Appendix H:
Local Transportation Analysis

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HEXAGON TRANSPORTATION CONSULTANTS, INC.

211-251-281 River Oaks Parkway Residential Development

Local Transportation Analysis

Prepared for:

FCS International, Inc.

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Executive Summary

This report presents the results of the Local Transportation Analysis (LTA) conducted for a proposed residential project at 211, 251 and 281 River Oaks Parkway in San Jose, California. The project would demolish three existing office buildings and associated parking lots on the north side of River Oaks Parkway and construct 100 townhomes and 637 apartment units (consisting of 505 market-rate apartments and 132 affordable apartments) for a total of 737 dwelling units. Access to the project site would be provided via driveways on River Oaks Parkway, Iron Point Drive, and Cisco Way.

This study was conducted for the purpose of identifying the potential transportation impacts and operational issues related to the proposed development. The transportation impacts of the project were evaluated following the standards and methodologies established in the City of San Jose's *Transportation Analysis Handbook* (April 2023) and the Santa Clara Valley Transportation Authority (VTA) Guidelines. Based on the City of San Jose's Transportation Analysis Policy (Council Policy 5-1) and the *Transportation Analysis Handbook,* the study includes a non-CEQA local transportation analysis (LTA). An analysis to satisfy the City's new Parking and TDM Ordinance was prepared. A freeway segment analysis in accordance with the VTA's *Transportation Impact Analysis Guidelines* was also prepared because the project would generate more than 100 new peak hour vehicle trips.

The LTA analyzes AM and PM peak hour traffic conditions for seven signalized intersections and one unsignalized intersection 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 services and bicycle and pedestrian access.

Vehicle Miles Traveled (VMT) Analysis

The City of San Jose's *Transportation Analysis Handbook, 2023* 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 project meets the residential screening criteria set forth in the City's *Transportation Analysis Handbook.* Therefore, the project is exempt from preparing a detailed VMT analysis.

Project Trip Generation

After applying the appropriate ITE trip rates and applicable trip adjustments and reductions, the proposed residential project is estimated to generate 2,889 new daily vehicle trips, with 238 new trips (61 inbound and 177 outbound) occurring during the AM peak hour and 249 new trips (148 inbound and 101 outbound) occurring during the PM peak hour.

Intersection Traffic Operations

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

TDM Requirements

The City of San Jose's TDM Points Checklist was used to calculate the TDM points for the proposed residential project. The project would achieve the 25-point TDM requirement by providing the following project characteristics, parking attributes, and programmatic TDM measures:

- MI03: Provide Pedestrian Network Improvements – 1 TDM Point
- PK01: Right-Size Off-Site Vehicle Parking Supply – 20 TDM Points
- TP04: Provide Education, Marketing and Outreach – 1 TDM Point
- TP16: Unbundle Parking Costs from Property Costs – 2 TDM Points
- TP18: Provide a Voluntary Travel Behavior Change Program 1 TDM Point

Other Transportation Issues

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

Recommendations

- The project should remove one 90-degree parking space located near the affordable apartment parking garage entrance to provide adequate inbound stacking space (room for two vehicles).
- To avoid potential inbound vehicle queuing issues at the entrance to the affordable apartments garage, the project should either keep the security gate open during the periods of the day when most inbound vehicle trips occur (to be determined based on observations), or eliminate some street parking along the project frontage on Iron Point Drive (i.e., add red curb south of the garage entrance) to provide additional inbound queuing space.
- The project should establish 25-foot-long no parking zones (painted red curb) between the northern and central driveways, south of the central driveway, and south of the southern driveway on Iron Point Drive to ensure adequate sight distance is provided at these driveways along the project frontage.
- The project should remove 4 parking spaces from the first level of the market-rate apartments garage to ensure adequate room would be provided to back out of all the spaces in the garage.
- The project would be required to pay a fair-share contribution of $185,760 toward the future Class IV bikeway improvements that are planned along River Oaks Parkway and Cisco Way as described in the San Jose Better Bike Plan 2025.
- The project would be required to update the existing standard crosswalks at the Cisco Way/River Oaks Parkway intersection from white striping to high-visibility yellow ladder striping due to the proximity of the Agnew campus schools.

1. Introduction

This report presents the results of the Local Transportation Analysis (LTA) conducted for a proposed residential project at 211, 251 and 281 River Oaks Parkway in San Jose, California (see Figure 1). The project would demolish three existing office buildings and associated parking lots on the north side of River Oaks Parkway and construct 100 townhomes and 637 apartment units (consisting of 505 market-rate apartments and 132 affordable apartments) for a total of 737 dwelling units. Access to the project site would be provided via driveways on River Oaks Parkway, Iron Point Drive, and Cisco Way. The project site plan is shown on Figure 2.

This study was conducted for the purpose of identifying the potential transportation impacts and operational issues related to the proposed development. The transportation impacts of the project were evaluated following the standards and methodologies established in the City of San Jose's *Transportation Analysis Handbook* (April 2023) and the Santa Clara Valley Transportation Authority (VTA) Guidelines. Based on the City of San Jose's Transportation Analysis Policy (Council Policy 5-1) and the *Transportation Analysis Handbook,* the study includes a non-CEQA local transportation analysis (LTA). An analysis to satisfy the City's new Parking and TDM Ordinance was prepared. A freeway segment analysis in accordance with the VTA's *Transportation Impact Analysis Guidelines* was also prepared because the project would generate more than 100 new peak hour vehicle trips.

Transportation Policies

In adherence with State of California Senate Bill 743 (SB 743) and the City's goals as set forth in the Envision San Jose 2040 General Plan, the City of San Jose has adopted a Transportation Analysis Policy, Council Policy 5-1. The Policy establishes the thresholds for transportation impacts under CEQA based on vehicle miles traveled (VMT). Council Policy 5-1 requires all projects to analyze transportation impacts using the VMT metric.

The Transportation Analysis Policy 5-1 aligns with the Envision San Jose 2040 General Plan which seeks to focus new development growth within Planned Growth Areas, bringing together office, residential, and service land uses to internalize trips and reduce VMT. VMT-based policies support dense, mixed-use, infill projects as established in the General Plan's Planned Growth Areas.

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);

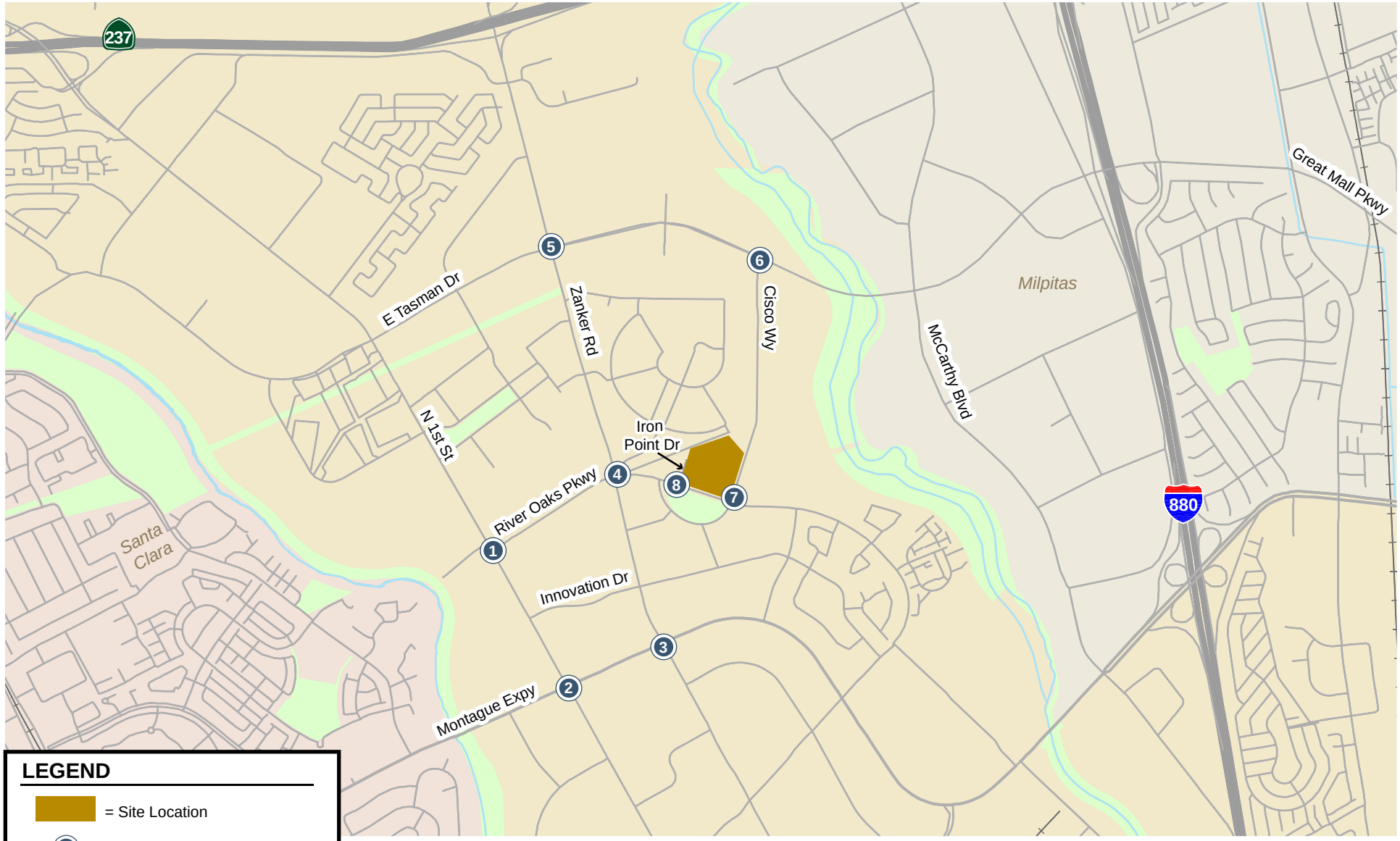


Figure 1
Site Location and Study Intersections

Figure 2
Site Plan

- 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 transit hubs and stations to facilitate the use of transit services (TR-8.1);
- Support using parking supply limitations and pricing as strategies to encourage the use of non-automobile modes (TR-8.3);

- Allow reduced parking requirements for mixed-use developments and for developments providing shared parking or a comprehensive transportation demand management (TDM) program, or developments located near major transit hubs or within Urban Villages and other Growth Areas (TR-8.6);
- Within new development, create and maintain a pedestrian-friendly environment by connecting the internal components with safe, convenient, accessible, and pleasant pedestrian facilities and by requiring pedestrian connections between building entrances, other site features, and adjacent public streets (CD-3.3);
- Create a pedestrian-friendly environment by connecting new residential development with safe, convenient, accessible, and pleasant pedestrian facilities. Provide such connections between new development, its adjoining neighborhood, transit access points, schools, parks, and nearby commercial areas (LU-9.1);
- Facilitate the development of housing close to jobs to provide residents with the opportunity to live and work in the same community (LU-10.5);
- Encourage all developers to install and maintain trails when new development occurs adjacent to a designated trail location. Use the City's Parkland Dedication Ordinance and Park Impact Ordinance to have residential developers build trails when new residential development occurs adjacent to a designated trail location, consistent with other parkland priorities. Encourage developers or property owners to enter into formal agreements with the City to maintain trails adjacent to their properties (PR-8.5).

CEQA Transportation Analysis Scope

The City of San Jose's Transportation Analysis Policy (Policy 5-1) establishes procedures for determining project impacts on 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.

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. 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, 2023* 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 are described below.

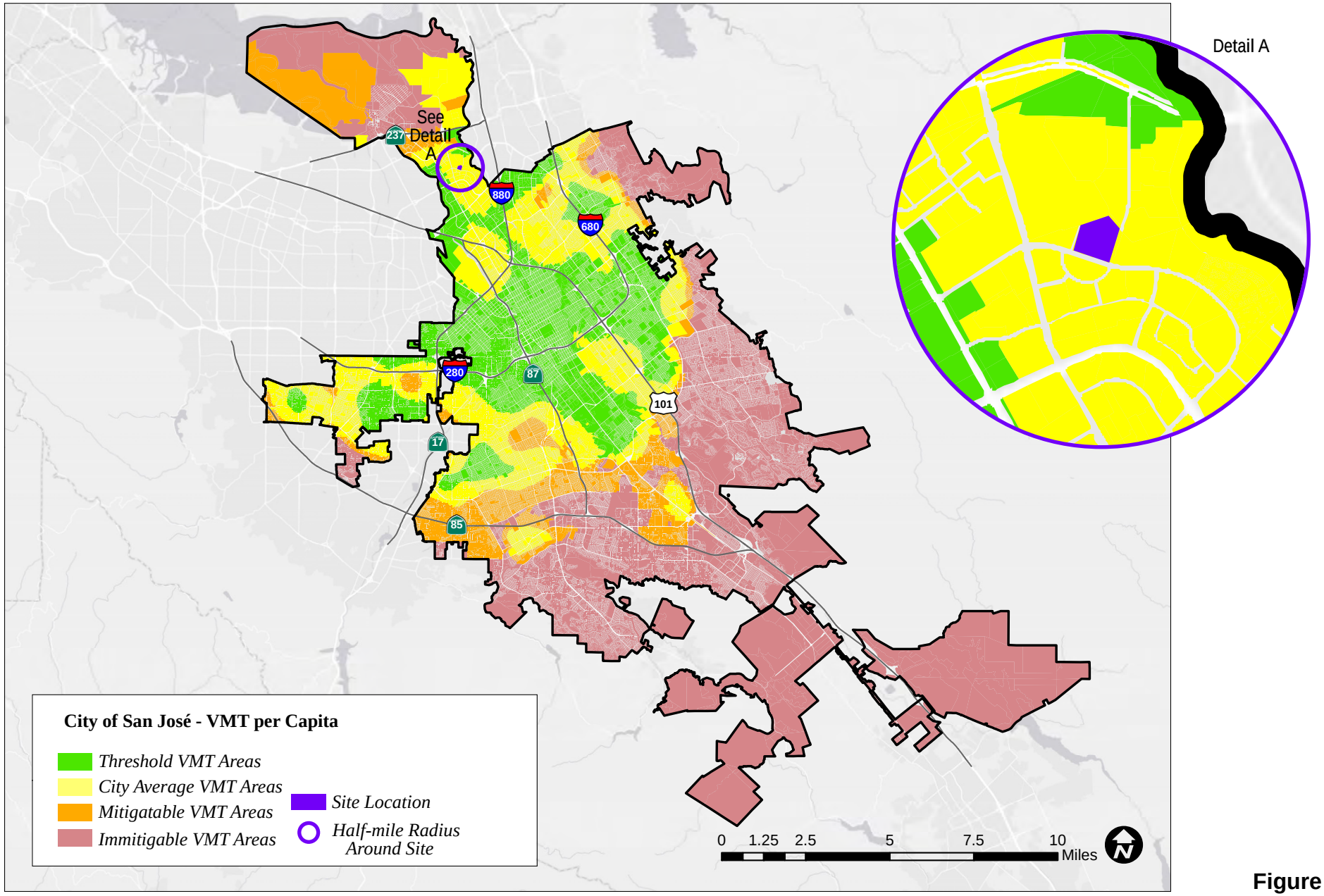


Figure 3
VMT Heat Map for Residents in San Jose

VMT 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. **Transit-Supporting Project Density**:
   - Minimum of 35 units per acre for residential projects or components;
   - If located in a General Plan Land Use Designation with 35 units per acre, the maximum density allowed in the General Plan Land Use Designation must be met; and
4. **Active Transportation**: Not negatively impact transit, bike or pedestrian infrastructure.

The project would meet the above residential screening criteria as follows:

- Is located within a Planned Growth Area (North San Jose) = Criterion 1 met;
- Is located within ½-mile of high-quality transit (see p.17, Chapter 2 for details) = Criterion 2 met;
- Would have a density of 75 DU/AC (737 DU / 9.82 AC = 75 DU/AC) = Criterion 3 met;
- Would not negatively impact transit, bike or ped infrastructure = Criterion 4 met.

Since the project would meet the City's residential screening criteria, no CEQA-level Transportation Analysis (i.e., VMT analysis) is required. Although the project is exempt from a VMT analysis, a Local Transportation Analysis (LTA) must be prepared to identify potential operational issues that may arise due to the project. Projects must also demonstrate consistency with the Envision San Jose 2040 General Plan, as described below.

Cumulative Analysis (Compliance with the General Plan)

Projects must demonstrate consistency with the *Envision San Jose 2040 General Plan* to address potential 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*.

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

- Consider impacts on overall mobility and all travel modes when evaluating transportation impacts of new developments or infrastructure projects (TR-1.2);
- Through the entitlement process for new development, projects shall be required to fund or construct needed transportation improvements for all transportation modes, giving first consideration to the improvement of biking, walking and transit facilities and services that encourage reduced vehicle travel demand (TR-1.4);
- Require new development where feasible to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements (TR-2.8);

- As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute towards transit ridership. In addition, require that new development be designed to accommodate and to provide direct access to transit facilities (TR-3.3);
- Allow reduced parking requirements for mixed-use developments and for developments providing shared parking or a comprehensive transportation demand management (TDM) program, or developments located near major transit hubs or within Villages and Corridors and other growth areas (TR-8.6);

The project site is located in "North San Jose". Although this area of San Jose is generally categorized as an employment area, much of the area surrounding the project site is developed with residential uses. The project site is designated Industrial Park with a Transit Employment Residential Overlay on the land use transportation diagram of the Envision San Jose 2040 General Plan. This overlay allows for a residential development density of 75 to 250 dwelling units per acre (DU/AC). Development within this category is intended to make efficient use of land to provide residential units in support of nearby employment centers. Accordingly, the General Plan promotes residential growth within North San Jose.

The Local Transportation Analysis chapter of this report includes an evaluation of the project's effects on the surrounding multi-modal transportation facilities including bicycle, pedestrian, and transit facilities. The evaluation includes a review of the project to ensure that it does not prohibit the completion of any planned improvements to multi-modal facilities in the study area and recommends potential project contributions towards future improvements of the facilities.

The project is located within a ½-mile of high-quality transit (2 LRT stations, 1 bus route and 1 shuttle within ½-mile of the site) and is proposing a residential development density of 75 DU/AC, which meets the minimum development density requirement for the Transit Employment Residential Overlay. Based on the project description, the project site's General Plan land use designation, and the site's proximity to transit, the proposed project would be consistent with the General Plan and would be considered part of the cumulative solution to meet the City's long-range multi-modal transportation goals and policies.

Local Transportation Analysis Scope

The non-CEQA Local Transportation Analysis (LTA) identifies 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, on-site circulation, vehicle queuing, and transit, bicycle, and pedestrian facilities in the proximate area of the project. As part of the LTA, a project is generally required to conduct an intersection operations analysis if the project is expected to add 10 or more vehicle trips per hour per lane to any signalized intersection that is located within a half-mile of the project site. Based on these criteria, as outlined in the City's *Transportation Analysis Handbook,* a list of study intersections is then developed for the LTA. Note, however, that signalized intersections that do not meet all the criteria may still 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.

The LTA analyzes AM and PM peak hour traffic conditions for the following eight intersections:

1. North First Street & River Oaks Parkway
2. North First Street & Montague Expressway (CMP)
3. Zanker Road & Montague Expressway (CMP)
4. Zanker Road & River Oaks Parkway
5. Zanker Road & Tasman Drive
6. Cisco Way & Tasman Drive

7. Cisco Way & River Oaks Parkway
8. Iron Point Drive & River Oaks Parkway (unsignalized)

The list of study intersections was approved by City of San Jose staff. Traffic conditions at the study intersections were analyzed for both the weekday AM and PM peak hours of adjacent street traffic. The AM peak hour typically occurs between 7:00 AM and 9:00 AM and the PM peak hour typically occurs between 4:00 PM and 6:00 PM on a regular weekday. It is during these periods that the most congested traffic conditions occur on a typical weekday.

Traffic conditions were evaluated for the following scenarios:

- ***Existing Conditions.*** Existing AM and PM peak hour traffic volumes for all the study intersections were obtained from new turning movement counts conducted on Aprlil 9, 2024, and have been approved by City of San Jose staff for use in this transportation study. New traffic counts are contained in Appendix A.
- ***Background Conditions*****.** Background traffic volumes were estimated by adding to existing peak hour volumes the projected volumes from approved but not yet completed or occupied developments. The added traffic from approved but not yet completed or occupied 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 B.
- ***Background Plus Project Conditions.*** Project conditions reflect traffic volumes with completion of the project and approved developments. Background plus project traffic volumes were estimated by adding to background traffic volumes the additional trips generated by the project.
- ***Cumulative Conditions.*** Cumulative conditions reflect traffic volumes with completion of the project, approved developments, and pending developments. A nearby pending development on Seely Avenue would add trips through some of the study intersections. As proposed, the Seely Avenue Mixed-Use Project (PD22-002, 3-18127) would include 1,473 residential dwelling units and 20,197 square feet (s.f.) of retail space.

TDM Requirements

All projects requiring a development permit that are not exempt per Section 20.90.900.B of the San Jose Municipal Code are required to adhere to the new Parking and TDM Ordinance (Ordinance No. 30857), which includes new mandatory TDM requirements. To be consistent with the goals of the Envision 2040 General Plan and the Climate Smart San Jose Plan, most projects are required to provide a TDM Plan that meets the “TDM Points Target” as detailed in the City’s new Ordinance. The City of San Jose’s TDM Points Checklist is used to calculate the TDM points associated with each TDM measure included in the TDM Plan.

TDM Screening Criteria

The City of San Jose *Transportation Analysis Handbook, 2023* provides TDM screening criteria for development projects. The TDM screening criteria for residential projects are described below.

TDM Screening Criteria for Residential Projects

1. **Affordability**: Includes 100% affordable units; 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. **Transit-Supporting Project Density**:
    - Minimum of 35 units per acre for residential projects or components;
    - If located in a General Plan Land Use Designation with 35 units per acre, the maximum density allowed in the General Plan Land Use Designation must be met.

The project would meet all but one of the above residential screening criteria as follows:

- Is a 100% affordable housing development = Criterion 1 not met;
- Is located within a ½-mile of high-quality transit = Criterion 2 met;
- Would have a density of 75 DU/AC (737 DU / 9.82 AC = 75 DU/AC) = Criterion 3 met.

The project would not meet the City's residential screening criteria because it would not include 100% restricted affordable residential units. Therefore, a TDM Checklist that meets the TDM Points Target and associated TDM Plan are required. The project meets the definition of a Level 2 residential project (residential projects of 300 dwelling units or more) and is categorized as a Level 2 Home-End Use per the San Jose Municipal Code. Level 2 project (referred to as "large projects") require both annual TDM Plan compliance documentation and annual monitoring reports.

Intersection Operations Analysis Methodology

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

Data Requirements

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

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

Analysis Methodologies and Level of Service Standards

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

City of San Jose Signalized Intersections

The City of San Jose level of service methodology for signalized intersections is the 2000 *Highway Capacity Manual* (HCM) method. This method is applied using the TRAFFIX software. The 2000 HCM operations method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. The City of San Jose level of service standard for the City's signalized intersections is LOS D or better. The correlation between average control delay and level of service is shown in Table 1.

CMP Signalized Intersections

Since TRAFFIX is the designated level of service methodology for the CMP and the City of San Jose, CMP study intersections are not analyzed separately, but rather is 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.

Table 1
Signalized Intersection Level of Service Definitions Based on Average 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).

Unsignalized Intersections

One of the study intersections is unsignalized: Iron Point Drive & River Oaks Parkway. Since the City of San Jose has not established a level of service standard for unsignalized intersections, this intersection was not evaluated for level of service. The need for signalization of unsignalized intersections is frequently assessed based on the Peak Hour Volume Warrant (Warrant 3) described in the *Manual on Uniform Traffic Control Devices (MUTCD)*. This method makes no evaluation of intersection level of service, but simply provides an indication whether vehicular peak hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal. Intersections that meet the peak hour warrant are subject to further analysis before determining that a traffic signal is necessary. Additional analysis may include unsignalized intersection level of service analysis and/or operations analysis such as evaluating vehicle queuing and delay. Other types of traffic control devices, signage, or geometric changes may be preferable based on existing field conditions and intersection spacing. The unsignalized intersection was evaluated for potential vehicle queuing issues, since Iron Point Drive would provide site access. Signal warrant checks were also prepared.

Adverse Intersection Operations Effects

According to the City of San Jose's *Transportation Analysis Handbook, 2023*, an adverse effect on signalized 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.

For CMP intersections, an adverse effect on signalized intersection operations would occur if for either peak hour:

1. The level of service at the intersection degrades from an acceptable level (LOS E or better) under background conditions to an unacceptable LOS F under background plus project conditions, or
2. The level of service at the intersection is an unacceptable level (LOS 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 the thresholds listed as #2 above is when the addition of project traffic reduces the amount of average control delay for critical movements, i.e., the change in average control delay for critical movements is negative. 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:

- 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 noteworthy number of trips (more than 10 trips per lane) to the left-turn movements. The queuing analysis is presented for informational purposes only, since the City of San Jose has not defined a policy related to queuing. Vehicle queues were estimated using a Poisson probability distribution, which estimates the probability of "n" vehicles for a vehicle movement using the following formula:

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

Where:

P (x=n) = probability of "n" vehicles in queue per lane
n = number of vehicles in the queue per lane
λ = average # of vehicles in the queue per lane (vehicles per hr per lane/signal cycles per hr)

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95th percentile maximum number of queued vehicles for a particular left-turn movement; (2) the

estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the left-turn movement. This analysis thus provides a basis for estimating future left-turn pocket 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.

Vehicle queuing at the nearby metered freeway on-ramps where the project would add trips also were evaluated. These include SR 237 on-ramps from Zanker Road and I-880 on-ramps from Tasman Drive.

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 1% 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 1% 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 2.

Table 2
Freeway Segment Capacity Evaluation

Freeway	Segment			Direction	Peak Hour	Mixed-Flow Lanes Capacity (vph) [1]	1% of Mixed-Flow Capacity	HOV Lane Capacity (vph) [1]	1% of HOV Capacity	Mixed-Flow Lanes Project Trips	HOV Lane Project Trips	1% or More of Capacity?
SR 237	N. First St	to	Zanker Rd	EB	AM	4400	44	1800	18	5	1	NO
					PM	4400	44	1800	18	11	4	NO
SR 237	Zanker Rd	to	McCarthy Blvd	EB	AM	4400	44	1800	18	7	2	NO
					PM	4400	44	1800	18	4	1	NO
SR 237	McCarthy Blvd	to	I-880	EB	AM	4400	44	1800	18	7	2	NO
					PM	4400	44	1800	18	4	1	NO
SR 237	I-880	to	McCarthy Blvd	WB	AM	4400	44	1800	18	2	1	NO
					PM	4400	44	1800	18	5	2	NO
SR 237	McCarthy Blvd	to	Zanker Rd	WB	AM	4400	44	1800	18	2	1	NO
					PM	4400	44	1800	18	5	2	NO
SR 237	Zanker Rd	to	N. 1st St	WB	AM	4400	44	1800	18	14	4	NO
					PM	4400	44	1800	18	8	2	NO
I-880	Montague Expwy	to	Great Mall Pkwy	NB	AM	6900	69	1800	18	5	1	NO
					PM	6900	69	1800	18	11	4	NO
I-880	Great Mall Pkwy	to	SR 237	NB	AM	6900	69	1800	18	14	4	NO
					PM	6900	69	1800	18	8	2	NO
I-880	SR 237	to	Dixon Landing	NB	AM	6900	69	1800	18	20	7	NO
					PM	6900	69	1800	18	11	4	NO
I-880	Dixon Landing	to	SR 237	SB	AM	6900	69	1800	18	7	2	NO
					PM	6900	69	1800	18	17	5	NO
I-880	SR 237	to	Great Mall Pkwy	SB	AM	6900	69	1800	18	5	1	NO
					PM	6900	69	1800	18	11	4	NO
I-880	Great Mall Pkwy	to	Montague Expwy	SB	AM	6900	69	1800	18	14	4	NO
					PM	6900	69	1800	18	8	2	NO

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

Report Organization

This report has a total of five chapters. Chapter 2 describes the existing roadway network, transit services, and bicycle and pedestrian facilities. Chapter 3 describes the local transportation analysis (LTA) including the method by which project traffic is estimated, intersection operations analysis, 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 4 describes the City of San Jose TDM points evaluation and summarizes the associated TDM Plan. Chapter 5 presents the conclusions of the local transportation analysis.

2. Existing Transportation Conditions

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

Existing Roadway Network

Regional access to the project site is provided via Interstate 880 and SR 237. These facilities are 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 Tasman Drive.

SR 237 is oriented in an east/west direction with two mixed-flow lanes and one HOV lane in each direction in the project vicinity. SR 237 provides access to the project site via a full interchange at Zanker Road. SR 237 connects to I-880 approximately one mile east of the Zanker Road interchange.

Local access to the project site is provided via Montague Expressway, North First Street, Zanker Road, Tasman Drive, River Oaks Parkway, and Cisco Way. 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 Zanker Road.

North First Street is a north-south Grand Boulevard that extends from Downtown San Jose to North San Jose with the VTA light rail transit service running in the middle of the street. In the project vicinity, North First Street has four lanes and a posted speed limit of 45 mph. Class II bike lanes and sidewalks are provided along both sides of the street with crosswalks at the signalized intersections in the project vicinity. North First Street provides access to the site via its intersection with River Oaks Parkway.

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 to 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 Class II bike lanes and sidewalks on both sides of the street. Zanker Road provides access to the project site via its intersection with River Oaks Parkway.

Tasman Drive is an east-west Grand Boulevard that extends from Morse Avenue to the west in Sunnyvale to I-880 interchange to the east in Milpitas. East of I-880 it becomes Great Mall Parkway. In the vicinity of the project, Tasman Drive has a four-lane cross section west of Zanker Road and six-lane cross section east of Zanker Road with VTA light rail service running in the middle of the street. Tasman Drive provides site access via its intersections with Zanker Road and Cisco Way. Tasman Drive has sidewalks and Class II bike lanes on both sides of the street and has a posted speed limit of 45 mph.

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 Class II bike lanes and sidewalks on both sides of the street. It has a posted speed limit of 35 mph and provides direct access to the project site.

Cisco Way is a two-lane undivided street that bisects the Cisco campus and connects River Oaks Parkway and Tasman Drive. It has a posted speed limit of 35 mph and sidwalks on both sides of the street. Cisco Way provides direct access to the project site.

Iron Point Drive is a 450-foot-long undivided residential street that runs north-to-south along the western boundary of the project site. Iron Point Drive currently provides access to the existing residential development located west of the project site and ultimately would provide access to the affordable apartments and townhome coponents of the project. Iron Point Drive has a sidewalk along the west side of the street only and has no bicycle facilities.

Existing Intersection Lane Configurations

The existing lane configurations at the study intersections were determined by observations in the field and are shown on Figure 4.

Existing Pedestrian, Bicycle and Transit Facilities

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

Existing Pedestrian Facilities

Pedestrian facilities in the project area consist primarily of sidewalks along the streets and crosswalks with pedestrian signal heads at the intersections. Sidewalks are found along all previously described local roadways in the study area. The existing network of sidewalks and crosswalks 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 the signalized intersections in the study area. Curb ramps with truncated domes are also provided at all intersection crosswalks near the site. Truncated domes are the standard ADA design requirement for detectable warnings which enable people with visual disabilities to determine the boundary between the sidewalk and the street.

The Coyote Creek Trail and Guadalupe River Trail are multi-use trails (Class I bikeways) that are separated from motor vehicle traffic. The closest entrance to the Coyote Creek Trail is provided northeast of the project site via Tasman Drive, approximately a 0.75-mile walk from the site. The closest entrance to the Guadalupe River Trail is provided west of the project site via River Oaks Parkway, approximately a 0.75-mile walk from the site.

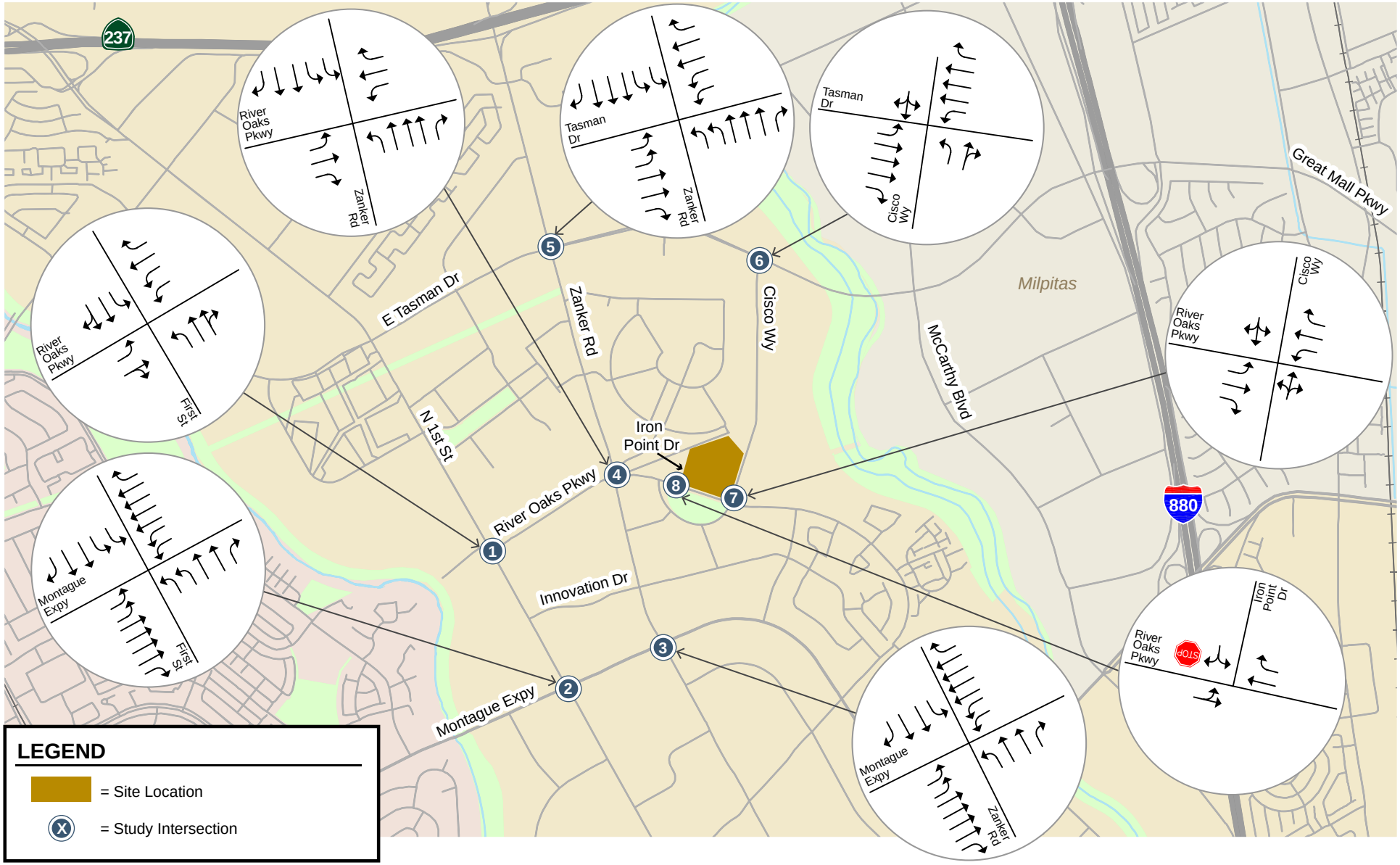


Figure 4
Existing Intersection Lane Configurations

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 III or Class IV bicycle facilities in the project area.

There are a number of roadways in the project study area that have striped bike lanes (Class II bicycle facilities). Bike lanes currently exist on the following roadway segments (see Figure 5):

- North First Street – Class II bike lanes between Brokaw Road and Alviso
- Zanker Road – Class II bike lanes along its entirety
- Tasman Drive – Class II bike lanes along its entirety
- River Oaks Parkway/Plumeria Drive – Class II bike lanes along its entirety

The Coyote Creek Multi-use Trail (Class I bikeway) runs along both sides of Coyote Creek and is completely separated from motor vehicle traffic. The Coyote Creek Trail extends from the northern extent of McCarthy Boulevard south to Zanker Road in San Jose. The closest trail access is provided north of the project site via Tasman Drive, approximately a 0.75-mile bike ride from the site.

The Guadalupe River Multi-use Trail (Class I bikeway) runs along both sides of the Guadalupe River and is completely separated from motor vehicle traffic. The Guadalupe River Trail runs from Alviso to south San Jose. The closest trail access is provided west of the project site via River Oaks Parkway, approximately a 0.75-mile bike ride from the site.

Existing Transit Service

Existing light rail transit (LRT), 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 6.

Light Rail Transit (LRT) Service

The River Oaks LRT Station is located ½-mile west of the project site at the intersection of North First Street and River Oaks Parkway and serves the Santa Teresa-Baypointe LRT line (Blue Line) and Winchester-Old Ironsides LRT line (Green Line). The Cisco Way LRT Station is located ½-mile north of the project site at the intersection of Cisco Way and Tasman Drive and serves the Mountain View-Alum Rock LRT line (Orange Line). All three LRT lines operate with 15-minute headways during the weekday peak commute and midday hours.

Bus and Shuttle Service

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 (approximately ½-mile) of the project site.

The ACE Brown shuttle operates along River Oaks Parkway 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 River Oaks Parkway in the eastbound direction directly across the street from the project site.

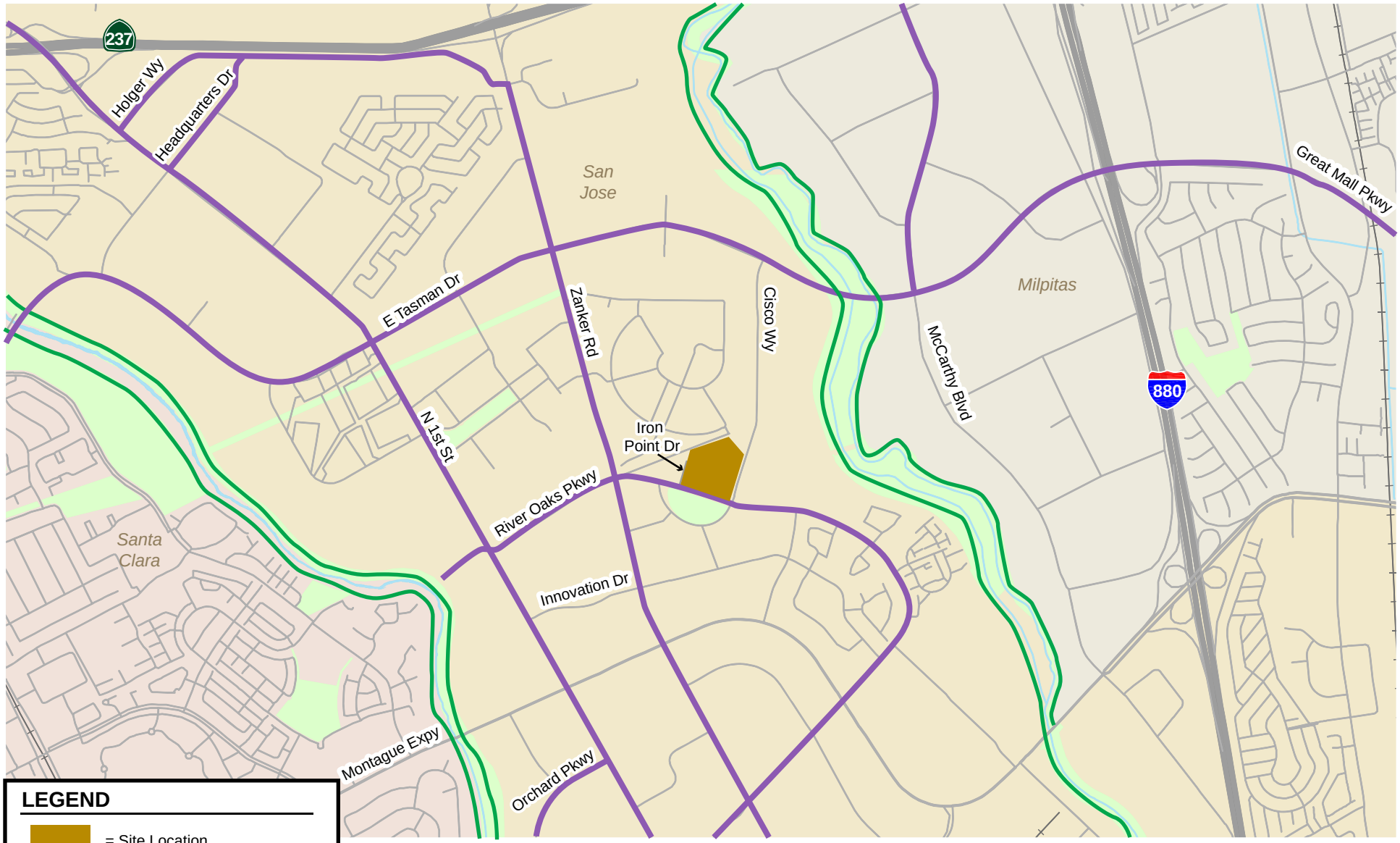


Figure 5
Existing Bicycle Facilities

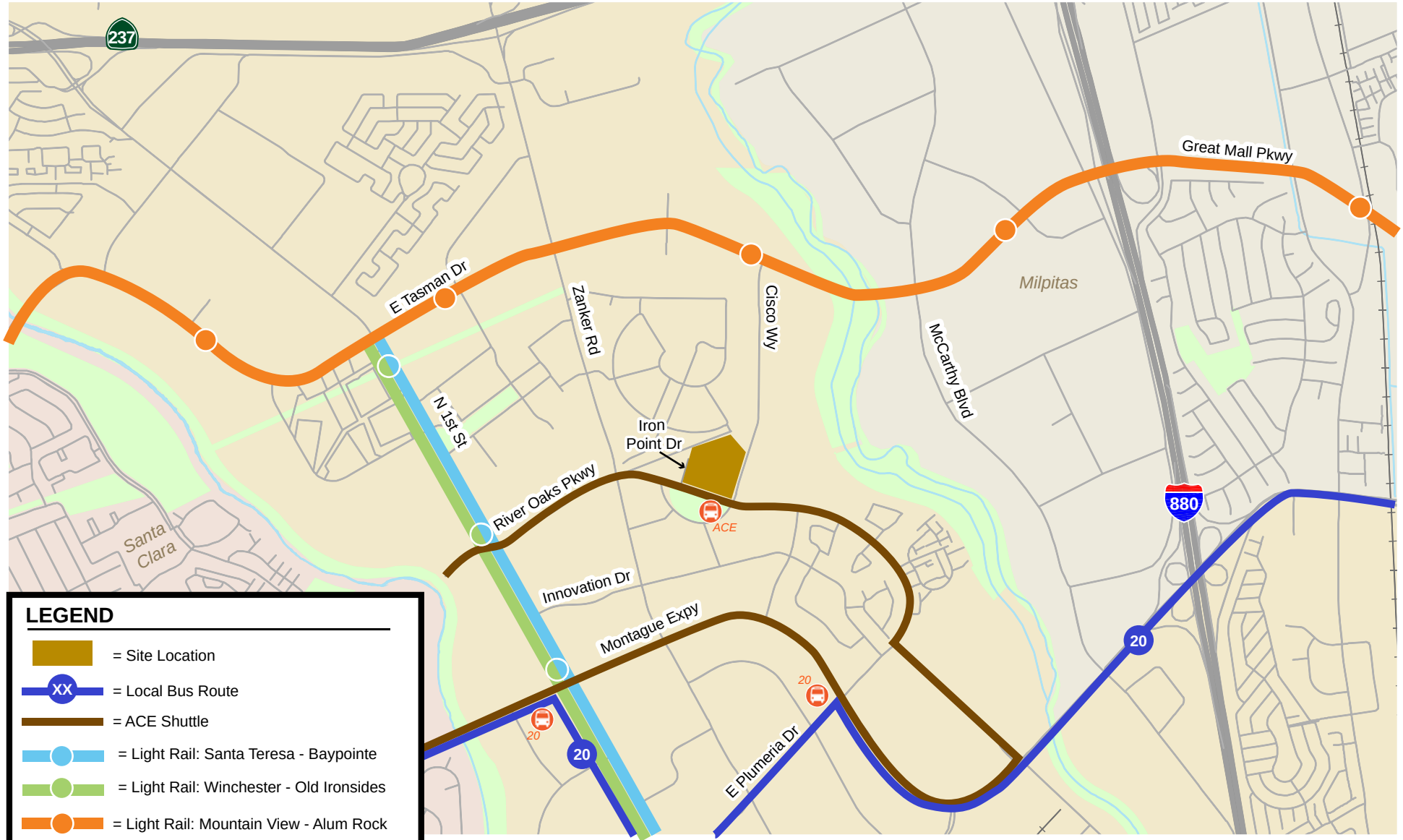


Figure 6
Existing Transit Services

NORTH
Not to Scale

Observed Existing Traffic Conditions

Traffic conditions were observed in the field on June 18, 2024, during the weekday AM (7:00-9:00 AM) and PM (4:00-6:00 PM) peak traffic periods to identify any existing operational deficiencies occurring within an approximately ½-mile radius of the project site. Most of the study intersections operated adequately during both the weekday AM and PM peak commute periods. However, the following operational issues were observed along Montague Expressway during the observation periods:

Traffic Conditions Along Montague Expressway

The peak direction of travel on Montague Expressway is westbound during the AM peak hour and eastbound during the PM peak hour, although the westbound direction is also heavy during the PM peak hour. Field observations show that traffic along Montague Expressway clears most of the signalized intersections in one signal cycle length. However, the westbound vehicle queues that develop at North First Street extend past Zanker Road during the AM peak hour and reach Zanker Road during the PM peak hour. The long vehicle queues on westbound Montague Expressway clear the intersection of Zanker Road/Montague Expressway, but it often takes two signal cycles for the westbound queues to clear the intersection of North First Street/Montague Expressway during the AM peak hour. The westbound vehicle queues clear during the PM peak hour.

During the AM and PM peak hours, the eastbound left-turn vehicle queues at North First Street/ Montague Expressway are long. The northbound through movement and northbound left-turn movement vehicle queues are also lengthy at this intersection during the AM and PM peak hours. However, the northbound through and left-turn movement queues that develop clear the intersection in one signal cycle during both peak hours of traffic. The southbound right-turn vehicle queues on North First Street are long during the AM peak hour but do not create any operational issues.

During the PM peak hour, the eastbound vehicle queues along Montague Expressway that develop at Zanker Road occasionally extend back to North First Street, although this rarely occurs. The eastbound left-turn vehicle queues at Zanker Road/Montague Expressway occasionally require two signal cycles to clear the intersection during the PM peak hour.

No other noteworthy operational issues were observed at any of the study intersections.

3. Local Transportation Analysis

This chapter describes the local transportation analysis (LTA) including the method by which project traffic is estimated, intersection operations analysis, any adverse effects to intersection level of service caused by the project, intersection vehicle queuing analysis, site access and on-site circulation review, effects on bicycle, pedestrian and transit facilities, and parking.

Intersection Operations Analysis

The intersection operations analysis is intended to quantify the operations of the study 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 and VTA CMP intersection LOS 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.

Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site is estimated for the AM and PM peak hours. As part of the project trip distribution, the directions to and from which the project trips would travel are estimated. In the project trip assignment, the project trips are assigned to specific streets and intersections. These procedures are described below.

Trip Generation

Trips generated by any new development are typically estimated based on counts of existing developments of the same land use type. A compilation of typical trip generation rates can be found in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 11th Edition* (2021). Project trip generation was estimated by applying to the size of the proposed development the appropriate residential trip generation rates obtained from the ITE *Trip Generation Manual*. Trips that would be generated by the project were estimated using the ITE average trip rates for "Single-Family Attached Housing" (Land Use 215), "Multifamily Housing Mid-Rise Not Close to Rail Transit" (ITE Land Use 221), and "Affordable Housing" (Land Use 223) located in a General Urban/Suburban setting.

Trip Adjustments and Reductions

In accordance with San Jose's *Transportation Analysis Handbook* (April 2023, 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. Note that the existing buildings to be removed are vacant so no existing trip credits were applied.

Location-Based Trip Adjustment

Based on the 2023 San Jose guidelines, the project qualifies for a location-based adjustment. The location-based adjustment reflects the project's vehicle mode share based on the "place type" in which the project is located 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 developments within Suburban with Multifamily Housing areas have a vehicle mode share of 88% (according to Table 17 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 Travel Demand Model. The 12% trip reduction is based on the percent 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 the project characteristics 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 10% external trip reduction. This trip reduction reflects the project characteristics including an increase in residential density for the site and the affordable housing component of the project (both considered Tier 1 VMT reduction strategies).

Net Project Trips

After applying the appropriate ITE trip rates and applicable trip adjustments and reductions described above, the proposed residential project is estimated to generate 2,889 new daily vehicle trips, with 238 new trips (61 inbound and 177 outbound) occurring during the AM peak hour and 249 new trips (148 inbound and 101 outbound) occurring during the PM peak hour (see Table 3).

Table 3
Project Trip Generation Estimates

				AM Peak Hour				PM Peak Hour			
Land Use	Size	Daily Rate	Daily Trips	Pk-Hr Rate	In	Out	Total	Pk-Hr Rate	In	Out	Total
Townhomes [1]	100 DU	7.20	720	0.48	15	33	48	0.57	32	25	57
Market-Rate Apartments [1]	505 DU	4.54	2,293	0.37	43	144	187	0.39	120	77	197
Affordable Apartments [1]	132 DU	4.81	635	0.50	19	47	66	0.46	36	25	61
Gross Project Trips:			*3,648*		*77*	*224*	*301*		*188*	*127*	*315*
Location-Based Vehicle Mode Share (12%) [2]			*(438)*		*(9)*	*(27)*	*(36)*		*(23)*	*(15)*	*(38)*
Project-Specific Trip Reduction (10%) [3]			*(321)*		*(7)*	*(20)*	*(27)*		*(17)*	*(11)*	*(28)*
Total Net Project Trips:			**2,889**		**61**	**177**	**238**		**148**	**101**	**249**

Notes:

[1] Trip generation based on average rates contained in the *ITE Trip Generation Manual, 11th Edition*, for Single-Family Attached Housing (Land Use 215), Multifamily Housing Mid-Rise Not Close to Rail Transit (Land Use 221), and Affordable Housing (Land Use 223) located in a General Urban/Suburban setting. Rates expressed in trips per dwelling unit (DU).

[2] A 12% trip reduction was applied to the project based on the location-based vehicle mode share % outputs (Table 17 of TA Handbook) produced from the San Jose Travel Demand Model for place type: Suburban with Multifamily Housing.

[3] A 10% trip reduction was applied to the project based on the external trip adjustments obtained from the City's VMT Evaluation Tool. This reduction reflects the increase in residential density for the site and 18% affordable housing component of the project. It is assumed that every percent reduction in VMT per capita is equivalent to one percent reduction in peak hour vehicle trips.

Trip Distribution and Assignment

The trip distribution pattern for the residential project was estimated based on existing travel patterns on the surrounding roadway network that reflect typical weekday AM and PM commute patterns, the locations of complementary land uses, and freeway access points. The peak hour vehicle trips generated by the project were assigned to the roadway network in accordance with the trip distribution pattern. Figure 7 shows the project trip distribution pattern and trip assignment.

Note that although the private street serving the townhomes would connect Cisco Way to Iron Point Drive, no trips generated by the affordable apartments were assigned through the townhomes site. Since the entrance to the parking garage serving the affordable apartments is situated close to River Oaks Parkway on Iron Point Drive, cutting through the townhomes site to access the garage would likely not save residents of the affordable apartments a noticeable amount of time.

Traffic Volumes Under All Scenarios

Existing Traffic Volumes

Existing AM and PM peak hour traffic volumes for the eight study intersections were obtained from new turning movement counts conducted on April 9, 2024. All the counts were reviewed and approved by City of San Jose Department of Transportation staff. The new counts are contained in Appendix A. The existing peak hour intersection volumes are shown on Figure 8.

Background Traffic Volumes

Background traffic volumes were estimated by adding to existing peak hour volumes the projected volumes from approved but not yet completed or occupied developments. The added traffic from approved but not yet completed or occupied developments was provided by the City of San Jose in the form of the Approved Trips Inventory (ATI). The ATI sheets are contained in Appendix B. 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 background peak hour intersection volumes are shown on Figure 9.

Background Plus Project Traffic Volumes

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

Cumulative Traffic Volumes

Cumulative traffic volumes were estimated by adding to Background Plus Project traffic volumes the projected volumes from the nearby pending development on Seely Avenue. As proposed, the Seely Avenue Mixed-Use Project (PD22-002, 3-18127) would include 1,473 residential dwelling units and 20,197 square feet (s.f.) of retail space. The cumulative peak hour intersection volumes are shown on Figure 11.

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

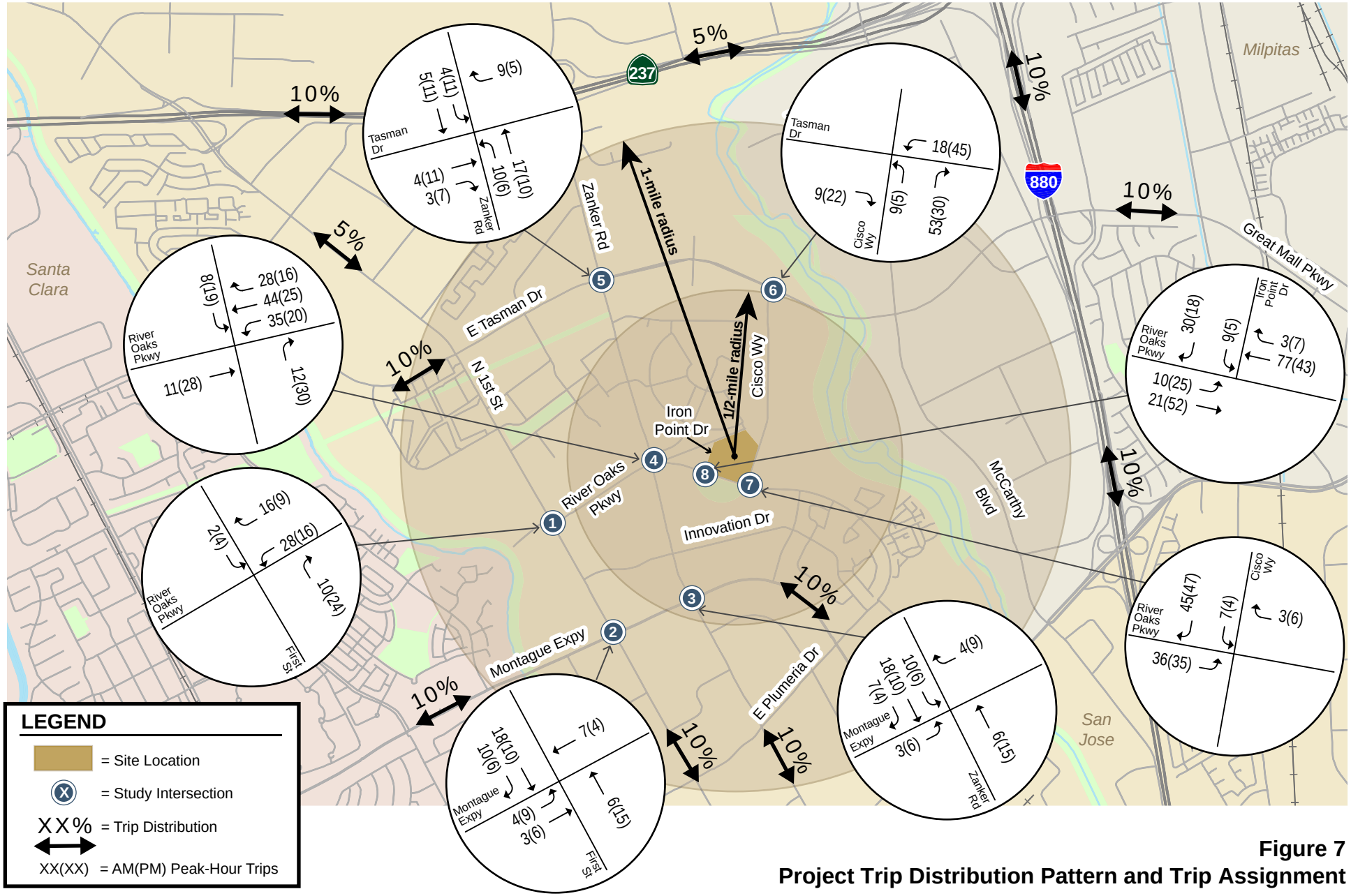


Figure 7
Project Trip Distribution Pattern and Trip Assignment

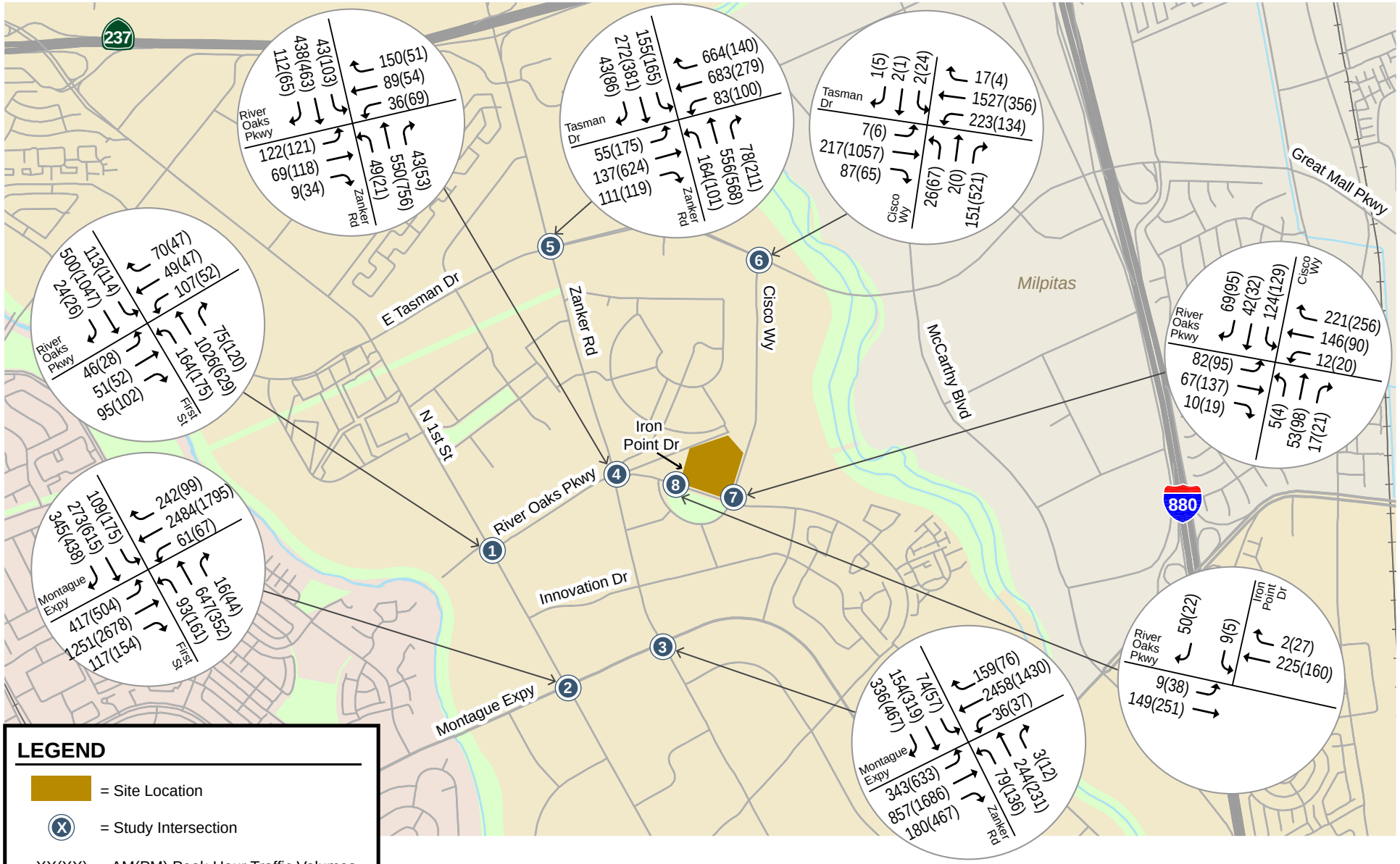


Figure 8
Existing Traffic Volumes

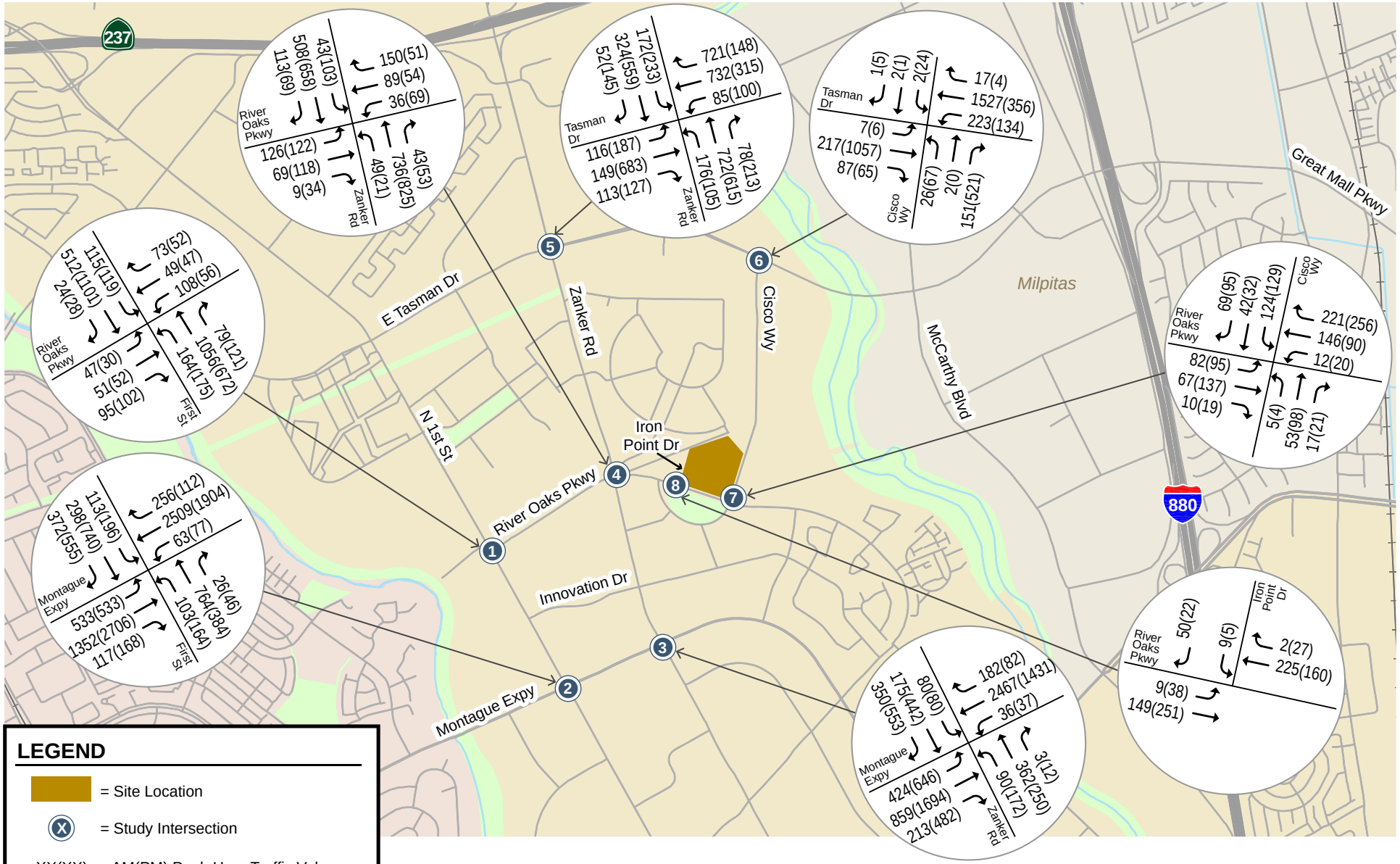


Figure 9
Background Traffic Volumes

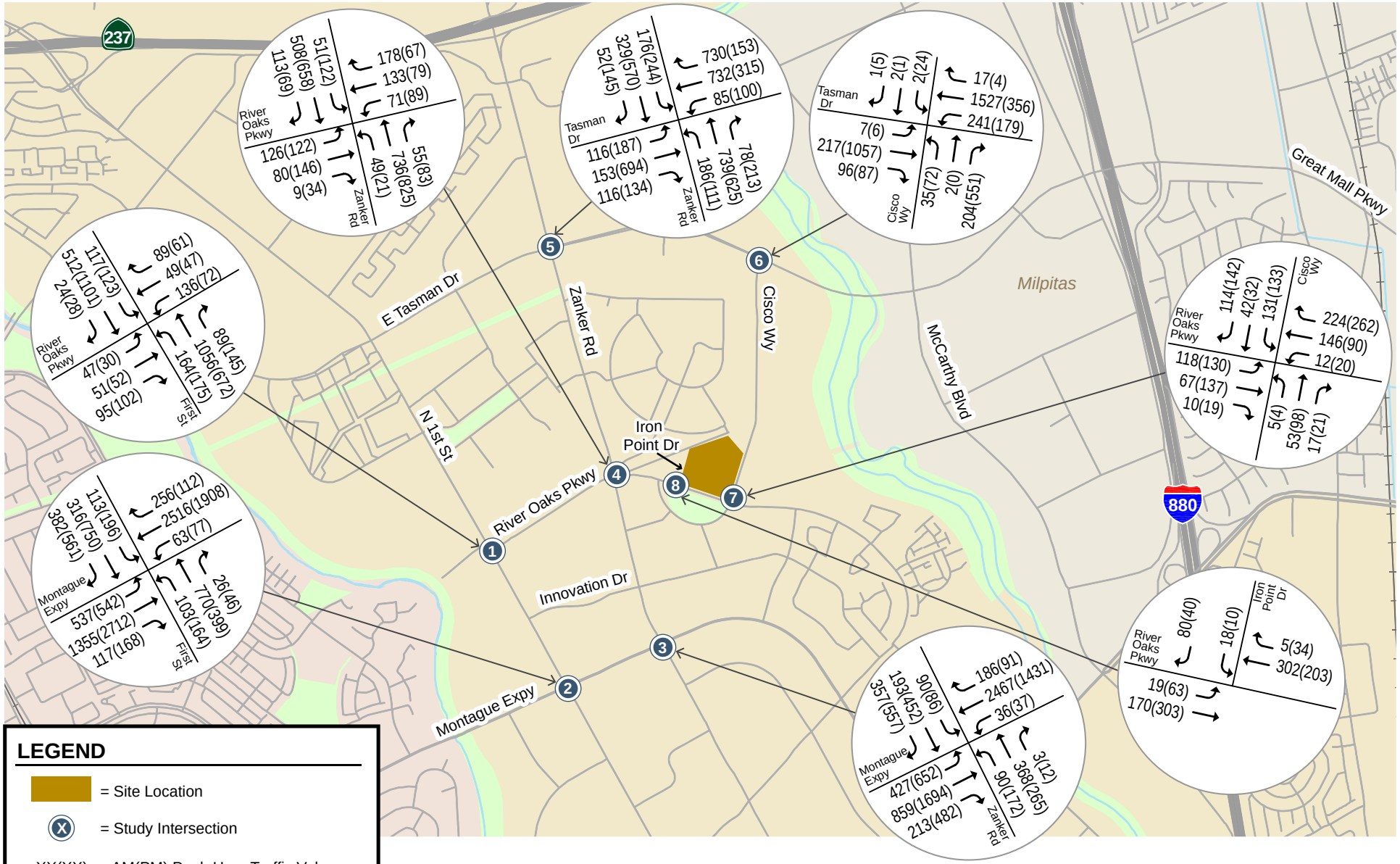


Figure 10
Background Plus Project Traffic Volumes

NORTH
Not to Scale

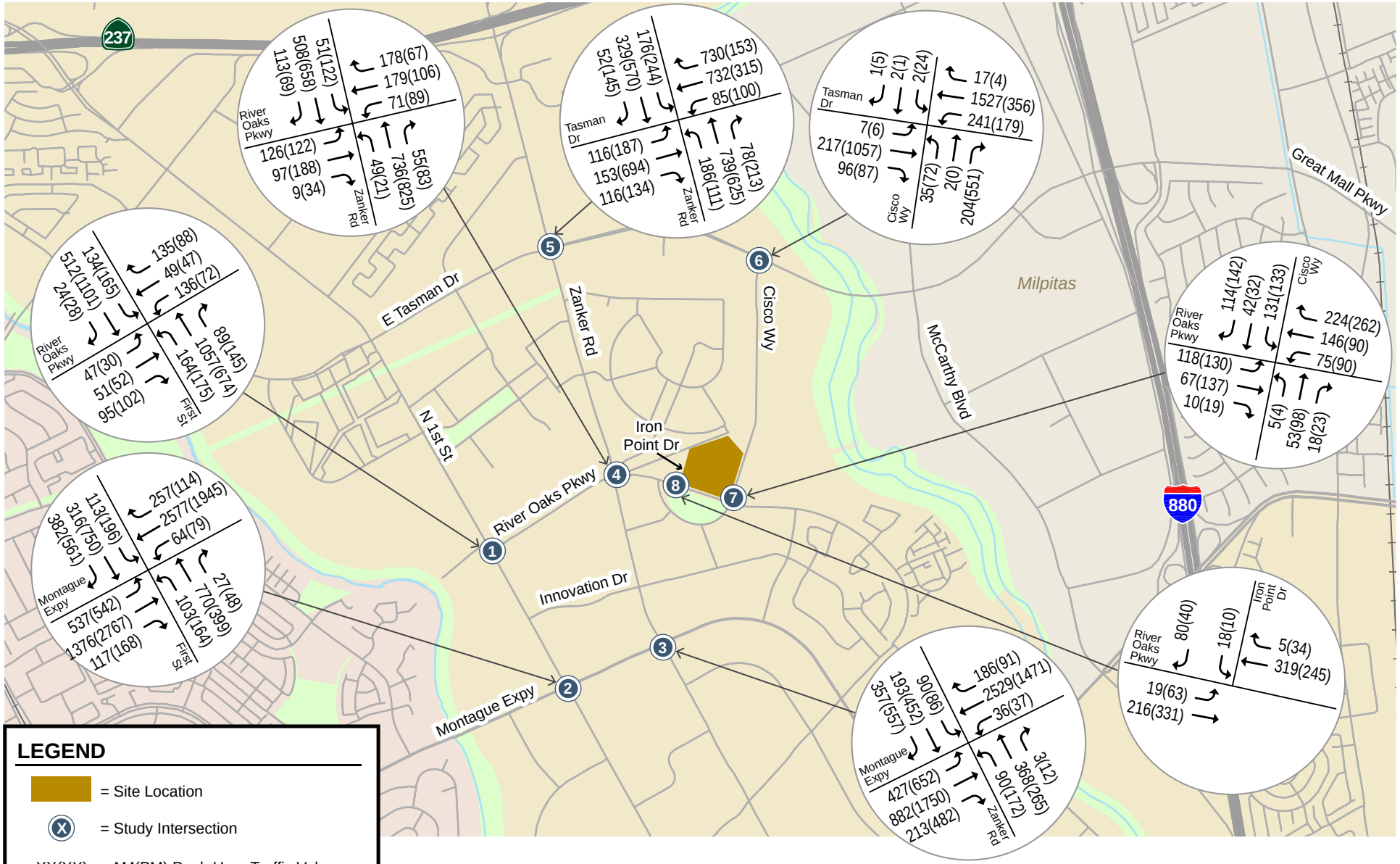


Figure 11
Cumulative Traffic Volumes

Signalized Intersection Traffic Operations

Signalized intersection levels of service were evaluated against the standards of the City of San Jose and VTA (for the CMP intersections). The results of the analysis show that all the signalized study intersections are currently operating at acceptable levels of service during the AM and PM peak hours of traffic and would continue to operate acceptably under background, background plus project, and cumulative conditions (see Table 4). The detailed intersection level of service calculation sheets are included in Appendix D.

Table 4
Intersection Level of Service Summary

					Existing		Background		Background Plus Project				Cumulative	
#	Signalized Intersection	Peak Hour	Count Date	LOS Std.	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Incr. In Crit. Delay (sec)	Incr. In Crit. V/C	Avg. Delay (sec)	LOS
1	North First St & River Oaks Pkwy	AM	4/9/2024	D	25.0	C	25.0	C	25.6	C	1.0	0.015	26.2	C
		PM	4/9/2024		24.5	C	24.4	C	24.6	C	0.3	0.006	25.4	C
2	North First St & Montague Expwy *	AM	4/9/2024	E	61.7	E	64.6	E	65.0	E	0.5	0.004	66.4	E
		PM	4/9/2024		63.5	E	66.5	E	66.8	E	0.3	0.004	67.2	E
3	Zanker Rd & Montague Expwy *	AM	4/9/2024	E	62.3	E	64.0	E	64.3	E	0.4	0.009	65.0	E
		PM	4/9/2024		45.3	D	49.3	D	49.9	D	0.8	0.005	49.7	D
4	Zanker Rd & River Oaks Pkwy	AM	4/9/2024	D	17.4	B	17.2	B	17.5	B	0.0	0.000	18.2	B
		PM	4/9/2024		17.5	B	16.2	B	16.9	B	0.8	0.008	17.9	B
5	Zanker Rd & Tasman Dr	AM	4/9/2024	D	31.4	C	34.2	C	34.4	C	0.3	0.009	34.4	C
		PM	4/9/2024		34.4	C	35.1	D	35.1	D	0.2	0.009	35.1	D
6	Cisco Wy & Tasman Dr	AM	4/9/2024	D	18.2	B	18.2	B	21.5	C	3.5	0.032	21.5	C
		PM	4/9/2024		36.4	D	36.4	D	38.3	D	2.5	0.045	38.3	D
7	Cisco Wy & River Oaks Pkwy	AM	4/9/2024	D	20.4	C	20.4	C	21.7	C	1.2	0.058	22.2	C
		PM	4/9/2024		21.0	C	21.0	C	22.0	C	1.2	0.059	22.4	C

Notes:
* Denotes a CMP intersection.

Intersection Queuing Analysis

The intersection queuing analysis (see Tables 5 and 6) is based on vehicle queuing for left-turn movements at intersections near the project site where the project would add a noteworthy number of trips (10 or more peak hour vehicle trips per lane). Based on the project trip distribution pattern and trip assignment, five intersections were evaluated as part of the queuing analysis. According to the queuing analysis, all the left-turn movements evaluated would provide adequate vehicle storage for the estimated vehicle queues under all traffic scenarios.

Unsignalized Intersection Evaluation – River Oaks Parkway and Iron Point Drive

Traffic conditions at the unsignalized study intersection of River Oaks Parkway and Iron Point Drive were evaluated to determine whether the project would create any operational issues. The project would add 10 new AM peak hour trips and 25 new PM peak hour trips to the eastbound left-turn movement, and 9 new AM peak hour trips and 5 new PM peak hour trips to the southbound left-turn movement at this intersection. The evaluation of the eastbound and southbound left-turn movements at the unsignalized study intersection is described below.

Table 5
Intersection Queuing Analysis Summary – AM Peak Hour

	Zanker Rd & River Oaks Pkwy		North First St & River Oaks Pkwy	Cisco Wy & Tasman Dr	Cisco Wy & River Oaks Pkwy	Iron Point Dr & River Oaks Pkwy	
Peak Hour:	SBL AM	WBL AM	WBL AM	WBL AM	EBL AM	SBL-R [3] AM	EBL [4] AM
Existing							
Cycle/Delay (sec) [1]	84	84	98	135	84	10.0	7.7
Volume (vphpl)	22	36	54	223	82	59	9
95th %. Queue (veh/ln.)	2	3	4	13	4	1	1
95th %. Queue (ft./ln) [2]	50	75	100	325	100	25	25
Storage (ft./ ln.)	250	150	200	350	150	150	100
Adequate (Y/N)	Y	Y	Y	Y	Y	Y	Y
Background							
Cycle/Delay (sec) [1]	84	84	98	135	84	10.0	7.7
Volume (vphpl)	22	36	54	223	82	59	9
95th %. Queue (veh/ln.)	2	3	4	13	4	1	1
95th %. Queue (ft./ln) [2]	50	75	100	325	100	25	25
Storage (ft./ ln.)	250	150	200	350	150	150	100
Adequate (Y/N)	Y	Y	Y	Y	Y	Y	Y
Background Plus Project							
Cycle/Delay (sec) [1]	84	84	98	135	84	11.1	7.9
Volume (vphpl)	26	71	68	241	118	98	19
95th %. Queue (veh/ln.)	2	4	4	14	6	1	1
95th %. Queue (ft./ln) [2]	50	100	100	350	150	25	25
Storage (ft./ ln.)	250	150	200	350	150	150	100
Adequate (Y/N)	Y	Y	Y	Y	Y	Y	Y

Notes:
[1] Vehicle queue calculations based on signal cycle length for signalized intersections and average approach delay for unsignalized intersections.
[2] Assumes 25 Feet Per Vehicle Queued.
[3] The SB intersection approach is a shared lane approach. The vehicle queues reported reflect the total SB L-R volume. The amount of storage on Iron Point Dr shown is the distance between River Oaks Pkwy and the entrance to the adjacent residential parking garage on the west side of Iron Point Dr.
[4] The EB intersection approach consists of a shared through/LT lane. However, adequate roadway width is provided for EB vehicles to pass vehicles waiting to turn left onto Iron Point Dr. The amount of EB LT storage on River Oaks shown is the distance between Iron Point Dr and Cres Village Cir.

Eastbound Left-Turn Movement Operations

Under existing and background conditions, the eastbound left-turn movement would operate with a delay of 7.7 seconds per vehicle during the AM peak hour and 7.6 seconds per vehicle during the PM peak hour. The project would have little effect on the left-turn vehicle delays, increasing the delays during the AM and PM peak hours to just 7.9 seconds per vehicle and 7.8 seconds per vehicle, respectively. These vehicle delays are considered very low delays.

Note that as part of the planned pedestrian network improvements identified in the TDM Plan prepared for the project, a new crosswalk would be installed on the west leg of the River Oaks Parkway/Iron Point Drive intersection. As proposed, the new crosswalk would be an enhanced crosswalk with Rectangular Rapid Flashing Beacons (RRFBs), bulb-outs, and ADA-compliant directional curb ramps. Therefore, although the new crosswalk on River Oaks Parkway would introduce the potential for pedestrian-vehicle conflicts, the enhanced design features would significantly improve pedestrian safety at the crosswalk. Note also that the new crosswalk would have a minimal effect on the eastbound left-turn vehicle queues described above.

Southbound Shared Left-Turn/Right-Turn Movement Operations

Under existing and background conditions, the southbound shared L-R movement would operate with a delay of 10.0 seconds per vehicle during the AM peak hour and 9.7 seconds per vehicle during the PM peak hour. The project would have little effect on the vehicle delays, increasing the delays during the AM and PM peak hours to just 11.1 seconds per vehicle and 10.5 seconds per vehicle, respectively. These vehicle delays are considered low delays.

Table 6
Intersection Queuing Analysis Summary – PM Peak Hour

	Zanker Rd & River Oaks Pkwy		North First St & River Oaks Pkwy	Cisco Wy & Tasman Dr	Cisco Wy & River Oaks Pkwy	Iron Point Dr & River Oaks Pkwy	
Peak Hour:	SBL PM	WBL PM	WBL PM	WBL PM	EBL PM	SBL-R [3] PM	EBL [4] PM
Existing							
Cycle/Delay (sec) [1]	84	84	98	135	84	9.7	7.6
Volume (vphpl)	52	69	26	134	95	27	38
95th %. Queue (veh/ln.)	3	4	2	9	5	1	1
95th %. Queue (ft./ln) [2]	75	100	50	225	125	25	25
Storage (ft./ ln.)	250	150	200	350	150	150	100
Adequate (Y/N)	Y	Y	Y	Y	Y	Y	Y
Background							
Cycle/Delay (sec) [1]	84	84	98	135	84	9.7	7.6
Volume (vphpl)	52	69	28	134	95	27	38
95th %. Queue (veh/ln.)	3	4	2	9	5	1	1
95th %. Queue (ft./ln) [2]	75	100	50	225	125	25	25
Storage (ft./ ln.)	250	150	200	350	150	150	100
Adequate (Y/N)	Y	Y	Y	Y	Y	Y	Y
Background Plus Project							
Cycle/Delay (sec) [1]	84	84	98	135	84	10.5	7.8
Volume (vphpl)	61	89	36	179	130	50	63
95th %. Queue (veh/ln.)	4	5	3	11	6	1	1
95th %. Queue (ft./ln) [2]	100	125	75	275	150	25	25
Storage (ft./ ln.)	250	150	200	350	150	150	100
Adequate (Y/N)	Y	Y	Y	Y	Y	Y	Y

Notes:
[1] Vehicle queue calculations based on signal cycle length for signalized intersections and average approach delay for unsignalized intersections.
[2] Assumes 25 Feet Per Vehicle Queued.
[3] The SB intersection approach is a shared lane approach. The vehicle queues reported reflect the total SB L-R volume. The amount of storage on Iron Point Dr shown is the distance between River Oaks Pkwy and the entrance to the adjacent residential parking garage on the west side of Iron Point Dr.
[4] The EB intersection approach consists of a shared through/LT lane. However, adequate roadway width is provided for EB vehicles to pass vehicles waiting to turn left onto Iron Point Dr. The amount of EB LT storage on River Oaks shown is the distance between Iron Point Dr and Cres Village Cir.

Signal Warrants

Traffic conditions at the unsignalized study intersection of River Oaks Parkway and Iron Point Drive 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). The results of the signal warrant check indicate that the AM and PM peak hour volumes at the unsignalized intersection currently do not meet the signal warrant and would not meet the warrant with the addition of project trips. The signal warrant sheets are included in Appendix E.

Metered Freeway Ramp Operations

An evaluation of metered freeway on-ramps providing access to I-880 and SR 237 from the project site was performed to identify any existing queuing issues at the on-ramps and to evaluate the effects of the addition of project traffic on the metered on-ramp operations. The two I-880 on-ramps from Tasman Drive have active metering lights during both the AM and PM peak hours. At the Zanker Road/SR 237 interchange, the eastbound diagonal on-ramp has an active meter during the PM peak hour only. The SR 237 westbound loop on-ramp from Zanker Road is not actively metered during either the AM or PM peak hour. Table 7 presents the existing freeway on-ramp data collected in the field.

Table 7
Existing Freeway On-Ramp Evaluation

			# of Lanes				Both Mixed-Flow Lanes					HOV Lane				
#	Freeway Ramp	Peak Hour	MF	HOV	Count Date	Meter Status	Storage Capacity (veh.)[1]	Max Queue Length (veh.)	% of Capacity	Meter Rate (veh/s)	Wait Time (min:sec)	Storage Capacity (veh.)	Max Queue Length (veh.)	% of Capacity	Meter Rate (veh/s)	Wait Time (min:sec)
1	SR 237 WB Loop On-Ramp from Zanker Rd	AM	2	0	6/18/24	Off	--	--	--	--	--	--	--	--	--	--
		PM			6/18/24	Off	--	--	--	--	--	--	--	--	--	--
2	SR 237 EB Diagonal On-Ramp from Zanker Rd	AM	2	1	6/18/24	Off	--	--	--	--	--	--	--	--	--	--
		PM			6/18/24	On	58	25	43%	5.3	02:12.5	29	5	17%	5.0	00:25.0
3	I-880 NB Loop On-Ramp from Tasman Dr	AM	2	0	6/18/24	On	66	6	9%	5.3	00:31.8	--	--	--	--	--
		PM			6/18/24	On	66	16	24%	6.3	01:40.8	--	--	--	--	--
4	I-880 SB Diagonal On-Ramp from Tasman Dr[2]	AM	2	0	6/18/24	On	58	4	7%	4.0	00:16.0	--	--	--	--	--
		PM			6/18/24	On	58	3	5%	4.0	00:12.0	--	--	--	--	--

Notes:
[1] Assumed 25 feet per vehicle
[2] Meter rates at this ramp during the AM and PM were assumed to be the Caltrans maximum of 900 vph per ramp due to insufficient vehicle volume for accurate measurements.

Queuing at the Metered Freeway On-Ramps

Based on field observations, vehicle queuing at the metered freeway on-ramps was minimal and no operational issues were observed during either the AM or PM peak commute periods. Based on the project trip distribution pattern, the project would add just 5 PM peak hour trips to the SR 237 eastbound diagonal on-ramp from Zanker Road. The project would add 18 AM peak hour trips and 10 PM peak hour trips to both the northbound and southbound I-880 on-ramps from Tasman Drive. The relatively low number of project generated trips would have a negligible effect on vehicle queues at the SR 237 and I-880 metered on-ramps.

Site Access and On-Site Circulation

The site access evaluation is based on the November 1, 2023 site plan prepared by Studio T Square (see Figure 2). Site access was evaluated to determine the adequacy of the site's driveways with regard to the following: traffic volume, geometric design, sight distance, and operations (e.g., queuing and delay). On-site vehicular circulation and parking layout were reviewed in accordance with generally accepted traffic engineering standards and transportation planning principles.

Driveway Design and Operations

As proposed, the project would provide seven (7) full-access driveways. One driveway on River Oaks Parkway and one driveway on Cisco Way would provide full access to the parking garage serving the market-rate apartments. Two driveways on Cisco Way and one driveway on Iron Point Drive would provide full access to the townhomes. One driveway on Iron Point Drive would provide full access to the parking garage serving the affordable apartments, and an additional driveway on Iron Point Drive would provide access to a small loading area for the affordable apartments. The proposed driveway widths are as follows:

- River Oaks Parkway DW (serves market-rate apartments garage) = 26 ft wide, narrows to a 20-ft-wide garage entrance
- Southern DW on Cisco Way (serves market-rate apartments garage) = 26 ft wide, narrows to a 20-ft-wide garage entrance
- Central DW on Cisco Way (serves townhomes) = 26 ft wide
- Northern DW on Cisco Way (serves townhomes) = 26 ft wide, narrows to a 22-ft-wide drive aisle
- Southern DW on Iron Point Drive (serves affordable apartments garage) = 26 ft wide, narrows to a 20-ft-wide garage entrance
- Central DW on Iron Point Drive (serves affordable apartments loading zone) = 26 ft wide
- Northern DW on Iron Point Dr (serves townhomes) = 26 ft wide, narrows to 22-ft-wide drive aisle

According to the City of San Jose Department of Transportation (DOT) Geometric Design Guidelines, the typical width for a two-way driveway that serves a multi-family residential development is 26 feet wide. This provides adequate width for vehicular ingress and egress and provides a reasonably short crossing distance for pedestrians. All seven driveways would meet the City's design standard for residential driveways (26 feet wide with standard curb cuts).

The project-generated trips that are estimated to occur at the project driveways are shown on Figure 12. Based on field observations, adequate gaps in traffic along River Oaks Parkway and Cisco Way would exist to allow left turns to and from the project driveways with minimal delay. In addition, adequate width would exist to allow vehicles to pass by any stopped vehicles waiting to turn left into the project site from either roadway. Thus, operational issues related to vehicle queuing or delays at the project driveways are not expected to occur.

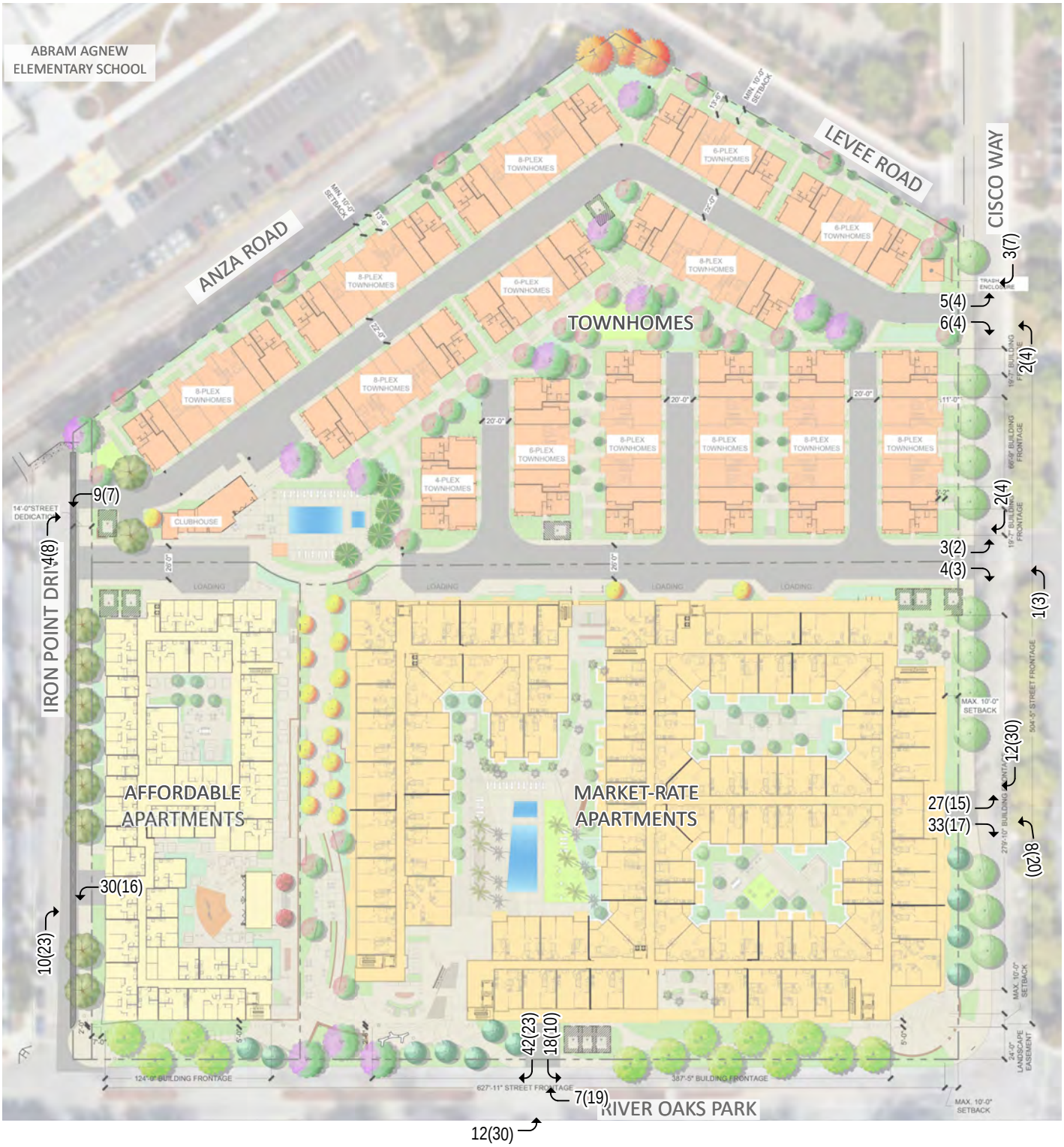
The City typically requires developments to provide adequate on-site stacking space for at least two inbound vehicles (40 to 50 feet) between the face of curb and any entry gates or on-site drive aisles or parking spaces. This prevents vehicles from queuing onto the street and potentially blocking traffic. The site plan shows two 90-degree parking spaces located near the northernmost driveway on Iron Point Drive that would serve the townhomes (see Figure 2). Both guest spaces are located within 50 feet of the face of curb on Iron Point Drive. However, since this driveway is situated at the end of a cul-du-sac, these two on-site parking spaces would not be expected to create any operational issues. City of San Jose Department of Transportation staff have reviewed the site plan and agree with this determination.

Based on the City's requirement for inbound vehicle stacking space, the project should remove one 90-degree parking space located near the driveway on Iron Point Drive that would serve the affordable apartments (see Figure 15).

Recommendation: The project should remove one 90-degree parking space located near the affordable apartment parking garage entrance to provide adequate inbound stacking space (room for two vehicles).

Security Gates at the Garage Entrances

The site plan shows security gates at the 20-foot-wide entrances to the parking garages serving the market-rate apartments on Cisco Way and the affordable apartments on Iron Point Drive. There is no security gate at the entrance to the market-rate garage on River Oaks Parkway, since this entrance would also serve guests. The project should make a reasonable effort to avoid inbound queuing issues at the garage entrances with security gates. The security gate serving the market-rate apartments would be situated approximately 42 feet from the face of curb on Cisco Way, which would provide adequate queuing space for two standard inbound vehicles. The security gate serving the affordable apartments would be situated only about 23 feet from the face of curb on Iron Point Drive. Since this security gate cannot be relocated farther inside the garage, it could be kept open during the periods of the day when most inbound vehicle trips are likely to occur to avoid potential queuing issues.



LEGEND

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

Figure 12
Project Trips at the Driveways

Alternatively, some street parking along the project frontage on Iron Point Drive could be eliminated (i.e., red curb added) to provide additional inbound queuing space, thereby avoiding the need to keep the security gate serving the affordable apartments open during certain periods of the day.

Recommendation: To avoid potential inbound vehicle queuing issues at the entrance to the affordable apartments garage, the project should either keep the security gate open during the periods of the day when most inbound vehicle trips occur (to be determined based on observations), or eliminate some street parking along the project frontage on Iron Point Drive (i.e., add red curb south of the garage entrance) to provide additional inbound queuing space.

List of Project Frontage Improvements

The project would provide the following frontage improvements:

- Street dedication for a sidewalk and street parking along Iron Point Drive.
- Construct a missing piece of the landscaped median island (approximately 80 feet in length) along River Oaks Parkway.
- Update the existing standard crosswalks at the Cisco Way/River Oaks Parkway intersection from white striping to high-visibility yellow ladder striping due to the proximity of the Agnew campus schools.
- Add a new 10-foot-wide sidewalk with tree wells along the project frontage on Iron Point Drive and install a sidewalk at the terminus of Iron Point Drive to connect the project to the existing pedestrian entrance that serves the Agnew campus schools.
- Reconstruct the sidewalk along the project frontage on River Oaks Parkway and retain the 6-foot meandering sidewalk design.
- Reconstruct the northeast corner of the Iron Point Drive/River Oaks Parkway intersection to include an ADA compliant directional curb ramp and a half bulb-out along the Iron Point Drive frontage only (no bulb-out on River Oaks Parkway).

Sight Distance

According to the site plan, the project is proposing to retain some trees and add new trees along the project frontages on River Oaks Parkway, Cisco Way and Iron Point Drive. Any new street trees added along the project frontages should be planted and maintained so that their canopies are at least 6 feet off the ground to ensure the vision of exiting drivers is not blocked.

Parking is currently prohibited along the project frontages on River Oaks Parkway, Cisco Way, and Iron Point Drive. The project should maintain the no parking zones along River Oaks Parkway and Cisco Way to ensure adequate sight distance is provided at those project driveways. The site plan shows the project would provide/add on-street parking along the project frontage (east side) of Iron Point Drive. Accordingly, the project should establish no parking zones adjacent to the project driveways on Iron Point Drive to provide adequate sight distance.

Recommendation: The project should establish 25-foot-long no parking zones (painted red curb) between the northern and central driveways, south of the central driveway, and south of the southern driveway on Iron Point Drive to ensure adequate sight distance is provided at these driveways along the project frontage.

Providing the appropriate sight distance reduces the likelihood of a collision at a driveway or intersection and provides drivers with the ability to locate sufficient gaps in traffic. Sight distance generally should be provided in accordance with Caltrans standards. The minimum acceptable sight

distance is often considered the Caltrans stopping sight distance. Sight distance requirements vary depending on the roadway speeds. For River Oaks Parkway and Cisco Way, which both have a speed limit of 35 mph, the Caltrans stopping sight distance is 300 feet (based on a design speed of 40 mph). This means a driver must be able to see 300 feet down each street in both directions to locate a sufficient gap to turn out of any project driveway. For Iron Point Drive, which has a speed limit of 25 mph, the Caltrans stopping sight distance is 200 feet (based on a design speed of 30 mph). Providing adequate stopping sight distance also gives drivers traveling along these streets adequate time to react to vehicles exiting the project driveways. Adequate stopping sight distance would be provided at all seven project driveways.

On-Site Vehicular Circulation and Parking Layout

On-site vehicular circulation was reviewed in accordance with generally accepted traffic engineering standards and City of San Jose design guidelines.

Townhomes Circulation

The project would construct internal two-way drive aisles that would provide access to each townhome (see Figure 2 in Chapter 1). A standard two-car garage is proposed for each townhome, and 13 surface parking spaces are proposed for guests. The City's standard minimum width for two-way drive aisles is 24 feet wide where 90-degree parking is provided. This allows sufficient room for vehicles to back out of the parking spaces.

The northernmost drive aisle measures 22 feet wide and contains all 13 guest parking spaces. The drive aisle would provide direct access to approximately 60% of the townhomes. The northern drive aisle would provide adequate two-way vehicular circulation for residents and guests. Though two feet narrower than the City's standard width, the 22-foot-wide drive aisle would provide adequate room for vehicles to back out of the 90-degree guest parking spaces since the 90-degree spaces are located on only one side (south side) of the drive aisle.

The southern drive aisle measures 26 feet wide and would provide access to three separate loading zones, as well as three intersecting dead-end drive aisles. The dead-end drive aisles would provide direct access to the remaining 40% of the townhomes. The dead-end drive aisles each measure 20 feet wide and would serve as hammerhead turnarounds for large vehicles, including trucks and emergency vehicles. Since the 20-foot-wide drive aisles would not contain any parking, they would provide adequate two-way circulation.

Market-Rate Apartments Circulation

Access to the first level of the parking garage serving the market-rate apartments would be provided via one full-access driveway on River Oaks Parkway and one full-access driveway on Cisco Way (see Figure 13). Both garage entrances are shown to be 20 feet wide and would provide access to 24-foot-wide internal drive aisles. The site plan shows 90-degree parking spaces throughout the garage. The City's standard minimum width for two-way drive aisles is 24 feet wide where 90-degree parking is provided. This allows sufficient room for vehicles to back out of the parking spaces. Thus, the two-way drive aisles within the parking garage would meet the City's minimum standard for drive aisle width.

Garage Ramp Slope

The internal garage ramp providing access to parking level 2 would be situated near the Cisco Way entrance. 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 site plan shows no parking along the internal garage ramp and indicates a ramp grade of 15% and transition grades of 7.5%. Thus, the slope of the garage ramp is consistent with typical engineering design standards.

Figure 13
Market-Rate Apartments Level 1 Parking Plan

NORTH
Not to Scale

The internal garage ramp described above is shown to be 24 feet wide. The internal drive aisles on parking level 2 are also shown to be 24 feet wide (see Figure 14). Accordingly, the drive aisles on the second parking level would meet the City's 24-foot minimum width for two-way drive aisles containing 90-degree parking.

Dead-End Drive Aisles

Parking level one would contain 5 dead-end drive aisles, and parking level two would have 3 dead-end drive aisles (see Figures 13 and 14). Although dead-end drive aisles are common in residential parking garages and adequate room to turn around or back out of parking spaces is provided at most of the dead-end drive aisles, there are 4 parking spaces on the first level of the garage where adequate space to back out is not provided. On the first parking level, the 2 spaces situated at the end of the northernmost east-west oriented dead-end drive aisle should be removed. Both dead-ends of the north-south oriented drive aisle situated on the east side of the garage would contain a parking space that would be difficult to back out of. Accordingly, 1 space should be removed from the north end and 1 space should be removed from the south end. Removing these 4 spaces from the parking garage serving the market-rate apartments (shown on Figure 13) would ensure adequate room would be provided to back out of all the parking spaces.

Recommendation: The project should remove 4 parking spaces from the first level of the market-rate apartments garage to ensure adequate room would be provided to back out of all the parking spaces in the garage.

Affordable Apartments Circulation

Access to the ground level parking garage serving the affordable apartments would be provided via one full-access driveway on Iron Point Drive (see Figure 15). The garage entrance is shown to be 20 feet wide and would provide access to 24-foot-wide internal drive aisles. The site plan shows 90-degree parking spaces throughout the garage. As proposed, the drive aisles would meet the City's 24-foot minimum width standard for two-way drive aisles containing 90-degree parking.

Dead-End Drive Aisles

The parking garage serving the affordable apartments would contain 4 dead-end drive aisles (see Figure 15). Dead-end drive aisles are common in residential parking garages and adequate room to back out of the parking spaces is provided at all the dead-end drive aisles.

Parking Stall Dimensions

The City's off-street parking design standards for uniform parking stalls are 8.5 feet wide by 17 feet long. All the non-accessible parking stalls located within the market-rate and affordable residential parking garages are shown to be 9 feet wide by 18 feet long and would meet the uniform parking stall 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 current ADA parking stall design requirements.

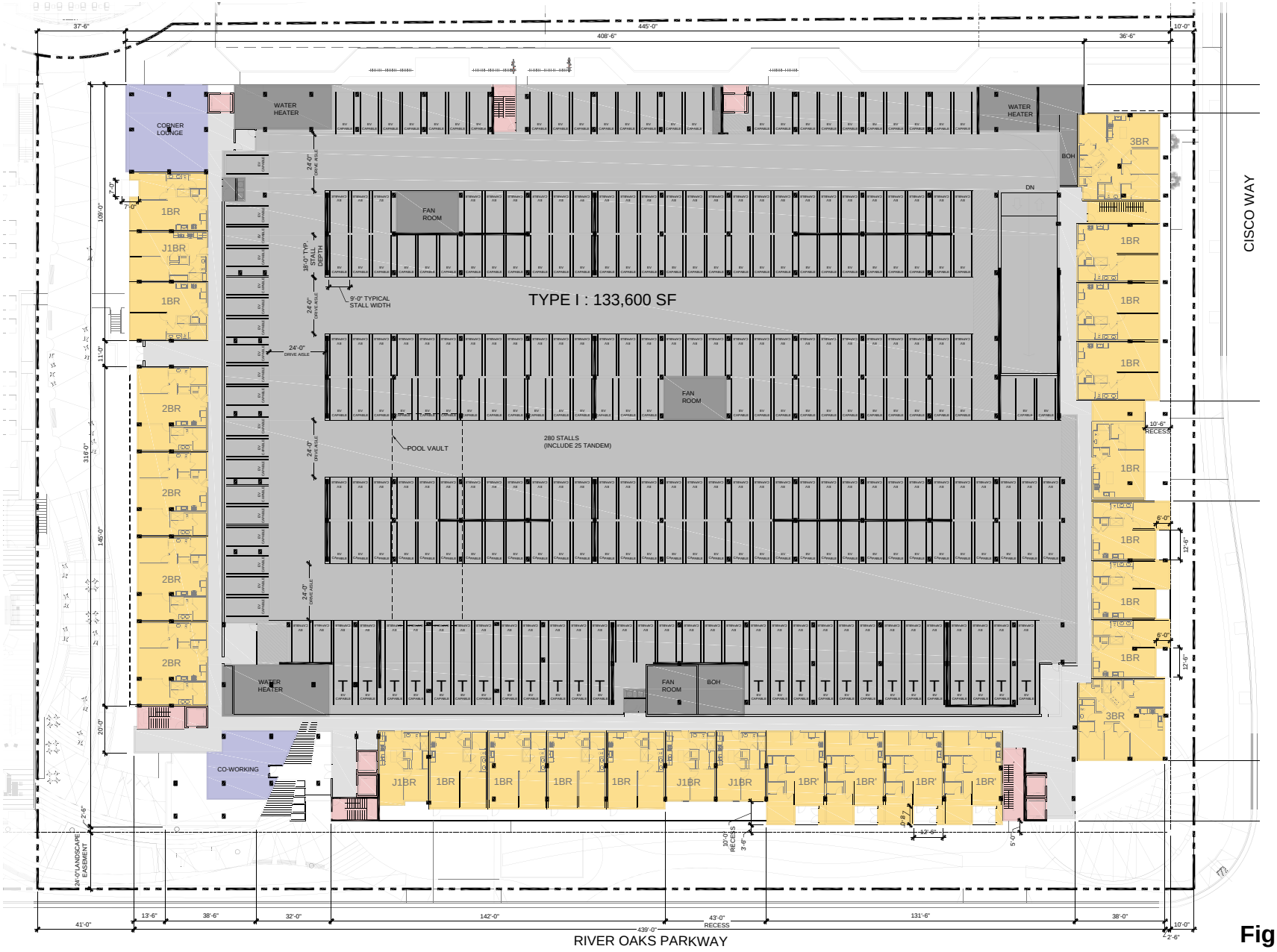


Figure 14
Market-Rate Apartments Level 2 Parking Plan

NORTH
Not to Scale

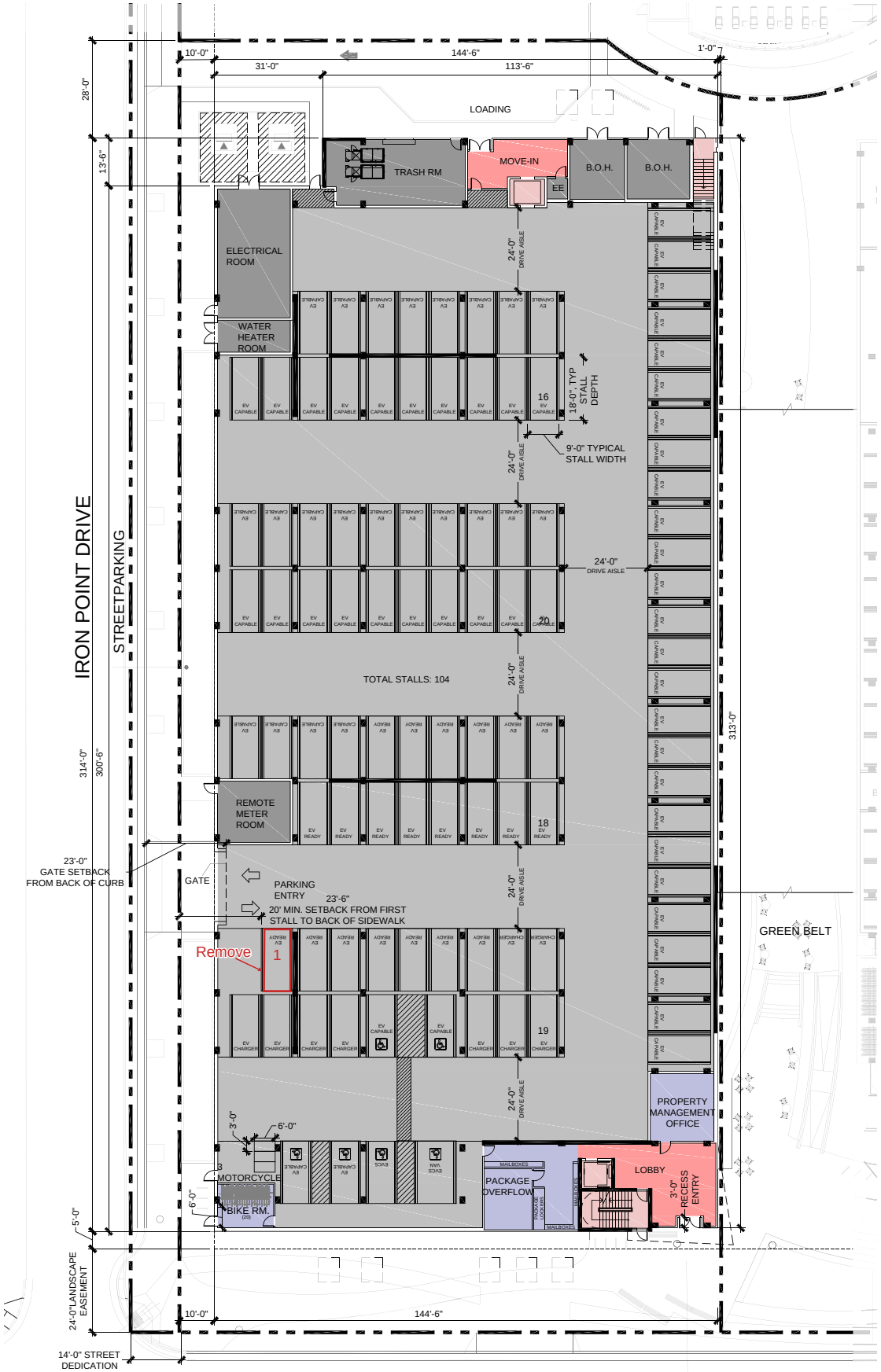


Figure 15
Affordable Apartments Level 1 Parking Plan

NORTH
Not to Scale

Truck Access and Circulation

The project site plan was reviewed for truck access including delivery and moving trucks, garbage trucks and emergency vehicles, as described below.

Residential Move-In and General Loading Operations

The site plan shows multiple on-site loading spaces would be provided for the apartments. The centrally located driveway on Cisco Way would provide access to three loading spaces serving the market-rate apartments. The centrally located driveway on Iron Point Drive would provide access to one loading space serving the affordable apartments. All four loading spaces are shown to be 40 feet long by 10 feet wide. According to the City of San Jose Zoning Regulations, off-street loading spaces must be no less than 10 feet wide by 30 feet long by 15 feet high, exclusive of driveways for ingress and egress and maneuvering areas. Since the loading spaces would be located outside the buildings, adequate overhead clearance would be provided. Thus, the loading spaces would meet the City's minimum requirements for loading space dimensions.

Garbage Collection

The trash staging areas are located on-site with access provided via the northern and central driveways on Cisco Way and the central driveway on Iron Point Way. Accordingly, all garbage collection activities would occur on-site.

Emergency Vehicle Access

The City of San Jose Fire Department requires that all portions of a building be within 150 feet of a fire department access road, requires a minimum 6-foot-wide clear and unobstructed path of travel along all sides of the building, requires at least 13.5 feet of vertical clearance, and requires driveways to provide at least 20 feet of width for fire access. The project applicant is coordinating with the City of San Jose Fire Department to guarantee the project will be in compliance with these access requirements.

City of San Jose staff have indicated the need to address whether an EVA driveway is necessary at the terminus of Iron Point Drive to connect the project to the existing Agnew school access road. Based on field observations, multiple utilities exist between Iron Point Drive and the school access road, as well as a sidewalk/path and a bioretention swale. The City of San Jose Fire Department has provided the project applicant with an email stating that fire access (EVA) at the project driveway near the terminus of Iron Point Drive would be adequate. Therefore, an EVA driveway at the terminus of Iron Point Drive would not be necessary.

Truck Turning Templates

The driveways serving the townhomes and the on-site loading spaces for the apartments were reviewed for truck access using the truck turning-movement template for a SU-30 truck type, which represents typical moving trucks, large delivery trucks, garbage trucks, and various emergency vehicles. Based on the driveway and on-site private street and drive aisle configurations, adequate site access and on-site circulation would be provided for SU-30 trucks (see Figure 16).

Parking

The City of San Jose recently amended Title 20 of the Municipal Code to remove citywide minimum off-street vehicle parking requirements for developments, with the exception of single-family properties and areas where the City has defined contractual agreements regarding parking supply. The changes are intended to encourage the use of alternative modes of transportation, thereby reducing VMT and greenhouse gas emissions. All projects requiring a development permit that are not exempt per Section 20.90.900.B of the San Jose Municipal Code are required to adhere to the new parking ordinance, which includes new mandatory TDM requirements.

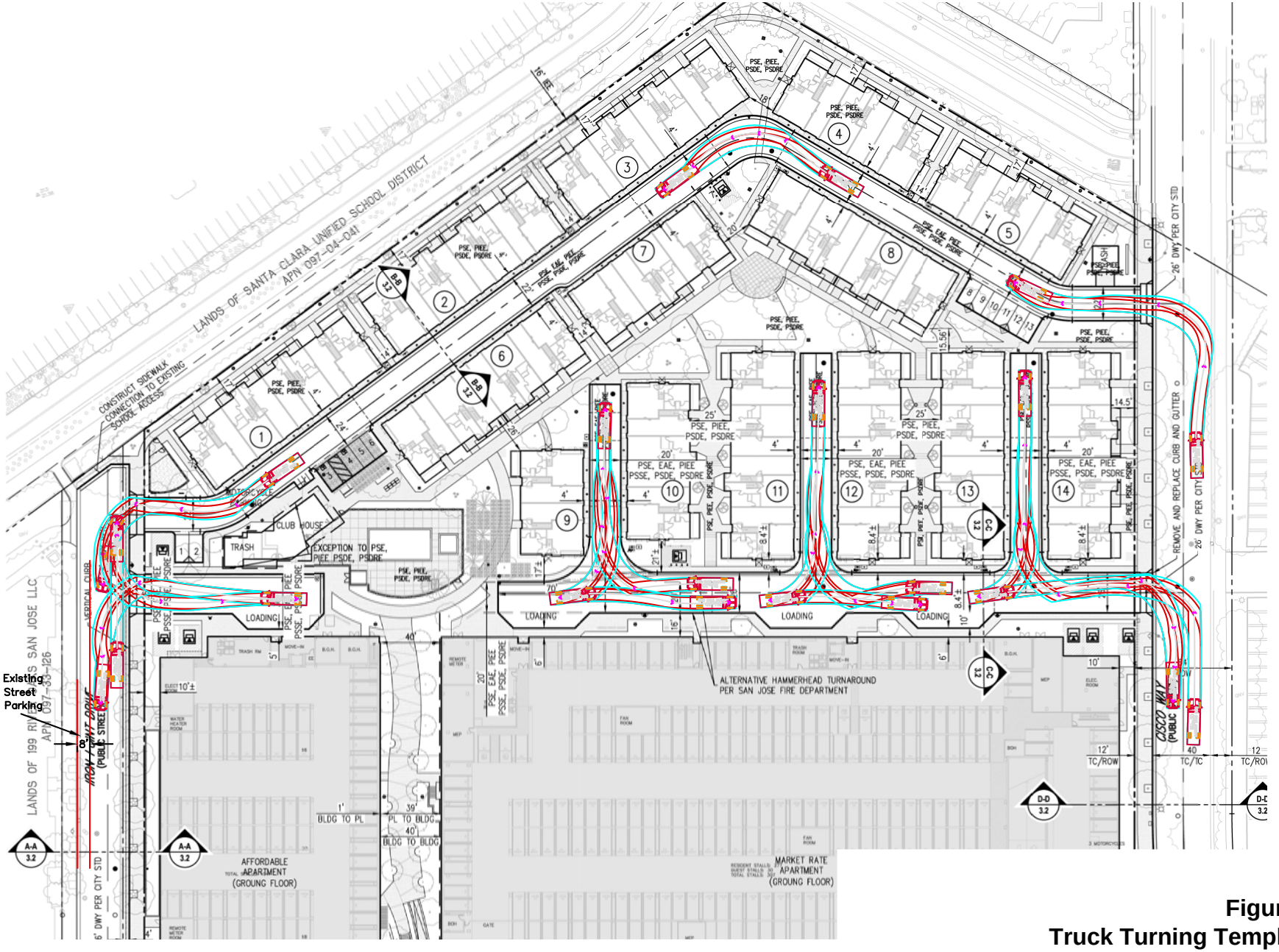


Figure 16
Truck Turning Templates

NORTH
Not to Scale

The removal of vehicle parking requirements and addition of TDM requirements are intended to improve consistency with Climate Smart San Jose and the Envision San Jose 2040 General Plan transportation and land use goals. Developers have the flexibility to determine the appropriate number of vehicle parking spaces based on a project's specific needs and market conditions, rather than based on a minimum number of spaces determined by the City.

Though minimum vehicle parking requirements have been removed, Chapter 20.90 of the City's new Municipal Code continues to maintain existing minimum bicycle parking requirements for most land uses. Multifamily residential land uses are required to provide one bicycle parking space for every 4 dwelling units. Also included in the Municipal Code are new minimum parking requirements for "two-wheeled motorized vehicles", as opposed to "motorcycles", since not all licensed two-wheeled vehicles are considered motorcycles. The update requires most developments to provide two-wheeled motorized vehicle parking equal to 2.5% of the total vehicle parking provided.

Proposed Vehicle Parking Supply

As proposed, the project would provide a total of 904 vehicle parking spaces as follows:

- Townhomes – 200 parking spaces (100 individual two-car garages) + 13 guest parking spaces
- Market-Rate Apartments – 587 parking spaces (two parking levels, including 30 guest spaces)
- Affordable Apartments – 104 parking spaces (ground level garage)

Proposed Bicycle and Two-Wheeled Motorized Vehicle Parking

Market-Rate Apartments

According to the City of San Jose's bicycle parking requirement described above, the market-rate apartments are required to provide 127 bicycle parking spaces based on a total of 505 dwelling units. The current site plan shows the project would provide 64 long-term bicycle parking spaces in a secure bike room plus 113 short-term bicycle spaces (bike racks) to serve the market-rate apartment building, which would meet the City's residential bicycle parking requirement. The short-term bicycle spaces would be distributed around the site near the building entrances.

According to the City of San Jose's two-wheeled motorized vehicle parking requirement described above, the project is required to provide 15 two-wheeled motorized parking spaces, based on 587 vehicle parking spaces provided for the market-rate apartment building. The project would provide 15 two-wheeled motorized vehicle parking spaces within the parking garage serving the market-rate apartments, which would meet the City's two-wheeled motorized vehicle parking requirement.

Affordable Apartments

According to the City of San Jose's bicycle parking requirement described above, the affordable apartments are required to provide 33 bicycle parking spaces based on 132 dwelling units. The current site plan shows the project would provide 20 long-term bicycle parking spaces in a secure bike room plus 28 short-term bicycle spaces (bike racks) to serve the affordable apartment building, which would meet the City's residential bicycle parking requirement. The short-term bicycle spaces would be distributed around the site near the building entrances.

According to the City of San Jose's two-wheeled motorized vehicle parking requirement described above, the project is required to provide 3 two-wheeled motorized parking spaces, based on 104 vehicle parking spaces provided for the affordable apartment building. The project would provide 3 two-wheeled motorized vehicle parking spaces within the parking garage serving the affordable apartments, which would meet the City's two-wheeled motorized vehicle parking requirement.

TDM Requirements

To be consistent with the goals of the Envision 2040 General Plan and the Climate Smart San Jose Plan, the project is required to provide Transportation Demand Management (TDM) measures to meet its "TDM Points Target" as detailed in the City's new Parking and TDM Ordinance. The project's TDM requirements are described in detail in Chapter 4.

Construction Activities

Typical activities related to the construction of any development could include lane narrowing and/or lane closures, sidewalk and pedestrian crosswalk closures, and bike lane closures. In the event of any type of closure, clear signage (e.g., sidewalk closure and detour signs) must be provided to ensure vehicles, pedestrians and bicyclists are able to adequately reach their intended destinations safely. 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.

Neighborhood Interface

Based on the project trip distribution pattern, approximately 56 percent of project generated trips would travel along River Oaks Parkway between Zanker Road and the project site and about 2 percent would utilize Research Place between Montague Expressway and River Oaks Parkway. Average daily traffic (ADT) volumes and speed data were collected along these roadway segments at the City's request. The tube counts were conducted between April 9th - 15th, 2024. The ADT volumes and 85th percentile vehicle speeds for these two roadway segments are summarized in Table 8. The data included in the table are for Tuesday, Wednesday and Thursday only (i.e., typical weekdays). The raw daily traffic count data, which include the other days of the week, are presented in Appendix A.

Table 8
Average Daily Traffic Volumes and Vehicle Speeds

ID	Street	Street Segment	Speed Limit	85th % Speed (Avg. of Both Directions)	Existing ADT [1]	Daily Project Trips	% Vol Increase
1	River Oaks Pkwy	Btwn Zanker Rd & Iron Point Dr	35 mph	39.2 mph	4,248	1,618	38.1%
2	Research Pl	Btwn Montague Expwy & River Oaks Pkwy	30 mph	32.5 mph	2,516	29	1.2%

Note:
1. ADT = average daily traffic in vehicles per day. ADT shown is 3-day average (Tue, Wed, Thu). Daily volume and speed data collected April 9th - 11th, 2024.

The City of San Jose defines "cut-through traffic" as traffic that is using a local residential street to avoid arterial or major collector roadways and is not traffic that has an origin or destination within the immediate neighborhood. Accordingly, the trips added to the streets that were counted would not be considered cut-through traffic since the origin and destination is located within the neighborhood.

Based on the speed data and the City of San Jose's definition of an acceptable speed for local streets, the existing 85th percentile vehicle speeds on River Oaks Parkway and Research Place are within the acceptable limit and would not be considered for a traffic calming project.

Note that the definition of an acceptable amount of traffic on a local residential street, such as Research Place, is subjective and depends on many factors such as street width, presence of on-street parking, building setback, number of driveways, and whether the local residential street provides access to major roadways. In addition, 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. However, the City does have a Traffic Calming Policy (Council Policy 5-6) that establishes procedures to address concerns regarding neighborhood traffic. According to Council Policy 5-6: "It is the policy of the City of San Jose to minimize the negative effects associated with traffic on all streets, particularly within residential neighborhoods and near schools, by applying education, enforcement, and sound engineering solutions developed with strong community involvement."

Potential Cut-Through Route

According to the project site plan, a new private street serving the townhomes would connect Cisco Way to Iron Point Drive. The location of the northernmost project driveway on Iron Point Drive would be situated near the existing entrance to the parking garage serving the adjacent Aire Apartments. Thus, some residents of the existing Aire Apartments may choose to utilize the new private street since it would provide a more direct route between Cisco Way and the Aire parking garage on Iron Point Drive. For this reason, the project should install signage at both driveways indicating the new street is a private street for use by residents of the townhomes only. If it is determined that the private street is being utilized as a cut-through route, additional traffic calming measures (e.g., speed humps) may need to be implemented.

Pedestrian, Bicycle and Transit Evaluation

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

Crosswalks with pedestrian signal heads and push buttons are located at the signalized intersections in the study area. Curb ramps with truncated domes are also provided at all intersection crosswalks near the site. An entrance to the Coyote Creek multi-use trail is provided northeast of the project site via Tasman Drive, and an entrance to the Guadalupe River multi-use trail is provided west of the project site via River Oaks Parkway. Both trail entrances are located a ¾-mile walk from the site. The existing pedestrian facilities provide adequate connectivity between the project site and nearby transit stops and other points of interest.

The site plan indicates that the existing 8-foot-wide sidewalk along the project frontage on Cisco Way would be retained. The project would reconstruct the sidewalk along the project frontage on River Oaks Parkway but would retain the 6-foot meandering sidewalk design. The project would add a new 10-foot-wide sidewalk with tree wells along the project frontage on Iron Point Drive. The site plan also shows the project would install a sidewalk at the terminus of Iron Point Drive to connect the project to the adjacent Agnew school campus.

The sidewalks surrounding the site would provide access to the residential lobbies, including the property management and leasing offices, mail rooms, secure bike rooms, elevators, and other building entrances. The internal network of sidewalks would provide good connectivity throughout the site.

The site plan shows the project would reconstruct the northeast corner (project corner) of the Iron Point Drive/River Oaks Parkway intersection to include an ADA compliant directional curb ramp and a half bulb-out along the Iron Point Drive frontage only (no bulb-out on River Oaks Parkway).

Bicycle Facilities

Existing bicycle facilities in the study area consist of Class II striped bike lanes along North First Street, Zanker Road, Tasman Drive, and River Oaks Parkway/Plumeria Drive. Also, as stated above, entrances to the Coyote Creek and Guadalupe River multi-use trail systems are both located just ¾-mile from the project site. The project would not remove any bicycle facilities, nor would it conflict with any adopted plans or policies for new bicycle facilities.

The site plan shows long-term bike parking via secure bike rooms as part of the market-rate and affordable apartment buildings. The bike rooms within each building would be situated along the River Oaks Parkway frontages. Short-term bike parking (i.e., bike racks) would be distributed throughout the site, including four areas along River Oaks parkway near the apartment building entrances, six central bike rack locations, and three additional bike rack locations within the townhouse development.

City staff have indicated that the project would be required to provide a fair-share monetary contribution toward future Class IV separated bike lanes that are planned along the River Oaks Parkway and Cisco Way project frontages as identified in the San Jose Better Bikeway Plan 2025. Based on a cost of $144 per linear foot (source: City of San Jose Department of Public Works), the project's total fair-share monetary contribution would equate to $185,760, based on the project having 670 linear feet of frontage along River Oaks Parkway and 620 linear feet of frontage along Cisco Way.

Recommendation: The project would be required to pay a fair-share contribution of $185,760 toward the future Class IV bikeway improvements that are planned along River Oaks Parkway and Cisco Way as described in the San Jose Better Bike Plan 2025.

Pedestrian and Bicycle Access to Schools

Based on the project location, most children living at the new development would likely attend one of the public schools located on the historic Agnew Development Center site: Abram Agnew Elementary School, Dolores Huerta Middle School, or Kathleen MacDonald High School. The three schools are located just north of the project site. A direct pedestrian connection is provided at the terminus of Iron Point Drive. Levee Road, which intersects Cisco Way just north of the project site, has sidewalks and bike lanes and would provide another direct connection to the schools for future residents of the project.

City staff have indicated that the project would be required to convert the existing standard crosswalks with white striping to high-visibility yellow ladder striping at the Cisco Way/River Oaks Parkway intersection due to the proximity of the Agnew campus schools.

Recommendation: The project would be required to update the existing standard crosswalks at the Cisco Way/River Oaks Parkway intersection from white striping to high-visibility yellow ladder striping due to the proximity of the Agnew campus schools.

Transit Services

The River Oaks LRT station (½-mile west of the site and served by the Blue and Green Lines) and the Cisco Way LRT station (½-mile north of the site and served by the Orange Line) provide LRT service every 15-minutes during the weekday peak commute and midday hours. VTA local bus route 20, which operates along Montague Expressway and provides service every 30 minutes during the weekday peak

commute hours, has stops within ½-mile of the project site. The ACE Brown shuttle operates along River Oaks Parkway and 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 River Oaks Parkway in the eastbound direction directly across the street from the project site.

Since the study area is served by multiple transit options, it is reasonable to assume that some residents would utilize the available transit services. It is estimated that the increase in transit ridership generated by the project could be accommodated by the current available ridership capacities of the nearby transit services. Note that River Oaks Parkway and Cisco Way, which provide access to the nearby LRT stations and bus stops, both have Class II bike lanes and sidewalks. Curb ramps and pedestrian signal heads are also provided at the surrounding signalized intersections.

4. TDM Requirements

All projects requiring a development permit that are not exempt per Section 20.90.900.B of the San Jose Municipal Code are required to adhere to the new Parking and TDM Ordinance (Ordinance No. 30857), which includes mandatory TDM requirements. To be consistent with the goals of the *Envision 2040 General Plan* and the Climate Smart San Jose Plan, most projects are required to provide a TDM Plan that meets the "TDM Points Target" as detailed in the City's new Ordinance.

Since the residential project would not meet the City's residential screening criteria (is not a small infill residential project and is not 100% affordable), a TDM Checklist and associated TDM Plan are required. The project meets the definition of a Level 2 residential project (residential projects of 300 dwelling units or more) and is categorized as a Level 2 Home-End Use per the San Jose Municipal Code. Accordingly, a TDM Checklist and associated TDM Plan with a target of 25 TDM points (based on the Home-End Use category) was prepared. The project will be responsible for implementing measures identified in the TDM Checklist and TDM Plan to reduce the number of vehicle trips generated by the project. Annual TDM Plan compliance documentation and annual monitoring reports are both required for Level 2 projects.

The draft TDM Plan (see Appendix F) includes a detailed description of each of the TDM Checklist items listed below.

TDM Checklist

The City of San Jose's TDM Points Checklist was used to calculate the TDM points for the proposed residential project (see Table 9). As shown in the checklist, the project would achieve the 25-point TDM requirement by providing the following project characteristics, parking attributes, and programmatic TDM measures:

- MI03: Provide Pedestrian Network Improvements – 1 TDM Point
- PK01: Right-Size Off-Site Vehicle Parking Supply – 20 TDM Points
- TP04: Provide Education, Marketing and Outreach – 1 TDM Point
- TP16: Unbundle Parking Costs from Property Costs – 2 TDM Points
- TP18: Provide a Voluntary Travel Behavior Change Program 1 TDM Point

Table 9
TDM Checklist

ID	TDM Measure Description	Points Values	Home-End Uses 25
	A. PROJECT CHARACTERISTICS		
PC03	Provide Affordable Housing	1 - 4	0
	B. MULTIMODAL NETWORK IMPROVEMENTS		
MI01	Provide Bike Network Improvements	1 - 4	0
		Cost of measure	$ -
MI03	Provide Transit Network Improvements	1 - 4	0
		Cost of measure	$ -
MI04	Provide Residential Street Improvements	1 - 4	0
		Cost of measure	$ -
MI05	Provide Pedestrian Network Improvements	1 - 4	1
		Cost of measure	$ 737,000
	C. PARKING		
PK01	Off-Street Vehicle Parking Spaces (please enter):		*904*
	Project Size:		737
	Vehicle Parking Ratio:		1.226594
	Right-size Vehicle Parking Supply	1 - 20	20
PK02	Provide Bike Parking Facilities	1 - 2	0
PK03	Provide Shared Parking	1 - 2	0
	D. PROGRAMMATIC TDM		
TP01	Provide School Pool Programs	1	0
TP02	Provide Bike Share Stations	1 - 2	0
TP03	Provide Car Share Station	1 - 4	0
TP04	Provide Education, Marketing & Outreach	1 - 2	1
TP05	Join Transportation Mgmt. Association (TMA)	See Note	See Note
TP06	Provide Parking Cash-out	2	n/a
TP07	Provide Transit Subsidies	1 - 8	0
TP08	Provide Flexible Work Schedules	1 - 4	n/a
TP09	Provide Private Shuttle/ Transit Service	4 - 8	0
TP10	Price Workplace Parking	1 - 2	n/a
TP11	Provide Alternative Transportation Benefits	1 - 8	0
TP12	Provide a Neighborhood School	2	0
TP13	Provide Ride-Share Programs	1	0
TP14	Subsidize Transit Service Upgrade/Expansion	1 - 4	0
TP15	Provide Targeted Behavioral Interventions	1 - 2	0
TP16	Unbundle Parking Costs from Property Cost	1 - 2	2
TP17	Provide Vanpool Incentives	1 - 4	0
TP18	Provide Voluntary Travel Behavior Change Prg.	1 - 2	1

Note: Points will be awarded for the TDM programs provided by the TMA. HOAs/Property owners must subscribe to the TMA with payment of annual membership fees.

USER-DEFINED MEASURE

None

TOTAL TDM POINTS NEEDED:	25
TOTAL TDM POINTS ACHIEVED (incl. user-defined measures):	25
	Complete

5. Conclusions

This report presents the results of the Local Transportation Analysis (LTA) conducted for a proposed residential project at 211, 251 and 281 River Oaks Parkway in San Jose, California. The project would demolish three existing office buildings and associated parking lots on the north side of River Oaks Parkway and construct 100 townhomes and 637 apartment units (consisting of 505 market-rate apartments and 132 affordable apartments) for a total of 737 dwelling units. Access to the project site would be provided via driveways on River Oaks Parkway, Iron Point Drive, and Cisco Way.

This study was conducted for the purpose of identifying the potential transportation impacts and operational issues related to the proposed development. The transportation impacts of the project were evaluated following the standards and methodologies established in the City of San Jose's *Transportation Analysis Handbook* (April 2023) and the Santa Clara Valley Transportation Authority (VTA) Guidelines. Based on the City of San Jose's Transportation Analysis Policy (Council Policy 5-1) and the *Transportation Analysis Handbook,* the study included a non-CEQA local transportation analysis (LTA). An analysis to satisfy the City's new Parking and TDM Ordinance was prepared. A freeway segment analysis in accordance with the VTA's *Transportation Impact Analysis Guidelines* was also prepared because the project would generate more than 100 new peak hour vehicle trips.

The LTA analyzed AM and PM peak hour traffic conditions for seven signalized intersections and one unsignalized intersection in the vicinity of the project site. The LTA also included an analysis of site access, on-site circulation, parking, vehicle queuing, and effects to transit services and bicycle and pedestrian access.

Vehicle Miles Traveled (VMT) Analysis

The project meets the residential screening criteria set forth in the City of San Jose's *Transportation Analysis Handbook, 2023.* Therefore, the project is exempt from preparing a detailed VMT analysis.

Project Trip Generation

After applying the appropriate ITE trip rates and applicable trip adjustments and reductions, the proposed residential project is estimated to generate 2,889 new daily vehicle trips, with 238 new trips (61 inbound and 177 outbound) occurring during the AM peak hour and 249 new trips (148 inbound and 101 outbound) occurring during the PM peak hour.

Intersection Traffic Operations

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

TDM Requirements

The City of San Jose's TDM Points Checklist was used to calculate the TDM points for the proposed residential project. The project would achieve the 25-point TDM requirement by providing the following project characteristics, parking attributes, and programmatic TDM measures:

- MI03: Provide Pedestrian Network Improvements – 1 TDM Point
- PK01: Right-Size Off-Site Vehicle Parking Supply – 20 TDM Points
- TP04: Provide Education, Marketing and Outreach – 1 TDM Point
- TP16: Unbundle Parking Costs from Property Costs – 2 TDM Points
- TP18: Provide a Voluntary Travel Behavior Change Program 1 TDM Point

Other Transportation Issues

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

Recommendations

- The project should remove one 90-degree parking space located near the affordable apartment parking garage entrance to provide adequate inbound stacking space (room for two vehicles).
- To avoid potential inbound vehicle queuing issues at the entrance to the affordable apartments garage, the project should either keep the security gate open during the periods of the day when most inbound vehicle trips occur (to be determined based on observations), or eliminate some street parking along the project frontage on Iron Point Drive (i.e., add red curb south of the garage entrance) to provide additional inbound queuing space.
- The project should establish 25-foot-long no parking zones (painted red curb) between the northern and central driveways, south of the central driveway, and south of the southern driveway on Iron Point Drive to ensure adequate sight distance is provided at these driveways along the project frontage.
- The project should remove 4 parking spaces from the first level of the market-rate apartments garage to ensure adequate room would be provided to back out of all the spaces in the garage.
- The project would be required to pay a fair-share contribution of $185,760 toward the future Class IV bikeway improvements that are planned along River Oaks Parkway and Cisco Way as described in the San Jose Better Bike Plan 2025.
- The project would be required to update the existing standard crosswalks at the Cisco Way/River Oaks Parkway intersection from white striping to high-visibility yellow ladder striping due to the proximity of the Agnew campus schools.

211-251-281 River Oaks Parkway Residential LTA

Technical Appendices

Appendix A
New Traffic Count Data

Appendix B
San Jose Approved Trips Inventory (ATI)

Appendix C
Volume Spreadsheets

Appendix D
Intersection Level of Service Calculations

Appendix E
Signal Warrant Sheets

Appendix F
Draft TDM Plan

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