



HEXAGON TRANSPORTATION CONSULTANTS, INC.



Santa Teresa 7-11

Local Transportation Analysis

Prepared for:

A&R Consulting

January 29, 2020



Hexagon Transportation Consultants, Inc.

Hexagon Office: 4 North Second Street, Suite 400

San Jose, CA 95113

Hexagon Job Number: 19DC07

Phone: 408.971.6100

Client Name: A&R Consulting

San Jose • Gilroy • Pleasanton

www.hextrans.com

Areawide Circulation Plans Corridor Studies Pavement Delineation Plans Traffic Handling Plans Impact Fees Interchange Analysis Parking
Transportation Planning Traffic Calming Traffic Control Plans Traffic Simulation Traffic Impact Analysis Traffic Signal Design Travel Demand Forecasting

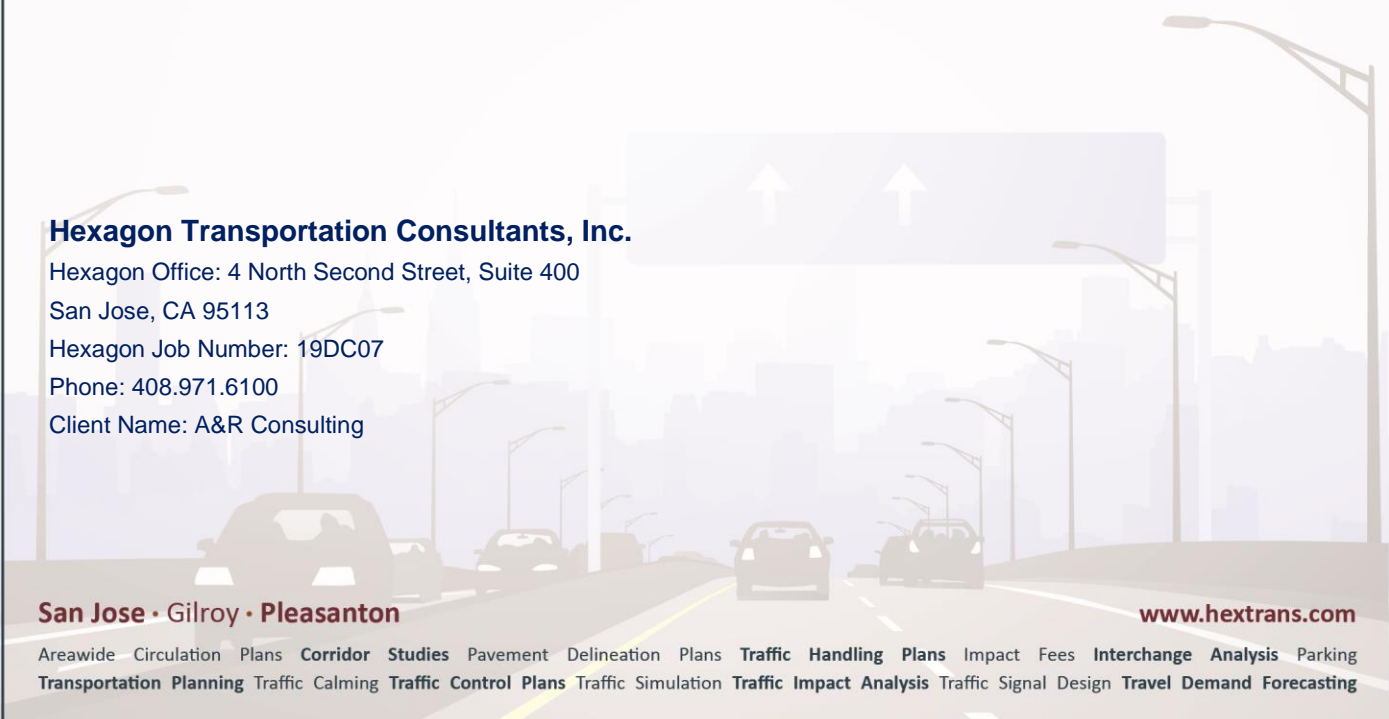


Table of Contents

Executive Summary	i
1. Introduction	1
2. CEQA Transportation Analysis	8
3. Existing Conditions	10
4. Background Conditions	17
5. Background Plus Project Conditions.....	20
6. Other Transportation Issues	26
7. Conclusions.....	31

Appendices

Appendix A	Traffic Counts
Appendix B	Level of Service Calculations
Appendix C	Approved Trip Inventory
Appendix D	VMT Evaluation Tool Output
Appendix E	Initial Trip Generation Study

List of Tables

Table 1 Signalized Intersection Level of Service Definitions Based on Control Delay.....	6
Table 2 Project Retail Conversion	9
Table 3 Existing Intersection Levels of Service	16
Table 4 Background Intersection Levels of Service	19
Table 5 Project Trip Generation	22
Table 6 Background Plus Project Intersection Levels of Service	22

List of Figures

Figure 1 Site Location	3
Figure 2 Site Plan	4
Figure 3 Bicycle Facilities	13
Figure 4 Transit Facilities	14
Figure 5 Intersection Lane Configurations and Existing Traffic Volumes	15
Figure 6 Background Traffic Volumes	18
Figure 7 Trip Distribution and Net Trip Assignment	23
Figure 8 Gross Trip Assignment.....	24
Figure 9 Background Plus Project Traffic Volumes	25

Executive Summary

This report presents the results of the Local Transportation Analysis (LTA) conducted for a proposed 7-11 convenience store with eight (8) gas pumps at 6211 Santa Teresa Boulevard in San Jose, California. This study was conducted for the purpose of identifying the potential transportation impacts and operational issues related to the proposed development.

The project, as proposed, would demolish the existing store and pumps on site. The proposed project can be accessed via a driveway on Cottle Road or the driveway for the adjacent shopping center building on Santa Teresa Boulevard.

The potential impacts of the project were evaluated in accordance with the standards and methodologies set forth by the City of San Jose. Based on the City of San Jose's Transportation Analysis Policy (Policy 5-1) and the *Transportation Analysis Handbook 2018*, an LTA is required for the project 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 signalized intersections. The LTA also includes an analysis of site access, on-site circulation, parking, and effects to transit, bicycle, and pedestrian facilities.

CEQA Transportation Analysis

A transportation analysis report includes a CEQA transportation analysis and an LTA. The CEQA transportation analysis comprises an evaluation of vehicle miles traveled (VMT). The project is considered to have a less-than-significant impact on VMT because it meets the City's screening criterion for local-serving retail development. Local-serving retail typically redistributes existing shopping-related trips instead of creating new trips. New local-serving retail developments tend to shorten vehicle-trips and reduce VMT by diverting existing trips from established local retail uses to the new local retail uses without increasing trips outside the local area. The project is considered to be local-serving, but the screening criteria do not explicitly address a gas station. The gas station trips were converted to a retail size equivalency to ensure that it would be less than 100,000 s.f., which is the definition of local-serving. After converting to retail trips, the approximate size of the retail equivalent is 50,500 square feet. Because the project meets the criteria for a local-serving retail project (i.e., is less than 100,000 s.f. in size), its impact is considered less than significant.

Local Transportation Analysis

Project Trip Generation

After applying the pass-by trip reductions and applying existing trip credits, the project would generate 71 new daily trips, with 21 net trips (11 inbound and 10 outbound) during the AM peak hour and 19 net trips (11 inbound and 8 outbound) during the PM peak hour.

Intersection Traffic Operations

Based on the City of San Jose intersection operations analysis criteria, none of the study intersections would be adversely affected by the project.

Other Transportation Issues

The proposed site plan shows adequate site access and on-site circulation. The project would not have an adverse effect on the existing pedestrian or bicycle facilities in the study area. The project is not expected to add a measurable number of transit trips to the project area. Therefore, it can be concluded that there would be a minimal effect on transit.

Recommendations

Hexagon has the following recommendations:

- Advise longer fuel tankers to enter on Santa Teresa Boulevard and exit on Cottle Road. Additionally, it is recommended that refilling the gas tanks occur during off-peak hours, as large fuel-tankers may need to cross into multiple lanes while entering and exiting the project site.

1. Introduction

This report presents the results of the Local Transportation Analysis (LTA) conducted for a proposed 7-11 convenience store with eight (8) gas pumps at 6211 Santa Teresa Boulevard in San Jose, California (see Figure 1). The project, as proposed, would demolish the existing building (convenience store and auto repair shop) and eight pumps on site. The proposed project would be accessed via a two-way driveway on Cottle Road or an existing driveway for the adjacent shopping center building on Santa Teresa Boulevard. Figure 2 shows the project site plan.

Scope of Study

This study was conducted for the purpose of identifying the potential transportation impacts related to the proposed development. The potential impacts of the project were evaluated following the standards and methodologies established in the City of San Jose's *Transportation Analysis Handbook* (April 2018).

Urban Villages

The project is located within the Santa Teresa and Cottle Urban Village area. The Santa Teresa and Cottle Urban Village has been identified as a planned growth area as part of the Envision San Jose 2040 General Plan but is not yet in the planning stage. Urban Villages are walkable, bicycle-friendly, transit-oriented, mixed-use settings that provide both housing and jobs, thus supporting the General Plan's environmental goals. The Urban Village designation is applied within Urban Village areas to accommodate higher density housing growth in combination with a significant amount of job growth.

CEQA Transportation Policies

In alignment with State of California Senate Bill 743 (SB 743) and the City's goals as set forth in the Envision San Jose 2040 General Plan, the City of San Jose has adopted a new Transportation Analysis Policy, Council Policy 5-1. The policy replaces its predecessor (Council Policy 5-3) and establishes the thresholds for transportation impacts under the California Environmental Quality Act (CEQA) based on vehicle miles traveled (VMT) instead of levels of service (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 Analysis Policy took effect on March 29, 2018. New projects are required to analyze transportation impacts using the VMT metric and conform to Council Policy 5-1. The new Transportation Analysis Policy 5-1 aligns with the Envision San Jose 2040 General Plan which seeks to focus new development growth within Planned Growth Areas, bringing together office,

residential, and service land uses to internalize trips and reduce VMT. VMT-based policies support dense, mixed-use, infill projects as established in the General Plan's Planned Growth Areas.

Local Transportation Analysis

The Local Transportation Analysis (LTA) supplements the VMT analysis by identifying potential adverse operational effects that may arise due to a new development, as well as evaluating the effects of a new development on site access, circulation, and other safety-related elements in the proximate area of the project.

As part of the LTA, a project is 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. Based on these criteria, as outlined in the City's *Transportation Analysis Handbook*, a list of study intersections is developed. Note that signalized intersections that do not meet all the criteria may be added to the list of study intersections at the City's discretion. The LTA comprises an analysis of AM and PM peak hour traffic conditions for two (2) signalized intersections in the immediate vicinity of the project site. The intersections to be included in the LTA analysis are as follows:

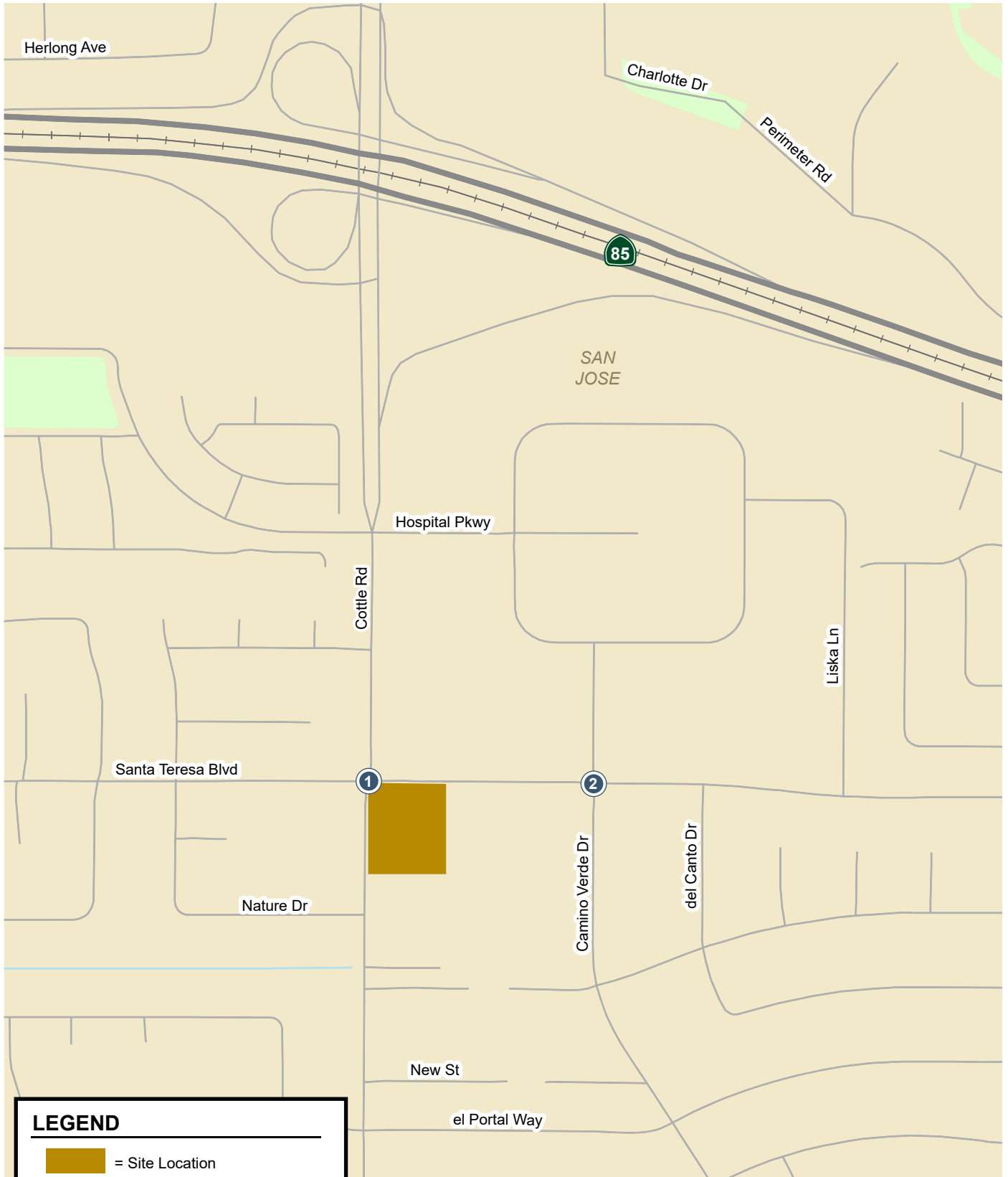
1. Cottle Road and Santa Teresa Boulevard (CMP Intersection)
2. Camino Verde Drive and Santa Teresa Boulevard

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 typically 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 commute hours during which most weekday traffic congestion occurs on the roadways in the study area.

Intersection operating conditions were evaluated for the following scenarios:

- **Existing Conditions.** Existing traffic volumes at all study intersections were obtained from new traffic counts conducted in October 2019 and the 2018 CMP Annual Monitoring Report. The signalized study intersections were evaluated with a level of service analysis using TRAFFIX software in accordance with the *2000 Highway Capacity Manual* methodology. The new intersection count data are included in Appendix A.
- **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 C). 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.
- **Background Plus Project Conditions.** Background plus 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.

The LTA also includes an evaluation of the effects of the project on bicycle, pedestrian, and transit facilities, as well as a review of site access and on-site circulation.



LEGEND



-  = Site Location
-  = Study Intersection

Figure 1
Site Location and Study Intersection

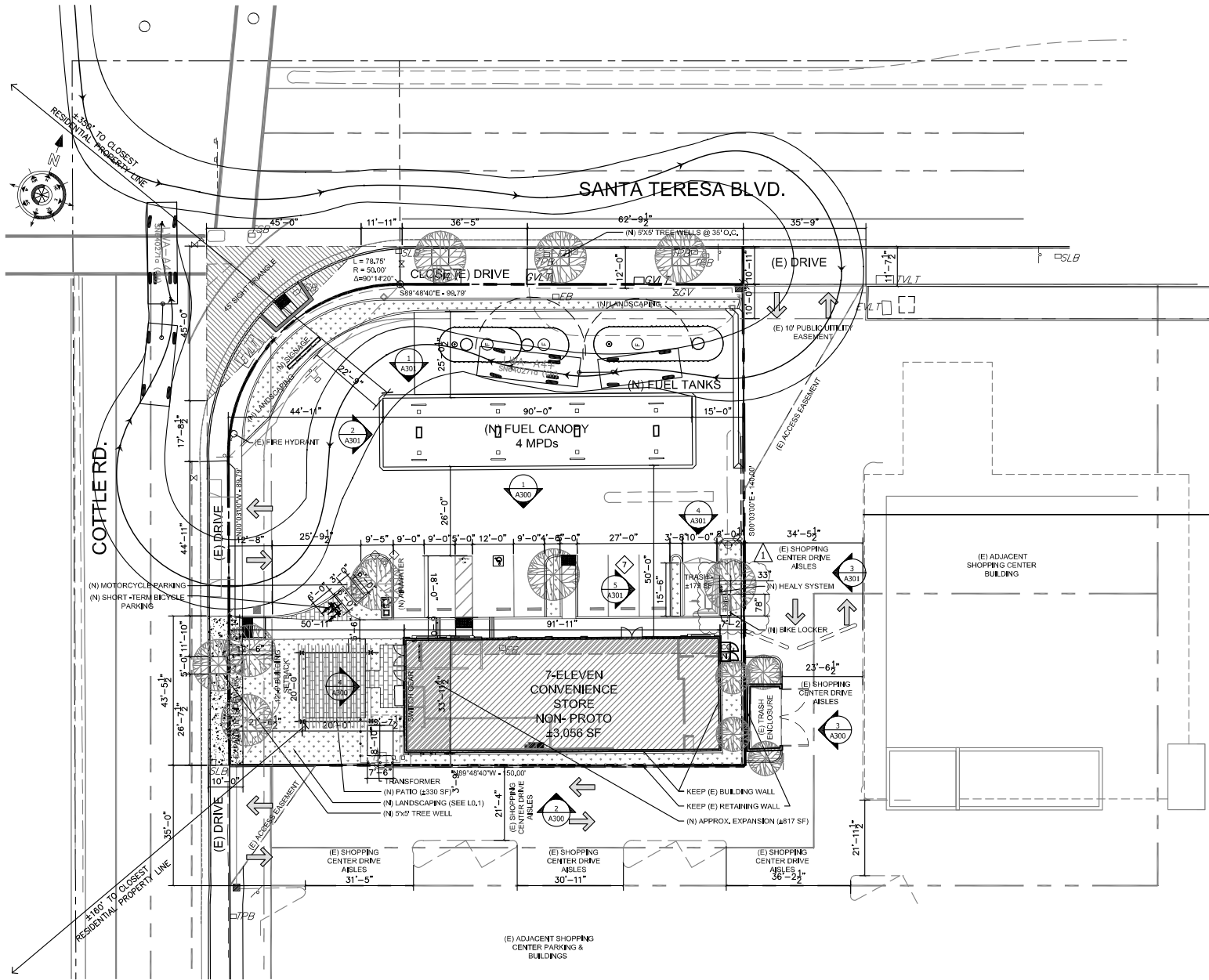


Figure 2
Site Plan

Methodology

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

Data Requirements

The data required for the analysis were obtained from new traffic counts, the City of San Jose, the 2018 CMP Annual Monitoring Report, and field observations. The following data were collected from these sources:

- existing traffic volumes,
- existing intersection lane configurations,
- signal timing and phasing, and
- approved project trips

Analysis Methodologies and Level of Service Standard

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 analysis method is described below.

Signalized Intersections

The study intersections are located within the City of San Jose and were evaluated based on the City of San Jose level of service standard. The City of San Jose evaluates level of service at signalized intersections based on the *2000 Highway Capacity Manual* (HCM) level of service methodology using TRAFFIX software. Since TRAFFIX is the level of service methodology for the CMP-designated intersections, the City of San Jose employ the CMP defaults values for the analysis parameters. This HCM method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. 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, including city, expressway, and CMP 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.

Adverse Intersection Operations Effects

According to the City of San Jose’s *Transportation Analysis Handbook, 2018*, an adverse effect on intersection operations would occur if for either peak hour:

- The level of service at the intersection degrades from an acceptable level (LOS D or better) to an unacceptable level (LOS E or F) with the addition of project trips to the baseline conditions, or
- The level of service at the intersection is an unacceptable level (LOS E or F) under baseline conditions and one of the following occurs:
 - An increase in average critical delay by four (4) or more seconds *and* an increase in the critical volume-to-capacity ratio (V/C) of one percent (.01) or more.
 - A decrease in average critical delay *AND* an increase in critical V/C ratio of by one percent (.01) or more.

Adverse effects at signalized intersections can be addressed by one of the following approaches:

- Construct improvements to the subject intersection or other roadway segments of the citywide transportation system to increase overall capacity, or
- Reduce project-generated vehicle trips (e.g., implement a “trip cap”) to eliminate the adverse operational effects and restore intersection operations to background conditions. The extent of trip reduction should be set at a level that is realistically attainable through proven methods of reducing trips.

Report Organization

The remainder of this report is divided into six chapters. Chapter 2 presents the CEQA Transportation Analysis. Chapter 3 describes the existing roadway network, transit services, and pedestrian and bicycle facilities. Chapter 4 presents the intersection operations under background conditions. Chapter 5 presents the intersection operations under background plus project conditions. Chapter 6 presents the analysis of other transportation-related issues, including site access, on-site circulation, and parking, as well as potential project effects on bicycle, pedestrian, and transit facilities. Chapter 7 presents the conclusions of the transportation analysis.

2. CEQA Transportation Analysis

In alignment with State of California Senate Bill 743 (SB 743) and the City's goals as set forth in the Envision San Jose 2040 General Plan, the City of San Jose has adopted a Transportation Analysis Policy, Council Policy 5-1. The policy replaces its predecessor (Council Policy 5-3) and establishes the thresholds for transportation impacts under the California Environmental Quality Act (CEQA) based on vehicle miles traveled (VMT) instead of levels of service (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 Transportation Analysis Policy took effect on March 29, 2018. New projects are required to analyze transportation impacts using the VMT metric and conform to Council Policy 5-1. The new Transportation Analysis Policy 5-1 aligns with the Envision San Jose 2040 General Plan which seeks to focus new development growth within Planned Growth Areas, bringing together office, residential, and service land uses to internalize trips and reduce VMT. VMT-based policies support dense, mixed-use, infill projects as established in the General Plan's Planned Growth Areas.

Screening for VMT Analysis

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. According to the screening criteria outlined in Table 1 of the *Transportation Analysis Handbook* (2018), local-serving retail projects are exempted from the CEQA transportation analysis. Local-serving retail typically redistributes existing shopping-related trips instead of creating new trips. New local-serving retail developments tend to shorten vehicle-trips and reduce VMT by diverting existing trips from established local retail uses to the new local retail uses without increasing trips outside the local area.

Since the project is a gas station that contains a convenience market, it is considered to be a local-serving project. To determine whether it falls within the screening criterion for a less-than-significant impact, the trip generation of the project was compared to a retail project. Table 2 shows the number of daily trips the project would generate and its retail equivalent. After converting to retail trips, the approximate size of the retail equivalent is 50,500 square feet. The definition for local-serving retail is 100,000 square feet or less.

Table 2
Project Retail Conversion

Land Use	ITE Land Use Code	Size	Daily	
			Rate	Trips
Convenience Market with Gasoline Pumps	853	3,056 s.f.	624.20	1,908
Shopping Center	820	50,530 s.f.	37.75	1,908

Source: ITE Trip Generation Manual, 10th Edition 2017

Because the project meets the screening criteria outlined in Table 1 of the *Transportation Analysis Handbook* (2018), the project is not required to provide a CEQA transportation analysis. Additionally, because local-serving retail developments tend to shorten vehicle-trips and reduce VMT by diverting existing trips from established local retail uses to the new local retail uses without increasing trips outside the local area, the project is presumed to have a less than significant impact on vehicle miles traveled.

3. Existing Conditions

This chapter describes the existing conditions for transportation facilities in the vicinity of the site, including the roadway network, transit service, pedestrian and bicycle facilities, and the existing levels of service of the key signalized intersections in the study area.

Roadway Network

Regional access to the project site is provided via SR-85. Local access to the site is provided Cottle Road and Santa Teresa Boulevard.

SR-85 is a six-lane freeway in the vicinity of the project. SR-85 extends north towards Santa Clara, where it connects to US 101. Similarly, SR-85 extends south(east) near the project site, where it connects with US 101, approximately ½ mile east of the project site. The project site is accessed via a full interchange at Cottle Road.

Cottle Road is a north-south arterial extending from Endicott Boulevard in the north to the Santa Teresa County Park in the south. In the project area, Cottle Road is six lanes north of the project site and two lanes south of the project site. Cottle Road has a posted speed limit of 35 mph. There are sidewalks and bike lanes on both sides of Cottle Road within the project vicinity. Cottle Road provides direct access to the project site for drivers coming from the south.

Santa Teresa Boulevard is an east-west arterial extending from SR 87 in the west to Coyote in the east, where it becomes Hale Avenue. In the project area, Santa Teresa Boulevard is six lanes and has a posted speed limit of 40 mph. There are sidewalks and bike lanes on both sides of Santa Teresa Boulevard. Santa Teresa Boulevard provides direct access to the project site via a shared driveway on the northern frontage of the project site.

Pedestrian, Bicycle and Transit Facilities

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

Pedestrian Facilities

Pedestrian facilities consist mostly of sidewalks along the streets in the study area. Crosswalks with pedestrian signal heads and push buttons are located at all the signalized intersections in the study area. Sidewalks are present on Cottle Road and Santa Teresa Boulevard, connecting the project site to nearby bicycle and transit facilities. Overall, the existing network of sidewalks and crosswalks in the immediate vicinity of the project site has excellent connectivity and provides pedestrians with safe routes to other points of interest in the study area.

Bicycle Facilities

In the project vicinity, Class II bike lanes are present on Cottle Road and Santa Teresa Boulevard (see Figure 3). Green pavement enhancements are present on all intersection approaches on Cottle Road and Santa Teresa Boulevard. The bicycle facilities in the study area have good connectivity and provide bicyclists with safe routes to nearby areas.

Transit Service

Existing transit service in the study area is provided by five VTA local bus routes (Routes 27, 42, 66, 68, and 304), three VTA express bus routes (Routes 102, 122, and 182), and VTA light rail, as described below and shown in Figure 4.

Route 27 runs between the Good Samaritan Hospital and Kaiser San Jose via Cottle Road in the project area. Route 27 operates between 5:30 AM and 8:30 PM with approximately 30-minute headways during the AM and PM peak commute hours. The bus stop closest to the project site is located at Cottle Road and Santa Teresa Boulevard.

Route 42 runs between Kaiser San Jose and Evergreen Valley College via Santa Teresa Boulevard near the project site. Route 42 operates between 6:00 AM and 7:15 PM with approximately 45-minute headways during the AM and PM peak commute hours. The bus stop closest to the project site is located at Cottle Road and Santa Teresa Boulevard.

Route 66 runs between Kaiser San Jose and North Milpitas and Dixon Landing via Santa Teresa Boulevard near the project site. Route 66 operates between 5:30 AM and 12:00 AM with approximately 15 to 20-minute headways during the AM and PM peak commute hours. The bus stop closest to the project site is located at Cottle Road and Santa Teresa Boulevard.

Route 68 runs between Gilroy Transit Center and San Jose Diridon via Cottle Road and Santa Teresa Boulevard near the project site. Route 68 operates between 4:00 AM and 1:30 AM with approximately 15 to 20-minute headways during the AM and PM peak commute hours. The bus stop closest to the project site is located at Cottle Road and Santa Teresa Boulevard.

Route 102 provides express service between South San Jose and Stanford Research Park via Santa Teresa Boulevard near the project site. Route 102 runs in the northbound direction only in the mornings and southbound only in the afternoons. Route 102 runs between 6:00 AM and 9:00 AM in the northbound direction and 3:15 PM to 7:00 PM in the southbound direction with approximately 15 to 30-minute headways during the AM and PM peak commute hours. The bus stop closest to the project site is located at Cottle Road and Santa Teresa Boulevard.

Route 122 provides express service between South San Jose and Lockheed Martin via Santa Teresa Boulevard near the project site. Route 122 operates once daily in the northbound direction and once daily in the southbound direction. The northbound service is available at approximately 5:55 AM and the southbound service returns to the nearest bus stop at approximately 6:00 PM. The bus stop closest to the project site is located at Cottle Road and Santa Teresa Boulevard.

Route 182 provides express service between Palo Alto and IBM & Bailey Avenue via Cottle Road and Santa Teresa Boulevard near the project site. Route 182 operates once daily in the northbound direction and once daily in the southbound direction. The southbound service leaves from Palo Alto at approximately 7:30 AM and the northbound service returns from the nearest bus stop at approximately 5:20 PM. The bus stop closest to the project site is located at Cottle Road and Santa Teresa Boulevard.

Route 304 runs between South San Jose and the Sunnyvale Transit Center via Santa Teresa Boulevard near the project site. Route 304 operates between 6:00 AM and 9:00 AM in the northbound direction and 3:30 PM to 7:00 PM in the southbound direction with approximately 25-minute headways during the AM and PM peak commute hours. The bus stop closest to the project site is located at Cottle Road and Santa Teresa Boulevard.

The VTA operates the light rail transit (LRT) line system that extends from south San Jose through downtown to the northern areas of San Jose, Santa Clara, Mountain View and Sunnyvale. Service operates nearly 24-hours, every 15 minutes during much of the day.

The Alum Rock-Santa Teresa LRT line (901) provides service to the Cottle LRT station closest to the project site. In the project vicinity, line 901 operates within the median of SR 85. The Cottle LRT station is located on Cottle Road, which is approximately ½ -mile from the project site. Sidewalks are present on both sides of the road, although access to the LRT station is on the east side of the Cottle Road. Striped bike lanes exist on both sides of Cottle Road between the site and the station.

Intersection Lane Configurations and Traffic Volumes

The existing lane configurations at the study intersections were determined by observations in the field and are shown on Figure 5.

Existing traffic volumes were obtained from the 2018 CMP Monitoring Report and from new peak-hour turning movement counts conducted in October 2019 when schools were in session (see Appendix A). The existing peak-hour intersection volumes are shown on Figure 5.



Figure 3
Existing Bicycle Facilities

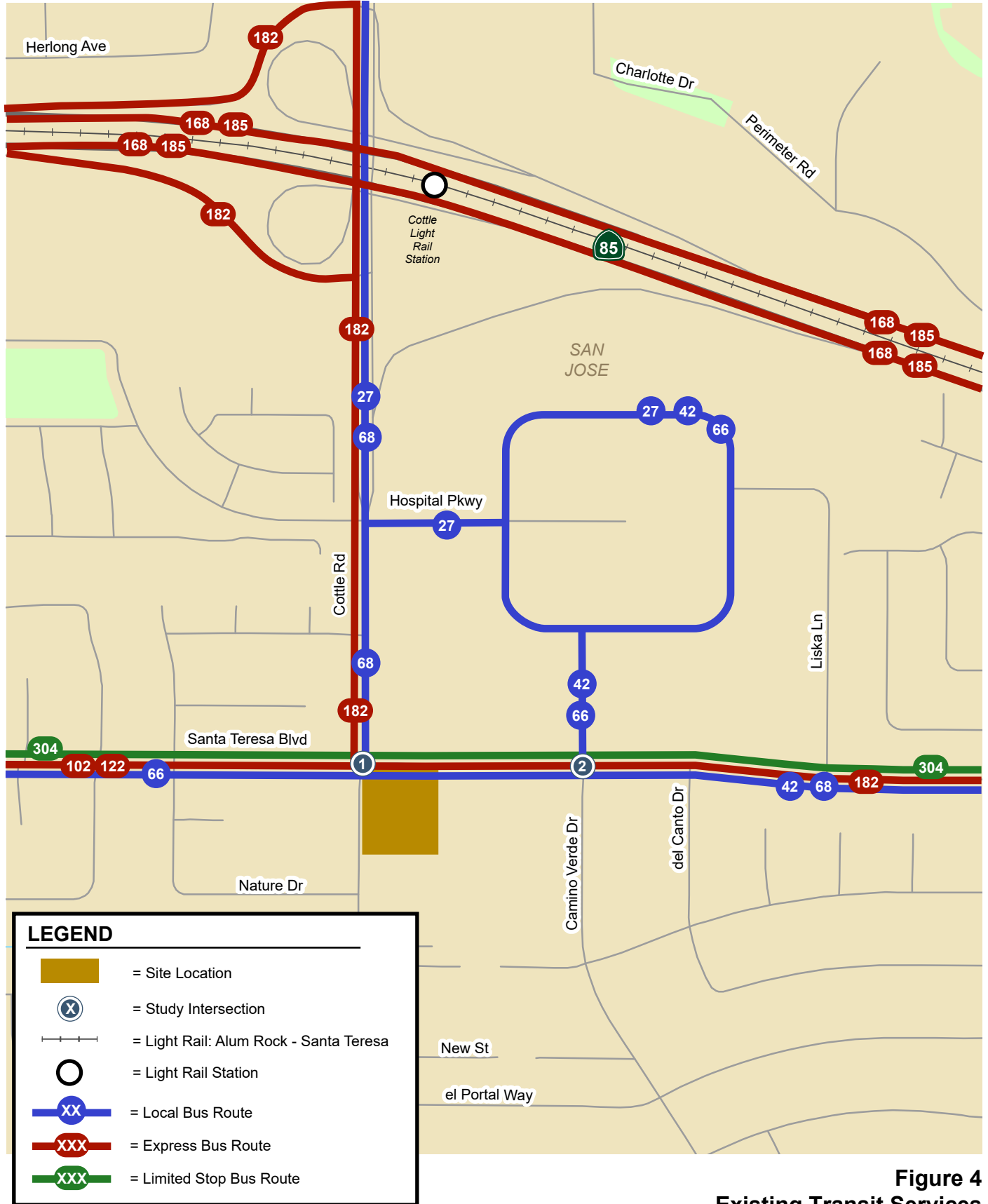


Figure 4
Existing Transit Services

Santa Teresa 7-11

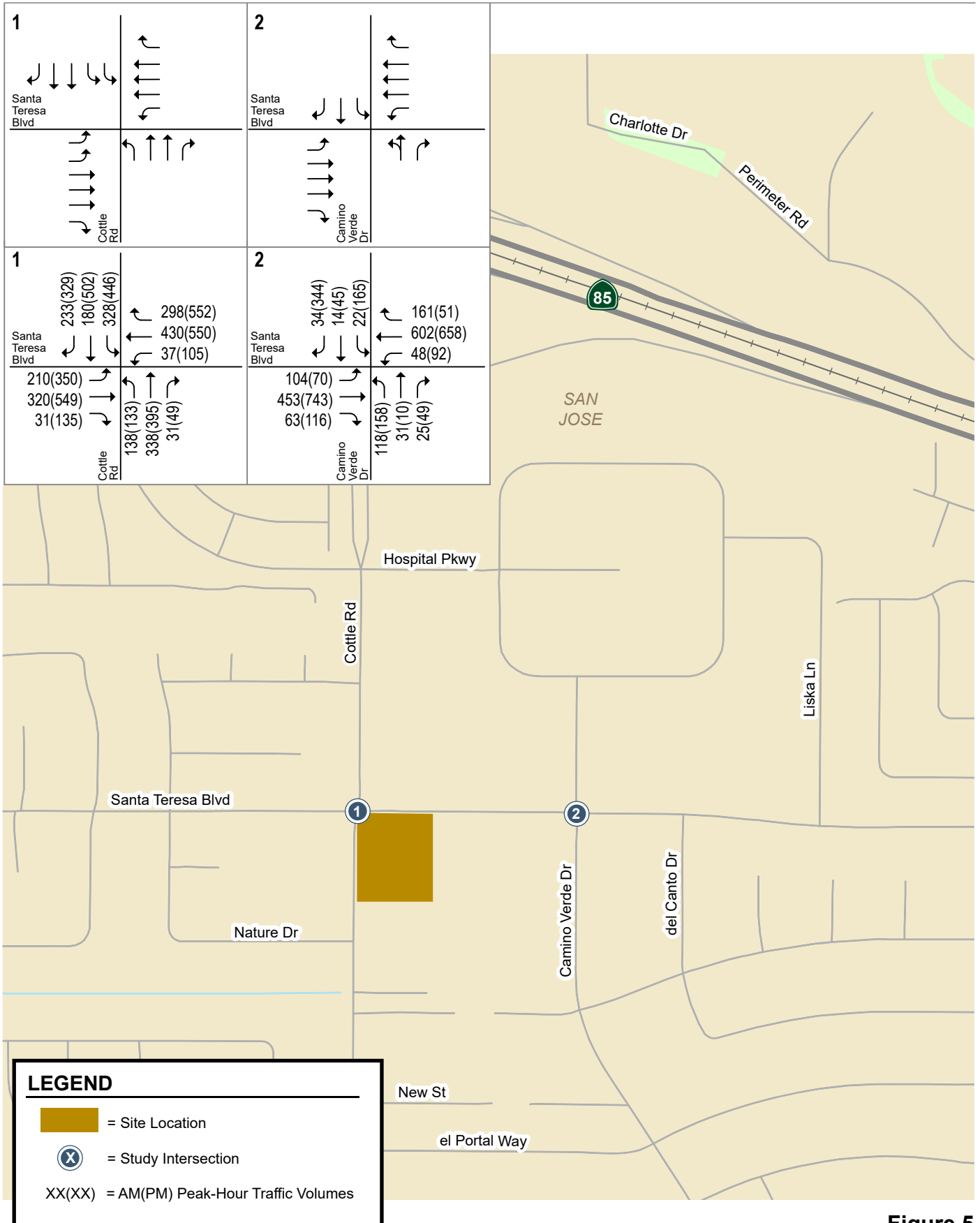


Figure 5
Intersection Lane Configurations and Existing Traffic Volumes

Intersection Levels of Service

The results of the intersection level of service analysis (see Table 3) show that the two signalized study intersections currently operate at an acceptable level of service during both the AM and PM peak hours of traffic.

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

Table 3
Existing Intersection Levels of Service

Study Number	Intersection	Peak Hour	Count Date	Existing Conditions	
				Avg. Delay (sec)	LOS
1	Cottle Road/Santa Teresa Boulevard	AM	10/01/19	34.8	C
		PM	11/15/18	33.4	C
2	Camino Verde Drive/Santa Teresa Boulevard	AM	10/01/19	20.9	C
		PM	10/01/19	22.8	C

Observed Traffic Conditions

Traffic conditions were observed in the field to identify existing operational deficiencies and to confirm the accuracy of calculated levels of service. The purpose of this effort was (1) to identify any existing traffic problems that may not be directly related to level of service, and (2) to identify any locations where the level of service analysis does not accurately reflect actual existing traffic conditions.

AM and PM field observations conducted in October 2019 revealed that overall the study intersections operate well, and the level of service calculations accurately reflect existing conditions. There were no observations of any operational issues related to intersection operations, queuing, pedestrian facilities, bicycle facilities, or transit facilities.

4. Background Conditions

This chapter presents background traffic conditions, which are defined as conditions just prior to completion of the proposed project. Traffic volumes for background conditions comprise volumes from existing traffic counts plus traffic generated by approved but not yet constructed developments in the vicinity of the site. This chapter describes the planned roadway network, the procedure used to determine background traffic volumes, and the resulting traffic conditions.

Roadway Network Under Background Conditions

The roadway network under background conditions would be the same as the existing roadway network.

Background Traffic Volumes

Background peak hour traffic volumes were estimated by adding to existing volumes the estimated traffic from approved but not yet constructed or occupied developments. The added traffic from approved but not yet constructed or occupied developments was obtained from the City of San Jose. The approved projects in San Jose are listed as part of the Approved Trips Inventory (ATI) in Appendix C. Background traffic volumes are shown on Figure 6.

Santa Teresa 7-11

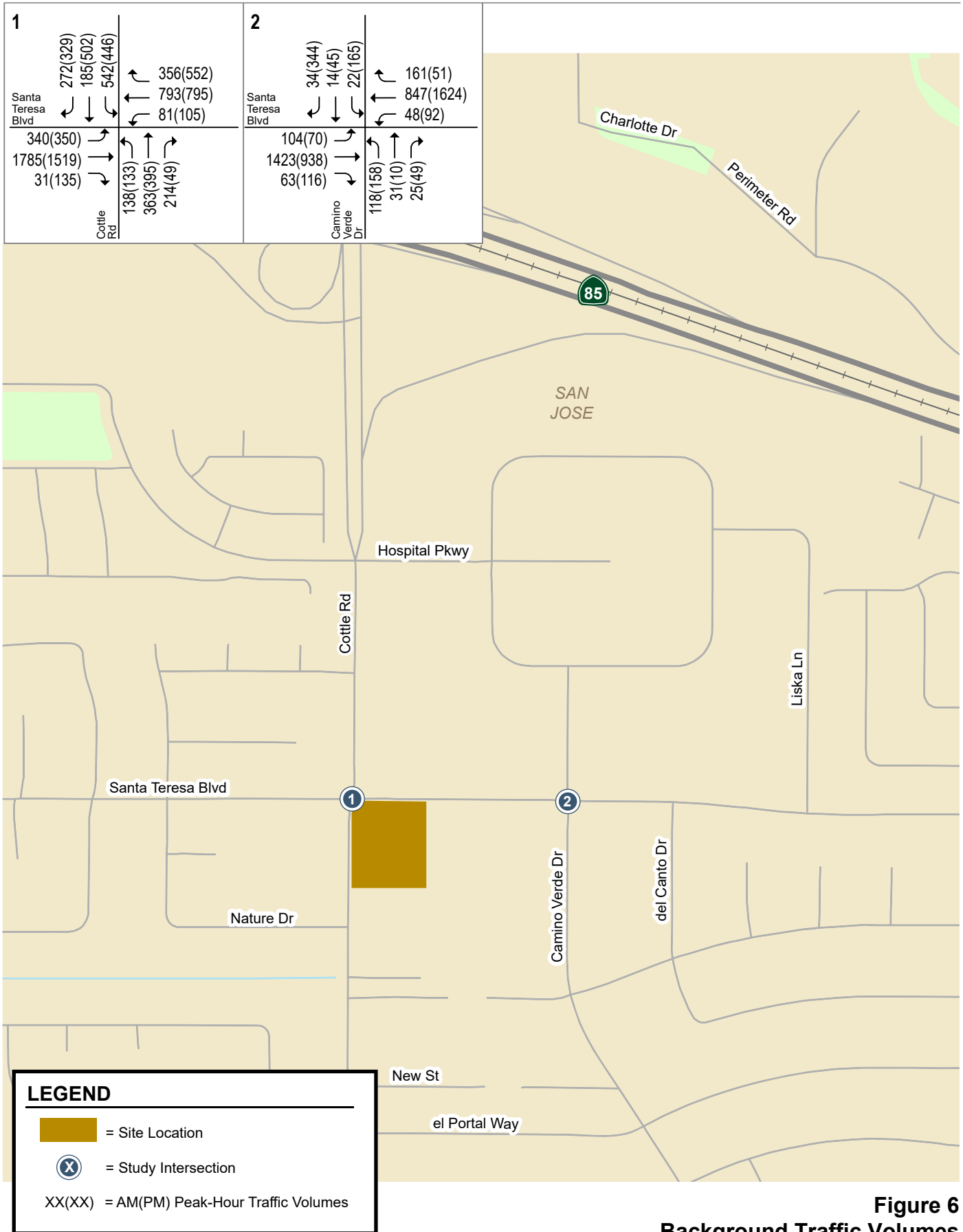


Figure 6
Background Traffic Volumes

Background Intersection Levels of Service

The results of the intersection level of service analysis (see Table 4) show that the two signalized study intersections would operate at an acceptable level of service (LOS D or better) under background conditions during both the AM and PM peak hours of traffic.

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

Table 4
Background Intersection Levels of Service

Study Number	Intersection	Peak Hour	Existing Conditions		Background Conditions	
			Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS
1	Cottle Road/Santa Teresa Boulevard	AM	34.8	C	35.9	D
		PM	33.4	C	32.5	C
2	Camino Verde Drive/Santa Teresa Boulevard	AM	20.9	C	13.3	B
		PM	22.8	C	18.9	B

5. Background Plus Project Conditions

This chapter describes near-term traffic conditions that most likely would occur when the project is complete. It includes a description of the criteria used to establish what constitutes an adverse project effect, a description of the roadway network under background plus project conditions, the method by which project traffic is estimated, and any adverse traffic conditions as a result of the project. Background plus project conditions were evaluated relative to background conditions in order to determine potential adverse project effects on intersection operations.

Roadway Network Under Background Plus Project Conditions

The roadway network under background plus project conditions would be the same as the background conditions. There are no planned roadway improvements with the proposed project.

Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear were 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 traveling to and from the project site was estimated for the AM and PM peak hours. As part of the trip distribution, the directions to and from which the project trips would travel were estimated. In the trip assignment, the project trips were assigned to specific streets and intersections. These procedures are described below.

Trip Generation

Through empirical research, data have been collected that quantify the amount of traffic that can be expected to be generated by many types of land uses. The standard trip generation rates can be applied to predict the future traffic increases that would result from a new development. The standard trip generation rates are obtained from the Institute of Transportation Engineers' (ITE) publication titled *Trip Generation, 10th Edition*.

Project trip generation was estimated by applying to the size and use of the proposed development the appropriate trip generation rates obtained from the ITE *Trip Generation Manual, 10th Edition* (2017). The average trip generation rates for Convenience Market with Gasoline Pumps (Land Use 853) were applied to the project.

In accordance with San Jose's *Transportation Analysis Handbook* (April 2018, Section 4.8, "Intersection Operations Analysis"), the project is eligible for adjustments and reductions from the baseline trip generation. Based on the 2018 San Jose guidelines, the project qualifies for a location-based adjustment. The location-based adjustment reflects the project's vehicle mode share based on the "place type" in which the project is located per the San Jose Travel Demand Model. The project's place type was obtained from the San Jose VMT Evaluation Tool. Based on the VMT Evaluation Tool, the project site is located within a designated Suburban with Single-Family Housing place type. Therefore, the baseline project trips were adjusted to reflect a Suburban with Single-Family Housing mode share. The City of San Jose estimated the vehicle mode share for retail uses in a suburban area with single-family homes to be 91% (according to Table 6 of the City's *Transportation Analysis Handbook*). Therefore, a 9% location-based adjustment was used to reduce the number of estimated project trips to account for alternative modes of transportation. The output from the VMT Evaluation Tool can be found in Appendix D.

A pass-by trip reduction was applied to the proposed project based on reduction rates taken from the *ITE Trip Generation Manual, 3rd Edition* (2017). A pass-by trip is an intermediate stop from an origin to a primary destination without diverting to another street to access a project. A pass-by trip reduction of 63% for the AM peak hour and 66% for the PM peak hour was taken from the *Trip Generation Manual* using average pass-by trip percentages for a Convenience Market with Gasoline Pumps (Land Use Code 853).

Trips that are generated by existing occupied uses on the site can be subtracted from the gross project trip generation estimates. Trip credits for the existing use on the project site were determined by driveway counts conducted by Abrams & Associates on June 26, 2019. The original trip generation study completed by Abrams & Associates can be found in Appendix E. Because a portion of the existing trips would also be pass-by trips, a pass-by trip reduction was also applied to the existing driveway counts to reduce the number of trip credits for the existing use at the intersection level. For the existing trip credits, a pass-by reduction of 58% for the AM peak hour and 42% for the PM peak hour was used based on average pass-by reduction rates for a gasoline station (Land Use Code 944).

Net Trip Generation

After applying the location-based adjustment, pass-by trip reductions and existing trip credits, the project would generate 71 new daily trips, with 21 net trips (11 inbound and 10 outbound) during the AM peak hour and 19 net trips (11 inbound and 9 outbound) during the PM peak hour (see Table 5).

**Table 5
Project Trip Generation**

Row	Land Use	ITE Land Use Code	Reduction %	Size	Daily		AM Peak Hour			PM Peak Hour				
					Rate	Trips	Trips			Trips				
							Rate	In	Out	Total	Rate	In	Out	Total
A	Convenience Market with Gasoline Pumps	853		3,056 s.f.	624.20	1,908	40.59	62	62	124	49.29	76	75	151
B	Location-Based Adjustment ¹		9%					(6)	(6)	(12)		(7)	(7)	(14)
C	Pass-by Trips ^{2,4}		63%/66%			(1,259)		(35)	(35)	(70)		(46)	(45)	(91)
D	Gross Project Trips					649		21	21	42		23	23	46
E	Existing Trips ⁵					(1,376)		(23)	(26)	(49)		(21)	(26)	(47)
F	Pass-by Trips ^{3,4}		58%/42%			798		13	15	28		9	11	20
G	Existing Trip Credits					(578)		(10)	(11)	(21)		(12)	(15)	(27)
D-G	Net Trip Generation					71		11	10	21		11	8	19

Notes:
¹ Location-Based Adjustment based on % Vehicle Mode Share, San Jose Transportation Analysis Handbook, 2018.
² A reduction of 63% in the AM peak hour and 66% in the PM peak hour was taken for pass-by trips for Convenience Market with Gasoline Pumps (Land Use Code 853).
³ A reduction of 58% in the AM peak hour and 42% in the PM peak hour was taken for pass-by trips for Gasoline Station (Land Use Code 944).
⁴ Pass-by reduction used for daily trips is the greater reduction of the AM peak hour or PM peak hour.
⁵ Existing Trips are based on driveway counts conducted in June 2019.
 Source: ITE Trip Generation Manual, 10th Edition 2017

Trip Distribution and Trip 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 7 shows the trip distribution pattern and net trip assignment for the project site. Figure 8 shows the gross trip assignment for the project site.

Background Plus Project Traffic Volumes

Project trips, as represented in the above project trip assignment, were added to background traffic volumes to obtain background plus project traffic volumes. The background plus project traffic volumes are shown on Figure 9.

Background Plus Project Intersection Analysis

Table 6 shows that the two study intersections would continue to operate at an acceptable level of service (LOS D or better) during both AM and PM peak hours. The intersection level of service calculation sheets are included in Appendix B.

**Table 6
Background Plus Project Intersection Levels of Service**

Study #	Intersection	Peak Hour	Background Conditions					
			No Project		With Project			
			Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Incr. in Crit. Delay (sec)	Incr. In Crit. V/C
1	Cottle Road/Santa Teresa Boulevard	AM	35.9	D	36.1	D	0.2	0.003
		PM	32.5	C	32.7	C	0.2	0.003
2	Camino Verde Drive/Santa Teresa Boulevard	AM	13.3	B	13.4	B	0.0	0.000
		PM	18.9	B	18.9	B	0.0	0.001

Santa Teresa 7-11

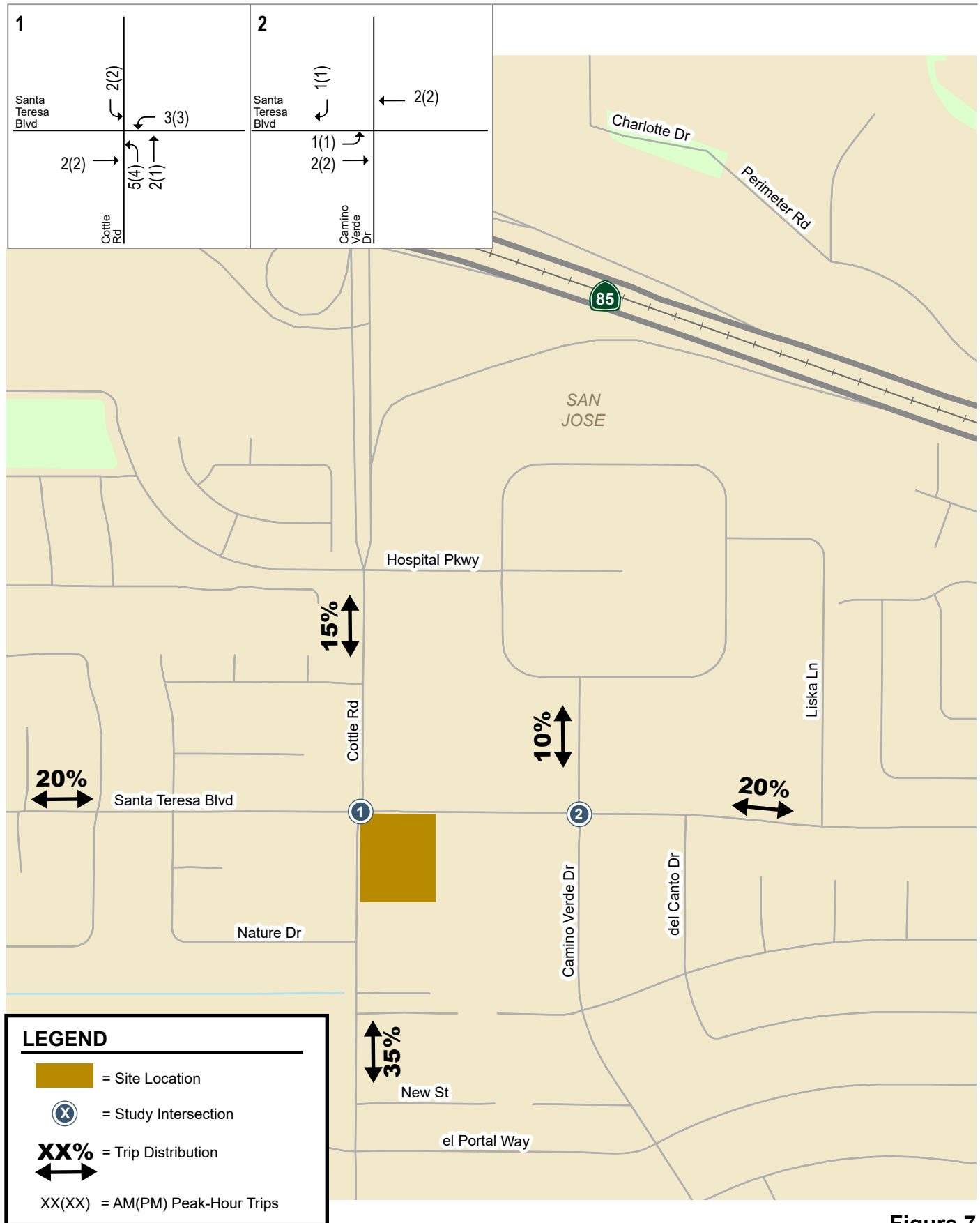


Figure 7
Trip Distribution and Net Trip Assignment

Santa Teresa 7-11

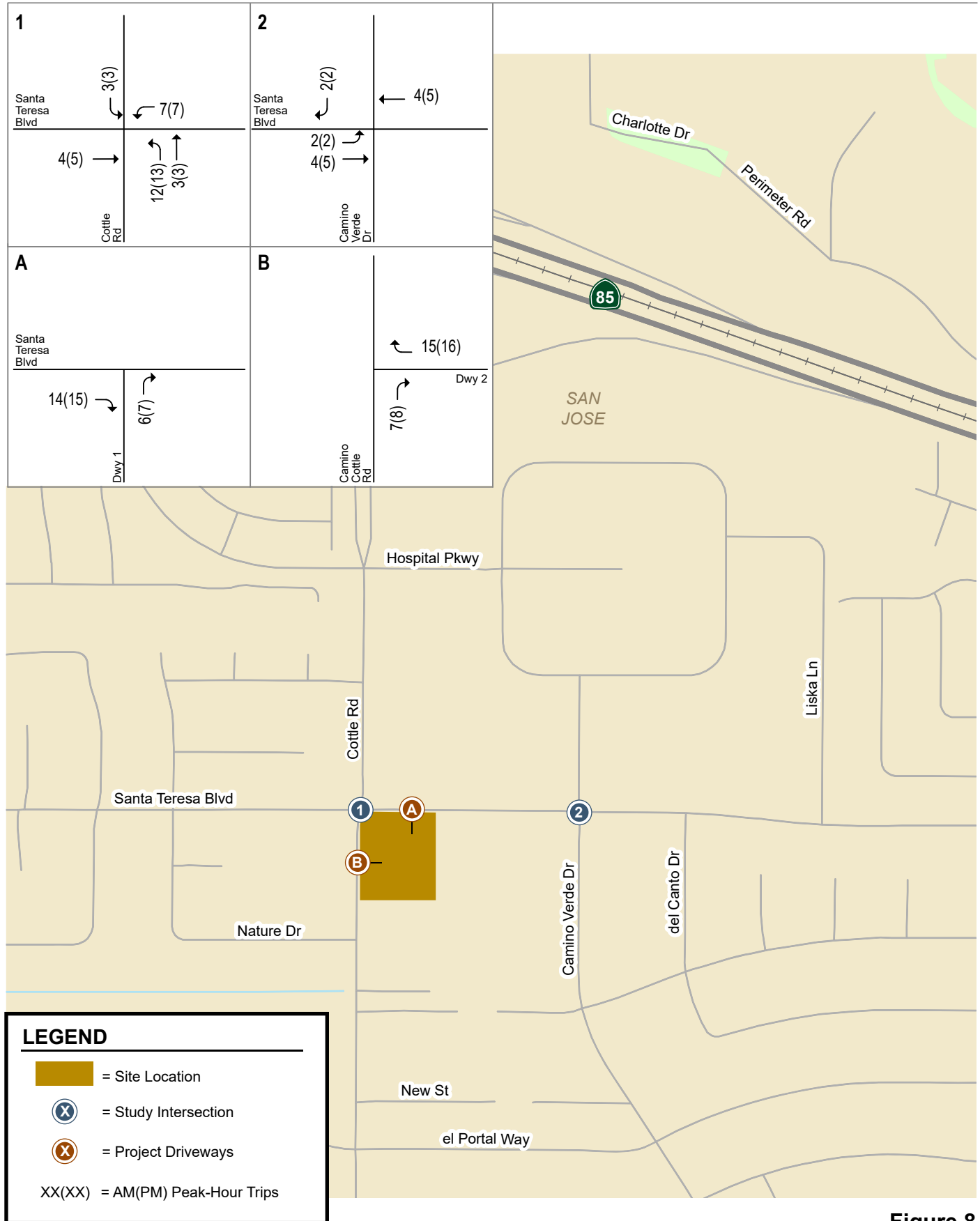


Figure 8
Gross Trip Assignment

Santa Teresa 7-11

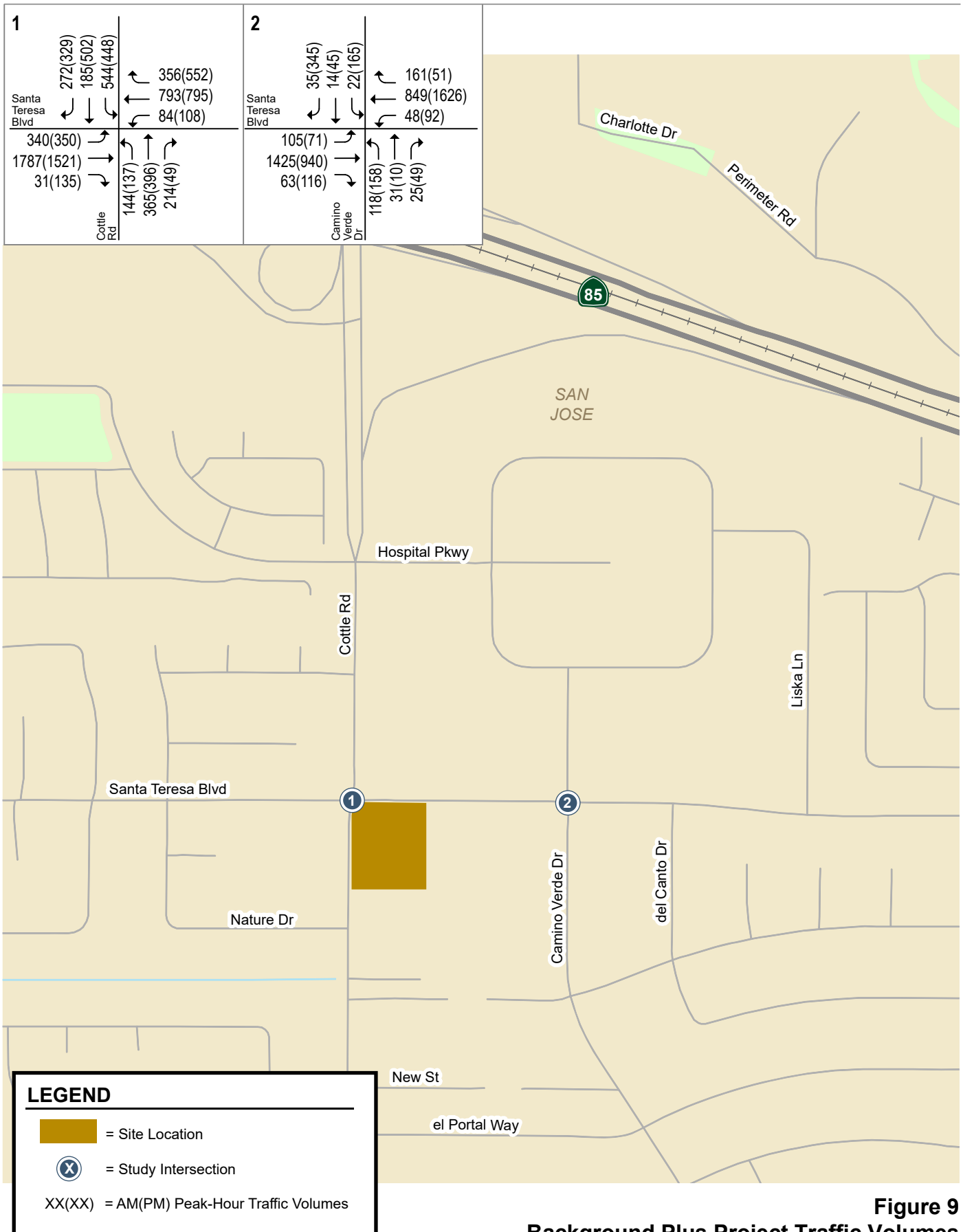


Figure 9
Background Plus Project Traffic Volumes

6. Other Transportation Issues

This chapter presents other transportation issues associated with the project. These include an analysis of:

- Site access and circulation
- Parking requirements
- Truck access and circulation
- Project effects on pedestrian, bicycle, and transit facilities
- Nearby neighborhood interface
- Construction activities

The analyses in this chapter are based on professional judgement in accordance with the standards and methods employed by traffic engineering professionals.

Vehicular Site Access and On-Site Circulation

The site access and circulation evaluations are based on the site plan prepared by Smith Development and Construction Company, dated January 25, 2019 (see Figure 2 in Chapter 1). Site access was evaluated to determine the adequacy of the site's driveways with regard to the following: traffic volume, vehicle queues, geometric design, and stopping sight distance. On-site vehicular circulation and parking layout were reviewed in accordance with generally accepted traffic engineering standards and transportation planning principles.

Site Access

Vehicular access to the project site would be provided via two existing driveways; One is on Cottle Road and the other is a driveway for the adjacent shopping center on Santa Teresa Boulevard. An existing access easement allows for access from the driveway on Santa Teresa Boulevard onto the project site. The site plan shows the existing driveway on Santa Teresa Boulevard measures approximately 36 feet in width, providing adequate width for vehicular ingress and egress. The site plan shows that the Cottle Road driveway is 32 feet in width, which is adequate width for vehicular ingress and egress.

Traffic Operations at Project Driveways

Based on ITE trip generation rates, the project site is expected to have 56 inbound vehicles and 56 outbound vehicles during the AM peak hour and 69 inbound vehicles and 68 outbound vehicles during the PM peak hour (ITE trip generation estimates minus location-based adjustment) . Customers would use both the existing driveway on Cottle Road and the driveway on Santa Teresa Boulevard to access the project site. In a worst-case scenario in which all vehicles would utilize one driveway, it would equate to one vehicle entering and one vehicle exiting the project site every 52 seconds. The project driveways are unlikely to have any significant operational issues related to vehicle queuing or vehicle delay, much like the existing operations.

Field observations indicate that there were no vehicle queuing issues for the existing inbound and outbound traffic at the driveways in the AM and PM peak hours. However, some minor on-site vehicle queuing could occur due to a combination of the inherent unpredictability of vehicle arrivals at driveways and the random occurrence of gaps in traffic along Cottle Road and Santa Teresa Boulevard. Additionally, vehicles turning right onto the project site from Santa Teresa Boulevard or Cottle Road may block the bike lane momentarily, but this is unlikely to have a significant effect on traffic operations.

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 Cottle Road and Santa Teresa Boulevard. 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 driveway on Cottle Road, which has 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 on both directions of Cottle Road to locate a sufficient gap to turn out of the driveways. Similarly, for the driveway on Santa Teresa Boulevard, there is a posted speed limit of 40 mph. Therefore, the Caltrans stopping sight distance is 360 feet (based on a design speed of 45 mph). Within the project vicinity, parking is not allowed on both Cottle Road and Santa Teresa Boulevard; therefore, there would not be issues with vehicles obstructing the vision of exiting drivers. There is no roadway curve on Cottle Road and Santa Teresa Boulevard that would obstruct the vision of exiting drivers. Therefore, it can be concluded that the project driveways would meet the Caltrans stopping sight distance standard, and sight distance would be adequate at the project driveways.

On-Site Circulation

Parking

The project is proposing to provide 7 parking spaces adjacent to the building. There is also one space for bicycle parking (long-term) and one bicycle rack. Additionally, it is likely some patrons would remain parked in front of the gas pumps after filling up and shop inside the convenience store. The drive aisle between the fuel canopy and the parking stalls is shown to be 26 feet in width, meeting the City's standard minimum width for two-way drive aisles where 90-degree parking is provided.

City of San Jose Municipal Code Section 20.90 does not specify the required number of parking spaces a convenience store must provide. For the purposes of analyses, a ratio of 1 space per 200 s.f. of sales area (the highest ratio among retail) was used to determine if the proposed project would provide enough parking spaces. Retail uses are also generally required to provide one bicycle parking space per 3,000 s.f. of floor area. The proposed building is approximately 3,056 s.f. in size. Therefore, a minimum 15 vehicle parking spaces and 1 bicycle parking space should be provided. The project proposes 7 vehicle parking spaces and 1 bicycle parking space. Thus, the project would fall short of the City's vehicle parking requirement by 8 parking spaces.

It is expected that some patrons would park at the gas pumps and shop inside the convenience store while filling up. Note also that patrons of a convenience store are likely to spend a very short amount of time shopping. Therefore, the amount of time a vehicle occupies a parking space is likely to be much less than that of a larger retail use. Since patrons can park at the gas pumps and shop at the convenience store, City of San Jose staff have determined that the 8 additional spaces in front of the gas pumps, combined with the 7 parking spaces provided, are sufficient for parking.

Parking Stall Dimensions

The City's off-street parking design standard for 90-degree uniform parking stalls is 8.5 feet wide by 17 feet long. The 90-degree parking stalls measure 9 feet wide by 18 feet long. The handicap stall measures 12 feet wide by 18 feet long, which meets City and ADA standards.

Truck Access and Circulation

The project site plan was reviewed for truck access using truck turning-movement templates for a SU-30 truck type (single unit trucks), which represents small emergency vehicles, garbage trucks, and small to medium delivery trucks. Based on the site plan configuration, adequate access would be provided for trucks to access the site from Cottle Road and Santa Teresa Boulevard and maneuver through the site as needed. Garbage trucks can easily access the trash enclosure.

Larger fuel tankers (LWA – A4+ design vehicle) could adequately access the project site and refill fuel storage tanks (as shown on Figure 2 in Chapter 1). Larger fuel tankers may need to cross into multiple lanes on Santa Teresa Boulevard and Cottle Road while entering and exiting the project site. Therefore, it is recommended that fuel tankers arrive and depart at off-peak hours. There is no conflict with traffic in opposing lanes of the adjacent streets because there are medians on both Cottle Road and Santa Teresa Boulevard. Due to site access limitations, it is recommended that drivers of larger fuel tankers be advised to enter the project site via the Santa Teresa Boulevard driveway and exit onto Cottle Road, as shown on the site plan (see Figure 2, Chapter 1).

The proposed fuel canopies would have a height of 15 feet, providing adequate vertical clearance for trucks and fuel tankers.

Loading Operations

The site plan does not show a dedicated space or zone for loading. There is enough room for delivery vehicles to park in front of the trash area and not block travel paths for patrons of the convenience store or the gas pumps. Loading should occur at off-peak times to minimize conflicts with passenger vehicles attempting to park.

Garbage Collection

Garbage collection activities for the project are expected to occur on site. The site plan shows a trash enclosure on the east side of the project site, adjacent to the building. Garbage vehicles could easily access the trash area from either driveway. Since garbage collection would occur on-site, traffic operations along Cottle Road and Santa Teresa Boulevard would not be affected during garbage collection activities.

Emergency Vehicle Access

The Cottle Road driveway would provide emergency vehicle access to the front of the project building. There is a driveway for the shopping center accessible from Cottle Road that would provide emergency vehicle access to the rear of the building. Similarly, the Santa Teresa Boulevard driveway can also access the rear of the building. The City of San Jose Fire Department requires that all portions of the buildings be within 150 feet of a fire department access road. According to the project site plan, the project would meet the 150-foot fire access requirement.

Pedestrian, Bicycle, and Transit Facilities

All new development projects in San Jose should encourage multi-modal travel, consistent with the goals and policies 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 many 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 Access and Circulation

The existing network of sidewalks and crosswalks in the immediate vicinity of the project site has good connectivity and provides pedestrians with safe routes to various points of interest in the study area. Pedestrian access to the project site would be provided via existing sidewalks on Cottle Road and Santa Teresa Boulevard and crosswalks at the Cottle Road/Santa Teresa Boulevard and Camino Verde Drive/Santa Teresa Boulevard intersections.

The proposed 7-11 store is expected to generate some pedestrian trips between the site and the surrounding neighborhood and schools. All the residential streets within the neighborhood have sidewalks, and crosswalks are provided at all signalized intersections. Nearby residents can safely access the project site via Cottle Road and Santa Teresa Boulevard.

The project site is approximately ½ mile away from Santa Teresa Elementary School. There are continuous sidewalks between the elementary school and the project site. The project site is also approximately 1.2 miles east of Santa Teresa High School. However, because of the long distance to Santa Teresa High School and the presence of a shopping center much closer to the school at Snell

Avenue and Santa Teresa Boulevard, it is unlikely these high school students would walk to the project site from the school.

The project proposes several improvements to pedestrian facilities. The project proposes to widen the sidewalk along the project frontage on Santa Teresa Boulevard and Cottle Road to 15 feet and 10 feet, respectively. The project also proposes to close a driveway on Santa Teresa Boulevard. Additionally, the project proposes a 5.5-foot wide walkway for pedestrians to access the convenience store from Cottle Road. The widened sidewalks and reduced number of driveways would enhance pedestrian safety and comfort walking to and from the convenience store.

Bicycle Access and Circulation

In the project vicinity, striped bike lanes are present on Cottle Road and Santa Teresa Boulevard. The surrounding residential streets carry low traffic volumes and are conducive to bicycling. The project is not proposing to make any modifications or provide additions to the existing bicycle network, nor would it conflict with any adopted plans or policies for new bicycle facilities.

The proposed 7-11 is expected to generate some bicycle trips between the site and the surrounding neighborhoods and schools. The site plan shows a bike rack adjacent to the building entrance. Nearby residents could safely access the project site via Cottle Road and Santa Teresa Boulevard. Students from Santa Teresa Elementary School and Santa Teresa High School could easily bike to the project site via a continuous bike lane on Santa Teresa Boulevard.

Transit Service

Existing transit service in the study area is provided by five VTA local bus routes (Routes 27, 42, 66, 68, and 304), three VTA express bus routes (Routes 102, 122, and 182), and VTA light rail. The project site is well-served by transit. Similar to pass-by vehicular trips, many of the trips to the project site will be pass-by trips from pedestrians already planning to get off transit at nearby bus stops. The project is not expected to generate a noticeable number of new transit trips. It is estimated that the small increase in transit demand generated by the project could be easily accommodated by the current available ridership capacities of the transit services in the study area.

Construction Activities

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

7. Conclusions

This study was conducted for the purpose of identifying potential transportation impacts and operational issues related to the proposed development. The potential transportation effects of the project were evaluated in accordance with the standards and methodologies set forth by the City of San Jose.

CEQA Transportation Analysis

According to the City of San Jose *Transportation Analysis Handbook* (2018), local-serving retail projects are exempted from the CEQA transportation analysis. Local-serving retail typically redistributes existing shopping-related trips instead of creating new trips. New local-service retail developments tend to shorten vehicle-trips and reduce VMT by diverting existing trips from established local retail uses to the new local retail uses without increasing trips outside the local area. Therefore, the project is presumed to have a less than significant impact on vehicle miles traveled.

Local Transportation Analysis

A Local Transportation Analysis (LTA) was performed to identify operational issues that may arise due to the project. The LTA study included an analysis of AM and PM peak hour traffic conditions for 2 signalized intersections near the project site. Effects on other transportation facilities due to the project, such as bicycle facilities and transit services, were determined based on engineering judgment.

After applying the pass-by trip reductions and applying existing trip credits, the project would generate 71 new daily trips, with 21 net trips (11 inbound and 10 outbound) during the AM peak hour and 19 net trips (11 inbound and 8 outbound) during the PM peak hour. After adding the new trips to the surrounding area, the results of the signalized intersection operations analyses show that none of the study intersections would be adversely affected by the project.

The proposed site plan shows adequate site access and on-site circulation. The project would not have an adverse effect on the existing pedestrian or bicycle facilities in the study area. The project is not expected to add a measurable number of transit trips to the project area. Therefore, it can be concluded that the project would have a minimal effect on transit facilities.

Recommendations

Hexagon has the following recommendations:

- Advise fuel tankers to enter on Santa Teresa Boulevard and exit on Cottle Road. Additionally, it is recommended that refilling the gas tanks occur during off-peak hours, as large fuel-tankers may need to cross into multiple lanes while entering and exiting the project site.

Santa Teresa 7-11 Technical Appendices

Appendix A

Traffic Counts



(303) 216-2439
www.alltrafficdata.net

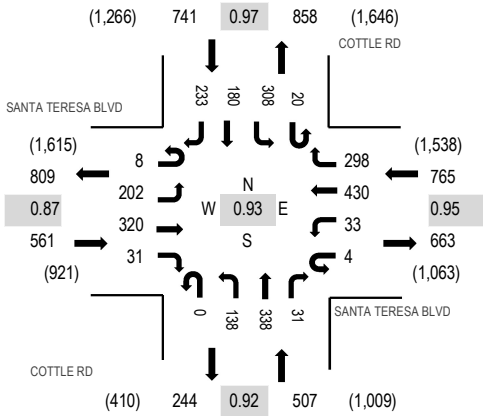
Location: 1 COTTLE RD & SANTA TERESA BLVD AM

Date: Tuesday, October 1, 2019

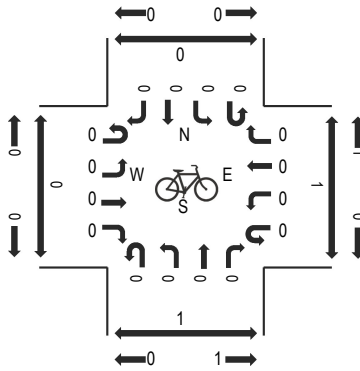
Peak Hour: 07:45 AM - 08:45 AM

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

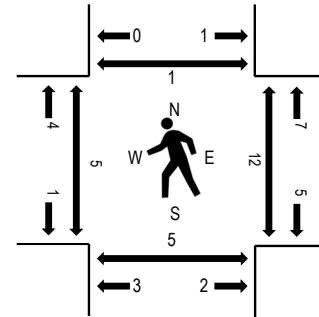
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SANTA TERESA BLVD Eastbound				SANTA TERESA BLVD Westbound				COTTLE RD Northbound				COTTLE RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	1	27	33	7	0	7	103	71	0	35	96	3	4	22	22	34	465	2,189	0	2	0	0
7:15 AM	1	28	47	7	1	2	128	75	0	35	84	5	6	43	22	53	537	2,417	0	2	1	1
7:30 AM	0	38	45	7	0	1	146	66	0	38	78	4	6	46	32	63	570	2,525	2	2	4	0
7:45 AM	2	44	68	4	0	6	115	66	0	40	73	10	8	80	45	56	617	2,574	1	3	0	0
8:00 AM	1	58	88	14	2	8	116	77	0	37	90	11	6	61	46	78	693	2,545	0	1	0	0
8:15 AM	3	56	91	7	1	9	91	77	0	34	83	6	2	97	42	46	645		4	4	4	0
8:30 AM	2	44	73	6	1	10	108	78	0	27	92	4	4	70	47	53	619		0	4	1	1
8:45 AM	2	40	74	3	1	9	97	66	0	23	96	5	7	71	47	47	588		2	4	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	1	0	0	1	2	4	0	0	1	0	0	0	1	0	10
Lights	8	201	312	31	4	32	418	284	0	137	334	31	20	295	176	230	2,513
Mediums	0	1	7	0	0	0	10	10	0	1	3	0	0	13	3	3	51
Total	8	202	320	31	4	33	430	298	0	138	338	31	20	308	180	233	2,574



(303) 216-2439
www.alltrafficdata.net

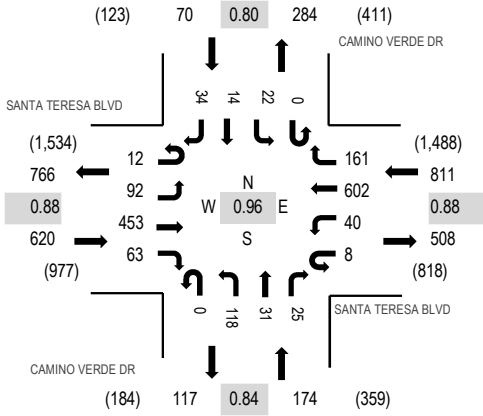
Location: 2 CAMINO VERDE DR & SANTA TERESA BLVD AM

Date: Tuesday, October 1, 2019

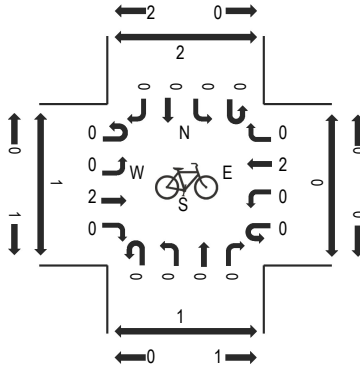
Peak Hour: 08:00 AM - 09:00 AM

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

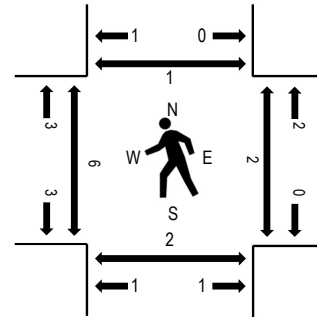
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SANTA TERESA BLVD Eastbound				SANTA TERESA BLVD Westbound				CAMINO VERDE DR Northbound				CAMINO VERDE DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
	7:00 AM	0	6	33	5	1	7	137	7	0	34	1	4	0	0	1			4	240	1,272	1
7:15 AM	7	14	57	7	0	9	151	21	0	37	1	7	0	4	1	9	325	1,466	0	0	0	1
7:30 AM	3	8	53	5	0	7	150	20	0	41	8	6	0	8	0	10	319	1,578	1	0	1	0
7:45 AM	3	16	120	20	2	4	144	17	0	28	8	10	0	5	1	10	388	1,665	1	0	0	0
8:00 AM	3	22	111	17	3	15	170	42	0	25	8	5	0	4	3	6	434	1,675	2	0	0	0
8:15 AM	2	30	127	19	1	7	152	39	0	28	9	8	0	3	4	8	437		0	0	0	0
8:30 AM	3	22	102	9	3	11	149	45	0	32	5	3	0	7	2	13	406		4	1	0	0
8:45 AM	4	18	113	18	1	7	131	35	0	33	9	9	0	8	5	7	398		0	1	2	1

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	1	0	0	0	5	0	0	0	0	0	0	0	0	0	6
Lights	12	87	440	61	8	40	580	161	0	117	30	25	0	22	13	28	1,624
Mediums	0	5	12	2	0	0	17	0	0	1	1	0	0	0	1	6	45
Total	12	92	453	63	8	40	602	161	0	118	31	25	0	22	14	34	1,675



(303) 216-2439
www.alltrafficdata.net

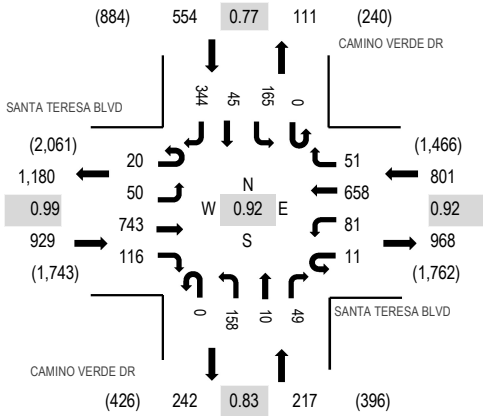
Location: 2 CAMINO VERDE DR & SANTA TERESA BLVD PM

Date: Tuesday, October 1, 2019

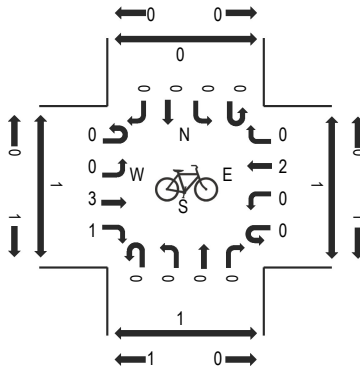
Peak Hour: 04:45 PM - 05:45 PM

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

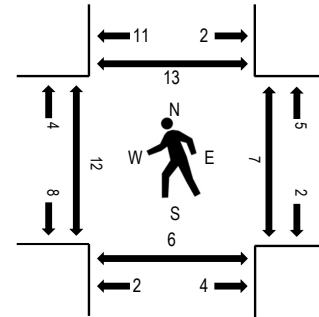
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SANTA TERESA BLVD Eastbound				SANTA TERESA BLVD Westbound				CAMINO VERDE DR Northbound				CAMINO VERDE DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
	4:00 PM	4	13	147	27	3	14	137	15	0	31	5	5	0	22	6			48	477	2,039	3
4:15 PM	2	18	165	19	3	11	123	9	0	30	3	9	0	25	11	36	464	2,244	1	3	3	0
4:30 PM	2	17	144	21	6	13	159	13	0	38	5	12	0	42	11	59	542	2,410	5	1	2	4
4:45 PM	4	12	175	24	3	14	148	14	0	29	2	9	0	45	13	64	556	2,501	4	2	1	1
5:00 PM	3	13	195	28	2	20	177	14	0	42	1	6	0	58	18	105	682	2,450	3	2	2	2
5:15 PM	8	13	189	27	0	20	159	12	0	41	3	18	0	33	11	96	630		5	1	1	6
5:30 PM	5	12	184	37	6	27	174	11	0	46	4	16	0	29	3	79	633		0	2	2	4
5:45 PM	5	18	177	35	3	12	134	10	0	30	3	8	0	23	4	43	505		1	4	2	5

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	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2
Lights	19	43	726	114	11	81	647	48	0	157	10	49	0	165	45	338	2,453
Mediums	1	7	16	2	0	0	11	2	0	1	0	0	0	0	0	6	46
Total	20	50	743	116	11	81	658	51	0	158	10	49	0	165	45	344	2,501

Appendix B

Level of Service Calculations

Scenario Report

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

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 COTTLE/SANTA TERESA

Cycle (sec): 115 Critical Vol./Cap.(X): 0.370
Loss Time (sec): 12 Average Delay (sec/veh): 34.8
Optimal Cycle: 46 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Protected), Rights (Ovl, Ignore), Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 1 Oct 2019 << 7:45-8:45. Table with 12 columns for volume counts and 12 rows for various adjustment factors like Growth Adj, Initial Bse, Added Vol, etc.

Saturation Flow Module: Table with 12 columns for saturation flow values and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

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

Level of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Camino Verde/Santa Teresa

Cycle (sec): 110 Critical Vol./Cap.(X): 0.275
Loss Time (sec): 0 Average Delay (sec/veh): 20.9
Optimal Cycle: 26 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Permitted/Protected), Rights (Ovl), Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 1 Oct 2019 << 8:00-9:00. Table with 12 columns for volume counts and 12 rows for various adjustment factors like Growth Adj, PHF Adj, etc.

Saturation Flow Module: Table with 12 columns for saturation flow values and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

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

Scenario Report

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

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 COTTLE/SANTA TERESA

Cycle (sec): 105 Critical Vol./Cap.(X): 0.487
Loss Time (sec): 12 Average Delay (sec/veh): 33.4
Optimal Cycle: 46 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Protected), Rights (Ovl, Ignore), Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 15 Nov 2018 << 4:30 - 5:30 PM. Table with 12 columns for volume and growth factors.

Saturation Flow Module: Table with 12 columns for saturation flow and adjustment factors.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

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

Level of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Camino Verde/Santa Teresa

Cycle (sec): 115 Critical Vol./Cap.(X): 0.368
Loss Time (sec): 0 Average Delay (sec/veh): 22.8
Optimal Cycle: 29 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Permitted/Protected), Rights (Ovl), Min. Green, Y+R, and Lanes.

Table with 12 columns for volume counts. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

Scenario Report

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

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 COTTLE/SANTA TERESA

Cycle (sec): 115 Critical Vol./Cap.(X): 0.774
Loss Time (sec): 12 Average Delay (sec/veh): 35.9
Optimal Cycle: 74 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Protected), Rights (Ovl, Ignore), Min. Green, Y+R, and Lanes.

Volume Module: Table with 12 columns representing different volume metrics (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume).

Saturation Flow Module: Table with 12 columns representing saturation flow metrics (Sat/Lane, Adjustment, Lanes, Final Sat).

Capacity Analysis Module: Table with 12 columns representing capacity analysis metrics (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

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

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Camino Verde/Santa Teresa

Cycle (sec): 110 Critical Vol./Cap.(X): 0.402
Loss Time (sec): 0 Average Delay (sec/veh): 13.3
Optimal Cycle: 31 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Permitted/Protected), Rights (Ovl), Min. Green, Y+R, and Lanes.

Volume Module: Table with 13 columns representing different volume metrics (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume).

Saturation Flow Module: Table with 13 columns representing saturation flow metrics (Sat/Lane, Adjustment, Lanes, Final Sat.).

Capacity Analysis Module: Table with 13 columns representing capacity analysis metrics (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

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

Scenario Report

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

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 COTTLE/SANTA TERESA

Cycle (sec): 105 Critical Vol./Cap.(X): 0.653
Loss Time (sec): 12 Average Delay (sec/veh): 32.5
Optimal Cycle: 54 Level Of Service: C

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Camino Verde/Santa Teresa

Cycle (sec): 115 Critical Vol./Cap.(X): 0.526
Loss Time (sec): 0 Average Delay (sec/veh): 18.9
Optimal Cycle: 39 Level Of Service: B

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Protected), Rights (Ovl), and various traffic volume and delay metrics.

Volume Module: Table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume for each movement.

Saturation Flow Module: Table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for each movement.

Capacity Analysis Module: Table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ for each movement.

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

Scenario Report

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

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 COTTLE/SANTA TERESA

Cycle (sec): 115 Critical Vol./Cap.(X): 0.778
Loss Time (sec): 12 Average Delay (sec/veh): 36.1
Optimal Cycle: 75 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table with 12 columns representing different traffic volumes and adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 12 columns for saturation flow values and adjustment factors like Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

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

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Camino Verde/Santa Teresa

Cycle (sec): 110 Critical Vol./Cap.(X): 0.403
Loss Time (sec): 0 Average Delay (sec/veh): 13.4
Optimal Cycle: 31 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Permitted/Protected), Rights (Ovl), Min. Green, Y+R, and Lanes.

Volume Module: Table with 13 columns representing different volume metrics (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume).

Saturation Flow Module: Table with 13 columns representing saturation flow metrics (Sat/Lane, Adjustment, Lanes, Final Sat.).

Capacity Analysis Module: Table with 13 columns representing capacity analysis metrics (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

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

Scenario Report

Scenario: Background+P PM

Command: Default Command

Volume: Background PM

Geometry: Geometry PM

Impact Fee: Default Impact Fee

Trip Generation: With Project PM

Trip Distribution: Trip Distribution

Paths: Default Path

Routes: Default Route

Configuration: Default Configuration

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 COTTLE/SANTA TERESA

Cycle (sec): 105 Critical Vol./Cap.(X): 0.656
Loss Time (sec): 12 Average Delay (sec/veh): 32.7
Optimal Cycle: 54 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

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

Volume Module:

Table with 12 columns representing different volume and adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

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

Saturation Flow Module:

Table with 12 columns for saturation flow factors like Sat/Lane, Adjustment, Lanes, Final Sat.

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

Capacity Analysis Module:

Table with 12 columns for capacity analysis factors like Vol/Sat, Crit Moves, Green/Cycle, etc.

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

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Camino Verde/Santa Teresa

Cycle (sec): 115 Critical Vol./Cap.(X): 0.527
Loss Time (sec): 0 Average Delay (sec/veh): 18.9
Optimal Cycle: 39 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Permitted/Protected), Rights (Ovl), Min. Green, Y+R, and Lanes.

Volume Module: Table with 12 columns for volume metrics (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume).

Saturation Flow Module: Table with 12 columns for saturation flow metrics (Sat/Lane, Adjustment, Lanes, Final Sat.).

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

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

Appendix C

Approved Trip Inventory

AM PROJECT TRIPS

08/22/2019

Intersection of : Cottle Rd & Santa Teresa Bl

Traffix Node Number : 3094

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
EDENVALE1 Office/Industrial EAST OF 101, NORTH OF SILVER CREEK VALLEY RD EDENVALE ZONE 1	0	6	0	0	1	10	44	0	0	0	0	0
EDENVALE2 Office/Industrial W/O 101, BOUNDED BY COTTLE RD, SANTA TERESA AND EDENVALE ZONE 2	0	1	18	48	0	3	11	235	0	4	57	17
EDENVALE3-4 Office/Industrial EAST OF 101, SOUTH OF SILVER CREEK VALLEY RD EDENVALE ZONE 3&4	0	6	7	0	1	10	42	50	0	1	12	0
EDENVALE3-4POOL Office/Industrial EAST OF 101, SOUTH OF SILVER CREEK VALLEY RD EDENVALE AREA 3-4 POOL	0	0	1	0	0	1	4	6	0	0	1	0
HITACHI CREDIT (3-14641) Office/Industrial 5600 COTTLE RD HITACHI CREDIT	0	12	0	3	3	10	27	27	0	0	0	0
NORTH COYOTE Office/Industrial NORTH COYOTE VALLEY NORTH COYOTE VALLEY CAMPUS INDUSTRIAL	0	0	80	40	0	0	0	483	0	20	120	10
PDC04-100R&D (3-14681) Office/Industrial ROUTE 85/GREAT OAKS ISTAR - R&D PORTION	0	0	10	29	0	0	0	123	0	2	31	7

AM PROJECT TRIPS

08/22/2019

Intersection of : Cottle Rd & Santa Teresa Bl

Traffic Node Number : 3094

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
PDC12-028 RES (3-14681) Residential	0	0	0	0	0	5	2	2	0	0	5	0
ISTAR MIXED-USE												
PDC99-053 (3-13970) LEGACY	0	0	67	94	0	0	0	539	0	17	137	24
CISCO NORTH COYOTE VALLEY												
TOTAL:	0	25	183	214	5	39	130	1465	0	44	363	58

	LEFT	THRU	RIGHT
NORTH	214	5	39
EAST	44	363	58
SOUTH	0	25	183
WEST	130	1465	0

PM PROJECT TRIPS

08/22/2019

Intersection of : Cottle Rd & Santa Teresa Bl

Traffix Node Number : 3094

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
EDENVALE1 Office/Industrial EAST OF 101, NORTH OF SILVER CREEK VALLEY RD EDENVALE ZONE 1	0	0	0	0	6	43	4	0	0	0	0	0
EDENVALE2 Office/Industrial W/O 101, BOUNDED BY COTTLE RD, SANTA TERESA AND EDENVALE ZONE 2	0	0	1	10	1	11	1	25	0	18	233	47
EDENVALE3-4 Office/Industrial EAST OF 101, SOUTH OF SILVER CREEK VALLEY RD EDENVALE ZONE 3&4	0	0	0	0	6	42	4	5	0	7	49	0
EDENVALE3-4POOL Office/Industrial EAST OF 101, SOUTH OF SILVER CREEK VALLEY RD EDENVALE AREA 3-4 POOL	0	0	0	0	0	4	0	0	0	1	6	0
HITACHI CREDIT (3-14641) Office/Industrial 5600 COTTLE RD HITACHI CREDIT	0	3	0	9	9	40	7	8	0	0	0	0
NORTH COYOTE Office/Industrial NORTH COYOTE VALLEY NORTH COYOTE VALLEY CAMPUS INDUSTRIAL	0	0	20	10	0	0	0	120	0	80	483	40
PDC04-100R&D (3-14681) Office/Industrial ROUTE 85/GREAT OAKS ISTAR - R&D PORTION	0	0	1	3	0	0	0	14	0	9	121	28

PM PROJECT TRIPS

08/22/2019

Intersection of : Cottle Rd & Santa Teresa Bl

Traffic Node Number : 3094

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
PDC12-028 RES (3-14681) Residential	0	0	0	0	0	2	5	5	0	0	2	0

ISTAR MIXED-USE												
PDC99-053 (3-13970) LEGACY	0	0	7	10	0	0	0	58	0	67	533	93

CISCO NORTH COYOTE VALLEY												
TOTAL:	0	3	29	42	22	142	21	235	0	182	1427	208

	LEFT	THRU	RIGHT
NORTH	42	22	142
EAST	182	1427	208
SOUTH	0	3	29
WEST	21	235	0

AM PROJECT TRIPS

08/22/2019

Intersection of : Camino Verde Dr & Santa Teresa Bl

Traffic Node Number : 3374

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
EDENVALE2 Office/Industrial W/O 101, BOUNDED BY COTTLE RD, SANTA TERESA AND EDENVALE ZONE 2	0	0	0	0	0	0	0	303	0	0	79	0
EDENVALE3-4 Office/Industrial EAST OF 101, SOUTH OF SILVER CREEK VALLEY RD EDENVALE ZONE 3&4	0	0	0	0	0	0	0	57	0	0	14	0
EDENVALE3-4POOL Office/Industrial EAST OF 101, SOUTH OF SILVER CREEK VALLEY RD EDENVALE AREA 3-4 POOL	0	0	0	0	0	0	0	6	0	0	1	0
NORTH COYOTE Office/Industrial NORTH COYOTE VALLEY NORTH COYOTE VALLEY CAMPUS INDUSTRIAL	0	0	0	0	0	0	0	604	0	0	151	0
TOTAL:	0	0	0	0	0	0	0	970	0	0	245	0

	LEFT	THRU	RIGHT
NORTH	0	0	0
EAST	0	245	0
SOUTH	0	0	0
WEST	0	970	0

PM PROJECT TRIPS

08/22/2019

Intersection of : Camino Verde Dr & Santa Teresa Bl

Traffic Node Number : 3374

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
EDENVALE2 Office/Industrial W/O 101, BOUNDED BY COTTLE RD, SANTA TERESA AND EDENVALE ZONE 2	0	0	0	0	0	0	0	38	0	0	299	0
EDENVALE3-4 Office/Industrial EAST OF 101, SOUTH OF SILVER CREEK VALLEY RD EDENVALE ZONE 3&4	0	0	0	0	0	0	0	6	0	0	57	0
EDENVALE3-4POOL Office/Industrial EAST OF 101, SOUTH OF SILVER CREEK VALLEY RD EDENVALE AREA 3-4 POOL	0	0	0	0	0	0	0	0	0	0	6	0
NORTH COYOTE Office/Industrial NORTH COYOTE VALLEY NORTH COYOTE VALLEY CAMPUS INDUSTRIAL	0	0	0	0	0	0	0	151	0	0	604	0
TOTAL:	0	0	0	0	0	0	0	195	0	0	966	0

	LEFT	THRU	RIGHT
NORTH	0	0	0
EAST	0	966	0
SOUTH	0	0	0
WEST	0	195	0

Appendix D

VMT Evaluation Tool Output

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

PROJECT:

Name: 6211 Santa Teresa Boulevard	Tool Version: 2/29/2019
Location: 6211 Santa Teresa Boulevard	Date: 1/6/2020
Parcel: 70401007	Parcel Type: Suburb with Single-Family Homes
Proposed Parking Spaces	Vehicles: 7 Bicycles: 1

LAND USE:

Residential:	Percent of All Residential Units		
Single Family 0 DU	Extremely Low Income (≤ 30% MFI)	0 % Affordable	
Multi Family 0 DU	Very Low Income (> 30% MFI, ≤ 50% MFI)	0 % Affordable	
<u>Subtotal</u> 0 DU	Low Income (> 50% MFI, ≤ 80% MFI)	0 % Affordable	
Office: 0 KSF			
Retail: 3 KSF			
Industrial: 0 KSF			

VMT REDUCTION STRATEGIES

Tier 1 - Project Characteristics

Increase Residential Density	
Existing Density (DU/Residential Acres in half-mile buffer)	7
With Project Density (DU/Residential Acres in half-mile buffer)	7
Increase Development Diversity	
Existing Activity Mix Index	0.45
With Project Activity Mix Index	0.46
Integrate Affordable and Below Market Rate	
Extremely Low Income BMR units	0 %
Very Low Income BMR units	0 %
Low Income BMR units	0 %
Increase Employment Density	
Existing Density (Jobs/Commercial Acres in half-mile buffer)	18
With Project Density (Jobs/Commercial Acres in half-mile buffer)	18

Tier 2 - Multimodal Infrastructure

Tier 3 - Parking

Tier 4 - TDM Programs

Appendix E

Trip Generation Letter

June 27, 2019

Trenton Wilson
Analytical Environmental Services
1801 7th Street, Ste 100
Sacramento, CA 95811

Re: Trip Generation Analysis for the Proposed 7-11 at 6211 Santa Teresa Boulevard in the City of San Jose

This report presents the results of a trip generation analysis of the proposed proposed 7-11 project at 6211 Santa Teresa Boulevard in the City of San Jose. The site plan for the proposed project is shown in the attached **Figure 1**. The proposed project involves construction of a 3,056 square foot 7-11 convenience market and a fueling canopy with 8 fueling stations.

PROJECT TRIP GENERATION

Trip Generation Calculations Based on Institute of Transportation Engineers (ITE) Rates -

The trip generation rates for the proposed project are based on the Institute of Transportation Engineers rates for a Convenience Market with Gasoline Pumps (ITE Land Use Code 853) taken from the 10th Edition of the ITE Trip Generation Manual. The trip generation at the existing service station on the site was based on traffic counts of all driveways to the service station conducted on Wednesday, June 26, 2019.

Please note a “trip” is defined in ITE’s Trip Generation publication as a single or one-directional vehicular movement with either the origin or destination at the project sites. As a result, a trip can be either “to” or “from” the site. Consistently, a single visit to a site is counted as two trips (i.e., one to and one from the site). For the purposes of determining the reasonable worst-case impacts of traffic on the surrounding street network from a proposed project, the trips generated by this proposed development are estimated for the peak commute hours which represent the peak hours of “*adjacent street traffic*”. This is the time period when the project traffic would generally contribute to the greatest amount of congestion. Please note the trip generation has been reduced to account for pass-by trips as specified for this land use in the ITE Trip Generation Handbook.¹ These are vehicle trips that are already in the adjacent traffic stream and are not counted as new trips to the area. As shown in **Table 1**, the project is forecast to generate an increase of 181 trips per day with about 25 new vehicle trips added during the AM peak hour and 36 trips added during the PM peak hour.

¹ *Trip Generation Handbook – 3rd Edition*, Institute of Transportation Engineers, Washington, D.C., September, 2017.

Table 1
Project Trip Generation Calculations Based on the ITE Rates

Land Use	ITE Code	Size	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Convenience Market with Gasoline Pumps Trip Rates (trips per 1,000 sq. ft.)	853		624.20	20.30	20.30	40.59	24.65	24.65	49.29
Unadjusted 7-11 Trip Generation		3,056 sq. ft.	1,908	62	62	124	76	75	151
Pass-By Traffic Reduction (66%)			1,259	41	41	82	50	49	99
<i>Proposed Project Trip Generation</i>			<i>649</i>	<i>21</i>	<i>21</i>	<i>42</i>	<i>26</i>	<i>26</i>	<i>52</i>
Existing Service Station Driveway Counts (Counts Conducted 6/27/19)			1,376	23	26	49	21	26	47
Pass-By Traffic Reduction (66%)			908	15	17	32	14	17	31
<i>Existing Service Station Trip Generation</i>			<i>468</i>	<i>8</i>	<i>9</i>	<i>17</i>	<i>7</i>	<i>9</i>	<i>16</i>
<i>Net New Trip Generation from the Project</i>			<i>181</i>	<i>13</i>	<i>12</i>	<i>25</i>	<i>19</i>	<i>17</i>	<i>36</i>

Source: ITE Trip Generation, 10th Edition, 2018.

Notes: ¹ The average daily traffic was estimated using the ITE service station rates.

CONCLUSIONS

The proposed 7-11 project would not change the number of fueling stations but would involve construction of a larger convenience market. Recent traffic counts conducted at the site indicate the existing service station is under utilized. The traffic counts at the driveways verified that during the AM peak hour the proposed project would generate about 25 trips more than the existing service station on the surrounding roadway system. During the PM peak hour the proposed project is forecast to generate about 36 trips more than the existing service station.

Please don't hesitate to contact me if you have any questions or need additional information.

Sincerely,

A handwritten signature in black ink that reads "Stephen Abrams". The signature is written in a cursive, flowing style.

Stephen C. Abrams
President, Abrams Associates
T.E. License No. 1852

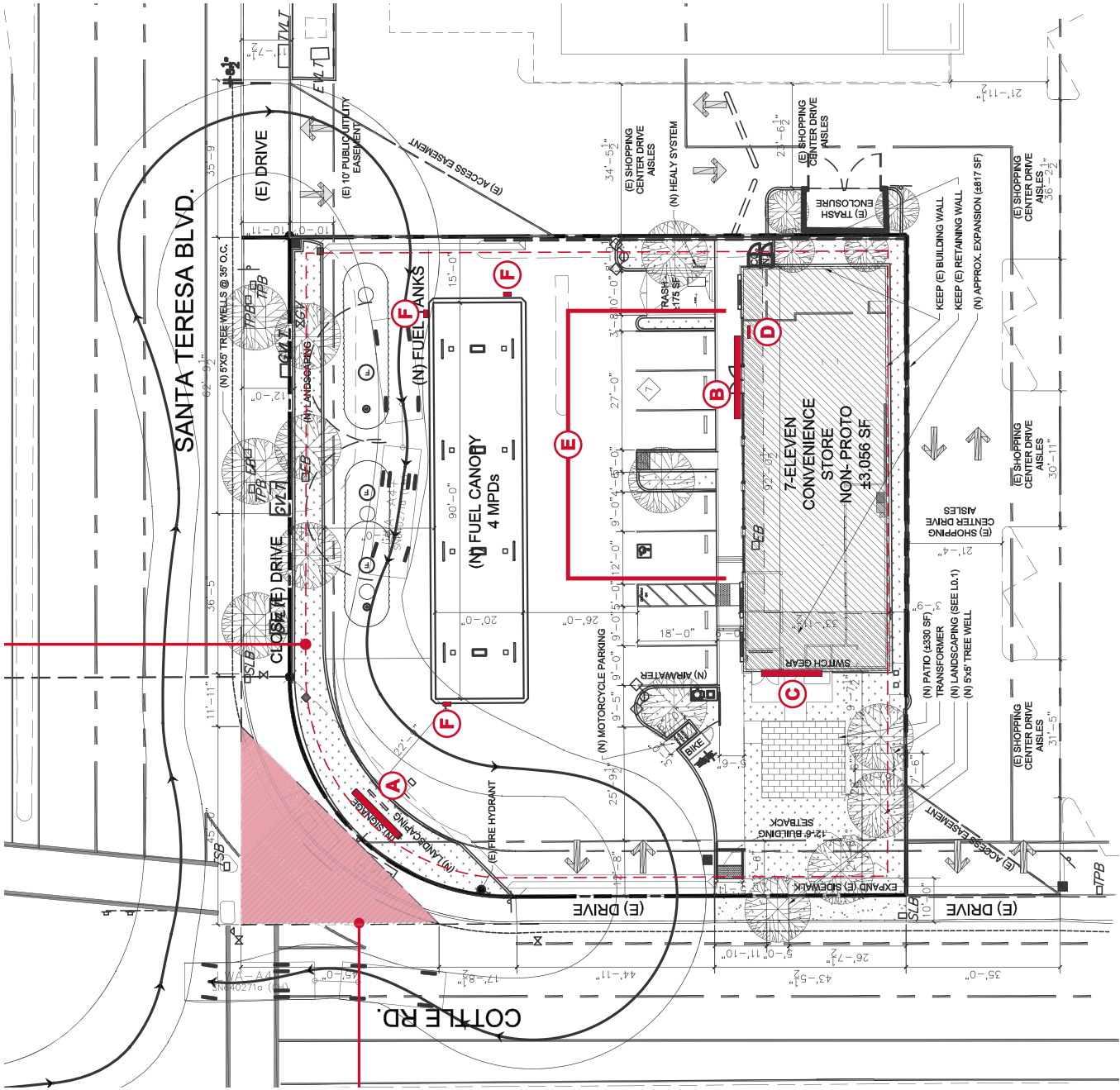


FIGURE 1 | SITE PLAN
 TRIP GENERATION ANALYSIS
 Proposed 7-11
 City of San Jose