



HEXAGON TRANSPORTATION CONSULTANTS, INC.

Memorandum

Date: November 23, 2022
To: Jason Yan, City of San Jose
From: Robert Del Rio, T.E.
Subject: Fourth Street and St. John Street Student Housing Local Transportation Analysis

Hexagon Transportation Consultants, Inc. has completed a Local Transportation Analysis (LTA) for the proposed student housing development at 100-152 North Fourth Street in Downtown San Jose. The project site is located at the northeast corner of the Fourth Street and St. John Street intersection. The site is bounded by Fourth Street to the west, St. John Street to the south, and a mix of single- and multi-family residences to the north and east. The project, as proposed, will consist of approximately 298 student housing units and 8,423 square feet of ground floor retail space that would replace two existing unoccupied single-family homes on site. Access to three above-ground parking levels is proposed via a full-access driveway along Fourth Street. A total of 266 parking spaces are proposed for residents and 21 spaces for visitors. Figure 1 shows the project site location.

The project site is located within the Downtown Growth Area Boundary, for which an Environmental Impact Report (EIR), *Downtown San Jose Strategy Plan 2040 (DTS 2040)*, has been completed and approved. With adoption of DTS 2040, this project is covered under DTS 2040 and no CEQA transportation analysis is required. The project, however, must perform an LTA to identify operational issues.

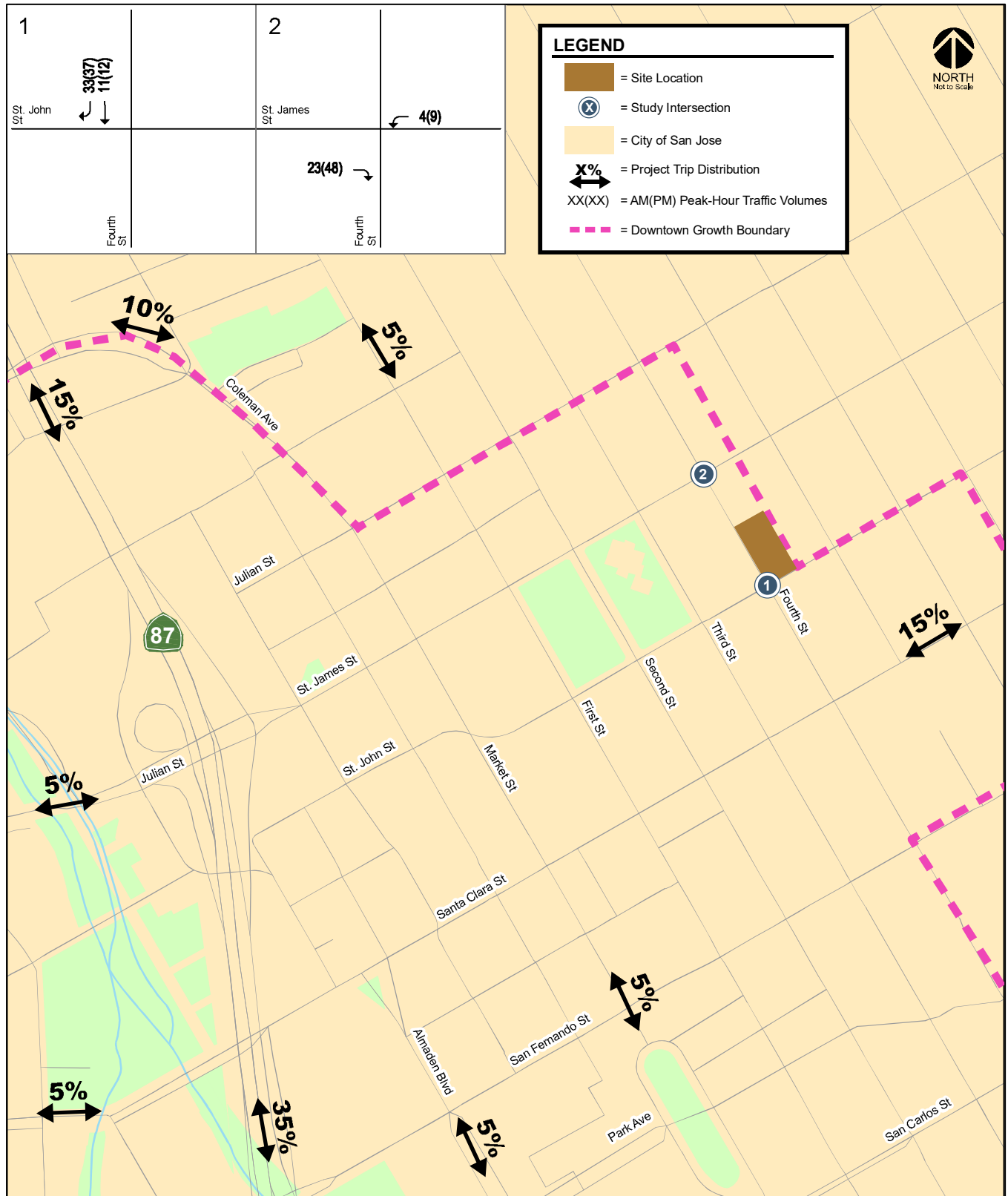
Scope of Study

The purpose of the traffic operations study is to identify any potential traffic operational issues that could occur as a result of the project and to recommend necessary improvements to ensure adequate access to the site is provided. Based on the proposed project size, site-generated traffic was estimated. Vehicular site access was evaluated based on the proposed driveway locations. Truck access, including trash pickup and loading activities, was evaluated. Parking and on-site vehicular circulation also was analyzed. Lastly, bicycle and pedestrian access and safety were evaluated.

Existing Conditions

This section describes the existing conditions for all of the major transportation facilities in the vicinity of the site, including the roadway network, transit service, and bicycle and pedestrian facilities.

Figure 1
Site Location, Study Intersections, Project Trip Distribution, and Project Trip Assignment



Existing Roadway Network

Regional access to the project site is provided by the Interstate 280/680 freeway and State Route 87. Local site access is provided by Santa Clara Street, St. James Street, St. John Street, Third Street, and Fourth Street. The freeways and local roadways are described below.

Interstate 280 connects from US-101 in San Jose to I-80 in San Francisco. It is generally an eight-lane freeway in the vicinity of downtown San Jose. It also has auxiliary lanes between some interchanges. The section of I-280 just north of the Bascom Avenue overcrossing has six mixed-flow lanes and two high-occupancy-vehicle (HOV) lanes. Connections from I-280 to the project site are provided via partial interchanges at Fourth Street (ramps to west only), Sixth Street (ramps from west), and Seventh Street (ramps from east). I-280/I-680 provides access to SR 87 and US-101.

State Route 87 is primarily a six-lane freeway (four mixed-flow lanes and two HOV lanes) that is aligned in a north-south orientation within the project vicinity. SR 87 begins at its interchange with SR 85 and extends northward, terminating at its junction with US 101. Connections from SR-87 to the project site are provided via partial interchanges at Santa Clara Street (ramp from south only), Julian Street, and Auzerais Avenue (ramps to south only).

Santa Clara Street is an east-west four-lane street that runs south of the project site. It extends as West Santa Clara Street from First Street westward to Stockton Avenue where it transitions into The Alameda. East of First Street, it extends eastward as East Santa Clara Street to US-101 where it transitions into Alum Rock Avenue.

St. James Street is an east-west two-lane street that runs north of the project site. It extends from Notre Dame Avenue, east to 19th Street. West of Notre Dame Avenue, St. James Street transitions to Julian Street with connection to SR-87. Between Notre Dame Avenue and Fourth Street, St. James Street provides eastbound-only travel. Access to the project site is provided via its intersection with Fourth Street.

St. John Street is an east-west two-lane street that runs along the south project frontage. It extends from Autumn Street, near the SAP Center, east to 18th Street. Access from the project site to St. John Street is provided via its intersection with Fourth Street.

Fourth Street is a north-south two-lane street providing southbound-only travel between its intersection with St. James Street and its intersection with Reed Street. Fourth Street forms a couplet with northbound-only Third Street, located one block west. Fourth Street runs along the project's west frontage and provides access to and from the project site via one driveway.

Third Street is a north-south two-lane street providing northbound-only travel between Humboldt Street and its intersection with Julian Street. Third Street forms a couplet with southbound-only Fourth Street, located one block east.

Existing Bicycle Facilities

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

- Fourth Street, north of Santa Clara Street
- St. John Street, between Second Street and Fourth Street
- Third Street, north of St. James Street

- First Street, north of Julian Street
- Seventh Street, north of San Fernando Street

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

- St. John Street, west of Second Street and east of Fourth Street
- First Street, between St. John Street and San Salvador Street
- Second Street, between St. John Street and San Carlos Street

Class IV Bikeway (Protected Bike Lane). Class IV bicycle facilities are currently being installed throughout the Downtown Area as part of the Better Bikeways project. Protected bike lanes have been implemented along the following roadways:

- Third Street, between St. James Street and William Street
- Fourth Street, between Santa Clara Street and San Carlos Street
- San Fernando Street, between Cahill Street and Tenth Street
- Cahill Street, between San Fernando Street and Santa Clara Street
- Autumn Street, between Santa Clara Street and St. John Street
- Park Avenue, between Barack Obama Boulevard and Laurel Grove Lane

The existing bicycle facilities are shown on Figure 2.

Guadalupe River Park Trail

The Guadalupe River multi-use trail system runs through the City of San Jose along the Guadalupe River and is shared between pedestrians and bicyclists and separated from motor vehicle traffic. The Guadalupe River trail is an 11-mile continuous Class I bikeway from Curtner Avenue in the south to Alviso in the north. This trail system can be accessed along St. John Street west of SR-87, approximately 0.7-mile west of the project site.

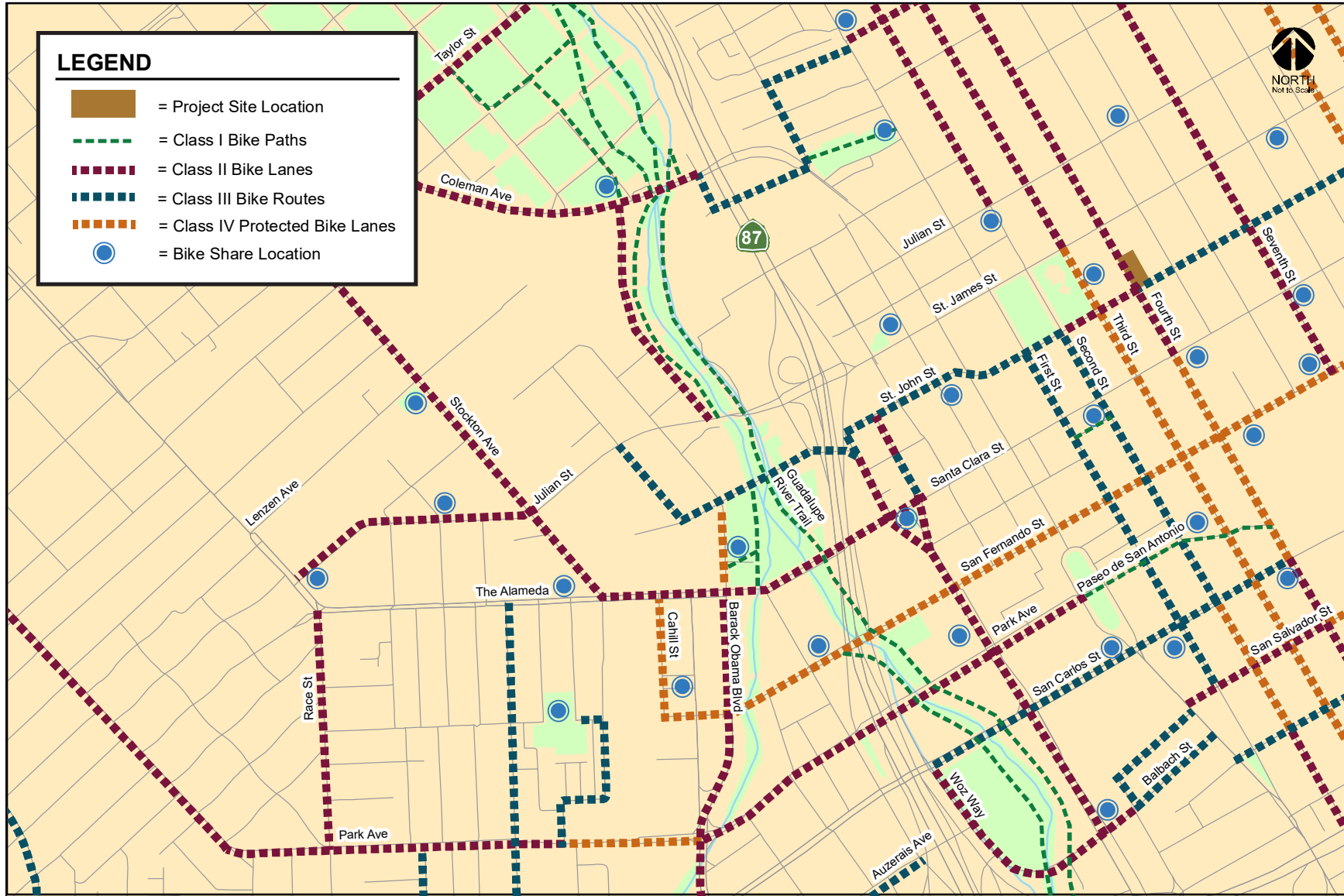
Bike and Scooter Share Services

The Bay Wheels bike share program allows users to rent and return bicycles at various locations. Bike share bikes can be rented and returned at designated docking stations throughout the Downtown area. The nearest bike share station is located north of the intersection of Third Street and St. John Street, approximately 550 feet from the project site. In addition, dock-less bike and scooter rentals managed by other micro-mobility services are available throughout the Downtown area. These services provide electric bicycles and scooters with GPS self-locking systems that allow for rental and drop-off anywhere.

Existing Pedestrian Facilities

Pedestrian facilities in the study area consist mostly of sidewalks along all of the surrounding streets, including the project frontages along Fourth Street and St. John Street. Crosswalks and pedestrian signal heads are available on all four approaches at the intersection of Fourth Street and St. John Street. An ADA ramp is available at the southeast corner of the intersection. The remaining ramps at the intersection (including the ramp at the southwest corner of the project site) are not improved. Additionally, crosswalks are not present at any of the approaches at the intersection of Fifth Street and St. John Street. Overall, the existing sidewalks and pedestrian facilities have good connectivity and provide pedestrians with safe routes to the surrounding pedestrian destinations in the area.

Figure 2
Existing Bicycle Facilities



Existing Transit Services

Existing transit services in the study area are provided by the Santa Clara Valley Transportation Authority VTA, Caltrain, Altamont Commuter Express (ACE), and Amtrak. The project site is located within a 1,000 foot walking distance of a VTA light rail station and approximately one mile from the Diridon Transit Center located at Santa Clara Street and Cahill Street. Connections between local and regional bus routes, light rail lines, and commuter rail lines are provided within the Diridon Transit Center. Figure 3 shows the existing transit facilities.

Bus Service

The downtown area is served by many VTA bus routes with high-frequency service. Rapid Bus services provide limited-stop service at frequent intervals (less than 15 minutes) during daytime. Within the Downtown area, Rapid Routes 500, 522, and 568 run along Santa Clara Street while Rapid Route 523 runs along San Carlos Street. Additionally, Frequent Bus services provide local service with average headways of 12 to 15 minutes during peak commute hours.

The bus lines that operate within ¼-mile walking distance of the project site are listed in Table 1, including their route descriptions and commute hour headways. The nearest bus stops are located along Santa Clara Street at Fifth Street, and along First Street and Second Street, adjacent to the St. James LRT station platforms.

VTA Light Rail Transit (LRT) Service

The Santa Clara Valley Transportation Authority (VTA) currently operates the 42.2-mile VTA light rail line system extending from south San Jose through downtown to the northern areas of San Jose, Santa Clara, Milpitas, Mountain View and Sunnyvale. The service operates nearly 24-hours a day with 15-minute headways during much of the day.

The Green (Winchester-Old Ironsides) and Blue (Baypointe-Santa Teresa) LRT lines operate along San Carlos Street and along First and Second Streets, north of San Carlos Street. The St. James LRT station has a northbound platform along First Street and a southbound platform along Second Street. The platforms are located less than 1000 feet walking distance of the project site. The San Jose Diridon station is located along the Green LRT line and serves as a transfer point to Caltrain, ACE, and Amtrak services.

Caltrain Service

Commuter rail service between San Francisco and Gilroy is provided by Caltrain, which currently operates 92 weekday trains that carry approximately 47,000 riders on an average weekday. The project site is located about ¾-mile from the San Jose Diridon station. The Diridon station provides 581 parking spaces, as well as 16 bike racks, 48 bike lockers, and 27 bike share docks. Trains stop frequently at the Diridon station between 4:28 AM and 10:30 PM in the northbound direction, and between 6:31 AM and 1:38 AM in the southbound direction. Caltrain provides passenger train service seven days a week and provides extended service to Morgan Hill and Gilroy during commute hours.

Altamont Commuter Express Service (ACE)

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

Table 1
Existing Bus Service Near the Project Site

Bus Route	Route Description	Nearest Stop	Headway ¹
Frequent Route 22	Palo Alto Transit Center to Eastridge Transit Center	Santa Clara/Fifth	15 min
Frequent Route 23	DeAnza College to Alum Rock Transit Center via Stevens Creek	Santa Clara/Fifth	12 - 15 min
Local Route 64A	McKee & White to Ohlone-Chynoweth Station	Sixth/Santa Clara	30 min ²
Local Route 64B	McKee & White to Almaden Expressway & Camden	Sixth/Santa Clara	30 min ²
Frequent Route 66	North Milpitas to Kaiser San Jose	Second/Santa Clara	12 - 15 min
Frequent Route 68	San Jose Diridon Station to Gilroy Transit Center	Second/Santa Clara	15 - 20 min
Frequent Route 72	Downtown San Jose to Senter & Monterey via McLaughlin	Second/St. John	5 - 20 min
Frequent Route 73	Downtown San Jose to Senter & Monterey via Senter	Second/St. John	10 - 15 min
Rapid Route 500	San Jose Diridon Station to Downtown San Jose	Santa Clara/Fifth	15 - 20 min
Rapid Route 522	Palo Alto Transit Center to Eastridge Transit Center	Santa Clara/Fifth	10 - 15 min
Rapid Route 523	Berryessa BART to Lockheed Martin via De Anza College	Santa Clara/Fifth	15 - 20 min
Rapid Route 568	Gilroy/Morgan Hill to San Jose Diridon Station	Second/Santa Clara	15 - 40 min
Hwy 17 Express (Route 970)	Downtown Santa Cruz / Scotts Valley to Downtown San Jose	Diridon Transit Center	20 - 35 min

Notes:

¹ Approximate headways during peak commute periods.

² Local Routes 64A and 64B provide frequent service between San Jose Diridon Station and McKee/White, with approximately 15-minute headways during peak commute periods.

Amtrak Service

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

Project Trip Generation

The trip generation analysis estimates the number of external vehicle-trips that will be generated by the proposed project. Baseline (or gross) vehicle-trips were estimated by using average vehicle-trip rates from the *ITE Trip Generation Manual, 11th Edition (2021)* for the Multifamily Housing-High Rise (Land Use 222) and Strip Retail Plaza (<40k) (Land Use 822). Although the project site is within ½-mile of rail transit (VTA Light Rail), trip generation rates for the “Not Close to Rail Transit” land use subcategory were selected since multimodal trip reductions are already accounted for as part of the location-based adjustment, as described below. The baseline trip estimates were reduced to account for the predicted vehicle mode share of the project based on its location and surrounding transportation system and land uses.

Internal Reductions

A mixed-use development with complementary land uses such as residential/retail, will result in a reduction of external site trips. Thus, the number of vehicle trips generated for each use may be reduced, since a portion of the vehicle trips would not require entering or exiting the site. Therefore,

based on VTA's recommended mixed-use reduction, a 15 percent trip reduction is applied for the residential/retail mixed-use, based on the smaller retail component. The reduction is applied to the smaller of the two complimentary trip generators and the same number of trips is then subtracted from the larger trip generator.

Location-Based Adjustment

The location-based adjustment reflects the project's vehicle mode share based on the place type in which the project is located per the San Jose Travel Demand Model. The project's place type was obtained from the *San Jose VMT Evaluation Tool*. Based on the Tool, the project site is located within a designated urban high-transit area. Therefore, the baseline project trips were adjusted to reflect an urban high-transit mode share. Urban high-transit areas are characterized as areas with high density, excellent accessibility, high public transit access, low single-family homes, and older housing stock. Residential and retail uses within urban high-transit areas have a vehicle mode share of 78 percent and 83 percent, respectively. Thus, a 22 percent reduction and 17 percent reduction were applied to trips generated by the proposed residential and retail uses, respectively.

VMT Reduction

Based on the San Jose VMT Evaluation Tool, the project is anticipated to generate 7.33 VMT per-capita in an area that currently generates approximately 7.62 VMT per-capita. It is assumed that every percent reduction from the existing per-capita VMT is equivalent to one percent reduction in peak-hour vehicle trips. Thus, the project trip estimates were reduced by 3.8 percent to reflect the reduction in peak hour trips.

Net Project Trip Generation

Based on the trip generation rates and reductions, it is estimated that the proposed project would generate an additional 1,288 daily trips, with 71 trips (27 inbound and 44 outbound) occurring during the AM peak hour and 106 trips (57 inbound and 49 outbound) occurring during the PM peak hour. The trip generation estimates for the proposed project are shown in Table 2.

It also is important to note that the project is intended to serve as San Jose State University (SJSU) student housing. The availability of bicycle lanes and sidewalks throughout downtown and the project's close proximity to major transit services and SJSU will provide for and encourage the use of multi-modal travel options (bicycling and walking) and reduce the use of single-occupant automobile travel. Therefore, the estimates of trips to be generated by the proposed project as presented and evaluated within this study may represent an over-estimation of traffic and impacts associated with the proposed project. It is expected that the auto trips ultimately generated by the project will be less and the identified operational issues reduced with the use of the multi-modal transportation system within the Downtown area.

Project Trip Distribution and Trip Assignment

The trip distribution pattern for the project was based on previous traffic studies prepared for similar projects in downtown San Jose. The project trips were assigned to the roadway network based on the proposed project driveway locations, existing travel patterns in the area, freeway access, and the relative locations of complementary land uses. The project trip distribution patterns and trip assignments for the proposed development is shown on Figure 1.

**Table 2
Project Trip Generation Estimates**

Land Use	Reduction %	Place Type	VMT		Size	Daily		AM Peak Hour					PM Peak Hour						
			Existing	Project		Rate	Trip	Split		Trip			Rate	Split		Trip			
								In	Out	In	Out	Total		In	Out	Total			
Proposed Land Uses																			
#222 - Multifamily Housing (High-Rise)					298 Dwelling Units	4.540	1,353	0.270	34%	66%	27	53	80	0.320	56%	44%	53	42	95
Residential & Retail Reduction ³	15%						-69				-1	-2	-3				-4	-4	-8
Location-Based Reduction ¹	22%	Urban High-Transit					-282				-6	-11	-17				-11	-8	-19
VMT-Based Reduction ²	3.81%		7.62	7.33			-38				-1	-2	-3				-1	-1	-2
#822 - Strip Retail Plaza (<40k)					8,423 Square Feet	54.450	459	2.360	60%	40%	12	8	20	6.590	50%	50%	28	28	56
Residential & Retail Reduction ³	15%						-69				-2	-1	-3				-4	-4	-8
Location-Based Reduction ¹	17%	Urban High-Transit					-66				-2	-1	-3				-4	-4	-8
<i>Baseline Vehicle Trips (Before Reductions)</i>								1,812			39	61	100				81	70	151
Project Trips After Reductions								1,288			27	44	71				57	49	106

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

¹ The place type for the project site is obtained from the City of San Jose VMT Evaluation Tool (February 29, 2019). The location-based vehicle mode shares are obtained from Table 6 of the City of San Jose Transportation Analysis Handbook (April 2020). The trip reductions are based on the percent of mode share for all of the other modes of travel beside vehicle.

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

³ The following trip reductions are prescribed by the VTA Transportation Impact Analysis Guidelines (October 2014).

Mixed-Used Development Project

with residential and retail components - 15% off the smaller trip generator

Vehicular Site Access and Circulation

A review of the project site plans was performed to determine if adequate site access and on-site circulation is provided and to identify any access issues that should be improved. This review is based on the site plans dated February 18, 2022 prepared by LPMD Architects, and in accordance with generally accepted traffic engineering standards and City of San Jose requirements. The street-level site plan is shown on Figure 4. One driveway on Fourth Street will provide access to and from all on-site parking spaces. Access to the project site is constrained due to the one-way operations of Fourth Street. All inbound project traffic will access the site from north of the project via the Fourth Street/St. James Street intersection and all outbound traffic will exit onto southbound-only Fourth Street. Outbound traffic headed for areas north of the project must proceed south on Fourth Street and use St. John Street to access northbound Third Street.

Project Driveway Design and Operations

The site plan indicates a 26-foot width for the proposed driveway on Fourth Street, which meets the City's minimum width of 26 feet for two-way commercial driveways. The City typically requires building entrances to be located at least 50 feet from the face of the curb in order to provide adequate stacking space for at least two inbound vehicles. This requirement, however, may not always be achievable in the downtown area due to the zero setback requirements for buildings located in downtown. Security gates are not indicated on the site plan.

Therefore, queuing at the garage entrance and onto Fourth Street is not anticipated. However, if a security gate is to be installed, it should be located a minimum of two car-lengths back from the sidewalk (within the parking garage) to be able to accommodate two entering vehicles at the garage entrance without blocking the sidewalk on Fourth Street. Appropriate visible and/or audible warning signs should be provided at the project driveway to alert pedestrians and bicyclists of vehicles exiting the garage. The location of any proposed security gates would require review and approval by the City. The project trip assignment at the proposed project driveway is shown on Figure 4.

Sight Distance at the Driveway Serving the Project

There are no existing trees or visual obstructions along the west project frontage on Fourth Street that would obscure sight distance at the project driveway. The project driveway should be free and clear of any obstructions to provide adequate sight distance, thereby ensuring that exiting vehicles can see pedestrians on the sidewalk and other vehicles traveling on Fourth Street. Any landscaping and signage should be located in such a way to ensure an unobstructed view for drivers exiting the site.

Adequate sight distance (sight distance triangles) should be provided at the egress driveway in accordance with the *American Association of State Highway Transportation Officials (AASHTO)* standards. Sight distance triangles should be measured approximately 10 feet back from the traveled way. Providing the appropriate sight distance reduces the likelihood of a collision at a driveway or intersection and provides drivers with the ability to exit a driveway and locate sufficient gaps in traffic. The minimum acceptable sight distance is often considered the AASHTO stopping sight distance. Sight distance requirements vary depending on the roadway speeds. Fourth Street has a posted speed limit of 30 miles per hour (mph). The AASHTO stopping sight distance for a facility with a posted speed limit of 30 mph is 200 feet. Thus, a driver exiting the proposed project driveway must be able to see 200 feet to the north along Fourth Street in order to stop and avoid a collision.

The project driveway will be located 300 feet south of the Fourth Street/St. James Street intersection. In addition, turn movements from the project driveway will be restricted to right-turns only due to the one-

way operations of Fourth Street. Thus, the sight distance from the proposed driveway location to the Fourth Street/St. James Street intersection should be adequate.

Vehicular On-Site Circulation

The site circulation plan is shown on Figure 4. All vehicles will enter the Fourth Street project driveway and proceed to a two-way drive aisle. Residents will access their parking spaces on the upper floors via a ramp located approximately 60 feet north of the garage entrance. Visitors will continue on the ground-floor level drive aisle, past the ramp, and make a right turn to access visitor spaces. The ground-floor drive aisle terminates as a dead-end. Dead-end aisles are undesirable because drivers can enter the aisle, and upon discovering that there is no available parking, must back out or conduct three-point turns. However, adequate clear space is provided at the dead-end to allow drivers to turn around their vehicles without backing out.

As shown on Figure 5, looped drive aisles allow for continuous circulation of vehicles within the upper floor levels. Drive aisles with parking along both sides are shown to be 24 feet wide. All parking spaces within the garage are shown to be 90-degree stalls. All two-way drive aisles within the garage with parking along both sides of the drive aisle must meet the City's minimum width of 26 feet.

Larger vehicles may have difficulty navigating the sharp inbound and outbound right turns at the base of the ramps at each parking level, resulting in vehicles encroaching upon the opposing lane to complete the turn. Additionally, the outbound left turns from the ramp onto the ground floor exit drive aisle could conflict with outbound left turns from the guest parking drive aisle. Thus, it is recommended that a physical device be installed at sharp turns within the parking garage in an effort to aid circulation and reduce vehicular conflict at the ramps. Such devices could include convex mirrors to assist drivers with the blind turn while turning around corners and signage.

Truck Site Access

Based on the City of San Jose off-street loading standard for developments in the Downtown Area, the project is required to provide two off-street loading spaces for the residential component. The project is not required to provide additional off-street loading spaces for the retail component of the project. The site plan does not indicate that a loading space will be provided on-site. The site plan does indicate a proposed new on-street loading zone along the west project frontage on Fourth Street, just south of the project driveway. However, the length of or any time restrictions for its use are not indicated. Trucks may also utilize an existing 35-foot on-street freight loading zone located along the west side of Fourth Street, across from the west project frontage. The applicant should coordinate with the City to determine if the existing and proposed on-street loading zones will be sufficient for the use of the proposed project. The installation of a new loading zone along the Fourth Street project frontage will require removal of existing metered parking spaces. It should be noted that the City would not be supportive of a new loading zone along the St. John Street project frontage.

The site plan indicates a trash enclosure will be located on the ground level, along the north side of the entry drive aisle. Garbage trucks will not enter the parking garage. Therefore, waste bins will be wheeled out to Fourth Street for garbage truck pickup.

Figure 4
Site Circulation Plan and Trips at Project Driveways

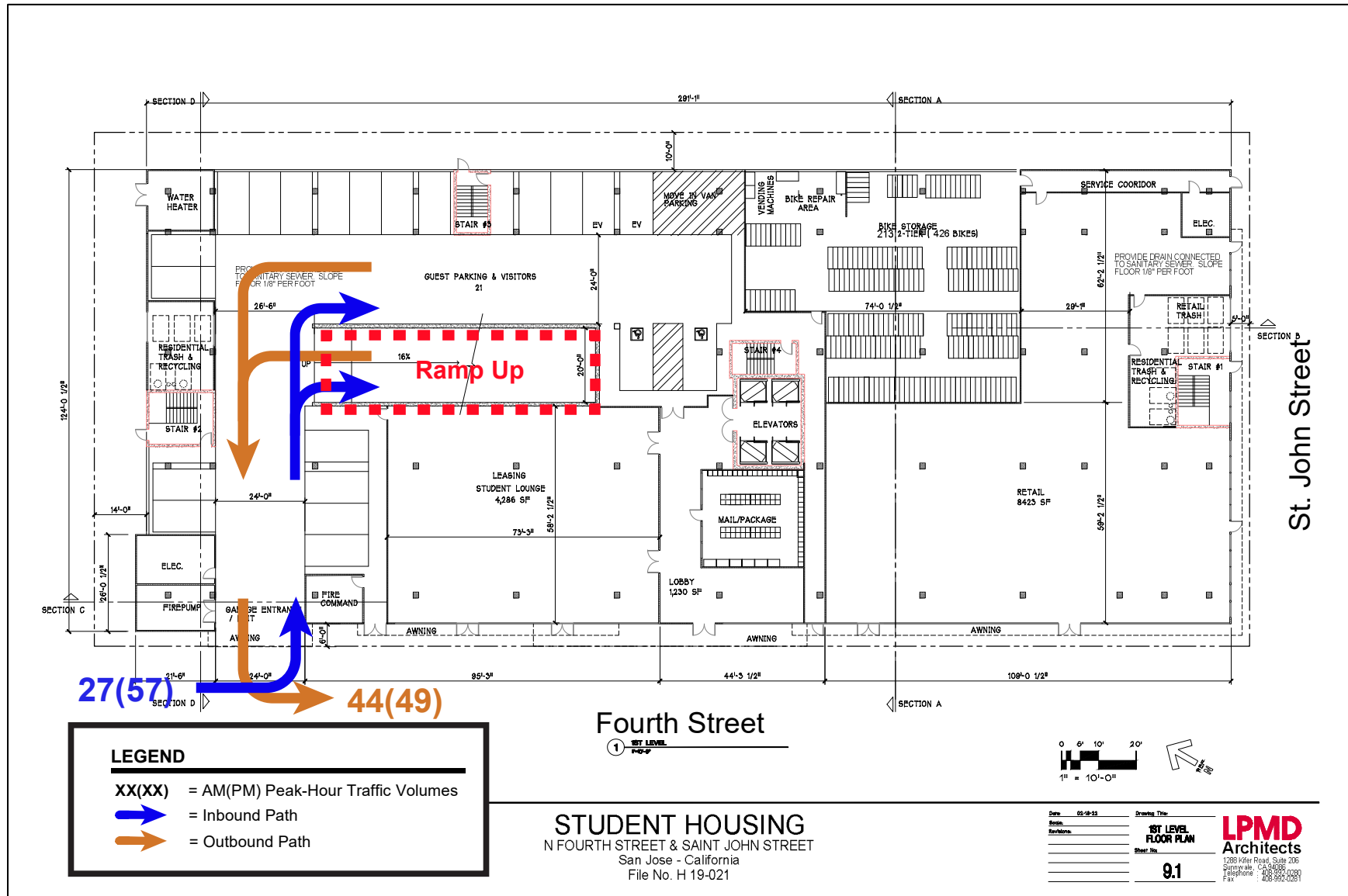
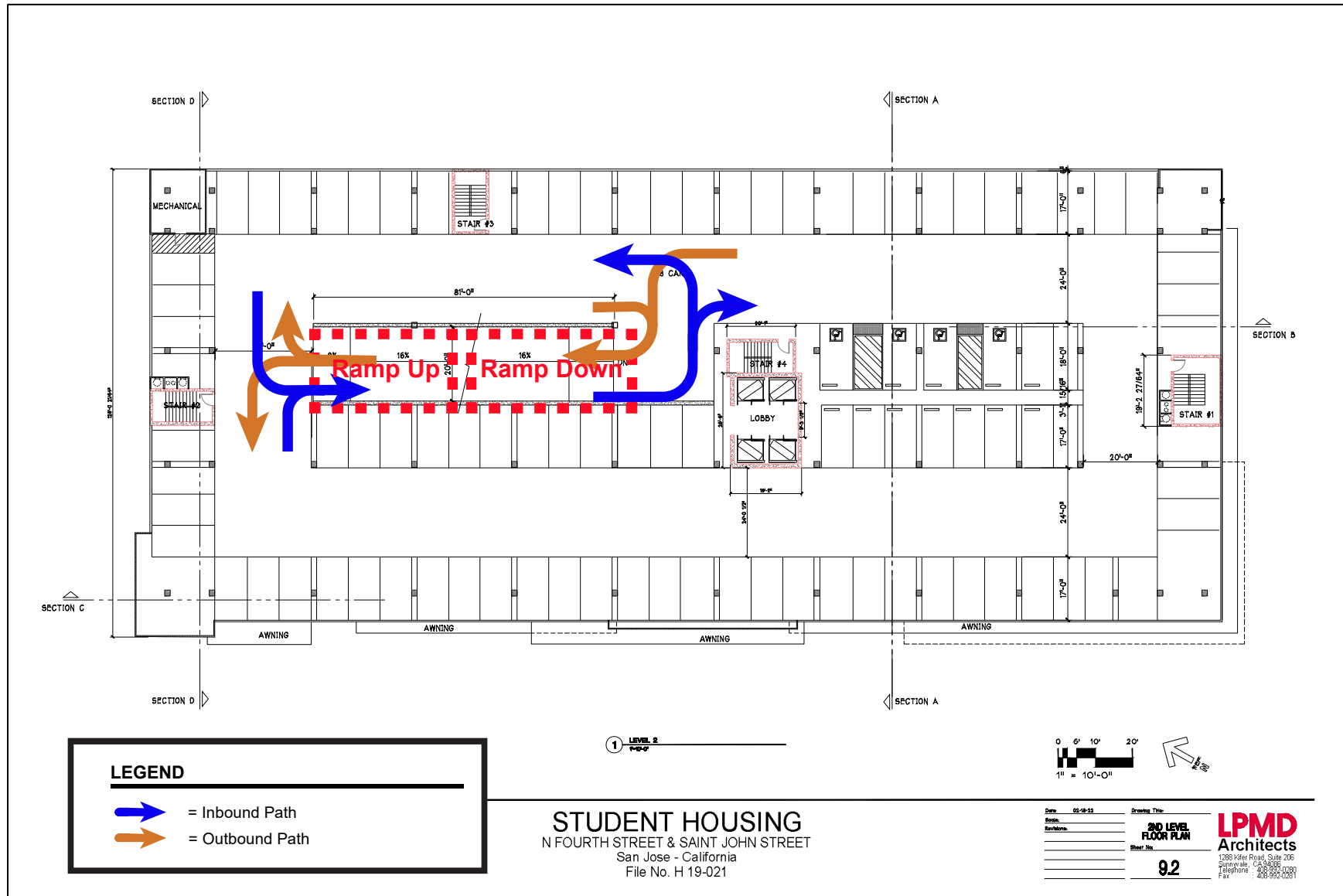


Figure 5
Typical Upper Parking Level Circulation



Pedestrian and Bicycle Access and Circulation

Pedestrian Circulation

The Downtown Streetscape Master Plan (DSMP) provides design guidelines for existing and future development for the purpose of enhancing the pedestrian experience in the Greater Downtown Area. Per the DSMP and shown in Figure 6, Third Street, Fourth Street, St. John Street, and St. James Street are designated Downtown Pedestrian Network Streets (DPNS), which are intended to support a high level of pedestrian activity as well as retail and transit connections. The DPNS streets provide a seamless network throughout the downtown that is safe and comfortable for pedestrians and connects all major downtown destinations. Design features of a DPNS create an attractive and safe pedestrian environment to promote walking as the primary travel mode. The DSMP policies state that vehicles crossing the sidewalk are often a safety hazard for pedestrians and measures should be taken within the design for any new project to minimize the number of curb cuts and driveways. As stated previously, the project driveway will be required to comply with the City's minimum requirement of 26 feet in width. To minimize the curb cut, it is recommended that the driveway not exceed 26 feet in width.

Pedestrian facilities in the study area consist mostly of sidewalks along all of the surrounding streets, including the project frontages along Fourth Street and St. John Street. The existing 12-foot wide sidewalks will be maintained along the project's frontages on Fourth and St. John Streets. Crosswalks and pedestrian signal heads are available on all four approaches at the intersection of Fourth Street and St. John Street. Existing ADA ramps are provided at all corners of the intersection, with the exception of the southwest corner. As discussed below, the project will be required to construct pedestrian improvements along the project frontages. Based on the site plan, the project would install bulb-outs and replace ADA ramps at the northeast and southeast corners of the intersection of Fourth Street and St. John Street.

Bicycle Circulation

Class II bicycle facilities (striped bike lanes) are provided on Fourth Street north of Santa Clara Street (including the west project frontage), Third Street north of St. James Street, and St. John Street between Second Street and Fourth Street. St. John Street, east of Fourth Street (including along the south project frontage) and west of Second Street, is a designated Class III bikeway and provides "sharrow" or shared lane markings.

The Guadalupe River Park Trail, a Class I pedestrian and bicycle trail, is accessible along St. John Street west of SR-87, approximately 0.7-mile west of the project site. Bike share stations are provided throughout the Downtown area. The nearest bike share station is located north of the intersection of Third Street and St. John Street, approximately 550 feet from the project site.

Multi-Modal Improvements

Class IV bikeways (protected bike lanes) are already located along Third Street and San Fernando Street (shown on Figure 7). The existing buffered bike lane along the project's Fourth Street frontage is planned to be upgraded to a protected bike lane as part of the City's Better Bikeways Improvements program. The existing buffered bike lane along the west side of Fourth Street is currently separated from travel lanes by striped pavement markings. The planned improvements, shown in Figure 8, will switch the position of the cycle track with on-street parking spaces and loading spaces along Fourth Street between St. James Street and Santa Clara Street. The planned bikeway will use parked vehicles to create a barrier and increase the separation between the cycle track and travel lanes.

Figure 6
Downtown Pedestrian Street Network

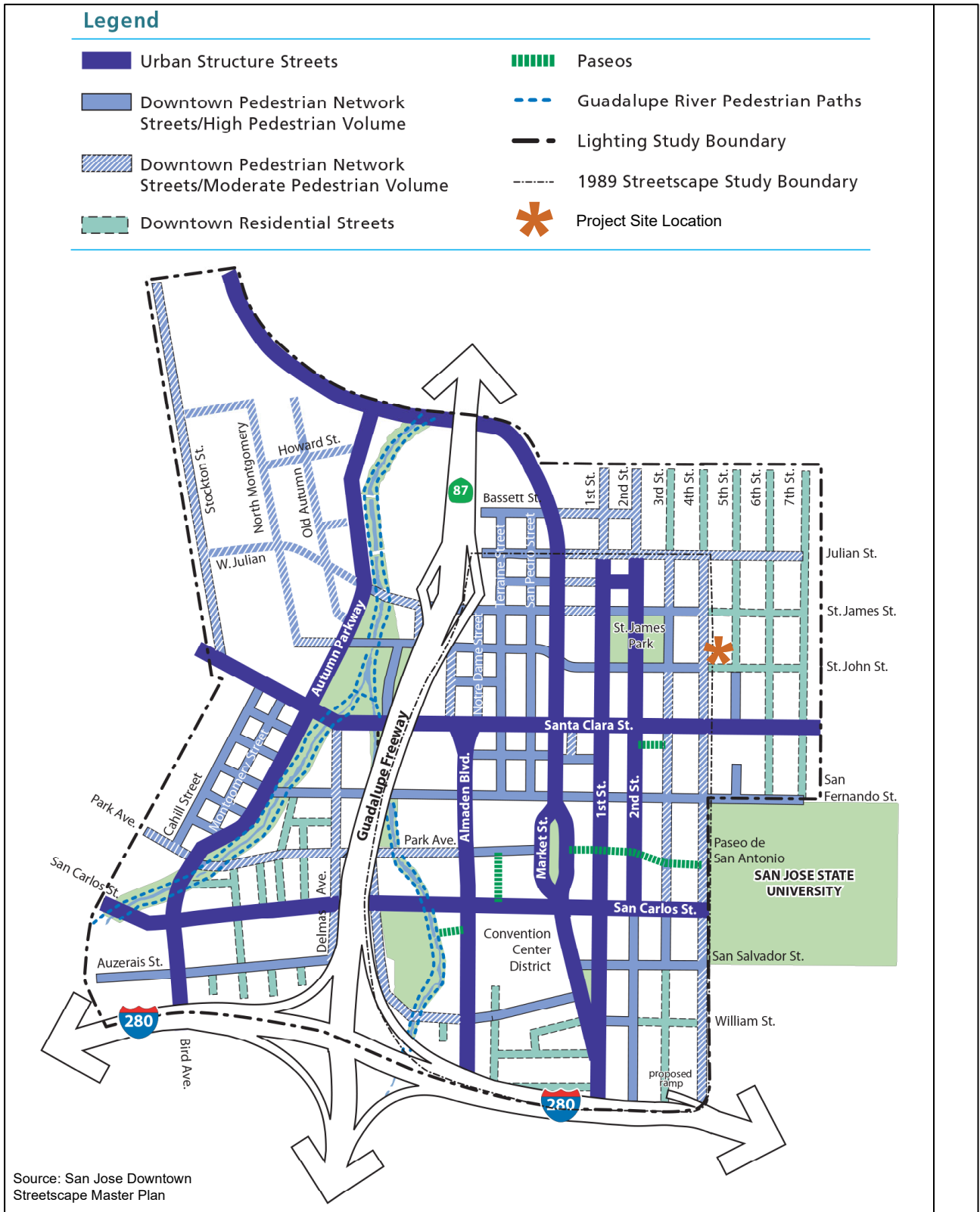
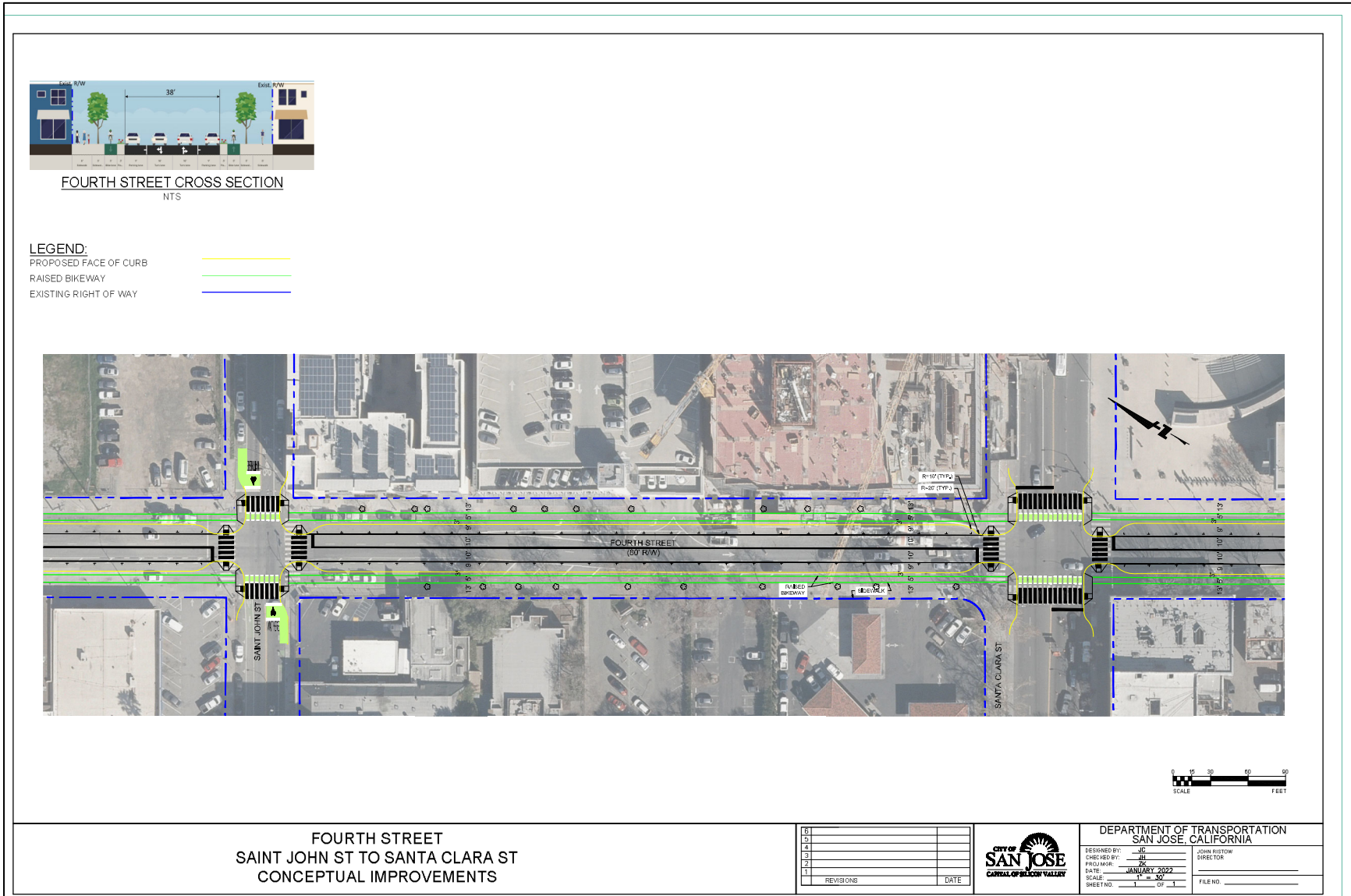


Figure 7
Existing and Proposed Protected Bike Lanes



Figure 8
Fourth Street Protected Bike Lane Improvements



Additionally, vehicles will not need to cross bike lanes to enter and leave on-street parking spaces, thus reducing conflicts between vehicles and bicycle-users. Green bike lane pavement markings and corner safety islands also will be installed adjacent to crosswalks at signalized intersections in the vicinity of the project site, including Fourth Street/St. John Street and Fourth/St. James Street intersections. The proposed changes will affect parking spaces and loading spaces along the west side of Fourth Street, including the existing 35-foot freight loading zone across from the west project frontage. The proposed improvements will not affect existing on-street parking along the project frontage.

Additionally, the City is proposing multi-modal safety improvements at the intersection of Fourth Street and St. John Street, located at the southwest corner of the project site. A full signal modification at this intersection would consist of new signal equipment, accessible pedestrian signals, vehicle head upgrades, and video detection. Bulb-outs with ADA ramps also would be installed at all corners of the intersection.

Overall, the planned improvements will improve the safety and accessibility of the bicycle and pedestrian networks along roadway corridors and intersections within the Downtown and immediate project area. The project will be required to construct improvements on Fourth Street and St. John Street along the project frontage. This may include but is not limited to Class IV protected bike lanes, bulb-outs, ADA ramps, and signal modifications.

Transit Facilities

The project is in close proximity to major transit services that will provide the opportunity for multi-modal travel to and from the project site. The St. James LRT station is a transit transfer point between VTA bus and light rail services. Northbound and southbound platforms located on S. First Street and S. Second Street, respectively, are connected by pathways within St. James Park and are located within walking distance, less than 1000 feet, of the project site. A bus stop at the intersection of Santa Clara Street at Fifth Street provides access to major bus lines, including Express Route 522. In addition, the San Jose Diridon Station is located along the Mountain View–Winchester LRT line and serves as a transfer point to Caltrain, ACE, and Amtrak services. The pedestrian and bicycle facilities located along streets adjacent to the project site provide access to major transit stations and provide for a balanced transportation system as outlined in the Envision 2040 General Plan goals and policies.

Parking

Projects in the downtown area are located in close proximity to offices, recreation, and retail services, allowing individuals to satisfy their daily needs for work or shop near their place of residence. The availability of bicycle lanes and sidewalks throughout downtown and the project's close proximity to major transit services will provide for and encourage the use of multi-modal travel options (bicycling and walking) and reduce the use of single-occupant automobile travel and demand for on-site parking described below.

Vehicle Parking

According to the City of San Jose Downtown Zoning Regulations (20.70.100), the project is required to provide one off-street vehicle parking space per residential unit. No off-street parking spaces are required for the proposed retail space. Based on the City's off-street parking requirements, the proposed 298-unit residential tower would be required to provide a total of 298 off-street parking spaces.

Reduction in Required Off-Street Parking Spaces

The project proposes to provide a total of 287 on-site parking spaces: 266 parking spaces for the residential units and 21 spaces for visitors. This represents a 3.6% reduction from the required 298 off-street parking spaces. However, the project is located in the Downtown area and is proposing a mixed-use of residential and retail uses. Therefore, the project is eligible for a 15% reduction in off-street parking spaces and the required number of parking spaces is reduced by 45 spaces to a required total of 253 parking spaces. Therefore, the project parking as proposed will exceed the required number of parking spaces per the City code.

ADA Compliance

Per the 2016 California Building Code (CBC) Table 11B-208.2, seven ADA accessible spaces are required for projects providing 201 to 300 parking spaces. Of the required accessible parking spaces, one van accessible space is required. The site plan shows up to 12 ADA parking spaces provided within the upper parking levels (2nd floor through 4th floor) and located adjacent to elevators at each level.

Existing On-Site and On-Street Parking

There are existing metered parking spaces along the project's Fourth Street and St. John Street frontages. Additionally, the undeveloped project site was previously utilized as two parking lots. Based on field observations, approximately 33 marked parking spaces are provided within the lots, however most parking spaces are unmarked. As of October 2022, both lots were fenced off and no parked vehicles were observed at the project site.

Bicycle Parking

Since the project is intended to house university students and will be located in close proximity to SJSU, it is likely that many residents of the proposed residential units will utilize bicycles rather than vehicles to travel to and from the campus. Therefore, the City will require the project to meet the City's Bicycle Parking requirements. The City of San Jose Standards require 1 bicycle parking space per 4 living units. Bicycle parking spaces shall consist of at least sixty percent long-term and at most forty percent short-term spaces. Thus, the proposed project is required to provide a total of 75 bicycle parking spaces for the proposed residential units: 45 long-term bicycle parking spaces and 30 short-term bicycle parking spaces to meet the city standards. Off-street parking for motorized vehicles is not required for the retail component. Therefore, the project is required to provide only two short-term bicycle parking spaces and one long-term parking space for the proposed retail space.

Overall, the project is required to provide a total of 78 bicycle parking spaces. The site plan indicates a bike kitchen/storage room located within the ground floor level with space for up to 426 bicycles and access provided via the guest parking drive aisle and corridors accessed via Fourth and St. John Streets. Therefore, the proposed on-site bicycle parking will exceed the City bicycle parking requirements and encourage the use of non-auto modes of travel and minimize the demand for on-site parking described above.

Conclusions

The project, as proposed, will consist of approximately 298 student housing units and 8,423 square feet of ground floor retail space that would replace two existing unoccupied single-family homes on site. Access to three above-ground parking levels is proposed via a full-access driveway along Fourth Street. A total of 266 parking spaces are proposed for the residential units and 21 spaces for visitors.

The project site is located within the Downtown Growth Area Boundary, for which an Environmental Impact Report (EIR), *Downtown San Jose Strategy Plan 2040 (DTS 2040)*, has been completed and approved. With adoption of DTS 2040, this project is covered under DTS 2040 and no CEQA transportation analysis is required. The project, however, must perform an LTA to identify operational issues.

It also is important to note that the project is intended to serve as student San Jose State University (SJSU) housing. The availability of bicycle lanes and sidewalks throughout downtown and the project's close proximity to major transit services and SJSU will provide for and encourage the use of multi-modal travel options (bicycling and walking) and reduce the use of single-occupant automobile travel. Therefore, the estimates of trips to be generated by the proposed project as presented and evaluated within this study may represent an over-estimation of traffic and impacts associated with the proposed project. It is expected that the auto trips ultimately generated by the project will be less and the identified operational issues reduced with the use of the multi-modal transportation system within the Downtown area

A summary of the site access and circulation review along with recommended adjustments is provided below.

Recommendations

- Appropriate visible and/or audible warning signs should be provided at the project driveway to alert pedestrians and bicyclists of vehicles exiting the garage. The location of any proposed security gates would require review and approval by the City.
- The applicant should coordinate with the City to determine if the existing and proposed on-street loading zones will be sufficient for the use of the proposed project. The installation of a new loading zone along the project frontage on Fourth Street will require removal of existing metered parking spaces. The City is not supportive of a new loading zone along the St. John Street project frontage.
- Garbage trucks will not enter the parking garage. Therefore, waste bins will be wheeled out to Fourth Street for garbage truck pickup.
- The project will be required to construct improvements on Fourth Street and St. John Street along the project frontage. This may include but is not limited to Class IV protected bike lanes, bulb-outs, ADA ramps, and signal modifications.

**Fourth Street and St. John Street
Student Housing LTA
Technical Appendices**

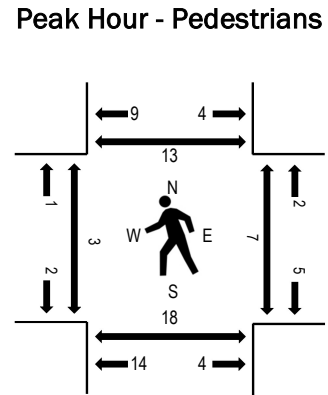
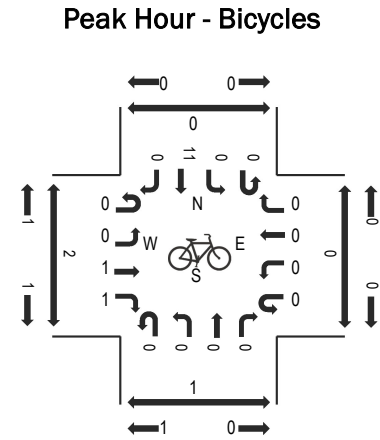
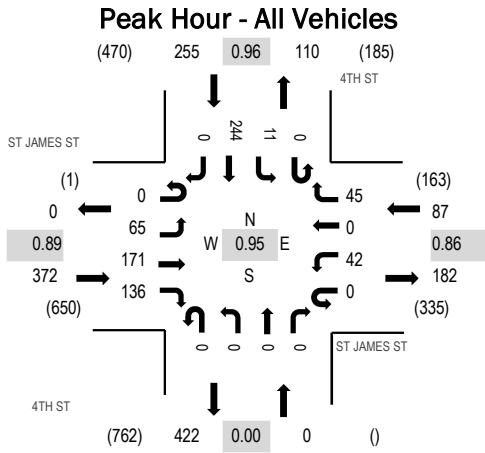
November 23, 2022

Appendix A
Turning Movement Counts



(303) 216-2439
www.alltrafficdata.net

Location: 2 4TH ST & ST JAMES ST AM
Date: Tuesday, March 19, 2019
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	ST JAMES ST Eastbound				ST JAMES ST Westbound				4TH ST Northbound				4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	8	31	19	0	8	0	8	0	0	0	0	0	0	36	0	110	575	2	0	1	0
7:15 AM	0	7	33	18	0	8	1	4	0	0	0	0	0	2	47	0	120	640	1	3	6	0
7:30 AM	0	8	34	25	0	10	0	14	0	0	0	0	0	8	58	0	157	701	0	0	4	4
7:45 AM	0	10	56	38	0	7	0	12	0	0	0	0	0	7	58	0	188	714	1	2	5	3
8:00 AM	0	23	42	29	0	15	0	8	0	0	0	0	0	1	57	0	175	708	0	1	3	0
8:15 AM	0	18	33	36	0	12	0	15	0	0	0	0	0	3	64	0	181		1	2	8	5
8:30 AM	0	14	40	33	0	8	0	10	0	0	0	0	0	0	65	0	170		1	2	2	5
8:45 AM	0	14	44	37	0	11	0	12	0	0	0	0	0	1	63	0	182		1	1	1	2

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	3
Bicycles on Road	0	0	1	1	0	0	0	0	0	0	0	0	0	0	11	0	13
Lights	0	65	167	133	0	39	0	45	0	0	0	0	0	10	223	0	682
Mediums	0	0	3	1	0	1	0	0	0	0	0	0	0	1	10	0	16
Total	0	65	171	136	0	42	0	45	0	0	0	0	0	11	244	0	714

Appendix B
Volumes Summary

Intersection Number: 1
 Trafix Node Number: 3543
 Intersection Name: Fourth Street and St. John Street
 Peak Hour: AM
 Count Date: 3/19/19

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	38	340	13	0	122	33	0	0	0	129	50	0	725
ATI	3	46	6	0	13	2	0	0	0	4	5	0	79
Background Conditions	41	386	19	0	135	35	0	0	0	133	55	0	804
Proposed Project Trips	33	11	0	0	0	0	0	0	0	0	0	0	44
Background Plus Project Conditions	74	397	19	0	135	35	0	0	0	133	55	0	848

Intersection Number: 2
 Trafix Node Number: 3542
 Intersection Name: Fourth Street and St. James Street
 Peak Hour: AM
 Count Date: 3/19/19

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	233	11	45	0	42	0	0	0	135	170	65	701
ATI	0	49	1	36	0	5	0	0	0	11	24	13	139
Background Conditions	0	282	12	81	0	47	0	0	0	146	194	78	840
Proposed Project Trips	0	0	0	0	0	4	0	0	0	23	0	0	27
Background Plus Project Conditions	0	282	12	81	0	51	0	0	0	169	194	78	867

Intersection Number: 1
 Traffix Node Number: 3543
 Intersection Name: Fourth Street and St. John Street
 Peak Hour: PM
 Count Date: 3/19/19

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	40	601	18	0	83	40	0	0	0	143	191	0	1116
ATI	10	225	10	0	8	4	0	0	0	21	23	0	301
Background Conditions	50	826	28	0	91	44	0	0	0	164	214	0	1417
Proposed Project Trips	37	12	0	0	0	0	0	0	0	0	0	0	49
Background Plus Project Conditions	87	838	28	0	91	44	0	0	0	164	214	0	1466

Intersection Number: 2
 Traffix Node Number: 3542
 Intersection Name: Fourth Street and St. James Street
 Peak Hour: PM
 Count Date: 3/19/19

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	470	20	28	0	41	0	0	0	138	469	160	1326
ATI	0	290	26	37	0	9	0	0	0	17	80	33	492
Background Conditions	0	760	46	65	0	50	0	0	0	155	549	193	1818
Proposed Project Trips	0	0	0	0	0	9	0	0	0	48	0	0	57
Background Plus Project Conditions	0	760	46	65	0	59	0	0	0	203	549	193	1875

Appendix C
VMT Evaluation
Tool Output

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

PROJECT:

Name: 4th and St. John Student Housing Project	Tool Version: 2/29/2019
Location: 4th and St. John	Date: 11/9/2022
Parcel: 46720019 Parcel Type: Urban High Transit	
Proposed Parking Spaces Vehicles: 287 Bicycles: 426	

LAND USE:

Residential:	Percent of All Residential Units	
Single Family 0 DU	Extremely Low Income (≤ 30% MFI)	0 % Affordable
Multi Family 298 DU	Very Low Income (> 30% MFI, ≤ 50% MFI)	0 % Affordable
Subtotal 298 DU	Low Income (> 50% MFI, ≤ 80% MFI)	0 % Affordable
Office: 0 KSF		
Retail: 8.423 KSF		
Industrial: 0 KSF		

VMT REDUCTION STRATEGIES

Tier 1 - Project Characteristics

Increase Residential Density	
Existing Density (DU/Residential Acres in half-mile buffer)	24
With Project Density (DU/Residential Acres in half-mile buffer)	26
Increase Development Diversity	
Existing Activity Mix Index	0.90
With Project Activity Mix Index	0.89
Integrate Affordable and Below Market Rate	
Extremely Low Income BMR units	0 %
Very Low Income BMR units	0 %
Low Income BMR units	0 %
Increase Employment Density	
Existing Density (Jobs/Commercial Acres in half-mile buffer)	71
With Project Density (Jobs/Commercial Acres in half-mile buffer)	71

Tier 2 - Multimodal Infrastructure

Tier 3 - Parking

Tier 4 - TDM Programs

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

RESIDENTIAL ONLY

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

