Hexagon Transportation Consultants, Inc.

Memorandum

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Date: December 20, 2018

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

From: Gary Black Selvi Sivaraj

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 onebedroom and eight two-bedroom units. The project proposes to demolish the existing 5,000 squarefoot 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 puzzle mechanical parking system in an underground parking garage (see Figure 2B).

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)

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.



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Figure 2A Project Site Plan







Figure 2B Project Garage Floor 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. Because the 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.



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

Table 1Signalized Intersection Level of Service Definitions Based on Delay

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 stopcontrolled 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.)										
A	Little or no traffic delay	10.0 or less										
В	Short traffic delays	10.1 to 15.0										
C Average traffic delays 15.1 to 25.0												
D	Long traffic delays	25.1 to 35.0										
E	Very long traffic delays	35.1 to 50.0										
F	Extreme traffic delays	greater than 50.0										
Source: Transportation Re	search Board, 2000 Highway Capacity Ma	anual (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, <u>or</u>
- 2. An intersection that operates below its level of service standard under no-project conditions experiences an increase in critical-movement delay of four (4) or more seconds, and 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. 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			Peak	Count	Avg Delay	
Number	Intersection	Control	Hour	Date	(sec/ven)	LOS
		T 111 O		00/40/40		
1	First Street and Lyell Street	Two-Way Stop	AM	06/12/18	11.4	В
	(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	06/12/18	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	10.0	А
4	San Antonio Road and Lyell Street	Two-Way Stop	AM	06/12/18	21.7	С
	(Unsignalized Intersection)		PM	06/12/18	25.0	D
5	San Antonio Road and First Street/Cuesta Drive	Signal	AM	06/12/18	22.6	C+
			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+
Note: For * Denotes	two-way stop controlled intersections, the average a CMP designated intersection	delay and LOS is	reporte	d for the wo	rst approach	L

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.

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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.

				А	M Pea	ak Hou	ır		PM P	eak Ho	our
Land Use	Size	Daily Rate	Daily Trips	Rate	In	Out	Total Trips	Rate	In	Out	Total Trips
<u>Proposed Use</u> Townhomes ¹ Existing Land Use	20 units	7.32	146	0.46	2	7	9	0.56	7	4	11
Office ²	5,000 sq.ft.	16.19	(81)	1.92	(8)	(2)	(10)	2.45	(4)	(8)	(12)
Net New Trips	:		65		(6)	5	(1)		3	(4)	(1)
<u>Notes:</u> ¹ Low-Rise Multifamily Hou Urban/Suburban settings	ising (Land Use 2 are used.	220), <i>ITE</i>	Trip Gene	ration Mar	nual, 1	0th Edi	tion (201	7), average	rates	for Ge	neral

Table 4Project Trip Generation Estimates

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

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).



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 5Existing Plus Project Intersection Levels of Service

					Existi	ng	Ex	isting	+ Projec	t
#	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	06/12/18	11.4	В	11.3	В	-	-
	(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	06/12/18	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	10.0	Α	10.0	Α	-	-
4	San Antonio Road and Lyell Street	Two-Way Stop	AM	06/12/18	21.7	С	22.2	С	-	-
	(Unsignalized Intersection)		PM	06/12/18	25.0	D	24.4	С	-	-
5	San Antonio Road and First Street/Cuesta Dri	Signal	AM	06/12/18	22.6	C+	22.5	C+	5.9	-0.113
			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+	-27.0	-0.482
			PM	01/31/17	56.4	E+	56.2	E+	-0.2	0.000
Note * De	: For two-way stop controlled intersections, the notes a CMP designated Intersection	average delay a	and LO	S is report	ted for the v	vorst a	approach.			





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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 one-level underground parking garage with 29 parking spaces, including 28 parking spaces in the puzzle parking system and one van accessible parking space. Thus, the project would meet the City's overall parking requirement. However, nearly all onsite parking spaces would be provided in the puzzle parking system, which would require residents to use a remote control to park their car.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.

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 December 18, 2018 (see Figures 2A and 2B).

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 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 addition of project trips would increase the delays for vehicles exiting the alley onto Lyell Street by approximately seven seconds during AM and 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 curved garage ramp is shown to have a maximum slope of 20% with 10% transitions on each side. These dimensions are acceptable. Commonly cited parking publications recommend grades of up to 16% on ramps where no parking is permitted, but grades of up to 20% are cited as acceptable when ramps are covered (i.e. protected from weather) and not used for pedestrian walkways. It should be noted that the vast majority of ramp users will be residents, and thus, will quickly become accustomed to steeper grades.

Garbage Collection and Loading Space

The site plan shows a trash room located near the northwest corner of 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 and Puzzle Parking Lift

The on-site circulation was reviewed in accordance with generally accepted traffic engineering standards. The project would provide 90-degree parking stalls designed around Klaus TrendVario 4300 three car stackers in the parking garage. According to the City's Zoning Code, two-way drive aisles adjacent to 90-degree parking are required to be a minimum of 26 feet wide to provide sufficient room for vehicles to back out of the parking stalls. The project site plan shows one van accessible parking space located at the entrance of the parking garage near the bottom of the ramp. Drivers would be required to undertake a three-point turn in order to park in this space. The remaining 28 parking spaces would be served by a drive aisle ranging from 26 to 35 feet in width and the aforementioned puzzle lift system. The lift system shown on the project plans would stack three vehicles in each parking bay – two levels of parking at basement level and one below in the "pit". Upon arriving at the garage, future patrons would utilize a remote to open their designated, secured, parking bay. If their vehicle is located in the pit, the puzzle lift system will shift parked vehicles on the upper level horizontally or vertically, as needed, to make space to raise the vehicle



on the lower level. For some of the assigned puzzle lift parking spaces, three-point turns may be required to enter the puzzle lift parking bay. While not ideal, this situation is generally considered acceptable in urban areas where land is scarce and the onsite traffic volumes are very low. According to AASHTO, the standard size of a passenger car design vehicle is 4.25 feet (height) x 7 feet (width) x 19 feet (length). Per the project site plan, the parking lift would accommodate sedans and mid-size trucks up to 5.5 feet (height) x 9.17 feet (width) x 18.0 feet (length). Full-sized SUVs would not fit in the parking lifts and, therefore, could not use the garage. It is assumed that potential residents with large vehicles would self-select not to live in the project.

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.

Full-sized SUVs would not fit in the parking lifts and, therefore, could not use the garage. It is assumed that potential residents with large vehicles would self-select not to live in the project. Also, the parking lifts would not accommodate visitors, so visitors would park on First Street or Lyell Street.



Appendix A Traffic Counts



Location: 1 DWY ALLEY & 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

(303) 216-2439 www.alltrafficdata.net

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		LYEL	L ST			LYELI	ST			DWY A	LLEY			DWY A	ALLEY							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Peo	destraiı	1 Cross	ings
 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

	Eastbound						bound			North	bound			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: 2 FIRST ST & 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

(303) 216-2439 www.alltrafficdata.net

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Traffic Counts

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		DV	VY			LYELI	ST			FIRS	T ST			FIRS	T ST							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Peo	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	0	0	0	0	1	2	1	0	13	1	0	0	13	0	31	160	4	1	0	0
7:15 AM	0	1	0	0	0	0	0	4	0	0	15	3	0	2	17	0	42	204	1	2	0	0
7:30 AM	0	0	0	0	0	0	0	2	0	0	21	1	0	3	7	0	34	221	0	2	2	0
7:45 AM	0	0	0	0	0	1	0	0	0	0	26	5	0	1	20	0	53	263	0	0	0	0
8:00 AM	0	0	0	0	1	1	0	2	1	0	37	5	0	0	28	0	75	293	0	1	0	0
8:15 AM	0	0	0	0	0	0	0	2	0	0	37	2	1	0	17	0	59		0	2	4	1
8:30 AM	0	0	0	0	0	1	0	5	0	0	38	5	0	11	16	0	76		1	1	8	0
8.42 AM	0	0	1	0	0	1	0	9	0	1	38	4	0	27	1	1	83		1	1	4	0

Peak Rolling Hour Flow Rates

		East	bound			West	bound			North	bound			South	nbound		
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
Lights	0	0	1	0	1	3	0	17	1	1	146	16	1	35	57	1	280
Mediums	0	0	0	0	0	0	0	1	0	0	4	0	0	3	3	0	11
Total	0	0	1	0	1	3	0	18	1	1	150	16	1	38	62	1	293

Peak Hour - Pedestrians/Bicycles in Crosswalk



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

(303) 216-2439 www.alltrafficdata.net

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		LYEL	L ST			LYELI	LST			DW	Ϋ́			SECO	ND ST							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Peo	destraiı	1 Cross	ings
 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	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

	Eastbound						bound			North	bound			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	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: 4 SAN ANTONIO RD & 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

(303) 216-2439 www.alltrafficdata.net

Peak Hour - All Vehicles (856) 519 0.89 682 (1,155) SAN ANTONIO RD Î 469 17 ω 0 LYELL ST (60) (192) ٥ 2 36 116 Ν 0.75 0.48 W 0.86 E 73 S 50 0 (92) (69) ٦ t 1 LYELL ST 9 N 94 643 SAN ANTONIO RD 528 0.90 748 (1,267) (859)

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

			LYEL	L ST			LYELL ST				N ANTO	onio r	RD	SA	N ANT	ONIO F	RD						
	Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Peo	lestrair	1 Crossi	ings
_	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	5	0	0	1	0	0	10	69	0	0	3	44	2	135	899	1	0	0	1
	7:15 AM	0	3	0	2	0	0	0	2	0	24	118	0	0	2	86	2	239	1,071	0	1	0	3
	7:30 AM	0	2	1	2	0	1	1	8	0	17	108	3	0	5	97	1	246	1,153	2	0	0	3
	7:45 AM	0	0	1	2	0	0	0	11	0	17	152	1	0	2	92	1	279	1,254	1	2	0	3
	8:00 AM	0	3	0	6	0	1	0	4	0	20	145	1	0	6	114	7	307	1,376	0	3	0	2
	8:15 AM	0	1	0	7	0	1	2	10	0	28	158	3	0	6	101	4	321		1	0	0	0
	8:30 AM	0	1	1	16	0	1	2	6	2	25	155	3	0	11	121	3	347		0	1	0	2
	8:45 AM	0	7	7	24	0	1	1	7	0	21	185	2	0	10	133	3	401		0	2	0	4

		East	bound			West	bound			North	bound			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	2	0	0	0	1	0	3
Lights	0	11	8	51	0	4	5	26	2	94	620	9	0	33	459	17	1,339
Mediums	0	1	0	2	0	0	0	1	0	0	21	0	0	0	9	0	34
Total	0	12	8	53	0	4	5	27	2	94	643	9	0	33	469	17	1,376



Location: 5 SAN ANTONIO RD & CUESTA DR 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

(303) 216-2439 www.alltrafficdata.net

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		FIRS	T ST		(CUESTA DR				N ANTO	DNIO R	D	SA	N ANT	ONIO F	RD						
Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Peo	lestrair	n Cross	ings
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	1	7	5	0	4	8	11	0	7	71	1	0	1	43	1	160	1,030	1	0	0	3
7:15 AM	0	3	6	4	0	6	9	31	0	7	110	0	0	8	78	1	263	1,234	0	0	0	1
7:30 AM	0	0	7	2	0	10	13	24	0	11	104	1	0	11	86	0	269	1,345	0	0	0	1
7:45 AM	0	2	13	6	0	13	18	26	0	16	143	0	0	8	92	1	338	1,469	0	0	0	0
8:00 AM	0	4	13	9	0	11	28	26	0	17	135	2	0	9	108	2	364	1,577	0	0	0	1
8:15 AM	0	0	10	8	0	15	20	40	0	13	150	2	0	21	93	2	374		0	0	0	0
8:30 AM	0	0	11	7	0	25	32	41	0	14	142	3	0	11	104	3	393		0	1	0	0
8:45 AM	0	0	0	0	0	31	21	45	1	20	164	0	0	29	130	5	446		0	0	0	2

		East	bound			West	bound			North	bound			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	1	0	0	0	0	2	0	5
Lights	0	3	33	21	0	82	100	150	1	61	570	7	0	69	430	12	1,539
Mediums	0	0	1	2	0	0	1	2	0	2	21	0	0	1	3	0	33
Total	0	4	34	24	0	82	101	152	1	64	591	7	0	70	435	12	1,577



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

(303) 216-2439 www.alltrafficdata.net



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		FC	DOTHI	LL EXP	Ϋ́	FC	OTHIL	L EXP	ſ				SA	N ANT	ONIO F	RD						
	Interval		Eastb	ound			Westb	ound			Northb	ound		South	bound			Rolling	Peo	destrair	1 Crossings	_
	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	١
	7:00 AM	0	0	48	0	0	0	293	80				0	64	0	9	494	2,645	0	0	0	1
	7:15 AM	0	0	60	0	0	0	325	107				0	77	0	5	574	2,978	0	0	0	1
	7:30 AM	0	0	104	0	0	0	355	163				0	113	0	14	749	3,214	0	0	0	1
	7:45 AM	0	0	112	0	0	0	387	169				0	154	0	6	828	3,359	0	0	0	1
	8:00 AM	0	0	119	0	0	0	412	147				0	131	0	18	827	3,410	0	0	0	I
	8:15 AM	0	0	117	0	0	0	371	144				0	148	0	30	810		0	0	0	l
	8:30 AM	0	0	131	0	0	0	449	147				0	142	0	25	894		0	0	0	
I	8:45 AM	0	0	113	0	0	0	411	181				0	138	0	36	879		0	0	0	ſ

	Eastbound									North	bound			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: 1 DWY ALLEY & 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

(303) 216-2439 www.alltrafficdata.net

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		LYEL	L ST			LYELL ST				DWY A	LLEY			DWY /	ALLEY							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Peo	destraiı	n Cross	ings
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru I	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
4:00 PM	0	0	4	0	0	0	3	1	0	1	0	0	0	0	0	2	11	58	0	0	1	0
4:15 PM	1	2	3	0	0	0	6	1	0	1	0	0	0	0	0	0	14	69	0	0	0	1
4:30 PM	0	0	3	0	0	0	4	1	0	1	0	0	0	2	0	2	13	78	0	0	0	0
4:45 PM	0	2	6	0	0	0	8	0	0	1	0	0	0	0	0	3	20	75	0	0	0	2
5:00 PM	0	0	7	1	0	0	3	0	0	1	0	2	0	4	0	4	22	72	0	0	0	0
5:15 PM	0	0	11	0	1	0	3	1	0	0	0	1	0	5	0	1	23		0	0	2	2
5:30 PM	0	4	1	1	0	0	3	0	0	0	0	0	0	1	0	0	10		0	0	0	4
5:45 PM	0	1	3	0	0	0	8	0	0	1	0	2	0	0	0	2	17		0	0	0	0

		East	bound			West	bound			North	bound			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	2	27	1	1	0	18	2	0	3	0	3	0	11	0	10	78
Mediums	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	27	1	1	0	18	2	0	3	0	3	0	11	0	10	78



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

(303) 216-2439 www.alltrafficdata.net

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Traffic Counts

			DV	VY			LYELL	ST			FIRST	ST			FIRS	T ST							
	Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Peo	destrair	1 Crossi	ings
	Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru F	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
	4:00 PM	0	0	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
I	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

Peak Rolling Hour Flow Rates

		East	bound			West	bound			North	bound			South	nbound		
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	0	5	0	2	0	20	0	22	0	1	164	14	0	23	281	5	537

Peak Hour - Pedestrians/Bicycles in Crosswalk





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

(303) 216-2439 www.alltrafficdata.net

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	Ϋ́			SECO	ND ST							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Peo	destrair	1 Crossi	ings
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru I	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	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	bound			North	bound			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

(303) 216-2439 www.alltrafficdata.net

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

	LYELL ST				LYELL ST				SA	N ANTO	onio f	RD	SAN ANTONIO RD									
Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Pec	lestrair	n Cross	ings
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	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

	Eastbound							Westbound				Northbound				Southbound			
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	9	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

(303) 216-2439 www.alltrafficdata.net

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

	FIRST ST			(CUEST	A DR		SA	N ANTO	onio r	RD	SAN ANTONIO RD										
Interval		Eastb	ound			Westbound				Northbound				Southbound				Rolling	Pedestrain Crossings			
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

		West	bound		Northbound				Southbound								
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

Appendix B Intersection 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=Uncontrol/Rights=Include Final Vol: 68 43 0 Lanes: 1! 0 0 Signal=Stop Signal=Stop 6/12/2018 Final Vol: Lanes: Rights=Include Vol Cnt Date: Rights=Include Lanes: Final Vol: Cycle Time (sec): 100 0 0 0 20 Loss Time (sec): 0 0 0 1! Critical V/C: 1! 1 0.031 0 Avg Crit Del (sec/veh): 1.8 0 0 0 Avg Delay (sec/veh): 1.8 4 LOS: В 1! Lanes: 0 0 0 0 Final Vol: 165 18 Signal=Uncontrol/Rights=Include Street Name: First Street Lyell Street East Bound West Bound North Bound South Bound L - T - R L - T - R Approach: L - T - R Movement: L – T – R L - T - R Volume Module: >> Count Date: 12 Jun 2018 << 8:00 to 9:00 AM Base Vol: 2 165 18 43 68 1 0 1 0 4 20 0 1.00 1.00 1.00 1.00 4 0 Initial Bse: 2 165 18 43 68 1 0 1 0 20 0 0 0 Added Vol: 0 0 0 0 0 0 0 0 0 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 Initial Fut: 2 165 18 43 68 1 0 1 0 4 0 20 PHF Adj: 0 1 1 PHF Volume: 2 165 18 43 68 4 0 20 0 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 43 20 FinalVolume: 2 165 18 68 1 0 1 0 4 0 -----||---------- | ---------||-----___ Critical Gap Module: Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 6.5 xxxxx 7.1 6.5 6.2 FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 4.0 xxxxx 3.5 4.0 3.3 Capacity Module: Cnflict Vol: 69 xxxx xxxxx 183 xxxx xxxxx xxxx 342 xxxxx 333 333 174 Potent Cap.: 1545 xxxx xxxxx 1404 xxxx xxxxx 584 xxxxx 624 590 875 Move Cap.: 1545 xxxx xxxxx 1404 xxxx xxxxx xxxx 565 xxxxx 608 571 875 Volume/Cap: 0.00 xxxx xxxx 0.03 xxxx xxxx 0.00 xxxx 0.01 0.00 0.02 Level Of Service Module: Control Del: 7.3 xxxx xxxxx A * * A * * * B * * * * LOS by Move: LT - LTR - RT LT - LTR - RT LT - LTR - RT Movement: LT – LTR – RT * * * * * * * Shared LOS: А 9.6 ApproachDel: 11.4 XXXXXX XXXXXX * ApproachLOS: В Α Note: Queue reported is the number of cars per lane. Peak Hour Delay Signal Warrant Report Intersection #1 First Street and Lyell Street Future Volume Alternative: Peak Hour Warrant NOT Met

COMPARE		Fri Nov 30 11:40	:05 2018			Page 2-2
Approach: Movement:	 North Bound L - T - R	 South Bound L - T - R	East Bour L - T -	 nd R L	West Bound - T -	 d R
Control: Lanes: Initial Vol: ApproachDel:	Uncontrolled 0 0 1! 0 0 2 165 18 xxxxxx	Uncontrolled 0 0 1! 0 0 43 68 1 xxxxxx	Stop Sign 0 0 1 0 0 1 11.4		Stop Sign 0 1! 0 4 0 9.6	0 20
Approach[east Signal Warrar FAIL - Veh Signal Warrar FAIL - App Signal Warrar FAIL - Tot wit	bound][lanes=1][t Rule #1: [vehinicle-hours less t Rule #2: [appro- proach volume less t Rule #3: [appro- cal volume less to th less than four	control=Stop Sign cle-hours=0.0] than 4 for one 1a oach volume=1] s than 100 for or oach count=4][to han 650 for inter approaches.	n] ane approach. ne lane approa tal volume=322 rsection	ach. 2]		
Approach[west Signal Warrar FAIL - Veh Signal Warrar FAIL - App Signal Warrar FAIL - Tot wit	bound][lanes=1][t Rule #1: [vehinicle-hours less t Rule #2: [appro- proach volume less t Rule #3: [appro- cal volume less to th less than four	control=Stop Sign cle-hours=0.1] than 4 for one 1a coach volume=24] s than 100 for or coach count=4][to han 650 for inter approaches.	n] ane approach. ne lane approa tal volume=322 rsection	ach. 2]		
SIGNAL WARRAN This peak hou "indicator" o a traffic sig are probably signal warrar	IT DISCLAIMER or signal warrant of the likelihood gnal in the futur more likely to m ot (such as the 4	analysis should of an unsignalis e. Intersection eet one or more -hour or 8-hour	be considered zed intersect s that exceed of the other w warrants).	d solely ion warra this wa: volume ba	as an anting rrant ased	
The peak hour a rigorous ar jurisdiction. the scope of	warrant analysi d complete traff Consideration this software, m Peak Hour Vol	s in this report ic signal warran of the other sign ay yield differe: ume Signal Warra	is not intend t analysis by nal warrants, nt results. nt Report [Ur]	ded to re the resp which is pan]	eplace ponsible s beyond	***
Intersection ************************************	#1 First Street **********************************	and Lyell Street **********************************	************** NOT Met	* * * * * * * * *	* * * * * * * * * * *	* * * *
Approach: Movement:	North Bound L - T - R	South Bound L - T - R	East Bour L - T -	 nd R L	West Bound	 d R
Control: Lanes: Initial Vol:	Uncontrolled 0 0 1! 0 0 2 165 18	Uncontrolled 0 0 1! 0 0 43 68 1	Stop Sign 0 0 1 0 0 1	 n 0 0	Stop Sign 0 1! 0 4 0	0 20
Major Street Minor Approac Minor Approac	Volume: ch Volume: ch Volume Thresho	297 24 24: 543	1 1			I
SIGNAL WARRAN This peak hou "indicator" c a traffic sig are probably signal warrar	TT DISCLAIMER ar signal warrant of the likelihood gnal in the futur more likely to m at (such as the 4	analysis should of an unsignali e. Intersection weet one or more -hour or 8-hour	be considered zed intersect: s that exceed of the other warrants).	d solely ion warra this wa: volume ba	as an anting rrant ased	
The peak hour a rigorous ar jurisdiction. the scope of	warrant analysi d complete traff Consideration this software, m	s in this report ic signal warran of the other sign ay yield differe	is not intend t analysis by nal warrants, nt results.	ded to re the resp which is	eplace ponsible s beyond	

			L 2000 HC	evel Of So M Unsign	ervice Comp alized (Futu Existing P	utation Reported re Volume Al	ort Iternative)							
Intersection #1: Fir	st Street and Ly	ell Street			Exioting									
Final Vol: Lanes: Rig 6 0 0 1! 0 2 0	Final Vol: Lanes: nal=Stop hts=Include	Signal=L 6 0 0 4 4 4 4 0 0 0 0 0 0 0 0 0 0 0 0 0	Uncontrol/Rig 309 1! Vol Cnt E Cycle Time (s Critical Criti Del (sec/ Delay (sec/ L	Date: 6/ Date: 6/ Sec): V/C: veh): ueh): LOS:	de 25 0 12/2018 100 0 0.050 1.4 1.4 B	Signal=Stop Rights=Incluc		nes: Final 0 24 0 1! 0 0 0 22	Vol: 4 2					
Street Name:	Lanes: Final Vol:	0 0 1 Signal=U First	1! 180 Jncontrol/Rig Street	0 ghts=Inclu	0 15 de			Lyell	Street	-				
Supproach:North BoundSouth BoundEast BoundWest BoundIovement:L - T - RL - T - RL - T - RL - T - R														
Movement:	ь – т 	– R	- ⊥ 	- 'I' 	– R	- ⊥ 	- 'I' 	– R 	- ⊥ 	- 'I' 	- R 			
Volume Module Base Vol: Growth Adj: Initial Bse: Added Vol: PasserByVol: Initial Fut: User Adj: PHF Adj: PHF Volume: Reduct Vol: FinalVolume:	<pre>>> Count 1 180 1.00 1.00 1 180 0 0 0 1 180 1.00 1.00 1.00 1.00 1.00 1 180 0 0 1 180</pre>	t Date: 15 1.00 15 0 0 15 1.00 1.00 15 0 15 0 15 0 15 0 15 0 15 0 15 0 15 0 15 15 15 15 15 15 15 15 15 15	12 JU 25 1.00 25 1.00 1.00 25 25 25	in 201 309 1.00 309 0 0 309 1.00 1.00 1.00 309 0 309	18 << 6 1.00 6 0 0 1.00 1.00 6 0 6 0 6 0 6 0 6 0 0 0 0 0 0 0 0 0 0 0 0 0	4:30 to 6 1.00 6 1.00 1.00 6 0 6	5:30 0 1.00 0 0 0 0 1.00 1.00 0 0 0 0 0) PM 2 1.00 2 0 0 2 1.00 1.00 2 0 2	22 1.00 22 0 0 22 1.00 1.00 22 0 22	0 1.00 0 0 0 1.00 1.00 1.00 0 0	24 1.00 24 0 24 1.00 1.00 24 0 24			
Critical Gap Critical Gp:	Module: 4.1 xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2			
FollowUpTim:	2.2 xxxx	XXXXX	2.2	XXXX	XXXXX	3.5	4.0	3.3	3.5	4.0	3.3			
Capacity Modu Cnflict Vol: Potent Cap.: Move Cap.: Volume/Cap:	ule: 315 xxxx 1257 xxxx 1257 xxxx 0.00 xxxx	XXXXX XXXXX XXXXX XXXX	195 1390 1390 0.02	XXXX XXXX XXXX XXXX	XXXXX XXXXX XXXXX XXXX	564 440 421 0.01	559 440 432 0.00	312 733 733 0.00	553 447 439 0.05	555 443 435 0.00	188 860 860 0.03			
Level Of Serv 2Way95thQ:	vice Module 0.0 xxxx	e: xxxxx	0.1	XXXX	XXXXX	xxxx	XXXX	XXXXX	xxxx	XXXX	xxxxx			
Control Del:	7.9 xxxx	XXXXX *	7.6	XXXX *	XXXXX *	xxxxx *	xxxx *	xxxxx *	XXXXX *	XXXX *	XXXXX *			
Movement:	LT - LTR	- RT	LT -	- LTR	- RT	LT -	- LTR	- RT	LT -	- LTR	- RT			
Shared Cap.: SharedQueue:: Shrd ConDel:: Shared LOS: ApproachDel:	xxxx xxxx xxxx xxxx xxxx xxxx * * xxxxxx	××××× ××××× ××××× *	×××× ××××× × × ×	×××× ×××× × ×××× *	××××× ××××× ××××× *	XXXX XXXXX XXXXX *	4/1 0.1 12.8 B 12.8	××××× ××××× ××××× *	XXXX XXXXX XXXXX *	0.3 11.6 B 11.6	xxxxx xxxxx xxxxx *			
Note: Queue :	reported is Pe	s the r eak Hou	number ır Dela	of ca ay Sig	ars per gnal Wa	r lane. arrant	Repoi	rt		Б				
**************************************	************ #1 First (******* Stront	****** and Tr	***** 7011 (****** ?+ron+	*****	*****	******	*****	*****	* * * * * * *			
**************************************	#1 E11SL &	******	ана т7 ******	(CII 3	******	* * * * * * *	*****	******	* * * * * * *	*****	* * * * * * *			
Future Volume	e Alternati	ive: Pe	eak Hou	ır Wai	rant 1	NOT Met	5							
COMPARE		Fri Nov 30 11:40:05	2018	Pa										
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Approach: Movement:	 North Bound L - T - R	 South Bound L - T - R	 East Bound L - T - R	West Bound L - T - R										
Control: Lanes: Initial Vol: ApproachDel:	Uncontrolled 0 0 1! 0 0 1 180 15 xxxxxx	Uncontrolled 0 0 1! 0 0 25 309 6 xxxxxx	Stop Sign 0 0 1! 0 0 6 0 2 12.8	Stop Sign 0 0 1! 0 0 22 0 24 11.6										
Approach[east Signal Warrar FAIL - Veh Signal Warrar FAIL - App Signal Warrar FAIL - Tot wit	bound][lanes=1][c t Rule #1: [vehic icle-hours less t t Rule #2: [appro proach volume less t Rule #3: [appro cal volume less th th less than four	control=Stop Sign] cle-hours=0.0] chan 4 for one lan- bach volume=8] s than 100 for one bach count=4][tota approaches.	e approach. lane approach. l volume=590] ection											
Approach[west Signal Warrar FAIL - Veh Signal Warrar FAIL - App Signal Warrar FAIL - Tot wit	bound][lanes=1][c t Rule #1: [vehic icle-hours less t t Rule #2: [appro proach volume less t Rule #3: [appro cal volume less th th less than four	control=Stop Sign] cle-hours=0.1] chan 4 for one lan- bach volume=46] s than 100 for one bach count=4][tota an 650 for inters approaches.	e approach. lane approach. l volume=590] ection											
SIGNAL WARRAN This peak hou "indicator" o a traffic sig are probably signal warran	T DISCLAIMER ir signal warrant of the likelihood mal in the future more likely to me tt (such as the 4-	analysis should b of an unsignalize . Intersections et one or more of hour or 8-hour wa	e considered sole d intersection wa that exceed this the other volume rrants).	ely as an arranting warrant e based										
The peak hour a rigorous ar jurisdiction. the scope of	warrant analysis d complete traffi Consideration o this software, ma Peak Hour Volu	in this report i c signal warrant of the other signa y yield different time Signal Warrant	s not intended to analysis by the r l warrants, which results. Report [Urban]	> replace cesponsible 1 is beyond										
Intersection ************************************	#1 First Street a ************************************	nd Lyell Street	**************************************	* * * * * * * * * * * * * * * * *										
Approach: Movement:	North Bound L - T - R	South Bound L - T - R	East Bound L - T - R	 West Bound L - T - R										
Control: Lanes: Initial Vol:	Uncontrolled 0 0 1! 0 0 1 180 15	Uncontrolled 0 0 1! 0 0 25 309 6	Stop Sign 0 0 1! 0 0 6 0 2	Stop Sign 0 0 1! 0 0 22 0 24										
Major Street Minor Approac Minor Approac	Volume: h Volume: h Volume Threshol	536 46 .d: 386												
SIGNAL WARRAN This peak hou "indicator" c a traffic sig are probably signal warran	T DISCLAIMER ir signal warrant of the likelihood mal in the future more likely to me ut (such as the 4-	analysis should b of an unsignalize . Intersections et one or more of hour or 8-hour wa	e considered sole d intersection wa that exceed this the other volume rrants).	ely as an arranting warrant e based										
The peak hour a rigorous ar jurisdiction.	warrant analysis d complete traffi Consideration c	s in this report i c signal warrant of the other signa	s not intended to analysis by the : l warrants, whicl	> replace responsible n is beyond										

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Existing - Project AM												
Intersection #1: First	st Street a	and Ly	ell Street		/							
	Final \ Lan	/ol: les:	Signal=L 1 0 0	Jncontrol/Rig 68 1!	ghts=Inclu	de 42 0						
Sigr Final Vol: Lanes: Rigl	nal=Stop hts=Include			Vol Cnt I	Date:	n/a F	Signal=Stop Rights=Incluo	de La	nes: Final	Vol:		
0 0 -7	- •		·	Loss Time (sec):	0		₹	0 2 [,]	I		
1 1!	≁			Critical	V/C:	0.030		┢	0 1! 0			
0	►		Avg C	Crit Del (sec/	veh):	1.9	4	7	0			
	7		Avg	Delay (sec/	veh): LOS:	1.9 В		€ I	0 6			
		-		• •	.							
	Lan	es:	יר (י ס ס	1!	۲ <i>۲</i> ٥	0						
	Final \	/ol:	2 Signal=L	165 Jncontrol/Rig	ghts=Inclu	16 de						
Street Name: Approach: Movement:	Nort L -	ch Bo T	First ound - R	Street Sou L -	t ith Bo - T	ound - R	Ea L -	ast Bo - T	Lyell ound - R	Street We L -	est Bo - T	ound - R
Volume Module Base Vol: Growth Adj: Initial Bse: Added Vol: PasserByVol: Initial Fut: User Adj: PHF Adj: PHF Volume: Reduct Vol: FinalVolume:	2 1.00 2 0 2 1.00 1 2 1.00 1 2 0 2 0 2 0 2 0 2 0 2 1.00 1 2 0 2 0 2 1.00 1 2 0 0 2 0 0 2 0 0 2 0 0 2 0 0 2 0 0 2 0 0 2 0 0 2 0 0 2 0 0 2 0 0 0 2 0 0 2 0 0 0 2 0 0 2 0 0 2 0 0 2 0 0 2 0 0 0 2 0 0 0 2 0 0 0 1.00 1 0 1.00 1 0 1.00 1 2 0 0 0 1.00 1 2 0 0 1.00 1 2 0 1.00 1 2 0 1.00 1 2 0 1.00 1 2 0 1.00 1.00 1 2 0 1.00 1 2 0 1.00 1 2 0 1.00 1 2 0 2 0 1.00 1 2 0 2 0 1.00 1 2 0 2 0 1.00 1 2 0 2 0 0 1.00 1 2 0 2 0 2 0 2 0 2 0 1.00 1 2 0 2 0 2 0 2 0 2 0 2 0 2 0 1.00 1 2 0 2 0 2 0 1.00 1 2 0 1.0	165 165 0 165 1.00 165 1.00 165 0 165	16 1.00 16 0 16 1.00 1.00 1.00 16 0 16	42 1.00 42 0 0 42 1.00 1.00 42 0 42	68 1.00 68 0 68 1.00 1.00 68 0 68	1 1.00 1 0 1 1.00 1.00 1 0 1		1 1.00 1 0 1 1.00 1.00 1.00 1 0 1	0 1.00 0 0 0 1.00 1.00 0 0 0	6 1.00 6 0 6 1.00 1.00 6 0 6	0 1.00 0 0 1.00 1.00 1.00 0 0	21 1.00 21 0 0 21 1.00 1.00 21 0 21
Critical Gap Critical Gp: FollowUpTim:	Module 4.1 2 2.2 2	 e: «xxx «xxx	xxxxx xxxxx	4.1	xxxx xxxx	××××× ×××××	××××× ×××××	6.5 4.0	××××× ×××××	7.1	6.5 4.0	6.2 3.3
Capacity Modu Cnflict Vol: Potent Cap.: Move Cap.: Volume/Cap:	100 100 100 100 100 100 100 100 100 100	<	XXXXX XXXXX XXXXX XXXXX XXXX	181 1407 1407 0.03	XXXX XXXX XXXX XXXX	xxxxx xxxxx xxxxx xxxxx xxxx	XXXX XXXX XXXX XXXX XXXX	338 587 568 0.00	xxxxx xxxxx xxxxx xxxxx xxxx	330 627 611 0.01	330 592 574 0.00	173 876 876 0.02
Level Of Serv 2Way95thQ: Control Del: LOS by Move:	vice Mo 0.0 2 7.3 2 A	odule xxxx xxxx xxxx	e: xxxxx xxxxx *	0.1 7.6 A	xxxx xxxx *	xxxxx xxxxx *	xxxx xxxxx xxxxx *	0.0 11.3 B	XXXXX XXXXX *	xxxx xxxxx *	xxxx xxxx *	 xxxxx xxxxx *
Movement: Shared Cap.: SharedQueue:> Shrd ConDel:>	LT - XXXX X XXXXX X XXXXX X	LTR XXXX XXXX XXXX	- RT xxxxx xxxxx xxxxx	LT - xxxx xxxxx xxxxx	- LTR XXXX XXXX XXXX	- RT XXXXX XXXXX XXXXX	LT - xxxx xxxxx xxxxx	- LTR XXXX XXXX XXXX	- RT XXXXX XXXXX XXXXX	LT - xxxx xxxxx xxxxx	- LTR 799 0.1 9.7	- RT xxxxx xxxxx xxxxx
ApproachDel: ApproachLOS: Note: Queue n	* xxx reporte	× × * ed is	* s the r	* xx number	* xxxxx * of ca	* ars pe:	* r lane.	тарана 11.3 В	*	*	A 9.7 A	*
* * * * * * * * * * * * *	*****	₽e ****	eak Hou	ır Dela	ay Sic *****	gnal Wa	arrant ******	Repo:	rt ******	*****	* * * * * *	* * * * * * *
Intersection #1 First Street and Lyell Street **********************************												
Future Volume	e Alter	rnati	ve: Pe	eak Hou	ır Wa:	rrant l	NOT Met	5				

COMPARE		Fri Nov 30 11:4	0:05 2018				Page 2-6
Approach: Movement:	 North Bound L - T - R	 South Bound L - T - R	- East E L - T	 3ound - R	 West L -	Bound T –	 1 R
Control: Lanes: Initial Vol: ApproachDel:	Uncontrolled 0 0 1! 0 0 2 165 16 xxxxxx	Uncontrolled 0 0 1! 0 0 42 68 1 xxxxxx	Stop S 0 0 1 0 1 11.3	3ign 00 L03	Stop 0 0 6 9	Sign 1! 0 0 .7	0 21
Approach[east Signal Warran FAIL - Veh Signal Warran FAIL - App Signal Warran FAIL - Tot wit	bound][lanes=1][t Rule #1: [vehi icle-hours less t Rule #2: [appr roach volume less t Rule #3: [appr al volume less t th less than four	control=Stop Sig cle-hours=0.0] than 4 for one 1 oach volume=1] s than 100 for c oach count=4][to han 650 for inte approaches.	jn] lane approac one lane app otal volume= ersection	ch. proach. =322]			
Approach[west Signal Warran FAIL - Veh Signal Warran FAIL - App Signal Warran FAIL - Tot wit	bound][lanes=1][t Rule #1: [vehi icle-hours less t Rule #2: [appr broach volume less t Rule #3: [appr cal volume less t th less than four	control=Stop Sig cle-hours=0.1] than 4 for one 1 oach volume=27] s than 100 for c oach count=4][tc han 650 for inte approaches.	<pre>jn] lane approac one lane app otal volume= ersection</pre>	ch. proach. =322]			
SIGNAL WARRAN This peak hou "indicator" c a traffic sig are probably signal warran	T DISCLAIMER ir signal warrant of the likelihood mal in the futur more likely to m tt (such as the 4	analysis should of an unsignali e. Intersection eet one or more -hour or 8-hour	d be conside lzed interse is that exce of the othe warrants).	ered sole ection wa eed this er volume	ely as a arrantin warrant e based	n g	
The peak hour a rigorous an jurisdiction. the scope of	warrant analysi d complete traff Consideration this software, m Peak Hour Vol	s in this report ic signal warrar of the other signal way yield differe ume Signal Warra	: is not int ht analysis ynal warrant ant results. ant Report	cended to by the m ts, which [Urban]	o replac responsi n is bey	e ble ond	***
Intersection ***************** Future Volume	#1 First Street **********************************	and Lyell Street **********************************	: ************************************	* * * * * * * * *	* * * * * * * *	* * * * * *	* * * *
Approach: Movement:	North Bound L - T - R	South Bound L - T - R	- East E L - T	 3ound - R	 West L -	Bound T –	 1 R
Control: Lanes: Initial Vol:	Uncontrolled 0 0 1! 0 0 2 165 16	Uncontrolled 0 0 1! 0 0 42 68 1	Stop S 0 0 1 0 0 1	 Sign 0 0 L 0	Stop 0 0 6	Sign 1! 0 0	0 21
Major Street Minor Approac Minor Approac	Volume: h Volume: h Volume Threshc	294 27 1d: 546	1 1		I		I
SIGNAL WARRAN This peak hou "indicator" c a traffic sig are probably signal warran	T DISCLAIMER ir signal warrant of the likelihood mal in the futur more likely to m at (such as the 4	analysis should of an unsignali e. Intersection weet one or more -hour or 8-hour	d be conside lzed interse is that exce of the othe warrants).	ered sole ection wa eed this er volume	ely as a arrantin warrant e based	n g	
The peak hour a rigorous an jurisdiction. the scope of	warrant analysi d complete traff Consideration this software, m	s in this report ic signal warrar of the other signay yield differe	; is not int it analysis gnal warrant ent results.	cended to by the n cs, which	o replac responsi n is bey	e ble ond	

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Existing +Project PM											
Intersection #1: First	st Street and Ly	ell Street		L/	isting +i roje						
	Final Vol: Lanes:	Signal=L 6 0 0	Jncontrol/Rig 309 1!	ghts=Inclu	de 26 0						
Sigr Final Vol: Lanes: Rigl	nal=Stop hts=Include	C	Vol Cnt I Cycle Time (Date: sec):	n/a F 100	Signal=Stop Rights=Incluc	le La	nes: Final	Vol:		
6 0 _/	L.		Loss Time (sec):	0		▲	0 23	3		
0 1!	`► ►		Critical	V/C:	0.048			0 1! 0			
0	•	Avg C	rit Del (sec/	veh):	1.4	-	7	0			
2 0	7	Avg	Delay (sec/	veh):	1.4		¥	0 21			
	•			_OS:	В		•				
	Lanes: Final Vol:	0 0 1 Signal=U	1! 180 Jncontrol/Rig	0 ghts=Inclu	0 16 de						
Street Name: Approach: Movement:	North Bo L - T	First ound - R	Street Sou L -	th Bo T	ound - R	Ea L -	ast Bo - T	Lyell ound - R	Street We L -	est Bo - T	ound - R
Volume Module Base Vol: Growth Adj: Initial Bse: Added Vol: PasserByVol: Initial Fut: User Adj: PHF Adj: PHF Volume: Reduct Vol: FinalVolume:	1 180 1.00 1.00 1 180 0 0 1 180 1.00 1.00 1.00 1.00 1 180 0 0 1 180 0 0	16 1.00 16 0 16 1.00 1.00 16 0 16	26 1.00 26 0 26 1.00 1.00 26 0 26	309 1.00 309 0 309 1.00 1.00 1.00 309 0 309	6 1.00 6 0 6 1.00 1.00 6 0 6	6 1.00 6 0 1.00 1.00 6 0 6	0 1.00 0 0 1.00 1.00 1.00 0 0	2 1.00 2 0 2 1.00 1.00 2 0 2	21 1.00 21 0 21 1.00 1.00 21 0 21	0 1.00 0 0 0 1.00 1.00 1.00 0 0	23 1.00 23 0 23 1.00 1.00 23 0 23
Critical Gap Critical Gp: FollowUpTim:	Module: 4.1 xxxx 2.2 xxxx	xxxxx xxxxx	4.1 2.2	xxxx xxxx	××××× ×××××	7.1 3.5	6.5 4.0	6.2 3.3	7.1 3.5	6.5 4.0	6.2 3.3
Capacity Modu Cnflict Vol: Potent Cap.: Move Cap.: Volume/Cap:	ale: 315 xxxx 1257 xxxx 1257 xxxx 0.00 xxxx	XXXXX XXXXX XXXXX XXXXX	196 1389 1389 0.02	XXXX XXXX XXXX XXXX	XXXXX XXXXX XXXXX XXXX	566 438 420 0.01	562 439 430 0.00	312 733 733 0.00	555 445 438 0.05	557 442 433 0.00	188 859 859 0.03
Level Of Serv 2Way95thQ: Control Del: LOS by Move: Movement: Shared Cap.:	vice Module 0.0 xxxx 7.9 xxxx A * LT - LTR xxxx xxxx	- RT	0.1 7.6 A LT -	XXXX XXXX + LTR XXXX	XXXXX XXXXX - RT XXXXX	XXXX XXXXX LT - XXXX	XXXX XXXX + LTR 470	XXXXX XXXXX - RT XXXXX	XXXX XXXXX LT - XXXX	xxxx xxxx + LTR 588	 xxxxx xxxxx + - RT xxxxx
SharedQueue:> Shrd ConDel:> Shared LOS: ApproachDel: ApproachLOS: Note: Oueue	xxxx xxxx xxxx xxxx * * xxxxxx *	xxxxx xxxxx *	xxxxx xxxxx * xx	XXXX XXXX * XXXXX *	XXXXX XXXXX *	xxxxx xxxxx *	0.1 12.8 B 12.8 B	XXXXX XXXXX *	XXXXX XXXXX *	0.2 11.6 B 11.6 B	XXXXX XXXXX *
<pre>intersection ************************************</pre>	#1 First S	Street	and Ly	yell s	gnal Wa ****** Street ******	arrant *******	Repoi	ct * * * * * * * *	* * * * * * *	* * * * * *	* * * * * * *
rucure vorulle	AICEINAL	LVE. PE	ακ ποι	ı⊥ wd.	Lianic I	NOT MEL	-				

COMPARE		Fri Nov 30 11:40:0)5 2018		Page 2-8
Approach: Movement:	 North Bound L - T - R	 South Bound L - T - R	 East Bound L - T - R	 West Bound L - T - R	
Control: Lanes: Initial Vol: ApproachDel:	Uncontrolled 0 0 1! 0 0 1 180 16 xxxxxx	Uncontrolled 0 0 1! 0 0 26 309 6 xxxxxx	Stop Sign 0 0 1! 0 0 6 0 2 12.8	Stop Sign 0 0 1! 0 0 21 0 23 11.6	
Approach[east Signal Warrar FAIL - Veh Signal Warrar FAIL - App Signal Warrar FAIL - Tot wit	bound][lanes=1][t Rule #1: [vehi- ticle-hours less t Rule #2: [appro- proach volume less t Rule #3: [appro- cal volume less t th less than four	control=Stop Sign cle-hours=0.0] than 4 for one la oach volume=8] s than 100 for on oach count=4][tot han 650 for inter approaches.	<pre>ne approach. e lane approach. al volume=590] section</pre>		
Approach[west Signal Warrar FAIL - Veh Signal Warrar FAIL - App Signal Warrar FAIL - Tot wit	bound][lanes=1][it Rule #1: [vehi icle-hours less it Rule #2: [appro- proach volume less it Rule #3: [appro- cal volume less t ch less than four	control=Stop Sign cle-hours=0.1] than 4 for one la oach volume=44] s than 100 for on oach count=4][tot han 650 for inter approaches.] ne approach. e lane approach. al volume=590] section		
SIGNAL WARRAN This peak hou "indicator" c a traffic sic are probably signal warrar	T DISCLAIMER fr signal warrant of the likelihood mal in the futur more likely to m at (such as the 4	analysis should of an unsignaliz e. Intersections eet one or more o -hour or 8-hour w	be considered sole ed intersection wa that exceed this f the other volume arrants).	ely as an arranting warrant e based	
The peak hour a rigorous ar jurisdiction. the scope of	warrant analysi d complete traff Consideration this software, m Peak Hour Vol	s in this report ic signal warrant of the other sign ay yield differen ume Signal Warran	is not intended to analysis by the s al warrants, which t results. t Report [Urban]	o replace responsible h is beyond	
**************************************	++++++++++++++++++++++++++++++++++++++	**************************************	****	* * * * * * * * * * * * * * * * * * *	
***********	****	*****	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * *	
Future Volume	Alternative: Pe	ak Hour Warrant N 	OT Met 		
Approach: Movement:	North Bound L - T - R	South Bound L - T - R	East Bound L - T - R	West Bound L - T - R	
Control: Lanes: Initial Vol:	Uncontrolled 0 0 1! 0 0 1 180 16	Uncontrolled 0 0 1! 0 0 26 309 6	Stop Sign 0 0 1! 0 0 6 0 2	Stop Sign 0 0 1! 0 0 21 0 23	
Major Street Minor Approac Minor Approac	Volume: h Volume: h Volume Thresho	538 44 1d: 385	,,		
SIGNAL WARRAN This peak hou "indicator" c a traffic sic are probably signal warran	IT DISCLAIMER IT signal warrant of the likelihood nal in the futur more likely to m it (such as the 4	analysis should of an unsignaliz e. Intersections eet one or more o -hour or 8-hour w	be considered sole ed intersection watch that exceed this f the other volume arrants).	ely as an arranting warrant e based	
The peak hour a rigorous ar jurisdiction.	warrant analysi d complete traff Consideration	s in this report ic signal warrant of the other sign	is not intended to analysis by the s al warrants, whicl	o replace responsible h is beyond	

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Existing AM											
Intersection #2: All	ey and Lyell Str	eet			Exioting						
	Final Vol: Lanes:	Signal 1 0 0	=Yield/Right 0 1!	s=Include	1 0						
Sig Final Vol: Lanes: Rig 12 0	nal=Uncontrol hts=Include	r •	Vol Cnt E Cycle Time (s	Date: 6/ sec):	12/2018 100	Signal=Unc Rights=Inclu	ontrol ude La	nes: Final 0 9	Vol:		
0 52 1!	4 →		Critical	V/C:	0.008	-		0 1! 24	ł		
0 -	*	Avg C Avg	rit Del (sec/v	veh): veh):	1.1 1.1	4		0 0 0			
				LOS:	A		•				
	Lanes: Final Vol:		1! 0 =Yield/Right	0 s=Include							
Street Name: Approach: Movement:	North Bo L - T	All ound - R	.ey Sou L -	ith Bo - T	ound - R	E L	ast Bo - T	Lyell ound - R	Street We L -	est Bo - T	ound - R
Volume Module Base Vol: Growth Adj: Initial Bse: Added Vol: PasserByVol: Initial Fut: User Adj: PHF Adj: PHF Volume: Reduct Vol: FinalVolume:	e: >> Count 0 0 1.00 1.00 0 0 0 0 0 0 1.00 1.00 1.00 1.00 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Date: 0 1.00 0 0 0 1.00 1.00 0 0 0 0	12 Ju 1 1.00 1 1.00 1.00 1 0 1	in 201 0 1.00 0 0 0 1.00 1.00 0 0 0	18 << 1 1.00 1 0 0 1 1.00 1 0 1 0 1	8:00 t 12 1.00 12 1.00 12 1.00	0 9:00 52 1.00 52 0 0 52 1.00 1.00 52 0 52 52	D AM 0 1.00 0 0 0 1.00 1.00 0 0 0 0 0 0 0 0 0 0 0 0		24 1.00 24 0 24 1.00 1.00 24 0 24	9 1.00 9 0 0 9 1.00 1.00 9 0 9
Critical Gap Critical Gp: FollowUpTim:	Module: 7.1 6.5 3.5 4.0	6.2 3.3	6.4 3.5	6.5 4.0	6.2 3.3	4.1	xxxx xxxx	xxxxx xxxxx	xxxxx xxxxx	xxxx xxxx	xxxxx xxxxx
Capacity Modu Cnflict Vol: Potent Cap.: Move Cap.: Volume/Cap:	ule: 105 109 880 785 874 779 0.00 0.00	52 1021 1021 0.00	105 898 893 0.00	105 789 783 0.00	29 1052 1052 0.00	33 1592 1592 0.01	XXXX XXXX XXXX XXXX	XXXXX XXXXX XXXXX XXXX	XXXX XXXX XXXX XXXX	XXXX XXXX XXXX XXXX	XXXXX XXXXX XXXXX XXXX
Level Of Serv 2Way95thQ: Control Del:: LOS by Move: Movement:	vice Module xxxx xxxx xxxx xxxx tr - LTR	e: xxxxx xxxxx - RT	xxxx xxxxx LT -	XXXX XXXX + LTR	xxxxx xxxxx - RT	0.0 7.3 LT	XXXX XXXX - LTR	XXXXX XXXXX - RT	XXXX XXXXX LT -	XXXX XXXX * - LTR	
Shared Cap.: SharedQueue: Shrd ConDel: Shared LOS: ApproachDel: ApproachLOS:	xxxx 0 xxxxx xxxx xxxx xxxx * * xxxxxx *	xxxxx xxxxx xxxxx *	XXXX XXXXX XXXXX *	966 0.0 8.7 A 8.7 A	××××× ××××× ××××× *	xxxx 0.0 7.3 A x	XXXX XXXX XXXX XXXX XXXXX X XXXXXX X	XXXXX XXXXX XXXXX *	×××× ××××× *	×××× ×××× ×××× ×	xxxxx xxxxx xxxxx *
Note: Queue : ************************************	reported is Pe *********** #2 Alley a ********** e Alternati	ak Hou ak Hou and Lye ******	umber ar Dela ell Str extensional eak Hou	of ca ay Sig teet text	ars pe gnal W ****** ******	er lane Marrant ****** ******* NOT Me	Repoi ******	rt *******	* * * * * * *	* * * * * *	*****

Traffix 8.0.0715

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COMPARE		Fri Nov 30 11:40:05	2018		Page 2-10
Approach: Movement:	 North Bound L - T - R	 South Bound L - T - R	 East Bound L - T - R	 West Bound L - T - R	
Control: Lanes: Initial Vol: ApproachDel:	Yield Sign 0 0 1! 0 0 0 0 0 xxxxxx	Yield Sign 0 0 1! 0 0 1 0 1 8.7	Uncontrolled 0 1 0 0 0 12 52 0 xxxxxx	Uncontrolled 0 0 0 1 0 0 24 9 xxxxxx	
Approach[sout Signal Warrar FAIL - Cor Signal Warrar FAIL - App Signal Warrar FAIL - Tot wit	thbound][lanes=1] th Rule #1: [vehic troller not stop th Rule #2: [appro- proach volume less th Rule #3: [appro- cal volume less the th less than four	[control=Yield Sig cle-hours=0.0] sign. oach volume=2] s than 100 for one oach count=3][tota han 650 for inters approaches.	n] lane approach. l volume=99] ection	· · ·	
SIGNAL WARRAN This peak hou "indicator" o a traffic sig are probably signal warran	IT DISCLAIMER or signal warrant of the likelihood gnal in the future more likely to me of (such as the 4-	analysis should b of an unsignalize e. Intersections eet one or more of -hour or 8-hour wa	e considered sol d intersection w that exceed this the other volum rrants).	ely as an arranting warrant e based	
The peak hour a rigorous ar jurisdiction. the scope of	warrant analysis d complete traff Consideration of this software, ma Peak Hour Vol	s in this report i ic signal warrant of the other signa ay yield different ume Signal Warrant	s not intended t analysis by the l warrants, whic results. Report [Urban]	o replace responsible h is beyond	
Intersection ********	#2 Alley and Lye	ll Street ********	* * * * * * * * * * * * * * * *	****	
Future Volume	Alternative: Pea	ak Hour Warrant NC	T Met		
Approach: Movement:	North Bound L - T - R	 South Bound L - T - R	East Bound L - T - R	West Bound L - T - R	
Control: Lanes: Initial Vol:	Yield Sign 0 0 1! 0 0 0 0 0	Yield Sign 0 0 1! 0 0 1 0 1	Uncontrolled 0 1 0 0 0 12 52 0	Uncontrolled 0 0 0 1 0 0 24 9	
Major Street Minor Approac Minor Approac	Volume: ch Volume: ch Volume Thresho	97 2 1d: 842	'	· · ·	
SIGNAL WARRAN This peak hou "indicator" c a traffic sig are probably signal warran	T DISCLAIMER of the likelihood pal in the future more likely to me t (such as the 4	analysis should b of an unsignalize e. Intersections eet one or more of -hour or 8-hour wa	e considered sol d intersection w that exceed this the other volum rrants).	ely as an arranting warrant e based	

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

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative)											
Intersection #2: Alle	ey and Lyell Str	eet			Existing P						
Sign	Final Vol: Lanes:	Signa 11 0 0	I=Yield/Righ 0 1!	ts=Include		Signal=Unco	ntrol				
Final Vol: Lanes: Righ	nts=Include	(Vol Cnt I Cycle Time (Date: 6/ sec):	12/2018 I 100	Rights=Inclue	de La	nes: Final 0 2	Vol:		
o _	•		Loss Time (sec):	0	-	▲	0			
30 1! <u> </u>	•	Ανα	Critical	V/C:	0.013			1! 20 0)		
	7	Avg	Delay (sec/	veh):	3.2		¥	0 1			
	7	Avy	Delay (Sec)	LOS:	A		¥	0 1			
	•	5 -	1	↑ ►	1						
	Lanes: Final Vol:	0 0 3 Signa	1! 0 l=Yield/Righ	0 ts=Include	0 3						
Street Name: Approach: Movement:	North Be L - T	Ali ound - R	ley Sou L -	ith Bo - T	ound - R	Ea L -	ast Bo - T	Lyell ound - R	Stree We L	t est Bo - T	ound - R
Volume Module Base Vol: Growth Adj: Initial Bse: Added Vol: PasserByVol: Initial Fut: User Adj: PHF Adj: PHF Volume: Reduct Vol: FinalVolume:	2: >> Coun 3 0 1.00 1.00 3 0 0 0 0 0 1.00 1.00 1.00 1.00 3 0 0 0 3 0 0 0 3 0 0 0 0 0 0	t Date: 3 1.00 3 0 0 3 1.00 1.00 3 0 3	: 12 Ju 12 1.00 12 1.00 12 1.00 1.00 12 12 12	in 20 0 1.00 0 0 0 1.00 1.00 0 0 0 0	18 << 11 1.00 11 0 11 1.00 1.00 11 0 11 0 11	4:30 to 2 1.00 2 0 0 2 1.00 1.00 2 0 2	5:30 30 1.00 0 0 30 1.00 1.00 30 30 30) PM 1.00 1 0 0 1 1.00 1.00 1 0 1 0 1	1 1.00 1 0 1.00 1.00 1.00 1.00 1	20 1.00 20 0 20 1.00 1.00 20 20 20	2 1.00 2 0 2 1.00 1.00 2 0 2
Critical Gap Critical Gp: FollowUpTim:	Module: 7.1 6.5 3.5 4.0	6.2 3.3	7.1 3.5	6.5 4.0	6.2 3.3	4.1	XXXX XXXX	XXXXX XXXXX	4.1	XXXX XXXX	xxxxx xxxxx
Capacity Modu Cnflict Vol: Potent Cap.: Move Cap.: Volume/Cap:	ele: 63 59 936 836 925 835 0.00 0.00	31 1050 1050 0.00	59 942 938 0.01	58 837 835 0.00	21 1062 1062 0.01	22 1607 1607 0.00	XXXX XXXX XXXX XXXX	xxxxx xxxxx xxxxx xxxxx	31 1595 1595 0.00	XXXX XXXX XXXX XXXX	xxxxx xxxxx xxxxx xxxx xxxx
Level Of Serv	rice Module	e:									Ι
2Way95thQ: Control Del:x LOS by Move: Movement: Shared Cap.:	XXXX XXXX XXXX XXXX LT - LTR XXXX 984	XXXXX XXXXX - RT XXXXX	XXXX XXXXX LT - XXXX	×××× ×××× - LTR 994	XXXXX XXXXX - RT XXXXX	0.0 7.2 A LT - xxxx	XXXX XXXX + LTR XXXX	XXXXX XXXXX - RT XXXXX	0.0 7.3 A LT xxxx	XXXX XXXX + LTR XXXX	XXXXX XXXXX - RT XXXXX
SharedQueue:x Shrd ConDel:x	xxxxx 0.0 xxxxx 8.7	XXXXX XXXXX	xxxxx xxxxx	0.1 8.7	XXXXX XXXXX	XXXXX XXXXX	xxxx xxxx	xxxxx xxxxx	XXXXX XXXXX	XXXX XXXX	XXXXX XXXXX
Shared LOS: ApproachDel: ApproachLOS: Note: Queue r	* A 8.7 A reported is	* s the r eak Hou	* number ur Dela	A 8.7 A of ca ay Sid	* ars pe: gnal Wa	* xx r lane arrant	* * * Repoi	* ct *****	* X:	* *****	*
Intersection	#2 Alley	and Lye	ell Sti	reet					· · · · · · · · · · · · · · · · · · ·	*****	****
Future Volume	Alternat	ive: Pe	eak Hou	***** 1r Wa:	rrant 1	NOT Met	***** t	* * * * * * *	*****	****	* * * * * *

COMPARE		Fri Nov 30 11:40:05	2018		Page 2-12
Approach: Movement:	 North Bound L - T - R	 South Bound L - T - R	 East Bound L - T - R	 West Bound L - T - R	
Control: Lanes: Initial Vol: ApproachDel:	Yield Sign 0 0 1! 0 0 3 0 3 8.7	Yield Sign 0 0 1! 0 0 12 0 11 8.7	Uncontrolled 0 0 1! 0 0 2 30 1 xxxxxx	Uncontrolled 0 0 1! 0 0 1 20 2 xxxxxx	
Approach[nort Signal Warrar FAIL - Cor Signal Warrar FAIL - App Signal Warrar FAIL - Tot wit	thbound][lanes=1] at Rule #1: [vehi atroller not stop at Rule #2: [appr proach volume les at Rule #3: [appr cal volume less t ch less than four	[control=Yield Sig cle-hours=0.0] sign. oach volume=6] s than 100 for one oach count=4][tota han 650 for inters approaches.	n] lane approach. l volume=85] ection		
Approach[sout Signal Warrar FAIL - Cor Signal Warrar FAIL - App Signal Warrar FAIL - Tot wit	thbound][lanes=1] at Rule #1: [vehi atroller not stop at Rule #2: [appr broach volume les at Rule #3: [appr cal volume less t ch less than four	<pre>[control=Yield Sig cle-hours=0.1] sign. oach volume=23] s than 100 for one oach count=4][tota han 650 for inters approaches.</pre>	n] lane approach. l volume=85] ection		
SIGNAL WARRAN This peak hou "indicator" o a traffic sig are probably signal warran	WT DISCLAIMER or signal warrant of the likelihood gnal in the futur more likely to m nt (such as the 4	analysis should b of an unsignalize e. Intersections eet one or more of -hour or 8-hour wa	e considered sol d intersection w that exceed this the other volum rrants).	ely as an varranting warrant ne based	
The peak hour a rigorous ar jurisdiction. the scope of	warrant analysi nd complete traff Consideration this software, m Peak Hour Vol	s in this report i ic signal warrant of the other signa ay yield different ume Signal Warrant	s not intended t analysis by the l warrants, whic results. Report [Urban]	o replace responsible h is beyond	
Intersection ***************** Future Volume	#2 Alley and Lye	ll Street **********************************	**************************************	****	
Approach: Movement:	 North Bound L - T - R	 South Bound L - T - R	 East Bound L - T - R	 West Bound L - T - R	
Control: Lanes: Initial Vol:	Yield Sign 0 0 1! 0 0 3 0 3	Yield Sign 0 0 1! 0 0 12 0 11	Uncontrolled 0 0 1! 0 0 2 30 1	Uncontrolled 0 0 1! 0 0 1 20 2	
Major Street Minor Approac Minor Approac	Volume: ch Volume: ch Volume Thresho	56 23 1d: 988	I		
SIGNAL WARRAN This peak hou "indicator" c a traffic sig are probably signal warran	NT DISCLAIMER ar signal warrant of the likelihood gnal in the futur more likely to m at (such as the 4	analysis should b of an unsignalize e. Intersections eet one or more of -hour or 8-hour wa	e considered sol d intersection w that exceed this the other volum rrants).	ely as an varranting warrant ne based	
The peak hour a rigorous ar jurisdiction. the scope of	warrant analysi nd complete traff Consideration this software, m	s in this report i ic signal warrant of the other signa ay yield different	s not intended t analysis by the l warrants, whic results.	o replace responsible h is beyond	

				L 2000 HC	Level Of S CM Unsigr	ervice Com alized (Futu	putation Rep ure Volume A	ort Iternative)				
Intersection #2: All	ey and L	yell Str	eet		Ex	sisting +Proj	ect AM					
			Signa	l=Yield/Riah	ts=Include							
	Fina	I Vol:	4	0	0	2						
	La	anes.	لہ ک		۱.	ں ا						
				*	_ ♥₽	-						
Sig Final Vol: Lanes: Rig	nal=Uncon hts=Includ	itrol e		Vol Cnt I	Date:	n/a	Signal=Unco Rights=Inclue	ntrol de La	nes: Final	Vol:		
9 0 🚽	N		(Cycle Time (sec):	100		. ≱	0 7			
	A			Loss Time (sec):	0		▲	0			
52 1l	€			Critical	V/C·	0.006	•	<u> </u>	U 1! 24	1		
0	t		Ava C	rit Dol (soc/	wob):	1.2			0			
	¥		Avg C	In Der (Sec/	ven).	1.2		Ý	0			
0 0	÷		Avg	Delay (sec/	veh):	1.2		ίς –	0 0			
	•			I	LOS:	А		•				
		-		▲	A	*						
			וד רי		r-	(The second sec						
	La	anes:	0 0	1!	0	0						
	Fina		0 Signa	u I=Yield/Righ	ts=Include							
Street Name.			A11	ev					Lvell	Street	-	
Approach:	Nor	th Bo	ound	Soi	ith Bo	ound	Ea	ast Bo	ound	We	est Bo	ound
Movement:	L -	- Т	– R	L -	- Т	- R	L -	- Т	– R	L -	- Т	- R
Volume Module	 >•											
Base Vol:	0	0	0	2	0	4	9	52	0	0	24	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	2	0	4	9	52	0	0	24	7
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Tnitial Fut:	0	0	0	2	0	0	9	52	0	0	24	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	2	0	4	9	52	0	0	24	7
Reduct Vol:	0	0	0	0	0	0	0 9	0 52	0	0	24	0
						۲ 						
Critical Gap	Modul	Le:										
Critical Gp:	7.1	6.5	6.2	6.4	6.5	6.2	4.1	XXXX	XXXXX	XXXXX	XXXX	XXXXX
FollowUpTim:	3.5 	4.0	3.3	3.5 	4.0	3.3 	2.2			XXXXX 		
Capacity Modu	le:								1			1
Cnflict Vol:	100	101	52	98	98	28	31	XXXX	XXXXX	XXXX	XXXX	XXXXX
Potent Cap.:	887	793	1021	907	796	1054	1595	XXXX	XXXXX	XXXX	XXXX	XXXXX
Move Cap.: Volume/Cap:	088	188	1021	903	/92	1054	1595	XXXX	XXXXX	XXXX	XXXX	XXXXX
Level Of Serv	vice N	lodule	∋:									
2Way95thQ:	XXXX	XXXX	XXXXX	XXXX	XXXX	XXXXX	0.0	XXXX	XXXXX	XXXX	XXXX	XXXXX
Control Del:	* *	XXXX *	XXXXX *	XXXXX *	XXXX *	XXXXX *	. /.3	XXXX *	XXXXX *	XXXXX *	XXXX *	XXXXX *
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 *	XXXXX *	8.6	XXXXX *	7.3	XXXX *	XXXXX *	XXXXX *	XXXX *	XXXXX *
ApproachDel:	Ŷ	^ XXXXX	^	^	A 8.6	^	A	^ XXXXX	^	×3	^ XXXXX	^
ApproachLOS:	212	*			A		212	*		212	*	
Note: Queue	report	ted is	s the r	number	of ca	ars pe	r lane	•				
	4444.	Pe	eak Hou	ır Dela	ay Sig	gnal W	arrant	Repo	rt ++++	بان مان مان مان مان مان مان مان مان مان م		۲
Intersection	××≯ #2 ⊵1		and Lazz		~ * * * * reet	~ ^ ~ * * *	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	~ ~ * * * *	~ ^ ~ ~ ~ * * * *	~ ~ ~ ~ ~ ~ ~ ~ ~	~ ~ ~ ~ ~ ~ ~	~ ^ ~ ~ ~ * *
*****	******	y c	******	******	*****	* * * * * *	* * * * * * *	*****	* * * * * * *	*****	*****	******
Future Volume	e Alte	ernat	ive: Pe	eak Hou	ır Wa	rrant	NOT Met	5				

COMPARE		Fri Nov 30 11:40:0	5 2018		Page 2-14
Approach: Movement:	 North Bound L - T - R	 South Bound L - T - R	 East Bound L - T - R	 West Bound L - T - R	
Control: Lanes: Initial Vol: ApproachDel:	Yield Sign 0 0 1! 0 0 0 0 0 xxxxxx	Yield Sign 0 0 1! 0 0 2 0 4 8.6	Uncontrolled 0 1 0 0 0 9 52 0 xxxxxx	Uncontrolled 0 0 0 1 0 0 24 7 xxxxxx	
Approach[sout Signal Warrar FAIL - Cor Signal Warrar FAIL - App Signal Warrar FAIL - Tot wit	thbound][lanes=1] th Rule #1: [vehi- troller not stop troller #2: [appro- proach volume less th Rule #3: [appro- cal volume less the th less than four	[control=Yield Sincle-hours=0.0] sign. bach volume=6] s than 100 for one bach count=3][toth han 650 for inter approaches.	gn] e lane approach. al volume=98] section		
SIGNAL WARRAN This peak hou "indicator" c a traffic sig are probably signal warran	NT DISCLAIMER or signal warrant of the likelihood gnal in the futur more likely to mo ot (such as the 4	analysis should i of an unsignaliz e. Intersections eet one or more o -hour or 8-hour w	be considered sol ed intersection w that exceed this f the other volum arrants).	ely as an arranting warrant e based	
The peak hour a rigorous ar jurisdiction. the scope of	r warrant analysi nd complete traff . Consideration of this software, m Peak Hour Vol	s in this report ic signal warrant of the other sign ay yield differen ume Signal Warran	is not intended t analysis by the al warrants, whic t results. t Report [Urban]	o replace responsible h is beyond	
Intersection	#2 Alley and Lye	ll Street *****	* * * * * * * * * * * * * * * * * * * *	****	
Future Volume	e Alternative: Pe	ak Hour Warrant N)T Met		
Approach: Movement:	North Bound L - T - R	South Bound L - T - R	East Bound	West Bound L - T - R	
Control: Lanes: Initial Vol:	Yield Sign 0 0 1! 0 0 0 0 0	Yield Sign 0 0 1! 0 0 2 0 4	Uncontrolled 0 1 0 0 0 9 52 0	Uncontrolled 0 0 0 1 0 0 24 7	
Major Street Minor Approac Minor Approac	Volume: ch Volume: ch Volume Thresho	92 6 1d: 856			
SIGNAL WARRAN This peak hou "indicator" o a traffic sig are probably signal warran	NT DISCLAIMER ar signal warrant of the likelihood gnal in the futur more likely to m nt (such as the 4	analysis should i of an unsignaliz e. Intersections eet one or more o -hour or 8-hour w	be considered sol ed intersection w that exceed this f the other volum arrants).	ely as an arranting warrant e based	

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.

				L 2000 HC	Level Of S CM Unsigr	ervice Comp alized (Futu	outation Rep re Volume A	ort Iternative)				
Intersection #2: All	ey and L	yell Str	eet		Ex	isting +Proje	ect PM					
			Signa	l=Yield/Righ	ts=Include							
	Fina La	I Vol: anes:				11 0						
Sig Final Vol: Lanes: Rig	nal=Uncon	itrol e		Vol Cnt I	▼ Date: sec):	n/a F 100	Signal=Unco Rights=Inclue	ntrol de La	nes: Final	Vol:		
4 0 _	_		·	Loss Time (sec):	0		<u>-</u> -	0 3			
0 30 1!	4			Critical	V/C:	0.012			0 1! 20	D		
0	÷		Avg C	crit Del (sec/	veh):	3.1			0			
1 0	Ť.		Avg	Delay (sec/	veh):	3.1		2	0 1			
	•				LOS:	А		•				
		-	5 -	↑ ↑	^►	(
	La Fina	anes: I Vol:	0 0 3 Signa	1! 0 I=Yield/Righ	0 ts=Include	0 3						
Street Name: Approach: Movement:	Nor T	th Bo	All ound - R	Ley Sou	ith Bo	ound - R	Ea T	ast Bo - T	Lyell ound - R	Street We	est Bo - T	ound - R
Volume Module Base Vol:	e: 3	0	3	11	0	9	4	30	1	1	20	3
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	0	3	11	0	9	4	30	1 O	1	20	3
Added VOI: PassorByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut.	3	0	о З	11	0	9	4	30	1	1	20	3
User Adi:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	0	3	11	0	9	4	30	1	1	20	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	3	0	3	11	0	9	4	30	1	1	20	3
Critical Gap	Modul	Le:	6.0			6.0	4 1			4 1		I
Critical Gp:	/.l	6.5	6.2	/.1 2 E	6.5	6.2	4.1	XXXX	XXXXX	4.1	XXXX	XXXXX
FOLLOWUPTIM:	3.5	4.0	3.3	3.5 	4.0	3.3	2.2		×××××	۲.2 		
Capacity Mod	ule:	<i>.</i>	0.1	<i>c</i> .	6.0					0.1		
Chilict Vol:	6/	64 021	3L 1050	64 026	63	1062	23	XXXX	XXXXX	31 1505	XXXX	XXXXX
Move Cap :	932	829	1050	930	830	1062	1605	XXXX	XXXXX VVVVV	1595	XXXX	XXXXX VVVVV
Volume/Cap:	0.00	0.00	0.00	0.01	0.00	0.01	0.00	XXXX	XXXX	0.00	XXXX	XXXX
Level Of Ser	vice N	Iodule	e:									
2Way95tnQ:	XXXX	XXXX	XXXXX	XXXX	XXXX	*****		XXXX	XXXXX	0.0	XXXX	XXXXX
LOS by Move.	* *	*	*	*	*	* *	/ • Z Z	*	*	/.J	*	*
Movement:	LT -	- LTR	– RT	LT -	- LTR	- RT	LT -	- LTR	– RT	LT ·	- LTR	– RT
Shared Cap.:	XXXX	981	XXXXX	XXXX	986	XXXXX	XXXX	XXXX	XXXXX	XXXX	XXXX	XXXXX
SharedQueue:	XXXXX	0.0	XXXXX	XXXXX	0.1	XXXXX	XXXXX	XXXX	XXXXX	XXXXX	XXXX	XXXXX
Shrd ConDel:	XXXXX	8.7	XXXXX	XXXXX	8.7	XXXXX	XXXXX	XXXX	XXXXX	XXXXX	XXXX	XXXXX
Shared LOS:	*	A	*	*	A	*	*	*	*	*	*	*
ApproachDel:		8.7			8.7		XX	XXXXX		XX	XXXXX	
ApproachLOS:		A	- ±1-		A		. 1 -	*			*	
NOTE: Queue	report	.ed 18	s the r	umber	OI Ca	ars pe:	r Lane.	Bonci	~+			
* * * * * * * * * * * *	* * * * * *	۲e ۰ * * * *	=ак HOl ******	1T DGT9	1y 51(*****	yııd⊥ Wö ******	arrant ******	керо: *****	∟ L * * * * * * *	*****	*****	******
Intersection	#2 Al	Lley a	and Lye	ell Sti	reet	*****	*****	*****	*****	*****	*****	******
Future Volum	e Alte	ernat	ive: Pe	eak Hou	ır Wa:	rrant 1	NOT Met	5				

COMPARE		Fri Nov 30 11:40:05	2018		Page 2-16
Approach: Movement:	 North Bound L - T - R	 South Bound L - T - R	 East Bound L - T - R	 West Bound L - T - R	.
Control: Lanes: Initial Vol: ApproachDel:	Yield Sign 0 0 1! 0 0 3 0 3 8.7	Yield Sign 0 0 1! 0 0 11 0 9 8.7	Uncontrolled 0 0 1! 0 0 4 30 1 xxxxxx	Uncontrolled 0 0 1! 0 0 1 20 3 xxxxxx	
Approach[nort Signal Warrar FAIL - Cor Signal Warrar FAIL - App Signal Warrar FAIL - Tot wit	thound][lanes=1] it Rule #1: [vehi- itroller not stop it Rule #2: [appro- proach volume less it Rule #3: [appro- cal volume less the ch less than four	[control=Yield Sig cle-hours=0.0] sign. oach volume=6] s than 100 for one oach count=4][tota han 650 for inters approaches.	n] e lane approach. l volume=85] section	1	_
Approach[sout Signal Warrar FAIL - Cor Signal Warrar FAIL - App Signal Warrar FAIL - Tot wit	thound][lanes=1] It Rule #1: [vehi- Itroller not stop It Rule #2: [appro- proach volume less It Rule #3: [appr cal volume less to th less than four	[control=Yield Sig cle-hours=0.0] sign. oach volume=20] s than 100 for one oach count=4][tota han 650 for inters approaches.	n] = lane approach. 1 volume=85] section		_
SIGNAL WARRAN This peak hou "indicator" o a traffic sig are probably signal warran	IT DISCLAIMER ir signal warrant of the likelihood gnal in the futur more likely to m of (such as the 4	analysis should k of an unsignalize e. Intersections eet one or more of -hour or 8-hour wa	e considered sol d intersection w that exceed this the other volum arrants).	ely as an varranting warrant he based	
The peak hour a rigorous ar jurisdiction. the scope of	warrant analysi nd complete traff Consideration this software, m Peak Hour Vol	s in this report i ic signal warrant of the other signa ay yield different ume Signal Warrant	s not intended t analysis by the l warrants, whic results. Report [Urban]	o replace responsible h is beyond	÷
Intersection ************************************	#2 Alley and Lye	ll Street **********************************	**************************************	****	*
Approach: Movement:	North Bound L - T - R	 South Bound L - T - R	East Bound L - T - R	 West Bound L - T - R	
Control: Lanes: Initial Vol:	Yield Sign 0 0 1! 0 0 3 0 3	 Yield Sign 0 0 1! 0 0 11 0 9	Uncontrolled 0 0 1! 0 0 4 30 1	Uncontrolled 0 0 1! 0 0 1 20 3	
Major Street Minor Approac Minor Approac	Volume: ch Volume: ch Volume Thresho	59 20 1d: 974	I	1	1
SIGNAL WARRAN This peak hou "indicator" c a traffic sig are probably signal warran	NT DISCLAIMER or signal warrant of the likelihood gnal in the future more likely to mo ot (such as the 4	analysis should k of an unsignalize e. Intersections eet one or more of -hour or 8-hour wa	e considered sol d intersection w that exceed this the other volum arrants).	ely as an varranting warrant he based	_
The peak hour a rigorous ar jurisdiction. the scope of	warrant analysi d complete traff . Consideration this software, m	s in this report i ic signal warrant of the other signa ay yield different	s not intended t analysis by the l warrants, whic results.	o replace responsible h is beyond	

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Existing AM											
Intersection #3: Se	cond Street and	d Lyell Str	eet		Existing						
Final Vol: Lanes: Rig 3 0 50 1! 0 1 0	Final Vol: Lanes: nal=Uncontrol nts=Include	Signa 7 0 0 Avg C Avg	I=Stop/Right 0 1! Vol Cnt I Cycle Time (Loss Time (Critical Criti Del (sec/ Delay (sec/	Date: 6/ Sec): V/C: veh): LOS:	34 0 12/2018 100 0 0.041 1.9 1.9 B	Signal=Unco Rights=Inclu		nes: Final 0 10 0 1! 2! 0 0 2	Vol: 0 5		
	Lanes: Final Vol:	0 0 0 Signa	1! 1 I=Stop/Right	0 ts=Include	0 0						
Street Name: Approach: Movement:	North Be L - T	Second ound - R	Street Sou L -	th Bo T	ound - R	Ea L -	ast Bo - T	Lyell ound - R	Stree We L	t est Bo - T	ound - R
Volume Module Base Vol: Growth Adj: Initial Bse: Added Vol: PasserByVol: Initial Fut: User Adj: PHF Adj: PHF Volume: Reduct Vol: FinalVolume:	e: >> Coun 0 1 1.00 1.00 0 1 0 0 0 1 1.00 1.000 1.00 1.000 0 1 0 1 0 1	t Date: 0 1.00 0 0 1.00 1.00 0 0 0 0	: 12 Ju 34 1.00 34 0 0 34 1.00 1.00 34 0 34	in 201 0 1.00 0 0 0 1.00 1.00 0 0 0	18 << 3 7 1.00 7 0 0 7 1.00 1.00 7 0 7	3:00 to 3 1.00 3 0 0 3 1.00 1.00 3 0 3 1.00 3 0 3	9:00 50 1.00 0 50 1.00 1.00 1.00 50 0 50	D AM 1.00 1 0 0 1 1.00 1.00 1 0 1 0 1	2 1.00 2 0 1.00 1.00 2 0 2	25 1.00 25 0 25 1.00 1.00 25 0 25	100 1.00 0 0 100 1.00 1.00 1.00 1.00 100 0 100
Critical Gap Critical Gp:> FollowUpTim:>	Module: xxxxx 6.5 xxxxx 4.0	×××××× ×××××	7.1 3.5	6.5 4.0	6.2	4.1	xxxx xxxx	××××× ×××××	4.1	xxxx xxxx	 xxxxx xxxxx
Capacity Modu Cnflict Vol: Potent Cap.: Move Cap.: Volume/Cap:	lle: xxxx 186 xxxx 712 xxxx 710 xxxx 0.00	xxxxx xxxxx xxxxx xxxx	136 840 837 0.04	136 759 756 0.00	75 992 992 0.01	125 1474 1474 0.00	xxxx xxxx xxxx xxxx	XXXXX XXXXX XXXXX XXXX	51 1568 1568 0.00	xxxx xxxx xxxx xxxx	xxxxx xxxxx xxxxx xxxx
Level Of Serv 2Way95thQ: Control Del:> LOS by Move: Movement: Shared Cap.: SharedQueue:>	vice Modulo xxxx 0.0 xxxx 10.1 * B LT - LTR xxxx xxxx xxxx xxxx	e: xxxxx xxxxx - RT xxxxx xxxx	XXXX XXXXX LT - XXXX XXXX	xxxx xxxx + LTR 860 0.2	XXXXX XXXXX - RT XXXXX XXXXX	0.0 7.4 LT xxxx xxxx	XXXX XXXX + LTR XXXX XXXX	XXXXX XXXXX - RT XXXXX XXXXX	0.0 7.3 LT xxxx xxxx	XXXX XXXX + LTR XXXX XXXX	XXXXX XXXXX - RT XXXXX XXXXX
Shrd ConDel:> Shared LOS: ApproachDel: ApproachLOS: Note: Queue n	xxxx xxxx * 10.1 B reported i: Person	xxxxx * s the r eak Hou ******	xxxxx * number ir Dela	9.4 A 9.4 A of ca ay Sig	xxxxx * ars pe: gnal Wa	xxxxx x r lane arrant *****	×××× * * * Repoi	xxxxx * * ct	××××× * ×	×××× * * *	XXXXX *
Intersection #3 Second Street and Lyell Street											
Future Volume	e Alternat	ive: Pe	eak Hou	ır Wai	rrant l	NOT Met	t				

COMPARE		Fri Nov 30 11:40:05	2018		Page 2-18
 2					
Approacn: Movement:	North Bound L - T - R	South Bound L - T - R	East Bound L - T - R	West Bound L - T - R	
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled	
Lanes:				$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	
ApproachDel:	10.1	9.4	3 30 I XXXXXX	Z ZJ 100 XXXXXX	
Approach[nort	hbound][lanes=1]	[control=Stop Sigr]		
FAIL - Veh	icle-hours less	than 4 for one lar	e approach		
Signal Warran	t Rule #2: [appr	oach volume=1]	e approach.		
FAIL - App	roach volume les	s than 100 for one	lane approach.		
Signal Warran	t Rule #3: [appr	oach count=4][tota	l volume=223]		
FALL - Tot wit	al volume less t h less than four	nan 650 for inters	ection		
Approach[sout	hbound][lanes=1]	[control=Stop Sigr]		
Signal Warran	t Rule #1: [vehi	cle-hours=0.1]	o approach		
Signal Warran	t Rule #2: [appr	oach volume=411	e approach.		
FAIL - App	roach volume les	s than 100 for one	lane approach.		
Signal Warran	t Rule #3: [appr	oach count=4][tota	l volume=223]		
FAIL - Tot wit	al volume less t h less than four	nan 650 for inters approaches.	ection		
SIGNAL WARRAN	T DISCLAIMER				
"Inlight peak hou	r signal warrant	analysis should b	e considered sol	ely as an arranting	
a traffic sig	nal in the futur	e. Intersections	that exceed this	warrant	
are probably	more likely to m	eet one or more of	the other volume	e based	
signal warran	t (such as the 4	-hour or 8-hour wa	rrants).		
The neak hour	warrant analysi	s in this report i	s not intended to	n replace	
a rigorous an	d complete traff	ic signal warrant	analysis by the	responsible	
jurisdiction.	Consideration	of the other signa	l warrants, which	h is beyond	
the scope of	this software, m	ay yield different	results.		
* * * * * * * * * * * * *	Peak Hour Vol	ume Signal Warrant	. Report [Urban] ***************	* * * * * * * * * * * * * * * * * *	
Intersection	#3 Second Street	and Lyell Street			
*********	****	* * * * * * * * * * * * * * * * * * * *	****	* * * * * * * * * * * * * * * * * * * *	
Future Volume	Alternative: Pe	ak Hour Warrant NC	'T' Met 		
Approach:	North Bound	South Bound	East Bound	West Bound	
Movement:	L – T – R	L – T – R	L – T – R	L – T – R	
 Count work				 The sector of the d	
Lanes:	Stop Sign	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	
Major Street	Volume:	181			
Minor Approac	n volume: h Volume Thresho	41 1d• 675			
SIGNAL WARRAN	T DISCLAIMER				
This peak hou	r signal warrant	analysis should b	e considered sol	ely as an	
a traffic sig	nal in the futur	e Intersections	that exceed this	warrant	
are probably	more likely to m	eet one or more of	the other volum	e based	
signal warran	t (such as the 4	-hour or 8-hour wa	rrants).		
The neak have	warrant analwet	e in this ronart f	a not intonded +	n ronlace	
THE PEAK HOUL	wattall, alld IVSI				
a rigorous an	d complete traff	ic signal warrant	analysis by the	responsible	
jurisdiction.	d complete traff Consideration	ic signal warrant of the other signa	analysis by the analysis which	responsible h is beyond	

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative)								
Intersection #3: Second Street and Lyell Street								
Signal=Stop/Rights=Include								
Final Vol: 7 1 86 Lanes: 0 0 1! 0 0								
Final Vol: Lanes: Rights=Include Vol Cnt Date: 6/12/2018 Rights=Include Lanes: Final Vol:								
23 0 2 Cycle Lime (sec): 100 4 0 56								
0 A Loss Time (sec): 0								
22 1! Critical V/C: 0.103 1! 15								
0 Avg Crit Del (sec/veh): 5.3 0								
_¥								
1 0 Avg Delay (sec/veh): 5.3 0 9								
LOS: A								
<								
Lanes: 0 0 1! 0 0								
Final Vol: 0 2 0								
Signal=Sigh/Rights=Include								
Street Name: Second Street Lyell Street	Bound							
Movement: L - T - R L - T - R L - T - R L - T	– R							
Volume Module: >> Count Date: 12 Jun 2018 << 4:30 to 5:30 PM Base Vol: 0 2 0 86 1 7 23 22 1 9 1	5 56							
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	0 1.00							
Initial Bse: 0 2 0 86 1 7 23 22 1 9 1	5 56							
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0							
Initial Fut: 0 2 0 86 1 7 23 22 1 9 1	5 56							
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	0 1.00							
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	0 1.00							
PHF volume: 0 2 0 86 1 7 23 22 1 9 1 Beduct Vol: 0 <td>5 56 0 0</td>	5 56 0 0							
FinalVolume: 0 2 0 86 1 7 23 22 1 9 1	5 56							
Critical Gap Module: Critical Gp:xxxxx 6.5 xxxxx 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxx	x xxxxx							
FollowUpTim:xxxx 4.0 xxxx 3.5 4.0 3.3 2.2 xxx xxxx 2.2 xxx	x xxxxx							
Capacity Module: Coffict Vol. XXXX 158 XXXXX 131 130 43 71 XXXX XXXXX 23 XXX	v vvvvv							
Potent Cap.: xxxx 738 xxxxx 847 764 1033 1542 xxxx xxxxx 1605 xxx	X XXXXX							
Move Cap.: xxxx 723 xxxxx 832 749 1033 1542 xxxx xxxxx 1605 xxx	x xxxxx							
Volume/Cap: xxxx 0.00 xxxx 0.10 0.00 0.01 0.01 xxxx xxxx	x xxxx							
Level Of Service Module:								
2Way95thQ: xxxx 0.0 xxxxx xxxx xxxx 0.0 xxxx 0.0 xxxx 0.0 xxx	x xxxxx							
Control Del:xxxxx 10.0 xxxxx xxxxx xxxx 7.4 xxxx xxxx 7.3 xxx	X XXXXX + +							
LOS DY MOVE: A A A A A A A A A A A A A A A A A A A	R – RT							
Shared Cap.: xxxx xxxx xxxx xxxx 843 xxxxx xxxx xxxx	x xxxxx							
SharedQueue:xxxxx xxxx xxxxx 0.4 xxxxx xxxx xxxx xxx	X XXXXX							
Shrd ConDel:xxxxx xxxx xxxx xxxx 9.8 xxxxx xxxx xxxx	x xxxxx * *							
ApproachDel: 10.0 9.8 xxxxx xxxx	x							
ApproachLOS: A A *	*							
Note: Queue reported is the number of cars per lane.								
rear nour peray Signal Warrant Report ************************************	* * * * * * * *							
Intersection #3 Second Street and Lyell Street								
Future Volume Alternative: Peak Hour Warrant NOT Met								

COMPARE		Fri Nov 30 11:40:05	2018		Page 2-20
Approach: Movement:	 North Bound L - T - R	 South Bound L - T - R	 East Bound L - T - R	 West Bound L - T - R	
Control: Lanes: Initial Vol: ApproachDel:	Stop Sign 0 0 1 0 0 0 2 0 10.0	Stop Sign 0 0 1! 0 0 86 1 7 9.8	Uncontrolled 0 0 1! 0 0 23 22 1 xxxxxx	Uncontrolled 0 0 1! 0 0 9 15 56 xxxxxx	
Approach[nort Signal Warrar FAIL - Veh Signal Warrar FAIL - App Signal Warrar FAIL - Tot wit	thbound][lanes=1] it Rule #1: [vehi iccle-hours less it Rule #2: [appr proach volume less it Rule #3: [appr cal volume less t ch less than four	[control=Stop Sign cle-hours=0.0] than 4 for one lan oach volume=2] s than 100 for one oach count=4][tota han 650 for inters approaches.] e approach. lane approach. l volume=222] ection	1 1	
Approach[sout Signal Warrar FAIL - Veh Signal Warrar FAIL - App Signal Warrar FAIL - Tot wit	thbound][lanes=1] it Rule #1: [vehi iicle-hours less it Rule #2: [appr proach volume less it Rule #3: [appr cal volume less t ch less than four	[control=Stop Sign cle-hours=0.3] than 4 for one lan oach volume=94] s than 100 for one oach count=4][tota han 650 for inters approaches.] e approach. lane approach. l volume=222] ection		
SIGNAL WARRAN This peak hou "indicator" c a traffic sig are probably signal warrar	IT DISCLAIMER or signal warrant of the likelihood gnal in the futur more likely to m ot (such as the 4	analysis should b of an unsignalize e. Intersections eet one or more of -hour or 8-hour wa	e considered sol d intersection w that exceed this the other volum rrants).	ely as an arranting warrant e based	
The peak hour a rigorous ar jurisdiction. the scope of	warrant analysi d complete traff Consideration this software, m Peak Hour Vol	s in this report i ic signal warrant of the other signa ay yield different ume Signal Warrant	s not intended t analysis by the l warrants, whic results. Report [Urban]	o replace responsible h is beyond	·
Intersection ************************************	#3 Second Street	and Lyell Street **********************************	**************************************	* * * * * * * * * * * * * * * * * * *	
Approach: Movement:	 North Bound L - T - R	 South Bound L - T - R	 East Bound L - T - R	 West Bound L - T - R	
Control: Lanes: Initial Vol:	 Stop Sign 0 0 1 0 0 0 2 0	 Stop Sign 0 0 1! 0 0 86 1 7	Uncontrolled 0 0 1! 0 0 23 22 1	Uncontrolled 0 0 1! 0 0 9 15 56	
Major Street Minor Approac Minor Approac	Volume: ch Volume: ch Volume Thresho	126 94 1d: 772	I	1 1	
SIGNAL WARRAN This peak hou "indicator" c a traffic sig are probably signal warrar	IT DISCLAIMER of the likelihood gnal in the futur more likely to m nt (such as the 4	analysis should b of an unsignalize e. Intersections eet one or more of -hour or 8-hour wa	e considered sol d intersection w that exceed this the other volum rrants).	ely as an arranting warrant we based	-
The peak hour a rigorous ar jurisdiction. the scope of	warrant analysi d complete traff Consideration this software, m	s in this report i ic signal warrant of the other signa ay yield different	s not intended t analysis by the l warrants, whic results.	o replace responsible h is beyond	

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative)											
Intersection #3: Sec	cond Street	t and Lyell Sti	eet	L/	isting +Froje						
		Signa	l=Stop/Righ	s=Include							
	Final Vol Lanes	1: 7 5: 0 0	0 1!	0 	34 0						
Sigr Final Vol: Lanes: Rig	nal=Uncontrol hts=Include	• •	Vol Cnt I	Date:	n/a F	Signal=Unco Rights=Inclue	ntrol Je La	nes: Final	Vol:		
3 0 🤳	•		Joss Time (sec):	100		₹	0 10	00		
0			Critical	V/C:	0 041	4	<u>-</u>	0 1! 2:	3		
0 -	► ►	Avg (Crit Del (sec/	veh):	1.9			0	-		
1 0	7	Avg	Delay (sec/	veh):	1.9		<u>*</u>	0 2	2		
				LOS:	В		•				
				↑ ►	(
	Lanes Final Vol	:: 0 0 I: 0 Signa	1! 1 I=Stop/Right	0 s=Include	0 0						
Street Name:		Second	Street	5				Lyell	Street	t	
Approach: Movement:	North L -	1 Bound T – R	Sou L -	ith Bo - T	ound – R	Ea L -	ast Bo - T	ound - R	We L -	est Bo - T	ound - R
Volume Module Base Vol: Growth Adi.		1 0	34	0	7	3	51	1	2	23	100
Initial Bse:	0	1 0	34	0	7	3	51	1	2	23	100
Added Vol: PasserByVol:	0	0 0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1 0	34	0	7	3	51	1	2	23	100
User Adj: 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: FinalVolume:	0 0	0 0 1 0	0 34	0 0	0 7	0 3	0 51	0 1	0 2	0 23	0 100
Critical Gap	Module.										
Critical Gp:x	xxxxx 6	5.5 xxxxx	7.1	6.5	6.2	4.1	XXXX	XXXXX	4.1	XXXX	XXXXX
FollowUpTim:x	xxxxx 4	1.0 xxxxx	3.5	4.0	3.3	2.2		xxxxx	2.2		xxxxx
Capacity Modu	le:	0.5	105	1 2 5	70	100			Г Г Б О		
Potent Cap.:	xxxx 7	13 xxxxx	841	760	995	1477	XXXX	XXXXXX	1567	XXXX	XXXXXX
Move Cap.:	xxxx 7	11 xxxxx	838	757	995	1477	XXXX	XXXXX	1567	XXXX	XXXXX
Volume/Cap:	xxxx 0.	.00 xxxx	0.04	0.00	0.01	0.00		XXXX	0.00		××××
Level Of Serv	vice Mod	dule:				0.0			0.0		
Zway95tnQ: Control Del:x	xxxx (xxxxx 10).0 xxxxx).1 xxxxx	XXXX	XXXX	XXXXXX	0.0 7.4	XXXX	XXXXXX	7.3	XXXX	XXXXXX
LOS by Move:	*	в *	*	*	*	A	*	*	A	*	*
Movement:	LT - I	LTR - RT	LT -	- LTR	- RT	LT -	- LTR	- RT	LT -	- LTR	- RT
SharedOueue.	XXXX XX XXXX XX	XX XXXXX XX XXXXX	XXXX XXXXX	861 0.1	XXXXXX	XXXX XXXXX	XXXX XXXX	XXXXXX	XXXX XXXXX	XXXX	XXXXX XXXXX
Shrd ConDel:x		* *	XXXXXX	9.4	XXXXXX	XXXXXX	XXXX *	XXXXXX	XXXXXX	XXXX *	XXXXX *
ApproachDel:	. 10).1	^	9.4	^	Â	^ XXXXX	^	^ XX	xxxxx	<u>^</u>
ApproachLOS: Note: Queue r	reported	B l is the n	number	A of ca	ars pei	r lane	*			*	
		Peak Hou	ır Dela	ay Sid	gnal Wa	arrant	Repo	rt			

****	Intersection #3 Second Street and Lyell Street **********************************										
Future Volume	e Alterr	native: Pe	eak Hou	ır Wa:	rrant 1	NOT Met	5				

COMPARE	Fri Nov 30 11:40:05 2018	Page 2-22
Approach: Movement:	Image: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - R L - T - R Image: North Bound Image: North Bound Image: North Bound West Bound	
Control: Lanes: Initial Vol: ApproachDel:	Stop Sign Stop Sign Uncontrolled Uncontrolled 0 1 0 0 1! 0 0 1! 0 0 1! 0 0 1! 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 1 0 3 51 1 2 2 100 1 10.1 9.4 xxxxxxx xxxxxxx xxxxxxx 1	
Approach[nort Signal Warrar FAIL - Veh Signal Warrar FAIL - App Signal Warrar FAIL - Tot wit	<pre>chbound][lanes=1][control=Stop Sign] ht Rule #1: [vehicle-hours=0.0] hicle-hours less than 4 for one lane approach. ht Rule #2: [approach volume=1] broach volume less than 100 for one lane approach. ht Rule #3: [approach count=4][total volume=222] cal volume less than 650 for intersection th less than four approaches.</pre>	
Approach[sout Signal Warrar FAIL - Ver Signal Warrar FAIL - App Signal Warrar FAIL - Tot wit	<pre>chbound][lanes=1][control=Stop Sign] ht Rule #1: [vehicle-hours=0.1] hicle-hours less than 4 for one lane approach. ht Rule #2: [approach volume=41] broach volume less than 100 for one lane approach. ht Rule #3: [approach count=4][total volume=222] tal volume less than 650 for intersection th less than four approaches.</pre>	
SIGNAL WARRAN This peak hou "indicator" o a traffic sio are probably signal warran	NT DISCLAIMER IT signal warrant analysis should be considered solely as an of the likelihood of an unsignalized intersection warranting gnal in the future. Intersections that exceed this warrant more likely to meet one or more of the other volume based nt (such as the 4-hour or 8-hour warrants).	
The peak hour a rigorous ar jurisdiction. the scope of	r warrant analysis in this report is not intended to replace nd complete traffic signal warrant analysis by the responsible . Consideration of the other signal warrants, which is beyond this software, may yield different results. Peak Hour Volume Signal Warrant Report [Urban]	
**************************************	**************************************	
****	**************************************	
Approach: Movement:	North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - R L - T - R	
Control: Lanes: Initial Vol:	Stop Sign Stop Sign Uncontrolled Uncontrolled 0 0 1 0 0 1! 0 0 1! 0 0 1! 0 0 1! 0 0 1! 0 0 1! 0 0 1! 0 0 1! 0 0 1! 0 0 1! 0 0 1! 0 0 1! 0 0 1! 0 0 1! 0 0 1! 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0 1! 0 0 0	
Major Street Minor Approac Minor Approac	Volume: 180 ch Volume: 41 ch Volume Threshold: 677	
SIGNAL WARRAN This peak hou "indicator" o a traffic sig are probably signal warran	VT DISCLAIMER of signal warrant analysis should be considered solely as an of the likelihood of an unsignalized intersection warranting gnal in the future. Intersections that exceed this warrant more likely to meet one or more of the other volume based of (such as the 4-hour or 8-hour warrants).	
The peak hour a rigorous ar jurisdiction.	r warrant analysis in this report is not intended to replace nd complete traffic signal warrant analysis by the responsible . Consideration of the other signal warrants, which is beyond	

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Existing +Project PM												
Intersection #3: Se	cond St	reet and	d Lyell Str	eet								
			Ciana	-Stop/Dich	e_Inducto							
	Fina	ıl Vol:	7	1=Stop/Right	S=Include	86						
	Li	anes:	0 0	1!	0	0						
		-	4	LL	⊸⊾⊳	· •						
0:				7	V	-						
Final Vol: Lanes: Rig	nal=Uncor hts=Includ	e		Vol Cnt I	Date:	n/a F	Signal=Unco Rights=Inclue	ntrol de La	nes: Final	Vol:		
22 0	k		(Cycle Time (sec):	100		▲	0 50	2		
23 0	•			Loss Time (sec):	0		<u> </u>	0 50	5		
0	•			Critical	V/C:	0 103	-	7	0	5		
	≵		Ava C	crit Del (sec/	veh):	5.3			0	5		
1 0	Ý		Ava	Delay (sec/	veh):	53		¥_	0 0			
	¥		Avg	Delay (Sec/	LOS:	Э.Э А		¥ –	0 3			
				•	A							
	La Fina	anes: Il Vol:	0 0 0	1! 2	0	0 0						
			Signa	I=Stop/Right	s=Include							
Street Name:		C L	Second	Street	5				Lyell	Street	E C	
Approach:	Noi	rth Bo	ound	Soi	ith Bo	ound	Εā	ast Bo	ound	We	est Bo	ound
Movement:	L -	- T	- R	L -	- T	- R	L -	- Т	– R	L -	- Т	- R
Volume Module	e:	0	0	0.0	1	-	0.0	0.1	1	0	1.0	БC
Base Vol:	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	20 1 00
Tritial Race	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00 21	1.00	1.00	1.00	1.00
Initial DSe.	0	2	0	00	1 1	/	23	21	1	9	10	0
Added VOI:	0	0	0	0	0	0	0	0	0	0	0	0
Toitial Fut.	0	2	0	86	1	0	23	21	1	Q Q	16	56
Usor Adi.	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00
PHF Adi.	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00
PHF Volume:	0.11	2	0.11	86	1.00	1.00	23	21	1	1.00	16	56
Reduct Vol:	0	0	0	0	0	, 0	0	0	0	0	10	0
FinalVolume:	0	2	0	86	1	7	23	21	1	9	16	56
Critical Gap	Modul	le:										
Critical Gp:	XXXXX	6.5	XXXXX	7.1	6.5	6.2	4.1	XXXX	XXXXX	4.1	XXXX	XXXXX
FollowUpTim:	XXXXX	4.0	XXXXX	3.5	4.0	3.3	2.2	XXXX	XXXXX	2.2	XXXX	XXXXX
Capacity Modu	ule:						= 0					
Cnflict Vol:	XXXX	158	XXXXX	131	130	44	1541	XXXX	XXXXX	22	XXXX	XXXXX
Potent Cap.:	XXXX	/38	XXXXX	84/	764	1032	1541	XXXX	XXXXX	1607	XXXX	XXXXX
Move Cap.:	XXXX	/23	XXXXX	832	/49	1032	1541	XXXX	XXXXX	1607 0 01	XXXX	XXXXX
vorume/cap:				0.10			0.01			0.01		
Level Of Serv	vice N	Module	- •				1 1					1
2Wav95thO:	××××	0.0	 xxxxx	xxxx	xxxx	*****	0.0	xxxx	*****	0.0	xxxx	x x x x x x
Control Del:	*****	10.0	XXXXX	XXXXX	XXXX	XXXXX	7.4	XXXX	XXXXX	7.3	XXXX	XXXXX
LOS by Move:	*	A	*	*	*	*	A	*	*	A	*	*
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:	XXXXX	XXXX	XXXXX	XXXXX	0.4	XXXXX	XXXXX	XXXX	XXXXX	XXXXX	XXXX	XXXXX
Shrd ConDel:	xxxxx	XXXX	XXXXX	XXXXX	9.8	XXXXX	XXXXX	XXXX	XXXXX	XXXXX	XXXX	XXXXX
Shared LOS:	*	*	*	*	A	*	*	*	*	*	*	*
ApproachDel:		10.0			9.8		XX	xxxxx		XX	XXXXX	
ApproachLUS:	roner	A - bo-	- + h	umber	A		n 1	*			*	
Note: Quene 1	Leport	Leu 18	s une r	uuuper	OL C	ars pei mal M	L Lane.	· Popor	rt			
* * * * * * * * * * * *	*****	۲¢ * * * * *	=ar HOl ******	1T DGT9	ıy ⊃⊥(*****	yııa⊥ Wö ******	a⊥⊥dIlU ******	***** vebo:	∟ L * * * * * * *	*****	*****	* * * * * * *
Intersection	#3 94	acond	Street	and T	.vell	Street	+					
**********	*****	*****	******	******	*****	******	- * * * * * * * *	* * * * * *	* * * * * * *	* * * * * * *	*****	* * * * * * *
Future Volume	Guture Volume Alternative: Peak Hour Warrant NOT Met											

COMPARE		Fri Nov 30 11:40:05	2018		Page 2-24
Approach: Movement:	 North Bound L - T - R	 South Bound L - T - R	 East Bound L - T - R	 West Bound L - T - R	
Control: Lanes: Initial Vol: ApproachDel:	Stop Sign 0 0 1 0 0 0 2 0 10.0	Stop Sign 0 0 1! 0 0 86 1 7 9.8	Uncontrolled 0 0 1! 0 0 23 21 1 xxxxxx	Uncontrolled 0 0 1! 0 0 9 16 56 xxxxxx	
Approach[nort Signal Warrar FAIL - Veh Signal Warrar FAIL - App Signal Warrar FAIL - Tot wit	thbound][lanes=1] at Rule #1: [vehi aicle-hours less at Rule #2: [appr proach volume less at Rule #3: [appr cal volume less t ch less than four	[control=Stop Sign cle-hours=0.0] than 4 for one lan oach volume=2] s than 100 for one oach count=4][tota han 650 for inters approaches.] e approach. lane approach. l volume=222] ection		
Approach[sout Signal Warrar FAIL - Veh Signal Warrar FAIL - App Signal Warrar FAIL - Tot wit	thbound][lanes=1] at Rule #1: [vehi aicle-hours less at Rule #2: [appr broach volume less at Rule #3: [appr cal volume less t ch less than four	<pre>[control=Stop Sign cle-hours=0.3] than 4 for one lan oach volume=94] s than 100 for one oach count=4][tota han 650 for inters approaches.</pre>] e approach. lane approach. l volume=222] ection		
SIGNAL WARRAN This peak hou "indicator" o a traffic sig are probably signal warran	WT DISCLAIMER or signal warrant of the likelihood gnal in the futur more likely to m ot (such as the 4	analysis should b of an unsignalize e. Intersections eet one or more of -hour or 8-hour wa	e considered sol d intersection w that exceed this the other volum rrants).	ely as an arranting warrant e based	
The peak hour a rigorous ar jurisdiction. the scope of	warrant analysi d complete traff Consideration this software, m Peak Hour Vol	s in this report i ic signal warrant of the other signa ay yield different ume Signal Warrant	s not intended t analysis by the l warrants, whic results. Report [Urban]	o replace responsible h is beyond	·
Intersection ************** Future Volume	#3 Second Street	and Lyell Street **********************************	**************************************	****	r.
Approach: Movement:	North Bound L - T - R	 South Bound L - T - R	 East Bound L - T - R	 West Bound L - T - R	
Control: Lanes: Initial Vol:	Stop Sign 0 0 1 0 0 0 2 0	Stop Sign 0 0 1! 0 0 86 1 7	Uncontrolled 0 0 1! 0 0 23 21 1	Uncontrolled 0 0 1! 0 0 9 16 56	
Major Street Minor Approac Minor Approac	Volume: ch Volume: ch Volume Thresho	126 94 1d: 772	I	' '	
SIGNAL WARRAN This peak hou "indicator" c a traffic sig are probably signal warrar	AT DISCLAIMER or signal warrant of the likelihood gnal in the futur more likely to m nt (such as the 4	analysis should b of an unsignalize e. Intersections eet one or more of -hour or 8-hour wa	e considered sol d intersection w that exceed this the other volum rrants).	ely as an arranting warrant e based	-
The peak hour a rigorous ar jurisdiction. the scope of	warrant analysi d complete traff Consideration this software, m	s in this report i ic signal warrant of the other signa ay yield different	s not intended t analysis by the l warrants, whic results.	o replace responsible h is beyond	

Level Of Service Computation Report



COMPARE		Fri Nov 30 11:40:05	2018	_	Page 2-26
Approach: Movement:	North Bound L - T - R	South Bound L - T - R	East Bound L - T - R	West Bound L - T - R	
Lanes: Initial Vol: ApproachDel:	1 0 1 1 0 106 707 10 xxxxxx	1 0 1 1 0 36 516 19 xxxxxx	0 0 1! 0 0 13 9 58 21.7	0 0 1! 0 0 4 6 30 20.3	
Approach[east Signal Warrar FAIL - Veh Signal Warrar FAIL - App Signal Warrar SUCCEED -	bound][lanes=1][tt Rule #1: [vehi ticle-hours less tt Rule #2: [appr proach volume les tt Rule #3: [appr Total volume gre with four or mor	control=Stop Sign] cle-hours=0.5] than 4 for one land oach volume=80] s than 100 for one oach count=4][tota] ater than or equal e approaches.	e approach. lane approach. l volume=1514] to 800 for inter	rsection	
Approach[west Signal Warrar FAIL - Veh Signal Warrar FAIL - App Signal Warrar SUCCEED -	bound][lanes=1][at Rule #1: [vehi at Rule #2: [appr broach volume les at Rule #3: [appr Total volume gre with four or mor	control=Stop Sign] cle-hours=0.2] than 4 for one land oach volume=40] s than 100 for one oach count=4][tota ater than or equal e approaches.	≥ approach. lane approach. l volume=1514] to 800 for inter	section	
SIGNAL WARRAN This peak hou "indicator" c a traffic sig are probably signal warrar	T DISCLAIMER or signal warrant of the likelihood mal in the futur more likely to m ot (such as the 4	analysis should be of an unsignalized e. Intersections eet one or more of -hour or 8-hour wa	considered sole intersection wa that exceed this the other volume rrants).	ly as an irranting warrant based	
The peak hour a rigorous ar jurisdiction. the scope of	warrant analysi d complete traff Consideration this software, m Peak Hour Vol	s in this report is ic signal warrant a of the other signal ay yield different ume Signal Warrant	s not intended to analysis by the r L warrants, which results. Report [Urban]	> replace esponsible 1 is beyond	
Intersection ************ Future Volume	#4 San Antonio R ************************************	oad and Lyell Stree ***********************************	≥t ***************** ſ Met	****	
Approach: Movement:	North Bound L - T - R	- South Bound L - T - R	East Bound L - T - R	 West Bound L - T - R	
Control: Lanes: Initial Vol:	Uncontrolled 1 0 1 1 0 106 707 10	Uncontrolled 1 0 1 1 0 36 516 19	Stop Sign 0 0 1! 0 0 13 9 58	Stop Sign 0 0 1! 0 0 4 6 30	
Major Street Minor Approac Minor Approac	Volume: ch Volume: ch Volume Thresho	1394 80 ld: 170			
SIGNAL WARRAN This peak hou "indicator" c a traffic sig are probably signal warrar	T DISCLAIMER of signal warrant of the likelihood mal in the futur more likely to m of (such as the 4	analysis should be of an unsignalized e. Intersections f eet one or more of -hour or 8-hour wa	e considered sole i intersection wa that exceed this the other volume rrants).	ely as an arranting warrant e based	
The peak hour a rigorous ar jurisdiction. the scope of	e warrant analysi d complete traff Consideration this software, m	s in this report is ic signal warrant a of the other signal ay yield different	s not intended to analysis by the r l warrants, which results.) replace cesponsible n is beyond	

Level Of Service Computation Report



COMPARE		Fri Nov 30 11:40:0	5 2018		Page 2-28
Approach: Movement:	 North Bound L - T - R	 South Bound L - T - R	 East Bound L - T - R	 West Bound L - T - R	
Control: Lanes: Initial Vol: ApproachDel:	Uncontrolled 1 0 1 1 0 54 488 6 xxxxxx	Uncontrolled 1 0 1 1 0 81 827 19 xxxxxx	Stop Sign 0 0 1! 0 0 10 11 77 25.0	Stop Sign 0 0 1! 0 0 1 0 24 11.2	
Approach[east Signal Warrar FAIL - Veł Signal Warrar FAIL - App Signal Warrar SUCCEED -	bound][lanes=1][t Rule #1: [vehinicle-hours less t Rule #2: [approach volume less t Rule #3: [approach volume gre with four or mor	control=Stop Sign cle-hours=0.7] than 4 for one la: coach volume=98] s than 100 for on coach count=4][tot. cater than or equa re approaches.	he approach. e lane approach. al volume=1598] l to 800 for inte	rsection	
Approach[west Signal Warrar FAIL - Vel Signal Warrar FAIL - App Signal Warrar SUCCEED -	bound][lanes=1][t Rule #1: [vehinicle-hours less t Rule #2: [approach volume less t Rule #3: [approach volume gre with four or mor	control=Stop Sign cle-hours=0.1] than 4 for one las coach volume=25] is than 100 for on coach count=4][tot cater than or equa e approaches.] ne approach. e lane approach. al volume=1598] l to 800 for inte	rsection	
SIGNAL WARRAM This peak hou "indicator" o a traffic sig are probably signal warram	NT DISCLAIMER Ir signal warrant of the likelihood gnal in the futur more likely to m nt (such as the 4	analysis should l of an unsignaliz e. Intersections weet one or more o -hour or 8-hour w	ce considered sole ad intersection we that exceed this f the other volume arrants).	ely as an arranting warrant e based	-
The peak hour a rigorous ar jurisdiction the scope of	warrant analysi d complete traff Consideration this software, m Peak Hour Vol	s in this report ic signal warrant of the other sign ay yield differen ume Signal Warran	is not intended to analysis by the al warrants, whic t results. t Report [Urban]	o replace responsible h is beyond	
**************************************	**************************************	**************************************	* * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * *	
*****			* * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * *	
Approach: Movement:	North Bound	South Bound L - T - R	L - T - R	 West Bound L - T - R	
Control: Lanes: Initial Vol:	Uncontrolled 1 0 1 1 0 54 488 6	Uncontrolled 1 0 1 1 0 81 827 19	Stop Sign 0 0 1! 0 0 10 11 77	Stop Sign 0 0 1! 0 0 1 0 24	
Major Street Minor Approad Minor Approad	Volume: ch Volume: ch Volume Threshc	1475 98 91d: 151	I I	1 1	
SIGNAL WARRAM This peak hou "indicator" o a traffic sig are probably signal warram	T DISCLAIMER T signal warrant of the likelihood gnal in the futur more likely to m nt (such as the 4	analysis should i of an unsignaliz e. Intersections meet one or more o -hour or 8-hour wa	ce considered solved intersection we that exceed this f the other volume arrants).	ely as an arranting warrant e based	
The peak hour a rigorous ar jurisdiction.	r warrant analysi nd complete traff . Consideration	s in this report ic signal warrant of the other sign	is not intended to analysis by the al warrants, whic	o replace responsible h is beyond	

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Existing - Project AM											
Intersection #4: San	Antonio Road	d and Lyel	I Street		ioting in roje						
Final Vol: Lanes: Signal Final Vol: Lanes: Rights 14 0 9 1! 0 58 0	Final Vol: Lanes: I=Stop s=Include	Signal=L 17 0 1 V • (Avg C Avg C	Jncontrol/Rig 516 1 Vol Cnt I Cycle Time (: Critical criti Del (sec/ Delay (sec/	Date: sec): V/C: veh): -OS:	de 36 1 n/a 100 0 0.113 2.6 C	Signal=Stop Rights=Incluc		nes: Final 0 30 0 1! 6 0 0 4	Vol:		
Street Name: Approach:	Lanes: Final Vol: North B	1 0 106 Signal=L an Antco ound	1 707 Jncontrol/Rig Dnio Ro Sou	1 ghts=Inclu	0 10 de	Ea	ast Bo	Lyell bund	Street We	est Bo	ound
		- к 	- L 	- <u> </u>	- к 	- L 	- 1	- ĸ	- ⊥ 	- 1 	- ĸ
Volume Module: Base Vol: Growth Adj: 1 Initial Bse: Added Vol: PasserByVol: Initial Fut: User Adj: 1 PHF Adj: 1 PHF Volume: Reduct Vol: FinalVolume:	: 106 707 1.00 1.00 106 707 0 0 0 0 106 707 1.00 1.00 1.00 1.00 1.00 707 0 0 106 707	10 1.00 0 10 1.00 1.00 1.00 10 10	36 1.00 36 1.00 1.00 36 0 36	516 1.00 516 1.00 516 1.00 516 0 516	17 1.00 17 0 0 17 1.00 1.00 17 0 17	14 1.00 14 0 14 1.00 1.00 14 0 14 14	9 1.00 9 0 9 1.00 1.00 9 0 9	58 1.00 58 0 58 1.00 1.00 58 0 58	4 1.00 4 0 4 1.00 1.00 4 0 4	6 1.00 6 1.00 1.00 6 0 6	30 1.00 30 0 30 1.00 1.00 30 0 30
Critical Gap M Critical Gp: FollowUpTim:	4.1 xxxx 2.2 xxxx	xxxxx xxxxx	4.1 2.2	xxxx xxxx	xxxxx xxxxx	7.5 3.5	6.5 4.0	6.9 3.3	7.5 3.5	6.5 4.0	6.9 3.3
Capacity Modul Cnflict Vol: Potent Cap.: 1 Move Cap.: 1 Volume/Cap: 0	Le: 533 xxxx L045 xxxx L045 xxxx).10 xxxx	XXXXX XXXXX XXXXX XXXX	717 893 893 0.04	XXXX XXXX XXXX XXXX	XXXXX XXXXX XXXXX XXXX	1165 152 124 0.11	1526 119 103 0.09	267 738 738 0.08	1259 130 100 0.04	1529 118 102 0.06	359 644 644 0.05
Level Of Servi 2Way95thQ: Control Del: LOS by Move: Movement: Shared Cap.: x SharedQueue:xx SharedQueue:xx Shared LOS: ApproachDel: ApproachLOS: Note: Queue re	ice Modul 0.3 xxxx 8.8 xxxx A * LT - LTR XXXX XXXX XXXX XXXX * * eported i P	e: XXXXX - RT XXXXX XXXXX XXXXX * s the r eak Hou	0.1 9.2 A LT - xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxx	XXXX XXXX - LTR XXXX XXXX XXXX * CXXXX * of call	XXXXX XXXXX - RT XXXXX XXXXX XXXXX * ars per gnal Wa	XXXX XXXXX LT - XXXX XXXXX XXXXX * c lane	xxxx xxxx 290 1.1 22.2 c 22.2 c Report	XXXXX XXXXX - RT XXXXX XXXXX XXXXX *	XXXX XXXXX LT - XXXX XXXXX XXXXX XXXXX X	xxxx xxxx 275 0.5 20.3 c 20.3 C	XXXXX XXXXX - RT XXXXX XXXXX XXXXX *
**************************************	4 San An 4 San An ********* Alternat	****** tonio H ****** ive: Pe	k * * * * * * * * * * * * * * * * * * *	nd Lye ***** ar Wai	ell Sti *******	******* ceet ******* NOT Met	*****	* * * * * * * *	******	* * * * * * *	******

COMPARE		Fri Nov 30 11:40:05	2018		Page 2-30
Approach: Movement: Control:	North Bound L - T - R 	South Bound L - T - R Uncontrolled	 East Bound L - T - R Stop Sign	West Bound L - T - R Stop Sign	
Lanes: Initial Vol: ApproachDel:	1 0 1 1 0 106 707 10 xxxxxx	1 0 1 1 0 36 516 17 xxxxxx	0 0 1! 0 0 14 9 58 22.2	0 0 1! 0 0 4 6 30 20.3	
Approach[east Signal Warrar FAIL - Veh Signal Warrar FAIL - App Signal Warrar SUCCEED -	bound][lanes=1][t Rule #1: [vehi icle-hours less t Rule #2: [appr broach volume les t Rule #3: [appr Total volume gre with four or mor	<pre>control=Stop Sign] cle-hours=0.5] than 4 for one land oach volume=81] s than 100 for one oach count=4][tota] ater than or equal e approaches.</pre>	e approach. lane approach. l volume=1513] to 800 for inter	rsection	_
Approach[west Signal Warrar FAIL - Veh Signal Warrar FAIL - App Signal Warrar SUCCEED -	bound][lanes=1][t Rule #1: [vehi icle-hours less t Rule #2: [appr proach volume les t Rule #3: [appr Total volume gre with four or mor	control=Stop Sign] cle-hours=0.2] than 4 for one land oach volume=40] s than 100 for one oach count=4][tota ater than or equal e approaches.	e approach. lane approach. l volume=1513] to 800 for inter	section	
SIGNAL WARRAN This peak hou "indicator" o a traffic sig are probably signal warrar	T DISCLAIMER r signal warrant f the likelihood nal in the futur more likely to m t (such as the 4	analysis should be of an unsignalized e. Intersections eet one or more of -hour or 8-hour was	e considered sole d intersection wa that exceed this the other volume rrants).	ly as an irranting warrant based	
The peak hour a rigorous ar jurisdiction. the scope of	warrant analysi d complete traff Consideration this software, m Peak Hour Vol	s in this report is ic signal warrant a of the other signal ay yield different ume Signal Warrant	s not intended to analysis by the r l warrants, which results. Report [Urban]	<pre>> replace cesponsible 1 is beyond</pre>	
Intersection ************************************	#4 San Antonio R ************************************	oad and Lyell Stree ***********************************	et ************************************	· * * * * * * * * * * * * * * * * * * *	
Approach: Movement:	North Bound L - T - R	- South Bound L - T - R	East Bound L - T - R	 West Bound L - T - R	
Control: Lanes: Initial Vol:	Uncontrolled 1 0 1 1 0 106 707 10	Uncontrolled 1 0 1 1 0 36 516 17 	Stop Sign 0 0 1! 0 0 14 9 58	Stop Sign 0 0 1! 0 0 4 6 30	
Major Street Minor Approac Minor Approac	Volume: h Volume: h Volume Thresho	1392 81 ld: 171			
SIGNAL WARRAN This peak hou "indicator" c a traffic sig are probably signal warrar	T DISCLAIMER r signal warrant of the likelihood rnal in the futur more likely to m t (such as the 4	analysis should be of an unsignalized e. Intersections f eet one or more of -hour or 8-hour wa:	e considered sole d intersection wa that exceed this the other volume rrants).	ely as an arranting warrant e based	
The peak hour a rigorous ar jurisdiction. the scope of	warrant analysi d complete traff Consideration this software, m	s in this report is ic signal warrant a of the other signal ay yield different	s not intended to analysis by the r l warrants, which results.) replace esponsible n is beyond	

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Existing +Project PM												
Intersection #4: Sa	n Antonio	Road	and Lyel	I Street								
Sig Final Vol: Lanes: Rig	Final Vo Lane gnal=Stop ghts=Include	ol: es:	Signal=L 20 0 1	Jncontrol/Rig 827 1 Vol Cnt I	ghts=Inclue	de 81 1 •••••••••••••••••••••••••••••••••	Signal=Stop Rights=Incluc	le La	nes: Final	Vol:		
a 0	•		C	Cycle Time (sec):	100		▲	0 2/			
9 U _/	ė.			Loss Time (sec):	0		<u>ج</u>	0 24	•		
11 1!	≁ →			Critical	V/C:	0.132			1! 0			
0	÷ .		Avg C	rit Del (sec/	veh):	2.4	-	2	0			
77 0	Į.		Avg	Delay (sec/	veh):	2.4		2	0 1			
	¥			I	LOS:	С		•				
	Lane Final Vo	s:		1 488	1	0						
	i indi i v		Signal=L	Jncontrol/Rig	ghts=Inclu	de						
Street Name: Approach: Movement:	Nort L -	Sa h Bo T	an Anto bund - R	onio Ro Sou L -	oad ith Bo - T	ound - R	Ea L -	ast Bo - T	Lyell ound - R	Street We L -	est Bo - T	ound - R
Made												
Volume Module Base Vol: Growth Adj: Initial Bse: Added Vol: PasserByVol:	e: 54 1.00 1 54 0 0	488 .00 488 0 0	6 1.00 6 0 0	81 1.00 81 0 0	827 1.00 827 0 0	20 1.00 20 0	9 1.00 9 0 0	11 1.00 11 0 0	77 1.00 77 0 0	1 1.00 1 0 0	0 1.00 0 0	24 1.00 24 0 0
Initial Fut: User Adj: PHF Adj: PHF Volume: Reduct Vol: FinalVolume:	54 1.00 1 1.00 1 54 0 54	488 .00 .00 488 0 488	6 1.00 1.00 6 0 6	81 1.00 1.00 81 0 81	827 1.00 1.00 827 0 827	20 1.00 1.00 20 0 20	9 1.00 1.00 9 0 9	11 1.00 1.00 11 0 11	77 1.00 1.00 77 0 77	1 1.00 1.00 1 0 1	0 1.00 1.00 0 0	24 1.00 1.00 24 0 24
Critical Gap	Module	:										
Critical Gp:	4.1 x	XXX	XXXXX	4.1	XXXX	XXXXX	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2 x	XXX 	×××××	2.2		XXXXX	3.5 	4.0	3.3 	3.5	4.0	3.3
Capacity Mod	ule:											
Cnflict Vol:	84'/ x	XXX	XXXXX	494	XXXX	XXXXX	1351	1601	424	1180	1608	247
Move Cap .	799 x	XXX VVV	~~~~~	1080	~~~~	~~~~~	96	92	585	105	100 91	759
Volume/Cap:	0.07 x	XXX	XXXX	0.07	XXXX	XXXX	0.09	0.12	0.13	0.01	0.00	0.03
Level Of Ser	vice Mo	dule	 e:									
2Way95thQ:	0.2 x	XXX	XXXXX	0.2	XXXX	XXXXX	XXXX	XXXX	XXXXX	XXXX	XXXX	XXXXX
Control Del: LOS by Move:	9.8 x A	xxx *	XXXXX *	8.6 A	XXXX *	XXXXX *	XXXXX *	XXXX *	XXXXX *	XXXXX *	XXXX *	XXXXX *
Movement:	LT -	LTR	- RT	LT -	- LTR	- RT	LT -	- LTR	- RT	LT -	- LTR	- RT
Shared Cap.: SharedQueue: Shrd ConDel:	XXXX X XXXXX X XXXXX X	XXX XXX XXX	xxxxx xxxxx xxxxx	xxxx xxxxx xxxxx	xxxx xxxx xxxx	XXXXX XXXXX XXXXX	XXXX XXXXX XXXXX	281 1.5 24.4	XXXXX XXXXX XXXXX	XXXX XXXXX XXXXX	607 0.1 11.2	XXXXX XXXXX XXXXX
ApproachDel:	XXX	* XXX	*	× X2	* XXXXX	*	*	24.4	*	*	в 11.2	*
ApproachLOS: Note: Queue	reporte	* d is	s the r	number	* of ca	ars pe:	r lane.	C			В	
Peak Hour Delay Signal Warrant Report												
Intersection	#4 San	Ant	conio F	Road ar	nd Lye	ell St:	reet					
Future Volume	e Alter	nati	lve: Pe	eak Hou	ır Wai	rrant 1	NOT Met					

COMPARE		Fri Nov 30 11:40:0	5 2018		Page 2-32
Approach: Movement:	North Bound L - T - R	 South Bound L - T - R	 East Bound L - T - R	 West Bound L - T - R	
Control: Lanes: Initial Vol: ApproachDel:	Uncontrolled 1 0 1 1 0 54 488 6 xxxxxx	Uncontrolled 1 0 1 1 0 81 827 20 xxxxxx	Stop Sign 0 0 1! 0 0 9 11 77 24.4	Stop Sign 0 0 1! 0 0 1 0 24 11.2	
Approach[east Signal Warrar FAIL - Veb Signal Warrar FAIL - App Signal Warrar SUCCEED -	bound][lanes=1][ht Rule #1: [vehi hicle-hours less ht Rule #2: [appr broach volume les ht Rule #3: [appr Total volume gre with four or mor	control=Stop Sign cle-hours=0.7] than 4 for one lar oach volume=97] s than 100 for one oach count=4][tota ater than or equal ce approaches.	he approach. e lane approach. al volume=1598] l to 800 for inte	rsection	
Approach[west Signal Warrar FAIL - Vel Signal Warrar FAIL - App Signal Warrar SUCCEED -	tbound][lanes=1][nt Rule #1: [vehi nicle-hours less nt Rule #2: [appr proach volume les nt Rule #3: [appr Total volume gre with four or mor	control=Stop Sign cle-hours=0.1] than 4 for one lar oach volume=25] s than 100 for one oach count=4][tota ater than or equal re approaches.] ne approach. e lane approach. al volume=1598] l to 800 for inte	ersection	
SIGNAL WARRAN This peak hou "indicator" of a traffic sig are probably signal warran The peak hous a rigorous an jurisdiction the scope of	NT DISCLAIMER ar signal warrant of the likelihood gnal in the futur more likely to m nt (such as the 4 c warrant analysi nd complete traff . Consideration this software, m Peak Hour Vol	analysis should b of an unsignalize e. Intersections eet one or more of -hour or 8-hour was s in this report : ic signal warrant of the other signa ay yield different ume Signal Warran	be considered sol ed intersection w that exceed this f the other volum arrants). is not intended t analysis by the al warrants, whic t results. t Report [Urban]	ely as an varranting warrant le based to replace responsible th is beyond	
Intersection ****************** Future Volume	#4 San Antonio R ************************************	oad and Lyell Stre ************************************	eet ***********************************	· * * * * * * * * * * * * * * * * * * *	
Approach: Movement:	North Bound L - T - R	 South Bound L - T - R	 East Bound L - T - R	 West Bound L - T - R	
Control: Lanes: Initial Vol:	Uncontrolled 1 0 1 1 0 54 488 6	Uncontrolled 1 0 1 1 0 81 827 20	Stop Sign 0 0 1! 0 0 9 11 77	Stop Sign 0 0 1! 0 0 1 0 24	
Major Street Minor Approac Minor Approac	Volume: ch Volume: ch Volume Thresho	1476 97 91d: 151	· · ·		
SIGNAL WARRAM This peak hou "indicator" o a traffic sig are probably signal warram	NT DISCLAIMER or signal warrant of the likelihood gnal in the futur more likely to m ot (such as the 4	analysis should b of an unsignalize e. Intersections weet one or more o: -hour or 8-hour wa	be considered sol ed intersection w that exceed this f the other volum arrants).	ely as an varranting warrant we based	
The peak hour a rigorous ar jurisdiction the scope of	r warrant analysi nd complete traff . Consideration this software, m	s in this report : ic signal warrant of the other signa ay yield differen	is not intended t analysis by the al warrants, whic t results.	o replace responsible h is beyond	

	Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)									
Intersection #5: Sa	n Antonio Road	and First Street/	Cuesta Dr	ive	IVI					
		Signal-Protect/Ri	ahts-Include							
	Final Vol:	13 479**	* 7	77						
	Lanes:		0 '	1						
		′ ∢4 ⊥	- ↓	↘►						
Sia	nal=Permit	• •	•	S	Signal=Permit					
Final Vol: Lanes: Rig	hts=Include	Vol Cn	Date: 6/12	2/2018 F	Rights=Include	e Lane:	s: Final V	/ol:		
4 0 🍠	•	Cycle Time	(sec):	110	4	1	167			
, ,	k	Loss Time	(sec):	9	- 4					
37 0	≁	Critic		210	•	<u> </u>	111*	**		
57 0	•	Chic	ar v/C. 0.	.510	•	0				
0	-	Avg Crit Del (se	c/veh): 2	4.5		<u> </u>				
26 1		Avg Delay (se	:/veh): 2	2.6	1	- 0	90			
•	7	0 , (,	O .		7				
			LOS:	C+						
	-	、 ◀♣ ♠		*						
		1 1 L	r -	(*						
	Lanes:	1 0 1	1 ()						
	Final Vol: 7	2*** 650 Signal=Protect/Ri	ہ ghts=Include	3						
Others a the Marian	0		1							
Street Name:	North Bo	n Antonio F	load with Boy	ind	E'1: E a	rst St st Bou	reet/	Cuesta Driv	7e Nund	
Movement:		– R I.	- т.	- R	. –	зс вои т –	R	I. – T	– R	
			·							
Min. Green:	21 70	70 12	61	61	25	25	25	25 25	25	
Y+R:	4.0 4.0	4.0 4.0	4.0	4.0	4.0	4.0	4.0	4.0 4.0	4.0	
Volume Module	e: >> Count	Date: 12 3	un 201	8 << 8	3:00 to	9:00	AM	00 111	1 (7	
Base Vol: Crowth Adi:	1 00 1 00	1 00 1 00	4/9	1 00	1 00	37	26	90 111	1 00	
Initial Bse:	72 650	8 77	479	1.3	4	37	26	90 111	167	
Added Vol:	0 0	0 0	0	0	0	0	0	0 0	0	
PasserByVol:	0 0	0 0	0	0	0	0	0	0 0	0	
Initial Fut:	72 650	8 77	479	13	4	37	26	90 111	167	
User Adj:	1.00 1.00	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00	
Reduct Vol:	12 030		4/9	13	4	37 0	20	90 111	107	
Reduced Vol:	72 650	8 77	479	13	4	37	26	90 111	167	
PCE Adj:	1.00 1.00	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00	
FinalVolume:	72 650	8 77	479	13	4	37	26	90 111	167	
Saturation F.	100 Module:	1000 1000	1000	1000	1000	1000	1000	1000 1000	1000	
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	1.95	0.05	0.10	0.90	1.00	0.45 0.55	1.00	
Final Sat.:	1750 3655	45 1750	3602	98	176	1624	1750	806 994	1750	
Capacity Ana	lysis Modul	e:								
Vol/Sat:	0.04 0.18	0.18 0.04	0.13	0.13	0.02	0.02	0.01	0.11 0.11	0.10	
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:	0.23 0.29	0.29 0.43	0.25	0.25	0.11	0.11	0.07	0.52 0.52	0.44	
Uniform Del:	40.6 11.1	11.1 48.8	15.0	15.0	36.5	36.5	36.2	40.2 40.2	39.5	
IncremntDel:	0.4 0.1	0.1 1.6	0.1	0.1	0.1	0.1	0.1	1.2 1.2	0.8	
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:	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:	40.9 11.2	11.2 50.4	15.1	15.1	36.6	36.6	36.3	41.4 41.4	40.3	
user DelAdj:	1.00 1.00	11 2 EO 4	1 1 . 00	1.00	1.00 I	1.UU	1.00 1.00	1.UU 1.UU	10 3	
LOS by Move.	-10.9 11.2 D R+	тт.с эл.4 В+ г) R	TD'T	, 0,0C +A	0.00 D+	2005 +A	41.4 N	с. ин П	
HCM2kAvaO:	2 6	6 3	5	5	1	1	1	7 7	6	
Note: Queue :	reported is	the number	of ca:	rs pei	r lane.	-	-	. ,	2	

COMPARE

				Level 2000 HCM O	Of Service Co perations (Fut Existing	mputation Report ture Volume Alterna g PM	ative)
Intersect	tion #5:	San Antonio Roa	d and First	Street/Cuest	a Drive		
		Final Vol: Lanes:	Signal=P	rotect/Rights=In 757*** 1	clude 121 0 1		
Final Vol [.]	Lanes:	Signal=Permit Rights=Include		Vol Cnt Date	6/12/2018	Signal=Permit Rights=Include	Ŀ
22	0	.▲	Су	cle Time (sec):	95	A	
	1		Lo	oss Time (sec):	9		_
226***	0	—		Critical V/C:	0.422	-	_
	0		Avg Crit	Del (sec/veh):	18.6	\mathbf{A}	—
81	1	-7	Avg D	elay (sec/veh):	20.5	- 2	-

COMPARE



	<u> </u>	٦Y		r	_ (*
Lanes:	1	0	1	1	0
Final Vol:	63***		389		12
	S	ignal=Pr	otect/Righ	ts=Incluc	le

LOS:

C+

Street Name:		Sar	n Anto	nio Ro	bad		F	irst S	treet/	Cuesta	Driv	e
Approach:	Noi	rth Bou	und	Soi	ith Bo	ound	Εa	ast Bo	und	We	st Bo	und
Movement:	L -	- T -	- R	L -	- T	- R	L -	- T	- R	L -	Т	- R
Min Croon:		 // 1	 // 1	16	50	 50	29	 2 Q	20	29	20	20
MIN. GIEEN.	1 0	41	4 0	1 0	1 0	1 0	1 0	1 0	1 0	1 0	1 0	1 0
I+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Modul	 e: >>	Count	Date:	12 JI	un 201	 18 << 5	:00 to		 PM			
Base Vol:	63	389	12	121	757	12	22	226	81	30	92	141
Growth 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
Initial Bee	1.00	380	12	121	757	12	22	226	±.00	30	4.00 92	141
Added Vol:	0	0	12	121	, , , ,	12	0	220	0	0	0	0
PasserByVol.	0	0	0	0	0	0	0	0	0	0	0	0
Toitial Fut.	63	380	12	121	757	12	22	226	Q1	30	92	1/1
Heer Adi.	1 00	1 00	1 00	1 00	1 00	1 00	1 0 0	1 00	1 00	1 00	1 00	1 00
DUE Adi.	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00
PHF Auj.	1.00	200	1.00	1.00	757	1.00	1.00	226	1.00 01	20	1.00	1 / 1
Phr volume:	03	209	12	121	151	12	22	220	01	50	92	141
Reduct VOL:	C 2	200	10	101	757	10	22	226	01	20	00	1 4 1
Reduced Vol:	1 00	389	1 0 0	1 00	1 0 0	1 0 0	1 0 0	1 0 0	1 00	1 00	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	. 63	389	12	121	/5/	12	. 22	226	81	30	92	141
Saturation F												
Saturación r	100 10	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Adjustmost.	1900	1900	0 05	1900	1900	1900	1900	0 05	1900	1900	0 05	1900
Aujustment.	1 00	1 01	0.95	1 00	1 07	0.90	0.95	0.95	1 00	0.95	0.95	1 00
Lanes.	1750	2500	111	1750	2612	50	160	1640	1750	112	1257	1750
rillai Sat	1/30	2209	1 I I I	1/30	3042	50	100	1040	1/30	445	1337	1/JU
Capacity Ana	lvsis	Module	 >:									
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:	* * * *				* * * *			* * * *				
Green Time:	7.0	41.0	41.0	16.0	50.0	50.0	29.0	29.0	29.0	29.0	29.0	29.0
Volume/Cap:	0.49	0.25	0.25	0.41	0.39	0.39	0.45	0.45	0.15	0.22	0.22	0.26
Uniform Del:	42.3	17.2	17.2	35.3	13.5	13.5	26.6	26.6	24.0	24.6	24.6	24.9
IncremntDel:	2.9	0.1	0.1	0.9	0.1	0.1	0.6	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	0.0
Delav 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
Delav/Veh:	45.2	17.3	17.3	36.2	13.6	13.6	27.2	27.2	24.2	24.8	24.8	25.2
User DelAdi.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdiDel/Veh.	45 2	17 3	17 3	36 2	13 6	13 6	27 2	27 2	24 2	24 8	24 8	25 2
LOS by Move.	ב.כו ח	± / • 5 B	± ,.5 R	D+	-3.0 R	±3.5 R	- , • 2 C	- / • - 2 C		2 1.0 C	2 1.0 C	20.2
HCM2kAvaO.	2	4	4	4	ם ד	7	6	6	2	े २	े २	े २
Note: Oueue	report	ed is	the n	umber	of ca	ars per	lane		-	5	5	5
200 guouo	- <u>-</u>					- POL		-				

		2	Level Of S 000 HCM Oper E	Service Compu ations (Future	tation Repo Volume Alt	ort ernative)			
Intersection #5: Sa	n Antonio Road	and First Stre	et/Cuesta [Drive					
Sig	Final Vol: Lanes:	Signal=Prote 13 4 0 1	$ \begin{array}{c} \text{ct/Rights=Include}\\ 79^{***} \\ 1 \\ 0 \\ \hline \end{array} $	de 77 1	nnal=Perm	t			
Final Vol: Lanes: Rig	hts=Include	Va Cycle	l Cnt Date: Fime (sec):	n/a Ri 116	ghts=Includ	ie Lan	es: Final V	ol:	
1	<u>.</u>	Loss	Time (sec):	9					
37 0	•	C	Critical V/C:	0.309	-	° —	111**	*	
	*	Avg Crit De	(sec/veh):	24.4					
28 1	7	Avg Delay	(sec/veh): LOS:	22.5 C+		€°	90		
	•		▲ 						
	Lanes: Final Vol: 7	1 0 0*** Signal=Prote	1 1 650 ct/Rights=Includ	0 8 de					
Street Name: Approach: Movement:	Sa North Bo L - T	n Antonic und - R I	Road South B J - T	ound - R	Fi Ea L -	lrst S ast Bo - T	treet/(und - R	Cuesta Dr West L - T	ive Bound - R
Min. Green: Y+R:	21 70 4.0 4.0	 70 4.0	12 61 1.0 4.0	61 4.0	25	25 4.0	25 4.0	25 2 4.0 4.	 5 25 0 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: FinalVolume:	70 650 1.00 1.00 70 650 0 0 70 650 1.00 1.00 1.00 1.00 70 650 0 0 70 650 1.00 1.00 1.00 1.00 1.00 1.00 1.00 50	8 1.00 1. 8 1.00 1. 1.00 1. 8 1.00 1. 1.00 1. 8 1.00 1. 8 1.00 1. 1.00 1. 8	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	13 1.00 13 0 13 1.00 13 1.00 13 1.00 13 1.00 13 1.00 13 1.00 13 1.00 13 1.00 13 1.00 13 1.00 13 1.00 13 1.00 13 1.00 13 1.00 13 1.00 13 1.00 13 1.00 13 1.00 13 1.000 1.00 1.00 1.00 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.00000 1.00000 1.00000 1.000000 1.000000 1.0000000000	4 1.00 4 0 4 1.00 1.00 4 1.00 4 1.00 4 1.00 4 1.00 4 1.00 4 1.00 4 0 4 0 4 0 1.00 4 0 0 0 0 0 0 0 0 0 0 0 0 0	37 1.00 37 1.00 1.00 37 1.00 37 1.00 1.00 37	28 1.00 28 0 0 28 1.00 1.00 28 1.00 1.00 28 1.00 28	90 11 1.00 1.0 90 11 0 90 11 1.00 1.0 1.00 1.0 90 11 1.00 1.0 1.00 1.0 90 11	1 167 0 1.00 1 167 0 0 1 167 0 1.00 1 167 0 1.00 1 167 0 1.00 1 167 0 1.00 1 167 0 1.00 1 167 0 1.00 1 167
Saturation FI Sat/Lane: Adjustment: Lanes: Final Sat.:	Low Module: 1900 1900 0.92 0.97 1.00 1.98 1750 3655	1900 19 0.95 0. 0.02 1. 45 17	000 1900 .92 0.97 .00 1.95 750 3602	1900 0.95 0.05 98	1900 0.95 0.10 176	1900 0.95 0.90 1624	1900 0.92 1.00 1750	1900 190 0.95 0.9 0.45 0.5 806 99) 1900 5 0.92 5 1.00 4 1750
Capacity Anal 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 D	lysis Modul 0.04 0.18 **** 21.0 70.0 0.22 0.29 40.5 11.1 0.4 0.1 0.0 0.0 1.00 1.00 40.9 11.2 1.00 1.00 40.9 11.2 D B+ 2 6 ceported is	e: 0.18 0. 70.0 12 0.29 0. 11.1 48 0.1 1 0.0 0 1.00 1. 11.2 50 1.00 1. 11.2 50 B+ 6 the numb	04 0.13 **** 2.0 61.0 43 0.25 3.8 15.0 1.6 0.1 0.0 0.0 0.0 1.00 0.4 15.1 D B 3 5 5 per of c	0.13 61.0 0.25 15.0 0.1 0.0 1.00 15.1 1.00 15.1 B 5 ars per	0.02 25.0 0.11 36.5 0.1 0.0 1.00 36.6 1.00 36.6 D+ 1 lane	0.02 25.0 0.11 36.5 0.1 0.0 1.00 36.6 1.00 36.6 D+ 1	0.02 25.0 0.07 36.3 0.1 0.0 1.00 36.4 1.00 36.4 D+ 1	0.11 0.1 *** 25.0 25. 0.52 0.5 40.2 40. 1.2 1. 0.0 0. 1.00 1.0 41.4 41. 1.00 1.0 41.4 41. D 7	1 0.10 * 25.0 2 0.44 2 39.5 2 0.8 0 0.0 0 1.00 4 40.3 0 1.00 4 40.3 D D 7 6

COMPARE

			l 2000 H	_evel Of Se CM Opera Ex	ervice Compu tions (Future isting +Projec	tation Repo Volume Alt t PM	ort ternative)				
Intersection #5: San Antonio Road and First Street/Cuesta Drive											
		Signal-I	Protect/Rig	hts-Include	<u>_</u>						
	Final Vol:	12	757***	113-110100	121						
	Lanes:	0 1	1	. 0	1						
		لمعا		k.							
	•	- **	' *	*							
Sig	nal=Permit				Sig	gnal=Perm	it .				
Final Vol: Lanes: Rig	ghts=Include	C	Vol Cnt I	Date:	n/a Ri	ghts=Inclue	de Lar	nes: Final \	/ol:		
22 0	,	U	ycie mine (sec).	90		₹ -	1 141			
	A	L	.oss Time (sec):	9		▲ ``				
1	4					-)			
226*** 0	<u> </u>		Critical	V/C:	0.422		(92			
0 —		Ava Cr	it Dol (soc)	vob):	19.6			1			
0 -	2	Avy CI	IL Del (Sec/	ven).	10.0		7	1			
80 1	•	Aval	Jelav (sec/	veh):	20.5		▾) 30			
	¥	/wg.	50ldy (500)	von).	20.0		Ý	, 00			
				LOS:	C+						
		、 ≪1	· T	_7⊁	∕►						
		1 1	I	ſ	ſ						
	Lanes:	1 0	1	1	0						
	Final Vol: 6	4***	389		12						
		Signal=I	Protect/Rig	hts=Include	e						
<u>.</u>	2			,		-		/	<u> </u>	- ·	
Street Name:	Sa	n Anto	nio Ro	bad	,	F.1	irst S	treet/	Cuesta	a Driv	e
Approach:	North Bo	und	Soi	ith Bo	bund	Εa	ast Bo	und	We	est Bo	und
Movement:	L – T	– R	L -	- Т	– R	L -	- T	– R	L -	- T	– R
Min. Green:	7 41	41	16	50	50	29	29	29	29	29	29
Y+R:	4.0 4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Modul	e:										
Base Vol:	64 389	12	121	7.57	12	22	226	80	30	92	141
Growth 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
Initial Bee	64 389	12	121	757	12	22	226	80	30	1.00 92	141
Addad Val.	0 0	12	121	, , , ,	12	22	220	00	0	0	141
Added VOI.	0 0	0	0	0	0	0	0	0	0	0	0
PasserByvol:	0 0	10	101	7 - 7	10	0	0	0	0	0	0
Initial Fut:	64 389	12	121	/5/	12	22	226	80	30	92	141
User Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	64 389	12	121	757	12	22	226	80	30	92	141
Reduct Vol:	0 0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64 389	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	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:	64 389	12	121	757	12	22	226	80	30	92	141
Saturation F	low Module:										
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
Lanos.	1 00 1 94	0.06	1 00	1 97	0.03	0.00	0.90	1 00	0.25	0.75	1 00
Einel Cot .	1750 2590	111	1750	2642	50	160	1640	1750	113	1257	1750
Final Sat.:	1/30 3309	111	1/30	3042	50	100	1040	1/50	443	1337	1/50
Capacity Ana	Lysis Modul	e:									
Vol/Sat:	0.04 0.11	0.11	0.0/	0.21	0.21	0.14	0.14	0.05	0.0/	0.0/	0.08
Crit Moves:	****			****			****				
Green Time:	7.0 41.0	41.0	16.0	50.0	50.0	29.0	29.0	29.0	29.0	29.0	29.0
Volume/Cap:	0.50 0.25	0.25	0.41	0.39	0.39	0.45	0.45	0.15	0.22	0.22	0.26
Uniform Del:	42.3 17.2	17.2	35.3	13.5	13.5	26.6	26.6	24.0	24.6	24.6	24.9
IncremntDel:	3.0 0.1	0.1	0.9	0.1	0.1	0.6	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	0.0
Delay Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	45.3 17.3	17.3	36.2	13.6	13.6	27.2	27.2	24.2	24.8	24.8	25.2
User DelAdi:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.3 17.3	17.3	36.2	13.6	13.6	27.2	27.2	24.2	24.8	24.8	25.2
LOS by Move.	D R	R	 П+	B	 R	<u>.</u>	C	 C	o	°	C
HCM2kAva0.	2 4	4	2	7	7	6	6	2	с ч	ں ۲	ې ۲
Note: Ououo	reported is	the r	umbor	of a	are nor	lano	0	2	J	5	5
	TCHOICER IP		anwer	UL CO	TO DET	Tane	•				

Level UT Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing AM											
Intersection #5214	Intersection #5214: Foothill Expressway and San Antonio Road										
	Final Vol: Lanes:	Signal=Protect/F 0 480 0 0 2	Rights=Includ	e 0**** 0							
Si Final Vol: Lanes: Ri	gnal=Split ghts=Include ▲	Vol C Cycle Tim	• nt Date: 4/ ie (sec):	Si 18/2017 Ri 120	gnal=Split ghts=Overla	p Lane	s: Final V	'ol:			
0 0	A	Loss Tim	e (sec):	6		° _	109				
0 <u> </u>	4	Criti		0.670		C 0	0				
0 -	→	Avg Crit Del (s	ec/veh):	14.2	- 1	0	Ŭ				
0 0 -	Ý	Avg Delay (s	ec/veh):	10.3		- 1	559**	*			
0 0	¥	Avg Delay (3	LOS:	B+		F	000				
	•	. 🔸 🛉	≜ ►	*							
	Lanes: Final Vol:	1 1 1 0 0 2 0 1643 Signal=Protect/F	ر 0 x*** Rights=Overla	f 1 619 sp							
Street Name: Approach: Movement:	Foot North Bo L - T	hill Expre und S - R L	ssway outh Bo - T	ound - R	Ea L -	Sar st Bou T -	n Anton Ind - R	nio Roa Wes L -	ad st Bo T	und - R	
Min. Green: Y+R:	0 77 4.0 4.0	77 4.0 4.	0 77 0 4.0	0 4.0	0 4.0	0 4.0	0 4.0	37	0 4.0	37 4.0	
Volume Modul Base Vol: Growth Adj: Initial Bse: Added Vol: PasserByVol:	e: >> Count 0 1643 1.00 1.00 0 1643 0 0 0 0	Date: 18 619 1.00 1.0 619 0 0	Apr 202 0 480 0 1.00 0 480 0 0 0 0	17 << 8 0 1.00 0 0	:00 to 0 1.00 0 0	9:00 0 1.00 0 0 0	AM 0 1.00 0 0 0	559 1.00 2 559 0 0	0 1.00 0 0	109 1.00 109 0 0	
Initial Fut: User Adj: PHF Adj: PHF Volume: Reduct Vol: Reduced Vol: PCE Adj: MLF Adj: FinalVolume:	$\begin{array}{c} 0 & 1643 \\ 1.00 & 1.00 \\ 1.00 & 1.00 \\ 0 & 1643 \\ 0 & 0 \\ 0 & 1643 \\ 1.00 & 1.00 \\ 1.00 & 1.00 \\ 0 & 1643 \end{array}$	619 1.00 1.0 1.00 1.0 619 1.00 1.0 1.00 1.0 619	0 480 0 1.00 0 1.00 0 480 0 0 480 0 1.00 0 1.00 0 480	0 1.00 0 0 1.00 1.00 1.00	0 1.00 1.00 0 0 1.00 1.00 0	0 1.00 0 0 1.00 1.00 1.00	0 1.00 0 0 0 1.00 1.00 0	559 1.00 1 1.00 559 0 559 1.00 1 1.00 1 559	0 1.00 0 0 1.00 1.00 1.00	109 1.00 1.00 109 0 1.00 1.00 1.00	
Saturation F Sat/Lane: Adjustment: Lanes: Final Sat.:	'low Module: 1900 1900 0.92 1.00 0.00 2.00 0 3800	1900 190 0.92 0.9 1.00 0.0 1750	0 1900 2 1.00 0 2.00 0 3800	1900 0.92 0.00 0	1900 0.92 0.00 0	1900 1.00 0.00 0	1900 0.92 0.00 0	1900 1 0.83 1 1.74 (2738	1900 1.00 0.00 0	1900 0.92 0.26 454	
Capacity Ana Vol/Sat: Crit Moves:	lysis Modul 0.00 0.43 ****	e: 0.35 0.0 ***	0 0.13 *	0.00	0.00	0.00	0.00	0.20 (00.00	0.24	
Green Time: Volume/Cap: Uniform Del: IncremntDel: InitQueuDel: Delay Adj: Delay/Veh: User DelAdj: AdjDel/Veh: LOS by Move:	0.0 77.0 0.00 0.67 0.0 13.6 0.0 0.8 0.0 0.0 0.00 0.46 0.0 7.0 1.00 1.00 0.0 7.0 A A	120.0 0. 0.35 0.0 0.0 0. 0.1 0. 0.00 0.0 0.00 0.0 0.1 0. 0.00 0.0 0.1 0. 0.1 0. 0.1 0. 0.1 0. 1.00 1.0 0.1 0. A	0 77.0 0 0.20 0 8.8 0 0.0 0 0.0 0 0.46 0 4.1 0 1.00 0 4.1 A A	0.0 0.00 0.0 0.0 0.00 0.0 1.00 0.0 A	0.0 0.00 0.0 0.0 0.00 0.00 1.00 0.0 A	0.0 0.00 0.0 0.0 0.0 0.00 0.00 1.00 0.0 A	0.0 0.00 0.0 0.0 0.00 0.00 1.00 0.0 A	43.0 0.57 (31.1 0.7 0.0 1.00 (31.7 1.00 (31.7 C	0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.00 0.0 A	43.0 0.67 32.5 1.8 0.0 1.00 34.3 1.00 34.3 C-	
HCM2kAvgQ: Note: Queue	0 11 reported is	1 the numbe	02 rofca	0 ars per	0 lane.	0	0	10	0	14	

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing PM											
Intersection #5214: Foothill Expressway and San Antonio Road											
	Final Vol: Lanes:	Signal=Pro	otect/Rigi 1509 2	o 0	0 1***						
Sig Final Vol: Lanes: Rig 0 0	nal=Split hts=Include	Cyc	Vol Cnt I le Time (Date: 1/3 sec):	Sig 31/2017 Rig 95	gnal=Split ghts=Overl	ap Lane	es: Final	Vol:		
0	≜	Los	s Time (sec):	9		<u>ه</u>				
0 0	→ →		Critical	V/C:	1.153		1!	0			
0		Avg Crit I	Del (sec/	veh):	41.2	4	•				
0 0	¥	Avg De	lay (sec/	veh):	56.4		¥ 1	715'	***		
	•			LOS:	E+		•				
	4	\ ≜	Ť	↑ ►	(
	Lanes: Final Vol:	0 0 0 Signal=Pro	2 496*** itect/Righ	0 nts=Overlap	1 503 p						
Street Name: Approach: Movement:	Foot North Bo L - T	hill Exj und - R	press Sou L -	sway ith Bc - T	ound - R	Ea L -	Sai ast Boi - T -	n Anto und - R	onio Ro We L -	bad est Bo - T	ound - R
Min. Green: Y+R:	0 68 4.0 4.0	· 68 4.0	0 4.0	68 4.0	4.0	0 4.0	0 4.0	 0 4.0	27 4.0	0 4.0	27 4.0
Volume Modul Base Vol: Growth Adj: Initial Bse: Added Vol: PasserByVol: Initial Fut: User Adj: PHF Adj: PHF Volume: Reduced Vol: Reduced Vol: PCE Adj: FinalVolume:	e: >> Count 0 496 1.00 1.00 0 496 0 0 0 496 1.00 1.00 1.00 1.00 0 496 1.00 1.00 0 496 1.00 1.00 1.00 1.00 0 496	Date: 503 1.00 503 0 0 503 1.00 1.00 503 1.00 1.00 503 1.00 1.00 1.00 1.00	31 Ja 1 1.00 1 0 0 1 1.00 1.00 1.00 1.00 1.00 1.00 1.00	an 201 1509 1.00 1509 1.00 1509 1.00 1509 1.00 1509 1.00 1.00 1509	7 << 4 0 1.00 0 0 0 1.00 1.00 0 0 0 0 0 1.00 1.00 0 0 0 0 0 0 0	:30 tc 0 1.00 0 0 1.00 1.00 1.00 1.00 1.00	5:30 0 1.00 0 0 1.00 1.00 1.00 1.00 1.00 0 0 0 0 0 0 0 0 0 0 0 0	PM 0 1.00 0 0 1.00 1.00 1.00 1.00 1.00 0	715 1.00 715 0 0 715 1.00 1.00 715 1.00 1.00 1.00 715	0 1.00 0 0 1.00 1.00 0 0 1.00 1.00 0 0 0 0 0 0 0 0 0 0 0 0	32 1.00 32 0 0 32 1.00 1.00 32 1.00 1.00 32 1.00 32 1.00 32 1.00 32 1.00 32 1.00 32 0 0 32 1.00 1.00 32 0 32 1.00 1.00 32 0 32 1.00 1.00 32 0 32 1.00 1.00 32 0 32 1.00 1.00 32 0 32 1.00 1.00 32
Saturation F Sat/Lane: Adjustment: Lanes: Final Sat.:	low Module: 1900 1900 0.92 1.00 0.00 2.00 0 3800	1900 0.92 1.00 1750	1900 0.95 0.01 2	1900 0.65 1.99 2478	1900 0.92 0.00 0	1900 0.92 0.00 0	1900 1.00 0.00 0	1900 0.92 0.00 0	1900 0.62 1.94 2279	1900 1.00 0.00 0	1900 0.92 0.06 99
Capacity Ana Vol/Sat: Crit Moves:	lysis Modul 0.00 0.13 ****	e: 0.29	0.61	0.61	0.00	0.00	0.00	0.00	0.31	0.00	0.32
Green Time: Volume/Cap: Uniform Del: IncremntDel: InitQueuDel: Delay Adj: Delay/Veh: User DelAdj: AdjDel/Veh: LOS by Move: HCM2kAvgQ:	0.0 62.1 0.00 0.20 0.0 7.2 0.0 0.0 0.0 0.0 0.00 1.00 0.0 7.2 1.00 1.00 0.0 7.2 A A 0 3	86.8 0.31 0.5 0.1 0.0 1.00 0.7 1.00 0.7 A 2	0.0 xxxx 0.0 0.0 0.0 0.0 1.00 0.0 1.00 A 33	62.1 0.93 15.9 10.1 0.0 2.26 46.1 1.00 46.1 D 29	0.0 0.00 0.0 0.0 0.00 0.00 1.00 0.0 A 0	0.0 0.00 0.0 0.0 0.00 0.00 1.00 0.0 A 0	0.0 0.00 0.0 0.0 0.00 0.00 1.00 0.0 A 0	0.0 0.00 0.0 0.0 0.00 0.00 1.00 0.0 A 0	24.7 1.21 38.5 108.5 0.0 1.00 147.0 147.0 147.0 F 22	0.0 0.00 0.0 0.0 0.00 0.00 1.00 0.0 A 0	24.7 1.24 38.5 123.8 0.0 1.00 162.3 1.00 162.3 F 35
Note: Queue	reported is	the nu	mber	of ca	irs per	lane					

COMPARE

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing +Project AM												
Intersection #5214: Foothill Expressway and San Antonio Road												
Final Vol: Lanes: Ri 0 0 - 0 - 0 0 0 - 0 -	Final Vol: Lanes: gnal=Split ghts=Include	Signal=P 0 0 Cy La Avg Crit	vol Cnt I cle Time (Critical cleay (sec/	Date: sec): veh): LOS:	e 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	gnal=Split ghts=Overla		nes: Final∨) 109) ! 0) 1 561**	ʻoi: ••			
	Lanes: Final Vol:	0 0 0 Signal=Pi	2 1643*** otect/Righ	0 nts=Overla	1 617 p							
Street Name: Approach: Movement:	Street Name: Foot Approach: North Bo Movement: L - T		hill Expressway und South Bound - R L - T - R			San Anton East Bound L - T - R			nio Road West Bound L - T - R			
Min. Green: Y+R:	0 77 4.0 4.0	77	0 4.0	77 4.0	4.0	0 4.0	0 4.0	4.0	37	0 4.0	37 4.0	
Volume Modul 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: 0 1643 1.00 1.00 0 1643 0 0 0 1643 1.00 1.00 1.00 1.00 0 1643 1.00 1.00 0 1643 1.00 1.00 1.00 1.00 0 1643	617 1.00 617 0 617 1.00 1.00 617 1.00 1.00 617 1.00 1.00	0 1.00 0 0 1.00 1.00 0 1.00 1.00 1.00	480 1.00 480 0 480 1.00 480 0 480 1.00 480 1.00 480	0 1.00 0 0 0 1.00 1.00 1.00 1.00 1.00 0 0 0 0 0 0 0 0 0 0 0 0	0 1.00 0 0 1.00 1.00 1.00 1.00 0 1.00	0 1.00 0 0 1.00 1.00 1.00 1.00 1.00	0 1.00 0 0 0 1.00 1.00 1.00 1.00 1.00 0 0 0 0 0 0 0 0 0 0 0 0	561 1.00 561 1.00 561 1.00 561 1.00 1.00 561	0 1.00 0 0 1.00 1.00 1.00 1.00 1.00	109 1.00 109 0 109 1.00 1.00 1.00 1.09 1.00 1.00	
Saturation F Sat/Lane: Adjustment: Lanes: Final Sat.:	low Module: 1900 1900 0.92 1.00 0.00 2.00 0 3800	1900 0.92 1.00 1750	1900 0.92 0.00 0	1900 1.00 2.00 3800	1900 0.92 0.00 0	1900 0.92 0.00 0	1900 1.00 0.00 0	1900 0.92 0.00 0	1900 0.83 1.74 2739	1900 1.00 0.00 0	1900 0.92 0.26 453	
Capacity Ana	lysis Modul 0.00 0.43	e: 0.35	0.00	0.13	0.00	0.00	0.00	0.00	0.20	0.00	0.24	
Crit Moves: Green Time: Volume/Cap: Uniform Del: IncremntDel: InitQueuDel: Delay Adj: Delay/Veh: User DelAdj: AdjDel/Veh: LOS by Move: HCM2kAvgQ: Note: Queue	**** 0.0 77.0 0.00 0.67 0.0 13.6 0.0 0.8 0.0 0.0 0.00 0.46 0.0 7.0 1.00 1.00 0.0 7.0 A A 0 11 reported is	120.0 0.35 0.0 0.1 0.00 0.1 1.00 0.1 A 1 the nu	***** 0.0 0.00 0.0 0.00 0.00 0.00 1.00 0.0 A 0 0 mber	77.0 0.20 8.8 0.0 0.46 4.1 1.00 4.1 A 2 of ca	0.0 0.00 0.0 0.0 0.00 0.00 1.00 0.0 A ars per	0.0 0.00 0.0 0.00 0.00 1.00 0.0 A 0 lane.	0.0 0.00 0.0 0.0 0.00 0.00 1.00 0.0 A 0	0.0 0.00 0.0 0.0 0.00 0.00 1.00 0.0 A 0	**** 43.0 0.57 31.0 0.7 0.0 1.00 31.7 1.00 31.7 C 10	0.0 0.00 0.0 0.0 0.00 0.00 1.00 0.0 A 0	43.0 0.67 32.5 1.8 0.0 1.00 34.3 1.00 34.3 C- 14	
COMPARE												

		2	Level Of \$ 2000 HCM Oper E	Service Compu ations (Future xisting +Projec	tation Report Volume Alterna t PM	ative)		
Intersection #5214	4: Foothill Express	sway and Sa	n Antonio R	oad				
Final Vol: Lanes: Ri 0 0 0 0 0 0 0 0 0 0	Final Vol: Lanes:	Signal=Prote	ect/Rights=Inclu 1509 2 0 1509 0 1509 0 1509 0 1509 0 0 1509 0 0 0 0 0 0 0 0 0 0 0 0 0	de 1 0 5 9 1.153 41.0 56.2 E+	gnal=Split ghts=Overlap	Lanes: Final V 0 32 0 1! 0 0 1 714**	ʻol: ••	
	Final Vol:	0 4 Signal=Prote	496*** ect/Riahts=Overl	504 ap				
Street Name: Approach: Movement:	Foot North Bo L - T	hill Exp: und - R :	ressway South B L - T	ound - R	East L -	San Anto Bound T - R	nio Road West Bo L - T	ound - R
Min. Green: Y+R:	0 68 4.0 4.0	 68 4.0	0 68 4.0 4.0	 0 4.0	0 4.0	0 0 4.0 4.0	27 0 4.0 4.0	27 4.0
Volume Modul Base Vol: Growth Adj: Initial Bse: Added Vol: PasserByVol: Initial Fut: User Adj: PHF Adj: PHF Volume: Reduct Vol: Reduced Vol: PCE Adj: FinalVolume:	e: 0 496 1.00 1.00 0 496 0 0 0 496 1.00 1.00 1.00 1.00 0 496 0 0 0 496 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	$\begin{array}{c} 504\\ 1.00 & 1\\ 504\\ 0\\ 0\\ 504\\ 1.00 & 1\\ 1.00 & 1\\ 504\\ 0\\ 504\\ 1.00 & 1\\ 1.00 & 1\\ 504\\ \end{array}$	1 1509 .00 1.00 1 1509 0 0 0 1 1509 .00 1.00 1 1509 0 0 1 1509 .00 1.00 .00 1.00 1 1509 .00 1.00 1 1509	0 1.00 0 0 0 1.00 1.00 1.00 1.00 1.00 0 0 0 0 0 0 0 0 0 0 0 0	0 1.0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	32 1.00 32 0 0 32 1.00 1.00 32 0 32 1.00 1.00 32 0 32 1.00
Saturation F Sat/Lane: Adjustment: Lanes: Final Sat.:	'low Module: 1900 1900 0.92 1.00 0.00 2.00 0 3800	1900 1 0.92 0 1.00 0 1750	900 1900 .95 0.65 .01 1.99 2 2478	1900 0.92 0.00 0	1900 19 0.92 1. 0.00 0. 0	900 1900 .00 0.92 .00 0.00 0 0	1900 1900 0.62 1.00 1.94 0.00 2279 0	1900 0.92 0.06 99
Capacity Ana Vol/Sat: Crit Moves: Green Time:	lysis Modul 0.00 0.13 ****	e: 0.29 0 *	.61 0.61 ***	0.00	0.00 0.	.00 0.00	0.31 0.00	0.32
Green Time: Volume/Cap: Uniform Del: IncremntDel: InitQueuDel: Delay Adj: Delay/Veh: User DelAdj: AdjDel/Veh: LOS by Move: HCM2kAvgQ: Note: Queue	0.0 62.1 0.00 0.20 0.0 7.2 0.0 0.0 0.0 1.00 0.0 7.2 1.00 1.00 0.0 7.2 A A 0 3 reported is	86.8 0.32 x: 0.5 0.1 0.0 1.00 0 0.7 1.00 1 0.7 A 2 the num	0.0 62.1 xxx 0.93 0.0 15.9 0.0 10.1 0.0 0.0 .00 2.26 0.0 46.1 .00 1.00 0.0 46.1 A E 33 29 ber of c	0.0 0.00 0.0 0.00 0.00 1.00 0.0 1.00 0.0 A 0 ars per	0.00 (0.00 0, 0.00 (0.00 0, 0.00 0, 0.00 (1.00 1, 0.0 (A 0 lane.	0.00 0.00 0.00 0.00 0.0 0.00 0.0 0.00 0.0 0.00 0.0 0.00 0.0 0.00	24.7 0.0 1.21 0.00 38.5 0.0 107.8 0.0 0.0 0.0 1.00 0.00 146.3 0.0 1.00 1.00 146.3 0.0 F A 22 0	24.7 1.24 38.5 123.1 0.0 1.00 161.6 1.00 161.6 F 35

Appendix C Volume Summary Tables

Intersection Number:	1
Traffix Node Number:	1
Intersection Name:	First Street and Lyell Street
Peak Hour:	AM
Count Date:	6/12/2018

2018 School Year Adjustment 1.1

	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	1	62	39	18	0	4	16	150	2	0	1	0	293
Existing Conditions for School Yr 2018	1	68	43	20	0	4	18	165	2	0	1	0	322
Project Trips	0	0	-1	1	0	2	-2	0	0	0	0	0	0
Existing Plus Project Conditions	1	68	42	21	0	6	16	165	2	0	1	0	322
Existing Plus Project Conditions	1	68	42	21	0	6	16	165	2	0	1	0	:

Intersection Number:	2	
Traffix Node Number:	2	
Intersection Name:	Alley and L	yell Street
Peak Hour:	AM	
Count Date:	6/12/2018	

	Movements												
	North Approach			East Approach			South A	South Approach			West Approach		
Scenario:	RT	TH	LT	RT	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 Str	reet and Lyell Street
Peak Hour:	AM	
Count Date:	6/12/2018	

	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	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 Antoni	o Road and Lyell Street
Peak Hour:	AM	
Count Date:	6/12/2018	

	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	17	469	33	27	5	4	9	643	96	53	8	12	1376
Existing Conditions for School Yr 2018	19	516	36	30	6	4	10	707	106	58	9	13	1514
Project Trips	-2	0	0	0	0	0	0	0	0	0	0	1	-1
Existing Plus Project Conditions	17	516	36	30	6	4	10	707	106	58	9	14	1513

Intersection Number:	5
Traffix Node Number:	5
Intersection Name:	San Antonio Road and First Street/Cuesta Drive
Peak Hour:	AM
Count Date:	6/12/2018

	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	12	435	70	152	101	82	7	591	65	24	34	4	1577
Existing Conditions for School Yr 2018	13	479	77	167	111	90	8	650	72	26	37	4	1734
Project Trips	0	0	0	0	0	0	0	0	-2	2	0	0	0
Existing Plus Project Conditions	13	479	77	167	111	90	8	650	70	28	37	4	1734

Intersection Number:	6
Traffix Node Number:	5214
Intersection Name:	San Antonio Road and Foothill Expressway
Peak Hour:	AM
Count Date:	4/18/2017

					Μ	ovemen	its						
	North Ap	North Approach			East Approach			Approacl	ו	West Approach			
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
Existing Conditions for School Yr	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

Intersection Number:	1
Traffix Node Number:	1
Intersection Name:	First Street and Lyell Street
Peak Hour:	PM
Count Date:	6/12/2018

2018 School Year Adjustment 1.1

Scenario:	Movements												
	North App	North Approach			East Approach			Approac	h	West	Approa	ch	
	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 201	86	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:	2	
Traffix Node Number:	2	
Intersection Name:	Alley and L	yell Street
Peak Hour:	PM	
Count Date:	6/12/2018	

	Movements												
Scenario:	North Approach			East Approach			South A	pproac	h	West /	Approa	ch	
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	10	0	11	2	18	1	3	0	3	1	27	2	78
Existing Conditions for School Yr 201	٤ 11	0	12	2	20	1	3	0	3	1	30	2	85
Net Project Trips	-2	0	-1	1	0	0	0	0	0	0	0	2	0
Existing Plus Project Conditions	9	0	11	3	20	1	3	0	3	1	30	4	85

Intersection Number:	3	
Traffix Node Number:	3	
Intersection Name:	Second St	reet and Lyell Street
Peak Hour:	PM	
Count Date:	6/12/2018	

	Movements												
	North Approach			East A	pproac	h	South A	pproac	h	West Approach			
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 2018	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												
Scenario:	North Approach			East A	East Approach			Approac	h	West Approach			•
	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	٤ 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												
Scenario:	North Approach			East A	East Approach			pproac	h	West Approach			-
	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

6
5214
San Antonio Road and Foothill Expressway
PM
1/31/2017

Scenario:		Movements											
	North Approach			East Approach			South Approach			West Approach			
	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 Vr	0	1500	1	22	0	715	502	406	0	0	0	0	2256
	U	1309	-	32	0	/15	505	490	0	0	0	U	3230
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