Appendix G

Local Transportation Analysis

HEXAGON TRANSPORTATION CONSULTANTS, INC.

1728-1750 Rogers Avenue

Local Transportation Analysis

Prepared for:

Granite Expo

February 2, 2021

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Executive Summary

This report presents the results of the local transportation analysis (LTA) prepared for the proposed development at 1728-1750 Rogers Avenue in San Jose, California. The project, as proposed, would demolish part of an existing warehouse bay and construct approximately 6,050 square feet (s.f.) of new warehouse space and 14,000 s.f. of showroom and sales floor space. The site would be accessed via two full-access driveways along Junction Avenue and four existing driveways along Rogers Avenue.

This study was conducted for the purpose of identifying potential transportation impacts and operational issues related to the proposed development. The transportation impacts of the project were evaluated following the standards and methodologies established by the City of San Jose and the VTA's Congestion Management Program (CMP). Based on the City of San Jose's Transportation Analysis Policy (Council Policy 5-1) and the *Transportation Analysis Handbook 2018*, the project is not required to prepare a CEQA transportation analysis (i.e., Vehicles Miles Traveled (VMT) analysis). However, a Local Transportation Analysis (LTA) is required to identify potential traffic operational issues related to the project. The LTA includes an evaluation of weekday AM and PM peak-hour traffic conditions for two signalized intersections and one unsignalized intersection. The LTA also includes analyses of vehicle queuing at selected intersections, site access and on-site circulation, parking, and potential effects to transit, bicycle, and pedestrian facilities.

CEQA Transportation Analysis

The proposed project consists of a warehouse and a showroom/sales floor. The City of San Jose's *Transportation Analysis Handbook,* 2018, includes screening criteria for projects that are expected to result in less-than-significant VMT impacts based on the project description, characteristics and/or location. Projects that meet the screening criteria do not require a CEQA transportation analysis. According to the screening criteria outlined in Table 1 of the *Transportation Analysis Handbook* (2018), small infill projects, such as industrial projects under 30,000 s.f., are exempted from the CEQA transportation analysis. Additionally, local-serving retail projects under 100,000 s.f. are also exempted from the CEQA transportation analysis.

Because the project meets the criteria for a small infill project for the warehousing portion and local-serving retail for the showroom/sales floor portion, the project is expected to result in a less-than-significant VMT impact and does not require a CEQA transportation analysis.

Local Transportation Analysis

Project Trip Generation

Vehicle trips that would be generated by the proposed project were estimated using the trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*,10th Edition, for Building Materials and Lumber Store (Land Use 812) and Warehousing (Land Use 150) were utilized for the proposed project. After applying the ITE trip rates, the proposed project is estimated to generate 264 new daily vehicle trips, with 23 new trips (15 inbound and 8 outbound) occurring during the AM peak hour and 30 new trips (14 inbound and 16 outbound) occurring during the PM peak hour.

Intersection Traffic Operations

Table ES-1 shows the results of the level of service analysis. The results of the analysis show that all signalized study intersections are currently operating at acceptable levels of service during the AM and PM peak hours of traffic. The unsignalized intersection of Rogers Avenue and Brokaw Road currently operates at LOS F for the traffic turning left from Rogers Avenue to Brokaw Road. However, since the proposed project is not expected to add a noticeable number of trips to the stop-controlled movement, project-generated traffic would not worsen traffic operations at the intersection.

Table ES-1
Intersection Level of Service Summary

			Existing		Background					Cumulative	
			No Project		No Project		with Project			Conditions	
#	Intersection	Peak Hour	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Incr. in Critical Delay (sec)	Incr. in Critical V/C	Avg. Delay (sec)	LOS
1	Junction Avenue & Brokaw Road	AM	23.3	C	34.3	C	34.4	C	0.0	0.000	40.4	D
		PM	30.3	C	36.5	D	36.8	D	0.6	0.003	41.9	D
2	Rogers Avenue & Brokaw Road [1]	AM	**120+**	**F**	**120+**	**F**	**120+**	**F**	0.6	0.021	**120+**	**F**
		PM	**120+**	**F**	**120+**	**F**	**120+**	**F**	0.6	0.026	**120+**	**F**
3	Zanker Road & Brokaw Road (CMP)	AM	35.6	D	43.1	D	43.2	D	0.0	0.001	46.1	D
		PM	40.5	D	41.9	D	42.0	D	0.1	0.002	43.2	D

Bold indicates a substandard level of service.
Note:
[1] Rogers Avenue & Brokaw Road is a two-way stop-controlled intersection. Worst leg delay is reported.

Other Transportation Items

The project would not have an adverse effect on the existing pedestrian, bicycle, or transit facilities in the area. The proposed site plan shows adequate site access and on-site circulation, and no significant operational issues are expected to occur as a result of the project.

Recommendations:

- The project applicant should coordinate with City staff to paint 5 feet of red curb on both sides of each driveway along Rogers Avenue
- The proposed landscaping along Junction Avenue should be maintained so that the vision of exiting drivers is not obstructed
- Red curb equal to a car length should be painted on both sides of the Junction Avenue driveways
- The project should install a sidewalk along its frontages on Junction Avenue and Rogers Avenue.
- The project applicant should discuss with City Staff to determine whether the provided bicycle parking is adequate.

1. Introduction

This report presents the results of the local transportation analysis (LTA) conducted for the proposed development at 1728-1750 Rogers Avenue in San Jose, California (see Figure 1). The project is located within the North San Jose Area Development Plan (ADP) and may be subject to impact fees. The project, as proposed, would demolish part of an existing warehouse bay and construct approximately 6,050 square feet (s.f.) of new warehouse space and 14,000 s.f. of showroom and sales floor space. The site would be accessed via two full-access driveways along Junction Avenue and four existing driveways along Rogers Avenue. The proposed site plan is shown on Figures 2 and 3.

This study was conducted for the purpose of identifying potential transportation impacts and operational issues related to the proposed development. The transportation impacts of the project were evaluated following the standards and methodologies established by the City of San Jose and the VTA's Congestion Management Program (CMP). Based on the City of San Jose's Transportation Analysis Policy (Council Policy 5-1) and the *Transportation Analysis Handbook 2018*, the project is not required to prepare a CEQA transportation analysis (i.e., vehicle miles traveled analysis). However, a local transportation analysis (LTA) is required to identify potential traffic operational issues related to the project.

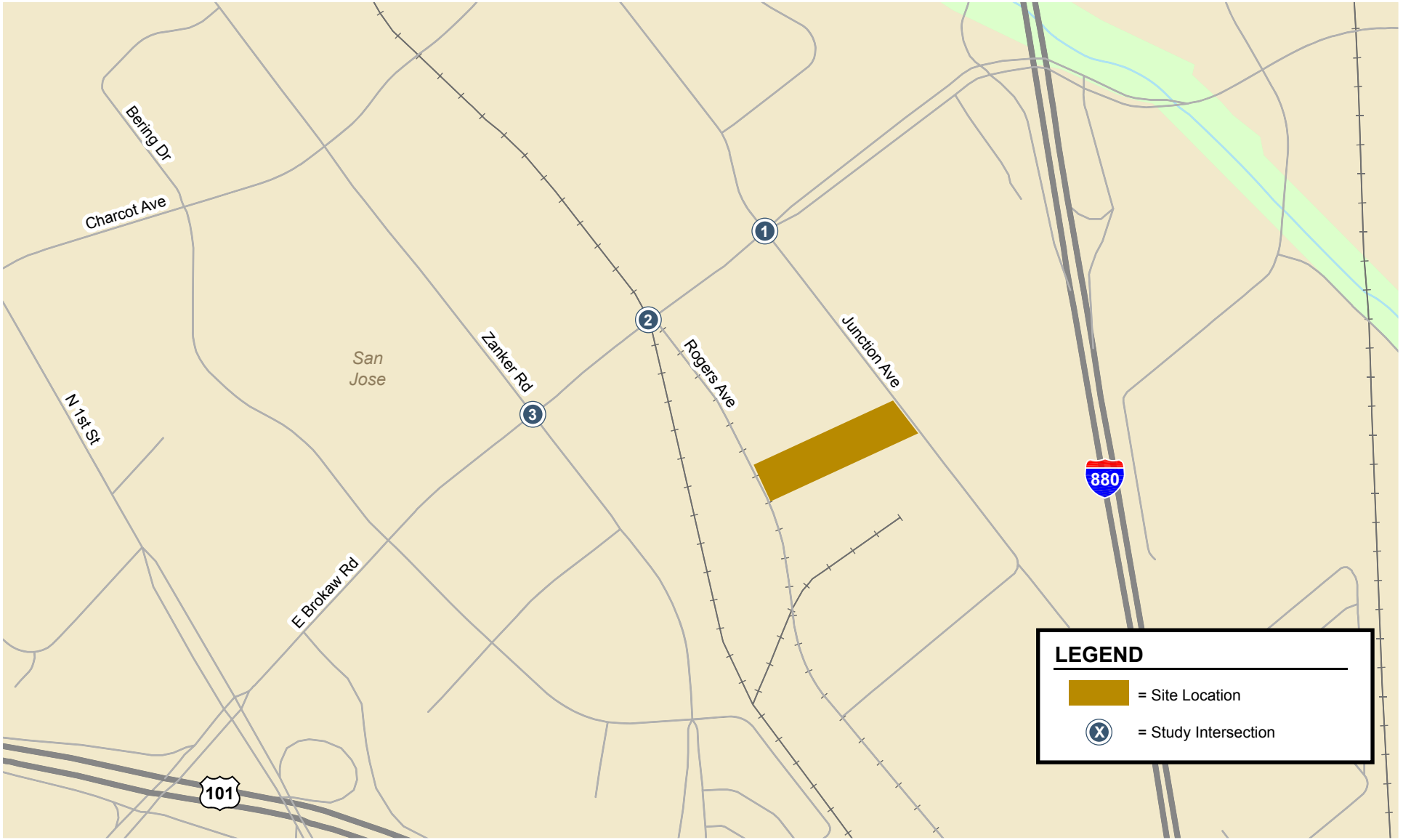


Figure 1
Site Location and Study Intersections

Figure 2
Site Plan (Aerial)

NORTH
Not to Scale

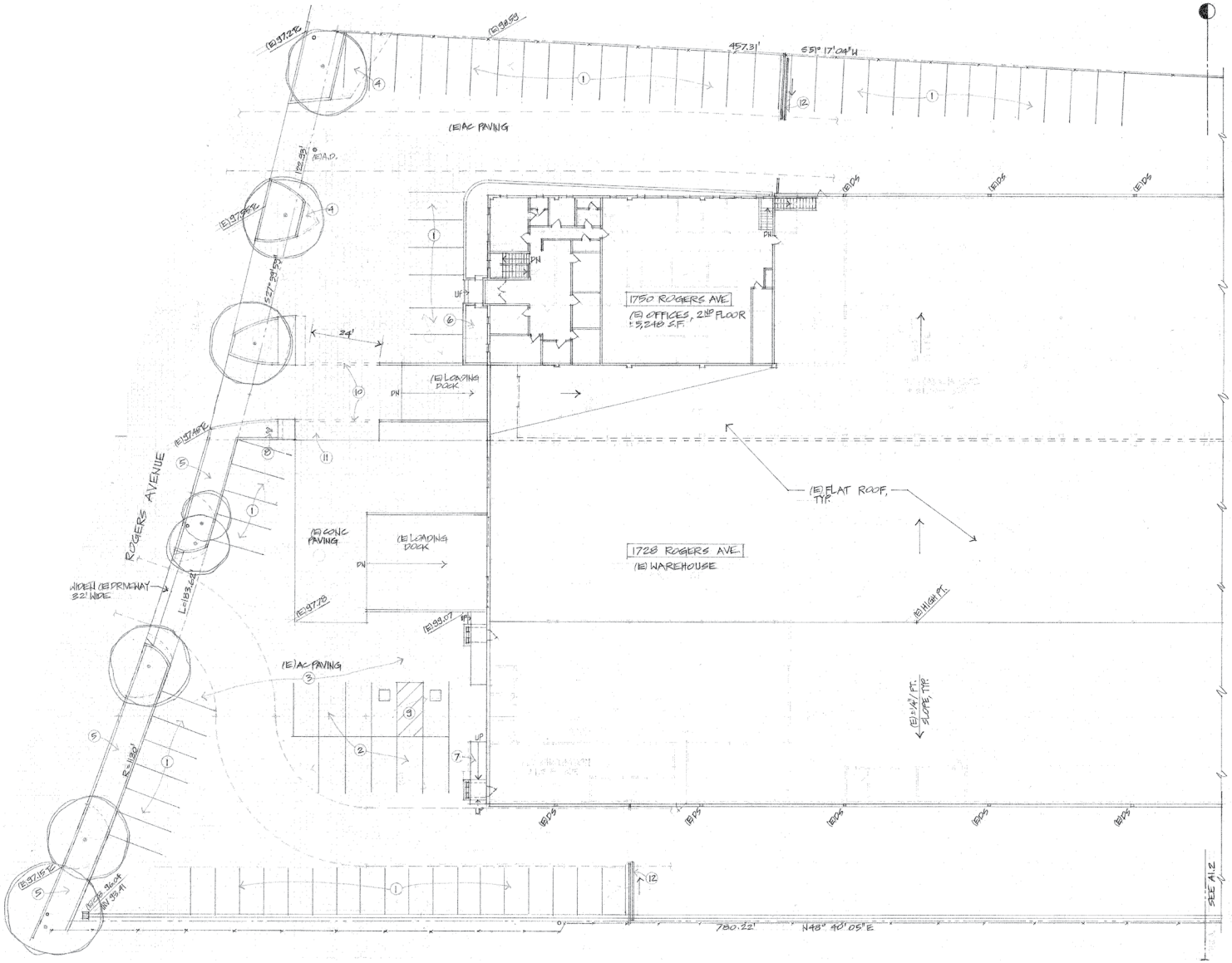


Figure 3
Site and Roof Plan - West

NORTH
Not to Scale

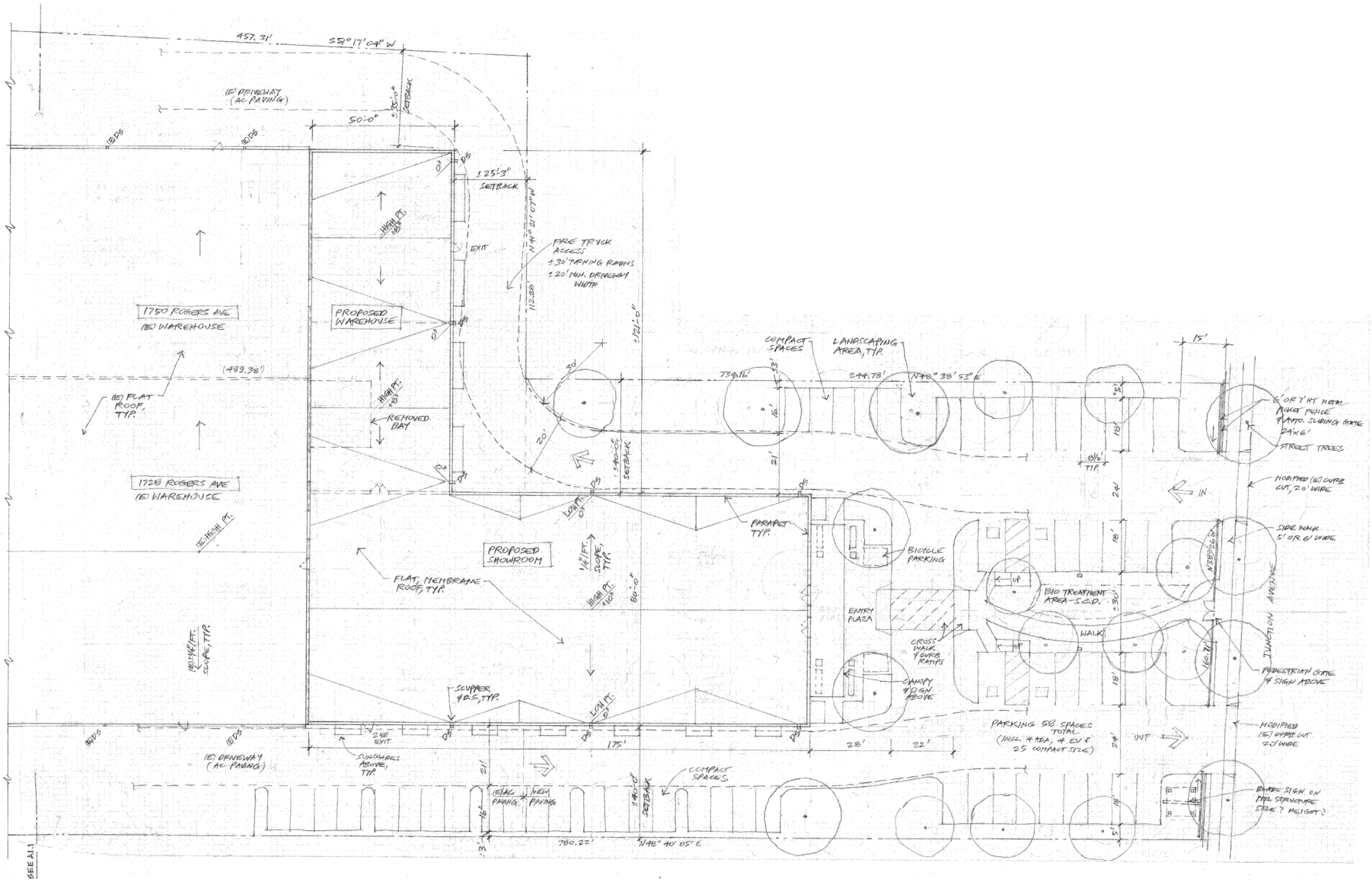


Figure 4
Site and Roof Plan - East

NORTH
Not to Scale

CEQA Transportation Analysis Policy

Historically, transportation analysis has utilized delay and congestion on the roadway system as the primary metric for the identification of traffic impacts and potential roadway improvements to relieve traffic congestion that may result due to proposed/planned growth. However, the State of California has recognized the limitations of measuring and mitigating only vehicle delay at intersections and in 2013 passed Senate Bill (SB) 743, which requires jurisdictions to stop using congestion and delay metrics, such as Level of Service (LOS), as the measurement for CEQA transportation analysis. With the adoption of SB 743 legislation, public agencies will soon be required to base the determination of transportation impacts on vehicle miles traveled (VMT) rather than level of service.

In adherence to SB 743, the City of San Jose has adopted a new Transportation Analysis Policy, Council Policy 5-1. The policy replaces its predecessor (Policy 5-3) and establishes the thresholds for transportation impacts under the CEQA based on VMT instead of LOS. The intent of this change is to shift the focus of transportation analysis under CEQA from vehicle delay and roadway auto capacity to a reduction in vehicle emissions, and the creation of robust multimodal networks that support integrated land uses. The new transportation policy aligns with the currently adopted General Plan which seeks to focus new development growth within Planned Growth Areas, bringing together office, residential, and supporting service land uses to internalize trips and reduce VMT. All new development projects are required to analyze transportation impacts using the VMT metric and conform to Council Policy 5-1.

The Circulation Element of the *Envision San José 2040 General Plan* includes a set of balanced, long-range, multi-modal transportation goals and policies that provide for a transportation network that is safe, efficient and sustainable (minimizes environmental, financial, and neighborhood impacts). These transportation goals and policies are intended to improve multi-modal accessibility to all land uses and create a city where people are less reliant on driving to meet their daily needs. The Envision San Jose 2040 General Plan contains the following policies to encourage the use of non-automobile transportation modes to minimize vehicle trip generation and reduce VMT:

- Accommodate and encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and VMT (TR-1.1).
- Consider impacts on overall mobility and all travel modes when evaluating transportation impacts of new developments or infrastructure projects (TR-1.2).
- Through the entitlement process for new development, projects shall be required to fund or construct needed transportation improvements for all transportation modes, giving first consideration to improvement of bicycling, walking and transit facilities and services that encourage reduced vehicle travel demand (TR-1.4).
- Require new development where feasible to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements (TR-2.8).
- As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute towards transit ridership, and require that new development is designed to accommodate and provide direct access to transit facilities (TR-3.3).
- Balance business viability and land resources by maintaining an adequate supply of parking to serve demand while avoiding excessive parking supply that encourages automobile use (TR-8.2).

- Discourage, as part of the entitlement process, the provision of parking spaces significantly above the number of spaces required by code for a given use (TR-8.4).
- Within new development, create and maintain a pedestrian-friendly environment by connecting the internal components with safe, convenient, accessible, and pleasant pedestrian facilities and by requiring pedestrian connections between building entrances, other site features, and adjacent public streets (CD-3.3).
- Create a pedestrian-friendly environment by connecting new residential development with safe, convenient, accessible, and pleasant pedestrian facilities. Provide such connections between new development, its adjoining neighborhood, transit access points, schools, parks, and nearby commercial areas (LU-9.1).

CEQA Transportation Analysis Screening Criteria

The City of San Jose's *Transportation Analysis Handbook,* 2018, includes screening criteria for projects that are expected to result in less-than-significant VMT impacts based on the project description, characteristics and/or location. Projects that meet the screening criteria do not require a CEQA transportation analysis. According to the screening criteria outlined in Table 1 of the *Transportation Analysis Handbook* (2018), small infill projects, such as industrial projects under 30,000 s.f.,are exempted from the CEQA transportation analysis. Additionally, local-serving retail projects under 100,000 s.f. are also exempted from the CEQA transportation analysis.

Because the project meets the criteria for a small infill project for the warehousing portion and local-serving retail for the showroom/sales floor portion, the project does not require a CEQA-level transportation analysis. However, the project is still required to perform a Local Transportation Analysis (LTA) to identify operational issues that may arise due to the project.

Local Transportation Analysis Scope

A local transportation analysis (LTA) identifies potential adverse operational effects that may arise due to a development project, evaluates the effects of the project on transportation, access, circulation, and related safety elements in the proximate area of the project, and supplements the VMT analysis.

As part of the LTA, a project is generally required to conduct an intersection operations analysis if the project is expected to add 10 or more vehicle trips per hour per lane to any signalized intersection that is located within a half-mile of the project site and is currently operating at LOS D or worse. City staff may also require an intersection LOS analysis at their discretion based on engineering judgement. Based on these criteria, as outlined in the City's *Transportation Analysis Handbook,* a list of study intersections is developed. This LTA comprises an analysis of AM and PM peak hour traffic conditions for two (2) signalized intersections and one (1) unsignalized intersection in the immediate vicinity of the project site. The intersections to be included in the LTA analysis are as follows:

1. Junction Avenue and Brokaw Road
2. Rogers Avenue and Brokaw Road (unsignalized)
3. Zanker Road and Brokaw Road (CMP)

The intersection of Zanker Road and Brokaw Road is designated as a County Congestion Management Program (CMP) intersection. The Santa Clara Valley Transportation Authority (VTA) administers the CMP and monitors the PM peak-hour traffic conditions of CMP intersections.

Traffic conditions at the study intersections were analyzed for both the weekday AM and PM peak hours of adjacent street traffic. The AM peak hour generally occurs between 7:00 AM and 9:00 AM and the PM peak hour typically occurs between 4:00 PM and 6:00 PM on a regular weekday. These are the peak weekday commute hours during which most traffic congestion occurs on the roadways.

Intersection operating conditions were evaluated for the following scenarios:

- ***Existing Conditions.*** Existing traffic volumes at the study intersections were obtained from the City of San Jose Count Database. For intersections where count data is more than two years old, a compounded growth factor of 1% per year were applied to these intersections. Since count data is not available at the intersection of Rogers Avenue and Brokaw Road, counts were taken at the uncounted intersection and at the nearby intersection of Junction Avenue and Brokaw Road. The new turning movement counts were then compared to existing counts and factored to represent pre-COVID traffic volumes.

- ***Background Conditions*****.** Background traffic volumes reflect traffic added by nearby approved projects that are not yet completed or occupied. The added traffic from approved but not yet completed developments was provided by the City of San Jose in the form of the approved trips inventory (ATI) (see Appendix B). Background conditions represent the baseline conditions to which background plus project conditions are compared for the purpose of determining adverse operational effects of the project.

- ***Project Conditions.*** Project Conditions reflect projected traffic volumes on the planned roadway network with completion of the project and approved developments. Background plus project traffic volumes were estimated by adding to background traffic volumes the additional traffic generated by the project. Background plus project conditions were evaluated to identify any operational deficiencies.

- ***Cumulative Conditions.*** Cumulative traffic volumes account for pending developments in the study area. For the purpose of this study, cumulative traffic volumes include traffic generated by the following nearby pending project: 550 E. Brokaw Office Development (H20-038). Cumulative traffic volumes were estimated by adding existing traffic volumes with approved projects, one pending project, and the proposed project.

The LTA also includes a vehicle queuing analysis, an evaluation of potential project impacts to bicycle, pedestrian, and transit facilities, and a review of site access, on-site circulation, and parking demand.

Intersection Operations Analysis Methodology

This section presents the methods used to determine the traffic conditions at the study intersections and the potential adverse operational effects due to the project. It includes descriptions of the data requirements, the analysis methodologies, the applicable intersection level of service standards, and the criteria used to determine adverse effects on intersection operations.

Data Requirements

The data required for the analysis were obtained from the City of San Jose and field observations. The following data were collected from these sources:

- existing traffic volumes
- existing lane configurations
- signal timing and phasing
- a list of approved projects

Intersection Level of Service Standards and Analysis Methodologies

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

Signalized Intersections

The study evaluates two signalized intersections, one of which is a CMP intersection. The intersection of Zanker Road and Brokaw Road is evaluated based on the City of San Jose and CMP level of service standards. The City of San Jose level of service standard for signalized intersections is LOS D. The level of service standard for CMP intersections is LOS E.

The City of San Jose and VTA evaluate level of service at signalized intersections based on the 2000 *Highway Capacity Manual (HCM)* level of service methodology. 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. The correlation between average delay and level of service is shown in Table 1. The City of San Jose level of service standard is LOS D or better at all signalized intersections within San Jose.

Unsignalized Intersection

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.

The study analyzes the intersection of Rogers Avenue and Brokaw Road, which is unsignalized. The intersection was analyzed using TRAFFIX software. TRAFFIX evaluates unsignalized intersections on the basis of average stopped delay for all-way stop controlled intersections, and for the worst-case approach for two-way stop-controlled intersections.

The City of San Jose does not have a formally-adopted level of service standard for unsignalized intersections. For the purposes of analyses, a standard of LOS D or better is considered acceptable. Table 2 shows the level of service definitions for unsignalized intersections.

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

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

Source: Transportation Research Board, *2000 Highway Capacity Manual* (Washington, D.C., 2000), p.10-16.

Table 2
Unsignalized Intersection Level of Service Denfinitions Based on Control Delay

Level of Service	Description	Average Delay Per Vehicle (Sec.)
A	Little or no traffic delay	10.0 or less
B	Short traffic delays	10.1 to 15.0
C	Average traffic delays	15.1 to 25.0
D	Long traffic delays	25.1 to 35.0
E	Very long traffic delays	35.1 to 50.0
F	Extreme traffic delays	greater than 50.0

Source: Transportation Research Board, *2000 Highway Capacity Manual* (Washington, D.C., 2000) p17-2.

Intersection Vehicle Queuing Analysis

The analysis of intersection operations was supplemented with a vehicle queuing analysis at intersections where the project would add a substantial number of trips to the left-turn movements or stop-controlled approaches. The queuing analysis is presented for informational purposes only, since the City of San Jose has not defined a policy related to queuing. Vehicle queues were calculated using a Poisson probability distribution, which estimates the probability of “n” vehicles for a vehicle movement using the following formula:

$$P(x=n) = \frac{\lambda^n e^{-(\lambda)}}{n!}$$

Where:

P (x=n) = probability of "n" vehicles in queue per lane
n = number of vehicles in the queue per lane
λ = average # of vehicles in the queue per lane (vehicles per hr per lane/signal cycles per hr)

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

For signalized intersections, the 95th percentile queue length value indicates that during the peak hour, a queue of this length or less would occur on 95 percent of the signal cycles, or a queue length longer than the 95th percentile queue would only occur on 5 percent of the signal cycles (about 1-2 cycles during the peak hour for a signal with a 120-second cycle length). Thus, turn pocket storage designs based on the 95th percentile queue length would ensure that storage space would be exceeded only 5 percent of the time for a signalized movement. Vehicle queuing at unsignalized intersections is evaluated based on the delay experienced by the specific study turn movement.

City of San Jose Definition of Adverse Intersection Operations Effects

The project is said to create a deficiency at a signalized intersection in the City of San Jose if for either peak hour:

1. The level of service at the intersection degrades from an acceptable LOS D or better under baseline conditions to an unacceptable LOS E or F under baseline plus project conditions, or
2. The level of service at the intersection is an unacceptable LOS E or F under baseline conditions and the addition of project trips cause both the critical-movement delay at the intersection to increase by four (4) or more seconds and the volume-to-capacity ratio (V/C) to increase by one percent (0.01) or more.

An exception to rule #2 above applies when the addition of project trips reduces the amount of average delay for critical movements (i.e., the change in average delay for critical movements is negative). In this case, a deficiency is identified if there is an increase in the critical V/C value by 0.01 or more.

Report Organization

This report has a total of four chapters. Chapter 2 describes the existing roadway network, transit service, bicycle and pedestrian facilities. Chapter 3 describes the local transportation analysis including the method by which project traffic is estimated, intersection operations analysis for existing plus project and cumulative with project conditions, any adverse intersection traffic effects caused by the project, intersection vehicle queuing analysis, site access and on-site circulation review, effects on bicycle, pedestrian, and transit facilities, and parking. Chapter 4 presents the conclusions of the transportation analysis.

2. Existing Conditions

This chapter describes the existing conditions of the transportation system within the project study area. It describes the roadway network, transit service, and pedestrian and bicycle facilities in the vicinity of the project site.

Existing Roadway Network

Regional access to the project site is provided via US 101 and Interstate 880 (I-880). Local access to the project site is provided via Brokaw Road, Zanker Road, Junction Avenue, and Rogers Avenue. These facilities are described below.

US 101 is an eight-lane freeway in the vicinity of the project. US 101 extends northwards towards San Francisco and southwards towards southern California. Access to and from the project site is provided via a partial interchange at Airport Parkway (ramps to the north), Brokaw Road (exit ramp from the south), and Technology Place/Fourth Street (entrance ramp to the south).

I-880 is an eight-lane freeway in the vicinity of the project. I-880 extends northwards towards Oakland and southwards, where it becomes State Route 17. Access to and from the project site is provided via a full interchange at Brokaw Road.

Brokaw Road is east-west arterial street extending from Technology Place in the west, where it becomes Airport Parkway, to Oakland Road in the east, where it becomes Murphy Avenue. The City defines Brokaw Road as a city connector street, where automobiles, bicycles, pedestrians, and trucks are prioritized equally. Within the project vicinity, there is a raised center median and left-turn pockets at intersections. Additionally, striped bike lanes are present along Brokaw Road, east of First Street. Brokaw Road has a posted speed limit of 40 mph. Sidewalks are present along both sides of the street, and on-street parking is prohibited. The project site can be accessed from Brokaw Road from either Junction Avenue or Rogers Avenue.

Zanker Road is north-south arterial street extending from Alviso in the north, where it becomes Los Esteros Road, to Old Bayshore Highway in the south. The City defines Zanker Road as a city connector street, where automobiles, bicycles, pedestrians, and trucks are prioritized equally. Within the project vicinity, there is a raised center median and left-turn pockets at intersections. Additionally, striped bike lanes are present along Zanker Road within the project vicinity. Zanker Road has a posted speed limit of 40 mph. Sidewalks are present along both sides of the street, south of Brokaw Road, and on-street parking is prohibited. The project site can be accessed from Zanker Road via Brokawn Road to either Junction Avenue or Rogers Avenue.

Junction Avenue is a north-south local roadway that extends from Zanker Road in the north to Rogers Avenue in the south, near the project site. Within the project vicinity, Junction Avenue is one lane in each direction with a two-way left-turn lane. Junction Avenue has a posted speed limit of 35 mph. Sidewalks are intermittent along some property frontages. On-street parking is permitted along both sides of Junction Avenue. Junction Avenue provides direct access to the project site via two proposed full-access driveways.

Rogers Avenue is a north-south local roadway that begins at Brokaw Road in the north and extends to Queens Lane in the south. Within the project vicinity, Rogers Avenue is one lane in each direction, with a railroad in the center of the roadway. Rogers Avenue has a posted speed limit of 35 mph. Sidewalks are intermittent along some property frontages. On-street parking is permitted along both sides of Rogers Avenue. Rogers Avenue provides direct access to the project site via four existing driveways.

Existing Pedestrian, Bicycle, and Transit Facilities

San Jose desires to provide a safe, efficient, fiscally, economically, and environmentally sensitive transportation system that balances the needs of bicyclists, pedestrians, and public transit riders with those of automobiles and trucks. The existing pedestrian, bicycle, and transit facilities in the study area are described below.

Existing Pedestrian Facilities

The project site is located in an industrial area where sidewalks are intermittent. Most of Rogers Avenue and Junction Avenue lack sidewalks in the project vicinity. The project site lacks sidewalks along both the Rogers Avenue and Junction Avenue frontages. Crosswalks and pedestrian signal heads are present at the signalized intersections in the project vicinity. A marked crosswalk and ADA compliant ramps are present across Rogers Avenue at Brokaw Road.

Existing Bicycle Facilities

In the project area, Class II striped bike lanes are present on Brokaw Road (see Figure 5). Class II striped bike lanes are also present along Zanker Road and Junction Avenue, north of Brokaw Road. As part of the San Jose Better Bike Plan 2025, Brokaw Road is proposed to be reconstructed with Class IV bike facilities. Class IV bike lanes are protected by physical barriers such as flexible bollards, raised curb, parking, or planter boxes. Additionally, Class IV bike facilites are proposed along Junction Avenue within the project vicinity.

Existing Transit Services

Existing bus service in the project area is provided by the VTA. The project site is served by local bus route 60 (see Figure 6). The closest bus stop is located along Brokaw Road, near the intersection of Rogers Avenue, approximately 1,000 feet north of the project site. Another bus stop is located along Brokaw Road near the intersection of Junction Avenue, also approximately 1,000 feet north of the project site.

Local Route 60 operates everyday between the Milpitas BART Station and the Winchester LRT Station. Local Route 60 provides weekday service between 5:30 AM and 11:30 AM with approximate 15-minute headways during the AM and PM peak commute hours.

Existing Intersection Lane Configurations

The existing lane configurations at the study intersections were determined by observations in the field and are shown on Figure 7.

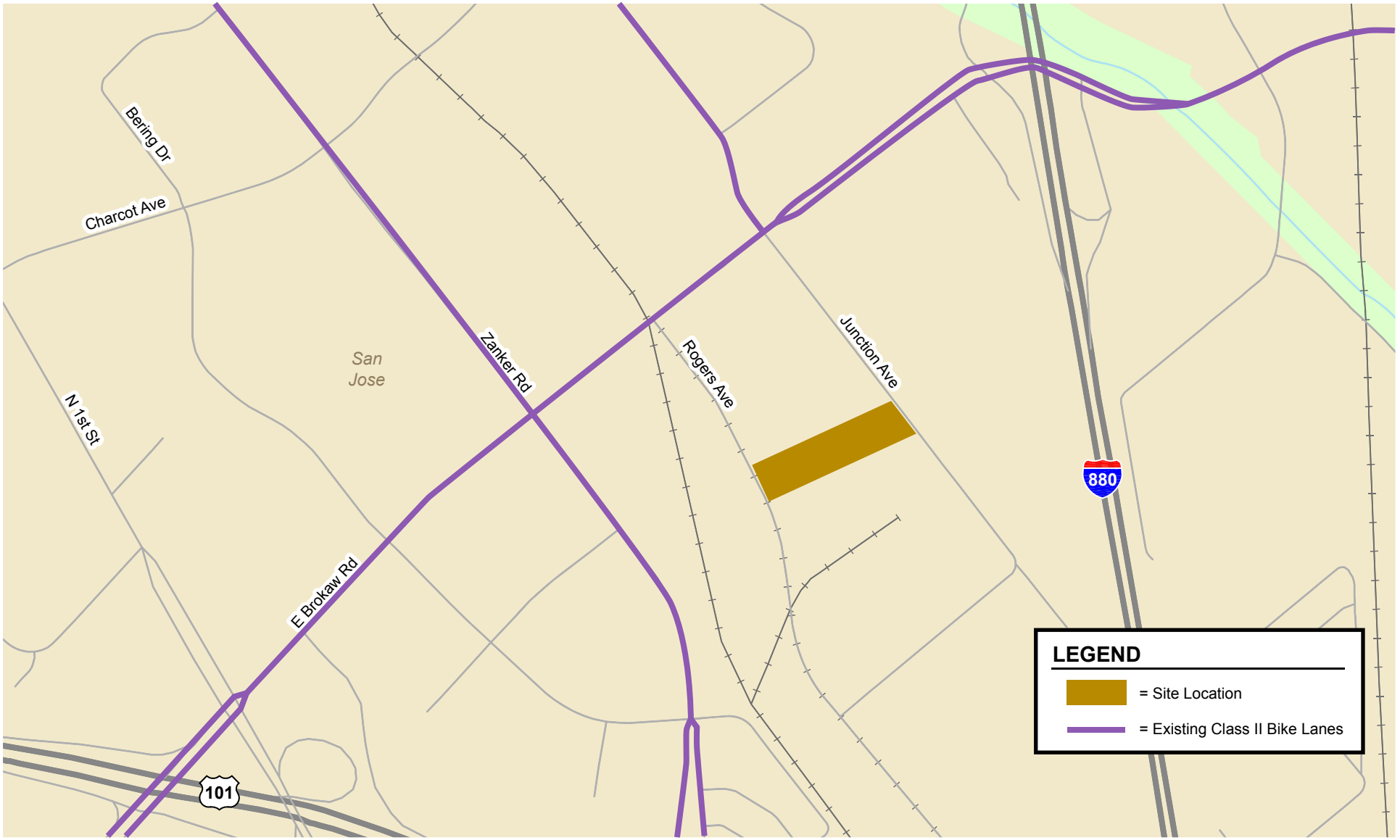


Figure 5
Existing Bicycle Facilities

Figure 6
Existing Transit Services

NORTH
Not to Scale

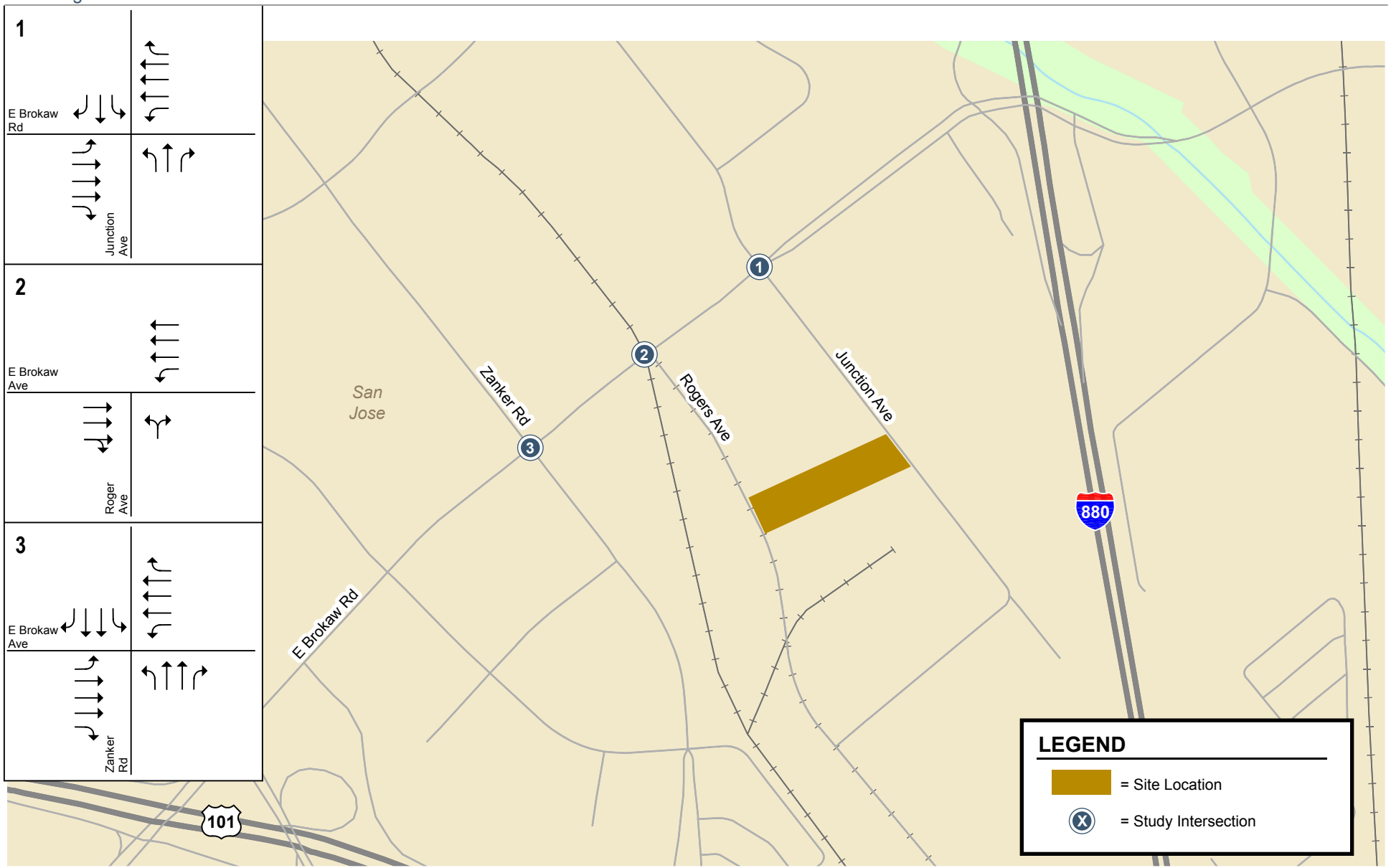


Figure 7
Existing Lane Configurations

NORTH
Not to Scale

3.
Local Transportation Analysis

This chapter describes the local transportation analysis (LTA) including the method by which project traffic is estimated, intersection operations analysis, any adverse effects to intersection level of service caused by the project, site access and on-site circulation review, parking, and effects on bicycle, pedestrian and transit facilities.

Intersection Operations Analysis

The intersection operations analysis is intended to quantify the operations of intersections in the project vicinity and to identify potential negative effects due to the addition of project traffic. Information required for the intersection operations analysis related to project trip generation, trip distribution, and trip assignment are presented in this section. The study intersections are evaluated based on the intersection level of service analysis methodology and standards described in Chapter 1.

Project Trip Estimates

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

Trip Generation

Trips generated by any new development are typically estimated based on counts of existing developments of the same land use type. A compilation of typical trip generation rates can be found in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 10th Edition. The ITE trip generation rates for Building Materials and Lumber Store (Land Use 812) and Warehousing (Land Use 150) were utilized for the proposed project. Since the project proposes to construct a showroom/sales floor, primarily showcasing stone and tile materials, the ITE definition of a building materials store is a comparable use for the purposes of trip generation. The project also proposes to construct an additional area for warehousing purposes.

After applying the ITE trip rates, the proposed project is estimated to generate 264 new daily vehicle trips, with 23 new trips (15 inbound and 8 outbound) occurring during the AM peak hour and 30 new trips (14 inbound and16 outbound) occurring during the PM peak hour (see Table 3).

Table 3
Project Trip Generation Estimates

Land Use	ITE Land Use Code	Size	Daily		AM Peak Hour				PM Peak Hour			
						Trip				Trip		
			Rate	Trip	Rate	In	Out	Total	Rate	In	Out	Total
Proposed Uses												
Showroom and Sales Floor[1]	**812**	**14,000** Square Feet	18.05	253	1.57	14	8	22	2.06	14	15	29
Warehousing	**150**	**6,050** Square Feet	1.74	11	0.17	1	0	1	0.19	0	1	1
Total Project Trip				**264**		**15**	**8**	**23**		**14**	**16**	**30**

Source: ITE Trip Generation Manual, 10th Edition 2017

Notes:
[1] The ITE Trip Generation Manual does not have rates for a tile/granite showroom. Building Materials and Lumber Store (ITE Land Use Code 812) is selected for the proposed showroom.

Trip Distribution and Assignment

The trip distribution pattern for the project was estimated based on existing travel patterns on the surrounding roadway system and the locations of complementary land uses. The peak hour vehicle trips generated by the project were assigned to the roadway network in accordance with the trip distribution pattern. Figure 8 shows the trip distribution pattern and trip assignment for the project site. The project proposes a customer parking area near the driveways along Junction Avenue. Additionally, the entrance to the showroom/sales floor would face Junction Avenue. It is assumed that most customers and staff working the sales floor would utilize the proposed driveways along Junction Avenue. Therefore, it was assumed that all of the new project trips would utilize the driveways along Junction Avenue. The existing site plan shows one inbound only driveway and one outbound only driveway. City staff will ask the project to widen the proposed driveways to allow two-way operation. If both driveways allow two-way operation, it is likely that since most traffic comes from the north, 90% of inbound traffic would utilize the northern driveway and 10% would utilize the southern driveway. Outbound traffic would likely see a 50% split between the two driveways.

Traffic Impact Fees

The proposed project is located within the North San Jose ADP and is subject to traffic impact fees. Since the retail portion is local-serving, it would not create additional traffic within the area. Therefore, retail uses are exempt from fees. The proposed project contains 6,050 s.f. of industrial use (warehousing), and would be subject to paying a fee to offset the improvements made to transportation facilities within the North San Jose area. As of 2019, low-intensity industrial projects are subject to a fee of $16.45 per square foot of the project. Since the project proposes 6,050 s.f. of warehouse space, the project would be subject to the traffic impact fee. Retail projects, such as the showroom, are not subject to the fee.

City staff have also indicated that the project may be subject to US-101/Oakland/Mabury TDP traffic impact fees. However, since most of the trips heading east from the project site would likely use I-880 or continue on Brokaw Road, the proposed project would not create any new trips at the US-101/Oakland interchange.

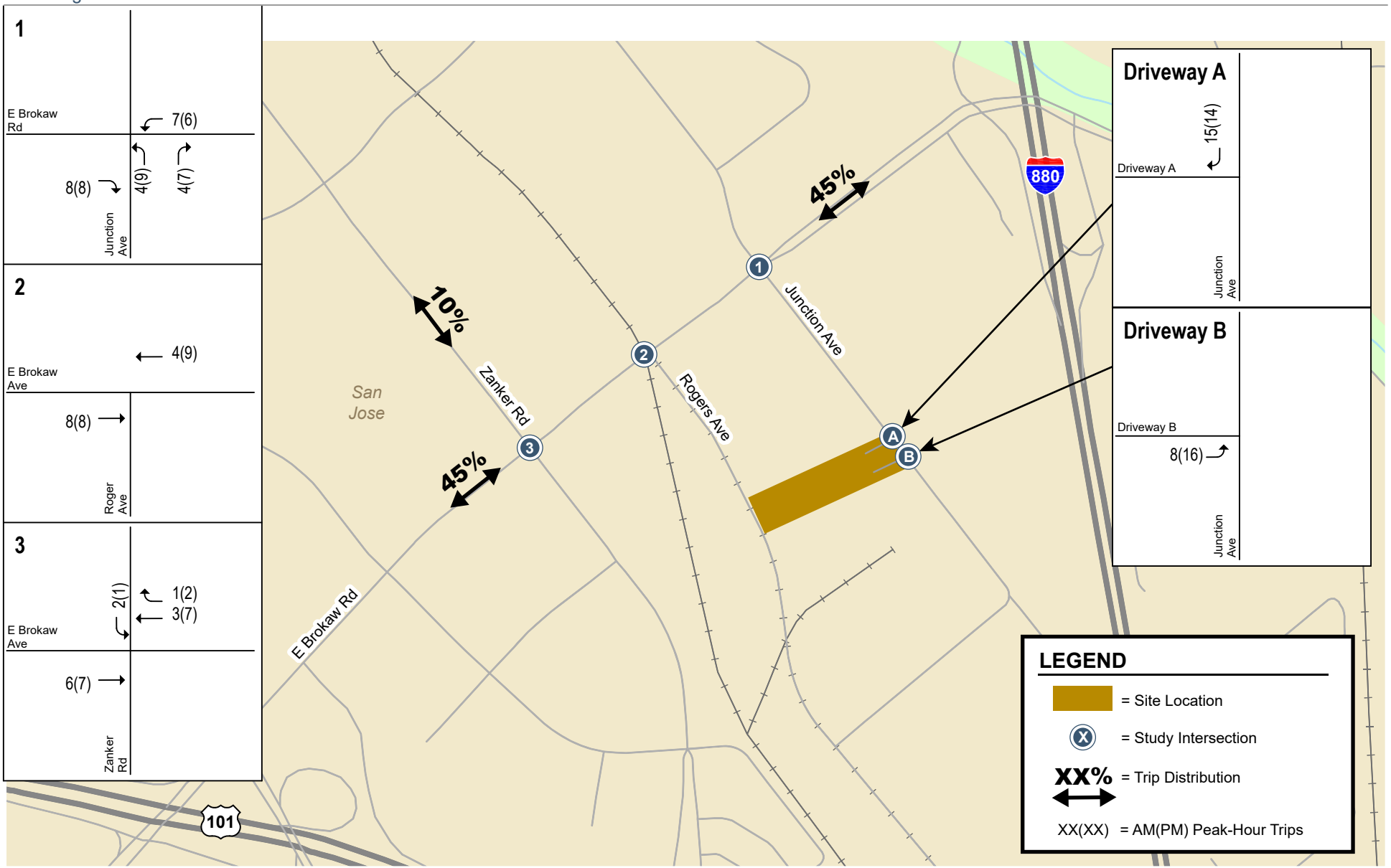


Figure 8
Trip Distribution and Trip Assignment

Traffic Volumes Under All Scenarios

Existing Traffic Volumes

Existing traffic volumes were obtained from the City of San Jose. For locations where data is older than two years, a 1% compounded annual growth factor was used to escalate traffic volumes to existing conditions. Since existing counts are not available at the unsignalized intersection of Rogers Avenue & Brokaw Road, new counts were taken and adjusted to represent pre-pandemic traffic volumes. New traffic counts were taken at the unsignalized intersection of Rogers Avenue & Brokaw Road and the intersection of Junction Avenue & Brokaw Road. The traffic volumes were then compared to adjusted traffic counts at Junction Avenue & Brokaw Road. Volumes from new counts at Rogers Avenue & Brokaw Road were then factored to represent pre-pandemic traffic volumes. New turning movement counts can be found in Appendix A.

The existing peak-hour intersection volumes are shown on Figure 9.

Background Traffic Volumes

Background AM and PM peak-hour traffic volumes were estimated by adding to existing traffic volumes the trips generated by nearby approved but not yet completed or occupied projects (see Figure 10). The approved projects in San Jose are listed as part of the Approved Trips Inventory (ATI) in Appendix B.

Background Plus Project Traffic Volumes

Project trips were added to background traffic volumes to obtain background plus project traffic volumes (see Figure 11).

Cumulative Traffic Volumes

Cumulative no project traffic volumes include traffic generated by the following nearby pending project:

- 550 E Brokaw Office Development (H20-038): 2,050,000 s.f. office development

Since the design of the 550 E Brokaw Office Development has not been finalized, for the purposes of analysis, it is assumed all traffic will utilize driveways along Junction Avenue. To account for existing trip credits, location based adjustments, and other trip reduction factors, such as Transportation Demand Management, it is assumed that the 550 E. Brokaw Office Development will generate 50% of the trip generation rates found in the ITE Trip Generation Manual. Additionally, future roadway improvements will be likely needed to accommodate the additional traffic that would be generated by the proposed 550 E. Brokaw Office Development. However, for the purposes of analyses, it is assumed that no improvements will be made.

Cumulative with project traffic volumes were estimated by adding to cumulative no project traffic volumes the estimated new trips generated by the proposed project. This traffic scenario was provided for informational purposes at the City's request. Cumulative with project traffic volumes are shown graphically on Figure 12.

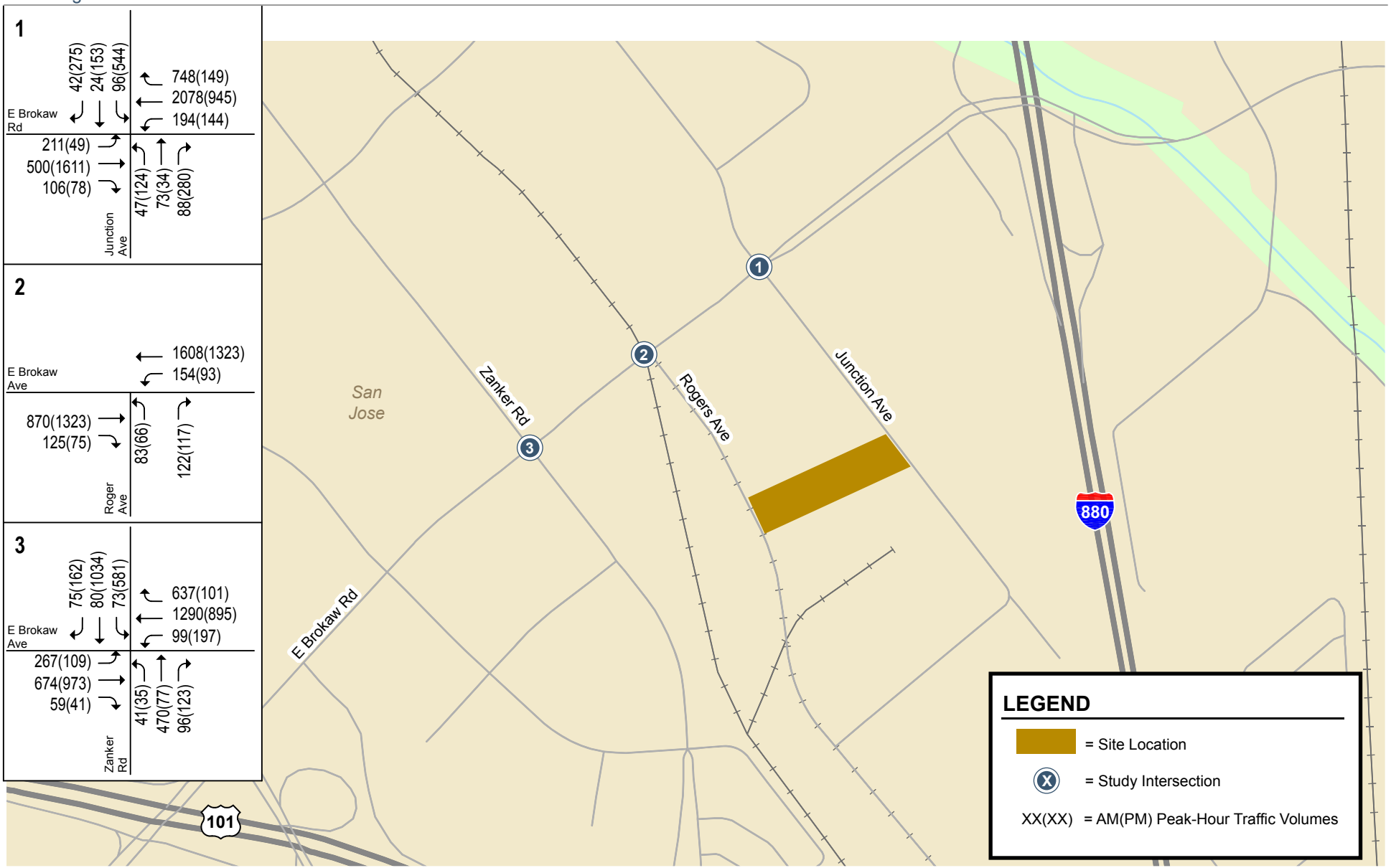


Figure 9
Existing Traffic Volumes

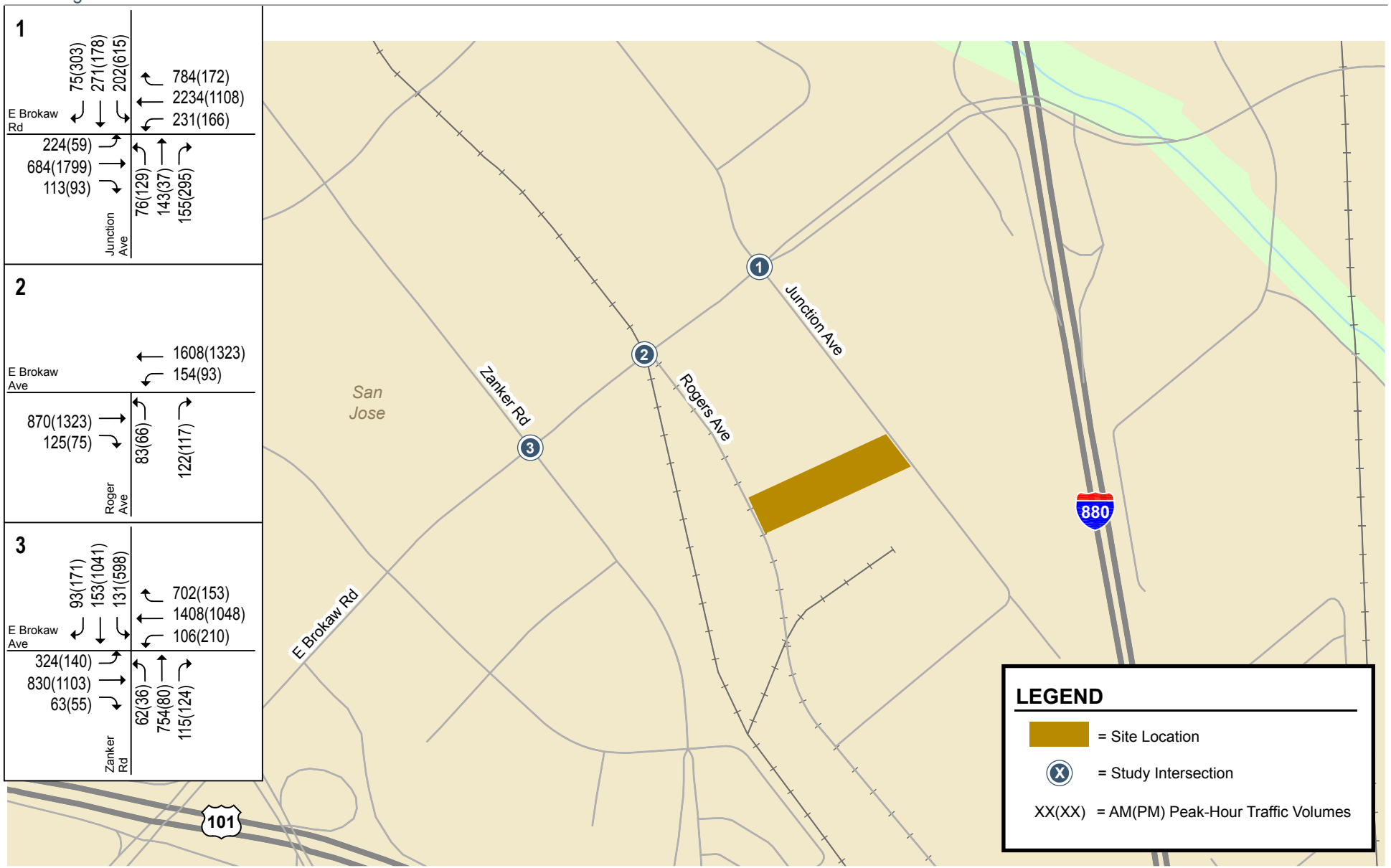


Figure 10
Background Traffic Volumes

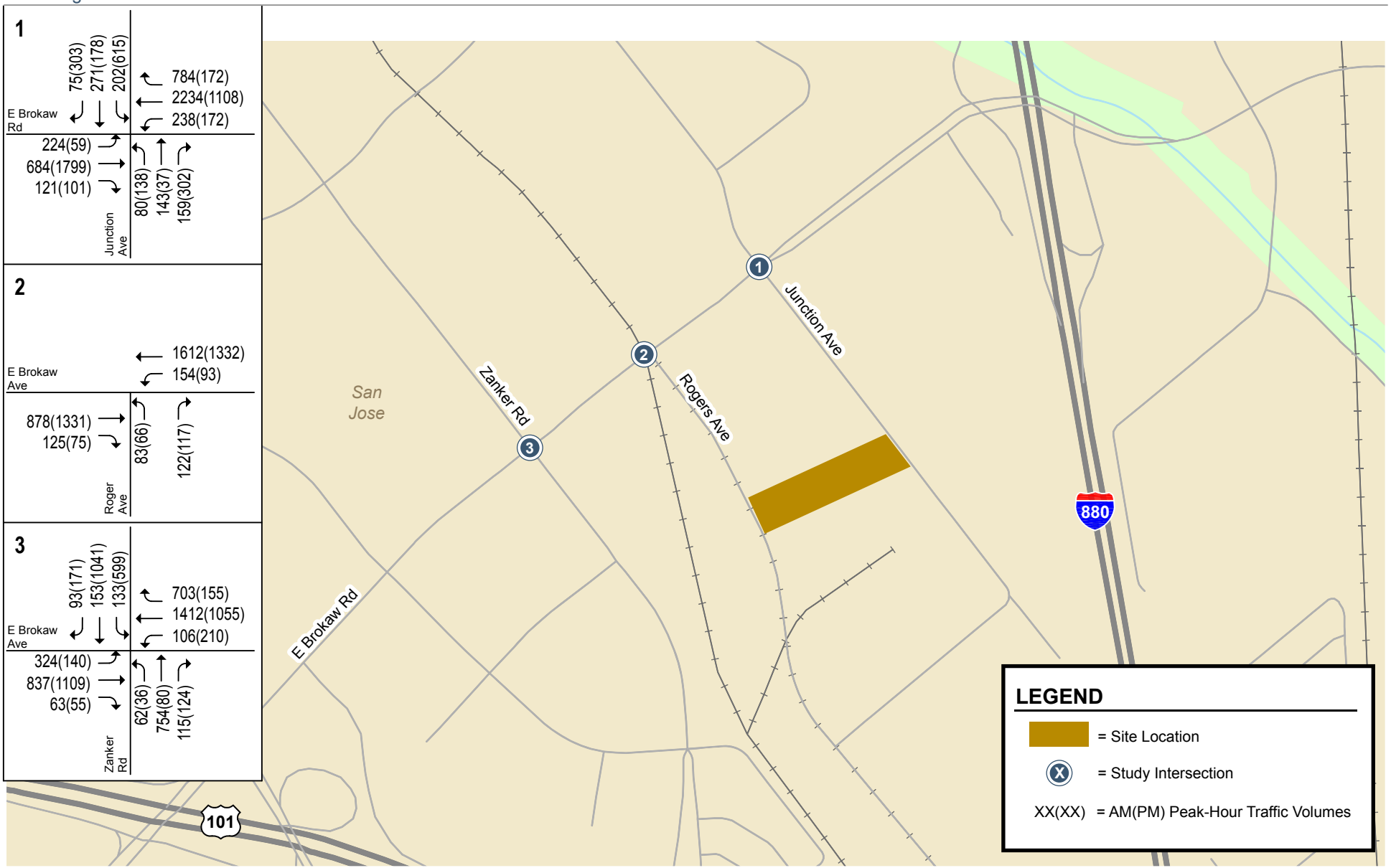


Figure 11
Background with Project Traffic Volumes

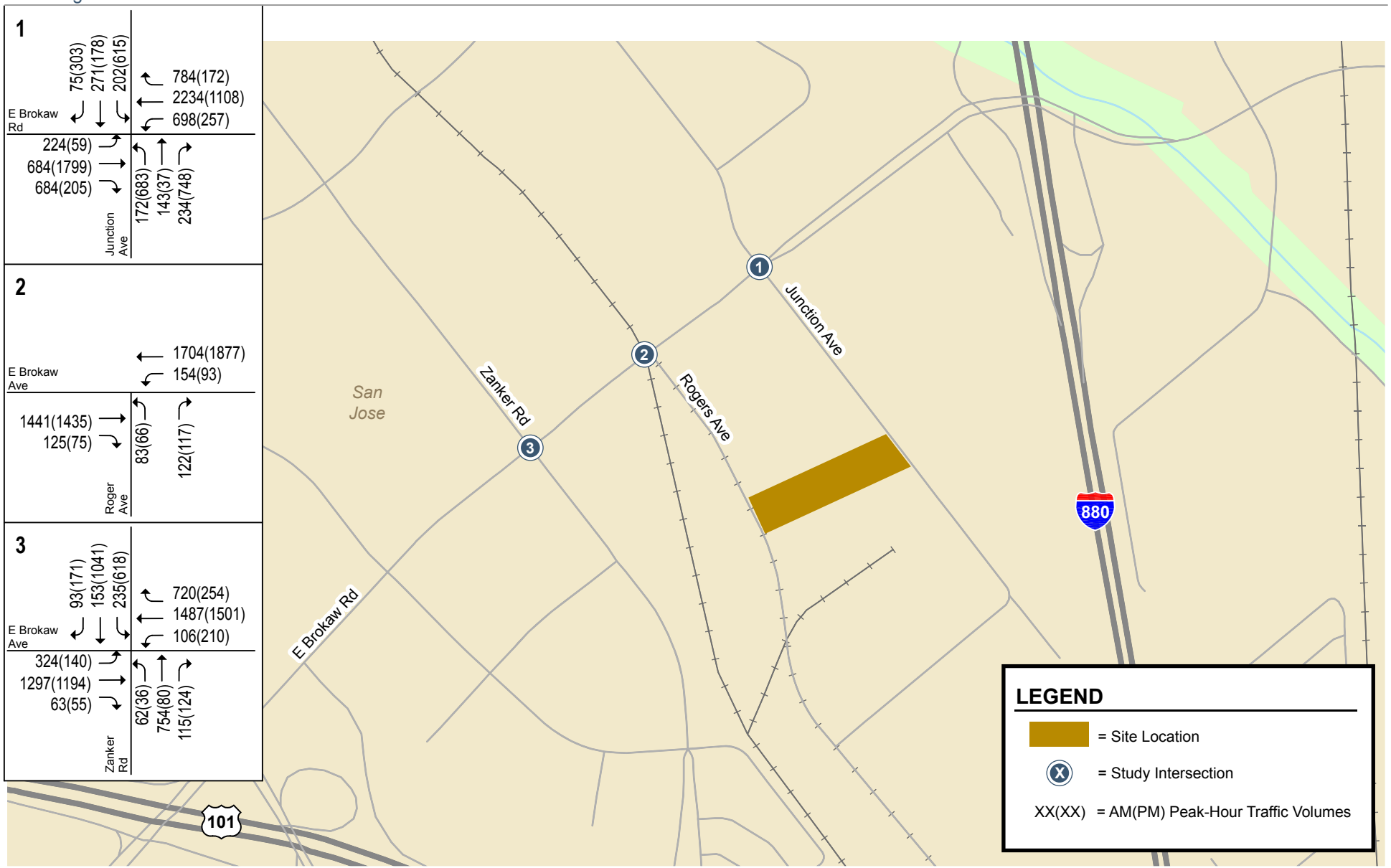


Figure 12
Cumulative with Project Traffic Volumes

NORTH
Not to Scale

Intersection Traffic Operations

Signalized intersection levels of service were evaluated against the standards of the CMP and City of San Jose. The results of the analysis show that all signalized study intersections are currently operating at acceptable levels of service during the AM and PM peak hours of traffic.

The left turn from Rogers Avenue to Brokaw Road currently operates at LOS F. However, since the proposed project is not expected to add a noticeable number of trips to the stop-controlled movement, project-generated traffic would not worsen traffic operations at the intersection.

The detailed intersection level of service calculation sheets are included in Appendix C.

Table 4
Intersection Level of Service Summary

			Existing		Background					Cumulative	
			No Project		No Project		with Project			Conditions	
#	Intersection	Peak Hour	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Incr. in Critical Delay (sec)	Incr. in Critical V/C	Avg. Delay (sec)	LOS
1	Junction Avenue & Brokaw Road	AM	23.3	C	34.3	C	34.4	C	0.0	0.000	40.4	D
		PM	30.3	C	36.5	D	36.8	D	0.6	0.003	41.9	D
2	Rogers Avenue & Brokaw Road [1]	AM	**120+**	**F**	**120+**	**F**	**120+**	**F**	0.6	0.021	**120+**	**F**
		PM	**120+**	**F**	**120+**	**F**	**120+**	**F**	0.6	0.026	**120+**	**F**
3	Zanker Road & Brokaw Road (CMP)	AM	35.6	D	43.1	D	43.2	D	0.0	0.001	46.1	D
		PM	40.5	D	41.9	D	42.0	D	0.1	0.002	43.2	D

Bold indicates a substandard level of service.

Note:

[1] Rogers Avenue & Brokaw Road is a two-way stop-controlled intersection. Worst leg delay is reported.

Unsignalized Intersection

The unsignalized study intersection was analyzed to determine whether a traffic signal is warranted based on the Peak-Hour Volume Signal Warrant, (Warrant #3 – Part B) described in the California *Manual on Uniform Traffic Control Devices* (MUTCD), 2014 Edition. This method provides an indication whether peak-hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal. Intersections that meet the peak hour warrant are subject to further analysis before determining that a traffic signal is necessary. Additional analysis may include unsignalized intersection level of service analysis and/or operational analysis such as evaluating vehicle queuing and delay. Other options such as traffic control devices, signage, or geometric changes may be preferable based on existing field conditions.

The Peak-Hour Volume Signal Warrant compares peak-hour traffic volumes along a major street to a minor street. Since pre-Covid traffic volume along Brokaw Road was greater than 1,700 vehicles during peak hours, any traffic volume greater than 100 vehicles during a peak hour on Rogers Avenue would meet the warrant. Since new counts (during COVID) show that the minor street approach (Rogers Avenue) exceeds the 100-vehicle threshold, a traffic signal or other traffic control devices should be considered. The signal warrant analysis sheets can be found in Appendix D.

The proposed project is not expected to add a noticeable number of trips to the northbound movement at the intersection of Rogers Avenue and Brokaw Road, the project would not adversely affect the operation. However, city staff have indicated that the project may be required to provide a fair-share contribution towards the signalization of Rogers Avenue and Brokaw Road.

Vehicle Queuing Analysis

The proposed project would not add a significant number of trips (greater than 10) to any left or right turning movement. Therefore, the project would not adversely affect turn pocket storage at study intersections.

Vehicular Access and Circulation

The site access and circulation evaluation is based on the May 2020 site plan prepared by Menzi Architecture (see Figure 2 and 3 in Chapter 1). Site access was evaluated to determine the adequacy of the site's driveways with regard to the following: traffic volume, geometric design, sight distance and operations (e.g., queuing and delay). On-site vehicular circulation was reviewed in accordance with generally accepted traffic engineering standards.

Site Access

Vehicular access to the project site would be provided via two driveways along Junction Avenue (one in and one out) and four existing driveways along Rogers Avenue. According to the City of San Jose Department of Transportation (DOT) Geometric Design Guidelines (Addendum Drawing No. R-7), the typical width for a driveway that serves a commercial development is 16 to 32 feet wide. The driveways along Junction Avenue are shown to be 20 feet wide and, thus, would meet the City guidelines. City staff have indicated that the project would be asked to widen the driveways along Junction Avenue to be full-access driveways measuring 26 feet in width. The southernmost driveway along Rogers Avenue would be widened to 32 feet in width. The other three driveways along Rogers Avenue, measuring between 20 and 32 feet, would remain as built.

Traffic Operations at Project Driveways

The project-generated trips that are estimated to occur at the project driveways are 34 inbound trips and 13 outbound trips during the AM peak hour, and 20 inbound trips and 36 outbound trips during the PM peak hour (see Table 5). Assuming a worst-case scenario where only one driveway (or driveways in a one-in-one-out configuration), this would equate to one vehicle entering and leaving the project site every two minutes. It is unlikely any significant operational issues would occur due to vehicular queuing. However, since the first parking space is shown to be 15 feet from the back of walk near the Junction Avenue entrance, it is possible that vehicles may be temporarily stopped in the project driveway due to vehicles leaving parking spaces. Similarly, some minor on-site vehicle queuing may occur due to the random occurrence of gaps in traffic along Junction Avenue.

Table 5
Project Site Trip Generation

Land Use	ITE Land Use Code	Size	Daily		AM Peak Hour				PM Peak Hour			
						Trip				Trip		
			Rate	Trip	Rate	In	Out	Total	Rate	In	Out	Total
Proposed Uses												
Building Materials and Lumber Store	**812**	**14,000** Square Feet	18.05	253	1.57	14	8	22	2.06	14	15	29
Warehousing	**150**	**6,050** Square Feet	1.74	11	0.17	1	0	1	0.19	0	1	1
Proposed Project Trips				**264**		**15**	**8**	**23**		**14**	**16**	**30**
Existing Uses												
Building Materials and Lumber Store	**812**	**1,240** Square Feet	18.05	22	1.57	1	1	2	2.06	1	2	3
Warehousing	**150**	**59,830** Square Feet	1.74	104	0.17	8	2	10	0.19	3	8	11
General Office Building	**710**	**10,540** Square Feet	9.74	103	1.16	10	2	12	1.15	2	10	12
Proposed Project Trips				**229**		**19**	**5**	**24**		**6**	**20**	**26**
Gross Project Trips				**493**		**34**	**13**	**47**		**20**	**36**	**56**

Source: ITE Trip Generation Manual, 10th Edition 2017

Sight Distance at Project Driveways

The project driveways should be free and clear of any obstructions to provide adequate sight distance, thereby ensuring that exiting vehicles can see pedestrians on the sidewalk and vehicles and bicycles traveling on Junction Avenue and Rogers Avenue. Any landscaping and signage should be located in such a way to ensure an unobstructed view for drivers exiting the site. Providing the appropriate sight distance reduces the likelihood of a collision at a driveway and provides drivers with the ability to locate sufficient gaps in traffic and exit a driveway.

The minimum acceptable sight distance is considered the Caltrans stopping sight distance. Sight distance requirements vary depending on roadway speeds. For the project driveways along Junction Avenue and Rogers Avenue, which have a posted speed limit of 35 mph, the Caltrans stopping sight distance is 300 feet (based on a design speed of 40 mph). Thus, a driver must be able to see 300 feet in both directions to locate a sufficient gap to turn out of the driveway.

Existing street trees along Rogers Avenue do not obstruct driver vision as their canopies are above the height of vehicles. Since on-street parking is allowed along Rogers Avenue and red curb is lacking at some driveways, parked vehicles may block exiting drivers view of oncoming vehicles. The project applicant should coordinate with the City to paint 5 feet of red curb on both sides of each driveway.

The site plan shows new street trees added along the project frontage on Junction Avenue. The trees should be maintained so that the vision of exiting drivers is not obstructed. Additionally, since on-street parking is permitted along Junction Avenue, red curb equal to a car length should be painted on both sides of the driveway to ensure exiting vehicles have proper sight distance of oncoming traffic.

Recommendation: The project applicant should coordinate with City staff paint 5 feet of red curb on both sides of each driveway along Rogers Avenue

Recommendation: The proposed landscaping along Junction Avenue should be maintained so that the vision of exiting drivers is not obstructed

Recommendation: Red curb equal to a car length should be painted on both sides of the Junction Avenue driveways

On-Site Circulation

It is anticipated that many customers would utilize the Junction Avenue entrance, as the proposed showroom entrance is facing Junction Avenue. The project proposes a U-shaped parking area near the Junction Avenue entrance. The site plan indicates that the northern drive aisle is intended for inbound traffic only, and the southern drive aisle is intended for outbound traffic. Since the parking is shown to be at 90 degrees, there is no need to have separate inbound and outbound aisles. Both aisles should allow two-way circulation. The project also proposes 20-foot access aisles along both sides of the buildings. The northern aisle already exists, but the southern aisle would be new. These aisles would provide fire access and would also join the east and west sides of the site. The drive aisles in the new parking area on the Junction Avenue side of the site are shown to be between 21 and 24 feet in width. The width of the drive aisles would provide sufficient space for vehicles to back out of the parking stalls. They are also sufficient to allow two-way circulation as supported by the City. Part of the site plan indicates that vehicle traffic should move through the site in a counter-clockwise manner. There is no need for this restriction.

The project site plan shows two picket fence sliding gates located along the northern and southern fire access roads. It is assumed these gates would be utilized during business hours to deter customers away from the warehousing portion of the project site.

The project proposes to remove existing planters near the loading dock accessible from Rogers Avenue. The project proposes to lay new pavement which would connect the northwest parking area near the existing office space to the parking area near the southwest corner of the project site, which would allow circulation throughout the project site without exiting onto Rogers Avenue.

Parking Stall Dimensions

The City of San Jose Off-Street Parking Design Standards for Uniform Car Spaces require that standard 90-degree parking stalls be a minimum of 8.5 feet wide by 17 feet long and compact parking stalls be a minimum of 8 feet wide by 16 feet long. The site plan indicates the parking stalls would meet these requirements. The ADA accessible stalls are shown to be 9 feet wide by 18 feet long and include van accessibility.

Truck Access and Loading

The project site plan shows three existing loading docks on the Rogers Avenue side of the project. Since there are no loading areas on the Junction Avenue side of the project, all loading and unloading activities would take place on the Rogers Avenue side of the project. Trucks can utilize the existing driveway along Rogers Avenue to access the northern-most loading dock. Alternatively, trucks could utilize the proposed 32-foot wide driveway to access the two southern loading docks. The proposed modifications to the existing site would not impede truck access to the existing loading docks. There is adequate room with the proposed parking layout for trucks to back into the loading docks. Truck-turning templates showing access for a standard sized single-unit truck (SU-30) from the 32-foot wide driveway to the southern loading docks can be found in Appendix E.

Garbage Collection

The site plan does not show a trash room or an enclosure for trash bins. However, there is ample room on site for garbage trucks to come on site and empty bins wherever they are located.

Emergency Vehicle Access

Emergency vehicle access (EVA) would be provided along the drive aisles around the building and at the project driveways. The City of San Jose Fire Code requires driveways to provide at least 20 feet for

fire access. The project driveway and drive aisles measure at least 20 feet wide, and therefore would comply with the City's fire code.

The City of San Jose Fire Department requires that all portions of the buildings be within 150 feet of a fire department access road and requires a minimum of 6 feet clearance from the property line along all sides of the buildings. The project would meet the requirements.

Pedestrian, Bicycle and Transit Facilities

All new development projects in San Jose should encourage multi-modal travel, consistent with the goals of the City's General Plan. It is the goal of the General Plan that all development projects accommodate and encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and vehicle miles traveled. In addition, the adopted City Bike Master Plan establishes goals, policies and actions to make bicycling a daily part of life in San Jose. The Master Plan includes designated bike lanes along all City streets, as well as on designated bike corridors. In order to further the goals of the City, pedestrian and bicycle facilities should be encouraged with new development projects.

Pedestrian and Bicycle Facilities

Pedestrian facilities consist of intermittent sidewalks along the streets in the immediate vicinity of the project site. Sidewalk segments are missing along many parts of Rogers Avenue and Junction Avenue. Crosswalks with pedestrian signal heads and push buttons are located at all the signalized intersections in the study area. Overall, the existing network of sidewalks is lacking. Since the project is industrial in nature and will consist of warehousing and building materials sales, few pedestrians are expected to travel to the site. The project proposes to construct a new five to six-foot sidewalk along its frontage on Junction Avenue. The project should also install a sidewalk along its frontage on Rogers Avenue.

The project site plan indicates that it would provide 24 bicycle parking spaces, 12 near the Rogers Avenue entrance and 12 near the Junction Avenue entrance. The project would not remove any existing bicycle facilities, nor would it conflict with any adopted plans or policies for new bicycle facilities. According to the City of San Jose Bike Plan 2025, there are planned Class IV protected bike lanes proposed along Junction Avenue. By providing bicycle parking near the Junction Avenue entrance, the project aligns with the City's mobility goals for bicycle travel.

Recommendation: The project should install a sidewalk along its frontages on Junction Avenue and Rogers Avenue.

Transit Services

The VTA Local Route 60 serves the project area with approximately 15-minute headways, during the AM and PM peak commute hours. The closest bus stop is located along Brokaw Road, near the intersection of Rogers Avenue, approximately 1,000 feet north of the project site. Another bus stop is located along Brokaw Road near the intersection of Junction Avenue, also approximately 1,000 feet north of the project site. Since the project is warehousing and a building supplies retailer, few customers are expected to utilize transit. Some employees may utilize the bus. The small increase in transit demand generated by the proposed project could be accommodated by the current available ridership capacity of the VTA bus service.

Parking

Parking provided on the site was evaluated based on the City of San Jose off-street parking requirements (San Jose Municipal Code Chapter 20.90, Table 20-190). The project proposes to construct approximately 6,050 s.f. of warehousing and 14,000 s.f. of showroom/sales floor. The existing buildings on site will remain and consist of 59,830 s.f. of warehousing, 1,240 s.f. of showroom/sales floor, and 10,540 s.f. of office space. The vehicle parking requirement for a warehousing, retail, and office are shown on Table 6. It should be noted that the City of San Jose has a lower parking requirement for warehouse retail, but the highest rate for general retail was selected for the purposes of the analysis.

Table 6
Vehicle Parking Requirement

Use	Size	Parking Ratio	Parking Spaces Required
Warehousing (Proposed)	6,050 s.f.	5 spaces for warehousing between 5,000 s.f. and 25,000 s.f.	5
Showroom/Sales Floor (Proposed)	14,000 s.f.	1 per 250 s.f.	56
Warehousing (Existing)	59,830 s.f.	5 spaces for warehousing between 5,000 s.f. and 25,000 s.f. plus 1 space per every 5,000 s.f. in excess of 25,000 s.f.	12
Showroom/Sales Floor (Existing)	1,240 s.f.	1 per 250 s.f.	5
Offices (Existing)	10,540 s.f.	1 per 250 s.f.	43
		Total Requirement:	121

The project site would be required to provide at least 121 vehicular parking spaces. The project site plan shows 58 parking spaces near the Junction Avenue entrance and 73 parking spaces near the Rogers Avenue entrance. This totals 131 on-site parking spaces, which exceeds the City's parking requirement.

The bicycle parking requirement for a warehouse is one space per 10 full-time employees. The bicycle parking requirement for warehouse retail is 1 per 10 full-time employees. The bicycle parking requirement for office is one space per 4,000 s.f.. The site plan indicates that there would be 12 parking spaces on the west side of the building for staff. Additionally, the site plan shows 12 short-term bicycle parking near the showroom/sales floor entrance at the Junction Avenue entrance.

Since the applicant has not provided information on the number of employees that would be working at the project site, it is not known if the number of provided spaces meets the City's parking requirement. The applicant should discuss with the City whether the provided bicycle parking is adequate.

Recommendation: The project applicant should discuss with City Staff to determine whether the provided bicycle parking is adequate.

Construction Activities

Typical activities related to the construction of any development could include lane narrowing and/or lane closures and sidewalk closures. In the event of any type of street closure, clear signage (e.g., closure and detour signs) must be provided to ensure vehicles, pedestrians and bicyclists are able to adequately reach their intended destinations safely. The project would be required to submit a construction management plan for City approval that addresses schedule, closures/detours, staging, parking, and truck routes.

4. Conclusions

This study was conducted for the purpose of identifying potential transportation impacts and operational issues related to the proposed development. The transportation impacts of the project were evaluated following the standards and methodologies established in the City of San Jose and the VTA's Congestion Management Program (CMP). Based on the City of San Jose's Transportation Analysis Policy (Council Policy 5-1) and the *Transportation Analysis Handbook 2018*, the project is not required to prepare a CEQA transportation analysis (i.e., Vehicle Miles Traveled (VMT) analysis). However, a Local Transportation Analysis (LTA) is required to identifying potential traffic operational issues related to the project. The LTA includes an evaluation of weekday AM and PM peak-hour traffic conditions for two signalized intersections and one unsignalized intersection. The LTA also includes analyses of vehicle queuing at selected intersections, site access and on-site circulation, parking, and potential effects to transit, bicycle, and pedestrian facilities.

CEQA Transportation Analysis

The proposed project consists of a warehouse and a showroom/sales floor. The City of San Jose's *Transportation Analysis Handbook,* 2018, includes screening criteria for projects that are expected to result in less-than-significant VMT impacts based on the project description, characteristics and/or location. Projects that meet the screening criteria do not require a CEQA transportation analysis. According to the screening criteria outlined in Table 1 of the *Transportation Analysis Handbook* (2018), small infill projects, such as industrial projects under 30,000 s.f., are exempted from the CEQA transportation analysis. Additionally, local-serving retail projects under 100,000 s.f. are also exempted from the CEQA transportation analysis.

Because the project meets the criteria for a small infill project for the warehousing portion and local-serving retail for the showroom/sales floor portion, the project is expected to result in a less-than-significant VMT impact and does not require a CEQA transportation analysis.

Local Transportation Analysis

Project Trip Generation

Vehicle trips that would be generated by the proposed project were estimated using the trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*,10th Edition, for Building Materials and Lumber Store (Land Use 812) and Warehousing (Land Use 150) were utilized for the proposed project. After applying the ITE trip rates, the proposed project is estimated to

generate 264 new daily vehicle trips, with 23 new trips (15 inbound and 8 outbound) occurring during the AM peak hour and 30 new trips (14 inbound and 16 outbound) occurring during the PM peak hour.

Intersection Traffic Operations

The unsignalized intersection of Rogers Avenue and Brokaw Road currently operates at LOS F for the traffic turning left from Rogers Avenue to Brokaw Road. However, since the proposed project is not expected to add a noticeable number of trips to the stop-controlled movement, project-generated traffic would not worsen traffic operations at the intersection.

Other Transportation Items

The project would not have an adverse effect on the existing pedestrian, bicycle, or transit facilities in the area. The proposed site plan shows adequate site access and on-site circulation, and no significant operational issues are expected to occur as a result of the project.

Recommendations:

- The project applicant should coordinate with City staff to paint 5 feet of red curb on both sides of each driveway along Rogers Avenue
- The proposed landscaping along Junction Avenue should be maintained so that the vision of exiting drivers is not obstructed
- Red curb equal to a car length should be painted on both sides of the Junction Avenue driveways
- The project should install a sidewalk along its frontages on Junction Avenue and Rogers Avenue.
- The project applicant should discuss with City Staff to determine whether the provided bicycle parking is adequate.

1728-1750 Rogers Avenue

Technical Appendices

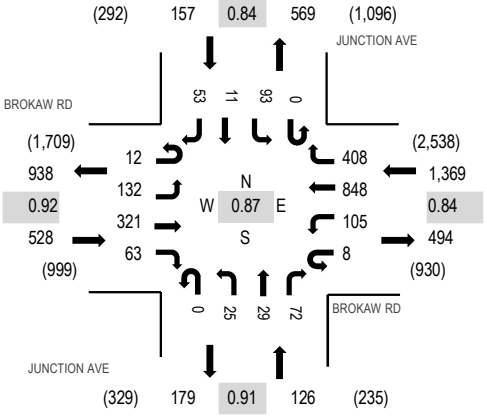
Appendix A

Traffic Counts

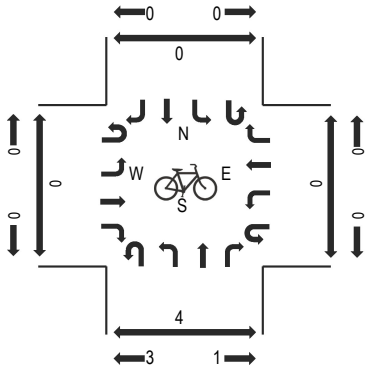
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 JUNCTION AVE & BROKAW RD AM
Date: Thursday, October 29, 2020
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

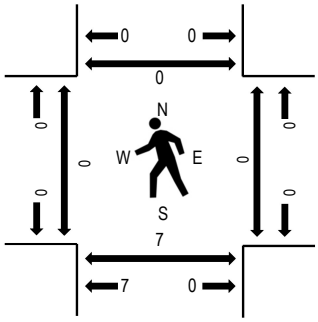
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	BROKAW RD Eastbound				BROKAW RD Westbound				JUNCTION AVE Northbound				JUNCTION AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	3	42	58	13	1	16	140	88	0	6	10	11	0	21	0	10	419	2,052	0	1	0	0
7:15 AM	3	26	53	10	1	21	187	124	0	2	3	13	0	21	2	10	476	2,171	0	0	1	0
7:30 AM	0	33	75	21	0	15	216	94	0	5	10	17	0	31	1	15	533	2,180	0	0	0	0
7:45 AM	6	38	81	20	2	40	256	116	0	6	6	12	0	21	4	16	624	2,149	0	0	7	0
8:00 AM	1	35	98	11	3	22	191	106	0	7	5	25	0	24	1	9	538	2,012	0	0	0	0
8:15 AM	5	26	67	11	3	28	185	92	0	7	8	18	0	17	5	13	485		0	0	0	0
8:30 AM	4	22	84	24	6	28	188	84	0	7	7	18	0	17	2	11	502		0	0	0	0
8:45 AM	5	27	82	15	3	16	177	89	0	5	5	22	0	25	3	13	487		0	0	1	0

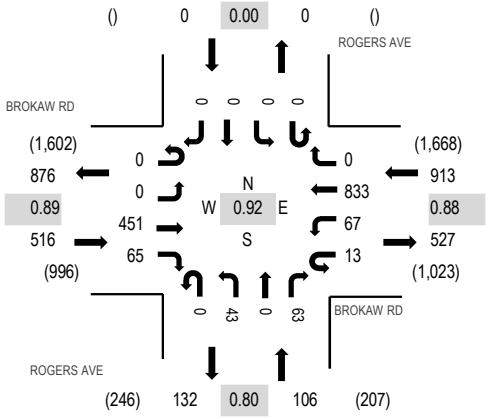
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	0	0	0	2	3	9	0	0	1	5	0	5	0	0	26
Bikes on Road	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2
Lights	12	126	292	59	7	98	808	382	0	24	25	56	0	67	8	50	2,014
Mediums	0	5	29	4	0	5	36	17	0	1	3	11	0	21	3	3	138
Total	12	132	321	63	8	105	848	408	0	25	29	72	0	93	11	53	2,180

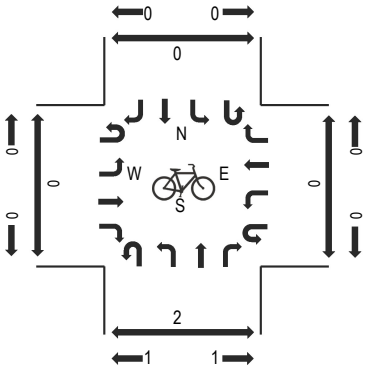
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 ROGERS AVE & BROKAW RD AM
Date: Thursday, October 29, 2020
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

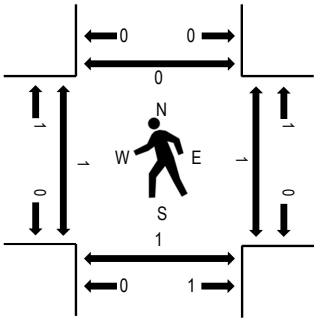
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	BROKAW RD Eastbound				BROKAW RD Westbound				ROGERS AVE Northbound				ROGERS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	95	10	2	12	148	0	0	8	0	19	0	0	0	0	294	1,418	0	0	0	0
7:15 AM	0	0	84	13	3	14	174	0	0	10	0	15	0	0	0	0	313	1,523	0	1	2	0
7:30 AM	0	0	105	22	1	13	226	0	0	9	0	19	0	0	0	0	395	1,535	0	1	0	0
7:45 AM	0	0	124	12	4	15	239	0	0	8	0	14	0	0	0	0	416	1,507	0	0	0	0
8:00 AM	0	0	135	15	4	18	193	0	0	18	0	16	0	0	0	0	399	1,453	0	0	1	0
8:15 AM	0	0	87	16	4	21	175	0	0	8	0	14	0	0	0	0	325		1	0	0	0
8:30 AM	0	0	118	18	3	18	186	0	0	9	0	15	0	0	0	0	367		0	0	0	0
8:45 AM	0	0	123	19	4	10	181	0	0	10	0	15	0	0	0	0	362		0	0	1	0

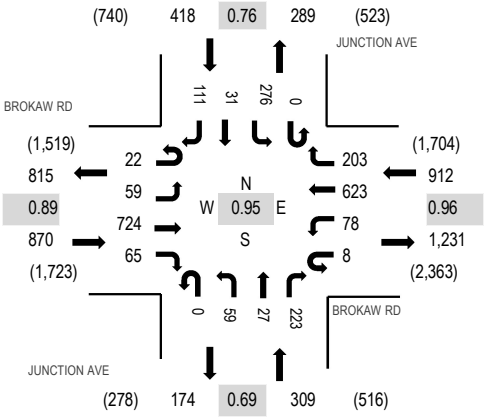
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	4	0	0	2	1	0	0	2	0	6	0	0	0	0	15
Bikes on Road	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	4
Lights	0	0	423	58	12	60	787	0	0	40	0	50	0	0	0	0	1,430
Mediums	0	0	22	7	1	5	43	0	0	1	0	7	0	0	0	0	86
Total	0	0	451	65	13	67	833	0	0	43	0	63	0	0	0	0	1,535

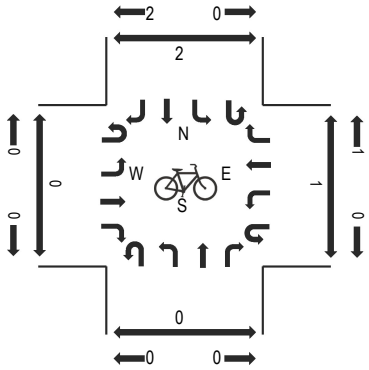
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 JUNCTION AVE & BROKAW RD PM
Date: Thursday, October 29, 2020
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

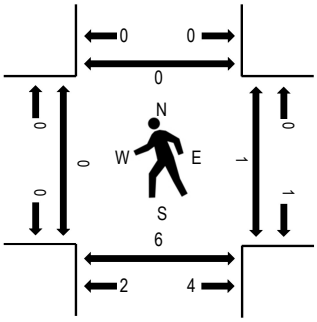
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	BROKAW RD Eastbound				BROKAW RD Westbound				JUNCTION AVE Northbound				JUNCTION AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	8	16	206	15	2	25	161	49	0	12	8	57	0	63	8	31	661	2,509	0	1	3	0
4:15 PM	5	11	178	24	1	23	155	49	0	14	6	33	0	91	9	37	636	2,454	0	0	1	0
4:30 PM	8	15	178	16	1	15	146	51	0	18	5	90	0	69	6	24	642	2,376	0	0	1	0
4:45 PM	1	17	162	10	4	15	161	54	0	15	8	43	0	53	8	19	570	2,277	0	0	1	0
5:00 PM	3	10	208	15	2	7	153	33	0	7	13	59	0	62	8	26	606	2,174	0	0	1	0
5:15 PM	0	19	194	7	4	13	145	52	0	14	6	29	0	50	4	21	558		0	0	3	0
5:30 PM	2	9	204	8	4	16	143	44	0	14	1	26	0	51	3	18	543		0	0	1	0
5:45 PM	1	10	160	3	1	12	127	36	0	9	1	28	0	50	8	21	467		0	0	0	0

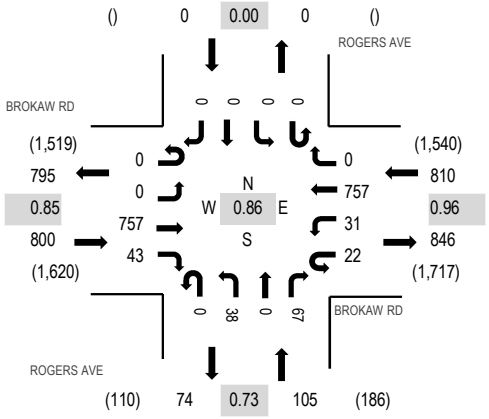
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	1	6	2	0	0	2	0	0	1	4	0	16
Bikes on Road	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	3
Lights	22	51	711	60	8	72	598	165	0	57	22	215	0	271	23	109	2,384
Mediums	0	8	13	5	0	5	17	36	0	2	3	8	0	4	4	1	106
Total	22	59	724	65	8	78	623	203	0	59	27	223	0	276	31	111	2,509

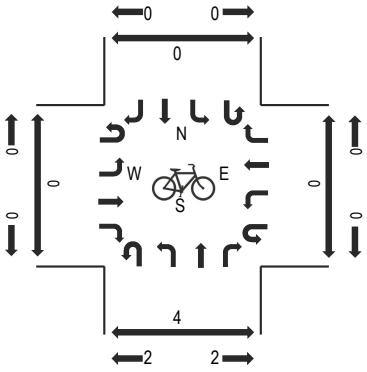
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 ROGERS AVE & BROKAW RD PM
Date: Thursday, October 29, 2020
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

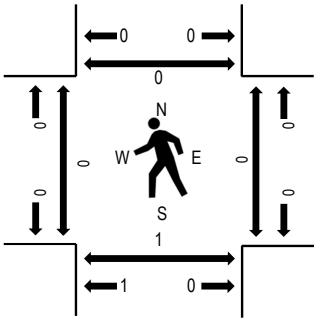
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	BROKAW RD Eastbound				BROKAW RD Westbound				ROGERS AVE Northbound				ROGERS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	237	16	7	12	190	0	0	14	0	22	0	0	0	0	498	1,715	0	0	0	0
4:15 PM	0	0	182	9	8	8	196	0	0	5	0	18	0	0	0	0	426	1,686	0	0	0	0
4:30 PM	0	0	173	8	4	6	191	0	0	12	0	12	0	0	0	0	406	1,673	0	0	0	0
4:45 PM	0	0	165	10	3	5	180	0	0	7	0	15	0	0	0	0	385	1,668	0	0	1	0
5:00 PM	0	0	234	8	2	6	190	0	0	8	0	21	0	0	0	0	469	1,631	0	0	1	0
5:15 PM	0	0	193	6	7	5	175	0	0	6	0	21	0	0	0	0	413		0	0	2	0
5:30 PM	0	0	197	4	6	2	179	0	0	6	0	7	0	0	0	0	401		0	0	0	0
5:45 PM	0	0	175	3	2	2	154	0	0	6	0	6	0	0	0	0	348		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	4	0	0	0	4	0	0	0	0	2	0	0	0	0	10
Bikes on Road	0	0	3	0	0	0	2	0	0	0	0	1	0	0	0	0	6
Lights	0	0	729	37	22	29	729	0	0	38	0	60	0	0	0	0	1,644
Mediums	0	0	21	6	0	2	22	0	0	0	0	4	0	0	0	0	55
Total	0	0	757	43	22	31	757	0	0	38	0	67	0	0	0	0	1,715

Appendix B

Approved Trip Inventory (ATI)

AM PROJECT TRIPS

09/29/2020

Intersection of : E Brokaw Rd & Zanker Rd

Traffix Node Number : 3085

Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
C15-054 (3-14457) Office/Industrial 1657 ALVISO-MILPITAS ROAD 237 INDUSTRIAL CENTER/ CILKER	0	12	0	1	2	1	5	0	0	0	0	6
H14-011 (3-18810) Retail/Commercial NW CORNER OF SR 237 AND N. FIRST STREET HOMEWOOD SUITES HOTEL	0	4	0	0	3	0	0	0	0	0	0	0
H14-020 (3-04341) Office/Industrial 750 RIDDER PARK DRIVE SUPERMICRO	0	0	0	2	0	0	0	4	0	0	0	0
H83-01-001 (3-12093) Office/Industrial JUNCTION AV, N/O PLUMERIA ULTRATECH STEPPER - ORIGINAL APPROVED TRIPS	0	8	0	0	1	0	0	0	0	0	0	0
H89-01-008 (3-08288) LEGACY TASMAN & ZANKER (SW/C) OFC 88,433;IND 88433, WHSE	0	0	0	2	0	1	4	0	0	0	0	8
NSJ LEGACY NORTH SAN JOSE	19	228	19	48	56	16	48	142	3	7	100	39
PD13-012 (3-09684) Office/Industrial NW CORNER OF SR237 AND N. FIRST STREET SOUTH BAY	0	13	0	1	3	0	0	1	0	0	4	3

AM PROJECT TRIPS

09/29/2020

Intersection of : E Brokaw Rd & Zanker Rd

Traffix Node Number : 3085

Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
PD13-039 (3-18698) Office/Industrial NW CORNER OF NORTHECH PKWY AND DISK DR TRAMMEL CROW (R&D)	0	0	0	0	0	0	0	0	0	0	0	0
PD14-007 (3-18698) Office/Industrial NW CORNER OF NORTECH PKWY AND DISK DR TRAMMEL CROW (MFG.)	0	8	0	0	1	0	0	0	0	0	2	1
PDC03-108 OFF (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFI BERRYESSA FLEA MKT (OFFICE)	0	0	0	0	1	0	0	3	0	0	0	0
PDC03-108 RES (3-16680) Residential BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RESIDENTIAL)	0	4	0	1	2	0	0	5	0	0	9	2
PDC03-108 RET (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RETAIL)	0	0	0	0	0	0	0	0	0	0	0	0
PDC17-026 (3-03628) LEGACY 350/370 W. TRIMBLE ROAD	2	7	0	3	4	0	0	1	1	0	3	6

TOTAL:	**21**	**284**	**19**	**58**	**73**	**18**	**57**	**156**	**4**	**7**	**118**	**65**

	LEFT	THRU	RIGHT
NORTH	58	73	18
EAST	7	118	65
SOUTH	21	284	19
WEST	57	156	4

PM PROJECT TRIPS

09/29/2020

Intersection of : E Brokaw Rd & Zanker Rd

Traffix Node Number : 3085

Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
C15-054 (3-14457) Office/Industrial 1657 ALVISO-MILPITAS ROAD 237 INDUSTRIAL CENTER/ CILKER	0	2	0	7	13	5	1	0	0	0	0	1
H14-011 (3-18810) Retail/Commercial NW CORNER OF SR 237 AND N. FIRST STREET HOMEWOOD SUITES HOTEL	0	0	0	0	0	0	0	0	0	0	0	0
H14-020 (3-04341) Office/Industrial 750 RIDDER PARK DRIVE SUPERMICRO	0	0	0	1	0	0	0	2	0	0	1	1
H83-01-001 (3-12093) Office/Industrial JUNCTION AV, N/O PLUMERIA ULTRATECH STEPPER - ORIGINAL APPROVED TRIPS	0	1	0	0	8	0	0	0	0	0	0	0
H89-01-008 (3-08288) LEGACY TASMAN & ZANKER (SW/C) OFC 88,433;IND 88433, WHSE	0	0	0	8	0	4	1	0	0	0	0	2
NSJ LEGACY NORTH SAN JOSE	27	51	66	78	192	24	11	165	5	36	143	22
PD13-012 (3-09684) Office/Industrial NW CORNER OF SR237 AND N. FIRST STREET SOUTH BAY	0	1	0	2	12	0	0	4	0	0	0	0

PM PROJECT TRIPS

09/29/2020

Intersection of : E Brokaw Rd & Zanker Rd

Traffix Node Number : 3085

Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
PD13-039 (3-18698) Office/Industrial NW CORNER OF NORTHECH PKWY AND DISK DR TRAMMEL CROW (R&D)	0	0	0	0	0	0	0	0	0	0	0	0
PD14-007 (3-18698) Office/Industrial NW CORNER OF NORTECH PKWY AND DISK DR TRAMMEL CROW (MFG.)	0	1	0	1	7	0	0	0	0	0	0	0
PDC03-108 OFF (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFI BERRYESSA FLEA MKT (OFFICE)	0	1	0	0	0	0	0	1	0	0	3	1
PDC03-108 RES (3-16680) Residential BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RESIDENTIAL)	0	2	0	2	4	0	0	9	0	0	5	1
PDC03-108 RET (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RETAIL)	0	1	1	0	3	0	0	0	0	1	0	0
PDC17-026 (3-03628) LEGACY 350/370 W. TRIMBLE ROAD	2	10	0	7	8	0	0	3	2	0	4	8

TOTAL:	**29**	**70**	**67**	**106**	**247**	**33**	**13**	**184**	**7**	**37**	**156**	**36**

	LEFT	THRU	RIGHT
NORTH	106	247	33
EAST	37	156	36
SOUTH	29	70	67
WEST	13	184	7

AM PROJECT TRIPS

09/29/2020

Intersection of : E Brokaw Rd & Junction Av

Traffix Node Number : 3356

Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
H14-020 (3-04341) Office/Industrial 750 RIDDER PARK DRIVE SUPERMICRO	0	0	0	0	0	0	0	6	0	0	1	0
H83-01-001 (3-12093) Office/Industrial JUNCTION AV, N/O PLUMERIA ULTRATECH STEPPER - ORIGINAL APPROVED TRIPS	0	0	0	1	0	0	0	0	0	0	0	8
NSJ LEGACY NORTH SAN JOSE	1	3	1	12	7	9	31	115	14	13	140	37
PDC03-108 OFF (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFI BERRYESSA FLEA MKT (OFFICE)	0	0	0	1	0	0	0	3	0	0	0	0
PDC03-108 RES (3-16680) Residential BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RESIDENTIAL)	0	0	0	3	0	0	0	6	0	0	12	7
PDC03-108 RET (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RETAIL)	0	0	0	0	0	0	0	0	0	0	0	0

TOTAL:	**1**	**3**	**1**	**17**	**7**	**9**	**31**	**130**	**14**	**13**	**153**	**52**

	LEFT	**THRU**	**RIGHT**
NORTH	17	7	9
EAST	13	153	52
SOUTH	1	3	1
WEST	31	130	14

PM PROJECT TRIPS

09/29/2020

Intersection of : E Brokaw Rd & Junction Av

Traffix Node Number : 3356

Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
H14-020 (3-04341) Office/Industrial 750 RIDDER PARK DRIVE SUPERMICRO	0	0	0	0	0	0	0	3	0	0	2	0
H83-01-001 (3-12093) Office/Industrial JUNCTION AV, N/O PLUMERIA ULTRATECH STEPPER - ORIGINAL APPROVED TRIPS	0	0	0	8	0	0	0	0	0	0	0	1
NSJ LEGACY NORTH SAN JOSE	5	3	15	57	25	28	10	173	15	22	152	18
PDC03-108 OFF (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFI BERRYESSA FLEA MKT (OFFICE)	0	0	0	0	0	0	0	1	0	0	3	1
PDC03-108 RES (3-16680) Residential BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RESIDENTIAL)	0	0	0	6	0	0	0	11	0	0	6	3
PDC03-108 RET (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RETAIL)	0	0	0	0	0	0	0	0	0	0	0	0

TOTAL:	**5**	**3**	**15**	**71**	**25**	**28**	**10**	**188**	**15**	**22**	**163**	**23**

	LEFT	**THRU**	**RIGHT**
NORTH	71	25	28
EAST	22	163	23
SOUTH	5	3	15
WEST	10	188	15

Appendix C

Level of Service Calculations

Scenario Report

Scenario:	Existing AM
Command:	Default Command
Volume:	Existing AM
Geometry:	Existing AM
Impact Fee:	Default Impact Fee
Trip Generation:	No Project
Trip Distribution:	Dist
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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

Intersection #1 BROKAW/JUNCTION

Cycle (sec):	147	Critical Vol./Cap.(X):	0.599
Loss Time (sec):	9	Average Delay (sec/veh):	23.3
Optimal Cycle:	42	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module: >> Count Date: 28 Oct 2015 << 8:00-9:00												
Base Vol:	47	73	88	96	24	42	211	500	106	194	2078	748
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:	47	73	88	96	24	42	211	500	106	194	2078	748
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:	47	73	88	96	24	42	211	500	106	194	2078	748
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:	47	73	88	96	24	42	211	500	106	194	2078	748
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	47	73	88	96	24	42	211	500	106	194	2078	748
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:	47	73	88	96	24	42	211	500	106	194	2078	748
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1900	1900	1900	1900	1900	1900	1900	5187	1900	1900	5187	1900
Capacity Analysis Module:												
Vol/Sat:	0.02	0.04	0.05	0.05	0.01	0.02	0.11	0.10	0.06	0.10	0.40	0.39
Crit Moves:				****			****				****	
Green/Cycle:	0.08	0.08	0.08	0.08	0.08	0.08	0.19	0.41	0.41	0.44	0.67	0.67
Volume/Cap:	0.29	0.46	0.55	0.60	0.15	0.26	0.60	0.23	0.13	0.23	0.60	0.59
Uniform Del:	63.2	64.1	64.6	64.9	62.4	63.0	54.9	27.8	26.6	25.7	13.4	13.3
IncremntDel:	1.0	2.0	4.0	6.1	0.4	0.9	2.8	0.1	0.1	0.1	0.3	0.7
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	64.2	66.1	68.6	71.0	62.8	63.9	57.7	27.9	26.7	25.9	13.7	14.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	64.2	66.1	68.6	71.0	62.8	63.9	57.7	27.9	26.7	25.9	13.7	14.0
LOS by Move:	E	E	E	E	E	E	E	C	C	C	B	B
HCM2kAvgQ:	2	4	5	5	1	2	9	5	3	5	19	18

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

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

Intersection #2

Average Delay (sec/veh): 23.0 Worst Case Level Of Service: F[323.9]

Approach:	North Bound			South Bound			East Bound					West Bound				
Movement:	L	- T	- R	L	- T	- R	L	- T	- R			L	- T	- R		
Control:	Stop Sign			Stop Sign			Uncontrolled					Uncontrolled				
Rights:	Include			Include			Include					Include				
Lanes:	0	0 1!	0	0	0 0	0	0	0	2	1	0	1	0	3	0	0
Volume Module:																
Base Vol:	83	0	122	0	0	0	0	870	125			154	1608		0	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Initial Bse:	83	0	122	0	0	0	0	870	125			154	1608		0	
Added Vol:	0	0	0	0	0	0	0	0	0			0	0		0	
PasserByVol:	0	0	0	0	0	0	0	0	0			0	0		0	
Initial Fut:	83	0	122	0	0	0	0	870	125			154	1608		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:	83	0	122	0	0	0	0	870	125			154	1608		0	
Reduct Vol:	0	0	0	0	0	0	0	0	0			0	0		0	
FinalVolume:	83	0	122	0	0	0	0	870	125			154	1608		0	
Critical Gap Module:																
Critical Gp:	6.8	6.5	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			4.1	xxxx	xxxxx		
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			2.2	xxxx	xxxxx		
Capacity Module:																
Cnflict Vol:	1777	2849	353	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			995	xxxx	xxxxx		
Potent Cap.:	75	17	650	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			703	xxxx	xxxxx		
Move Cap.:	63	14	650	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			703	xxxx	xxxxx		
Volume/Cap:	1.32	0.00	0.19	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx			0.22	xxxx	xxxx		
Level Of Service Module:																
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			0.8	xxxx	xxxxx		
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			11.5	xxxx	xxxxx		
LOS by Move:	*	*	*	*	*	*	*	*	*			B	*	*		
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT			LT -	LTR -	RT		
Shared Cap.:	xxxx	136	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	14.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx	324	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	F	*	*	*	*	*	*	*			*	*	*		
ApproachDel:	323.9			xxxxxx			xxxxxx					xxxxxx				
ApproachLOS:	F			*			*					*				

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

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

Intersection #3 BROKAW/ZANKER

Cycle (sec):	140	Critical Vol./Cap.(X):	0.663
Loss Time (sec):	12	Average Delay (sec/veh):	35.6
Optimal Cycle:	58	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:		Ovl			Ovl			Ovl			Ovl	
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module: >> Count Date: 1 Jun 2017 << 8:00-9:00												
Base Vol:	41	470	96	73	80	75	267	674	59	99	1290	637
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:	41	470	96	73	80	75	267	674	59	99	1290	637
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:	41	470	96	73	80	75	267	674	59	99	1290	637
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:	41	470	96	73	80	75	267	674	59	99	1290	637
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	470	96	73	80	75	267	674	59	99	1290	637
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:	41	470	96	73	80	75	267	674	59	99	1290	637
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1900	3610	1900	1900	3610	1900	1900	5187	1900	1900	5187	1900
Capacity Analysis Module:												
Vol/Sat:	0.02	0.13	0.05	0.04	0.02	0.04	0.14	0.13	0.03	0.05	0.25	0.34
Crit Moves:		****		****			****					****
Green/Cycle:	0.10	0.20	0.38	0.06	0.15	0.36	0.21	0.46	0.56	0.18	0.43	0.49
Volume/Cap:	0.21	0.66	0.13	0.66	0.15	0.11	0.66	0.28	0.06	0.28	0.58	0.69
Uniform Del:	57.3	52.0	28.3	64.6	51.8	29.7	50.6	23.6	13.8	49.2	30.2	27.6
IncremntDel:	0.5	2.4	0.1	14.1	0.1	0.1	4.1	0.1	0.0	0.4	0.4	2.2
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:	57.9	54.3	28.4	78.7	51.9	29.8	54.7	23.7	13.8	49.6	30.6	29.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	57.9	54.3	28.4	78.7	51.9	29.8	54.7	23.7	13.8	49.6	30.6	29.7
LOS by Move:	E	D	C	E	D	C	D	C	B	D	C	C
HCM2kAvgQ:	2	11	3	4	2	2	11	6	1	3	15	20

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

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Scenario Report

Scenario:	Existing PM
Command:	Default Command
Volume:	Existing PM
Geometry:	Existing PM
Impact Fee:	Default Impact Fee
Trip Generation:	No Project
Trip Distribution:	Dist
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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

Intersection #1 BROKAW/JUNCTION

Cycle (sec):	123	Critical Vol./Cap.(X):	0.726
Loss Time (sec):	9	Average Delay (sec/veh):	30.3
Optimal Cycle:	57	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module: >> Count Date: 28 Oct 2015 << 5:00-6:00												
Base Vol:	124	34	280	544	153	275	49	1611	78	144	945	149
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	124	34	280	544	153	275	49	1611	78	144	945	149
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	124	34	280	544	153	275	49	1611	78	144	945	149
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	124	34	280	544	153	275	49	1611	78	144	945	149
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	124	34	280	544	153	275	49	1611	78	144	945	149
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:	124	34	280	544	153	275	49	1611	78	144	945	149
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1900	1900	1900	1900	1900	1900	1900	5187	1900	1900	5187	1900
Capacity Analysis Module:												
Vol/Sat:	0.07	0.02	0.15	0.29	0.08	0.14	0.03	0.31	0.04	0.08	0.18	0.08
Crit Moves:				****				****		****		
Green/Cycle:	0.39	0.39	0.39	0.39	0.39	0.39	0.13	0.43	0.43	0.10	0.41	0.41
Volume/Cap:	0.17	0.05	0.37	0.73	0.20	0.37	0.20	0.73	0.10	0.73	0.45	0.19
Uniform Del:	24.1	23.0	26.4	31.6	24.5	26.4	48.1	29.2	21.0	53.4	26.6	23.6
IncremntDel:	0.1	0.0	0.3	3.6	0.1	0.3	0.4	1.2	0.1	12.6	0.2	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	24.2	23.0	26.8	35.2	24.7	26.7	48.6	30.4	21.0	65.9	26.7	23.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.2	23.0	26.8	35.2	24.7	26.7	48.6	30.4	21.0	65.9	26.7	23.7
LOS by Move:	C	C	C	D	C	C	D	C	C	E	C	C
HCM2kAvgQ:	3	1	7	18	4	7	2	18	2	7	9	4

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

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

Intersection #2

Average Delay (sec/veh): 24.2 Worst Case Level Of Service: F[389.7]

Approach:	North Bound			South Bound			East Bound						West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled								
Rights:	Include			Include			Include			Include								
Lanes:	0	0	1! 0	0		0	0	0	0	0	0	0	2	1	0	1	0	3	0	0
Volume Module:																				
Base Vol:	66	0	117	0	0	0	0	1323	75	93	1323	0								
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
Initial Bse:	66	0	117	0	0	0	0	1323	75	93	1323	0								
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0								
Initial Fut:	66	0	117	0	0	0	0	1323	75	93	1323	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:	66	0	117	0	0	0	0	1323	75	93	1323	0								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
FinalVolume:	66	0	117	0	0	0	0	1323	75	93	1323	0								
Critical Gap Module:																				
Critical Gp:	6.8	6.5	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx								
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx								
Capacity Module:																				
Cnflict Vol:	1988	2870	479	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1398	xxxx	xxxxx								
Potent Cap.:	54	17	539	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	495	xxxx	xxxxx								
Move Cap.:	47	14	539	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	495	xxxx	xxxxx								
Volume/Cap:	1.42	0.00	0.22	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.19	xxxx	xxxx								
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.7	xxxx	xxxxx								
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	13.9	xxxx	xxxxx								
LOS by Move:	*	*	*	*	*	*	*	*	*	B	*	*								
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	112	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								
SharedQueue:	xxxxx	13.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Shrd ConDel:	xxxxx	390	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Shared LOS:	*	F	*	*	*	*	*	*	*	*	*	*								
ApproachDel:	389.7			xxxxxx			xxxxxx			xxxxxx										
ApproachLOS:	F			*			*			*										

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

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

Intersection #3 BROKAW/ZANKER

Cycle (sec):	140	Critical Vol./Cap.(X):	0.676
Loss Time (sec):	12	Average Delay (sec/veh):	40.5
Optimal Cycle:	60	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Ovl			Ovl			Ovl		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module: >> Count Date: 25 Oct 2016 << 4:30-5:30												
Base Vol:	35	77	123	581	1034	162	109	973	41	197	895	101
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:	35	77	123	581	1034	162	109	973	41	197	895	101
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:	35	77	123	581	1034	162	109	973	41	197	895	101
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:	35	77	123	581	1034	162	109	973	41	197	895	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	77	123	581	1034	162	109	973	41	197	895	101
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:	35	77	123	581	1034	162	109	973	41	197	895	101
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1900	3610	1900	1900	3610	1900	1900	5187	1900	1900	5187	1900
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.06	0.31	0.29	0.09	0.06	0.19	0.02	0.10	0.17	0.05
Crit Moves:		****		****				****		****		
Green/Cycle:	0.07	0.07	0.22	0.43	0.43	0.53	0.10	0.26	0.34	0.15	0.31	0.74
Volume/Cap:	0.25	0.30	0.30	0.71	0.67	0.16	0.56	0.71	0.06	0.71	0.56	0.07
Uniform Del:	61.0	61.7	45.8	32.6	32.1	16.8	59.8	46.6	31.2	56.9	40.4	5.0
IncremntDel:	0.9	0.7	0.4	2.9	1.1	0.1	3.6	1.7	0.0	8.2	0.4	0.0
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:	62.0	62.3	46.2	35.4	33.2	16.9	63.4	48.3	31.2	65.1	40.9	5.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	62.0	62.3	46.2	35.4	33.2	16.9	63.4	48.3	31.2	65.1	40.9	5.0
LOS by Move:	E	E	D	D	C	B	E	D	C	E	D	A
HCM2kAvgQ:	2	2	4	21	19	3	5	15	1	8	11	1

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

****

Scenario Report

Scenario:	Background AM
Command:	Default Command
Volume:	Background AM
Geometry:	Existing AM
Impact Fee:	Default Impact Fee
Trip Generation:	No Project
Trip Distribution:	Dist
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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

Intersection #1 BROKAW/JUNCTION

Cycle (sec):	147	Critical Vol./Cap.(X):	0.789
Loss Time (sec):	9	Average Delay (sec/veh):	34.3
Optimal Cycle:	72	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module: >> Count Date: 28 Oct 2015 << 8:00-9:00												
Base Vol:	76	143	155	202	271	75	224	684	113	231	2234	784
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:	76	143	155	202	271	75	224	684	113	231	2234	784
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	1	3	1	17	7	9	31	130	14	13	153	52
Initial Fut:	77	146	156	219	278	84	255	814	127	244	2387	836
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:	77	146	156	219	278	84	255	814	127	244	2387	836
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	146	156	219	278	84	255	814	127	244	2387	836
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:	77	146	156	219	278	84	255	814	127	244	2387	836
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1900	1900	1900	1900	1900	1900	1900	5187	1900	1900	5187	1900
Capacity Analysis Module:												
Vol/Sat:	0.04	0.08	0.08	0.12	0.15	0.04	0.13	0.16	0.07	0.13	0.46	0.44
Crit Moves:					****		****				****	
Green/Cycle:	0.19	0.19	0.19	0.19	0.19	0.19	0.17	0.41	0.41	0.34	0.58	0.58
Volume/Cap:	0.22	0.41	0.44	0.62	0.79	0.24	0.79	0.38	0.16	0.38	0.79	0.75
Uniform Del:	50.8	52.8	53.1	55.1	57.1	51.0	58.5	29.9	27.0	36.8	23.6	22.8
IncremntDel:	0.3	0.8	0.9	3.4	11.3	0.4	12.3	0.1	0.1	0.4	1.5	3.0
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:	51.1	53.6	54.0	58.5	68.5	51.4	70.7	30.0	27.1	37.2	25.1	25.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.1	53.6	54.0	58.5	68.5	51.4	70.7	30.0	27.1	37.2	25.1	25.8
LOS by Move:	D	D	D	E	E	D	E	C	C	D	C	C
HCM2kAvgQ:	3	6	6	10	14	3	11	9	3	8	31	28

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

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

Intersection #2

Average Delay (sec/veh): 23.0 Worst Case Level Of Service: F[323.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1!	0	0	0 0 0	0	0	0 0 2	1	0	1 0 3	0	0
Volume Module:												
Base Vol:	83	0	122	0	0	0	0	870	125	154	1608	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	83	0	122	0	0	0	0	870	125	154	1608	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	83	0	122	0	0	0	0	870	125	154	1608	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:	83	0	122	0	0	0	0	870	125	154	1608	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	83	0	122	0	0	0	0	870	125	154	1608	0
Critical Gap Module:												
Critical Gp:	6.8	6.5	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1777	2849	353	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	995	xxxx	xxxxx
Potent Cap.:	75	17	650	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	703	xxxx	xxxxx
Move Cap.:	63	14	650	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	703	xxxx	xxxxx
Volume/Cap:	1.32	0.00	0.19	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.22	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.8	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	B	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	136	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	14.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	324	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	F	*	*	*	*	*	*	*	*	*	*
ApproachDel:	323.9			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			*			*			*		

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

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

Intersection #3 BROKAW/ZANKER

Cycle (sec):	140	Critical Vol./Cap.(X):	0.819
Loss Time (sec):	12	Average Delay (sec/veh):	43.1
Optimal Cycle:	91	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:		Ovl			Ovl			Ovl			Ovl	
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module: >> Count Date: 1 Jun 2017 << 8:00-9:00												
Base Vol:	62	754	115	131	153	93	324	830	63	106	1408	702
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:	62	754	115	131	153	93	324	830	63	106	1408	702
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:	62	754	115	131	153	93	324	830	63	106	1408	702
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:	62	754	115	131	153	93	324	830	63	106	1408	702
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	754	115	131	153	93	324	830	63	106	1408	702
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:	62	754	115	131	153	93	324	830	63	106	1408	702
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1900	3610	1900	1900	3610	1900	1900	5187	1900	1900	5187	1900
Capacity Analysis Module:												
Vol/Sat:	0.03	0.21	0.06	0.07	0.04	0.05	0.17	0.16	0.03	0.06	0.27	0.37
Crit Moves:		****		****			****					****
Green/Cycle:	0.14	0.26	0.40	0.08	0.20	0.41	0.21	0.43	0.57	0.15	0.37	0.45
Volume/Cap:	0.23	0.82	0.15	0.82	0.21	0.12	0.82	0.38	0.06	0.38	0.74	0.82
Uniform Del:	53.6	49.1	26.5	63.1	46.8	25.8	52.9	27.4	13.6	53.7	38.5	33.5
IncremntDel:	0.5	5.9	0.1	27.1	0.1	0.1	12.7	0.1	0.0	0.8	1.6	6.3
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:	54.0	55.0	26.6	90.2	47.0	25.9	65.6	27.5	13.7	54.6	40.1	39.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.0	55.0	26.6	90.2	47.0	25.9	65.6	27.5	13.7	54.6	40.1	39.7
LOS by Move:	D	D	C	F	D	C	E	C	B	D	D	D
HCM2kAvgQ:	2	18	3	8	3	2	15	9	1	4	19	26

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

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Scenario Report

Scenario:	Background PM
Command:	Default Command
Volume:	Background PM
Geometry:	Existing PM
Impact Fee:	Default Impact Fee
Trip Generation:	No Project
Trip Distribution:	Dist
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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

Intersection #1 BROKAW/JUNCTION

Cycle (sec):	123	Critical Vol./Cap.(X):	0.910
Loss Time (sec):	9	Average Delay (sec/veh):	36.5
Optimal Cycle:	119	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module: >> Count Date: 28 Oct 2015 << 5:00-6:00												
Base Vol:	129	37	295	615	178	303	59	1799	93	166	1108	172
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:	129	37	295	615	178	303	59	1799	93	166	1108	172
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	5	3	15	71	25	28	10	188	15	22	163	23
Initial Fut:	134	40	310	686	203	331	69	1987	108	188	1271	195
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:	134	40	310	686	203	331	69	1987	108	188	1271	195
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	134	40	310	686	203	331	69	1987	108	188	1271	195
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:	134	40	310	686	203	331	69	1987	108	188	1271	195
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1900	1900	1900	1900	1900	1900	1900	5187	1900	1900	5187	1900
Capacity Analysis Module:												
Vol/Sat:	0.07	0.02	0.16	0.36	0.11	0.17	0.04	0.38	0.06	0.10	0.25	0.10
Crit Moves:				****				****		****		
Green/Cycle:	0.40	0.40	0.40	0.40	0.40	0.40	0.10	0.42	0.42	0.11	0.43	0.43
Volume/Cap:	0.18	0.05	0.41	0.91	0.27	0.44	0.36	0.91	0.13	0.91	0.57	0.24
Uniform Del:	24.1	22.8	26.7	35.0	25.0	27.1	51.7	33.4	21.9	54.2	26.5	22.3
IncremntDel:	0.1	0.0	0.4	15.0	0.2	0.4	1.2	6.2	0.1	38.5	0.4	0.2
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:	24.2	22.9	27.1	50.0	25.2	27.5	52.9	39.6	21.9	92.7	26.8	22.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.2	22.9	27.1	50.0	25.2	27.5	52.9	39.6	21.9	92.7	26.8	22.4
LOS by Move:	C	C	C	D	C	C	D	D	C	F	C	C
HCM2kAvgQ:	3	1	8	28	5	9	2	26	2	10	13	5

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

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

Intersection #2

Average Delay (sec/veh): 24.2 Worst Case Level Of Service: F[389.7]

Approach:	North Bound			South Bound			East Bound						West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled								
Rights:	Include			Include			Include			Include								
Lanes:	0	0	1! 0	0		0	0	0	0	0	0	0	2	1	0	1	0	3	0	0
Volume Module:																				
Base Vol:	66	0	117	0	0	0	0	1323	75	93	1323	0								
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
Initial Bse:	66	0	117	0	0	0	0	1323	75	93	1323	0								
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0								
Initial Fut:	66	0	117	0	0	0	0	1323	75	93	1323	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:	66	0	117	0	0	0	0	1323	75	93	1323	0								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
FinalVolume:	66	0	117	0	0	0	0	1323	75	93	1323	0								
Critical Gap Module:																				
Critical Gp:	6.8	6.5	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx								
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx								
Capacity Module:																				
Cnflict Vol:	1988	2870	479	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1398	xxxx	xxxxx								
Potent Cap.:	54	17	539	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	495	xxxx	xxxxx								
Move Cap.:	47	14	539	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	495	xxxx	xxxxx								
Volume/Cap:	1.42	0.00	0.22	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.19	xxxx	xxxx								
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.7	xxxx	xxxxx								
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	13.9	xxxx	xxxxx								
LOS by Move:	*	*	*	*	*	*	*	*	*	B	*	*								
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT								
Shared Cap.:	xxxx	112	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								
SharedQueue:	xxxxx	13.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Shrd ConDel:	xxxxx	390	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Shared LOS:	*	F	*	*	*	*	*	*	*	*	*	*								
ApproachDel:	389.7			xxxxxx			xxxxxx			xxxxxx										
ApproachLOS:	F			*			*			*										

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

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

Intersection #3 BROKAW/ZANKER

Cycle (sec):	140	Critical Vol./Cap.(X):	0.722
Loss Time (sec):	12	Average Delay (sec/veh):	41.9
Optimal Cycle:	67	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Ovl			Ovl			Ovl		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module: >> Count Date: 25 Oct 2016 << 4:30-5:30												
Base Vol:	36	80	124	598	1041	171	140	1103	55	210	1048	153
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:	36	80	124	598	1041	171	140	1103	55	210	1048	153
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:	36	80	124	598	1041	171	140	1103	55	210	1048	153
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:	36	80	124	598	1041	171	140	1103	55	210	1048	153
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	80	124	598	1041	171	140	1103	55	210	1048	153
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:	36	80	124	598	1041	171	140	1103	55	210	1048	153
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1900	3610	1900	1900	3610	1900	1900	5187	1900	1900	5187	1900
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.07	0.31	0.29	0.09	0.07	0.21	0.03	0.11	0.20	0.08
Crit Moves:		****		****				****		****		
Green/Cycle:	0.07	0.07	0.22	0.42	0.42	0.53	0.11	0.28	0.35	0.15	0.31	0.73
Volume/Cap:	0.26	0.31	0.30	0.76	0.69	0.17	0.65	0.76	0.08	0.76	0.65	0.11
Uniform Del:	61.4	61.7	45.9	34.9	33.6	17.0	59.3	46.0	30.2	57.4	41.4	5.6
IncremntDel:	1.0	0.7	0.4	4.2	1.4	0.1	6.6	2.3	0.1	11.3	0.9	0.0
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:	62.5	62.4	46.3	39.1	35.1	17.1	65.9	48.3	30.2	68.7	42.3	5.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	62.5	62.4	46.3	39.1	35.1	17.1	65.9	48.3	30.2	68.7	42.3	5.6
LOS by Move:	E	E	D	D	D	B	E	D	C	E	D	A
HCM2kAvgQ:	2	2	4	23	20	4	7	17	2	9	14	2

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

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Scenario Report

Scenario:	Background +P AM
Command:	Default Command
Volume:	Background AM
Geometry:	Existing AM
Impact Fee:	Default Impact Fee
Trip Generation:	W Project AM
Trip Distribution:	Dist
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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

Intersection #1 BROKAW/JUNCTION

Cycle (sec):	147	Critical Vol./Cap.(X):	0.789
Loss Time (sec):	9	Average Delay (sec/veh):	34.4
Optimal Cycle:	72	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module: >> Count Date: 28 Oct 2015 << 8:00-9:00												
Base Vol:	76	143	155	202	271	75	224	684	113	231	2234	784
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:	76	143	155	202	271	75	224	684	113	231	2234	784
Added Vol:	4	0	4	0	0	0	0	0	8	7	0	0
PasserByVol:	1	3	1	17	7	9	31	130	14	13	153	52
Initial Fut:	81	146	160	219	278	84	255	814	135	251	2387	836
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:	81	146	160	219	278	84	255	814	135	251	2387	836
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	146	160	219	278	84	255	814	135	251	2387	836
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:	81	146	160	219	278	84	255	814	135	251	2387	836
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1900	1900	1900	1900	1900	1900	1900	5187	1900	1900	5187	1900
Capacity Analysis Module:												
Vol/Sat:	0.04	0.08	0.08	0.12	0.15	0.04	0.13	0.16	0.07	0.13	0.46	0.44
Crit Moves:					****		****				****	
Green/Cycle:	0.19	0.19	0.19	0.19	0.19	0.19	0.17	0.41	0.41	0.34	0.58	0.58
Volume/Cap:	0.23	0.41	0.45	0.62	0.79	0.24	0.79	0.38	0.17	0.38	0.79	0.75
Uniform Del:	50.9	52.8	53.3	55.1	57.1	51.0	58.5	30.4	27.6	36.4	23.6	22.8
IncremntDel:	0.3	0.8	0.9	3.4	11.3	0.4	12.3	0.1	0.1	0.4	1.5	3.0
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:	51.3	53.6	54.2	58.5	68.5	51.4	70.7	30.6	27.7	36.8	25.1	25.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.3	53.6	54.2	58.5	68.5	51.4	70.7	30.6	27.7	36.8	25.1	25.8
LOS by Move:	D	D	D	E	E	D	E	C	C	D	C	C
HCM2kAvgQ:	3	6	7	10	14	3	11	9	4	8	31	28

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

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

Intersection #2

Average Delay (sec/veh): 23.6 Worst Case Level Of Service: F[333.9]

Approach:	North Bound			South Bound			East Bound						West Bound					
Movement:	L	- T	- R	L	- T	- R	L	- T	- R				L	- T	- R			
Control:	Stop Sign			Stop Sign			Uncontrolled						Uncontrolled					
Rights:	Include			Include			Include						Include					
Lanes:	0	0 1! 0	0	0	0 0 0	0 0	0	0 2	1 0				1	0 3	0 0			
Volume Module:																		
Base Vol:	83	0	122	0	0	0	0	870	125				154	1608	0			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00			
Initial Bse:	83	0	122	0	0	0	0	870	125				154	1608	0			
Added Vol:	0	0	0	0	0	0	0	8	0				0	4	0			
PasserByVol:	0	0	0	0	0	0	0	0	0				0	0	0			
Initial Fut:	83	0	122	0	0	0	0	878	125				154	1612	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:	83	0	122	0	0	0	0	878	125				154	1612	0			
Reduct Vol:	0	0	0	0	0	0	0	0	0				0	0	0			
FinalVolume:	83	0	122	0	0	0	0	878	125				154	1612	0			
Critical Gap Module:																		
Critical Gp:	6.8	6.5	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				4.1	xxxx	xxxxx			
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				2.2	xxxx	xxxxx			
Capacity Module:																		
Cnflict Vol:	1786	2861	355	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				1003	xxxx	xxxxx			
Potent Cap.:	74	17	647	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				698	xxxx	xxxxx			
Move Cap.:	62	13	647	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				698	xxxx	xxxxx			
Volume/Cap:	1.35	0.00	0.19	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx				0.22	xxxx	xxxx			
Level Of Service Module:																		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				0.8	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				11.6	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*				B	*	*			
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT				LT -	LTR -	RT			
Shared Cap.:	xxxx	134	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	14.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	334	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shared LOS:	*	F	*	*	*	*	*	*	*				*	*	*			
ApproachDel:	333.9			xxxxxx			xxxxxx						xxxxxx					
ApproachLOS:	F			*			*						*					

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

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

Intersection #3 BROKAW/ZANKER

Cycle (sec):	140	Critical Vol./Cap.(X):	0.820
Loss Time (sec):	12	Average Delay (sec/veh):	43.2
Optimal Cycle:	91	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:		Ovl			Ovl			Ovl			Ovl	
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module: >> Count Date: 1 Jun 2017 << 8:00-9:00												
Base Vol:	62	754	115	131	153	93	324	830	63	106	1408	702
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:	62	754	115	131	153	93	324	830	63	106	1408	702
Added Vol:	0	0	0	2	0	0	0	7	0	0	4	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	62	754	115	133	153	93	324	837	63	106	1412	703
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:	62	754	115	133	153	93	324	837	63	106	1412	703
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	754	115	133	153	93	324	837	63	106	1412	703
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:	62	754	115	133	153	93	324	837	63	106	1412	703
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1900	3610	1900	1900	3610	1900	1900	5187	1900	1900	5187	1900
Capacity Analysis Module:												
Vol/Sat:	0.03	0.21	0.06	0.07	0.04	0.05	0.17	0.16	0.03	0.06	0.27	0.37
Crit Moves:		****		****			****					****
Green/Cycle:	0.14	0.25	0.40	0.09	0.20	0.41	0.21	0.43	0.57	0.15	0.37	0.45
Volume/Cap:	0.23	0.82	0.15	0.82	0.21	0.12	0.82	0.38	0.06	0.38	0.74	0.82
Uniform Del:	53.5	49.1	26.6	63.0	46.8	25.8	52.9	27.4	13.6	53.9	38.7	33.4
IncremntDel:	0.5	5.9	0.1	26.9	0.1	0.1	12.7	0.1	0.0	0.9	1.6	6.3
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:	54.0	55.0	26.7	89.9	46.9	25.8	65.7	27.6	13.6	54.7	40.3	39.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.0	55.0	26.7	89.9	46.9	25.8	65.7	27.6	13.6	54.7	40.3	39.7
LOS by Move:	D	E	C	F	D	C	E	C	B	D	D	D
HCM2kAvgQ:	2	18	3	8	3	2	15	9	1	4	19	26

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

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Scenario Report

Scenario:	Background +P PM
Command:	Default Command
Volume:	Background PM
Geometry:	Existing PM
Impact Fee:	Default Impact Fee
Trip Generation:	W Project PM
Trip Distribution:	Dist
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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

Intersection #1 BROKAW/JUNCTION

Cycle (sec):	123	Critical Vol./Cap.(X):	0.913
Loss Time (sec):	9	Average Delay (sec/veh):	36.8
Optimal Cycle:	121	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module: >> Count Date: 28 Oct 2015 << 5:00-6:00												
Base Vol:	129	37	295	615	178	303	59	1799	93	166	1108	172
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:	129	37	295	615	178	303	59	1799	93	166	1108	172
Added Vol:	9	0	7	0	0	0	0	0	8	6	0	0
PasserByVol:	5	3	15	71	25	28	10	188	15	22	163	23
Initial Fut:	143	40	317	686	203	331	69	1987	116	194	1271	195
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:	143	40	317	686	203	331	69	1987	116	194	1271	195
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	143	40	317	686	203	331	69	1987	116	194	1271	195
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:	143	40	317	686	203	331	69	1987	116	194	1271	195
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1900	1900	1900	1900	1900	1900	1900	5187	1900	1900	5187	1900
Capacity Analysis Module:												
Vol/Sat:	0.08	0.02	0.17	0.36	0.11	0.17	0.04	0.38	0.06	0.10	0.25	0.10
Crit Moves:				****				****		****		
Green/Cycle:	0.40	0.40	0.40	0.40	0.40	0.40	0.10	0.42	0.42	0.11	0.43	0.43
Volume/Cap:	0.19	0.05	0.42	0.91	0.27	0.44	0.36	0.91	0.15	0.91	0.57	0.24
Uniform Del:	24.3	23.0	27.0	35.2	25.2	27.2	51.7	33.6	22.1	54.0	26.4	22.2
IncremntDel:	0.1	0.0	0.4	15.5	0.2	0.4	1.2	6.4	0.1	38.6	0.3	0.2
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:	24.4	23.0	27.4	50.7	25.4	27.6	52.9	40.0	22.2	92.6	26.7	22.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.4	23.0	27.4	50.7	25.4	27.6	52.9	40.0	22.2	92.6	26.7	22.3
LOS by Move:	C	C	C	D	C	C	D	D	C	F	C	C
HCM2kAvgQ:	3	1	9	28	5	9	2	27	3	10	13	5

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

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

Intersection #2

Average Delay (sec/veh): 24.9 Worst Case Level Of Service: F[402.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1!	0	0	0 0 0	0	0	0 0 2	1	0	1 0 3	0	0
Volume Module:												
Base Vol:	66	0	117	0	0	0	0	1323	75	93	1323	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	66	0	117	0	0	0	0	1323	75	93	1323	0
Added Vol:	0	0	0	0	0	0	0	8	0	0	9	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	0	117	0	0	0	0	1331	75	93	1332	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:	66	0	117	0	0	0	0	1331	75	93	1332	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	66	0	117	0	0	0	0	1331	75	93	1332	0
Critical Gap Module:												
Critical Gp:	6.8	6.5	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1999	2887	481	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1406	xxxx	xxxxx
Potent Cap.:	54	16	536	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	492	xxxx	xxxxx
Move Cap.:	46	13	536	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	492	xxxx	xxxxx
Volume/Cap:	1.44	0.00	0.22	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.19	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.7	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	14.0	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	B	*	*
Movement:	LT - LTR		RT	LT - LTR		RT	LT - LTR		RT	LT - LTR		RT
Shared Cap.:	xxxx	110	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	14.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	402	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	F	*	*	*	*	*	*	*	*	*	*
ApproachDel:	402.3			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			*			*			*		

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

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

Intersection #3 BROKAW/ZANKER

Cycle (sec):	140	Critical Vol./Cap.(X):	0.724
Loss Time (sec):	12	Average Delay (sec/veh):	42.0
Optimal Cycle:	67	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Ovl			Ovl			Ovl		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module: >> Count Date: 25 Oct 2016 << 4:30-5:30												
Base Vol:	36	80	124	598	1041	171	140	1103	55	210	1048	153
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:	36	80	124	598	1041	171	140	1103	55	210	1048	153
Added Vol:	0	0	0	1	0	0	0	6	0	0	7	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	80	124	599	1041	171	140	1109	55	210	1055	155
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:	36	80	124	599	1041	171	140	1109	55	210	1055	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	80	124	599	1041	171	140	1109	55	210	1055	155
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:	36	80	124	599	1041	171	140	1109	55	210	1055	155
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1900	3610	1900	1900	3610	1900	1900	5187	1900	1900	5187	1900
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.07	0.32	0.29	0.09	0.07	0.21	0.03	0.11	0.20	0.08
Crit Moves:		****		****				****		****		
Green/Cycle:	0.07	0.07	0.22	0.42	0.41	0.53	0.11	0.28	0.35	0.15	0.31	0.73
Volume/Cap:	0.26	0.31	0.30	0.76	0.69	0.17	0.65	0.76	0.08	0.76	0.65	0.11
Uniform Del:	61.5	61.7	45.9	34.9	33.7	17.1	59.4	45.9	30.1	57.4	41.4	5.6
IncremntDel:	1.0	0.7	0.4	4.3	1.4	0.1	6.7	2.4	0.1	11.5	0.9	0.0
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:	62.5	62.4	46.3	39.2	35.1	17.2	66.1	48.3	30.2	69.0	42.3	5.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	62.5	62.4	46.3	39.2	35.1	17.2	66.1	48.3	30.2	69.0	42.3	5.6
LOS by Move:	E	E	D	D	D	B	E	D	C	E	D	A
HCM2kAvgQ:	2	2	4	23	20	4	7	17	2	9	14	2

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

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Scenario Report

Scenario:	Cumulative +P AM
Command:	Default Command
Volume:	Cumulative AM
Geometry:	Existing AM
Impact Fee:	Default Impact Fee
Trip Generation:	W Project AM
Trip Distribution:	Dist
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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

Intersection #1 BROKAW/JUNCTION

Cycle (sec):	147	Critical Vol./Cap.(X):	0.927
Loss Time (sec):	9	Average Delay (sec/veh):	40.4
Optimal Cycle:	143	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module:												
Base Vol:	168	143	230	202	271	75	224	684	676	691	2234	784
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:	168	143	230	202	271	75	224	684	676	691	2234	784
Added Vol:	4	0	4	0	0	0	0	0	8	7	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	172	143	234	202	271	75	224	684	684	698	2234	784
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:	172	143	234	202	271	75	224	684	684	698	2234	784
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	172	143	234	202	271	75	224	684	684	698	2234	784
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:	172	143	234	202	271	75	224	684	684	698	2234	784
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1900	1900	1900	1900	1900	1900	1900	5187	1900	1900	5187	1900
Capacity Analysis Module:												
Vol/Sat:	0.09	0.08	0.12	0.11	0.14	0.04	0.12	0.13	0.36	0.37	0.43	0.41
Crit Moves:					****				****	****		
Green/Cycle:	0.15	0.15	0.15	0.15	0.15	0.15	0.17	0.39	0.39	0.40	0.62	0.62
Volume/Cap:	0.59	0.49	0.80	0.69	0.93	0.26	0.70	0.34	0.93	0.93	0.70	0.67
Uniform Del:	57.9	56.9	60.0	58.9	61.4	54.8	57.6	31.7	42.9	42.3	19.0	18.4
IncremntDel:	3.1	1.3	14.5	6.9	33.9	0.5	6.7	0.1	17.7	17.5	0.7	1.5
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:	61.0	58.2	74.5	65.8	95.3	55.2	64.3	31.8	60.7	59.8	19.7	19.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	61.0	58.2	74.5	65.8	95.3	55.2	64.3	31.8	60.7	59.8	19.7	19.9
LOS by Move:	E	E	E	E	F	E	E	C	E	E	B	B
HCM2kAvgQ:	8	6	12	10	16	3	9	8	31	34	25	23

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

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

Intersection #2

Average Delay (sec/veh): 90.6 Worst Case Level Of Service: F[1589.9]

Approach:	North Bound			South Bound			East Bound					West Bound				
Movement:	L	- T	- R	L	- T	- R	L	- T	- R			L	- T	- R		
Control:	Stop Sign			Stop Sign			Uncontrolled					Uncontrolled				
Rights:	Include			Include			Include					Include				
Lanes:	0	0 1!	0	0	0 0	0	0	0	2	1	0	1	0	3	0	0
Volume Module:																
Base Vol:	83	0	122	0	0	0	0	1433	125			154	1700		0	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Initial Bse:	83	0	122	0	0	0	0	1433	125			154	1700		0	
Added Vol:	0	0	0	0	0	0	0	8	0			0	4		0	
PasserByVol:	0	0	0	0	0	0	0	0	0			0	0		0	
Initial Fut:	83	0	122	0	0	0	0	1441	125			154	1704		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:	83	0	122	0	0	0	0	1441	125			154	1704		0	
Reduct Vol:	0	0	0	0	0	0	0	0	0			0	0		0	
FinalVolume:	83	0	122	0	0	0	0	1441	125			154	1704		0	
Critical Gap Module:																
Critical Gp:	6.8	6.5	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			4.1	xxxx	xxxxx		
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			2.2	xxxx	xxxxx		
Capacity Module:																
Cnflict Vol:	2380	3516	543	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			1566	xxxx	xxxxx		
Potent Cap.:	29	6	489	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			427	xxxx	xxxxx		
Move Cap.:	21	4	489	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			427	xxxx	xxxxx		
Volume/Cap:	3.91	0.00	0.25	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx			0.36	xxxx	xxxx		
Level Of Service Module:																
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			1.6	xxxx	xxxxx		
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			18.1	xxxx	xxxxx		
LOS by Move:	*	*	*	*	*	*	*	*	*			C	*	*		
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT			LT -	LTR -	RT		
Shared Cap.:	xxxx	49	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	22.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx	1590	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	F	*	*	*	*	*	*	*			*	*	*		
ApproachDel:	1589.9			xxxxxx			xxxxxx					xxxxxx				
ApproachLOS:	F			*			*					*				

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

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

Intersection #3 BROKAW/ZANKER

Cycle (sec):	140	Critical Vol./Cap.(X):	0.864
Loss Time (sec):	12	Average Delay (sec/veh):	46.1
Optimal Cycle:	108	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Ovl			Ovl			Ovl		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module:												
Base Vol:	62	754	115	233	153	93	324	1290	63	106	1483	719
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:	62	754	115	233	153	93	324	1290	63	106	1483	719
Added Vol:	0	0	0	2	0	0	0	7	0	0	4	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	62	754	115	235	153	93	324	1297	63	106	1487	720
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:	62	754	115	235	153	93	324	1297	63	106	1487	720
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	754	115	235	153	93	324	1297	63	106	1487	720
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:	62	754	115	235	153	93	324	1297	63	106	1487	720
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1900	3610	1900	1900	3610	1900	1900	5187	1900	1900	5187	1900
Capacity Analysis Module:												
Vol/Sat:	0.03	0.21	0.06	0.12	0.04	0.05	0.17	0.25	0.03	0.06	0.29	0.38
Crit Moves:		****		****			****				****	
Green/Cycle:	0.16	0.24	0.34	0.14	0.23	0.42	0.20	0.43	0.59	0.10	0.33	0.48
Volume/Cap:	0.21	0.86	0.18	0.86	0.19	0.12	0.86	0.58	0.06	0.58	0.86	0.80
Uniform Del:	51.2	50.9	32.6	58.6	43.7	24.4	54.4	30.0	12.1	60.5	43.8	31.1
IncremntDel:	0.3	8.9	0.1	23.7	0.1	0.1	18.3	0.4	0.0	4.5	4.8	5.0
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:	51.6	59.8	32.8	82.3	43.9	24.5	72.7	30.4	12.1	65.0	48.6	36.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.6	59.8	32.8	82.3	43.9	24.5	72.7	30.4	12.1	65.0	48.6	36.1
LOS by Move:	D	E	C	F	D	C	E	C	B	E	D	D
HCM2kAvgQ:	2	19	3	13	3	2	16	15	1	4	22	26

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

****

Scenario Report

Scenario:	Cumulative +P PM
Command:	Default Command
Volume:	Cumulative PM
Geometry:	Existing PM
Impact Fee:	Default Impact Fee
Trip Generation:	W Project PM
Trip Distribution:	Dist
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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

Intersection #1 BROKAW/JUNCTION

Cycle (sec):	123	Critical Vol./Cap.(X):	0.945
Loss Time (sec):	9	Average Delay (sec/veh):	41.9
Optimal Cycle:	150	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module:												
Base Vol:	674	37	741	615	178	303	59	1799	197	251	1108	172
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:	674	37	741	615	178	303	59	1799	197	251	1108	172
Added Vol:	9	0	7	0	0	0	0	0	8	6	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	683	37	748	615	178	303	59	1799	205	257	1108	172
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:	683	37	748	615	178	303	59	1799	205	257	1108	172
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	683	37	748	615	178	303	59	1799	205	257	1108	172
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:	683	37	748	615	178	303	59	1799	205	257	1108	172
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1900	1900	1900	1900	1900	1900	1900	5187	1900	1900	5187	1900
Capacity Analysis Module:												
Vol/Sat:	0.36	0.02	0.39	0.32	0.09	0.16	0.03	0.35	0.11	0.14	0.21	0.09
Crit Moves:			****					****		****		
Green/Cycle:	0.42	0.42	0.42	0.42	0.42	0.42	0.11	0.37	0.37	0.14	0.40	0.40
Volume/Cap:	0.86	0.05	0.94	0.78	0.22	0.38	0.29	0.94	0.29	0.94	0.53	0.22
Uniform Del:	32.7	21.3	34.5	30.9	23.1	24.9	50.6	37.7	27.6	52.2	27.9	24.1
IncremntDel:	9.7	0.0	19.8	4.9	0.1	0.3	0.8	10.4	0.2	39.8	0.3	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	42.3	21.4	54.3	35.8	23.2	25.2	51.4	48.1	27.9	92.0	28.1	24.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.3	21.4	54.3	35.8	23.2	25.2	51.4	48.1	27.9	92.0	28.1	24.3
LOS by Move:	D	C	D	D	C	C	D	D	C	F	C	C
HCM2kAvgQ:	26	1	32	21	4	8	2	25	5	14	12	4

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

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

Intersection #2

Average Delay (sec/veh): 41.0 Worst Case Level Of Service: F[813.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1!	0	0	0 0 0	0	0	0 0 2	1	0	1 0 3	0	0
Volume Module:												
Base Vol:	66	0	117	0	0	0	0	1427	75	93	1868	0
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	66	0	117	0	0	0	0	1427	75	93	1868	0
Added Vol:	0	0	0	0	0	0	0	8	0	0	9	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	0	117	0	0	0	0	1435	75	93	1877	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:	66	0	117	0	0	0	0	1435	75	93	1877	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	66	0	117	0	0	0	0	1435	75	93	1877	0
Critical Gap Module:												
Critical Gp:	6.8	6.5	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	2284	3536	516	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1510	xxxx	xxxxx
Potent Cap.:	34	6	509	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	449	xxxx	xxxxx
Move Cap.:	29	5	509	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	449	xxxx	xxxxx
Volume/Cap:	2.29	0.00	0.23	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.21	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.8	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	15.1	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	C	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	73	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	17.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	813	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	F	*	*	*	*	*	*	*	*	*	*
ApproachDel:	813.4			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			*			*			*		

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

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

Intersection #3 BROKAW/ZANKER

Cycle (sec):	140	Critical Vol./Cap.(X):	0.777
Loss Time (sec):	12	Average Delay (sec/veh):	43.2
Optimal Cycle:	79	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Ovl			Ovl			Ovl		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0 2	0	1	1 0 2	0	1	1 0 3	0	1	1 0 3	0	1
Volume Module:												
Base Vol:	36	80	124	617	1041	171	140	1188	55	210	1494	252
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:	36	80	124	617	1041	171	140	1188	55	210	1494	252
Added Vol:	0	0	0	1	0	0	0	6	0	0	7	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	80	124	618	1041	171	140	1194	55	210	1501	254
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:	36	80	124	618	1041	171	140	1194	55	210	1501	254
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	80	124	618	1041	171	140	1194	55	210	1501	254
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:	36	80	124	618	1041	171	140	1194	55	210	1501	254
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1900	3610	1900	1900	3610	1900	1900	5187	1900	1900	5187	1900
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.07	0.33	0.29	0.09	0.07	0.23	0.03	0.11	0.29	0.13
Crit Moves:		****		****			****				****	
Green/Cycle:	0.07	0.07	0.22	0.40	0.40	0.49	0.09	0.30	0.37	0.14	0.35	0.75
Volume/Cap:	0.27	0.31	0.30	0.82	0.72	0.18	0.82	0.77	0.08	0.77	0.82	0.18
Uniform Del:	61.8	61.7	46.1	37.6	35.4	20.0	62.5	44.5	28.6	57.6	41.1	4.9
IncremntDel:	1.1	0.7	0.4	6.9	1.8	0.1	25.3	2.3	0.0	12.2	3.0	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	62.9	62.4	46.5	44.5	37.2	20.1	87.8	46.9	28.7	69.9	44.0	5.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	62.9	62.4	46.5	44.5	37.2	20.1	87.8	46.9	28.7	69.9	44.0	5.0
LOS by Move:	E	E	D	D	D	C	F	D	C	E	D	A
HCM2kAvgQ:	2	2	4	25	20	4	8	18	1	9	22	3

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

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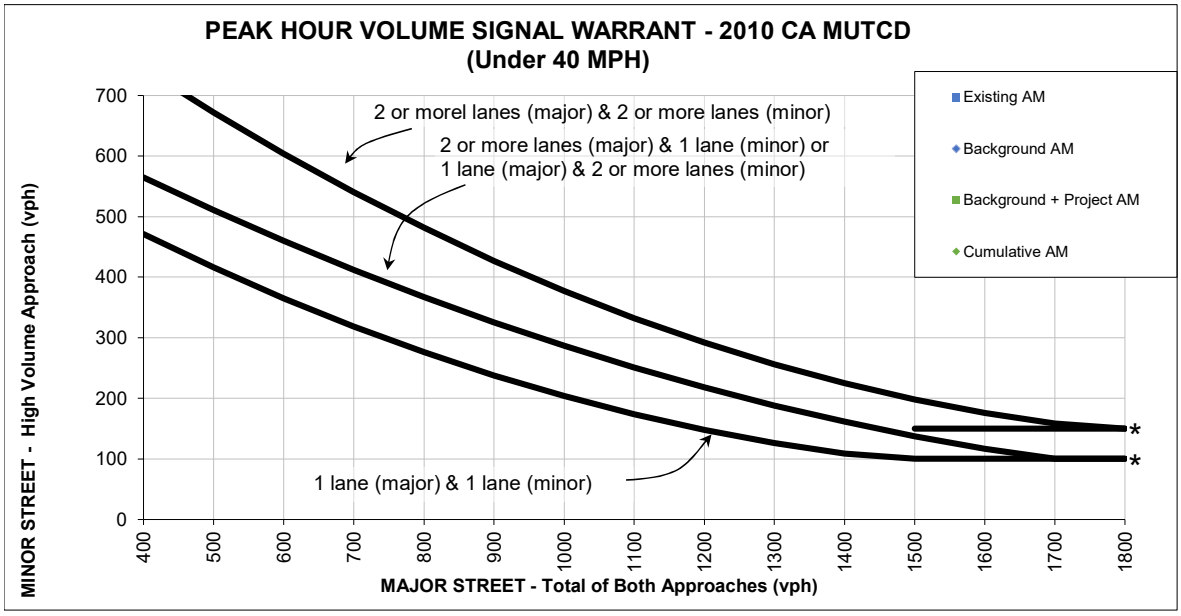
Appendix D

Signal Warrants

Rogers Avenue and Brokaw Road

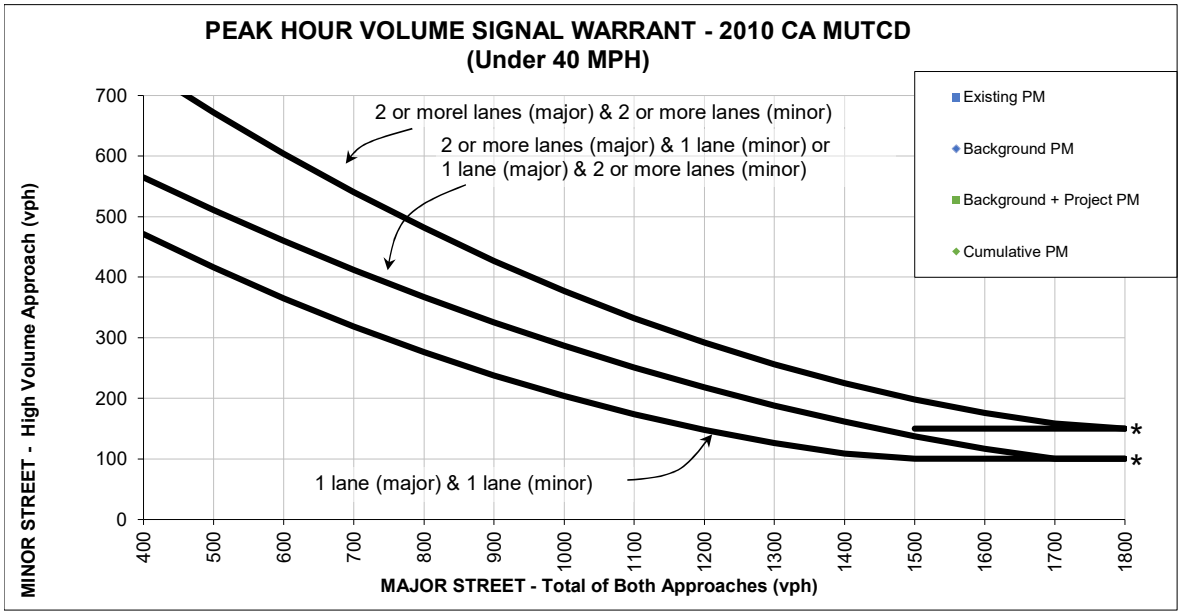


* NOTE: 150 vph applies as the lower threshold volume for a minor street approach with 2 or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with 1 lane.

Peak Hour Volume Warrant Per 2003 MUTCD- Under 40 MPH

		Approach Lanes		AM Peak Hour Volumes			
		One	2 or More	*Existing AM*	*Background AM*	*Background + Project AM*	*Cumulative AM*
Major Street - Both Approaches	Brokaw Road		x	2757	2757	2768	3424
Minor Street - Highest Approach	Rogers Avenue	x		205	205	205	205
		Warrant Met?		yes	yes	yes	yes

Rogers Avenue and Brokaw Road



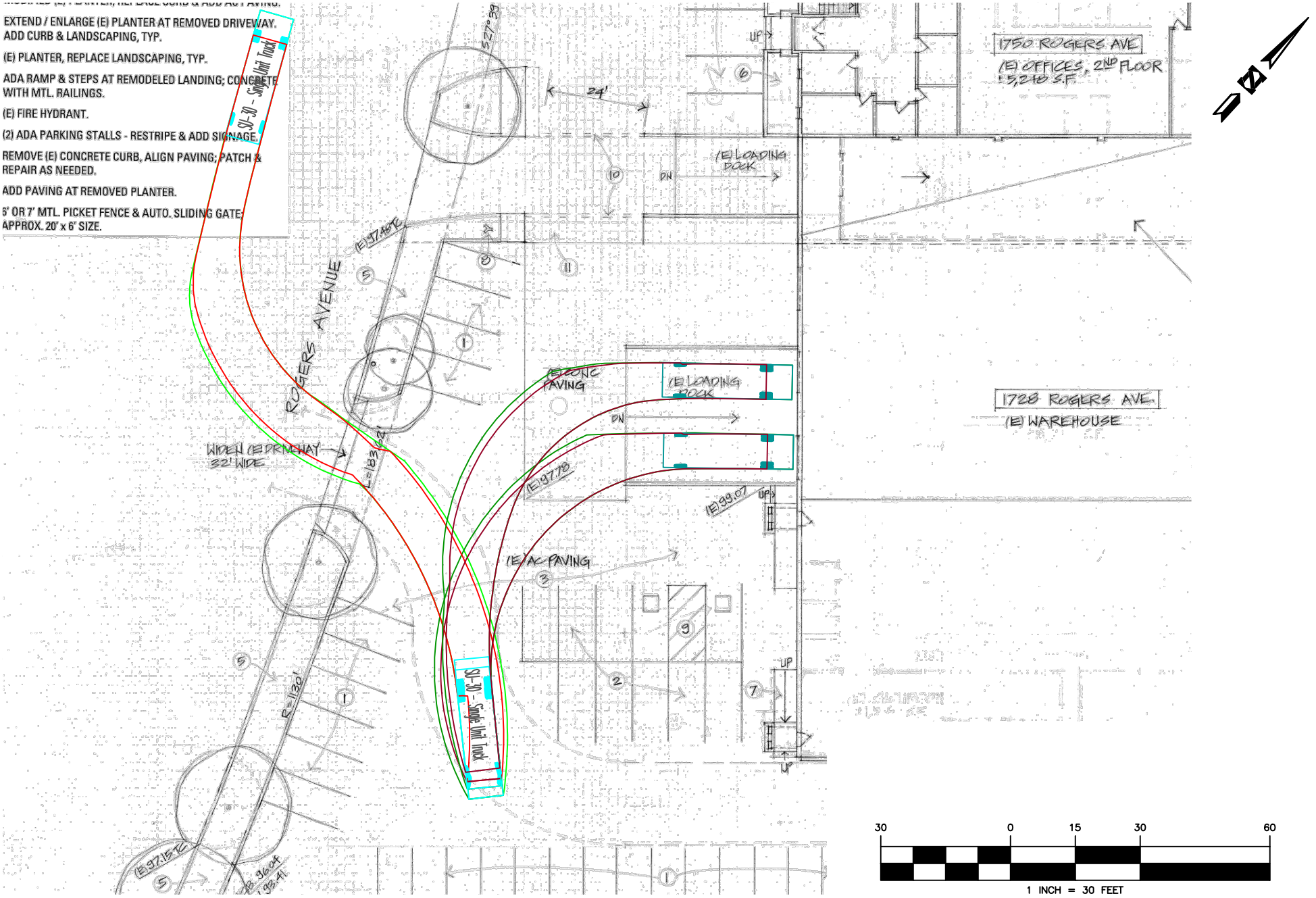
* NOTE: 150 vph applies as the lower threshold volume for a minor street approach with 2 or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with 1 lane.

Peak Hour Volume Warrant Per 2003 MUTCD- Under 40 MPH

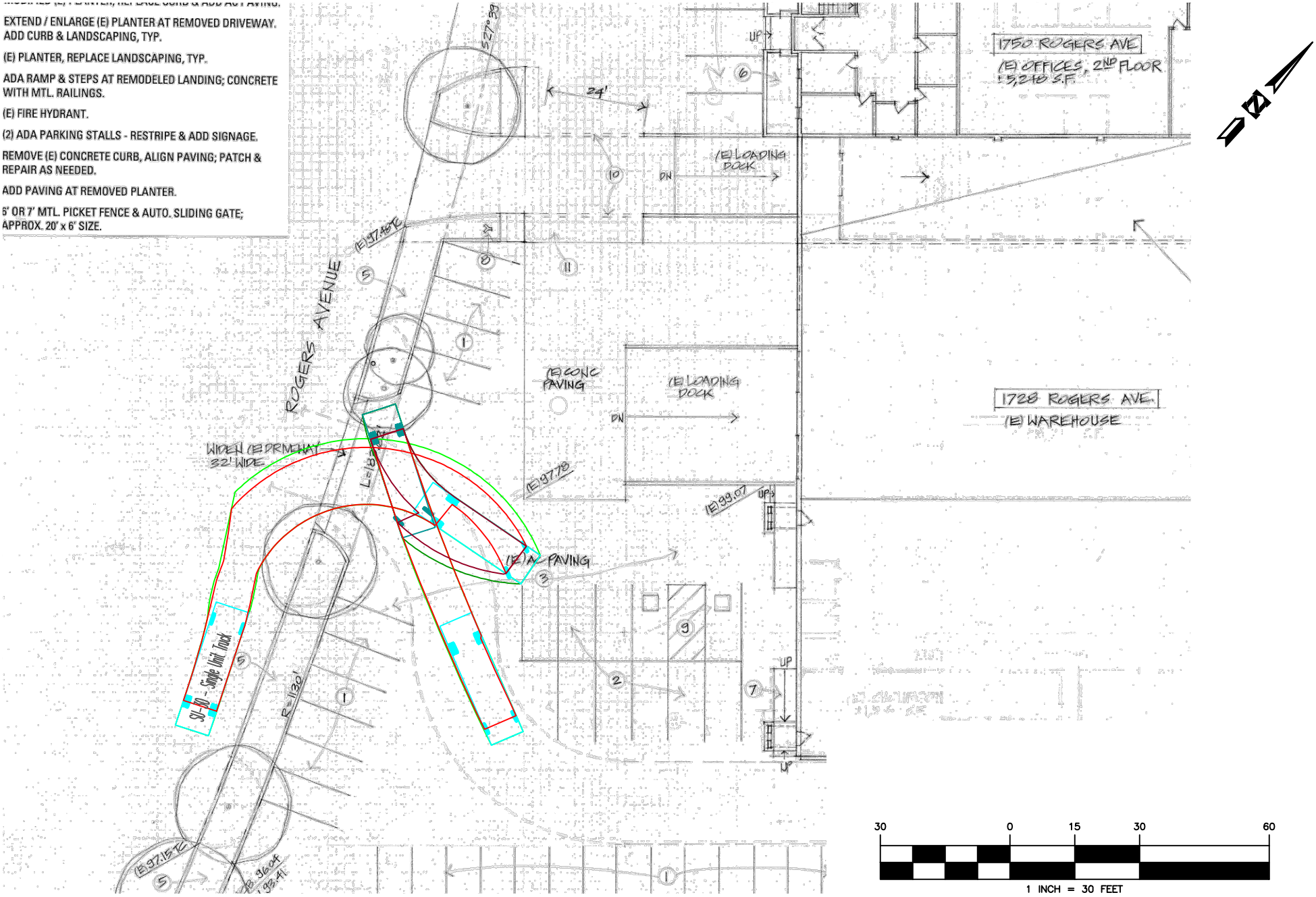
		Approach Lanes		PM Peak Hour Volumes			
		One	2 or More	*Existing PM*	*Background PM*	*Background + Project PM*	*Cumulative PM*
Major Street - Both Approaches	Brokaw Road		x	2814	2814	2831	3480
Minor Street - Highest Approach	Rogers Avenue	x		183	183	183	183
	Warrant Met?			yes	yes	yes	yes

Appendix E

Truck Turning Templates



DRAWN T. CHANG	SCALE 1" = 30'	HEXAGON TRANSPORTATION CONSULTANTS, INC. 4 North Second Street, Suite 400 San Jose, California 95113 Ph: (408) 971-6100 www.hextrans.com	**CITY OF SAN JOSE**	FIGURE NO.
CHECKED ----	DATE 1/7/2021		1728-1750 ROGERS AVENUE SU-30 TURNING TEMPLATE	1



DRAWN T. CHANG	SCALE 1" = 30'	HEXAGON TRANSPORTATION CONSULTANTS, INC. 4 North Second Street, Suite 400 San Jose, California 95113 Ph: (408) 971-6100 www.hextrans.com	**CITY OF SAN JOSE**	FIGURE NO.
CHECKED ----	DATE 1/7/2021		1728-1750 ROGERS AVENUE SU-30 TURNING TEMPLATE	2