APPENDIX G

LOCAL TRANSPORTATION ANALYSIS

Hexagon Transportation Consultants, Inc.

1510 S. De Anza Boulevard Hotel

Transportation Analysis

Prepared for:

NSHD 100, LLC

June 2, 2020

Hexagon Transportation Consultants, Inc.
Hexagon Office: 4 North Second Street, Suite 400
San Jose, CA 95113
Hexagon Job Number: 19BJ19
Phone: 408.971.6100
Client: NSHD 100, LLC

Table of Contents

Appendices

List of Tables

List of Figures

Executive Summary

This report presents the results of the transportation analysis conducted for a proposed hotel at 1510 S De Anza Boulevard in San Jose, California. The project would demolish a vacant paint store building and construct a 4-story hotel with up to 135 guest rooms. The hotel would include a 2,693 square foot (s.f.) restaurant and a 1,968 s.f. lounge on the ground floor. The project would provide two levels of underground parking. Vehicular access to the porte-cochere and hotel check-in area would be provided via one inbound only driveway on Sharon Drive. A second inbound only driveway on Sharon Drive would provide direct vehicular access to the underground parking garage and inbound truck access to the perimeter drive aisle. All hotel guest vehicles parked on-site, as well as trucks, would exit the site via a right-turn only driveway on S De Anza Boulevard.

This study was conducted for the purpose of identifying the potential transportation impacts and operational issues related to the proposed hotel development. The transportation impacts of the project were evaluated following the standards and methodologies established by the Cities of San Jose, Cupertino and Saratoga. Based on the City of San Jose's Transportation Analysis Policy (Council Policy 5-1) and the *Transportation Analysis Handbook* (adopted in April 2018), the study includes a California Environmental Quality Act (CEQA) transportation analysis (TA) and a local transportation analysis (LTA).

The CEQA transportation analysis comprises an evaluation of Vehicle Miles Traveled (VMT) and a Level of Service (LOS) analysis for intersections located in the Cities of Cupertino and Saratoga. VMT is defined in Chapter 1 of this report. The LTA supplements the CEQA transportation analysis by identifying transportation operational issues via an evaluation of weekday AM and PM peak hour traffic conditions for intersections. The LTA also includes an analysis of site access, on-site circulation, parking, vehicle queuing, and effects to transit, bicycle, and pedestrian facilities.

Project Vehicle Miles Traveled (VMT) Analysis

The proposed project consists of a hotel. Since the City has not established thresholds of significance for hotels, the project cannot be evaluated directly using the City's VMT Evaluation Tool. Accordingly, based on direction from the City staff, the VMT analysis for the proposed project was conducted by converting the hotel project trip generation estimates to an equivalent retail square footage to obtain project VMT. This is a reasonable approach to VMT analysis, since hotels exhibit similar vehicle mode share characteristics, travel patterns and trip length characteristics to that of local retail uses (e.g., both uses typically serve nearby local businesses and residents). Note also that since there are 25 existing hotels within a 5-mile radius of the project site, it is expected that the hotel project would generate mostly localized traffic. Based on the conversion process, a 135-room hotel would generate daily trips equivalent to 43,700 square feet of retail space. This relatively small amount of retail space meets the screening criteria set forth in the *Transportation Analysis Handbook*. Since the project would meet the screening criteria, no VMT analysis is required.

Project Trip Generation

After applying the ITE trip rates for Hotel and a 13 percent mode-share trip reduction, the proposed project would generate 1,436 new daily vehicle trips, with 73 new trips occurring during the AM peak hour and 86 new trips occurring during the PM peak hour.

Intersection Traffic Operations

Based on the City of Cupertino and Saratoga 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, bicycle or transit facilities in the study area. Below are recommendations resulting from the site plan review.

Recommendations

- Install “Right Turn Only” signage at the port-cochere exit and “Not an Exit” signage at the eastern Sharon Drive driveway to prohibit outbound movements at the driveway.
- Add a timed (short-term) parking zone between the two project driveways on Sharon Drive for pick-up/drop-off of hotel guests. The curb would need to be painted the appropriate color and the time limit specified via signage and/or on the curb.
- Provide garage ramp slopes of no greater than a 20 percent grade with transition grades of half the maximum grade (10 percent or less at the top and bottom of the ramps) to meet the recommended engineering design standards.
- Install convex mirrors at the ramp curves to assist drivers with blind turns within the parking garage.
- Provide additional width (door space) for any parking stall situated adjacent to a wall. Alternatively, these stalls could be labeled “compact”.
- Provide a City standard ADA compliant curb ramp with truncated domes at the southeast corner of S De Anza Boulevard and Sharon Drive.
- Coordinate with Santa Clara VTA to determine the future bus stop location and what fair share bus stop improvements should be implemented by the project.

1. Introduction

This report presents the results of the transportation analysis conducted for a proposed hotel at 1510 S De Anza Boulevard in San Jose, California (see Figure 1). The project would demolish a vacant paint store building and construct a 4-story hotel with up to 135 guest rooms. The hotel would include a 2,693 square foot (s.f.) restaurant and a 1,968 s.f. lounge on the ground floor. The project would provide two levels of underground parking. Vehicular access to the porte-cochere and hotel check-in area would be provided via one inbound only driveway on Sharon Drive. A second inbound only driveway on Sharon Drive would provide direct vehicular access to the underground parking garage and inbound truck access to the perimeter drive aisle. All hotel guest vehicles parked on-site, as well as trucks, would exit the site via a right-turn only driveway on S De Anza Boulevard. The project site plan is shown on Figure 2.

This study was conducted for the purpose of identifying the potential transportation impacts and operational issues related to the proposed hotel development. The transportation impacts of the project were evaluated following the standards and methodologies established in the City of San Jose's *Transportation Analysis Handbook,* adopted in April 2018. Based on the City of San Jose's Transportation Analysis Policy (Council Policy 5-1) and the *Transportation Analysis Handbook,* the study includes a California Environmental Quality Act (CEQA) transportation analysis (TA) and a local transportation analysis (LTA).

Transportation Policies

In adherence 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 CEQA based on vehicle miles traveled (VMT) instead of intersection level 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. Council Policy 5-1 requires all projects to analyze transportation impacts using the VMT metric.

The new Transportation Analysis Policy 5-1, which took effect on March 29, 2018, 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.

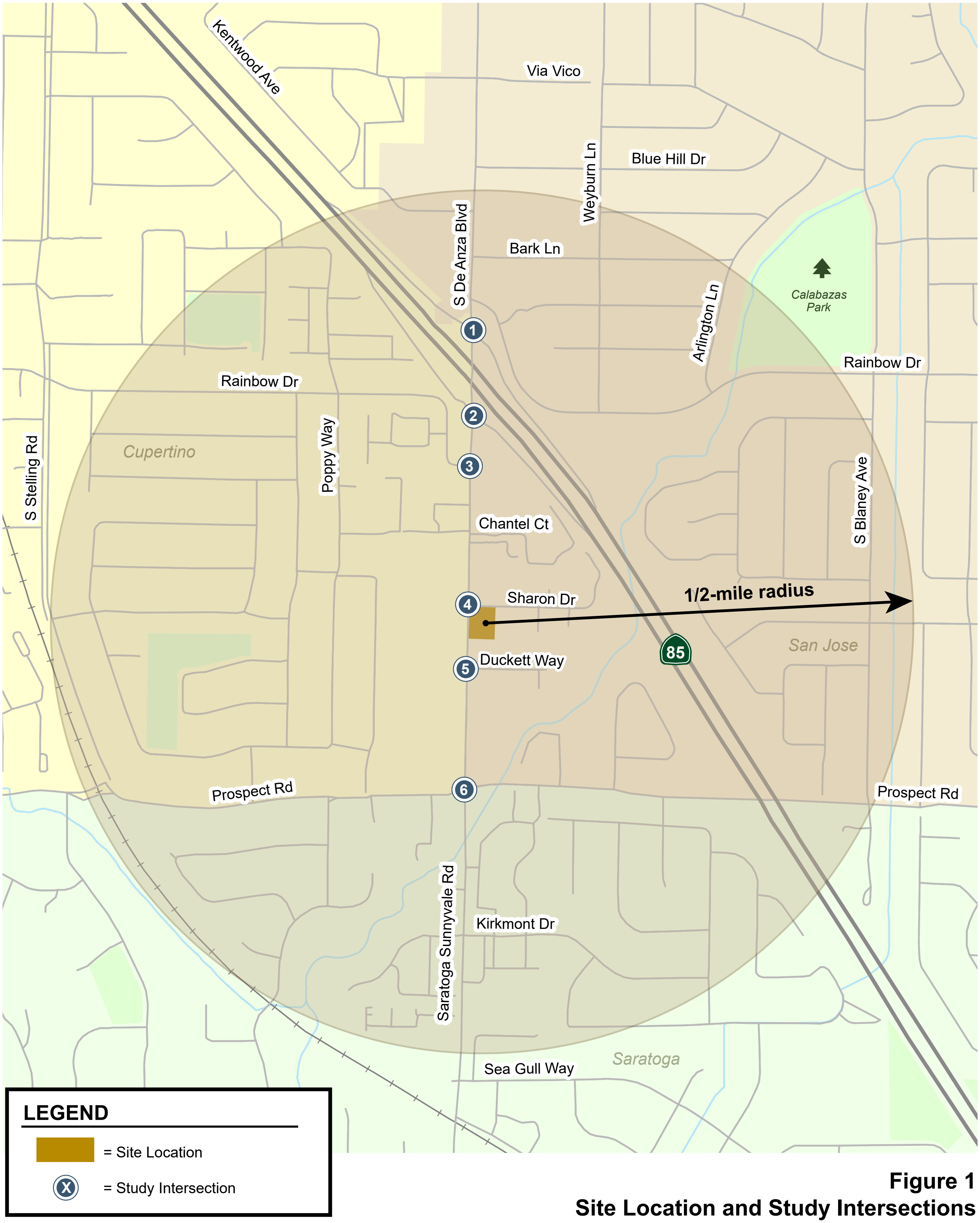


Figure 1
Site Location and Study Intersections

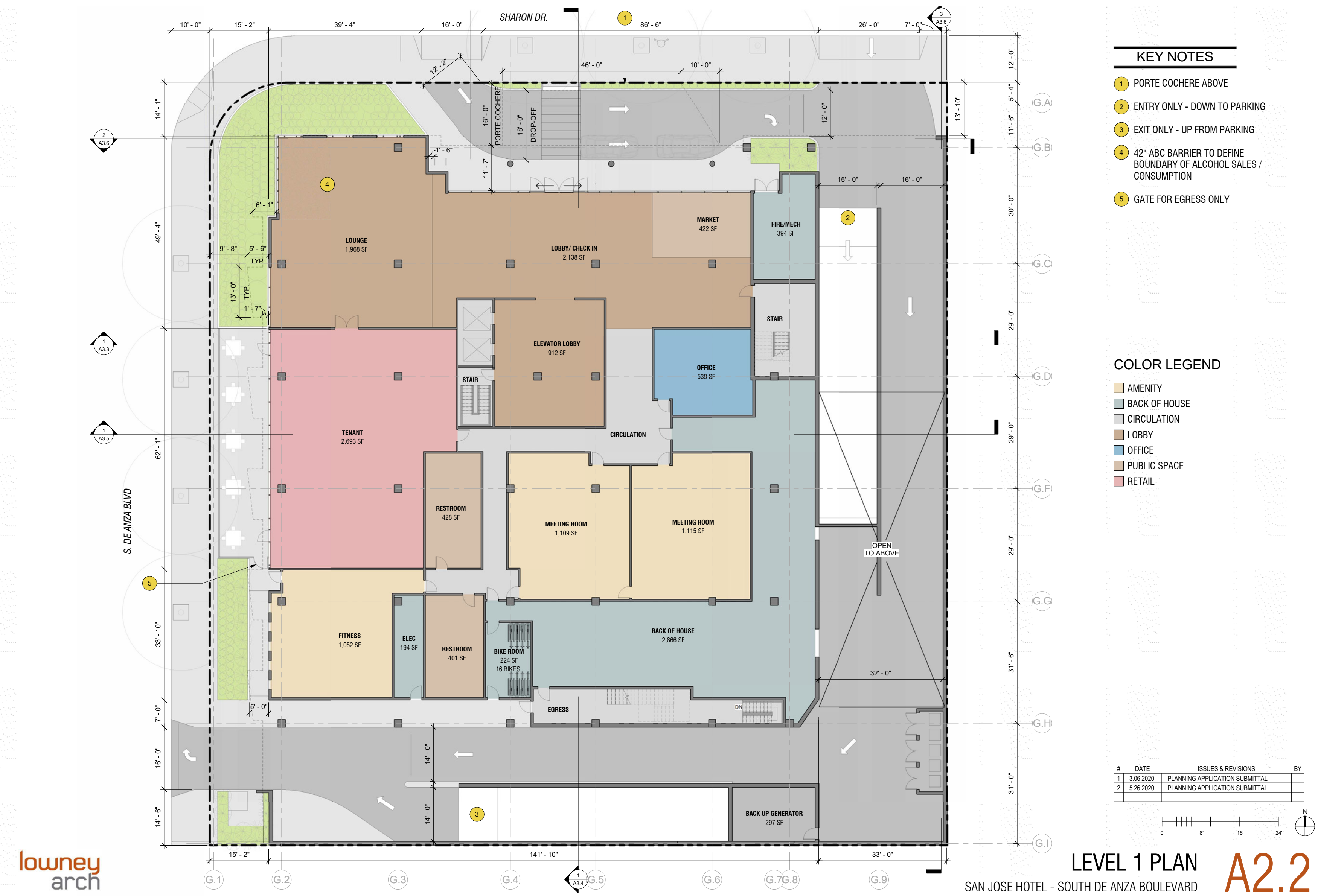


Figure 2
Site Plan

The Envision San Jose 2040 General Plan contains policies to encourage the use of non-automobile transportation modes to minimize vehicle trip generation and reduce VMT, including the following:

- 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);
- Increase substantially the proportion of commute travel using modes other than the single-occupant vehicle in order to meet the City's mode split targets for San Jose residents and workers (TR-1.3);
- 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);
- Actively coordinate with regional transportation, land use planning, and transit agencies to develop a transportation network with complementary land uses that encourage travel by bicycling, walking and transit, and ensure that regional greenhouse gas emissions standards are met (TR-1.8);
- Give priority to the funding of multimodal projects that provide the most benefit to all users. Evaluate new transportation projects to make the most efficient use of transportation resources and capacity (TR-1.9);
- Coordinate the planning and implementation of citywide bicycle and pedestrian facilities and supporting infrastructure. Give priority to bicycle and pedestrian safety and access improvements at street crossings and near areas with higher pedestrian concentrations (school, transit, shopping, hospital, and mixed-use areas) (TR-2.1);
- Provide a continuous pedestrian and bicycle system to enhance connectivity throughout the City by completing missing segments. Eliminate or minimize physical obstacles and barriers that impede pedestrian and bicycle movement on City streets. Include consideration of grade-separated crossings at railroad tracks and freeways. Provide safe bicycle and pedestrian connections to all facilities regularly accessed by the public, including the Mineta San Jose International Airport (TR-2.2);
- Integrate the financing, design and construction of pedestrian and bicycle facilities with street projects. Build pedestrian and bicycle improvements at the same time as improvements for vehicular circulation (TR-2.5);
- 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);
- Coordinate and collaborate with local School Districts to provide enhanced, safer bicycle and pedestrian connections to school facilities throughout San Jose (TR-2.10);
- 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);

- Support the development of amenities and land use and development types and intensities that increase daily ridership on the VTA, BART, Caltrain, ACE and Amtrak California systems and provide positive fiscal, economic, and environmental benefits to the community (TR-4.1);
- Require large employers to develop and maintain TDM programs to reduce the vehicle trips generated by their employees (TR-7.1);
- Promote transit-oriented development with reduced parking requirements and promote amenities around appropriate transit hubs and stations to facilitate the use of available transit services (TR-8.1);
- Balance business viability and land resources by maintaining an adequate supply of parking to serve demand while avoiding excessive parking supply that encourages auto use (TR-8.2);
- Support using parking supply limitations and pricing as strategies to encourage the use of non-automobile modes (TR-8.3);
- 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);
- Allow reduced parking requirements for mixed-use developments and for developments providing shared parking or a comprehensive transportation demand management (TDM) program, or developments located near major transit hubs or within Urban Villages and other Growth Areas (TR-8.6);
- 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);
- Facilitate the development of housing close to jobs to provide residents with the opportunity to live and work in the same community (LU-10.5);
- Encourage all developers to install and maintain trails when new development occurs adjacent to a designated trail location. Use the City's Parkland Dedication Ordinance and Park Impact Ordinance to have residential developers build trails when new residential development occurs adjacent to a designated trail location, consistent with other parkland priorities. Encourage developers or property owners to enter into formal agreements with the City to maintain trails adjacent to their properties (PR-8.5).

CEQA Transportation Analysis Scope

The City of San Jose's Transportation Analysis Policy (Policy 5-1) establishes procedures for determining project impacts on Vehicle Miles Traveled (VMT) based on project description, characteristics, and/or location. VMT is the total miles of travel by personal motorized vehicles a project is expected to generate in a day. VMT measures the full distance of personal motorized vehicle-trips with one end within the project. Typically, development projects that are farther from other, complementary land uses (such as a business park far from housing) and in areas without transit or active transportation infrastructure (bike lanes, sidewalks, etc.) generate more driving than development near complementary land uses with more robust transportation options. Therefore, developments located in a central business district with high density and diversity of complementary land uses and frequent transit services are expected to internalize trips and generate shorter and fewer vehicle trips than developments located in a suburban area with low density residential developments and little to no transit options in the project vicinity.

A project's VMT is compared to the appropriate thresholds of significance based on the project location and type of development. When assessing a residential project, the project's VMT is divided by the number of residents expected to occupy the project to determine the VMT per capita. When assessing an office or industrial project, the project's VMT is divided by the number of employees to determine the VMT per employee. The project's VMT is then compared to the VMT thresholds of significance established based on the average area VMT. A project located in a downtown area is expected to have the project VMT lower than the average area VMT, while a project located in a suburban area is expected to generate project VMT higher than the average area VMT.

To determine whether a project would result in CEQA transportation impacts related to VMT, the City has developed the San Jose VMT Evaluation Tool to streamline the analysis for residential, office, industrial, and retail projects with local traffic. The tool calculates a project's VMT and compares it to the appropriate thresholds of significance based on the project location (i.e., assessor's parcel number) and type of development. The thresholds of significance for development projects, as established in the Transportation Analysis Policy, are based on the existing citywide average VMT level for residential uses and the existing regional average VMT level for employment uses. Projects located in areas where the existing VMT is above the established threshold are referred to as being in "high-VMT areas". Projects in high-VMT areas are required to include a set of VMT reduction measures that would reduce the project VMT to the extent possible. For non-residential or non-office projects, very large projects or projects that can potentially shift travel patterns, the City's Travel Demand Forecasting Model can be used to determine project VMT.

Area VMT

Based on the VMT Evaluation Tool and the project site's Assessor Parcel Number (APN), the existing VMT for employment uses in the project vicinity is 17.18 per worker. The current regional average VMT for employment uses is 14.37 per employee. Since the VMT levels of existing employment uses in the project vicinity are greater than the regional average VMT levels, the project site is considered to be located in a high-VMT area.

Project VMT Analysis Methodology

The San Jose VMT Evaluation Tool is limited to the evaluation of the general land use categories of residential, office, industrial, and retail. Therefore, the use of the VMT tool for land uses that are not reflective of one of the four general land uses, such as the proposed hotel, requires the conversion of the proposed land use to an equivalent amount of the appropriate general land use. Accordingly, based on direction from City staff, the VMT analysis was conducted by converting the hotel project trip generation estimates to an equivalent amount of retail square footage to provide an estimate of project VMT and determine whether the project would result in a significant VMT impact. This is a reasonable approach to VMT analysis for the project since hotels exhibit similar vehicle mode share characteristics, travel patterns, and trip length characteristics to that of local retail uses (e.g., both uses typically serve nearby local businesses and residents). Note also that since there are 25 existing hotels within a 5-mile radius of the project site (see Figure 3), it is expected that the hotel project would generate mostly localized traffic.

Based on the standard daily trip generation rates contained in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 10th Edition* (2017) for "Hotel" (ITE Land Use 310) and "Shopping Center" (ITE Land Use 820), a 135-room hotel is estimated to generate the same number of daily trips as 43,700 s.f. of retail space (see Table 1).

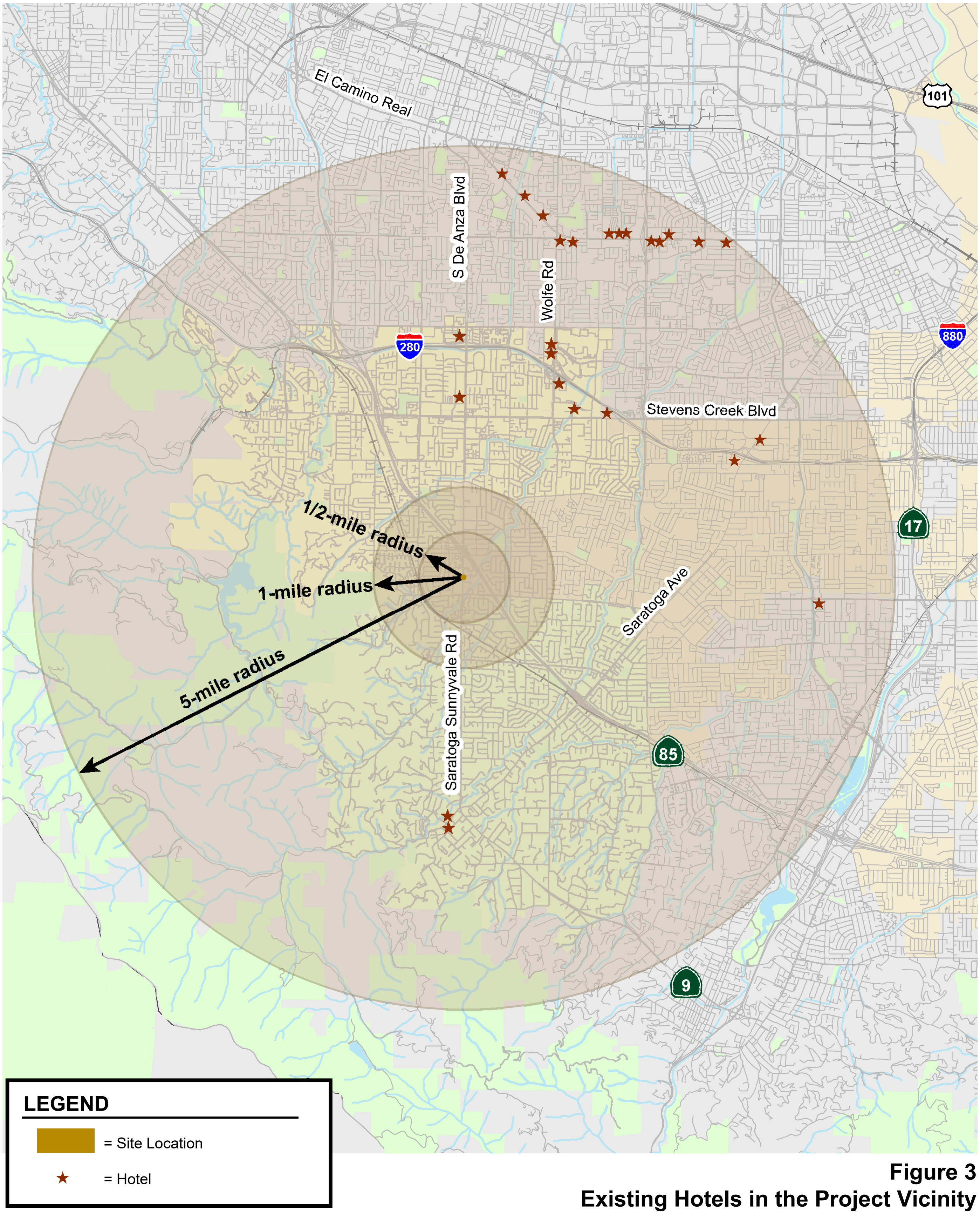


Figure 3
Existing Hotels in the Project Vicinity

NORTH
Not to Scale

Table 1
Conversion of Hotel Land Use to Equivalent Retail Land Use for VMT Analysis

Land Use	Size		Daily Trip Rate	Daily Trips
Hotel [1]	135	rooms	12.23	1,651
Retail [2]	43,700	sq.ft.	37.75	1,651

Source: ITE *Trip Generation Manual, 10th Edition*, 2017.
Notes:
1. Average daily trip rate (per occupied room) for Hotel (Land Use 310).
2. Average daily trip rate (trips/1,000 s.f.) for Shopping Center (Land Use 820).

The amount of equivalent retail space meets the screening criteria set forth in the *Transportation Analysis Handbook*, as described below.

Screening Criteria for Local-Serving Retail

- 100,000 square feet of total gross floor area or less without drive-through operations.

Since the project would meet the screening criteria, no CEQA Transportation Analysis (i.e., VMT analysis) is required. Although the project is exempt from a VMT analysis, a Local Transportation Analysis (LTA) must be prepared to identify potential operational issues that may arise due to the project, as described below.

Local Transportation Analysis Scope

A Local Transportation Analysis (LTA) was prepared to identify potential adverse operational effects that may arise due to the new development, as well as evaluate the effects of the 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 generally required to conduct an intersection LOS analysis if it 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. If a project is not expected to add a measurable number of vehicle trips to an intersection, the project would not be required to include the intersection in the operations analysis.

Based on these criteria, as outlined in the City's *Transportation Analysis Handbook,* a list of study intersections is developed. The LTA comprises an analysis of AM and PM peak hour traffic conditions for the following four (4) signalized intersections and two (2) unsignalized intersections:

Study Intersections: *

1. S De Anza Boulevard and SR 85 North Ramps (CMP)
2. S De Anza Boulevard and SR 85 South Ramps (CMP)
3. S De Anza Boulevard and Rainbow Drive
4. S De Anza Boulevard and Sharon Drive (unsignalized)
5. S De Anza Boulevard and Duckett Way (unsignalized)
6. S De Anza Boulevard and Prospect Road (CMP)

* Study intersections 1 through 5 are under the jurisdiction of the City of Cupertino and study intersection 6 is under the City of Saratoga's jurisdiction.

Traffic conditions at the study intersections were analyzed for the weekday AM and PM peak hours. The weekday AM peak hour is generally between 7:00 and 9:00 AM and the weekday PM peak hour is typically between 4:00 and 6:00 PM. It is during these periods that the most congested traffic conditions occur on a typical weekday. Traffic conditions were evaluated for the following scenarios:

- ***Existing Conditions.*** Existing AM and PM peak hour traffic volumes for the signalized study intersections were obtained from the 2018 CMP Annual Monitoring Report (December 2018 PM counts for the three CMP intersections) and manual turning-movement counts conducted in late 2017 and in 2018. All 2017 and 2018 counts at the signalized intersections were used in previous traffic studies. The two unsignalized study intersections were counted during the AM and PM peak hours in February 2019 (see Appendix A). The signalized study intersections were evaluated with a level of service analysis using TRAFFIX software in accordance with the *2000 Highway Capacity Manual* methodology.

- ***Background Conditions*****.** Background traffic volumes were estimated by adding to existing peak hour volumes the projected volumes from approved but not yet completed or occupied developments. The locations of the approved developments were provided by the City of San Jose. Trips associated with the approved developments were either estimated or obtained from traffic studies. City of Cupertino and City of Saratoga staff have confirmed that there are no approved developments in the study area that would add trips to the study intersections. Background conditions represent the baseline conditions to which project conditions are compared for the purpose of determining potential 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 trips generated by the project.

- ***Cumulative Conditions.*** Cumulative no project traffic volumes account for approved but not yet completed developments plus other pending developments in the study area. For the purpose of this study, cumlative no project traffic volumes include traffic generated by the following nearby pending projects: 7201 Bark Lane (PDC17-035), 7285 Bark Lane (H16-040), and 1090 S De Anza Boulevard (H16-032). 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 is provided for informational purposes at the request of the City of San Jose.

The LTA also includes an analysis of site access, on-site circulation, vehicle queuing, and effects to transit, bicycle, and pedestrian facilities.

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 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
- intersection lane configurations
- signal timing and phasing
- a list of approved and pending projects

Analysis Methodologies and Level of Service Standards

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 methods are described below.

Signalized Intersections

Although the project site is located in the City of San Jose, three of the four signalized study intersections are under the jurisdiction of the City of Cupertino and one is under the jurisdiction of the City of Saratoga. The signalized study intersections were, therefore, evaluated based on the Cities of Cupertino and Saratoga level of service standards. The Cities of Cupertino and Saratoga level of service methodology for signalized intersection is the *2000 Highway Capacity Manual* (HCM) method. This method is applied using the TRAFFIX software. The 2000 HCM operations method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. Since TRAFFIX is also the CMP-designated intersection level of service methodology, the Cities of Cupertino and Saratoga methodology employ the CMP default values for the analysis parameters.

The City of Cupertino level of service standard is LOS D or better for most signalized intersections, including the three City of Cupertino signalized intersections that were evaluated in this traffic study. The City of Saratoga level of service standard is LOS D or better at all non-CMP signalized intersections and LOS E or better for all CMP intersections within the City. Note that the intersection of S De Anza Boulevard and Prospect Road is a CMP designated intersection and is the only study intersection located in the City of Saratoga. The correlation between average control delay and level of service at signalized intersections is shown in Table 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 Cities of Cupertino and Saratoga have not defined a policy related to queuing. Vehicle queues were estimated using a Poisson probability distribution, which estimates the probability of “n” vehicles for a vehicle movement using the following formula:

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

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 for a particular left-turn 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 left-turn movement. This analysis thus provides a basis for estimating future turn pocket storage requirements at intersections.

Table 2
Signalized Intersection Level of Service Definitions Based on Control Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	up to 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.1 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths.	Greater than 80.0

Source: Transportation Research Board, *2010 Highway Capacity Manual,* (Washington, D.C., 2010).

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 larger than the 95th percentile queue would only occur on 5 percent of the signal cycles (about 3 cycles during the peak hour for a signal with a 60-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 are evaluated based on the delay experienced at the specific study turn movement.

Freeway Segments

According to CMP guidelines, an analysis of freeway segment levels of service is only required if a project is estimated to add trips to a freeway segment equal to or greater than one percent of the capacity of that segment. Since the number of project trips added to the freeways in the area is estimated to be well below the one percent threshold, a detailed analysis of freeway segment levels of service was not performed. A simple freeway segment capacity evaluation to substantiate this determination is presented below in Table 3.

Table 3
Freeway Segment Capacity Evaluation

Freeway	Segment			Direction	Peak Hour	Mixed-Flow Lanes Capacity (vph) [1]	1% of Mixed-Flow Capacity	HOV Lane Capacity (vph) [1]	1% of HOV Capacity	Mixed-Flow Lanes Project Trips	HOV Lane Project Trips	1% or More of Capacity?
SR 85	Saratoga Av	to	De Anza Bl	NB	AM	4400	44	1800	18	7	2	NO
					PM	4400	44	1800	18	7	2	NO
SR 85	De Anza Bl	to	Stevens Crk	NB	AM	4400	44	1800	18	9	2	NO
					PM	4400	44	1800	18	12	3	NO
SR 85	Stevens Crk	to	De Anza Bl	SB	AM	4400	44	1800	18	12	3	NO
					PM	4400	44	1800	18	12	3	NO
SR 85	De Anza Bl	to	Saratoga Av	SB	AM	4400	44	1800	18	5	1	NO
					PM	4400	44	1800	18	7	2	NO

Notes:
[1] Capacity based on the ideal capacity cited in the *2000 Highway Capacity Manual.*

Significant Impact Criteria

Significance criteria are used to establish what constitutes an impact. Note that unlike the City of San Jose, the Cities of Cupertino and Saratoga have not yet adopted VMT thresholds for use in determining significant transportation impacts under CEQA. The Cities of Cupertino and Saratoga are still using intersection level of service (LOS) to determine significant impacts under CEQA. Therefore, for the purposes of this study, the criteria used to determine significant impacts on signalized intersections are based on the level of service standards for the Cities of Cupertino and Saratoga.

City of Cupertino Definition of Significant Intersection Impacts

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

1. The level of service at the intersection degrades from an acceptable level (LOS D or better) under background conditions to an unacceptable level (LOS E or F) when project generated traffic is added, or
2. The level of service at the intersection is an unacceptable level (LOS E or F) under background conditions and the addition of project trips causes 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 criterion 2 above applies when the addition of project traffic reduces the amount of average delay for critical movements (i.e., the change in average delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by 0.01 or more.

City of Saratoga Definition of Significant Intersection Impacts

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

1. The level of service at the intersection degrades from an acceptable level (LOS D or better for non-CMP intersections and LOS E or better for CMP intersections) under background conditions to an unacceptable LOS E or F when project generated traffic is added, or

2. The level of service at the intersection is an unacceptable level (LOS E or F at non-CMP intersections and LOS F at CMP intersections) under background conditions and the addition of project trips causes 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 criterion 2 above applies when the addition of project traffic reduces the amount of average delay for critical movements (i.e. the change in average delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by .01 or more.

Report Organization

This report has a total of four chapters. Chapter 2 describes existing transportation conditions including the existing roadway network, transit service, and bicycle and pedestrian facilities. Chapter 3 describes the local transportation analysis including operations of study intersections, the methods used to estimate project-generated traffic, the project's effects on the transportation system, and an analysis of other transportation issues including site access and circulation, parking, transit services, bicycle and pedestrian facilities, and vehicle queuing. Chapter 4 presents the conclusions of the transportation analysis.

2. Existing Transportation Conditions

This chapter describes the existing conditions of the transportation system within the study area of the project. It describes transportation facilities in the vicinity of the project site, including the roadway network, transit service, and pedestrian and bicycle facilities. The analysis of existing intersection operations is included as part of the Local Transportation Analysis (see Chapter 3).

Existing Roadway Network

Regional access to the project site is provided via State Route 85. Local access to the project site is provided via De Anza Boulevard, Prospect Road and Sharon Drive. These facilities are described below.

SR 85 is a state highway which extends from south San Jose to Mountain View in the north. SR 85 is six lanes wide in the vicinity of the site. SR 85 provides access to the site via its interchange at S De Anza Boulevard.

De Anza Boulevard is a north-south arterial street with striped bike lanes extending from Homestead Road in Cupertino to Prospect Road in San Jose, where it becomes Saratoga-Sunnyvale Road. De Anza Boulevard is a six-lane roadway with a raised center median and left-turn pockets provided at intersections, and is designated as a Grand Boulevard in the Envision San Jose 2040 General Plan. The City of San Jose identifies Grand Boulevards as roadways serving major corridors that tie land use with major transportation facilities. De Anza Boulevard has a posted speed limit of 40 mph and has sidewalks on both sides of the street. Vehicle access to the site from De Anza Boulevard is provided via Sharon Drive.

Prospect Road is an east-west four-lane roadway with striped bike lanes that extends from Saratoga Avenue west to the Fremont Older Open Space Preserve. East of Saratoga Avenue, Prospect Road splits and transitions into Campbell Avenue and Hamilton Avenue. Some segments of Prospect Road east of Saratoga-Sunnyvale Road are divided, while others are undivided with a shared two-way center left-turn lane. Prospect Road provides access to the site via De Anza Boulevard.

Sharon Drive is a short local street that serves mostly residential uses. It extends eastward from De Anza Boulevard to where it cul-de-sacs on the west side of SR 85. Sharon Drive would provide direct access to the parking garage that would serve the project.

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 bicycle, pedestrian and transit facilities in the study area are described below.

Existing Pedestrian Facilities

A complete network of sidewalks and crosswalks is found along the roadways in the study area. Note, however, that small segments of sidewalk are missing near the project site as described below:

- 200 feet along the north side of Sharon Drive directly across from the project site, and
- 200 feet along the west side of S De Anza Boulevard, just south of Rainbow Drive (approximately 800 feet north of the project site).

Crosswalks with pedestrian signal heads are located at all the signalized intersections in the study area. The existing pedestrian facilities provide good connectivity between the project site and the surrounding land uses and transit stops in the study area.

Existing Bicycle Facilities

In the project area, Class II striped bike lanes are present on S De Anza Boulevard, Rainbow Drive, Prospect Road, and Stelling Road. A Class III bike route with shared lane markings, or Sharrows, is present on South Blaney Avenue (see Figure 4).

Existing Transit Services

Existing bus service in the project area is provided by the Santa Clara Valley Transportation Authority (VTA). The project site is served directly by local bus route 51 (see Figure 5). Local Route 51 operates on weekdays only between the West Valley College Transit Center and the Moffett Field/Ames Research Center. Local Route 51 provides weekday service between 6:15 AM and 7:30 PM with approximately 30- to 60-minute headways during the AM and PM peak commute hours, depending on the direction of travel during the peak commute hours. Because there is only one bus route serving the study area with relatively infrequent service, the area is not well served by transit.

Existing Intersection Lane Configurations

The existing lane configurations at the study intersections were determined by observations in the field and are shown on Figure 6.

Observed Existing Traffic Conditions

Traffic conditions were observed in the field in May of 2019 to identify any existing operational deficiencies. Overall, the study intersections operated well. However, field observations revealed that some minor operational problems currently occur as described below.

AM Peak Hour

During the AM peak hour, the northbound direction of traffic on De Anza Boulevard is the peak direction. Because of the close spacing of the signalized intersections of Rainbow Drive and the SR 85 freeway ramps, the northbound vehicle queue occasionally backs up from the SR 85 ramps past Chantel Court. As a result, vehicles entering northbound De Anza Boulevard from the side streets experience some delay. However, the northbound vehicle queue on De Anza Boulevard dissipates quickly and does not cause excessive vehicle delay at the intersections.

During the AM peak hour, the northbound left-turn lane fills up quickly at the intersection of S De Anza Boulevard and Prospect Road. However, the green time for this movement is sufficiently long to allow the northbound left-turn vehicle queue to clear in one signal cycle.

Figure 4
Existing Bicycle Facilities

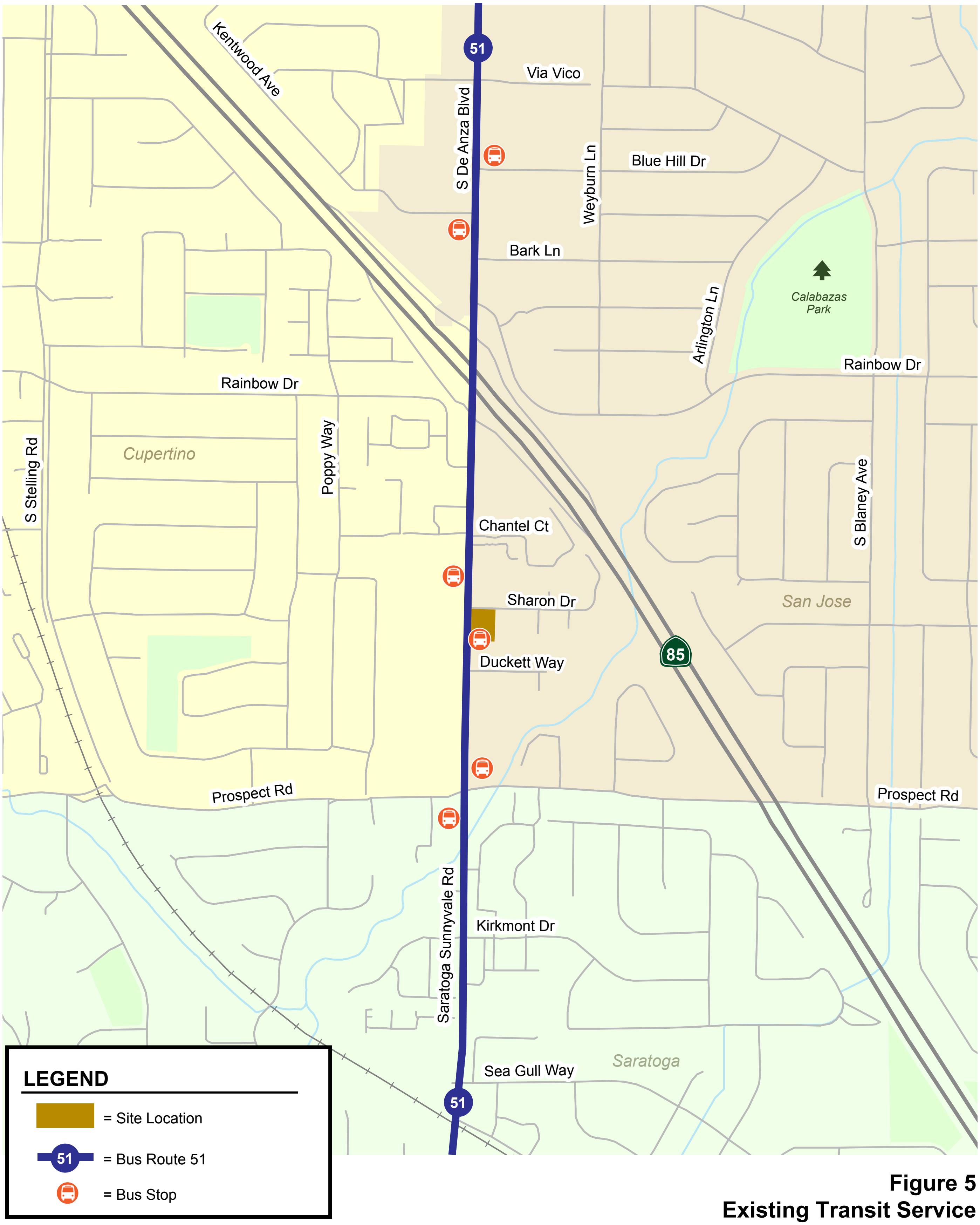


Figure 5
Existing Transit Service

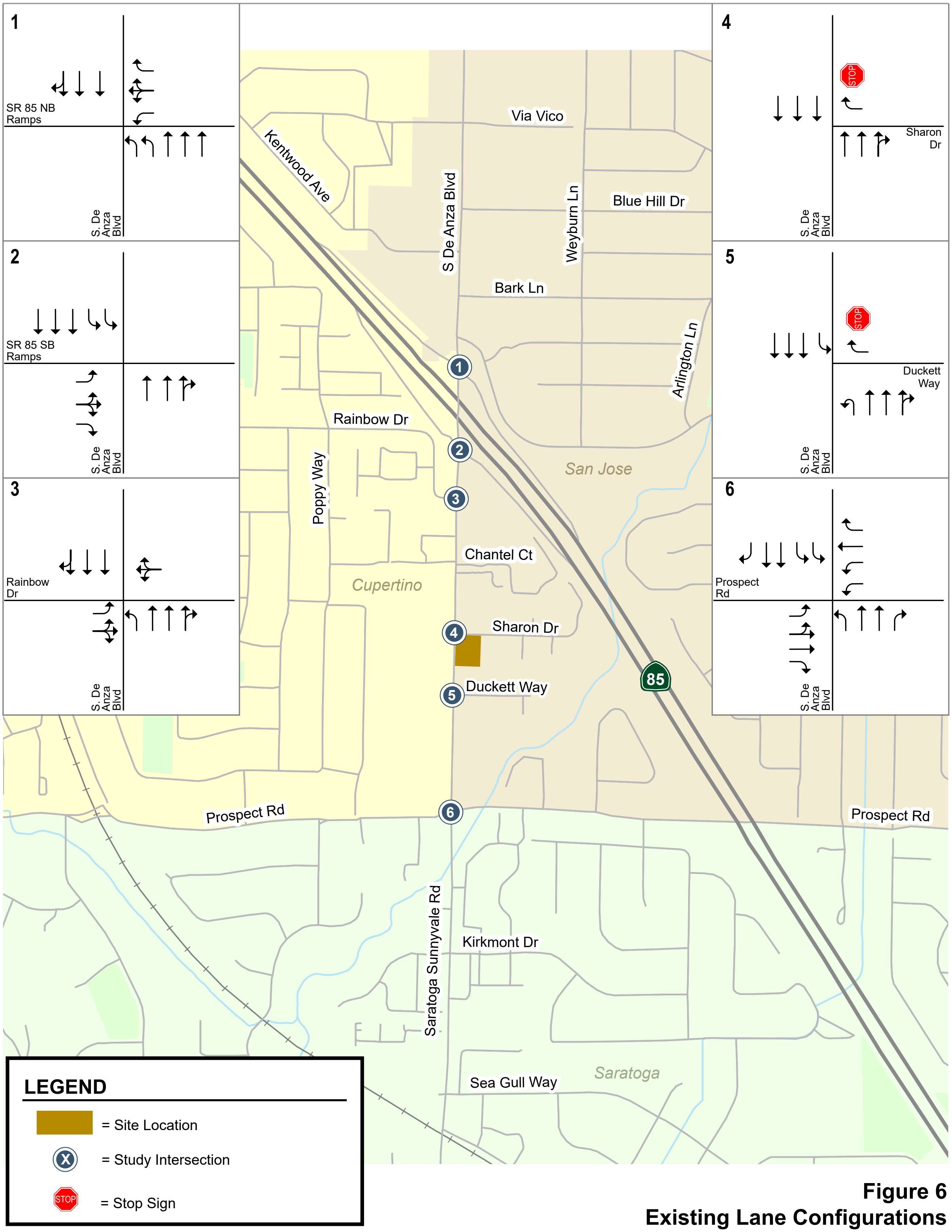


Figure 6
Existing Lane Configurations

NORTH
Not to Scale

PM Peak Hour

Due to heavy traffic volumes on southbound SR 85 during the PM peak hour, vehicles turning left from southbound De Anza Boulevard and vehicles turning right from northbound De Anza Boulevard onto the southbound SR 85 on-ramp experience some delays. The ramp-metering signal at the southbound SR 85 on-ramp was activated during the PM peak hour and contributes towards vehicular delays from De Anza Boulevard to southbound SR 85. Because of the close spacing of the signalized SR 85 intersections, the southbound left-turn vehicle queue occasionally extends past the SR 85 northbound ramps.

During the PM peak hour, the southbound dual left-turn pocket often fills up at the intersection of S De Anza Boulevard and Prospect Road. Frequently, the vehicle queue for the southbound through movement blocks the left-turn pocket before it can fill up completely. As a result, some vehicles intending to turn left become part of the overall southbound queue that extends past the turn pocket. The green time for the southbound left-turn movement is sufficiently long to allow all the vehicles within the left-turn pocket to clear in one signal cycle.

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, intersection vehicle queuing analysis, site access and on-site circulation review, effects on bicycle, pedestrian and transit facilities, and parking.

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 located in the Cities of Cupertino and Saratoga and are evaluated based on their respective methodologies and standards in determining potential traffic impacts due to the project, as 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.*

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 "Hotel" (Land Use Category 310) were applied to the project. Note that a "Hotel" is defined by ITE as a place of lodging that provides sleeping accommodations and supporting facilities such as restaurants, cocktail lounges, meeting and banquet rooms, recreational facilities (e.g., swimming pools and fitness rooms), and/or other retail and service shops.

Trip Adjustments and Reductions

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 described above. 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 Urban Low-Transit area. Therefore, the baseline project trips were adjusted to reflect an Urban Low-Transit mode share.

Since hotels exhibit similar vehicle mode share characteristics, travel patterns and trip length characteristics to that of retail uses (e.g., both uses typically serve nearby local businesses and residents), applicable City of San Jose trip generation reductions were applied to the project accordingly. Retail developments within Urban Low-Transit areas have a vehicle mode share of 87 percent (according to Table 6 of the City's *Transportation Analysis Handbook*). Thus, a 13 percent trip reduction was applied to the project based on the location-based vehicle mode share outputs produced from the San Jose Travel Demand Model for the place type Urban Low-Transit.

Net Project Trips

After applying the ITE trip rates for Hotel and a 13 percent mode-share trip reduction, the proposed project is estimated to generate 1,436 new daily vehicle trips, with 73 new trips occurring during the AM peak hour and 86 new trips occurring during the PM peak hour. Using the inbound/outbound splits contained in the ITE *Trip Generation Manual*, the project is estimated to produce 43 new inbound and 30 new outbound trips during the AM peak hour, and 43 new inbound and 43 new outbound trips during the PM peak hour (see Table 4).

Table 4
Project Trip Generation Estimates

		Daily		AM Peak Hour				PM Peak Hour			
					Trips				Trips		
Land Use	Size	Trip Rate	Trips	Trip Rate	In	Out	Total	Trip Rate	In	Out	Total
Hotel [1]	135 rooms	12.23	1,651	0.62	49	35	84	0.73	49	50	99
Location-Based Vehicle Mode Share (13%) [2]			*(215)*		*(6)*	*(5)*	*(11)*		*(6)*	*(7)*	*(13)*
Net New project Trips:			**1,436**		**43**	**30**	**73**		**43**	**43**	**86**

Sources: ITE *Trip Generation Manual, 10th Edition*, 2017 and City of San Jose's *Transportation Analysis Handbook*, April 2018.

Notes:
1. Average trip rates (per occupied rooms) for Hotel (Land Use 310) are used.
2. Since a hotel exhibits similar mode share characteristics to that of a retail use, a 13% mode-share trip reduction was applied based on the location-based vehicle mode share % outputs (Table 6 of TA Handbook) for a retail development in an Urban Low-Transit area.

Trip Distribution and Assignment

The trip distribution pattern for the project was estimated based on existing travel patterns on the surrounding roadway network that reflect typical weekday AM and PM commute patterns, the locations of complementary land uses, and freeway access points. 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 project trip distribution pattern and trip assignment.

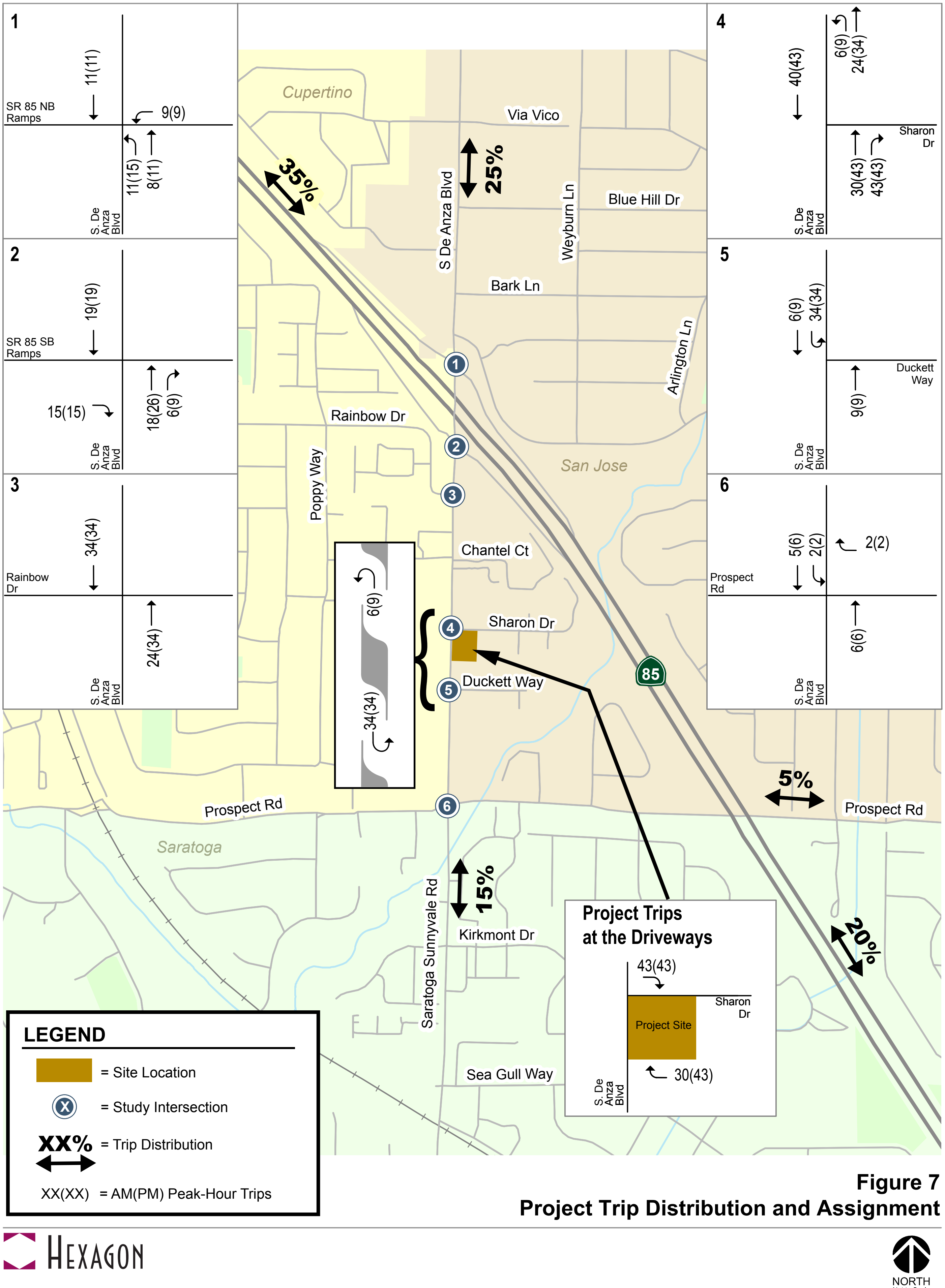


Figure 7
Project Trip Distribution and Assignment

HEXAGON

Traffic Volumes Under All Scenarios

Existing Traffic Volumes

Existing AM and PM peak hour traffic volumes for the signalized study intersections were obtained from the 2018 CMP Annual Monitoring Report (December 2018 PM counts for the three CMP intersections) and manual turning-movement counts conducted in late 2017 and in 2018. All 2017 and 2018 counts at the signalized intersections were used in previous traffic studies. The two unsignalized study intersections were counted during the AM and PM peak hours in February 2019 (see Appendix A). The existing peak hour intersection volumes are shown graphically on Figure 8.

Background Traffic Volumes

Background peak hour traffic volumes were estimated by adding to existing peak hour volumes the projected volumes from approved but not yet completed or occupied developments. The locations of the approved developments were provided by the City of San Jose (standard ATI sheets were not provided). Trips associated with the approved developments were either estimated or obtained from traffic studies (see Appendix B). City of Cupertino and City of Saratoga staff have confirmed that there are no approved developments in the study area that would add trips to the study intersections. The background peak hour intersection volumes are shown graphically on Figure 9.

Background Plus Project Traffic Volumes

Project peak hour trips were added to background peak hour traffic volumes to obtain background plus project peak hour traffic volumes (see Figure 10).

Cumulative Traffic Volumes

Cumulative no project traffic volumes account for approved but not yet completed developments plus other pending developments in the study area. For the purpose of this study, cumulative no project traffic volumes include traffic generated by the following nearby pending projects:

- 7201 Bark Lane (PDC17-035): Planned development rezoning to allow for an 85-unit apartment complex on a 0.9-acre site currently occupied by a 20-unit apartment complex.
- 7285 Bark Lane (H16-040): Site development permit to allow for an approximately 45,306 s.f., four-story, 86-room hotel with one level of below grade parking on a 0.59-acre site.
- 1090 S De Anza Boulevard (H16-032): Site development permit to allow for a 4-story, 90-room hotel with one level of underground parking on a 0.608-acre site.

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 is provided for informational purposes. Cumulative with project traffic volumes are shown graphically on Figure 11.

Traffic volumes for all traffic scenarios are tabulated in Appendix B.

Intersection Traffic Operations

Signalized intersection levels of service were evaluated against the standards of the Cities of Cupertino and Saratoga. The results of the analysis show that all the signalized study intersections are currently operating at acceptable levels of service during the AM and PM peak hours of traffic and would continue to do so under background, project, and cumulative with project conditions (see Table 5).

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

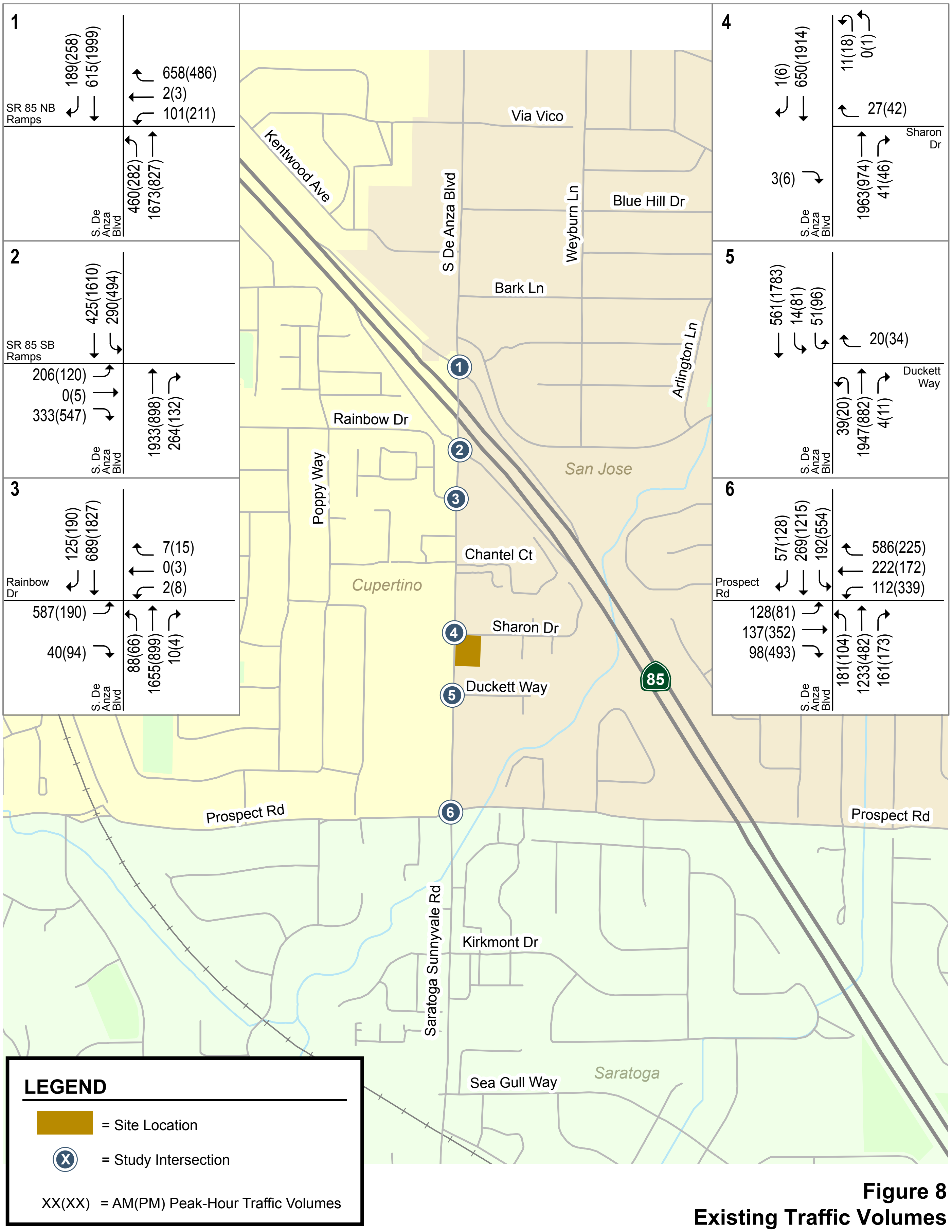


Figure 8
Existing Traffic Volumes

HEXAGON

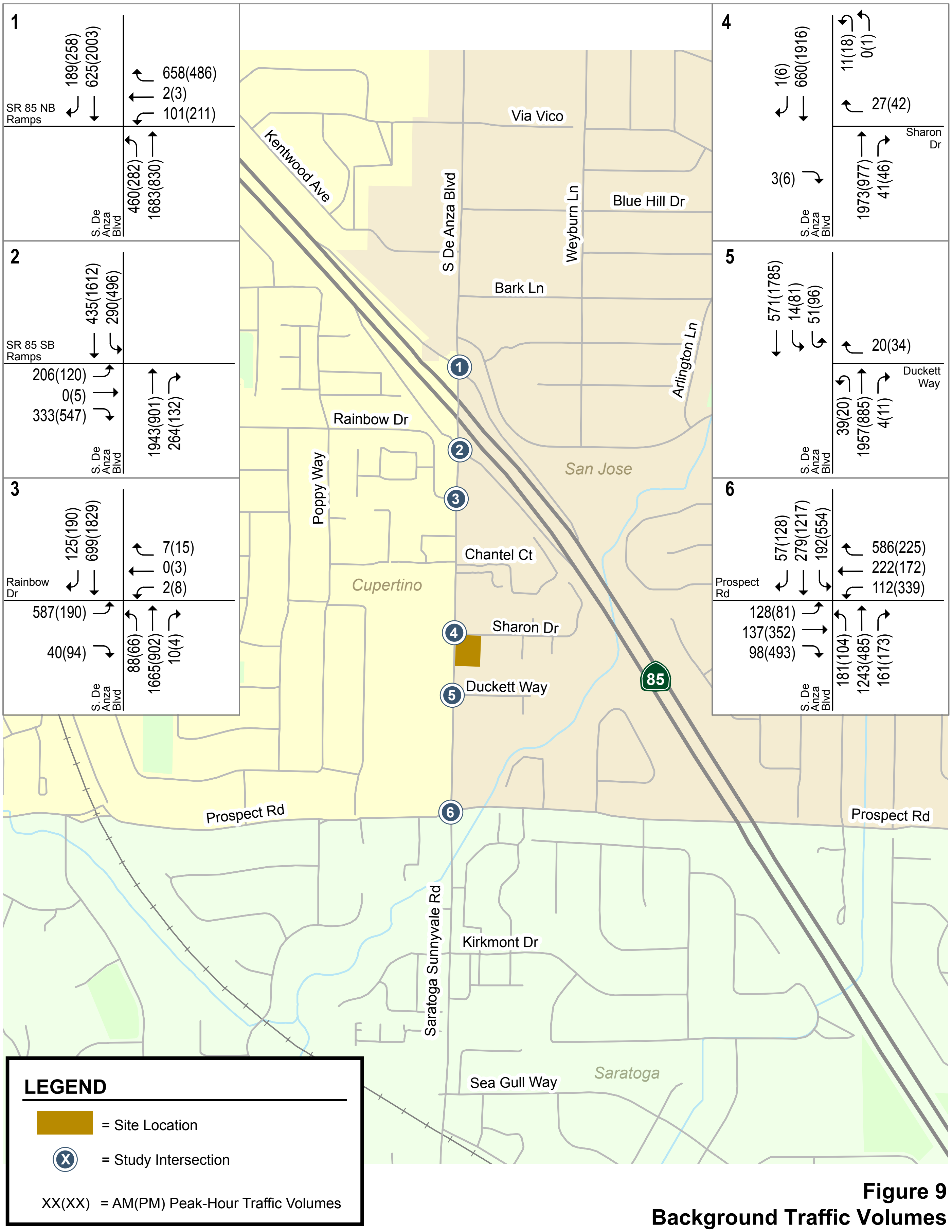


Figure 9
Background Traffic Volumes

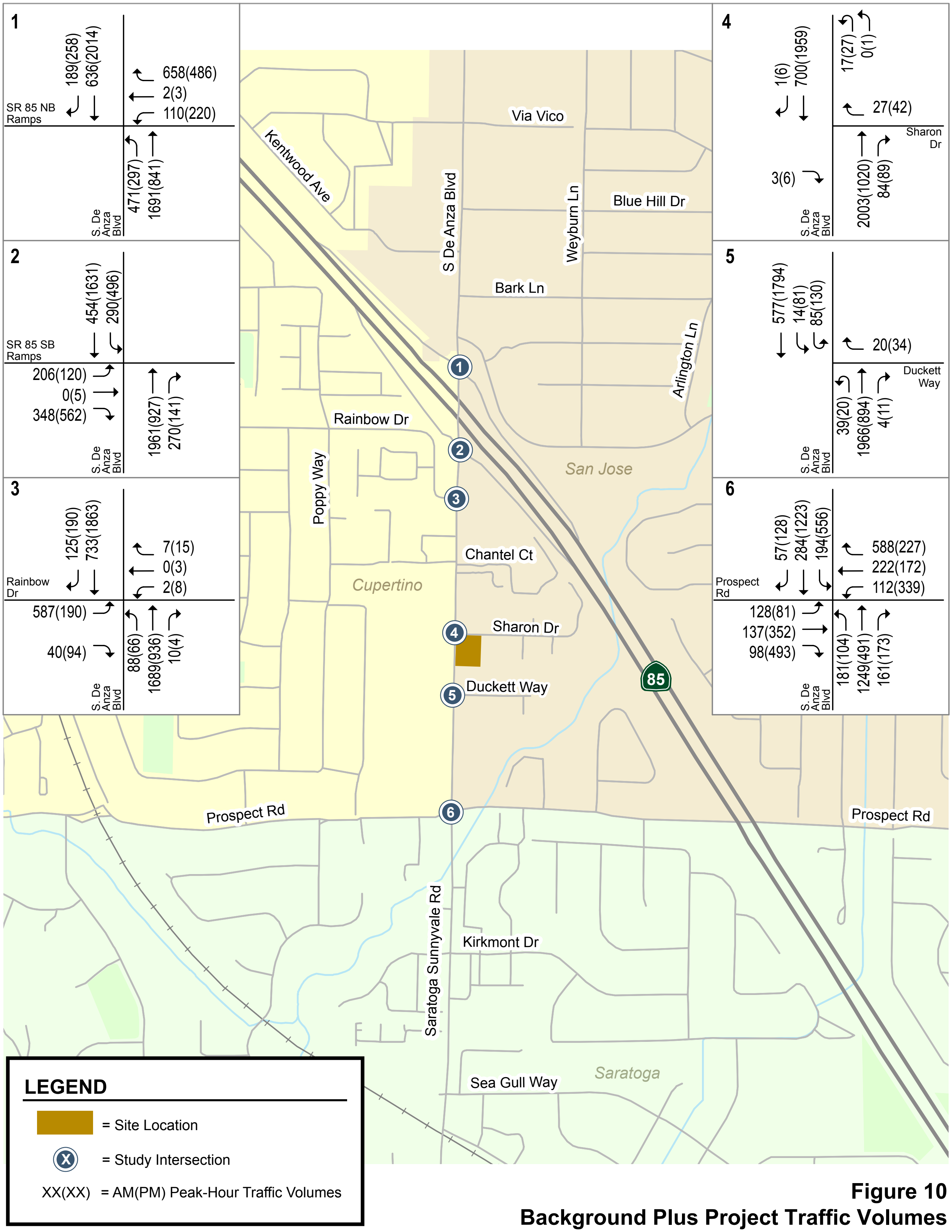


Figure 10
Background Plus Project Traffic Volumes

NORTH
Not to Scale

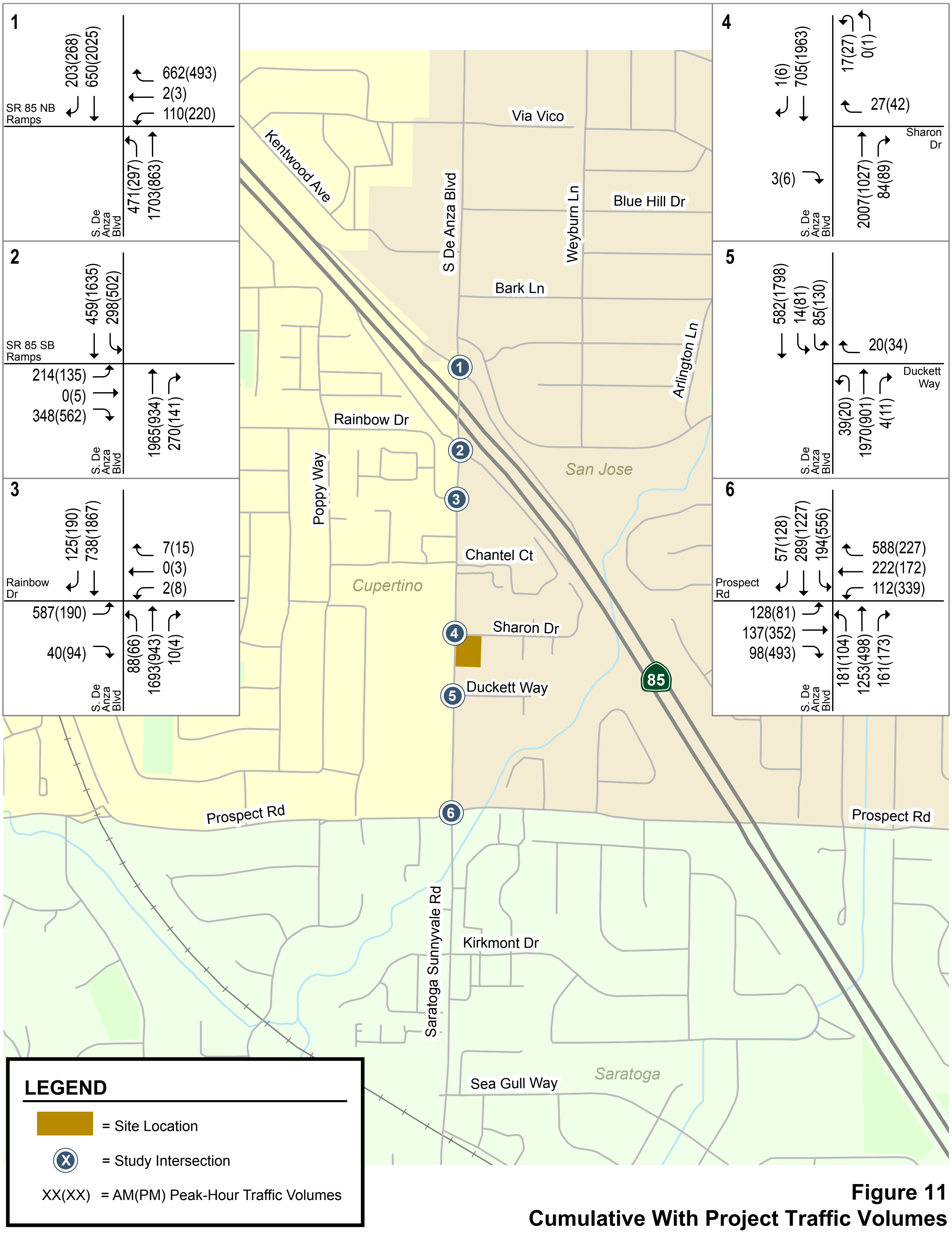


Figure 11
Cumulative With Project Traffic Volumes

HEXAGON

Table 5
Signalized Intersection Level of Service Summary

			Existing		Background		Background Plus Project				Cumulative With Project	
ID	Signalized Intersection	Peak Hour	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Incr. In Crit. Delay (sec)	Incr. In Crit. V/C	Avg Delay	LOS
1	S De Anza Bl & SR 85 NB Ramps *	AM	19.5	B	19.4	B	19.5	B	0.2	0.009	19.4	B
		PM	11.9	B	11.9	B	12.3	B	0.6	0.010	13.9	B
2	S De Anza Bl & SR 85 SB Ramps *	AM	12.7	B	12.7	B	12.7	B	0.1	0.009	12.9	B
		PM	16.0	B	16.0	B	16.1	B	0.0	0.011	16.3	B
3	S De Anza Bl & Rainbow Dr	AM	19.5	B	19.5	B	19.3	B	-0.1	0.005	19.3	B
		PM	6.0	A	6.0	A	5.9	A	0.0	0.006	5.9	A
6	S De Anza Bl & Prospect Rd *	AM	24.0	C	23.9	C	23.9	C	0.0	0.002	23.8	C
		PM	26.4	C	26.4	C	26.4	C	-0.1	0.002	26.4	C

Notes:
* Denotes a CMP intersection

Intersection Queuing Analysis

The queuing analysis is based on vehicle queuing for left-turn movements at intersections where the project would add a noteworthy number of trips. Based on the project trip generation and trip distribution pattern, the following three left-turn movements were evaluated as part of the intersection queuing analysis for this project:

- Northbound left-turn at S De Anza Boulevard and SR 85 Northbound Ramps
- Northbound left-turn/U-turn on S De Anza Boulevard north of Sharon Drive
- Southbound left-turn/U-turn at S De Anza Boulevard and Duckett Way

The queuing analysis (see Table 6) indicates that the maximum vehicle queue for the northbound dual left-turn pocket at the S De Anza Boulevard/SR 85 northbound ramps intersection currently exceeds the vehicle storage capacity during the AM peak hour of traffic, and this condition would continue to occur under background and project conditions. The northbound dual left-turn pocket currently provides 275 feet of vehicle storage per lane, which can accommodate 11 vehicles per lane. The 95th percentile vehicle queue for the northbound left-turn movement is currently 14 vehicles per lane during the AM peak hour. The maximum northbound left-turn vehicle queue is not expected to increase as a result of traffic generated by the project or other approved projects in the area. Thus, 150 feet of additional northbound left-turn storage is needed (75 feet per lane) with or without the project. Extending the dual northbound left-turn pocket is not possible due to the freeway overpass configuration. However, based on field observations, the northbound left-turn vehicle queue at this intersection during the AM peak hour of traffic does not create any adverse operational issues.

At the northbound left-turn pocket on S De Anza Boulevard north of Sharon Drive, the queuing analysis indicates that the northbound left-turn lane that serves U-turns currently has sufficient storage capacity to accommodate the maximum vehicle queues that occur during the AM and PM peak hours. The project would add 6 U-turns during the AM peak hour and 9 U-turns during the PM peak hours and is not expected to increase the maximum (95th percentile) vehicle queues for this left-turn/U-turn movement. Field observations verified that adequate left-turn pocket storage is currently provided for this unsignalized left-turn/U-turn movement.

The queuing analysis indicates that the southbound left-turn pocket at the S De Anza Boulevard/ Duckett Way intersection currently has sufficient storage capacity to accommodate the maximum vehicle queues that occur during the AM and PM peak hours. The project would add 34 U-turns during the AM peak hour and 34 U-turns during the PM peak hours and is not expected to increase the maximum (95th percentile) vehicle queues for this left-turn/U-turn movement. Field observations verified that adequate left-turn pocket storage is currently provided for this unsignalized left-turn/U-turn movement.

Table 6
Intersection Queuing Analysis Summary

	S De Anza Blvd & SR 85 NB Ramps		S De Anza Blvd & U-Turn Pocket North of Sharon Dr		S De Anza Blvd & Duckett Way (U-Turn Pocket)	
	NBL	NBL	NBL	NBL	SBL	SBL
Peak Hour:	AM	PM	AM	PM	AM	PM
Existing						
Cycle/Delay[1] (sec)	135	120	8.8	17.1	20.1	11.1
Volume (vphpl)	230	141	11	16	65	177
Avg. Queue (veh/ln.)	8.6	4.7	0.1	0.1	0.4	0.5
Avg. Queue[2] (ft./ln)	216	118	3	3	9	14
95th %. Queue (veh/ln.)	14	9	1	1	2	2
95th %. Queue (ft./ln)	350	225	25	25	50	50
Storage (ft./ ln.)	275	275	150	150	150	150
Adequate (Y/N)	**N**	Y	Y	Y	Y	Y
Background						
Cycle/Delay[1] (sec)	135	120	8.9	17.1	20.2	11.1
Volume (vphpl)	230	141	11	19	65	177
Avg. Queue (veh/ln.)	8.6	4.7	0.1	0.1	0.4	0.5
Avg. Queue[2] (ft./ln)	216	118	3	3	9	14
95th %. Queue (veh/ln.)	14	9	1	1	2	2
95th %. Queue (ft./ln)	350	225	25	25	50	50
Storage (ft./ ln.)	275	275	150	150	150	150
Adequate (Y/N)	**N**	Y	Y	Y	Y	Y
Background Plus Project						
Cycle/Delay[1] (sec)	135	120	8.9	17.5	22.9	11.5
Volume (vphpl)	236	149	17	28	99	211
Avg. Queue (veh/ln.)	8.9	5.0	0.1	0.2	0.6	0.7
Avg. Queue[2] (ft./ln)	221	124	3	5	16	17
95th %. Queue (veh/ln.)	14	9	1	1	2	2
95th %. Queue (ft./ln)	350	225	25	25	50	50
Storage (ft./ ln.)	275	275	150	150	150	150
Adequate (Y/N)	**N**	Y	Y	Y	Y	Y

Notes:
[1] Vehicle queues based on cycle length for signalized intersections and average approach delay for unsignalized intersections.
[2] Assumes 25 Feet Per Vehicle Queued.

Vehicle Queuing at the SR 85 On-Ramps

An analysis of metered freeway on-ramps providing access to SR 85 from the project site was performed to identify the effect that project-generated traffic would have on the vehicle queues at the metered on-ramps (see Table 7). Access to northbound and southbound SR 85 is provided via ramps from De Anza Boulevard. The SR 85 northbound on-ramp from De Anza Boulevard is metered only during the AM peak hour, and the SR 85 southbound on-ramp from De Anza Boulevard is metered only during the PM peak hour.

Table 7
Freeway On-Ramp Queuing Analysis Summary

		Existing /a/		Background /b/		Background Plus Project Conditions /b/		
Ramp	Peak Hour	Volume	Queue Length (veh.)	Approved Trips	Queue Length (veh.)	Project Trips	% Increase /c/	Queue Length (veh.)
SR 85 NB On-Ramp from S. De Anza Boulevard	AM	651	44	0	44	11	1.69%	45
SR 85 SB On-Ramp from S. De Anza Boulevard	PM	631	43	2	43	9	1.42%	43

Notes:
/a/Existing queue length represents the longest queue observed during the peak-hour observation periods.
/b/Queue lengths under background and project conditions were estimated based on the ratio between the existing ramp volume and the estimated future ramp volume.
/c/Percent increase was calculated from background to project conditions.

SR 85 Northbound On-Ramp

The existing vehicle queue length at the SR 85 northbound on-ramp was observed in the field during the AM peak hour of traffic on a typical weekday. The longest vehicle queue observed on the SR 85 northbound on-ramp from De Anza Boulevard during the AM peak hour was 44 vehicles in length in two mixed-flow lanes. The 44-vehicle queue occurred only once during the observation period and did not extend back to De Anza Boulevard. Approved projects in the vicinity are not anticipated to add any AM peak hour trips to this ramp. The proposed project would add 11 AM peak hour trips to the metered northbound on-ramp. This equates to approximately one vehicle trip added to the ramp every 6 minutes. Based on the observed variability of the vehicle queues, the project could potentially increase the maximum queue length by one vehicle (from 44 to 45 vehicles). The existing vehicle storage (total of about 1,400 feet or room for 56 queued vehicles) on the northbound on-ramp from De Anza Boulevard would be adequate to accommodate the projected maximum vehicle queue with the addition of traffic generated by the proposed project and other approved developments in the vicinity.

SR 85 Southbound On-Ramp

The existing vehicle queue length at the SR 85 southbound on-ramp was observed in the field during the PM peak hour of traffic on a typical weekday. The longest vehicle queue observed on the SR 85 southbound on-ramp from De Anza Boulevard during the PM peak hour was 43 vehicles in length in two mixed-flow lanes. The 43-vehicle queue occurred only once during the observation period and did not extend back to De Anza Boulevard. Approved projects in the vicinity are expected to add only 2 PM peak hour trips to this ramp. The proposed project would add 9 PM peak hour trips to the metered southbound on-ramp, which equates to approximately one vehicle trip added to the ramp every 7 minutes. Therefore, the project is not expected to increase the maximum vehicle queue on the SR 85 southbound on-ramp during the PM peak hour of traffic, and the existing vehicle storage (total of about 1,300 feet or room for 52 queued vehicles) would continue to be adequate.

Traffic Operations at the Unsignalized Study Intersections

The study analyzed two unsignalized intersections on S De Anza Boulevard: Sharon Drive and Duckett Way. Due to the raised center median on S De Anza Boulevard, outbound traffic from both Sharon Drive and Duckett Way is restricted to right turns. A channelized southbound left-turn pocket on S De Anza Boulevard provides left-turn access to Duckett Way and access to Sharon Drive via U-turns. A channelized northbound left-turn pocket north of Sharon Drive provides access to southbound S De Anza Boulevard from both Sharon Drive (i.e., the project garage location) and Duckett Way.

Since vehicles are restricted to right turns to and from Sharon Drive and the existing right-turn volumes are low, field observations show there is very little delay for vehicles turning onto northbound S De Anza Boulevard from Sharon Drive during the AM and PM peak hours of traffic. Some of the project-generated trips turning right onto northbound S De Anza Boulevard from the outbound project driveway would make an immediate U-turn at the channelized left-turn pocket in order to access southbound S De Anza Boulevard, as some vehicles currently do. Field observations show that vehicles turning right from Sharon Drive can find adequate gaps in traffic and enter the left-turn lane to make the U-turn. The project is not expected to noticeably increase the delays for vehicles turning right from Sharon Drive during the AM and PM peak hours of traffic.

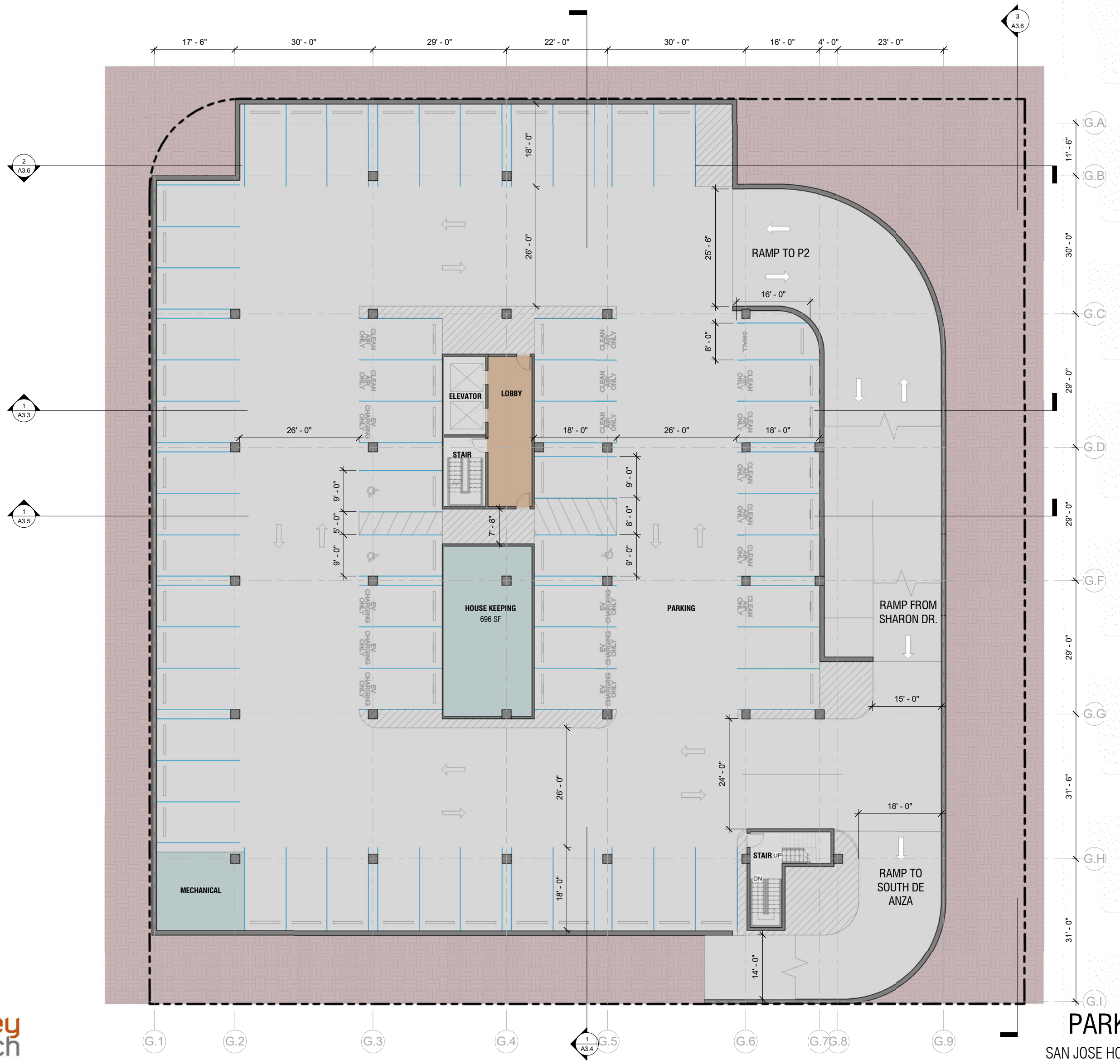
Overall, the two unsignalized study intersections operate well during the AM and PM peak hours and the project is not expected to degrade the current traffic operations at these intersections.

Site Access and On-Site Circulation

The site access evaluation is based on the May 26, 2020 site plan prepared by Lowney Architecture (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, geometric design, sight distance and operations (e.g., queuing and delay). On-site vehicular circulation and parking layout within the two basement parking levels (see Figures 12 and 13) were reviewed in accordance with generally accepted traffic engineering standards and transportation planning principles.

Vehicular Site Access

As proposed, the project would remove two 36-foot wide right-turn only driveways on S De Anza Boulevard, a shared access driveway at the southwest corner of the site, and one 36-foot wide full-access drive on Sharon Drive, and construct two driveways on Sharon Drive and one driveway on S De Anza Boulevard. Vehicular access to the porte-cochere and hotel check-in area would be provided via one inbound only driveway on Sharon Drive (western driveway). This driveway measures 16 feet wide. A second inbound only driveway (eastern driveway) on Sharon Drive measures 26 feet wide and would provide direct vehicular access to the underground parking garage and inbound truck access to the perimeter drive aisle. The garage ramp measures 15 feet wide and the perimeter drive aisle measures 16 feet wide on the east side of the building and 14 feet wide on the south side of the building. All hotel guest vehicles parked on-site, trucks, and vehicles dropping off or picking up hotel guests (e.g. taxicab, Uber, etc.) would exit the site via an outbound only driveway on S De Anza Boulevard. The outbound/right-turn only driveway on S De Anza Boulevard measures 16 feet wide at the throat. All the proposed driveways meet the City's standards for width.



COLOR LEGEND

- BACK OF HOUSE
- CIRCULATION
- PARKING
- RESIDENTIAL LOBBY
- UTILITY

PARKING COUNT

LEVEL P2

ADA	2
STANDARD	67

LEVEL P1

ADA	1
ADA VAN	1
CLEAN AIR	11
EV	7
SMALL	1
STANDARD	40

TOTAL: 130

MOTORCYCLE PARKING COUNT

LEVEL P2

MOTORCYCLE	7

#	DATE	ISSUES & REVISIONS	BY
1	3.06.2020	PLANNING APPLICATION SUBMITTAL	
2	5.26.2020	PLANNING APPLICATION SUBMITTAL	

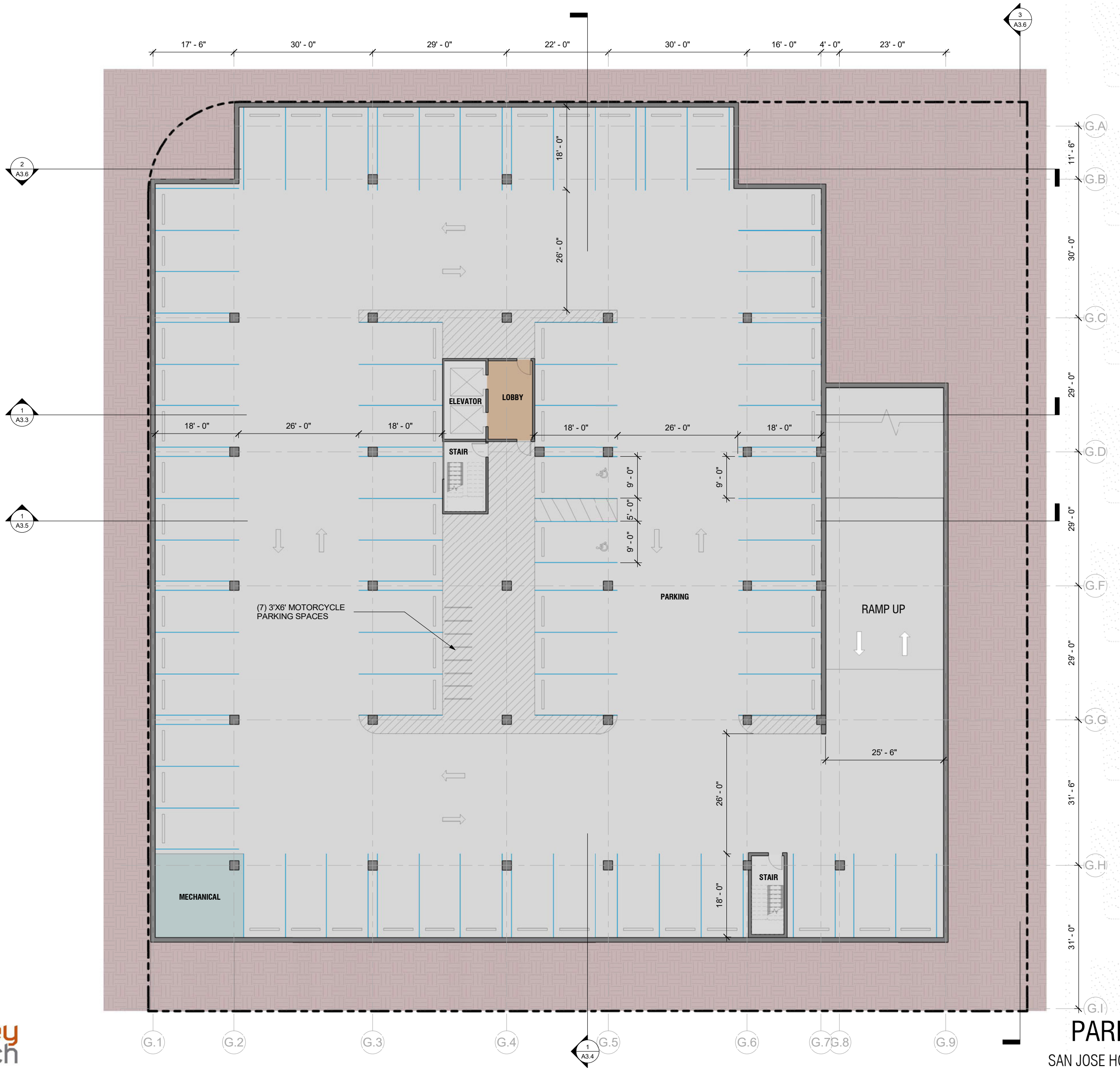
0 10' 20' 30'

N

lowney arch

PARKING LEVEL 1 PLAN
SAN JOSE HOTEL - SOUTH DE ANZA BOULEVARD
A2.01

Figure 12
Basement Parking Level 1 Plan



COLOR LEGEND

- CIRCULATION
- PARKING
- RESIDENTIAL LOBBY
- UTILITY

PARKING COUNT

LEVEL P2

ADA	2
STANDARD	67

LEVEL P1

ADA	1
ADA VAN	1
CLEAN AIR	11
EV	7
SMALL	1
STANDARD	40

TOTAL: 130

MOTORCYCLE PARKING COUNT

LEVEL P2

MOTORCYCLE	7

#	DATE	ISSUES & REVISIONS	BY
1	3.06.2020	PLANNING APPLICATION SUBMITTAL	
2	5.26.2020	PLANNING APPLICATION SUBMITTAL	

0 10' 20' 30'

N

lowney arch

PARKING LEVEL 2 PLAN

SAN JOSE HOTEL - SOUTH DE ANZA BOULEVARD

A2.00

Figure 13
Basement Parking Level 2 Plan

<u>Hotel Driveway Operations</u>

All guests arriving to the hotel would enter the inbound only driveway on Sharon Drive to check into the hotel. Following check-in, guests who are parking on-site would exit the check-in/porte-cochere area and immediately turn right to access the hotel parking garage. Upon check-out, hotel guests would exit the parking garage and turn right directly onto S De Anza Boulevard. Taxi cabs and ride-sharing services would enter the inbound only driveway on Sharon Drive, drop off hotel guests, circulate around the site in a clockwise direction, and exit the site via the outbound only driveway on S De Anza Boulevard. The project-generated trips that are estimated to occur at the proposed hotel are 43 inbound trips and 30 outbound trips during the AM peak hour, and 43 inbound trips and 43 outbound trips during the PM peak hour.

Note that with the current site configuration, there is nothing to prohibit vehicles from exiting the site via the eastern inbound only driveway on Sharon Drive after leaving the porte-cochere area. Signage should be installed at the port-cochere exit indicating only right turns are allowed, and additional signage should be installed on-site at the eastern Sharon Drive driveway indicating that it is not an exit.

Recommendation: Install "Right Turn Only" signage at the port-cochere exit and "Not an Exit" signage at the eastern Sharon Drive driveway to prohibit outbound movements at the driveway.

On-Site Vehicle Queuing

Based on the project trip generation estimates, the number of vehicles arriving to the hotel during the AM and PM peak periods of traffic equates to approximately one vehicle trip every 1 ½ minutes. Due to the relatively low number of AM and PM peak hour project-generated trips, operational issues related to vehicle queueing and/or vehicle delay are not expected to occur at the project driveways. Some minor on-site vehicle queuing could occur within the hotel porte-cochere/check-in area due to a combination of the inherent unpredictability of vehicle arrivals and the length of time it takes for new guests to check in to the hotel. On-site vehicle queuing within the porte-cochere/check-in area was estimated using the Poisson probability distribution method. For the purpose of the queuing estimates, it is assumed that approximately half of the inbound vehicle trips occurring during the weekday AM and PM peak hours would be attributable to new hotel guests checking into the hotel for the first time <u>and</u> who have driven their own vehicle and, thus, would need to temporarily park within the porte-cochere/check-in area. An average check-in time of 5 minutes was also assumed. Based on these assumptions, it is estimated that a maximum on-site queue of 4 vehicles would occur during the weekday AM and PM peak hours of traffic. The current site design shows adequate space for 3 parked vehicles within the lane adjacent to the hotel building at any one time. Additional on-site queuing space could be provided in the second lane within the porte-cochere; however, this would block the second/drive-through lane and delay passenger pick-up and drop-off operations. Alternatively, passenger pick-up/drop-off operations could occur on Sharon Drive, which would free up both on-site lanes within the porte-cochere for vehicle queuing during hotel check-ins. Timed (short-term) parking would need to be added on Sharon Drive. The curb would need to be painted the appropriate color and the time limit specified via signage and/or on the curb. Providing adequate on-site queuing space would be necessary to prevent vehicles from backing up onto Sharon Drive. Note that the average on-site vehicle queue is estimated to be approximately 2 vehicles, which could easily be accommodated with the current site design.

Recommendation: Add a timed (short-term) parking zone between the two project driveways on Sharon Drive for pick-up/drop-off of hotel guests. The curb would need to be painted the appropriate color and the time limit specified via signage and/or on the curb.

Sight Distance

There are no existing landscaping, roadway curves, or other visual obstructions along the project frontage on S De Anza Boulevard that could obscure sight distance at the exit only project driveway, and the site plan provided does not indicate that any new landscaping would be added. Clear sight distance ensures that vehicles can see pedestrians on the sidewalk, as well as vehicles and bicycles travelling along S De Anza Boulevard. Providing the appropriate sight distance reduces the likelihood of a collision at the S De Anza exit only driveway and would provide drivers with the ability to locate sufficient gaps in traffic.

Vehicular Circulation Within the Parking Garage

On-site vehicular circulation was reviewed for the underground parking garage in accordance with generally accepted traffic engineering standards and City of San Jose design guidelines. Access to the two-level below-grade parking garage would be provided via Sharon Drive. A one-way 15-foot wide single-lane ramp would provide inbound access to the first below-grade parking level. An internal 25-foot 6-inch wide two-way ramp would provide access to the second below-grade parking level (basement level). A one-way 14-foot wide single-lane ramp would provide outbound access to S De Anza Boulevard from the first below-grade parking level.

Typical engineering design standards require garage ramps to have no greater than a 20 percent grade with transition grades of half the maximum grade (10 percent or less). Based on the dimensions shown on the project site plans, the first parking level ramp is shown to have an average grade of approximately 14 percent and the second parking level ramp is shown to have an average grade of about 12 percent. While it appears the garage ramps would meet the recommended design standard for maximum grade, the actual maximum grade and transition grade of each ramp cannot be calculated using the site plan provided.

Recommendation: Provide garage ramp slopes of no greater than a 20 percent grade with transition grades of half the maximum grade (10 percent or less at the top and bottom of the ramps) to meet the recommended engineering design standards.

The parking garage ramp widths would be adequate as proposed. The garage ramps were evaluated for vehicle access by the method of turning-movement templates. Analysis using the appropriate Passenger Car turning templates shows that standard passenger vehicles (turning template “Pm”) and larger passenger vehicles (Passenger Car turning template “P”) could adequately negotiate the garage ramps and circulate throughout both levels of the parking garage.

The City’s standard minimum width for two-way drive aisles is 26 feet wide where 90-degree parking is provided. This allows sufficient room for vehicles to back out of the parking stalls. According to the site plan, the two-way drive aisles within the parking garage measure 26 feet wide and would be adequate to serve the project. Circulation throughout the parking garage would be efficient with no dead-end drive aisles on either parking level.

The parking garage ramps have limited visibility and no convex mirrors are shown on the site plan.

Recommendation: Convex mirrors should be installed at the ramp curves to assist drivers with blind turns within the parking garage.

Some of the parking stalls are situated adjacent to a wall with no additional width provided.

Recommendation: Additional width (door space) should be provided for any parking stall situated adjacent to a wall. Alternatively, these stalls could be labeled “compact”.

Parking Stall Dimensions

The City's off-street parking design standard for 90-degree full-size parking stalls is 9 feet wide by 18 feet long. Both levels of the parking garage contain 90-degree parking stalls and all but one stall measure 9 feet wide by 18 feet long, including the accessible (ADA) stalls. The ADA stalls include van accessibility. One stall on parking level 1 measures 8 feet wide by 16 feet long and is labeled compact.

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 to medium emergency and delivery vehicles and standard garbage trucks. Based on the site plan configuration adequate access would be provided for SU-30 type trucks to enter the site from Sharon Drive, circulate around the building perimeter in a clockwise direction, and ultimately exit the site onto S De Anza Boulevard.

Garbage Truck Access

According to the site plan, 15 feet 8 inches of overhead clearance would be provided at the eastern driveway for trucks. The trash bins would be stored outside the building at the southeast corner of the site next to an open area with no covering. The opening would provide adequate clearance for garbage trucks to empty the bins over the truck. Since garbage collection would occur on-site, traffic operations along S De Anza Boulevard and Sharon Drive would not be affected during garbage collection activities.

Delivery Truck Access

The City of San Jose Zoning Code requires off-street loading spaces (Section 20.90.410). The site plan shows one off-street freight loading space at the southeast corner of the site near the trash bins. All loading activities would occur on-site at this location. Adequate access would be provided for delivery trucks to access the on-site loading space. Adequate access to the hotel lobby and elevators from the freight loading space also would be provided.

According to the City of San Jose Zoning Regulations, the off-street loading space must be no less than 10 feet wide by 30 feet long by 15 feet high, exclusive of driveways for ingress and egress and maneuvering areas. According to the site plan, the loading space would be 15 feet wide by at least 30 feet long. Since the loading space would be situated outside the building at the location of the open area, adequate vertical clearance would be provided. Therefore, the off-street loading space would meet the City's requirements for loading space dimensions.

Emergency Vehicle Access

The City of San Jose Fire Department requires that all portions of the buildings are 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 building. All areas of the proposed building would be within 150 feet of a fire access road, and adequate vertical clearance would be provided around the entire perimeter of the site. The driveway widths shown on the site plan would be adequate to accommodate emergency vehicles.

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., sidewalk closure and detour signs) must be provided to ensure vehicles, pedestrians and bicyclists are able to adequately reach their intended destinations safely. Because S De Anza Boulevard is a bicycle travel corridor with striped bike lanes, signage would be particularly important to redirect bicyclists to an alternative northbound route in the event the bike lane on northbound S De Anza Boulevard is blocked by construction activities. 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.

Pedestrian, Bicycle and Transit Analysis

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 Facilities

A complete network of sidewalks and crosswalks is found along the roadways in the study area. Note, however, that small segments of sidewalk are missing near the project site as described below:

- 200 feet along the north side of Sharon Drive directly across from the project site, and
- 200 feet along the west side of S De Anza Boulevard, just south of Rainbow Drive (approximately 800 feet north of the project site).

Crosswalks with pedestrian signal heads are located at all the signalized intersections in the study area. Overall, the existing pedestrian facilities provide good connectivity between the project site and the surrounding land uses and transit stops in the study area.

The site plan indicates that the existing sidewalks and curbs on S De Anza Boulevard and Sharon Drive would be reconstructed along the entire project frontages. The site plan shows a 12-foot attached sidewalk with tree wells on S De Anza Boulevard and a 12-foot attached sidewalk with tree wells on Sharon Drive. The reconstructed sidewalks would provide pedestrian access to the hotel lobby and associated areas, including the elevators, stairwells, meeting rooms, hotel offices, restrooms, bike room, and restaurant. Note that the City will require a City standard ADA compliant curb ramp with truncated domes at the southeast corner of S De Anza Boulevard and Sharon Drive as part of the sidewalk reconstruction. Truncated domes are the standard design requirement for detectable warnings which enable people with visual disabilities to determine the boundary between the sidewalk and the street.

Recommendation: The project should provide a City standard ADA compliant curb ramp with truncated domes at the southeast corner of S De Anza Boulevard and Sharon Drive.

Bicycle Facilities

In the project area, Class II striped bike lanes are present on S De Anza Boulevard, Rainbow Drive, Prospect Road, and Stelling Road. The project site is served directly by striped bike lanes on S De Anza Boulevard. Future hotel employees and guests could utilize the bike lanes for recreational or commuting purposes. The project would provide a bike room capable of storing 8 bicycles.

The project would not remove any bicycle facilities, nor would it conflict with any adopted plans or policies for new bicycle facilities.

Transit Services

Local VTA bus route 51 runs along S De Anza Boulevard and stops at the project site. The existing bus stop consists of a standard blue bus stop sign attached to an existing street light pole. No bench or shelter is provided. It would be appropriate for the project to provide some bus stop improvements. The site plan indicates “bus stop to be relocated”; however, it does not indicate where.

Recommendation: The project should coordinate with Santa Clara VTA to determine the future bus stop location and what fair share bus stop improvements should be implemented by the project.

Since the project site is served directly by a local bus route, it is reasonable to assume that some hotel employees and guests would utilize the bus service. It is estimated that the small increase in transit demand generated by the proposed hotel could be accommodated by the current available ridership capacity of the VTA bus service (route 53).

Parking

The project’s off-street parking requirements for automobiles and bicycles are based on the City of San Jose’s parking standards (*San Jose Municipal Code Chapter 20.90, Table 20-190*). The City of San Jose does not have a motorcycle parking requirement for hotels.

Vehicle Parking

The standard vehicle parking requirement for hotels is one space per guest room plus one space per employee. Note that since the restaurant is a supporting facility of the hotel and would not have a public entrance, additional parking for the restaurant is not required. Additional parking for the meeting/ conference space also is not required for the same reason.

Allowable Parking Reduction

According to section 20.90.220.G.1 (Reduction in Required Off-Street Parking Spaces for “Other Uses”) of the Zoning Code, up to a 20% reduction in the required off-street parking for Hotels/Motels may be approved with a development permit or a development exception if no development permit is required, provided that such approval is based upon the findings that the project is either within two thousand feet of an existing or proposed bus or rail transit stop, or the use is clustered with other uses that share all parking spaces on a site. An existing bus stop is situated adjacent to the project site on S De Anza Boulevard. Thus, the project qualifies for a 20 percent reduction in the City’s parking requirement.

The project proposes up to 135 guest rooms, with a maximum of 10 employees expected to be on site at any one time. Based on the City’s standard parking requirement, the project would be required to provide 145 vehicle parking spaces. After applying the allowable 20 percent reduction, the project is required to provide 116 parking spaces. The site plan shows a total of 130 vehicle parking spaces, including 69 spaces on the basement parking level 1 (including 2 ADA spaces), and 61 spaces on the basement parking level 2 (including 3 ADA spaces). Therefore, the project would provide an adequate amount of vehicle parking.

Bicycle Parking

The bicycle parking requirement for hotels is one space plus one space per ten guest rooms. The project proposes up to 135 guest rooms and, thus, is required to provide 15 bicycle parking spaces.

The project would provide a ground level bike room capable of storing 16 bicycles (long-term bicycle parking spaces) on the south end of the hotel building, as well as 3 short-term bicycle parking spaces (bike rack) on the west side of the hotel lobby entrance. Therefore, the project would meet the City’s bicycle parking requirement.

Motorcycle Parking

The motorcycle parking requirement for hotels (i.e., commercial uses) is one space per 20 code-required auto parking spaces. The project is required to provide 116 auto parking spaces (after applying the 20 percent reduction) and, thus, is required to provide at least 6 motorcycle parking spaces.

The project would provide 7 motorcycle parking spaces on the basement parking level 2. Therefore, the project would meet the City's motorcycle parking requirement.

4. Conclusions

This report presents the results of the transportation analysis conducted for a proposed hotel at 1510 S De Anza Boulevard in San Jose, California. The transportation impacts of the project were evaluated following the standards and methodologies established by the Cities of San Jose, Cupertino and Saratoga. Based on the City of San Jose's Transportation Analysis Policy (Council Policy 5-1) and the *Transportation Analysis Handbook* (adopted in April 2018), the study includes a California Environmental Quality Act (CEQA) transportation analysis (TA) and a local transportation analysis (LTA).

The CEQA transportation analysis comprises an evaluation of Vehicle Miles Traveled (VMT) and a Level of Service (LOS) analysis for intersections located in the Cities of Cupertino and Saratoga. The LTA supplements the CEQA transportation analysis by identifying transportation operational issues via an evaluation of weekday AM and PM peak hour traffic conditions for intersections. The LTA also includes an analysis of site access, on-site circulation, parking, vehicle queuing, and effects to transit, bicycle, and pedestrian facilities.

Project Vehicle Miles Traveled (VMT) Analysis

The proposed project consists of a hotel. Since the City has not established thresholds of significance for hotels, the project cannot be evaluated directly using the City's VMT Evaluation Tool. Accordingly, based on direction from the City staff, the VMT analysis for the proposed project was conducted by converting the hotel project trip generation estimates to an equivalent retail square footage to obtain project VMT. This is a reasonable approach to VMT analysis, since hotels exhibit similar vehicle mode share characteristics, travel patterns and trip length characteristics to that of local retail uses (e.g., both uses typically serve nearby local businesses and residents). Note also that since there are 25 existing hotels within a 5-mile radius of the project site, it is expected that the hotel project would generate mostly localized traffic. Based on the conversion process, a 135-room hotel would generate daily trips equivalent to 43,700 square feet of retail space. This relatively small amount of retail space meets the screening criteria set forth in the *Transportation Analysis Handbook*. Since the project would meet the screening criteria, no VMT analysis is required.

Project Trip Generation

After applying the ITE trip rates for Hotel and a 13 percent mode-share trip reduction, the proposed project would generate 1,436 new daily vehicle trips, with 73 new trips occurring during the AM peak hour and 86 new trips occurring during the PM peak hour.

Intersection Traffic Operations

Based on the City of Cupertino and Saratoga 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, bicycle or transit facilities in the study area. Below are recommendations resulting from the site plan review.

Recommendations

- Install "Right Turn Only" signage at the port-cochere exit and "Not an Exit" signage at the eastern Sharon Drive driveway to prohibit outbound movements at the driveway.
- Add a timed (short-term) parking zone between the two project driveways on Sharon Drive for pick-up/drop-off of hotel guests. The curb would need to be painted the appropriate color and the time limit specified via signage and/or on the curb.
- Provide garage ramp slopes of no greater than a 20 percent grade with transition grades of half the maximum grade (10 percent or less at the top and bottom of the ramps) to meet the recommended engineering design standards.
- Install convex mirrors at the ramp curves to assist drivers with blind turns within the parking garage.
- Provide additional width (door space) for any parking stall situated adjacent to a wall. Alternatively, these stalls could be labeled "compact".
- Provide a City standard ADA compliant curb ramp with truncated domes at the southeast corner of S De Anza Boulevard and Sharon Drive.
- Coordinate with Santa Clara VTA to determine the future bus stop location and what fair share bus stop improvements should be implemented by the project.