Appendix P

Transportation Analysis

HEXAGON TRANSPORTATION CONSULTANTS, INC.

Seely Avenue Mixed-Use Development

Transportation Analysis

Prepared for:

Circlepoint

September 6, 2023

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Table of Contents

Appendices

List of Tables

List of Figures

Executive Summary

This report presents the results of the transportation analysis (TA) conducted for a proposed residential mixed-use development on Seely Avenue in San Jose, California. The approximately 22-acre site is bordered by Coyote Creek on the north, Montague Expressway on the east, Seely Avenue on the south, and vacant land on the west. The mostly vacant project site includes an orchard and multiple structures, including some single-family homes. The project would construct up to a total of 1,473 residential units consisting of 1,147 multifamily housing units (apartments), 172 affordable apartment units, and 154 single-family attached housing units (townhomes). The project would also include up to 55,000 square feet (s.f.) of retail space and an approximately 2.5-acre public park. Access to the project site would be provided via two driveways on Seely Avenue, which would be widened as part of the project, and one driveway on Epic Way. The project would also include constructing a new traffic signal at the intersection of Montague Expressway and Seely Avenue in order to improve access to and from the project site.

This study was conducted for the purpose of identifying the potential transportation impacts related to the proposed residential mixed-use project. The transportation impacts were evaluated following the standards and methodologies established in the City of San Jose's *Transportation Analysis Handbook* (April 2020). This study includes a California Environmental Quality Act (CEQA) level Transportation Analysis (TA) and a Local Transportation Analysis (LTA). The LTA supplements the CEQA transportation analysis by identifying transportation operational issues via an evaluation of weekday AM and PM peak-hour traffic conditions for selected signalized intersections in the vicinity of the project site. The LTA also includes an analysis of site access, on-site circulation, parking, vehicle queuing, and effects to transit, bicycle, and pedestrian access. The effects of the project on freeway segments were evaluated in accordance with the methodologies described in the VTA's *Transportation Impact Analysis Guidelines* (2014). The VTA administers the Santa Clara County Congestion Management Program (CMP).

CEQA Transportation Analysis

The City of San Jose's *Transportation Analysis Handbook, 2020* includes screening criteria for projects that are expected to result in less-than-significant VMT impacts based on the project description, characteristics and/or location. Projects that meet the screening criteria do not require a CEQA-level transportation analysis (i.e., VMT analysis). Since the project site is located in a high VMT area of North San Jose and is not located within ½ mile of an existing major transit stop or stop along a high-quality transit corridor, the residential component of the project does not meet the City's screening criteria and is required to prepare a detailed CEQA-level VMT analysis. The retail component of the project, however, meets the exemption criteria set forth in the City's *Transportation Analysis Handbook* since it would be local-serving retail with no drive-through lane and would total less than 100,000 s.f. in size.

Project Impact

The project vehicle miles traveled (VMT) estimated by the City's VMT Evaluation Tool for the residential component of the project is 11.19 per capita. The project VMT, therefore, exceeds the residential threshold of 10.12 VMT per capita. Since the project would result in a significant transportation impact on VMT, mitigation measures are required to reduce the VMT impact to a less-than-significant level.

Project Mitigation

Based on the four VMT reduction strategy tiers included in the VMT Evaluation Tool, it is recommended that the project implement bicycle and pedestrian network improvements (Tier 2 strategies), traffic calming measures (Tier 2 strategy), and implement a Transportation Demand Management (TDM) Plan (Tier 4 strategies) to mitigate the significant VMT impact. The following Tier 2 and Tier 4 VMT reduction strategies are recommended to mitigate the significant VMT impact:

1. **Bike Access Improvements (Tier 2)**
2. **Pedestrian Network Improvements (Tier 2)**
3. **Traffic Calming Measures (Tier 2)**
4. **Car-Sharing Program (Tier 4)**
5. **Unbundled Parking (Tier 4)**
6. **Voluntary Travel Behavior Change Program (Tier 4)**
7. **On-Site TDM Administration and Services**

Based on the City's VMT Evaluation Tool, implementing the multimodal infrastructure improvements and TDM measures described above would lower the project VMT to 10.11 per capita, which would reduce the project impact to a less-than-significant level (below the City's threshold of 10.12 VMT per capita).

Local Transportation Analysis

Project Trip Generation

After applying the ITE trip rates to the proposed residential and retail uses and applying the appropriate trip adjustments and reductions, it is estimated that the project would generate 7,761 new daily vehicle trips, with 523 new trips occurring during the weekday AM peak hour and 629 new trips occurring during the weekday PM peak hour. Using the inbound/outbound splits contained in the ITE *Trip Generation Manual*, the project would produce 181 inbound trips and 342 outbound trips during the weekday AM peak hour, and 354 inbound trips and 275 outbound trips during the weekday PM peak hour.

Intersection Traffic Operations

The results of the intersection level of service analysis show that all but the following two signalized study intersections are currently operating at an acceptable level of service (LOS D or better) during both the AM and PM peak hours of traffic and would continue to do so under background and background plus project conditions:

- Zanker Road and Montague Expressway – LOS E during the AM peak hour
- McCarthy Boulevard and Montague Expressway – LOS F during the PM peak hour

Zanker Road and Montague Expressway

Although the CMP intersection of Zanker Road and Montague Expressway would operate unacceptably under background conditions (per City standards), the addition of project-generated trips would not have an adverse effect on intersection operations based on the City's operational thresholds. Note that since this is a CMP intersection, LOS E operation is considered acceptable based on the CMP level of service standard.

McCarthy Boulevard and Montague Expressway

The CMP intersection of McCarthy Boulevard and Montague Expressway would operate at an unacceptable LOS F during the PM peak hour under background conditions, and the addition of project-generated trips would have an adverse effect on intersection operations based on the City's operational thresholds.

Intersection Improvements

To address the adverse effect on the signalized intersection of McCarthy Boulevard-O'Toole Avenue and Montague Expressway, the project would make a fair-share monetary contribution toward planned improvements that were identified for this intersection as part of the recently retired North San Jose Development Policy (NSJDP). Although the policy has officially been closed out, many of the improvements are still planned and are described in the January 2023 settlement agreement between the City of San Jose and the County of Santa Clara.

A grade-separated interchange is planned for the McCarthy Boulevard-O'Toole Avenue and Montague Expressway intersection. The interchange will be designed as a "single-point urban" interchange or, if mutually agreed upon in writing by both the City of San Jose and County of Santa Clara, a design that achieves similar project goals and limits the need for right-of-way acquisition. The final interchange design will maintain all turning movements currently allowed at the at-grade intersection.

Recommendation: Pay a fair-share contribution of $200,000 toward planned improvements at the McCarthy Boulevard-O'Toole Avenue and Montague Expressway intersection.

Other Transportation Issues

In general, the proposed site plan shows adequate site access and on-site circulation. The project would not have an adverse effect on the existing pedestrian, bicycle or transit facilities in the study area. Below are recommendations resulting from the operations analysis and site plan review.

Site Plan Recommendations

- Coordinate with City staff to confirm the 24-foot drive aisle widths within the parking structures for Buildings 1, 2, and 3 and the Affordable Residential Building are acceptable.
- Install convex mirrors on all parking levels to eliminate blind spots for vehicles making turns within the parking garages for Buildings 1, 2 and 3 and the Affordable Residential Building.
- Coordinate with City staff to determine whether an internal ramp slope of 6% would be acceptable within the Building 1 and Building 3 parking garages.
- Provide a garage ramp slope within the Building 2 garage of no greater than 20% grade with transition grades of 10% or less to meet the recommended engineering design standards.
- Install mountable curbs at various locations where space would be limited for semi-trailer trucks (WB67 trucks) to negotiate the on-site street network and retail loading area of Building 2.

- Provide on-site motorcycle parking to the satisfaction of the City of San Jose Planning Department.
- Provide adequate on-site bicycle parking (e.g., bike racks) in accordance with the City of San Jose's Zoning Code for the retail component of the project.

Other Recommendations

- A new traffic signal at Seely Avenue and Montague Expressway would require coordination with City and County staff.
- Extend the westbound left-turn pocket at the Seely Avenue/River Oaks Parkway intersection to provide a total of 250 feet of vehicle storage (i.e., 200-foot striped turn pocket + 100-foot taper). Lengthening the turn pocket would require reconstruction of the median island, removal of some landscaping, restriping, and possibly relocating some utilities associated with irrigation.
- Due to the percentage increase (over 100% increase) in traffic volume along Seely Avenue as a result of the project, the project may be required to implement additional traffic calming measures following occupancy of the project if City staff determines that the increase in traffic volume could create safety-related issues along the northern segment of Seely Avenue near the residential neighborhoods north of the project site. If issues are identified following occupancy of the project, City staff would require a focused traffic operations study of Seely Avenue to determine the appropriate traffic calming measures that should be implemented by the project. Additional traffic calming measures could include (but are not limited to) roadway striping, curb markings, enhanced crosswalks, signage, bulb-outs, chicanes, chokers, medians, and road bumps. Should the project ultimately be required to implement traffic calming measures, City staff and the project applicant have mutually agreed to a maximum cost of $450,000 for improvements.
- The project should make a fair-share monetary contribution toward the future Class IV separated bikeway improvements that are planned along Montague Expressway as described in the San Jose Better Bike Plan 2025.

1. Introduction

This report presents the results of the transportation analysis (TA) conducted for a proposed residential mixed-use development on Seely Avenue in San Jose, California. The approximately 22-acre site is bordered by Coyote Creek on the north, Montague Expressway on the east, Seely Avenue on the south, and vacant land on the west (see Figure 1). The mostly vacant project site includes an orchard and multiple structures, including some single-family homes. The project would construct up to a total of 1,473 residential units consisting of 1,147 multifamily housing units (apartments), 172 affordable apartment units, and 154 single-family attached housing units (townhomes). The project would also include up to 55,000 square feet (s.f.) of retail space and an approximately 2.5-acre public park. Access to the project site would be provided via two driveways on Seely Avenue, which would be widened as part of the project, and one driveway on Epic Way. The project would also include constructing a new traffic signal at the intersection of Montague Expressway and Seely Avenue in order to improve access to and from the project site. The project site plan is shown on Figure 2.

This study was conducted for the purpose of identifying the potential transportation impacts related to the proposed residential mixed-use project. The transportation impacts were evaluated following the standards and methodologies established in the City of San Jose's *Transportation Analysis Handbook* (April 2020). This study includes a California Environmental Quality Act (CEQA) level Transportation Analysis (TA) and a Local Transportation Analysis (LTA). The effects of the project on freeway segments were evaluated in accordance with the methodologies described in the VTA's *Transportation Impact Analysis Guidelines* (2014). The VTA administers the Santa Clara County Congestion Management Program (CMP).

Transportation Policies

As established in Council Policy 5-1, San Jose evaluates transportation impacts under CEQA based on vehicle miles traveled (VMT). All new projects are required to analyze transportation impacts using the VMT metric and conform to Policy 5-1. The Transportation Analysis Policy aligns with the Envision San Jose 2040 General Plan which seeks to focus new development growth within Planned Growth Areas, bringing together office, residential, and service land uses to internalize trips and reduce VMT. VMT-based policies support dense, mixed-use, infill projects as established in the General Plan's Planned Growth Areas.

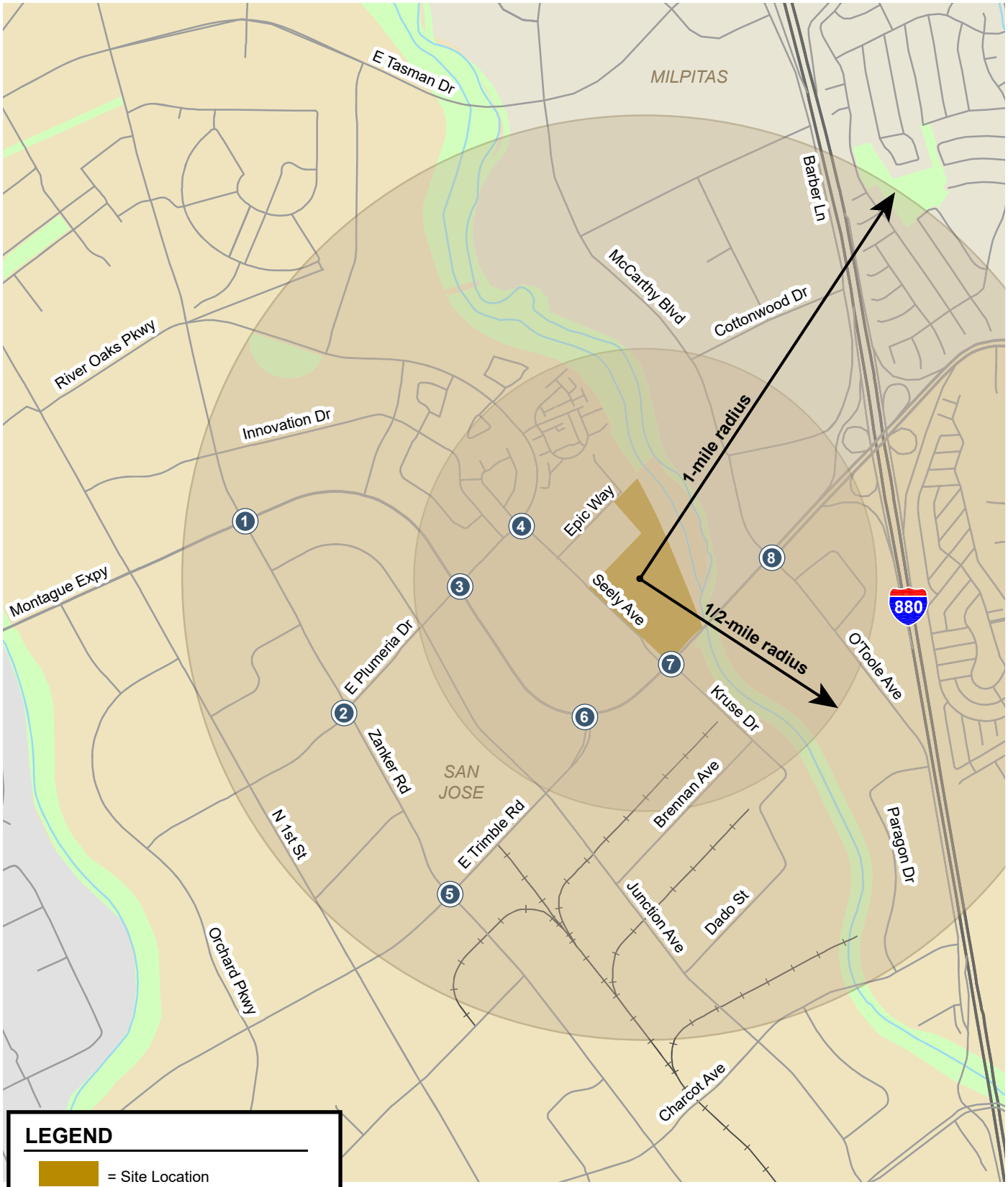


Figure 1
Project Location and Study Intersections

Figure 2
Project Site Plan

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

- Accommodate and encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and VMT (TR-1.1);
- Consider impacts on overall mobility and all travel modes when evaluating transportation impacts of new developments or infrastructure projects (TR-1.2);
- Increase substantially the proportion of commute travel using modes other than the single-occupant vehicle in order to meet the City's mode split targets for San Jose residents and workers (TR-1.3);
- Through the entitlement process for new development, projects shall be required to fund or construct needed transportation improvements for all transportation modes, giving first consideration to improvement of bicycling, walking and transit facilities and services that encourage reduced vehicle travel demand (TR-1.4);
- Actively coordinate with regional transportation, land use planning, and transit agencies to develop a transportation network with complementary land uses that encourage travel by bicycling, walking and transit, and ensure that regional greenhouse gas emissions standards are met (TR-1.8);
- Give priority to the funding of multimodal projects that provide the most benefit to all users. Evaluate new transportation projects to make the most efficient use of transportation resources and capacity (TR-1.9);
- Coordinate the planning and implementation of citywide bicycle and pedestrian facilities and supporting infrastructure. Give priority to bicycle and pedestrian safety and access improvements at street crossings and near areas with higher pedestrian concentrations (school, transit, shopping, hospital, and mixed-use areas) (TR-2.1);
- Provide a continuous pedestrian and bicycle system to enhance connectivity throughout the City by completing missing segments. Eliminate or minimize physical obstacles and barriers that impede pedestrian and bicycle movement on City streets. Include consideration of grade-separated crossings at railroad tracks and freeways. Provide safe bicycle and pedestrian connections to all facilities regularly accessed by the public, including the Mineta San Jose International Airport (TR-2.2);
- Integrate the financing, design and construction of pedestrian and bicycle facilities with street projects. Build pedestrian and bicycle improvements at the same time as improvements for vehicular circulation (TR-2.5);
- Require new development where feasible to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements (TR-2.8);
- Coordinate and collaborate with local School Districts to provide enhanced, safer bicycle and pedestrian connections to school facilities throughout San Jose (TR-2.10);
- As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute towards transit ridership, and require that new development is designed to accommodate and provide direct access to transit facilities (TR-3.3);

- Support the development of amenities and land use and development types and intensities that increase daily ridership on the VTA, BART, Caltrain, ACE and Amtrak California systems and provide positive fiscal, economic, and environmental benefits to the community (TR-4.1);
- Promote transit-oriented development with reduced parking requirements and promote amenities around appropriate transit hubs and stations to facilitate the use of available transit services (TR-8.1);
- Balance business viability and land resources by maintaining an adequate supply of parking to serve demand while avoiding excessive parking supply that encourages automobile use (TR-8.2);
- Support using parking supply limitations and pricing as strategies to encourage the use of non-automobile modes (TR-8.3);
- Discourage, as part of the entitlement process, the provision of parking spaces significantly above the number of spaces required by code for a given use (TR-8.4);
- Allow reduced parking requirements for mixed-use developments and for developments providing shared parking or a comprehensive transportation demand management (TDM) program, or developments located near major transit hubs or within Urban Villages and other Growth Areas (TR-8.6);
- Within new development, create and maintain a pedestrian-friendly environment by connecting the internal components with safe, convenient, accessible, and pleasant pedestrian facilities and by requiring pedestrian connections between building entrances, other site features, and adjacent public streets (CD-3.3);
- Create a pedestrian-friendly environment by connecting new residential development with safe, convenient, accessible, and pleasant pedestrian facilities. Provide such connections between new development, its adjoining neighborhood, transit access points, schools, parks, and nearby commercial areas (LU-9.1);
- Facilitate the development of housing close to jobs to provide residents with the opportunity to live and work in the same community (LU-10.5);
- Encourage all developers to install and maintain trails when new development occurs adjacent to a designated trail location. Use the City's Parkland Dedication Ordinance and Park Impact Ordinance to have residential developers build trails when new residential development occurs adjacent to a designated trail location, consistent with other parkland priorities. Encourage developers or property owners to enter into formal agreements with the City to maintain trails adjacent to their properties (PR-8.5).

CEQA Transportation Analysis Scope

The CEQA Transportation Analysis includes an evaluation of VMT.

VMT Analysis

The City of San Jose's Transportation Analysis Policy (Policy 5-1) establishes procedures for determining project impacts on vehicle miles traveled (VMT) based on project description, characteristics, and/or location. 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 for residential, office, and industrial projects 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 the appropriate thresholds of significance based on the project location and type of development. When assessing a residential project, the project's VMT is divided by the number of residents expected to occupy the project to determine the VMT per capita. The thresholds of significance for development projects, as established in the Transportation Analysis Policy, are based on the existing citywide average VMT level for residential uses.

To determine whether a project would result in CEQA transportation impacts related to VMT, the City has developed the San Jose VMT Evaluation Tool to streamline the analysis for residential, office, and industrial projects with local traffic. The tool estimates a project's VMT and compares it to the appropriate thresholds of significance based on the project location (i.e., assessor's parcel number) and type of development.

Figure 3 shows the current VMT levels estimated by the City for residents based on the locations of residences. Developments in the green-colored areas are estimated to have VMT levels that are below the thresholds of significance, while the yellow-colored areas are estimated to have VMT levels at the City average. The orange- and pink-colored areas are estimated to have VMT levels that are above the thresholds of significance. Projects located in areas where the existing VMT is above the established threshold are referred to as being in "high-VMT areas". Projects in high-VMT areas are required to include a set of VMT reduction strategies that would reduce the project VMT to the extent possible.

The CEQA transportation analysis of the project includes a project-level VMT impact analysis using the City's VMT Evaluation Tool for the residential development and a cumulative impact analysis that demonstrates the project's consistency with the Envision San Jose 2040 General Plan. The retail portion of the project is subject to the VMT screening criteria as described below.

Screening Criteria for VMT Analysis Exemption

The City of San Jose's *Transportation Analysis Handbook, 2020* includes screening criteria for projects that are expected to result in a less-than-significant VMT impact based on the project description, characteristics and/or location. Projects that meet the screening criteria do not require a CEQA transportation analysis but are typically required to provide a Local Transportation Analysis (LTA) to identify potential operational issues that may arise due to the project.

The City's screening criteria set forth in the *Transportation Analysis Handbook* for residential projects and local-serving retail projects are described below.

Screening Criteria for Residential Projects

1. **Planned Growth Areas**: Located within a Planned Growth Area as defined in the Envision San Jose 2040 General Plan; and
2. **High-Quality Transit**: Located within ½ mile of an existing major transit stop or an existing stop along a high-quality transit corridor; and
3. **Low VMT Areas**: Located in an area in which the per-capita VMT is less than or equal to the CEQA significance threshold for the land use; and
4. **Transit-Supporting Project Density**:
   - Minimum of 35 units per acre for residential projects or components;
   - If located in a Planned Growth Area with a maximum density below 0.75 FAR or 35 units per acre, the maximum density allowed in the Planned Growth Area must be met; and

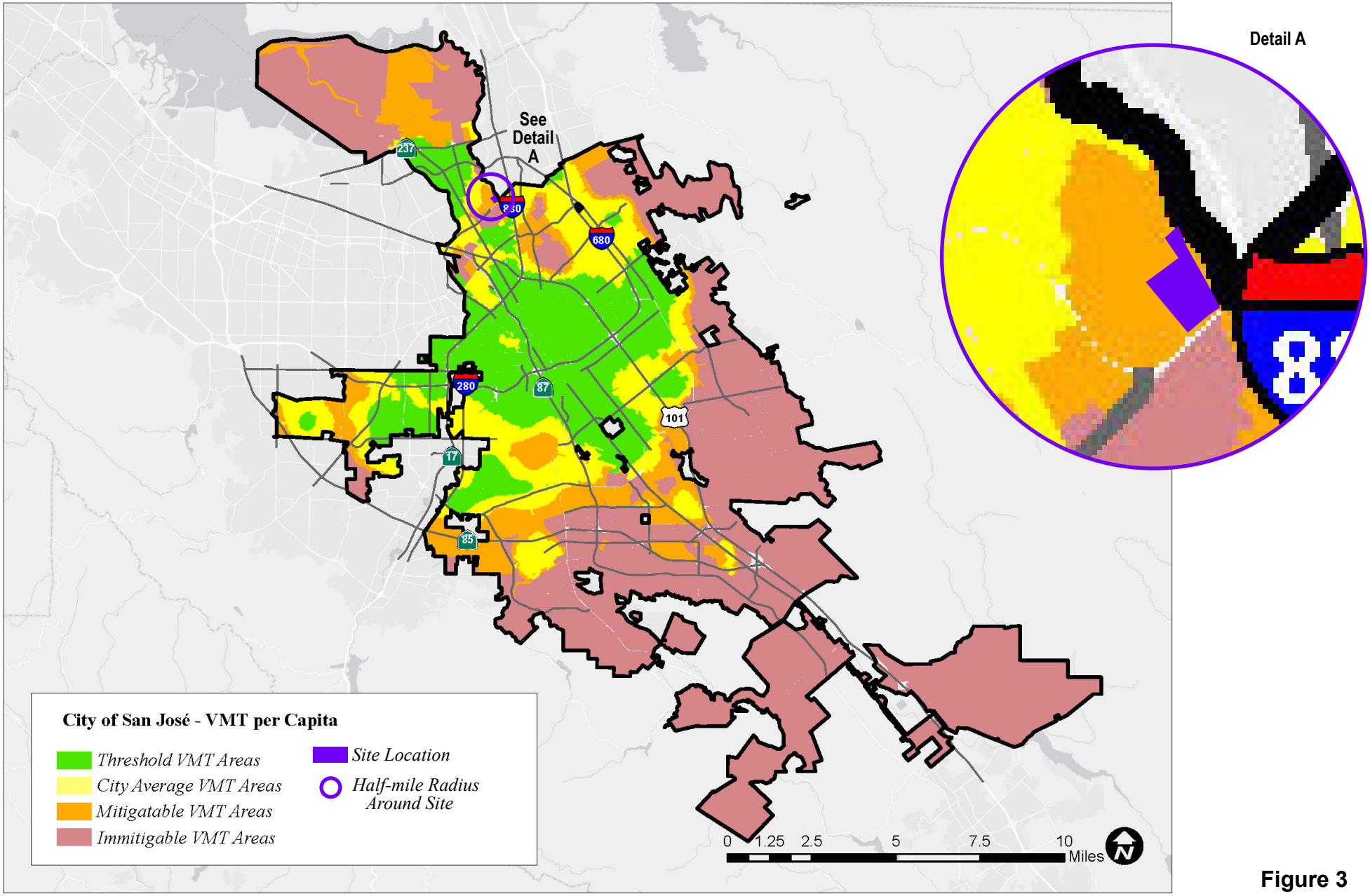


Figure 3
VMT Heat Map for Residents in San Jose

5. **Parking**:
    - No more than the minimum number of parking spaces required;
    - If located in Urban Villages or Downtown, the number of parking spaces must be adjusted to the lowest amount allowed; however, if the parking is shared, publicly available, and/or "unbundled", the number of parking spaces can be up to the zoned minimum; and
6. **Active Transportation**: Not negatively impact transit, bike or pedestrian infrastructure.

The residential component of the project would meet all but criteria 2 and 3 as follows:

- Is located within a Planned Growth Area (based on VMT Evaluation Tool) = Criterion 1 met;
- Is not located within ½ mile of high-quality transit = Criterion 2 not met;
- Is not located in an area in which the per-capita VMT is less than or = to the CEQA significance threshold (see Figure 8: VMT Evaluation Tool Summary Report) = Criterion 3 not met;
- Residential density of 86.6 DU/AC (1,473 DU / 17 AC = 86.6 DU/AC) = Criterion 4 met;
- The project would provide the minimum amount of parking required = Criterion 5 met; and
- The project would not negatively impact transit, bike or pedestrian infrastructure = Criterion 6 met.

Screening Criterion for Local-Serving Retail

1. 100,000 square feet of total gross floor area or less without drive-through operations.

The retail component of the project, which consists of 53,810 s.f. of retail space and no drive-through facilities meets the screening criterion set forth in the City's *Transportation Analysis Handbook*.

Since the project site is located in a high VMT area of North San Jose and is not located within ½ mile of an existing major transit stop or stop along a high-quality transit corridor, the residential component of the project would not meet the City's screening criteria and would be required to prepare a VMT analysis. The retail component of the project, however, would meet the exemption criteria since it would be local serving and would total less than 100,000 s.f. in size.

Local Transportation Analysis Scope

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

As part of the LTA, a project is typically required to conduct an analysis of intersection operations if the project is expected to add 10 or more vehicle trips per hour per lane to a signalized intersection that is located within a half-mile of the project site and is currently operating at LOS D or worse. Based on these criteria, as outlined in the City's *Transportation Analysis Handbook,* the LTA comprises an analysis of AM and PM peak hour traffic conditions for eight (8) signalized intersections. Signalized intersections that do not meet all the criteria may be added to the list of study intersections at the City's discretion. Unsignalized intersections may also be added; though, unlike signalized intersections, unsignalized intersections typically are not evaluated for level of service.

Study Intersections:

1. Zanker Road and Montague Expressway (CMP)
2. Zanker Road and Plumeria Drive
3. Montague Expressway and River Oaks Parkway
4. Seely Avenue and River Oaks Parkway
5. Zanker Road and Trimble Road (CMP)

6. Trimble Road and Montague Expressway (CMP)
7. Seely Avenue and Montague Expressway (future signal)
8. McCarthy Boulevard-O'Toole Avenue and Montague Expressway (CMP)

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

Traffic conditions were evaluated for the following scenarios:

- ***Existing Conditions.*** Existing AM and PM peak hour traffic volumes were obtained from intersection turning movement counts conducted in 2017, 2018 and 2019 prior to the start of the COVID-19 pandemic. City of San Jose Department of Transportation (DOT) staff have reviewed and approved the intersection counts for use in this transportation study. As required by the Santa Clara County VTA, the PM peak hour traffic volumes at the CMP study intersections were obtained from the latest version of the CMP Annual Monitoring Report (2018 version).
- ***Background Conditions*.** Background traffic volumes reflect traffic added by nearby approved projects that are not yet completed or occupied. The added traffic from approved but not yet completed developments was provided by the City of San Jose in the form of the Approved Trips Inventory (ATI). Background conditions represent the baseline conditions to which project conditions are compared for the purpose of determining potential adverse operational effects of the project.
- ***Background Plus Project Conditions.*** Background plus project conditions reflect projected traffic volumes on the planned roadway network after completion of the project and approved developments that are not yet completed or occupied. Background plus project traffic volumes 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 bicycle, pedestrian, and transit facilities, and a review of site access, on-site circulation, and parking demand.

VMT Analysis Methodology

Methodology

To determine whether a project would result in CEQA transportation impacts related to VMT, the City has developed the San Jose VMT Evaluation Tool to streamline the analysis for residential, office, and industrial projects with local traffic. Because the proposed project is a residential development that would generate local traffic, the VMT Evaluation Tool is used to estimate the project VMT and determine whether the project would result in a significant VMT impact.

Based on the assessor's parcel number (APN) of a project, the evaluation tool identifies the existing average VMT per capita for the area. Based on the project location, type of development, project description, and proposed trip reduction measures, the evaluation tool calculates the project VMT. Projects located in areas where the existing VMT is above the established threshold are referred to as being in "high-VMT areas". Projects in high-VMT areas are required to include a set of VMT reduction measures that would reduce the project VMT to the extent possible.

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 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.

Thresholds of Significance

Table 1 shows the VMT thresholds of significance for development projects, as established in the City's Transportation Analysis Policy. The VMT impact threshold is 15 percent below the citywide average for residential developments. Thus, projects that include residential uses are said to create a significant adverse impact when the estimated project generated VMT exceeds the existing citywide average VMT per capita minus 15 percent. Currently, the reported citywide average is 11.91 daily VMT per capita. This equates to a significant impact threshold of 10.12 daily VMT per capita.

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

Intersection Operations Analysis Methodology

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

All study intersections are located within the City of San Jose and were evaluated based on the City of San Jose and CMP level of service standards.

Data Requirements

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

- existing traffic volumes
- lane configurations
- signal timing and phasing

Table 1
VMT Thresholds of Significance for Development Projects

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

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

Analysis Methodologies and Level of Service Standards

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

Signalized Intersections

The signalized study intersections are subject to the City of San Jose's level of service standards. The City of San Jose level of service methodology is the 2000 *Highway Capacity Manual* (HCM) method for signalized intersections, evaluated with TRAFFIX software. TRAFFIX evaluates signalized intersections operations on the basis of average delay time for all vehicles at the intersection. Since TRAFFIX is also the CMP-designated intersections level of service methodology, the City of San Jose methodology employs the CMP defaults values for the analysis parameters. The City of San Jose level of service standard for all intersections, including CMP intersections, is LOS D or better. The correlation between average delay and level of service is shown in Table 2.

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

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

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

CMP Signalized Intersections

Since TRAFFIX is the designated level of service methodology for the CMP and the City of San Jose, the CMP study intersections were not analyzed separately, but rather are among the signalized intersections analyzed using TRAFFIX. The only difference between the City of San Jose and CMP analyses is that the CMP level of service standard for signalized intersections is LOS E or better.

Adverse Intersection Operations Effects

According to the City of San Jose's *Transportation Analysis Handbook, 2020*, an adverse effect on intersection operations would occur 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 (4) 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. In this case, the threshold is when the project increases the critical v/c value by 0.01 or more.

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

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

Intersection Vehicle Queuing Analysis

The analysis of intersection operations was supplemented with a vehicle queuing analysis at study intersections where the project would add a substantial number of trips to the left-turn movements. For the purpose of this analysis, a substantial number of trips equates to 10 trips or more per lane. The queuing analysis is presented for informational purposes only, since the City of San Jose has not defined a policy related to queuing. Vehicle queues were estimated using a Poisson probability distribution, which estimates the probability of "n" vehicles for a vehicle movement using the following formula:

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

Where:

P (x=n) = probability of "n" vehicles in queue per lane

n = number of vehicles in the queue per lane

λ = average # of vehicles in the queue per lane (vehicles per hr per lane/signal cycles per hr)

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

For signalized intersections, the 95th percentile queue length value indicates that during the peak hour, a queue of this length or less would occur on 95 percent of the signal cycles. Or, a queue length larger than the 95th percentile queue would only occur on 5 percent of the signal cycles (about 3 cycles during the peak hour for a signal with a 60-second cycle length). Thus, turn pocket storage designs based on the 95th percentile queue length would ensure that storage space would be exceeded only 5 percent of the time for a signalized movement.

Freeway Segment Analysis Methodology

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

Table 3
Freeway Segment Capacity Evaluation

Freeway	Segment			Direction	Peak Hour	Mixed-Flow Lanes Capacity (vph) [1]	1% of Mixed-Flow Capacity	HOV Lane Capacity (vph) [1]	1% of HOV Capacity	Mixed-Flow Lanes Project Trips	HOV Lane Project Trips	1% or More of Capacity?
I-880	Brokaw Rd	to	Montague Expwy	NB	AM	6900	69	1800	18	7	2	NO
					PM	6900	69	1800	18	19	5	NO
I-880	Mongague Expwy	to	SR 237	NB	AM	6900	69	1800	18	23	6	NO
					PM	6900	69	1800	18	12	3	NO
I-880	SR 237	to	Montague Expwy	SB	AM	6900	69	1800	18	7	2	NO
					PM	6900	69	1800	18	19	5	NO
I-880	Mongague Expwy	to	Brokaw Rd	SB	AM	6900	69	1800	18	23	6	NO
					PM	6900	69	1800	18	12	3	NO

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

Report Organization

This report has a total of seven chapters. Chapter 2 describes existing transportation conditions including VMT of the existing land uses in the proximity of the project, the existing roadway network, transit service, and bicycle and pedestrian facilities. Chapter 3 describes the CEQA transportation analysis, including the project VMT impact analysis and cumulative transportation impact assessment. Chapter 4 describes the local transportation analysis (LTA) including the method by which project traffic is estimated, intersection operations analysis for background plus project conditions, any adverse intersection operations effects caused by the project, intersection vehicle queuing analysis, site access and on-site circulation review, effects on bicycle, pedestrian, and transit facilities, and parking. Chapter 5 presents the results of the project alternative analysis, which assumes no new traffic signal at the Seely Avenue/Montague Expressway intersection. Chapter 6 describes the New Project analysis, which evaluates a new project description and assumes no traffic signal. Chapter 7 presents the conclusions of the transportation analysis.

2. Existing Transportation Conditions

This chapter describes the existing conditions of the transportation system within the study area of the project. It presents the vehicle miles traveled (VMT) of the existing land uses in the proximity of the project and describes transportation facilities in the vicinity of the project site, including the roadway network, transit service, and pedestrian and bicycle facilities. The analysis of existing intersection operations is included as part of the Local Transportation Analysis (see Chapter 4).

VMT of Existing Land Uses

To determine whether a project would result in CEQA transportation impacts related to VMT, the City has developed the San Jose VMT Evaluation Tool to streamline the analysis for residential, office, and industrial projects. Based on the City of San Jose's VMT Evaluation Tool and the project site location (APN 097-15-033), the existing average daily VMT for residential uses in the project area is 12.43 daily VMT per capita, which is above the residential impact threshold 10.12 daily VMT per capita. Chapter 3 presents the VMT analysis results for the project.

Existing Roadway Network

Regional access to the project site is provided via Interstate 880. This facility is described below.

I-880 is an eight-lane north/south freeway with three mixed-flow lanes and one HOV lane in each direction in the project vicinity. It extends northeast to the City of Oakland and south to I-280 in San Jose, at which point it transitions into SR 17 and extends to Santa Cruz. Access to the project site is provided via a full interchange at Montague Expressway.

Local access to the project site is provided via Montague Expressway, Zanker Road, Trimble Road, River Oaks Parkway/Plumeria Drive, McCarthy Boulevard/O'Toole Avenue, and Seely Avenue. These roadways are described below.

Montague Expressway is generally an east-west designated Expressway that begins at US 101 and runs through north San Jose and Milpitas to I-680. Montague Expressway is an eight-lane roadway, including HOV lanes, and has a posted speed limit of 45 mph. The HOV lane designation is in effect in both directions of travel during both the AM and PM peak commute hours. During other times, the HOV lanes are open to all users. Most segments of Montague Expressway have sidewalks on one side of the street. Montague Expressway provides access to and from the project site via Seely Avenue.

Zanker Road is a north-south oriented divided roadway that extends from SR 237 to the north to Old Bayshore Road to the south. In the vicinity of the project site, Zanker Road is two lanes in each direction and has a posted speed limit of 45 mph. It is designated a City Connector Street in the City's General Plan and has Class II bike lanes and sidewalks on both sides of the street.

Trimble Road is an east-west oriented divided roadway that extends from Montague Expressway to US 101 where it transitions into De La Cruz Boulevard. Trimble Road has three lanes in each direction and has a posted speed limit of 45 mph. It is designated a City Connector Street in the City's General Plan and has buffered bike lanes and sidewalks on both sides of the street. However, there is no sidewalk along the south side of Trimble Road between Montague Expressway and Junction Avenue.

River Oaks Parkway is generally an east-west two-lane divided roadway extending from North First Street to Montague Expressway. Southwest of Montague Expressway, it becomes E. Plumeria Drive. River Oaks Parkway is designated an On-Street Primary Bicycle Facility in the City's General Plan and has buffered bike lanes and sidewalks on both sides of the street. It has a posted speed limit of 35 mph and provides site access via Seely Avenue.

McCarthy Boulevard is a north-south four-lane roadway between Montague Expressway and Tasman Drive with no bicycle lanes. North of Tasman Drive, McCarthy Boulevard is a four- to six-lane roadway with Class II bike lanes. In the project area, McCarthy Boulevard has a mix of left-turn pockets and two-way left-turn lanes, has a posted speed limit of 40 mph, and has a patchy network of sidewalks. South of Montague Expressway, it turns into O'Toole Avenue.

Seely Avenue is a short two-lane collector street that connects Montague Expressway and River Oaks Parkway. It has a posted speed limit of 30 mph, has no bicycle lanes, and has no sidewalk along the project frontage. Seely Avenue provides direct access to the project site.

Existing Pedestrian, Bicycle and Transit Facilities

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

Existing Pedestrian Facilities

Sidewalks are found along some of the previously described local roadways in the study area. There is no sidewalk along the project frontage on Seely Avenue, as well as some segments of Trimble Road and McCarthy Boulevard. The majority of segments of Montague Expressway have sidewalks on at least one side of the street. Although some roadway segments in the study area are missing sidewalk, the existing network of sidewalks provides adequate connectivity for pedestrians between the project site and other surrounding land uses and transit stops. Crosswalks with pedestrian signal heads and push buttons are located at all the signalized intersections in the study area. Curb ramps are provided at all signalized intersections in the study area, although some do not meet current ADA design standards. The curb ramps at the following intersections do not meet current ADA standards:

- Trimble Road and Montague Expressway – all corners of the intersection;
- Montague Expressway and River Oaks Parkway – southeast corner; and
- McCarthy Boulevard and Montague Expressway – all corners of the intersection.

Existing Bicycle Facilities

Bicycle facilities are divided into four classes. Class I bikeways are bike paths that are physically separated from motor vehicles and offer two-way bicycle travel on a separate path. Class II bikeways are striped bike lanes on roadways that are marked by signage and pavement markings. Class III bikeways are bike routes and only have signs and/or Sharrows (bike route lane markings) to help guide bicyclists on recommended routes to certain locations. Class IV bicycle facilities (i.e., cycle tracks) are on-street bikeways that incorporate physical barriers (e.g., raised curbs, flexible bollards, vehicle

parking, grade separation, etc.) to separate bicycles from the flow of vehicular traffic. There are no Class IV bicycle facilities in the project area.

There are a number of roadways in the project study area that have striped bike lanes. Bike lanes currently exist on the following roadway segments (see Figure 4):

- Zanker Road – Class II bike lanes along its entirety
- Trimble Road – Class II buffered bike lanes along its entirety
- River Oaks Parkway/Plumeria Drive – Class II buffered bike lanes along its entirety
- Junction Avenue – Class II buffered bike lanes south of Trimble Road
- Charcot Avenue – Class II bike lanes between Orchard Parkway and O'Toole Avenue
- Orchard Parkway – Class II buffered bike lanes along its entirety
- N. First Street – Class II bike lanes (much of it buffered) between Brokaw Road and Alviso

The Coyote Creek Trail is a multi-use trail (Class I bikeway) that runs along both sides of Coyote Creek and is completely separate from motor vehicle traffic. The Coyote Creek Trail extends from the northern extent of McCarthy Boulevard south to Zanker Road in San Jose. Trail access is provided via Montague Expressway at the southern boundary of the site and Iris Chang Park on Epic Way at the northern boundary of the site.

The project site is also about 1.2 miles east of the Guadalupe River bike trail. This trail runs from Alviso to south San Jose. The trail can be accessed from Trimble Road.

Existing Transit Services

Existing bus and shuttle services near the project site are provided by the Santa Clara Valley Transportation Authority (VTA) and Altamont Commuter Express (ACE). The existing transit services are described below and are shown on Figure 5.

VTA local bus route 20 operates along Montague Expressway near the project site. Route 20 operates between the Milpitas BART station and the Sunnyvale Transit Center and provides service every 30 minutes during the weekday AM and PM peak commute periods of the day. Bus stops are located along Montague Expressway within walking distance of the project site at Trimble Road (about 1/4-mile from the site) and McCarthy Boulevard (about 1/3-mile from the site).

The ACE Brown shuttle operates along Seely Avenue and provides service between the Great America ACE station and south Sunnyvale. ACE provides four eastbound shuttles during the weekday AM commute period and four westbound shuttles during the weekday PM commute period. The ACE Brown shuttle stops on Seely Avenue adjacent to the site.

Existing Intersection Lane Configurations

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

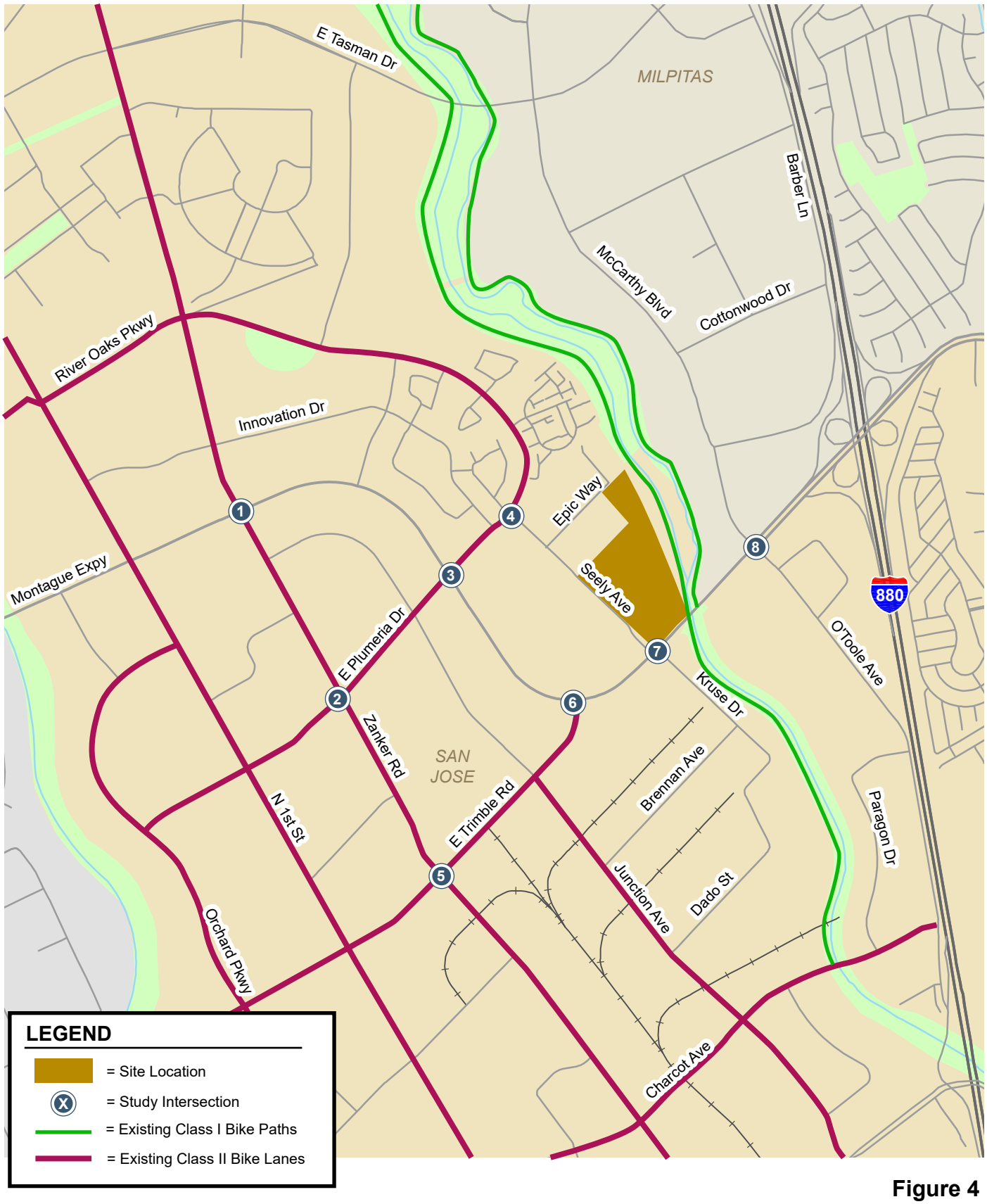
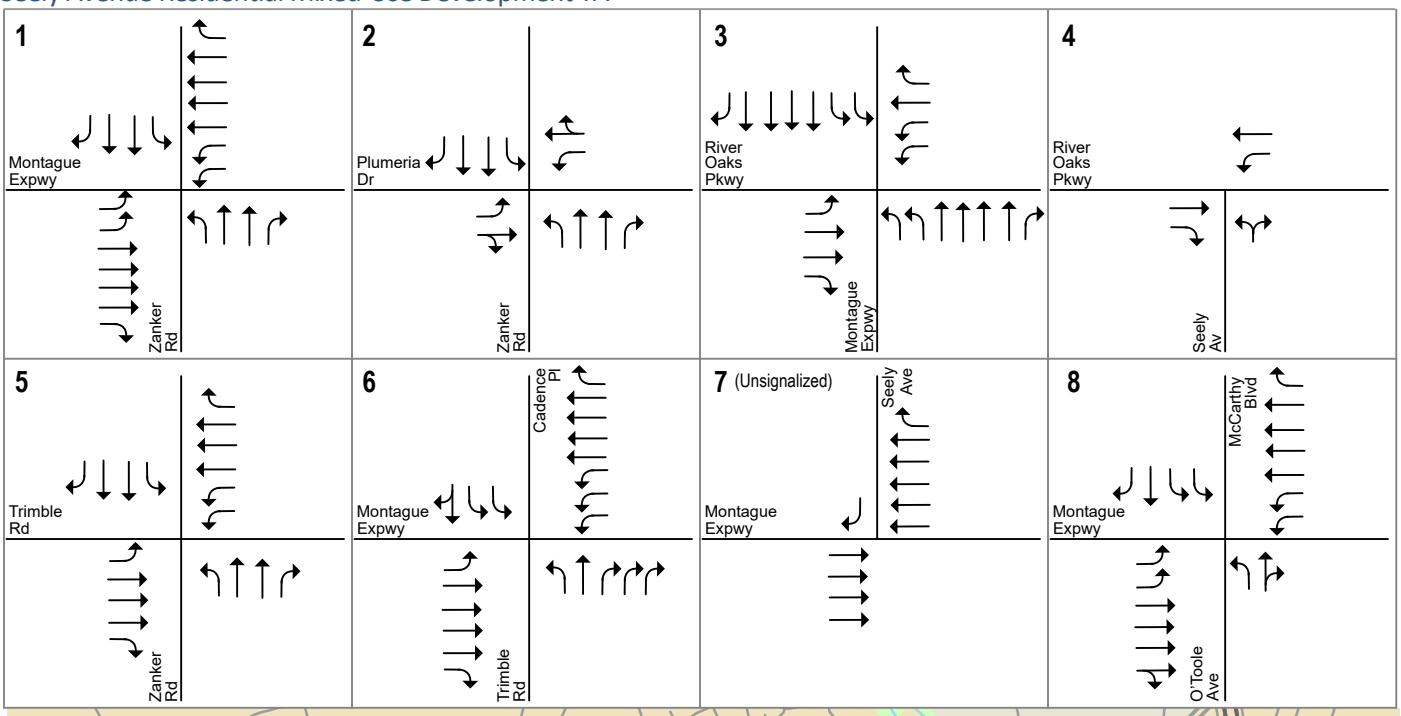


Figure 4
Existing Bicycle Facilities

Figure 5
Existing Transit Services



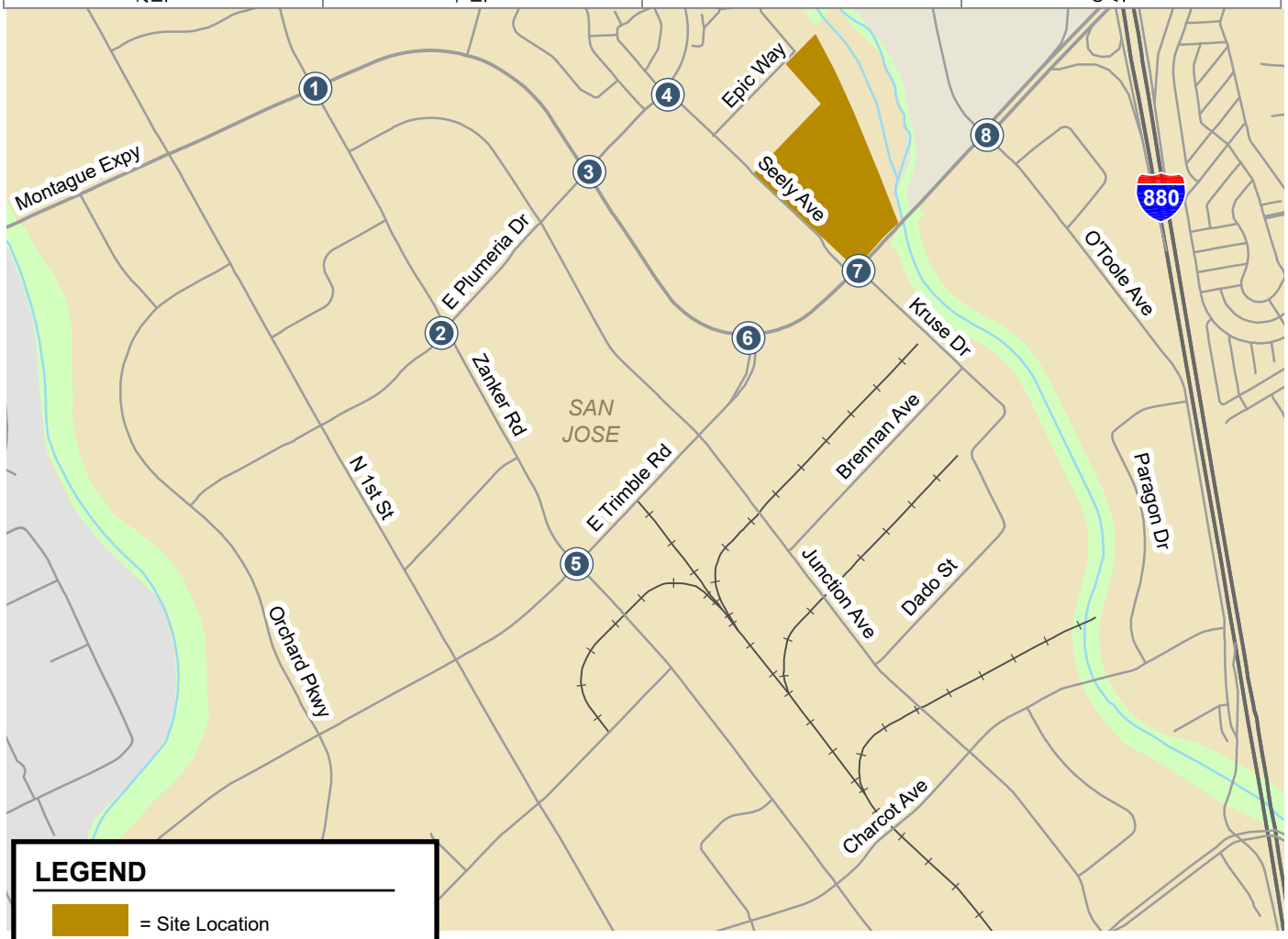


Figure 6
Existing Intersection Lane Configurations

NORTH
Not to Scale

Observed Existing Traffic Conditions

Due the continuing COVID-19 pandemic conditions, traffic volumes are generally lower than under "normal" pre-COVID conditions. However, it is still valuable to observe traffic conditions in the field to identify any existing operational deficiencies. Accordingly, traffic conditions in the study area were observed during the weekday AM (7:00-9:00 AM) and PM (4:00-6:00 PM) peak traffic periods. Field observations revealed the following operational issues:

Traffic Conditions on Montague Expressway

The peak direction of travel on Montague Expressway is westbound during the AM peak hour and eastbound during the PM peak hour. Field observations showed that traffic along Montague Expressway typically cleared all the signalized intersections in one signal cycle length. Note that the current traffic volumes along Montague Expressway are lower than pre-COVID traffic volumes. The VTA conducted PM peak hour traffic counts along the expressway in October of 2021. These counts were compared to the pre-COVID counts (2018 CMP counts) and were found to be between 20-25% lower than the pre-COVID counts.

AM peak hour field observations revealed vehicle queuing within the inside lane ("trap lane") of westbound Montague Expressway due to high demand for the westbound left-turn movement (triple left-turn movement) on to Trimble Road. Vehicle queuing also was observed on northbound O'Toole Avenue and for the southbound left-turn movement on McCarthy Boulevard during the PM peak hour. However, these queues usually cleared in one signal cycle length.

3. CEQA Transportation Analysis

This chapter describes the CEQA transportation analysis, including the project-level VMT impact analysis results and the cumulative transportation impact analysis used to determine consistency with the City's General Plan.

Project-Level VMT Impact Analysis

All new development projects within the City of San Jose are required to analyze the effects of development on the transportation system using the VMT metric and conform to the Transportation Analysis Policy (Council Policy 5-1) for the purpose of evaluating transportation impacts per CEQA requirements. As described in Chapter 1, the retail portion of the project screens out from VMT analysis, and its impact is considered less than significant. The City of San Jose's VMT Evaluation Tool was used to estimate the project VMT for the residential portion of the project.

Project VMT Impact Analysis Results

The threshold of significance for residential uses (see Table 1 in Chapter 1) is used for the VMT analysis. The VMT threshold for residential uses is the existing citywide average daily VMT level (11.91 per capita) minus 15 percent, or 10.12 daily VMT per capita. The project VMT estimated by the City's VMT Evaluation Tool is 11.19 per capita. The project VMT, therefore, exceeds the threshold of 10.12 VMT per capita.

Project Impact

Since the VMT generated by the project would exceed the threshold of significance for residential uses in the area, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the VMT impact.

Project Mitigation

Based on the four VMT reduction strategy tiers included in the VMT Evaluation Tool, it is recommended that the project implement bicycle and pedestrian network improvements (Tier 2 strategies), traffic calming measures (Tier 2 strategy), and implement a Transportation Demand Management (TDM) Plan (Tier 4 strategies) to mitigate the significant VMT impact. The following Tier 2 and Tier 4 VMT reduction strategies are recommended to mitigate the significant VMT impact:

Bike Access Improvements

The project would construct a Class II bike lane on the opposite side of Seely Avenue in the southbound direction. This multi-modal infrastructure improvement would encourage bicycling, resulting in fewer drive-alone commute trips. Providing new bicycle facilities that close gaps in existing networks improves bicycle access and circulation and promotes bicycling as an alternative to driving, thereby

reducing VMT. Note that coordination with the City of San Jose would be needed to implement these non-frontage bicycle network improvements.

Pedestrian Network Improvements

The project would construct a new crosswalk across Seely Avenue and ADA compliant curb ramps (off-site pedestrian improvements) as part of the new traffic signal at Seely Avenue and Montague Expressway. These improvements would enhance off-site pedestrian circulation. The project would also provide a direct pedestrian connection from the site to the Coyote Creek multi-use trail system, which runs along the eastern boundary of the site. The site plan shows the connection would be located near the northeast corner of Building 1 (adjacent to Lot 32). It is recommended that the project provide a second internal trail connection near the proposed on-site San Jose Muni well, just north of Building 2. Clear pedestrian paths between the trail connections and the proposed on-site public park should be provided. Coordination with the City of San Jose's Parks, Recreation & Neighborhood Services (PRNS) is needed, as well as an on-site public access easement, to provide a connection between the public park and the Coyote Creek trail. Providing pedestrian improvements and enhancing pedestrian connections both on- and off-site would encourage people to walk instead of drive, thus reducing VMT.

Traffic Calming Measures

The project would construct new bicycle facilities on both sides of Seely Avenue and add a two-way center left-turn lane. As a result of these improvements, the existing travel lane widths along Seely Avenue would be narrowed. Narrowing travel lane widths results in reduced vehicle speeds. In addition, the project would construct a new signalized intersection at Seely Avenue and Montague Expressway, which would include a signalized crosswalk across Seely Avenue. Providing traffic calming and safety measures such as narrowing travel lane widths and adding signalized pedestrian crossings creates a safer environment and promotes walking and biking as alternatives to driving. Accordingly, these infrastructure improvements would reduce drive-alone commute trips and thus VMT.

Car Sharing Program

The project would provide subsidized memberships to a car sharing program (e.g., Zipcar, Car2Go, GetAround, etc.) for residents of the apartments upon request. Dedicated car share vehicle parking would also be provided at a preferential on-site location. Car sharing services are a low-cost alternative to car ownership and provide flexibility to those who use other transportation modes for their daily commute but may need to access a car on occasion. Car sharing helps support the use of walking, biking, carpooling, and transit by providing another means for business/day trips or a guaranteed ride home option, allowing for overall reductions in automobile use which results in reduced VMT. All residents of the apartments (both market rate and affordable apartments) with a valid driver's license would be eligible to participate in the car sharing program.

Unbundled Parking

The project would provide 100 percent unbundled parking for the designated apartment spaces. Unbundled parking means separating the cost of parking from residential leases and allowing tenants to choose whether to lease a parking space. With this approach those tenants without a vehicle would not be required to pay for parking that they do not want or need. Unbundling residential parking costs from the cost of housing can reduce tenant vehicle ownership and parking demand and can be implemented on a month-to-month lease basis. With a lease, tenants receive a monthly bill showing how much they are spending on a parking space and have the option to give up the space if they no longer need it.

Note that Policy TR-8.8 of the Envision San Jose 2040 General Plan calls for San Jose to "Promote use of unbundled private off-street parking associated with existing or new development, so that the

sale or rental of a parking space is separated from the rental or sale price for a residential unit or for non-residential building square footage." In addition, Policy TR-10.1 states: “Explore development of a program… to require that parking spaces within new development in areas adjacent to transit and in all mixed-use projects be unbundled from rent or sale of the dwelling unit or building square footage.”

Voluntary Travel Behavior Change Program

The project would provide a program that targets individual attitudes and behaviors towards travel and provides information and tools for residents to analyze and alter their travel behavior. Voluntary Travel Behavior Change programs include mass communication campaigns and travel feedback programs, such as travel diaries or feedback on calories burned from alternative modes of travel. This strategy encourages the use of shared ride modes, transit, walking, and biking, thereby reducing drive-alone vehicle trips and VMT. All residents/households would be provided with the information/tools necessary to fully participate in the Voluntary Travel Behavior Change program.

On-Site TDM Administration and Services

The project should designate a transportation coordinator who focuses on transportation issues and is responsible for implementing the TDM measures. The transportation coordinator would be a point of contact for residents should TDM-related questions arise and would be responsible for ensuring that residents are aware of all the transportation options available to them. The transportation coordinator would provide the following services and functions:

- Provide new tenants information brochures at the time of move-in. The welcome brochures should include information about public transit services, transit passes, bicycle maps, and other rideshare/carpool options.
- Assist with carpool matching. The transportation coordinator should help match residents interested in carpooling.
- Be knowledgeable enough to answer residents’ TDM program related questions.

Information Board/Online Kiosk

An online kiosk with information regarding non-auto transportation alternatives should be provided. The online kiosk would update key transportation information included in the welcome brochures. Transportation news and commuter alerts should be posted online. The building developer would have responsibility for creating the website so that it is up and running as soon as the new buildings are ready for leasing. More specific information should be added later to reflect any programs specific to certain tenants. The transportation coordinator would be responsible for adding new information to the website (or providing it to the website designer) so that the online kiosk remains current and informative.

Bicycle Resources

As part of the information available in the online kiosk discussed above, resources useful to cyclists should be included. For example, the local bikeways map should be posted for easy reference.

The following resources are available to bicycle commuters through 511.org. These resources should be noted on the project’s online information center to make residents aware of them.

- Free Bike Buddy matching
- Bicycle maps
- Bicycle safety tips
- Information about taking bikes on public transit
- Location and use of bike parking at transit stations

- Information on Bike-to-Work Day
- Tips on selecting a bike, commuter gear, and clothing
- Links to bicycle organizations

Implementation, Monitoring and Reporting

The TDM Plan would require coordination with City of San Jose staff. The project applicant should submit the TDM Plan to the City of San Jose for approval. The project applicant would also be responsible for ensuring that the TDM strategies are incorporated into the project. After the project is constructed and occupied, the project applicant should identify a transportation coordinator. The transportation coordinator would be responsible for implementing the ongoing TDM program. Having a main contact person would help ensure that transportation-related questions from residents are responded to promptly. If the transportation coordinator changes for any reason, City staff and residents shall be notified of the name and contact information of the newly designated transportation coordinator.

The TDM Plan would need to be re-evaluated annually for the life of the project. It is recommended that the designated transportation coordinator consult with City staff to ensure the monitoring and reporting meets the City's expectations. Monitoring should include the following components:

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

Conclusions of VMT Impact and Mitigation

Based on the City's VMT Evaluation Tool, implementing the multimodal infrastructure improvements and TDM measures described above would lower the project VMT to 10.11 per capita, which would reduce the project impact to a less-than-significant level (below the City's threshold of 10.12 VMT per capita). The mitigation measures and the resulting reduction in VMT per capita are summarized in Table 4.

Figures 7A and 7B show the VMT summary reports generated by the City of San Jose's VMT Evaluation Tool without and with implementation of the recommended mitigation measures, respectively. The column chart at the bottom of each figure shows the Area VMT (red column), Project VMT (blue and green columns), and the Impact Threshold for residential uses (bold black line at the top of the chart).

Table 4
Summary of VMT Mitigation Measures and Resulting VMT per Capita

Mitigation Measure	Mitigation Description	Vehicle Miles Traveled (VMT)		
		VMT Per Capita with Single Mitigation Measure	Residential Threshold (VMT / Capita)	Significant VMT Impact?
1 - Bike Access Improvements (Tier 2)	The project would construct a Class II bike lane on the opposite side of Seely Avenue in the southbound direction. This multi-modal infrastructure improvement would encourage bicycling, resulting in fewer drive-alone commute trips. Providing new bicycle facilities that close gaps in existing networks improves bike access and circulation and promotes bicycling as an alternative to driving, thereby reducing VMT. Note that coordination with the City of San Jose would be needed to implement these non-frontage bicycle network improvements.	11.17	10.12	YES
2 - Pedestrian Network Improvements (Tier 2)	The project would construct a new crosswalk across Seely Avenue and ADA compliant curb ramps (off-site pedestrian improvements) as part of the new traffic signal at Seely Avenue and Montague Expressway. These improvements would enhance off-site pedestrian circulation. The project would also provide a direct pedestrian connection from the site to the Coyote Creek multi-use trail system, which runs along the eastern boundary of the site. The site plan shows the connection would be located near the northeast corner of Building 1. A clear pedestrian path between the trail connection and the on-site public park should be provided. Coordination with the City of San Jose PRNS is needed, as well as an on-site public access easement, to provide a connection between the public park and the Coyote Creek Trail. Providing pedestrian improvements and enhancing pedestrian connections both on- and off-site would encourage people to walk instead of drive, thus reducing VMT.	10.96	10.12	YES
3 - Traffic Calming Measures (Tier 2)	The project would construct new bicycle facilities along both sides of Seely Avenue and add a two-way center left-turn lane. As a result of these improvements, the existing travel lane widths along Seely Avenue would be narrowed. Narrowing travel lane widths results in reduced vehicle speeds. In addition, the project would construct a new signalized intersection at Seely Avenue and Montague Expressway, which would include a signalized crosswalk on Seely Avenue. Providing traffic calming and safety measures such as narrowing travel lane widths, and adding signalized pedestrian crossings creates a safer environment and promotes walking and biking as alternatives to driving. Accordingly, these infrastructure improvements would reduce drive-alone commute trips and thus VMT.	10.96	10.12	YES
4 - Car Sharing Program (Tier 4)	The project would provide subsidized memberships to a car sharing program (e.g., Zipcar, Car2Go, GetAround, etc.) for residents of the apartments upon request. Dedicated car share vehicle parking would also be provided at a preferential on-site location. Car sharing services are a low-cost alternative to car ownership and provide flexibility to those who use other transportation modes for their daily commute but may need to access a car on occasion. Car sharing helps support the use of walking, biking, carpooling, and transit by providing another means for business/day trips or a guaranteed ride home option, allowing for overall reductions in automobile use which results in reduced VMT. All residents of the apartments (both market rate and affordable apartments) with a valid driver's license would be eligible to participate in the car sharing program.	11.12	10.12	YES
5 - Unbundled Parking (Tier 4)	The project would provide 100 percent unbundled parking for the designated apartment spaces. Unbundled parking means separating the cost of parking from residential leases and allowing tenants to choose whether to lease a parking space. With this approach those tenants without a vehicle would not be required to pay for parking that they do not want or need. Unbundling residential parking costs from the cost of housing can reduce tenant vehicle ownership and parking demand and can be implemented on a month-to-month lease basis. With a lease, tenants receive a monthly bill showing how much they are spending on a parking space and have the option to give up the space if they no longer need it.	11.05	10.12	YES
6 - Voluntary Travel Behavior Change Program (Tier 4)	The project would provide a program that targets individual attitudes and behaviors towards travel and provides information and tools for residents to analyze and alter their travel behavior. Voluntary Travel Behavior Change programs include mass communication campaigns and travel feedback programs, such as travel diaries or feedback on calories burned from alternative modes of travel. This strategy encourages the use of shared ride modes, transit, walking, and biking, thereby reducing drive-alone vehicle trips and VMT. All residents/households would be provided with the information/ tools necessary to fully participate in the Voluntary Travel Behavior Change program.	10.74	10.12	YES
	VMT Per Capita with Implementation of all 6 Mitigation Measures:	**10.11**	**10.12**	**NO**

Figure 7A
San Jose VMT Evaluation Tool Summary Report – No Mitigation

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

PROJECT:

Name:	681 E Trimble Rd Mixed-Use (NoMitigation)	Tool Version:	2/29/2019
Location:	2620 Seely Avenue	Date:	1/3/2022
Parcel:	09715033 Parcel Type: Suburb with Multifamily Housing		

Proposed Parking Spaces Vehicles: 2,142 Bicycles: 0

LAND USE:

Residential:		Percent of All Residential Units	
Single Family	154 DU	Extremely Low Income (≤ 30% MFI)	0 % Affordable
Multi Family	1319 DU	Very Low Income (> 30% MFI, ≤ 50% MFI)	0 % Affordable
Subtotal	1473 DU	Low Income (> 50% MFI, ≤ 80% MFI)	12 % Affordable
Office:	0 KSF		
Retail:	55 KSF		
Industrial:	0 KSF		

VMT REDUCTION STRATEGIES

Tier 1 - Project Characteristics

Increase Residential Density
- Existing Density (DU/Residential Acres in half-mile buffer) 42
- With Project Density (DU/Residential Acres in half-mile buffer) 84

Increase Development Diversity
- Existing Activity Mix Index 0.89
- With Project Activity Mix Index 0.81

Integrate Affordable and Below Market Rate
- Extremely Low Income BMR units ..... 0 %
- Very Low Income BMR units ..... 0 %
- Low Income BMR units ..... 12 %

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

RESIDENTIAL ONLY

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

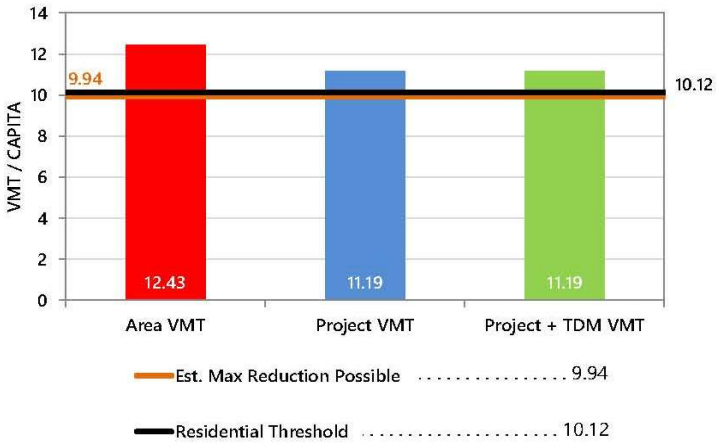


Figure 7B
San Jose VMT Evaluation Tool Summary Report – With Mitigation

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

PROJECT:

Name: 681 E Trimble Rd Mixed-Use (W/Mitigation) Tool Version: 2/29/2019
Location: 2620 Seely Avenue Date: 1/3/2022
Parcel: 09715033 Parcel Type: Suburb with Multifamily Housing
Proposed Parking Spaces Vehicles: 2,142 Bicycles: 0

LAND USE:

Residential:			Percent of All Residential Units	
Single Family	154	DU	Extremely Low Income (≤ 30% MFI)	0 % Affordable
Multi Family	1319	DU	Very Low Income (> 30% MFI, ≤ 50% MFI)	0 % Affordable
Subtotal	1473	DU	Low Income (> 50% MFI, ≤ 80% MFI)	12 % Affordable
Office:	0	KSF		
Retail:	55	KSF		
Industrial:	0	KSF		

VMT REDUCTION STRATEGIES

Tier 1 - Project Characteristics

Increase Residential Density	
Existing Density (DU/Residential Acres in half-mile buffer)	42
With Project Density (DU/Residential Acres in half-mile buffer)	84
Increase Development Diversity	
Existing Activity Mix Index	0.89
With Project Activity Mix Index	0.81
Integrate Affordable and Below Market Rate	
Extremely Low Income BMR units	0 %
Very Low Income BMR units	0 %
Low Income BMR units	12 %
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

Bike Access Improvements *(In Coordination with SJ)*	
Distance to Nearest Existing Bicycle Facility	1000 feet
Distance to Nearest Bicycle Facility With Project	0 feet
Traffic Calming Measures *(In Coordination with SJ)*	
Are improvements provided beyond the development frontage?	Yes
Pedestrian Network Improvements *(In Coordination with SJ)*	
Are pedestrian improvements provided beyond the development frontage?	Yes

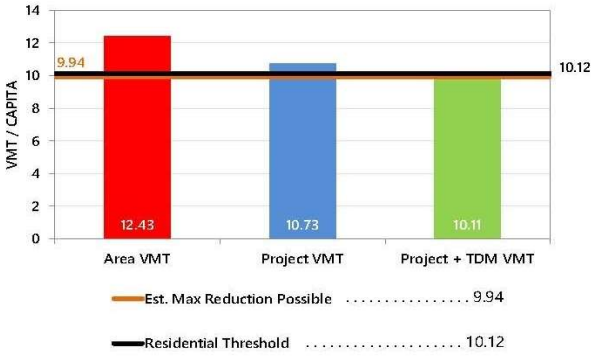
Tier 3 - Parking

Tier 4 - TDM Programs

Car Sharing Program *(In Coordination with SJ)*	
Percent of Eligible Residents/Employees	90 %
Unbundle On-Site Parking Costs	
Monthly Parking Cost	26
Does the Surrounding Street Parking have Rpp. Meters. or Time Limits?	Yes
Voluntary Travel Behavior Change Program	
Percent of Eligible Residents/Employees	100 %

RESIDENTIAL ONLY

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



Cumulative Impact Analysis

Projects must demonstrate consistency with the Envision San Jose 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 as part of the City's *Transportation Analysis Handbook*.

According to the Envision San Jose 2040 General Plan, the project site is designated as *Industrial Park* (IP). The project site is identified as Transit/Employment Residential District Overlay with a minimum residential development density of 55+ dwelling units per acre (DU/AC). Sites with this overlay may also be developed with uses consistent with the underlying designation. This designation permits development with commercial uses on the first two floors and residential use on upper floors.

The project consists of high-density residential development, including an affordable housing component, and would include up to 55,000 s.f. of ground floor retail space. As proposed, the project would construct up to a total of 1,473 residential units at a development density of approximately 86 dwelling units per acre (DU/AC). This meets the minimum residential development density requirement described above.

The project as proposed would be considered 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 including the method by which project traffic is estimated, an intersection operations analysis, any adverse effects to intersection level of service caused by the project, intersection vehicle queuing analysis, site access and on-site circulation review, effects on bicycle, pedestrian and transit facilities, and parking.

Intersection Operations Analysis

The intersection operations analysis is intended to quantify the operations of San Jose intersections and to identify potential negative effects due to the addition of project traffic. Information required for the intersection operations analysis related to project trip generation, trip distribution, and trip assignment are presented in this section. The study intersections are located in the City of San Jose and are evaluated based on the City of San Jose's intersection analysis methodology and standards in determining potential adverse operational effects due to the project, as described in Chapter 1. It is assumed in this analysis that the future transportation network with the project would be the same as the existing transportation network with the following exception:

> **Signalization of Seely Avenue/Montague Expressway**. The project is proposing to reconfigure and signalize the intersection of Seely Avenue and Montague Expressway in order to provide left turns to and from Seely 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 quantify the amount of traffic produced by many types of land uses. This research is compiled in the *Trip Generation Manual, 11th Edition* (2020) published by the Institute of Transportation Engineers (ITE). The magnitude of traffic added to the roadway system by a particular development is estimated by multiplying the applicable trip generation rates by the size of the development.

Trips that would be generated by the residential component of the mixed-use project were estimated using the ITE average trip rates for "Multifamily Housing Mid-Rise" (ITE Land Use 221), "Affordable Housing" (ITE Land Use 223), and "Single-Family Attached Housing" (ITE Land Use 215) located in a

General Urban/Suburban setting. Trips that would be generated by the retail component of the project were estimated using the ITE average trip rates for "Shopping Plaza 40,000-150,000 s.f. with Supermarket" (ITE Land Use 821) located in a General Urban/Suburban setting.

Trip Adjustments and Reductions

In accordance with San Jose's *Transportation Analysis Handbook* (April 2020, Section 4.8, "Intersection Operations Analysis"), the project is eligible for adjustments and reductions from the baseline trip generation described above. The applicable trip adjustments and reductions are described below.

Internal Mixed-Use Trip Reduction

In accordance with VTA's *Transportation Impact Analysis Guidelines* (October 2014, Section 8.2.1, "Standard Trip Reductions"), a 15% residential/retail mixed-use trip reduction can be applied to account for the internalization of trips between the two complementary land uses. The 15% reduction is first applied to the smaller trip generator (retail use). The same number of trips are then subtracted from the larger trip generator (residential use) to account for both internal trip ends.

Location-Based Trip Adjustment

Based on the 2020 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 as 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 the place type "Suburban with Multifamily Housing". Therefore, the baseline project trips were adjusted to reflect the corresponding mode share. Residential and retail developments within Suburban with Multifamily Housing areas have a vehicle mode share of 88% (according to Table 6 of the City's *Transportation Analysis Handbook*). Thus, a 12% reduction was applied to the project trip generation estimates based on the location-based vehicle mode share outputs produced from the San Jose Travel Demand Model. The 12% trip reduction is based on the percent of mode share for other modes of travel besides motor vehicles.

Project-Specific Residential Trip Reduction

According to the *Transportation Analysis Handbook*, the VMT reduction resulting from implementing the VMT reduction strategies in the evaluation tool should be included as part of the trip generation estimates. It is assumed that every percent reduction in VMT per capita is equivalent to one percent reduction in peak hour vehicle trips. The VMT Evaluation Tool calculated a 19% external trip reduction. This trip reduction reflects the project characteristics including an increase in residential density for the site and the affordable housing component (Tier 1 VMT reduction strategies), multi-modal infrastructure improvements (Tier 2 VMT reduction strategies) and TDM measures (Tier 4 VMT reduction strategies) being proposed by the project to reduce the project VMT impact to a less-than-significant level. Chapter 3 includes detailed descriptions of each VMT reduction strategy the project is proposing.

Retail Pass-By Trip Reduction

A pass-by trip reduction can be applied to the net peak hour trip generation estimates for the proposed retail uses. Pass-by-trips are trips that would already be on the adjacent roadways (and so are already counted in the background traffic) but would turn into the site while passing by. A PM peak hour pass-by trip reduction of 34% was applied to the retail space based on the ITE *Trip Generation Handbook* (Third Edition) for a Shopping Center land use. No AM peak hour pass-by trip reduction is provided in the handbook, since many retail uses are not open during the weekday morning hours. A daily pass-by trip reduction of 17% was calculated based on the average of the AM (0%) and PM (34%) pass-by trip reduction percentages.

Net Project Trips

After applying the ITE trip rates to the proposed residential and retail uses and applying the appropriate trip adjustments and reductions, it is estimated that the project would generate 7,761 new daily vehicle trips, with 523 new trips occurring during the weekday AM peak hour and 629 new trips occurring during the weekday PM peak hour. Using the inbound/outbound splits contained in the ITE *Trip Generation Manual*, the project would produce 181 new inbound trips and 342 new outbound trips during the weekday AM peak hour, and 354 new inbound trips and 275 new outbound trips during the weekday PM peak hour (see Table 5).

Trip Distribution and Assignment

The trip distribution patterns for the project were estimated based on existing travel patterns on the surrounding roadway network that reflect typical weekday AM and PM commute patterns, the locations of complementary land uses, and freeway access points. The AM and PM peak hour trips generated by the project were assigned to the roadway network in accordance with the trip distribution patterns.

Figure 8 shows the residential project trip distribution pattern and trip assignment. Figure 9 shows the trip distribution pattern and trip assignment for the retail component of the project. The total project trip assignment is shown on Figure 10.

Traffic Volumes Under All Scenarios

Existing Traffic Volumes

Existing AM and PM peak hour traffic volumes were obtained from intersection turning movement counts conducted in 2017, 2018 and 2019 prior to the start of the COVID-19 pandemic. City of San Jose Department of Transportation (DOT) staff have reviewed and approved the intersection counts for use in this transportation study. As required by the Santa Clara County VTA, the PM peak hour traffic volumes at the three CMP intersections were obtained from the latest version of the CMP Annual Monitoring Report (2018 version). The existing peak-hour intersection volumes are shown on Figure 11.

Background Traffic Volumes

Background traffic volumes reflect traffic added by nearby approved projects that are not yet completed or occupied. The added traffic from approved but not yet completed developments was provided by the City of San Jose in the form of the Approved Trips Inventory (ATI). Background conditions represent the baseline conditions to which project conditions are compared for the purpose of determining potential adverse operational effects of the project. The ATI sheets are contained in Appendix A. The background peak-hour intersection volumes are shown on Figure 12.

Background Plus Project Traffic Volumes

Project trips were added to background traffic volumes to obtain background plus project traffic volumes (see Figure 13). Note that due to the planned reconfiguration and signalization of the intersection of Seely Avenue and Montague Expressway, it is expected that a portion of the existing traffic to and from the River Oaks neighborhood north of the project site would re-route via Seely Avenue to use the new signalized intersection instead of neighboring intersections. The reassignment of existing traffic volumes assumed under background plus project conditions is described below:

- Ten percent of the northbound left-turn volume at Trimble Road/Montague Expressway was reassigned to make a northbound right turn and then an eastbound left turn at the new Seely Avenue/Montague Expressway intersection.
- Fifty percent of the westbound left-turn volume at Montague Expressway/River Oaks Parkway was reassigned to make a westbound left turn at Seely Avenue/River Oaks Parkway and ultimately a southbound left turn at the new Seely Avenue/Montague Expressway intersection.

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

Table 5
Project Trip Generation Estimates

Land Use	Size	Daily Rate	Daily Trips	AM Peak Hour Pk-Hr Rate	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour Pk-Hr Rate	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Multifamily Housing (Mid-Rise) [1]	1,147 DU	4.54	5,207	0.37	98	326	424	0.39	273	174	447
Affordable Housing [1]	172 DU	4.81	827	0.36	18	44	62	0.46	47	32	79
Single-Family Attached Housing [1]	154 DU	7.20	1,109	0.48	23	51	74	0.57	50	38	88
Residential & Retail Internal Capture [3]			*(780)*		*(11)*	*(18)*	*(29)*		*(39)*	*(36)*	*(75)*
Location-Based Vehicle Mode Share (12%) [4]			*(764)*		*(15)*	*(49)*	*(64)*		*(40)*	*(25)*	*(65)*
Project-Specific Trip Reduction (19%) [5]			*(1,064)*		*(22)*	*(67)*	*(89)*		*(55)*	*(35)*	*(90)*
Net Residential Trips:			**4,535**		**91**	**287**	**378**		**236**	**148**	**384**
Retail [2]	55,000 SF	94.49	5,197	3.53	120	74	194	9.03	239	258	497
Residential & Retail Internal Capture (15%) [3]			*(780)*		*(18)*	*(11)*	*(29)*		*(36)*	*(39)*	*(75)*
Location-Based Vehicle Mode Share (12%) [4]			*(530)*		*(12)*	*(8)*	*(20)*		*(25)*	*(26)*	*(51)*
Retail Pass-By External Trip Reduction [6]			*(661)*		*0*	*0*	*0*		*(60)*	*(66)*	*(126)*
Net Retail Trips:			**3,226**		**90**	**55**	**145**		**118**	**127**	**245**
Total Net Project Trips:			**7,761**		**181**	**342**	**523**		**354**	**275**	**629**

Notes:

[1] Trip generation for the residential component of the project based on average rates contained in the *ITE Trip Generation Manual, 11th Edition*, for Multifamily Housing Mid-Rise (Land Use 221), Affordable Housing (Land Use 223), and Single-Family Attached Housing (Land Use 215) located in a General Urban/Suburban setting. Rates are expressed in trips per dwelling unit (DU).

[2] Trip generation for the retail component of the project based on average rates contained in the *ITE Trip Generation Manual, 11th Edition*, for Shopping Plaza 40-150 ksf with Supermarket (Land Use 821) located in a General Urban/Suburban setting. Rates are expressed in trips per 1,000 square feet (SF).

[3] A 15% residential/retail internal mixed-use trip reduction was applied to the project per the 2014 Santa Clara VTA TIA Guidelines. The 15% reduction was first applied to the smaller generator (retail). The same number of trips were subtracted from the larger generator (residential) to account for both trip ends.

[4] A 12% reduction was applied to the residential and retail components of the project based on the location-based vehicle mode share percentage outputs (Table 6 of the TA Handbook) produced from the San Jose Travel Demand Model for the place type: Suburban with Multifamily Housing.

[5] A 19% trip reduction was applied to the residential component of the project based on the external trip adjustments obtained from the City's VMT Evaluation Tool. This trip reduction reflects the multi-modal infrastructure improvements and TDM measures being proposed by the project to reduce the project VMT impact to a less-than-significant level. It is assumed that every percent reduction in VMT per capita is equivalent to one percent reduction in peak-hour vehicle trips.

[6] The PM peak hour pass-by trip reduction percentage (34% for Shopping Center) was based on the ITE Trip Generation Handbook (Third Edition). There is no AM peak hour pass-by trip reduction. The daily pass-by trip reduction (17%) was calculated based on the average of the AM and PM pass-by trip reduction percentages.

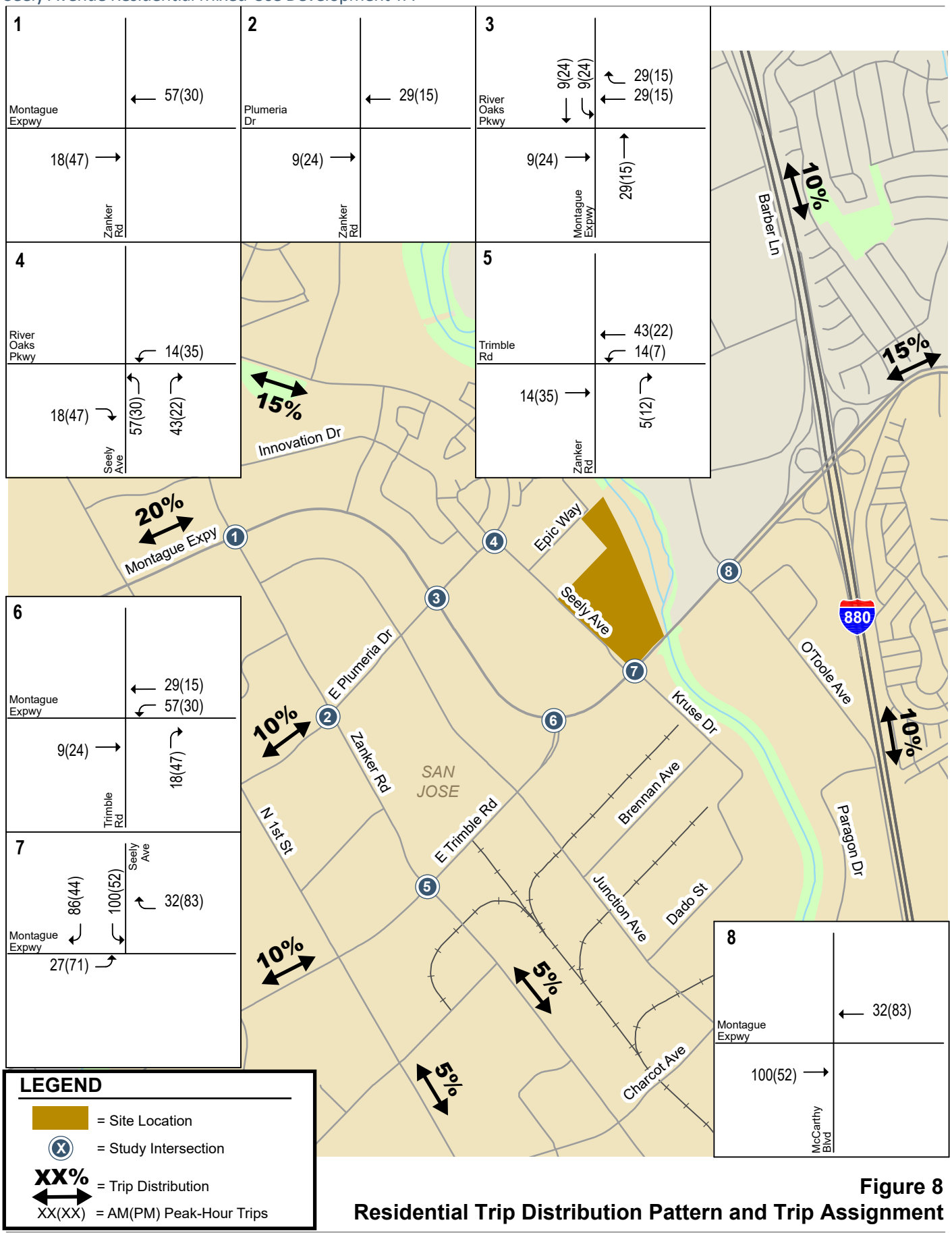


Figure 8
Residential Trip Distribution Pattern and Trip Assignment

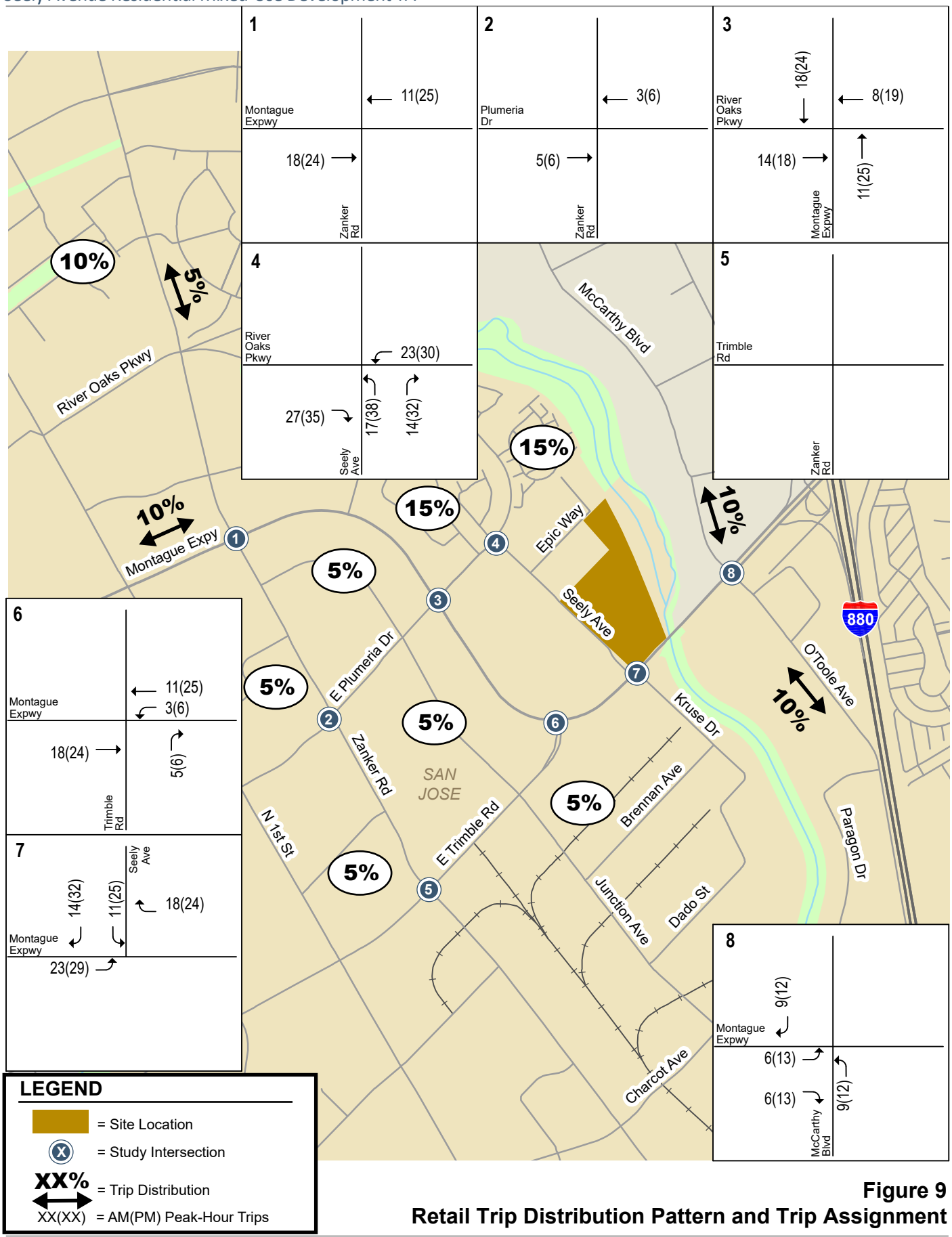


Figure 9
Retail Trip Distribution Pattern and Trip Assignment

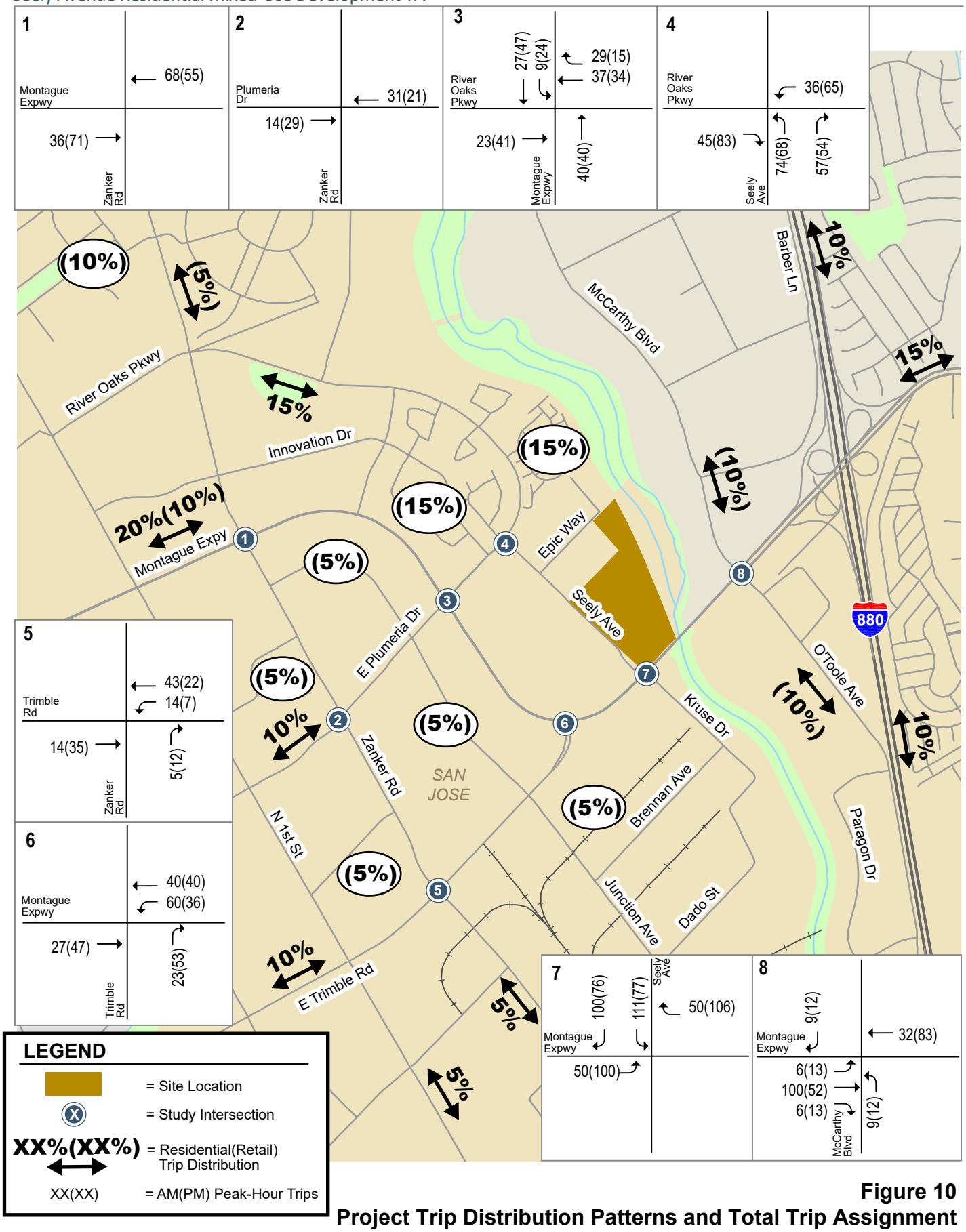
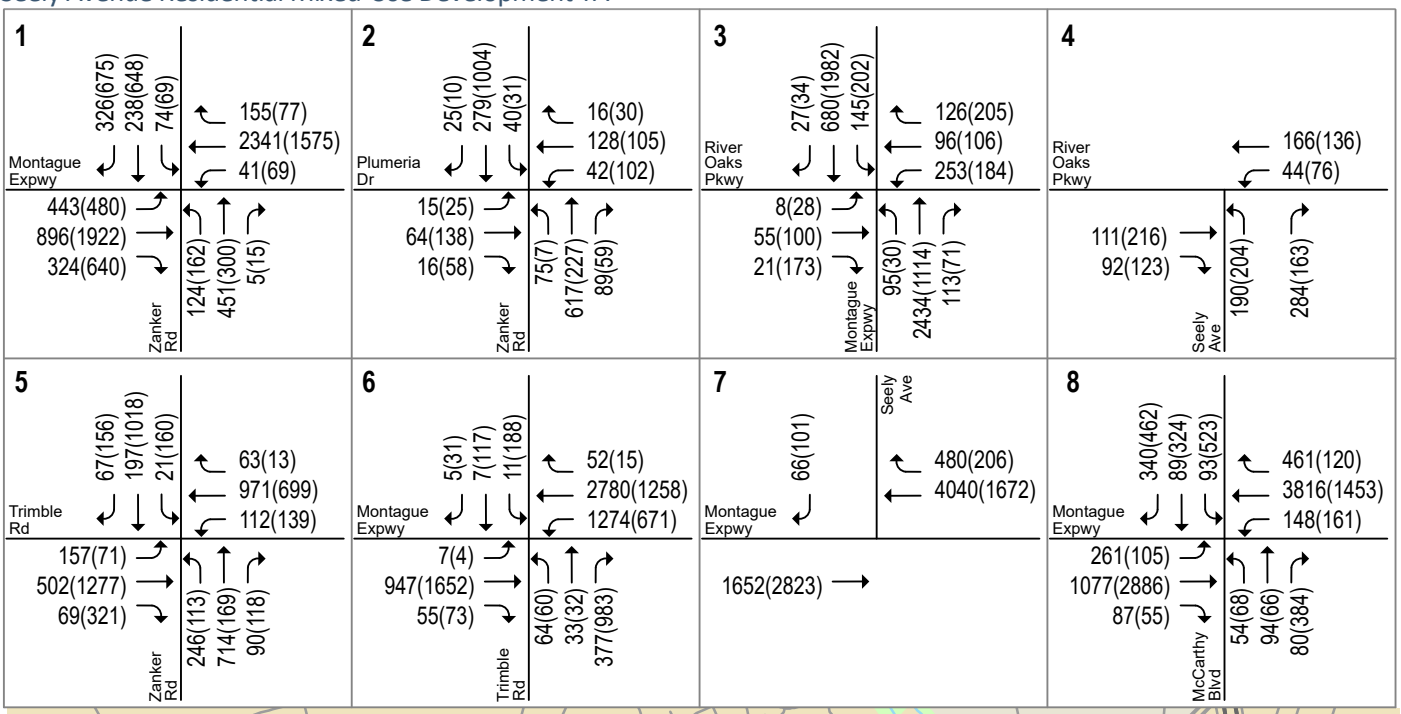


Figure 10
Project Trip Distribution Patterns and Total Trip Assignment

NORTH
Not to Scale



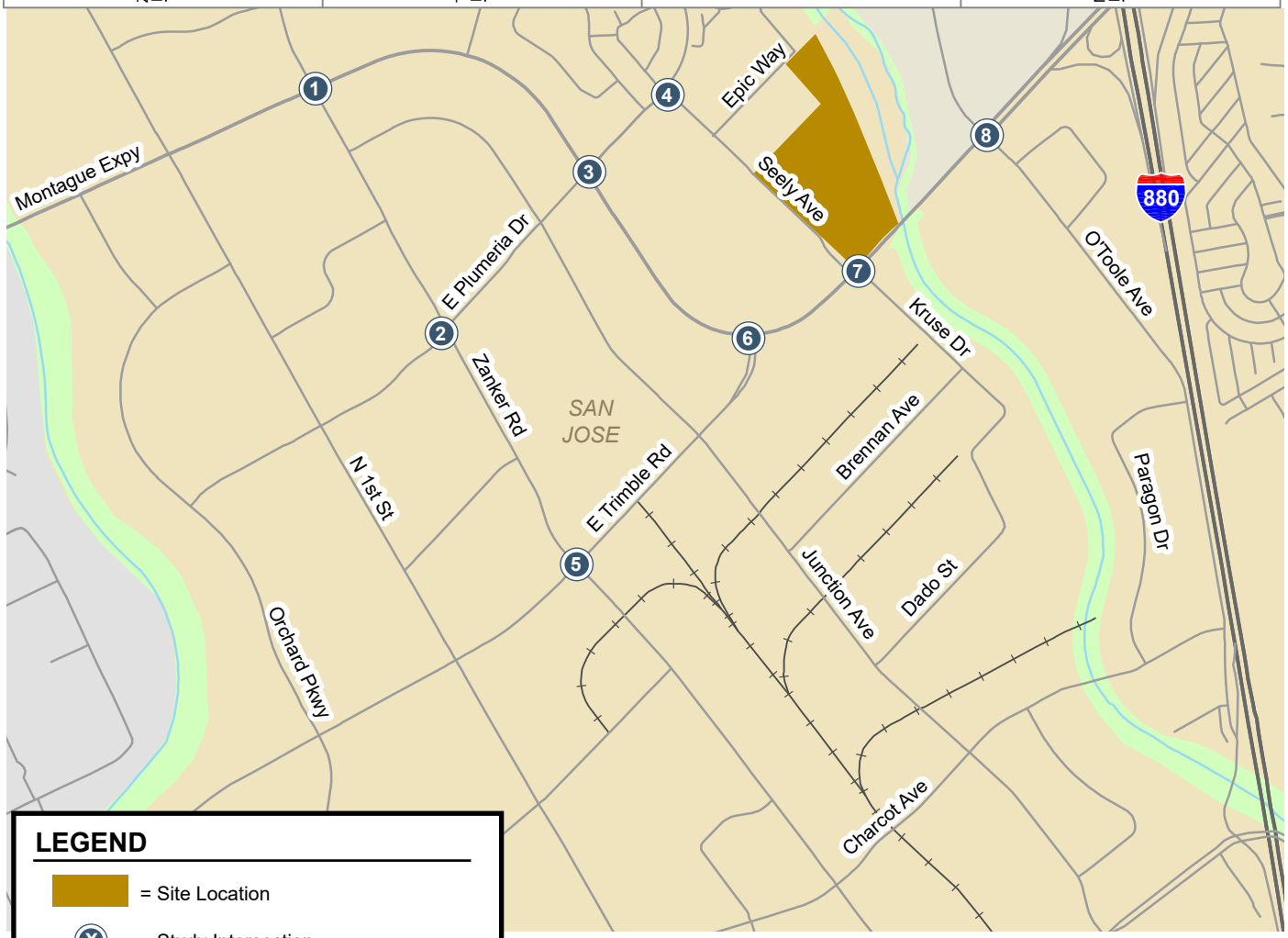
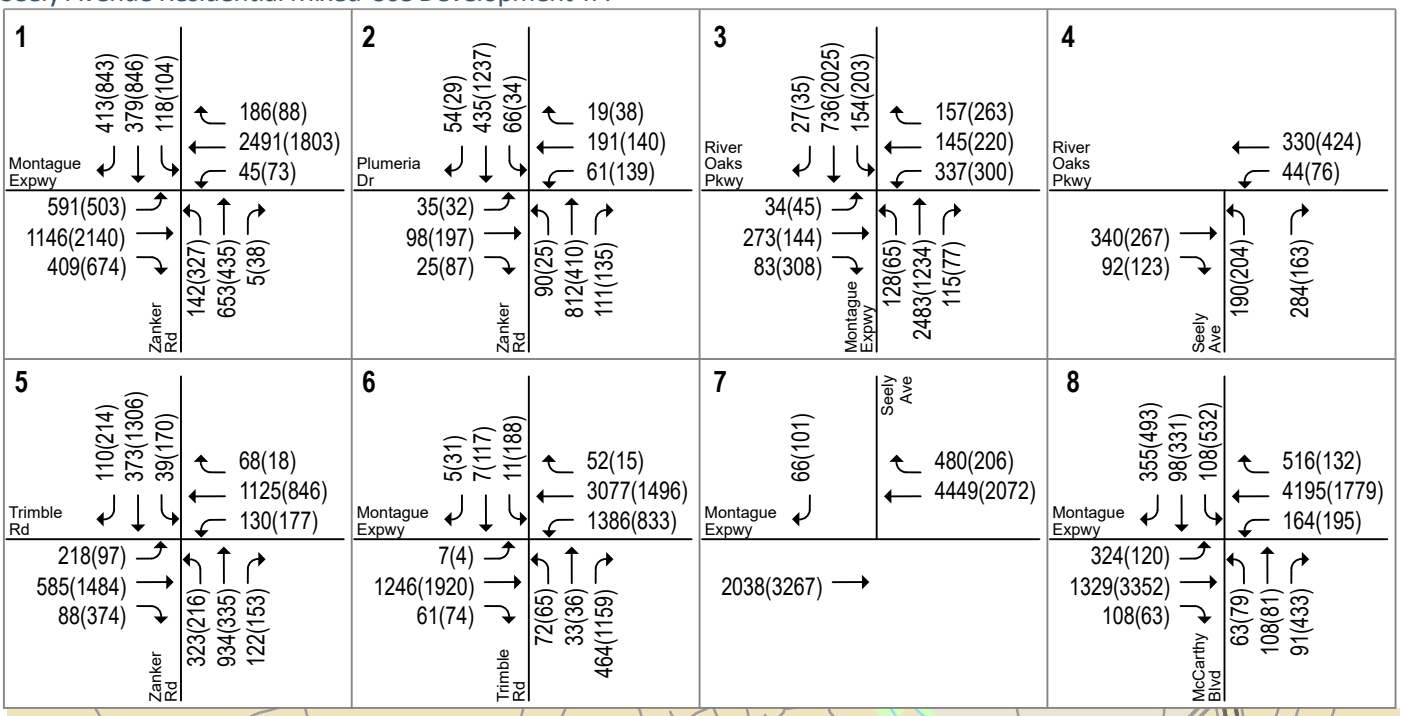


Figure 11
Existing Traffic Volumes

NORTH
Not to Scale



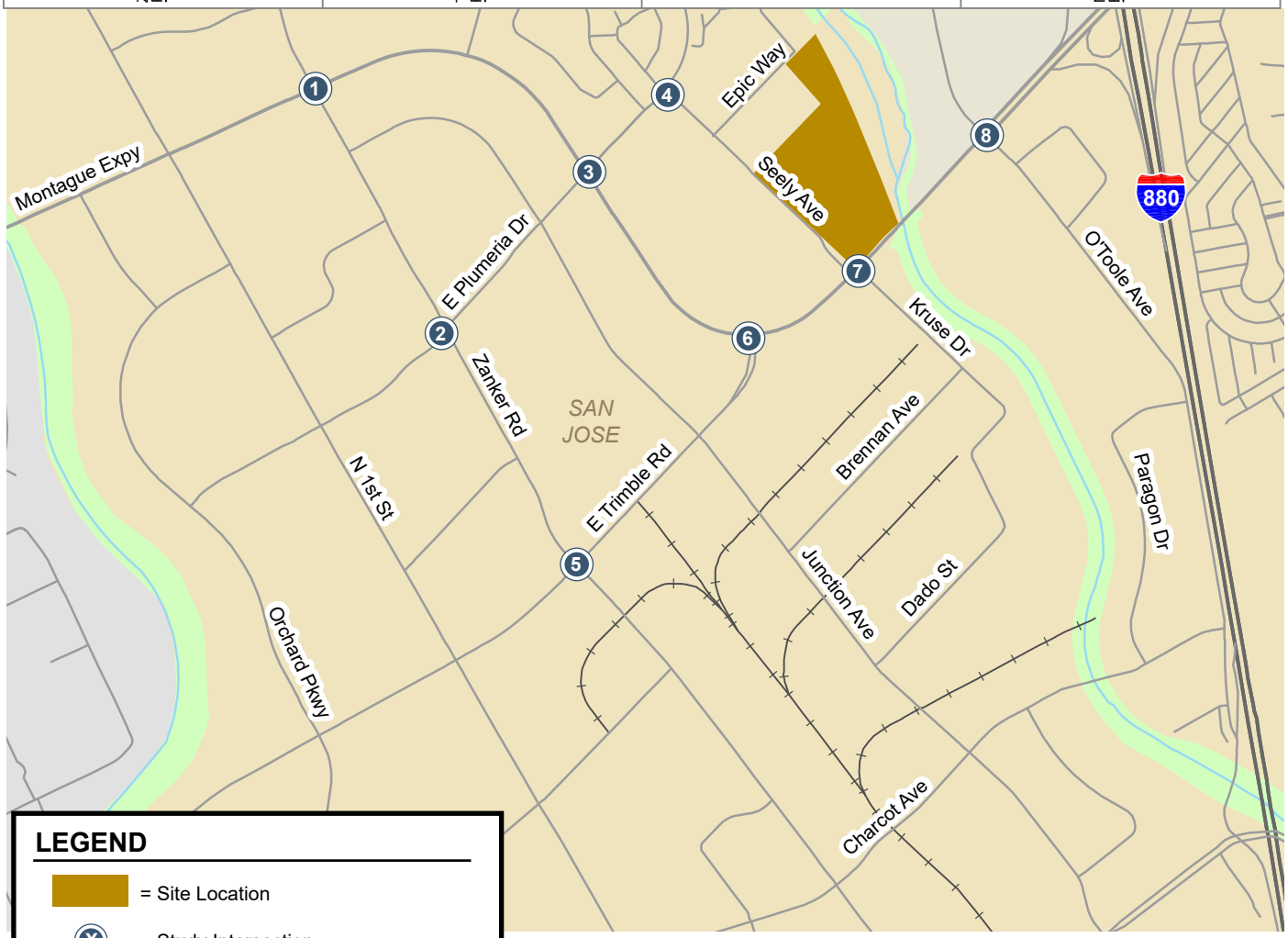
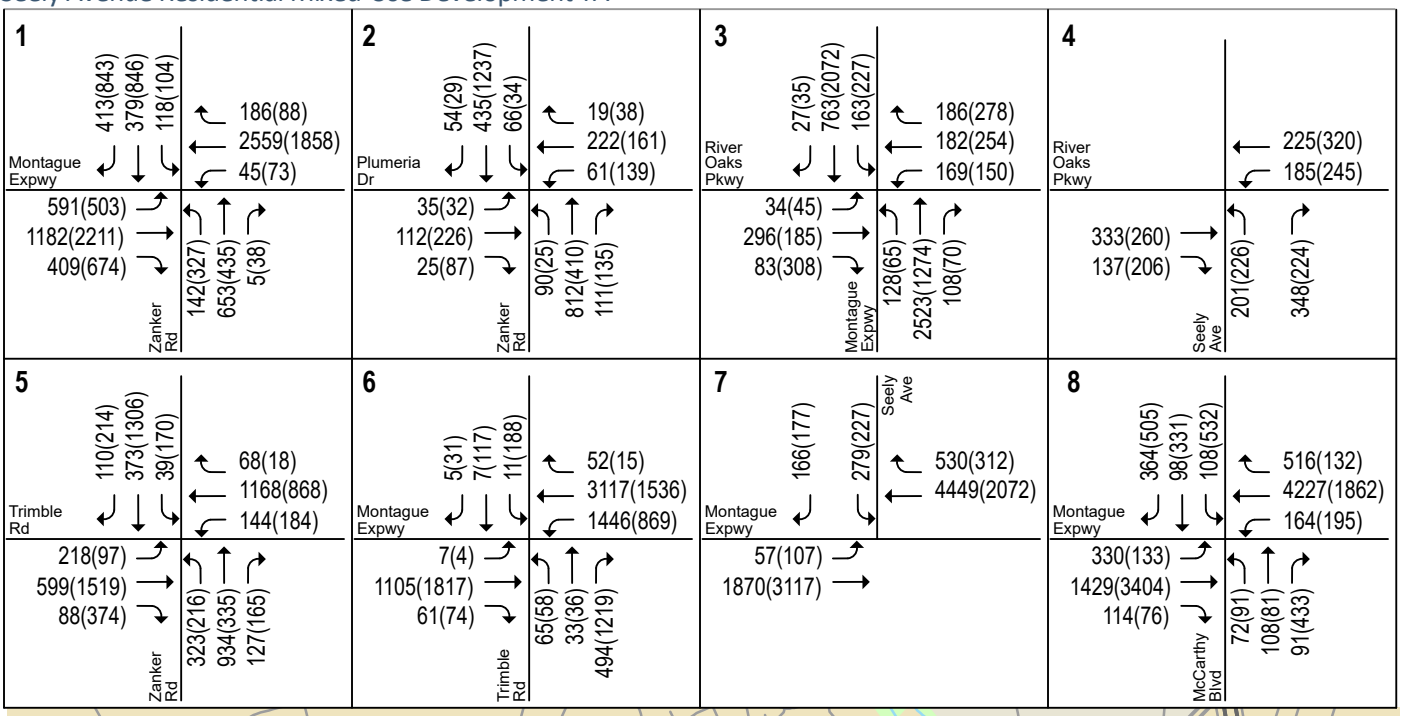


Figure 12
Background Traffic Volumes

NORTH
Not to Scale



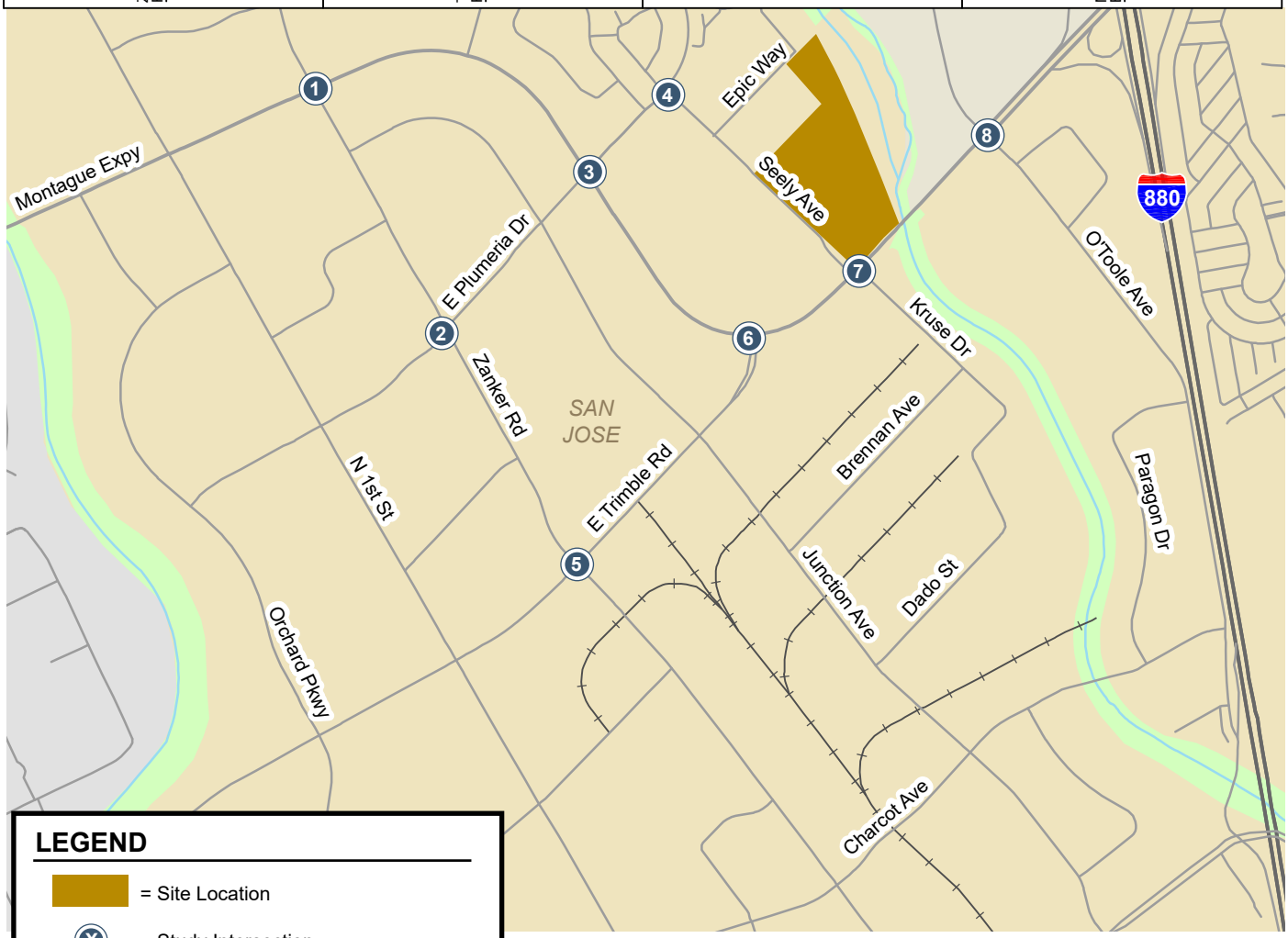


Figure 13
Background Plus Project Traffic Volumes

NORTH
Not to Scale

Signalized Intersection Level of Service Analysis

Intersection levels of service were evaluated against the standards of the City of San Jose. The results of the analysis show that all but two of the signalized study intersections are currently operating at an acceptable level of service (LOS D or better) during both the AM and PM peak hours of traffic and would continue to do so under background and background plus project conditions (see Table 6). The following two signalized study intersections are currently operating at an unacceptable level of service per City of San Jose standards and would continue to do so under background and background plus project conditions:

- Zanker Road and Montague Expressway – LOS E during the AM peak hour
- McCarthy Bl-O'Toole Av and Montague Expressway – LOS F during the PM peak hour

Zanker Road and Montague Expressway

Although the CMP intersection of Zanker Road and Montague Expressway would operate unacceptably under background conditions per City standards, the addition of project-generated trips would not have an adverse effect on intersection operations based on the City's operational thresholds. Note that since this is a CMP intersection, LOS E operation is considered acceptable based on the CMP level of service standard.

McCarthy Boulevard-O'Toole Avenue and Montague Expressway

The CMP intersection of McCarthy Boulevard-O'Toole Avenue and Montague Expressway would operate at an unacceptable LOS F during the PM peak hour under background conditions, and the addition of project-generated trips would have an adverse effect on intersection operations based on the City's operational thresholds.

According to the City of San Jose's *Transportation Analysis Handbook,* adverse effects at signalized intersections can be addressed by one of the following approaches:

- Implement multi-modal improvements and/or TDM measures that reduce project vehicle trips to eliminate the adverse operational effects and restore intersection operations to background conditions, or
- Construct improvements to the subject intersection or other roadway segments of the citywide transportation system to increase overall capacity, or
- Reduce project-generated vehicle trips (e.g., implement a "trip cap") to eliminate the adverse operational effects and restore intersection operations to background conditions. The extent of trip reduction should be set at a level that is realistically attainable through proven methods of reducing trips. This approach requires monitoring to ensure conformance to the set trip cap.

Intersection Improvements

To address the adverse effect on the signalized intersection of McCarthy Boulevard-O'Toole Avenue and Montague Expressway, the project would make a fair-share monetary contribution toward planned improvements that were identified for this intersection as part of the recently retired North San Jose Development Policy (NSJDP). Although the policy has officially been closed out, many of the improvements are still planned and are described in the January 2023 settlement agreement between the City of San Jose and the County of Santa Clara.

A grade-separated interchange is planned for the McCarthy Boulevard-O'Toole Avenue and Montague Expressway intersection. The interchange will be designed as a "single-point urban" interchange or, if mutually agreed upon in writing by both the City of San Jose and County of Santa Clara, a design that achieves similar project goals and limits the need for right-of-way acquisition. The final interchange design will maintain all turning movements currently allowed at the at-grade intersection.

Recommendation: Pay a fair-share contribution of $200,000 toward planned improvements at the McCarthy Boulevard-O'Toole Avenue and Montague Expressway intersection.

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

Table 6
Intersection Level of Service Summary

#	Signalized Intersection	Peak Hour	Count Date	Existing Avg. Delay (sec)	Existing LOS	Background Avg. Delay (sec)	Background LOS	Background + Project Avg. Delay (sec)	Background + Project LOS	Incr. In Crit. Delay (sec)	Incr. In Crit. V/C
1	Zanker Rd & Montague Exp *	AM	05/10/18	**62.6**	**E**	**73.5**	**E**	**74.0**	**E**	1.0	0.012
		PM	11/08/18	50.5	D	**77.4**	**E**	**77.5**	**E**	-1.1	0.011
2	Zanker Rd & Plumeria Dr	AM	06/01/17	23.1	C	25.3	C	26.3	C	1.2	0.019
		PM	06/01/17	23.6	C	26.1	C	27.0	C	1.3	0.017
3	Montague Exp & River Oaks Pkwy	AM	05/10/18	34.9	C	47.5	D	43.3	D	-7.9	-0.038
		PM	05/10/18	36.4	D	48.9	D	44.9	D	-8.6	-0.040
4	Seely Av & River Oaks Pkwy	AM	01/09/19	18.5	B	21.3	C	29.6	C	9.1	0.164
		PM	01/09/19	20.4	C	19.6	B	27.7	C	10.0	0.212
5	Zanker Rd & Trimble Rd *	AM	06/01/17	39.5	D	42.4	D	42.5	D	0.1	0.008
		PM	11/08/18	38.9	D	44.5	D	44.7	D	0.5	0.009
6	Trimble Rd & Montague Exp *	AM	05/10/18	25.1	C	27.2	C	25.7	C	-1.7	-0.017
		PM	11/08/18	48.0	D	51.6	D	52.6	D	-0.4	0.002
7	Seely Av & Montague Exp	AM	01/09/19	--	--	--	--	13.1	B	--	--
		PM	01/09/19	--	--	--	--	14.4	B	--	--
8	McCarthy Bl-O'Toole & Montague Exp *	AM	05/10/18	31.8	C	33.8	C	35.3	D	1.6	0.083
		PM	11/08/18	**82.3**	**F**	**109.8**	**F**	**113.5**	**F**	**5.8**	**0.012**

Notes:
* Denotes a CMP intersection.
Bold indicates a substandard level of service per the City of San Jose standard (LOS D).
Bold indicates an adverse effect per City of San Jose intersection operations criteria.

Seely Avenue and Montague Expressway

As previously discussed, the project is proposing to signalize the intersection of Seely Avenue and Montague Expressway to improve vehicular access to and from the project site. A conceptual drawing of the proposed intersection improvements is shown on the site plan in Chapter 1 (see Figure 2 in Chapter 1). The new project-funded traffic signal would be situated about 850 feet from the signalized intersection of Trimble Road/Montague Expressway and would include a single eastbound left-turn lane on Montague Expressway and dual southbound left-turn lanes on Seely Avenue. Based on the intersection level of service analysis described above, the new intersection is expected to operate at LOS B during the AM and PM peak hours under background plus project conditions.

Signal Warrant

Traffic conditions at the intersection of Seely Avenue and Montague Expressway were assessed to determine whether a traffic signal would be warranted based on the peak-hour volume signal warrant (Warrant #3) described in the *California Manual on Uniform Traffic Control Devices* (CA MUTCD). This method makes no evaluation of intersection level of service, but simply provides an indication whether peak-hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal.

The results of the signal warrant check indicate that the unsignalized study intersection would meet the warrant with the addition of project-generated traffic. The signal warrant sheets are included in Appendix D. A new traffic signal at Seely Avenue/Montague Expressway would require coordination with the County of Santa Clara and City of San Jose staff.

Synchro Analysis

A micro-simulation of traffic operations was prepared using Synchro and SimTraffic 10 software in order to analyze the feasibility of adding a new traffic signal at Seely Avenue/Montague Expressway and the effects the new traffic signal would have on traffic progression and vehicle queues along Montague Expressway. The simulation was conducted for the typical weekday AM and PM peak-hour periods of traffic and included the closest upstream and downstream signalized intersections: Trimble Road/Montague Expressway and McCarthy Boulevard-O'Toole Avenue/Montague Expressway.

The detailed Synchro/SimTraffic analysis is contained in Appendix E. The Synchro/SimTraffic analysis shows that a new traffic signal at Seely Avenue/Montague Expressway that does not include adding a crosswalk across Montague Expressway but does include extending the westbound triple left-turn pocket at Montague Expressway/Trimble Road would have the least impact on traffic operations along Montague Expressway when compared to the other project scenarios that were analyzed. However, including a crosswalk across Montague Expressway would not substantially worsen traffic operations so long as the westbound triple left-turn pocket extension at Trimble Road is included. The new signal would allow for adequate progression of vehicles in both directions of travel along Montague Expressway and is expected to operate at an acceptable level of service based on the 2000 *Highway Capacity Manual* (HCM) method for signalized intersections.

Intersection Queuing Analysis

The analysis of intersection operations was supplemented with a vehicle queuing analysis at intersections where the project would add a noteworthy number of trips to the left-turn movements. For the purpose of this analysis, a noteworthy number of trips equates to 10 trips or more per hour per lane. Based on this threshold and the project trip assignment, the following left-turn movements were examined as part of the intersection queuing analysis for this project:

- Montague Expressway & River Oaks Parkway – SB dual left-turn, WB dual left-turn
- Seely Avenue & River Oaks Parkway – NB shared left-turn/right-turn, WB single left-turn
- Montague Expressway & Trimble Road – WB triple left-turn
- Seely Avenue & Montague Expressway (New Signal) – SB dual left-turn, EB single left-turn

The results of the queuing analysis (see Tables 7 and 8) show that adequate vehicle storage is currently provided and would continue to be provided under background conditions to accommodate the maximum vehicle queues that would develop for all but one of the left-turn movements evaluated. All but two of the left-turn movements would provide adequate left-turn vehicle storage under background plus project conditions. However, it is important to note that the project would actually reduce the westbound left-turn vehicle queue at the Montague Expressway/River Oaks Parkway intersection due to the reassignment of existing vehicle trips that would result from installing a new traffic signal at the Seely Avenue/Montague Expressway intersection.

Seely Avenue and River Oaks Parkway

The queuing analysis indicates that the maximum vehicle queues for the westbound left-turn movement at the Seely Avenue and River Oaks Parkway intersection would exceed the existing vehicle storage capacity under background plus project conditions during the AM and PM peak hours of traffic. The projected westbound left-turn pocket storage inadequacy would occur as a result of the new traffic signal at Seely Avenue and Montague Expressway. With the addition of a southbound left-turn

movement from Seely Avenue onto eastbound Montague Expressway, some vehicles traveling along River Oaks Parkway would utilize Seely Avenue as a cut-through route to access Montague Expressway to the south. This reassignment of existing vehicle trips was previously discussed under "Background Plus Project Traffic Volumes". The westbound left-turn pocket should be lengthened to accommodate the longer vehicle queues that would occur as a result of the new traffic signal.

Recommendation: Extend the westbound left-turn pocket to provide a total of 250 feet of vehicle storage (i.e., 200-foot striped turn pocket + 100-foot taper). Lengthening the turn pocket would require reconstruction of the median island, removal of some landscaping, restriping, and possibly relocating some utilities associated with irrigation.

Table 7
Intersection Queuing Analysis Summary – AM Peak Hour

	Montague Exp & River Oaks Pkwy		Seely Av & River Oaks Pkwy		Montague Exp & Trimble Rd	Seely Av & Montague Exp	
Peak Hour:	SB LT AM	WB LT AM	NB LT/RT [4] AM	WB LT AM	WB LT AM	SB LT AM	EB LT AM
Existing							
Cycle/Delay[1] (sec)	203	203	75	75	180	--	--
Volume (vphpl)	73	127	237	44	425	--	--
95th %. Queue (veh/ln.)	8	12	9	3	29	--	--
95th %. Queue (ft./ln) [2]	200	300	225	75	725	--	--
Storage (ft./ ln.) [3]	275	200	400	150	1100	--	--
Adequate (Y/N)	Y	**N**	Y	Y	Y	--	--
Background							
Cycle/Delay[1] (sec)	203	203	75	75	180	--	--
Volume (vphpl)	77	169	237	44	462	--	--
95th %. Queue (veh/ln.)	8	15	9	3	31	--	--
95th %. Queue (ft./ln) [2]	200	375	225	75	775	--	--
Storage (ft./ ln.) [3]	275	200	400	150	1100	--	--
Adequate (Y/N)	Y	**N**	Y	Y	Y	--	--
Background Plus Project							
Cycle/Delay[1] (sec)	203	203	75	75	180	180	180
Volume (vphpl)	82	85	275	185	482	140	57
95th %. Queue (veh/ln.)	8	9	10	7	32	12	6
95th %. Queue (ft./ln) [2]	200	225	250	175	800	300	150
Storage (ft./ ln.) [3]	275	200	400	150	1100	300	250
Adequate (Y/N)	Y	**N** [5]	Y	**N**	Y	Y	Y

Notes:
[1] Vehicle queue calculations based on signal cycle length for signalized intersections.
[2] Assumes 25 Feet Per Vehicle Queued.
[3] Storage Length represents the length of the turn pocket + approx. 1/2 the length of the taper.
[4] The NB approach is a shared lane approach (L/R). Thus, the vehicle queues reported reflect the total NB LT + RT volume. Seely Avenue provides approximately 400 ft of vehicle storage space between River Oaks Parkway and Epic Way.
[5] The WB LT vehicle queue would be reduced due to the reassignment of traffic to Seely Avenue that would occur with the new traffic signal.

Table 8
Intersection Queuing Analysis Summary – PM Peak Hour

	Montague Exp & River Oaks Pkwy		Seely Av & River Oaks Pkwy		Montague Exp & Trimble Rd	Seely Av & Montague Exp	
Peak Hour:	SB LT PM	WB LT PM	NB LT/RT [4] PM	WB LT PM	WB LT PM	SB LT PM	EB LT PM
Existing							
Cycle/Delay[1] (sec)	203	203	75	75	189	--	--
Volume (vphpl)	101	92	184	76	224	--	--
95th %. Queue (veh/ln.)	10	9	7	4	18	--	--
95th %. Queue (ft./ln) [2]	250	225	175	100	450	--	--
Storage (ft./ ln.) [3]	275	200	400	150	1100	--	--
Adequate (Y/N)	Y	**N**	Y	Y	Y	--	--
Background							
Cycle/Delay[1] (sec)	203	203	75	75	189	--	--
Volume (vphpl)	102	150	184	76	278	--	--
95th %. Queue (veh/ln.)	10	13	7	4	21	--	--
95th %. Queue (ft./ln) [2]	250	325	175	100	525	--	--
Storage (ft./ ln.) [3]	275	200	400	150	1100	--	--
Adequate (Y/N)	Y	**N**	Y	Y	Y	--	--
Background Plus Project							
Cycle/Delay[1] (sec)	203	203	75	75	189	189	189
Volume (vphpl)	114	75	225	245	290	114	107
95th %. Queue (veh/ln.)	11	8	8	9	22	10	10
95th %. Queue (ft./ln) [2]	275	200	200	225	550	250	250
Storage (ft./ ln.) [3]	275	200	400	150	1100	300	250
Adequate (Y/N)	Y	Y [5]	Y	**N**	Y	Y	Y

Notes:
[1] Vehicle queue calculations based on signal cycle length for signalized intersections.
[2] Assumes 25 Feet Per Vehicle Queued.
[3] Storage Length represents the length of the turn pocket + approx. 1/2 the length of the taper.
[4] The NB approach is a shared lane approach (L/R). Thus, the vehicle queues reported reflect the total NB LT + RT volume. Seely Avenue provides approximately 400 ft of vehicle storage space between River Oaks Parkway and Epic Way.
[5] The WB LT vehicle queue would be reduced due to the reassignment of traffic to Seely Avenue that would occur with the new traffic signal.

Neighborhood Street Traffic

Average daily traffic (ADT) volumes and vehicle speed data were collected for the following four street segments:

1. River Oaks Parkway, west of Seely Avenue
2. Seely Avenue, between River Oaks Parkway and Epic Way
3. Epic Way, east of Seely Avenue
4. Seely Avenue, north of Montague Expressway

Average daily traffic (ADT) volumes and vehicle speed data were collected over a one-week period from December 8th to December 14th, 2021. The ADT volumes and 85th percentile vehicle speeds for the study street segments are summarized in Table 9. The raw daily traffic count data and speed data are presented in Appendix F.

Table 9
Street Segment Average Daily Traffic and Speed Summary

ID	Street	Street Segment	Posted Speed Limit	85th % Speed (Avg. of Both Directions)	Existing ADT [1]	Daily Project Trips	% Vol Increase
1	River Oaks Pkwy	Montague Expwy to Seely Av	35 mph	31 mph	4,976	1,824	37%
2	Seely Av	River Oaks Pkwy to Epic Wy	30 mph	25 mph	2,922	3,279	112%
3	Epic Wy	Seely Av to Epic Apartments DW	25 mph	22 mph	1,634	504	31%
4	Seely Av	Montague Expwy to Cadence DW	30 mph	25 mph	3,144	4,482	143%

Note:

[1] ADT = average daily traffic in vehicles/day (Tue, Wed & Thu only). Daily volume and speed data collected Dec 8-14, 2021.

It is important to note that the definition of an acceptable amount of traffic on a local street is subjective and depends on many factors such as street width, presence of on-street parking, building setback, number of driveways, presence of bicycle facilities, and whether the local street provides access to major roadways. The City of San Jose has not established thresholds or guidelines that can be applied to determine the level of increase that should be deemed a significant increase, or the level of increase that would have a negative effect on the livability or quality of life for residents.

A typical ADT volume for a local street with a posted speed limit of 25 mph, such as Epic Way, ranges from 1,000 to 3,000 vehicles per day. As shown in Table 9, the ADT volume for Epic Way (approximately 1,600 vehicles per day) falls within the typical ADT range for local streets.

A typical ADT volume for a neighborhood collector street with a posted speed limit of 30 mph, such as Seely Avenue and River Oaks Parkway, ranges from 1,000 to 6,000 vehicles per day. As shown in Table 9, the ADT volumes for Seely Avenue and River Oaks Parkway (approximately 3,000 vehicles per day and 5,000 vehicles per day, respectively) fall within this typical ADT range for collector streets.

Speed surveys conducted along the study street segments revealed that average bidirectional 85th percentile vehicle speeds are ranging between 22 mph and 31 mph. Based on the speed data collected, the 85th percentile speeds along all the study segments are equal to or less than their respective posted speed limits.

Although the roadway segments that were studied currently have ADT volumes that fall within the typical range for local and collector streets, the project-generated trips added to Seely Avenue and River Oaks Parkway (neighborhood collector streets) would result in ADT volumes that are higher than the typical range for these streets. Furthermore, the ADT volume on Seely Avenue would more than double as a result of the project. The improvements along Seely Avenue that would be implemented by the project would help to address the increase in traffic volume. As previously described in Chapter 3, the project would construct new bicycle facilities on both sides of Seely Avenue and add a two-way center left-turn lane. As a result, the existing travel lane widths along Seely Avenue would be narrowed. Providing traffic calming measures such as narrowing travel lane widths reduces vehicle speeds, which creates a safer environment and promotes walking and biking as alternatives to driving.

Due to the percentage increase (over 100% increase) in traffic volume along Seely Avenue as a result of the project, the project may be required to implement additional traffic calming measures following occupancy of the project if City staff determines that the increase in traffic volume could create safety-related issues along the northern segment of Seely Avenue near the residential neighborhoods north of the project site. If issues are identified following occupancy of the project, City staff would require a

focused traffic operations study of Seely Avenue to determine the appropriate traffic calming measures that should be implemented by the project. Additional traffic calming measures could include (but are not limited to) roadway striping, curb markings, enhanced crosswalks, signage, bulb-outs, chicanes, chokers, medians, and road bumps. Should the project ultimately be required to implement traffic calming measures, City staff and the project applicant have mutually agreed to a maximum cost of $450,000 for improvements.

Site Access and On-Site Circulation

The evaluation of site access and on-site circulation is based on the January 13, 2022 site plan prepared by HMH Engineers (see Figure 2 in Chapter 1). Site access was evaluated to determine the adequacy of the driveways with regard to the following: traffic volume, delays, vehicle queues, sight distance, and geometric design. On-site circulation and parking layout were reviewed in accordance with generally accepted traffic engineering standards and transportation planning principles.

Site Access and Project Driveways

Vehicular access to the project site would be provided via two full-access driveways on Seely Avenue and one driveway on Epic Way. The two project driveways on Seely Avenue are shown with curb returns and measure 26 feet wide at the throat. The Epic Way driveway is shown to be 26 feet wide, measured at the throat, and would be a standard dustpan style residential driveway. According to the City of San Jose Department of Transportation (DOT) Geometric Design Guidelines, the standard width for a two-way driveway that serves a multi-family residential development is 26 feet wide, measured at the throat. The width of the project driveways would meet the City standard.

The southern project driveway (B Street) on Seely Avenue would be situated approximately 400 feet north of Montague Expressway and would primarily serve residents and retail customers of Buildings 1 and 2 and the affordable residential building. The northern project driveway (A Street) on Seely Avenue would be situated approximately 300 feet north of the southern project driveway and would primarily serve residents and retail customers of Buildings 1 and 3 and the townhomes. The project driveway on Epic Way would mostly serve residents of the townhomes.

Parking for residents of the townhomes would be provided via individual two-car garages. Parking for residents of the affordable housing development and Buildings 1 and 3 would be provided via their respective parking structures. Parking for both residents and retail customers of Building 2 would be provided via a designated parking structure. Separate entrances would be provided to separate the residential and retail parking. Additional retail parking would be provided via a surface lot situated between B Street and Building 2. An internal roadway network would provide access to all the parking structures and surface parking, including surface parking along the internal streets for public park users. The project should provide an access easement on A Street, B Street, and C Street to allow public parking along the public park frontages.

Residential and retail loading zones would be provided for each building. Seely Avenue and the internal roadway network would provide access to the on-site designated loading areas. The loading zones would be used for passenger loading, residential move-in/out, and residential and retail deliveries.

Project Driveway Volumes and Operations

The total AM and PM peak hour project-generated trips (including retail pass-by trips) that are estimated to occur at the project driveways are 181 inbound trips and 342 outbound trips during the AM peak hour, and 414 inbound trips and 341 outbound trips during the PM peak hour (see Figure 14). Approximately 60 percent of inbound trips would approach from the south, and 40 percent would approach from the north.

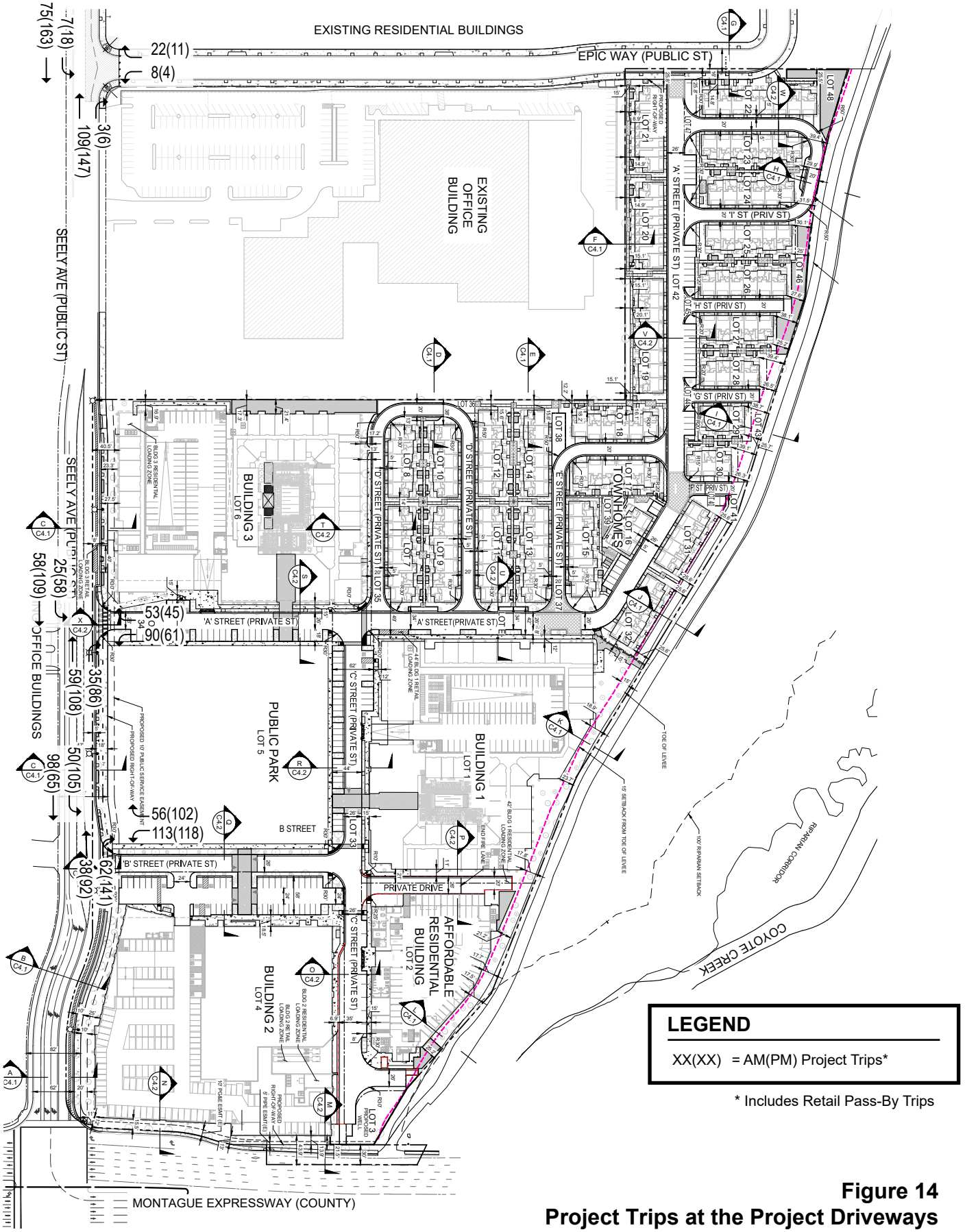


Figure 14
Project Trips at the Project Driveways

Trips entering the site from the north (via southbound Seely Avenue) would be turning left into the site. It is estimated that 25 AM peak hour vehicles and 58 PM peak hour vehicles would turn left into the site via the northern driveway, and 50 AM peak hour vehicles and 105 PM peak hour vehicles would turn left into the site via the southern driveway. According to the site plan, the project intends to provide a two-way left-turn lane on Seely Avenue to accommodate left turns into the site. Based on the low opposing northbound volumes on Seely Avenue, delays for left turning vehicles are expected to be relatively low at both driveways.

Inbound Driveway Operations

The City typically requires developments to provide adequate on-site stacking space for at least two inbound vehicles (or about 50 feet) between the sidewalk and any entry gates or on-site drive aisles or parking spaces. This prevents vehicles from queuing onto the sidewalk or the street. The site plan shows approximately 75 feet of on-site vehicle stacking space would be provided between the sidewalk and the first parking space or drive aisle at all the project driveways. Thus, adequate on-site stacking space would be provided for inbound vehicles.

TRAFFIX software was used to calculate the vehicle delays and associated queues for the southbound left-turn movements at the unsignalized project driveways on Seely Avenue. Based on the inbound left-turn volumes and the low opposing northbound volumes on Seely Avenue, TRAFFIX calculations show average delays of less than 10 seconds per vehicle during both the AM and PM peak hours of traffic. The maximum number of inbound left-turning vehicles (105 PM peak hour vehicles at the southern driveway) equates to approximately one inbound left-turn vehicle trip every 35 seconds, or a typical queue of no more than one vehicle. Thus, inbound left-turn vehicle queuing issues within the two-way left-turn lane would not be expected to occur at either project driveway on Seely Avenue under typical conditions.

Outbound Driveway Operations

TRAFFIX software was also used to calculate the average delays and associated queuing for vehicles exiting the Seely Avenue driveways (outbound shared left/right-turn movements). The outbound shared lane movement delays would range from 11.7 seconds per vehicle during the PM peak hour at the northern project driveway, to 17.9 seconds per vehicle during the AM peak hour at the southern project driveway. These delays calculate to outbound vehicle queues of one vehicle and two vehicles, respectively. Thus, operational issues related to on-site vehicle queueing or delay would not be expected to occur at either project driveway on Seely Avenue under typical conditions.

Potential queuing along Seely Avenue also was evaluated since vehicle queuing along Seely Avenue could prevent vehicles from exiting the site. While queuing along northbound Seely Avenue would not occur, some queuing along southbound Seely Avenue would occur due to the new traffic signal at Montague Expressway. However, based on the intersection queuing analysis (see Tables 7 and 8), the southbound queues on Seely Avenue at Montague would not extend to the south project driveway.

Sight Distance at the Project Driveways

The project driveways should be free and clear of any obstructions to provide adequate sight distance, thereby ensuring that exiting vehicles can see pedestrians on the sidewalk and vehicles and bicycles traveling on Seely Avenue. Any landscaping and signage should be positioned in such a way to ensure an unobstructed view for drivers exiting the site. Providing the appropriate sight distance reduces the likelihood of a collision at a driveway or intersection and provides drivers with the ability to exit a driveway or locate sufficient gaps in traffic. The minimum acceptable sight distance is considered the Caltrans stopping sight distance. Sight distance requirements vary depending on roadway speeds. For driveways on Seely Avenue, which has a posted speed limit of 30 mph, the Caltrans stopping sight distance is 250 feet (based on a design speed of 35 mph). Accordingly, a driver must be able to see 250 feet along Seely Avenue in order to stop and avoid a collision.

According to the landscape plan, the project plans to add street trees along the project frontage on Seely Avenue. The new trees would have a high canopy and drivers exiting the project driveways would have an unobstructed view. Furthermore, the project is not proposing to add any signage or artwork along Seely Avenue that could negatively affect sight distance. Therefore, adequate stopping sight distance would be provided at the project driveways.

On-Site Vehicular Circulation and Parking Layout

On-site vehicular circulation was reviewed in accordance with the City of San Jose Zoning Code and generally accepted traffic engineering standards. The proposed site plan would provide adequate vehicular circulation throughout the surface parking areas and residential parking garages.

As previously described, A Street and B Street would provide full access to and from Seely Avenue. A north-south street (C Street) along the eastern boundary of the public park would intersect A Street and B Street. These three private streets would provide access to all the on-site surface parking, the private streets serving the townhomes, the parking garages serving the three market rate residential buildings, the affordable residential parking garage, and the centrally located public park. All the streets serving Buildings 1, 2 and 3, as well as the affordable residential building, measure 26 feet wide and would be adequate to serve the residential mixed-use component of the project.

Townhomes Circulation

A Street would provide access to the 20-foot-wide private streets serving the townhomes. The private residential streets were evaluated for vehicle access by the method of turning-movement templates. Analysis using the Passenger Car turning templates shows that small and large passenger vehicles (turning templates “Pm” and “P”, respectively) could adequately negotiate the private streets and access the individual townhome garages.

Building 1 Parking Garage Circulation

The parking garage serving the residents and retail space contained in Building 1 would include seven levels of parking: one at-grade level and six above-grade levels (see Figures 15A and 15B). Together, the parking garage levels would provide 518 vehicle parking spaces (277 full size, 220 compact, and 21 ADA) to serve 380 residential apartment units and 41 spaces to serve approximately 5,500 s.f. of retail space. Based on the site plan, residents and retail employees and customers would access the 24-foot-wide parking garage entrance on C Street via a 20-foot-wide dustpan style driveway. An internal security gate would be provided to separate the above-grade residential parking levels from the ground level retail parking. Upon entering the parking garage, drivers would circulate in a counterclockwise direction to access each additional parking level via an internal system of ramps.

The project would provide 90-degree parking stalls throughout the parking levels. The two-way drive aisles within the garage are shown to be 24 feet wide and would be adequate to allow vehicles to navigate all levels of the garage and maneuver in and out of parking spaces. However, the City’s standard minimum width for two-way drive aisles is 26 feet wide where 90-degree parking is provided. Thus, the project should confirm with City of San Jose Public Works staff that the proposed 24-foot drive aisle width is acceptable.

Recommendation: Coordinate with City staff to confirm the 24-foot drive aisle widths within the parking structure are acceptable.

Vehicular circulation on all levels of the parking garage would be adequate, with only one dead-end drive aisle on Level 7 (top parking level). The internal 24-foot-wide drive aisles and garage ramps were evaluated for vehicle access by the method of turning-movement templates. Analysis using the Passenger Car turning templates shows that small and large passenger vehicles (turning templates “Pm” and “P”, respectively) could adequately negotiate the parking garage. Convex mirrors should be placed at all four corners of each parking level to eliminate blind spots for vehicles making turns.

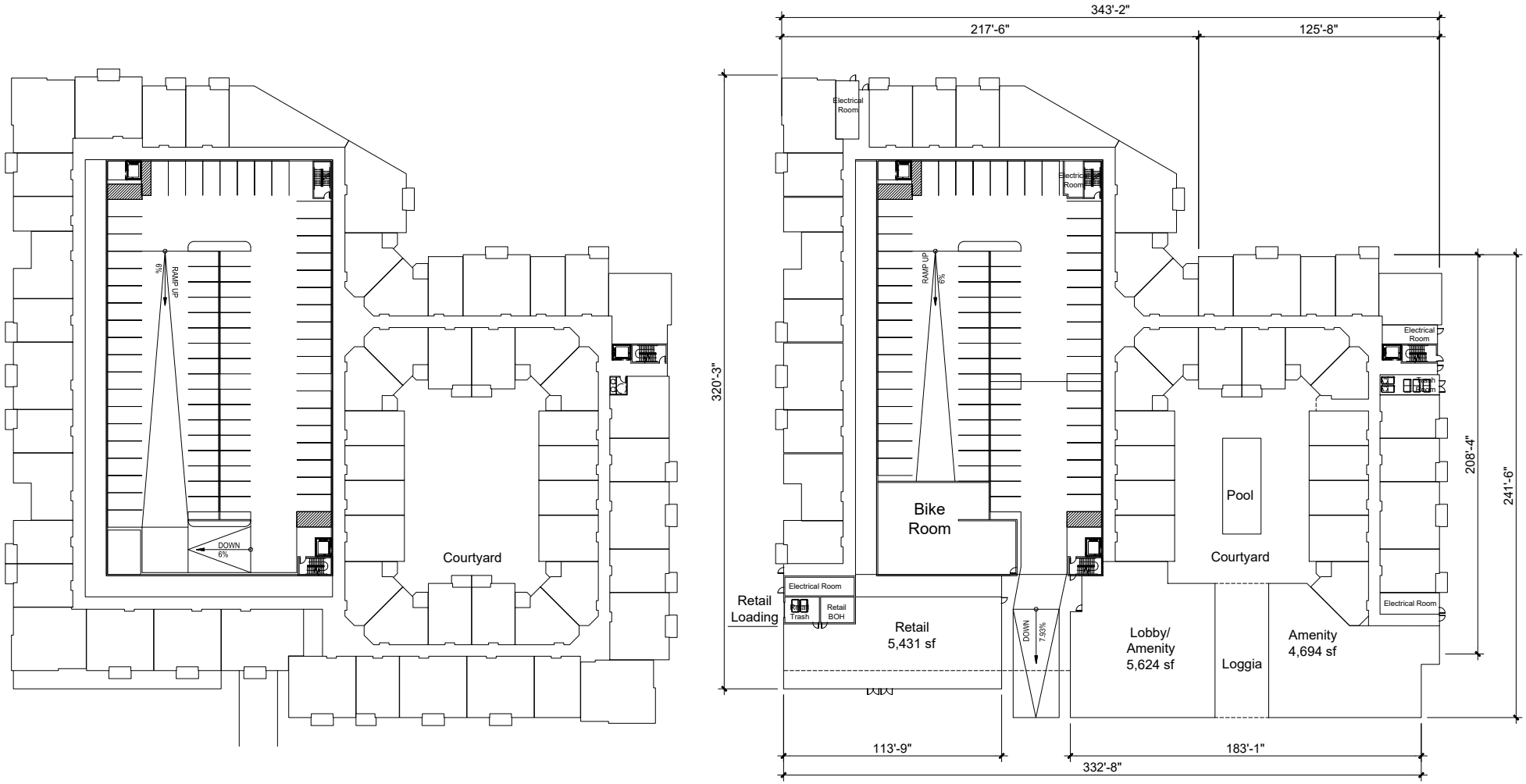
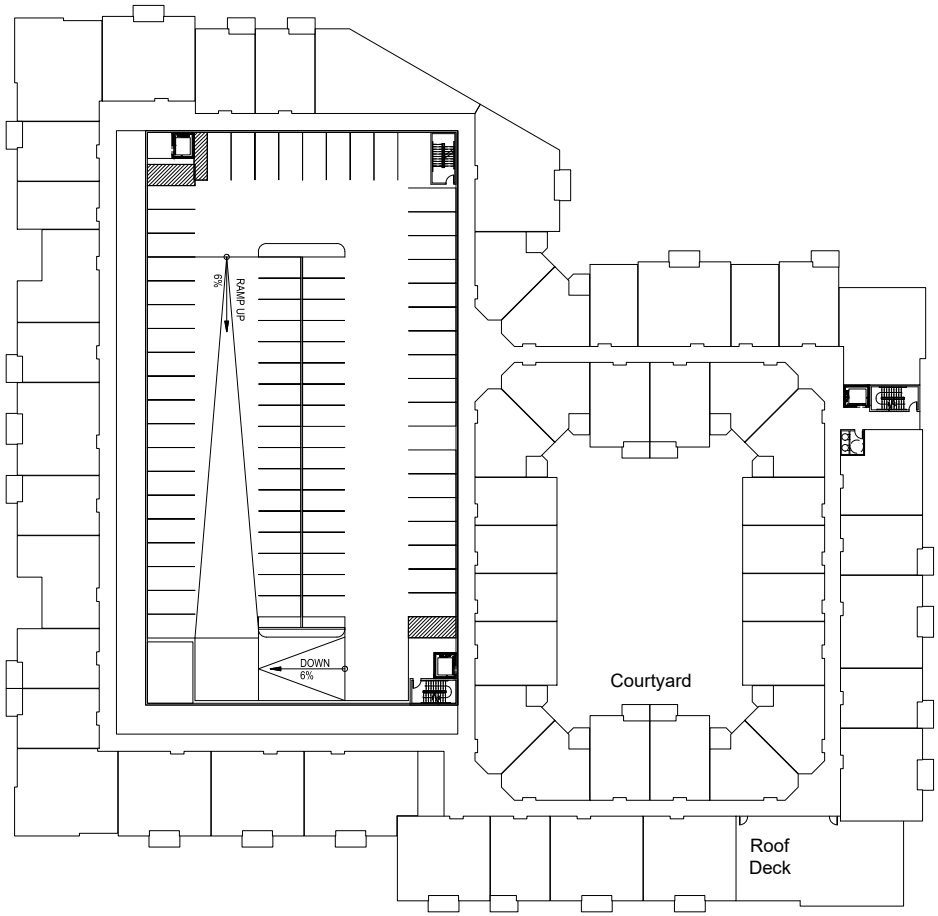
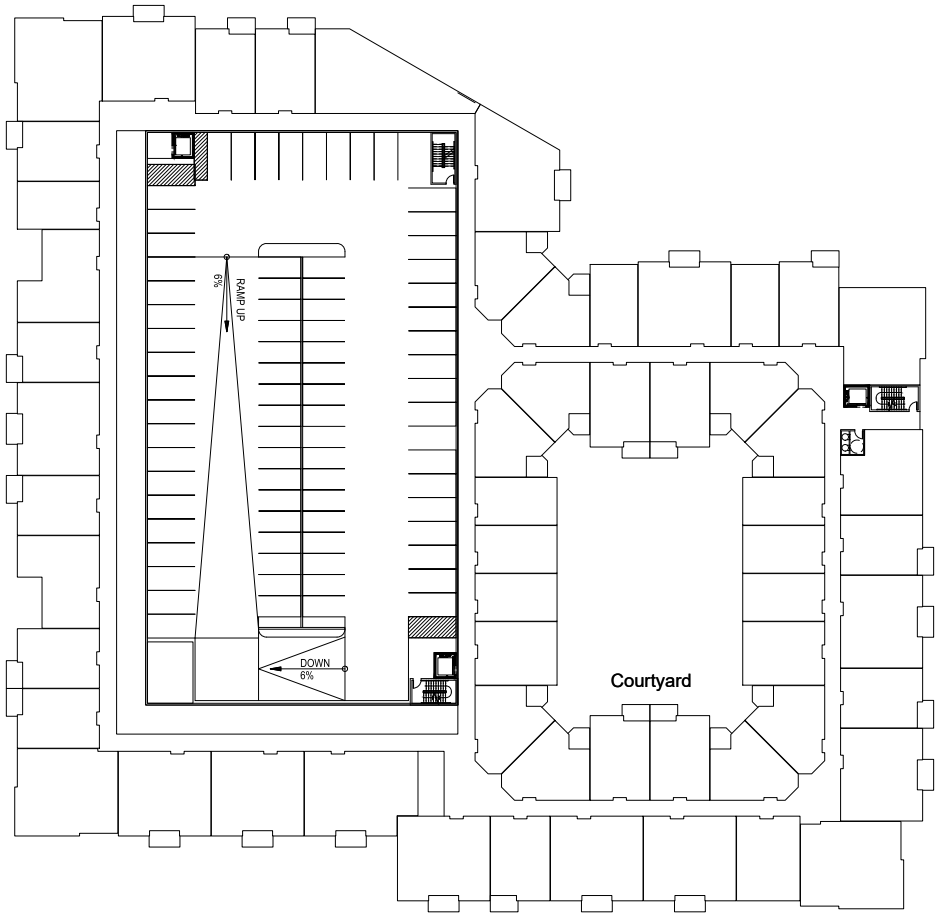


Figure 15A
Building 1 Parking Garage Levels 1 and 2

NORTH
Not to Scale



Level 7



Level 3-6

Figure 15B
Building 1 Parking Garage Levels 3 Through 7

NORTH
Not to Scale

Recommendation: Install convex mirrors at all four corners of each parking level to eliminate blind spots for vehicles making turns within the garage.

Garage Ramp Slope

Typical engineering design standards require garage ramps without parking to have no greater than a 20% grade with transition grades of half the maximum grade (10% or less), and garage ramps with parking to have grades of no greater than 5%. The project site plan shows an 8% grade at the garage entrance (no parking provided) and a 6% constant grade throughout the parking garage for ramps containing parking. Thus, as proposed the garage ramps containing parking would fail to meet the recommended design standards.

Recommendation: Coordinate with City staff to determine whether an internal ramp slope of 6% would be acceptable.

Parking Stall Dimensions

The City's off-street parking design standards for 90-degree full-size and compact parking stalls are 9 feet wide by 18 feet long and 8 feet wide by 16 feet long, respectively. Based on the site plan, the parking stalls located along the outside of the drive aisles within the Building 1 garage would meet the full-size parking stall design standards. The inside stalls would meet the parking design standards for compact stalls. The accessible ADA stalls all measure 9 feet wide by 18 feet long and include access aisles of at least 5 feet for van accessibility. This meets the ADA parking stall design requirements.

Building 2 Parking Garage Circulation

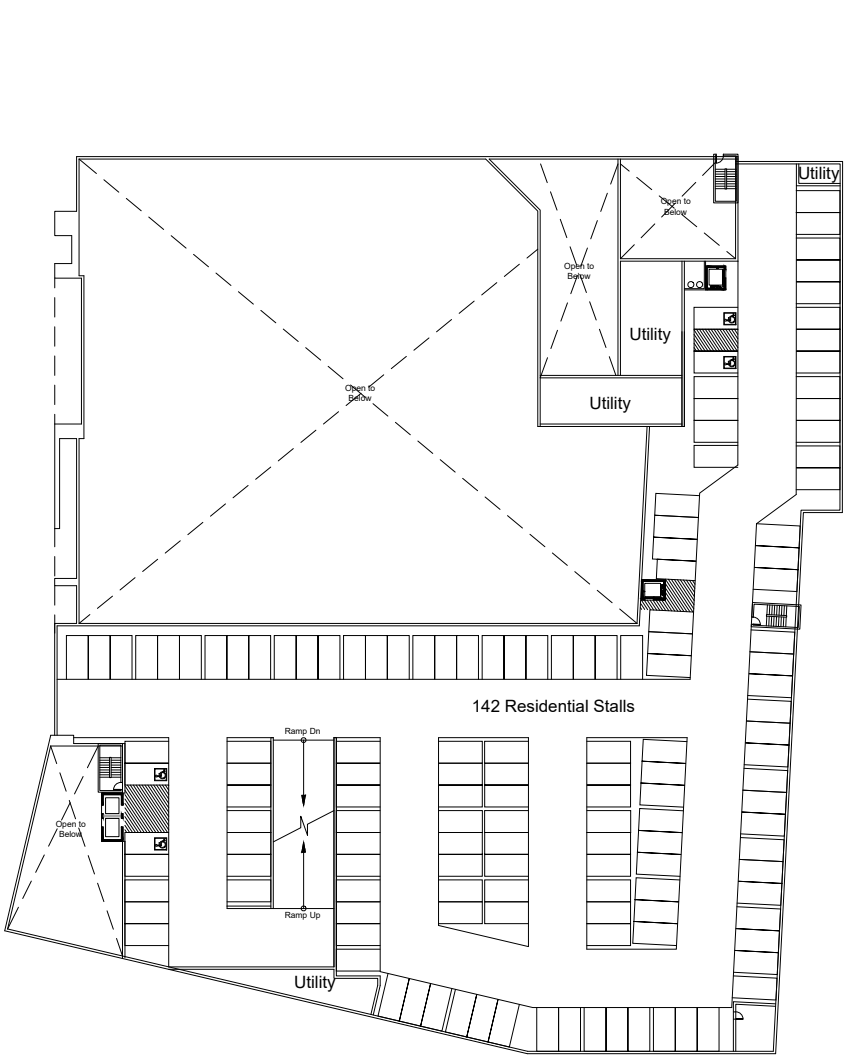
The parking garage serving the 386 residential units and 40,000 s.f. of retail space contained in Building 2 would have three levels of parking: one at-grade level to serve retail employees and customers and two above-grade levels to serve the residents (see Figures 16A and 16B). Additional surface parking for the retail use would be provided along the north side of Building 2 with access to the parking lot provided via B Street and C Street. The project would provide a total of 595 parking spaces to serve Building 2: 437 residential spaces and 158 retail spaces (38 surface spaces and 115 garage spaces). Access to the parking garage would be provided via B Street and C Street. The garage entrances are shown to be 24 feet wide. An internal security gate would be provided to separate the upper residential parking levels from the ground level retail parking.

The project would provide 90-degree parking stalls throughout the parking garage. The two-way drive aisles within the garage are shown to be 24 feet wide and would be adequate to allow vehicles to navigate all levels of the garage and maneuver in and out of parking spaces. However, the City's standard minimum width for two-way drive aisles is 26 feet wide where 90-degree parking is provided. Thus, the project should confirm with City of San Jose Public Works staff that the proposed 24-foot drive aisle width is acceptable.

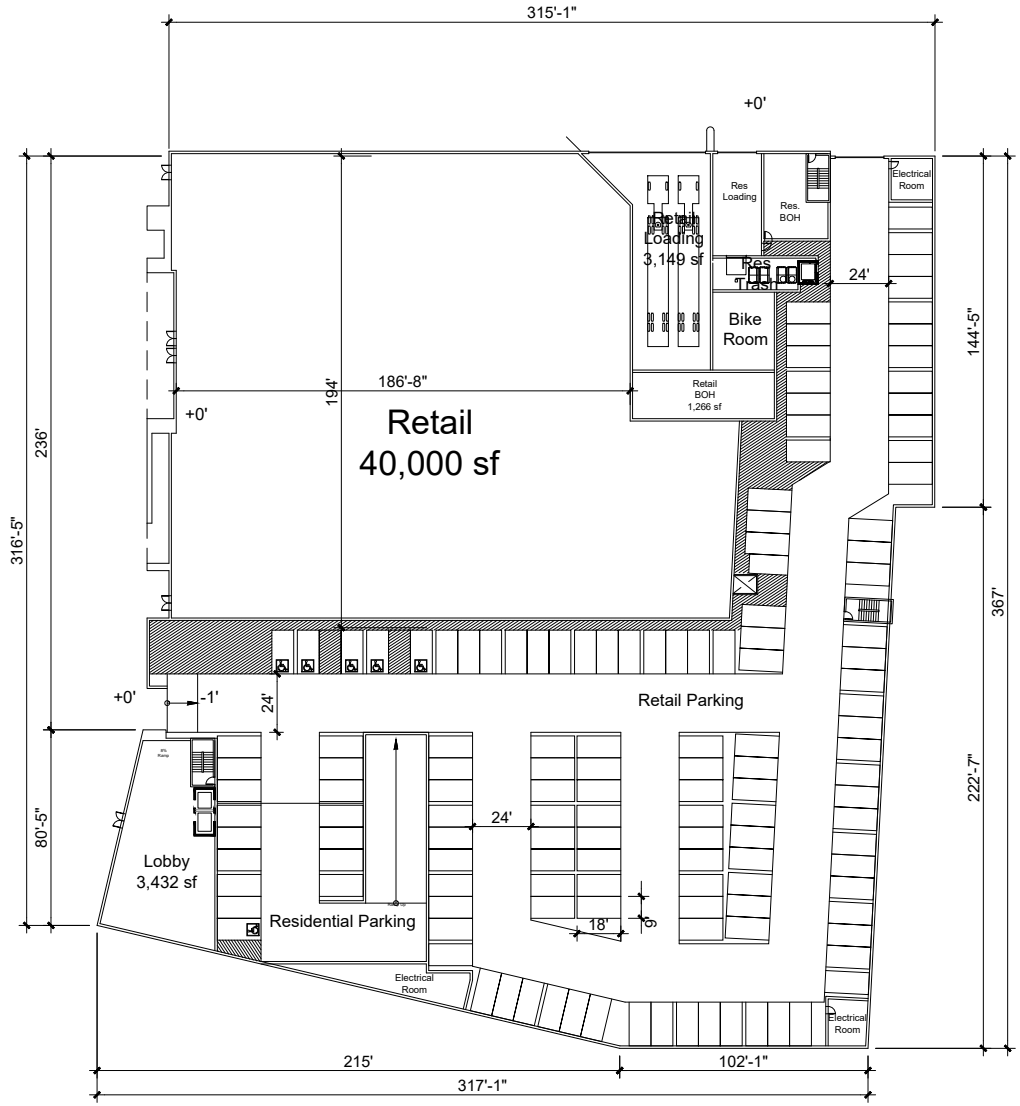
Recommendation: Coordinate with City staff to confirm the 24-foot drive aisle widths within the parking structure are acceptable.

Vehicular circulation within the parking garage would be adequate, with only one notable dead-end drive aisle on Level 2. Additional turnaround space is shown adjacent to a utility room at the end of this drive aisle. The internal 24-foot-wide drive aisles and garage ramps were evaluated for vehicle access by the method of turning-movement templates. Analysis using the Passenger Car turning templates shows that small and large passenger vehicles (turning templates "Pm" and "P", respectively) could adequately negotiate the parking garage. Convex mirrors should be placed at all blind corners within the garage to improve driver safety within the garage.

Recommendation: Install convex mirrors at all blind corners within the parking garage.



Level 2



Level 1

Figure 16A
Building 2 Parking Garage Levels 1 and 2

NORTH
Not to Scale

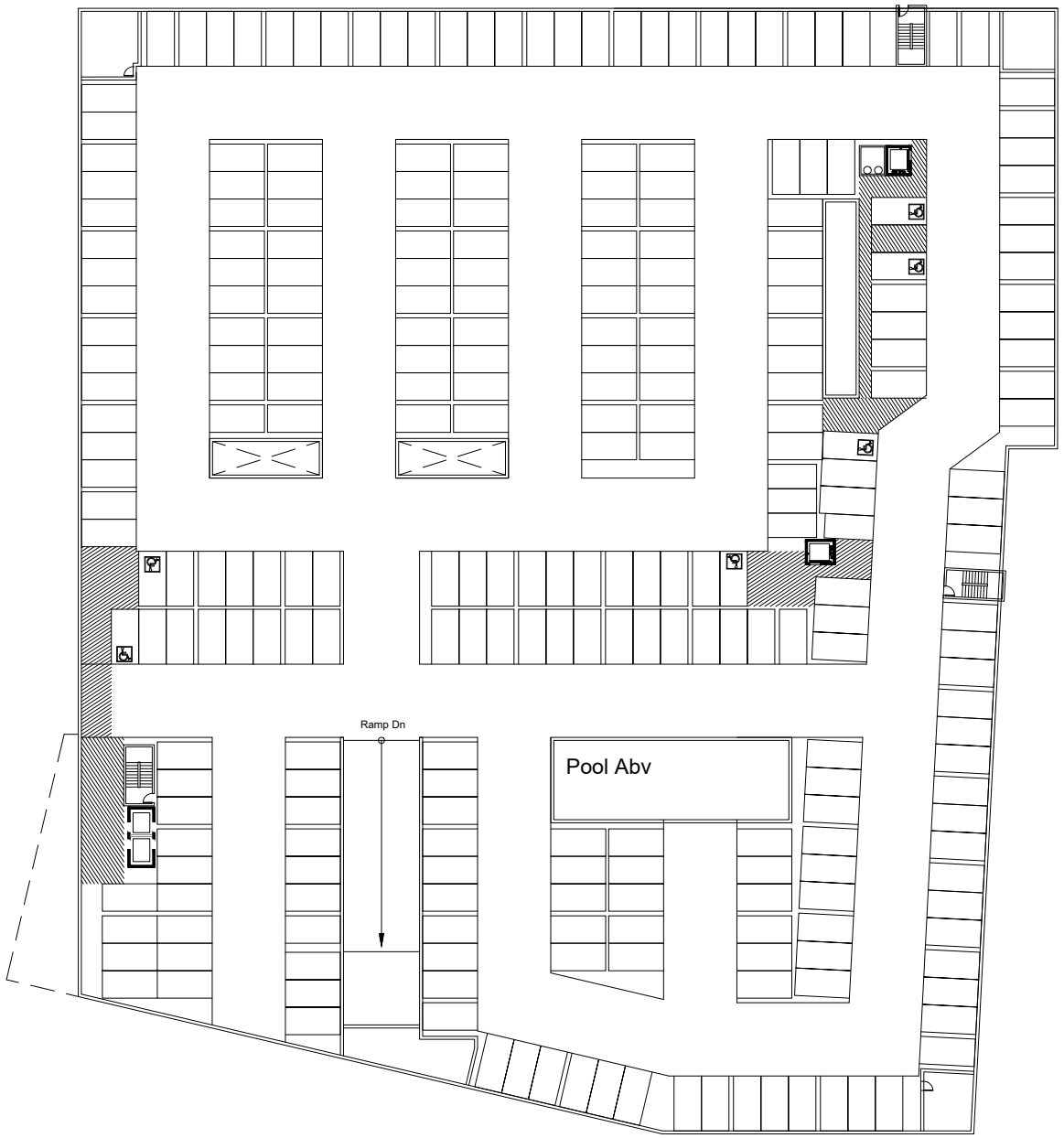


Figure 16B
Building 2 Parking Garage Level 3

NORTH
Not to Scale

Garage Ramp Slope

Typical engineering design standards require garage ramps without parking to have no greater than a 20% grade with transition grades of half the maximum grade (10% or less). The project site plan does not show the slope of the ramps. Hexagon recommends showing the ramp grades on the site plan to show conformance with these engineering design standards.

Recommendation: Provide a garage ramp slope of no greater than 20% grade with transition grades of 10% or less to meet the recommended engineering design standards.

Parking Stall Dimensions

The City's off-street parking design standards for 90-degree full-size and compact parking stalls are 9 feet wide by 18 feet long and 8 feet wide by 16 feet long, respectively. Based on the site plan, the full-size parking stalls located within the Building 2 garage and the compact stalls (one stall on level 1, one stall on level 2, and four stalls on level 3) would meet these parking design standards. The accessible ADA stalls all measure 9 feet wide by 18 feet long and include access aisles of at least 5 feet for van accessibility. This meets the ADA parking stall design requirements.

Building 3 Parking Garage Circulation

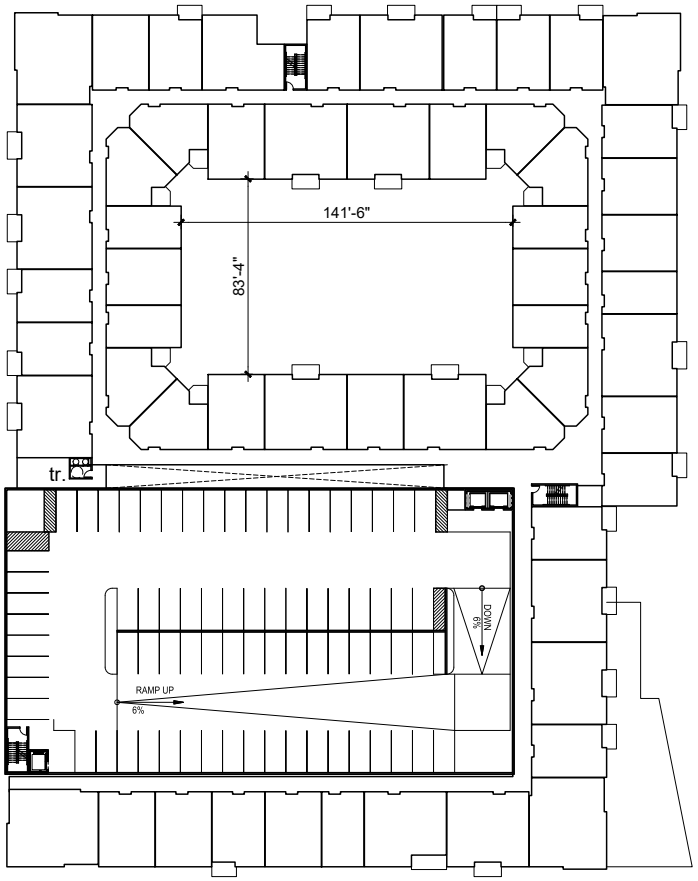
The parking garage serving the residents and retail space contained in Building 3 would include eight levels of parking: one at-grade level, six above-grade levels, and a small amount of roof parking (see Figures 17A and 17B). Together, the parking garage levels would provide 508 vehicle parking spaces (480 full size and 28 ADA spaces) to serve 378 residential apartment units and 24 spaces to serve approximately 6,650 s.f. of retail space. Based on the site plan, residents and retail employees and customers would access the 24-foot-wide parking garage entrance on A Street via a 20-foot-wide dustpan style driveway. An internal security gate would be provided to separate the ground level residential parking and above-grade residential parking levels from the ground level retail parking. Upon entering the parking garage, drivers would circulate in a counterclockwise direction to access each additional parking level via an internal system of ramps.

The project would provide 90-degree parking stalls throughout the parking levels. The two-way drive aisles within the garage are shown to be 24 feet wide and would be adequate to allow vehicles to navigate all levels of the garage and maneuver in and out of parking spaces. However, the City's standard minimum width for two-way drive aisles is 26 feet wide where 90-degree parking is provided. Thus, the project should confirm with City of San Jose Public Works staff that the proposed 24-foot drive aisle width is acceptable.

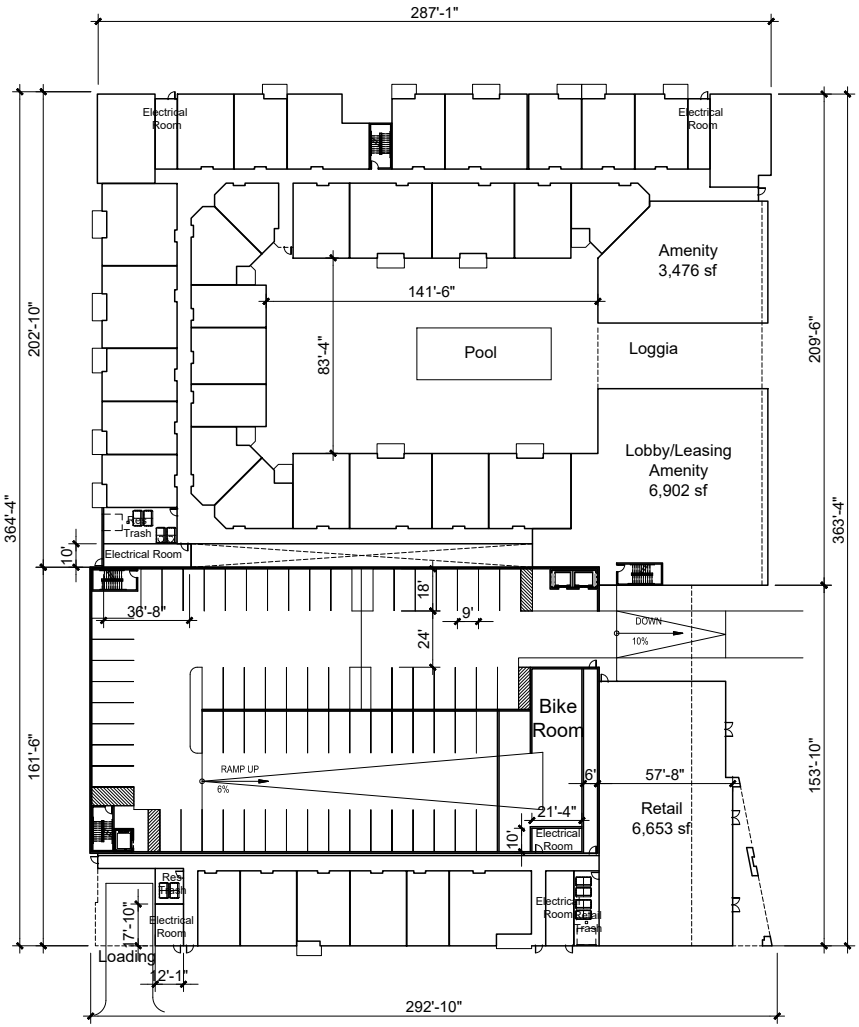
Recommendation: Coordinate with City staff to confirm the 24-foot drive aisle widths within the parking structure are acceptable.

Vehicular circulation on all levels of the parking garage would be adequate, with only one dead-end drive aisle on the roof (level 8). The internal 24-foot-wide drive aisles and garage ramps were evaluated for vehicle access by the method of turning-movement templates. Analysis using the Passenger Car turning templates shows that small and large passenger vehicles (turning templates "Pm" and "P", respectively) could adequately negotiate the parking garage. Convex mirrors should be placed at all four corners of each parking level to eliminate blind spots for vehicles making turns within the garage.

Recommendation: Install convex mirrors at all four corners of each parking level to eliminate blind spots for vehicles making turns within the garage.



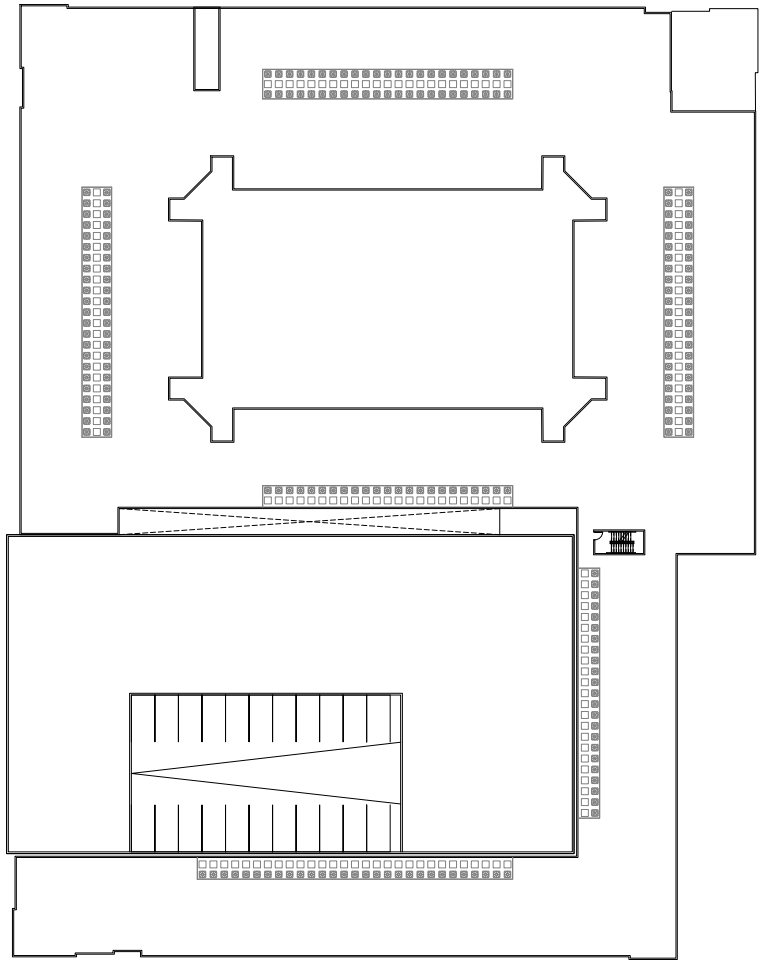
Level 2-6



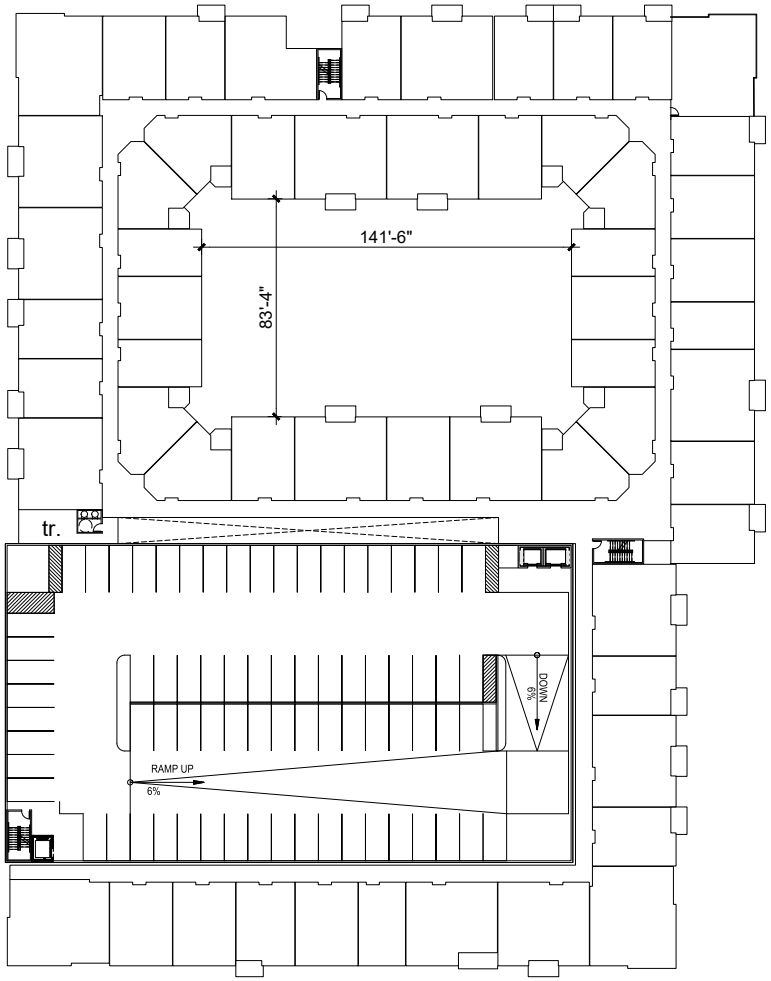
Level 1

Figure 17A
Building 3 Parking Garage Levels 1 Through 6

NORTH
Not to Scale



Roof



Level 7

Figure 17B
Building 3 Parking Garage Levels 7 and 8

NORTH
Not to Scale

Garage Ramp Slope

Typical engineering design standards require garage ramps without parking to have no greater than a 20% grade with transition grades of half the maximum grade (10% or less), and garage ramps with parking to have grades of no greater than 5%. The project site plan shows a 10% grade at the garage entrance (no parking provided) and a 6% constant grade throughout the parking garage for ramps containing parking. Thus, as proposed the garage ramps containing parking would fail to meet the recommended design standards.

Recommendation: Coordinate with City staff to determine whether an internal ramp slope of 6% would be acceptable.

Parking Stall Dimensions

The City's off-street parking design standards for 90-degree full-size parking stalls are 9 feet wide by 18 feet long. Based on the site plan, all the parking stalls located within the Building 3 garage would meet the full-size parking stall design standards. The accessible ADA stalls also measure 9 feet wide by 18 feet long and include access aisles of at least 5 feet for van accessibility. This meets the ADA parking stall design requirements.

Affordable Residential Building Parking Garage Circulation

The 172-unit affordable residential building would provide one at-grade parking level with a total of 86 vehicle parking spaces, consisting of 45 full size spaces, 21 compact spaces, 5 ADA spaces, and 15 surface spaces situated outside the garage (see Figure 18). Based on the site plan, residents would access the 24-foot-wide parking garage entrance on C Street via a 24-foot-wide dustpan style driveway. Upon entering the parking garage, drivers could circle the garage in either direction.

The project would provide 90-degree parking stalls throughout the garage. The two-way drive aisle loop is shown to be 24 feet wide and would be adequate to allow vehicles to navigate through the garage and maneuver in and out of parking spaces. However, the City's standard minimum width for two-way drive aisles is 26 feet wide where 90-degree parking is provided. Thus, the project should confirm with City of San Jose Public Works staff that the proposed 24-foot drive aisle width is acceptable.

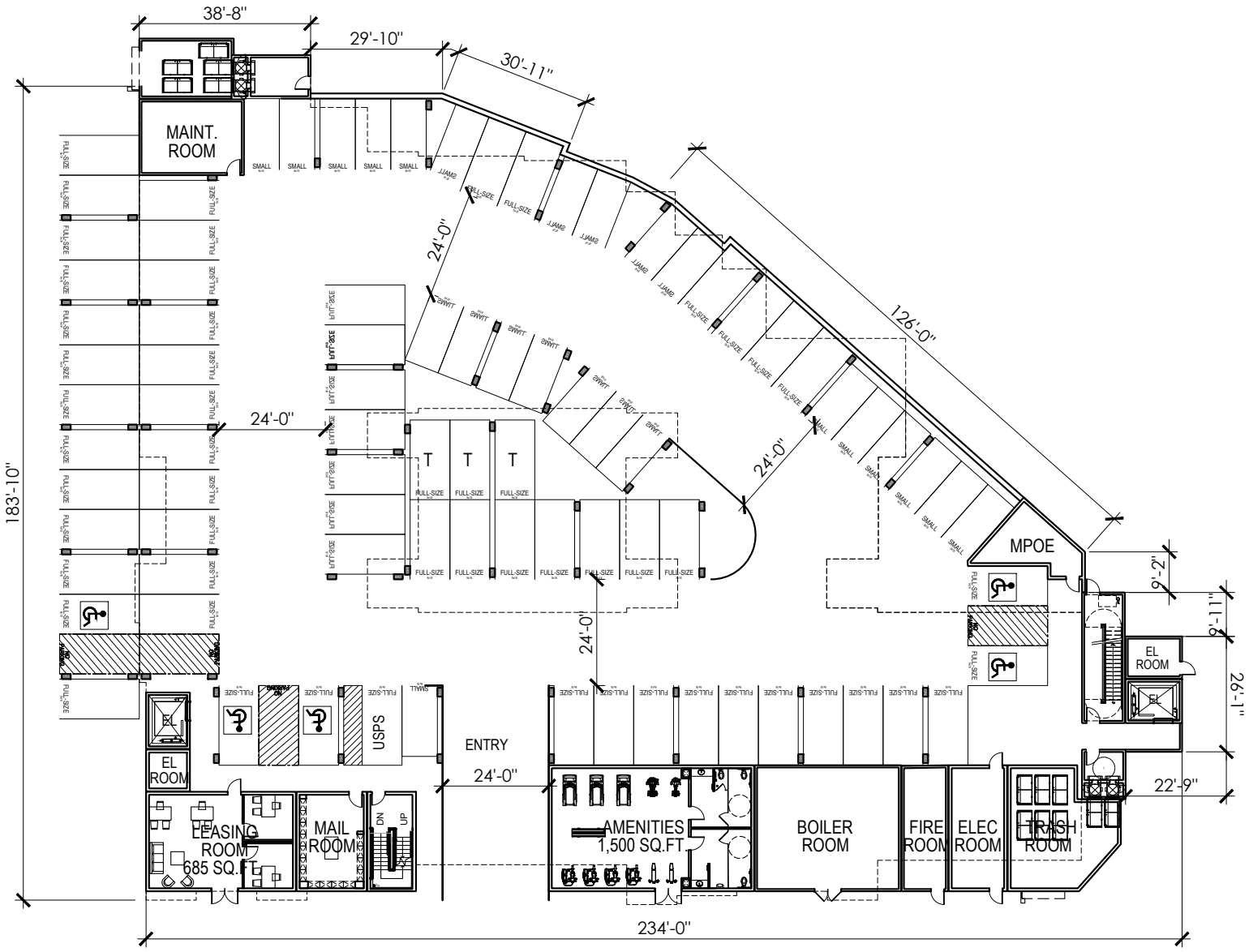
Recommendation: Coordinate with City staff to confirm the 24-foot drive aisle widths within the parking structure are acceptable.

The internal 24-foot-wide drive aisle loop was evaluated for vehicle access by the method of turning-movement templates. Analysis using the Passenger Car turning templates shows that small and large passenger vehicles (turning templates "Pm" and "P", respectively) could adequately negotiate the parking garage. Convex mirrors should be placed at all blind corners within the garage.

Recommendation: Install convex mirrors to eliminate blind spots for vehicles making turns within the garage.

Parking Stall Dimensions

The City's off-street parking design standards for 90-degree full-size and compact parking stalls are 9 feet wide by 18 feet long and 8 feet wide by 16 feet long, respectively. Based on the site plan, the full-size and compact parking stalls within the garage meet these design standards. The accessible ADA stalls all measure 9 feet wide by 18 feet long and include access aisles of at least 5 feet for van accessibility. This meets the ADA parking stall design requirements.



FIRST LEVEL

Figure 18
Affordable Residential Building Level 1

NORTH
Not to Scale

Truck Access and Circulation

The project site plan was reviewed for truck access using truck turning-movement templates for SU-30 and WB-67 truck types. The SU-30 truck type represents single-unit small to medium-sized emergency vehicles, garbage trucks, moving trucks, and delivery trucks. The WB-67 truck type includes CA Legal size semi-trailer trucks that would access the grocery store on-site (Building 2).

Based on the site plan configuration, adequate access would be provided for SU-30 and WB-67 trucks to access the site via the project driveways on Seely Avenue, maneuver through the site via the internal roadway network, access the residential and retail loading zones, and access the trash staging areas. The truck turning templates for the project site are contained in Appendix G. The detailed truck access and circulation analysis is provided below.

Townhomes Truck Access

The 20-foot-wide private streets serving the townhomes were reviewed for truck access using turning-movement templates for SU-30 trucks. Based on the site plan configuration, adequate access would be provided for SU-30 trucks to navigate the private residential streets. For the dead-end streets, adequate space would be provided for SU-30 trucks to either back into the street or drive straight in and back out.

Building 1 Truck Access

Truck access to the residential loading space, retail loading zone, and trash staging areas of Building 1 are discussed below.

Residential Loading Space

The residential loading space would be situated between Building 1 and the affordable residential building at the end of the drive aisle with access provided via C Street. A residential elevator and stairwell serving Building 1 is shown adjacent to the loading space for convenient residential move-in/move-out. The loading space measures 20 feet wide by 42 feet long and would be located outside the building so adequate vertical clearance would be provided. The site plan shows the residential trash room would be located inside the building adjacent to the loading space. Residential trash bins would be moved outside the building at this location on garbage collection days.

Retail Loading Zone

The retail loading zone would be located on A Street just north of C Street adjacent to Building 1. The on-street loading zone is shown to be 44 feet long. The site plan shows the retail trash room would be located inside the building adjacent to the loading zone. Retail trash bins would be moved outside the building at this location on garbage collection days.

Building 2 Truck Access

Truck access to the residential and retail on-site loading spaces and trash staging areas of Building 2 are discussed below.

Residential Loading Space

Access to the residential loading space would be provided via C Street near the proposed on-site San Jose Municipal well. A residential elevator and stairwell serving Building 2 is shown adjacent to the loading space for convenient residential move-in/move-out. The loading space measures 20 feet wide by 42 feet long and would be located inside the building. Level 2 of the building would be open above the loading space so it appears adequate vertical clearance would be provided (at least 15 feet is required). The site plan shows the residential trash room would be located at the end of the loading space. Residential garbage collection would occur at this location on garbage collection days.

Retail Loading Space

The site plan shows the retail loading area would be situated immediately adjacent to the residential loading space on C Street. The loading area measures 32 feet wide by 90 feet long, providing enough space for two semi-trailer trucks parked side-by-side. The truck turning templates show that mountable curbs would be needed at some locations where space would be limited for semi-trailer trucks (WB67 trucks) to negotiate the on-site street network and retail loading area. The truck turning templates (see Appendix G) show where the potential points of conflict would be located and, accordingly, where the mountable curbs should be installed. The site plan does not show a separate retail trash room so it is assumed the trash room would be shared between the residential and retail uses in the building.

Recommendation: Install mountable curbs at various locations where space would be limited for semi-trailer trucks (WB67 trucks) to negotiate the on-site street network and retail loading area of Building 2.

Building 3 Truck Access

Truck access to the residential on-site loading space, retail loading zone, and trash staging areas of Building 3 are discussed below.

Residential Loading Space

Access to the residential loading space would be provided via a 20-foot wide dustpan style driveway on Seely Avenue. A residential elevator and stairwell serving Building 3 is shown adjacent to the loading space for convenient residential move-in/move-out. The loading space measures 25 feet wide by 33 feet long; however, the height is not indicated on the site plan. A minimum of 15 feet of vertical clearance is required. The site plan shows the residential trash room would be located inside the building adjacent to the loading space. Residential garbage collection would occur at this location on garbage collection days.

Retail Loading Zone

The retail loading zone would be located on Seely Avenue just north of A Street. The on-street loading zone is shown to be 40 feet long. The site plan shows the retail trash room would be located inside Building 3 adjacent to the loading zone. Retail trash bins would be moved outside the building at this location on garbage collection days.

Emergency Vehicle Access

The City of San Jose Fire Department requires that all portions of the buildings be within 150 feet of a fire access road and requires a minimum of 6 feet clearance from the property line along all sides of the buildings. Adequate clearance would be provided around the perimeters of the buildings; however, not all areas of the proposed buildings would be within 150 feet of a fire access road. To address this issue, the project is installing fire hydrants at key locations around the buildings to provide complete fire access coverage.

The project driveway widths and drive aisle widths shown on the site plan would be adequate to accommodate emergency vehicles. The site plan shows a 30-foot inside turning radius and a 50-foot outside turning radius at all the corners on-site, which would be adequate to serve fire trucks. Figure 19 shows the fire access plan for the project site.

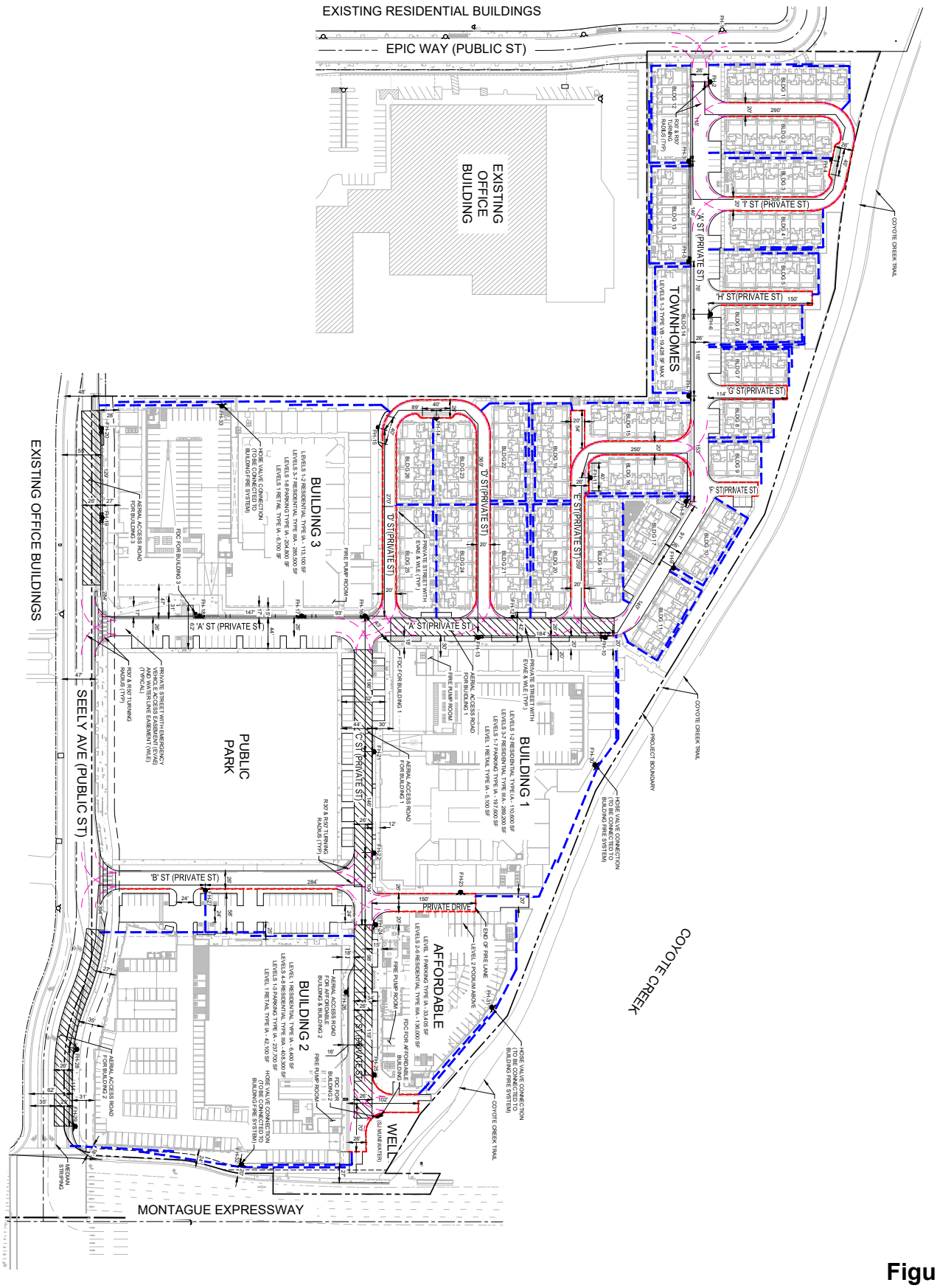


Figure 19
Fire Access Plan

NORTH
Not to Scale

Construction Activities

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

Pedestrian, Bicycle, and Transit Analysis

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

Pedestrian and Bicycle Facilities

Pedestrian facilities consist mostly of sidewalks along the streets in the immediate vicinity of the project site. Crosswalks with pedestrian signal heads and push buttons are located at all the signalized intersections in the study area. Curb ramps are provided at all signalized intersections in the study area, although some do not meet current ADA design standards. Many roadways in the study area have bicycle lanes, including Zanker Road, Trimble Road, River Oaks Parkway, Junction Avenue, Charcot Avenue, Orchard Parkway, and North First Street.

The project would construct a new 10-foot-wide attached sidewalk with tree wells along the project frontage on Seely Avenue. The sidewalk design includes ADA compliant curb ramps with truncated domes at the two main project driveways on Seely Avenue and at the proposed new traffic signal at the Seely Avenue/Montague Expressway intersection. The new sidewalk would provide pedestrian access to the project site via connections to an extensive internal network of sidewalks and crosswalks, many with distinct pavement treatments, throughout the site. ADA accessible features are provided throughout the site including curb ramps with truncated domes. The internal network of sidewalks and crosswalks would provide safe connections to the proposed centrally-located public park.

The project would not remove any bicycle facilities, nor would it conflict with any adopted plans or policies for new bicycle facilities. The project would construct a raised Class IV separated bikeway along the majority of the project frontage on Seely Avenue. The City has indicated that the project would also be required to construct a standard Class II bike lane along the west side of Seely Avenue.

Note that the City of San Jose Better Bike Plan 2025 identifies Montague Expressway as having a Class IV separated bikeway. Accordingly, City staff would likely require the project to make a fair-share contribution toward the planned Class IV bikeway improvements along Montague Expressway.

The site plan shows secure bike rooms would be located conveniently on the first floor of each residential mixed-use building. Providing convenient and secure bike parking on-site would help create a bicycle-friendly environment and encourage bicycling by residents and retail employees of the project.

The project plans to provide a direct connection to the Coyote Creek multi-use trail (Class I bikeway) that runs along both sides of Coyote Creek. The Coyote Creek Trail extends from the northern extent of

McCarthy Boulevard south to Zanker Road in San Jose. The trail passes under Montague Expressway and thus provides a safe and convenient pedestrian and bicycle connection between the project site and areas south of Montague Expressway. A clear pedestrian path between the trail connection and the proposed on-site public park should be provided. Note that coordination with the City of San Jose's Parks, Recreation & Neighborhood Services (PRNS) is needed to provide a connection between the public park and the Coyote Creek trail.

The existing and planned networks of pedestrian and bicycle facilities exhibit good connectivity and would provide residents, visitors, and retail employees of the project with safe routes to transit stops and other points of interest in the project vicinity.

Pedestrian and Bicycle Access to Schools

Based on the project site location, most children living at the new development would likely attend one of the schools located on the historic Agnews Development Center site: Abram Agnew Elementary School, Dolores Huerta Middle School, or Kathleen MacDonald High School. The elementary and middle schools are now open (opened in 2021), and the high school is currently under construction. The schools are located about 1 mile northwest of the project site on the east side of Zanker Road.

Safe and direct pedestrian access to all three schools on the Agnews site is provided via a continuous network of sidewalks along the streets in the area. Crosswalks with pedestrian signal heads are provided at all signalized intersections along the school access route. Wheelchair ramps are provided at all corners of the intersections, though some do not meet the current ADA design standards. Adequate bicycle access to the schools is provided via striped bike lanes on River Oaks Parkway and Levee Road (which provides access to the schools). However, bike lanes are not provided on Cisco Way and only a portion of Seely Avenue would have bike lanes (constructed by the project).

The project should work closely with these nearby schools to implement a Safe Routes to Schools program, or participate in a program if one already exists, since some students attending these schools would reside at the project site. Safe Routes to Schools is designed to decrease traffic and pollution and increase the health of children and the community as a whole. The program promotes walking and biking to school through education and incentives. The program also addresses the safety concerns of parents by encouraging greater enforcement of traffic laws, educating the public, and exploring ways to create safer streets. A comprehensive Safe Routes to Schools program should identify a focused area surrounding the school, provide a map with the routes that children can take to and from school, and recommend improvements to routes if necessary. It should address such pedestrian safety issues as dangerous intersections and missing or ineffective crosswalks and sidewalks.

Transit Services

VTA local bus route 20 operates along Montague Expressway near the project site with 30-minute headways during the weekday AM and PM peak commute periods of the day. Bus stops are located along Montague Expressway within walking distance of the project site at Trimble Road (about 1/4-mile from the site) and McCarthy Boulevard (about 1/3-mile from the site).

The ACE Brown shuttle operates along Seely Avenue and provides service between the Great America ACE station and south Sunnyvale. ACE provides four eastbound shuttles during the weekday AM commute period and four westbound shuttles during the weekday PM commute period. The ACE Brown shuttle stops on Seely Avenue adjacent to the site.

Due to the convenient locations of the transit stops, it is reasonable to assume that some residents would utilize the transit services provided. The City's General Plan identifies the transit commute mode split target as 20 percent for the year 2040. Together, the VTA and ACE provide a total of 8 buses per hour during both the AM and PM peak commute periods of the day. Due to the limited transit services

in the proximity of the site, a transit commute mode share of 20 percent is likely not achievable for the project. A 10 percent transit commute mode split is more realistic and could be achieved by the project.

A 19% trip reduction was applied to the residential component of the project based on the external trip adjustments obtained from the City's VMT Evaluation Tool (see Table 5). It is assumed that every percent reduction in VMT per capita is equivalent to one percent reduction in motor vehicle trips. This trip reduction reflects the multi-modal infrastructure improvements and TDM measures being proposed by the project to reduce the project VMT impact to a less-than-significant level. It is estimated that approximately half of this reduction in motor vehicle trips would be attributable to transit usage, which is a reasonable estimate particularly if transit is utilized in combination with bicycle commuting.

Based on the project trip generation estimates, a 19 percent trip reduction equates to 90 AM and PM peak hour motor vehicle trips. Thus, it is estimated that the project would generate 45 fewer vehicle trips due to transit usage. This equates to approximately 6 new riders per bus currently serving the area during both the AM and PM peak commute periods of the day. It is estimated that the increased transit demand generated by the proposed project could be accommodated by the current available ridership capacities of the VTA bus and ACE shuttle services in the study area.

Parking

Vehicle Parking

The City of San Jose’s off-street vehicle parking requirements as described in the City’s Zoning Code (Chapter 20.90, Table 20-210) for multiple dwellings with all open parking are as follows: 1.25 parking spaces for studio and one-bedroom units, 1.7 parking spaces for two-bedroom units, and 2.0 parking spaces for three-bedroom units.

The City's off-street vehicle parking requirement for a neighborhood shopping center of more than 20,000 s.f. but less than 100,000 s.f. is 1 space per 200 s.f. (per Table 20-190 of the Zoning Code).

Based on the City’s parking requirements, the project is required to provide a total of 2,351 parking spaces. Based on the plans provided, the project would provide a total of 2,120 parking spaces. This equates to a parking deficit of approximately 10 percent, prior to any applicable parking reductions. Table 10 shows the detailed parking calculations.

Applicable Vehicle Parking Reductions

Since the project site is located within the North San Jose Development Policy (NSJDP) boundaries, it is automatically eligible for a 20 percent reduction in parking. In addition, the comprehensive TDM Plan proposed by the project would allow for up to an additional 30 percent reduction in parking (i.e., 50 percent total parking reduction allowed with a TDM Plan). Therefore, the project is proposing an adequate amount of parking.

Motorcycle and Bicycle Parking

The City requires one motorcycle parking space for every four residential units and one motorcycle parking space per every 20 code-required retail vehicle parking spaces (per Chapter 20.90, Tables 20-190, 20-210 and 20-250 of the City’s Zoning Code). This equates to 329 motorcycle spaces for the apartments and 11 retail motorcycle spaces. Applying a 20 percent reduction (NSJDP parking reduction) equates to a total parking requirement of 272 motorcycle spaces.

According to the site plan, the project is proposing to provide 20 motorcycle parking spaces (5 motorcycle spaces per building). This equates to a deficit of 252 motorcycle parking spaces.

Recommendation: Provide on-site motorcycle parking to the satisfaction of the City of San Jose Planning Department.

The City requires one bicycle parking space for every four residential units and one bicycle parking space for every 3,000 s.f. of retail space (per Chapter 20.90, Tables 20-190 and 20-210 of the City's Zoning Code). Thus, the project is required to provide a total of 347 bicycle parking spaces as follows:

- Apartments: 1,316 DU / 4 = 329 bicycle parking spaces
- Retail: 52,150 s.f. / 3,000 s.f. = 17.4 = 18 bicycle parking spaces

According to the site plan, the project is proposing to provide 572 bicycle parking spaces in secure bike rooms to serve the apartments. This would meet the residential bicycle parking requirement.

Recommendation: Provide adequate on-site bicycle parking (e.g., bike racks) in accordance with the City of San Jose's Zoning Code for the retail component of the project.

Table 10
Project Parking Calculations

	Residential Parking			Retail Parking		
Project Building	**Number & Type of Dwelling Unit (DU)**	**City Parking Requirement [1]**	**Residential Spaces Provided by Project**	**Retail Square Footage (SF)**	**City Parking Requirement [2]**	**Retail Spaces Provided by Project**
Townhomes	154 Townhomes	308 spaces	308 spaces[3]	---	---	---
Bldg 1 Apartments and Retail	64 Studios	80				
	209 One-Bdrm	262				
	107 Two-Bdrm	182				
Bldg 1 Subtotal:	380 Apartments	524 spaces	518 spaces	5,500 SF	24 spaces	41 spaces
Bldg 1 Spaces Required:	548					
Bldg 1 Spaces Provided:	559					
Bldg 2 Apartments	49 Studios	62				
	220 One-Bdrm	275				
	117 Two-Bdrm	199				
Bldg 2 Subtotal:	386 Apartments	536 spaces	437 spaces	40,000 SF	170 spaces	158 spaces
Bldg 2 Spaces Required:	706					
Bldg 2 Spaces Provided:	595					
Bldg 3 Apartments	41 Studios	52				
	227 One-Bdrm	284				
	110 Two-Bdrm	187				
Bldg 3 Subtotal:	378 Apartments	523 spaces	508 spaces	6,650 SF	29 spaces	24 spaces
Bldg 3 Spaces Required:	552					
Bldg 3 Spaces Provided:	532					
Affordable Apartments	50 Studios	63				
	75 One-Bdrm	94				
	47 Two-Bdrm	80				
Affordable Bldg Subtotal:	172 Apartments	237 spaces	86 spaces	---	---	---
Affordable Spaces Required:	237					
Affordable Spaces Provided:	86					
Project Site Parking Totals (Residential + Retail):		**2,351 Total Spaces Required [4]**	**2,120 Total Spaces Provided [3]**			

Notes:
[1] The City of San Jose's off-street vehicle parking requirements as described in the City's Zoning Code (Chapter 20.90, Table 20-210) for multiple dwellings with all open parking are as follows: 1.25 parking spaces for studio and one-bedroom units, 1.7 parking spaces for two-bedroom units, and 2.0 parking spaces for three-bedroom units.
[2] The City of San Jose's off-street vehicle parking requirement for a neighborhood shopping center of more than 20,000 s.f. but less than 100,000 s.f. is 1 space per 200 s.f. (per Table 20-190 of the City's Zoning Code) at 0.85 FAR.
[3] The project is providing an additional 40 parking spaces along the private streets for residents and visitors of the townhome development.
[4] Based on the City of San Jose's Zoning Code, the project is required to provide a total of 2,351 parking spaces (prior to applying any parking reductions).

5. Project Alternative Analysis

This chapter presents the results of the project alternative analysis, which assumes no new traffic signal at the Seely Avenue/Montague Expressway intersection. Under the project alternative, the Seely Avenue/Montague Expressway intersection configuration would remain unchanged, allowing only right turns in and out of Seely Avenue. The project description would not change. This chapter describes the intersection levels of service and vehicle queues that would occur due to the project trip assignment without a new traffic signal.

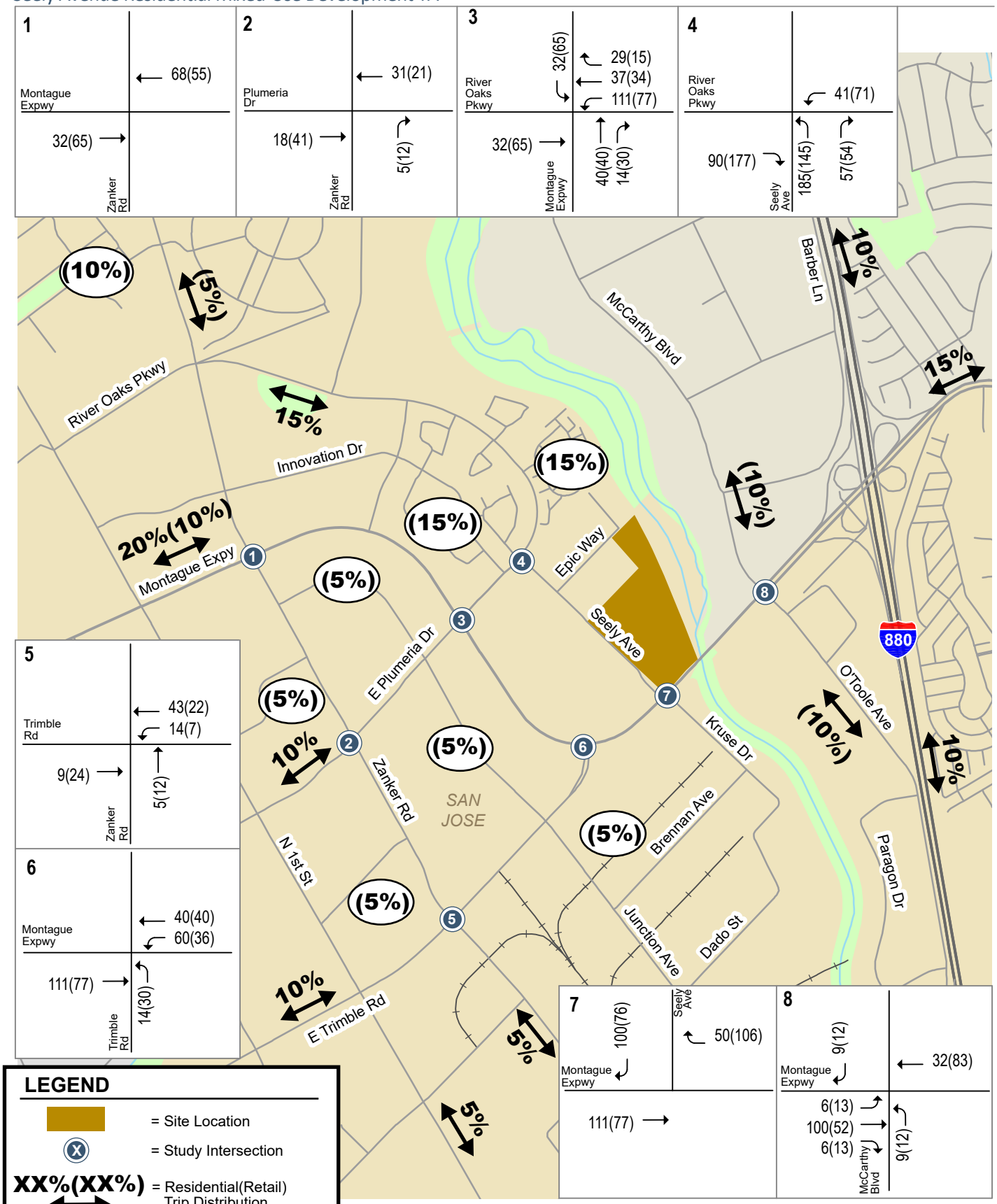
Project Alternative Trip Assignment and Traffic Volumes

The AM and PM peak hour project trips were assigned based on no changes to the existing roadway network (see Figure 20). Based on the existing network (no left turns at Seely Avenue), inbound project vehicles from the east would access the site via Seely Avenue directly. Inbound project vehicles from the north, west and south would utilize River Oaks Parkway (north of the site) to access Seely Avenue and ultimately the site. Outbound project vehicles heading to areas north and west of the site would utilize either River Oaks Parkway or Seely Avenue. Outbound project vehicles heading to areas south (e.g., Trimble Road) and east (toward I-880) of the site would need to first travel north and use River Oaks Parkway to access Montague Expressway. The project alternative trips were added to background traffic volumes to obtain project alternative traffic volumes (see Figure 21).

Signalized Intersection Level of Service Analysis

The results of the intersection level of service analysis show that the same two intersections (Zanker Road/Montague Expressway and McCarthy Boulevard-O'Toole Avenue/Montague Expressway) would operate unacceptably, and the project would create an adverse effect at the same intersection (McCarthy Boulevard-O'Toole Avenue/Montague Expressway) as described in the original analysis (see Table 11). The project alternative LOS results are identical to the project LOS results. Thus, the improvements to address the adverse effect as described in Chapter 4 would also be the same.

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



LEGEND

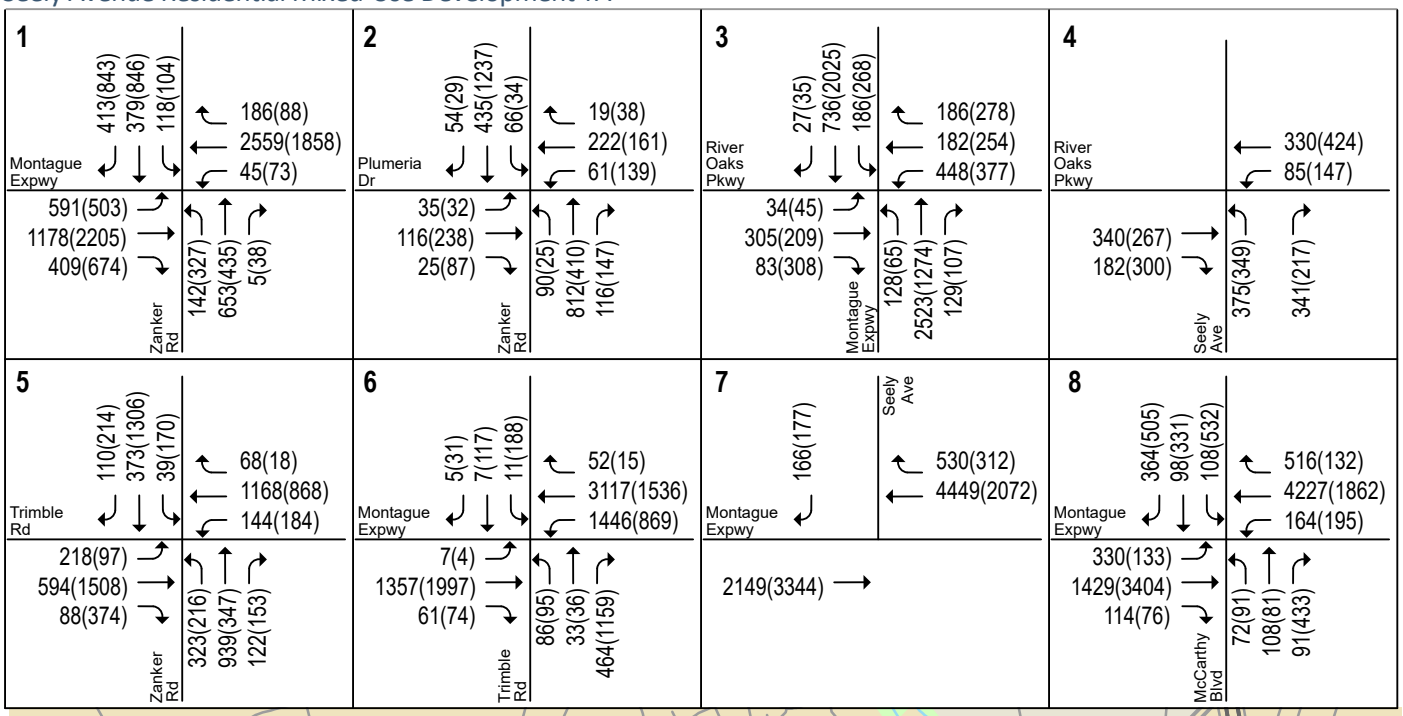
= Site Location

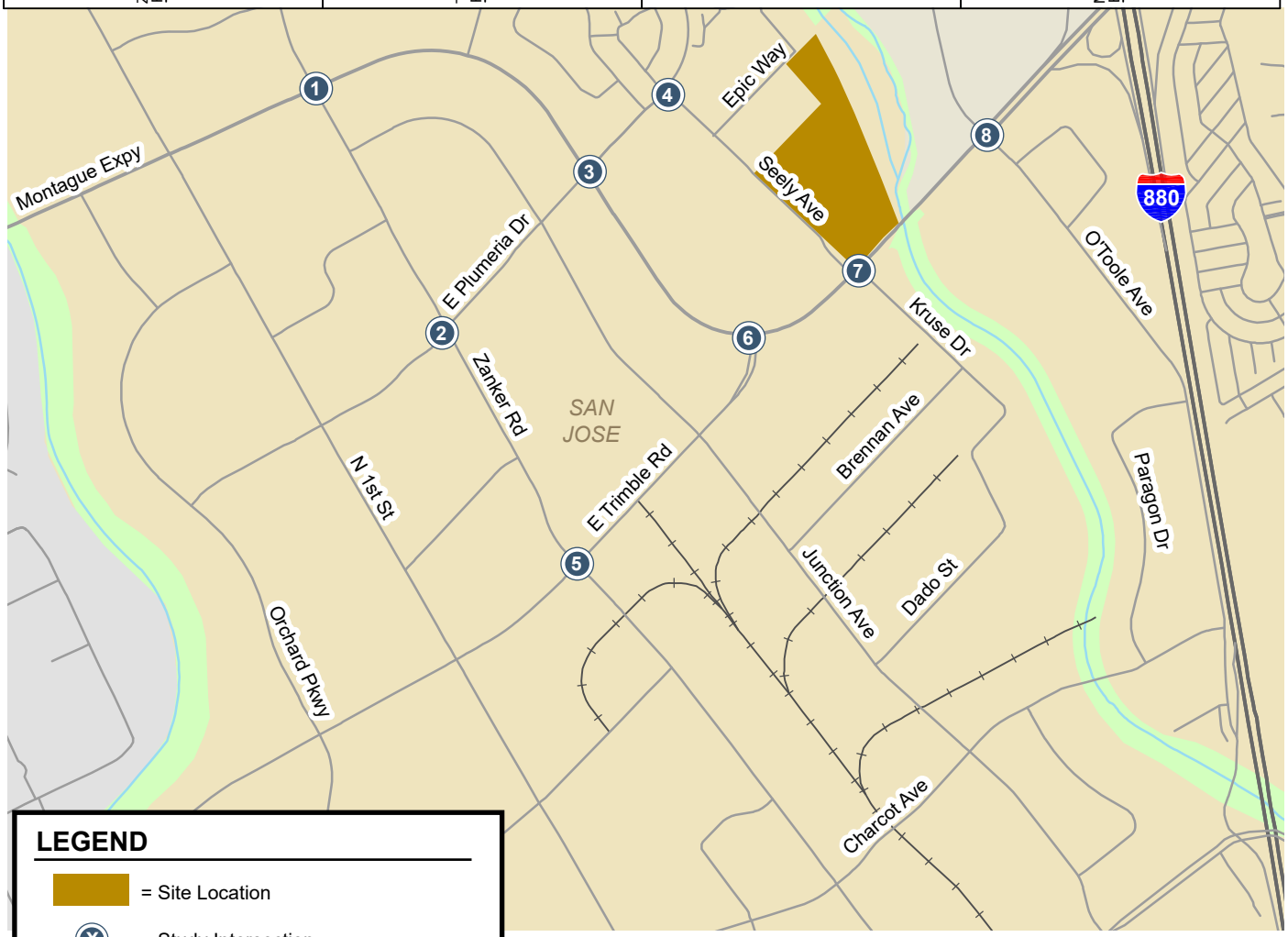
X = Study Intersection

XX%(XX%) = Residential(Retail) Trip Distribution

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

Figure 20
Project Alternative Trip Distribution and Assignment





LEGEND

= Site Location

X = Study Intersection

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 21
Project Alternative Traffic Volumes

Table 11
Project Alternative Intersection Level of Service Summary

#	Signalized Intersection	Peak Hour	Count Date	Existing Avg. Delay (sec)	Existing LOS	Background Avg. Delay (sec)	Background LOS	Background + Project Avg. Delay (sec)	Background + Project LOS	Incr. In Crit. Delay (sec)	Incr. In Crit. V/C
1	Zanker Rd & Montague Exp *	AM	05/10/18	**62.6**	**E**	**73.5**	**E**	**74.1**	**E**	1.0	0.012
		PM	11/08/18	50.5	D	**77.9**	**E**	**77.5**	**E**	-1.0	0.010
2	Zanker Rd & Plumeria Dr	AM	06/01/17	23.1	C	25.3	C	26.3	C	1.2	0.021
		PM	06/01/17	23.6	C	26.1	C	27.3	C	1.8	0.024
3	Montague Exp & River Oaks Pkwy	AM	05/10/18	34.9	C	47.5	D	54.9	D	10.4	0.066
		PM	05/10/18	36.4	D	48.9	D	52.7	D	3.8	0.026
4	Seely Av & River Oaks Pkwy	AM	01/09/19	18.5	B	21.3	C	32.9	C	13.2	0.241
		PM	01/09/19	20.4	C	19.6	B	30.0	C	12.7	0.287
5	Zanker Rd & Trimble Rd *	AM	06/01/17	39.5	D	42.4	D	42.5	D	0.1	0.010
		PM	11/08/18	38.9	D	44.5	D	44.7	D	0.4	0.007
6	Trimble Rd & Montague Exp *	AM	05/10/18	25.1	C	27.2	C	28.8	C	2.1	0.044
		PM	11/08/18	48.0	D	51.6	D	52.8	D	1.2	0.024
7	Seely Av & Montague Exp	AM	01/09/19	--	--	--	--	--	--	--	--
		PM	01/09/19	--	--	--	--	--	--	--	--
8	McCarthy Bl-O'Toole & Montague Exp *	AM	05/10/18	31.8	C	34.8	C	35.3	D	0.5	0.007
		PM	11/08/18	**82.3**	**F**	**109.8**	**F**	**113.5**	**F**	**5.8**	**0.012**

Notes:
* Denotes a CMP intersection.
Bold indicates a substandard level of service per the City of San Jose standard (LOS D).
Bold indicates an adverse effect per City of San Jose intersection operations criteria.

Intersection Queuing Analysis

The following left-turn movements were examined as part of the intersection queuing analysis for the project alternative traffic scenario:

- Montague Expressway & River Oaks Parkway – SB dual left-turn, WB dual left-turn
- Seely Avenue & River Oaks Parkway – NB shared left-turn/right-turn, WB single left-turn
- Montague Expressway & Trimble Road – NB single left-turn, WB triple left-turn

The results of the queuing analysis (see Tables 12 and 13) show that adequate left-turn vehicle storage is currently provided and would continue to be provided under background and project alternative conditions at the intersections of Seely Avenue/River Oaks Parkway and Trimble Road/Montague Expressway. Adequate left-turn vehicle storage is not provided at the intersection of Montague Expressway/River Oaks Parkway as described below.

Montague Expressway and River Oaks Parkway

The queuing analysis indicates that the maximum vehicle queues for the westbound left-turn movement at the Montague Expressway/River Oaks Parkway intersection currently exceed the existing vehicle storage capacity and would continue to do so under background and project alternative conditions during both the AM and PM peak hours of traffic. The maximum westbound left-turn vehicle queue under project alternative conditions would block access to the existing commercial driveway on River

Oaks Parkway. The driveway is situated approximately 400 feet from Montague Expressway. The westbound left-turn pocket cannot be extended due to the presence of back-to-back left-turn pockets.

Table 12
Project Alternative Intersection Queuing Analysis Summary – AM Peak Hour

	Montague Exp & River Oaks Pkwy		Seely Av & River Oaks Pkwy		Montague Exp & Trimble Rd
Peak Hour:	**SB LT AM**	**WB LT AM**	**NB LT/RT [4] AM**	**WB LT AM**	**WB LT AM**
Existing					
Cycle/Delay[1] (sec)	203	203	75	75	180
Volume (vphpl)	73	127	237	44	425
95th %. Queue (veh/ln.)	8	12	9	3	29
95th %. Queue (ft./ln) [2]	200	300	225	75	725
Storage (ft./ ln.) [3]	275	200	400	150	1100
Adequate (Y/N)	Y	**N**	Y	Y	Y
Background					
Cycle/Delay[1] (sec)	203	203	75	75	180
Volume (vphpl)	77	169	237	44	462
95th %. Queue (veh/ln.)	8	15	9	3	31
95th %. Queue (ft./ln) [2]	200	375	225	75	775
Storage (ft./ ln.) [3]	275	200	400	150	1100
Adequate (Y/N)	Y	**N**	Y	Y	Y
Project Alternative					
Cycle/Delay[1] (sec)	203	203	75	75	180
Volume (vphpl)	93	224	358	85	482
95th %. Queue (veh/ln.)	9	19	12	4	32
95th %. Queue (ft./ln) [2]	225	475	300	100	800
Storage (ft./ ln.) [3]	275	200	400	150	1100
Adequate (Y/N)	Y	**N**	Y	Y	Y

Notes:
[1] Vehicle queue calculations based on signal cycle length for signalized intersections.
[2] Assumes 25 Feet Per Vehicle Queued.
[3] Storage Length represents the length of the turn pocket + approx. 1/2 the length of the taper.
[4] The NB approach is a shared lane approach (L/R). Thus, the vehicle queues reported reflect the total NB LT+RT volume. Seely Avenue provides approximately 400 ft of vehicle storage space between River Oaks Parkway and Epic Way.

The queuing analysis indicates that the maximum vehicle queue for the southbound left-turn movement at the Montague Expressway/River Oaks Parkway intersection would exceed the existing storage capacity by one vehicle per lane under project alternative conditions during the PM peak hour. An occasional vehicle storage inadequacy of only one vehicle per lane is not likely to cause significant operational issues.

Seely Avenue and River Oaks Parkway

The queuing analysis indicates that the maximum northbound shared left/right-turn vehicle queue under project alternative conditions would block access to the existing residential driveway on Seely Avenue during both the AM and PM peak hours. The driveway, which serves the Epic Apartments, is situated approximately 200 feet from River Oaks Parkway.

Table 13
Project Alternative Intersection Queuing Analysis Summary – PM Peak Hour

	Montague Exp & River Oaks Pkwy		Seely Av & River Oaks Pkwy		Montague Exp & Trimble Rd
Peak Hour:	SB LT PM	WB LT PM	NB LT/RT [4] PM	WB LT PM	WB LT PM
Existing					
Cycle/Delay[1] (sec)	203	203	75	75	189
Volume (vphpl)	101	92	184	76	224
95th %. Queue (veh/ln.)	10	9	7	4	18
95th %. Queue (ft./ln) [2]	250	225	175	100	450
Storage (ft./ ln.) [3]	275	200	400	150	1100
Adequate (Y/N)	Y	**N**	Y	Y	Y
Background					
Cycle/Delay[1] (sec)	203	203	75	75	189
Volume (vphpl)	102	150	184	76	278
95th %. Queue (veh/ln.)	10	13	7	4	21
95th %. Queue (ft./ln) [2]	250	325	175	100	525
Storage (ft./ ln.) [3]	275	200	400	150	1100
Adequate (Y/N)	Y	**N**	Y	Y	Y
Project Alternative					
Cycle/Delay[1] (sec)	203	203	75	75	189
Volume (vphpl)	134	189	283	147	290
95th %. Queue (veh/ln.)	12	16	10	6	22
95th %. Queue (ft./ln) [2]	300	400	250	150	550
Storage (ft./ ln.) [3]	275	200	400	150	1100
Adequate (Y/N)	**N**	**N**	Y	Y	Y

Notes:
[1] Vehicle queue calculations based on signal cycle length for signalized intersections.
[2] Assumes 25 Feet Per Vehicle Queued.
[3] Storage Length represents the length of the turn pocket + approx. 1/2 the length of the taper.
[4] The NB approach is a shared lane approach (L/R). Thus, the vehicle queues reported reflect the total NB LT+RT volume. Seely Avenue provides approximately 400 ft of vehicle storage space between River Oaks Parkway and Epic Way.

Neighborhood Street Traffic

As was described in Chapter 4, average daily traffic (ADT) volumes and vehicle speed data were collected for segments of Seely Avenue, River Oaks Parkway, and Epic Way. Table 14 shows the increases in ADT volumes as a result of the project (with new Seely/Montague traffic signal) and the project alternative (no new traffic signal). As shown in the table, the project and project alternative both would result in a substantial increase in the ADT volume on Seely Avenue north of the project site, relative to the current ADT volume. The main differences between the project and project alternative are the amounts of project generated traffic added to the segments of River Oaks Parkway between Seely Avenue and Montague Expressway, and Seely Avenue between the project driveways and Montague Expressway. A new traffic signal at Seely Avenue/Montague Expressway would add left-turn access, resulting in more project trips added to Seely Avenue to/from Montague Expressway and fewer project trips added to River Oaks Parkway to/from Montague Expressway than with no signal.

Due to the percentage increases (over 50% increases) in traffic volumes along Seely Avenue and River Oaks Parkway as a result of the project alternative (no traffic signal at Seely/Montague), the project may be required to implement additional traffic calming measures following occupancy of the project if City staff determines that the increases in traffic volumes could create safety-related issues along the northern segment of Seely Avenue (near the residential neighborhoods) and along River Oaks Parkway between Seely Avenue and Montague Expressway. If issues are identified following occupancy of the project without a new traffic signal at Seely/Montague, City staff would require a focused traffic operations study of Seely Avenue and River Oaks Parkway to determine the appropriate traffic calming measures that should be implemented by the project. Additional traffic calming measures could include (but are not limited to) roadway striping, curb markings, enhanced crosswalks, signage, bulb-outs, chicanes, chokers, medians, and road bumps. Should the project ultimately be required to implement traffic calming measures, City staff and the project applicant have mutually agreed to a maximum cost of $450,000 for improvements.

Table 14
Increases in Average Daily Traffic Volumes – Project vs. Project Alternative

				Existing Conditions		Project		Project Alternative	
ID	Street	Street Segment	Posted Speed Limit	85th % Speed (Avg. of Both Directions)	Existing ADT [1]	Daily Project Trips	% Vol Increase	Daily Project Alt Trips	% Vol Increase
1	River Oaks Pkwy	Montague Expwy to Seely Av	35 mph	31 mph	4,976	1,824	37%	4,036	81%
2	Seely Av	River Oaks Pkwy to Epic Wy	30 mph	25 mph	2,922	3,279	112%	5,530	189%
3	Epic Wy	Seely Av to Epic Apartments DW	25 mph	22 mph	1,634	504	31%	504	31%
4	Seely Av	Montague Expwy to Cadence DW	30 mph	25 mph	3,144	4,482	143%	2,212	70%

Note:

[1] ADT = average daily traffic in vehicles/day (Tue, Wed & Thu only). Daily volume and speed data collected Dec 8-14, 2021.

6. New Project Analysis

This chapter presents the results of the New Project analysis, which assumes no new traffic signal (i.e., no left-turn access) at the Seely Avenue/Montague Expressway intersection and a reduction in retail space compared to the originally proposed larger project. The Seely Avenue/Montague Expressway intersection configuration would remain unchanged from existing conditions, allowing only right turns to and from Seely Avenue. The New Project does not include a 55,000 s.f. supermarket. Instead, the New Project includes 20,197 s.f. of general neighborhood retail space. The total number of residential units being proposed has increased by two units from 1,473 units to 1,475 units. The New Project does not include any additional noteworthy changes compared to the originally proposed project.

New Project VMT Impact Analysis

Like the original project, the retail portion of the New Project screens out from VMT analysis, while the residential component of the mixed-use project would not meet the City's screening criteria. The VMT analysis results for the residential component of the New Project, which adds just two dwelling units to the total unit count, would be identical to the results of the originally proposed project. Accordingly, the mitigation would also be the same (see Chapter 3). The VMT analysis results are described below.

Project Impact

The project vehicle miles traveled (VMT) estimated by the City's VMT Evaluation Tool for the residential component of the project is 11.19 per capita. The project VMT, therefore, exceeds the residential threshold of 10.12 VMT per capita. Since the project would result in a significant transportation impact on VMT, mitigation measures are required to reduce the VMT impact to a less-than-significant level.

Project Mitigation

Based on the four VMT reduction strategy tiers included in the VMT Evaluation Tool, it is recommended that the project implement bicycle and pedestrian network improvements (Tier 2 strategies), traffic calming measures (Tier 2 strategy), and implement a Transportation Demand Management (TDM) Plan (Tier 4 strategies) to mitigate the significant VMT impact. The following Tier 2 and Tier 4 VMT reduction strategies are recommended to mitigate the significant VMT impact:

1. **Bike Access Improvements (Tier 2)**
2. **Pedestrian Network Improvements (Tier 2)**
3. **Traffic Calming Measures (Tier 2)**
4. **Car-Sharing Program (Tier 4)**
5. **Unbundled Parking (Tier 4)**
6. **Voluntary Travel Behavior Change Program (Tier 4)**
7. **On-Site TDM Administration and Services**

Based on the City's VMT Evaluation Tool, implementing the multimodal infrastructure improvements and TDM measures described above would lower the project VMT to 10.11 per capita, which would reduce the project impact to a less-than-significant level (below the City's threshold of 10.12 VMT per capita).

New Project Trip Generation

After applying the ITE trip generation rates to the proposed residential and retail uses and applying the appropriate trip adjustments and reductions, it is estimated that the New Project would generate 5,664 new daily vehicle trips, with 431 new trips occurring during the weekday AM peak hour and 490 new trips occurring during the weekday PM peak hour. Using the inbound/outbound splits contained in the ITE *Trip Generation Manual*, the New Project would produce 119 inbound trips and 312 outbound trips during the weekday AM peak hour, and 290 inbound trips and 200 outbound trips during the weekday PM peak hour (see Table 15).

New Project Trip Assignment and Traffic Volumes

The AM and PM peak hour trips estimated for the New Project were assigned based on no changes to the existing roadway network (see Figure 22). Based on the existing network (no left turns at Seely Avenue), inbound project-generated vehicles from the east would access the site via Seely Avenue directly. Inbound vehicles from the north, west and south would utilize River Oaks Parkway (north of the site) to access Seely Avenue and ultimately the site. Outbound vehicles heading to areas north and west of the site would utilize either River Oaks Parkway or Seely Avenue. Outbound vehicles heading to areas south (e.g., Trimble Road) and east (toward I-880) of the site would need to first travel north and use River Oaks Parkway to access Montague Expressway. The New Project trips were added to background traffic volumes to obtain New Project traffic volumes (see Figure 23).

New Project Intersection Level of Service Analysis

The results of the intersection level of service analysis show that the same two intersections (Zanker Road/Montague Expressway and McCarthy Boulevard-O'Toole Avenue/Montague Expressway) would operate unacceptably, and the New Project would create an adverse effect at the same intersection (McCarthy Boulevard-O'Toole Avenue/Montague Expressway) as described in the original project analysis (see Chapter 4). The LOS results for the New Project are described below and shown in Table 16.

Zanker Road and Montague Expressway

Although the CMP intersection of Zanker Road and Montague Expressway would operate unacceptably under background conditions (per City standards), the addition of New Project trips would not have an adverse effect on intersection operations based on the City's operational thresholds. Note that since this is a CMP intersection, LOS E operation is considered acceptable based on the CMP level of service standard.

McCarthy Boulevard and Montague Expressway

The CMP intersection of McCarthy Boulevard and Montague Expressway would operate at an unacceptable LOS F during the PM peak hour under background conditions, and the addition of New Project trips would have an adverse effect on intersection operations based on the City's operational thresholds.

Table 15
New Project Trip Generation Estimates

Land Use	Size	Daily Rate	Daily Trips	AM Peak Hour Pk-Hr Rate	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour Pk-Hr Rate	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Multifamily Housing (Mid-Rise) [1]	1,143 DU	4.54	5,189	0.37	97	326	423	0.39	272	174	446
Affordable Housing [1]	178 DU	4.81	856	0.36	19	45	64	0.46	48	34	82
Single-Family Attached Housing [1]	154 DU	7.20	1,109	0.48	23	51	74	0.57	50	38	88
Residential & Retail Internal Capture [3]			*(165)*		*(3)*	*(4)*	*(7)*		*(10)*	*(10)*	*(20)*
Location-Based Vehicle Mode Share (12%) [4]			*(839)*		*(16)*	*(50)*	*(66)*		*(43)*	*(28)*	*(71)*
Project-Specific Trip Reduction (19%) [5]			*(1,169)*		*(23)*	*(70)*	*(93)*		*(60)*	*(40)*	*(100)*
Net Residential Trips:			**4,981**		**97**	**298**	**395**		**257**	**168**	**425**
Retail [2]	20,197 SF	54.45	1,100	2.36	29	19	48	6.59	67	66	133
Residential & Retail Internal Capture (15%) [3]			*(165)*		*(4)*	*(3)*	*(7)*		*(10)*	*(10)*	*(20)*
Location-Based Vehicle Mode Share (12%) [4]			*(112)*		*(3)*	*(2)*	*(5)*		*(7)*	*(7)*	*(14)*
Retail Pass-By External Trip Reduction [6]			*(140)*		*0*	*0*	*0*		*(17)*	*(17)*	*(34)*
Net Retail Trips:			**683**		**22**	**14**	**36**		**33**	**32**	**65**
Total Net Project Trips:			**5,664**		**119**	**312**	**431**		**290**	**200**	**490**

Notes:

[1] Trip generation for the residential component of the project based on average rates contained in the *ITE Trip Generation Manual, 11th Edition*, for Multifamily Housing Mid-Rise (Land Use 221), Affordable Housing (Land Use 223), and Single-Family Attached Housing (Land Use 215) located in a General Urban/Suburban setting. Rates are expressed in trips per dwelling unit (DU).

[2] Trip generation for the retail component of the project based on average rates contained in the *ITE Trip Generation Manual, 11th Edition*, for Strip Retail Plaza <40 ksf (Land Use 822) located in a General Urban/Suburban setting. Rates are expressed in trips per 1,000 square feet (SF).

[3] A 15% residential/retail internal mixed-use trip reduction was applied to the project per the 2014 Santa Clara VTA TIA Guidelines. The 15% reduction was first applied to the smaller generator (retail). The same number of trips were subtracted from the larger generator (residential) to account for both trip ends.

[4] A 12% reduction was applied to the residential and retail components of the project based on the location-based vehicle mode share percentage outputs (Table 6 of the TA Handbook) produced from the San Jose Travel Demand Model for the place type: Suburban with Multifamily Housing.

[5] A 19% trip reduction was applied to the residential component of the project based on the external trip adjustments obtained from the City's VMT Evaluation Tool. This trip reduction reflects the multi-modal infrastructure improvements and TDM measures being proposed by the project to reduce the project VMT impact to a less-than-significant level. It is assumed that every percent reduction in VMT per capita is equivalent to one percent reduction in peak-hour vehicle trips.

[6] The PM peak hour pass-by trip reduction percentage (34% for Shopping Center) was based on the ITE Trip Generation Handbook (Third Edition). There is no AM peak hour pass-by trip reduction. The daily pass-by trip reduction (17%) was calculated based on the average of the AM and PM pass-by trip reduction percentages.

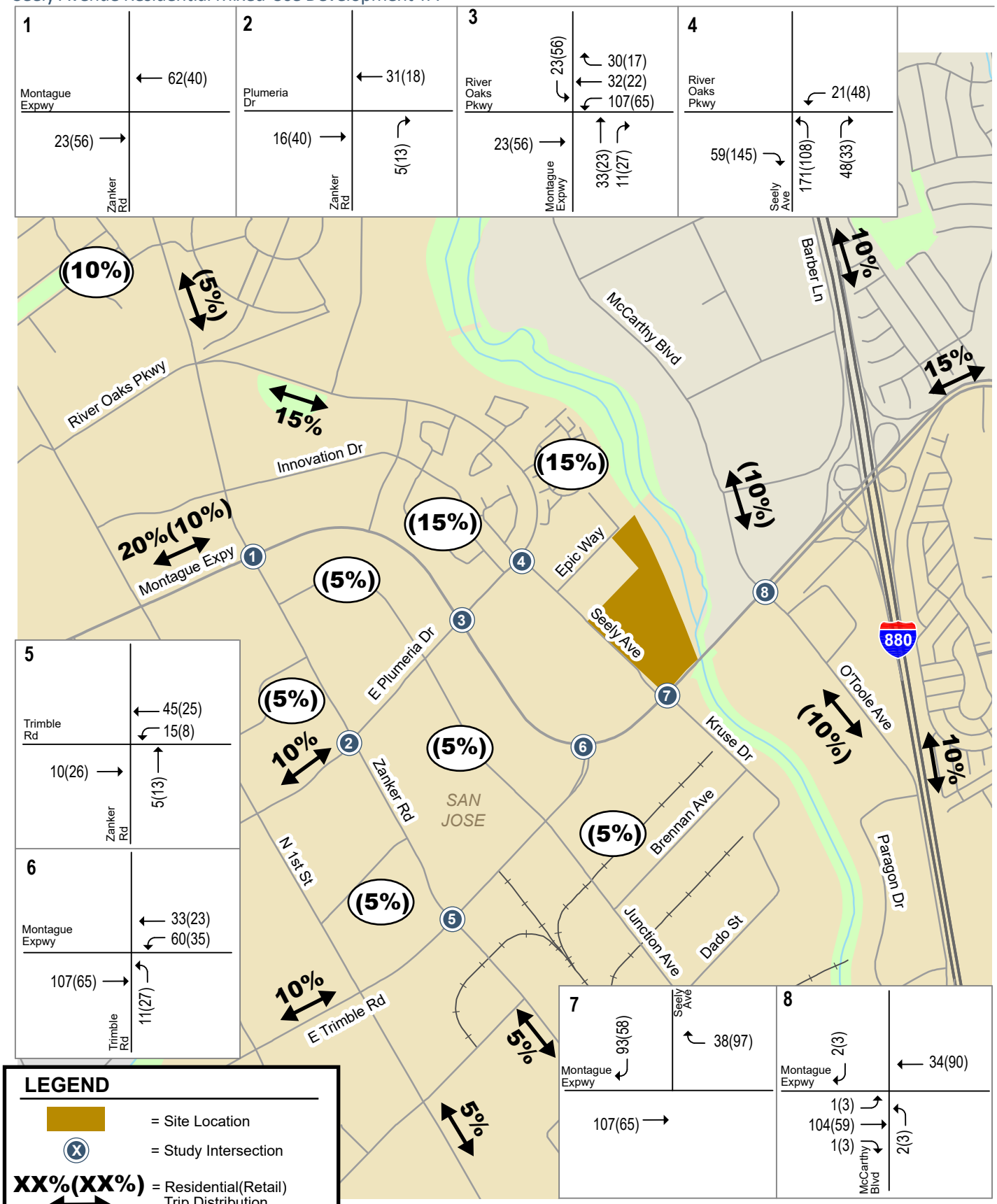
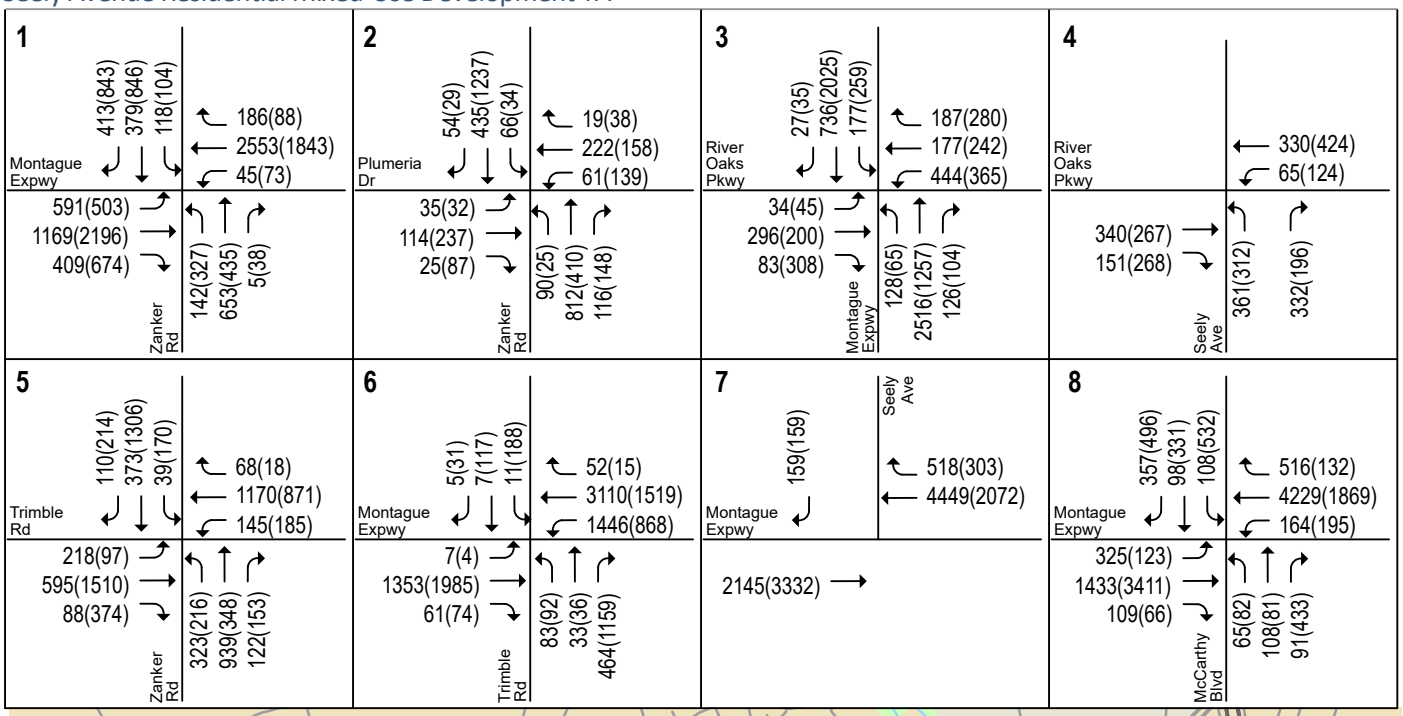
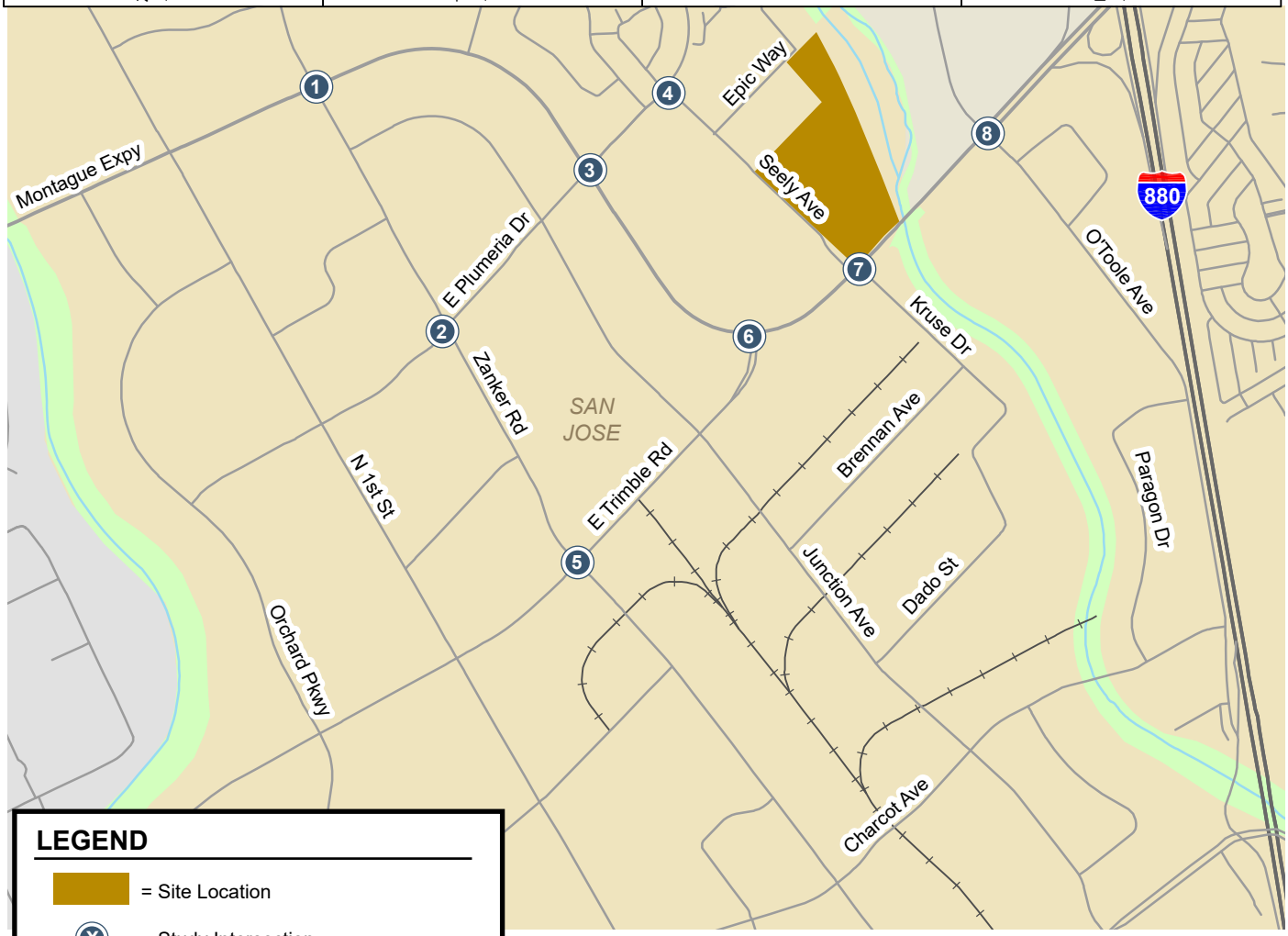


Figure 22
New Project Trip Distribution and Assignment





LEGEND

= Site Location

X = Study Intersection

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 23
New Project Traffic Volumes

NORTH
Not to Scale

Table 16
New Project Intersection Level of Service Summary

#	Signalized Intersection	Peak Hour	Count Date	Existing Avg. Delay (sec)	Existing LOS	Background Avg. Delay (sec)	Background LOS	Background + New Project Avg. Delay (sec)	Background + New Project LOS	Incr. In Crit. Delay (sec)	Incr. In Crit. V/C
1	Zanker Rd & Montague Exp *	AM	05/10/18	**62.6**	**E**	**73.5**	**E**	**74.0**	**E**	0.9	0.011
		PM	11/08/18	50.5	D	**77.9**	**E**	**77.6**	**E**	-0.9	0.008
2	Zanker Rd & Plumeria Dr	AM	06/01/17	23.1	C	25.3	C	26.3	C	1.2	0.021
		PM	06/01/17	23.6	C	26.1	C	27.3	C	1.8	0.024
3	Montague Exp & River Oaks Pkwy	AM	05/10/18	34.9	C	47.5	D	54.0	D	9.0	0.058
		PM	05/10/18	36.4	D	48.9	D	52.2	D	3.2	0.022
4	Seely Av & River Oaks Pkwy	AM	01/09/19	18.5	B	21.3	C	29.6	C	9.2	0.193
		PM	01/09/19	20.4	C	19.6	B	25.9	C	7.8	0.214
5	Zanker Rd & Trimble Rd *	AM	06/01/17	39.5	D	42.4	D	42.5	D	0.1	0.010
		PM	11/08/18	38.9	D	44.5	D	44.7	D	0.5	0.008
6	Trimble Rd & Montague Exp *	AM	05/10/18	25.1	C	27.2	C	28.6	C	1.9	0.041
		PM	11/08/18	48.0	D	51.6	D	52.8	D	1.1	0.020
7	Seely Av & Montague Exp	AM	01/09/19	--	--	--	--	--	--	--	--
		PM	01/09/19	--	--	--	--	--	--	--	--
8	McCarthy Bl-O'Toole & Montague Exp *	AM	05/10/18	31.8	C	34.8	C	34.7	C	0.2	0.005
		PM	11/08/18	**82.3**	**F**	**109.8**	**F**	**113.3**	**F**	**5.8**	**0.012**

Notes:

* Denotes a CMP intersection.

Bold indicates a substandard level of service per the City of San Jose standard (LOS D).

Bold indicates an adverse effect per City of San Jose intersection operations criteria.

Intersection Improvements

To address the adverse effect on the signalized intersection of McCarthy Boulevard-O'Toole Avenue and Montague Expressway, the project would make a fair-share monetary contribution toward planned improvements that were identified for this intersection as part of the recently retired North San Jose Development Policy (NSJDP). Although the policy has officially been closed out, many of the improvements are still planned and are described in the January 2023 settlement agreement between the City of San Jose and the County of Santa Clara.

A grade-separated interchange is planned for the McCarthy Boulevard-O'Toole Avenue and Montague Expressway intersection. The interchange will be designed as a "single-point urban" interchange or, if mutually agreed upon in writing by both the City of San Jose and County of Santa Clara, a design that achieves similar project goals and limits the need for right-of-way acquisition. The final interchange design will maintain all turning movements currently allowed at the at-grade intersection.

Recommendation: Pay a fair-share contribution of $200,000 toward planned improvements at the McCarthy Boulevard-O'Toole Avenue and Montague Expressway intersection.

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

New Project Intersection Queuing Analysis

The following left-turn movements were examined as part of the intersection queuing analysis for the New Project traffic scenario:

- Montague Expressway & River Oaks Parkway – SB dual left-turn, WB dual left-turn
- Seely Avenue & River Oaks Parkway – NB shared left-turn/right-turn, WB single left-turn
- Montague Expressway & Trimble Road – NB single left-turn, WB triple left-turn

The results of the queuing analysis (see Tables 17 and 18) show that adequate left-turn vehicle storage is currently provided and would continue to be provided under background and New Project conditions at the intersections of Seely Avenue/River Oaks Parkway and Trimble Road/Montague Expressway. Adequate left-turn vehicle storage is not provided at the intersection of Montague Expressway/River Oaks Parkway as described below.

Montague Expressway and River Oaks Parkway

The queuing analysis indicates that the maximum vehicle queues for the westbound left-turn movement at the Montague Expressway/River Oaks Parkway intersection currently exceed the existing vehicle storage capacity and would continue to do so under background and New Project conditions during both the AM and PM peak hours of traffic. The maximum westbound left-turn vehicle queue under New Project conditions would block access to the existing commercial driveway on River Oaks Parkway. The driveway is situated approximately 400 feet from Montague Expressway. The westbound left-turn pocket cannot be extended due to the presence of back-to-back left-turn pockets.

The queuing analysis indicates that the maximum vehicle queue for the southbound left-turn movement at the Montague Expressway/River Oaks Parkway intersection would exceed the existing storage capacity by one vehicle per lane under New Project conditions during the PM peak hour. An occasional vehicle storage inadequacy of only one vehicle per lane is not likely to cause significant operational issues at the intersection.

Seely Avenue and River Oaks Parkway

The queuing analysis indicates that the maximum northbound shared left/right-turn vehicle queue under New Project conditions would block access to the existing residential driveway on Seely Avenue during both the AM and PM peak hours. The driveway, which serves the Epic Apartments, is situated approximately 200 feet from River Oaks Parkway. Note that this condition already exists during the AM peak hour of traffic.

Neighborhood Street Traffic

Average daily traffic (ADT) volumes and vehicle speed data were collected for segments of Seely Avenue, River Oaks Parkway, and Epic Way. Table 19 shows the increases in ADT volumes as a result of the original project (with a traffic signal at Seely/Montague), the project alternative (no traffic signal), and the New Project (no traffic signal). As shown in the table, the original project, project alternative, and New Project all would result in substantial increases in the ADT volume on Seely Avenue north of the project site, relative to the current ADT volume. The main differences between the project scenarios are the amounts of project generated traffic added to the segments of River Oaks Parkway between Seely Avenue and Montague Expressway, and Seely Avenue between the project driveways and Montague Expressway. A new traffic signal at Seely Avenue/Montague Expressway would add left-turn access, resulting in more project trips added to Seely Avenue to/from Montague Expressway and fewer project trips added to River Oaks Parkway to/from Montague Expressway than with no signal.

Table 17
New Project Intersection Queuing Analysis Summary – AM Peak Hour

	Montague Exp & River Oaks Pkwy		Seely Av & River Oaks Pkwy		Montague Exp & Trimble Rd
Peak Hour:	SB LT AM	WB LT AM	NB LT/RT [4] AM	WB LT AM	WB LT AM
Existing					
Cycle/Delay[1] (sec)	203	203	75	75	180
Volume (vphpl)	73	127	237	44	425
95th %. Queue (veh/ln.)	8	12	9	3	29
95th %. Queue (ft./ln) [2]	200	300	225	75	725
Storage (ft./ ln.) [3]	275	200	400	150	1100
Adequate (Y/N)	Y	**N**	Y	Y	Y
Background					
Cycle/Delay[1] (sec)	203	203	75	75	180
Volume (vphpl)	77	169	237	44	462
95th %. Queue (veh/ln.)	8	15	9	3	31
95th %. Queue (ft./ln) [2]	200	375	225	75	775
Storage (ft./ ln.) [3]	275	200	400	150	1100
Adequate (Y/N)	Y	**N**	Y	Y	Y
New Project					
Cycle/Delay[1] (sec)	203	203	75	75	180
Volume (vphpl)	89	222	347	65	482
95th %. Queue (veh/ln.)	9	19	12	3	32
95th %. Queue (ft./ln) [2]	225	475	300	75	800
Storage (ft./ ln.) [3]	275	200	400	150	1100
Adequate (Y/N)	Y	**N**	Y	Y	Y

Notes:
[1] Vehicle queue calculations based on signal cycle length for signalized intersections.
[2] Assumes 25 Feet Per Vehicle Queued.
[3] Storage Length represents the length of the turn pocket + approx. 1/2 the length of the taper.
[4] The NB approach is a shared lane approach (L/R). Thus, the vehicle queues reported reflect the total NB LT+RT volume. Seely Avenue provides approximately 400 ft of vehicle storage space between River Oaks Parkway and Epic Way.

Due to the percentage increases (over 50%) in traffic volumes along Seely Avenue and River Oaks Parkway as a result of the New Project with the existing usignalized configuration at Seely/Montague, the project may be required to implement additional traffic calming measures following occupancy of the project if City staff determines that the increases in traffic volumes could create safety-related issues along the northern segment of Seely Avenue (near the residential neighborhoods) and along River Oaks Parkway between Seely Avenue and Montague Expressway. If issues are identified following occupancy of the project without a new traffic signal at Seely/Montague, City staff would

require a focused traffic operations study of Seely Avenue and River Oaks Parkway to determine the appropriate traffic calming measures that should be implemented by the project. Additional traffic calming measures could include (but are not limited to) roadway striping, curb markings, enhanced crosswalks, signage, bulb-outs, chicanes, chokers, medians, and road bumps. Should the project ultimately be required to implement traffic calming measures, City staff and the project applicant have mutually agreed to a maximum cost of $450,000 for improvements.

Table 18
New Project Intersection Queuing Analysis Summary – PM Peak Hour

	Montague Exp & River Oaks Pkwy		Seely Av & River Oaks Pkwy		Montague Exp & Trimble Rd
Peak Hour:	SB LT PM	WB LT PM	NB LT/RT [4] PM	WB LT PM	WB LT PM
Existing					
Cycle/Delay[1] (sec)	203	203	75	75	189
Volume (vphpl)	101	92	184	76	224
95th %. Queue (veh/ln.)	10	9	7	4	18
95th %. Queue (ft./ln) [2]	250	225	175	100	450
Storage (ft./ ln.) [3]	275	200	400	150	1100
Adequate (Y/N)	Y	**N**	Y	Y	Y
Background					
Cycle/Delay[1] (sec)	203	203	75	75	189
Volume (vphpl)	102	150	184	76	278
95th %. Queue (veh/ln.)	10	13	7	4	21
95th %. Queue (ft./ln) [2]	250	325	175	100	525
Storage (ft./ ln.) [3]	275	200	400	150	1100
Adequate (Y/N)	Y	**N**	Y	Y	Y
New Project					
Cycle/Delay[1] (sec)	203	203	75	75	189
Volume (vphpl)	130	183	254	124	289
95th %. Queue (veh/ln.)	12	16	9	5	22
95th %. Queue (ft./ln) [2]	300	400	225	125	550
Storage (ft./ ln.) [3]	275	200	400	150	1100
Adequate (Y/N)	**N**	**N**	Y	Y	Y

Notes:
[1] Vehicle queue calculations based on signal cycle length for signalized intersections.
[2] Assumes 25 Feet Per Vehicle Queued.
[3] Storage Length represents the length of the turn pocket + approx. 1/2 the length of the taper.
[4] The NB approach is a shared lane approach (L/R). Thus, the vehicle queues reported reflect the total NB LT+RT volume. Seely Avenue provides approximately 400 ft of vehicle storage space between River Oaks Parkway and Epic Way.

Table 19
Increases in Average Daily Traffic Volumes – Original Project vs. Project Alternative vs. New Project

ID	Street	Street Segment	Posted Speed Limit	Existing Conditions		Project		Project Alternative		New Project	
				85th % Speed (Avg. of Both Directions)	Existing ADT [1]	Daily Project Trips	% Vol Increase	Daily Project Alt Trips	% Vol Increase	Daily New Project Trips	% Vol Increase
1	River Oaks Pkwy	Montague Expwy to Seely Av	35 mph	31 mph	4,976	1,824	37%	4,036	81%	2,945	59%
2	Seely Av	River Oaks Pkwy to Epic Wy	30 mph	25 mph	2,922	3,279	112%	5,530	189%	3,880	133%
3	Epic Wy	Seely Av to Epic Apartments DW	25 mph	22 mph	1,634	504	31%	504	31%	368	23%
4	Seely Av	Montague Expwy to Cadence DW	30 mph	25 mph	3,144	4,482	143%	2,212	70%	1,699	54%

Note:

[1] ADT = average daily traffic in vehicles/day (Tue, Wed & Thu only). Daily volume and speed data collected Dec 8-14, 2021.

New Project Site Access and On-Site Circulation

With the exception of Building 2 (parcel 4) and renaming of the internal private streets, the site plan prepared for the New Project scenario (dated May 20, 2023) remains essentially unchanged from the original site plan included in Chapter 1. Since the New Project does not include a supermarket as part of Building 2, the building design and parking layout have been revised. The site plan changes that would alter access and circulation associated with Building 2 are as follows:

- 90-degree parking added on Cherry Tree Lane (previously B Street) along Building 2 frontage.
- One driveway removed from Cherry Tree Lane and one driveway removed from Comice Way (previously C Street).
- Elimination of residential and retail loading spaces on Comice Way and addition of one retail loading space on Cherry Tree Lane.
- Residential loading zone added on Comice Way.
- One driveway shifted north (centrally located) on Comice Way.

In addition to the on-site changes, additional eastbound lanes (dual left-turn pocket) on Seely Avenue at Montague Expressway would not be needed with the New Project because a traffic signal is no longer being proposed at the intersection. The revised site plan showing right-turn-only access at the intersection of Seely Avenue and Montague Expressway (same as existing conditions) is shown on Figure 24.

Truck Access and Circulation

Since the New Project does not include a supermarket as part of Building B, the project site does not need to be designed to accommodate WB-67 trucks (CA Legal size semi-trailer trucks). Also, because only Building 2 has been redesigned, truck access and circulation would remain unchanged for all other areas of the site.

Access and circulation for the redesigned Building B were evaluated for the SU-30 truck type (30-foot-long single-unit trucks). The turning templates (see Appendix E) show that SU-30 trucks could adequately access the loading and trash staging areas proposed for the redesigned Building B. However, as shown on the truck turning templates, the two parking spaces located on either side of the retail loading space on Cherry Tree Lane should be removed.

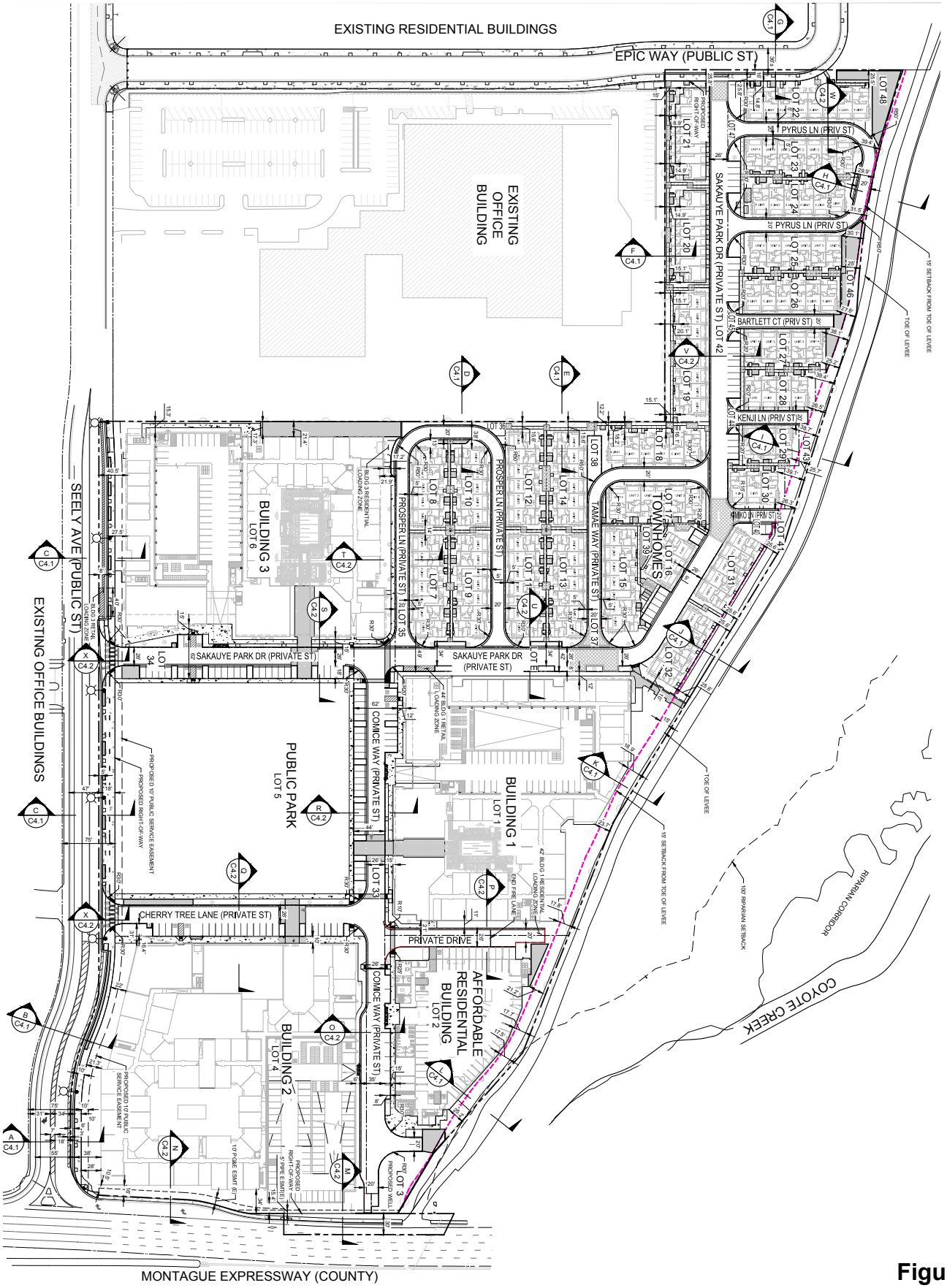


Figure 24
New Project Site Plan

7. Conclusions

This study was conducted for the purpose of identifying the potential transportation impacts related to the proposed residential mixed-use project. The transportation impacts were evaluated following the standards and methodologies established in the City of San Jose's *Transportation Analysis Handbook* (April 2020). This study includes a California Environmental Quality Act (CEQA) level Transportation Analysis (TA) and a Local Transportation Analysis (LTA). The LTA supplements the CEQA transportation analysis by identifying transportation operational issues via an evaluation of weekday AM and PM peak-hour traffic conditions for selected signalized intersections in the vicinity of the project site. The LTA also includes an analysis of site access, on-site circulation, parking, vehicle queuing, and effects to transit, bicycle, and pedestrian access. The effects of the project on freeway segments were evaluated in accordance with the methodologies described in the VTA's *Transportation Impact Analysis Guidelines* (2014). The VTA administers the Santa Clara County Congestion Management Program (CMP).

CEQA Transportation Analysis

The City of San Jose's *Transportation Analysis Handbook, 2020* includes screening criteria for projects that are expected to result in less-than-significant VMT impacts based on the project description, characteristics and/or location. Projects that meet the screening criteria do not require a CEQA-level transportation analysis (i.e., VMT analysis). Since the project site is located in a high VMT area of North San Jose and is not located within ½ mile of an existing major transit stop or stop along a high-quality transit corridor, the residential component of the project does not meet the City's screening criteria and is required to prepare a detailed CEQA-level VMT analysis. The retail component of the project, however, meets the exemption criteria set forth in the City's *Transportation Analysis Handbook* since it would be local-serving retail with no drive-through lane and would total less than 100,000 s.f. in size.

Project Impact

The project vehicle miles traveled (VMT) estimated by the City's VMT Evaluation Tool for the residential component of the project is 11.19 per capita. The project VMT, therefore, exceeds the residential threshold of 10.12 VMT per capita. Since the project would result in a significant transportation impact on VMT, mitigation measures are required to reduce the VMT impact to a less-than-significant level.

Project Mitigation

Based on the four VMT reduction strategy tiers included in the VMT Evaluation Tool, it is recommended that the project implement bicycle and pedestrian network improvements (Tier 2 strategies), traffic calming measures (Tier 2 strategy), and implement a Transportation Demand Management (TDM) Plan

(Tier 4 strategies) to mitigate the significant VMT impact. The following Tier 2 and Tier 4 VMT reduction strategies are recommended to mitigate the significant VMT impact:

1. **Bike Access Improvements (Tier 2)**
2. **Pedestrian Network Improvements (Tier 2)**
3. **Traffic Calming Measures (Tier 2)**
4. **Car-Sharing Program (Tier 4)**
5. **Unbundled Parking (Tier 4)**
6. **Voluntary Travel Behavior Change Program (Tier 4)**
7. **On-Site TDM Administration and Services**

Based on the City's VMT Evaluation Tool, implementing the multimodal infrastructure improvements and TDM measures described above would lower the project VMT to 10.11 per capita, which would reduce the project impact to a less-than-significant level (below the City's threshold of 10.12 VMT per capita).

Local Transportation Analysis

Project Trip Generation

After applying the ITE trip rates to the proposed residential and retail uses and applying the appropriate trip adjustments and reductions, it is estimated that the project would generate 7,761 new daily vehicle trips, with 523 new trips occurring during the weekday AM peak hour and 629 new trips occurring during the weekday PM peak hour. Using the inbound/outbound splits contained in the ITE *Trip Generation Manual*, the project would produce 181 inbound trips and 342 outbound trips during the weekday AM peak hour, and 354 inbound trips and 275 outbound trips during the weekday PM peak hour.

Intersection Traffic Operations

The results of the intersection level of service analysis show that all but the following two signalized study intersections are currently operating at an acceptable level of service (LOS D or better) during both the AM and PM peak hours of traffic and would continue to do so under background and background plus project conditions:

- Zanker Road and Montague Expressway – LOS E during the AM peak hour
- McCarthy Boulevard and Montague Expressway – LOS F during the PM peak hour

Zanker Road and Montague Expressway

Although the CMP intersection of Zanker Road and Montague Expressway would operate unacceptably under background conditions (per City standards), the addition of project-generated trips would not have an adverse effect on intersection operations based on the City's operational thresholds. Note that since this is a CMP intersection, LOS E operation is considered acceptable based on the CMP level of service standard.

McCarthy Boulevard and Montague Expressway

The CMP intersection of McCarthy Boulevard and Montague Expressway would operate at an unacceptable LOS F during the PM peak hour under background conditions, and the addition of project-generated trips would have an adverse effect on intersection operations based on the City's operational thresholds.

Intersection Improvements

To address the adverse effect on the signalized intersection of McCarthy Boulevard-O'Toole Avenue and Montague Expressway, the project would make a fair-share monetary contribution toward planned improvements that were identified for this intersection as part of the recently retired North San Jose Development Policy (NSJDP). Although the policy has officially been closed out, many of the improvements are still planned and are described in the January 2023 settlement agreement between the City of San Jose and the County of Santa Clara.

A grade-separated interchange is planned for the McCarthy Boulevard-O'Toole Avenue and Montague Expressway intersection. The interchange will be designed as a "single-point urban" interchange or, if mutually agreed upon in writing by both the City of San Jose and County of Santa Clara, a design that achieves similar project goals and limits the need for right-of-way acquisition. The final interchange design will maintain all turning movements currently allowed at the at-grade intersection.

Recommendation: Pay a fair-share contribution of $200,000 toward planned improvements at the McCarthy Boulevard-O'Toole Avenue and Montague Expressway intersection.

Other Transportation Issues

In general, the proposed site plan shows adequate site access and on-site circulation. The project would not have an adverse effect on the existing pedestrian, bicycle or transit facilities in the study area. Below are recommendations resulting from the operations analysis and site plan review.

Site Plan Recommendations

- Coordinate with City staff to confirm the 24-foot drive aisle widths within the parking structures for Buildings 1, 2, and 3 and the Affordable Residential Building are acceptable.
- Install convex mirrors on all parking levels to eliminate blind spots for vehicles making turns within the parking garages for Buildings 1, 2 and 3 and the Affordable Residential Building.
- Coordinate with City staff to determine whether an internal ramp slope of 6% would be acceptable within the Building 1 and Building 3 parking garages.
- Provide a garage ramp slope within the Building 2 garage of no greater than 20% grade with transition grades of 10% or less to meet the recommended engineering design standards.
- Install mountable curbs at various locations where space would be limited for semi-trailer trucks (WB67 trucks) to negotiate the on-site street network and retail loading area of Building 2.
- Provide on-site motorcycle parking to the satisfaction of the City of San Jose Planning Department.
- Provide adequate on-site bicycle parking (e.g., bike racks) in accordance with the City of San Jose's Zoning Code for the retail component of the project.

Other Recommendations

- A new traffic signal at Seely Avenue and Montague Expressway would require coordination with City and County staff.
- Extend the westbound left-turn pocket at the Seely Avenue/River Oaks Parkway intersection to provide a total of 250 feet of vehicle storage (i.e., 200-foot striped turn pocket + 100-foot taper). Lengthening the turn pocket would require reconstruction of the median island, removal of some landscaping, restriping, and possibly relocating some utilities associated with irrigation.

- Due to the percentage increase (over 100% increase) in traffic volume along Seely Avenue as a result of the project, the project may be required to implement additional traffic calming measures following occupancy of the project if City staff determines that the increase in traffic volume could create safety-related issues along the northern segment of Seely Avenue near the residential neighborhoods north of the project site. If issues are identified following occupancy of the project, City staff would require a focused traffic operations study of Seely Avenue to determine the appropriate traffic calming measures that should be implemented by the project. Additional traffic calming measures could include (but are not limited to) roadway striping, curb markings, enhanced crosswalks, signage, bulb-outs, chicanes, chokers, medians, and road bumps. Should the project ultimately be required to implement traffic calming measures, City staff and the project applicant have mutually agreed to a maximum cost of $450,000 for improvements.
- The project should make a fair-share monetary contribution toward the future Class IV separated bikeway improvements that are planned along Montague Expressway as described in the San Jose Better Bike Plan 2025.

Seely Avenue Mixed-Use Development TA

Technical Appendices

Appendix A
Approved Trips Inventory

Appendix B
Volume Summary Sheets

Appendix C
Intersection Level of Service Calculations

Appendix D
Signal Warrant Sheets

Appendix E
Synchro/SimTraffic Analysis

Appendix F
Roadway Segment ADT Counts and Speed Data

Appendix G
Truck Turning Template Diagrams