



HEXAGON TRANSPORTATION CONSULTANTS, INC.



Silverado Memory Care Development

Transportation Analysis



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Placeworks

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Executive Summary

This report presents the results of a Transportation Analysis (TA) for the proposed development located at 1975 Cambrianna Drive in San Jose, California. The project site is located along the east side of Union Avenue, between Bryon Way and Cambrianna Drive.

The project, as proposed, would construct a 48,000 square foot (s.f.) memory care facility with 94 beds on part of the site that is currently occupied by a school. Access to the site would be provided via one driveway along Union Avenue.

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 2023*, 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 2023*, 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.

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

CEQA VMT Analysis

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 14.93 VMT per employee. Therefore, the project exceeds the 14.05 VMT per employee threshold by 6.3%. 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 project (14.93 per employee) would exceed the threshold of 14.05 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 measures to reduce the significant VMT impact.

- **Traffic Calming/Pedestrian Network Improvements:** The project will be required to remove the existing pork-chop island and signal modification to bulbout the existing curblines along Foxworthy Avenue at the northeast corner of the Union Avenue/Foxworthy Avenue intersection. As part of the pork-chop removal, the existing bus stop along northbound Union Avenue at the far-side of the Union Avenue/Foxworthy Avenue intersection will be relocated to be closer to the northeast intersection corner and a new concrete bus pad will be installed.
- **Commute Trip Reduction Marketing/Education:** The project will be required to implement commute trip reduction marketing and education as part of a TDM Plan. With commute trip marketing/education, employees would be made aware of alternative transportation modes available to them and may be encouraged to utilize alternative transportation modes to get to work. It is assumed that 100% of employees would participate.

The implementation of the above mitigation measures would reduce the VMT generated by the project by encouraging use of alternative transportation for employees to commute to work. The implementation of the above mitigation measure would reduce the project VMT to 13.77 per employee, which is below the threshold of 14.05 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 a Public/Quasi-Public area. Public/Quasi-Public developments are designated for public land uses, including schools, colleges, corporation yards, homeless shelters, permanent supportive housing, libraries, fire stations, water treatment facilities, convention centers and auditoriums, museums, governmental offices and airports. The project, as proposed, would construct a memory care facility that would serve residents that require part-time or full-time care. The *Envision*

San José 2040 General Plan allows for flexibility of the intensity of development depending on the use of the site. The project would be constructed on a lot that is currently underutilized.

The project is consistent with the General Plan goals and policies for the following reasons:

- The project is located in an area with both commercial and residential uses
- The project is located within walking distance to two Planned Urban Villages (S. Bascom Avenue (south) and Camden Avenue/Hillsdale Avenue) and would support commercial uses within the Urban Villages
- The proposed project would facilitate infill development by constructing development on an underutilized lot
- The project would provide bicycle racks near the building entrances to encourage employee use of alternative transportation modes.

Therefore, based on the project description, the proposed project would be consistent with 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 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 also includes an evaluation of potential project impacts on bicycle, pedestrian, and transit facilities, and a review of site access, on-site circulation.

Trip Generation

After applying the ITE trip rates and appropriate trip reductions it is estimated that the project would generate 222 new daily vehicle trips, with 15 trips (9 inbound and 6 outbound) occurring during the AM peak hour and 21 trips (8 inbound and 13 outbound) occurring during the PM peak hour.

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 Union Avenue should be maintained so that the vision of exiting drivers is not obstructed
- A stop sign and limit line should be installed so that vehicles stop before intruding onto the sidewalk and separated bicycle lane
- A loading space/area near the front entrance is recommended and would be beneficial for shuttle services to pick up and drop off residents.

Parking Supply

The project's planning permit application date came before the effective date of the City new TDM and parking ordinance. Therefore, the project could utilize the previous Municipal Code parking standards. Under the previous Municipal Code parking standards, the project would be required to provide parking at a rate of one space per six beds and one space per four beds, thereafter, plus one space for each

employee or staff member. Based on 94 beds and 42 employees, the project would be required to provide 65 parking spaces.

Reduction in Required Off-Street Parking Spaces

The project is a listed use in Section 20.90.220.G and is located within 2,000 feet for an existing bus stop. Assuming that the project will meet the City Bicycle Parking requirements per Table 20-90, the project will conform to Code 20.90.220.A.1 subsections A and B and may be granted up to a 20 percent reduction in off-street parking spaces.

With the 20 percent reduction, the project would be required to provide 52 parking spaces. The project site plan shows 52 parking spaces, including two accessible parking spaces, meeting the city's requirements for the number of parking spaces.

Bicycle Parking

The project site plan shows two bicycle racks with a 5 bike capacity each, providing a total of 10 bicycle parking spaces. The project site plan does not show an indication of any long-term bicycle parking. Based on 42 employees, the project site would be required to provide at least 4 bicycle parking spaces. The project should confirm whether the number of provided bicycle parking spaces is adequate. The project will be required to provide four long-term bicycle parking spaces.

Pedestrian, Bicycle, and Transit Analysis

Pedestrian Facilities

Pedestrian generators in the project vicinity include commercial areas and transit along the Camden Avenue and Bascom Avenue corridors. The project site is approximately 0.2 mile from nearby shopping centers along Camden Avenue. Existing sidewalks and crosswalks along Union Avenue and Camden Avenue provide a pedestrian connection between the project site and pedestrian destinations in the project vicinity.

Bicycle Facilities

Most bikeways within the vicinity of the project site would remain unchanged under project conditions. The San Jose Better Bike Plan 2025 has identified an upgrade to Union Avenue in the project vicinity to a Class IV protected bicycle lane. Thus, the project will be required to reconstruct the curb line along its Union Avenue frontage to narrow the curb-to-curb roadway width and provide a 19-foot wide sidewalk to accommodate a 6-foot wide raised Class IV protected bikeway, 8-foot wide sidewalk, and 5-foot wide tree well. Additionally, the Better Bike Plan 2025 has identified Class IV protected bicycle lanes along Camden Avenue in the project vicinity.

The project proposes bicycle racks near the building entrances, which may encourage employees or visitors to utilize bicycles to reach the project site.

Transit Services

The project site is primarily served by three VTA bus routes (Local Route 37, Frequent Route 61, and Express Route 101). The nearest bus stops to the project site serves Route 61 and are located along near the project frontage, along Union Avenue at Cambrianna Drive.

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

Since the project would reconstruct its frontage by installing a raised bike lane, the VTA bus stop along its frontage would need to be relocated. The project applicant should coordinate with VTA regarding the bus stop along the project frontage. City staff have indicated that the project will be conditioned to provide a bus concrete pad and new bench at the bus stop along the Union Avenue frontage.

1.

Introduction

This report presents the results of a Transportation Analysis (TA) for the proposed development located at 1975 Cambrianna Drive in San Jose, California. The project site is located along the east side of Union Avenue, between Bryon Way and Cambrianna Drive (see Figure 1).

The project, as proposed, would construct a 48,000 square foot (s.f.) memory care facility with 94 beds on part of the site that is currently occupied by a school. Access to the site would be provided via one driveway along Union Avenue. The project site plan is shown on Figure 2.

Scope of Work

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 2023*, 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 2023*, 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.

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

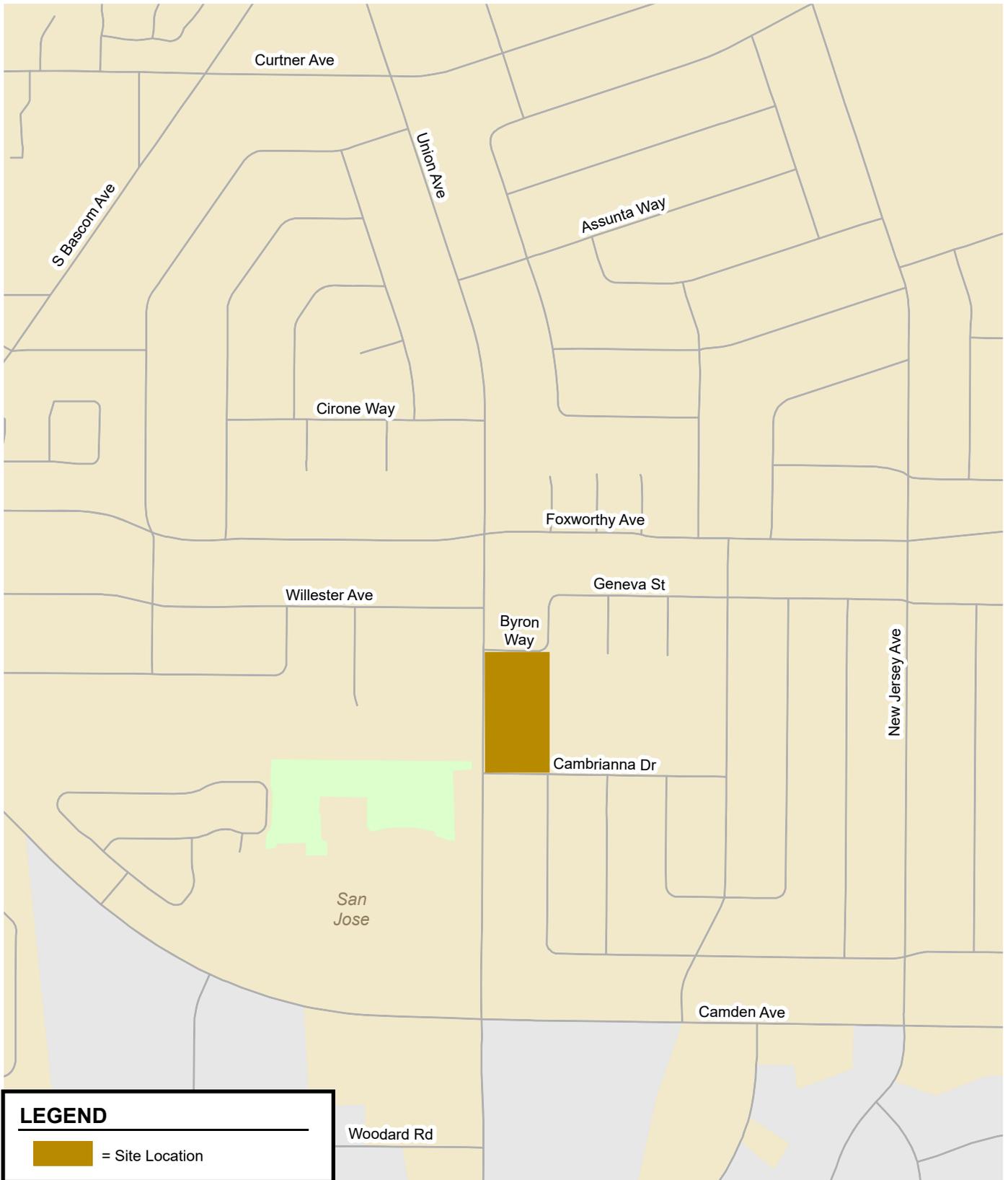


Figure 1
Site Location



Figure 2
Site Plan

vehicle delay and roadway auto capacity to a reduction in vehicle emissions, and the creation of robust multimodal networks that support integrated land uses. 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 José 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);
- Within new development, create and maintain a pedestrian-friendly environment by connecting the internal components with safe, convenient, accessible, and pleasant pedestrian facilities and by requiring pedestrian connections between building entrances, other site features, and adjacent public streets (CD-3.3);
- Create a pedestrian-friendly environment by connecting new residential development with safe, convenient, accessible, and pleasant pedestrian facilities. Provide such connections between new development, its adjoining neighborhood, transit access points, schools, parks, and nearby commercial areas (LU-9.1);

CEQA Transportation Analysis 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 José 2040 General Plan*.

The City of San José's Transportation Analysis Policy establishes procedures for determining project impacts on VMT based on project description, characteristics, and/or location. 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. However, the City's VMT Evaluation Tool is limited to the evaluation of the general land use categories of residential, office, and industrial. The proposed memory care facility does not specifically reflect residential, office, or industrial categories. However, since the majority of the trips associated with the project would be generated by employees, it will be most similar to the office land use category in regard to its trip generation. Therefore, City staff recommended that the proposed memory care facility be converted to its office square footage equivalent.

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 meets the screening criteria, it is then presumed that the project would result in a less-than-significant VMT impact and a VMT analysis is not required. The proposed memory care facility will not meet all of the applicable VMT screening criteria when considering the equivalent office space. Therefore, a CEQA-level transportation analysis that evaluates the project's effects on VMT is required for the project and is presented in Chapter 3.

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 each of the signalized study intersections were obtained from new manual counts. Due to the effects of the COVID-19 pandemic, current traffic volumes may be lower than pre-COVID volumes. Therefore, the new traffic counts were compared to pre-pandemic counts. As directed by city staff, the new traffic counts were used for this analysis.
- **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, and potential cumulative transportation impacts. Chapter 4 describes the LTA including the method by which project traffic is estimated, any adverse intersection traffic effects caused by the project, a discussion on neighborhood interface, a site access and on-site circulation review, parking, and effects on bicycle, pedestrian, and transit facilities. 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 State Routes 17 and 85. These facilities are described below.

SR-17 is a six-lane freeway in the vicinity of the site. It extends south to Santa Cruz and north to I-280 in San Jose, at which point it makes a transition into I-880 to Oakland. Access to the site from SR 17 is provided via its interchange with San Tomas Expressway/Camden Avenue.

SR-85 is a six-lane freeway (two mixed-flow lanes and one high occupancy vehicle (HOV) lane in each direction) in the vicinity of the site. It extends from its starting point at US-101 in South San Jose westward and northward to Mountain View, where it ends as it again merges with US-101. Access to the project site is provided via its interchanges with Union Avenue and Camden Avenue.

Local access to the site is provided by Union Avenue and Camden Avenue. These roadways are described below.

Union Avenue is a two- to four-lane north-south roadway designated as a City Connector Street in the project vicinity in the General Plan that runs along the project site's western boundary. It extends from Campbell Avenue in Campbell to Los Gatos, where it terminates at Blossom Hill Road. Along the project site frontage, Union Avenue consists of two travel lanes in each direction with a center two-way left-turn (TWLT) lane. Access to the project site would be provided via a driveway along Union Avenue.

Camden Avenue is a four- to six-lane northwesterly-southeasterly roadway designated as a Grand Boulevard in the project vicinity in the General Plan. It extends from Almaden Expressway in South San Jose north-westward to SR 17 in Campbell, at which point it transitions into San Tomas Expressway. Access to the project site from Camden Avenue is via Union Avenue.

Foxworthy Avenue is a two- to four-lane east-west roadway designated as a Local Connector Street in the General Plan in the vicinity of the project site. It extends from South Bascom Avenue eastward to Hillsdale Avenue, at which point it transitions into Pearl Avenue. Access to the project site from Foxworthy Avenue is provided via Union Avenue.

Cambrianna Drive is a two-lane east-west residential street in the vicinity of the project site. It extends from Union Avenue eastward to Taper Avenue. Street parking is permitted along both sides of Cambrianna Drive in the project vicinity. Access to the project site from Cambrianna Drive is provided via Union Avenue.

Bryon Way is a two-lane east-west residential street in the vicinity of the project site. It extends from Union Avenue eastward to Jennifer Way. Street parking is permitted along both sides of Bryon Way. Access to the project site from Bryon Way is provided via Union 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 generators in the project vicinity include commercial areas and bus stops along Union Avenue and Camden Avenue. Continuous sidewalks along Union Avenue and Camden Avenue are provided between the project site and nearby commercial areas and transit stops.

Pedestrian facilities in the study area consist of sidewalks along all the surrounding streets, including the project frontage along Union Avenue. Crosswalks and pedestrian signal heads are present all legs at signalized intersections within the project vicinity. A mid-block crosswalk with a Rectangular Rapid-Flashing Beacon (RRFB) across Union Avenue is present near its intersection with Cambrianna Drive.

ADA-compliant curb ramps are located at all intersections within the project vicinity. Crosswalks are missing along Bryon Drive, Willester Avenue, and the shopping center entrance at their uncontrolled intersections with Union Avenue.

Existing Bicycle Facilities

There are several bicycle facilities in the vicinity of the project site. The existing bicycle facilities are shown in Figure 3.

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.

- Union Avenue, between Bascom Avenue and Los Gatos Almaden Road
- Leigh Avenue, between, Curtner Avenue and Blossom Hill Road
- Camden Avenue, between Hillsdale Avenue and Wyrick Avenue
- Foxworthy Avenue, between Bascom Avenue and Lantz Avenue

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.

- Foxworthy Avenue, between Lantz Avenue and Almaden Expressway

Existing Transit Service

Existing transit service to the study area is provided by the Santa Clara Valley Transportation Authority (VTA). The VTA transit services are described below and shown in Figure 4.

Bus Service

The project site is served directly by the following VTA bus routes.

Local Bus Route 37 provides service between West Valley College and the Capitol Light Rail Station via Camden Avenue, with 60-minute headways during commute hours. The nearest bus stop is located at Camden Avenue at its intersection with Union Avenue.

Frequent Bus Route 61 provides service between Good Samaritan Hospital and Sierra Road/Piedmont Road via Union Avenue, with 40-minute headways during commute hours in the project vicinity and 20-minute headways north of Bascom Avenue/Union Avenue. The nearest bus stop is located at along the western project frontage on Union Avenue.

Express Bus Route 101 provides service between Camden Avenue/SR 85 and Palo Alto via Camden Avenue, with two scheduled trips in the northbound direction during the weekday AM commute period and two scheduled trips in the southbound direction during the weekday PM commute period. The nearest bus stop is located at Camden Avenue at its intersection with Union Avenue.

VTA Light Rail Transit (LRT) Service

The VTA currently operates a 42.2-mile light rail system extending from south San Jose through downtown to the northern areas of San Jose, Santa Clara, Milpitas, Mountain View, and Sunnyvale.

LRT Green Line runs from the Winchester Transit Center in Campbell to Old Ironsides in Santa Clara and operates from 5:00 AM to 1:00 AM with 20-minute headways during the peak commute periods. The closest LRT station is located approximately 1.6 mile from the project site along Winchester Boulevard, north of Camden Avenue.

Table 1
Existing Bus Service Near the Project Site

Transit Route	Route Description	Hours of Operation	Headway ¹
Local Route 37	West Valley College to Capitol Light Rail Station	6:30 am - 7:00 pm	60 mins
Frequent Route 61	Sierra & Piedmont to Good Samaritan Hospital	5:15 am - 11:00 pm	15 mins
Express Route 101	Camden & Highway 85 to Stanford Research Park	6:15 am - 6:30 pm	60 mins

Notes:
¹ Approximate headways during peak commute periods.

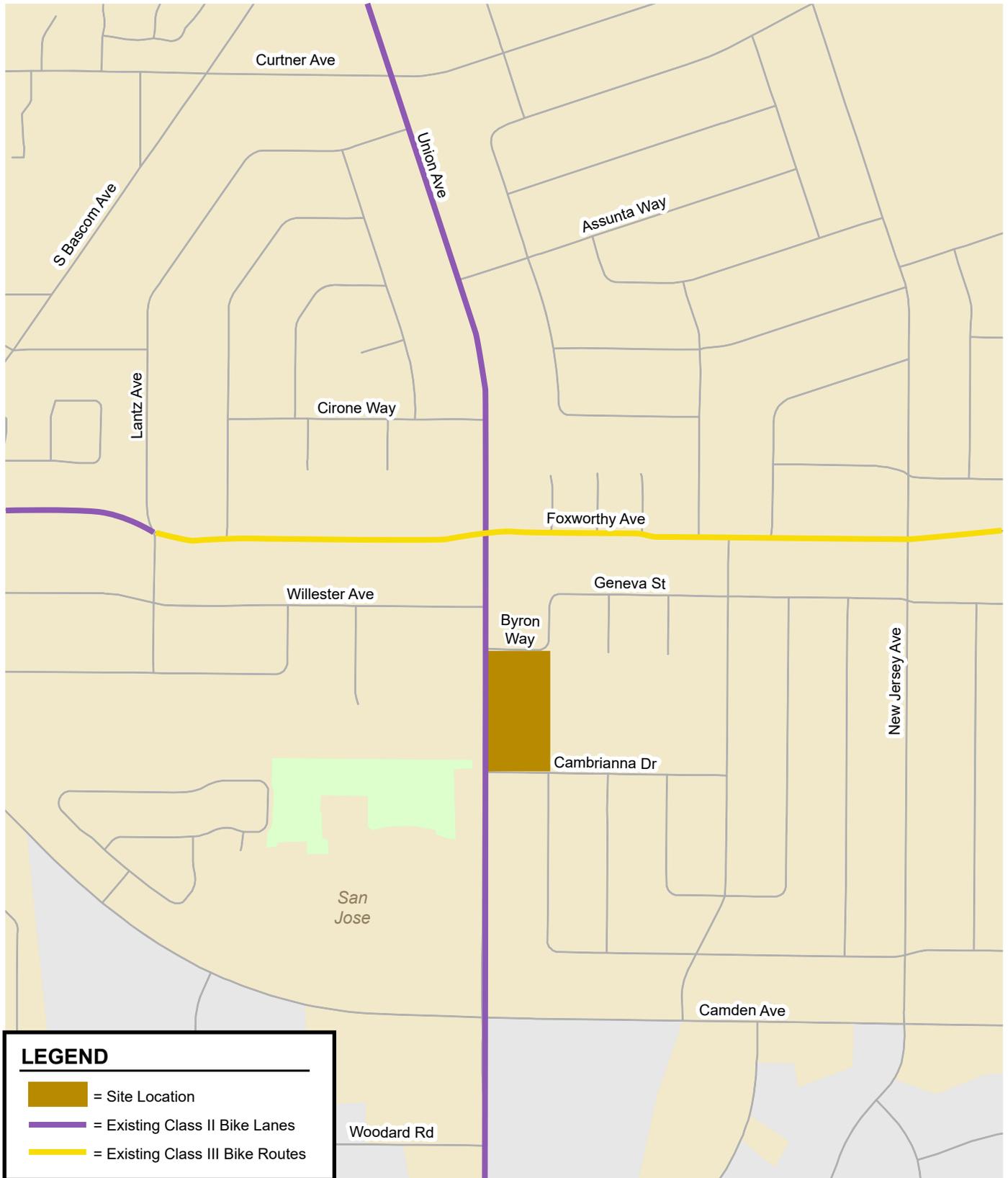


Figure 3
Existing Bicycle Facilities



Figure 4
Existing Transit Service

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 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) office projects located in *Planned Growth Areas* with low VMT, *High-Quality Transit*, and with *Project-Supportive Transit Density*
- (5) residential projects located in *Planned Growth Areas* near *High-Quality Transit* and with *Project-Supportive Transit Density*
- (6) 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.

Evaluation of Screening Criteria

The project is located within an area that exceeds the threshold of significance for VMT per-employee. Therefore, project will not meet all of the applicable VMT screening criteria and a CEQA-level transportation analysis that evaluates the project's effects on VMT is required for project.

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.

Table 2
CEQA VMT Analysis Screening Criteria for Development Projects

Type	Screening Criteria
Small Infill Projects	<ul style="list-style-type: none"> • Single-family detached housing of 15 units or less; <u>OR</u> • Single-family attached or multi-family housing of 25 units or less; <u>OR</u> • Office of 10,000 square feet of gross floor area or less; <u>OR</u> • Industrial of 30,000 square feet of gross floor area or less; <u>OR</u> • Hotel or motel of 100 or fewer rooms
Local-Serving Retail	<ul style="list-style-type: none"> • 100,000 square feet of total gross floor area or less without drive-through operations
Local-Serving Public Facilities	<ul style="list-style-type: none"> • Local-serving public facilities (branch library, community center, fire station, pumping station, park, police station, or public school projects)
Residential/Office Projects or Components	<ul style="list-style-type: none"> • Planned Growth Areas: Located within a Planned Growth Area as defined in the Envision San José 2040 General Plan; <u>AND</u> • High-Quality Transit: Located within ½ a mile of an existing major transit stop or an existing stop along a high-quality transit corridor; <u>AND</u> • Low VMT (Office Projects or Components only): Located in an area in which the per capita VMT is less than or equal to the CEQA significance threshold for the land use; <u>AND</u> • Transit-Supporting Project Density: <ul style="list-style-type: none"> ○ Minimum Gross Floor Area Ratio (FAR) of 0.75 for office projects or components; ○ Minimum of 35 units per acre for residential projects or components; ○ If located in a General Plan Land Use Designation that has a maximum density below 35 units per acre, the maximum density allowed in the Planned Growth Area must be met; <u>AND</u> • Active Transportation: Not negatively impact transit, bike or pedestrian infrastructure.
Restricted Affordable Residential Projects or Components	<ul style="list-style-type: none"> • 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; <u>AND</u> • High Quality Transit: Located within ½ a mile of an existing major transit stop or an existing stop along a high quality transit corridor; <u>AND</u> • Transit-Supportive Project Density: <ul style="list-style-type: none"> ○ Minimum of 35 units per acre for residential projects or components; ○ If located in a General Plan Land Use Designation that has a maximum density below 35 units per acre, the maximum density allowed in the Planned Growth Area must be met; <u>AND</u> • Active Transportation: Not negatively impact transit, bike or pedestrian infrastructure.

Source: City of San José Transportation Analysis Handbook, April 2023.

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.

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.

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.

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 memory care facility, requires the conversion of the proposed land use to an equivalent amount of residential units, office space, or industrial space. The proposed memory care facility will be most similar to office uses since the trip generation of both land uses are primarily associated with employees. The number and origination/destination of daily trips generated by both office and assisted living uses would be expected to be similar. Therefore, the proposed 94-bed memory care facility was converted to an equivalent amount of office space based on daily trip estimates using trip rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 11th Edition* (2021). Based on the ITE daily trip rate for an Assisted Living Facility (ITE Land Use Code 254), the proposed memory care facility is

expected to generate 244 daily trips which are equivalent to the trips estimated to be generated by 22,500 s.f. of office space. Therefore, the 94-bed memory care facility is expected to have employees with trip-making characteristics that are comparable to 22,500 s.f. of office space. Table 3 presents the memory care facility to office equivalency calculation.

Table 3
Office Equivalency Calculation

Land Use	ITE Land Use Code	Size	Daily	
			Rate	Trip
Assisted Living	254	94 Beds	2.60	244
Office	710	22,500 Square Feet	10.84	244

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 5 and 6 show the current VMT levels estimated by the City for residents and workers, respectively.

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 11.39 VMT per capita and 14.05 per employee. The thresholds are calculated by subtracting 15 percent from the citywide average of 13.40 VMT per capita and regional average of 16.53 per employee.
- Yellow-filled areas are parcels with existing VMT between the residential and employee thresholds and the city-wide average of 13.40 VMT per capita and regional average 16.53 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.

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. Figure 7 shows the current VMT levels estimated by the City for employees in the immediate project area.

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.

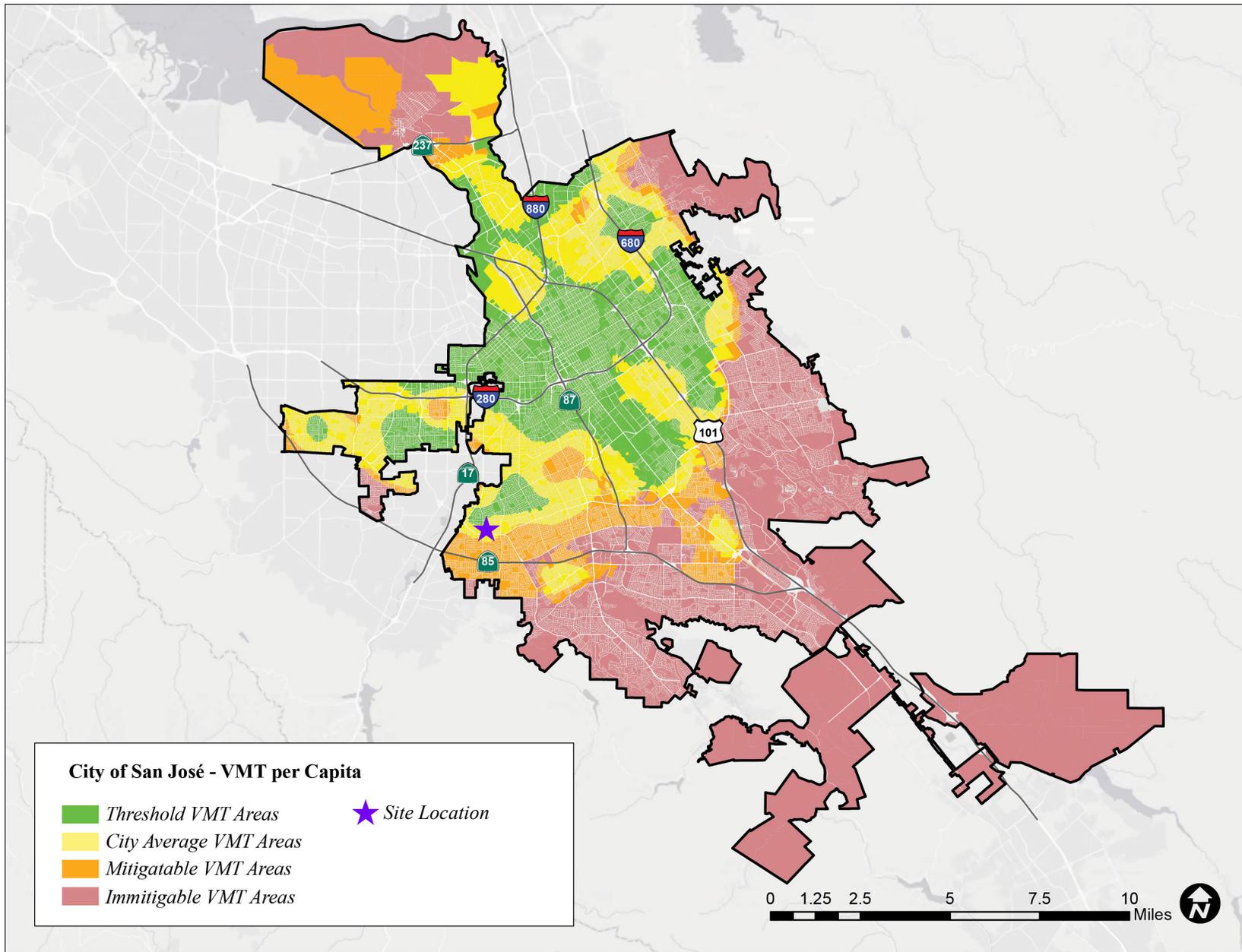


Figure 5
VMT per Capita Heat Map in Project Area

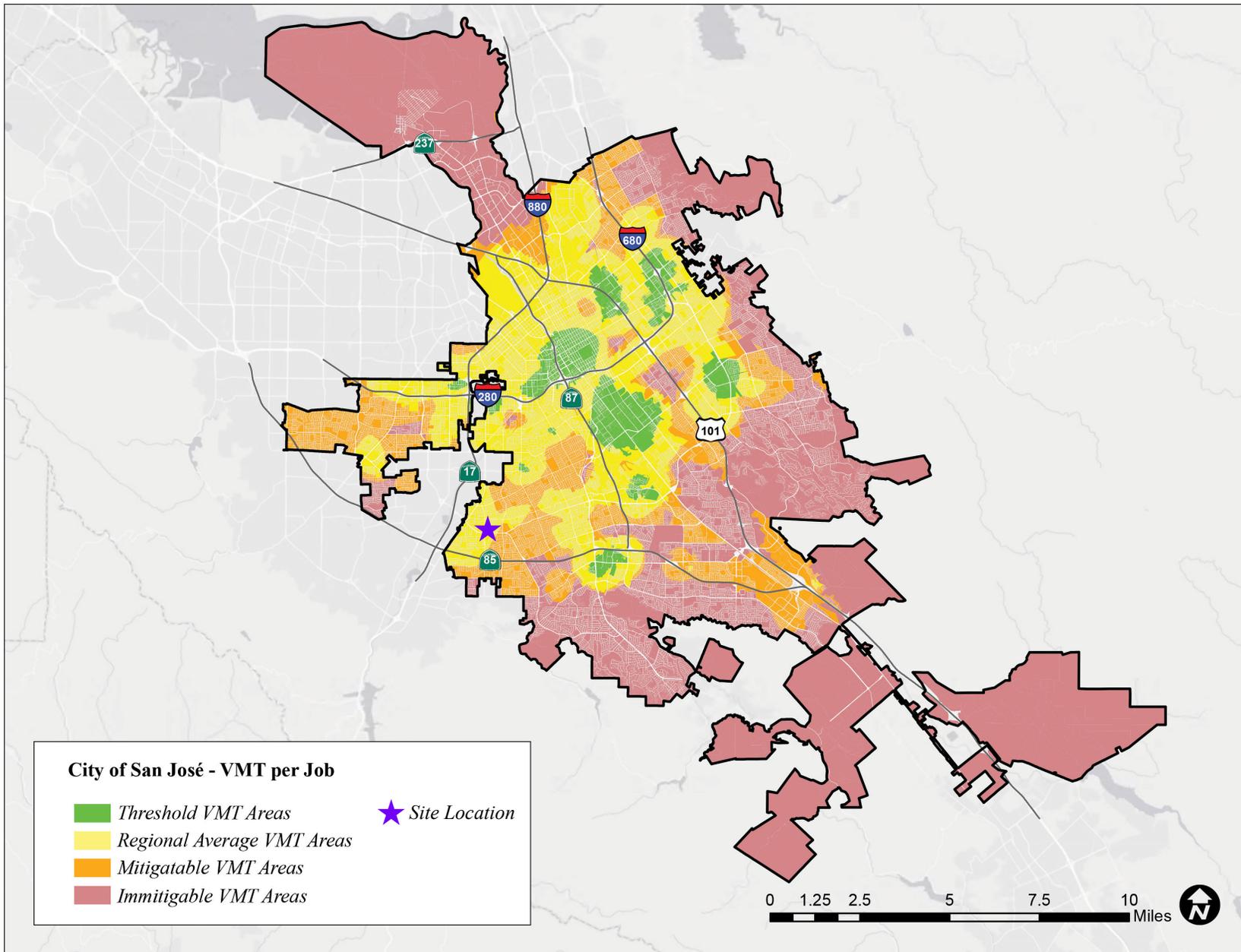


Figure 6
VMT per Employee Heat Map in San Jose

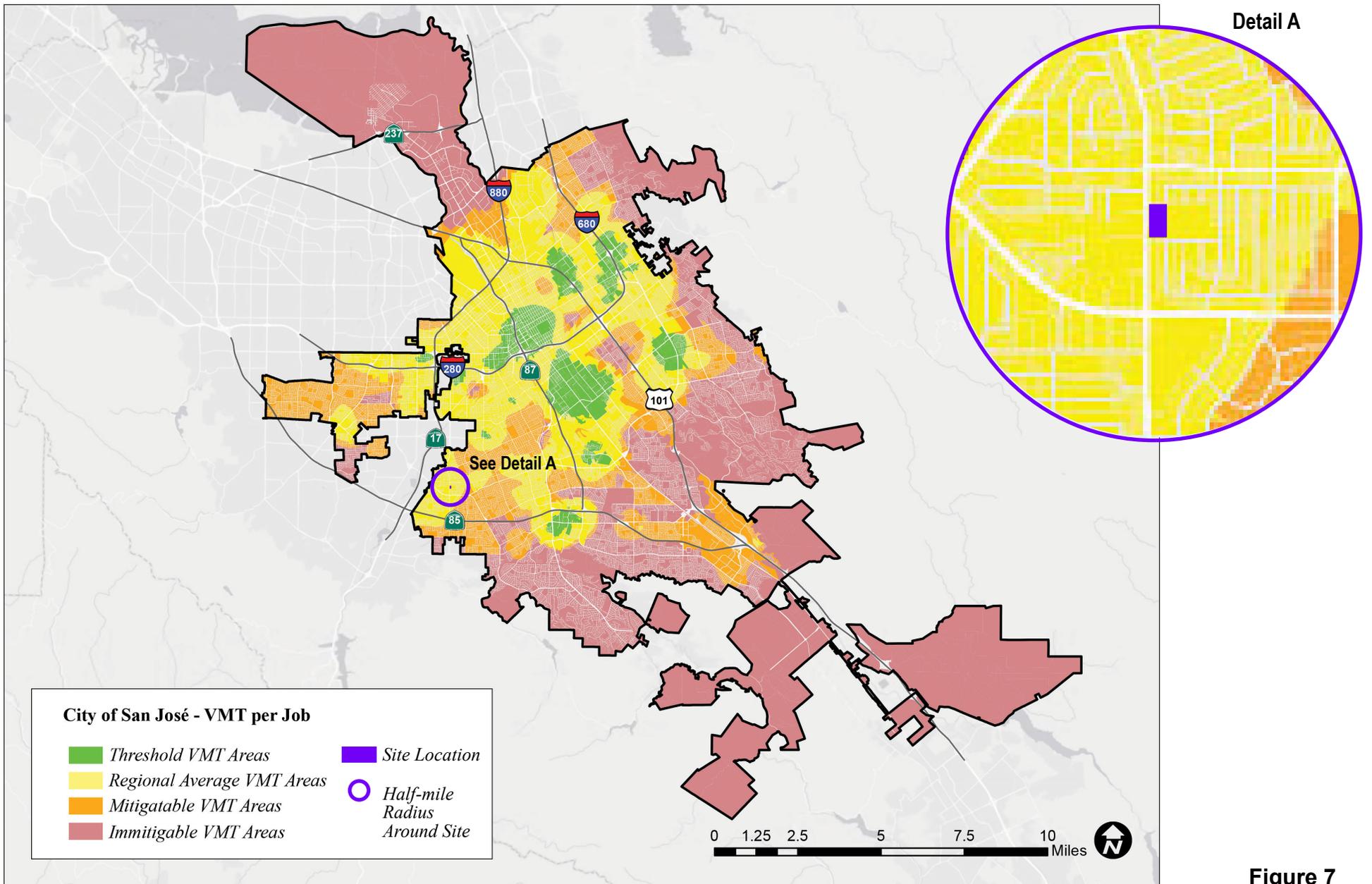


Figure 7
VMT per Employee in Project Area Heat Map

Table 4
CEQA VMT Analysis Significant Impact Criteria for Development Projects

Type	Significance Criteria	Current Level	Threshold
Residential Uses	Project VMT per capita exceeds existing citywide average VMT per capita minus 15 percent <u>OR</u> existing regional average VMT per capita minus 15 percent, whichever is lower.	13.40 VMT per capita (Citywide Average)	11.39 VMT per capita
Office, Research & Development, Assisted Living	Project VMT per employee exceeds existing regional average VMT per employee minus 15 percent	16.53 VMT per employee (Regional Average)	14.05 VMT per employee
Industrial, Mini Storage	Project VMT per employee exceeds existing regional average VMT per employee	16.53 VMT per employee (Regional Average)	16.53 VMT per employee
Retail, Lodging, Education	Net increase in existing regional total VMT	Regional Total VMT	Net Increase
Public/Quasi-Public Uses	In accordance with the 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 or 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
Urban Village Plans, Station Area Plans, Specific Plans, Development Policies, Other 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 José Transportation Analysis Handbook, April 2023.

The proposed project consists of a memory care facility, with the majority of trips most similar to an office use. The applicable impact criteria for the project are as follows:

- 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 16.53 VMT per employee. This equates to a significant impact threshold of 14.05 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.

VMT Analysis

Figure 8 presents a summary of the VMT evaluation generated by the City of San Jose's VMT Evaluation Tool, with and without mitigation measures, for the proposed development.

VMT of Existing Land Uses

The results of the VMT analysis using the VMT Evaluation Tool indicate that the existing VMT for employment uses in the project vicinity is 14.95 per employee. As shown in Table 4, the current citywide average VMT for employment uses is 16.53 per employee. Therefore, the existing VMT levels of employment uses in the project vicinity are currently less than the citywide 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-employee VMT of 16.53. Thus, the proposed project would result in a significant impact if it results in a project VMT of 14.05 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 14.93 VMT per employee. Therefore, the project exceeds the 14.05 VMT per employee threshold by 6.3%, and 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 project (14.93 per employee) would exceed the threshold of 14.05 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 measures to reduce the significant VMT impact.

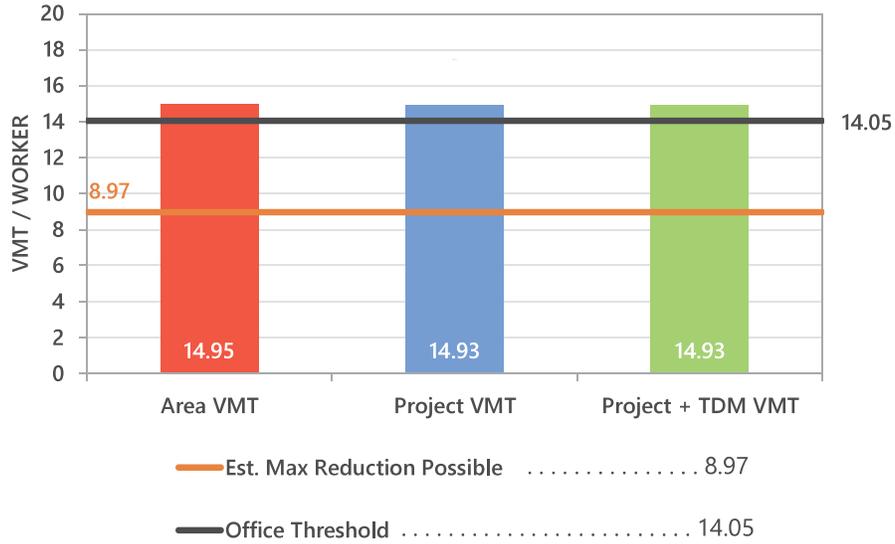
- **Traffic Calming/Pedestrian Network Improvements:** The project will be required to remove the existing pork-chop island and signal modification to bulbout the existing curblin along Foxworthy Avenue at the northeast corner of the Union Avenue/Foxworthy Avenue intersection. As part of the pork-chop removal, the existing bus stop along northbound Union Avenue at the far-side of the Union Avenue/Foxworthy Avenue intersection will be relocated to be closer to the northeast intersection corner and a new concrete bus pad will be installed.
- **Commute Trip Reduction Marketing/Education:** The project will be required to implement commute trip reduction marketing and education as part of a TDM Plan. With commute trip marketing/education, employees would be made aware of alternative transportation modes available to them and may be encouraged to utilize alternative transportation modes to get to work. It is assumed that 100% of employees would participate.

The implementation of the above mitigation measures would reduce the VMT generated by the project by encouraging use of alternative transportation for employees to commute to work. The implementation of the above mitigation measure would reduce the project VMT to 13.77 per employee, which below the threshold of 14.05 per employee, reducing the project impact to less than significant (see Figure 8). Appendix A presents the VMT Evaluation Tool summary report for the project with the mitigation measures.

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

EMPLOYMENT ONLY

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



CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

EMPLOYMENT ONLY

The tool estimates that the project would generate per non-industrial worker VMT below the City's threshold. There are selected strategies that require coordination with the City of San Jose to implement.

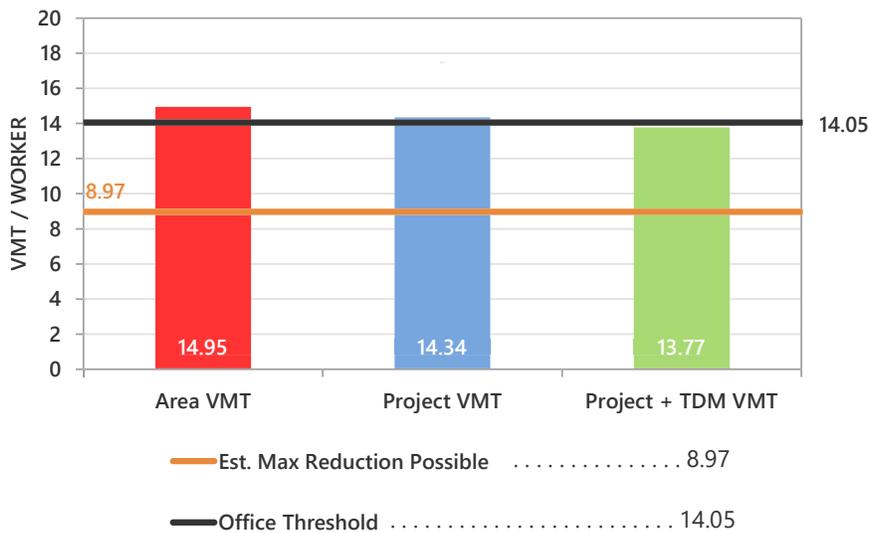


Figure 8
VMT Evaluation Summary

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 a Public/Quasi-Public area. Public/Quasi-Public developments are designated for public land uses, including schools, colleges, corporation yards, homeless shelters, permanent supportive housing, libraries, fire stations, water treatment facilities, convention centers and auditoriums, museums, governmental offices and airports. The project, as proposed, would construct a memory care facility that would serve residents that require part-time or full-time care. The *Envision San José 2040 General Plan* allows for flexibility of the intensity of development depending on the use of the site. The project would be constructed on a lot that is currently underutilized.

The project is consistent with the General Plan goals and policies for the following reasons:

- The project is located in an area with both commercial and residential uses
- The project is located within walking distance to two Planned Urban Villages (S. Bascom Avenue (south) and Camden Avenue/Hillsdale Avenue) and would support commercial uses within the Urban Villages
- The proposed project would facilitate infill development by constructing development on an underutilized lot
- The project would provide bicycle racks near the building entrances to encourage employee use of alternative transportation modes.

Therefore, based on the project description, the proposed project would be consistent with 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.

4.

Local Transportation Analysis

This chapter describes the Local Transportation Analysis (LTA) including the method by which project traffic is estimated, intersection operations analysis for existing, background, and background plus project, 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 construct a 48,000 square foot (s.f.) memory care facility with 94 beds on part of the site that is currently occupied by a school. Access to the site would be provided via one driveway along Union Avenue.

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

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) as published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition* (2021) were applied to the proposed number of beds. Based on

the trip generation rates and the project size, it is estimated that, prior to any trip reductions, the proposed development would generate 244 daily trips with 17 trips (10 inbound and 7 outbound) trip occurring during the AM peak-hour and 23 trips (9 inbound and 14 outbound) occurring during the PM peak-hour.

Trip Reductions

In accordance with San Jose's *Transportation Analysis Handbook* (April 2023, Section 5.7, "Intersection Operations Analysis"), the project is eligible for adjustments and reductions from the baseline (gross) trip generation described above.

Based on the 2023 San Jose guidelines, the project qualifies for a location-based adjustment. The location-based adjustment reflects the project's vehicle mode share based on the place type in which the project is located per the San Jose Travel Demand Model. The project's place type was obtained from the *San Jose VMT Evaluation Tool*. Based on the Tool, the project site is located within an urban area with low transit. Therefore, the baseline project trips were adjusted to reflect an urban area with low transit. Urban with low transit characterized as an area with good accessibility, low vacancy, and middle-aged housing stock. Employment developments within an urban area with low transit have a vehicle mode share of 91%. Thus, a 9% reduction was applied to the trips generated by the proposed project.

Additionally, based on the San Jose VMT Evaluation Tool, the project is anticipated to generate 14.93 VMT per-employee in an area that currently generates approximately 14.95 VMT per-employee. It is assumed that every percent reduction from the existing per-employee VMT is equivalent to one percent reduction in peak-hour vehicle trips. However, the reduction in VMT would be less than one percent and results in no reduction in peak hour trips generated by the project.

Net Project Trips

After applying the ITE trip rates and appropriate trip reductions it is estimated that the project would generate 222 new daily vehicle trips, with 15 trips (9 inbound and 6 outbound) occurring during the AM peak hour and 21 trips (8 inbound and 13 outbound) occurring during the PM peak hour. The project trip generation estimates are presented in Table 5.

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. The peak-hour vehicle trips generated by the project were assigned to the roadway network in accordance with the trip distribution pattern. Figure 9 shows the trip distribution pattern, and Figure 10 shows the 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.

**Table 5
Project Trip Generation Estimates**

Land Use	Reduction %	Place Type	VMT		Size	Daily		AM Peak Hour						PM Peak Hour					
			Existing	Project		Rate	Trip	Split			Trip			Split			Trip		
								Rate	In	Out	In	Out	Total	Rate	In	Out	In	Out	Total
Proposed Land Uses																			
#254 - Assisted Living					94 Beds	2.60	244	0.18	60%	40%	10	7	17	0.24	39%	61%	9	14	23
Location-Based Reduction ¹	9%	Urban Low-Transit					(22)				(1)	(1)	(2)				(1)	(1)	(2)
Net Project Trips							222				9	6	15				8	13	21

Source: ITE Trip Generation Manual, 11th Edition 2021.

¹ The place type for the project site is obtained from the City of San Jose VMT Evaluation Tool (April 2023). The location-based vehicle mode shares are obtained from Table 17 of the City of San Jose Transportation Analysis Handbook (April 2023). The trip reductions are based on the percent of mode share for all of the other modes of travel beside vehicle.

² Existing and project VMTs were estimated using the City of San Jose VMT Evaluation Tool. It is assumed that every percent reduction in VMT is equivalent to one percent reduction in peak-hour vehicle trips.

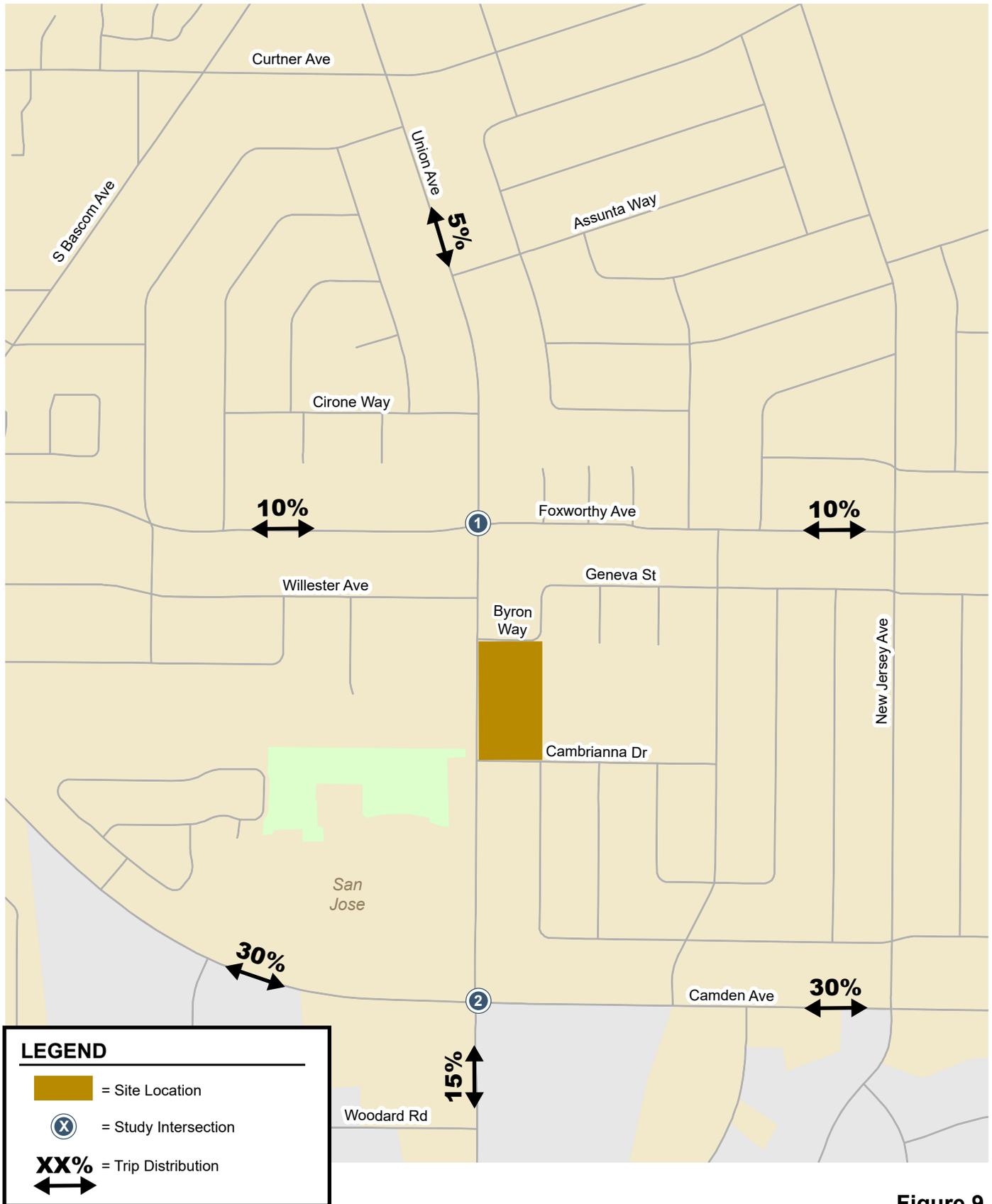


Figure 9
Project Trip Distribution

Silverado Memory Care Development TA

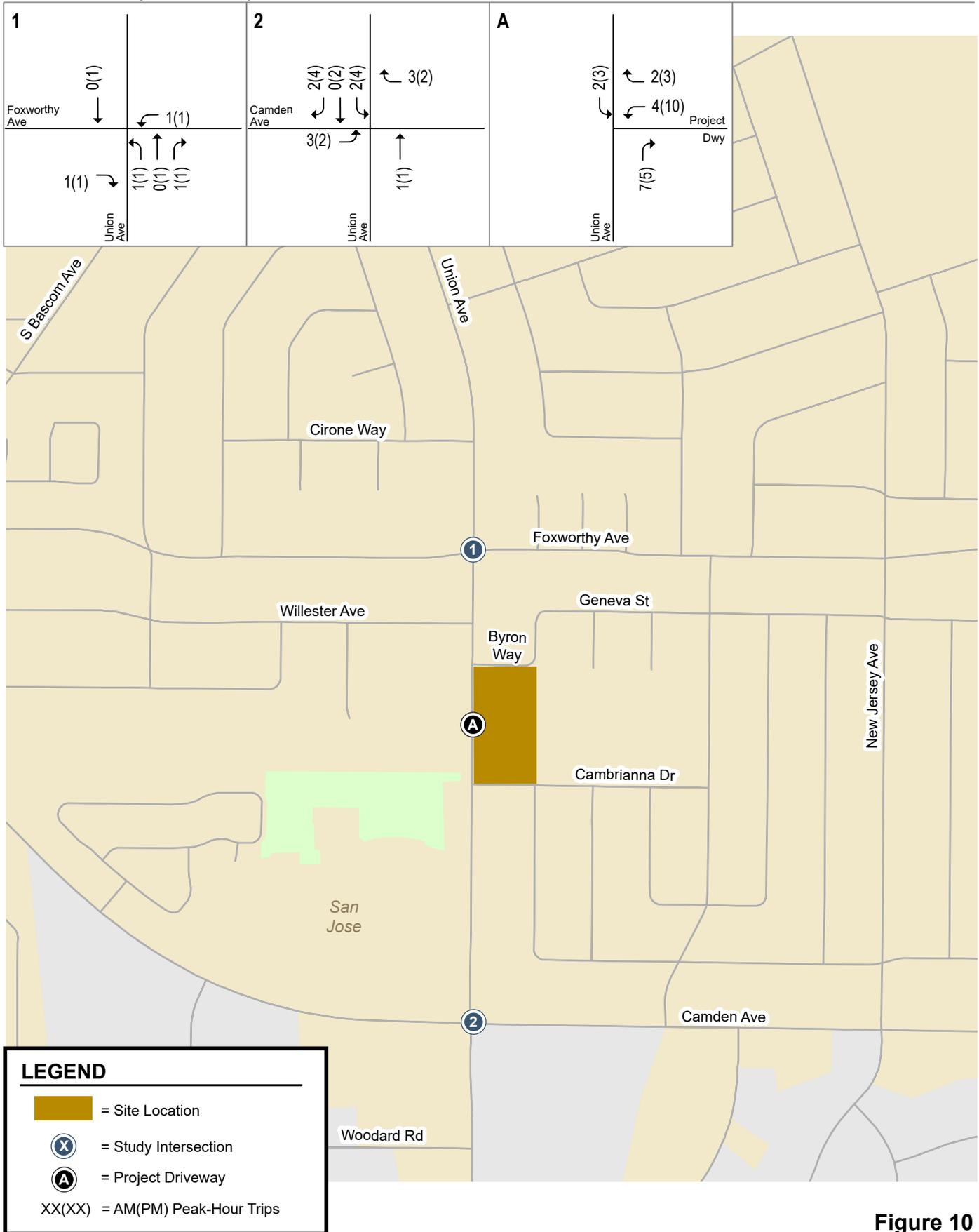


Figure 10
Net Project Trip Assignment

Study Intersections

The study includes an analysis of AM and PM peak-hour traffic conditions for two signalized 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;
- Designated Congestion Management Program (CMP) facility outside of the City's Infill Opportunity Zones;
- 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. Union Avenue and Foxworthy Avenue
2. Union Avenue and Camden Avenue (CMP)

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 11. 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 new traffic counts. The existing peak-hour intersection volumes are shown on Figure 12. 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 13. Project trips were added to background traffic volumes to obtain background plus project traffic volumes (see Figure 14).

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

Silverado Memory Care Development TA

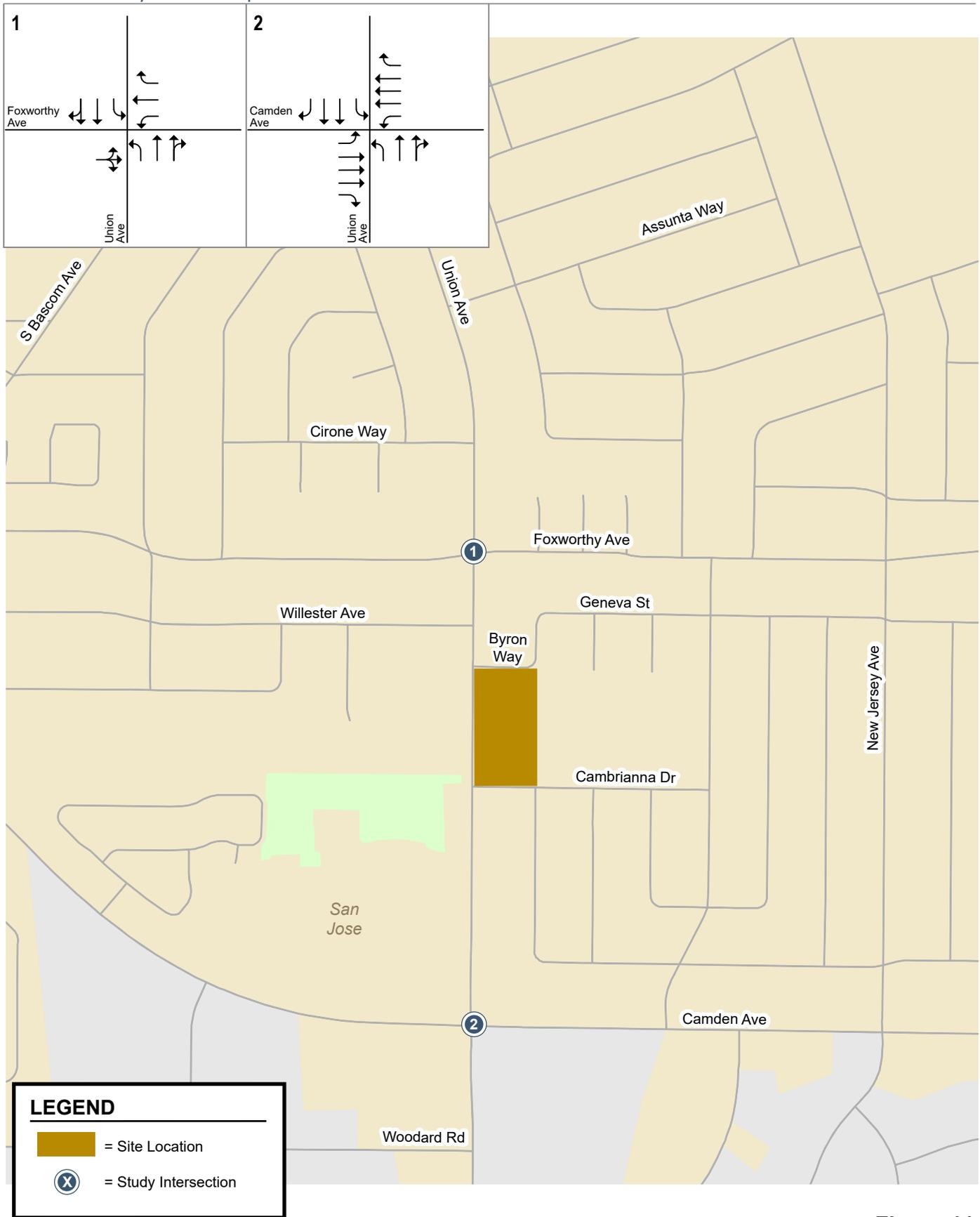


Figure 11
Existing Lane Configurations

Silverado Memory Care Development TA

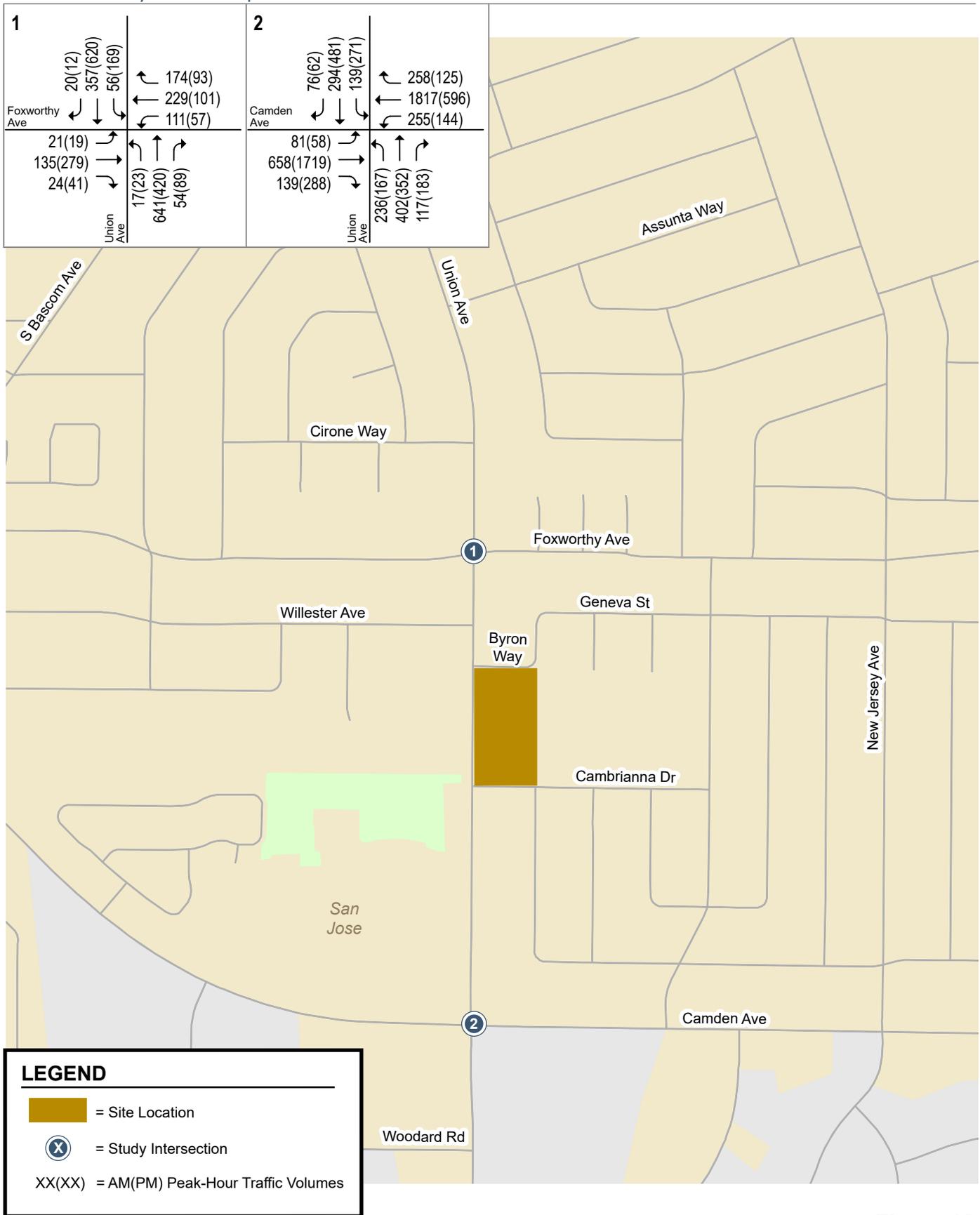


Figure 12
Existing Traffic Volumes

Silverado Memory Care Development TA

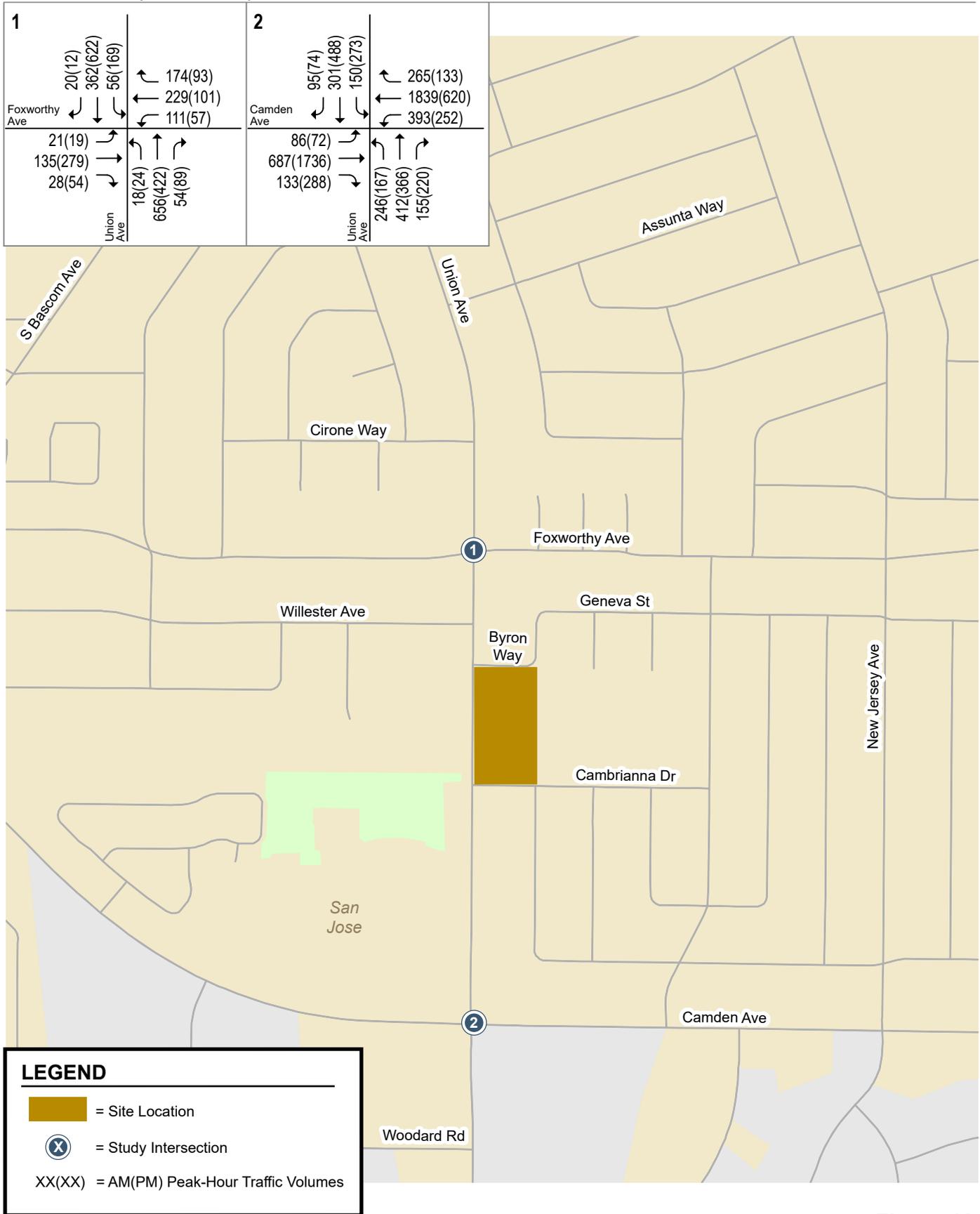


Figure 13
Background Traffic Volumes

Silverado Memory Care Development TA

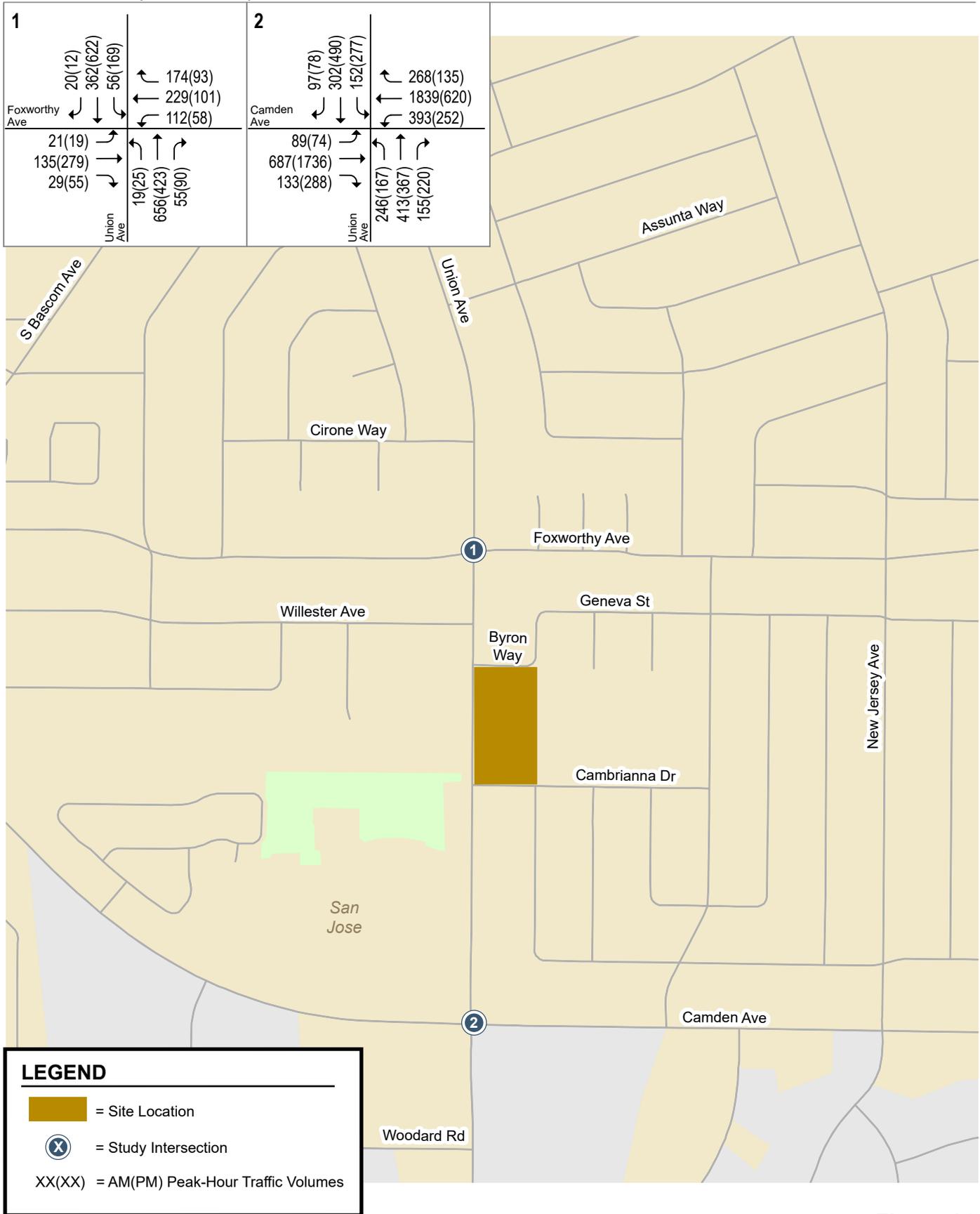


Figure 14
Background Plus Project Traffic Volumes

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.

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

Sources: Transportation Research Board, *2000 Highway Capacity Manual. Traffic Level of Service Analysis Guidelines*, Santa Clara County Transportation Authority Congestion Management Program, June 2003.

City of San Jose Definition of Adverse Intersection Operations Effects

According to the City of San Jose's *Transportation Analysis Handbook 2023*, 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.

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.

Conformance to the CMP Standard

Based on CMP criteria, a project would fail to meet the CMP intersection standard if the additional project traffic caused one of the following during either peak hour:

1. The level of service at the intersection degrades from an acceptable LOS E or better under background conditions/cumulative no project conditions to an unacceptable LOS F under background plus project conditions/cumulative plus project conditions, or
2. The level of service at the intersection is an unacceptable LOS F under background conditions/cumulative no project conditions and the addition of project trips causes both the critical-movement delay at the intersection to increase by four (4) or more seconds *and* the volume-to-capacity ratio (V/C) to increase by one percent (.01) or more.

An exception to this rule applies when the addition of project traffic reduces the amount of average delay for critical movements (i.e. the change in average delay for critical movements is negative). In this case, the threshold is an increase in the critical V/C value by .01 or more.

An adverse intersection effect by CMP standards is said to be satisfactorily addressed when measures are implemented that would restore the intersection level of service to background conditions or better.

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 and CMP intersection operations standards. The results of the level of service analysis show that each of the study intersections currently operate at an acceptable level during both the AM and PM peak hours, based on the City of San Jose and CMP intersection operations standards. The level of service calculation sheets are included in Appendix D.

Future Intersection Operation Conditions

The operations analysis shows that the intersections of Union Avenue & Foxworthy Avenue (both peak hours) and Union Avenue & Camden Avenue (AM peak hour) 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. During the PM peak hour, the intersection of Union Avenue & Camden Avenue would operate at a substandard level of service under background conditions. Since the addition of project generated trips would not result in the average delay increasing by more than four seconds, the addition of project generated trips would not create an adverse effect at this intersection. The intersection level of service calculation sheets are included in Appendix D.

Table 7
Intersection Level of Service Results

Study #	Intersection	Peak Hour	Existing Conditions		Background Conditions					
			Avg. Delay (sec)	LOS	No Project		with Project			
					Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Incr. in Crit. Delay (sec)	Incr. in Critical V/C
1	Union Avenue & Foxworthy Avenue	AM	19.8	B	19.8	B	19.8	B	0.0	0.00
		PM	19.7	B	19.9	B	20.0	B	0.0	0.00
2	Union Avenue & Camden Avenue*	AM	47.5	D	50.8	D	51.0	D	0.4	0.00
		PM	52.3	D	58.5	E	58.7	E	0.3	0.00

Note:
* denotes a CMP intersection
Bold indicates a substandard level of service.
Bold indicates an adverse effect.

Intersection Queuing Analysis

The project would add a small number of trips to study intersections within the project vicinity. The project would add at most one to two peak hour trips to turning movements at nearby study intersections. These small number of trips would not noticeably increase queuing at study intersections. Field observations did not show any significant queuing problems at key intersections within the project vicinity.

Neighborhood Interface

The project does not propose altering the existing roadway network in the vicinity of the project site. Therefore, there are no anticipated changes to existing vehicular travel patterns or usage of roadways. Union Avenue provides access to a mixture of residential and commercial uses and also provides a connection between major arterials (Bascom Avenue and Camden Avenue) in the project vicinity. Since the project driveway would be located along Union Avenue, most project traffic is expected to utilize Union Avenue to get to and from their destinations. It is unlikely vehicles would utilize residential streets to the east, north, and south of the project site. It is possible that some trips related to the proposed project may use Willester Avenue to access Camden Avenue and areas to the west. However, due to the project's driveway only access point being located along Union Avenue and modern-day navigation and GPS services, most project trips are expected to utilize Union Avenue to access Camden Avenue and areas to the west. Regardless, city staff requested that volume and speed data be collected along Cambrianna Drive, Taper Avenue, Bernice Way, and Willester Avenue.

Existing Roadway Characteristics

Field observations along major key roadways in the project vicinity showed no evidence of existing deficiencies. The streets for which the City requested volume and speed data primarily serve residential land uses. The streets are narrow with parking on both sides. General guidelines regarding threshold volumes pertaining to residential streets have been recommended within several studies and reference material including the Highway Capacity Manual (HCM). There is variation in these accepted threshold volumes, but in general, residential streets have the primary function of providing access to immediately adjacent land, with the secondary function of traffic movement. One lane of traffic in each direction is the standard for residential streets. A residential (or local) street is defined by the City of San Jose as being less than 60 feet wide (48 and 56 ft. right-of-way) and average daily traffic (ADT) volumes typically ranging from 50 to 3,000 vehicles. The speed limits for these residential streets in the project vicinity is 25 mph.

Roadway Volume and Speed

The effects of project traffic on neighboring residential streets was based on the collection of traffic volume and speed data collected in August 2023. Volume and speed counts were conducted at four locations along the residential streets of Cambrianna Drive, Taper Avenue, Bernice Way, and Willester Avenue. Table 8 presents a summary of existing and projected traffic volumes and speed along these residential streets. The speed and volume count sheets can be found in Appendix E.

Cambrianna Drive, east of Jennifer Way

Twenty-four-hour tube counts indicate that Cambrianna Drive, east of Jennifer Way, currently carries approximately 733 daily vehicles. The project is not expected to add a noticeable number of trips to this study roadway segment.

Speed surveys conducted along Cambrianna Drive, east of Jennifer Way, indicate the 85th percentile speed along the roadway to be approximately 26 miles per hour (mph). Cambrianna Drive is a residential street with a speed limit of 25 mph. Based on the collected data, the 85th percentile speeds along this study roadway segment exceed the speed limit by 1 mph.

Taper Avenue, north of Cambrianna Drive

Twenty-four-hour tube counts indicate that Taper Avenue, north of Cambrianna Drive, currently carries approximately 619 daily vehicles. The project is not expected to add a noticeable number of trips to this study roadway segment.

Speed surveys conducted along Taper Avenue, north of Cambrianna Drive, indicate the 85th percentile speed along the roadway to be approximately 32 miles per hour (mph). The posted speed limit along the surveyed segment is 25 mph. Based on the collected data, the 85th percentile speeds along this study roadway segment exceed the speed limit by 7 mph.

Bernice Way, east of Elaine Drive

Twenty-four-hour tube counts indicate that Bernice Way, east of Elaine Drive, currently carries approximately 280 daily vehicles. The project is not expected to add a noticeable number of trips to this study roadway segment.

Speed surveys conducted along Bernice Way, east of Elaine Drive, indicate the 85th percentile speed along the roadway to be approximately 26 miles per hour (mph). Bernice Way is a residential street with a speed limit of 25 mph. Based on the collected data, the 85th percentile speeds along this study roadway segment exceed the speed limit by 1 mph.

Willester Avenue, east of Trinity Place

Twenty-four-hour tube counts indicate that Willester Avenue, east of Trinity Place, currently carries approximately 871 daily vehicles. The project is not expected to add a noticeable number of trips to this study roadway segment.

Speed surveys conducted along Willester Avenue, east of Trinity Place, indicate the 85th percentile speed along the roadway to be approximately 30 miles per hour (mph). The posted speed limit along the surveyed segment is 25 mph. Based on the collected data, the 85th percentile speeds along this study roadway segment exceed the speed limit by 5 mph.

Table 8
Neighborhood Streets Speed and Volume Summary

Roadway Segment	Average Daily Traffic (vehicles)	Direction	Average Daily Traffic (vehicles)	Average Speed (mph)	85th Percentile Speed (mph)	Project ADT	ADT % Increase with Project Traffic
Cambrianna Drive, east of Jennifer Way	733	EB	447	21 mph	26 mph	0	0%
		WB	286	19 mph	24 mph		
Taper Avenue, north of Cambrianna Drive	619	NB	355	27 mph	32 mph	0	0%
		SB	264	26 mph	31 mph		
Bernice Way, east of Elaine Drive	280	EB	148	20 mph	24 mph	0	0%
		WB	132	22 mph	26 mph		
Willester Avenue, east of Trinity Place	871	EB	418	25 mph	30 mph	0	0%
		WB	453	24 mph	29 mph		

Recommendations

Based on the characteristics of nearby residential streets, the traffic count data, and the estimated project traffic, the following conclusions can be drawn:

- Based on the typical traffic volume ranges associated with local residential streets, as defined by the City of San Jose, all of the residential streets currently serve traffic volumes that are within the capacities associated with its street classification.

- Speeds along most of the surveyed streets do not exceed the posted speed by more than 5 mph. Speeds within 5 mph of the posted speed limits are considered reasonable. Therefore, based on the speed surveys, it can be concluded that there is not an obvious speeding issue along the study segments on most of the streets, and the posted speed limits are adequate. The 85th percentile speeds along Taper Avenue exceed the posted speed limit by 7 mph. Traffic calming could be beneficial in slowing vehicles down along Taper Avenue.

Site Access and On-Site Circulation

The evaluation of site access and circulation is based on the June 2023 site plan prepared by Douglas Pancake Architects. 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 project site plan is shown on Figure 2.

Project Driveway Design

Vehicular access to the project site would be provided via a full access driveway along Union Avenue. According to the City of San Jose Department of Transportation (DOT) Geometric Design Guidelines, the minimum width for a driveway for commercial developments is 26 feet wide. The proposed driveway measures 26 feet in width, meeting the city's requirement.

Sight Distance

Adequate sight distance will be required at the project driveway along Union 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. Union Avenue has a posted speed limit of 35 mph. The AASHTO stopping sight distance is 305 feet (based on a design speed of 40 mph). Thus, a driver must be able to see 305 feet in both directions to locate a sufficient gap to turn out of the driveway.

In the project vicinity, street parking is prohibited along Union Avenue. The project site plan shows a monument sign and street trees along the project frontage near the driveway. The roadway would be separated from the project site by a pedestrian sidewalk and a separated bicycle lane. Street trees between the bicycle lane and the roadway should be planted and maintained so that they do not obstruct the vision of exiting drivers. The monument sign is shown to be located immediately adjacent to the sidewalk. A stop sign should be installed and stop bar should be striped so that exiting vehicles stop and look both ways to ensure no pedestrians and bicycles are approaching the driveway. The proposed driveway provides adequate sight distance in both directions.

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

Recommendation: A stop sign and limit line should be installed so that vehicles stop before intruding onto the sidewalk and separated bicycle lane

Project Driveway Operations

The project would add 15 trips (9 inbound and 6 outbound) occurring during the AM peak hour and 21 trips (8 inbound and 13 outbound) occurring during the PM peak hour. This equates to at most one vehicle entering or exiting the project driveway every 4.5 minutes. Noticeable queuing (inbound or outbound) is not expected with the small number of trips expected at the project driveway. Inbound vehicles from southbound Union Avenue can utilize the two-way left-turn lane along Union Avenue to wait for an appropriate gap in northbound traffic to turn left into the project site. Similarly, some minor on-site vehicle queuing may occur due to the random occurrence of gaps in traffic along Union 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.

The site plan shows 20-to-26-foot drive aisles throughout the project site. The drive aisles provide adequate width for vehicles to back out. The site plan shows a dead end at the east side of the project site with a turn-around area.

Truck, Garbage, and Emergency Vehicle Access

Emergency vehicle access is provided along Union Avenue. The drive aisles provide adequate width for emergency vehicles to access the rear side of the building if needed. The site plan shows a trash enclosure at the rear side of the building. Trash pick-up operations would occur at the rear side of the building, with trash vehicles utilizing the turn-around area. Truck turning templates for a standard SU-30 truck are provided in Appendix F.

The project applicant has not indicated whether any private shuttle programs are proposed for the project site. It is anticipated that some future residents may utilize VTA Access Paratransit service. The service consists of sedans, minivans, or cutaway trucks that provide a shared ride that is complementary to fixed bus route services. A loading space/area near the front entrance would be beneficial for shuttle services to pick up and drop off residents.

Recommendation: A loading space/area near the front entrance is recommended and would be beneficial for shuttle services to pick up and drop off residents.

Parking Supply

Vehicular Parking

The project's planning permit application date came before the effective date of the City new TDM and parking ordinance. Therefore, the project could utilize the previous Municipal Code parking standards. Under the previous Municipal Code parking standards, the project would be required to provide parking at a rate of one space per six beds and one space per four beds, thereafter, plus one space for each employee or staff member. Based on 94 beds and 42 employees, the project would be required to provide 65 parking spaces.

Reduction in Required Off-Street Parking Spaces

Based on City Code 20.90.220.A.1, the project may receive up to a 50 percent reduction in the required off-street parking spaces with a development permit or a development exception if no development permit is required. For an off-street parking reduction of up to 20 percent, the following provisions must be met:

- 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 20.90.220.G; and
- b) The structure or use provides bicycle parking spaces in conformance with the requirements of Table 20-90.

Based on City Code 20.90.220.G, up to a 20 percent reduction in the required off-street parking for private instruction or personal enrichment; sororities, fraternities and dormitories occupied exclusively (except for administrators thereof) by students attending college or other educational institutions; SROs; efficiency living units; emergency residential shelters; residential care/service facilities; convalescent hospitals; hotels/motels; bed and breakfast inns; senior housing uses; recreation uses; gasoline or charge stations when combined with other uses; and performing arts rehearsal space uses may be approved with a development permit or a development exception if no development permit is required, provided that such approval is based upon the findings that the project is either within two thousand (2,000) feet of an existing or proposed bus or rail transit stop; or the use is clustered with other uses that share all parking spaces on a site

The project is a listed use in Section 20.90.220.G and is located within 2,000 feet for an existing bus stop. Assuming that the project will meet the City Bicycle Parking requirements per Table 20-90, the project will conform to Code 20.90.220.A.1 subsections A and B and may be granted up to a 20 percent reduction in off-street parking spaces.

With the 20 percent reduction, the project would be required to provide 52 parking spaces. The project site plan shows 52 parking spaces, including two accessible parking spaces, meeting the city's requirements for the number of parking spaces.

Bicycle Parking

According to the City's Bicycle Parking Standards (Chapter 20.90, Table 20-190), bicycle parking for residential care or services facilities are required to provide one bicycle parking space per 10 full-time employees. For uses that are based on full-time employees, the spaces should be provided in long-term parking facilities. 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 project site plan shows two bicycle racks with a 5 bike capacity each, providing a total of 10 bicycle parking spaces. The project site plan does not show an indication of any long-term bicycle parking. Based on 42 employees, the project site would be required to provide at least 4 long-term bicycle parking spaces. The project will be required to provide four long-term bicycle parking spaces.

Recommendation: The project should confirm whether the number of provided bicycle parking spaces is adequate. The project will be required to provide four long-term bicycle parking spaces.

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 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.

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 transit along the Camden Avenue and Bascom Avenue corridors. The project site is approximately 0.2 mile from nearby shopping centers along Camden Avenue. Existing sidewalks and crosswalks along Union Avenue and Camden Avenue provide a pedestrian connection between the project site and pedestrian destinations in the project vicinity.

Bicycle Facilities

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 3 new bicycle trips during each of the AM and PM peak hours. This level of bicycle mode share is a reasonable goal for the project.

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.

There are several bike facilities in the immediate vicinity of the project site (see Chapter 2 for details). Most bikeways within the vicinity of the project site would remain unchanged under project conditions. The San Jose Better Bike Plan 2025 has identified an upgrade to Union Avenue in the project vicinity to a Class IV protected bicycle lane. Thus, the project will be required to reconstruct the curb line along its Union Avenue frontage to narrow the curb-to-curb roadway width and provide a 19-foot wide sidewalk to accommodate a 6-foot wide raised Class IV protected bikeway, 8-foot wide sidewalk, and 5-foot wide tree well. Additionally, the Better Bike Plan 2025 has identified Class IV protected bicycle lanes along Camden Avenue in the project vicinity.

The project proposes bicycle racks near the building entrances, which may encourage employees or visitors to utilize bicycles to reach the project site.

Transit Services

The project site is primarily served by three VTA bus routes (Local Route 37, Frequent Route 61, and Express Route 101). The nearest bus stops to the project site serves Route 61 and are located along near the project frontage, along Union Avenue at Cambrianna Drive.

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.

Since the project would reconstruct its frontage by installing a raised bike lane, the VTA bus stop along its frontage would need to be relocated. The project applicant should coordinate with VTA regarding the bus stop along the project frontage. City staff have indicated that the project will be conditioned to provide a bus concrete pad and new bench at the bus stop along the Union Avenue frontage.

Construction Activities

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

Transportation Demand Management

The project's planning permit application date came before the effective date of the TDM and parking ordinance. Therefore, the project is not subject to the requirements of the TDM ordinance. However, the project will be required to complete and have approved a TDM plan as part of its VMT mitigation measures.

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 2023*, 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

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 14.93 VMT per employee. Therefore, the project exceeds the 14.05 VMT per employee threshold by 6.3%. 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 project (14.93 per employee) would exceed the threshold of 14.05 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 measures to reduce the significant VMT impact.

- **Traffic Calming/Pedestrian Network Improvements:** The project will be required to remove the existing pork-chop island and signal modification to bulbout the existing curblin along Foxworthy Avenue at the northeast corner of the Union Avenue/Foxworthy Avenue intersection. As part of the pork-chop removal, the existing bus stop along northbound Union Avenue at the far-side of the Union Avenue/Foxworthy Avenue intersection will be relocated to be closer to the northeast intersection corner and a new concrete bus pad will be installed.
- **Commute Trip Reduction Marketing/Education:** The project will be required to implement commute trip reduction marketing and education as part of a TDM Plan. With commute trip marketing/education, employees would be made aware of alternative transportation modes

available to them and may be encouraged to utilize alternative transportation modes to get to work. It is assumed that 100% of employees would participate.

The implementation of the above mitigation measures would reduce the VMT generated by the project by encouraging use of alternative transportation for employees to commute to work. The implementation of the above mitigation measure would reduce the project VMT to 13.77 per employee, which below the threshold of 14.05 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 a Public/Quasi-Public area. Public/Quasi-Public developments are designated for public land uses, including schools, colleges, corporation yards, homeless shelters, permanent supportive housing, libraries, fire stations, water treatment facilities, convention centers and auditoriums, museums, governmental offices and airports. The project, as proposed, would construct a memory care facility that would serve residents that require part-time or full-time care. The *Envision San José 2040 General Plan* allows for flexibility of the intensity of development depending on the use of the site. The project would be constructed on a lot that is currently underutilized.

The project is consistent with the General Plan goals and policies for the following reasons:

- The project is located in an area with both commercial and residential uses
- The project is located within walking distance to two Planned Urban Villages (S. Bascom Avenue (south) and Camden Avenue/Hillsdale Avenue) and would support commercial uses within the Urban Villages
- The proposed project would facilitate infill development by constructing development on an underutilized lot
- The project would provide bicycle racks near the building entrances to encourage employee use of alternative transportation modes.

Therefore, based on the project description, the proposed project would be consistent with 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 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 also includes an evaluation of potential project impacts on bicycle, pedestrian, and transit facilities, and a review of site access and on-site circulation.

Trip Generation

After applying the ITE trip rates and appropriate trip reductions it is estimated that the project would generate 222 new daily vehicle trips, with 15 trips (9 inbound and 6 outbound) occurring during the AM peak hour and 21 trips (8 inbound and 13 outbound) occurring during the PM peak hour.

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 Union Avenue should be maintained so that the vision of exiting drivers is not obstructed
- A stop sign and limit line should be installed so that vehicles stop before intruding onto the sidewalk and separated bicycle lane
- A loading space/area near the front entrance is recommended and would be beneficial for shuttle services to pick up and drop off residents.

Parking Supply

The project's planning permit application date came before the effective date of the City new TDM and parking ordinance. Therefore, the project could utilize the previous Municipal Code parking standards. Under the previous Municipal Code parking standards, the project would be required to provide parking at a rate of one space per six beds and one space per four beds, thereafter, plus one space for each employee or staff member. Based on 94 beds and 42 employees, the project would be required to provide 65 parking spaces.

Reduction in Required Off-Street Parking Spaces

The project is a listed use in Section 20.90.220.G and is located within 2,000 feet for an existing bus stop. Assuming that the project will meet the City Bicycle Parking requirements per Table 20-90, the project will conform to Code 20.90.220.A.1 subsections A and B and may be granted up to a 20 percent reduction in off-street parking spaces.

With the 20 percent reduction, the project would be required to provide 52 parking spaces. The project site plan shows 52 parking spaces, including two accessible parking spaces, meeting the city's requirements for the number of parking spaces.

Bicycle Parking

The project site plan shows two bicycle racks with a 5 bike capacity each, providing a total of 10 bicycle parking spaces. The project site plan does not show an indication of any long-term bicycle parking. Based on 42 employees, the project site would be required to provide at least 4 bicycle parking spaces. The project should confirm whether the number of provided bicycle parking spaces is adequate. The project will be required to provide four long-term bicycle parking spaces.

Pedestrian, Bicycle, and Transit Analysis

Pedestrian Facilities

Pedestrian generators in the project vicinity include commercial areas and transit along the Camden Avenue and Bascom Avenue corridors. The project site is approximately 0.2 mile from nearby shopping centers along Camden Avenue. Existing sidewalks and crosswalks along Union Avenue and Camden Avenue provide a pedestrian connection between the project site and pedestrian destinations in the project vicinity.

Bicycle Facilities

Most bikeways within the vicinity of the project site would remain unchanged under project conditions. The San Jose Better Bike Plan 2025 has identified an upgrade to Union Avenue in the project vicinity to a Class IV protected bicycle lane. Thus, the project will be required to reconstruct the curb line along its Union Avenue frontage to narrow the curb-to-curb roadway width and provide a 19-foot wide sidewalk to accommodate a 6-foot wide raised Class IV protected bikeway, 8-foot wide sidewalk, and 5-foot wide tree well. Additionally, the Better Bike Plan 2025 has identified Class IV protected bicycle lanes along Camden Avenue in the project vicinity.

The project proposes bicycle racks near the building entrances, which may encourage employees or visitors to utilize bicycles to reach the project site.

Transit Services

The project site is primarily served by three VTA bus routes (Local Route 37, Frequent Route 61, and Express Route 101). The nearest bus stops to the project site serves Route 61 and are located along near the project frontage, along Union Avenue at Cambrianna Drive.

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

Since the project would reconstruct its frontage by installing a raised bike lane, the VTA bus stop along its frontage would need to be relocated. The project applicant should coordinate with VTA regarding the bus stop along the project frontage. City staff have indicated that the project will be conditioned to provide a bus concrete pad and new bench at the bus stop along the Union Avenue frontage.

**Silverado Memory Care Development
Transportation Analysis
Technical Appendices**

Appendix A

San Jose VMT Evaluation Tool Output Sheet

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

PROJECT:

Name: Silverado Memory Care Development	Tool Version: 2/29/2019	Date: 9/25/2023
Location: 1975 Cambrianna Drive		
Parcel: 41421062 Parcel Type: Urban Low Transit		
Proposed Parking Spaces: Vehicles: 52 Bicycles: 0		

LAND USE:

Residential:	Percent of All Residential Units	
Single Family 0 DU	Extremely Low Income (≤ 30% MFI)	0 % Affordable
Multi Family 0 DU	Very Low Income (> 30% MFI, ≤ 50% MFI)	0 % Affordable
<u>Subtotal</u> 0 DU	Low Income (> 50% MFI, ≤ 80% MFI)	0 % Affordable
Office: 22.5 KSF		
Retail: 0 KSF		
Industrial: 0 KSF		

VMT REDUCTION STRATEGIES

Tier 1 - Project Characteristics

Increase Residential Density		
Existing Density (DU/Residential Acres in half-mile buffer)		5
With Project Density (DU/Residential Acres in half-mile buffer)		5
Increase Development Diversity		
Existing Activity Mix Index		0.59
With Project Activity Mix Index		0.60
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)		22
With Project Density (Jobs/Commercial Acres in half-mile buffer)		22

Tier 2 - Multimodal Infrastructure

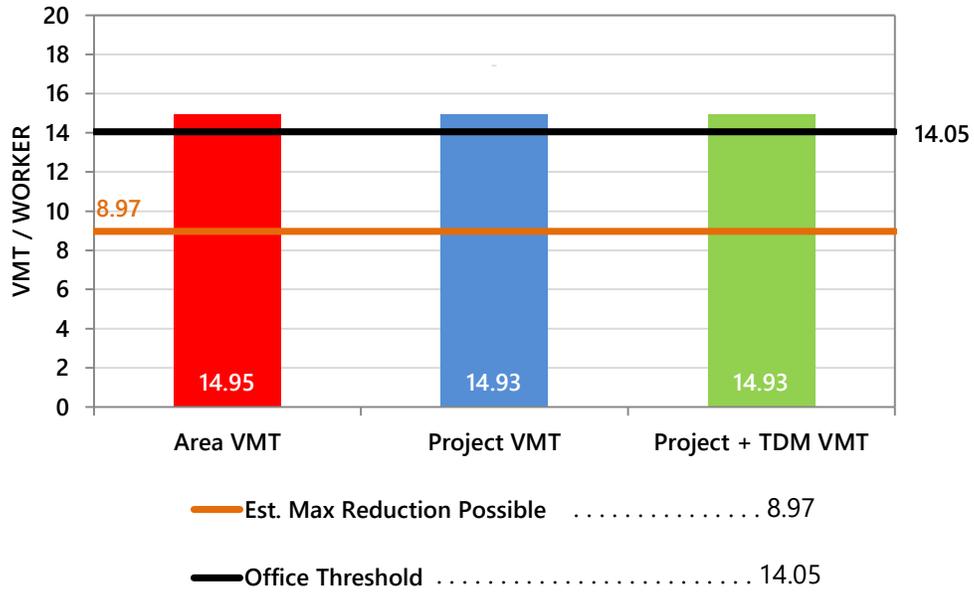
Tier 3 - Parking

Tier 4 - TDM Programs

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

EMPLOYMENT ONLY

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



CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

PROJECT:

Name: Silverado Memory Care Development	Tool Version: 2/29/2019	Date: 11/30/2023
Location: 1975 Cambrianna Drive		
Parcel: 41421062 Parcel Type: Urban Low Transit		
Proposed Parking Spaces: Vehicles: 52 Bicycles: 0		

LAND USE:

Residential:	Percent of All Residential Units		
Single Family 0 DU	Extremely Low Income (≤ 30% MFI)	0 % Affordable	
Multi Family 0 DU	Very Low Income (> 30% MFI, ≤ 50% MFI)	0 % Affordable	
<u>Subtotal</u> 0 DU	Low Income (> 50% MFI, ≤ 80% MFI)	0 % Affordable	
Office: 22.5 KSF			
Retail: 0 KSF			
Industrial: 0 KSF			

VMT REDUCTION STRATEGIES

Tier 1 - Project Characteristics

Increase Residential Density	
Existing Density (DU/Residential Acres in half-mile buffer)	5
With Project Density (DU/Residential Acres in half-mile buffer)	5
Increase Development Diversity	
Existing Activity Mix Index	0.59
With Project Activity Mix Index	0.60
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)	22
With Project Density (Jobs/Commercial Acres in half-mile buffer)	22

Tier 2 - Multimodal Infrastructure

Traffic Calming Measures <i>(In Coordination with SJ)</i>	
Are improvements provided beyond the development frontage?	Yes
Pedestrian Network Improvements <i>(In Coordination with SJ)</i>	
Are pedestrian improvements provided beyond the development frontage?	Yes

Tier 3 - Parking

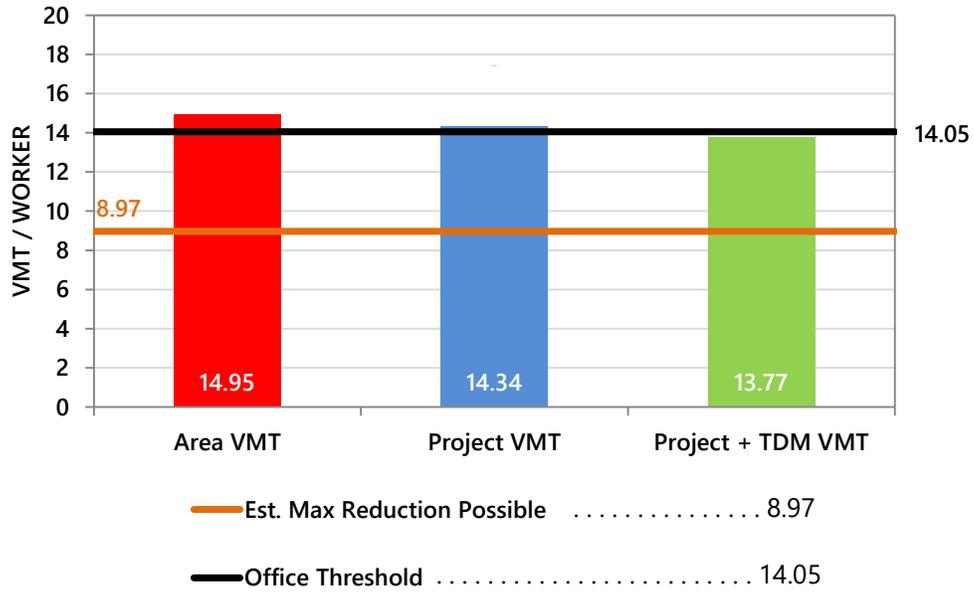
Tier 4 - TDM Programs

Commuter Trip Reduction Marketing/ Education	
Percent of Eligible Employees	100 %

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

EMPLOYMENT ONLY

The tool estimates that the project would generate per non-industrial worker VMT below the City's threshold. There are selected strategies that require coordination with the City of San Jose to implement.



Appendix B

Peak Hour Turning Movement Counts



ALL TRAFFIC DATA SERVICES

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Location: 1 UNION AVE & FOXWORTHY AVE AM

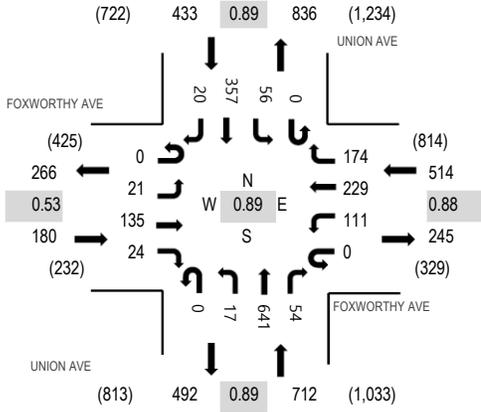
Date: Tuesday, August 22, 2023

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

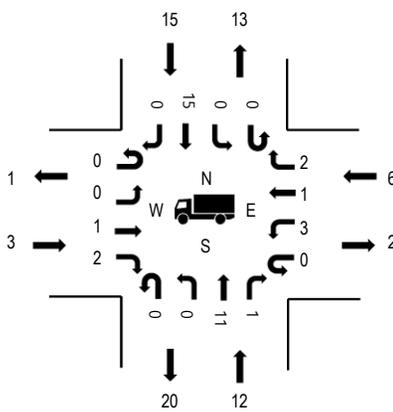
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour

Motorized Vehicles



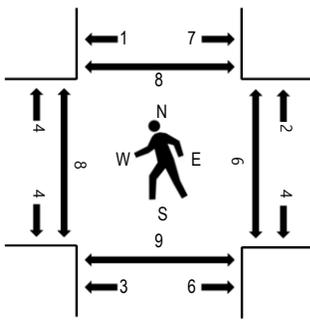
Heavy Vehicles



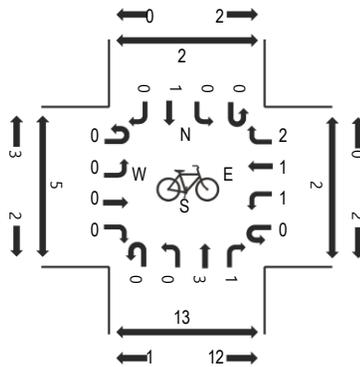
	HV%	PHF
EB	1.7%	0.53
WB	1.2%	0.88
NB	1.7%	0.89
SB	3.5%	0.89
All	2.0%	0.89

Note: Total study counts contained in parentheses.

Pedestrians



Bicycles on Road



Traffic Counts - Motorized Vehicles

Interval Start Time	UNION AVE Northbound				FOXWORTHY AVE Eastbound				UNION AVE Southbound				FOXWORTHY AVE Westbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
7:00 AM	0	0	13	1	0	0	1	1	0	2	6	1	0	3	2	5	35	1,045
7:05 AM	0	0	13	1	0	1	1	1	0	0	17	0	0	3	12	2	51	1,165
7:10 AM	0	0	19	0	0	1	1	0	0	1	10	0	0	4	12	5	53	1,270
7:15 AM	0	1	17	1	0	0	2	1	0	0	20	1	0	4	8	7	62	1,368
7:20 AM	0	0	17	1	0	1	5	0	0	0	20	0	0	5	12	8	69	1,489
7:25 AM	0	2	22	2	0	0	4	1	0	4	18	3	0	6	10	7	79	1,590
7:30 AM	0	0	12	2	0	0	3	0	0	1	21	0	0	8	13	9	69	1,676
7:35 AM	0	0	29	1	0	0	1	2	0	2	35	0	0	8	17	8	103	1,757
7:40 AM	0	0	23	1	0	1	2	1	0	3	33	2	0	3	20	13	102	1,796
7:45 AM	0	0	27	6	0	2	8	1	0	3	27	1	0	13	28	21	137	1,839
7:50 AM	0	0	36	2	0	1	4	3	0	9	47	1	0	9	21	13	146	1,817
7:55 AM	0	0	50	2	0	0	10	3	0	3	27	2	0	10	17	15	139	1,791
8:00 AM	0	4	52	9	0	2	14	1	0	6	32	0	0	6	17	12	155	1,756
8:05 AM	0	1	44	7	0	5	26	2	0	8	37	1	0	4	9	12	156	
8:10 AM	0	0	52	9	0	2	15	2	0	5	19	2	0	9	20	16	151	
8:15 AM	0	3	53	5	0	4	28	1	0	1	32	3	0	13	25	15	183	
8:20 AM	0	3	67	2	0	1	10	2	0	6	36	4	0	8	21	10	170	
8:25 AM	0	1	63	5	0	1	3	5	0	1	31	1	0	9	23	22	165	
8:30 AM	0	1	48	4	0	3	6	2	0	3	25	2	0	15	22	19	150	
8:35 AM	0	0	73	1	0	0	4	2	0	5	26	1	0	7	16	7	142	
8:40 AM	0	4	76	2	0	0	7	0	0	6	18	2	0	8	10	12	145	
8:45 AM	0	5	40	1	0	0	7	0	0	8	18	1	0	5	14	16	115	
8:50 AM	0	1	53	6	0	0	5	0	0	2	27	0	0	3	10	13	120	
8:55 AM	0	0	35	2	0	1	6	2	0	4	29	0	0	6	12	7	104	
Count Total	0	26	934	73	0	26	173	33	0	83	611	28	0	169	371	274	2,801	
Peak Hour	0	17	641	54	0	21	135	24	0	56	357	20	0	111	229	174	1,839	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	NB	EB	SB	WB	Total		NB	EB	SB	WB	Total		NB	EB	SB	WB	Total
7:00 AM	0	0	0	1	1	7:00 AM	1	0	0	0	1	7:00 AM	0	0	0	0	0
7:05 AM	0	0	1	0	1	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	1	1
7:10 AM	1	0	1	0	2	7:10 AM	1	0	0	0	1	7:10 AM	0	0	0	0	0
7:15 AM	0	0	1	1	2	7:15 AM	0	0	0	0	0	7:15 AM	0	2	0	0	2
7:20 AM	1	0	1	0	2	7:20 AM	0	0	1	0	1	7:20 AM	0	0	0	0	0
7:25 AM	0	0	0	0	0	7:25 AM	0	0	1	0	1	7:25 AM	0	2	0	0	2
7:30 AM	0	0	3	0	3	7:30 AM	1	0	0	0	1	7:30 AM	0	0	0	0	0
7:35 AM	0	0	3	0	3	7:35 AM	1	0	0	0	1	7:35 AM	1	0	0	2	3
7:40 AM	1	0	0	0	1	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	0	0	4	1	5	7:45 AM	0	0	0	0	0	7:45 AM	0	2	2	1	5
7:50 AM	0	0	1	0	1	7:50 AM	0	0	0	0	0	7:50 AM	0	1	2	1	4
7:55 AM	1	1	1	0	3	7:55 AM	0	0	0	0	0	7:55 AM	2	4	0	0	6
8:00 AM	0	0	1	0	1	8:00 AM	0	0	0	0	0	8:00 AM	1	1	2	0	4
8:05 AM	1	0	0	0	1	8:05 AM	3	0	0	0	3	8:05 AM	7	0	3	5	15
8:10 AM	2	0	1	1	4	8:10 AM	0	0	0	0	0	8:10 AM	1	0	0	0	1
8:15 AM	1	0	1	1	3	8:15 AM	1	0	0	1	2	8:15 AM	7	2	0	0	9
8:20 AM	1	1	4	0	6	8:20 AM	0	0	1	0	1	8:20 AM	1	0	1	0	2
8:25 AM	1	0	1	1	3	8:25 AM	0	0	0	0	0	8:25 AM	1	2	0	0	3
8:30 AM	1	0	0	0	1	8:30 AM	0	0	0	2	2	8:30 AM	0	0	0	0	0
8:35 AM	2	0	1	1	4	8:35 AM	0	0	0	0	0	8:35 AM	0	1	0	0	1
8:40 AM	2	1	0	1	4	8:40 AM	0	0	0	1	1	8:40 AM	2	0	0	1	3
8:45 AM	3	0	1	0	4	8:45 AM	0	0	1	0	1	8:45 AM	0	1	1	0	2
8:50 AM	3	0	2	0	5	8:50 AM	1	0	0	0	1	8:50 AM	2	0	0	2	4
8:55 AM	1	0	1	0	2	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	22	3	29	8	62	Count Total	9	0	4	4	17	Count Total	25	18	11	13	67
Peak Hour	12	3	15	6	36	Peak Hour	4	0	1	4	9	Peak Hour	22	13	10	8	53



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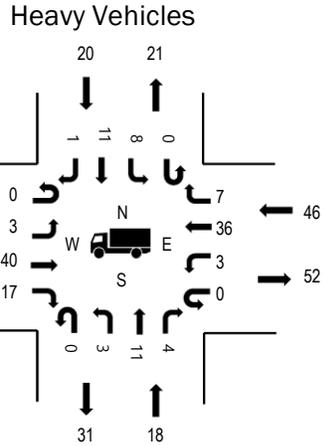
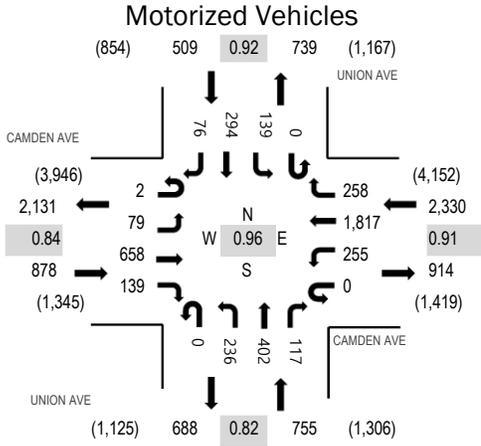
Location: 2 UNION AVE & CAMDEN AVE AM

Date: Tuesday, August 22, 2023

Peak Hour: 07:40 AM - 08:40 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

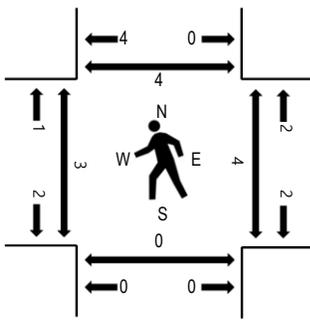
Peak Hour



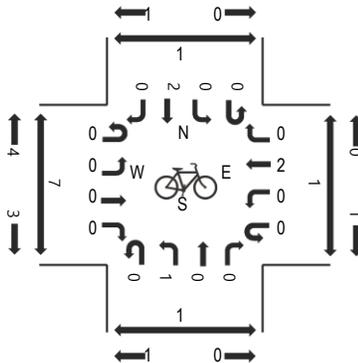
	HV%	PHF
EB	6.8%	0.84
WB	2.0%	0.91
NB	2.4%	0.82
SB	3.9%	0.92
All	3.2%	0.96

Note: Total study counts contained in parentheses.

Pedestrians



Bicycles on Road



Traffic Counts - Motorized Vehicles

Interval Start Time	UNION AVE Northbound				CAMDEN AVE Eastbound				UNION AVE Southbound				CAMDEN AVE Westbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
7:00 AM	0	8	9	5	0	2	15	7	0	7	4	1	0	6	62	6	132	3,366
7:05 AM	0	11	13	5	1	3	21	4	0	9	2	7	0	9	97	4	186	3,596
7:10 AM	0	4	13	1	0	2	26	5	0	6	15	3	0	11	96	6	188	3,790
7:15 AM	0	8	16	6	0	2	27	9	0	6	19	3	0	10	109	8	223	3,969
7:20 AM	0	9	9	6	0	1	20	9	0	7	20	1	0	11	167	7	267	4,108
7:25 AM	0	14	19	7	0	2	20	10	0	2	20	8	0	12	166	6	286	4,186
7:30 AM	0	28	12	6	0	3	29	10	0	4	15	3	0	8	93	4	215	4,263
7:35 AM	0	25	17	4	0	1	30	1	0	14	26	13	0	12	183	6	332	4,430
7:40 AM	0	21	16	5	1	5	51	17	0	5	15	10	0	16	198	8	368	4,472
7:45 AM	0	14	11	7	0	4	63	14	0	11	31	7	0	26	186	14	388	4,455
7:50 AM	0	20	23	13	0	12	59	17	0	13	21	11	0	25	165	12	391	4,404
7:55 AM	0	16	39	14	0	7	58	13	0	12	28	6	0	17	166	14	390	4,343
8:00 AM	0	18	43	10	0	6	67	15	0	13	24	7	0	22	125	12	362	4,291
8:05 AM	0	21	35	10	0	7	72	15	0	17	23	3	0	21	138	18	380	
8:10 AM	0	27	47	13	0	7	52	3	0	22	23	8	0	20	122	23	367	
8:15 AM	0	17	30	12	1	9	52	9	0	13	28	4	0	23	125	39	362	
8:20 AM	0	18	33	13	0	3	37	7	0	9	13	6	0	26	143	37	345	
8:25 AM	0	22	28	4	0	4	54	5	0	8	34	3	0	21	149	31	363	
8:30 AM	0	16	36	13	0	5	47	11	0	6	27	6	0	21	167	27	382	
8:35 AM	0	26	61	3	0	10	46	13	0	10	27	5	0	17	133	23	374	
8:40 AM	0	34	52	14	0	8	37	16	0	9	16	9	1	13	115	27	351	
8:45 AM	0	22	37	12	0	7	43	8	0	5	17	5	1	16	144	20	337	
8:50 AM	0	26	29	10	0	5	25	4	0	9	19	4	0	17	159	23	330	
8:55 AM	0	21	28	11	0	7	37	10	0	7	25	5	1	21	151	14	338	
Count Total	0	446	656	204	3	122	988	232	0	224	492	138	3	401	3,359	389	7,657	
Peak Hour	0	236	402	117	2	79	658	139	0	139	294	76	0	255	1,817	258	4,472	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	NB	EB	SB	WB	Total		NB	EB	SB	WB	Total		NB	EB	SB	WB	Total
7:00 AM	1	5	1	5	12	7:00 AM	1	0	0	1	2	7:00 AM	1	2	0	0	3
7:05 AM	0	5	1	0	6	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	2	2	1	3	8	7:10 AM	0	0	0	0	0	7:10 AM	0	0	1	0	1
7:15 AM	1	4	1	2	8	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	1	1
7:20 AM	0	3	0	4	7	7:20 AM	0	0	0	0	0	7:20 AM	1	1	0	0	2
7:25 AM	0	1	1	2	4	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	0	3	2	0	5	7:30 AM	1	0	0	0	1	7:30 AM	1	0	0	0	1
7:35 AM	0	4	2	3	9	7:35 AM	1	0	0	0	1	7:35 AM	0	3	0	1	4
7:40 AM	2	7	2	3	14	7:40 AM	0	0	0	0	0	7:40 AM	1	0	0	0	1
7:45 AM	0	6	2	2	10	7:45 AM	0	0	0	0	0	7:45 AM	0	2	1	1	4
7:50 AM	2	4	1	4	11	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	1	1
7:55 AM	2	3	0	5	10	7:55 AM	1	0	0	1	2	7:55 AM	0	2	0	0	2
8:00 AM	0	8	2	6	16	8:00 AM	0	0	0	0	0	8:00 AM	0	5	0	0	5
8:05 AM	2	3	1	3	9	8:05 AM	0	0	1	0	1	8:05 AM	0	0	1	0	1
8:10 AM	1	5	2	2	10	8:10 AM	0	0	0	0	0	8:10 AM	0	1	1	1	3
8:15 AM	1	4	2	6	13	8:15 AM	0	0	0	0	0	8:15 AM	0	0	1	1	2
8:20 AM	3	7	2	5	17	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	2	3	3	4	12	8:25 AM	0	0	1	0	1	8:25 AM	0	0	0	0	0
8:30 AM	0	6	1	2	9	8:30 AM	0	0	0	1	1	8:30 AM	0	0	1	0	1
8:35 AM	3	4	2	4	13	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	1	1
8:40 AM	3	2	1	6	12	8:40 AM	0	0	0	1	1	8:40 AM	0	0	0	1	1
8:45 AM	1	3	1	9	14	8:45 AM	1	0	1	0	2	8:45 AM	0	0	1	1	2
8:50 AM	1	1	2	4	8	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	1	1
8:55 AM	2	7	1	7	17	8:55 AM	0	0	0	1	1	8:55 AM	0	0	0	0	0
Count Total	29	100	34	91	254	Count Total	5	0	3	5	13	Count Total	4	16	7	10	37
Peak Hour	18	60	20	46	144	Peak Hour	1	0	2	2	5	Peak Hour	1	10	5	5	21



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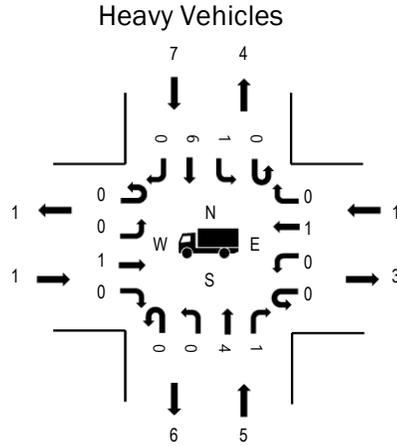
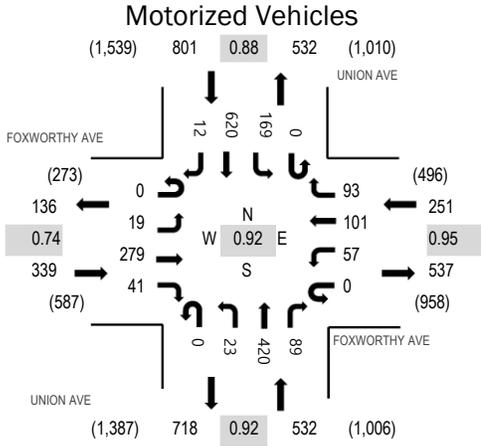
Location: 1 UNION AVE & FOXWORTHY AVE PM

Date: Tuesday, August 22, 2023

Peak Hour: 04:55 PM - 05:55 PM

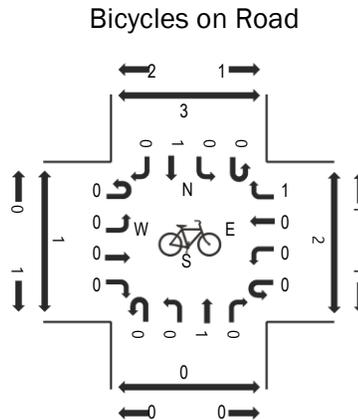
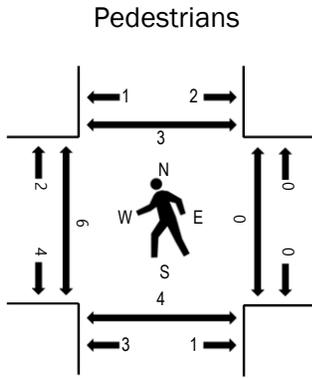
Peak 15-Minutes: 05:10 PM - 05:25 PM

Peak Hour



	HV%	PHF
EB	0.3%	0.74
WB	0.4%	0.95
NB	0.9%	0.92
SB	0.9%	0.88
All	0.7%	0.92

Note: Total study counts contained in parentheses.



Traffic Counts - Motorized Vehicles

Interval Start Time	UNION AVE Northbound				FOXWORTHY AVE Eastbound				UNION AVE Southbound				FOXWORTHY AVE Westbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	2	28	5	0	2	18	5	0	10	38	0	0	3	3	11	125	1,724
4:05 PM	0	1	47	4	0	0	13	4	0	12	59	2	0	6	10	6	164	1,747
4:10 PM	0	1	27	3	0	1	13	2	0	13	51	1	0	3	8	7	130	1,731
4:15 PM	0	5	13	12	0	1	14	5	0	14	38	0	0	7	6	7	122	1,766
4:20 PM	0	2	32	9	0	1	11	3	0	8	58	2	0	3	10	10	149	1,840
4:25 PM	0	3	29	1	0	3	19	3	0	15	46	1	0	7	12	7	146	1,851
4:30 PM	0	3	35	9	0	0	12	2	0	15	34	2	0	4	3	5	124	1,856
4:35 PM	0	2	32	9	0	2	19	4	0	15	53	3	0	6	5	6	156	1,902
4:40 PM	0	1	39	6	0	2	24	2	0	13	51	0	0	5	9	10	162	1,889
4:45 PM	0	3	20	6	0	2	21	3	0	13	49	1	0	4	9	10	141	1,892
4:50 PM	1	3	30	11	0	1	8	2	0	13	58	0	0	1	7	8	143	1,918
4:55 PM	0	0	39	6	0	2	23	3	0	15	47	2	0	8	9	8	162	1,923
5:00 PM	0	4	37	13	0	2	18	2	0	12	40	0	0	5	8	7	148	1,904
5:05 PM	0	0	38	9	0	1	18	6	0	13	44	1	0	3	10	5	148	
5:10 PM	0	4	33	7	0	3	24	2	0	16	51	0	0	9	11	5	165	
5:15 PM	0	2	37	5	0	0	21	5	0	20	83	0	0	3	12	8	196	
5:20 PM	0	1	33	8	0	2	39	5	0	14	40	1	0	5	7	5	160	
5:25 PM	0	2	28	8	0	3	34	1	0	9	42	3	0	2	6	13	151	
5:30 PM	0	2	34	7	0	0	30	1	0	24	53	1	0	2	8	8	170	
5:35 PM	0	3	29	8	0	0	13	3	0	5	56	2	0	5	8	11	143	
5:40 PM	0	0	34	5	0	1	23	9	0	14	54	0	0	5	10	10	165	
5:45 PM	0	2	48	8	0	3	19	1	0	9	54	1	0	9	9	4	167	
5:50 PM	0	3	30	5	0	2	17	3	0	18	56	1	0	1	3	9	148	
5:55 PM	0	2	34	4	0	3	19	4	0	10	38	2	0	7	13	7	143	
Count Total	1	51	786	168	0	37	470	80	0	320	1,193	26	0	113	196	187	3,628	
Peak Hour	0	23	420	89	0	19	279	41	0	169	620	12	0	57	101	93	1,923	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	NB	EB	SB	WB	Total		NB	EB	SB	WB	Total		NB	EB	SB	WB	Total
4:00 PM	2	2	1	0	5	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	0	1	0	1	4:05 PM	0	0	1	0	1	4:05 PM	0	5	0	0	5
4:10 PM	0	1	0	0	1	4:10 PM	1	0	0	0	1	4:10 PM	1	1	0	0	2
4:15 PM	1	0	0	0	1	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	0	3	0	3	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	1	0	0	1	4:25 PM	0	0	0	0	0	4:25 PM	0	1	0	0	1
4:30 PM	0	0	1	1	2	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	4	0	1	0	5	4:35 PM	0	0	1	0	1	4:35 PM	0	0	1	1	2
4:40 PM	1	0	2	0	3	4:40 PM	0	0	0	1	1	4:40 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0	4:45 PM	0	0	1	0	1	4:45 PM	1	0	0	0	1
4:50 PM	0	0	1	0	1	4:50 PM	0	0	0	0	0	4:50 PM	0	0	1	1	2
4:55 PM	0	1	0	0	1	4:55 PM	0	0	0	0	0	4:55 PM	0	1	1	0	2
5:00 PM	3	0	0	0	3	5:00 PM	0	0	0	0	0	5:00 PM	2	0	0	0	2
5:05 PM	1	0	1	0	2	5:05 PM	0	0	0	0	0	5:05 PM	0	2	2	0	4
5:10 PM	0	0	1	0	1	5:10 PM	0	0	0	0	0	5:10 PM	1	0	0	0	1
5:15 PM	0	0	2	0	2	5:15 PM	0	0	0	0	0	5:15 PM	1	0	0	0	1
5:20 PM	0	0	1	1	2	5:20 PM	1	0	0	0	1	5:20 PM	0	0	0	0	0
5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	1	1	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0	5:30 PM	0	0	1	0	1	5:30 PM	0	0	0	0	0
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	0	2	1	0	3
5:40 PM	1	0	1	0	2	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	1	0	1	5:45 PM	0	0	0	0	0	5:45 PM	0	0	1	1	2
5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0	5:50 PM	0	2	1	1	4
5:55 PM	0	0	0	1	1	5:55 PM	0	0	0	0	0	5:55 PM	1	1	0	0	2
Count Total	13	5	17	3	38	Count Total	2	0	4	2	8	Count Total	7	15	8	4	34
Peak Hour	5	1	7	1	14	Peak Hour	1	0	1	1	3	Peak Hour	4	7	6	2	19



ALL TRAFFIC DATA SERVICES

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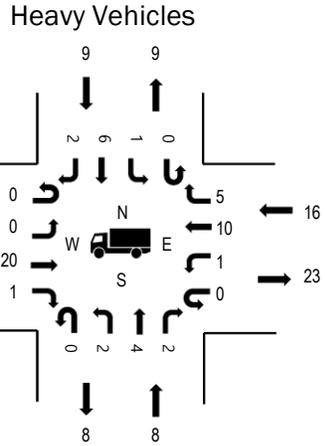
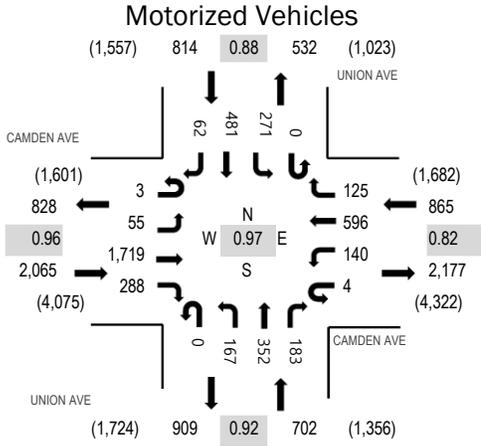
Location: 2 UNION AVE & CAMDEN AVE PM

Date: Tuesday, August 22, 2023

Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 05:10 PM - 05:25 PM

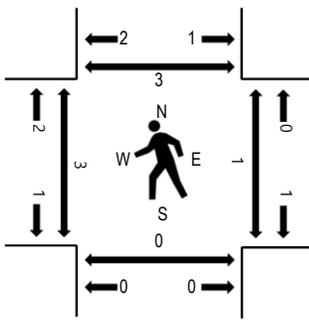
Peak Hour



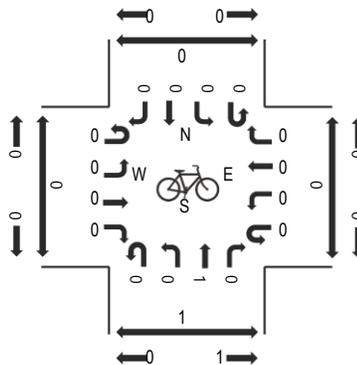
	HV%	PHF
EB	1.0%	0.96
WB	1.8%	0.82
NB	1.1%	0.92
SB	1.1%	0.88
All	1.2%	0.97

Note: Total study counts contained in parentheses.

Pedestrians



Bicycles on Road



Traffic Counts - Motorized Vehicles

Interval Start Time	UNION AVE Northbound				CAMDEN AVE Eastbound				UNION AVE Southbound				CAMDEN AVE Westbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	16	23	20	0	6	129	25	0	22	35	7	0	13	41	16	353	4,309
4:05 PM	0	20	38	24	0	4	120	27	0	19	32	12	1	16	52	15	380	4,349
4:10 PM	0	14	22	18	0	5	114	21	0	26	35	6	0	20	35	7	323	4,303
4:15 PM	0	20	18	9	0	1	151	15	0	26	30	6	1	13	52	16	358	4,372
4:20 PM	0	14	18	10	0	6	145	27	0	23	26	3	0	12	42	16	342	4,408
4:25 PM	0	15	23	16	1	3	152	18	0	18	24	6	0	11	42	7	336	4,422
4:30 PM	0	10	34	16	1	7	153	22	0	19	42	9	0	10	53	14	390	4,446
4:35 PM	0	11	27	14	0	5	157	20	0	23	46	6	0	10	48	10	377	4,412
4:40 PM	0	20	29	15	0	5	148	24	0	19	45	5	0	13	41	6	370	4,404
4:45 PM	0	16	27	19	1	2	140	12	0	22	40	4	0	6	47	7	343	4,412
4:50 PM	0	9	31	14	0	7	140	25	0	26	35	6	0	18	34	7	352	4,414
4:55 PM	0	15	27	16	0	3	142	28	0	26	44	4	0	12	55	13	385	4,409
5:00 PM	0	11	21	12	0	8	145	42	0	27	30	4	2	11	62	18	393	4,361
5:05 PM	0	17	29	17	1	5	106	25	0	22	23	2	0	16	61	10	334	
5:10 PM	0	10	34	19	0	2	164	21	0	11	38	4	0	13	63	13	392	
5:15 PM	0	17	39	12	0	2	144	27	0	25	52	11	0	10	48	7	394	
5:20 PM	0	21	28	12	0	2	146	13	0	24	50	2	2	8	43	5	356	
5:25 PM	0	10	26	17	0	7	134	29	0	27	36	5	0	13	41	15	360	
5:30 PM	0	16	28	19	0	8	138	14	0	22	34	4	0	13	47	13	356	
5:35 PM	0	10	32	22	0	4	139	22	0	19	53	7	2	11	40	8	369	
5:40 PM	0	6	19	14	0	3	167	19	0	25	39	9	0	13	53	11	378	
5:45 PM	0	11	28	10	0	6	146	26	0	19	31	6	1	6	45	10	345	
5:50 PM	0	9	25	10	0	3	158	22	0	14	43	7	1	12	34	9	347	
5:55 PM	0	12	29	16	1	2	146	16	0	13	34	8	0	7	44	9	337	
Count Total	0	330	655	371	5	106	3,424	540	0	517	897	143	10	287	1,123	262	8,670	
Peak Hour	0	167	352	183	3	55	1,719	288	0	271	481	62	4	140	596	125	4,446	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	NB	EB	SB	WB	Total		NB	EB	SB	WB	Total		NB	EB	SB	WB	Total
4:00 PM	3	2	0	5	10	4:00 PM	0	0	0	0	0	4:00 PM	0	3	0	0	3
4:05 PM	2	2	1	4	9	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	2	2	0	3	7	4:10 PM	1	0	0	0	1	4:10 PM	0	4	1	0	5
4:15 PM	1	2	0	0	3	4:15 PM	0	0	1	0	1	4:15 PM	0	1	0	0	1
4:20 PM	3	2	1	1	7	4:20 PM	0	0	0	0	0	4:20 PM	0	0	1	0	1
4:25 PM	0	3	2	0	5	4:25 PM	0	0	0	0	0	4:25 PM	0	1	0	0	1
4:30 PM	1	5	1	4	11	4:30 PM	0	0	0	0	0	4:30 PM	0	0	1	0	1
4:35 PM	3	1	0	3	7	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	1	3	2	1	7	4:40 PM	0	0	0	0	0	4:40 PM	1	0	0	0	1
4:45 PM	0	1	0	1	2	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	1	0	1	0	2	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	2	0	0	2	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	1	2	0	2	5	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	1	0	1	2	4	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	1	1
5:10 PM	0	2	0	0	2	5:10 PM	0	0	0	0	0	5:10 PM	0	0	1	0	1
5:15 PM	0	2	1	1	4	5:15 PM	0	0	0	0	0	5:15 PM	0	1	0	0	1
5:20 PM	0	2	2	1	5	5:20 PM	1	0	0	0	1	5:20 PM	0	2	1	0	3
5:25 PM	0	1	1	1	3	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	1	1	5:30 PM	0	0	0	0	0	5:30 PM	0	1	0	0	1
5:35 PM	1	0	0	0	1	5:35 PM	0	0	1	0	1	5:35 PM	0	0	0	0	0
5:40 PM	0	3	1	2	6	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	1	1
5:50 PM	0	1	1	1	3	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	1	0	1	2	5:55 PM	0	0	0	0	0	5:55 PM	0	1	0	1	2
Count Total	20	39	15	34	108	Count Total	2	0	2	0	4	Count Total	1	14	5	3	23
Peak Hour	8	21	9	16	54	Peak Hour	1	0	0	0	1	Peak Hour	1	3	3	1	8

Appendix C

Approved Trips Inventory (ATI)

AM PROJECT TRIPS

07/18/2023

Intersection of : Camden Av & Union Av

Traffic Node Number : 3088

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
19-130780 TA (3-10682) Residential Silverado Memory Care Development	0	3	0	1	9	15	3	0	0	0	0	0
20-113676 TA (3-13401) Mixed Use Silverado Memory Care Development	10	6	38	9	-5	0	0	29	-6	136	19	7
21-026967 TA (3-25710) Residential Silverado Memory Care Development	0	1	0	1	3	4	2	0	0	2	3	0
PDC15-028 (3-17945) Retail/Commercial	0	0	0	0	0	0	0	0	0	0	0	0
SAMARITAN MEDICAL EXPANSION												
TOTAL:	10	10	38	11	7	19	5	29	(6)	138	22	7

	LEFT	THRU	RIGHT
NORTH	11	7	19
EAST	138	22	7
SOUTH	10	10	38
WEST	5	29	(6)

PM PROJECT TRIPS

07/18/2023

Intersection of : Camden Av & Union Av

Traffic Node Number : 3088

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
19-130780 TA (3-10682) Residential Silverado Memory Care Development	0	9	0	1	5	10	9	0	0	0	0	1
20-113676 TA (3-13401) Mixed Use Silverado Memory Care Development	0	0	37	0	0	0	0	17	0	107	22	7
21-026967 TA (3-25710) Residential Silverado Memory Care Development	0	5	0	1	2	2	5	0	0	1	2	0
PDC15-028 (3-17945) Retail/Commercial	0	0	0	0	0	0	0	0	0	0	0	0
SAMARITAN MEDICAL EXPANSION												
TOTAL:	0	14	37	2	7	12	14	17	0	108	24	8

	LEFT	THRU	RIGHT
NORTH	2	7	12
EAST	108	24	8
SOUTH	0	14	37
WEST	14	17	0

AM PROJECT TRIPS

07/18/2023

Intersection of : Foxworthy Av & Union Av

Traffic Node Number : 3550

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
19-130780 TA (3-10682) Residential Silverado Memory Care Development	0	1	0	0	0	0	0	0	3	0	0	0
20-113676 TA (3-13401) Mixed Use Silverado Memory Care Development	0	13	0	0	5	0	0	0	0	0	0	0
21-026967 TA (3-25710) Residential Silverado Memory Care Development	1	1	0	0	0	0	0	0	1	0	0	0
TOTAL:	1	15	0	0	5	0	0	0	4	0	0	0

	LEFT	THRU	RIGHT
NORTH	0	5	0
EAST	0	0	0
SOUTH	1	15	0
WEST	0	0	4

PM PROJECT TRIPS

07/18/2023

Intersection of : Foxworthy Av & Union Av

Traffic Node Number : 3550

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
19-130780 TA (3-10682) Residential Silverado Memory Care Development	0	1	0	0	1	0	0	0	9	0	0	0
20-113676 TA (3-13401) Mixed Use Silverado Memory Care Development	0	0	0	0	0	0	0	0	0	0	0	0
21-026967 TA (3-25710) Residential Silverado Memory Care Development	1	1	0	0	1	0	0	0	4	0	0	0
TOTAL:	1	2	0	0	2	0	0	0	13	0	0	0

	LEFT	THRU	RIGHT
NORTH	0	2	0
EAST	0	0	0
SOUTH	1	2	0
WEST	0	0	13

Appendix D

Level of Service Calculation Sheets

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: Project
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Union/Foxworthy

Cycle (sec): 90 Critical Vol./Cap.(X): 0.378
Loss Time (sec): 9 Average Delay (sec/veh): 19.8
Optimal Cycle: 36 Level Of Service: B

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

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

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

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

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Union/Camden

Cycle (sec): 180 Critical Vol./Cap.(X): 0.629
Loss Time (sec): 12 Average Delay (sec/veh): 47.5
Optimal Cycle: 55 Level Of Service: D

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

Volume Module: Table with 12 columns representing different volume categories and 12 rows of data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module: Table with 12 columns and 4 rows of data including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns and 14 rows of data including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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: Project
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Union/Foxworthy

Cycle (sec): 90 Critical Vol./Cap.(X): 0.367
Loss Time (sec): 0 Average Delay (sec/veh): 19.7
Optimal Cycle: 29 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Protected/Permitted), Rights (Include/Ovl), and Lane counts.

Volume Module: Table with 12 columns representing different volume types (Base Vol, Growth Adj, etc.) and 12 rows of values.

Saturation Flow Module: Table with 12 columns for saturation flow values and 4 rows of adjustment factors and final saturation values.

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

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Union/Camden

Cycle (sec): 180 Critical Vol./Cap.(X): 0.753
Loss Time (sec): 12 Average Delay (sec/veh): 52.3
Optimal Cycle: 77 Level Of Service: D

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

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

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

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

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: Project
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Union/Foxworthy

Cycle (sec): 90 Critical Vol./Cap.(X): 0.382
Loss Time (sec): 9 Average Delay (sec/veh): 19.8
Optimal Cycle: 36 Level Of Service: B

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

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

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Union/Camden

Cycle (sec): 180 Critical Vol./Cap.(X): 0.667
Loss Time (sec): 12 Average Delay (sec/veh): 50.8
Optimal Cycle: 60 Level Of Service: D

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

Volume Module: Table with 12 columns representing different volume metrics like Base Vol, Growth Adj, Initial Bse, etc.

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

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

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: Project
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Union/Foxworthy

Cycle (sec): 90 Critical Vol./Cap.(X): 0.376
Loss Time (sec): 0 Average Delay (sec/veh): 19.9
Optimal Cycle: 30 Level Of Service: B

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

Volume Module: Table with 12 columns representing different volume categories and 12 rows of data including Base Vol, Growth Adj, Initial Bse, etc.

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

Capacity Analysis Module: Table with 12 columns representing capacity analysis metrics and 14 rows of data including Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Union/Camden

Cycle (sec): 180 Critical Vol./Cap.(X): 0.843
Loss Time (sec): 12 Average Delay (sec/veh): 58.5
Optimal Cycle: 107 Level Of Service: E

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 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 1 1 0 1 0 2 0 1 1 0 3 0 1 1 0 3 0 1

Volume Module:
Base Vol: 167 366 220 273 488 74 72 1736 288 252 620 133
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: 167 366 220 273 488 74 72 1736 288 252 620 133
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: 167 366 220 273 488 74 72 1736 288 252 620 133
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: 167 366 220 273 488 74 72 1736 288 252 620 133
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 167 366 220 273 488 74 72 1736 288 252 620 133
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: 167 366 220 273 488 74 72 1736 288 252 620 133

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.88 0.94 0.89 0.88 1.00 0.81 0.88 1.00 0.81 0.88 1.00 0.81
Lanes: 1.00 1.22 0.78 1.00 2.00 1.00 1.00 3.00 1.00 1.00 3.00 1.00
Final Sat.: 1663 2195 1319 1663 3800 1530 1663 5700 1530 1663 5700 1530

Capacity Analysis Module:
Vol/Sat: 0.10 0.17 0.17 0.16 0.13 0.05 0.04 0.30 0.19 0.15 0.11 0.09
Crit Moves: **** **** ****
Green/Cycle: 0.17 0.20 0.20 0.19 0.22 0.37 0.15 0.36 0.53 0.18 0.39 0.58
Volume/Cap: 0.58 0.84 0.84 0.84 0.58 0.13 0.28 0.84 0.35 0.84 0.28 0.15
Uniform Del: 68.6 69.5 69.5 69.8 62.8 37.0 67.3 52.8 24.1 71.4 38.0 17.3
IncrcmntDel: 3.1 9.2 9.2 17.9 1.1 0.1 0.6 3.4 0.3 19.1 0.1 0.1
InitQueueDel: 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: 71.6 78.8 78.8 87.7 63.8 37.1 67.9 56.2 24.4 90.5 38.0 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: 71.6 78.8 78.8 87.7 63.8 37.1 67.9 56.2 24.4 90.5 38.0 17.3
LOS by Move: E E E F E D E E C F D B
HCM2kAvgQ: 10 18 18 18 12 3 4 31 9 17 7 3

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

 Intersection #1 Union/Foxworthy

Cycle (sec): 90 Critical Vol./Cap.(X): 0.383
 Loss Time (sec): 9 Average Delay (sec/veh): 19.8
 Optimal Cycle: 36 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			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	0	1	0	1	0

Volume Module:

Base Vol:	18	656	54	56	362	20	21	135	28	111	229	174
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:	18	656	54	56	362	20	21	135	28	111	229	174
Added Vol:	1	0	1	0	0	0	0	0	1	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	656	55	56	362	20	21	135	29	112	229	174
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	656	55	56	362	20	21	135	29	112	229	174
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	656	55	56	362	20	21	135	29	112	229	174
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	656	55	56	362	20	21	135	29	112	229	174

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.88	0.99	0.94	0.88	0.99	0.94	0.86	0.94	0.89	0.67	1.00	0.81
Lanes:	1.00	1.84	0.16	1.00	1.89	0.11	0.12	0.72	0.16	1.00	1.00	1.00
Final Sat.:	1663	3449	289	1663	3562	197	198	1275	274	1281	1900	1530

Capacity Analysis Module:

Vol/Sat:	0.01	0.19	0.19	0.03	0.10	0.10	0.11	0.11	0.11	0.09	0.12	0.11
Crit Moves:	****			****						****		
Green/Cycle:	0.24	0.50	0.50	0.09	0.34	0.34	0.31	0.31	0.31	0.31	0.31	0.40
Volume/Cap:	0.05	0.38	0.38	0.38	0.30	0.30	0.34	0.34	0.34	0.28	0.38	0.28
Uniform Del:	26.2	14.1	14.1	38.7	21.5	21.5	23.6	23.6	23.6	23.1	24.0	18.1
IncrcmntDel:	0.0	0.1	0.1	1.7	0.1	0.1	0.4	0.4	0.4	0.4	0.4	0.3
InitQueueDel:	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:	26.3	14.2	14.2	40.4	21.7	21.7	24.0	24.0	24.0	23.5	24.4	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:	26.3	14.2	14.2	40.4	21.7	21.7	24.0	24.0	24.0	23.5	24.4	18.3
LOS by Move:	C	B	B	D	C	C	C	C	C	C	C	B
HCM2kAvgQ:	0	6	6	2	4	4	4	4	4	3	5	3

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Union/Camden

Cycle (sec): 180 Critical Vol./Cap.(X): 0.671
Loss Time (sec): 12 Average Delay (sec/veh): 51.0
Optimal Cycle: 61 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: Include 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 1 1 0 1 0 2 0 1 1 0 3 0 1 1 0 3 0 1

Volume Module:
Base Vol: 246 412 155 150 301 95 86 687 133 393 1839 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: 246 412 155 150 301 95 86 687 133 393 1839 265
Added Vol: 0 1 0 2 1 2 3 0 0 0 0 3
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 246 413 155 152 302 97 89 687 133 393 1839 268
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: 246 413 155 152 302 97 89 687 133 393 1839 268
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 246 413 155 152 302 97 89 687 133 393 1839 268
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: 246 413 155 152 302 97 89 687 133 393 1839 268

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.88 0.96 0.91 0.88 1.00 0.81 0.88 1.00 0.81 0.88 1.00 0.81
Lanes: 1.00 1.43 0.57 1.00 2.00 1.00 1.00 3.00 1.00 1.00 3.00 1.00
Final Sat.: 1663 2610 980 1663 3800 1530 1663 5700 1530 1663 5700 1530

Capacity Analysis Module:
Vol/Sat: 0.15 0.16 0.16 0.09 0.08 0.06 0.05 0.12 0.09 0.24 0.32 0.18
Crit Moves: **** **** **** ****
Green/Cycle: 0.24 0.24 0.24 0.14 0.13 0.21 0.08 0.19 0.43 0.37 0.48 0.62
Volume/Cap: 0.61 0.67 0.67 0.67 0.61 0.30 0.67 0.64 0.20 0.64 0.67 0.28
Uniform Del: 60.7 62.4 62.4 73.9 74.0 60.0 80.5 67.2 31.8 46.5 35.8 16.0
IncrcmntDel: 2.7 2.1 2.1 7.6 2.2 0.5 12.5 1.3 0.2 2.2 0.7 0.2
InitQueueDel: 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: 63.4 64.5 64.5 81.5 76.2 60.5 93.1 68.5 32.0 48.7 36.4 16.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 63.4 64.5 64.5 81.5 76.2 60.5 93.1 68.5 32.0 48.7 36.4 16.1
LOS by Move: E E E F E E F E C D D B
HCM2kAvgQ: 13 15 15 10 9 5 6 12 5 19 25 7

Scenario Report
Scenario: Background plus Project PM

Command: Default Command
Volume: Background PM
Geometry: Existing PM
Impact Fee: Default Impact Fee
Trip Generation: Project PM
Trip Distribution: Project
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Union/Foxworthy

Cycle (sec): 90 Critical Vol./Cap.(X): 0.377
Loss Time (sec): 0 Average Delay (sec/veh): 20.0
Optimal Cycle: 30 Level Of Service: B

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Ovl), and various timing parameters like Min. Green, Y+R, Lanes.

Volume Module: Table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume across 12 lanes.

Saturation Flow Module: Table showing Sat/Lane, Adjustment, Lanes, Final Sat. across 12 lanes.

Capacity Analysis Module: Table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ across 12 lanes.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Union/Camden

Cycle (sec): 180 Critical Vol./Cap.(X): 0.846
Loss Time (sec): 12 Average Delay (sec/veh): 58.7
Optimal Cycle: 108 Level Of Service: E

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

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

Saturation Flow Module: Table with 12 columns and 4 rows of data including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns and 14 rows of data including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Appendix E

Roadway Speed and Volume Counts

Site Code: 3

Start Time	22-Aug-23 Tue	EB	WB							Total
12:00 AM		2	4							6
01:00		1	0							1
02:00		1	1							2
03:00		0	0							0
04:00		0	1							1
05:00		0	0							0
06:00		6	4							10
07:00		11	12							23
08:00		36	24							60
09:00		44	42							86
10:00		18	15							33
11:00		13	14							27
12:00 PM		8	10							18
01:00		13	13							26
02:00		23	10							33
03:00		46	24							70
04:00		52	17							69
05:00		104	45							149
06:00		34	28							62
07:00		12	7							19
08:00		18	12							30
09:00		1	3							4
10:00		2	0							2
11:00		2	0							2
Total		447	286							733
Percent		61.0%	39.0%							
AM Peak	-	09:00	09:00	-	-	-	-	-	-	09:00
Vol.	-	44	42	-	-	-	-	-	-	86
PM Peak	-	17:00	17:00	-	-	-	-	-	-	17:00
Vol.	-	104	45	-	-	-	-	-	-	149
Grand Total		447	286							733
Percent		61.0%	39.0%							
ADT		ADT 733		AADT 733						

Site Code: 3

EB

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	Pace Speed	Number in Pace
08/22/23	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	9-18	1
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	1	0	3	1	1	0	0	0	0	0	0	0	0	0	0	6	21-30	4
07:00	0	2	4	4	1	0	0	0	0	0	0	0	0	0	0	11	21-30	8
08:00	4	13	10	7	2	0	0	0	0	0	0	0	0	0	0	36	16-25	23
09:00	17	18	9	0	0	0	0	0	0	0	0	0	0	0	0	44	16-25	27
10:00	1	5	7	3	2	0	0	0	0	0	0	0	0	0	0	18	16-25	12
11:00	1	1	3	7	1	0	0	0	0	0	0	0	0	0	0	13	21-30	10
12 PM	0	2	3	1	2	0	0	0	0	0	0	0	0	0	0	8	16-25	5
13:00	0	2	6	3	2	0	0	0	0	0	0	0	0	0	0	13	19-28	9
14:00	0	5	12	4	2	0	0	0	0	0	0	0	0	0	0	23	16-25	17
15:00	1	11	26	7	1	0	0	0	0	0	0	0	0	0	0	46	16-25	37
16:00	3	11	29	7	2	0	0	0	0	0	0	0	0	0	0	52	16-25	40
17:00	22	38	36	8	0	0	0	0	0	0	0	0	0	0	0	104	16-25	74
18:00	0	7	22	4	1	0	0	0	0	0	0	0	0	0	0	34	16-25	29
19:00	0	5	5	2	0	0	0	0	0	0	0	0	0	0	0	12	16-25	10
20:00	0	8	7	3	0	0	0	0	0	0	0	0	0	0	0	18	16-25	15
21:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	19-28	1
22:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	*	1
23:00	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	9-18	1
Total	51	131	184	64	17	0	0	0	0	0	0	0	0	0	0	447		
Percent	11.4%	29.3%	41.2%	14.3%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	09:00	08:00	08:00	08:00											09:00		
Vol.	17	18	10	7	2											44		
PM Peak	17:00	17:00	17:00	17:00	12:00											17:00		
Vol.	22	38	36	8	2											104		
Total	51	131	184	64	17	0	0	0	0	0	0	0	0	0	0	447		
Percent	11.4%	29.3%	41.2%	14.3%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 15 MPH
50th Percentile : 21 MPH
85th Percentile : 26 MPH
95th Percentile : 29 MPH

Stats
10 MPH Pace Speed : 16-25 MPH
Number in Pace : 315
Percent in Pace : 70.5%
Number of Vehicles > 25 MPH : 81
Percent of Vehicles > 25 MPH : 18.1%
Mean Speed(Average) : 21 MPH

Site Code: 3

WB	Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	Pace Speed	Number in Pace
	08/22/23	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	4	13-22	2
	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
	02:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
	04:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	24-33	1
	05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
	06:00	0	2	0	1	1	0	0	0	0	0	0	0	0	0	0	4	10-19	2
	07:00	1	4	4	1	2	0	0	0	0	0	0	0	0	0	0	12	16-25	8
	08:00	2	6	9	6	1	0	0	0	0	0	0	0	0	0	0	24	16-25	15
	09:00	17	24	1	0	0	0	0	0	0	0	0	0	0	0	0	42	11-20	30
	10:00	5	3	5	2	0	0	0	0	0	0	0	0	0	0	0	15	16-25	8
	11:00	2	5	2	3	2	0	0	0	0	0	0	0	0	0	0	14	16-25	7
	12 PM	0	3	4	2	1	0	0	0	0	0	0	0	0	0	0	10	16-25	7
	13:00	0	6	3	3	1	0	0	0	0	0	0	0	0	0	0	13	16-25	9
	14:00	1	3	4	1	1	0	0	0	0	0	0	0	0	0	0	10	16-25	7
	15:00	1	11	10	2	0	0	0	0	0	0	0	0	0	0	0	24	16-25	21
	16:00	2	9	3	1	2	0	0	0	0	0	0	0	0	0	0	17	16-25	12
	17:00	12	23	9	1	0	0	0	0	0	0	0	0	0	0	0	45	16-25	32
	18:00	6	10	10	2	0	0	0	0	0	0	0	0	0	0	0	28	16-25	20
	19:00	1	4	1	1	0	0	0	0	0	0	0	0	0	0	0	7	13-22	5
	20:00	1	6	3	2	0	0	0	0	0	0	0	0	0	0	0	12	16-25	9
	21:00	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	3	19-28	2
	22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
	23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
	Total	54	120	70	30	12	0	0	0	0	0	0	0	0	0	0	286		
	Percent	18.9%	42.0%	24.5%	10.5%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
	AM Peak	09:00	09:00	08:00	08:00	07:00											09:00		
	Vol.	17	24	9	6	2											42		
	PM Peak	17:00	17:00	15:00	13:00	16:00											17:00		
	Vol.	12	23	10	3	2											45		
	Total	54	120	70	30	12	0	0	0	0	0	0	0	0	0	0	286		
	Percent	18.9%	42.0%	24.5%	10.5%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 11 MPH
 50th Percentile : 18 MPH
 85th Percentile : 24 MPH
 95th Percentile : 29 MPH

Stats
 10 MPH Pace Speed : 16-25 MPH
 Number in Pace : 190
 Percent in Pace : 66.4%
 Number of Vehicles > 25 MPH : 42
 Percent of Vehicles > 25 MPH : 14.7%
 Mean Speed(Average) : 19 MPH

Site Code: 4

NB

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	Pace Speed	Number in Pace
08/22/23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	3	14-23	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	34-43	1
06:00	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3	24-33	2
07:00	1	0	4	8	2	2	1	0	0	0	0	0	0	0	0	18	21-30	12
08:00	1	3	10	14	14	3	0	0	0	0	0	0	0	0	0	45	26-35	28
09:00	1	4	8	6	9	0	0	0	0	0	0	0	0	0	0	28	26-35	15
10:00	0	3	2	4	4	2	0	0	0	0	0	0	0	0	0	15	26-35	8
11:00	0	0	6	6	3	0	0	0	0	0	0	0	0	0	0	15	21-30	12
12 PM	1	0	1	2	1	3	1	0	0	0	0	0	0	0	0	9	36-45	4
13:00	2	0	4	6	2	0	0	0	0	0	0	0	0	0	0	14	21-30	10
14:00	0	2	5	7	14	1	0	0	0	0	0	0	0	0	0	29	26-35	21
15:00	0	2	10	14	1	0	0	0	0	0	0	0	0	0	0	27	21-30	24
16:00	2	1	7	9	8	1	0	0	0	0	0	0	0	0	0	28	24-33	17
17:00	1	2	14	37	6	0	0	0	0	0	0	0	0	0	0	60	21-30	51
18:00	0	2	10	13	8	0	0	0	0	0	0	0	0	0	0	33	21-30	23
19:00	1	1	2	3	1	1	0	0	0	0	0	0	0	0	0	9	21-30	5
20:00	0	2	4	4	2	0	0	0	0	0	0	0	0	0	0	12	21-30	8
21:00	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	4	24-33	3
22:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
23:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	19-28	1
Total	12	23	89	137	78	13	3	0	0	0	0	0	0	0	0	355		
Percent	3.4%	6.5%	25.1%	38.6%	22.0%	3.7%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	06:00	09:00	08:00	08:00	08:00	08:00	05:00									08:00		
Vol.	1	4	10	14	14	3	1									45		
PM Peak	13:00	14:00	17:00	17:00	14:00	12:00	12:00									17:00		
Vol.	2	2	14	37	14	3	1									60		
Total	12	23	89	137	78	13	3	0	0	0	0	0	0	0	0	355		
Percent	3.4%	6.5%	25.1%	38.6%	22.0%	3.7%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 21 MPH
50th Percentile : 26 MPH
85th Percentile : 32 MPH
95th Percentile : 34 MPH

Stats
10 MPH Pace Speed : 21-30 MPH
Number in Pace : 226
Percent in Pace : 63.7%
Number of Vehicles > 25 MPH : 231
Percent of Vehicles > 25 MPH : 65.1%
Mean Speed(Average) : 27 MPH

Site Code: 4

SB

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	Pace Speed	Number in Pace
08/22/23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	19-28	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
07:00	1	1	4	3	1	1	0	0	0	0	0	0	0	0	0	11	20-29	7
08:00	0	1	15	11	3	1	1	0	0	0	0	0	0	0	0	32	21-30	26
09:00	2	3	9	12	6	0	0	0	12	0	0	0	0	0	0	32	21-30	21
10:00	1	1	2	5	1	0	0	0	0	0	0	0	0	0	0	10	21-30	7
11:00	0	2	3	4	0	1	0	0	0	0	0	0	0	0	0	10	21-30	7
12 PM	0	0	1	3	1	0	0	0	0	0	0	0	0	0	0	5	26-35	4
13:00	0	2	1	3	1	0	0	0	0	0	0	0	0	0	0	7	26-35	4
14:00	0	1	3	9	3	0	0	0	0	0	0	0	0	0	0	16	21-30	12
15:00	0	3	9	12	5	1	0	0	0	0	0	0	0	0	0	30	21-30	21
16:00	1	5	4	7	3	2	0	0	0	0	0	0	0	0	0	22	20-29	11
17:00	2	4	12	18	12	0	0	0	0	0	0	0	0	0	0	48	21-30	30
18:00	0	1	4	6	2	0	0	0	0	0	0	0	0	0	0	13	21-30	10
19:00	0	1	2	6	1	0	0	0	0	0	0	0	0	0	0	10	21-30	8
20:00	0	1	5	3	1	2	0	0	0	0	0	0	0	0	0	12	21-30	8
21:00	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	3	14-23	2
22:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
23:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	19-28	1
Total	7	28	75	105	40	8	1	0	0	0	0	0	0	0	0	264		
Percent	2.7%	10.6%	28.4%	39.8%	15.2%	3.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	09:00	08:00	09:00	09:00	07:00	08:00									08:00		
Vol.	2	3	15	12	6	1	1									32		
PM Peak	17:00	16:00	17:00	17:00	17:00	16:00										17:00		
Vol.	2	5	12	18	12	2										48		
Total	7	28	75	105	40	8	1	0	0	0	0	0	0	0	0	264		
Percent	2.7%	10.6%	28.4%	39.8%	15.2%	3.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 20 MPH
 50th Percentile : 26 MPH
 85th Percentile : 31 MPH
 95th Percentile : 34 MPH

Stats
 10 MPH Pace Speed : 21-30 MPH
 Number in Pace : 180
 Percent in Pace : 68.2%
 Number of Vehicles > 25 MPH : 154
 Percent of Vehicles > 25 MPH : 58.3%
 Mean Speed(Average) : 26 MPH

Site Code: 5

EB

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
08/22/23	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	19-28	2
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
05:00	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	*	1
06:00	2	0	0	1	0	0	0	0	0	0	0	0	0	0	3	8-17	1
07:00	1	2	2	1	0	0	0	0	0	0	0	0	0	0	6	16-25	4
08:00	0	7	5	2	0	0	0	0	0	0	0	0	0	0	14	16-25	12
09:00	0	10	4	0	0	0	0	0	0	0	0	0	0	0	14	16-25	14
10:00	3	3	3	0	0	0	0	0	0	0	0	0	0	0	9	15-24	6
11:00	2	2	1	1	0	0	0	0	0	0	0	0	0	0	6	16-25	3
12 PM	1	2	5	0	0	0	0	0	0	0	0	0	0	0	8	16-25	7
13:00	0	1	2	0	1	0	0	0	0	0	0	0	0	0	4	15-24	3
14:00	1	0	3	0	0	0	0	0	0	0	0	0	0	0	4	16-25	3
15:00	1	6	5	0	0	0	0	0	0	0	0	0	0	0	12	16-25	11
16:00	1	5	5	1	0	0	0	0	0	0	0	0	0	0	12	16-25	10
17:00	1	8	8	0	1	0	0	0	0	0	0	0	0	0	18	16-25	16
18:00	2	4	2	0	0	0	0	0	0	0	0	0	0	0	8	15-24	6
19:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	15-24	2
20:00	1	3	3	2	0	0	0	0	0	0	0	0	0	0	9	16-25	6
21:00	1	3	1	1	0	0	0	0	0	0	0	0	0	0	6	16-25	4
22:00	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	16-25	3
23:00	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3	14-23	3
Total	18	60	56	12	2	0	0	0	0	0	0	0	0	0	148		
Percent	12.2%	40.5%	37.8%	8.1%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	09:00	08:00	08:00											08:00		
Vol.	3	10	5	2											14		
PM Peak	18:00	17:00	17:00	20:00	13:00										17:00		
Vol.	2	8	8	2	1										18		
Total	18	60	56	12	2	0	0	0	0	0	0	0	0	0	148		
Percent	12.2%	40.5%	37.8%	8.1%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 15 MPH
 50th Percentile : 19 MPH
 85th Percentile : 24 MPH
 95th Percentile : 27 MPH

Stats
 10 MPH Pace Speed : 16-25 MPH
 Number in Pace : 116
 Percent in Pace : 78.4%
 Number of Vehicles > 25 MPH : 14
 Percent of Vehicles > 25 MPH : 9.5%
 Mean Speed(Average) : 20 MPH

Site Code: 5

WB

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	Pace Speed	Number in Pace
08/22/23	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	19-28	2
01:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	19-28	1
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	19-28	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
06:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8-17	1
07:00	0	1	1	1	3	0	0	0	0	0	0	0	0	0	0	6	25-34	4
08:00	2	4	8	1	1	0	0	0	0	0	0	0	0	0	0	16	16-25	12
09:00	0	2	4	1	1	0	0	0	0	0	0	0	0	0	0	8	16-25	6
10:00	0	2	3	4	0	0	0	0	0	0	0	0	0	0	0	9	21-30	7
11:00	0	4	2	2	0	0	0	0	0	0	0	0	0	0	0	8	15-24	6
12 PM	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	5	16-25	5
13:00	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	5	16-25	4
14:00	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6	16-25	6
15:00	3	4	5	0	0	1	0	0	0	0	0	0	0	0	0	13	16-25	9
16:00	0	3	4	0	0	0	0	0	0	0	0	0	0	0	0	7	16-25	7
17:00	1	4	10	1	0	0	0	0	0	0	0	0	0	0	0	16	16-25	14
18:00	1	5	3	0	0	0	0	0	0	0	0	0	0	0	0	9	16-25	8
19:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
20:00	0	1	4	3	0	0	0	0	0	0	0	0	0	0	0	8	20-29	7
21:00	0	0	4	2	0	0	0	0	0	0	0	0	0	0	0	6	20-29	6
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
23:00	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	9-18	1
Total	11	34	62	19	5	1	0	0	0	0	0	0	0	0	0	132		
Percent	8.3%	25.8%	47.0%	14.4%	3.8%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	06:00	08:00	08:00	10:00	07:00												08:00	
Vol.	2	4	8	4	3												16	
PM Peak	15:00	18:00	17:00	20:00		15:00											17:00	
Vol.	3	5	10	3		1											16	
Total	11	34	62	19	5	1	0	0	0	0	0	0	0	0	0	132		
Percent	8.3%	25.8%	47.0%	14.4%	3.8%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 16 MPH
50th Percentile : 21 MPH
85th Percentile : 26 MPH
95th Percentile : 29 MPH

Stats
10 MPH Pace Speed : 16-25 MPH
Number in Pace : 96
Percent in Pace : 72.7%
Number of Vehicles > 25 MPH : 25
Percent of Vehicles > 25 MPH : 18.9%
Mean Speed(Average) : 22 MPH

Site Code: 6

EB

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	Pace Speed	Number in Pace
08/22/23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	14-23	2
04:00	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3	14-23	3
05:00	0	2	3	2	2	0	0	0	0	0	0	0	0	0	0	9	21-30	5
06:00	1	1	7	5	3	0	0	0	0	0	0	0	0	0	0	17	21-30	12
07:00	3	10	10	19	8	1	0	0	0	0	0	0	0	0	0	51	21-30	29
08:00	2	2	9	20	7	1	0	0	0	0	0	0	0	0	0	41	21-30	29
09:00	0	4	4	13	6	0	0	0	0	0	0	0	0	0	0	27	25-34	19
10:00	0	6	6	11	3	2	0	0	0	0	0	0	0	0	0	28	21-30	17
11:00	1	3	3	5	6	1	0	0	0	0	0	0	0	0	0	19	26-35	11
12 PM	0	0	10	4	3	0	0	0	0	0	0	0	0	0	0	17	21-30	14
13:00	0	1	9	8	4	1	0	0	0	0	0	0	0	0	0	23	21-30	17
14:00	3	4	10	13	0	0	0	0	0	0	0	0	0	0	0	30	21-30	23
15:00	1	7	11	11	5	0	0	0	0	0	0	0	0	0	0	35	21-30	22
16:00	0	8	12	5	8	0	0	0	0	0	0	0	0	0	0	33	16-25	20
17:00	1	3	11	12	0	1	0	0	0	0	0	0	0	0	0	28	21-30	23
18:00	1	1	6	8	1	0	0	0	0	0	0	0	0	0	0	17	21-30	14
19:00	2	3	6	8	2	0	0	0	0	0	0	0	0	0	0	21	21-30	14
20:00	0	4	4	1	1	0	0	0	0	0	0	0	0	0	0	10	16-25	8
21:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	19-28	1
22:00	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	3	19-28	2
23:00	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3	19-28	2
Total	16	62	125	148	59	8	0	0	0	0	0	0	0	0	0	418		
Percent	3.8%	14.8%	29.9%	35.4%	14.1%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	08:00	07:00	10:00										07:00		
Vol.	3	10	10	20	8	2										51		
PM Peak	14:00	16:00	16:00	14:00	16:00	13:00										15:00		
Vol.	3	8	12	13	8	1										35		
Total	16	62	125	148	59	8	0	0	0	0	0	0	0	0	0	418		
Percent	3.8%	14.8%	29.9%	35.4%	14.1%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 18 MPH
 50th Percentile : 25 MPH
 85th Percentile : 30 MPH
 95th Percentile : 33 MPH

Stats
 10 MPH Pace Speed : 21-30 MPH
 Number in Pace : 273
 Percent in Pace : 65.3%
 Number of Vehicles > 25 MPH : 215
 Percent of Vehicles > 25 MPH : 51.4%
 Mean Speed(Average) : 25 MPH

Site Code: 6

WB

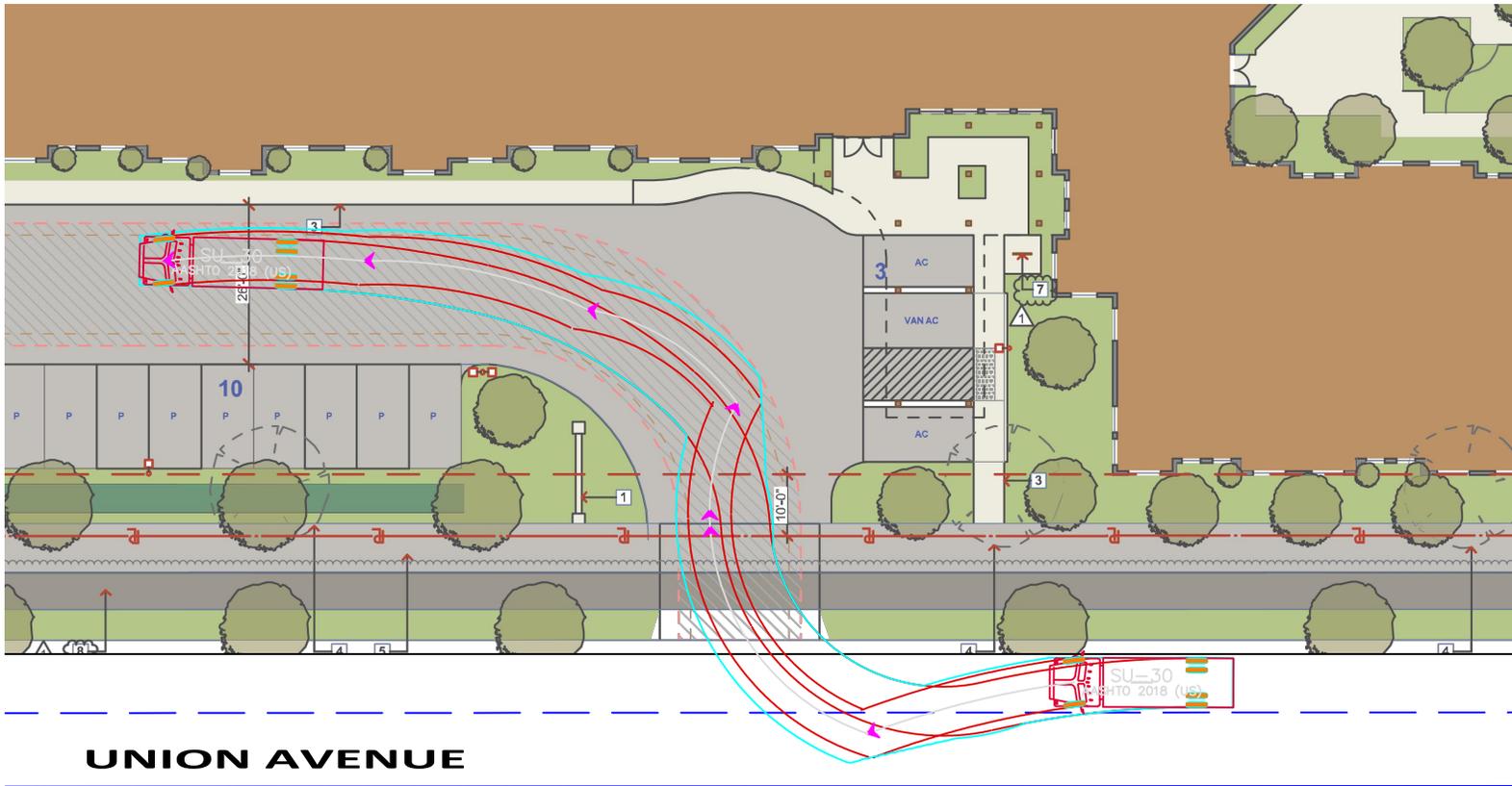
Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	Pace Speed	Number in Pace
08/22/23	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	19-28	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	0	2	8	5	0	0	0	0	0	0	0	0	0	0	0	15	21-30	13
07:00	2	2	4	9	5	3	2	0	0	0	0	0	0	0	0	27	24-33	14
08:00	3	1	7	18	24	6	0	0	0	0	0	0	0	0	0	59	26-35	42
09:00	2	2	3	15	15	0	0	0	0	0	0	0	0	0	0	37	26-35	30
10:00	2	5	7	7	2	0	0	0	0	0	0	0	0	0	0	23	21-30	14
11:00	0	6	14	9	1	0	0	0	0	0	0	0	0	0	0	30	21-30	23
12 PM	0	2	10	5	1	0	0	0	0	0	0	0	0	0	0	18	21-30	15
13:00	3	6	9	4	0	1	0	0	0	0	0	0	0	0	0	23	16-25	15
14:00	2	4	11	7	0	0	0	0	0	0	0	0	0	0	0	24	21-30	18
15:00	1	10	15	11	1	0	0	0	0	0	0	0	0	0	0	38	19-28	26
16:00	3	12	11	9	0	0	0	0	0	0	0	0	0	0	0	35	16-25	23
17:00	0	10	17	11	1	0	0	0	0	0	0	0	0	0	0	39	19-28	28
18:00	0	4	18	3	2	0	0	0	0	0	0	0	0	0	0	27	16-25	22
19:00	1	3	7	4	0	0	0	0	0	0	0	0	0	0	0	15	21-30	11
20:00	3	8	9	4	0	0	0	0	0	0	0	0	0	0	0	24	16-25	17
21:00	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	4	15-24	3
22:00	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	6	21-30	3
23:00	1	2	1	3	0	0	0	0	0	0	0	0	0	0	0	7	19-28	4
Total	24	81	156	127	53	10	2	0	453									
Percent	5.3%	17.9%	34.4%	28.0%	11.7%	2.2%	0.4%	0.0%										
AM Peak	08:00	11:00	11:00	08:00	08:00	08:00	07:00									08:00		
Vol.	3	6	14	18	24	6	2									59		
PM Peak	13:00	16:00	18:00	15:00	18:00	13:00										17:00		
Vol.	3	12	18	11	2	1										39		
Total	24	81	156	127	53	10	2	0	453									
Percent	5.3%	17.9%	34.4%	28.0%	11.7%	2.2%	0.4%	0.0%										

15th Percentile : 17 MPH
 50th Percentile : 23 MPH
 85th Percentile : 29 MPH
 95th Percentile : 33 MPH

Stats
 10 MPH Pace Speed : 21-30 MPH
 Number in Pace : 283
 Percent in Pace : 62.5%
 Number of Vehicles > 25 MPH : 192
 Percent of Vehicles > 25 MPH : 42.4%
 Mean Speed(Average) : 24 MPH

Appendix F

Truck Turning Templates



UNION AVENUE

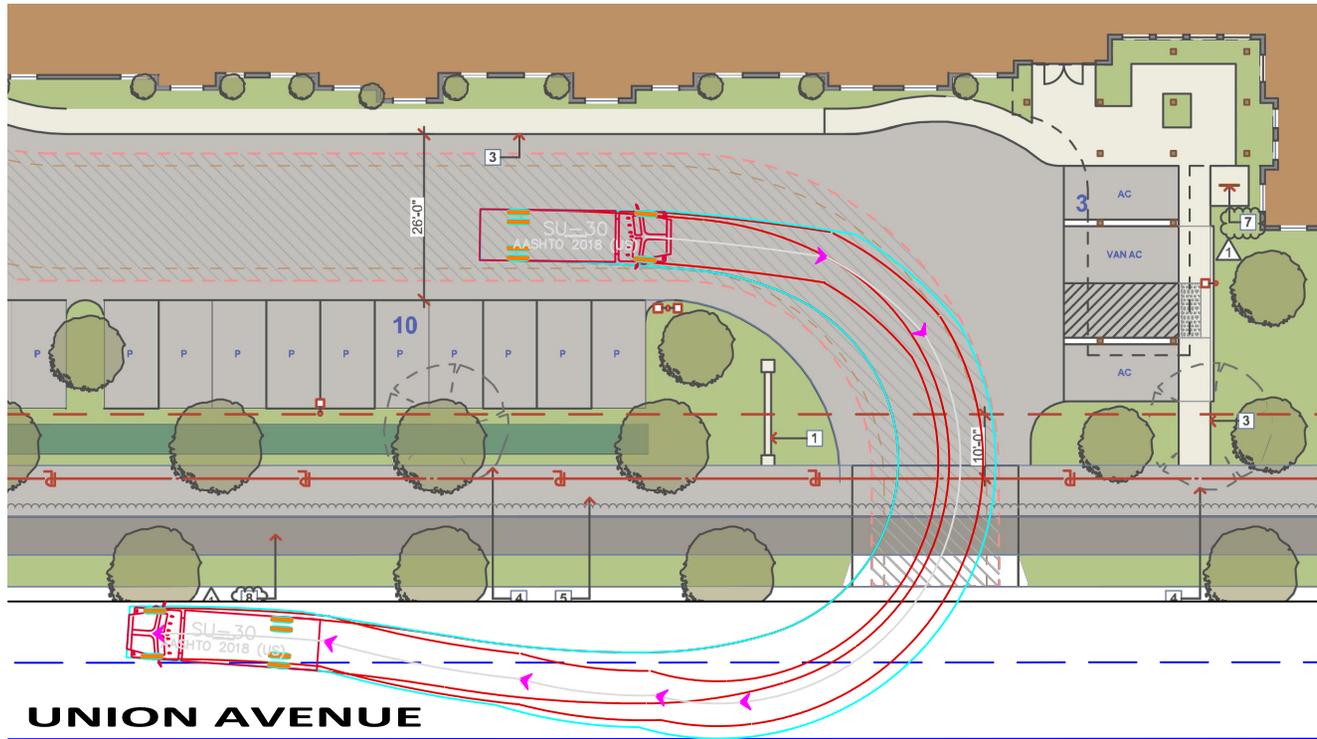
DRAWN ----	SCALE 1" = 30'
CHECKED ----	DATE 09/18/23

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CITY OF SAN JOSE
SILVERADO MEMORY CARE
TURNING TEMPLATE

FIGURE NO.

1A



DRAWN

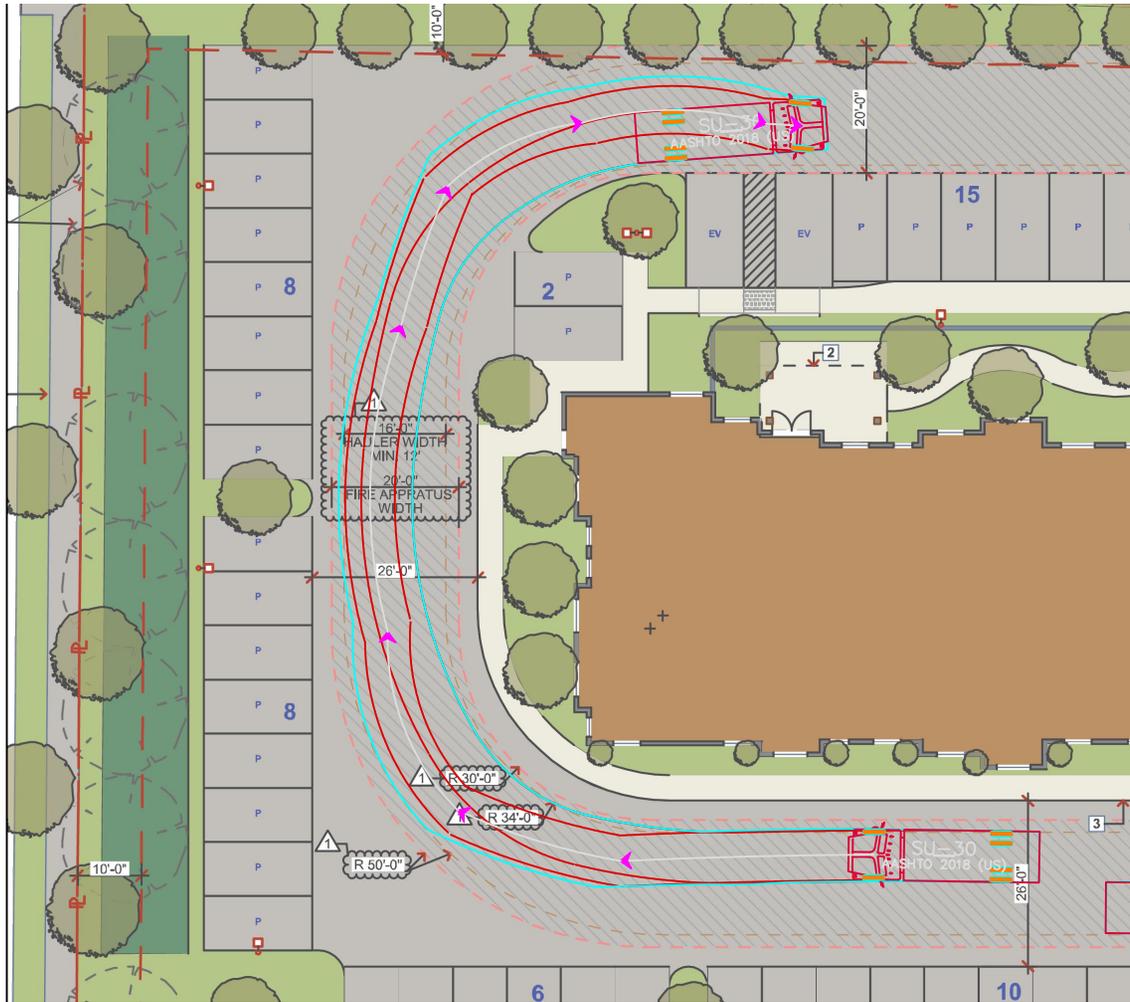
CHECKED

SCALE
1" = 30'
DATE
09/18/23

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TURNING TEMPLATE

FIGURE NO.
1B



DRAWN

CHECKED

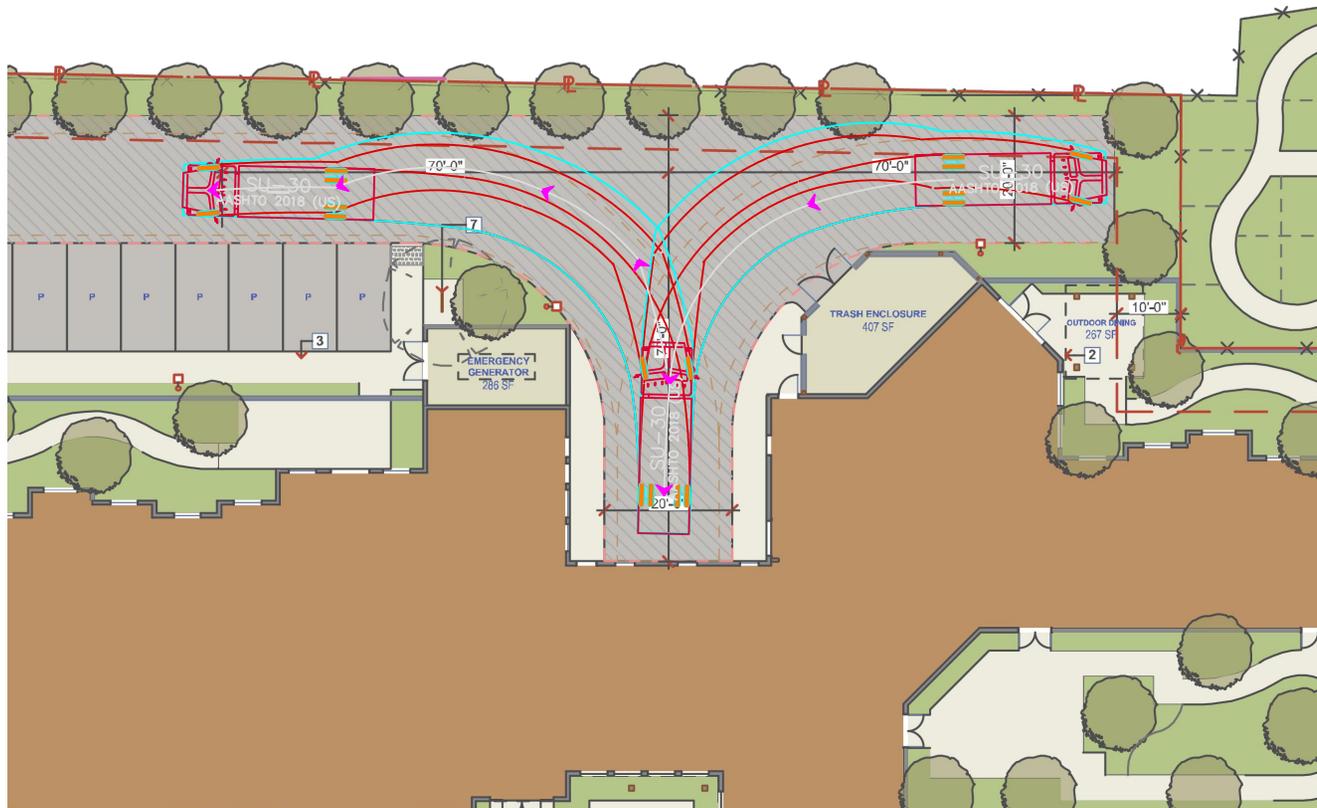
SCALE
1" = 30'
DATE
09/18/23

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CITY OF SAN JOSE
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TURNING TEMPLATE

FIGURE NO.

2



DRAWN

CHECKED

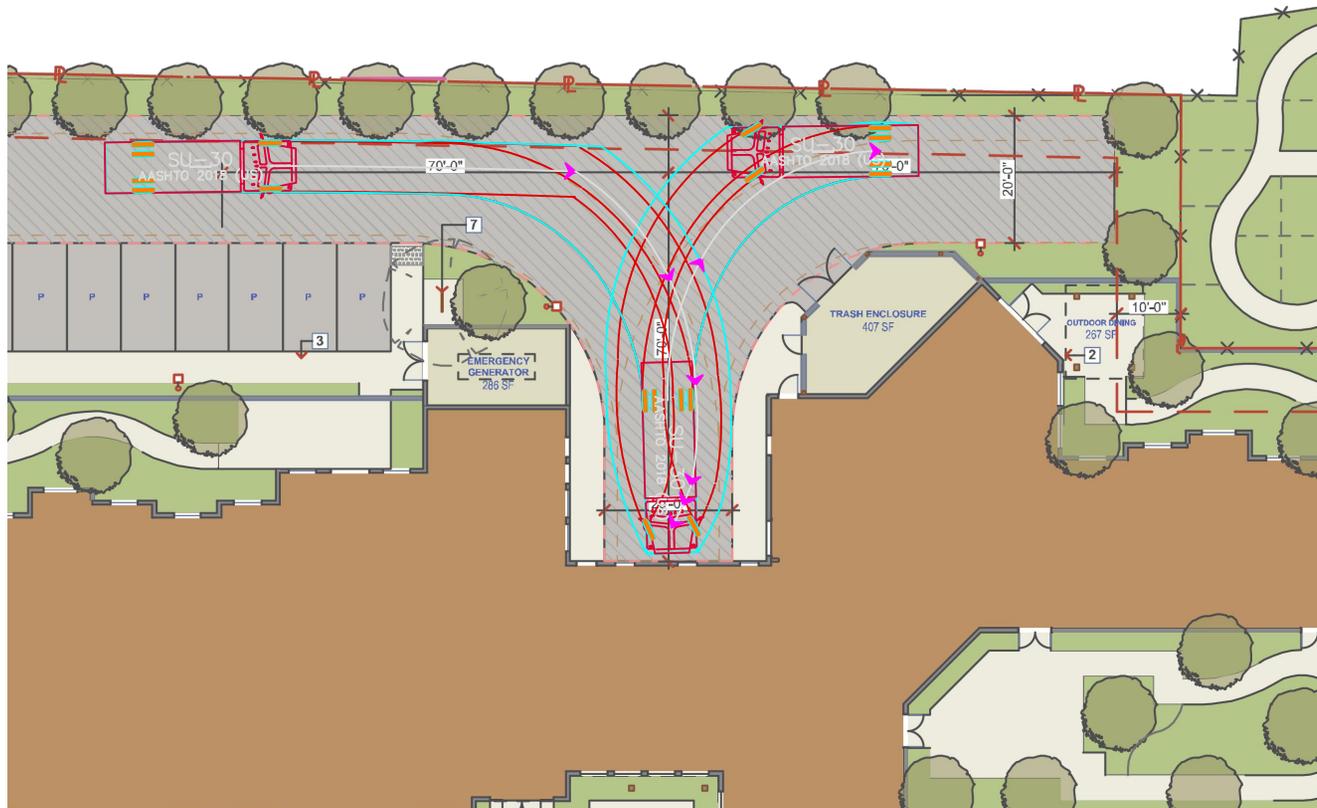
SCALE
1" = 30'
DATE
09/18/23

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CITY OF SAN JOSE
SILVERADO MEMORY CARE
TURNING TEMPLATE

FIGURE NO.

3



DRAWN

CHECKED

SCALE
1" = 30'
DATE
09/18/23

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TURNING TEMPLATE

FIGURE NO.
3