HEXAGON TRANSPORTATION CONSULTANTS, INC.

# 1881 San Carlos Street Mixed-Use Development

## Transportation Analysis

Prepared for:

**David J. Powers & Associates, Inc.**

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**Hexagon Transportation Consultants, Inc.**
Hexagon Office: 8070 Santa Teresa Boulevard, Suite 230
Gilroy, CA 95020
Hexagon Job Number: 20DC17
Phone: 408.846.7410

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# Executive Summary

This report presents the results of a Transportation Analysis (TA) for the proposed mixed-use development located at 1881 San Carlos Street. The project site consists of seven parcels (APN 274-16-049, -050, -051, -052, -053, -069, and -070) and is located along the north side of San Carlos Street, between Brooklyn Avenue and Boston Avenue in the City of San José. The project site is located within a designated Urban Village (West San Carlos) per the Envision San Jose 2040 General Plan. According to the Envision San Jose 2040 General Plan, the Urban Village strategy fosters:

- Mixed residential and employment activities that are attractive to an innovative workforce
- Revitalization of underutilized properties that have access to existing infrastructure
- Densities that support transit use, bicycling, and walking
- High-quality urban design

The project, as proposed, would replace the existing commercial and residential buildings on site with an assisted living facility with 246 beds, 61 multi-family residential units, and 6,000 s.f. of commercial space. A total of 199 parking spaces are proposed to be provided with ground level parking and an underground parking garage. The proposed project site will be accessed by a full access driveway leading to an underground garage on Brooklyn Avenue and a drive aisle, accessible from Brooklyn Avenue and Boston Avenue, which lead to a surface parking lot and loading area.

## Transportation Analysis Scope

The transportation analysis of the project was evaluated following the standards and methodologies set forth in the City of San Jose's Transportation Analysis Policy (Council Policy 5-1), the City of San Jose's *Transportation Analysis Handbook 2018*, the Santa Clara Valley Transportation Authority (VTA) Congestion Management Program's *Transportation Impact Guidelines* (October 2014), and by the California Environmental Quality Act (CEQA). Based on the City of San Jose's Transportation Policy and *Transportation Analysis Handbook 2018*, the TA report for the project consists of a CEQA vehicle-miles-traveled (VMT) analysis and a supplemental Local Transportation Analysis (LTA).

### CEQA Transportation Analysis Scope

The CEQA transportation analysis for the project consists of a project-level VMT impact analysis using the City's VMT tool and a cumulative impact analysis that demonstrates the project's consistency with the Envision San Jose 2040 General Plan.

### Local Transportation Analysis Scope

The LTA includes the evaluation of weekday AM and PM peak hour operations at a limited number of intersections for the purpose of identifying operational issues (queuing, signal operations, and potential

multi-modal issues) at intersections in the general vicinity of the project site. However, the determination of project impacts per CEQA requirements is based solely on the VMT analysis.

# CEQA VMT Analysis

## CEQA Transportation Analysis Exemption Criteria

The City of San Jose *Transportation Analysis Handbook* identifies screening criteria that determines whether a CEQA transportation analysis would be required for development projects. The criteria are based on the type of project, characteristics, and/or location. If a project meets the City's screening criteria, the project is expected to result in less-than-significant VMT impacts and a detailed CEQA VMT analysis is not required.

The project site is located within a planned Growth Area (West San Carlos Urban Village) and is located along San Carlos Street, which is a high-quality transit corridor with VTA bus service headways of less than 15 minutes during peak commute periods. The project is located within an area with low VMT per-capita, but exceeds the thresholds of significance for VMT per-employee. Therefore, the residential portion of the project meets the screening criteria. The assisted living portion of the project would need to reduce the VMT generated per employee to reduce its VMT to less than the thresholds of significance.

Per the City of San Jose VMT screening criteria, retail projects of 100,000 square feet or less are considered local-serving. The proposed 6,000 s.f. of retail space is less than the 100,000 s.f. retail threshold screening criterion for local-serving retail and a detailed VMT analysis is not required.

Therefore, both the residential and commercial land use components of the project are anticipated to result in less-than-significant VMT impacts and a detailed CEQA transportation analysis that evaluates the project's effects on VMT is not required. However, since the assisted living portion of the project does not meet the screening criteria, a VMT evaluation for the project was completed and presented below.

## Project-Level VMT Impact Analysis

The results of the VMT evaluation, using the City's VMT Evaluation Tool, indicate that the proposed project is projected to generate 7.95 VMT per capita and 12.84 VMT per employee. The residential portion of the project does not exceed the thresholds of significance. However, the employment portion of the project exceeds the 12.21 VMT per employee threshold by 5.2%. Therefore, the proposed project would have an impact on the transportation system based on the City's VMT impact criteria.

## Project Impacts and Mitigation Measures

**Project Impact:** Since the VMT generated by the office component of the project (12.84 per employee) would exceed the threshold of 12.21 VMT per employee, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the VMT impact. According to the *Transportation Analysis Handbook*, projects located in areas where the existing VMT is above the established threshold are referred to as being in "high-VMT areas", and projects in high-VMT areas are required to include a set of VMT reduction measures that would reduce the project VMT to the greatest extent possible.

**Mitigation Measures:** Based on the four strategy tiers included in the VMT Evaluation Tool, it is recommended that the project implement the following mitigation measure to reduce the significant VMT impact.

- Provide Ride-Sharing Programs: Organize a program to match individuals interested in carpooling who have similar commutes for at least 15% of the project employees. This measure promotes the use of carpooling and reduces the number of drive-alone trips.

The implementation of the above mitigation measure would reduce the project VMT to 11.79 per employee, which is below the threshold of 12.21 per employee, reducing the project impact to less than significant.

### Cumulative (GP Consistency) Evaluation

Projects must demonstrate consistency with the *Envision San José 2040 General Plan* to address cumulative impacts. Consistency with the City's General Plan is based on the project's density, design, and conformance to the General Plan goals and policies. If a project is determined to be inconsistent with the General Plan, a cumulative impact analysis is required per the City's *Transportation Analysis Handbook*.

The project site is located within the West San Carlos Urban Village. Urban villages are defined as walkable, bicycle-friendly, transit-oriented, mixed use settings that provide both housing and jobs, thus supporting the policies and goals of the General Plan. The project is consistent with the General Plan and West San Carlos Urban Village goals and policies for the following reasons:

- The proposed mixed-use commercial and residential uses for the project site are consistent with the Urban Village land use designation per the West San Carlos Urban Village plan.
- The project frontage along San Carlos Street will be consistent with planned streetscape design features West San Carlos Urban Village Plan.
- The project site is within walking distance (less than 100 feet) of bus stops on San Carlos Street.

Therefore, based on the project description, the proposed project would be consistent with the *Urban Village Planning Concepts* and the *Envision San José 2040 General Plan*. Thus, the project would be considered as part of the cumulative solution to meet the General Plan's long-range transportation goals and would result in a less-than-significant cumulative impact.

## Local Transportation Analysis

The intersection operations analysis is intended to quantify the operations of intersections and to identify potential negative effects due to the addition of project traffic. However, a potential adverse effect on a study intersection operation is not considered a CEQA impact metric.

The LTA includes the analysis of AM and PM peak-hour traffic conditions for two signalized intersections and three unsignalized intersections, following the standards and methodology set forth by the City of San Jose.

### Trip Generation

After applying the ITE trip rates, appropriate trip reductions, and existing site trip credits, it is estimated that the project would generate 948 daily vehicle trips, with 62 trips (32 inbound and 30 outbound) occurring during the AM peak hour and 92 trips (40 inbound and 52 outbound) occurring during the PM peak hour.

## Future Intersection Operation Conditions

The operations analysis shows that all of the study intersections are projected to operate at acceptable levels of service, based on the City of San Jose intersection operations standard of LOS D, under background conditions and background plus project conditions during both the AM and PM peak hours.

## Site Access and On-Site Circulation

Site access was evaluated to determine the adequacy of the site's access points with regard to the following: traffic volume, delays, vehicle queues, geometric design, and corner sight distance. On-site vehicular circulation was reviewed in accordance with generally accepted traffic engineering standards and transportation planning principles.

### Recommended Site Access and On-Site Circulation Improvements

- The proposed landscaping along Brooklyn Avenue and Boston Avenue should be maintained so that the vision of exiting drivers is not obstructed
- Red curb equal to a car length should be painted on both sides of project driveways
- The project applicant should discuss with city staff to determine whether the proposed ramp and drive aisles are adequate, or if the project would be required to widen the ramp or drive aisles.
- After project opening, instructions should be provided to future residents and staff on how to operate the mechanical vehicle stackers.
- The project should post clear signage and instructions for visitors that choose to park in the mechanical vehicle stackers.
- Delivery drivers should be instructed to access the loading zone via Boston Avenue
- The driveway to the loading dock should be widened to 16 feet in order to accommodate delivery trucks.
- The project should coordinate with the city to determine whether restricting on-street parking spaces directly across from the loading dock is appropriate.
- Trash bins should be wheeled out to the street on trash pick-up days.
- The project applicant should coordinate with city staff to designate a portion of the San Carlos Street frontage for loading.

### City Preferred Loading Dock Access

City staff have indicated that the preferred scenario would be a loading dock that is accessible from the drive aisle, rather than along Boston Avenue. Trucks would be able to access this loading dock from the drive aisle. Based on the existing site plan, the depth of the loading area in this scenario would be only 24 feet in length, which is inadequate for longer trucks. If this scenario is chosen, the loading dock should be redesigned so that a 30-foot truck would be able to park in the loading dock within encroaching on the 26-foot wide drive aisle.

## Parking Supply

### Vehicular Parking

Based on the City's parking requirements, the project would be required to provide a total of 216 parking spaces. The project site is within the West San Carlos Urban Village and the project proposes to provide bicycle parking that will exceed the City's bicycle parking requirements. Therefore, the vehicle parking requirement would be reduced by 20% to 172 vehicle parking spaces. The project is proposing to provide a total of 199 parking spaces. Eighty of the 113 parking spaces in the underground parking garage are designated for residents. The remaining 33 spaces are designated for retail visitors. The 86 parking spaces on the ground level are designated for the assisted living facility (both visitors and employees).

### Bicycle Parking

The project site plan shows bicycle storage lockers near the lobby of the residential building. Per the site plan, a total of 64 long-term bicycle locker spaces are provided within the storage lockers. The site plan shows bicycle parking adjacent to the motorcycle parking located along the ground level drive aisle and near the main lobby for employees and visitors of the assisted living facility. The retail/commercial space will be required to provide two short-term bicycle parking spaces. The site plan shows several bike racks, providing short-term bicycle parking for retail visitors.

**Recommendation:** The project should provide a minimum of two short-term bicycle parking spaces along the San Carlos Street frontage for retail guests.

## Pedestrian, Bicycle, and Transit Analysis

### Pedestrian Facilities

Pedestrian generators in the project vicinity include commercial areas and bus stops along the San Carlos Street corridor. The project site is within the service boundaries of Trace Elementary School, Herbert Hoover Middle School, and Lincoln High School, all of which are located on Dana Avenue approximately ½-mile to ¾-mile from the project site. Existing sidewalks along Brooklyn Avenue, Boston Avenue, Dana Avenue, and San Carlos Street provide a pedestrian connection between the project site and pedestrian destinations in the project vicinity. Additionally, the high-visibility piano key crosswalk across San Carlos Street at Brooklyn Avenue provides a safe connection for pedestrians to reach the other side of San Carlos Street. City staff have indicated that the project should install new ADA curb ramps along both the northwest and northeast corner of Boston Street and San Carlos Street.

The project proposes to construct 12-foot-wide sidewalks along its frontages on Brooklyn Avenue and Boston Avenue. The project also proposes a 20-foot wide sidewalk along San Carlos Street. Street trees would be planted along the project frontage adjacent to the curb, reducing some of the space along the sidewalk. Additionally, the site plan shows that the retail space may be permitted to utilize some of the outdoor space along the San Carlos Street frontage for tables and seating. Overall, the proposed sidewalks provide adequate space and circulation along the project frontages. However, street trees and outdoor seating may block some of the accessible width of the sidewalks. The project applicant should discuss with city staff to determine whether the proposed street trees and outdoor seating would be permitted.

**Recommendation:** The project should discuss with city staff to determine whether the proposed street trees and outdoor seating would impede pedestrian circulation along the project frontages.

**Recommendation:** To increase safety and comfort for pedestrians along San Carlos Street, the project should implement high visibility “piano key” crosswalks at Boston Avenue and Brooklyn Avenue and install new ADA curb ramps along both the northwest and northeast corner of Boston Street and San Carlos Street intersection.

### Bicycle Facilities

The bikeways within the vicinity of the project site would remain unchanged under project conditions.

The project site is not directly served by any bicycle facilities. The project proposes bicycle storage lockers, which may encourage bicycle ownership by residents. Staff may also be more likely to ride their bikes to work because there is secure bicycle storage.

The nearest bicycle sharing station is provided near the intersection of Meridian Avenue and San Carlos Street, approximately 0.8 miles east of the project site. The bicycle sharing station is farther than most residents would walk to for general usage. The San Jose Better Bike Plan 2025 identifies a proposed Class IV protected bike lane along San Carlos Street. City staff have stated that the project will be making a monetary contribution to the proposed bike lane. A protected bike lane along San Carlos Street would improve bicycle connectivity in the vicinity and to other existing bicycle facilities. Additionally, installing a protected bike lane may encourage future residents and visitors to ride bikes rather than drive.

The San Jose Bike Plan 2025 indicates that a variety of bicycle facilities are planned in the study area, some of which would benefit the project and adhere to the goals of the Envision 2040 General Plan. Of the planned facilities, the following are relevant to the project.

Class II, bike lanes, are planned for:

- Leigh Avenue, between San Carlos Street and Moorpark Avenue

Class III, bicycle boulevards, are planned for:

- Wabash Avenue/Leland Avenue, between Forest Avenue and Parkmoor Avenue
- Shasta Avenue, between San Carlos Street and Park Avenue

Class IV, protected bike lanes, are planned for:

- San Carlos Street, between its eastern terminus to Bascom Avenue
- Bascom Avenue, its entirety within City limits

**Transit Services**

The project site is adequately served by the existing VTA transit services. The project site is primarily served by two VTA bus routes (Frequent Route 23 and Rapid Route 523). The nearest bus stops to the project site serve Frequent Route 23 and are located along both sides of San Carlos Street (near Brooklyn Avenue), approximately 100 feet from the project site. The nearest bus stop serving Rapid Route 523 is located at the intersection of Bascom Avenue and San Carlos Street, approximately 800 feet from the project site. Additionally, the Diridon Transit Center is located approximately 1.36-mile north and east of the project site, along Cahill Street. The Diridon Transit Center provides connections between local and regional bus routes, light rail lines, and commuter rail lines. The new transit trips generated by the project are not expected to create demand in excess of the transit service that is currently provided.

# 1. Introduction

This report presents the results of a Transportation Analysis (TA) for the proposed mixed-use development located at 1881 San Carlos Street. The project site consists of seven parcels (APN 274-16-049, -050, -051, -052, -053, -069, and -070) and is located along the north side of San Carlos Street, between Brooklyn Avenue and Boston Avenue in the City of San José. The project site location and the surrounding study area are shown on Figure 1. The project site is located within a designated Urban Village (West San Carlos) per the Envision San Jose 2040 General Plan. On May 8, 2018, the City of San Jose adopted the West San Carlos Urban Village Plan as shown in Figure 2. The West San Carlos Urban Village Plan provides a vision for the transformation of San Carlos Street into a more urban and walkable corridor. The adopted UV Plan will be the City's official Planning policy document for the corridor, providing goals, policies, actions, and urban design guidelines to guide private and public investment to achieve this vision.

The project, as proposed, would replace the existing commercial and residential buildings on site with an assisted living facility with 246 beds, 61 multi-family residential units, and 6,000 s.f. of commercial space. A total of 199 parking spaces are proposed to be provided with ground level parking and an underground parking garage. The proposed project site will be accessed by a full access driveway leading to an underground garage on Brooklyn Avenue and a drive aisle, accessible from Brooklyn Avenue and Boston Avenue, which lead to a surface parking lot and loading area. The project site plan is shown on Figure 3.

The transportation analysis of the project was evaluated following the standards and methodologies set forth in the City of San Jose's Transportation Analysis Policy (Council Policy 5-1), the City of San Jose's *Transportation Analysis Handbook 2018*, the Santa Clara Valley Transportation Authority (VTA) Congestion Management Program's *Transportation Impact Guidelines* (October 2014), and by the California Environmental Quality Act (CEQA). Per the requirements of the City of San Jose's Transportation Policy and *Transportation Analysis Handbook 2018*, the TA report for the project consists of a CEQA vehicle-miles-traveled (VMT) analysis and a supplemental Local Transportation Analysis (LTA).

## Transportation Policies

### Council Policy 5-1

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

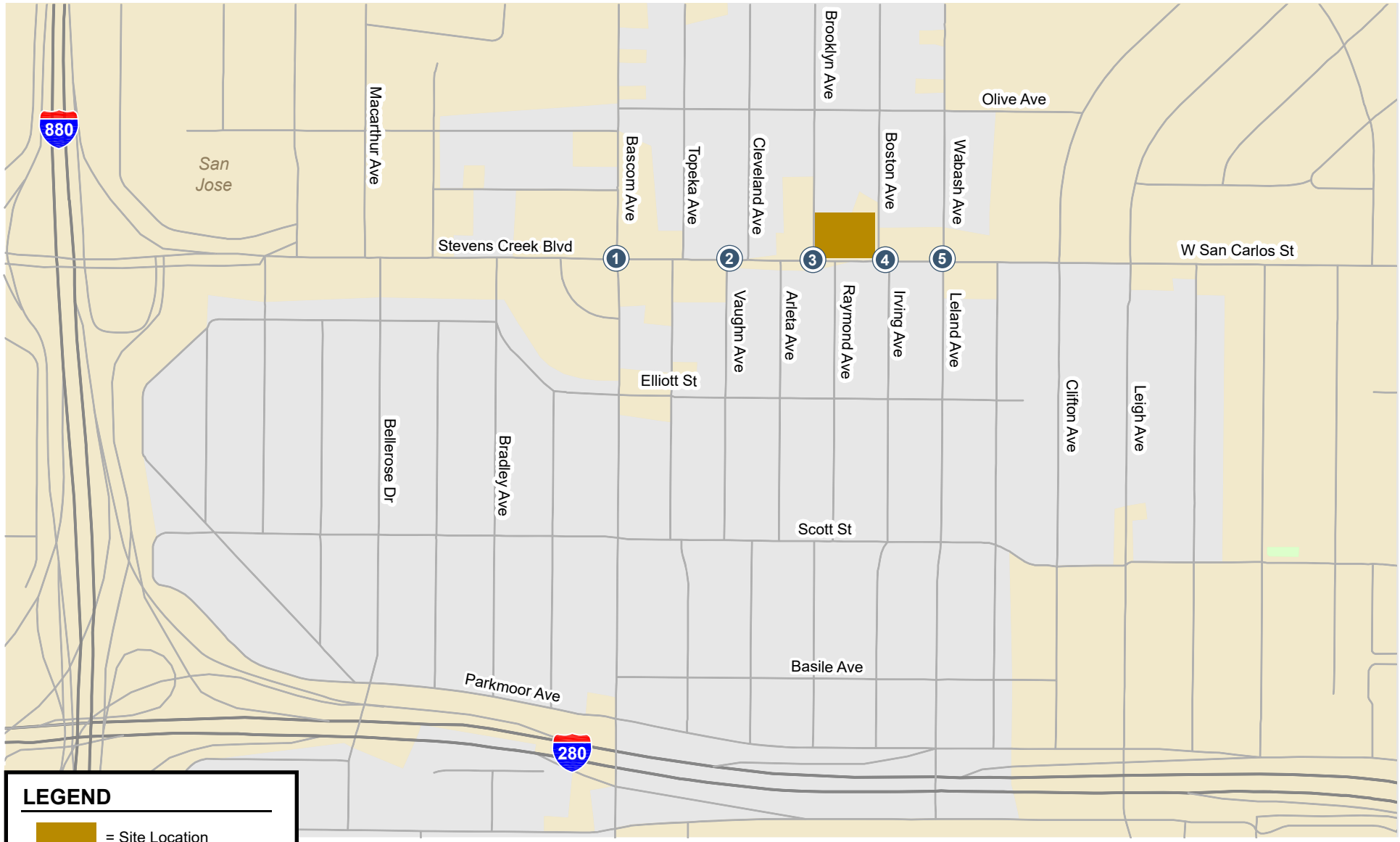


**Figure 1**
**Site Location and Study Intersections**

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NORTH
Not to Scale

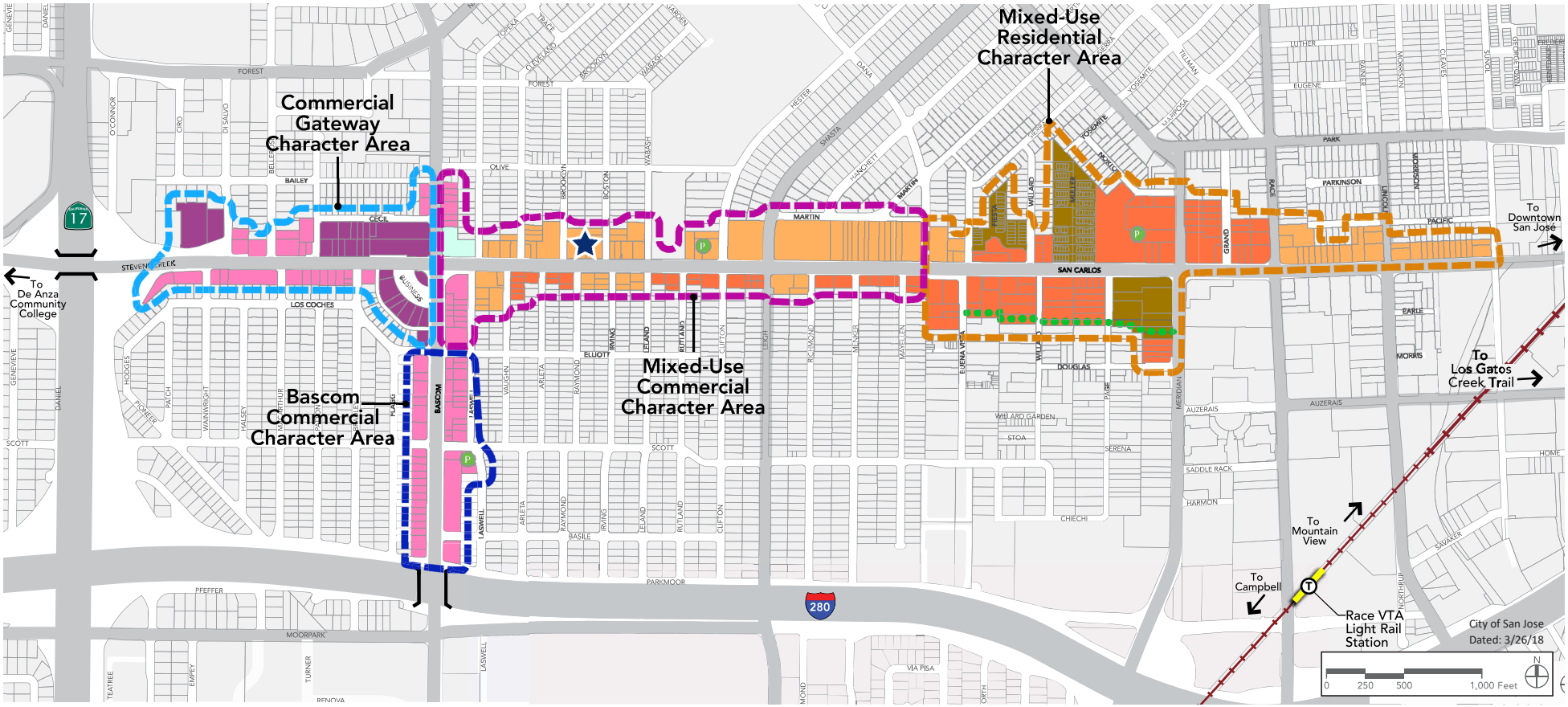


**Figure 2**
**West San Carlos Urban Village Boundary**

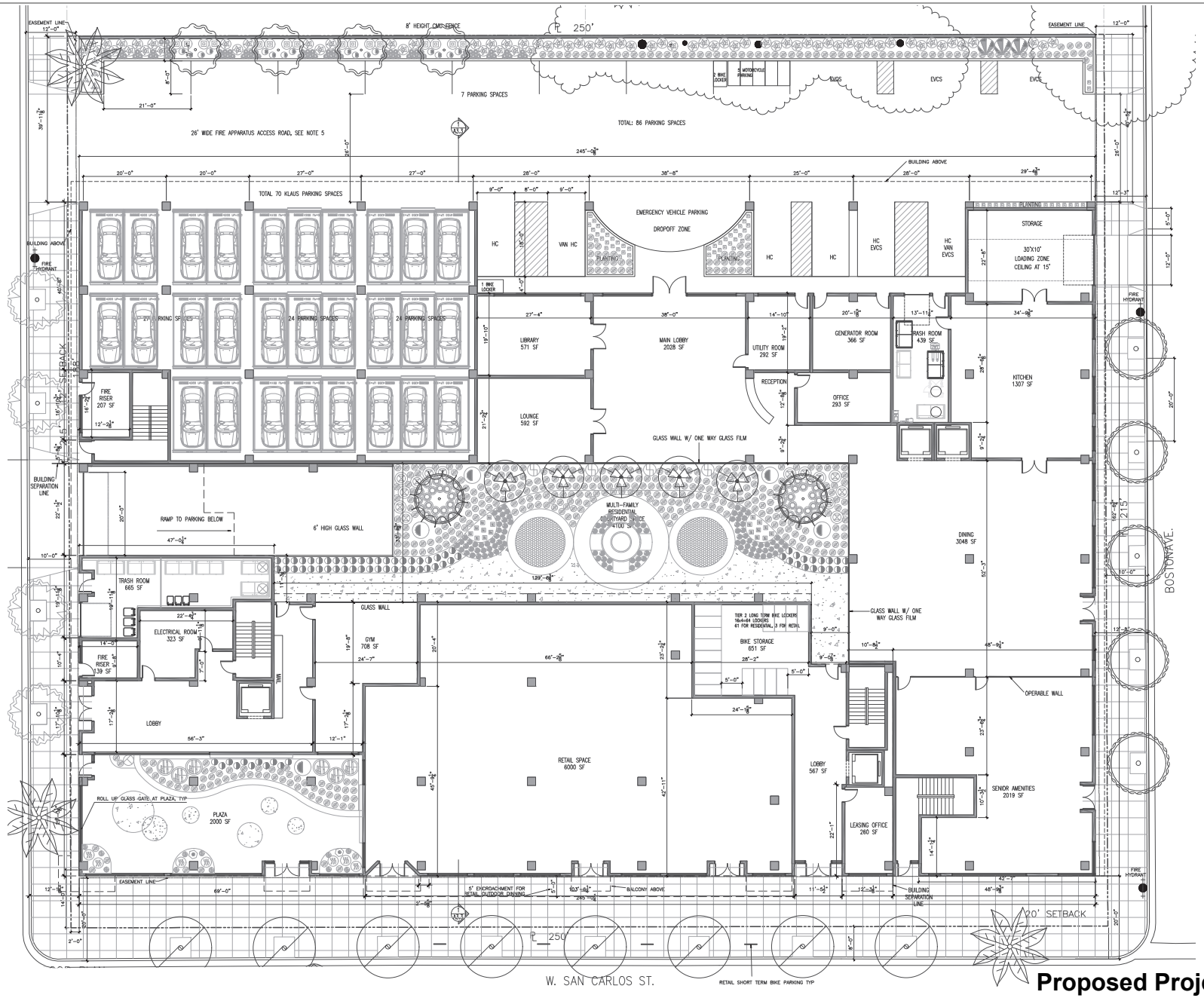


**Figure 3**
**Proposed Project Site Plan**

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NORTH
Not to Scale

In adherence to SB 743, the City of San Jose has adopted a new Transportation Analysis Policy, Council Policy 5-1. The policy replaces its predecessor (Policy 5-3) and establishes the thresholds for transportation impacts under the CEQA based on 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 policy aligns with the currently adopted General Plan which seeks to focus new development growth within Planned Growth Areas, bringing together office, residential, and supporting service land uses to internalize trips and reduce VMT. All new development projects are required to analyze transportation impacts using the VMT metric and conform to Council Policy 5-1.

**General Plan Goals & Policies**

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

- Consider impacts on overall mobility and all travel modes when evaluating transportation impacts of new developments or infrastructure projects (TR-1.2);
- Through the entitlement process for new development, projects shall be required to fund or construct needed transportation improvements for all transportation modes, giving first consideration to improvement of biking, walking and transit facilities and services that encourage reduced vehicle travel demand (TR-1.4);
- Require new development where feasible to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements (TR-2.8);
- As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute towards transit ridership. In addition, require that new development is designed to accommodate and to provide direct access to transit facilities (TR-3.3);
- 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 Villages and Corridors and other growth areas (TR-8.6);
- Encourage private property owners to share their underutilized parking supplies with the general public and/or other adjacent private developments (TR-8.7);
- 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);
- 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 CEQA transportation analysis for the project consists of a project-level VMT impact analysis using the City's VMT tool and a cumulative impact analysis that demonstrates the project's consistency with the Envision San Jose 2040 General Plan.

The City of San Jose's Transportation Analysis Policy establishes procedures for determining project impacts on VMT based on project description, characteristics, and/or location. The City's VMT methodology also includes screening criteria that are used to identify types, characteristics, and/or locations of projects that would not exceed the CEQA thresholds of significance. If a project or a component of a mixed-use project meets the screening criteria, it is then presumed that the project or the component would result in a less-than-significant VMT impact and a VMT analysis is not required.

The project site is located within a planned Growth Area (West San Carlos Urban Village) with low VMT per capita as identified by the City of San Jose. San Carlos Street, located along the south project frontage, is a high-quality transit corridor with VTA bus service headways of less than 15 minutes during peak commute periods. The proposed 6,000 s.f. of retail space is less than the 100,000 s.f. retail threshold screening criterion for local-serving retail. Therefore, the residential and commercial land use components of the project are anticipated to result in less-than-significant VMT impacts and a detailed CEQA transportation analysis that evaluates the project's effects on VMT is not required.

Since the assisted living portion of the project does not specifically fall into any of the residential, office, or industrial categories, city staff have provided guidance to convert the estimated trip generation of the assisted living portion to its office square footage equivalent. Since many of the trips associated with the assisted living portion of the project would be trips taken by employees, it is most similar to the office category when analyzing VMT. When considering the equivalent office space for the proposed assisted living facility, the proposed assisted living component of the project will not meet all of the applicable VMT screening criteria. Therefore, a CEQA-level transportation analysis that evaluates the project's effects on VMT is required for the assisted living component of the project and is presented in Chapter 3.

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 development projects. For non-residential or non-office projects, very large projects, or projects that can potentially shift travel patterns, the City's Travel Demand Forecasting (TDF) model can be used to determine project VMT. The City's VMT tool was used to estimate VMT for employment uses proposed by the project. Because the proposed project is relatively small and would not significantly alter existing traffic patterns, the VMT evaluation tool was used to estimate the project VMT and determine whether the project would result in a significant VMT impact.

## Local Transportation Analysis Scope

A local transportation analysis (LTA) supplements the CEQA VMT analysis and identifies transportation and traffic operational issues that may arise due to a development project. The LTA includes an evaluation of the effects of the project on transportation, access, circulation, and related safety elements in the proximate area of the project.

The LTA includes the evaluation of weekday AM and PM peak hour operations at a limited number of intersections for the purpose of identifying operational issues (queuing, signal operations, and potential multi-modal issues) at intersections in the general vicinity of the project site. However, the determination of project impacts per CEQA requirements is based solely on the VMT analysis.

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 operations conditions were evaluated for the following scenarios:

- ***Existing Conditions***. Existing AM and PM peak hour traffic volumes at all signalized study intersections were obtained from the City of San Jose. For intersections where count data was more than two years old, a compounded growth factor of 1% per year was applied. Since count data is not available at the unsignalized study intersections, counts were conducted at all study intersections. The new turning movement counts were then compared to existing counts and factored to represent pre-COVID traffic volumes.
- ***Background Conditions.*** Background traffic volumes were estimated by adding to existing peak hour volumes the projected volumes from approved but not yet completed developments. The approved project traffic was provided by the City of San Jose in the form of the Approved Trips Inventory (ATI).
- ***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 traffic volumes with the project were estimated by adding to background traffic volumes the additional traffic generated by the project.

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

## Report Organization

The remainder of this report is divided into four chapters. Chapter 2 describes existing transportation system including the existing roadway network, transit service, bicycle and pedestrian facilities. Chapter 3 describes the CEQA transportation analysis, including VMT analysis methodology, baseline and potential project VMT impacts, mitigation measures to reduce the VMT impact, and potential cumulative transportation impacts. Chapter 4 describes the LTA including the method by which project traffic is estimated, intersection operations analysis methodology, any adverse intersection traffic effects caused by the project, intersection vehicle queuing analysis, site access and on-site circulation review, effects on bicycle, pedestrian, and transit facilities, and parking. Chapter 5 presents the conclusions of the transportation analysis.

# 2. Existing Transportation Setting

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 services, and pedestrian and bicycle facilities.

## Existing Roadway Network

Regional access to the project site is provided via I-880 and I-280. These facilities are described below.

***I-880*** is a six-lane freeway in the vicinity of the site. It extends north to Oakland and south to I-280 in San Jose, at which point it makes a transition into SR 17 to Santa Cruz. Access to the site is provided via its interchanges with Stevens Creek Boulevard and I-280.

***I-280*** is an eight-lane freeway in the vicinity of the site. It extends northwest to San Francisco and east to King Road in San Jose, at which point it makes a transition into I-680 to Oakland. North of I-880, I-280 has high occupancy vehicle (HOV) lanes in both directions. Access to and from northbound I-280 to the site is provided via ramps at Parkmoor Avenue. Access to and from southbound I-280 to the site is provided via ramps at Moorpark Avenue. Alternative access to I-280 is provided via an interchange at Meridian Avenue.

Local access to the site is provided by San Carlos Street/Stevens Creek Boulevard, Bascom Avenue, Leigh Avenue/Shasta Avenue, Brooklyn Avenue, and Boston Avenue. These roadways are described below.

***San Carlos Street*** is a divided four-lane east-west roadway in the vicinity of the project site. The City of San Jose designates San Carlos Street as a Grand Boulevard. Grand Boulevards serve as major transportation corridors within the city and priorities transit (buses, BRT, and light rail). It extends from Downtown San Jose westward to I-880, at which point it makes a transition into Stevens Creek Boulevard to Cupertino. In the project vicinity, San Carlos Street has a posted speed limit of 35 mph with sidewalks and on-street parking on both sides of the street and no bike lanes. San Carlos Street runs along the south project frontage. Access to the project site from San Carlos Street is provided via driveways along Brooklyn Avenue and Boston Avenue.

***Bascom Avenue*** is a divided four-lane north-south roadway in the vicinity of the project site. It extends from I-880 in the north, where it becomes Washington Avenue to Los Gatos in the south, where it becomes Los Gatos Boulevard. The City of San Jose designates Bascom Avenue as a Main Street. Main Streets supports many transportation modes and provide an emphasis for pedestrian activity. Additionally, Main Streets should be “complete streets” designed for comfortable access for all modes, such as pedestrians, bicyclists, and public transit riders. In the project vicinity, Bascom Avenue has a

posted speed limit of 35 mph with sidewalks and on-street parking on both sides of the street and no bike lanes. Access to the project site from Bascom Avenue is provided via San Carlos Street to Brooklyn Avenue or Boston Avenue.

***Leigh Avenue*** is a two-lane north-south roadway that extends southward from San Carlos Street to Blossom Hill Road. North of San Carlos Street, Leigh Avenue makes a transition to Shasta Avenue. The City of San Jose designates Leigh Avenue as a On-Street Primary Bicycle Facility. On-Street Primary Bicycle Facilities are streets that provide bicyclists with continuous access and connections to the local and regional bicycle network. In the project vicinity, Leigh Avenue has a posted speed limit of 25 mph with sidewalks and on-street parking on both sides of the street and no bike lanes. Access to the project site from Leigh Avenue is provided via San Carlos Street to Brooklyn Avenue or Boston Avenue.

***Brooklyn Avenue*** is a two-lane north-south roadway that extends northward from San Carlos Street to Dana Avenue. In the project vicinity, Dana Avenue has sidewalks on both sides of the street and on-street parking in the northbound direction. Access to the underground garage is provided via a full-access driveway along Brooklyn Avenue. Access to the surface parking area is provided via a full-access driveway along Brooklyn Avenue.

***Boston Avenue*** is a two-lane north-south roadway that extends northward from San Carlos Street to Forest Avenue. In the project vicinity, Dana Avenue has sidewalks and on-street parking on both sides of the street. Access to the surface parking area is provided via a full-access driveway along Boston Avenue.

## Existing 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.

### Existing Pedestrian Facilities

Pedestrian facilities near the project site consist mostly of sidewalks along the streets in the study area. Sidewalks are found along both sides of all streets near the project site including San Carlos Street. Other pedestrian facilities in the project area include crosswalks and pedestrian push buttons at all signalized study intersections. At the intersection of Brooklyn Avenue and San Carlos Street, a high-visibility ladder-style crosswalk is provided across San Carlos Street. There are missing ADA-compliant ramps along the northwest and northeast corners of Boston Street and San Carlos Street.

Pedestrian generators in the project vicinity include commercial areas and bus stops along the San Carlos Street corridor. The project site is within the service boundaries of Trace Elementary School, Herbert Hoover Middle School, and Lincoln High School, all of which are located on Dana Avenue approximately ½-mile to 1-mile from the project site. Existing sidewalks along San Carlos Street, Brooklyn Avenue, and Boston Avenue provide a pedestrian connection between the project site and pedestrian destinations in the project vicinity. Overall, the existing network of sidewalks and crosswalks provides good connectivity and provides pedestrians with safe routes to transit services and other points of interest in the area.

### Existing Bicycle Facilities

There are several bicycle facilities in the vicinity of the project site. Bicycle facilities are divided into the following three classes of relative significance:

**Class I Bikeway (Bike Path)**. Class I bikeways are bike paths that are physically separated from motor vehicles and offer two-way bicycle travel on a separate path. The Los Gatos Creek Trail is located in the

project area and is a continuous multi-purpose pathway for pedestrians and bicycles that is separated from motor vehicles. It begins at Vasona Lake County Park in the south and continues to West San Carlos Street in the north, all alongside Los Gatos Creek. A connection to the northern segment of the Los Gatos Creek Trail system is located on San Carlos Avenue, approximately 1.4 miles east of the project site.

**Class II Bikeway (Bike Lane)**. Class II bikeways are striped bike lanes on roadways that are marked by signage and pavement markings. Within the vicinity of the project site, striped bike lanes are present on the following roadway segments.

- Stevens Creek Boulevard, between Bellrose Drive and Monroe Street
- Forest Avenue, between Bascom Avenue and Ciro Avenue
- Park Avenue, along the entire length of the street

**Class III Bikeway (Bike Route)**. Class III bikeways are bike routes and only have signs to help guide bicyclists on recommended routes to certain locations. In the vicinity of the project site, the following roadway segments are designated as bike routes.

- Dana Avenue, between San Carlos Street and Hedding Street
- Bellrose Drive, between Forest Avenue and Pfeffer Lane
- Scott Street, between Willard Avenue and Bascom Avenue

The existing bicycle facilities are shown in Figure 4.

## Existing Transit Services

Existing transit services in the study area are provided by the VTA and are shown on Figure 5.

The Diridon Transit Center is located approximately 1.7 miles northeast of the project site, along Cahill Street. The Diridon Transit Center provides connections between local and regional bus routes, light rail lines, and commuter rail lines.

### VTA Bus Service

The project site is primarily served by two VTA bus routes (Frequent Route 23 and Rapid Route 523). These bus lines are listed in Table 1, including their terminus points and commute hour headways. The nearest bus stops to the project site serve Frequent Route 23 and are located along both sides of San Carlos Street (near Brooklyn Avenue and Arleta Avenue), approximately 100 feet from the project site. The nearest bus stop serving Rapid Route 523 is located at the intersection of Bascom Avenue and San Carlos Street, approximately 0.2-mile from the project site.

**Table 1**
**Existing Transit Services**

| Bus Route | Route Description | Nearest Stop | Headway [1] |
|---|---|---|---|
| Frequent Route 23 | DeAnza College to Alum Rock Transit Center via Stevens Creek | San Carlos/Buena Vista | 12 - 15 min |
| Rapid Route 523 | Berryessa BART to Lockheed Martin via De Anza College | San Carlos/Meridian | 15 - 20 min |

Notes:
[1] Approximate headways during peak commute periods.

### VTA Light Rail Transit (LRT) Service

The VTA currently operates the 42.2-mile VTA light rail line system extending from south San Jose through downtown to the northern areas of San Jose, Santa Clara, Milpitas, Mountain View and Sunnyvale. The nearest LRT station is located at the Diridon Transit Center. LRT service at the Diridon Transit Center is provided by the Green LRT line (Winchester – Old Ironsides). The Green LRT line provides service from the Winchester station in Campbell, through Downtown San Jose. A transfer point to the Blue LRT line (Santa Teresa – Baypointe) is provided at all Downtown stations, starting at the Convention Center LRT Station. From Downtown San Jose, the Green LRT line runs to north San Jose where it curves west and operates along the Tasman Corridor to Old Ironsides station, where a connection is provided to the Orange LRT line (Mountain View – Alum Rock).

## Other Transit Services Near the Project Site

Additional local and express bus routes, as well as commuter rail services, are provided at the Diridon Transit Center. Services to regional destinations are provided by VTA Express bus routes 168, 181, Rapid Route 500, and the Amtrak Highway 17 Express. North of the Diridon Transit Center, the Rapid Route 522 stops at the SAP Center and provides service between Palo Alto and East San Jose with 12-minute headways.

Regional commuter rail services provided at the Diridon Transit Center include the following:

### Caltrain Service

Caltrain operates a commuter rail service seven days a week between San Jose and San Francisco. During weekday commuting hours, Caltrain also serves the South County including Gilroy, San Martin, and Morgan Hill. The existing Caltrain station is located at the Diridon Transit Center. Trains stop frequently at the Diridon station between 4:28 AM and 10:30 PM in the northbound direction, and between 6:31 AM and 1:38 AM in the southbound direction. The Diridon station provides 581 parking spaces, as well as 16 bike racks, 48 bike lockers, and 27 bike share docks.

### Altamont Corridor Express Service (ACE)

ACE provides commuter rail service between Stockton, Lathrop/Manteca, Tracy, Livermore, Pleasanton, Fremont, Santa Clara, and San Jose during commute hours, Monday through Friday. Service is limited to four westbound trips in the morning and four eastbound trips in the afternoon and evening with headways averaging 60 minutes. ACE trains stop at the Diridon Station between 6:32 AM and 9:17 AM in the westbound direction, and between 3:35 PM and 6:38 PM in the eastbound direction.

### Amtrak Capitol Corridor

Amtrak provides daily commuter passenger train service along the 170-mile Capitol Corridor between the Sacramento region and the Bay Area, with stops in San Jose, Santa Clara, Fremont, Hayward, Oakland, Emeryville, Berkeley, Richmond, Martinez, Suisun City, Davis, Sacramento, Roseville, Rocklin, and Auburn. The Capitol Corridor trains stop at the San Jose Diridon Station eight times during the weekdays between approximately 7:38 AM and 11:55 PM in the westbound direction. In the eastbound direction, Amtrak stops at the Diridon Station seven times during the weekdays between 6:40 AM and 7:15 PM.

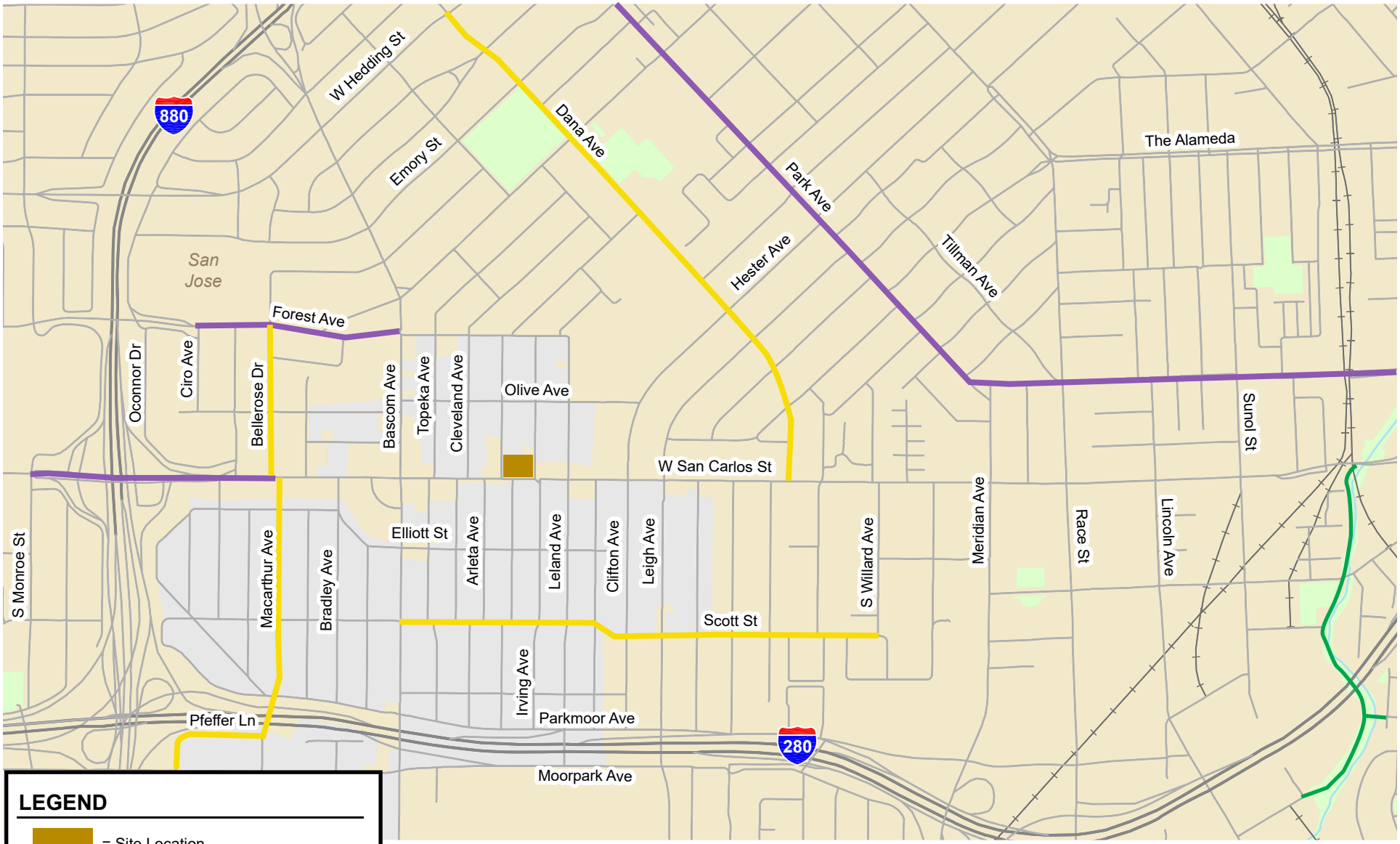



**Figure 4**
**Existing Bicycle Facilities**

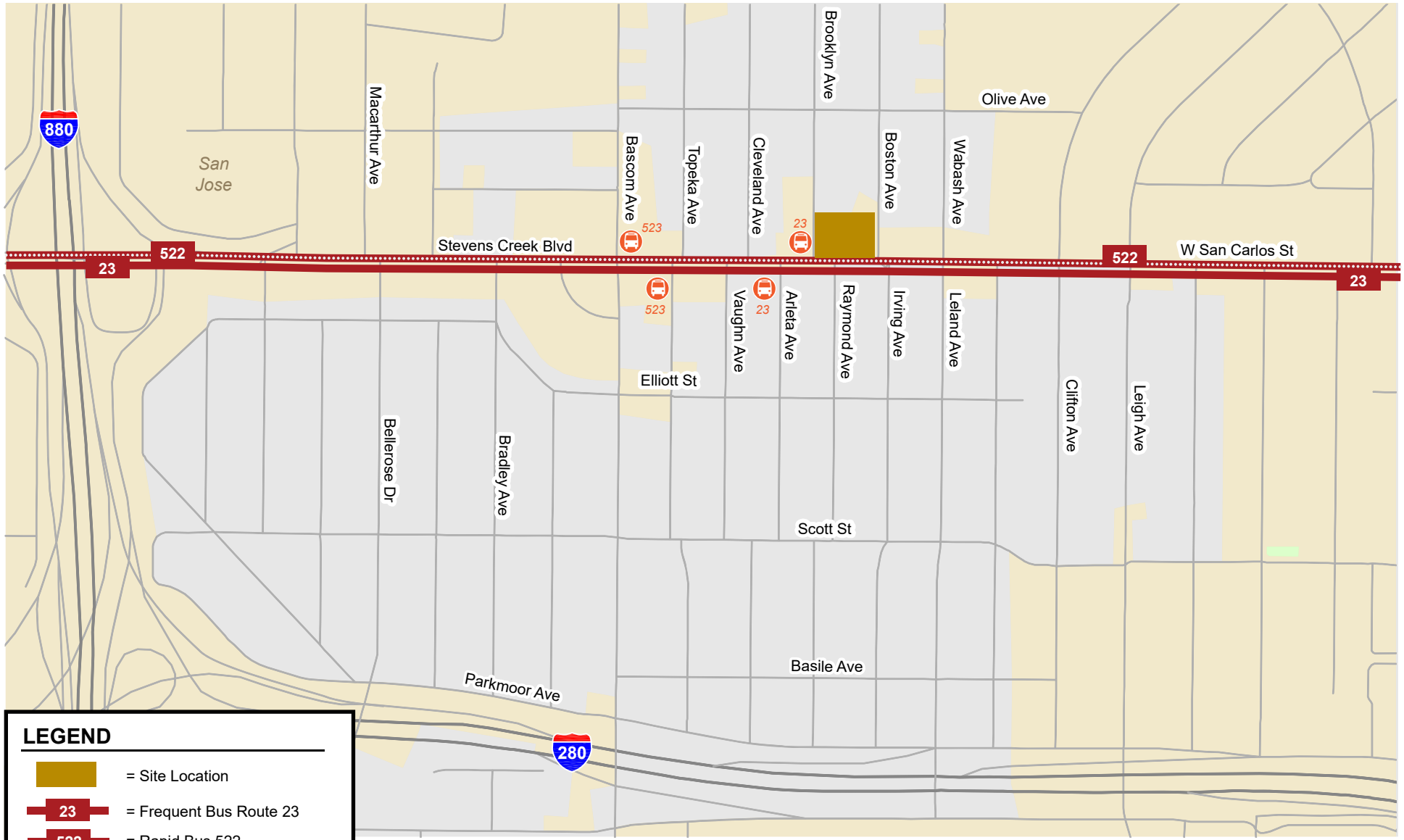



**Figure 5**
**Existing Transit Services**



NORTH
Not to Scale

# 3. CEQA Transportation Analysis

This chapter describes the CEQA transportation analysis, including the VMT analysis methodology and significance criteria, potential project impacts on VMT, mitigation measures recommended to reduce significant impacts, and an evaluation of consistency with the City of San Jose's General Plan.

## CEQA Transportation Analysis Screening Criteria

The City of San Jose *Transportation Analysis Handbook* identifies screening criteria that determine whether a CEQA transportation analysis would be required for development projects. The criteria are based on the type of project, characteristics, and/or location. If a project or a component of a mixed-use project meets the City's screening criteria, it is presumed that the project would result in a less-than-significant transportation impact and a detailed VMT analysis is not required. The type of development projects that may meet the screening criteria include the following:

(1) small infill projects
(2) local-serving retail
(3) local-serving public facilities
(4) projects located in *Planned Growth Areas* with low VMT and *High-Quality Transit*
(5) deed-restricted affordable housing located in *Planned Growth Areas* with *High-Quality Transit*

Table 2 summarizes the screening criteria for each type of development project as identified in the City of San Jose Transportation Analysis Handbook. Figures 6 and 7 identify areas within the City that currently have low VMT levels estimated by the City for residents and workers, respectively, for which transit supportive development located within a priority growth area would be screened out of the evaluation of VMT.

### Evaluation of Screening Criteria

The project site is located within a planned Growth Area (West San Carlos Urban Village) and is located along San Carlos Street, which is a high-quality transit corridor with VTA bus service headways of less than 15 minutes during peak commute periods. The project is located within an area with low VMT per-capita, but exceeds the thresholds of significance for VMT per-employee. Therefore, the residential portion of the project meets the screening criteria. However, the proposed assisted living component of the project will not meet all of the applicable VMT screening criteria. Therefore, a CEQA-level transportation analysis that evaluates the project's effects on VMT is required for the assisted living component of the project.

**Table 2**
**CEQA VMT Analysis Screening Criteria for Development Projects**

| Type | Screening Criteria |
|---|---|
| **Small Infill Projects** | • Single-family detached housing of 15 units or less; OR<br>• Single-family attached or multi-family housing of 25 units or less; OR<br>• Office of 10,000 square feet of gross floor area or less; OR<br>• Industrial of 30,000 square feet of gross floor area or less |
| **Local-Serving Retail** | • 100,000 square feet of total gross floor area or less without drive-through operations |
| **Local-Serving Public Facilities** | • Local-serving public facilities |
| **Residential/Office Projects or Components** | • **Planned Growth Areas:** Located within a Planned Growth Area as defined in the Envision San José 2040 General Plan; AND<br>• **High-Quality Transit:** Located within ½ a mile of an existing major transit stop or an existing stop along a high-quality transit corridor; AND<br>• **Low VMT:** Located in an area in which the per capita VMT is less than or equal to the CEQA significance threshold for the land use; AND<br>• **Transit-Supporting Project Density**:<br>o Minimum Gross Floor Area Ratio (FAR) of 0.75 for office projects or components;<br>o Minimum of 35 units per acre for residential projects or components;<br>o If located in a Planned Growth Area that has a maximum density below 0.75 FAR or 35 units per acre, the maximum density allowed in the Planned Growth Area must be met; AND<br>• **Parking:**<br>o No more than the minimum number of parking spaces required;<br>o If located in Urban Villages or Downtown, the number of parking spaces must be adjusted to the lowest amount allowed; however, if the parking is shared, publicly available, and/or "unbundled", the number of parking spaces can be up to the zoned minimum; AND<br>• **Active Transportation**: Not negatively impact transit, bike or pedestrian infrastructure. |
| **Restricted Affordable Residential Projects or Components** | • **Affordability:** 100% restricted affordable units, excluding unrestricted manager units; affordability must extend for a minimum of 55 years for rental homes or 45 years for for-sale homes; AND<br>• **Planned Growth Areas:** Located within a Planned Growth Area as defined in the Envision San José 2040 General Plan; AND<br>• **High Quality Transit:** Located within ½ a mile of an existing major transit stop or an existing stop along a high quality transit corridor; AND<br>• **Transit-Supportive Project Density**:<br>o Minimum of 35 units per acre for residential projects or components;<br>o If located in a Planned Growth Area that has a maximum density below 35 units per acre, the maximum density allowed in the Planned Growth Area must be met; AND<br>• **Transportation Demand Management (TDM):** If located in an area in which the per capita VMT is higher than the CEQA significance threshold, a robust TDM plan must be included; AND<br>• **Parking:**<br>o No more than the minimum number of parking spaces required;<br>o If located in Urban Villages or Downtown, the number of parking spaces must be adjusted to the lowest amount allowed; however, if the parking is shared, publicly available, and/or "unbundled", the number of parking spaces can be up to the zoned minimum; AND<br>• **Active Transportation:** Not negatively impact transit, bike or pedestrian infrastructure. |

Source: City of San José Transportation Analysis Handbook, April 2018.

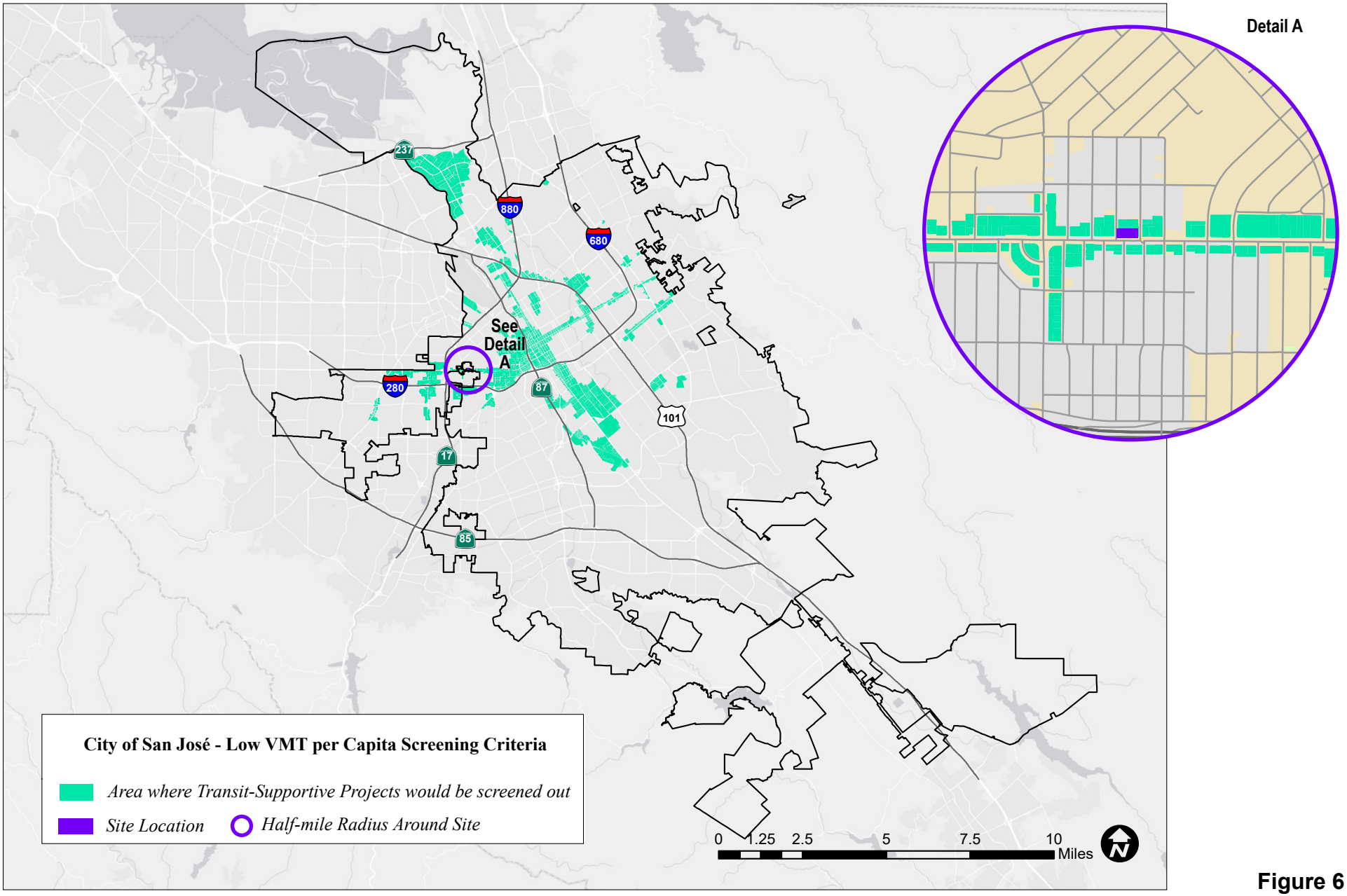



**Figure 6**
**Low VMT per Capita Areas in San Jose**

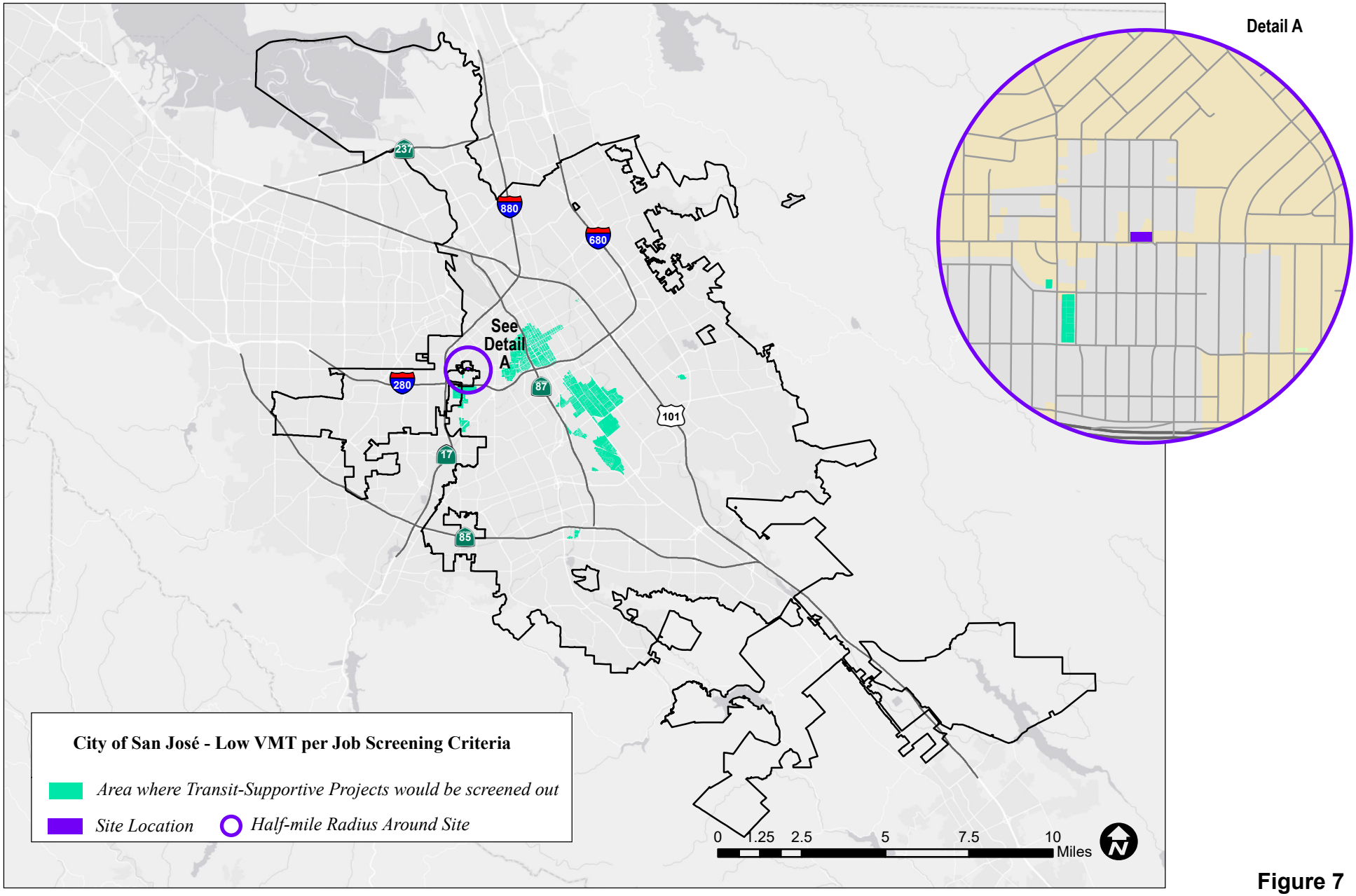



**Figure 7**
**Low VMT per Job Areas in San Jose**

Per the City of San Jose VMT screening criteria, retail projects of 100,000 square feet or less are considered local-serving. The proposed 6,000 s.f. of retail space is less than the 100,000 s.f. retail threshold screening criterion for local-serving retail and a detailed VMT analysis is not required.

Therefore, both the residential and commercial land use components of the project are anticipated to result in less-than-significant VMT impacts and a detailed CEQA transportation analysis that evaluates the project's effects on VMT is not required. However, since the assisted living portion of the project does not meet the screening criteria, a VMT evaluation for the project was completed and presented below.

**Planned Growth Areas**

**Requirement:** *Located within a Planned Growth Area as defined in the Envision San José 2040 General Plan.*

The project site is located within the West San Carlos Urban Village.

**High-Quality Transit**

**Requirement:** *Located within ½ a mile of an existing major transit stop or an existing stop along a high-quality transit corridor*

The project site is located approximately 100 feet from bus stops serving VTA Frequent Route 23 near the intersection of Brooklyn Avenue/San Carlos Street and Arleta Avenue/San Carlos Street. San Carlos Street is considered a high-quality transit corridor due to Frequent Route 23 having headways of 15 minutes or less during peak commute hours.

**Low VMT**

**Requirement:** *Located in an area in which the per capita or per employee VMT is less than or equal to the CEQA significance threshold for the land use.*

The project site is located within an Urban Village Area (San Carlos Street) with low VMT per capita (7.95 compared to the threshold VMT per capita of 10.12 for residential uses). The VMT per employee exceeds the thresholds of significance (12.84 compared to the threshold VMT per employee of 12.22 for employment uses). ***A VMT analysis is required for the assisted living component of the project because the existing VMT of 12.84 per employee is greater than the established baseline VMT threshold of 12.21.***

**Recommendation:** The project should implement Transportation Demand Management (TDM) measures to reduce the VMT per employee to below the thresholds of significance.

**Transit-Supporting Project Density**

**Requirement:** *Minimum of 35 units per acre for residential projects or components; if located in a Planned Growth Area that has a maximum density below 35 units per acre, the maximum density allowed in the Planned Growth Area must be met.*

A total of 61 residential units are proposed to be constructed on the 1.23-acre project site. The proposed development density will equate to 50 units per acre, exceeding the required minimum of 35 units per acre. The proposed project also will meet the maximum 50 units per acre as required by the West San Carlos Urban Village Plan for the "Urban Village in the Mixed-Use Commercial Character Area" land use.

The proposed development would develop approximately 187,382 s.f. of floor space on the 1.23-acre project site. This would meet the maximum 4.0 Floor Area Ratio (F.A.R.) as required by the West San

Carlos Urban Village Plan for the "Urban Village in the Mixed-Use Commercial Character Area" land use.

**Parking**

**Requirement:** *No more than the minimum number of parking spaces required; if located in Urban Villages or Downtown, the number of parking spaces must be adjusted to the lowest amount allowed; however, if the parking is shared, publicly available, and/or "unbundled", the number of parking spaces can be up to the zoned minimum.*

The site is within the West San Carlos Urban Village, which is subject to city-wide parking rates. Due to its location in an urban village, the project proposes the adjusted lowest number of parking spaces allowed for the residential portion of the project. However, the total proposed number of parking spaces would exceed the City's requirements. A detailed analysis on the number of provided spaces is discussed in Chapter 4.

**Active Transportation**

**Requirement:** *Not negatively impact transit, bike or pedestrian infrastructure*

No negative impacts to transit, bike or pedestrian infrastructure are anticipated with the proposed development. Potential impacts to transit services, bike and pedestrian facilities within the project study area are discussed in Chapter 4.

## VMT Evaluation Methodology and Criteria

Per Council Policy 5-1, the effects of the proposed project on VMT was evaluated using the methodology outlined in the City's *Transportation Analysis Handbook*. The City of San Jose defines VMT as the total miles of travel by personal motorized vehicles a project is expected to generate in a day. VMT is calculated using the Origin-Destination VMT method, which measures the full distance of personal motorized vehicle-trips with one end within the project. A project's VMT is compared to established thresholds of significance based on the project location and type of development.

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 of residential developments and no transit serve in the project vicinity.

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. Non-residential and non-employment uses, such as retail and hotel uses are assessed based on their effects on total VMT.

### VMT Evaluation Tool

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 development projects. Based on the assessor's parcel number (APN) of a project, the VMT evaluation tool identifies the existing average VMT per capita and employee for the project area. Based on the project location, type of development, project description, and proposed trip reduction measures, the VMT evaluation tool calculates the project VMT.

However, the City's VMT Evaluation Tool is limited to the evaluation of the general land use categories of residential, office, and industrial. Therefore, the use of the VMT tool for land uses that are not reflective of one of the three general land uses, such as the proposed assisted living facility, requires the conversion of the proposed land use to an equivalent amount of residential units, office space, or industrial space. The trip generation of assisted living uses are most similar to office uses since the trip generation of both land uses are primarily associated with employees. Therefore, the number and origination/destination of daily trips generated by both office and assisted living uses should be similar. Therefore, the proposed 246-bed assisted living facility was converted into an equivalent amount of office space using trip generation estimates based on trip rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 10th Edition* (2017). Based on the ITE daily trip rate for an Assisted Living Facility (ITE Land Use Code 254), the proposed assisted living facility is expected to generate 640 daily trips which are equivalent to the trips estimated to be generated by 65,700 s.f. of office space. Therefore, the 246-bed assisted living facility is expected to have employees with trip-making characteristics that are comparable to 65,700 s.f. of office space. Table 3 presents the assisted living to office equivalency calculation.

**Table 3**
**Office Equivalency Calculation**

| Land Use | ITE Land Use Code | Size | Daily Rate | Daily Trip |
|---|---|---|---|---|
| Assisted Living | 254 | 246 Beds | 2.60 | 640 |
| Office | 710 | 65,700 Square Feet | 9.74 | 640 |

Projects located in areas where the existing VMT is greater than 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 greatest extent possible. The VMT Evaluation tool evaluates a list of selected VMT reduction measures that can be applied to a project to reduce the project VMT. There are four strategy tiers whose effects on VMT can be calculated with the VMT Evaluation tool:

1. Project characteristics (e.g. density, diversity of uses, design, and affordability of housing) that encourage walking, biking and transit uses.
2. Multimodal network improvements that increase accessibility for transit users, bicyclists, and pedestrians,
3. Parking measures that discourage personal motorized vehicle-trips, and
4. Transportation demand management (TDM) measures that provide incentives and services to encourage alternatives to personal motorized vehicle-trips.

The first three strategies – land use characteristics, multimodal network improvements, and parking – are physical design strategies that can be incorporated into the project design. TDM includes programmatic measures that aim to reduce VMT by decreasing personal motorized vehicle mode share and by encouraging more walking, biking, and riding transit. TDM measures should be enforced through annual trip monitoring to assess the project's status in meeting the VMT reduction goals.

## Baseline VMT Estimates

The thresholds of significance for residential and employment 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. Figures 8 and 9 show the current VMT levels estimated by the City for residents and workers, respectively. Average per-capita and per-employee VMT for all the existing developments within ½ mile buffer of each parcel in the City serves as the baseline from which a project is evaluated.
Areas are color-coded based on the level of existing VMT:

- Green-filled areas are parcels with existing VMT less than the City's residential and employee thresholds of 10.12 VMT per capita and 12.21 per employee. The thresholds are calculated by subtracting 15 percent from the citywide average of 11.91 VMT per capita and regional average of 14.37 per employee.
- Yellow-filled areas are parcels with existing VMT between the residential and employee thresholds and the city-wide average of 11.91 VMT per capita and regional average 14.37 VMT per employee.
- Orange-filled areas are parcels with existing VMT greater than the residential and employee thresholds. However, a project's VMT impact may be mitigated by implementing VMT-reducing measures.
- Red-filled areas are parcels with existing VMT greater than the residential and employee threshold. Implementing VMT-reducing measures will not be sufficient to reduce a project's VMT to less than the threshold of significance.

## Thresholds of Significance

If a project is found to have a significant impact on VMT, the impact must be reduced by modifying the project to reduce its VMT to an acceptable level (below the established thresholds of significance applicable to the project) and/or mitigating the impact through multimodal transportation improvements or establishing a Trip Cap. Table 4 shows the VMT thresholds of significance for development projects, as established in the Transportation Analysis Policy.

The proposed project consists of an assisted living facility, multi-family residential units, and complementary commercial land use (retail use). However, it is anticipated that the commercial use component of the proposed project would not generate sufficient traffic to have an effect on the existing regional total VMT. Therefore, the VMT analysis of the proposed project is based on the assisted living facility and the residential component of the project. The applicable impact criteria for the project are as follows:

- Projects that include residential uses are said to create a significant adverse impact when the estimated project-generated VMT exceeds the existing citywide average VMT per capita minus 15 percent or existing regional average VMT per capita minus 15 percent, whichever is lower. Currently, the reported citywide average is 11.91 VMT per capita, which is less than the regional average. This equates to a significant impact threshold of 10.12 VMT per capita.

- Projects that include general employment uses (office) are said to create a significant adverse impact when the estimated project-generated VMT exceeds the existing regional average VMT per employee minus 15 percent. Currently, the reported regional average is 14.37 VMT per employee. This equates to a significant impact threshold of 12.21 VMT per employee.

Projects that trigger a VMT impact can assess a variety of the four strategies described above to reduce impacts. A significant impact is said to be satisfactorily mitigated when the strategies and VMT reductions implemented render the VMT impact less than significant.

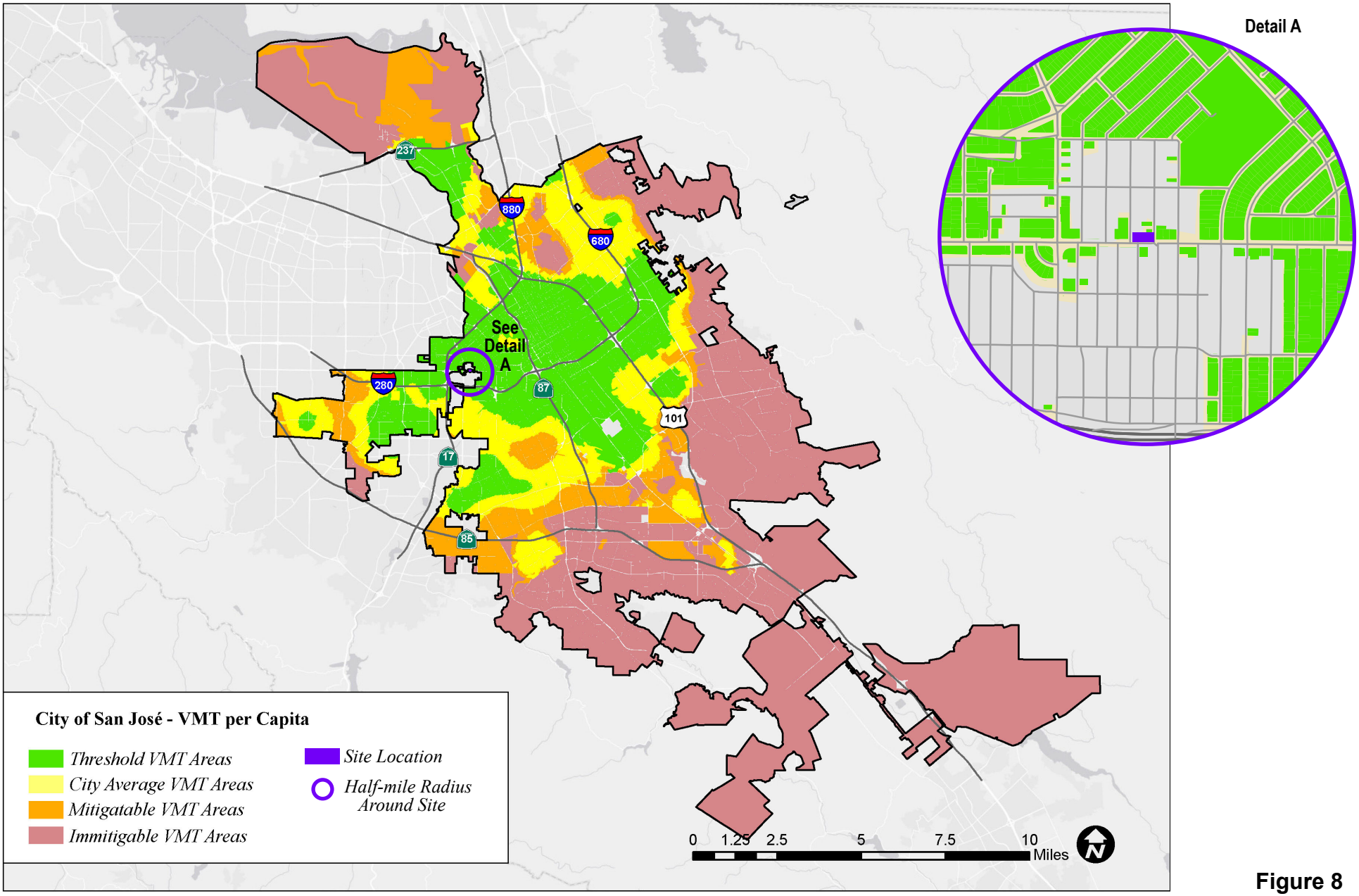



**Figure 8**
**VMT per Capita Heat Map in San Jose**



NORTH
Not to Scale

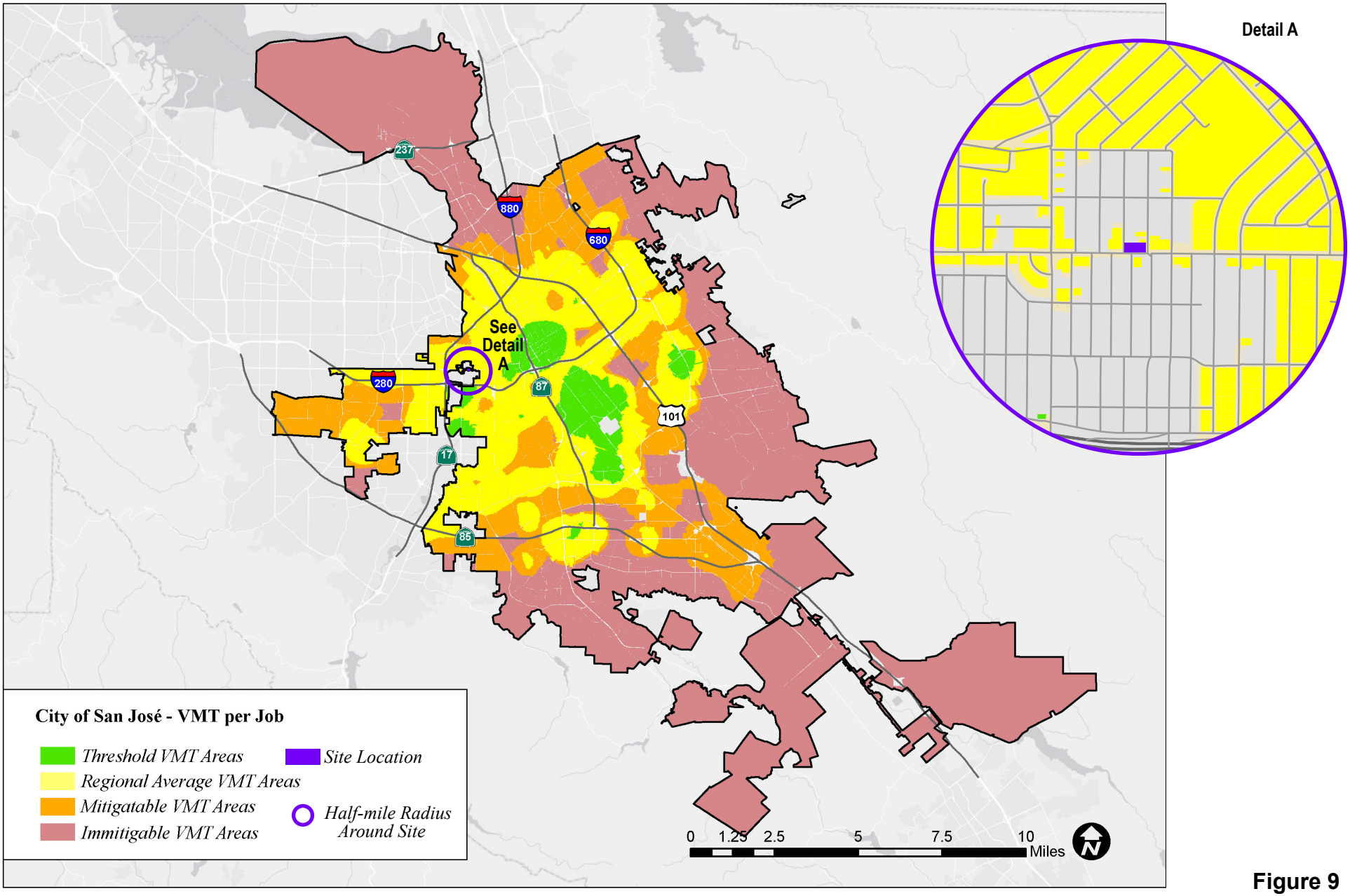



**Figure 9**
**VMT per Job Heat Map in San Jose**

**Table 4**
**CEQA VMT Analysis Significant Impact Criteria for Development Projects**

| Project Types | Significance Criteria | Current Level | Threshold |
|---|---|---|---|
| **Residential Uses** | Project VMT per capita exceeds existing citywide average VMT per capita minus 15 percent, or existing regional average VMT per capita minus 15 percent, whichever is lower. | 11.91<br>VMT per capita (Citywide Average) | 10.12<br>VMT per capita |
| **General Employment Uses** | Project VMT per employee exceeds existing regional average VMT per employee minus 15 percent. | 14.37<br>VMT per employee (Regional Average) | 12.21<br>VMT per employee |
| **Industrial Employment Uses** | Project VMT per employee exceeds existing regional average VMT per employee. | 14.37<br>VMT per employee (Regional Average) | 14.37<br>VMT per employee |
| **Retail / Hotel / School Uses** | Net increase in existing regional total VMT. | Regional Total VMT | Net Increase |
| **Public / Quasi-Public Uses** | In accordance with most appropriate type(s) as determined by Public Works Director. | Appropriate levels listed above | Appropriate thresholds listed above |
| **Mixed-Uses** | Evaluate each land use component of a mixed-use project independently, and apply the threshold of significance for each land use type included. | Appropriate levels listed above | Appropriate thresholds listed above |
| **Change of Use / Additions to Existing Development** | Evaluate the full site with the change of use or additions to existing development, and apply the threshold of significance for each project type included. | Appropriate levels listed above | Appropriate thresholds listed above |
| **Area Plans** | Evaluate each land use component of the Area Plan independently, and apply the threshold of significance for each land use type included. | Appropriate levels listed above | Appropriate thresholds listed above |

Source: City of San Jose, *2018 Transportation Analysis Handbook* , Table 2.

## VMT of Existing Land Uses

The results of the VMT analysis using the VMT Evaluation Tool indicate that the existing VMT for residential uses in the project vicinity is 8.03 per capita and employment uses is 12.88 per employee. As shown in Table 4, the current citywide average VMT for residential uses is 11.91 per capita and the regional average VMT for employment uses is 14.37 per employee. Therefore, the existing VMT levels of residential uses and employment uses in the project vicinity are currently less than the average VMT levels. Appendix A presents the VMT Evaluation Tool summary report for the project.

## Project-Level VMT Impact Analysis

The City's Transportation Policy identifies an impact threshold of 15% below the citywide average per-capita VMT of 11.91. The employment impact threshold of 15% below the regional average is 14.37 VMT per employee. Thus, the proposed project would result in a significant impact if it results in a project VMT of 10.12 VMT per capita or 12.21 VMT per employee.

The results of the VMT evaluation, using the City's VMT Evaluation Tool, indicate that the proposed project is projected to generate 7.95 VMT per capita and 12.84 VMT per employee. The residential portion of the project does not exceed the thresholds of significance. However, the employment portion of the project exceeds the 12.21 VMT per employee threshold by 5.2%. Therefore, the proposed project would have an impact on the transportation system based on the City's VMT impact criteria. Figure 10 shows the VMT evaluation summary generated by the City of San Jose's VMT Evaluation Tool.

### Project Impacts and Mitigation Measures

**Project Impact:** Since the VMT generated by the office component of the project (12.84 per employee) would exceed the threshold of 12.21 VMT per employee, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the VMT impact. According to the *Transportation Analysis Handbook*, projects located in areas where the existing VMT is above the established threshold are referred to as being in "high-VMT areas", and projects in high-VMT areas are required to include a set of VMT reduction measures that would reduce the project VMT to the greatest extent possible.

**Mitigation Measures:** Based on the four strategy tiers included in the VMT Evaluation Tool, it is recommended that the project implement the following mitigation measure to reduce the significant VMT impact.

- Provide Ride-Sharing Programs: Organize a program to match individuals interested in carpooling who have similar commutes for at least 15% of the project employees. This measure promotes the use of carpooling and reduces the number of drive-alone trips.

The implementation of the mitigation measure would reduce the VMT generated by the project by encouraging employees to use alternative modes or carpooling to work. The implementation of the above mitigation measure would reduce the project VMT to 11.79 per employee, which is below the threshold of 12.21 per employee, reducing the project impact to less than significant. Appendix A presents the VMT Evaluation Tool summary report for the project with the mitigation measures.

City of San Jose staff have also recommended that the project coordinate with VTA about bus stop improvements for Tier 2 transit improvements. Per the *Transportation Analysis* Handbook, bus stop improvements are Tier 2 VMT mitigations, and would reduce the VMT per employee and VMT per capita for the employment and residential portions of the project.

## Cumulative (GP Consistency) Evaluation

Projects must demonstrate consistency with the *Envision San José 2040 General Plan* to address cumulative impacts. Consistency with the City's General Plan is based on the project's density, design, and conformance to the General Plan goals and policies. If a project is determined to be inconsistent with the General Plan, a cumulative impact analysis is required per the City's *Transportation Analysis Handbook*.

The project site is located within the West San Carlos Urban Village. Urban villages were developed as one of the major strategies of the *Envision San José 2040 General Plan*. Urban villages are defined as walkable, bicycle-friendly, transit-oriented, mixed use settings that provide both housing and jobs, thus supporting the policies and goals of the General Plan.

The West San Carlos Urban Village Plan identifies the following goals to improve alternative transportation options.

- Make transit a more desirable option within the Urban Village.

- Develop safe and direct pedestrian and bicycle connections (sidewalks or pathways) between transit stops and local destinations.
- Improve roadway crossings through high-visibility treatments and shorter crossing distances, especially where transit stops are located.
- Enhance the environment around transit stops and improve the overall transit rider/pedestrian/bicyclist experience at bus stops.

The project is consistent with the General Plan and West San Carlos Urban Village goals and policies for the following reasons:

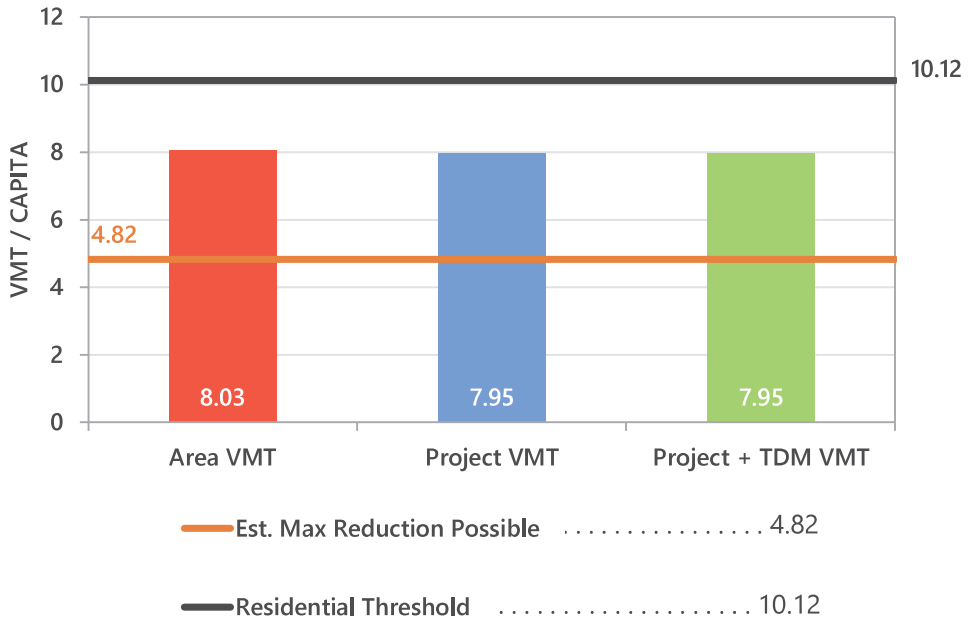
- The proposed mixed-use commercial and residential uses for the project site are consistent with the Urban Village land use designation per the West San Carlos Urban Village plan.
- The project frontage along San Carlos Street will be consistent with planned streetscape design features West San Carlos Urban Village Plan.
- The project site is within walking distance (less than 100 feet) of bus stops on San Carlos Street.

Therefore, based on the project description, the proposed project would be consistent with the *Urban Village Planning Concepts* and the *Envision San José 2040 General Plan*. Thus, the project would be considered as part of the cumulative solution to meet the General Plan's long-range transportation goals and would result in a less-than-significant cumulative impact.

## CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

### RESIDENTIAL ONLY

The tool estimates that the project would generate per capita VMT below the City's threshold.




### EMPLOYMENT ONLY

The tool estimates that the project would generate per non-industrial worker VMT below the City's threshold.

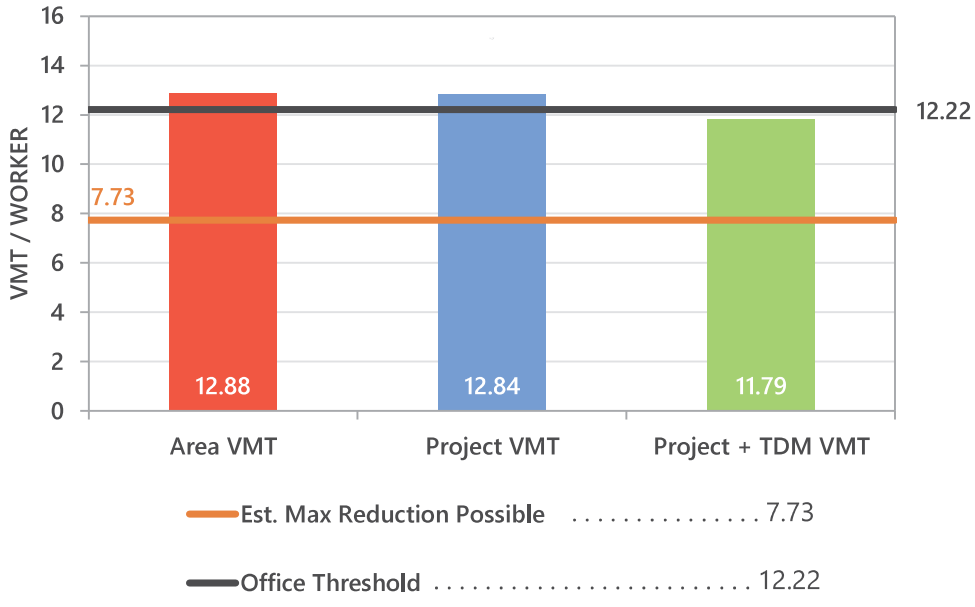



**Figure 10**
**VMT Analysis**

# 4.
# Local Transportation Analysis

This chapter describes the local transportation analysis including the method by which project traffic is estimated, intersection operations analysis for existing, background, and background plus project scenarios, any adverse effects on study intersections caused by the project, intersection vehicle queuing analysis, site access and on-site circulation review, effects on bicycle, pedestrian, and transit facilities, and parking.

The LTA supplements the CEQA VMT analysis and identifies transportation and traffic operational issues that may arise due to a development project. The LTA is required per the City of San Jose Transportation Policy, however, the determination of project impacts per CEQA requirements is based solely on the VMT analysis presented in the previous chapter. The LTA provides supplemental analysis for use by the City of San Jose in identifying potential improvement of the transportation system with a focus on improving multi-modal travel.

## Project Description

The project, as proposed, would replace the existing commercial and residential buildings on site with an assisted living facility with 246 beds, 61 multi-family residential units, and 6,000 s.f. of commercial space. A total of 199 parking spaces are proposed to be provided with ground level parking and an underground parking garage. A full access driveway along Brooklyn Avenue provides access to the underground parking garage. Driveways along Brooklyn Avenue and Boston Avenue provide access to a drive aisle which accesses additional parking and loading areas.

The project site is located within a designated Urban Village (West San Carlos) per the Envision San Jose 2040 General Plan. 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.

## 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

### Proposed Project Trips

Through empirical research, data have been collected that indicate the amount of traffic that can be expected to be generated by common land uses. Project trip generation was estimated by applying to the size and uses of the development the appropriate trip generation rates. The average trip generation rates for Assisted Living (Land Use 254), Multi-Family Housing – Mid Rise (Land Use 221), and Shopping Center (Land Use 820) as published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition* (2017) were applied to the proposed assisted living facility, residential units, and commercial square footage, respectively.

### Trip Reductions

In accordance with San Jose's *Transportation Analysis Handbook* (April 3018, Section 4.8, "Intersection Operations Analysis"), the project is eligible for adjustments and reductions from the baseline (gross) trip generation described above.

A mixed-use development with complementary land uses such as residential and retail, residential and employment, and employment and retail, will result in a reduction of external site trips. Thus, the number of vehicle trips generated for each use may be reduced, since a portion of the trips would not require entering or exiting the site. Therefore, based on VTA's recommended mixed-use reduction, a 15 percent trip reduction is applied for the housing/retail mixed use, based on the smaller retail component. The reduction is applied to the smaller of the two complimentary trip generators and the same number of trips is then subtracted from the larger trip generator. Similarly, a 3 percent trip reduction is applied for the residential/employment mixed use, based on the smaller component. Additionally, a 3 percent trip reduction is applied for employment/employee-serving retail component, based off the employment component.

Based on the 2018 San Jose guidelines, the project also 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 Tool, the project site is located within a designated urban area with low access to transit. Therefore, the baseline project trips were adjusted to reflect an urban low-transit mode share. Urban low-transit is characterized as an area with good accessibility, low vacancy, and middle-aged housing stock. Residential developments and retail uses within urban low-transit areas have a vehicle mode share of 87%. Thus, a 13% reduction was applied to the residential and retail trips generated by the proposed project. Employment uses within urban low-transit areas have a vehicle mode share of 91%. Thus, a 9% reduction was applied to the assisted living trips generated by the proposed project.

Additionally, based on the San Jose VMT Evaluation Tool, the project is anticipated to generate 7.95 VMT per-capita in an area that currently generates approximately 8.03 VMT per-capita. It is assumed that every percent reduction from the existing per-capita VMT is equivalent to one percent reduction in peak-hour vehicle trips. Thus, the project trip estimates for the residential portion were reduced by one percent to reflect the reduction in trips. Similarly, the project is anticipated to generate 12.84 VMT per employee in an area that currently generates approximately 12.88 VMT per employee. The project trip estimates for the employment portion (Assisted Living) were reduced by 0.3 percent to reflect the reduction in trips.

### Net Project Trips

After applying the ITE trip rates and appropriate trip reductions it is estimated that the project would generate 948 daily vehicle trips, with 62 trips (32 inbound and 30 outbound) occurring during the AM peak hour and 92 trips (40 inbound and 52 outbound) occurring during the PM peak hour. The project trip generation estimates are presented in Table 5.

## Table 5
## Project Trip Generation Estimates

| Land Use | ITE Land Use Code | Location | % of Vehicle Mode Share | VMT Existing | VMT Project | % Reduction | Size | Daily Rate | Daily Trip | AM Peak Hour Pk-Hr Rate | AM Peak Hour Split In | AM Peak Hour Split Out | AM Peak Hour Trip In | AM Peak Hour Trip Out | AM Peak Hour Trip Total | PM Peak Hour Pk-Hr Rate | PM Peak Hour Split In | PM Peak Hour Split Out | PM Peak Hour Trip In | PM Peak Hour Trip Out | PM Peak Hour Trip Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Proposed Land Uses** | | | | | | | | | | | | | | | | | | | | | |
| Assisted Living [1] | 254 | | | | | | 246 Beds | 2.60 | 640 | 0.19 | 63% | 37% | 30 | 17 | 47 | 0.26 | 38% | 62% | 24 | 40 | 64 |
| *- Employment - Retail Internal Reduction [2]* | | | | | | *3%* | | | *-19* | | | | *-1* | *-1* | *-2* | | | | *-1* | *-1* | *-2* |
| *- Residential - Employment Internal Reduction [3]* | | | | | | *3%* | | | *-10* | | | | *0* | *0* | *0* | | | | *0* | *0* | *0* |
| *- Location Based Reduction [5]* | | *Urban Low-Transit* | *91%* | | | *9%* | | | *-56* | | | | *-3* | *-1* | *-4* | | | | *-2* | *-3* | *-5* |
| *- VMT Reduction [6]* | | | | *12.88* | *12.84* | *0.3%* | | | *-2* | | | | *0* | *0* | *0* | | | | *0* | *0* | *0* |
| Multifamily Housing (Mid-Rise) [1] | 221 | | | | | | 61 Dwelling Units | 5.44 | 332 | 0.36 | 26% | 74% | 6 | 16 | 22 | 0.44 | 61% | 39% | 16 | 11 | 27 |
| *- Residential - Employment Internal Reduction [3]* | | | | | | *3%* | | | *-10* | | | | *0* | *0* | *0* | | | | *0* | *0* | *0* |
| *- Residential - Retail Internal Reduction [4]* | | | | | | | | | *-34* | | | | *-1* | *0* | *-1* | | | | *-2* | *-2* | *-4* |
| *- Location Based Reduction [5]* | | *Urban Low-Transit* | *87%* | | | *13%* | | | *-42* | | | | *-1* | *-2* | *-3* | | | | *-2* | *-1* | *-3* |
| *- VMT Reduction [7]* | | | | *8.03* | *7.95* | *1.0%* | | | *-2* | | | | *0* | *0* | *0* | | | | *0* | *0* | *0* |
| Shopping Center [1] | 820 | | | | | | 6,000 Square Feet | 37.75 | 227 | 0.94 | 62% | 38% | 4 | 2 | 6 | 3.81 | 48% | 52% | 11 | 12 | 23 |
| *- Employment - Retail Internal Reduction [2]* | | | | | | | | | *-19* | | | | *-1* | *-1* | *-2* | | | | *-1* | *-1* | *-2* |
| *- Residential - Retail Internal Reduction [4]* | | | | | | *15%* | | | *-34* | | | | *-1* | *0* | *-1* | | | | *-2* | *-2* | *-4* |
| *- Location Based Reduction [5]* | | *Urban Low-Transit* | *87%* | | | *13%* | | | *-23* | | | | *0* | *0* | *0* | | | | *-1* | *-1* | *-2* |
| *Baseline Vehicle Trips (Before Reductions)* | | | | | | | | | 1,199 | | | | 40 | 35 | 75 | | | | 51 | 63 | 114 |
| ***Net Project Trips*** | | | | | | | | | **948** | | | | **32** | **30** | **62** | | | | **40** | **52** | **92** |

Notes:

[1] Source: ITE *Trip Generation Manual*, 10th Edition 2017, average trip generation rates.

[2] As prescribed by the Transportation Impact Analysis Guidelines from VTA (October 2014), the maximum trip reduction for a mixed-use development project with employment and retail is equal to 3% off the employment generator.

[3] As prescribed by the Transportation Impact Analysis Guidelines from VTA (October 2014), the maximum trip reduction for a mixed-use development project with residential and employment is equal to 3% off the smaller trip generator.

[4] As prescribed by the Transportation Impact Analysis Guidelines from VTA (October 2014), the maximum trip reduction for a mixed-use development project with residential and retail is equal to 15% off the smaller trip generator.

[5] The project site is located within an urban low-transit area based on the City of San Jose VMT Evaluation Tool (March 14, 2018). The location-based vehicle mode shares are obtained from Table 6 of the City of San Jose Transportation Analysis Handbook (April 2018). The trip reductions are based on the percent of mode share for all of the other modes of travel besides vehicle.

[6] VMT per employee for employment use. Existing and project VMTs were estimated using the City of San Jose VMT Evaluation Tool. It is assumed that every percent reduction in VMT per-employee is equivalent to one percent reduction in peak-hour vehicle trips.

[7] VMT per capita for residential use. Existing and project VMTs were estimated using the City of San Jose VMT Evaluation Tool. It is assumed that every percent reduction in VMT per-capita is equivalent to one percent reduction in peak-hour vehicle trips.

### Trip Distribution and Trip Assignment

The trip distribution pattern for the project was developed based on existing travel patterns on the surrounding roadway system and the locations of complementary land uses. It is assumed all project trips related to the residential and retail portions of the project will originate and end at the southern Brooklyn Avenue driveway. It is assumed that 50% of outbound trips related to the assisted living portion would utilize the northern Brooklyn Avenue driveway. The remaining 50% of outbound trips related to the assisted living portion would utilize the Boston Avenue driveway. Similarly, it is assumed that 50% of inbound trips originating east of the project site would utilize the northern Brooklyn Avenue driveway and 50% would utilize the Boston Avenue driveway. Since inbound trips from west of the project site would need to make a U-turn at Lelend Avenue to access Boston Avenue, it is assumed that all inbound trips originating from west of the project site would utilize the northern Brooklyn Avenue driveway. The peak-hour vehicle trips generated by the project were assigned to the roadway network in accordance with the trip distribution pattern. Figure 11 shows the trip distribution pattern, and Figure 12 shows the net trip assignment of project traffic on the local transportation network.

## Intersection Operations Methodology

This section presents the methods used to evaluate traffic operations at the study intersections. It includes descriptions of the data requirements, the analysis methodologies, the applicable level of service standards, and the criteria defining adverse effects at the study intersections.

The intersection operations analysis is intended to quantify the operations of intersections and to identify potential negative effects due to the addition of project traffic. However, a potential adverse effect on a study intersection is not considered a CEQA impact metric.

### Study Intersections

The study includes an analysis of AM and PM peak-hour traffic conditions for two signalized intersections and three unsignalized intersections within the City of San Jose. Intersections were selected for study if the project is expected to add 10 vehicle trips per hour per lane to a signalized intersection that meets one of the following criteria as outlined in the *Transportation Analysis Handbook.*

- Within a ½-mile buffer from the project's property line;
- Outside a ½-mile buffer but within a one-mile buffer from the project AND currently operating at D or worse;
- Designated Congestion Management Program (CMP) facility outside of the City's Infill Opportunity Zones;
- Outside the City limits with the potential to be affected by the project, per the transportation standards of the corresponding external jurisdiction;
- With the potential to be affected by the project, per engineering judgement of Public Works.

Based on the above criteria, the following City of San Jose study intersections were selected:

1. Bascom Avenue and San Carlos Street
2. Vaughn Avenue and San Carlos Street (unsignalized)
3. Brooklyn Avenue and San Carlos Street (unsignalized)
4. Boston Avenue and San Carlos Street (unsignalized)
5. Leland Avenue/Wabash Street and San Carlos Street

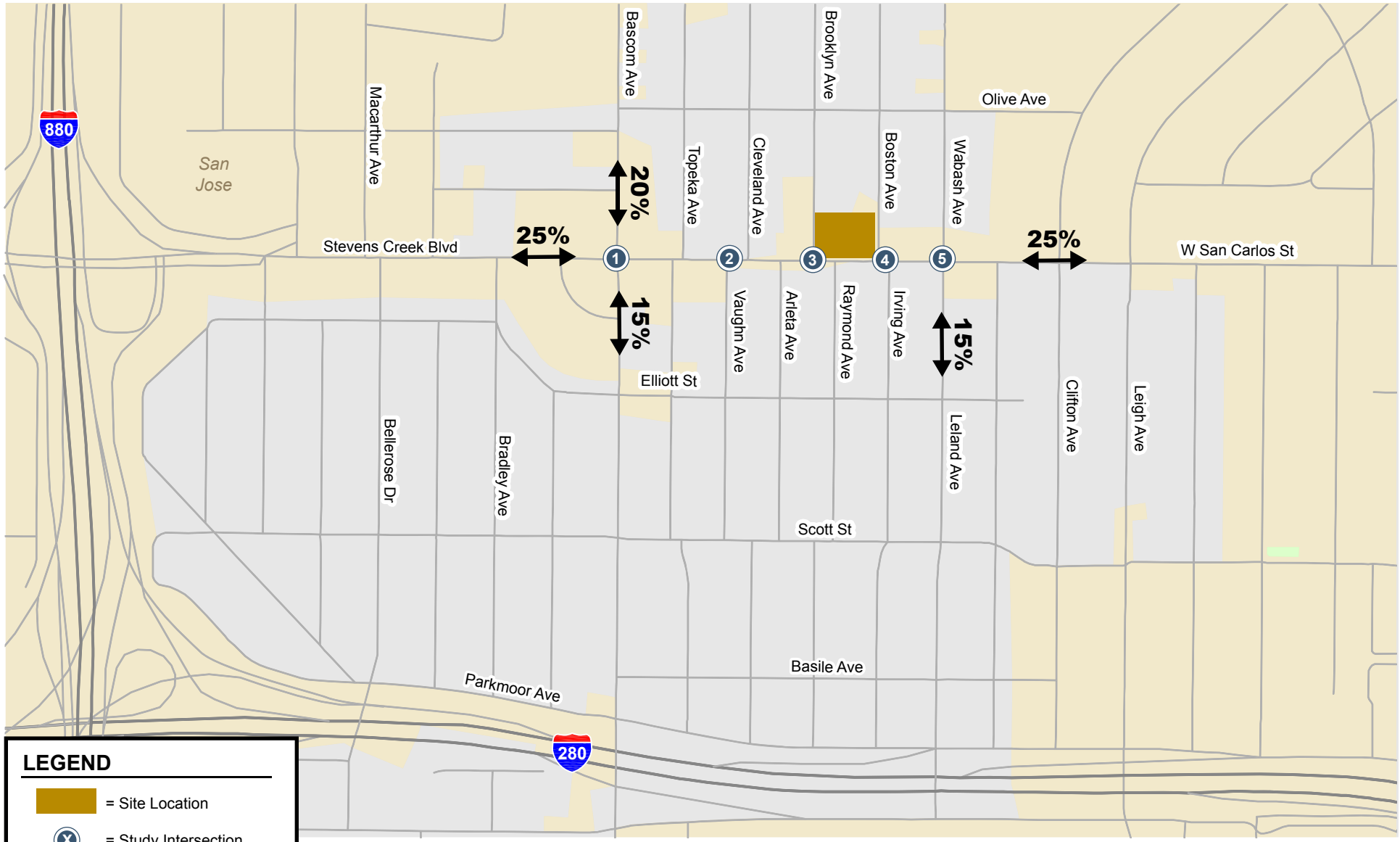



**Figure 11**
**Project Trip Distribution**

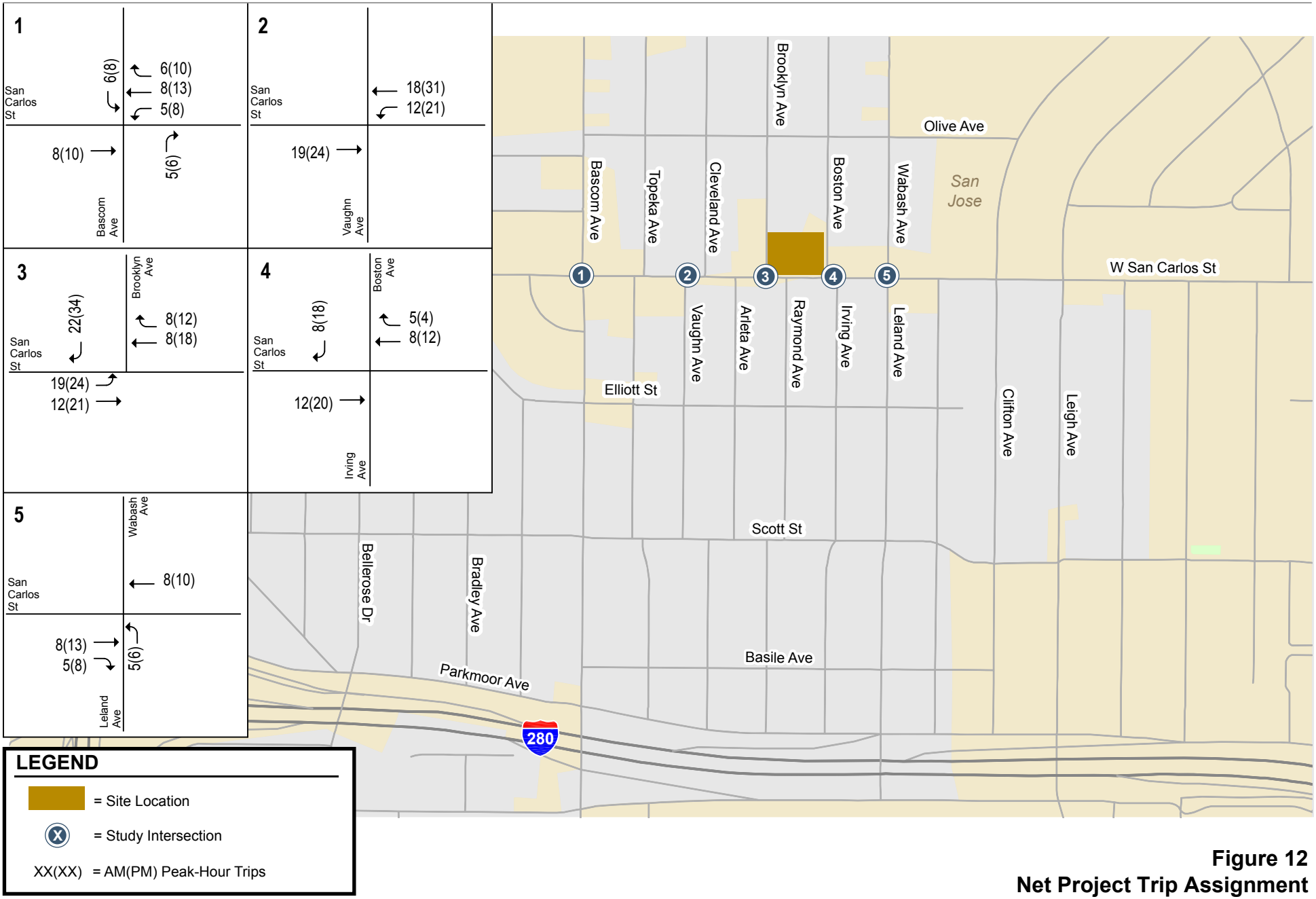



**Figure 12**
**Net Project Trip Assignment**

## Data Requirements

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

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

## Lane Configurations

The existing lane configurations at the study intersections were determined by observations in the field and are shown on Figure 13. It is assumed in this analysis that the transportation network under background and background plus project conditions would be the same as the existing transportation network.

## Traffic Volumes

### Existing Conditions

Existing peak hour traffic volumes at all signalized study intersections were obtained from the City of San Jose. For intersections where count data was more than two years old, a compounded growth factor of 1% per year was applied. Since count data is not available at the unsignalized study intersections, counts were conducted at all study intersections. The new turning movement counts were then compared to existing counts and factored to represent pre-COVID traffic volumes. The existing peak-hour intersection volumes are shown on Figure 14. Intersection turning-movement counts conducted for this analysis are presented in Appendix B.

### Future Conditions

Background peak hour traffic volumes were estimated by adding to existing volumes the estimated traffic from approved but not yet constructed developments. The added traffic from approved but not yet constructed developments was obtained from the City of San Jose's Approved Trips Inventory (ATI) database. The background traffic scenario predicts a realistic traffic condition that would occur as approved development is built. Background traffic volumes are shown on Figure 15. Project trips were added to background traffic volumes to obtain background plus project traffic volumes (see Figure 16).

The City of San Jose's Approved Trips Inventory list is included in Appendix C.

## Level of Service Standards and Analysis Methodologies

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

### Signalized Intersections

Signalized study intersections were evaluated based on the *2000 Highway Capacity Manual* (HCM) level of service methodology using the TRAFFIX software. This method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. TRAFFIX is also the CMP-designated intersection level of service methodology, thus, the City of San Jose employs the CMP default values for the analysis parameters. The correlation between average control delay and level of service at signalized intersections is shown in Table 6.

Signalized study intersections are subject to the City of San Jose level of service standards. The City of San Jose has established LOS D as the minimum acceptable intersection operations standard for all signalized intersections unless superseded by an Area Development Policy.

**Table 6**
**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.

## City of San Jose Definition of Adverse Intersection Operations Effects

According to the City of San Jose's *Transportation Analysis Handbook 2018*, an adverse effect on intersection operations occurs 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 under background plus project conditions, 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 cause both the critical-movement delay at the intersection to increase by four or more seconds *and* the volume-to-capacity ratio (V/C) to increase by one percent (.01) or more.

The exception to this threshold is when the addition of project traffic reduces the amount of average control delay for critical movements, i.e., the change in average control delay for critical movements are negative. In this case, the threshold is when the project increases the critical v/c value by 0.01 or more.

1881 W. San Carlos St.

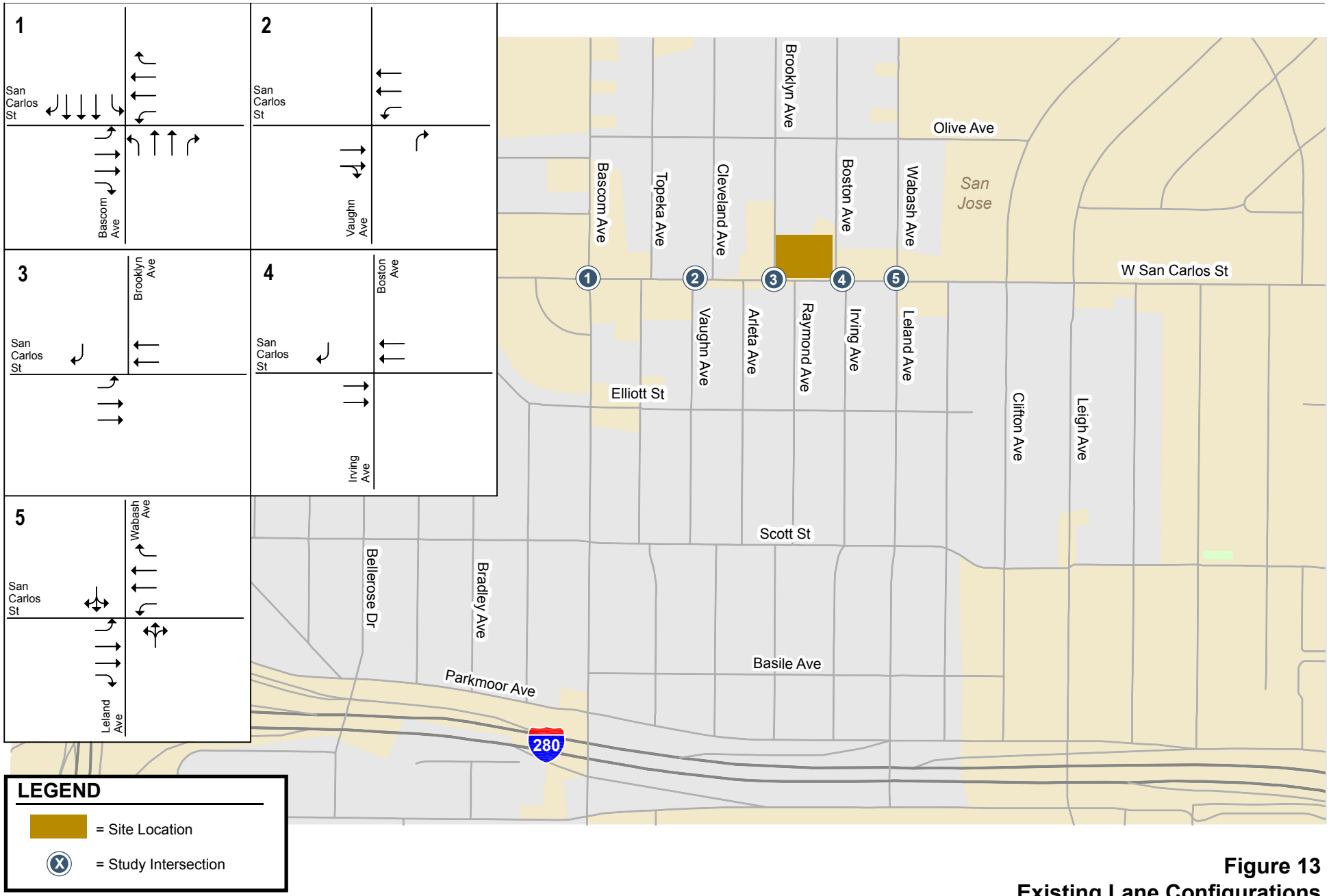



**Figure 13**
**Existing Lane Configurations**

HEXAGON

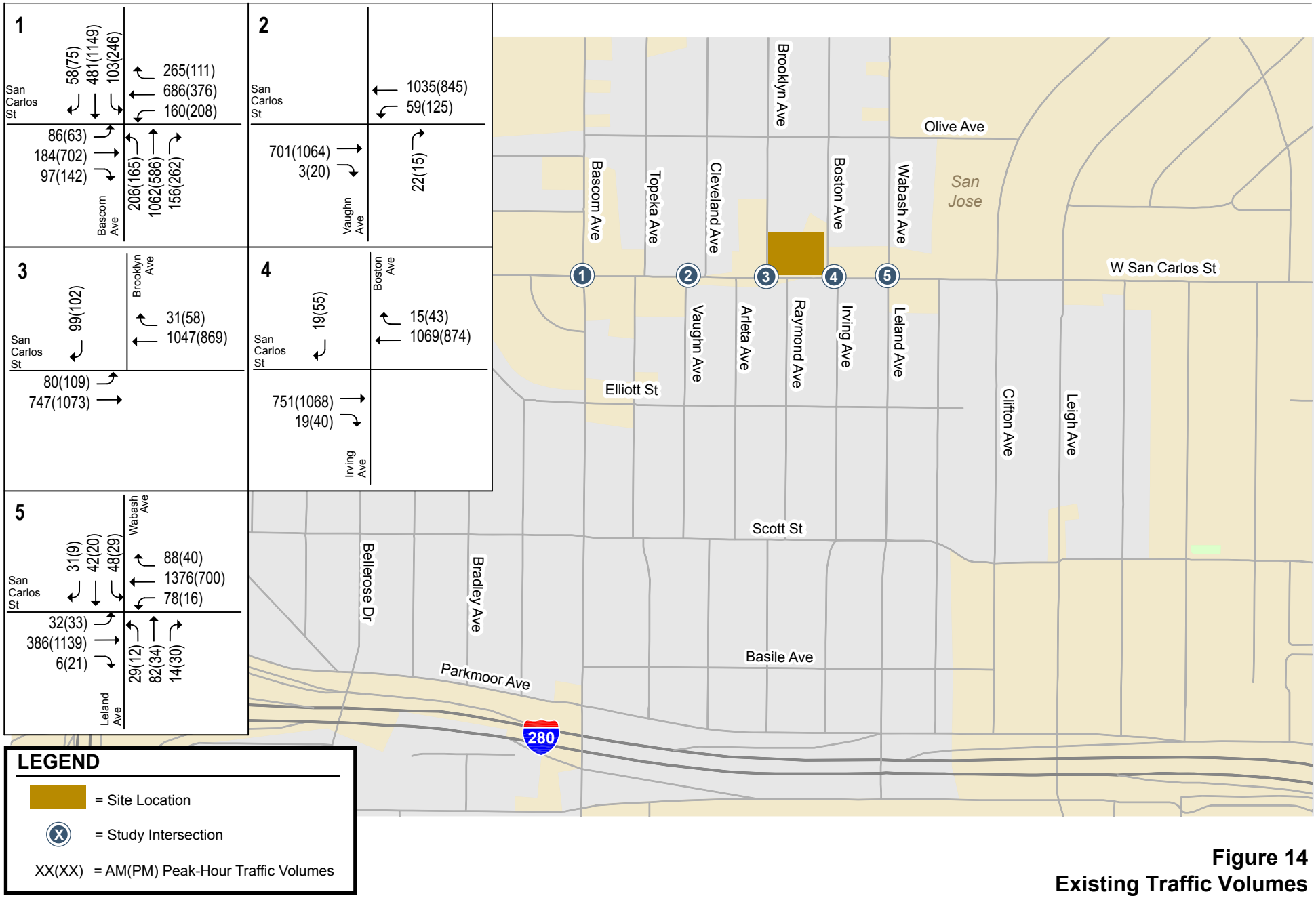



**Figure 14**
**Existing Traffic Volumes**

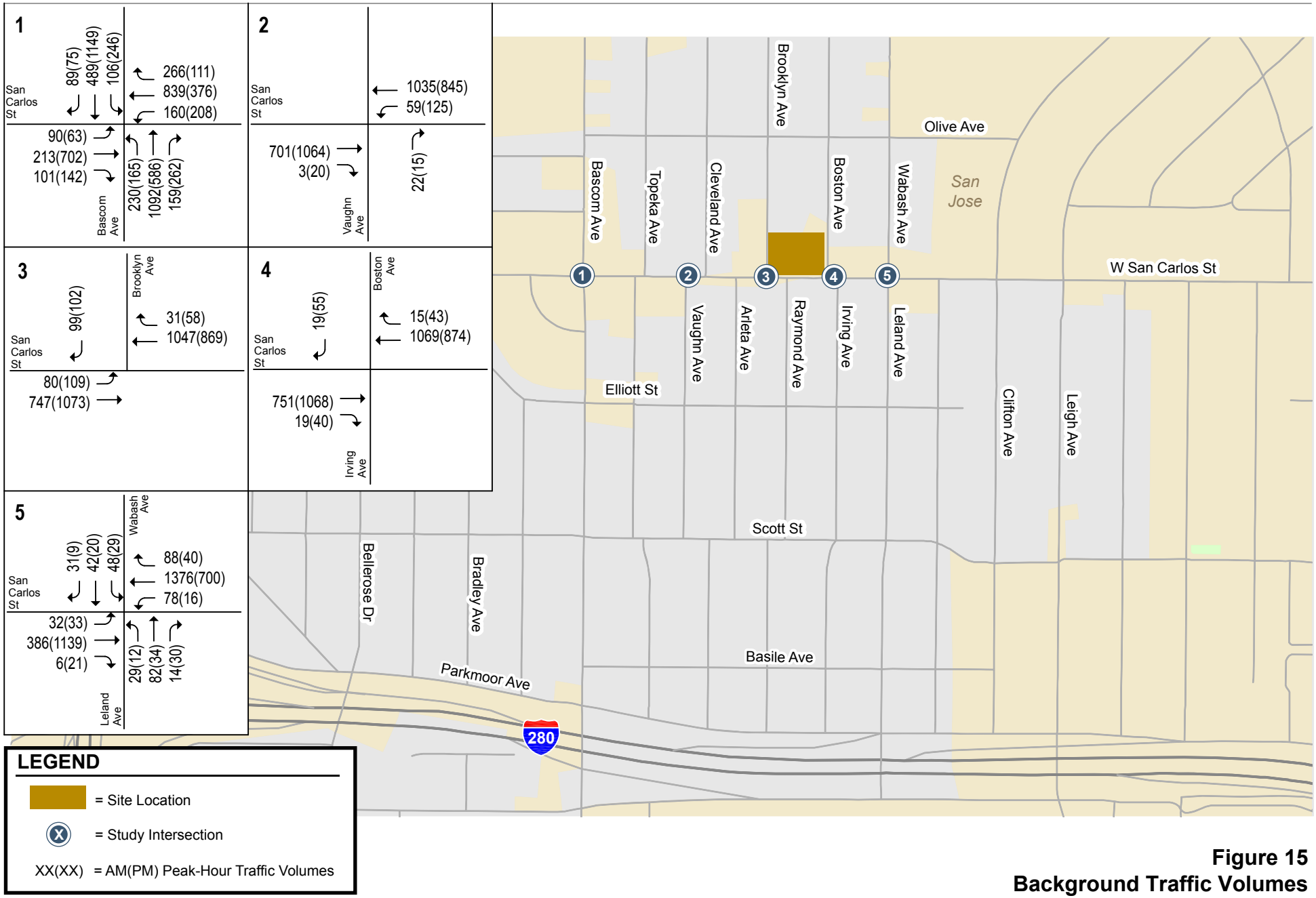



**Figure 15**
**Background Traffic Volumes**

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NORTH
Not to Scale

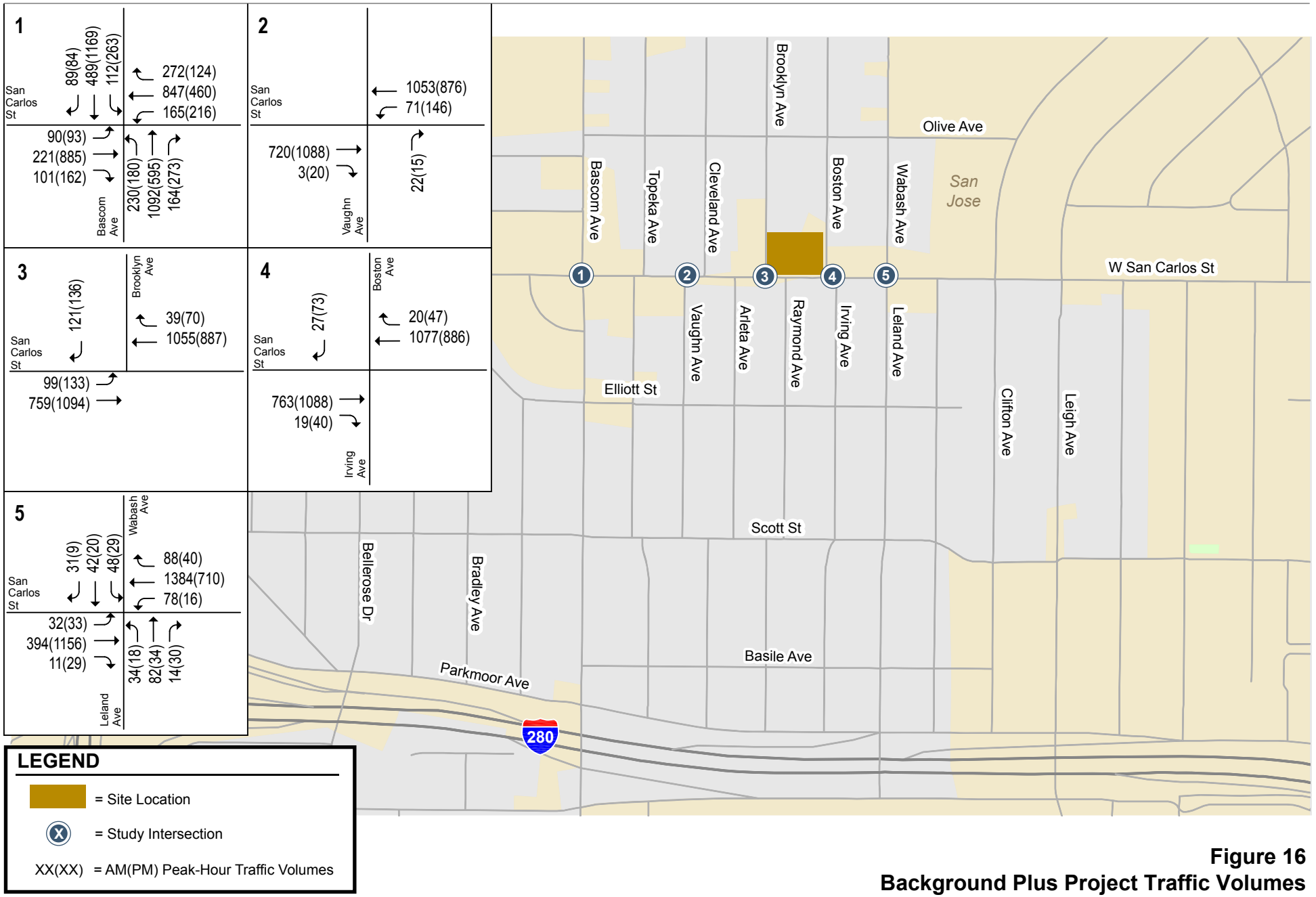



**Figure 16**
**Background Plus Project Traffic Volumes**

An adverse intersection operations effect by City of San Jose standards may be addressed by implementing measures that would restore intersection level of service to background conditions or better. The City recommends prioritizing improvements related to alternative transportation modes, parking measures, and/or TDM measures.

Improvements that increase vehicle capacity are secondary and must not have unacceptable effects on existing or planned transportation facilities. Unacceptable effects on existing or planned transportation facilities include the following:

- Inconsistent with the General Plan Transportation Network and Street Typologies;
- Reduction of any physical dimension of a transportation facility below the minimum design standards per the *San José Complete Streets Design Standards and Guidelines*; OR
- Substantial deterioration in the quality of existing or planned transportation facilities, including pedestrian, bicycle, and transit systems and facilities, as determined by the Director of Transportation.

## Intersection Operations Analysis Results

The intersection level of service analysis is summarized in Table 7.

### Existing Intersection Operation Conditions

Intersection levels of service were evaluated against applicable City of San Jose operations standards. The results of the level of service analysis show all study intersections currently operate at an acceptable LOS D or better during both the AM and PM peak hours, based on the City of San Jose intersection operations standard of LOS D. The level of service calculation sheets are included in Appendix D.

### Future Intersection Operation Conditions

The operations analysis shows that all of the study intersections are projected to operate at acceptable levels of service, based on the City of San Jose intersection operations standard of LOS D, under background conditions and background plus project conditions during both the AM and PM peak hours. The intersection level of service calculation sheets are included in Appendix D.

**Table 7**
**Intersection Level of Service Results**

| | | | Existing | | Background | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | No Project | | No Project | | with Project | | | |
| # | Intersection | Peak Hour | Avg. Delay (sec) | LOS | Avg. Delay (sec) | LOS | Avg. Delay (sec) | LOS | Incr. in Critical Delay (sec) | Incr. in Critical V/C |
| 1 | Bascom Avenue & San Carlos Street | AM | 38.2 | D | 41.4 | D | 40.1 | D | -1.8 | -0.051 |
| | | PM | 45.7 | D | 49.5 | D | 47.7 | D | -2.2 | -0.058 |
| 2 | Vaughn Avenue & San Carlos Street[1] | AM | 10.7 | B | 10.7 | B | 10.9 | B | 0.1 | 0.024 |
| | | PM | 12.6 | B | 12.6 | B | 12.7 | B | 0.1 | 0.036 |
| 3 | Brooklyn Avenue & San Carlos Street[1] | AM | 15.7 | C | 15.7 | C | 17.1 | C | 0.5 | 0.083 |
| | | PM | 13.0 | B | 13.0 | B | 14.0 | B | 0.4 | 0.074 |
| 4 | Boston Avenue & San Carlos Street[1] | AM | 12.6 | B | 12.6 | B | 12.9 | B | 0.1 | 0.023 |
| | | PM | 12.2 | B | 12.2 | B | 12.5 | B | 0.1 | 0.021 |
| 5 | Leland Avenue/Wabash Avenue & San Carlos Street | AM | 20.8 | C | 20.8 | C | 21.1 | C | 0.4 | 0.007 |
| | | PM | 14.4 | B | 14.3 | B | 14.8 | B | 0.5 | 0.006 |

**Bold** indicates a substandard level of service.

Note:

[1] Denotes a one-way or two-way stop-controlled intersection. Worst leg delay is reported.

## Signal Warrant Analysis

The need for signalization of an unsignalized intersection is assessed based on the Peak Hour Volume Warrant (Warrant 3) described in the *California Manual on Uniform Traffic Control Devices for Streets and Highways (CA MUTCD)*, Part 4, Highway Traffic Signals, 2014. This method makes no evaluation of intersection level of service, but simply provides an indication whether vehicular peak hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal. Intersections that meet the peak hour warrant are subject to further analysis before determining that a traffic signal is necessary. Additional analysis may include unsignalized level of service analysis and/or operational analysis such as evaluating vehicle queuing and delay. Other options such as traffic control devices, signage, or geometric changes may be preferable based on existing field conditions.

A peak-hour traffic signal warrant check was conducted for unsignalized study intersections that meet the 100 vehicles per hour threshold for minor streets. A peak-hour traffic signal warrant check was conducted for the unsignalized intersection of Brooklyn Avenue and San Carlos Street. The results indicate that the projected traffic volumes at the intersection will meet the signal warrant check under AM and PM peak hour conditions with the project. However, southbound traffic along Brooklyn Avenue can only turn right onto westbound San Carlos Street. Since the peak-hour signal warrant check accounts for the peak hour volume of both directions of San Carlos Street, it would not be a proper indicator of whether signalization should be considered unless the median along San Carlos Street is removed and left-turns are permitted. Relative to westbound traffic volumes along San Carlos Street, the peak-hour signal warrant would not be met. The traffic signal warrant calculations are included in Appendix E.

## Intersection 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 left-turn movements. The queuing analysis is presented for informational purposes only, since the City of San Jose has not defined a policy related to queuing. Vehicle queues were estimated using a Poisson probability distribution, which estimates the probability of "n" vehicles for a vehicle movement using the following formula:

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

Where:

P (x=n) = probability of "n" vehicles in queue per lane
n = number of vehicles in the queue per lane
$\lambda$ = 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 95$^{th}$ 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.

For signalized intersections, the 95$^{th}$ 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 95$^{th}$ 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. The operations analysis is based on vehicle queuing for high-demand movements at intersections (see Table 8).

The proposed project would add a substantial number of trips to left-turn movements at two intersections. As shown in Table 8, the queues at high-demand movements will be served by the existing queue storage space at all study intersections under existing, background conditions, and background plus project conditions.

**Table 8**
**Queuing Analysis Summary**

| Measurement | Vaughn Avenue & San Carlos Street WBL AM | Vaughn Avenue & San Carlos Street WBL PM | Brooklyn Avenue & San Carlos Street EBL AM | Brooklyn Avenue & San Carlos Street EBL PM |
|---|---|---|---|---|
| **Existing** | | | | |
| Cycle/Delay [1] (sec) | 9.3 | 11.8 | 11.3 | 10.7 |
| Volume (vphpl ) | 59 | 125 | 80 | 109 |
| 95th %. Queue (veh/ln.) | 1 | 2 | 1 | 1 |
| 95th %. Queue (ft./ln) [2] | 25 | 50 | 25 | 25 |
| Storage (ft./ ln.) | 145 | 145 | 130 | 130 |
| Adequate (Y/N) | Y | Y | Y | Y |
| **Background** | | | | |
| Cycle/Delay [1] (sec) | 9.3 | 11.8 | 11.3 | 10.7 |
| Volume (vphpl ) | 59 | 125 | 80 | 109 |
| 95th %. Queue (veh/ln.) | 1 | 2 | 1 | 1 |
| 95th %. Queue (ft./ln) [2] | 25 | 50 | 25 | 25 |
| Storage (ft./ ln.) | 145 | 145 | 130 | 130 |
| Adequate (Y/N) | Y | Y | Y | Y |
| **Background Plus Project** | | | | |
| Cycle/Delay [1] (sec) | 9.5 | 12.3 | 11.8 | 11.1 |
| Volume (vphpl ) | 71 | 146 | 99 | 133 |
| 95th %. Queue (veh/ln.) | 1 | 2 | 1 | 2 |
| 95th %. Queue (ft./ln) [2] | 25 | 50 | 25 | 50 |
| Storage (ft./ ln.) | 145 | 145 | 130 | 130 |
| Adequate (Y/N) | Y | Y | Y | Y |

Notes:

NBL = northbound left movement, WBL = westbound left movement.

[1] Vehicle queue calculations based on cycle length for signalized intersections and control delay for unsignalized intersections.

[2] Assumes 25 Feet Per Vehicle Queued.

## Neighborhood Interface

The West San Carlos Urban Village Plan has not identified Brooklyn Avenue and Boston Avenue to be concerns for cut-through traffic. It is possible that some trips related to the proposed project may utilize these streets to reach destinations to the north. However, due to the close proximity to San Carlos Street to the south and modern-day navigation and GPS services, most trips related to the proposed project are expected to utilize San Carlos Street to reach their destinations.

## Site Access and On-Site Circulation

The evaluation of site access and circulation is based on the June 2021 site plan prepared by Salvatore Caruso Design Corporation. Site access was evaluated to determine the adequacy of the site's access points with regard to the following: traffic volume, delays, vehicle queues, geometric design, and corner sight distance. On-site vehicular circulation was reviewed in accordance with generally accepted traffic engineering standards and transportation planning principles. The ground level site plan is shown on Figure 3. The underground garage site plan is shown on and Figure 18.

### Project Driveway Design

Vehicular access to the underground parking garage would be provided via a full access driveway along Brooklyn Avenue, approximately 100 feet north of the Brooklyn Avenue and San Carlos Street intersection. The underground parking garage is expected to be utilized for the residential and retail components of the proposed project. According to the City of San Jose Department of Transportation (DOT) Geometric Design Guidelines, the minimum width for a driveway serving a multi-family development is 20 feet wide. For commercial developments, the guidelines also require a minimum driveway width of 26 feet for driveways accessing loading areas. The proposed driveway measures approximately 26 feet wide, but only 20 feet accesses the ramp to the underground parking garage. Since there are no loading areas within the garage, the proposed driveway accessing the underground garage meets City standards.

Vehicular access to the drive aisle leading to additional parking and loading can be accessed via full access driveways along Brooklyn Avenue and Boston Avenue, approximately 175 feet north of San Carlos Street. It is anticipated that the drive aisle will primarily serve employees, residents, and visitors of the assisted living facility. The Brooklyn Avenue driveway measures 26 feet in width, meeting the city's requirements for residential and commercial developments. The Boston Avenue driveway measures 26 feet in width and provides access to the ground level parking area. A second 12-foot-wide driveway accesses a loading zone. Vehicles and trucks accessing the loading dock area will need to back-out of the loading zone directly onto Boston Avenue.

#### Sight Distance

Adequate sight distance will be required at the project driveways along Brooklyn Avenue and Boston Avenue. The project access point 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 other vehicles traveling on the street. Any landscaping and signage should be located in such a way to ensure an unobstructed view for drivers exiting the site.

Adequate sight distance (sight distance triangles) should be provided at the project driveway in accordance with the *American Association of State Highway Transportation Officials* (AASHTO) standards. Sight distance triangles should be measured approximately 10 feet back from the traveled way. Providing the appropriate sight distance reduces the likelihood of a collision at a driveway or intersection and provides drivers with the ability to exit a driveway and locate sufficient gaps in traffic.

The minimum acceptable sight distance is often considered the AASHTO stopping sight distance. Sight distance requirements vary depending on the roadway speeds. Brooklyn Avenue and Boston Avenue do not have posted speed limits. It is assumed that the speed limits along these streets are 25 mph. The AASHTO stopping sight distance is 200 feet (based on a design speed of 30 mph). Thus, a driver must be able to see 200 feet in both directions to locate a sufficient gap to turn out of the driveway. The site plan shows new street trees added along the project frontages on Brooklyn Avenue and Boston Avenue. The trees should be maintained so that the vision of exiting drivers is not obstructed. Additionally, since on-street parking is permitted along Brooklyn Avenue and Boston Avenue, red curb equal to a car length should be painted on both sides of the driveway to ensure exiting vehicles have proper sight distance of oncoming traffic.

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

**Recommendation:** Red curb equal to a car length should be painted on both sides of project driveways

## Project Driveway Operations

The estimated project trips at the project site driveway are shown on Figure 17. Based on the project trip generation and trip assignment, it is estimated that the project driveway accessing the underground garage will serve 6 inbound trips and 15 outbound trips during the AM peak hour and 19 inbound trips and 16 outbound trips during the PM peak hour. In a worst-case scenario where all trips from the drive aisle utilize either the Brooklyn Avenue or Boston Avenue driveway, an estimated 26 inbound trips and 15 outbound trips would occur during the AM peak hour and an estimated 21 inbound trips and 36 outbound trips would occur during the PM peak hour. The maximum number of inbound and outbound trips (19 and 26, respectively) equates to approximately one vehicle entering and exiting the site approximately every three minutes at the driveway leading to the underground garage and approximately every two minutes for the ground level parking area. Therefore, it is unlikely any significant operational issues would occur due to vehicular queuing at the site driveways. Entry gates are not indicated on the site plan. Therefore, inbound queueing into the parking garage is not anticipated. Some minor on-site vehicle queuing may occur due to the random occurrence of gaps in traffic along Brooklyn Avenue and Boston Avenue. Similarly, traffic along northbound Boston Avenue may be momentarily blocked due to a vehicle yielding to oncoming traffic while making the left-turn onto the project site. Additionally, some minor on-site queuing may occur due to vehicles waiting to park in the mechanical stacker. Similar mechanical stackers are estimated to take approximately 30-35 seconds, on average, to retrieve a vehicle. There is enough space for two vehicles to queue after entering the site from the Brooklyn Avenue driveway. Due to the relatively low number of trips accessing the ground level drive aisle (41 and 57 trips during the AM and PM peak hours, respectively), minor on-site queuing is expected, but is unlikely to extend onto Brooklyn Avenue.

## On-Site Circulation

On-site vehicular circulation was reviewed in accordance with the City of San Jose Zoning Code and generally accepted traffic engineering standards. In general, the proposed site plan would provide vehicle traffic with adequate connectivity throughout the parking garage.

**Underground Garage Circulation**

The garage site plan (see Figure 18) shows on-site drive aisles to measure approximately 26 feet wide. City standards require 26-foot wide minimum drive aisles for two-way access. It should be noted that several 1' by 1' building columns extend onto the drive aisles. Since the project provides a 20-foot wide ramp and building columns extend onto the drive aisles, the project applicant should discuss with city staff whether the proposed ramp and drive aisles are adequate, or if the project would be required to widen the drive aisle.

The basement level would primarily provide parking within several mechanical vehicle stackers or semi-automatic parking systems. Since the mechanical vehicle stackers or semi-automatic parking system will require knowledge of how to use them, residents who would park in the garage should be provided instructions on how to use the lifts. Additionally, clear signage and instructions should be posted outside of each stacker to provide visitors with guidance on how to operate the mechanical stackers. The site plan shows an empty space to be used as a turnaround area for retail visitors.

Typical engineering standards require garage ramps to have no greater than a 20 percent grade, and slopes over 10% requires transition slopes so that vehicles do not "bottom out". The project site plan does indicate an approximate 12-13% slope with a small transition slope.

**Recommendation:** The project applicant should discuss with city staff whether the ramp and proposed drive aisles are adequate, or if the project would be required to widen the ramp or drive aisles.

**Recommendation:** After project opening, instructions should be provided to future residents on how to operate the mechanical vehicle stackers.

**Recommendation:** The project should post clear signage and instructions for visitors that choose to park in the mechanical vehicle stackers.

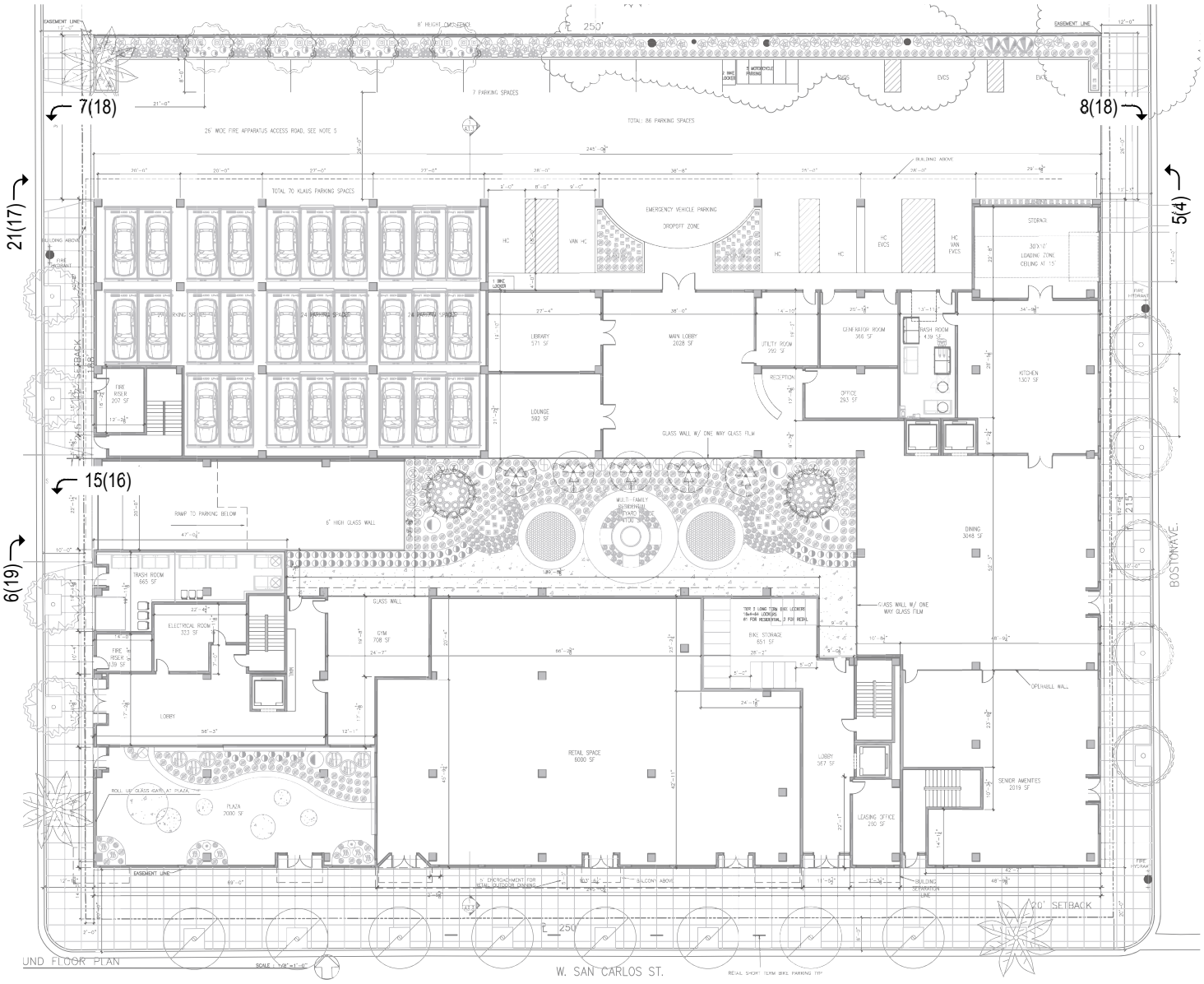
**Ground Level Circulation**

The ground level site plan is shown on Figure 3 and Figure 17. The ground level drive aisle measures 26 feet in width. The ground level drive aisle meets city standards. The site plan shows a majority of the parking spaces in mechanical stackers. After project opening, residents and staff of the assisted living facility should be provided instructions on how to operate the mechanical vehicle stackers. Clear signage and instructions should also be posted outside of the stackers to provide guidance for visitors on how to operate the mechanical stackers. Vehicles may be temporarily stopped while waiting to park in the mechanical stacker, as previously discussed.

The site plan shows a passenger drop-off zone near the entrance of the main lobby. Vehicles entering from Boston Avenue may require more than one maneuver to align the passenger side of a vehicle to the building entrance. As visitors become more familiar with the drop off area, it is likely that those who would like the passenger side of the vehicle facing the building entrance would be more likely to utilize Brooklyn Avenue to access the project site.

**Recommendation:** After project opening, instructions should be provided to future residents and staff of the assisted living facility on how to operate the mechanical vehicle stackers.

**Recommendation:** If visitors are permitted to park in the mechanical stackers, the project should post clear signage and instructions on how to operate the mechanical stackers.




**LEGEND**

XX(XX) = AM(PM) Peak-Hour Trips

**Figure 17**
**Project Trips at Site Driveways**

HEXAGON

NORTH
Not to Scale

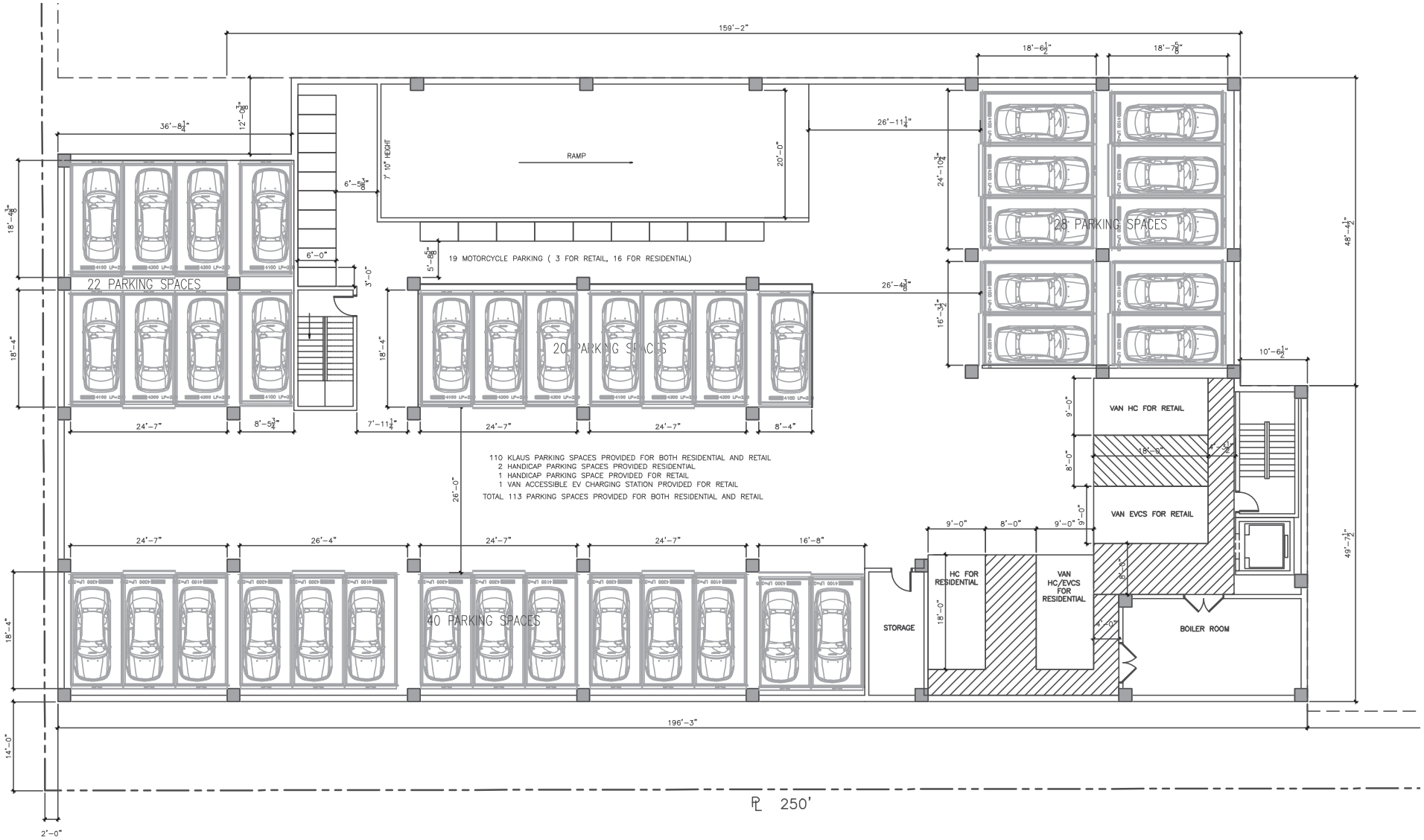



**Figure 18**
**Underground Parking Garage Site Plan**



NORTH
Not to Scale

**Truck and Emergency Vehicle Access**

The site plan indicates that fire trucks will have access to the drive aisle from either the Brooklyn Avenue or Boston Avenue driveways. Fire trucks will not have access to the underground parking level. Other large vehicles, such as delivery trucks and garbage trucks, would also not have access to the underground parking garage. As previously mentioned, the site plan shows a 30 foot by 10 foot freight unloading zone and receiving area accessible from the Boston Avenue driveway. Delivery vehicles should be given instructions to access the site from Boston Avenue so that they do not enter from the Brooklyn Avenue driveway. The proposed 12-foot driveway cut for the loading dock and the 30-foot curb to curb width of Boston Avenue will require trucks to jump the curb when maneuvering into the loading dock. It is recommended that the driveway width for the loading dock be widened to 16 feet in width in order to accommodate trucks turning into and out of the loading dock. The site plan shows a fire hydrant that may need to be relocated to accommodate a wider driveway. Additionally, since parking is permitted between and adjacent to the driveways directly across the street from the loading dock, the project should coordinate with the city to determine whether restricting parking is appropriate. Truck-turning templates showing access for a standard sized single-unit truck (SU-30) accessing the ground level driveways and loading dock along Brooklyn Avenue and Boston Avenue can be found in Appendix E.

City staff have indicated that the preferred scenario would be a loading dock that is accessible from the drive aisle, rather than along Boston Avenue. As shown on the truck-turning templates, trucks can easily access the site via the Boston Avenue driveway. From the drive aisle, trucks would be able to back into the loading dock area with the city's preferred loading dock access. While this scenario would remove conflicts from Boston Avenue, the site plan would need to be redesigned to accommodate longer trucks. Based on the existing site plan, the depth of the loading area in this scenario would be only 24 feet in length, which is inadequate for longer trucks. If this scenario is chosen, the loading dock should be redesigned so that a 30-foot truck would be able to park in the loading dock within encroaching on the 26-foot wide drive aisle.

**Recommendation:** Delivery drivers should be instructed to access the loading zone via Boston Avenue

**Recommendation:** The driveway to the loading dock should be widened to accommodate delivery trucks.

**Recommendation:** The project should coordinate with the city to determine whether restricting on-street parking spaces directly across from the loading dock is appropriate.

**Garbage Pick-Up Operations**

The site plan shows two trash rooms: one adjacent to the underground parking garage ramp and one located near the ground level drive aisle. The site plan does not designate an area for trash pick-up operations. Therefore, trash bins would need to be wheeled out to the street on trash pick-up days.

**Recommendation:** Trash bins would need to be wheeled out to the street on trash pick-up days.

**On-site and Off-site Loading**

According to the City of San Jose Zoning Regulations, the project is not required to provide an off-street loading space for the residential nor the commercial uses. As previously mentioned, the project

provides a passenger drop-off zone near the main lobby of the assisted living facility. The project also provides a loading/delivery area accessible from the Boston Avenue driveway.

Since the use of the commercial/retail spaces is unknown, it is unclear whether the project would need a loading zone along the San Carlos Street frontage. However, with the increasing popularity of ride-sharing applications and food-delivery services, a loading space would be beneficial for future residents and delivery drivers. The project applicant should consider coordinating with city staff to designate a portion of the San Carlos Street frontage for passenger loading. City staff have indicated that further discussion for a loading zone will be discussed at the implementation phase.

**Recommendation:** The project applicant should coordinate with city staff to designate a portion of the San Carlos Street frontage for passenger loading.

## Parking Supply

### Vehicular Parking

The project as proposed would construct a 246-bed assisted living facility, 61 multi-family residential units, and 6,000 s.f. of retail space. The required parking based on the City of San Jose off-street parking requirements (Section 20.90.060) is summarized in Table 9 below. Based on the City's parking requirements, the project would be required to provide a total of 216 parking spaces before any reductions. A 20 percent reduction in required off-street vehicle parking spaces is allowed with a development permit, or a development exception if no development permit is required, for developments that meet the following conditions (Section 20.90.220.A.1):

1. *The structure or use is located within two thousand feet of a proposed or an existing rail station or bus rapid transit station, or an area designated as a neighborhood business district, or as an urban village, or as an area subject to an area development policy in the city's General Plan, or the use is listed in Section 20.90.220.G; and*
2. *The structure or use provides bicycle parking spaces in conformance with the City's Zoning Code requirements.*

The project site is within the West San Carlos Urban Village and the project proposes to provide bicycle parking that will exceed the City's bicycle parking requirements. Therefore, the vehicle parking requirement would be reduced by 20% to 172 vehicle parking spaces. The project proposes to provide a total of 199 parking spaces in the underground parking garage and the ground level parking. Eighty of the 113 parking spaces in the underground parking garage are designated for residents. The remaining 33 spaces are designated for retail visitors. The 86 parking spaces on the ground level are designated for the assisted living facility (both visitors and employees).

Per the 2016 California Building Code (CBC) Table 11B-208.2, six ADA accessible spaces are required for projects with 151 to 200 parking spaces. Of the required accessible parking spaces, one van accessible space is required. The site plans indicate six accessible spaces on the ground level parking area, with two being van accessible. The site plan also shows three accessible spaces within the underground parking garage, with two spaces being van accessible.

**Table 9**
**Vehicle Parking Requirement**

| Proposed Project | | City of San Jose Parking Code[1] | | General Required Parking | Urban Village Required Parking[2] |
|---|---|---|---|---|---|
| Land Use | Size | Land Use | Parking Ratio | | |
| Assited Living Facility | 246 beds | Assisted Living Facility | 1 space per six beds, then 1 space per four beds, thereafter | 61 | 48 |
| Assited Living Facility | 25 employees | Assisted Living Facility | 1.00 space per employee | 25 | 20 |
| Residential | 8 units | Multiple dwelling residential | 1.25 spaces per one-bedroom unit | 10 | 8 |
| Residential | 53 units | Multiple dwelling residential | 1.70 spaces per two-bedroom unit | 90 | 72 |
| Retail | 6,000 s.f. | Retail sales, goods, and merchandise | 1.00 space per 200 s.f. of floor area | 30 | 24 |
| **Total** | | | | **216** | **172** |

Notes:
[1]City of San Jose Zoning Ordinance: Parking Spaces Required by Land Use
[2]Includes 20% allowable reduction of parking requirement in an Urban Village.

## Bicycle Parking

According to the City's Bicycle Parking Standards (Chapter 20.90, Table 20-190 and 20-210), the project is required to provide bicycle parking for the assisted living facility at a rate of one bicycle parking space per 10 full-time employees. Bicycle parking for the 61 residential units is required at a rate of one bicycle parking space per four residential units. For the proposed 6,000 s.f. of retail use, the project is required to provide one bicycle parking space per 3,000 s.f. Additionally, a minimum of two short term bicycle parking spaces and one long term bicycle parking space is required for non-residential uses. This equates to a total requirement of 3 bicycle parking spaces for the assisted living use, 16 bicycle parking spaces for the residential use, and 3 parking spaces for the commercial use. Of the required residential bicycle parking, City standards require that at least 60 percent be secured long-term bicycle spaces and at most 40 percent be short-term bicycle spaces. Of the required commercial bicycle parking, City standards require that at least 80 percent be short-term bicycle spaces and at most 20 percent be secured long-term bicycle spaces. The City's definition of short-term and long-term bicycle parking is described below.

### City of San Jose Long-Term and Short-Term Bicycle Parking

Long-term bicycle parking facilities are secure bicycle storage facilities for tenants of a building that fully enclose and protect bicycles and may include:

- A covered, access-controlled enclosure such as a fenced and gated area with long-term bicycle parking facilities,
- An access-controlled room with long-term bicycle parking facilities, and
- Individual bicycle lockers that securely enclose one bicycle per locker.

Short-term bicycle parking facilities are accessible and usable by visitors, guests, or business patrons and may include:

- Permanently anchored bicycle racks,
- Covered, lockable enclosures with permanently anchored racks for bicycles,
- Lockable bicycle rooms with permanently anchored racks, and
- Lockable, permanently anchored bicycle lockers.

The required parking based on the City of San Jose bicycle parking requirements is summarized in Table 10 below.

**Table 10**
**Bicycle Parking Requirement**

| Proposed Project | | City of San Jose Parking Code[1] | Required Parking | | |
|---|---|---|---|---|---|
| Land Use | Size | Parking Ratio | Short Term | Long Term | Total |
| Assisted Living Facility | 25 employees | 1.00 space per 10 full time employees | 3 | | 3 |
| Residential | 61 units | 1 space per 4 residential units | 6 | 10 | 16 |
| Retail | 6,000 s.f. | 1.00 space per 3,000 s.f. of floor area | 2 | 1 | 3 |
| **Total** | | | **11** | **11** | **22** |

Notes:
[1]City of San Jose Zoning Ordinance: Parking Spaces Required by Land Use

The project site plan shows bicycle storage lockers in the lobby of the residential building. Per the site plan, a total of 64 long-term bicycle locker spaces are provided within the lobby of the residential building. The site plan shows bicycle parking adjacent to the motorcycle parking located along the ground level drive aisle and near the main lobby for employees and visitors of the assisted living facility. The retail/commercial space will be required to provide two short-term bicycle parking spaces. The site plan shows several bike racks, providing short-term bicycle parking for retail visitors.

## Pedestrian, Bicycle, and Transit Analysis

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

The proposed project site is located within the West San Carlos Urban Village Boundary and fronts San Carlos Street, which has been designated as a Grand Boulevard by the Envision San José 2040 General Plan. Sites within an Urban Village and located along a Grand Boulevard must incorporate additional urban design and architectural elements that will facilitate a building with pedestrian orientated design and activate the pedestrian public right-of-way.

The Envision 2040 General Plan identifies goals and policies that are dedicated to the enhancement of the transportation infrastructure, including public transit and pedestrian/bike facilities. The Transportation Policies contained in the General Plan create incentives for non-auto modes of travel while reducing the use of single-occupant automobile travel as generally described below:

- Through the entitlement process for new development, fund needed transportation improvements for all transportation modes, giving first consideration to improvement of bicycling walking, and transit facilities.
- Give priority to the funding of multimodal projects to provide the most benefit to all users of the transportation system.
- Encourage the use of non-automobile travel modes to reduce vehicle miles traveled (VMT)

- Consider the impact on the overall transportation system when evaluating the impacts of new developments.
- Increase substantially the proportion of travel modes other than single-occupant vehicles.

The City's General Plan identifies both walk and bicycle commute mode split targets as 15 percent or more by the year 2040. This level of pedestrian and bicycle mode share is a reasonable goal for the project, particularly if bus services (including BRT) are utilized in combination with bicycle commuting.

In addition, the West San Carlos Urban Village Plan policies listed below provide for the enhancement of the pedestrian and bicycle environment and greater connectivity to the overall network.

**Policy CS-1.1:** Plan, design, and construct new transportation improvement projects to ensure safe, attractive, and well-maintained facilities for motorists, transit riders, bicyclists, pedestrians, and people of all abilities.

**Policy CS-1.2:** Encourage street design standards that balance mobility for all transportation modes.

**Policy CS-2.1:** Support right-of-way design and pedestrian amenities that make it easier to access transit services and encourage transit use as a viable alternative to driving.

**Policy CS-2.2:** Coordinate with VTA to implement the Stevens Creek high-capacity urban transit project including two high-capacity urban transit stations on West San Carlos Street.

**Policy CS-3.1:** Expand the bicycle network by adding Class II and Class III facilities within the Urban Village as per the San José Bike Plan.

**Policy CS-3.2:** Examine the feasibility of providing a bicycle route and traffic calming installations along MacArthur Avenue.

**Policy CS-3.3:** Implement safety improvements to existing bicycle routes in the Urban Village.

**Policy CS-3.4:** Enhance bicycle safety and environment by utilizing the most advanced technology (such as bicycle-friendly signal detection) and including bicycle parking at transit stops.

**Policy CS-4.1:** Create a pedestrian-friendly boulevard along West San Carlos Street and improve access to schools, parks, neighborhood services, and transit stops.

**Policy CS-4.2:** Consider multi-modal users in all pedestrian improvement projects and include safety elements such as lighted crosswalks and RRFB signals.

**Policy CS-4.3:** Improve the streetscape environment with crosswalks, wide Americans with Disabilities Act (ADA) accessible sidewalks, and amenities that enrich the pedestrian experience, such as landscape planters, broad canopy shade trees, improved lighting, and benches.

**Policy CS-4.4:** Provide 20-foot minimum sidewalk width along West San Carlos Street in all future development projects. Where the sidewalk in front of a development project falls short, the project must make up the difference so that the entire 20 feet is publicly-accessible and functions as a sidewalk.

**Policy CS-4.5:** All other streets should provide a 12- to 15-foot sidewalk width. Allow exceptions only in the case of economic hardship on shallow lots or constrained sites.

## Pedestrian Facilities

Pedestrian facilities in the study area consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections (see Chapter 2 for details).

Pedestrian generators in the project vicinity include commercial areas and bus stops along the San Carlos Street corridor. The project site is within the service boundaries of Trace Elementary School, Herbert Hoover Middle School, and Lincoln High School, all of which are located on Dana Avenue approximately ½-mile to ¾-mile from the project site. Existing sidewalks along Brooklyn Avenue, Boston Avenue, Dana Avenue, and San Carlos Street provide a pedestrian connection between the project site and pedestrian destinations in the project vicinity. Additionally, the high-visibility piano key

crosswalk across San Carlos Street at Brooklyn Avenue provides a safe connection for pedestrians to reach the other side of San Carlos Street. High-visibility piano key crosswalks across Boston Avenue and Brooklyn Avenue would be beneficial for pedestrians walking from the project site to nearby points of interests and transit options along San Carlos Street and Bascom Avenue. Additionally, piano key crosswalks across Boston Avenue and Brooklyn Avenue would make walking along San Carlos Street more pedestrian friendly.

There is a missing ADA-compliant ramp along the northwest corner of Boston Street and San Carlos Street. City staff have indicated that the project may be required to reconstruct ADA-compliant ramps within the project's sphere. The project proposes to reconstruct the sidewalk along San Carlos Street and Boston Street. City staff have indicated that the project should install new ADA curb ramps along both the northwest and northeast corner of Boston Street and San Carlos Street. Additionally, city staff have indicated that the project should implement high visibility "piano key" crosswalks at Boston Avenue and Brooklyn Avenue. The installation of new curb ramps and high visibility crosswalks would increase safety and comfort for pedestrians along San Carlos Street.

The project proposes to construct 12-foot-wide sidewalks along its frontages on Brooklyn Avenue and Boston Avenue. The project also proposes a 20-foot wide sidewalk along San Carlos Street. Street trees would be planted along the project frontage adjacent to the curb, reducing some of the space along the sidewalk. Additionally, the site plan shows that the retail space may be permitted to utilize some of the outdoor space along the San Carlos Street frontage for tables and seating. Overall, the proposed sidewalks provide adequate space and circulation along the project frontages. However, street trees and outdoor seating may block some of the accessible width of the sidewalks. The project applicant should discuss with City staff to determine whether the proposed street trees and outdoor seating would be permitted.

**Recommendation:** The project should discuss with City staff to determine whether the proposed street trees and outdoor seating would impede pedestrian circulation along the project frontages.

**Recommendation:** To increase safety and comfort for pedestrians along San Carlos Street, the project should implement high visibility "piano key" crosswalks at Boston Avenue and Brooklyn Avenue and install new ADA curb ramps along both the northwest and northeast corner of Boston Street and San Carlos Street intersection.

### Bicycle Facilities

There are several bike facilities in the immediate vicinity of the project site (see Chapter 2 for details). The bikeways within the vicinity of the project site would remain unchanged under project conditions.

The project site is not directly served by any bicycle facilities. The project proposes bicycle storage lockers, which may encourage bicycle ownership by residents. Staff may also be more likely to ride their bikes to work because there is secure bicycle storage.

The nearest bicycle sharing station is provided near the intersection of Meridian Avenue and San Carlos Street, approximately 0.8 miles east of the project site. The bicycle sharing station is farther than most residents would walk to for general usage. The San Jose Better Bike Plan 2025 identifies a proposed Class IV protected bike lane along San Carlos Street. City staff have stated that the project will be making a monetary contribution to the proposed bike lane. A protected bike lane along San Carlos Street would improve bicycle connectivity in the vicinity and to other existing bicycle facilities. Additionally, installing a protected bike lane may encourage future residents and visitors to ride bikes rather than drive.

As previously described, the City's General Plan identifies a bicycle commute mode split target of 15 percent or more by the year 2040. This calculates to approximately 8 and 14 new bicycle trips during the AM and PM peak hours, respectively. This level of bicycle mode share is a reasonable goal for the project.

**Bicycle and Pedestrian Facility Improvements**

The Envision 2040 General Plan identifies the following goals in regard to bicycling and pedestrians:

- Provide a continuous pedestrian and bicycle system to enhance connectivity throughout the City by completing missing segments.
- Build pedestrian and bicycle improvements at the same time as improvements for vehicular circulation.
- Give priority to pedestrian improvement projects that improve pedestrian safety, improve pedestrian access to and within the Urban Villages and other growth areas.

The planned improvements discussed below are intended to reduce the identified project impacts to the roadway system by providing the project site with viable connections to surrounding pedestrian/bike and transit facilities and provide for a balanced transportation system as outlined in the Envision 2040 General Plan goals and policies. However, the full implementation of the improvements are beyond the means of the proposed project given that they may require right-of-way from adjacent properties.

The San Jose Bike Plan 2025 indicates that a variety of bicycle facilities are planned in the study area, some of which would benefit the project and adhere to the goals of the Envision 2040 General Plan. Of the planned facilities, the following are relevant to the project.

Class II, bike lanes, are planned for:

- Leigh Avenue, between San Carlos Street and Moorpark Avenue

Class III, bicycle boulevards, are planned for:

- Wabash Avenue/Leland Avenue, between Forest Avenue and Parkmoor Avenue
- Shasta Avenue, between San Carlos Street and Park Avenue

Class IV, protected bike lanes, are planned for:

- San Carlos Street, between its eastern terminus to Bascom Avenue
- Bascom Avenue, its entirety within City limits

## Transit Services

The project site is primarily served by two VTA bus routes (Frequent Route 23 and Rapid Route 523). The nearest bus stops to the project site serve Frequent Route 23 and are located along both sides of San Carlos Street (near Brooklyn Avenue and Arleta Avenue), approximately 100 feet from the project site. The nearest bus stop serving Rapid Route 523 is located at the intersection of Bascom Avenue and San Carlos Street, approximately 800 feet from the project site.

Additionally, the Diridon Transit Center is located approximately 1.8-mile north and east of the project site, along Cahill Street. The Diridon Transit Center provides connections between local and regional bus routes, light rail lines, and commuter rail lines.

The new transit trips generated by the project are not expected to create demand in excess of the transit service that is currently provided.

**Transit Facility Improvements**

The Envision 2040 General Plan identifies the following goals in regard to public transit:

- Pursue development of BRT, bus, shuttle, and fixed guideway services on designated streets and connections to major destinations.
- Ensure that roadways designated as Grand Boulevards adequately accommodate transit vehicle circulation and transit stops. Prioritize bus mobility along San Carlos Street/Stevens Creek Boulevard.

San Carlos Street has been designated as a Grand Boulevard within the Envision 2040 General Plan. Grand Boulevards are intended to serve as major transportation corridors with priority given to public transit. Given that the project fronts San Carlos Street, the project shall be required to implement the following Grand Boulevard design principles:

- Provide a minimum 20 feet sidewalk width along its frontage on San Carlos Street
- Minimize driveway cuts to minimize transit delay
- Provide enhanced shelters for transit services

# 5. Conclusions

The transportation analysis of the project was evaluated following the standards and methodologies set forth in the City of San Jose's Transportation Analysis Policy (Council Policy 5-1), the City of San Jose's *Transportation Analysis Handbook 2018*, the Santa Clara Valley Transportation Authority (VTA) Congestion Management Program's *Transportation Impact Guidelines* (October 2014), and by the California Environmental Quality Act (CEQA).

## CEQA VMT Analysis

### CEQA Transportation Analysis Exemption Criteria

The City of San Jose *Transportation Analysis Handbook* identifies screening criteria that determines whether a CEQA transportation analysis would be required for development projects. The criteria are based on the type of project, characteristics, and/or location. If a project meets the City's screening criteria, the project is expected to result in less-than-significant VMT impacts and a detailed CEQA VMT analysis is not required.

The project site is located within a planned Growth Area (West San Carlos Urban Village) and is located along San Carlos Street, which is a high-quality transit corridor with VTA bus service headways of less than 15 minutes during peak commute periods. The project is located within an area with low VMT per-capita, but exceeds the thresholds of significance for VMT per-employee. Therefore, the residential portion of the project meets the screening criteria. The assisted living portion of the project would need to reduce the VMT generated per employee to reduce its VMT to less than the thresholds of significance.

Per the City of San Jose VMT screening criteria, retail projects of 100,000 square feet or less are considered local-serving. The proposed 6,000 s.f. of retail space is less than the 100,000 s.f. retail threshold screening criterion for local-serving retail and a detailed VMT analysis is not required.

Therefore, both the residential and commercial land use components of the project are anticipated to result in less-than-significant VMT impacts and a detailed CEQA transportation analysis that evaluates the project's effects on VMT is not required. However, since the assisted living portion of the project does not meet the screening criteria, a VMT evaluation for the project was completed and presented below.

### Project-Level VMT Impact Analysis

The results of the VMT evaluation, using the City's VMT Evaluation Tool, indicate that the proposed project is projected to generate 7.95 VMT per capita and 12.84 VMT per employee. The residential

portion of the project does not exceed the thresholds of significance. However, the employment portion of the project exceeds the 12.21 VMT per employee threshold by 5.2%. Therefore, the proposed project would have an impact on the transportation system based on the City's VMT impact criteria.

## Project Impacts and Mitigation Measures

**Project Impact:** Since the VMT generated by the office component of the project (12.84 per employee) would exceed the threshold of 12.21 VMT per employee, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the VMT impact. According to the *Transportation Analysis Handbook*, projects located in areas where the existing VMT is above the established threshold are referred to as being in "high-VMT areas", and projects in high-VMT areas are required to include a set of VMT reduction measures that would reduce the project VMT to the greatest extent possible.

**Mitigation Measures:** Based on the four strategy tiers included in the VMT Evaluation Tool, it is recommended that the project implement one of the following mitigation measures to reduce the significant VMT impact.

- Provide Ride-Sharing Programs: Organize a program to match individuals interested in carpooling who have similar commutes for at least 15% of the project employees. This measure promotes the use of carpooling and reduces the number of drive-alone trips.

The implementation of the above mitigation measure would reduce the project VMT to 11.79 per employee, which is below the threshold of 12.21 per employee, reducing the project impact to less than significant.

## Cumulative (GP Consistency) Evaluation

Projects must demonstrate consistency with the *Envision San José 2040 General Plan* to address cumulative impacts. Consistency with the City's General Plan is based on the project's density, design, and conformance to the General Plan goals and policies. If a project is determined to be inconsistent with the General Plan, a cumulative impact analysis is required per the City's *Transportation Analysis Handbook*.

The project site is located within the West San Carlos Urban Village. Urban villages are defined as walkable, bicycle-friendly, transit-oriented, mixed use settings that provide both housing and jobs, thus supporting the policies and goals of the General Plan. The project is consistent with the General Plan and West San Carlos Urban Village goals and policies for the following reasons:

- The proposed mixed-use commercial and residential uses for the project site are consistent with the Urban Village land use designation per the West San Carlos Urban Village plan.
- The project frontage along San Carlos Street will be consistent with planned streetscape design features West San Carlos Urban Village Plan.
- The project site is within walking distance (less than 100 feet) of bus stops on San Carlos Street.

Therefore, based on the project description, the proposed project would be consistent with the *Urban Village Planning Concepts* and the *Envision San José 2040 General Plan*. Thus, the project would be considered as part of the cumulative solution to meet the General Plan's long-range transportation goals and would result in a less-than-significant cumulative impact.

# Local Transportation Analysis

The intersection operations analysis is intended to quantify the operations of intersections and to identify potential negative effects due to the addition of project traffic. However, a potential adverse effect on a study intersection operation is not considered a CEQA impact metric.

The LTA includes the analysis of AM and PM peak-hour traffic conditions for two signalized intersections and three unsignalized intersections, following the standards and methodology set forth by the City of San Jose.

## Trip Generation

After applying the ITE trip rates, appropriate trip reductions, and existing site trip credits, it is estimated that the project would generate 948 daily vehicle trips, with 62 trips (32 inbound and 30 outbound) occurring during the AM peak hour and 92 trips (40 inbound and 52 outbound) occurring during the PM peak hour.

## Future Intersection Operation Conditions

The operations analysis shows that all of the study intersections are projected to operate at acceptable levels of service, based on the City of San Jose intersection operations standard of LOS D, under background conditions and background plus project conditions during both the AM and PM peak hours.

## Site Access and On-Site Circulation

Site access was evaluated to determine the adequacy of the site's access points with regard to the following: traffic volume, delays, vehicle queues, geometric design, and corner sight distance. On-site vehicular circulation was reviewed in accordance with generally accepted traffic engineering standards and transportation planning principles.

**Recommended Site Access and On-Site Circulation Improvements**

- The proposed landscaping along Brooklyn Avenue and Boston Avenue should be maintained so that the vision of exiting drivers is not obstructed.
- Red curb equal to a car length should be painted on both sides of project driveways.
- The project applicant should discuss with City staff to determine whether the proposed ramp and drive aisles are adequate, or if the project would be required to widen the ramp or drive aisles.
- After project opening, instructions should be provided to future residents and staff on how to operate the mechanical vehicle stackers.
- The project should post clear signage and instructions for visitors that choose to park in the mechanical vehicle stackers.
- Delivery drivers should be instructed to access the loading zone via Boston Avenue
- The driveway to the loading dock should be widened to 16 feet in order to accommodate delivery trucks.
- The project should coordinate with the city to determine whether restricting on-street parking spaces directly across from the loading dock is appropriate.
- Trash bins should be wheeled out to the street on trash pick-up days.
- The project applicant should coordinate with City staff to designate a portion of the San Carlos Street frontage for passenger loading.

### City Preferred Loading Dock Access

City staff have indicated that the preferred scenario would be a loading dock that is accessible from the drive aisle, rather than along Boston Avenue. As shown on the truck-turning templates, trucks can easily access the site via the Boston Avenue driveway. From the drive aisle, trucks would be able to back into the loading dock area with the city's preferred loading dock access. While this scenario would remove conflicts from Boston Avenue, the site plan would need to be redesigned to accommodate longer trucks. Based on the existing site plan, the depth of the loading area in this scenario would be only 24 feet in length, which is inadequate for longer trucks. If this scenario is chosen, the loading dock should be redesigned so that a 30-foot truck would be able to park in the loading dock within encroaching on the 26-foot wide drive aisle.

## Parking Supply

### Vehicular Parking

Based on the City's parking requirements, the project would be required to provide a total of 216 parking spaces. The project site is within the West San Carlos Urban Village and the project proposes to provide bicycle parking that will exceed the City's bicycle parking requirements. Therefore, the vehicle parking requirement would be reduced by 20% to 172 vehicle parking spaces. The project is proposing to provide a total of 199 parking spaces. Eighty of the 113 parking spaces in the underground parking garage are designated for residents. The remaining 33 spaces are designated for retail visitors. The 86 parking spaces on the ground level are designated for the assisted living facility (both visitors and employees).

### Bicycle Parking

The project site plan shows bicycle storage lockers near the lobby of the residential building. Per the site plan, a total of 64 long-term bicycle locker spaces are provided within the storage lockers. The site plan shows bicycle parking adjacent to the motorcycle parking located along the ground level drive aisle and near the main lobby for employees and visitors of the assisted living facility. The retail/commercial space will be required to provide two short-term bicycle parking spaces. The site plan shows several bike racks, providing short-term bicycle parking for retail visitors.

## Pedestrian, Bicycle, and Transit Analysis

### Pedestrian Facilities

Pedestrian generators in the project vicinity include commercial areas and bus stops along the San Carlos Street corridor. The project site is within the service boundaries of Trace Elementary School, Herbert Hoover Middle School, and Lincoln High School, all of which are located on Dana Avenue approximately ½-mile to ¾-mile from the project site. Existing sidewalks along Brooklyn Avenue, Boston Avenue, Dana Avenue, and San Carlos Street provide a pedestrian connection between the project site and pedestrian destinations in the project vicinity. Additionally, the high-visibility piano key crosswalk across San Carlos Street at Brooklyn Avenue provides a safe connection for pedestrians to reach the other side of San Carlos Street. City staff have indicated that the project should install new ADA curb ramps along both the northwest and northeast corner of Boston Street and San Carlos Street.

The project proposes to construct 12-foot-wide sidewalks along its frontages on Brooklyn Avenue and Boston Avenue. The project also proposes a 20-foot wide sidewalk along San Carlos Street. Street trees would be planted along the project frontage adjacent to the curb, reducing some of the space along the sidewalk. Additionally, the site plan shows that the retail space may be permitted to utilize

some of the outdoor space along the San Carlos Street frontage for tables and seating. Overall, the proposed sidewalks provide adequate space and circulation along the project frontages. However, street trees and outdoor seating may block some of the accessible width of the sidewalks. The project applicant should discuss with city staff to determine whether the proposed street trees and outdoor seating would be permitted.

**Recommendation:** The project should discuss with city staff to determine whether the proposed street trees and outdoor seating would impede pedestrian circulation along the project frontages.

**Recommendation:** To increase safety and comfort for pedestrians along San Carlos Street, the project should implement high visibility "piano key" crosswalks at Boston Avenue and Brooklyn Avenue and install new ADA curb ramps along both the northwest and northeast corner of Boston Street and San Carlos Street intersection.

**Bicycle Facilities**

The bikeways within the vicinity of the project site would remain unchanged under project conditions.

The project site is not directly served by any bicycle facilities. The project proposes bicycle storage lockers, which may encourage bicycle ownership by residents. Staff may also be more likely to ride their bikes to work because there is secure bicycle storage.

The nearest bicycle sharing station is provided near the intersection of Meridian Avenue and San Carlos Street, approximately 0.8 miles east of the project site. The bicycle sharing station is farther than most residents would walk to for general usage. The San Jose Better Bike Plan 2025 identifies a proposed Class IV protected bike lane along San Carlos Street. City staff have stated that the project will be making a monetary contribution to the proposed bike lane. A protected bike lane along San Carlos Street would improve bicycle connectivity in the vicinity and to other existing bicycle facilities. Additionally, installing a protected bike lane may encourage future residents and visitors to ride bikes rather than drive.

The San Jose Bike Plan 2025 indicates that a variety of bicycle facilities are planned in the study area, some of which would benefit the project and adhere to the goals of the Envision 2040 General Plan. Of the planned facilities, the following are relevant to the project.

Class II, bike lanes, are planned for:

- Leigh Avenue, between San Carlos Street and Moorpark Avenue

Class III, bicycle boulevards, are planned for:

- Wabash Avenue/Leland Avenue, between Forest Avenue and Parkmoor Avenue
- Shasta Avenue, between San Carlos Street and Park Avenue

Class IV, protected bike lanes, are planned for:

- San Carlos Street, between its eastern terminus to Bascom Avenue
- Bascom Avenue, its entirety within City limits

**Transit Services**

The project site is adequately served by the existing VTA transit services. The project site is primarily served by two VTA bus routes (Frequent Route 23 and Rapid Route 523). The nearest bus stops to the project site serve Frequent Route 23 and are located along both sides of San Carlos Street (near Brooklyn Avenue), approximately 100 feet from the project site. The nearest bus stop serving Rapid Route 523 is located at the intersection of Bascom Avenue and San Carlos Street, approximately 800

feet from the project site. Additionally, the Diridon Transit Center is located approximately 1.36-mile north and east of the project site, along Cahill Street. The Diridon Transit Center provides connections between local and regional bus routes, light rail lines, and commuter rail lines. The new transit trips generated by the project are not expected to create demand in excess of the transit service that is currently provided.

# 1881 W. San Carlos Street
# Mixed-Use Development TA
# Technical Appendices

# Appendix A

## San Jose VMT Evaluation Tool Output

# CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

## PROJECT:

Name: W. San Carlos Assisted Living Facility
Location: 1881 W. San Carlos St
Parcel: 27416049 Parcel Type: Urban Low Transit
Proposed Parking Spaces Vehicles: 199 Bicycles: 64

Tool Version: 2/29/2019
Date: 4/30/2021

## LAND USE:

| Residential: | | |
|---|---|---|
| Single Family | 0 | DU |
| Multi Family | 61 | DU |
| Subtotal | 61 | DU |
| Office: | 65.7 | KSF |
| Retail: | 6 | KSF |
| Industrial: | 0 | KSF |

Percent of All Residential Units

| | |
|---|---|
| Extremely Low Income ( ≤ 30% MFI) | 0 % Affordable |
| Very Low Income ( > 30% MFI, ≤ 50% MFI) | 0 % Affordable |
| Low Income ( > 50% MFI, ≤ 80% MFI) | 0 % Affordable |

## VMT REDUCTION STRATEGIES

### Tier 1 - Project Characteristics

Increase Residential Density
- Existing Density (DU/Residential Acres in half-mile buffer) . . . . . 12
- With Project Density (DU/Residential Acres in half-mile buffer) . . . . . 12

Increase Development Diversity
- Existing Activity Mix Index . . . . . 0.52
- With Project Activity Mix Index . . . . . 0.53

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) . . . . . 25
- With Project Density (Jobs/Commercial Acres in half-mile buffer) . . . . . 27

### Tier 2 - Multimodal Infrastructure

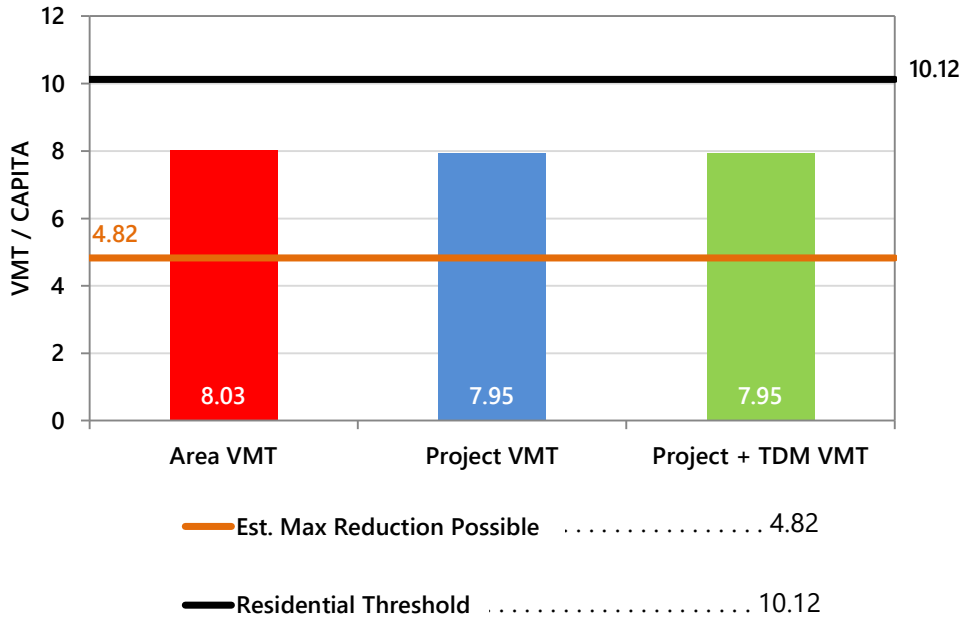
### Tier 3 - Parking

### Tier 4 - TDM Programs

Ride-Sharing Programs
- Percent of Eligible Eemployees . . . . . 15 %

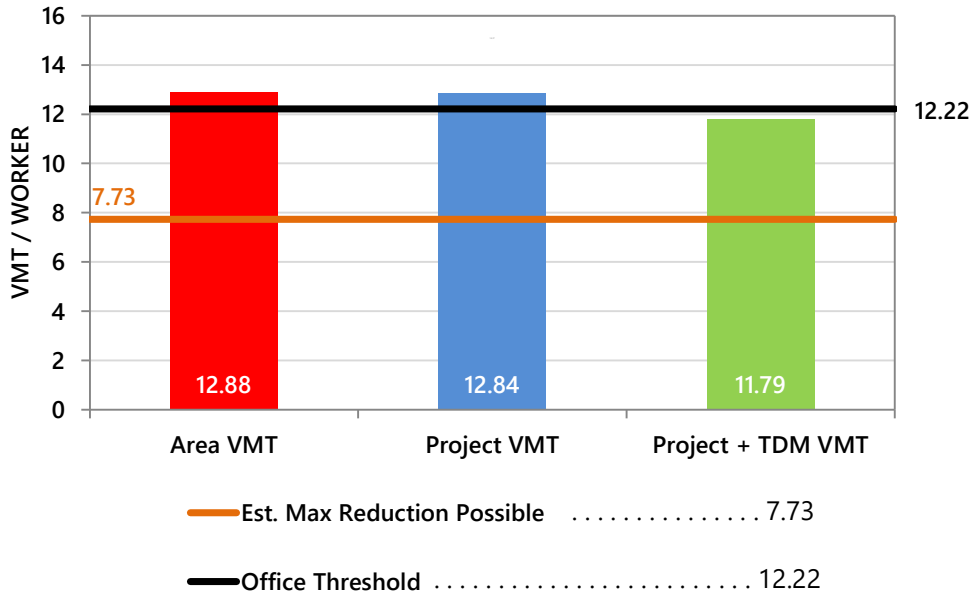
## RESIDENTIAL ONLY

The tool estimates that the project would generate per capita VMT below the City's threshold.




## EMPLOYMENT ONLY

The tool estimates that the project would generate per non-industrial worker VMT below the City's threshold.



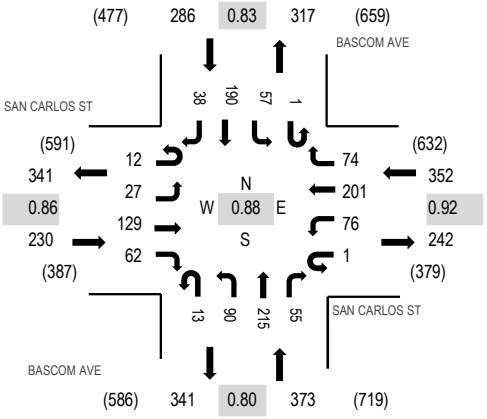
# Appendix B

## Traffic Counts

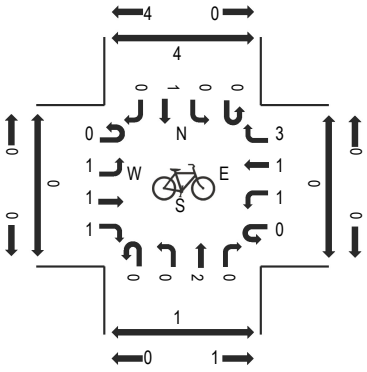
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 1 BASCOM AVE & SAN CARLOS ST AM
**Date:** Tuesday, December 15, 2020
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:45 AM - 09:00 AM

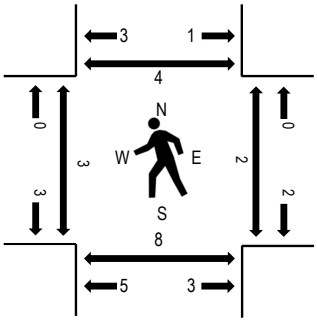
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | SAN CARLOS ST Eastbound | | | | SAN CARLOS ST Westbound | | | | BASCOM AVE Northbound | | | | BASCOM AVE Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 2 | 2 | 13 | 4 | 0 | 4 | 37 | 16 | 1 | 12 | 40 | 6 | 1 | 5 | 27 | 8 | 178 | 974 | 1 | 2 | 4 | 1 |
| 7:15 AM | 1 | 2 | 16 | 12 | 0 | 18 | 34 | 14 | 4 | 18 | 56 | 4 | 0 | 10 | 31 | 6 | 226 | 1,078 | 0 | 1 | 0 | 3 |
| 7:30 AM | 3 | 8 | 25 | 17 | 0 | 15 | 42 | 20 | 1 | 10 | 65 | 11 | 0 | 5 | 32 | 4 | 258 | 1,170 | 3 | 0 | 1 | 2 |
| 7:45 AM | 4 | 11 | 17 | 20 | 1 | 12 | 48 | 19 | 5 | 11 | 87 | 15 | 1 | 9 | 42 | 10 | 312 | 1,201 | 0 | 0 | 0 | 0 |
| 8:00 AM | 3 | 2 | 32 | 14 | 0 | 21 | 50 | 14 | 3 | 27 | 46 | 12 | 0 | 10 | 40 | 8 | 282 | 1,241 | 0 | 0 | 5 | 2 |
| 8:15 AM | 5 | 12 | 29 | 21 | 0 | 20 | 51 | 23 | 2 | 22 | 55 | 6 | 0 | 18 | 48 | 6 | 318 | | 0 | 1 | 0 | 0 |
| 8:30 AM | 2 | 7 | 34 | 12 | 0 | 19 | 36 | 22 | 2 | 16 | 50 | 19 | 0 | 10 | 52 | 8 | 289 | | 3 | 1 | 1 | 0 |
| 8:45 AM | 2 | 6 | 34 | 15 | 1 | 16 | 64 | 15 | 6 | 25 | 64 | 18 | 1 | 19 | 50 | 16 | 352 | | 0 | 0 | 2 | 2 |

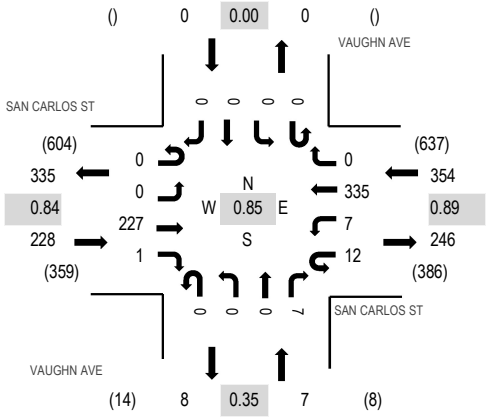
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 6 |
| Lights | 12 | 26 | 119 | 58 | 1 | 75 | 191 | 71 | 13 | 89 | 209 | 52 | 1 | 55 | 180 | 38 | 1,190 |
| Mediums | 0 | 1 | 10 | 4 | 0 | 0 | 9 | 2 | 0 | 1 | 6 | 3 | 0 | 2 | 7 | 0 | 45 |
| Total | 12 | 27 | 129 | 62 | 1 | 76 | 201 | 74 | 13 | 90 | 215 | 55 | 1 | 57 | 190 | 38 | 1,241 |

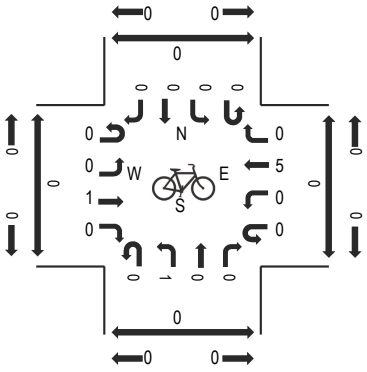
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 2 VAUGHN AVE & SAN CARLOS ST AM
**Date:** Tuesday, December 15, 2020
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:45 AM - 09:00 AM

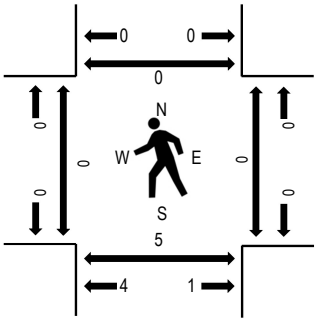
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | SAN CARLOS ST Eastbound | | | | SAN CARLOS ST Westbound | | | | VAUGHN AVE Northbound | | | | VAUGHN AVE Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 0 | 24 | 0 | 2 | 2 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 86 | 415 | 1 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 30 | 0 | 3 | 0 | 59 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 93 | 471 | 0 | 0 | 1 | 0 |
| 7:30 AM | 0 | 0 | 37 | 0 | 2 | 3 | 74 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 116 | 527 | 1 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 40 | 0 | 1 | 1 | 78 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 120 | 536 | 0 | 0 | 2 | 0 |
| 8:00 AM | 0 | 0 | 58 | 0 | 3 | 2 | 78 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 142 | 589 | 0 | 0 | 3 | 0 |
| 8:15 AM | 0 | 0 | 51 | 1 | 2 | 4 | 91 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 149 | | 0 | 0 | 1 | 0 |
| 8:30 AM | 0 | 0 | 50 | 0 | 2 | 0 | 72 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 125 | | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 68 | 0 | 5 | 1 | 94 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 173 | | 0 | 0 | 1 | 0 |

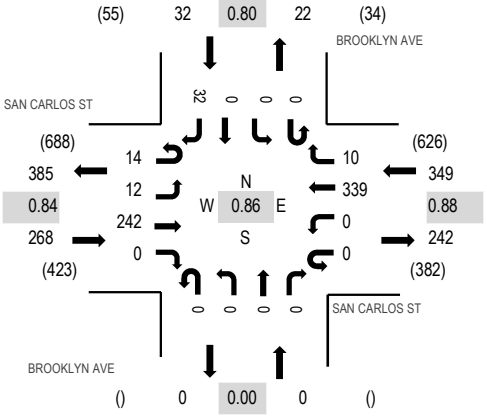
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Lights | 0 | 0 | 212 | 1 | 11 | 7 | 321 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 559 |
| Mediums | 0 | 0 | 15 | 0 | 1 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 |
| Total | 0 | 0 | 227 | 1 | 12 | 7 | 335 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 589 |

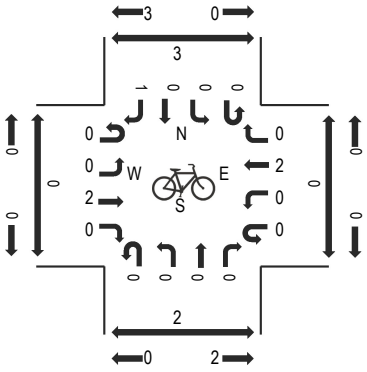
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 3 BROOKLYN AVE & SAN CARLOS ST AM
**Date:** Tuesday, December 15, 2020
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:45 AM - 09:00 AM

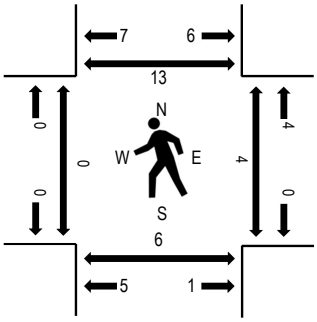
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | SAN CARLOS ST Eastbound | | | | SAN CARLOS ST Westbound | | | | BROOKLYN AVE Northbound | | | | BROOKLYN AVE Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 3 | 23 | 0 | 0 | 0 | 55 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 87 | 455 | 0 | 0 | 0 | 0 |
| 7:15 AM | 2 | 1 | 34 | 0 | 0 | 0 | 57 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 101 | 514 | 0 | 0 | 1 | 4 |
| 7:30 AM | 2 | 3 | 39 | 0 | 0 | 0 | 70 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 121 | 575 | 0 | 0 | 1 | 0 |
| 7:45 AM | 2 | 2 | 44 | 0 | 0 | 0 | 92 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 146 | 607 | 0 | 0 | 0 | 3 |
| 8:00 AM | 3 | 4 | 56 | 0 | 0 | 0 | 74 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 146 | 649 | 0 | 0 | 2 | 3 |
| 8:15 AM | 1 | 1 | 54 | 0 | 0 | 0 | 91 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 162 | | 0 | 1 | 2 | 5 |
| 8:30 AM | 6 | 4 | 59 | 0 | 0 | 0 | 78 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 153 | | 0 | 3 | 1 | 4 |
| 8:45 AM | 4 | 3 | 73 | 0 | 0 | 0 | 96 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 188 | | 0 | 0 | 1 | 1 |

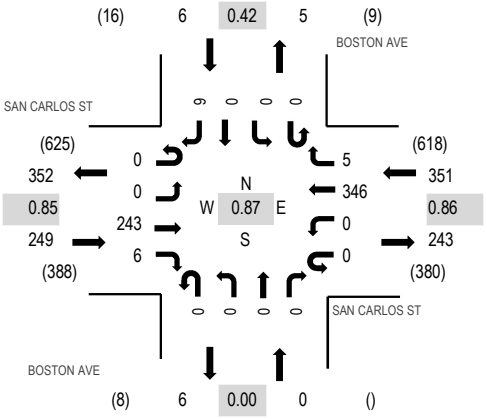
## Peak Rolling Hour Flow Rates

| 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 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 |
| Lights | 14 | 12 | 228 | 0 | 0 | 0 | 323 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 616 |
| Mediums | 0 | 0 | 14 | 0 | 0 | 0 | 14 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 30 |
| Total | 14 | 12 | 242 | 0 | 0 | 0 | 339 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 649 |

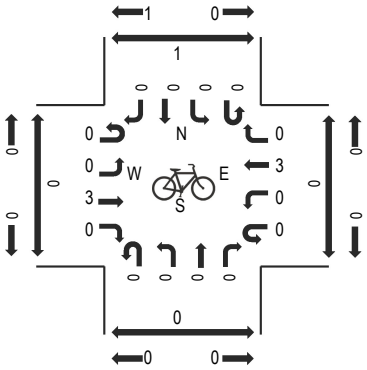
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 4 BOSTON AVE & SAN CARLOS ST AM
**Date:** Tuesday, December 15, 2020
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:45 AM - 09:00 AM

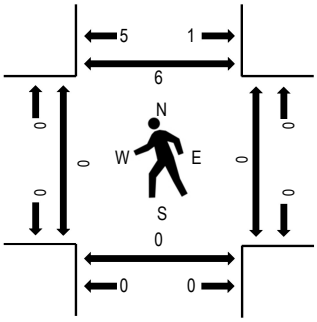
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | SAN CARLOS ST Eastbound | | | | SAN CARLOS ST Westbound | | | | BOSTON AVE Northbound | | | | BOSTON AVE Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 0 | 23 | 0 | 0 | 0 | 55 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 82 | 416 | 0 | 0 | 0 | 1 |
| 7:15 AM | 0 | 0 | 31 | 2 | 0 | 0 | 58 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 93 | 471 | 0 | 0 | 0 | 3 |
| 7:30 AM | 0 | 0 | 42 | 0 | 0 | 0 | 65 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 113 | 535 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 41 | 0 | 0 | 0 | 85 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 128 | 559 | 0 | 0 | 0 | 2 |
| 8:00 AM | 0 | 0 | 58 | 2 | 0 | 0 | 74 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 137 | 606 | 0 | 0 | 0 | 2 |
| 8:15 AM | 0 | 0 | 54 | 4 | 0 | 0 | 95 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 157 | | 0 | 0 | 0 | 2 |
| 8:30 AM | 0 | 0 | 58 | 0 | 0 | 0 | 76 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 137 | | 0 | 0 | 0 | 1 |
| 8:45 AM | 0 | 0 | 73 | 0 | 0 | 0 | 101 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 175 | | 0 | 0 | 0 | 1 |

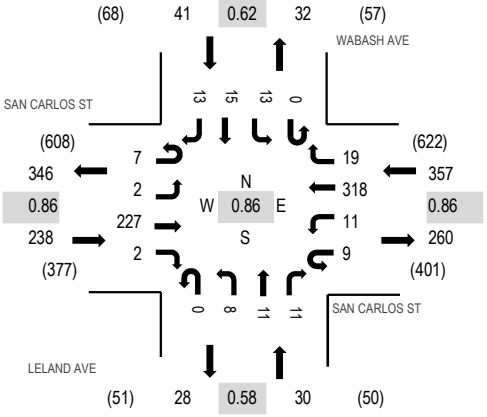
## Peak Rolling Hour Flow Rates

| 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 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Lights | 0 | 0 | 228 | 3 | 0 | 0 | 333 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 575 |
| Mediums | 0 | 0 | 15 | 3 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| Total | 0 | 0 | 243 | 6 | 0 | 0 | 346 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 606 |

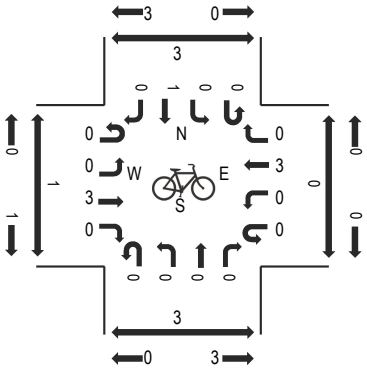
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 5 LELAND AVE & SAN CARLOS ST AM
**Date:** Tuesday, December 15, 2020
**Peak Hour:** 08:00 AM - 09:00 AM
**Peak 15-Minutes:** 08:45 AM - 09:00 AM

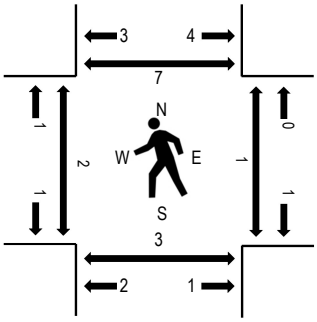
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | SAN CARLOS ST Eastbound | | | | SAN CARLOS ST Westbound | | | | LELAND AVE Northbound | | | | WABASH AVE Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 1 | 21 | 1 | 0 | 1 | 55 | 1 | 0 | 0 | 1 | 1 | 0 | 2 | 4 | 2 | 90 | 451 | 0 | 0 | 0 | 2 |
| 7:15 AM | 2 | 1 | 27 | 1 | 0 | 1 | 54 | 3 | 0 | 1 | 1 | 2 | 0 | 2 | 3 | 0 | 98 | 510 | 0 | 1 | 1 | 4 |
| 7:30 AM | 1 | 2 | 39 | 0 | 0 | 0 | 61 | 5 | 0 | 1 | 1 | 0 | 0 | 0 | 4 | 1 | 115 | 581 | 1 | 0 | 2 | 1 |
| 7:45 AM | 0 | 1 | 42 | 0 | 0 | 3 | 77 | 4 | 0 | 4 | 4 | 4 | 0 | 1 | 5 | 3 | 148 | 620 | 3 | 1 | 1 | 2 |
| 8:00 AM | 2 | 0 | 55 | 0 | 3 | 4 | 67 | 7 | 0 | 1 | 2 | 2 | 0 | 1 | 3 | 2 | 149 | 666 | 0 | 0 | 2 | 3 |
| 8:15 AM | 1 | 0 | 52 | 0 | 2 | 1 | 91 | 5 | 0 | 3 | 2 | 2 | 0 | 4 | 3 | 3 | 169 | | 0 | 1 | 0 | 2 |
| 8:30 AM | 2 | 0 | 57 | 0 | 1 | 1 | 68 | 3 | 0 | 1 | 2 | 2 | 0 | 6 | 7 | 4 | 154 | | 2 | 0 | 1 | 1 |
| 8:45 AM | 2 | 2 | 63 | 2 | 3 | 5 | 92 | 4 | 0 | 3 | 5 | 5 | 0 | 2 | 2 | 4 | 194 | | 0 | 0 | 0 | 1 |

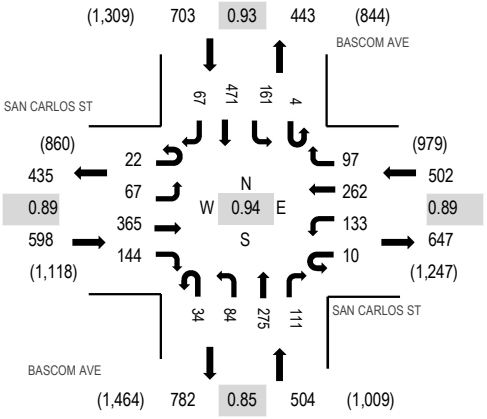
## Peak Rolling Hour Flow Rates

| 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Lights | 6 | 2 | 214 | 2 | 9 | 11 | 305 | 17 | 0 | 8 | 11 | 11 | 0 | 12 | 14 | 13 | 635 |
| Mediums | 1 | 0 | 12 | 0 | 0 | 0 | 13 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 30 |
| Total | 7 | 2 | 227 | 2 | 9 | 11 | 318 | 19 | 0 | 8 | 11 | 11 | 0 | 13 | 15 | 13 | 666 |

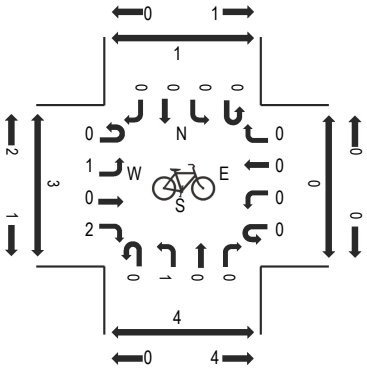
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 1 BASCOM AVE & SAN CARLOS ST PM
**Date:** Tuesday, December 15, 2020
**Peak Hour:** 04:45 PM - 05:45 PM
**Peak 15-Minutes:** 05:00 PM - 05:15 PM

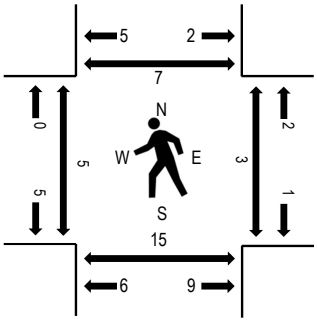
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | SAN CARLOS ST Eastbound | | | | SAN CARLOS ST Westbound | | | | BASCOM AVE Northbound | | | | BASCOM AVE Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 3 | 14 | 90 | 32 | 2 | 42 | 67 | 21 | 8 | 19 | 74 | 35 | 1 | 44 | 110 | 15 | 577 | 2,196 | 2 | 2 | 2 | 3 |
| 4:15 PM | 3 | 18 | 86 | 29 | 0 | 27 | 74 | 19 | 8 | 22 | 57 | 32 | 1 | 36 | 102 | 23 | 537 | 2,230 | 2 | 1 | 3 | 2 |
| 4:30 PM | 7 | 14 | 84 | 29 | 2 | 33 | 56 | 17 | 8 | 26 | 67 | 27 | 1 | 31 | 93 | 18 | 513 | 2,268 | 0 | 3 | 6 | 3 |
| 4:45 PM | 5 | 14 | 90 | 36 | 1 | 30 | 76 | 20 | 9 | 22 | 69 | 20 | 1 | 40 | 121 | 15 | 569 | 2,307 | 1 | 0 | 2 | 2 |
| 5:00 PM | 5 | 20 | 98 | 45 | 6 | 24 | 70 | 22 | 12 | 21 | 87 | 33 | 1 | 32 | 110 | 25 | 611 | 2,219 | 1 | 1 | 3 | 2 |
| 5:15 PM | 6 | 24 | 84 | 30 | 2 | 45 | 56 | 38 | 6 | 11 | 63 | 21 | 1 | 47 | 125 | 16 | 575 | | 3 | 1 | 4 | 1 |
| 5:30 PM | 6 | 9 | 93 | 33 | 1 | 34 | 60 | 17 | 7 | 30 | 56 | 37 | 1 | 42 | 115 | 11 | 552 | | 0 | 1 | 6 | 2 |
| 5:45 PM | 3 | 13 | 62 | 33 | 4 | 33 | 55 | 25 | 10 | 24 | 58 | 30 | 1 | 35 | 85 | 10 | 481 | | 1 | 1 | 5 | 1 |

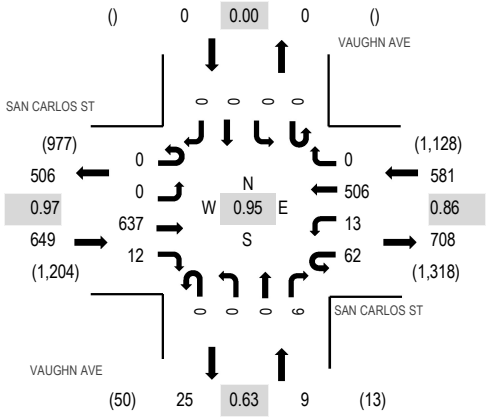
## Peak Rolling Hour Flow Rates

| 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lights | 22 | 67 | 357 | 143 | 10 | 132 | 257 | 97 | 34 | 84 | 271 | 111 | 4 | 161 | 469 | 67 | 2,286 |
| Mediums | 0 | 0 | 8 | 1 | 0 | 1 | 5 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 2 | 0 | 21 |
| Total | 22 | 67 | 365 | 144 | 10 | 133 | 262 | 97 | 34 | 84 | 275 | 111 | 4 | 161 | 471 | 67 | 2,307 |

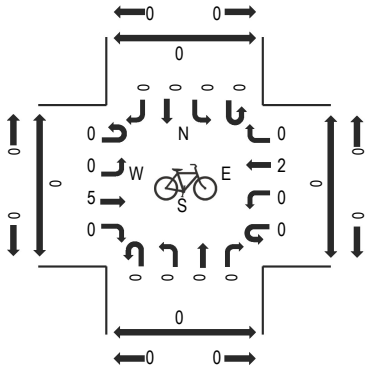
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 2 VAUGHN AVE & SAN CARLOS ST PM
**Date:** Tuesday, December 15, 2020
**Peak Hour:** 04:45 PM - 05:45 PM
**Peak 15-Minutes:** 05:15 PM - 05:30 PM

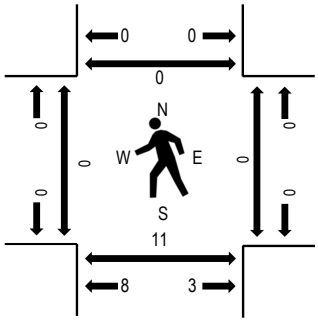
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | SAN CARLOS ST Eastbound | | | | SAN CARLOS ST Westbound | | | | VAUGHN AVE Northbound | | | | VAUGHN AVE Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 0 | 124 | 0 | 13 | 6 | 132 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 275 | 1,166 | 0 | 0 | 4 | 0 |
| 4:15 PM | 0 | 0 | 158 | 5 | 19 | 3 | 125 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 312 | 1,199 | 0 | 0 | 1 | 0 |
| 4:30 PM | 0 | 0 | 142 | 2 | 14 | 3 | 104 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 266 | 1,213 | 1 | 0 | 2 | 0 |
| 4:45 PM | 0 | 0 | 162 | 2 | 12 | 3 | 134 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 313 | 1,239 | 0 | 0 | 4 | 0 |
| 5:00 PM | 0 | 0 | 156 | 7 | 19 | 2 | 121 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 308 | 1,179 | 0 | 0 | 1 | 0 |
| 5:15 PM | 0 | 0 | 153 | 1 | 18 | 5 | 145 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 326 | | 0 | 0 | 3 | 0 |
| 5:30 PM | 0 | 0 | 166 | 2 | 13 | 3 | 106 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 292 | | 0 | 0 | 3 | 0 |
| 5:45 PM | 0 | 0 | 124 | 0 | 12 | 6 | 110 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 253 | | 1 | 0 | 5 | 0 |

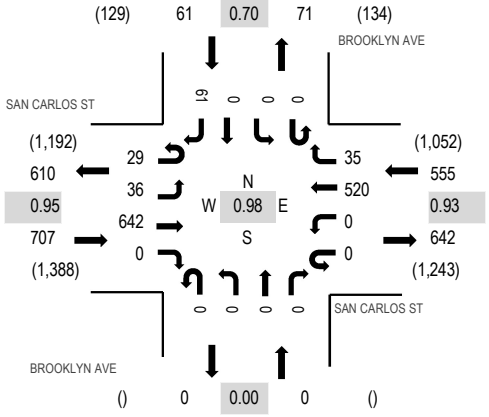
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lights | 0 | 0 | 629 | 12 | 62 | 13 | 499 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 1,224 |
| Mediums | 0 | 0 | 8 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| Total | 0 | 0 | 637 | 12 | 62 | 13 | 506 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 1,239 |

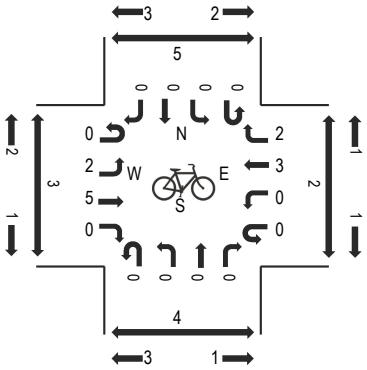
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 3 BROOKLYN AVE & SAN CARLOS ST PM
**Date:** Tuesday, December 15, 2020
**Peak Hour:** 04:45 PM - 05:45 PM
**Peak 15-Minutes:** 04:45 PM - 05:00 PM

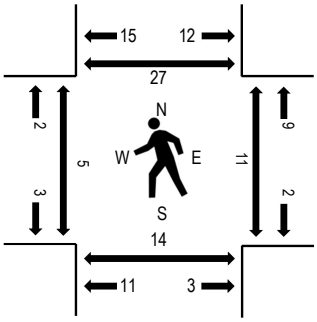
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | SAN CARLOS ST Eastbound | | | | SAN CARLOS ST Westbound | | | | BROOKLYN AVE Northbound | | | | BROOKLYN AVE Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 8 | 15 | 164 | 0 | 0 | 0 | 138 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 349 | 1,304 | 0 | 4 | 7 | 6 |
| 4:15 PM | 13 | 6 | 164 | 0 | 0 | 0 | 122 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 327 | 1,289 | 0 | 3 | 2 | 3 |
| 4:30 PM | 9 | 6 | 149 | 0 | 0 | 0 | 106 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 289 | 1,298 | 0 | 1 | 2 | 8 |
| 4:45 PM | 5 | 6 | 164 | 0 | 0 | 0 | 138 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 339 | 1,323 | 2 | 5 | 4 | 7 |
| 5:00 PM | 10 | 8 | 159 | 0 | 0 | 0 | 134 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 334 | 1,265 | 1 | 1 | 2 | 4 |
| 5:15 PM | 7 | 10 | 153 | 0 | 0 | 0 | 141 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 336 | | 1 | 5 | 7 | 7 |
| 5:30 PM | 7 | 12 | 166 | 0 | 0 | 0 | 107 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 314 | | 1 | 0 | 1 | 9 |
| 5:45 PM | 13 | 10 | 124 | 0 | 0 | 0 | 105 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 281 | | 0 | 1 | 4 | 1 |

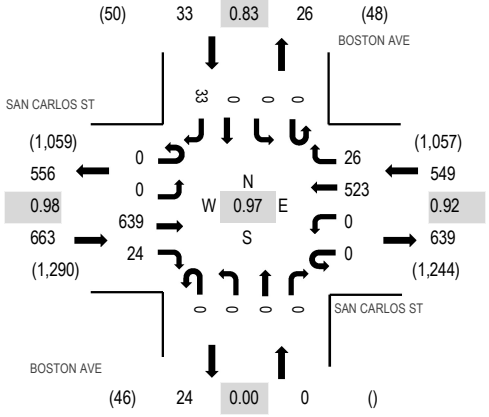
## Peak Rolling Hour Flow Rates

| 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lights | 29 | 35 | 635 | 0 | 0 | 0 | 513 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 61 | 1,304 |
| Mediums | 0 | 1 | 7 | 0 | 0 | 0 | 7 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| Total | 29 | 36 | 642 | 0 | 0 | 0 | 520 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 61 | 1,323 |

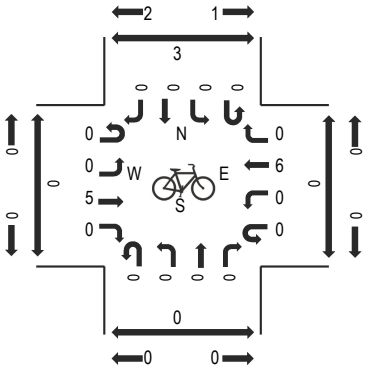
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 4 BOSTON AVE & SAN CARLOS ST PM
**Date:** Tuesday, December 15, 2020
**Peak Hour:** 04:45 PM - 05:45 PM
**Peak 15-Minutes:** 04:45 PM - 05:00 PM

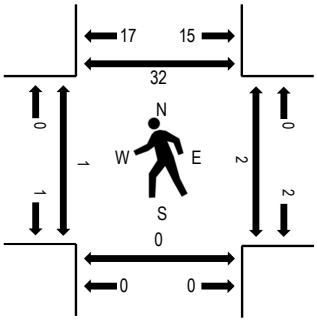
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | SAN CARLOS ST Eastbound | | | | SAN CARLOS ST Westbound | | | | BOSTON AVE Northbound | | | | BOSTON AVE Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 0 | 165 | 8 | 0 | 0 | 145 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 327 | 1,220 | 4 | 4 | 0 | 12 |
| 4:15 PM | 0 | 0 | 164 | 2 | 0 | 0 | 123 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 306 | 1,205 | 2 | 2 | 0 | 3 |
| 4:30 PM | 0 | 0 | 143 | 4 | 0 | 0 | 115 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 265 | 1,220 | 0 | 0 | 0 | 5 |
| 4:45 PM | 0 | 0 | 161 | 6 | 0 | 0 | 140 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 322 | 1,245 | 1 | 1 | 0 | 5 |
| 5:00 PM | 0 | 0 | 159 | 10 | 0 | 0 | 129 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 312 | 1,177 | 0 | 0 | 0 | 9 |
| 5:15 PM | 0 | 0 | 159 | 4 | 0 | 0 | 141 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 321 | | 0 | 1 | 0 | 12 |
| 5:30 PM | 0 | 0 | 160 | 4 | 0 | 0 | 113 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 290 | | 0 | 0 | 0 | 6 |
| 5:45 PM | 0 | 0 | 133 | 8 | 0 | 0 | 103 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 254 | | 0 | 0 | 0 | 2 |

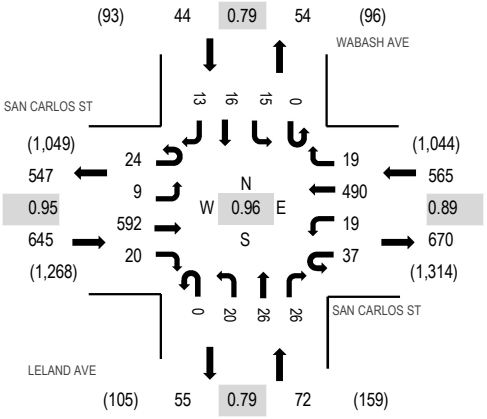
## Peak Rolling Hour Flow Rates

| Vehicle Type | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Lights | 0 | 0 | 632 | 12 | 0 | 0 | 516 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 1,219 |
| Mediums | 0 | 0 | 7 | 12 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 |
| Total | 0 | 0 | 639 | 24 | 0 | 0 | 523 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 1,245 |

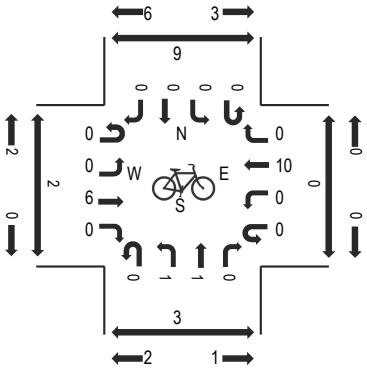
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 5 LELAND AVE & SAN CARLOS ST PM
**Date:** Tuesday, December 15, 2020
**Peak Hour:** 04:00 PM - 05:00 PM
**Peak 15-Minutes:** 04:00 PM - 04:15 PM

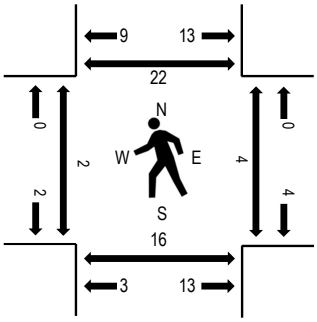
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | SAN CARLOS ST Eastbound | | | | SAN CARLOS ST Westbound | | | | LELAND AVE Northbound | | | | WABASH AVE Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 5 | 1 | 154 | 3 | 9 | 9 | 135 | 5 | 0 | 4 | 5 | 5 | 0 | 2 | 6 | 4 | 347 | 1,326 | 1 | 4 | 4 | 9 |
| 4:15 PM | 5 | 2 | 155 | 7 | 8 | 2 | 122 | 4 | 0 | 5 | 7 | 7 | 0 | 6 | 3 | 2 | 335 | 1,287 | 1 | 0 | 2 | 5 |
| 4:30 PM | 8 | 2 | 134 | 5 | 12 | 5 | 102 | 5 | 0 | 7 | 8 | 8 | 0 | 2 | 4 | 2 | 304 | 1,303 | 0 | 0 | 6 | 5 |
| 4:45 PM | 6 | 4 | 149 | 5 | 8 | 3 | 131 | 5 | 0 | 4 | 6 | 6 | 0 | 5 | 3 | 5 | 340 | 1,306 | 0 | 0 | 4 | 3 |
| 5:00 PM | 5 | 1 | 148 | 2 | 2 | 6 | 106 | 1 | 0 | 10 | 7 | 7 | 0 | 3 | 7 | 3 | 308 | 1,238 | 5 | 3 | 3 | 7 |
| 5:15 PM | 6 | 2 | 151 | 6 | 6 | 8 | 130 | 2 | 0 | 11 | 9 | 9 | 0 | 6 | 3 | 2 | 351 | | 2 | 2 | 1 | 3 |
| 5:30 PM | 4 | 1 | 148 | 6 | 7 | 2 | 104 | 1 | 0 | 5 | 6 | 6 | 0 | 9 | 6 | 2 | 307 | | 0 | 1 | 2 | 5 |
| 5:45 PM | 10 | 2 | 129 | 2 | 2 | 1 | 96 | 5 | 0 | 7 | 5 | 5 | 0 | 6 | 1 | 1 | 272 | | 1 | 0 | 1 | 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 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Lights | 24 | 9 | 584 | 19 | 37 | 19 | 481 | 19 | 0 | 20 | 26 | 26 | 0 | 15 | 16 | 13 | 1,308 |
| Mediums | 0 | 0 | 8 | 1 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| Total | 24 | 9 | 592 | 20 | 37 | 19 | 490 | 19 | 0 | 20 | 26 | 26 | 0 | 15 | 16 | 13 | 1,326 |

# Appendix C

## Approved Trips Inventory

**AM PROJECT TRIPS**

11/25/2020

**Intersection of :** N Bascom Av & S Bascom Av & W San Carlos St / Stevens Creek Bl

**Traffix Node Number :** 3279

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H06-027 (3-05161)<br>Retail/Commercial<br>N/S OF STEVENS CREEK BLVD BETW WINCHESTER BLVD<br>VALLEY FAIR EXPANSION | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 8 | 1 | 0 | 12 | 1 |
| NSJ<br>LEGACY<br><br>NORTH SAN JOSE | 6 | 30 | 3 | 2 | 8 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| PDC12-009 (3-06815)<br>Retail/Commercial<br>STEVENS CREEK & WINCHESTER (SE/C)<br>SANTANA ROW | 3 | 0 | 0 | 0 | 0 | 6 | 1 | 5 | 1 | 0 | 29 | 0 |
| PDC14-068 (3-10478)<br>Retail/Commercial<br>3161 OLSEN DRIVE<br>SANTANA WEST | 13 | 0 | 0 | 0 | 0 | 25 | 3 | 13 | 2 | 0 | 111 | 0 |
| PDC97-036 RET (3-06815)<br>Retail/Commercial<br>STEVENS CREEK & WINCHESTER (SE/C)<br>SANTANA ROW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| **TOTAL:** | **24** | **30** | **3** | **3** | **8** | **31** | **4** | **29** | **4** | **0** | **153** | **1** |

| | LEFT | THRU | RIGHT |
|---|---|---|---|
| **NORTH** | 3 | 8 | 31 |
| **EAST** | 0 | 153 | 1 |
| **SOUTH** | 24 | 30 | 3 |
| **WEST** | 4 | 29 | 4 |

**PM PROJECT TRIPS**

11/25/2020

**Intersection of :** N Bascom Av & S Bascom Av & W San Carlos St / Stevens Creek Bl

**Traffix Node Number :** 3279

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H06-027 (3-05161)<br>Retail/Commercial<br>N/S OF STEVENS CREEK BLVD BETW WINCHESTER BLVD<br>VALLEY FAIR EXPANSION | 5 | 1 | 0 | 4 | 1 | 0 | 0 | 34 | 5 | 0 | 31 | 3 |
| NSJ<br>LEGACY<br><br>NORTH SAN JOSE | 4 | 8 | 5 | 5 | 19 | 0 | 0 | 6 | 0 | 0 | 1 | 0 |
| PDC12-009 (3-06815)<br>Retail/Commercial<br>STEVENS CREEK & WINCHESTER (SE/C)<br>SANTANA ROW | 2 | 0 | 0 | 0 | 0 | 4 | 6 | 28 | 3 | 0 | 16 | 0 |
| PDC14-068 (3-10478)<br>Retail/Commercial<br>3161 OLSEN DRIVE<br>SANTANA WEST | 3 | 0 | 0 | 0 | 0 | 4 | 23 | 100 | 11 | 0 | 18 | 0 |
| PDC97-036 RET (3-06815)<br>Retail/Commercial<br>STEVENS CREEK & WINCHESTER (SE/C)<br>SANTANA ROW | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 5 | 1 | 0 | 5 | 0 |
| **TOTAL:** | **15** | **9** | **5** | **9** | **20** | **9** | **30** | **173** | **20** | **0** | **71** | **3** |

| | LEFT | THRU | RIGHT |
|---|---|---|---|
| **NORTH** | 9 | 20 | 9 |
| **EAST** | 0 | 71 | 3 |
| **SOUTH** | 15 | 9 | 5 |
| **WEST** | 30 | 173 | 20 |

**AM PROJECT TRIPS**

11/25/2020

**Intersection of :** Wabash Av / Leland Av & W San Carlos St

**Traffix Node Number :** 3644

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NSJ LEGACY<br><br>NORTH SAN JOSE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **TOTAL:** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |

| | LEFT | THRU | RIGHT |
|---|---|---|---|
| **NORTH** | 0 | 0 | 0 |
| **EAST** | 0 | 0 | 0 |
| **SOUTH** | 0 | 0 | 0 |
| **WEST** | 0 | 0 | 0 |

**PM PROJECT TRIPS**

11/25/2020

**Intersection of :** Wabash Av / Leland Av & W San Carlos St

**Traffix Node Number :** 3644

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NSJ LEGACY<br><br>NORTH SAN JOSE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 |
| **TOTAL:** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **4** | **0** | **0** | **0** | **0** |

| | LEFT | THRU | RIGHT |
|---|---|---|---|
| **NORTH** | 0 | 0 | 0 |
| **EAST** | 0 | 0 | 0 |
| **SOUTH** | 0 | 0 | 0 |
| **WEST** | 0 | 4 | 0 |

# Appendix D

## Intersection Level of Service Calculations

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Scenario Report

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

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

Intersection #1 BASCOM/SAN CARLOS

| | | | |
|---|---|---|---|
| Cycle (sec): | 140 | Critical Vol./Cap.(X): | 0.638 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 38.2 |
| Optimal Cycle: | 55 | Level Of Service: | D |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | | Ovl | | | Ovl | | | Ovl | | | Ovl | |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 2 0 | 1 | 1 0 | 3 0 | 1 | 1 0 | 2 0 | 1 | 1 0 | 2 0 | 1 |
| Volume Module: >> Count Date: 1 Feb 2018 << 7:45-8:45AM | | | | | | | | | | | | |
| Base Vol: | 206 | 1062 | 156 | 103 | 481 | 58 | 86 | 184 | 97 | 160 | 686 | 265 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 206 | 1062 | 156 | 103 | 481 | 58 | 86 | 184 | 97 | 160 | 686 | 265 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 206 | 1062 | 156 | 103 | 481 | 58 | 86 | 184 | 97 | 160 | 686 | 265 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 206 | 1062 | 156 | 103 | 481 | 58 | 86 | 184 | 97 | 160 | 686 | 265 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 206 | 1062 | 156 | 103 | 481 | 58 | 86 | 184 | 97 | 160 | 686 | 265 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 206 | 1062 | 156 | 103 | 481 | 58 | 86 | 184 | 97 | 160 | 686 | 265 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1900 | 3610 | 1900 | 1900 | 5187 | 1900 | 1900 | 3610 | 1900 | 1900 | 3610 | 1900 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.29 | 0.08 | 0.05 | 0.09 | 0.03 | 0.05 | 0.05 | 0.05 | 0.08 | 0.19 | 0.14 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green/Cycle: | 0.29 | 0.46 | 0.66 | 0.08 | 0.25 | 0.32 | 0.07 | 0.17 | 0.46 | 0.20 | 0.30 | 0.38 |
| Volume/Cap: | 0.37 | 0.64 | 0.12 | 0.64 | 0.37 | 0.09 | 0.64 | 0.30 | 0.11 | 0.42 | 0.64 | 0.36 |
| Uniform Del: | 39.1 | 28.8 | 8.8 | 62.0 | 43.2 | 33.1 | 63.3 | 50.9 | 21.2 | 49.0 | 42.6 | 31.0 |
| IncremntDel: | 0.4 | 0.8 | 0.0 | 8.3 | 0.2 | 0.1 | 9.8 | 0.3 | 0.1 | 0.8 | 1.3 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 39.5 | 29.7 | 8.8 | 70.3 | 43.4 | 33.2 | 73.1 | 51.2 | 21.3 | 49.8 | 43.9 | 31.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 39.5 | 29.7 | 8.8 | 70.3 | 43.4 | 33.2 | 73.1 | 51.2 | 21.3 | 49.8 | 43.9 | 31.3 |
| LOS by Move: | D | C | A | E | D | C | E | D | C | D | D | C |
| HCM2kAvgQ: | 7 | 18 | 2 | 5 | 6 | 2 | 5 | 4 | 2 | 6 | 13 | 8 |

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

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

Intersection #2 Vaughn/San Carlos

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[ 10.7]

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 0 0 0 0 1 | | | 0 0 0 0 0 | | | 0 0 1 1 0 | | | 1 0 2 0 0 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 701 | 3 | 59 | 1035 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 701 | 3 | 59 | 1035 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 701 | 3 | 59 | 1035 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 701 | 3 | 59 | 1035 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 701 | 3 | 59 | 1035 | 0 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | 6.9 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | xxxxx | xxxx | 3.3 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | 352 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 704 | xxxx | xxxxx |
| Potent Cap.: | xxxx | xxxx | 650 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 903 | xxxx | xxxxx |
| Move Cap.: | xxxx | xxxx | 650 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 903 | xxxx | xxxxx |
| Volume/Cap: | xxxx | xxxx | 0.03 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | 0.07 | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | 0.1 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.2 | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | 10.7 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 9.3 | xxxx | xxxxx |
| LOS by Move: | * | * | B | * | * | * | * | * | * | A | * | * |
| Movement: | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | 10.7 | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | B | | | * | | | * | | | * | | |

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

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

Intersection #3 Brooklyn/San Carlos

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: B[ 14.1]

| Approach: | North Bound | | | | | | South Bound | | | | | | East Bound | | | | | | West Bound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | |
| Control: | Stop Sign | | | | | | Stop Sign | | | | | | Uncontrolled | | | | | | Uncontrolled | | | | | |
| Rights: | Include | | | | | | Include | | | | | | Include | | | | | | Include | | | | | |
| Lanes: | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 1 | | 1 | 0 | 2 | 0 | 0 | | 0 | 0 | 1 | 1 | 0 | |
| Volume Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 99 | | 80 | | 747 | | 0 | | 0 | | 1047 | | 31 | |
| Growth Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| Initial Bse: | 0 | | 0 | | 0 | | 0 | | 0 | | 99 | | 80 | | 747 | | 0 | | 0 | | 1047 | | 31 | |
| Added Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| PasserByVol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Initial Fut: | 0 | | 0 | | 0 | | 0 | | 0 | | 99 | | 80 | | 747 | | 0 | | 0 | | 1047 | | 31 | |
| User Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| PHF Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| PHF Volume: | 0 | | 0 | | 0 | | 0 | | 0 | | 99 | | 80 | | 747 | | 0 | | 0 | | 1047 | | 31 | |
| Reduct Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| FinalVolume: | 0 | | 0 | | 0 | | 0 | | 0 | | 99 | | 80 | | 747 | | 0 | | 0 | | 1047 | | 31 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Critical Gp: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | 6.9 | | 4.1 | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| FollowUpTim: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | 3.3 | | 2.2 | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| Capacity Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 539 | | 1078 | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Potent Cap.: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 492 | | 655 | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Move Cap.: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 492 | | 655 | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Volume/Cap: | xxxx | | xxxx | | xxxx | | xxxx | | xxxx | | 0.20 | | 0.12 | | xxxx | | xxxx | | xxxx | | xxxx | | xxxx | |
| Level Of Service Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 0.7 | | 0.4 | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Control Del: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | 14.1 | | 11.3 | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| LOS by Move: | * | | * | | * | | * | | * | | B | | B | | * | | * | | * | | * | | * | |
| Movement: | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | |
| Shared Cap.: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| SharedQueue: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| Shrd ConDel: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| Shared LOS: | * | | * | | * | | * | | * | | * | | * | | * | | * | | * | | * | | * | |
| ApproachDel: | xxxxxx | | | | | | 14.1 | | | | | | xxxxxx | | | | | | xxxxxx | | | | | |
| ApproachLOS: | * | | | | | | B | | | | | | * | | | | | | * | | | | | |

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

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

Intersection #4 Boston/San Carlos

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: B[ 12.6]

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 0 0 0 0 0 | | | 0 0 0 0 1 | | | 0 0 1 1 0 | | | 0 0 1 1 0 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 751 | 19 | 0 | 1069 | 15 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 751 | 19 | 0 | 1069 | 15 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 751 | 19 | 0 | 1069 | 15 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 751 | 19 | 0 | 1069 | 15 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 751 | 19 | 0 | 1069 | 15 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 6.9 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 3.3 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | xxxxx | xxxx | xxxx | 542 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | 490 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | 490 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | xxxx | xxxx | xxxx | xxxx | xxxx | 0.04 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | 0.1 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 12.6 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | B | * | * | * | * | * | * |
| Movement: | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | 12.6 | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | B | | | * | | | * | | |

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

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

Intersection #5 LELAND/SAN CARLOS

| | | | |
|---|---|---|---|
| Cycle (sec): | 130 | Critical Vol./Cap.(X): | 0.567 |
| Loss Time (sec): | 9 | Average Delay (sec/veh): | 20.8 |
| Optimal Cycle: | 46 | Level Of Service: | C |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 1 0 | 2 0 | 1 | 1 0 | 2 0 | 1 |
| Volume Module: >> Count Date: 1 Nov 2016 << 7:30-8:30 | | | | | | | | | | | | |
| Base Vol: | 29 | 82 | 14 | 48 | 42 | 31 | 32 | 386 | 6 | 78 | 1376 | 88 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 29 | 82 | 14 | 48 | 42 | 31 | 32 | 386 | 6 | 78 | 1376 | 88 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 29 | 82 | 14 | 48 | 42 | 31 | 32 | 386 | 6 | 78 | 1376 | 88 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 29 | 82 | 14 | 48 | 42 | 31 | 32 | 386 | 6 | 78 | 1376 | 88 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 29 | 82 | 14 | 48 | 42 | 31 | 32 | 386 | 6 | 78 | 1376 | 88 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 29 | 82 | 14 | 48 | 42 | 31 | 32 | 386 | 6 | 78 | 1376 | 88 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Lanes: | 0.23 | 0.66 | 0.11 | 0.40 | 0.35 | 0.25 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 441 | 1246 | 213 | 754 | 660 | 487 | 1900 | 3610 | 1900 | 1900 | 3610 | 1900 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.07 | 0.07 | 0.06 | 0.06 | 0.06 | 0.02 | 0.11 | 0.00 | 0.04 | 0.38 | 0.05 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green/Cycle: | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.05 | 0.47 | 0.47 | 0.24 | 0.65 | 0.65 |
| Volume/Cap: | 0.58 | 0.59 | 0.59 | 0.57 | 0.58 | 0.58 | 0.31 | 0.23 | 0.01 | 0.17 | 0.58 | 0.07 |
| Uniform Del: | 54.7 | 55.0 | 55.0 | 54.8 | 55.1 | 55.1 | 59.2 | 20.4 | 18.2 | 39.4 | 12.5 | 8.1 |
| IncremntDel: | 4.0 | 4.4 | 4.4 | 3.8 | 4.2 | 4.2 | 1.8 | 0.1 | 0.0 | 0.2 | 0.4 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 58.8 | 59.4 | 59.4 | 58.6 | 59.2 | 59.2 | 60.9 | 20.4 | 18.2 | 39.6 | 12.9 | 8.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 58.8 | 59.4 | 59.4 | 58.6 | 59.2 | 59.2 | 60.9 | 20.4 | 18.2 | 39.6 | 12.9 | 8.2 |
| LOS by Move: | E | E | E | E | E | E | E | C | B | D | B | A |
| HCM2kAvgQ: | 6 | 6 | 6 | 5 | 5 | 5 | 2 | 5 | 0 | 2 | 16 | 1 |

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

Scenario Report

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

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

Intersection #1 BASCOM/SAN CARLOS

| | | | |
|---|---|---|---|
| Cycle (sec): | 150 | Critical Vol./Cap.(X): | 0.666 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 45.7 |
| Optimal Cycle: | 59 | Level Of Service: | D |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Ovl | | | Ovl | | | Ovl | | | Ovl | | |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 2 0 | 1 | 1 0 | 3 0 | 1 | 1 0 | 2 0 | 1 | 1 0 | 2 0 | 1 |
| Volume Module: >> Count Date: 1 Feb 2018 << 5:00-6:00PM | | | | | | | | | | | | |
| Base Vol: | 165 | 586 | 262 | 246 | 1149 | 75 | 63 | 702 | 142 | 208 | 376 | 111 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 165 | 586 | 262 | 246 | 1149 | 75 | 63 | 702 | 142 | 208 | 376 | 111 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 165 | 586 | 262 | 246 | 1149 | 75 | 63 | 702 | 142 | 208 | 376 | 111 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 165 | 586 | 262 | 246 | 1149 | 75 | 63 | 702 | 142 | 208 | 376 | 111 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 165 | 586 | 262 | 246 | 1149 | 75 | 63 | 702 | 142 | 208 | 376 | 111 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 165 | 586 | 262 | 246 | 1149 | 75 | 63 | 702 | 142 | 208 | 376 | 111 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1900 | 3610 | 1900 | 1900 | 5187 | 1900 | 1900 | 3610 | 1900 | 1900 | 3610 | 1900 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.16 | 0.14 | 0.13 | 0.22 | 0.04 | 0.03 | 0.19 | 0.07 | 0.11 | 0.10 | 0.06 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.13 | 0.26 | 0.42 | 0.21 | 0.33 | 0.47 | 0.14 | 0.29 | 0.42 | 0.16 | 0.32 | 0.52 |
| Volume/Cap: | 0.67 | 0.63 | 0.33 | 0.63 | 0.67 | 0.08 | 0.23 | 0.67 | 0.18 | 0.67 | 0.33 | 0.11 |
| Uniform Del: | 62.1 | 49.3 | 29.0 | 54.4 | 42.9 | 21.6 | 57.2 | 46.6 | 27.0 | 58.8 | 39.2 | 18.3 |
| IncremntDel: | 6.7 | 1.4 | 0.2 | 3.3 | 1.0 | 0.0 | 0.5 | 1.6 | 0.1 | 5.4 | 0.2 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 68.8 | 50.7 | 29.3 | 57.7 | 43.9 | 21.6 | 57.7 | 48.3 | 27.1 | 64.2 | 39.4 | 18.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 68.8 | 50.7 | 29.3 | 57.7 | 43.9 | 21.6 | 57.7 | 48.3 | 27.1 | 64.2 | 39.4 | 18.3 |
| LOS by Move: | E | D | C | E | D | C | E | D | C | E | D | B |
| HCM2kAvgQ: | 8 | 13 | 8 | 11 | 17 | 2 | 3 | 15 | 4 | 9 | 7 | 2 |

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

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

Intersection #2 Vaughn/San Carlos

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: B[ 12.6]

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 0 0 0 0 1 | | | 0 0 0 0 0 | | | 0 0 1 1 0 | | | 1 0 2 0 0 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 1064 | 20 | 125 | 845 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 1064 | 20 | 125 | 845 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 1064 | 20 | 125 | 845 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 1064 | 20 | 125 | 845 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 1064 | 20 | 125 | 845 | 0 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | 6.9 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | xxxxx | xxxx | 3.3 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | 542 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1084 | xxxx | xxxxx |
| Potent Cap.: | xxxx | xxxx | 490 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 651 | xxxx | xxxxx |
| Move Cap.: | xxxx | xxxx | 490 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 651 | xxxx | xxxxx |
| Volume/Cap: | xxxx | xxxx | 0.03 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | 0.19 | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | 0.1 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.7 | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | 12.6 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 11.8 | xxxx | xxxxx |
| LOS by Move: | * | * | B | * | * | * | * | * | * | B | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | 12.6 | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | B | | | * | | | * | | | * | | |

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

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

Intersection #3 Brooklyn/San Carlos

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: B[ 13.0]

| Approach: | North Bound | | | | | | South Bound | | | | | | East Bound | | | | | | West Bound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | |
| Control: | Stop Sign | | | | | | Stop Sign | | | | | | Uncontrolled | | | | | | Uncontrolled | | | | | |
| Rights: | Include | | | | | | Include | | | | | | Include | | | | | | Include | | | | | |
| Lanes: | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 1 | | 1 | 0 | 2 | 0 | 0 | | 0 | 0 | 1 | 1 | 0 | |
| Volume Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 102 | | 109 | | 1073 | | 0 | | 0 | | 869 | | 58 | |
| Growth Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| Initial Bse: | 0 | | 0 | | 0 | | 0 | | 0 | | 102 | | 109 | | 1073 | | 0 | | 0 | | 869 | | 58 | |
| Added Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| PasserByVol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Initial Fut: | 0 | | 0 | | 0 | | 0 | | 0 | | 102 | | 109 | | 1073 | | 0 | | 0 | | 869 | | 58 | |
| User Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| PHF Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| PHF Volume: | 0 | | 0 | | 0 | | 0 | | 0 | | 102 | | 109 | | 1073 | | 0 | | 0 | | 869 | | 58 | |
| Reduct Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| FinalVolume: | 0 | | 0 | | 0 | | 0 | | 0 | | 102 | | 109 | | 1073 | | 0 | | 0 | | 869 | | 58 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Critical Gp: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | 6.9 | | 4.1 | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| FollowUpTim: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | 3.3 | | 2.2 | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| Capacity Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 464 | | 927 | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Potent Cap.: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 551 | | 746 | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Move Cap.: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 551 | | 746 | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Volume/Cap: | xxxx | | xxxx | | xxxx | | xxxx | | xxxx | | 0.19 | | 0.15 | | xxxx | | xxxx | | xxxx | | xxxx | | xxxx | |
| Level Of Service Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 0.7 | | 0.5 | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Control Del: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | 13.0 | | 10.7 | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| LOS by Move: | * | | * | | * | | * | | * | | B | | B | | * | | * | | * | | * | | * | |
| Movement: | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | |
| Shared Cap.: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| SharedQueue: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| Shrd ConDel: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| Shared LOS: | * | | * | | * | | * | | * | | * | | * | | * | | * | | * | | * | | * | |
| ApproachDel: | xxxxxx | | | | | | 13.0 | | | | | | xxxxxx | | | | | | xxxxxx | | | | | |
| ApproachLOS: | * | | | | | | B | | | | | | * | | | | | | * | | | | | |

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

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

Intersection #4 Boston/San Carlos

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: B[ 12.2]

| Approach: | North Bound | | | | | | South Bound | | | | | | East Bound | | | | | | West Bound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | |
| Control: | Stop Sign | | | | | | Stop Sign | | | | | | Uncontrolled | | | | | | Uncontrolled | | | | | |
| Rights: | Include | | | | | | Include | | | | | | Include | | | | | | Include | | | | | |
| Lanes: | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 1 | | 0 | 0 | 1 | 1 | 0 | | 0 | 0 | 1 | 1 | 0 | |
| Volume Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 55 | | 0 | | 1068 | | 40 | | 0 | | 874 | | 43 | |
| Growth Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| Initial Bse: | 0 | | 0 | | 0 | | 0 | | 0 | | 55 | | 0 | | 1068 | | 40 | | 0 | | 874 | | 43 | |
| Added Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| PasserByVol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Initial Fut: | 0 | | 0 | | 0 | | 0 | | 0 | | 55 | | 0 | | 1068 | | 40 | | 0 | | 874 | | 43 | |
| User Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| PHF Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| PHF Volume: | 0 | | 0 | | 0 | | 0 | | 0 | | 55 | | 0 | | 1068 | | 40 | | 0 | | 874 | | 43 | |
| Reduct Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| FinalVolume: | 0 | | 0 | | 0 | | 0 | | 0 | | 55 | | 0 | | 1068 | | 40 | | 0 | | 874 | | 43 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Critical Gp: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | 6.9 | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| FollowUpTim: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | 3.3 | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| Capacity Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 459 | | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Potent Cap.: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 555 | | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Move Cap.: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 555 | | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Volume/Cap: | xxxx | | xxxx | | xxxx | | xxxx | | xxxx | | 0.10 | | xxxx | | xxxx | | xxxx | | xxxx | | xxxx | | xxxx | |
| Level Of Service Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 0.3 | | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Control Del: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | 12.2 | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| LOS by Move: | * | | * | | * | | * | | * | | B | | * | | * | | * | | * | | * | | * | |
| Movement: | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | |
| Shared Cap.: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| SharedQueue: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| Shrd ConDel: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| Shared LOS: | * | | * | | * | | * | | * | | * | | * | | * | | * | | * | | * | | * | |
| ApproachDel: | xxxxxx | | | | | | 12.2 | | | | | | xxxxxx | | | | | | xxxxxx | | | | | |
| ApproachLOS: | * | | | | | | B | | | | | | * | | | | | | * | | | | | |

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

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

Intersection #5 LELAND/SAN CARLOS

| | | | |
|---|---|---|---|
| Cycle (sec): | 140 | Critical Vol./Cap.(X): | 0.422 |
| Loss Time (sec): | 9 | Average Delay (sec/veh): | 14.4 |
| Optimal Cycle: | 46 | Level Of Service: | B |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 1 0 | 2 0 | 1 | 1 0 | 2 0 | 1 |
| Volume Module: >> Count Date: 1 Nov 2016 << 4:15-5:15 | | | | | | | | | | | | |
| Base Vol: | 12 | 34 | 30 | 29 | 20 | 9 | 33 | 1139 | 21 | 16 | 700 | 40 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 12 | 34 | 30 | 29 | 20 | 9 | 33 | 1139 | 21 | 16 | 700 | 40 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 12 | 34 | 30 | 29 | 20 | 9 | 33 | 1139 | 21 | 16 | 700 | 40 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 12 | 34 | 30 | 29 | 20 | 9 | 33 | 1139 | 21 | 16 | 700 | 40 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 12 | 34 | 30 | 29 | 20 | 9 | 33 | 1139 | 21 | 16 | 700 | 40 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 12 | 34 | 30 | 29 | 20 | 9 | 33 | 1139 | 21 | 16 | 700 | 40 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Lanes: | 0.16 | 0.45 | 0.39 | 0.50 | 0.34 | 0.16 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 300 | 850 | 750 | 950 | 655 | 295 | 1900 | 3610 | 1900 | 1900 | 3610 | 1900 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.04 | 0.04 | 0.03 | 0.03 | 0.03 | 0.02 | 0.32 | 0.01 | 0.01 | 0.19 | 0.02 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.09 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | 0.16 | 0.72 | 0.72 | 0.05 | 0.61 | 0.61 |
| Volume/Cap: | 0.44 | 0.49 | 0.49 | 0.37 | 0.43 | 0.43 | 0.11 | 0.44 | 0.02 | 0.17 | 0.32 | 0.03 |
| Uniform Del: | 60.2 | 61.5 | 61.5 | 60.9 | 62.3 | 62.3 | 50.5 | 7.9 | 5.4 | 63.7 | 12.9 | 10.6 |
| IncremntDel: | 1.8 | 2.4 | 2.4 | 1.5 | 2.2 | 2.2 | 0.2 | 0.1 | 0.0 | 0.8 | 0.1 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 61.9 | 63.9 | 63.9 | 62.4 | 64.4 | 64.4 | 50.6 | 8.0 | 5.4 | 64.6 | 13.0 | 10.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 61.9 | 63.9 | 63.9 | 62.4 | 64.4 | 64.4 | 50.6 | 8.0 | 5.4 | 64.6 | 13.0 | 10.7 |
| LOS by Move: | E | E | E | E | E | E | D | A | A | E | B | B |
| HCM2kAvgQ: | 4 | 4 | 4 | 3 | 3 | 3 | 1 | 10 | 0 | 1 | 7 | 1 |

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

Scenario Report

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

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

Intersection #1 BASCOM/SAN CARLOS

| | | | |
|---|---|---|---|
| Cycle (sec): | 140 | Critical Vol./Cap.(X): | 0.757 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 41.4 |
| Optimal Cycle: | 74 | Level Of Service: | D |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | | Ovl | | | Ovl | | | Ovl | | | Ovl | |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 2 0 | 1 | 1 0 | 3 0 | 1 | 1 0 | 2 0 | 1 | 1 0 | 2 0 | 1 |
| Volume Module: >> Count Date: 1 Feb 2018 << 7:45-8:45AM | | | | | | | | | | | | |
| Base Vol: | 230 | 1092 | 159 | 106 | 489 | 89 | 90 | 213 | 101 | 160 | 839 | 266 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 230 | 1092 | 159 | 106 | 489 | 89 | 90 | 213 | 101 | 160 | 839 | 266 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 24 | 30 | 3 | 3 | 8 | 31 | 4 | 29 | 4 | 0 | 153 | 1 |
| Initial Fut: | 254 | 1122 | 162 | 109 | 497 | 120 | 94 | 242 | 105 | 160 | 992 | 267 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 254 | 1122 | 162 | 109 | 497 | 120 | 94 | 242 | 105 | 160 | 992 | 267 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 254 | 1122 | 162 | 109 | 497 | 120 | 94 | 242 | 105 | 160 | 992 | 267 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 254 | 1122 | 162 | 109 | 497 | 120 | 94 | 242 | 105 | 160 | 992 | 267 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1900 | 3610 | 1900 | 1900 | 5187 | 1900 | 1900 | 3610 | 1900 | 1900 | 3610 | 1900 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.13 | 0.31 | 0.09 | 0.06 | 0.10 | 0.06 | 0.05 | 0.07 | 0.06 | 0.08 | 0.27 | 0.14 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green/Cycle: | 0.28 | 0.41 | 0.64 | 0.08 | 0.20 | 0.27 | 0.07 | 0.20 | 0.48 | 0.23 | 0.36 | 0.44 |
| Volume/Cap: | 0.47 | 0.76 | 0.13 | 0.76 | 0.47 | 0.24 | 0.76 | 0.34 | 0.12 | 0.36 | 0.76 | 0.32 |
| Uniform Del: | 41.5 | 35.3 | 9.8 | 63.4 | 49.2 | 40.0 | 64.3 | 48.4 | 20.1 | 45.1 | 39.2 | 25.7 |
| IncremntDel: | 0.7 | 2.3 | 0.0 | 20.4 | 0.3 | 0.2 | 23.2 | 0.3 | 0.1 | 0.5 | 2.6 | 0.2 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 42.2 | 37.6 | 9.9 | 83.8 | 49.5 | 40.2 | 87.5 | 48.7 | 20.1 | 45.6 | 41.8 | 25.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 42.2 | 37.6 | 9.9 | 83.8 | 49.5 | 40.2 | 87.5 | 48.7 | 20.1 | 45.6 | 41.8 | 25.9 |
| LOS by Move: | D | D | A | F | D | D | F | D | C | D | D | C |
| HCM2kAvgQ: | 9 | 22 | 3 | 6 | 7 | 4 | 6 | 5 | 2 | 5 | 19 | 7 |

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

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

Intersection #2 Vaughn/San Carlos

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[ 10.7]

| Approach: | North Bound | | | | | | South Bound | | | | | | East Bound | | | | | | West Bound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | |
| Control: | Stop Sign | | | | | | Stop Sign | | | | | | Uncontrolled | | | | | | Uncontrolled | | | | | |
| Rights: | Include | | | | | | Include | | | | | | Include | | | | | | Include | | | | | |
| Lanes: | 0 | 0 | 0 | 0 | 1 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 1 | 0 | | 1 | 0 | 2 | 0 | 0 | |
| Volume Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 22 | | | | 0 | 0 | 0 | | | | 0 | 701 | 3 | | | | 59 | 1035 | 0 | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | | | |
| Initial Bse: | 0 | 0 | 22 | | | | 0 | 0 | 0 | | | | 0 | 701 | 3 | | | | 59 | 1035 | 0 | | | |
| Added Vol: | 0 | 0 | 0 | | | | 0 | 0 | 0 | | | | 0 | 0 | 0 | | | | 0 | 0 | 0 | | | |
| PasserByVol: | 0 | 0 | 0 | | | | 0 | 0 | 0 | | | | 0 | 0 | 0 | | | | 0 | 0 | 0 | | | |
| Initial Fut: | 0 | 0 | 22 | | | | 0 | 0 | 0 | | | | 0 | 701 | 3 | | | | 59 | 1035 | 0 | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | | | |
| PHF Volume: | 0 | 0 | 22 | | | | 0 | 0 | 0 | | | | 0 | 701 | 3 | | | | 59 | 1035 | 0 | | | |
| Reduct Vol: | 0 | 0 | 0 | | | | 0 | 0 | 0 | | | | 0 | 0 | 0 | | | | 0 | 0 | 0 | | | |
| FinalVolume: | 0 | 0 | 22 | | | | 0 | 0 | 0 | | | | 0 | 701 | 3 | | | | 59 | 1035 | 0 | | | |
| Critical Gap Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | 6.9 | | | | xxxxx | xxxx | xxxxx | | | | xxxxx | xxxx | xxxxx | | | | 4.1 | xxxx | xxxxx | | | |
| FollowUpTim: | xxxxx | xxxx | 3.3 | | | | xxxxx | xxxx | xxxxx | | | | xxxxx | xxxx | xxxxx | | | | 2.2 | xxxx | xxxxx | | | |
| Capacity Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | 352 | | | | xxxx | xxxx | xxxxx | | | | xxxx | xxxx | xxxxx | | | | 704 | xxxx | xxxxx | | | |
| Potent Cap.: | xxxx | xxxx | 650 | | | | xxxx | xxxx | xxxxx | | | | xxxx | xxxx | xxxxx | | | | 903 | xxxx | xxxxx | | | |
| Move Cap.: | xxxx | xxxx | 650 | | | | xxxx | xxxx | xxxxx | | | | xxxx | xxxx | xxxxx | | | | 903 | xxxx | xxxxx | | | |
| Volume/Cap: | xxxx | xxxx | 0.03 | | | | xxxx | xxxx | xxxx | | | | xxxx | xxxx | xxxx | | | | 0.07 | xxxx | xxxx | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | 0.1 | | | | xxxx | xxxx | xxxxx | | | | xxxx | xxxx | xxxxx | | | | 0.2 | xxxx | xxxxx | | | |
| Control Del: | xxxxx | xxxx | 10.7 | | | | xxxxx | xxxx | xxxxx | | | | xxxxx | xxxx | xxxxx | | | | 9.3 | xxxx | xxxxx | | | |
| LOS by Move: | * | * | B | | | | * | * | * | | | | * | * | * | | | | A | * | * | | | |
| Movement: | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | |
| Shared Cap.: | xxxx | xxxx | xxxxx | | | | xxxx | xxxx | xxxxx | | | | xxxx | xxxx | xxxxx | | | | xxxx | xxxx | xxxxx | | | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | | | xxxxx | xxxx | xxxxx | | | | xxxxx | xxxx | xxxxx | | | | xxxxx | xxxx | xxxxx | | | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | | | xxxxx | xxxx | xxxxx | | | | xxxxx | xxxx | xxxxx | | | | xxxxx | xxxx | xxxxx | | | |
| Shared LOS: | * | * | * | | | | * | * | * | | | | * | * | * | | | | * | * | * | | | |
| ApproachDel: | 10.7 | | | | | | xxxxxx | | | | | | xxxxxx | | | | | | xxxxxx | | | | | |
| ApproachLOS: | B | | | | | | * | | | | | | * | | | | | | * | | | | | |

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

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

Intersection #3 Brooklyn/San Carlos

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: B[ 14.1]

| Approach: | North Bound | | | | | | South Bound | | | | | | East Bound | | | | | | West Bound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | |
| Control: | Stop Sign | | | | | | Stop Sign | | | | | | Uncontrolled | | | | | | Uncontrolled | | | | | |
| Rights: | Include | | | | | | Include | | | | | | Include | | | | | | Include | | | | | |
| Lanes: | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 1 | | 1 | 0 | 2 | 0 | 0 | | 0 | 0 | 1 | 1 | 0 | |
| Volume Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 99 | | 80 | | 747 | | 0 | | 0 | | 1047 | | 31 | |
| Growth Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| Initial Bse: | 0 | | 0 | | 0 | | 0 | | 0 | | 99 | | 80 | | 747 | | 0 | | 0 | | 1047 | | 31 | |
| Added Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| PasserByVol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Initial Fut: | 0 | | 0 | | 0 | | 0 | | 0 | | 99 | | 80 | | 747 | | 0 | | 0 | | 1047 | | 31 | |
| User Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| PHF Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| PHF Volume: | 0 | | 0 | | 0 | | 0 | | 0 | | 99 | | 80 | | 747 | | 0 | | 0 | | 1047 | | 31 | |
| Reduct Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| FinalVolume: | 0 | | 0 | | 0 | | 0 | | 0 | | 99 | | 80 | | 747 | | 0 | | 0 | | 1047 | | 31 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Critical Gp: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | 6.9 | | 4.1 | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| FollowUpTim: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | 3.3 | | 2.2 | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| Capacity Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 539 | | 1078 | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Potent Cap.: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 492 | | 655 | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Move Cap.: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 492 | | 655 | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Volume/Cap: | xxxx | | xxxx | | xxxx | | xxxx | | xxxx | | 0.20 | | 0.12 | | xxxx | | xxxx | | xxxx | | xxxx | | xxxx | |
| Level Of Service Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 0.7 | | 0.4 | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Control Del: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | 14.1 | | 11.3 | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| LOS by Move: | * | | * | | * | | * | | * | | B | | B | | * | | * | | * | | * | | * | |
| Movement: | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | |
| Shared Cap.: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| SharedQueue: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| Shrd ConDel: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| Shared LOS: | * | | * | | * | | * | | * | | * | | * | | * | | * | | * | | * | | * | |
| ApproachDel: | xxxxxx | | | | | | 14.1 | | | | | | xxxxxx | | | | | | xxxxxx | | | | | |
| ApproachLOS: | * | | | | | | B | | | | | | * | | | | | | * | | | | | |

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

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

Intersection #4 Boston/San Carlos

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: B[ 12.6]

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 0 0 0 0 0 | | | 0 0 0 0 1 | | | 0 0 1 1 0 | | | 0 0 1 1 0 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 751 | 19 | 0 | 1069 | 15 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 751 | 19 | 0 | 1069 | 15 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 751 | 19 | 0 | 1069 | 15 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 751 | 19 | 0 | 1069 | 15 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 751 | 19 | 0 | 1069 | 15 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 6.9 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 3.3 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | xxxxx | xxxx | xxxx | 542 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | 490 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | 490 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | xxxx | xxxx | xxxx | xxxx | xxxx | 0.04 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | 0.1 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 12.6 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | B | * | * | * | * | * | * |
| Movement: | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | 12.6 | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | B | | | * | | | * | | |

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

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

Intersection #5 LELAND/SAN CARLOS

| | | | |
|---|---|---|---|
| Cycle (sec): | 130 | Critical Vol./Cap.(X): | 0.567 |
| Loss Time (sec): | 9 | Average Delay (sec/veh): | 20.8 |
| Optimal Cycle: | 46 | Level Of Service: | C |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 | 0 | 1! 0 | 0 | 0 | 1! 0 | 1 | 0 | 2 0 | 1 | 0 | 2 0 1 |
| Volume Module: >> Count Date: 1 Nov 2016 << 7:30-8:30 | | | | | | | | | | | | |
| Base Vol: | 29 | 82 | 14 | 48 | 42 | 31 | 32 | 386 | 6 | 78 | 1376 | 88 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 29 | 82 | 14 | 48 | 42 | 31 | 32 | 386 | 6 | 78 | 1376 | 88 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 29 | 82 | 14 | 48 | 42 | 31 | 32 | 386 | 6 | 78 | 1376 | 88 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 29 | 82 | 14 | 48 | 42 | 31 | 32 | 386 | 6 | 78 | 1376 | 88 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 29 | 82 | 14 | 48 | 42 | 31 | 32 | 386 | 6 | 78 | 1376 | 88 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 29 | 82 | 14 | 48 | 42 | 31 | 32 | 386 | 6 | 78 | 1376 | 88 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Lanes: | 0.23 | 0.66 | 0.11 | 0.40 | 0.35 | 0.25 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 441 | 1246 | 213 | 754 | 660 | 487 | 1900 | 3610 | 1900 | 1900 | 3610 | 1900 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.07 | 0.07 | 0.06 | 0.06 | 0.06 | 0.02 | 0.11 | 0.00 | 0.04 | 0.38 | 0.05 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green/Cycle: | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.05 | 0.47 | 0.47 | 0.24 | 0.65 | 0.65 |
| Volume/Cap: | 0.58 | 0.59 | 0.59 | 0.57 | 0.58 | 0.58 | 0.31 | 0.23 | 0.01 | 0.17 | 0.58 | 0.07 |
| Uniform Del: | 54.7 | 55.0 | 55.0 | 54.8 | 55.1 | 55.1 | 59.2 | 20.4 | 18.2 | 39.4 | 12.5 | 8.1 |
| IncremntDel: | 4.0 | 4.4 | 4.4 | 3.8 | 4.2 | 4.2 | 1.8 | 0.1 | 0.0 | 0.2 | 0.4 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 58.8 | 59.4 | 59.4 | 58.6 | 59.2 | 59.2 | 60.9 | 20.4 | 18.2 | 39.6 | 12.9 | 8.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 58.8 | 59.4 | 59.4 | 58.6 | 59.2 | 59.2 | 60.9 | 20.4 | 18.2 | 39.6 | 12.9 | 8.2 |
| LOS by Move: | E | E | E | E | E | E | E | C | B | D | B | A |
| HCM2kAvgQ: | 6 | 6 | 6 | 5 | 5 | 5 | 2 | 5 | 0 | 2 | 16 | 1 |

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

Scenario Report

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

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

Intersection #1 BASCOM/SAN CARLOS

| | | | |
|---|---|---|---|
| Cycle (sec): | 150 | Critical Vol./Cap.(X): | 0.795 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 49.5 |
| Optimal Cycle: | 85 | Level Of Service: | D |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | | Ovl | | | Ovl | | | Ovl | | | Ovl | |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 2 0 | 1 | 1 0 | 3 0 | 1 | 1 0 | 2 0 | 1 | 1 0 | 2 0 | 1 |
| Volume Module: >> Count Date: 1 Feb 2018 << 5:00-6:00PM | | | | | | | | | | | | |
| Base Vol: | 180 | 595 | 267 | 255 | 1169 | 84 | 93 | 875 | 162 | 208 | 447 | 114 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 180 | 595 | 267 | 255 | 1169 | 84 | 93 | 875 | 162 | 208 | 447 | 114 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 15 | 9 | 5 | 9 | 20 | 9 | 30 | 173 | 20 | 0 | 71 | 3 |
| Initial Fut: | 195 | 604 | 272 | 264 | 1189 | 93 | 123 | 1048 | 182 | 208 | 518 | 117 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 195 | 604 | 272 | 264 | 1189 | 93 | 123 | 1048 | 182 | 208 | 518 | 117 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 195 | 604 | 272 | 264 | 1189 | 93 | 123 | 1048 | 182 | 208 | 518 | 117 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 195 | 604 | 272 | 264 | 1189 | 93 | 123 | 1048 | 182 | 208 | 518 | 117 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1900 | 3610 | 1900 | 1900 | 5187 | 1900 | 1900 | 3610 | 1900 | 1900 | 3610 | 1900 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.10 | 0.17 | 0.14 | 0.14 | 0.23 | 0.05 | 0.06 | 0.29 | 0.10 | 0.11 | 0.14 | 0.06 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green/Cycle: | 0.13 | 0.23 | 0.37 | 0.19 | 0.29 | 0.44 | 0.16 | 0.37 | 0.49 | 0.14 | 0.35 | 0.54 |
| Volume/Cap: | 0.80 | 0.73 | 0.39 | 0.73 | 0.80 | 0.11 | 0.41 | 0.80 | 0.19 | 0.80 | 0.41 | 0.11 |
| Uniform Del: | 63.4 | 53.7 | 35.2 | 57.2 | 49.3 | 24.3 | 57.1 | 42.6 | 21.2 | 62.6 | 37.4 | 17.2 |
| IncremntDel: | 16.3 | 3.4 | 0.4 | 7.6 | 3.0 | 0.1 | 0.9 | 3.4 | 0.1 | 15.4 | 0.2 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 79.7 | 57.1 | 35.6 | 64.9 | 52.3 | 24.4 | 58.0 | 46.1 | 21.3 | 78.0 | 37.6 | 17.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 79.7 | 57.1 | 35.6 | 64.9 | 52.3 | 24.4 | 58.0 | 46.1 | 21.3 | 78.0 | 37.6 | 17.3 |
| LOS by Move: | E | E | D | E | D | C | E | D | C | E | D | B |
| HCM2kAvgQ: | 11 | 15 | 9 | 13 | 20 | 2 | 5 | 24 | 4 | 10 | 9 | 3 |

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

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

Intersection #2 Vaughn/San Carlos

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: B[ 12.6]

| Approach: | North Bound | | | | | South Bound | | | | | East Bound | | | | | West Bound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R |
| Control: | Stop Sign | | | | | Stop Sign | | | | | Uncontrolled | | | | | Uncontrolled | | | | |
| Rights: | Include | | | | | Include | | | | | Include | | | | | Include | | | | |
| Lanes: | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 2 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 15 | | | 0 | 0 | 0 | | | 0 | 1064 | 20 | | | 125 | 845 | 0 | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| Initial Bse: | 0 | 0 | 15 | | | 0 | 0 | 0 | | | 0 | 1064 | 20 | | | 125 | 845 | 0 | | |
| Added Vol: | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | |
| PasserByVol: | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | |
| Initial Fut: | 0 | 0 | 15 | | | 0 | 0 | 0 | | | 0 | 1064 | 20 | | | 125 | 845 | 0 | | |
| User Adj: | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| PHF Volume: | 0 | 0 | 15 | | | 0 | 0 | 0 | | | 0 | 1064 | 20 | | | 125 | 845 | 0 | | |
| Reduct Vol: | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | |
| FinalVolume: | 0 | 0 | 15 | | | 0 | 0 | 0 | | | 0 | 1064 | 20 | | | 125 | 845 | 0 | | |
| Critical Gap Module: | | | | | | | | | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | 6.9 | | | xxxxx | xxxx | xxxxx | | | xxxx | xxxxx | 4.1 | | | xxxx | xxxxx | | | |
| FollowUpTim: | xxxxx | xxxx | 3.3 | | | xxxxx | xxxx | xxxxx | | | xxxx | xxxxx | 2.2 | | | xxxx | xxxxx | | | |
| Capacity Module: | | | | | | | | | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | 542 | | | xxxx | xxxx | xxxxx | | | xxxx | xxxxx | 1084 | | | xxxx | xxxxx | | | |
| Potent Cap.: | xxxx | xxxx | 490 | | | xxxx | xxxx | xxxxx | | | xxxx | xxxxx | 651 | | | xxxx | xxxxx | | | |
| Move Cap.: | xxxx | xxxx | 490 | | | xxxx | xxxx | xxxxx | | | xxxx | xxxxx | 651 | | | xxxx | xxxxx | | | |
| Volume/Cap: | xxxx | xxxx | 0.03 | | | xxxx | xxxx | xxxx | | | xxxx | xxxx | 0.19 | | | xxxx | xxxx | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | 0.1 | | | xxxx | xxxx | xxxxx | | | xxxx | xxxxx | 0.7 | | | xxxx | xxxxx | | | |
| Control Del: | xxxxx | xxxx | 12.6 | | | xxxxx | xxxx | xxxxx | | | xxxxx | xxxxx | 11.8 | | | xxxx | xxxxx | | | |
| LOS by Move: | * | * | B | | | * | * | * | | | * | * | B | | | * | * | | | |
| Movement: | LT | - | LTR | - | RT | LT | - | LTR | - | RT | LT | - | LTR | - | RT | LT | - | LTR | - | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | | | xxxx | xxxx | xxxxx | | | xxxx | xxxx | xxxxx | | | xxxx | xxxx | xxxxx | | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | |
| Shared LOS: | * | * | * | | | * | * | * | | | * | * | * | | | * | * | * | | |
| ApproachDel: | 12.6 | | | | | xxxxxx | | | | | xxxxxx | | | | | xxxxxx | | | | |
| ApproachLOS: | B | | | | | * | | | | | * | | | | | * | | | | |

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

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

Intersection #3 Brooklyn/San Carlos

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: B[ 13.0]

| Approach: | North Bound | | | | | | South Bound | | | | | | East Bound | | | | | | West Bound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | |
| Control: | Stop Sign | | | | | | Stop Sign | | | | | | Uncontrolled | | | | | | Uncontrolled | | | | | |
| Rights: | Include | | | | | | Include | | | | | | Include | | | | | | Include | | | | | |
| Lanes: | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 1 | | 1 | 0 | 2 | 0 | 0 | | 0 | 0 | 1 | 1 | 0 | |
| Volume Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 0 | 0 | | 102 | | | | | | 109 | 1073 | | 0 | | | 0 | | 869 | | 58 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | | | | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | | 1.00 | | 1.00 | |
| Initial Bse: | 0 | 0 | 0 | 0 | 0 | | 102 | | | | | | 109 | 1073 | | 0 | | | 0 | | 869 | | 58 | |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | 0 | 0 | | 0 | | | 0 | | 0 | | 0 | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | 0 | 0 | | 0 | | | 0 | | 0 | | 0 | |
| Initial Fut: | 0 | 0 | 0 | 0 | 0 | | 102 | | | | | | 109 | 1073 | | 0 | | | 0 | | 869 | | 58 | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | | | | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | | 1.00 | | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | | | | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | | 1.00 | | 1.00 | |
| PHF Volume: | 0 | 0 | 0 | 0 | 0 | | 102 | | | | | | 109 | 1073 | | 0 | | | 0 | | 869 | | 58 | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | 0 | 0 | | 0 | | | 0 | | 0 | | 0 | |
| FinalVolume: | 0 | 0 | 0 | 0 | 0 | | 102 | | | | | | 109 | 1073 | | 0 | | | 0 | | 869 | | 58 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | | 6.9 | | | | | | 4.1 | xxxx | xxxxx | xxxxx | xxxx | | xxxxx | | | | | |
| FollowUpTim: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | | 3.3 | | | | | | 2.2 | xxxx | xxxxx | xxxxx | xxxx | | xxxxx | | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | xxxxx | xxxx | xxxx | | 464 | | | | | | 927 | xxxx | xxxxx | xxxx | xxxx | | xxxxx | | | | | |
| Potent Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | | 551 | | | | | | 746 | xxxx | xxxxx | xxxx | xxxx | | xxxxx | | | | | |
| Move Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | | 551 | | | | | | 746 | xxxx | xxxxx | xxxx | xxxx | | xxxxx | | | | | |
| Volume/Cap: | xxxx | xxxx | xxxx | xxxx | xxxx | | 0.19 | | | | | | 0.15 | xxxx | xxxx | xxxx | xxxx | | xxxx | | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | | 0.7 | | | | | | 0.5 | xxxx | xxxxx | xxxx | xxxx | | xxxxx | | | | | |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | | 13.0 | | | | | | 10.7 | xxxx | xxxxx | xxxxx | xxxx | | xxxxx | | | | | |
| LOS by Move: | * | * | * | * | * | | B | | | | | | B | * | * | * | * | | * | | | | | |
| Movement: | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | | xxxxx | | | | | | xxxx | xxxx | xxxxx | xxxx | xxxx | | xxxxx | | | | | |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | | xxxxx | | | | | | xxxxx | xxxx | xxxxx | xxxxx | xxxx | | xxxxx | | | | | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | | xxxxx | | | | | | xxxxx | xxxx | xxxxx | xxxxx | xxxx | | xxxxx | | | | | |
| Shared LOS: | * | * | * | * | * | | * | | | | | | * | * | * | * | * | | * | | | | | |
| ApproachDel: | xxxxxx | | | 13.0 | | | | | | | | | xxxxxx | | | | | | xxxxxx | | | | | |
| ApproachLOS: | * | | | B | | | | | | | | | * | | | | | | * | | | | | |

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

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

Intersection #4 Boston/San Carlos

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: B[ 12.2]

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 0 0 0 0 0 | | | 0 0 0 0 1 | | | 0 0 1 1 0 | | | 0 0 1 1 0 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 0 | 0 | 55 | 0 | 1068 | 40 | 0 | 874 | 43 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 0 | 0 | 55 | 0 | 1068 | 40 | 0 | 874 | 43 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 0 | 0 | 55 | 0 | 1068 | 40 | 0 | 874 | 43 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 0 | 0 | 55 | 0 | 1068 | 40 | 0 | 874 | 43 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 0 | 0 | 0 | 0 | 0 | 55 | 0 | 1068 | 40 | 0 | 874 | 43 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 6.9 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 3.3 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | xxxxx | xxxx | xxxx | 459 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | 555 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | 555 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | xxxx | xxxx | xxxx | xxxx | xxxx | 0.10 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | 0.3 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 12.2 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | B | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | 12.2 | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | B | | | * | | | * | | |

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

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

Intersection #5 LELAND/SAN CARLOS

Cycle (sec): 140 Critical Vol./Cap.(X): 0.424
Loss Time (sec): 9 Average Delay (sec/veh): 14.3
Optimal Cycle: 46 Level Of Service: B

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 | 0 | 1! 0 | 0 | 0 | 1! 0 | 1 | 0 | 2 0 | 1 | 0 | 2 0 1 |
| Volume Module: >> Count Date: 1 Nov 2016 << 4:15-5:15 | | | | | | | | | | | | |
| Base Vol: | 12 | 34 | 30 | 29 | 20 | 9 | 33 | 1143 | 21 | 16 | 700 | 40 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 12 | 34 | 30 | 29 | 20 | 9 | 33 | 1143 | 21 | 16 | 700 | 40 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 |
| Initial Fut: | 12 | 34 | 30 | 29 | 20 | 9 | 33 | 1147 | 21 | 16 | 700 | 40 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 12 | 34 | 30 | 29 | 20 | 9 | 33 | 1147 | 21 | 16 | 700 | 40 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 12 | 34 | 30 | 29 | 20 | 9 | 33 | 1147 | 21 | 16 | 700 | 40 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 12 | 34 | 30 | 29 | 20 | 9 | 33 | 1147 | 21 | 16 | 700 | 40 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Lanes: | 0.16 | 0.45 | 0.39 | 0.50 | 0.34 | 0.16 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 300 | 850 | 750 | 950 | 655 | 295 | 1900 | 3610 | 1900 | 1900 | 3610 | 1900 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.04 | 0.04 | 0.03 | 0.03 | 0.03 | 0.02 | 0.32 | 0.01 | 0.01 | 0.19 | 0.02 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.09 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | 0.16 | 0.72 | 0.72 | 0.05 | 0.61 | 0.61 |
| Volume/Cap: | 0.44 | 0.49 | 0.49 | 0.38 | 0.43 | 0.43 | 0.11 | 0.44 | 0.02 | 0.17 | 0.32 | 0.03 |
| Uniform Del: | 60.2 | 61.6 | 61.6 | 60.9 | 62.3 | 62.3 | 50.4 | 7.9 | 5.4 | 63.7 | 12.9 | 10.6 |
| IncremntDel: | 1.8 | 2.5 | 2.5 | 1.5 | 2.2 | 2.2 | 0.2 | 0.1 | 0.0 | 0.8 | 0.1 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 62.0 | 64.0 | 64.0 | 62.5 | 64.4 | 64.4 | 50.6 | 8.0 | 5.4 | 64.6 | 13.0 | 10.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 62.0 | 64.0 | 64.0 | 62.5 | 64.4 | 64.4 | 50.6 | 8.0 | 5.4 | 64.6 | 13.0 | 10.6 |
| LOS by Move: | E | E | E | E | E | E | D | A | A | E | B | B |
| HCM2kAvgQ: | 4 | 4 | 4 | 3 | 3 | 3 | 1 | 10 | 0 | 1 | 7 | 1 |

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

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Scenario Report

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

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

Intersection #1 BASCOM/SAN CARLOS

| | | | |
|---|---|---|---|
| Cycle (sec): | 140 | Critical Vol./Cap.(X): | 0.704 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 40.0 |
| Optimal Cycle: | 64 | Level Of Service: | D |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | | Ovl | | | Ovl | | | Ovl | | | Ovl | |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 2 0 | 1 | 1 0 | 3 0 | 1 | 1 0 | 2 0 | 1 | 1 0 | 2 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 230 | 1092 | 164 | 112 | 489 | 89 | 90 | 221 | 101 | 165 | 847 | 272 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 230 | 1092 | 164 | 112 | 489 | 89 | 90 | 221 | 101 | 165 | 847 | 272 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 230 | 1092 | 164 | 112 | 489 | 89 | 90 | 221 | 101 | 165 | 847 | 272 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 230 | 1092 | 164 | 112 | 489 | 89 | 90 | 221 | 101 | 165 | 847 | 272 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 230 | 1092 | 164 | 112 | 489 | 89 | 90 | 221 | 101 | 165 | 847 | 272 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 230 | 1092 | 164 | 112 | 489 | 89 | 90 | 221 | 101 | 165 | 847 | 272 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1900 | 3610 | 1900 | 1900 | 5187 | 1900 | 1900 | 3610 | 1900 | 1900 | 3610 | 1900 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.12 | 0.30 | 0.09 | 0.06 | 0.09 | 0.05 | 0.05 | 0.06 | 0.05 | 0.09 | 0.23 | 0.14 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green/Cycle: | 0.29 | 0.43 | 0.65 | 0.08 | 0.22 | 0.29 | 0.07 | 0.18 | 0.47 | 0.22 | 0.33 | 0.42 |
| Volume/Cap: | 0.42 | 0.70 | 0.13 | 0.70 | 0.42 | 0.16 | 0.70 | 0.34 | 0.11 | 0.39 | 0.70 | 0.34 |
| Uniform Del: | 40.3 | 32.6 | 9.4 | 62.4 | 46.4 | 36.8 | 63.9 | 50.0 | 20.8 | 46.7 | 40.6 | 27.8 |
| IncremntDel: | 0.5 | 1.5 | 0.0 | 13.3 | 0.2 | 0.1 | 16.3 | 0.3 | 0.1 | 0.6 | 1.9 | 0.3 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 40.8 | 34.1 | 9.5 | 75.8 | 46.7 | 36.9 | 80.2 | 50.3 | 20.9 | 47.3 | 42.6 | 28.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 40.8 | 34.1 | 9.5 | 75.8 | 46.7 | 36.9 | 80.2 | 50.3 | 20.9 | 47.3 | 42.6 | 28.0 |
| LOS by Move: | D | C | A | E | D | D | F | D | C | D | D | C |
| HCM2kAvgQ: | 8 | 20 | 3 | 6 | 7 | 3 | 5 | 4 | 2 | 6 | 16 | 8 |

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

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

Intersection #2 Vaughn/San Carlos

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[ 10.8]

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 0 0 0 0 1 | | | 0 0 0 0 0 | | | 0 0 1 1 0 | | | 1 0 2 0 0 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 720 | 3 | 71 | 1053 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 720 | 3 | 71 | 1053 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 720 | 3 | 71 | 1053 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 720 | 3 | 71 | 1053 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 720 | 3 | 71 | 1053 | 0 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | 6.9 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | xxxxx | xxxx | 3.3 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | 362 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 723 | xxxx | xxxxx |
| Potent Cap.: | xxxx | xxxx | 641 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 889 | xxxx | xxxxx |
| Move Cap.: | xxxx | xxxx | 641 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 889 | xxxx | xxxxx |
| Volume/Cap: | xxxx | xxxx | 0.03 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | 0.08 | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | 0.1 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.3 | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | 10.8 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 9.4 | xxxx | xxxxx |
| LOS by Move: | * | * | B | * | * | * | * | * | * | A | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | 10.8 | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | B | | | * | | | * | | | * | | |

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

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

Intersection #3 Brooklyn/San Carlos

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: B[ 14.8]

| Approach: | North Bound | | | | | | South Bound | | | | | | East Bound | | | | | | West Bound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | |
| Control: | Stop Sign | | | | | | Stop Sign | | | | | | Uncontrolled | | | | | | Uncontrolled | | | | | |
| Rights: | Include | | | | | | Include | | | | | | Include | | | | | | Include | | | | | |
| Lanes: | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 1 | | 1 | 0 | 2 | 0 | 0 | | 0 | 0 | 1 | 1 | 0 | |
| Volume Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 0 | 0 | | 121 | | | | | | 99 | 759 | | 0 | | | 0 | 1055 | | | 39 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | | | | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | | 1.00 | |
| Initial Bse: | 0 | 0 | 0 | 0 | 0 | | 121 | | | | | | 99 | 759 | | 0 | | | 0 | 1055 | | | 39 | |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | 0 | 0 | | 0 | | | 0 | 0 | | | 0 | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | 0 | 0 | | 0 | | | 0 | 0 | | | 0 | |
| Initial Fut: | 0 | 0 | 0 | 0 | 0 | | 121 | | | | | | 99 | 759 | | 0 | | | 0 | 1055 | | | 39 | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | | | | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | | | | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | | 1.00 | |
| PHF Volume: | 0 | 0 | 0 | 0 | 0 | | 121 | | | | | | 99 | 759 | | 0 | | | 0 | 1055 | | | 39 | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | 0 | 0 | | 0 | | | 0 | 0 | | | 0 | |
| FinalVolume: | 0 | 0 | 0 | 0 | 0 | | 121 | | | | | | 99 | 759 | | 0 | | | 0 | 1055 | | | 39 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | | 6.9 | | | | | | 4.1 | xxxx | | xxxxx | | | xxxxx | xxxx | | | xxxxx | |
| FollowUpTim: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | | 3.3 | | | | | | 2.2 | xxxx | | xxxxx | | | xxxxx | xxxx | | | xxxxx | |
| Capacity Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | xxxxx | xxxx | xxxx | | 547 | | | | | | 1094 | xxxx | | xxxxx | | | xxxx | xxxx | | | xxxxx | |
| Potent Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | | 486 | | | | | | 645 | xxxx | | xxxxx | | | xxxx | xxxx | | | xxxxx | |
| Move Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | | 486 | | | | | | 645 | xxxx | | xxxxx | | | xxxx | xxxx | | | xxxxx | |
| Volume/Cap: | xxxx | xxxx | xxxx | xxxx | xxxx | | 0.25 | | | | | | 0.15 | xxxx | | xxxx | | | xxxx | xxxx | | | xxxx | |
| Level Of Service Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | | 1.0 | | | | | | 0.5 | xxxx | | xxxxx | | | xxxx | xxxx | | | xxxxx | |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | | 14.8 | | | | | | 11.6 | xxxx | | xxxxx | | | xxxxx | xxxx | | | xxxxx | |
| LOS by Move: | * | * | * | * | * | | B | | | | | | B | * | | * | | | * | * | | | * | |
| Movement: | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | | | | | | | | | |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | | | | | | | | | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | | | | | | | | | |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * | | | | | | | | | | | | |
| ApproachDel: | xxxxxx | | | 14.8 | | | xxxxxx | | | xxxxxx | | | | | | | | | | | | | | |
| ApproachLOS: | * | | | B | | | * | | | * | | | | | | | | | | | | | | |

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

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

Intersection #4 Boston/San Carlos

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: B[ 12.9]

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 0 0 0 0 0 | | | 0 0 0 0 1 | | | 0 0 1 1 0 | | | 0 0 1 1 0 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 0 | 0 | 27 | 0 | 763 | 19 | 0 | 1077 | 20 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 0 | 0 | 27 | 0 | 763 | 19 | 0 | 1077 | 20 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 0 | 0 | 27 | 0 | 763 | 19 | 0 | 1077 | 20 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 0 | 0 | 27 | 0 | 763 | 19 | 0 | 1077 | 20 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 0 | 0 | 0 | 0 | 0 | 27 | 0 | 763 | 19 | 0 | 1077 | 20 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 6.9 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 3.3 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | xxxxx | xxxx | xxxx | 549 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | 485 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | 485 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | xxxx | xxxx | xxxx | xxxx | xxxx | 0.06 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | 0.2 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 12.9 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | B | * | * | * | * | * | * |
| Movement: | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | 12.9 | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | B | | | * | | | * | | |

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

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

Intersection #5 LELAND/SAN CARLOS

| | | | |
|---|---|---|---|
| Cycle (sec): | 130 | Critical Vol./Cap.(X): | 0.572 |
| Loss Time (sec): | 9 | Average Delay (sec/veh): | 21.0 |
| Optimal Cycle: | 46 | Level Of Service: | C |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 1 0 | 2 0 | 1 | 1 0 | 2 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 34 | 82 | 14 | 48 | 42 | 31 | 32 | 394 | 11 | 78 | 1384 | 88 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 34 | 82 | 14 | 48 | 42 | 31 | 32 | 394 | 11 | 78 | 1384 | 88 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 34 | 82 | 14 | 48 | 42 | 31 | 32 | 394 | 11 | 78 | 1384 | 88 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 34 | 82 | 14 | 48 | 42 | 31 | 32 | 394 | 11 | 78 | 1384 | 88 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 34 | 82 | 14 | 48 | 42 | 31 | 32 | 394 | 11 | 78 | 1384 | 88 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 34 | 82 | 14 | 48 | 42 | 31 | 32 | 394 | 11 | 78 | 1384 | 88 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Lanes: | 0.26 | 0.63 | 0.11 | 0.40 | 0.35 | 0.25 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 497 | 1198 | 205 | 754 | 660 | 487 | 1900 | 3610 | 1900 | 1900 | 3610 | 1900 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.07 | 0.07 | 0.06 | 0.06 | 0.06 | 0.02 | 0.11 | 0.01 | 0.04 | 0.38 | 0.05 |
| Crit Moves: | **** | | | **** | | | **** | | | | **** | |
| Green/Cycle: | 0.12 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.05 | 0.47 | 0.47 | 0.23 | 0.65 | 0.65 |
| Volume/Cap: | 0.59 | 0.61 | 0.61 | 0.57 | 0.59 | 0.59 | 0.31 | 0.23 | 0.01 | 0.18 | 0.59 | 0.07 |
| Uniform Del: | 54.5 | 55.0 | 55.0 | 54.7 | 55.2 | 55.2 | 59.2 | 20.3 | 18.2 | 39.8 | 12.8 | 8.2 |
| IncremntDel: | 4.1 | 5.0 | 5.0 | 3.5 | 4.4 | 4.4 | 1.8 | 0.1 | 0.0 | 0.2 | 0.4 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 58.6 | 60.0 | 60.0 | 58.2 | 59.6 | 59.6 | 60.9 | 20.4 | 18.2 | 40.0 | 13.1 | 8.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 58.6 | 60.0 | 60.0 | 58.2 | 59.6 | 59.6 | 60.9 | 20.4 | 18.2 | 40.0 | 13.1 | 8.3 |
| LOS by Move: | E | E | E | E | E | E | E | C | B | D | B | A |
| HCM2kAvgQ: | 6 | 6 | 6 | 5 | 5 | 5 | 2 | 5 | 0 | 2 | 16 | 1 |

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

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Scenario Report

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

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

Intersection #1 BASCOM/SAN CARLOS

Cycle (sec): 150 Critical Vol./Cap.(X): 0.738
Loss Time (sec): 12 Average Delay (sec/veh): 47.7
Optimal Cycle: 71 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Ovl | | | Ovl | | | Ovl | | | Ovl | | |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 2 | 0 | 1 | 1 0 3 | 0 | 1 | 1 0 2 | 0 | 1 | 1 0 2 | 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 180 | 595 | 274 | 264 | 1169 | 84 | 93 | 886 | 162 | 215 | 459 | 124 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 180 | 595 | 274 | 264 | 1169 | 84 | 93 | 886 | 162 | 215 | 459 | 124 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 180 | 595 | 274 | 264 | 1169 | 84 | 93 | 886 | 162 | 215 | 459 | 124 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 180 | 595 | 274 | 264 | 1169 | 84 | 93 | 886 | 162 | 215 | 459 | 124 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 180 | 595 | 274 | 264 | 1169 | 84 | 93 | 886 | 162 | 215 | 459 | 124 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 180 | 595 | 274 | 264 | 1169 | 84 | 93 | 886 | 162 | 215 | 459 | 124 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1900 | 3610 | 1900 | 1900 | 5187 | 1900 | 1900 | 3610 | 1900 | 1900 | 3610 | 1900 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.16 | 0.14 | 0.14 | 0.23 | 0.04 | 0.05 | 0.25 | 0.09 | 0.11 | 0.13 | 0.07 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green/Cycle: | 0.13 | 0.24 | 0.39 | 0.20 | 0.31 | 0.44 | 0.14 | 0.33 | 0.46 | 0.15 | 0.35 | 0.55 |
| Volume/Cap: | 0.74 | 0.70 | 0.37 | 0.70 | 0.74 | 0.10 | 0.36 | 0.74 | 0.18 | 0.74 | 0.36 | 0.12 |
| Uniform Del: | 62.9 | 52.5 | 32.7 | 56.0 | 46.7 | 24.6 | 59.0 | 44.3 | 23.8 | 60.6 | 36.2 | 16.3 |
| IncremntDel: | 11.2 | 2.6 | 0.3 | 5.8 | 1.9 | 0.1 | 0.9 | 2.4 | 0.1 | 9.5 | 0.2 | 0.1 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 74.2 | 55.1 | 33.1 | 61.7 | 48.6 | 24.6 | 59.9 | 46.7 | 23.9 | 70.1 | 36.4 | 16.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 74.2 | 55.1 | 33.1 | 61.7 | 48.6 | 24.6 | 59.9 | 46.7 | 23.9 | 70.1 | 36.4 | 16.3 |
| LOS by Move: | E | E | C | E | D | C | E | D | C | E | D | B |
| HCM2kAvgQ: | 9 | 14 | 9 | 12 | 18 | 2 | 4 | 20 | 4 | 10 | 8 | 3 |

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

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

Intersection #2 Vaughn/San Carlos

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: B[ 12.7]

| Approach: | North Bound | | | | | South Bound | | | | | East Bound | | | | | West Bound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R |
| Control: | Stop Sign | | | | | Stop Sign | | | | | Uncontrolled | | | | | Uncontrolled | | | | |
| Rights: | Include | | | | | Include | | | | | Include | | | | | Include | | | | |
| Lanes: | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 2 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 15 | | | 0 | 0 | 0 | | | 0 | 1091 | 20 | | | 145 | 874 | 0 | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| Initial Bse: | 0 | 0 | 15 | | | 0 | 0 | 0 | | | 0 | 1091 | 20 | | | 145 | 874 | 0 | | |
| Added Vol: | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | |
| PasserByVol: | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | |
| Initial Fut: | 0 | 0 | 15 | | | 0 | 0 | 0 | | | 0 | 1091 | 20 | | | 145 | 874 | 0 | | |
| User Adj: | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| PHF Volume: | 0 | 0 | 15 | | | 0 | 0 | 0 | | | 0 | 1091 | 20 | | | 145 | 874 | 0 | | |
| Reduct Vol: | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | |
| FinalVolume: | 0 | 0 | 15 | | | 0 | 0 | 0 | | | 0 | 1091 | 20 | | | 145 | 874 | 0 | | |
| Critical Gap Module: | | | | | | | | | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | 6.9 | | | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | | 4.1 | xxxx | xxxxx | | |
| FollowUpTim: | xxxxx | xxxx | 3.3 | | | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | | 2.2 | xxxx | xxxxx | | |
| Capacity Module: | | | | | | | | | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | 556 | | | xxxx | xxxx | xxxxx | | | xxxx | xxxx | xxxxx | | | 1111 | xxxx | xxxxx | | |
| Potent Cap.: | xxxx | xxxx | 480 | | | xxxx | xxxx | xxxxx | | | xxxx | xxxx | xxxxx | | | 636 | xxxx | xxxxx | | |
| Move Cap.: | xxxx | xxxx | 480 | | | xxxx | xxxx | xxxxx | | | xxxx | xxxx | xxxxx | | | 636 | xxxx | xxxxx | | |
| Volume/Cap: | xxxx | xxxx | 0.03 | | | xxxx | xxxx | xxxx | | | xxxx | xxxx | xxxx | | | 0.23 | xxxx | xxxx | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | 0.1 | | | xxxx | xxxx | xxxxx | | | xxxx | xxxx | xxxxx | | | 0.9 | xxxx | xxxxx | | |
| Control Del: | xxxxx | xxxx | 12.7 | | | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | | 12.3 | xxxx | xxxxx | | |
| LOS by Move: | * | * | B | | | * | * | * | | | * | * | * | | | B | * | * | | |
| Movement: | LT | - | LTR | - | RT | LT | - | LTR | - | RT | LT | - | LTR | - | RT | LT | - | LTR | - | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | | | xxxx | xxxx | xxxxx | | | xxxx | xxxx | xxxxx | | | xxxx | xxxx | xxxxx | | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | |
| Shared LOS: | * | * | * | | | * | * | * | | | * | * | * | | | * | * | * | | |
| ApproachDel: | 12.7 | | | | | xxxxxx | | | | | xxxxxx | | | | | xxxxxx | | | | |
| ApproachLOS: | B | | | | | * | | | | | * | | | | | * | | | | |

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

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

Intersection #3 Brooklyn/San Carlos

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: B[ 14.0]

| Approach: | North Bound | | | | | | South Bound | | | | | | East Bound | | | | | | West Bound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | |
| Control: | Stop Sign | | | | | | Stop Sign | | | | | | Uncontrolled | | | | | | Uncontrolled | | | | | |
| Rights: | Include | | | | | | Include | | | | | | Include | | | | | | Include | | | | | |
| Lanes: | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 1 | | 1 | 0 | 2 | 0 | 0 | | 0 | 0 | 1 | 1 | 0 | |
| Volume Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 140 | | 136 | | 1093 | | 0 | | 0 | | 880 | | 73 | |
| Growth Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| Initial Bse: | 0 | | 0 | | 0 | | 0 | | 0 | | 140 | | 136 | | 1093 | | 0 | | 0 | | 880 | | 73 | |
| Added Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| PasserByVol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Initial Fut: | 0 | | 0 | | 0 | | 0 | | 0 | | 140 | | 136 | | 1093 | | 0 | | 0 | | 880 | | 73 | |
| User Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| PHF Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| PHF Volume: | 0 | | 0 | | 0 | | 0 | | 0 | | 140 | | 136 | | 1093 | | 0 | | 0 | | 880 | | 73 | |
| Reduct Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| FinalVolume: | 0 | | 0 | | 0 | | 0 | | 0 | | 140 | | 136 | | 1093 | | 0 | | 0 | | 880 | | 73 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Critical Gp: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | 6.9 | | 4.1 | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| FollowUpTim: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | 3.3 | | 2.2 | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| Capacity Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 477 | | 953 | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Potent Cap.: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 540 | | 729 | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Move Cap.: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 540 | | 729 | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Volume/Cap: | xxxx | | xxxx | | xxxx | | xxxx | | xxxx | | 0.26 | | 0.19 | | xxxx | | xxxx | | xxxx | | xxxx | | xxxx | |
| Level Of Service Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | 1.0 | | 0.7 | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| Control Del: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | 14.0 | | 11.1 | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| LOS by Move: | * | | * | | * | | * | | * | | B | | B | | * | | * | | * | | * | | * | |
| Movement: | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | |
| Shared Cap.: | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | | xxxx | | xxxx | | xxxxx | |
| SharedQueue: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| Shrd ConDel: | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | | xxxx | | xxxxx | |
| Shared LOS: | * | | * | | * | | * | | * | | * | | * | | * | | * | | * | | * | | * | |
| ApproachDel: | xxxxxx | | | | | | 14.0 | | | | | | xxxxxx | | | | | | xxxxxx | | | | | |
| ApproachLOS: | * | | | | | | B | | | | | | * | | | | | | * | | | | | |

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

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

Intersection #4 Boston/San Carlos

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[ 12.5]

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 0 0 0 0 0 | | | 0 0 0 0 1 | | | 0 0 1 1 0 | | | 0 0 1 1 0 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 0 | 0 | 66 | 0 | 1088 | 40 | 0 | 889 | 46 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 0 | 0 | 66 | 0 | 1088 | 40 | 0 | 889 | 46 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 0 | 0 | 66 | 0 | 1088 | 40 | 0 | 889 | 46 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 0 | 0 | 66 | 0 | 1088 | 40 | 0 | 889 | 46 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 0 | 0 | 0 | 0 | 0 | 66 | 0 | 1088 | 40 | 0 | 889 | 46 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 6.9 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 3.3 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | xxxxx | xxxx | xxxx | 468 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | 547 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | 547 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | xxxx | xxxx | xxxx | xxxx | xxxx | 0.12 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | 0.4 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 12.5 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | B | * | * | * | * | * | * |
| Movement: | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | 12.5 | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | B | | | * | | | * | | |

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

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

Intersection #5 LELAND/SAN CARLOS

Cycle (sec): 140 Critical Vol./Cap.(X): 0.430
Loss Time (sec): 9 Average Delay (sec/veh): 14.8
Optimal Cycle: 46 Level Of Service: B

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 1 0 | 2 0 | 1 | 1 0 | 2 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 19 | 34 | 30 | 29 | 20 | 9 | 33 | 1155 | 28 | 16 | 711 | 40 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 19 | 34 | 30 | 29 | 20 | 9 | 33 | 1155 | 28 | 16 | 711 | 40 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 19 | 34 | 30 | 29 | 20 | 9 | 33 | 1155 | 28 | 16 | 711 | 40 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 19 | 34 | 30 | 29 | 20 | 9 | 33 | 1155 | 28 | 16 | 711 | 40 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 19 | 34 | 30 | 29 | 20 | 9 | 33 | 1155 | 28 | 16 | 711 | 40 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 19 | 34 | 30 | 29 | 20 | 9 | 33 | 1155 | 28 | 16 | 711 | 40 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Lanes: | 0.23 | 0.41 | 0.36 | 0.50 | 0.34 | 0.16 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 435 | 778 | 687 | 950 | 655 | 295 | 1900 | 3610 | 1900 | 1900 | 3610 | 1900 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.04 | 0.04 | 0.03 | 0.03 | 0.03 | 0.02 | 0.32 | 0.01 | 0.01 | 0.20 | 0.02 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.10 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | 0.16 | 0.72 | 0.72 | 0.05 | 0.61 | 0.61 |
| Volume/Cap: | 0.45 | 0.52 | 0.52 | 0.36 | 0.43 | 0.43 | 0.11 | 0.45 | 0.02 | 0.17 | 0.32 | 0.03 |
| Uniform Del: | 59.6 | 61.3 | 61.3 | 60.5 | 62.3 | 62.3 | 50.8 | 8.3 | 5.7 | 63.7 | 13.2 | 10.8 |
| IncremntDel: | 1.7 | 2.9 | 2.9 | 1.4 | 2.2 | 2.2 | 0.2 | 0.1 | 0.0 | 0.8 | 0.1 | 0.0 |
| InitQueuDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 61.3 | 64.2 | 64.2 | 61.9 | 64.4 | 64.4 | 51.0 | 8.4 | 5.7 | 64.6 | 13.3 | 10.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 61.3 | 64.2 | 64.2 | 61.9 | 64.4 | 64.4 | 51.0 | 8.4 | 5.7 | 64.6 | 13.3 | 10.8 |
| LOS by Move: | E | E | E | E | E | E | D | A | A | E | B | B |
| HCM2kAvgQ: | 4 | 4 | 4 | 3 | 3 | 3 | 1 | 11 | 0 | 1 | 8 | 1 |

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

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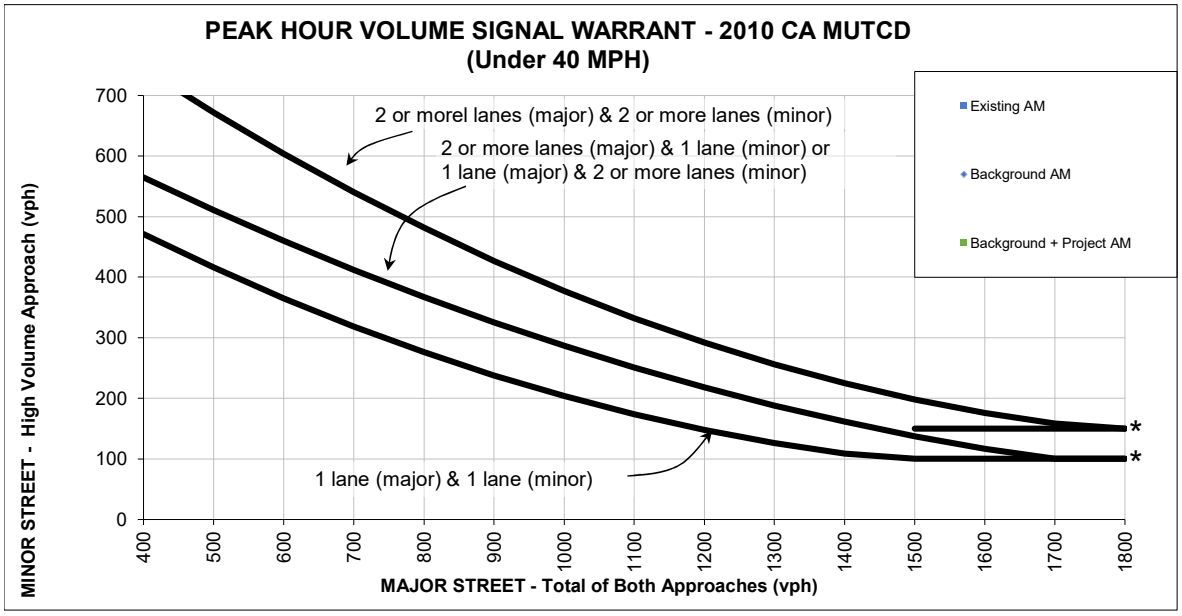
# Appendix E

## Signal Warrant Check

**Brooklyn Avenue & San Carlos Street**

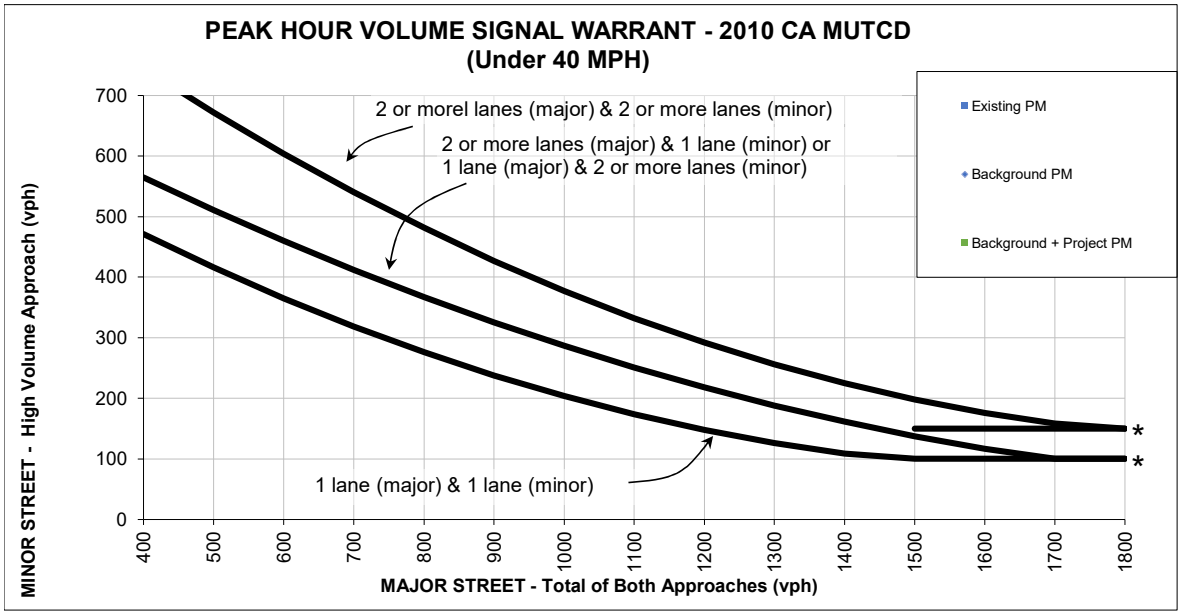



* NOTE: 150 vph applies as the lower threshold volume for a minor street approach with 2 or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with 1 lane.

**Peak Hour Volume Warrant Per 2003 MUTCD- Under 40 MPH**

| | | Approach Lanes | | AM Peak Hour Volumes | | |
|---|---|---|---|---|---|---|
| | | One | 2 or More | *Existing AM* | *Background AM* | *Background + Project AM* |
| Major Street - Both Approaches | San Carlos Street | | x | 1905 | 1905 | 1939 |
| Minor Street - Highest Approach | Brooklyn Avenue | x | | 99 | 99 | 122 |
| | Warrant Met? | | | no | no | yes |

**Brooklyn Avenue & San Carlos Street**



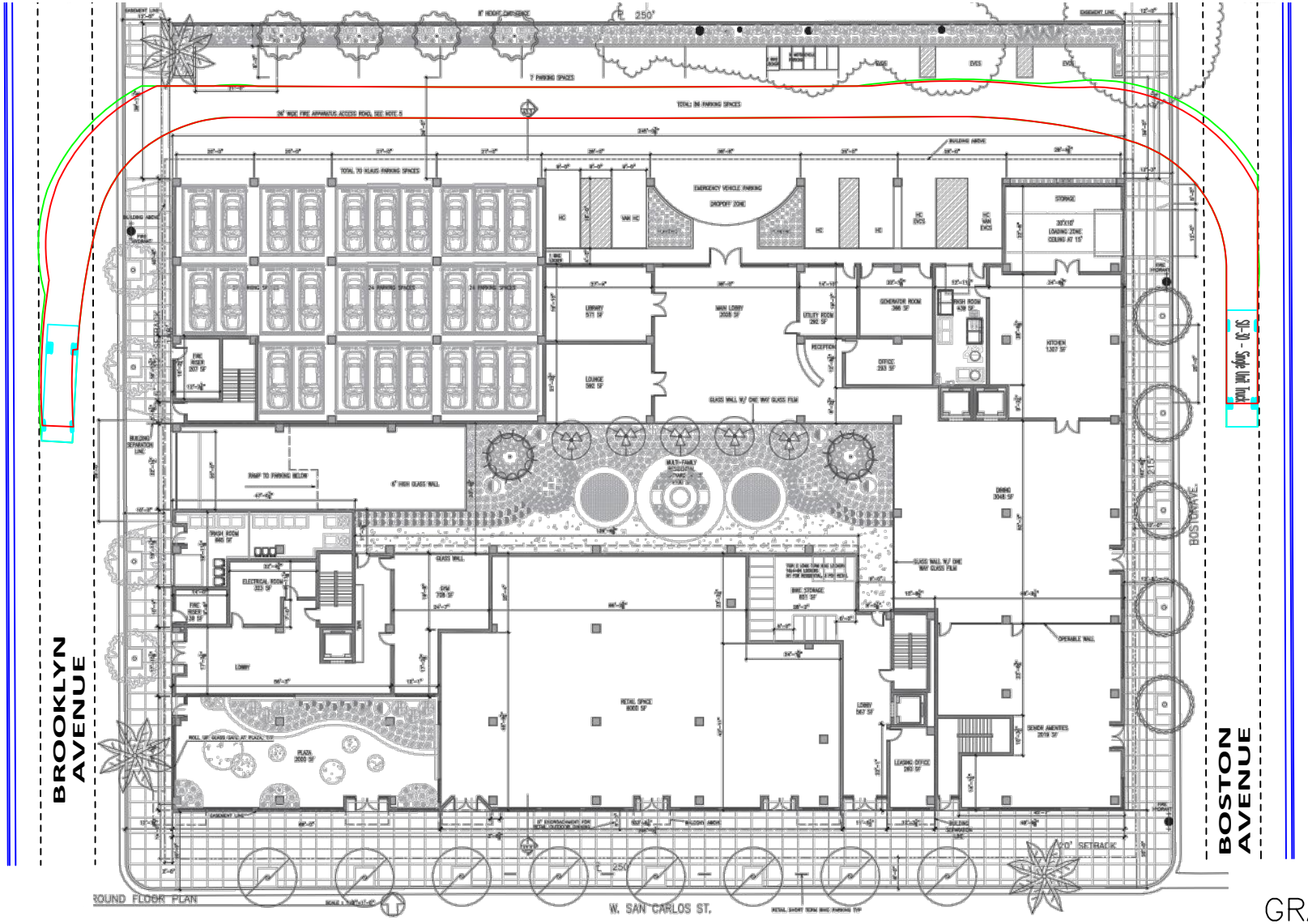

* NOTE: 150 vph applies as the lower threshold volume for a minor street approach with 2 or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with 1 lane.

**Peak Hour Volume Warrant Per 2003 MUTCD- Under 40 MPH**

| | | Approach Lanes | | PM Peak Hour Volumes | | |
|---|---|---|---|---|---|---|
| | | One | 2 or More | *Existing PM* | *Background PM* | *Background + Project PM* |
| Major Street - Both Approaches | San Carlos Street | | x | 2109 | 2109 | 2167 |
| Minor Street - Highest Approach | Brooklyn Avenue | x | | 102 | 102 | 136 |
| | | Warrant Met? | | yes | yes | yes |

# Appendix F

## Truck Turning Templates

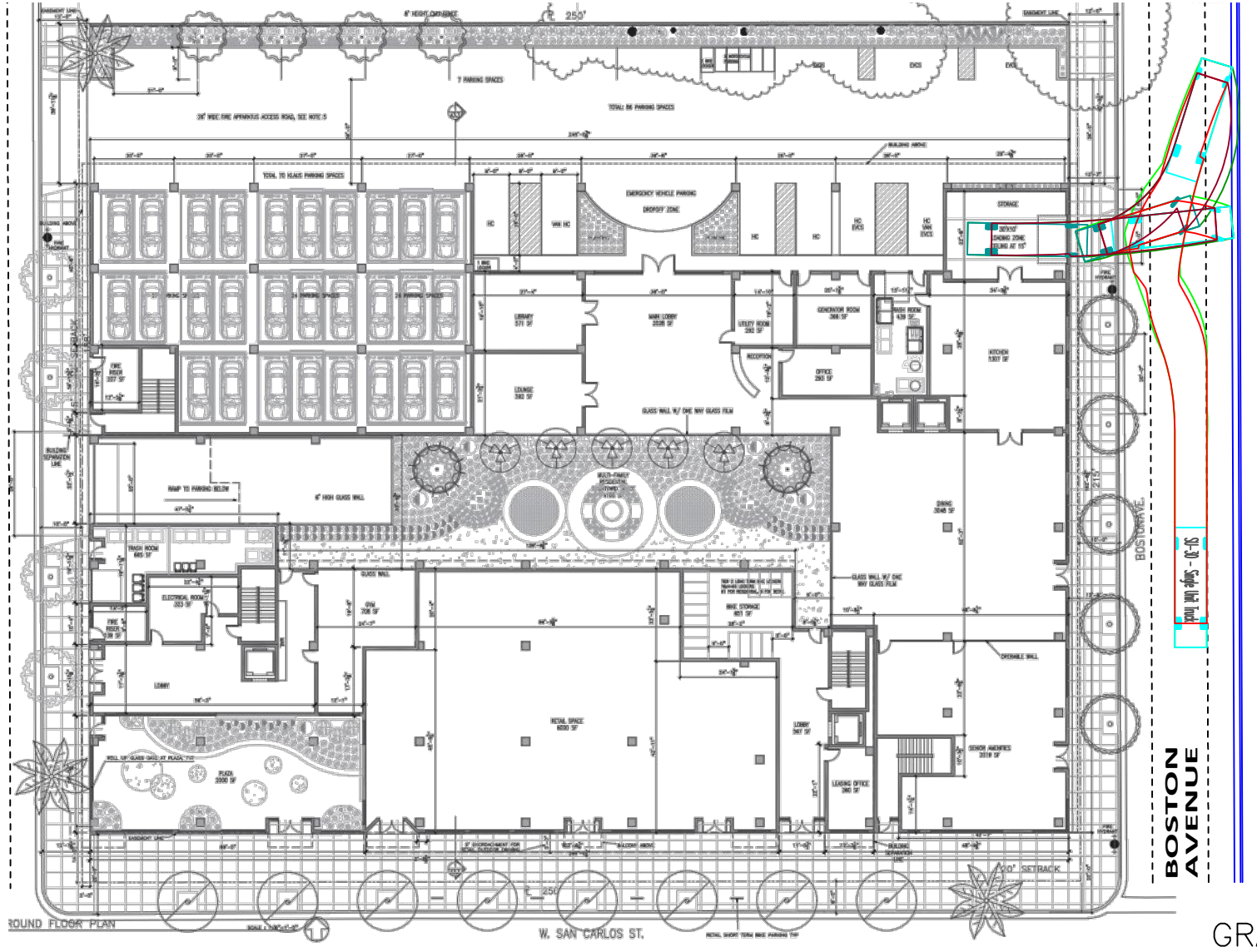



GRAPHIC SCALE

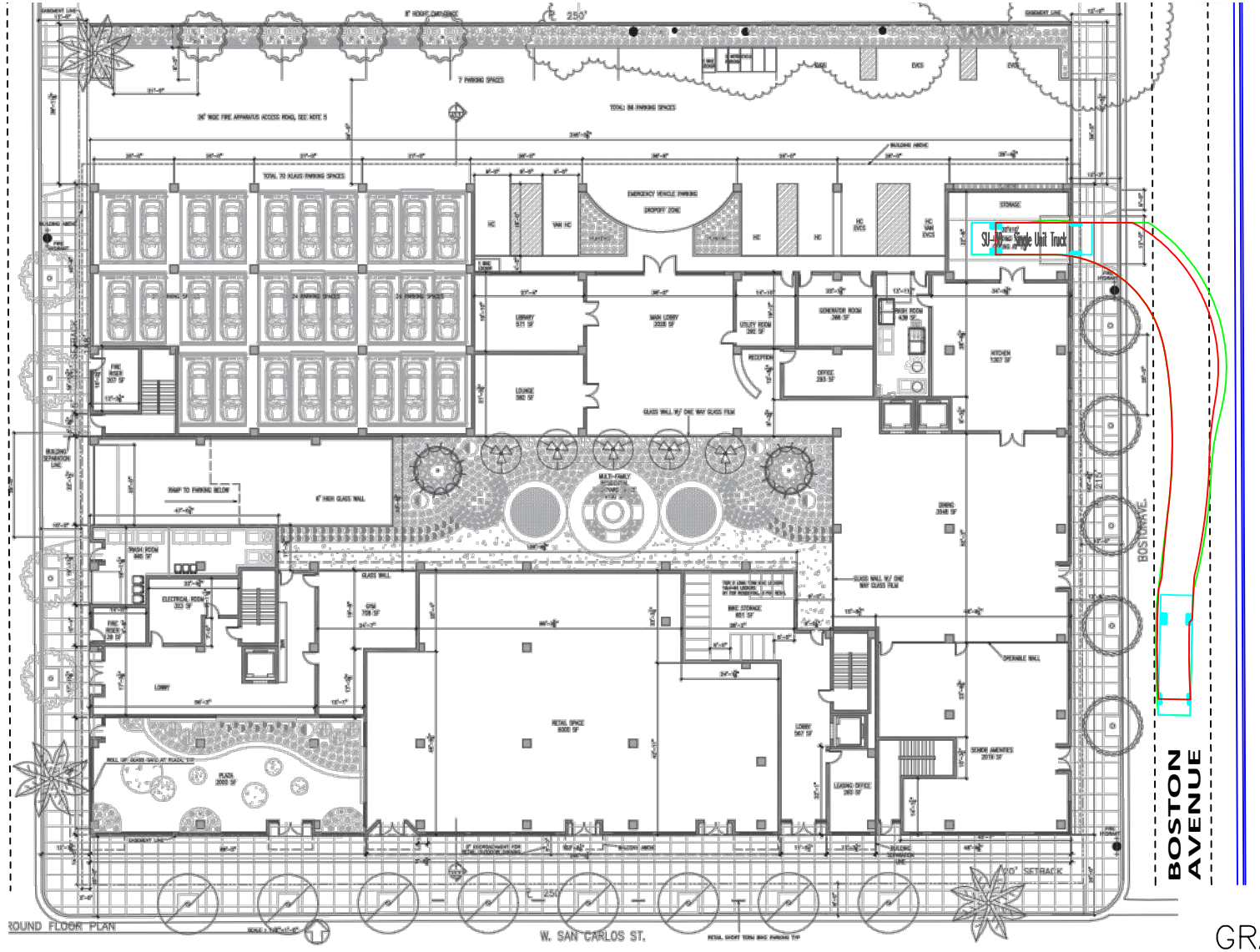
40 0 20 40

1 INCH = 40 FEET

| | | | | |
|---|---|---|---|---|
| DRAWN<br>R. RODRIGUEZ | SCALE<br>1" = 40' | HEXAGON TRANSPORTATION CONSULTANTS, INC.<br>4 North Second Street, Suite 400<br>San Jose, California 95113<br>Ph: (408) 971-6100 www.hextrans.com | **CITY OF SAN JOSE** | FIGURE NO. |
| CHECKED<br>---- | DATE<br>7/8/2021 | | 1881 W SAN CARLOS STREET<br>TRUCK TURNING TEMPLATE | 1 |




| | | | | |
|---|---|---|---|---|
| DRAWN<br>R. RODRIGUEZ | SCALE<br>1" = 40' | HEXAGON TRANSPORTATION CONSULTANTS, INC.<br>4 North Second Street, Suite 400<br>San Jose, California 95113<br>Ph: (408) 971-6100 www.hextrans.com | **CITY OF SAN JOSE** | FIGURE NO. |
| CHECKED<br>---- | DATE<br>7/8/2021 | | 1881 W SAN CARLOS STREET<br>TRUCK TURNING TEMPLATE | 2 |

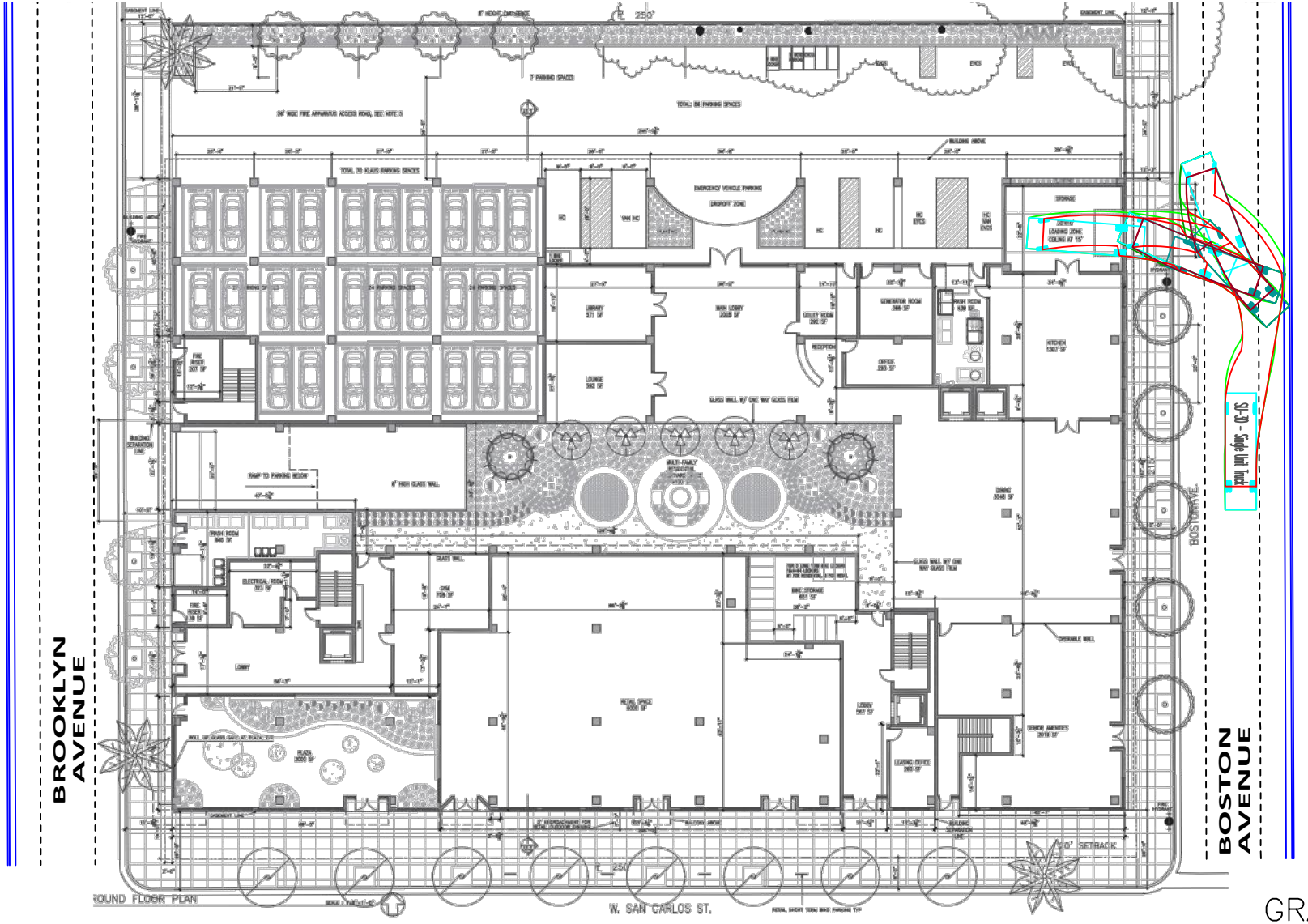



GRAPHIC SCALE

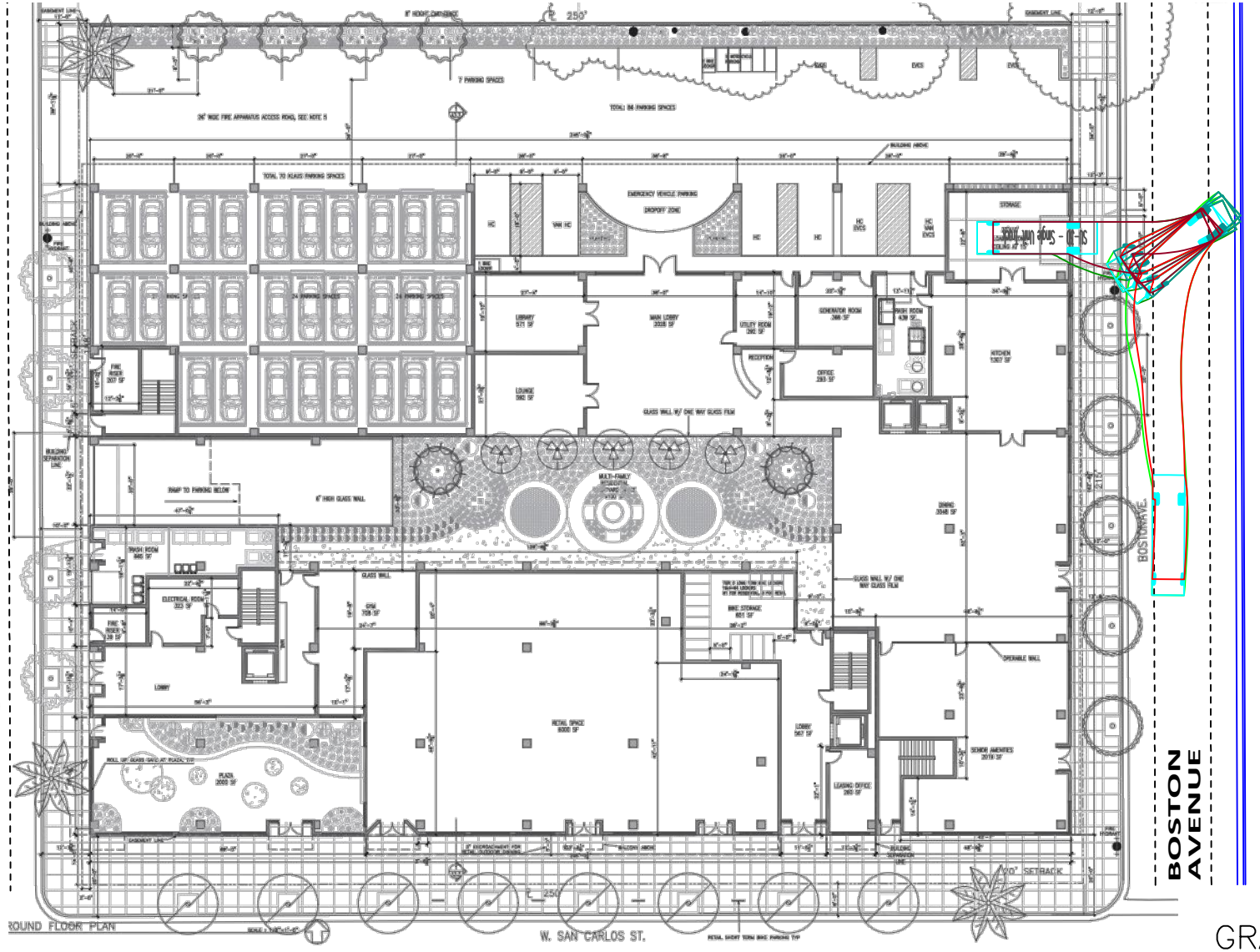
40 0 20 40

1 INCH = 40 FEET

| | | | | |
|---|---|---|---|---|
| DRAWN<br>R. RODRIGUEZ | SCALE<br>1" = 40' | HEXAGON TRANSPORTATION CONSULTANTS, INC.<br>4 North Second Street, Suite 400<br>San Jose, California 95113<br>Ph: (408) 971-6100 www.hextrans.com | **CITY OF SAN JOSE** | FIGURE NO. |
| CHECKED<br>---- | DATE<br>7/8/2021 | | 1881 W SAN CARLOS STREET<br>TRUCK TURNING TEMPLATE | 3 |




| | | | | |
|---|---|---|---|---|
| DRAWN<br>R. RODRIGUEZ | SCALE<br>1" = 40' | HEXAGON TRANSPORTATION CONSULTANTS, INC.<br>4 North Second Street, Suite 400<br>San Jose, California 95113<br>Ph: (408) 971-6100 www.hextrans.com | **CITY OF SAN JOSE** | FIGURE NO. |
| CHECKED<br>---- | DATE<br>7/8/2021 | | 1881 W SAN CARLOS STREET<br>TRUCK TURNING TEMPLATE | 4 |

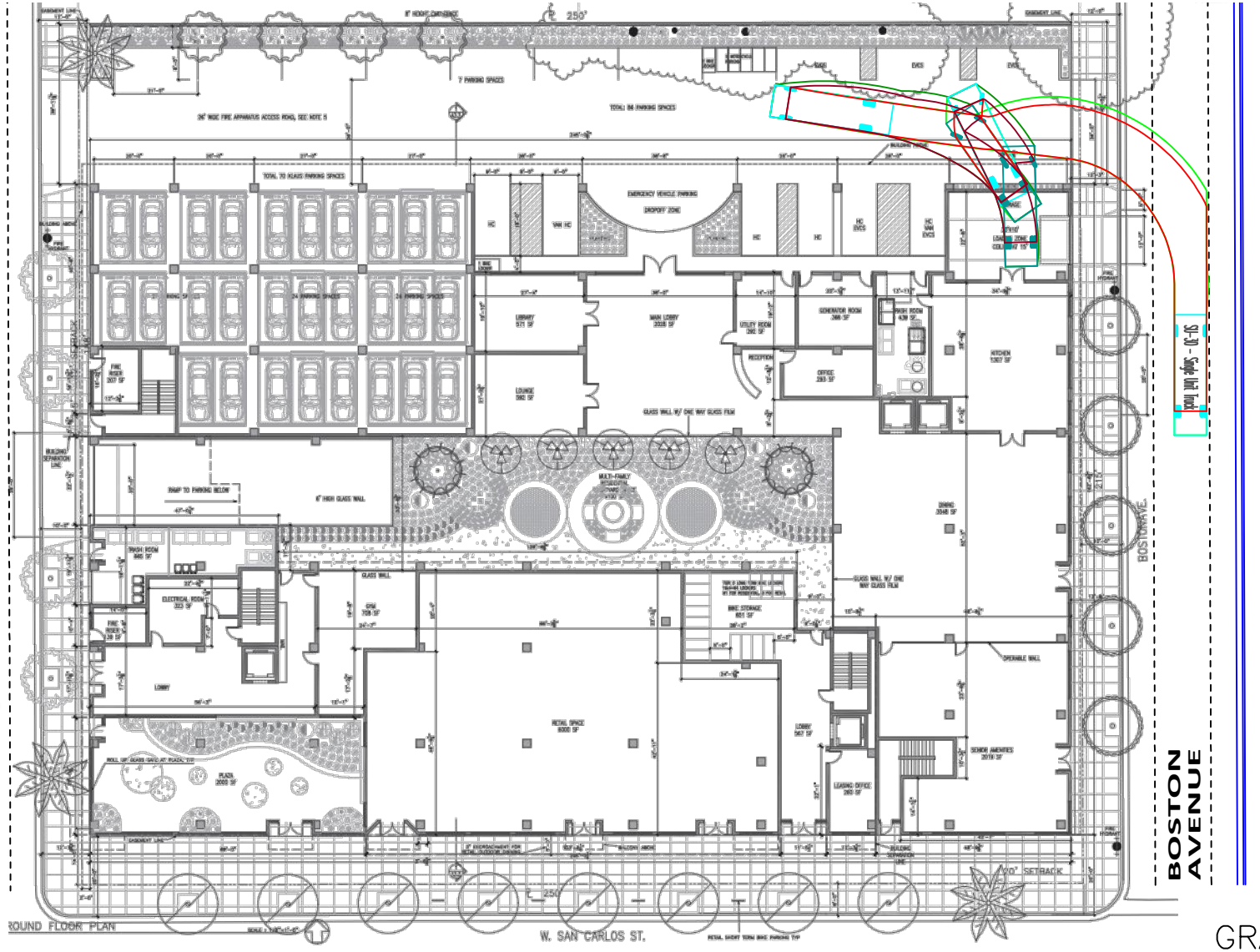



GRAPHIC SCALE

40 0 20 40

1 INCH = 40 FEET

| | | | | |
|---|---|---|---|---|
| DRAWN<br>R. RODRIGUEZ | SCALE<br>1" = 40' | HEXAGON TRANSPORTATION CONSULTANTS, INC.<br>4 North Second Street, Suite 400<br>San Jose, California 95113<br>Ph: (408) 971-6100 www.hextrans.com | **CITY OF SAN JOSE**<br>1881 W SAN CARLOS STREET<br>TRUCK TURNING TEMPLATE | FIGURE NO.<br>5 |
| CHECKED<br>---- | DATE<br>7/8/2021 | | | |

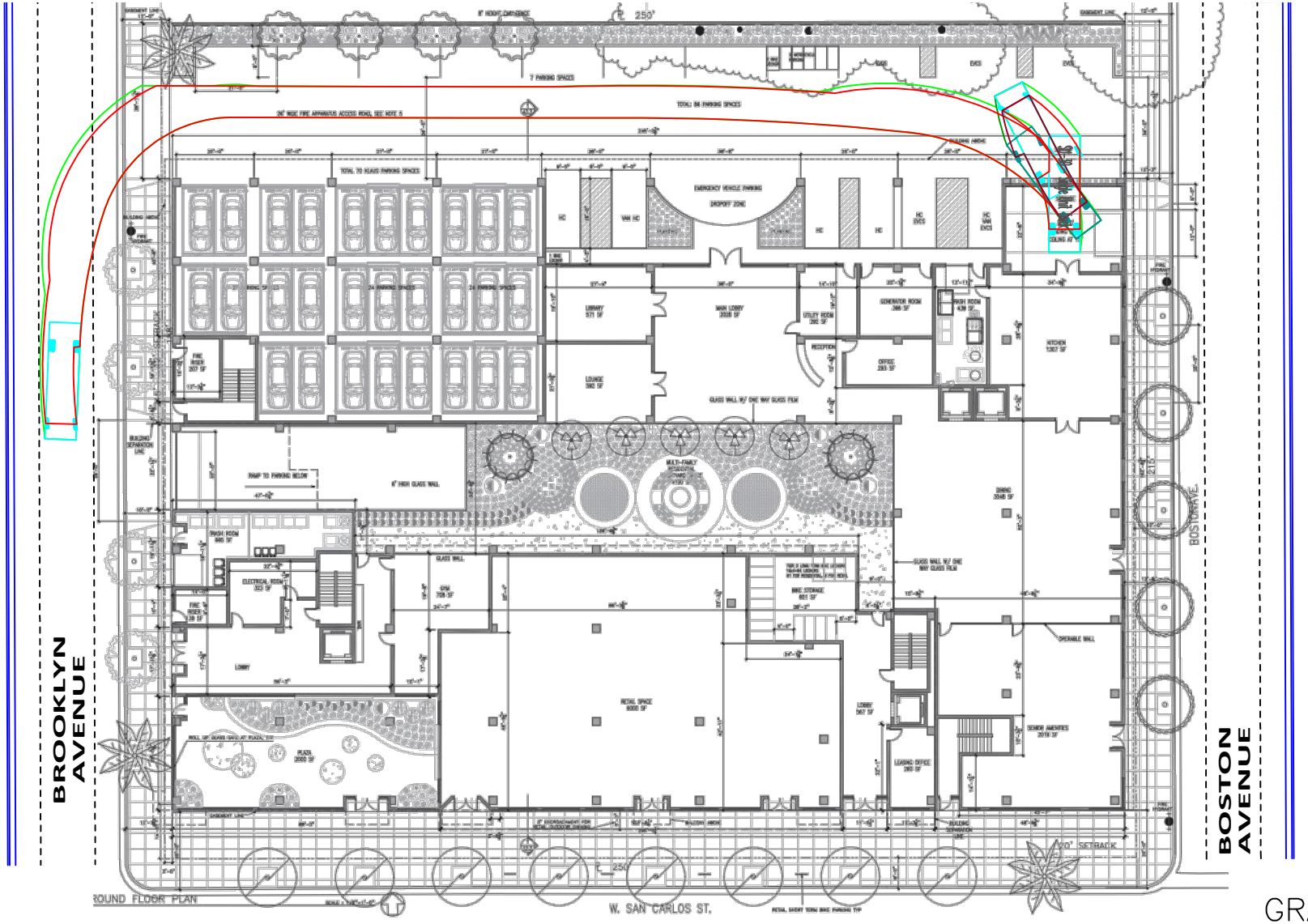



GRAPHIC SCALE

40 0 20 40

1 INCH = 40 FEET

| | | | | |
|---|---|---|---|---|
| DRAWN<br>R. RODRIGUEZ | SCALE<br>1" = 40' | HEXAGON TRANSPORTATION CONSULTANTS, INC.<br>4 North Second Street, Suite 400<br>San Jose, California 95113<br>Ph: (408) 971-6100 www.hextrans.com | **CITY OF SAN JOSE** | FIGURE NO. |
| CHECKED<br>---- | DATE<br>8/10/2021 | | 1881 W SAN CARLOS STREET<br>TRUCK TURNING TEMPLATE | 6 |




GRAPHIC SCALE

40 0 20 40

1 INCH = 40 FEET

| | | | | |
|---|---|---|---|---|
| DRAWN<br>R. RODRIGUEZ | SCALE<br>1" = 40' | HEXAGON TRANSPORTATION CONSULTANTS, INC.<br>4 North Second Street, Suite 400<br>San Jose, California 95113<br>Ph: (408) 971-6100 www.hextrans.com | **CITY OF SAN JOSE** | FIGURE NO. |
| CHECKED<br>---- | DATE<br>8/10/2021 | | 1881 W SAN CARLOS STREET<br>TRUCK TURNING TEMPLATE | 7 |

HEXAGON TRANSPORTATION CONSULTANTS, INC.

# 1881 W San Carlos Street Mixed-Use Development

## Draft Transportation Demand Management (TDM) Plan

Prepared for:

**David J. Powers & Associates, Inc.**

**June 2, 2022**

**Hexagon Transportation Consultants, Inc.**
Hexagon Office: 8070 Santa Teresa Boulevard, Suite 230
Gilroy, CA 95020
Hexagon Job Number: 20DC17
Phone: 408.846.7410

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# 1. Introduction

Transportation Demand Management (TDM) is a combination of services, incentives, facilities, and actions that reduce single–occupant vehicle (SOV) trips and resulting vehicle miles traveled (VMT) to help relieve traffic congestion, parking demand, and air pollution problems. The purpose of TDM is to (1) reduce the amount of trips and resulting VMT generated by new development; (2) promote more efficient utilization of existing transportation facilities and ensure that new developments are designed to maximize the potential for sustainable transportation usage; (3) reduce the parking demand generated by new development and allow for a reduction in parking supply; and (4) establish an ongoing monitoring and enforcement program to guarantee the desired trip and parking reductions are achieved.

The Transportation Analysis, dated August 11, 2021, completed for the proposed mixed-use development located at 1881 W San Carlos Street indicates that the assisted-living portion of the project would result in an impact on the transportation system based on the City's VMT impact criteria. The project will be required to implement the following TDM measure to mitigate the identified significant VMT impact.

- Provide Ride-Sharing Programs

Once the assisted-living portion of the project is operational, a TDM Coordinator will be responsible for implementing the ongoing TDM program and ensuring that the project meets the City's annual monitoring requirements.

## Project Description

The project site is located is located along the north side of San Carlos Street, between Brooklyn Avenue and Boston Avenue in the City of San José. The project would construct an assisted living facility with 246 beds, 61 multi-family residential units, and 6,000 square feet (s.f.) of commercial space. The project site location and the surrounding study area are shown on Figure 1. The project site plan is shown on Figure 2.

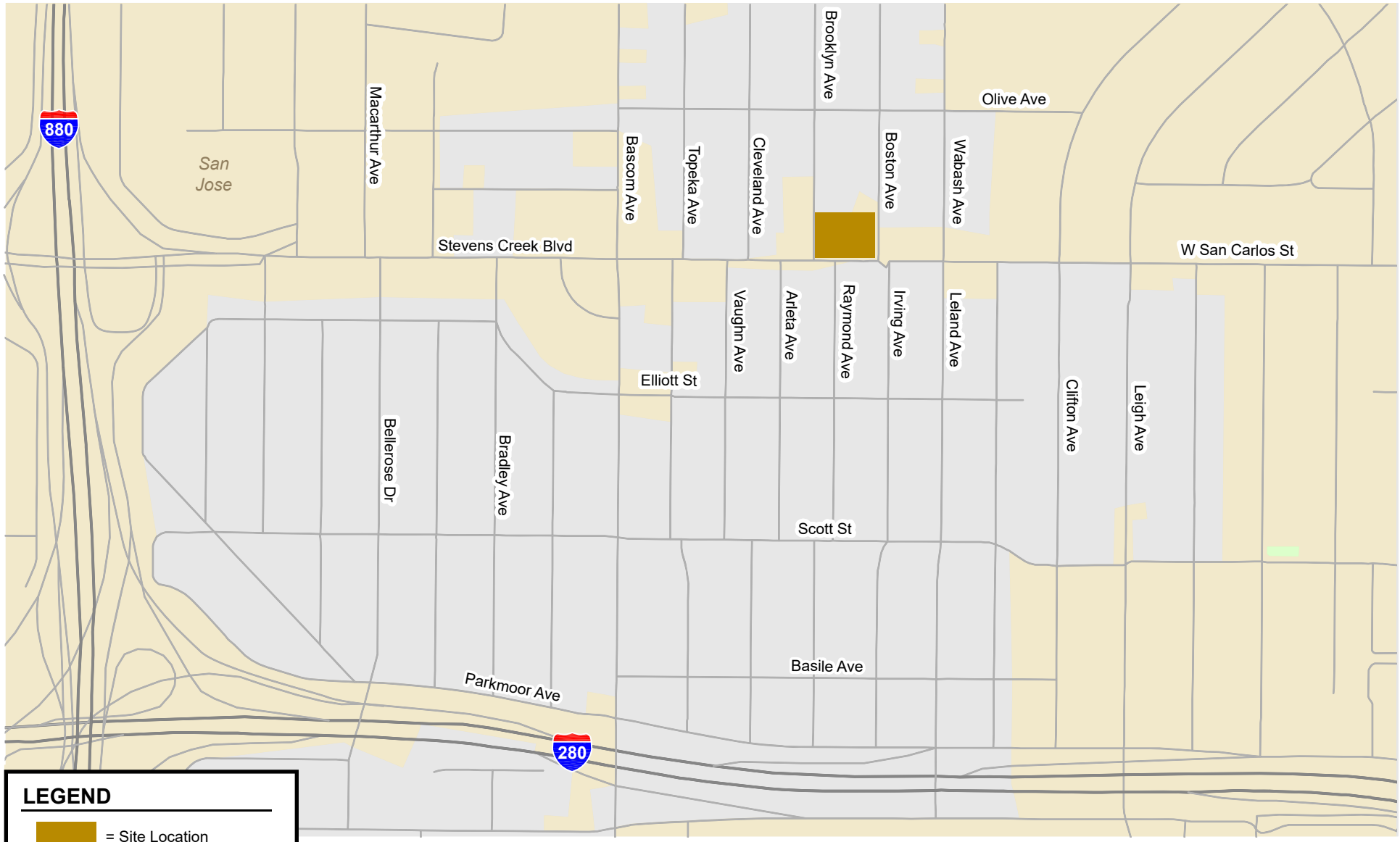


**Figure 1**
**Site Location**



NORTH
Not to Scale

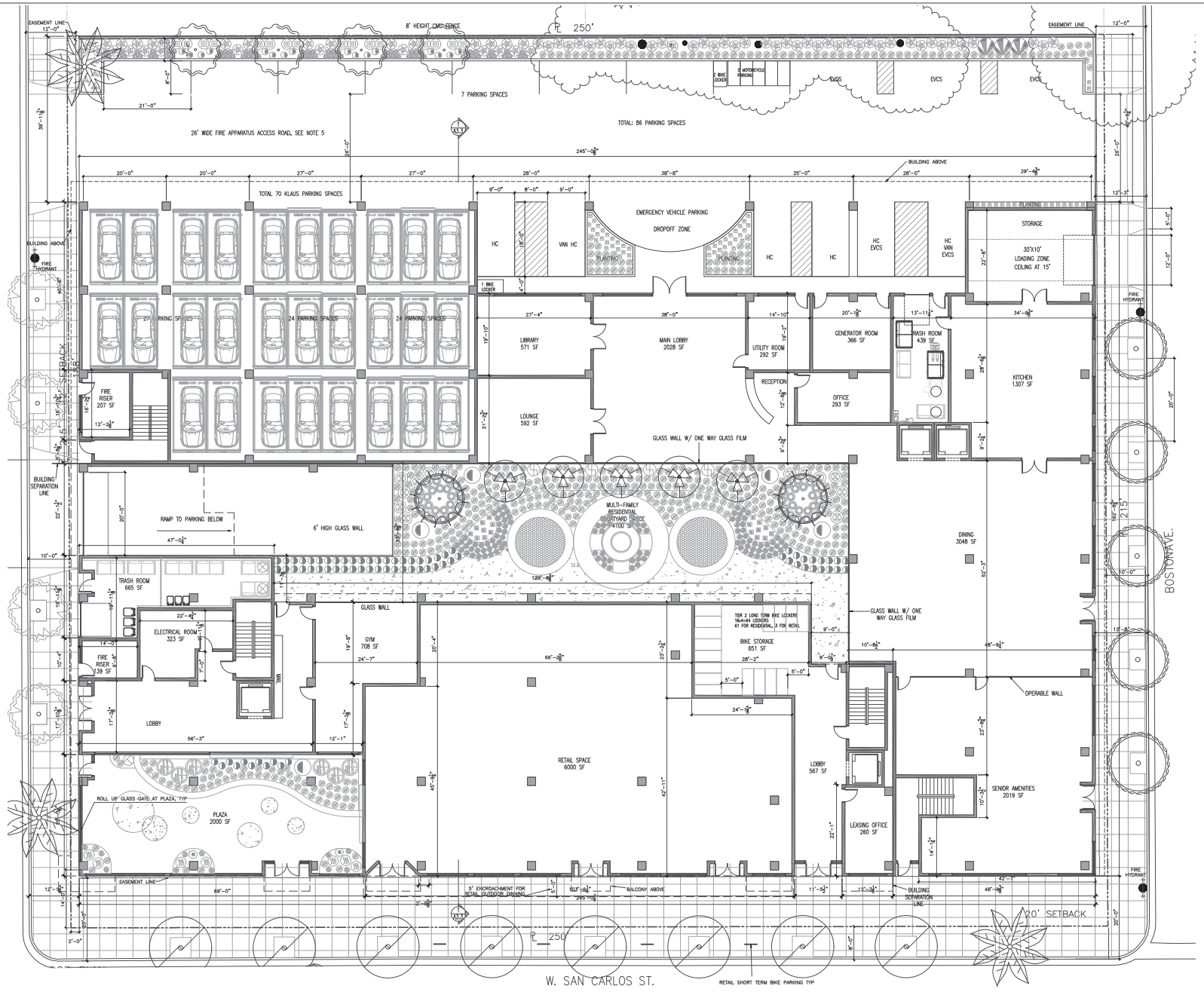


**Figure 2**
**Site Plan**

HEXAGON

NORTH
Not to Scale

### Location and Proximity to Transit

The project site is located within a designated Urban Village (West San Carlos) per the Envision San Jose 2040 General Plan. The West San Carlos Urban Village Plan provides a vision for the transformation of San Carlos Street into a more urban and walkable corridor.

Existing bus stops, serving Bus Route 23, are located along West San Carlos Street at Brooklyn Avenue. Rapid Route 523 also runs along San Carlos Street, with the nearest stop at San Carlos Street and Bascom Avenue (approximately 800 feet west of the project site). Chapter 2 describes the existing transit services in the study area.

### Parking

Based on the City's standard parking requirements, the project is required to provide a total of 216 off-street parking spaces before any reductions. Section 20.90.220.A.1 of the City code will alow for a 20 percent reduction in parking spaces due to the project site being within an urban village and providing bicycle parking spaces in conformance with the City's Zone Code requirements. With the 20 percent reduction, the required parking would be reduced to 172 spaces. The project is proposing a total of 199 parking spaces, which will exceed the City's reduced parking requirements.

## Report Organization

The remainder of this report is divided into two chapters. Chapter 2 describes the transportation facilities and services in the vicinity of the project site. Chapter 3 describes the TDM measures that would be implemented for the proposed project, including the program for implementing and monitoring the TDM plan.

# 2. Existing Transportation Facilities

Transportation facilities and services that support sustainable modes of transportation include commuter rail, buses and shuttle buses, bicycle facilities, and pedestrian facilities. This chapter describes the existing and future transit services, as well as bicycle and pedestrian facilities, in the vicinity of the project site.

## Existing Bicycle and Pedestrian Facilities

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

Note that the City's General Plan identifies both walk and bicycle commute mode split targets as 15 percent or more for the year 2040. This level of pedestrian and bicycle mode share is a reasonable goal for the project, particularly if LRT and bus services are utilized in combination with bicycle commuting. The existing bicycle, pedestrian, and transit facilities in the study area are described below.

### Existing Bicycle Facilities

**Class I Bikeway (Bike Path)**. Class I bikeways are bike paths that are physically separated from motor vehicles and offer two-way bicycle travel on a separate path. The Los Gatos Creek Trail is located in the project area and is a continuous multi-purpose pathway for pedestrians and bicycles that is separated from motor vehicles. It begins at Vasona Lake County Park in the south and continues to West San Carlos Street in the north, all alongside Los Gatos Creek. A connection to the northern segment of the Los Gatos Creek Trail system is located on San Carlos Avenue, approximately 1.4 miles east of the project site.

**Class II Bikeway (Bike Lane)**. Class II bikeways are striped bike lanes on roadways that are marked by signage and pavement markings. Within the vicinity of the project site, striped bike lanes are present on the following roadway segments.

- Stevens Creek Boulevard, between Bellrose Drive and Monroe Street
- Forest Avenue, between Bascom Avenue and Ciro Avenue

- Park Avenue, along the entire length of the street

**Class III Bikeway (Bike Route)**. Class III bikeways are bike routes and only have signs to help guide bicyclists on recommended routes to certain locations. In the vicinity of the project site, the following roadway segments are designated as bike routes.

- Dana Avenue, between San Carlos Street and Hedding Street
- Bellrose Drive, between Forest Avenue and Pfeffer Lane
- Scott Street, between Willard Avenue and Bascom Avenue

The existing bicycle facilities are shown in Figure 3.

### Existing Pedestrian Facilities

Pedestrian facilities near the project site consist mostly of sidewalks along the streets in the study area. Sidewalks are found along both sides of all streets near the project site including San Carlos Street. Other pedestrian facilities in the project area include crosswalks and pedestrian push buttons at all signalized study intersections. At the intersection of Brooklyn Avenue and San Carlos Street, a high-visibility ladder-style crosswalk is provided across San Carlos Street. There are missing ADA-compliant ramps along the northwest and northeast corners of Boston Street and San Carlos Street.

## Transit Services

Existing transit services in the study area are provided by the VTA and are shown on Figure 4.

The Diridon Transit Center is located approximately 1.7 miles northeast of the project site, along Cahill Street. The Diridon Transit Center provides connections between local and regional bus routes, light rail lines, and commuter rail lines.

### VTA Bus Service

The project site is primarily served by two VTA bus routes (Frequent Route 23 and Rapid Route 523). These bus lines are listed in Table 1, including their terminus points and commute hour headways. The nearest bus stops to the project site serve Frequent Route 23 and are located along both sides of San Carlos Street (near Brooklyn Avenue and Arleta Avenue), approximately 100 feet from the project site. The nearest bus stop serving Rapid Route 523 is located at the intersection of Bascom Avenue and San Carlos Street, approximately 0.2-mile from the project site.

**Table 1**
**Existing Transit Services**

| Bus Route | Route Description | Nearest Stop | Headway [1] |
|---|---|---|---|
| Frequent Route 23 | DeAnza College to Alum Rock Transit Center via Stevens Creek | San Carlos/Buena Vista | 12 - 15 min |
| Rapid Route 523 | Berryessa BART to Lockheed Martin via De Anza College | San Carlos/Meridian | 15 - 20 min |

Notes:
[1] Approximate headways during peak commute periods.

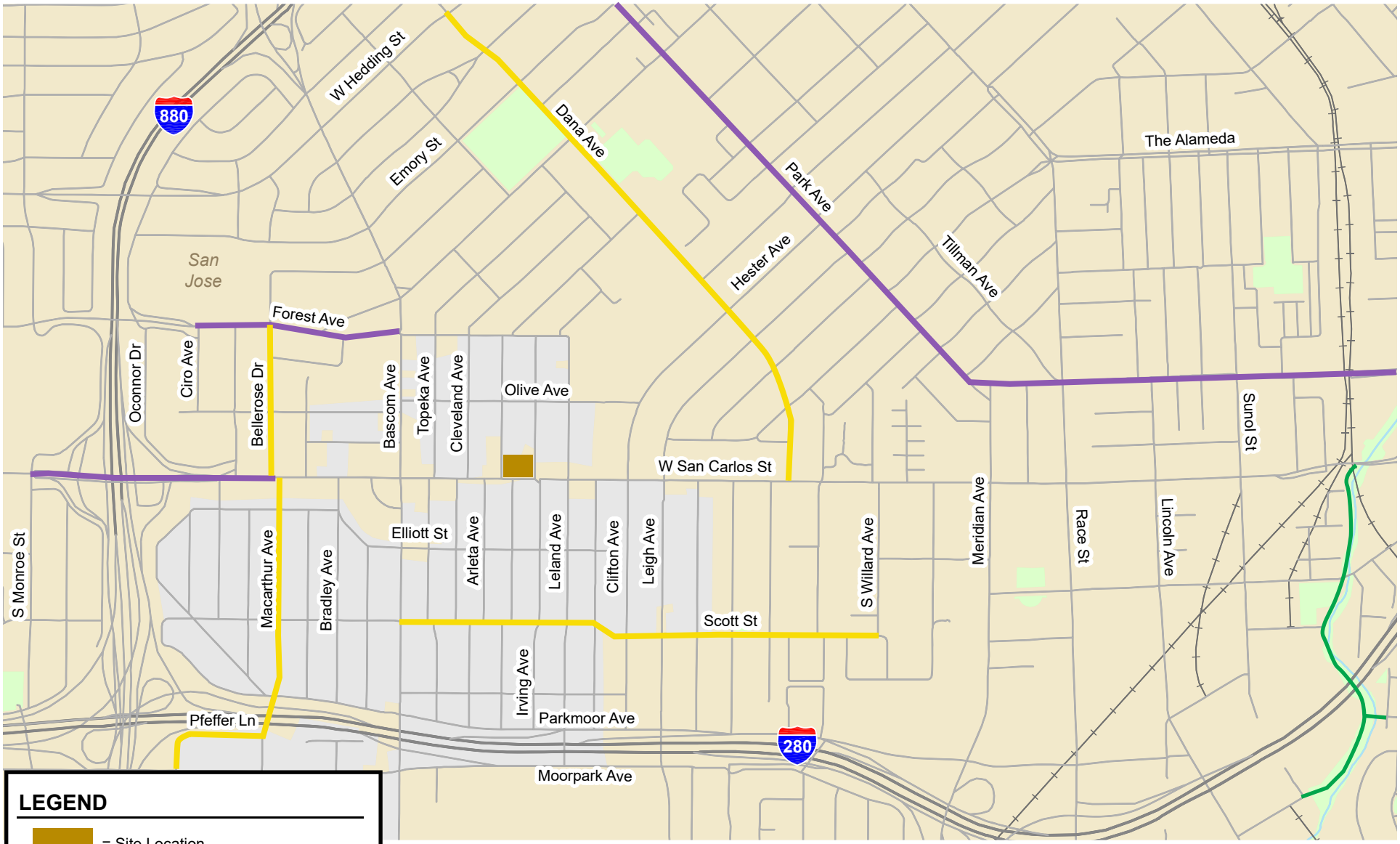


**Figure 3**
**Existing Bicycle Facilities**

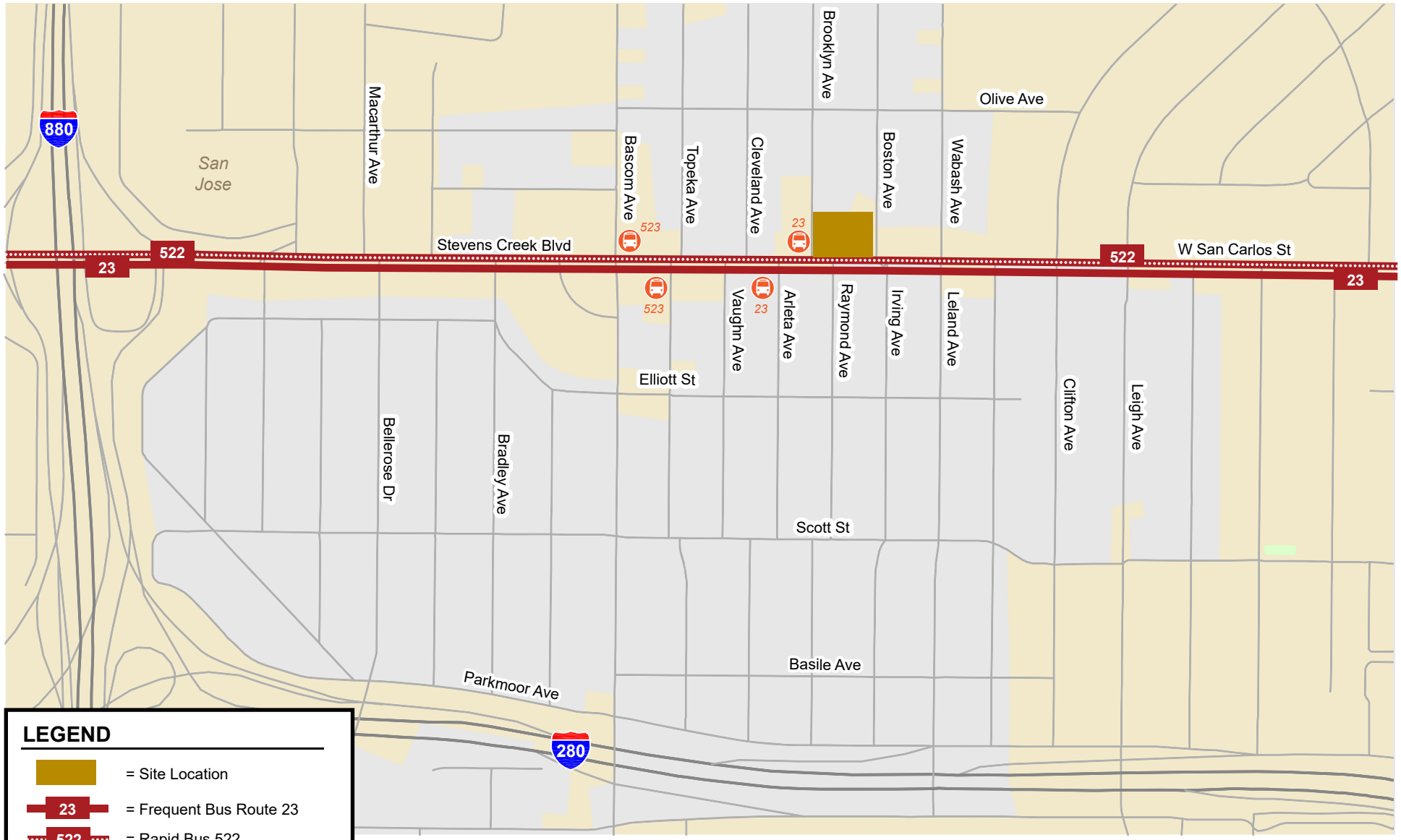


**Figure 4**
**Existing Transit Services**

## VTA Light Rail Transit (LRT) Service

The VTA currently operates the 42.2-mile VTA light rail line system extending from south San Jose through downtown to the northern areas of San Jose, Santa Clara, Milpitas, Mountain View and Sunnyvale. The nearest LRT station is located at the Diridon Transit Center. LRT service at the Diridon Transit Center is provided by the Green LRT line (Winchester – Old Ironsides). The Green LRT line provides service from the Winchester station in Campbell, through Downtown San Jose. A transfer point to the Blue LRT line (Santa Teresa – Baypointe) is provided at all Downtown stations, starting at the Convention Center LRT Station. From Downtown San Jose, the Green LRT line runs to north San Jose where it curves west and operates along the Tasman Corridor to Old Ironsides station, where a connection is provided to the Orange LRT line (Mountain View – Alum Rock).

## Other Transit Services Near the Project Site

Additional local and express bus routes, as well as commuter rail services, are provided at the Diridon Transit Center. Services to regional destinations are provided by VTA Express bus routes 168, 181, Rapid Route 500, and the Amtrak Highway 17 Express. North of the Diridon Transit Center, the Rapid Route 522 stops at the SAP Center and provides service between Palo Alto and East San Jose with 12-minute headways.

Regional commuter rail services provided at the Diridon Transit Center include the following:

**Caltrain Service**

Caltrain operates a commuter rail service seven days a week between San Jose and San Francisco. During weekday commuting hours, Caltrain also serves the South County including Gilroy, San Martin, and Morgan Hill. The existing Caltrain station is located at the Diridon Transit Center. Trains stop frequently at the Diridon station between 4:28 AM and 10:30 PM in the northbound direction, and between 6:31 AM and 1:38 AM in the southbound direction. The Diridon station provides 581 parking spaces, as well as 16 bike racks, 48 bike lockers, and 27 bike share docks.

**Altamont Corridor Express Service (ACE)**

ACE provides commuter rail service between Stockton, Lathrop/Manteca, Tracy, Livermore, Pleasanton, Fremont, Santa Clara, and San Jose during commute hours, Monday through Friday. Service is limited to four westbound trips in the morning and four eastbound trips in the afternoon and evening with headways averaging 60 minutes. ACE trains stop at the Diridon Station between 6:32 AM and 9:17 AM in the westbound direction, and between 3:35 PM and 6:38 PM in the eastbound direction.

**Amtrak Capitol Corridor**

Amtrak provides daily commuter passenger train service along the 170-mile Capitol Corridor between the Sacramento region and the Bay Area, with stops in San Jose, Santa Clara, Fremont, Hayward, Oakland, Emeryville, Berkeley, Richmond, Martinez, Suisun City, Davis, Sacramento, Roseville, Rocklin, and Auburn. The Capitol Corridor trains stop at the San Jose Diridon Station eight times during the weekdays between approximately 7:38 AM and 11:55 PM in the westbound direction. In the eastbound direction, Amtrak stops at the Diridon Station seven times during the weekdays between 6:40 AM and 7:15 PM.

# 3. TDM Program

The proposed TDM plan for the project consists of the implementation of TDM measures. However, per the VMT analysis completed for the project, the mitigation and TDM measures of this plan are proposed only for the assisted-living portion of the project. The project's impacts on VMT and required mitigation and TDM measures for the project's TDM plan are discussed below.

## Project VMT Impacts and Mitigation Measures

Per Council Policy 5-1, the effects of the proposed project on VMT were evaluated in the Transportation Analysis dated August 11, 2021 using the methodology outlined in the City's *Transportation Analysis Handbook*. The results of the VMT evaluation, using the City's VMT Evaluation Tool, indicate that the project is located within a high-VMT area for employment, and it is projected to generate VMT per employee which would exceed the City's established VMT impact threshold. Therefore, the proposed assisted-living portion of the project would result in an impact on the transportation system based on the City's VMT impact criteria. Per the *Transportation Analysis Handbook*, projects located in areas where the existing VMT is above the established threshold are referred to as being in "high-VMT areas", and projects in high-VMT areas are required to include a set of VMT reduction measures that would mitigate its CEQA transportation impact.

**Project Impact:** Since the VMT generated by the assisted-living component of the project (12.84 per employee) would exceed the threshold of 12.21 VMT per employee, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the VMT impact.

**Mitigation Measures:** The project will be required to implement Tier 4 TDM measures to mitigate its impacts. The required improvements are identified below and in the Transportation Analysis dated August 11, 2021. Implementation of the identified TDM measures would reduce the VMT generated by the project to 11.79 VMT per employee and fully mitigate its VMT impact.

## Project TDM Measures

The project will be required to implement the following Travel Demand Management (TDM) measures to mitigate its significant VMT impact.

Provide Ride-Sharing Programs: Organize a program to match individuals interested in carpooling who have similar commutes for at least 15% of the project employees. This measure promotes the use of carpooling and reduces the number of drive-alone trips.

The recommended TDM measures are intended to encourage employees to utilize alternative transportation modes to reduce single occupancy vehicle trips and parking demand generated by the project.

## TDM Implementation and Monitoring

The project applicant must submit this TDM Plan to the City of San Jose and would be responsible for ensuring that the TDM elements are incorporated into the project. After the development is constructed and occupied, the project applicant must identify a TDM coordinator. It is assumed that the property manager for the project would be responsible for implementing the ongoing TDM measures. If the TDM coordinator changes for any reason, the City and tenants should be notified of the name and contact information of the new designated TDM coordinator.

Once the assisted-living portion of the project is operational, a TDM Coordinator will be responsible for implementing the ongoing TDM program and ensuring that the project meets the City's annual monitoring requirements. Monitoring should include the following components:

- Annual Vehicle Trip Generation Counts (conducted by a third party). It is assumed that every percent reduction in peak-hour vehicle trips generated by the project is equivalent to a one percent reduction in per-employee VMT. Only the Brooklyn Avenue and Boston Avenue driveways entering the assisted-living surface parking area should be counted. If the counts show the project trip generation is higher than expected, then the TDM Plan may need to be altered or enhanced.
- Annual Mode Share Surveys. A survey to be administered to all employees would provide qualitative data regarding employee perceptions of the alternative transportation programs and perceptions of the obstacles to using an alternative mode of transportation. The survey also would provide quantitative data regarding the number of employees who utilize alternative modes of transportation (e.g., bike-to-work, carpool, or use public transit) to commute to work, including the frequency of use. The mode share survey results should measure the relative effectiveness of individual TDM program components and facilitate the design of possible program enhancements in order to reduce single-occupant vehicle trips.
- Annual Monitoring Report. The TDM Coordinator would be responsible for submitting the monitoring reports to the City of San Jose (Department of Building and Code Enforcement's Environmental Review) annually for three years, and then upon request of the Zoning Administrator for the life of the project.

## Parking Evaluation

As proposed, the project will exceed the City's reduced on-site parking requirements and is not requesting a reduction in the required off-street parking. However, an evaluation of the proposed on-site parking is included for informational purposes.

Implementation of the proposed TDM measures described above would encourage future employees to utilize alternative transportation modes (transit, bicycle, and carpool) to further reduce the SOV trips and parking demand generated by the project.

## City of San Jose Parking Code

According to Section 20.90.220.A.1 of the San Jose Parking Code, a reduction in the required off-street vehicle parking spaces of up to 20 percent is automatically allowed if the provisions of Subsections a and b are met. A reduction of up to 50 percent may be authorized if the project conforms to the requirements specified in Subsections a and b, and implements at least three TDM measures specified in Subsections c and d. Section 20.90.220.A.1 is outlined below.

**Section 20.90.220.A.1 – Reduction in Required Off-street Parking Spaces**

*A. Alternative transportation.*

1. *A reduction in the required off-street vehicle parking spaces of up to fifty percent may be authorized with a development permit or a development exception if no development permit is required, for structures or uses that conform to all of the following and implement a total of at least three transportation demand management (TDM) measures as specified in the following provisions:*
    a. *The structure or use is located within two thousand feet of a proposed or an existing rail station or bus rapid transit station, or an area designated as a Neighborhood Business District, or as an Urban Village, or as an area subject to an area development policy in the city's general plan or the use is listed in Section 20.90.220G.; and*
    b. *The structure or use provides bicycle parking spaces in conformance with the requirements of Table 20-90.*
    c. *For any reduction in the required off-street parking spaces that is more than twenty percent, the project shall be required to implement a transportation demand management (TDM) program that contains but is not limited to at least one of the following measures:*
        i. *Implement a carpool/vanpool or car-share program, e.g., carpool ride-matching for employees, assistance with vanpool formation, provision of vanpool or car-share vehicles, etc. and assign car pool, van pool and car-share parking at the most desirable onsite locations at the ratio set forth in the development permit or development exception considering type of use; or*
        ii. *Develop a transit use incentive program for employees and tenants, such as on-site distribution of passes or subsidized transit passes for local transit system (participation in the region-wide Clipper Card or VTA EcoPass system will satisfy this requirement).*
    d. *In addition to the requirements above in Section 20.90.220.A.1.c. for any reduction in the required off-street parking spaces that is more than twenty percent, the project shall be required to implement a transportation demand management (TDM) program that contains but is not limited to at least two of the following measures:*
        i. *Implement a carpool/vanpool or car-share program, e.g., carpool ride-matching for employees, assistance with vanpool formation, provision of*

*vanpool or car-share vehicles, etc. and assign car pool, van pool and car-share parking at the most desirable on-site locations; or*

ii. *Develop a transit use incentive program for employees, such as on-site distribution of passes or subsidized transit passes for local transit system (participation in the region-wide Clipper Card or VTA EcoPass system will satisfy this requirement); or*

iii. *Provide preferential parking with charging facility for electric or alternatively-fueled vehicles; or*

iv. *Provide a guaranteed ride home program; or*

v. *Implement telecommuting and flexible work schedules; or*

vi. *Implement parking cash-out program for employees (non-driving employees receive transportation allowance equivalent to the value of subsidized parking); or*

vii. *Implement public information elements such as designation of an on-site TDM manager and education of employees regarding alternative transportation options; or*

viii. *Make available transportation during the day for emergency use by employees who commute on alternate transportation. (This service may be provided by access to company vehicles for private errands during the workday and/or combined with contractual or pre-paid use of taxicabs, shuttles, or other privately provided transportation); or*

ix. *Provide shuttle access to Caltrain stations; or*

x. *Provide or contract for on-site or nearby child-care services; or*

xi. *Incorporate on-site support services (food service, ATM, drycleaner, gymnasium, etc. where permitted in zoning districts); or*

xii. *Provide on-site showers and lockers; or*

xiii. *Provide a bicycle-share program or free use of bicycles on-site that is available to all tenants of the site; or*

xiv. *Unbundled parking; and*

e. *For any project that requires a TDM program:*

i. *The decision maker for the project application shall first find in addition to other required findings that the project applicant has demonstrated that it can maintain the TDM program for the life of the project, and it is reasonably certain that the parking shall continue to be provided and maintained at the same location for the services of the building or use for which such parking is required, during the life of the building or use; and*

ii. *The decision maker for the project application also shall first find that the project applicant will provide replacement parking either on-site or off-site within reasonable walking distance for the parking required if the project fails to maintain a TDM program.*

## Compliance with the City Parking Code

The following sections describe how the project would comply with the City Parking Code.

**Planned Growth Area (Subsection A)**

The project is located within the West San Carlos Urban Village, which is a a designated urban village.Therefore, the project would conform to Subsection 20.90.220.A.1.a.

**Bicycle Parking Requirement (Subsection B)**

According to the City's Bicycle Parking Standards (Chapter 20.90, Table 20-190 and 20-210), the project is required to provide bicycle parking for the assisted living facility at a rate of one bicycle parking space per 10 full-time employees. Bicycle parking for the 61 residential units is required at a rate of one bicycle parking space per four residential units. For the proposed 6,000 s.f. of retail use, the project is required to provide one bicycle parking space per 3,000 s.f. Additionally, a minimum of two short term bicycle parking spaces and one long term bicycle parking space is required for non-residential uses. This equates to a total requirement of 3 bicycle parking spaces for the assisted living use, 16 bicycle parking spaces for the residential use, and 3 parking spaces for the commercial use.

The project site plan shows bicycle storage lockers in the lobby of the residential building. Per the site plan, a total of 64 long-term bicycle locker spaces are provided within the lobby of the residential building. The site plan shows bicycle parking adjacent to the motorcycle parking located along the ground level drive aisle and near the main lobby for employees and visitors of the assisted living facility. The retail/commercial space will be required to provide two short-term bicycle parking spaces. The site plan shows several bike racks, providing short-term bicycle parking for retail visitors. Therefore, the project would comply with Subsection 20.90.220.A.1.b.

**Vehicle Parking Requirement**

The project as proposed would construct a 246-bed assisted living facility, 61 multi-family residential units, and 6,000 s.f. of retail space. The required parking based on the City of San Jose off-street parking requirements (Section 20.90.060) is summarized in Table 2 below. Based on the City's parking requirements, the project would be required to provide a total of 216 parking spaces before any reductions.

**Table 2**
**Vehicle Parking Requirement**

| Proposed Project | | City of San Jose Parking Code[1] | | General Required Parking | Urban Village Required Parking[2] |
|---|---|---|---|---|---|
| Land Use | Size | Land Use | Parking Ratio | | |
| Assited Living Facility | 246 beds | Assisted Living Facility | 1 space per six beds, then 1 space per four beds, thereafter | 61 | 48 |
| Assited Living Facility | 25 employees | Assisted Living Facility | 1.00 space per employee | 25 | 20 |
| Residential | 8 units | Multiple dwelling residential | 1.25 spaces per one-bedroom unit | 10 | 8 |
| Residential | 53 units | Multiple dwelling residential | 1.70 spaces per two-bedroom unit | 90 | 72 |
| Retail | 6,000 s.f. | Retail sales, goods, and merchandise | 1.00 space per 200 s.f. of floor area | 30 | 24 |
| **Total** | | | | **216** | **172** |

Notes:
[1]City of San Jose Zoning Ordinance: Parking Spaces Required by Land Use
[2]Includes 20% allowable reduction of parking requirement in an Urban Village.

The project site is within the West San Carlos Urban Village and the project proposes to provide bicycle parking that will exceed the City's bicycle parking requirements. Therefore, the vehicle parking requirement would be reduced by 20% to 172 vehicle parking spaces. The project is proposing a total of 199 parking spaces, which will exceed the City's reduced parking requirements. Eighty of the 113 parking spaces in the underground parking garage are designated for residents. The remaining 33 spaces are designated for retail visitors. The 86 parking spaces on the ground level are designated for the assisted living facility (both visitors and employees).

## Conclusions

The Transportation Analysis dated August 11, 2021 completed for the proposed mixed-use development located at 1881 W San Carlos Street indicates that the project would result in an impact on the transportation system based on the City's VMT impact criteria. The project will be required to implement the following TDM measure to mitigate the identified significant VMT impact.

- Provide Ride-Sharing Programs

Once the assisted-living portion of the project is operational, a TDM Coordinator will be responsible for implementing the ongoing TDM program and ensuring that the project meets the City's annual monitoring requirements.