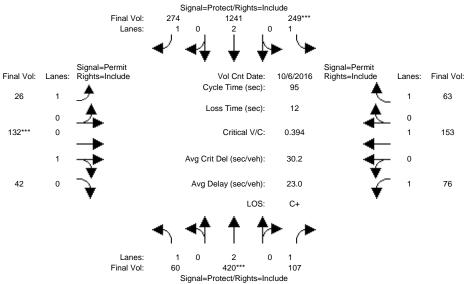
	1 1101 7011	Signal=Permit/Ri	ghts=Include					
Street Name:		1st St				Main	. Ave	
Approach:	North B	ound So	outh Bo	und	East	Bound	West Bo	und
Movement:	L - T	- R L	- T	- R	L - 7	г – R	L - T	- R
Min. Green:	10 10	10 10	10	10	7 1	10 10	10 10	10
Y+R:	4.0 4.0		4.0	4.0			4.0 4.0	4.0
Volume Modul					F.O. 1.1		1.6	1.0
Base Vol:	45 53	27 19		51		56 90	16 96	18
Growth Adj:			1.00	1.00	1.00 1.0		1.00 1.00	1.00
Initial Bse:		27 19		51		56 90	16 96	18
	0 0	0 (0		0 0	0 0	0
Proj Trips:		0 (0	0	0 -1	0 0	0
Initial Fut:				51		56 89	16 96	18
	1.00 1.00		1.00	1.00	1.00 1.0		1.00 1.00	1.00
PHF Adj:			1.00	1.00	1.00 1.0		1.00 1.00	1.00
	46 53	27 19		51		66 89	16 96	18
Reduct Vol:		0 (0		0 0	0 0	0
Reduced Vol:		27 19		51		56 89	16 96	18
	1.00 1.00		1.00	1.00	1.00 1.0		1.00 1.00	1.00
MLF Adj:			1.00	1.00	1.00 1.0		1.00 1.00	1.00
FinalVolume:				51	58 16		16 96	18
Cotumotion E								
Saturation F			1000	1000	1000 100	1000	1000 1000	1000
Sat/Lane: Adjustment:	1900 1900		1900	1900 0.92	1900 190	00 1900 95 0.95	1900 1900 0.92 0.92	1900 0.92
Lanes:				0.92		65 0.35	0.12 0.74	0.92
Final Sat.:				720	1750 117		215 1292	242
Capacity Ana				1	I	ı	I	1
Vol/Sat:			0.07	0.07	0.03 0.1	14 0.14	0.07 0.07	0.07
Crit Moves:	0.00 0.00	0.02 0.0	****	0.07	****	14 0.14	****	0.07
	36.2 36.2	36.2 36.2	36.2	36.2	16.9 54.	.8 54.8	37.9 37.9	37.9
	0.15 0.15		0.20	0.20	0.20 0.2		0.20 0.20	0.20
Uniform Del:			21.9	21.9	35.7 11.		20.8 20.8	20.8
IncremntDel:		0.0 0.2		0.2		.1 0.1	0.1 0.1	0.1
InitQueuDel:		0.0 0.0		0.0		.0 0.0	0.0 0.0	0.0
Delay Adj:			1.00	1.00	1.00 1.0		1.00 1.00	1.00
Delay/Veh:			22.1	22.1	36.0 12.		21.0 21.0	21.0
User DelAdj:			1.00	1.00	1.00 1.0		1.00 1.00	1.00
AdjDel/Veh:			22.1	22.1	36.0 12.		21.0 21.0	21.0
LOS by Move:		C+ C+		C+		B B	C+ C+	C+
-	2 2	1 3		3	2	4 4	3 3	3
Note: Queue							3 3	9
Queue	Lopolcoa I.	ciic iidiibei	. O1 Ca	LO PCI	14110.			



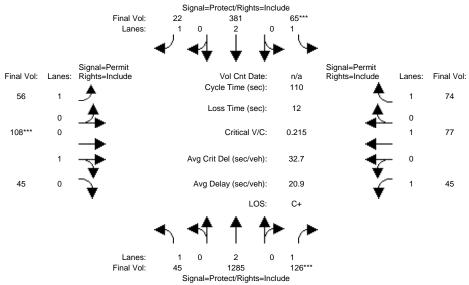
Signal=Permit/Rights=Include	
Street Name: 1st St Main Ave	
Approach: North Bound South Bound East Bound West	Bound
Movement: L - T - R L - T - R L - T - T	
Min. Green: 10 10 10 10 10 7 10 10 10 1	
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	
Volume Module:5:00 PM - 6:00 PM	
Base Vol: 93 86 34 23 138 83 53 163 135 27 13	7 25
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	1.00
Initial Bse: 93 86 34 23 138 83 53 163 135 27 13	7 25
	0 0
Proj Trips: -1 0 0 0 0 0 0 1 0	0 0
Initial Fut: 92 86 34 23 138 83 53 163 136 27 13	7 25
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	1.00
PHF Volume: 92 86 34 23 138 83 53 163 136 27 13	7 25
Reduct Vol: 0 0 0 0 0 0 0 0 0	0 0
Reduced Vol: 92 86 34 23 138 83 53 163 136 27 13	7 25
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	1.00
FinalVolume: 92 86 34 23 138 83 53 163 136 27 13	7 25
Saturation Flow Module:	
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 190	1900
Adjustment: 0.95 0.95 0.92 0.92 0.92 0.92 0.92 0.95 0.95 0.95 0.92 0.9	2 0.92
Lanes: 0.52 0.48 1.00 0.09 0.57 0.34 1.00 0.55 0.45 0.14 0.7	3 0.13
Final Sat.: 930 870 1750 165 990 595 1750 981 819 250 126	
Capacity Analysis Module:	
Vol/Sat: 0.10 0.10 0.02 0.14 0.14 0.14 0.03 0.17 0.17 0.11 0.1	
Crit Moves: **** ****	
Green Time: 45.7 45.7 45.7 45.7 45.7 9.9 45.3 45.3 35.4 35.	
Volume/Cap: 0.22 0.22 0.04 0.31 0.31 0.31 0.31 0.37 0.37 0.31 0.3	
Uniform Del: 16.4 16.4 15.0 17.1 17.1 17.1 41.8 17.9 17.9 23.4 23.	
IncremntDel: 0.1 0.1 0.0 0.2 0.2 0.2 1.0 0.3 0.3 0.3 0.	
InitQueuDel: 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 1.0	
Delay/Veh: 16.5 16.5 15.1 17.4 17.4 17.4 42.8 18.2 18.2 23.7 23.	
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	
AdjDel/Veh: 16.5 16.5 15.1 17.4 17.4 17.4 42.8 18.2 18.2 23.7 23.	
<u> -</u>	C C
3	5 5
Note: Queue reported is the number of cars per lane.	



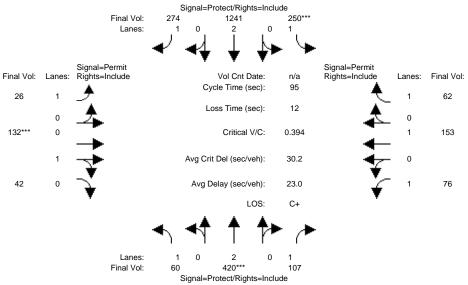
Signal=Protect/Rights=Include												
Movement:	L ·	rth Bo	- R	Sou L -	ith Bo - T		L -	- T	- R	We	est Bo - T	- R
Min. Green: Y+R:	13 4.0	72 4.0	72 4.0	12	71 4.0	71 4.0	26 4.0	26 4.0	26 4.0	26 4.0	26 4.0	26 4.0
Volume Module Base Vol: Growth Adj: Initial Bse: Added Vol: PasserByVol: Initial Fut: User Adj: PHF Adj: PHF Volume: Reduct Vol: Reduced Vol: PCE Adj: MLF Adj: FinalVolume:	e: >> 45 1.00 45 0 45 1.00 1.00 45 1.00 45 1.00 1.00			12 Ma 66 1.00 66 0 66 1.00 66 0 66 1.00 66 0 66			:00 Ar 56 1.00 56 1.00 56 0 56 1.00 56 1.00			45 1.00 45 0 0 45 1.00 1.00 45 0 45	77 1.00 77 0 0 77 1.00 1.00 77 1.00 1.00	73 1.00 73 0 0 73 1.00 1.00 73 1.00 73 1.00 73
Saturation F Sat/Lane: Adjustment: Lanes: Final Sat.:	low Mo 1900 0.92 1.00 1750	odule: 1900 1.00 2.00 3800	1900 0.92 1.00 1750	1900 0.92 1.00 1750	1900 1.00 2.00 3800	1900 0.92 1.00 1750	1900 0.92 1.00 1750	1900 0.95 0.71 1271	1900 0.95 0.29 529	1900 0.92 1.00 1750	1900 1.00 1.00 1900	1900 0.92 1.00 1750
Capacity Ana Vol/Sat: Crit Moves: Green Time: Volume/Cap: Uniform Del: IncremntDel: InitQueuDel: Delay Adj: Delay/Veh: User DelAdj: AdjDel/Veh: LOS by Move: HCM2kAvgQ: Note: Queue	lysis 0.03 11.7 0.24 50.0 0.7 0.0 1.00 50.7 1.00 50.7	Module 0.34 64.9 0.57 15.5 0.4 0.0 1.00 15.8 1.00 15.8 B	0.07 **** 64.9 0.12 11.0 0.1 0.0 1.00 11.1 1.00 11.1 B+	0.04 **** 10.8 0.38 51.5 1.4 0.0 1.00 53.0 1.00 53.0	0.10 64.0 0.17 11.8 0.0 0.0 1.00 11.9 1.00 11.9 8+ 3	0.01 64.0 0.02 10.8 0.0 0.0 1.00 10.8 1.00 10.8 B+	0.03 23.4 0.15 39.0 0.2 0.0 1.00 39.2 1.00 39.2 D	0.09 **** 23.4 0.40 41.3 0.7 0.0 1.00 42.0 1.00 42.0 5	0.09 23.4 0.40 41.3 0.7 0.0 1.00 42.0 1.00 42.0	0.03 23.4 0.12 38.8 0.1 0.0 1.00 38.9 1.00	0.04 23.4 0.19 39.4 0.2 0.0 1.00 39.6 1.00 39.6	0.04 23.4 0.20 39.4 0.3 0.0 1.00 39.7 1.00 39.7



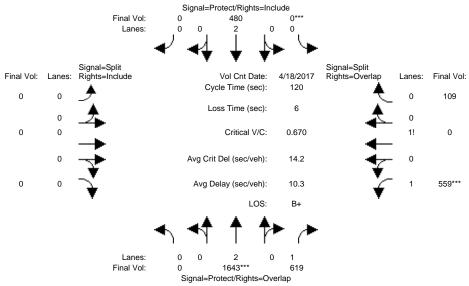
		Signal=Flotect/N	ignis=include							
Street Name:		Foothill Exp					Main			
Approach:	North Bo	ound S	outh Bo	und	Εá	ast Bo	und	We	est Bo	und
Movement:	L - T	- R L	- T	- R	L -	- T	- R	L -	- T	- R
Min. Green:	9 45	45 2:	2 58	58	28	28	28	28	28	28
Y+R:	4.0 4.0	4.0 4.	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	•				•					
Volume Module										
Base Vol:	60 420	107 24	9 1241	274	26	132	42	76	153	63
Growth Adj:			1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:	60 420	107 24	9 1241	274	26	132	42	76	153	63
Added Vol:	0 0	0	0	0	0	0	0	0	0	0
PasserByVol:	0 0	0	0	0	0	0	0	0	0	0
Initial Fut:	60 420	107 24	9 1241	274	26	132	42	76	153	63
User Adj:	1.00 1.00	1.00 1.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00 1.00	1.00 1.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60 420	107 24	9 1241	274	26	132	42	76	153	63
Reduct Vol:	0 0	0	0 0	0	0	0	0	0	0	0
Reduced Vol:	60 420	107 24	9 1241	274	26	132	42	76	153	63
PCE Adj:	1.00 1.00	1.00 1.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00 1.00	1.00 1.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	60 420	107 24	9 1241	274	26	132	42	76	153	63
Saturation F.	low Module									
Sat/Lane:	1900 1900	1900 190	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92 1.00		2 1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00 2.00	1.00 1.0	2.00	1.00	1.00	0.76	0.24	1.00	1.00	1.00
Final Sat.:	1750 3800	1750 175	3800	1750	1750	1366	434	1750	1900	1750
Capacity Ana	lysis Modul	Le:								
Vol/Sat:	0.03 0.11	0.06 0.1	1 0.33	0.16	0.01	0.10	0.10	0.04	0.08	0.04
Crit Moves:	***	***	*			****				
Green Time:	8.0 40.0	40.0 19.	5 51.5	51.5	24.9	24.9	24.9	24.9	24.9	24.9
Volume/Cap:	0.41 0.26	0.15 0.6	0.60	0.29	0.06	0.37	0.37	0.17	0.31	0.14
Uniform Del:	46.5 20.2	19.1 39.	1 16.7	13.3	29.6	32.3	32.3	30.5	31.7	30.3
IncremntDel:	1.8 0.1	0.1 5.	7 0.5	0.2	0.1	0.5	0.5	0.2	0.4	0.1
InitQueuDel:	0.0 0.0	0.0 0.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00 1.00	1.00 1.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	48.3 20.3	19.2 45.	17.2	13.5		32.8	32.8	30.7	32.1	30.4
User DelAdj:	1.00 1.00	1.00 1.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.3 20.3	19.2 45.	1 17.2	13.5	29.7	32.8	32.8	30.7	32.1	30.4
LOS by Move:	D C+	B-) B	В	С	C-	C-	С	C-	С
HCM2kAvgQ:	2 4	2	9 14	5	1	5	5	2	4	2
Note: Queue	reported is	s the number	r of ca	rs per	lane					



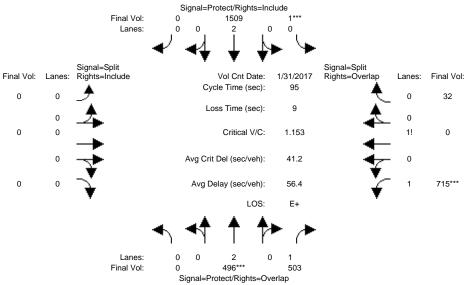
Signal=Protect/Rights=Include												
Street Name:		Ŧ	Foothil	1 Exp	W.Y.				Main	St		
						und	Ea	ast. Bo			est Bo	und
Movement:			- R			- R				L -		- R
Min. Green:	13	72	72	12		71	26			26		26
Y+R:	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0
Volume Module							'		'	1		'
Base Vol:		1285	126	66	381	22	56	108	45	45	77	73
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:		1285	126	66	381	22	56	108	45	45	77	73
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Proj Trips:	0	0	0	-1		0	0	0	0	0	0	1
Initial Fut:		1285	126	65	381	22	56	108	45	45	77	74
User Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
_	45		126	65	381	22	56	108	45	45	77	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:			126	65	381	22	56	108	45	45	77	74
PCE Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
_			126	65		22	56		45	45	77	74
FinalVolume:												
Saturation Fl												
		1900		1000	1900	1900	1000	1900	1900	1 0 0 0	1900	1000
Sat/Lane:			0.92					0.95				1900 0.92
Adjustment:					1.00	0.92			0.95		1.00	
Lanes:		2.00	1.00		2.00	1.00		0.71	0.29		1.00	1.00
Final Sat.:			1750		3800	1750		1271	529		1900	1750
Capacity Anal	,											
Vol/Sat:	_	0.34		0 04	0 10	0.01	0 03	0.09	0.09	0 03	0 04	0 04
Crit Moves:	0.03	0.34	0.07	****	0.10	0.01	0.03	****	0.09	0.03	0.04	0.04
	11 7	C1 0			C1 0	C1 0	22 4		22.4	22.4	22.4	23.4
Green Time:		64.9	64.9		64.0	64.0		23.4	23.4		23.4	
Volume/Cap:	0.24		0.12		0.17	0.02		0.40	0.40		0.19	0.20
Uniform Del:			11.0		11.8	10.8		41.3	41.3		39.4	39.4
IncremntDel:			0.1	1.4	0.0	0.0	0.2	0.7	0.7	0.1	0.2	0.3
InitQueuDel:		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
Delay/Veh:		15.8	11.1		11.9	10.8		42.0	42.0		39.6	39.7
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:			11.1		11.9	10.8		42.0	42.0		39.6	39.7
LOS by Move:		В	B+	D-	B+	B+	D	D	D	D+	D	D
HCM2kAvgQ:	2	14	2	3	3	0	2		5	1	2	2
Note: Queue	report	ted is	s the r	number	of ca	rs per	lane					



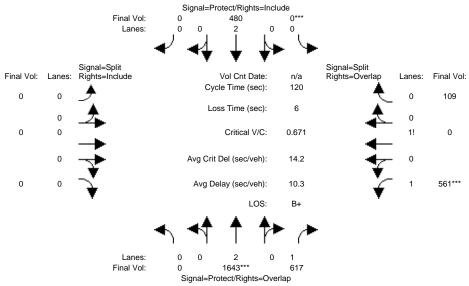
			Signal=	=Protect/Rig	hts=Include)						
Street Name:		F	oothil	ll Exp	V.V.				Main	St		
	No				South Bound			ast Bo			est Bo	uind
Movement:		- T				- R					- T	
Min. Green:			45		58	58		28		28		28
Y+R:			4.0	4.0		4.0			4.0			4.0
1+K:	4.0							4.0		4.0		
Volume Module					1041	0.5.4	0.6	1.00	4.0		4.50	6.0
Base Vol:	60	420	107		1241	274	26		42	76		63
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:		420	107		1241	274	26	132	42	76	153	63
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Proj Trips:	0	0	0	1	0	0	0	0	0	0	0	-1
Initial Fut:	60	420	107	250	1241	274	26	132	42	76	153	62
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	420	107	250	1241	274	26	132	42	76	153	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	420	107	250	1241	274	26	132	42	76	153	62
PCE Adi:			1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
_			1.00		1.00	1.00		1.00	1.00		1.00	1.00
FinalVolume:			107		1241	274	26		42	76		62
Saturation Fl			,			'	ı		'	1		'
Sat/Lane:			1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:			0.92		1.00	0.92		0.95	0.95		1.00	0.92
-	1.00		1.00		2.00	1.00		0.76			1.00	1.00
Final Sat.:						1750		1366			1900	1750
Final Sat.:					3800							
Capacity Anal	_			0 1 1	0 00	0 16	0 01	0 10	0 10	0 0 4	0 00	0 0 4
Vol/Sat:	0.03		0.06		0.33	0.16	0.01	0.10	0.10	0.04	0.08	0.04
Crit Moves:		****		****				****				
	8.0		40.0		51.5	51.5		24.9	24.9		24.9	24.9
Volume/Cap:			0.15		0.60	0.29		0.37	0.37		0.31	0.14
Uniform Del:			19.1		16.7	13.3		32.3	32.3		31.7	30.2
IncremntDel:	1.8	0.1	0.1	5.8	0.5	0.2	0.1	0.5	0.5	0.2	0.4	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	48.3	20.3	19.2	45.2	17.2	13.5	29.7	32.8	32.8	30.7	32.1	30.4
User DelAdj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:			19.2		17.2	13.5		32.8	32.8		32.1	30.4
LOS by Move:			В-	D	В	В	C	C-	C-	С	C-	C
HCM2kAvq0:	2		2	9	14	5	1		5	2		2
Note: Queue 1							_	-	,	_	-	_
111. <u>g</u> acac 1	-1-01		1					-				



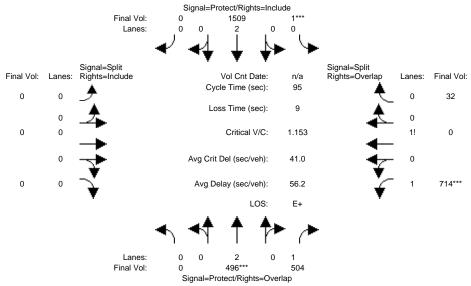
Street Name: Foothill Expressway San Antonio Road Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R L - T - R L - T - R
Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R L - T - R L - T - R Min. Green: 0 77 77 0 77 0 0 0 0 37 0 37 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Movement: L - T - R L - T - R L - T - R L - T - R L - T - R Min. Green: 0 77 77 0 77 0 0 0 0 37 0 37 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Min. Green: 0 77 77 0 77 0 0 0 0 37 0 37 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Min. Green: 0 77 77 0 77 0 0 0 0 37 0 37 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Volume Module: >> Count Date: 18 Apr 2017 << 8:00 to 9:00 AM
Base Vol: 0 1643 619 0 480 0 0 0 559 0 109
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
Initial Bse: 0 1643 619 0 480 0 0 0 559 0 109
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 1643 619 0 480 0 0 0 559 0 109
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
PHF Volume: 0 1643 619 0 480 0 0 0 559 0 109
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1643 619 0 480 0 0 0 559 0 109
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
FinalVolume: 0 1643 619 0 480 0 0 0 559 0 109
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 190
Adjustment: 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.83 1.00 0.92
Lanes: 0.00 2.00 1.00 0.00 2.00 0.00 0.00 0.00
Final Sat.: 0 3800 1750 0 3800 0 0 0 2738 0 454
Capacity Analysis Module:
Vol/Sat: 0.00 0.43 0.35 0.00 0.13 0.00 0.00 0.00 0.00 0.20 0.00 0.24
Crit Moves: **** ****
Green Time: 0.0 77.0 120.0 0.0 77.0 0.0 0.0 0.0 43.0 0.0 43.0
Volume/Cap: 0.00 0.67 0.35 0.00 0.20 0.00 0.00 0.00 0.00 0.57 0.00 0.67
Uniform Del: 0.0 13.6 0.0 0.0 8.8 0.0 0.0 0.0 31.1 0.0 32.5
IncremntDel: 0.0 0.8 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.7 0.0 1.8
InitOueuDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.
Delay Adj: 0.00 0.46 0.00 0.46 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 7.0 0.1 0.0 4.1 0.0 0.0 0.0 31.7 0.0 34.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
AdjDel/Veh: 0.0 7.0 0.1 0.0 4.1 0.0 0.0 0.0 31.7 0.0 34.3
LOS by Move: A A A A A A A A C A C-
HCM2kAvqO: 0 11 1 0 2 0 0 0 10 0 14
Note: Queue reported is the number of cars per lane.
Note. Queue reported to the number of care per rane.



			Signal=r	-ioleci/Rigi	ils=Overia	þ						
Street Name:		Foot	hill E	xpress	sway			Sa	n Anto	onio Ro	oad	
Approach:	Noi	rth Bo	und	Soı	ıth Bo	ound	Εá	ast Bo	und	We	est Bo	ound
Movement:	L -	- T	- R	L -	- T	- R	L -	- Т	- R	L -	- Т	- R
Min. Green:	0	68	68	0	68	0	0	0	0	27	0	27
Y+R:			4.0		4.0			4.0		4.0	4.0	4.0
Volume Module	e: >>	Count	Date:	31 Ja	an 201	7 << 4	:30 to	5:30	PM			
Base Vol:	0	496	503		1509	0	0	0	0	715	0	32
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	496	503	1	1509	0	0	0	0	715	0	32
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:			503	1	1509	0	0	0	0	715	0	32
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
_	0	496	503	1	1509	0	0	0	0	715	0	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	496	503	1	1509	0	0	0	0	715	0	32
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	496	503	1	1509	0	0	0	0	715	0	32
Saturation Fl	Low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.95	0.65	0.92	0.92	1.00	0.92	0.62	1.00	0.92
Lanes:	0.00	2.00	1.00	0.01	1.99	0.00	0.00	0.00	0.00	1.94	0.00	0.06
Final Sat.:				2			0		0		0	99
Capacity Anal	Lysis	Modul	e:									
Vol/Sat:			0.29	0.61	0.61	0.00	0.00	0.00	0.00	0.31	0.00	0.32
Crit Moves:		****		***						****		
	0.0		86.8	0.0	62.1	0.0	0.0	0.0	0.0	24.7	0.0	24.7
Volume/Cap:	0.00	0.20	0.31	XXXX	0.93	0.00	0.00	0.00	0.00	1.21	0.00	1.24
Uniform Del:	0.0	7.2	0.5	0.0	15.9	0.0	0.0	0.0	0.0	38.5	0.0	38.5
<pre>IncremntDel:</pre>	0.0	0.0	0.1	0.0	10.1	0.0	0.0	0.0	0.0	108.5	0.0	123.8
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:	0.00	1.00	1.00	0.00	2.26	0.00	0.00	0.00	0.00	1.00	0.00	1.00
4 '	0.0	7.2	0.7	0.0	46.1	0.0	0.0	0.0	0.0	147.0	0.0	162.3
User DelAdj:			1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:			0.7	0.0	46.1	0.0	0.0	0.0	0.0	147.0	0.0	162.3
LOS by Move:	A		A	A	D	A	A	A	A	F	A	F
<i>J</i> ~	0		2	33		0	0		0	22	0	35
Note: Queue r	report	ted is	the n	umber	of ca	ars per	lane					



			Signal=P	rotect/Righ	nts=Overlap)							
Street Name:	: Foothill Expressway San Antonio Road												
Approach:	No	rt.h Bo	ound	Soi	it.h Bo	und	East Bound West Bound						
Movement:			- R			- R				L -			
Min. Green:			77		77			0		-	0	37	
Y+R:		4.0	4.0	-	4.0	4.0		4.0	4.0	4.0		4.0	
				1									
Volume Module						ı	1		ı	1		ı	
		1643	619	0	480	0	0	0	0	559	0	109	
Growth Adj:			1.00		1.00	1.00		1.00	1.00	1.00		1.00	
Initial Bse:			619	0	480	0	0	0	0	559	0	109	
Added Vol:	0	1043	019	0	0	0	0	0	0	0	0	0	
Proj Trips:		-		0	0	0	0	0	0	2	0	0	
			-2	0		0	0	0	0		0		
Initial Fut:			617	-	480		-			561	-	109	
_		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	
	0		617	0	480	0	0	0	0	561	0	109	
Reduct Vol:		0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:			617	0	480	0	0	0	0	561	0	109	
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		1.00	
FinalVolume:			617		480	0	0	-	0		0	109	
Saturation Fl													
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	
Lanes:	0.00	2.00	1.00		2.00	0.00	0.00	0.00	0.00	1.74	0.00	0.26	
Final Sat.:				0		0	0		0	2739		453	
Capacity Anal	Lysis	Modul	Le:										
Vol/Sat:	0.00	0.43	0.35	0.00	0.13	0.00	0.00	0.00	0.00	0.20	0.00	0.24	
Crit Moves:		****		****						****			
Green Time:	0.0	77.0	120.0	0.0	77.0	0.0	0.0	0.0	0.0	43.0	0.0	43.0	
Volume/Cap:	0.00	0.67	0.35	0.00	0.20	0.00	0.00	0.00	0.00	0.57	0.00	0.67	
Uniform Del:			0.0	0.0	8.8	0.0	0.0	0.0	0.0	31.0	0.0	32.5	
IncremntDel:	0.0	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	1.8	
InitQueuDel:		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Delay Adj:		0.46	0.00	0.00	0.46	0.00	0.00	0.00	0.00	1.00	0.00	1.00	
Delay/Veh:			0.1	0.0	4.1	0.0	0.0	0.0	0.0	31.7	0.0	34.3	
User DelAdj:			1.00		1.00	1.00		1.00	1.00	1.00		1.00	
AdjDel/Veh:			0.1	0.0		0.0	0.0	0.0	0.0	31.7	0.0	34.3	
LOS by Move:			Α	0.0 A		A	0.0 A		0.0 A	C C	0.0 A	C-	
HCM2kAvqO:	0		1	0		0	0		0	10	0	14	
Note: Queue 1							-	-	0	10	J		
			11		J_ 04	PCI		-					



Street Name: Approach:	Foo	thill Expres	ssway	r		Sa	n Anto	onio Ro	oad	
Movement:	L - T			- R			- R		- T	
	0 68		68			0			0	
Y+R:	4.0 4.0				4.0			4.0		4.0
Volume Module										
Base Vol:	0 496		L 1509	0	0	0	0	715	0	32
Growth Adi:			1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:			L 1509	0	0	0	0	715	0	32
Added Vol:	0 0) 0	0	0	0	0	713	0	0
Proj Trips:) 0	0	0	0	0	-1	-	0
Initial Fut:	0 496		L 1509	0	0	0	0	714	0	32
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:			L 1509	0	0	0	0	714	0	32
Reduct Vol:) 0	0	0	0	0	714	0	0
Reduced Vol:			L 1509	0	0	0	0	714	0	32
PCE Adi:			1.00	1.00		1.00			1.00	
MLF Adj:			1.00	1.00		1.00	1.00		1.00	1.00
FinalVolume:			L 1509	0	0		0		0	32
				-			-			
Saturation F				!	ı			1 1		'
Sat/Lane:			1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:			5 0.65	0.92		1.00			1.00	
_	0.00 2.00		1.99	0.00		0.00			0.00	0.06
Final Sat.:			2 2478				0		0	99
Capacity Ana	lysis Modu	le:								
Vol/Sat:	0.00 0.13	0.29 0.63	0.61	0.00	0.00	0.00	0.00	0.31	0.00	0.32
Crit Moves:	****	***	+					****		
Green Time:	0.0 62.1	86.8 0.0	62.1	0.0	0.0	0.0	0.0	24.7	0.0	24.7
Volume/Cap:	0.00 0.20	0.32 xxxx	0.93	0.00	0.00	0.00	0.00	1.21	0.00	1.24
Uniform Del:	0.0 7.2	0.5 0.0	15.9	0.0	0.0	0.0	0.0	38.5	0.0	38.5
<pre>IncremntDel:</pre>	0.0 0.0	0.1 0.0	10.1	0.0	0.0	0.0	0.0	107.8	0.0	123.1
InitQueuDel:		0.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00 1.00	1.00 0.00	2.26	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:		0.7 0.0	46.1	0.0	0.0	0.0	0.0	146.3		161.6
User DelAdj:		1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0 7.2	0.7 0.0	46.1	0.0	0.0	0.0	0.0	146.3	0.0	161.6
LOS by Move:			A D	A	A	A	A	F	A	F
HCM2kAvgQ:				0	0	-	0	22	0	35
Note: Queue	reported i	s the number	of ca	ars per	lane	•				

Appendix CVolume Summary Tables

Intersection Number: 1
Traffix Node Number: 1

Intersection Name: First Street and Lyell Street

Peak Hour: A

Count Date: 3/12/2019 2018 School Year Adjustment 1.1

					М	ovemer	nts						
	North App	oroach		East A	pproac	h	South A	Approac	h	West	Approad	ch	
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	1	126	14	25	1	9	13	142	3	1	1	0	336
Project Trips	0	0	-1	1	0	2	-2	0	0	0	0	0	0
Existing Plus Project Conditions	1	126	13	26	1	11	11	142	3	1	1	0	336

Intersection Number: 2
Traffix Node Number: 2

Intersection Name: Alley and Lyell Street

Peak Hour: AM Count Date: 6/12/2018

					М	ovemer	nts						
	North App	oroach		East A	pproac	h	South A	Approac	h	West	Approa	ch	•
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	1	0	1	8	22	0	0	0	0	0	47	11	90
Existing Conditions for School Yr 2018	1	0	1	9	24	0	0	0	0	0	52	12	99
Project Trips	3	0	1	-2	0	0	0	0	0	0	0	-3	-1
Existing Plus Project Conditions	4	0	2	7	24	0	0	0	0	0	52	9	98

Intersection Number: 3
Traffix Node Number: 3

Intersection Name: Second Street and Lyell Street

Peak Hour: AM
Count Date: 6/12/2018

					M	ovemer	nts						
	North App	oroach		East A	pproac	h	South A	pproac	h	West	Approa	ch	
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	6	0	31	91	23	2	0	1	0	1	45	3	203
Existing Conditions for School Yr 2018	7	0	34	100	25	2	0	1	0	1	50	3	223
Project Trips	0	0	0	0	-2	0	0	0	0	0	1	0	-1
Existing Plus Project Conditions	7	0	34	100	23	2	0	1	0	1	51	3	222

Intersection Number: 4
Traffix Node Number: 4

Intersection Name: San Antonio Road and Lyell Street

Peak Hour: AM
Count Date: 3/12/2019

					M	ovemer	nts						
	North Ap	proach		East A	pproac	h	South A	Approac	h	West	Approa	ch	
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	18	647	46	53	3	1	10	701	83	15	5	5	1587
Project Trips	-2	0	0	0	0	0	0	0	0	0	0	1	-1
Existing Plus Project Conditions	16	647	46	53	3	1	10	701	83	15	5	6	1586

Intersection Number: 5
Traffix Node Number: 5

Intersection Name: San Antonio Road and First Street/Cuesta Drive

Peak Hour: AM

Count Date: 3/12/2019

					М	ovemen	its						
	North App	proach		East A	pproac	:h	South /	Approac	h	West /	Approa	ch	
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	4	553	81	212	76	140	8	680	62	35	84	13	1948
Project Trips	0	0	0	0	0	0	0	0	-2	2	0	0	0
Existing Plus Project Conditions	4	553	81	212	76	140	8	680	60	37	84	13	1948

Intersection Number: 6
Traffix Node Number: 5214

Intersection Name: San Antonio Road and Foothill Expressway

Peak Hour: AM
Count Date: 4/18/2017

					M	ovemen	ts						
	North Ap	proach		East A	pproac	:h	South A	Approacl	า	West A	Approac	ch	
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	0	480	0	109	0	559	619	1643	0	0	0	0	3410
Project Trips	0	0	0	0	0	2	-2	0	0	0	0	0	0
Existing Plus Project Conditions	0	480	0	109	0	561	617	1643	0	0	0	0	3410

425 First Street, Los Altos AM Peak-Hour

Intersection Number: 7
Traffix Node Number: 9

Intersection Name: First Street and Main Street

Peak Hour: AM
Count Date: 3/12/2019

					М	ovemer	nts						
	North App	oroach		East A	pproac	h	South A	Approac	h	West	Approad	ch ch	
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	51	54	19	18	96	16	27	53	45	90	166	58	693
Project Trips	0	0	0	0	0	0	0	0	1	-1	0	0	0
Existing Plus Project Conditions	51	54	19	18	96	16	27	53	46	89	166	58	693

Intersection Number: 8
Traffix Node Number: 10

Intersection Name: Foothill Expressway and Main Street

Peak Hour: AM
Count Date: 3/12/2019

					М	ovemer	nts						
	North Ap	proach		East A	pproac	h	South /	Approacl	1	West	Approac	ch	
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	22	381	66	73	77	45	126	1285	45	45	108	56	2329
Project Trips	0	0	-1	1	0	0	0	0	0	0	0	0	0
Existing Plus Project Conditions	22	381	65	74	77	45	126	1285	45	45	108	56	2329

425 First Street, Los Altos PM Peak-Hour

Intersection Number: Traffix Node Number:

Intersection Name: First Street and Lyell Street

Peak Hour:

6/12/2018 Count Date: 2018 School Year Adjustment 1.1

					М	ovemer	nts						
	North App	oroach		East A	pproac	h	South A	pproac	n n	West A	Approad	ch	
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	5	281	23	22	0	20	14	164	1	2	0	5	537
Existing Conditions for School Yr 2018	6	309	25	24	0	22	15	180	1	2	0	6	590
Net Project Trips	0	0	1	-1	0	-1	1	0	0	0	0	0	0
Existing Plus Project Conditions	6	309	26	23	0	21	16	180	1	2	0	6	590

Intersection Number: Traffix Node Number:

Intersection Name: Alley and Lyell Street

Peak Hour:

Count Date: 3/12/2019

					М	ovemer	nts						
	North App	oroach		East A	pproac	h	South A	pproac	h	West	Approad	ch	
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	9	0	7	0	31	0	0	0	0	0	34	5	86
Net Project Trips	-2	0	-1	1	0	0	0	0	0	0	0	2	0
Existing Plus Project Conditions	7	0	6	1	31	0	0	0	0	0	34	7	86

Intersection Number: Traffix Node Number: 3

Second Street and Lyell Street Intersection Name:

Peak Hour: РМ Count Date: 6/12/2018

					M	ovemer	nts						
	North App	oroach		East A	pproac	h	South A	pproac	h	West /	Approad	ch	
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	6	1	78	51	14	8	0	2	0	1	20	21	202
Existing Conditions for School Yr 201	ŧ 7	1	86	56	15	9	0	2	0	1	22	23	222
Net Project Trips	0	0	0	0	1	0	0	0	0	0	-1	0	0
Existing Plus Project Conditions	7	1	86	56	16	9	0	2	0	1	21	23	222

Intersection Number: 4
Traffix Node Number: 4

Intersection Name: San Antonio Road and Lyell Street

Peak Hour: PM Count Date: 6/12/2018

	Movements												
	North Ap	North Approach			East Approach			South Approach			West Approach		
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	17	752	74	22	0	1	5	444	49	70	10	9	1453
Existing Conditions for School Yr 201	ŧ 19	827	81	24	0	1	6	488	54	77	11	10	1598
Net Project Trips	1	0	0	0	0	0	0	0	0	0	0	-1	0
Existing Plus Project Conditions	20	827	81	24	0	1	6	488	54	77	11	9	1598

Intersection Number: 5
Traffix Node Number: 5

Intersection Name: San Antonio Road and First Street/Cuesta Drive

Peak Hour: PM

Count Date: 6/12/2018

	Movements												
	North App	North Approach			East Approach			South Approach			West Approach		
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	11	688	110	128	84	27	11	354	57	74	205	20	1769
Existing Conditions for School Yr 2018	12	757	121	141	92	30	12	389	63	81	226	22	1946
Net Project Trips	0	0	0	0	0	0	0	0	1	-1	0	0	0
Existing Plus Project Conditions	12	757	121	141	92	30	12	389	64	80	226	22	1946

Intersection Number: 6
Traffix Node Number: 5214

Intersection Name: San Antonio Road and Foothill Expressway

Peak Hour: PM
Count Date: 1/31/2017

	Movements												
	North Approach			East Approach			South Approach			West Approach			•
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	0	1509	1	32	0	715	503	496	0	0	0	0	3256
Existing Conditions for School Yr	0	1509	1	32	0	715	503	496	0	0	0	0	3256
Net Project Trips	0	0	0	0	0	-1	1	0	0	0	0	0	0
Existing Plus Project Conditions	0	1509	1	32	0	714	504	496	0	0	0	0	3256

425 First Street, Los Altos PM Peak-Hour

Intersection Number: 7
Traffix Node Number: 9

Intersection Name: First Street and Main Street

Peak Hour: PM Count Date: 3/12/2019

	Movements												
	North App	North Approach			East Approach			South Approach			West Approach		
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	83	138	23	25	137	27	34	86	93	135	163	53	997
Net Project Trips	0	0	0	0	0	0	0	0	-1	1	0	0	0
Existing Plus Project Conditions	83	138	23	25	137	27	34	86	92	136	163	53	997

Intersection Number: 8
Traffix Node Number: 10

Intersection Name: Foothill Expressway and Main Street

Peak Hour: PM

Count Date: 10/6/2016

	Movements												
	North Ap	North Approach			East Approach			South Approach			West Approach		
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	274	1241	249	63	153	76	107	420	60	42	132	26	2843
Net Project Trips	0	0	1	-1	0	0	0	0	0	0	0	0	0
Existing Plus Project Conditions	274	1241	250	62	153	76	107	420	60	42	132	26	2843