

# **APPENDIX E1**

## ***Local Transportation Analysis***



# HEXAGON TRANSPORTATION CONSULTANTS, INC.

## Memorandum

**Date:** March 18, 2020  
**To:** Liana Trejo, City of San Jose  
**From:** Robert Del Rio, T.E.  
**Subject:** Carlysle Mixed-Use Development Local Transportation Analysis

Hexagon Transportation Consultants, Inc. has completed a Local Transportation Analysis (LTA) for the proposed Carlysle Mixed-Use Development at 51 Notre Dame Avenue in Downtown San Jose. The project is located on the southwest corner of the Notre Dame Avenue and Carlysle Street intersection. The project, as proposed, will construct 290 residential units, 123,500 square feet (s.f.) of office space, and 7,600 s.f. of retail/restaurant space. The proposed project would demolish the existing building on site. Parking for the proposed project will be provided within three above-ground parking levels providing a total of 330 parking spaces, accessed via a driveway on Almaden Boulevard. 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

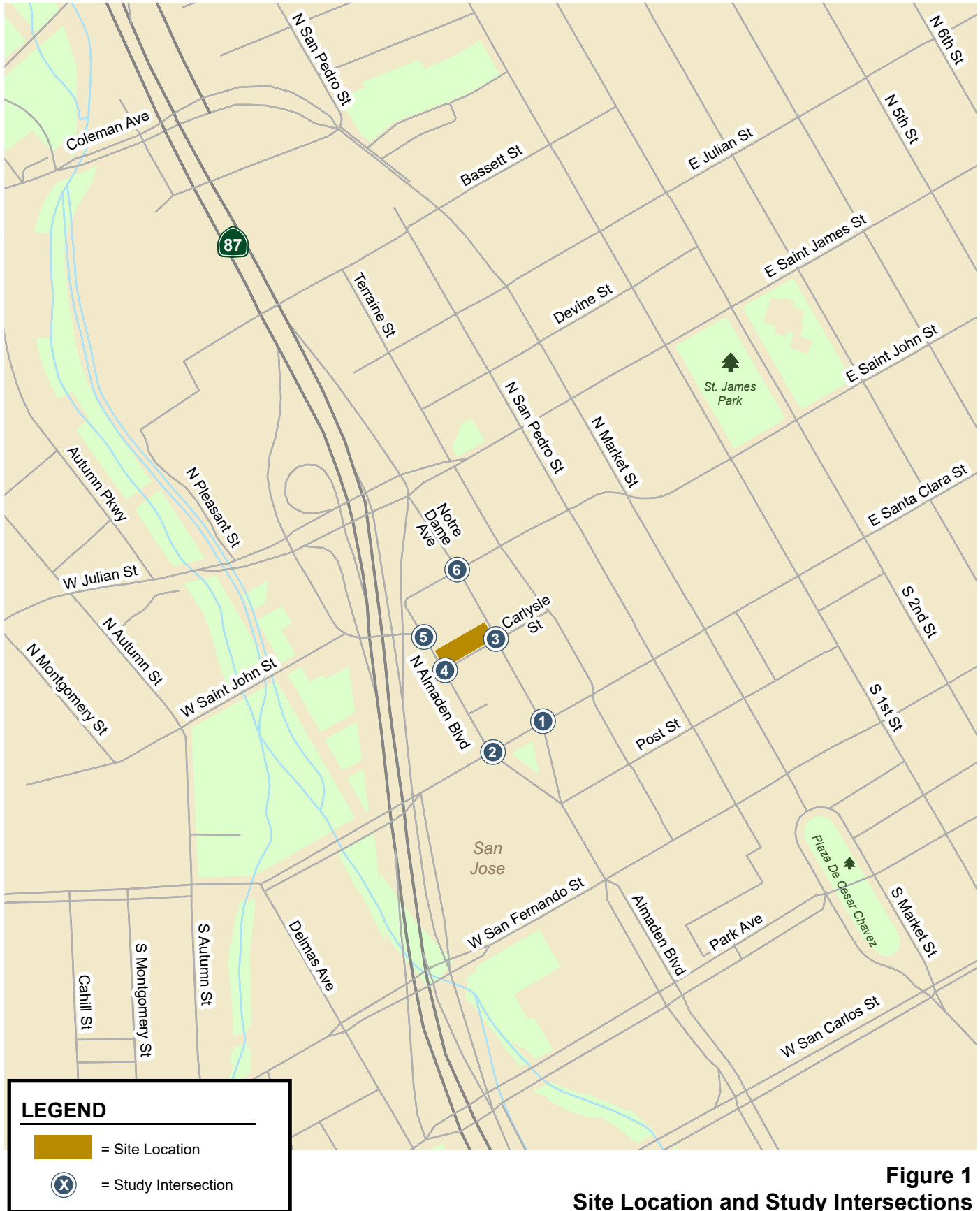
The purpose of the LTA was to identify any potential operational issues that could occur as a result of the project and to recommend necessary improvements to ensure adequate access to the site is provided and review the project's effect on the surrounding transit, pedestrian, and bicycle facilities. 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, an operational analysis on vehicle turn pocket storage was 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.

### Existing Roadway Network

Regional access to the project site is provided by State Route 87. Local site access is provided by West Julian Street, St. John Street, Notre Dame Avenue, Santa Clara Street, Carlysle Street, and Almaden Boulevard. The freeways and local roadways are described below.



**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 a full interchange at Julian Street and a partial interchange at Santa Clara Street (ramp from the south). SR 87 provides access to I-280/I-680 and US-101.

**West Julian Street** is an east-west four-lane divided arterial near the project area that extends from the Alameda from the west, to Terraine Street in the east, where it becomes St. James Street. Street parking is not allowed on West Julian Street in the project vicinity. From West Julian Street, the project site can be accessed via Almaden Boulevard or Terraine Street and West St. John Street.

**West St. John Street** is an east-west two-lane street near the project area that extends from Montgomery Street in the west, to 1<sup>st</sup> Street in the east. Immediately north of Almaden Boulevard, West St. John Street runs in the westbound direction only. Those heading eastbound can only turn right onto Almaden Boulevard. In the project vicinity, West St. John Street is a designated bike route with parking on both sides. The project site can be accessed from West St. John Street via Almaden Boulevard.

**Notre Dame Avenue** is a one-way northbound two to three-lane arterial that runs along the project's east frontage. It extends between Santa Clara Street and West Julian Street and includes a bicycle lane between Santa Clara Street and West St John Street. Notre Dame Avenue provides access to the project site via Almaden Boulevard, which can be accessed by both Carlysle Street and West St. John Street.

**Santa Clara Street** is an east-west four-lane arterial near the project area that extends from Stockton Avenue in the west, where it begins from The Alameda, to US 101 in the east, where it becomes Alum Rock Avenue. Street parking is not allowed east of Notre Dame Avenue. There are bike lanes present west of Almaden Boulevard. From Santa Clara Street, the project site can be accessed via Notre Dame Avenue, Carlysle Street, and Almaden Boulevard.

**Carlysle Street** is an east-west two-lane street that runs along the project's south frontage. It extends between Almaden Boulevard and Almaden Street. There is street parking along both sides of Carlysle Street. From Carlysle Street, the project site can be accessed via Almaden Boulevard.

**Almaden Boulevard** is a north-south two-lane arterial in the project vicinity that runs along the project's west frontage. It is a one-way southbound street between West Julian Street and Santa Clara Street and transitions to a four-lane two-way street south of W. Santa Clara Street. The northbound direction transitions to Notre Dame Avenue north of W. Santa Clara Street. It extends between St. John Street and Grant Street, just south of I-280, and includes bicycle lanes along both sides of the street. Direct access to the project site would be provided via a two-way driveway along Almaden Boulevard.

### Existing Bicycle Facilities

Class II bicycle facilities (striped bike lanes) are provided along Almaden Boulevard (along the west project site frontage) and Notre Dame Avenue (along the east project frontage). Additional Class II bicycle facilities are provided along the following roadways within the project area:

- Santa Clara Street, west of Almaden Boulevard

Designated Class III bike routes with “sharrow” or shared-lane pavement markings and signage are provided along the following roadways:

- West St. John Street, between Autumn Street and 1<sup>st</sup> Street

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 via trailheads on either St. John Street or Santa Clara Street, approximately 750 feet west of the project site.

**Bike and Scooter Share Services**

Lyft operates the Bay Wheels (formerly Ford Go Bike) bike share program that 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. Additionally, the service offers a dockless, e-bike option that can be located and activated using Lyft's mobile app and can be parked at any public bike rack. Payment for either of the bike options is provided through the Lyft app or by use of a Clipper card. A bike share station is located approximately 500 feet south of the project site, on the south side of Santa Clara Street, between Almaden Boulevard and Notre Dame Avenue.

In addition, Lime and Bird provide dockless scooter rentals throughout the Downtown area. These services offer electric scooters with GPS self-locking systems that allow for rental and drop-off anywhere. Scooters are located, activated, and paid for through each of these services' mobile apps.

**Existing Pedestrian Facilities**

Pedestrian facilities in the study area consist of sidewalks along all the surrounding streets, including the project frontages along Almaden Boulevard, Carlysle Street, and Notre Dame Avenue. Crosswalks and pedestrian signal heads are present on most legs of all signalized intersections within the project vicinity, including the intersections of Almaden Boulevard/Santa Clara Street and Notre Dame Avenue/Santa Clara Street. Crosswalks are present on most legs of all unsignalized intersections within the project vicinity, including the intersections of Almaden Boulevard/West St. John Street, Almaden Boulevard/Carlysle Street, Notre Dame Avenue/Carlysle Street, and Notre Dame Avenue/West St. John Street.

The following street legs are missing crosswalks:

- East leg of Almaden Boulevard/Santa Clara Street
- West leg of Notre Dame Avenue/Santa Clara Street
- South leg of Almaden Boulevard/West St. John Street
- North and south legs of Almaden Boulevard/Carlysle Street

Additionally, high visibility crosswalks ("piano key" and "ladder" style crosswalks) are present on the following crosswalks:

- All legs of Notre Dame Avenue/West St. John Street
- North and west legs of Almaden Boulevard/West St. John Street
- North and south legs of Notre Dame Avenue/Carlysle Street
- North, west, and south legs of Almaden Boulevard/Santa Clara Street
- North, east, and south legs of Notre Dame Avenue/Santa Clara Street

ADA compliant ramps are located at all crosswalks at the intersections of Carlysle Street with both Almaden Boulevard and Notre Dame Street with the exception of both corners of the project site. Overall, the existing sidewalks provide good pedestrian connectivity and safe routes to transit, nearby pedestrian destinations, and other points of interest in the project vicinity.

## 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 closest bus stops serviced by the VTA are located on Santa Clara Street, approximately 500 feet south of the project site. The project site is located approximately 0.5 mile west of the 1<sup>st</sup>/Santa Clara Light Rail Station and approximately 0.7-mile from the Diridon Transit Center located on 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 local bus lines. 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, approximately 500 feet south of the project site.

Limited, Express, and Rapid bus lines operated by VTA and regional bus services operated by other transit agencies are accessible from bus stops within walking distance from the project. The bus stops are also served by the Highway 17 Express, a weekday commuter service that runs between San Jose and Santa Cruz via SR-17. The Rapid 522 Bus Line which provides limited-stop rapid transit service between Palo Alto and Eastridge in San Jose runs along Santa Clara Street and serves the bus stops located at the 1<sup>st</sup> Street/Santa Clara Street intersection. Similarly, the Rapid 523 Bus Line, which runs between the Berryessa BART station and Lockheed Martin via De Anza College also runs along Santa Clara Street near the project area and serves the bus stops located at the 1<sup>st</sup> Street/Santa Clara Street intersection. The Rapid 500 Bus Line provides downtown service connecting Santa Clara Street with the San Jose Diridon Station. The closest stop for Rapid 500 is at the Almaden Boulevard/Santa Clara Street intersection.

### **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 (Santa Teresa-Baypointe) LRT lines operate along First and Second Streets, north of San Carlos Street. The 1<sup>st</sup>/Santa Clara and 2<sup>nd</sup>/Santa Clara LRT stations are located approximately 0.4 mile and 0.5 mile east of the project site, respectively. The San Jose Diridon station, approximately ¾-mile away is served by the Green LRT line and serves as a transfer point to Caltrain, ACE, and Amtrak services.

### **Caltrain Service**

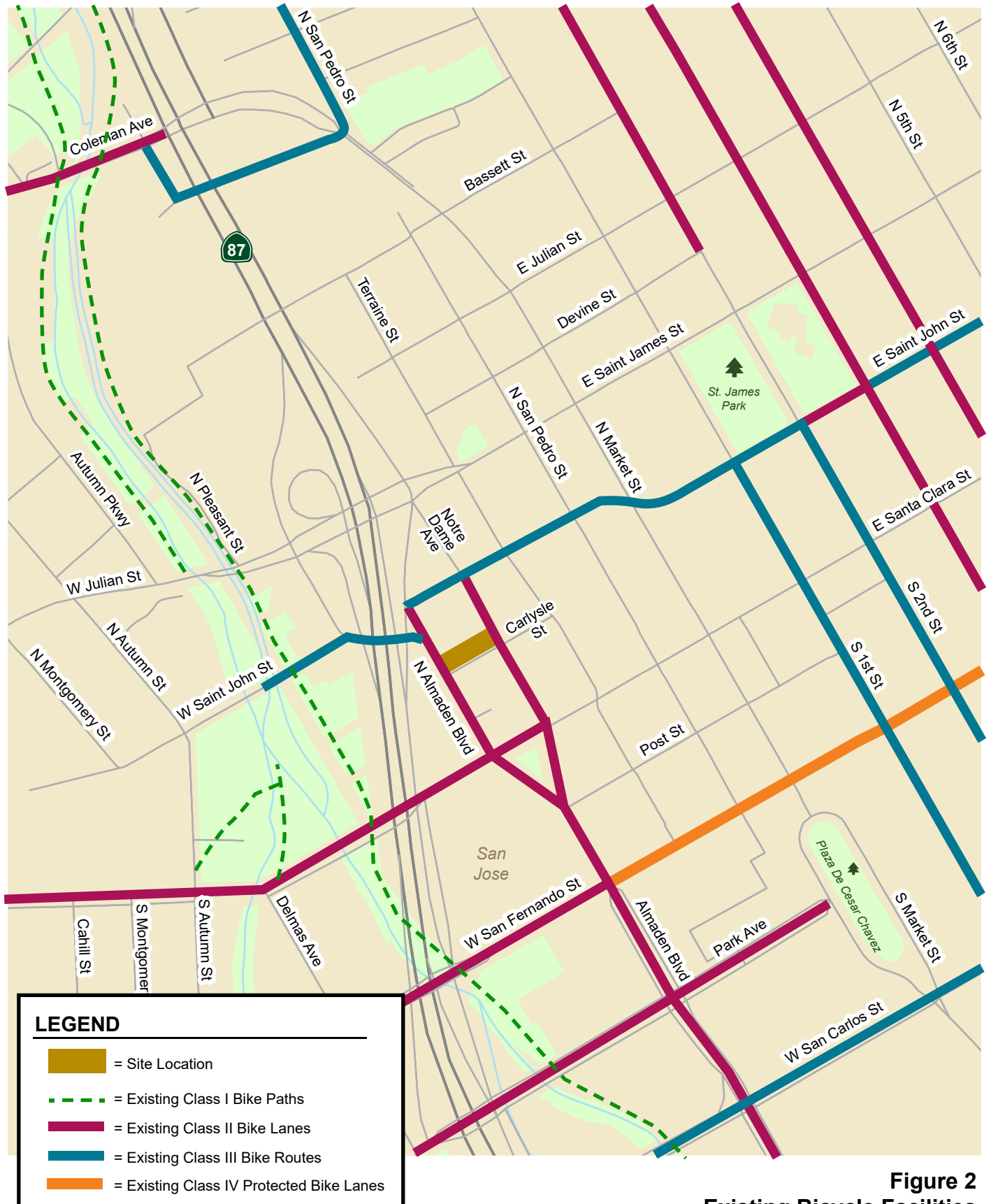
Commuter rail service between San Francisco and Gilroy is provided by Caltrain, which currently operates 92 weekday trains that carry approximately 47,000 riders on an average weekday. The project site is located about ¾ -mile from the San Jose Diridon station. The Diridon station provides 581 parking 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.



**Table 1**  
**Existing Bus Service Near the Project Site**

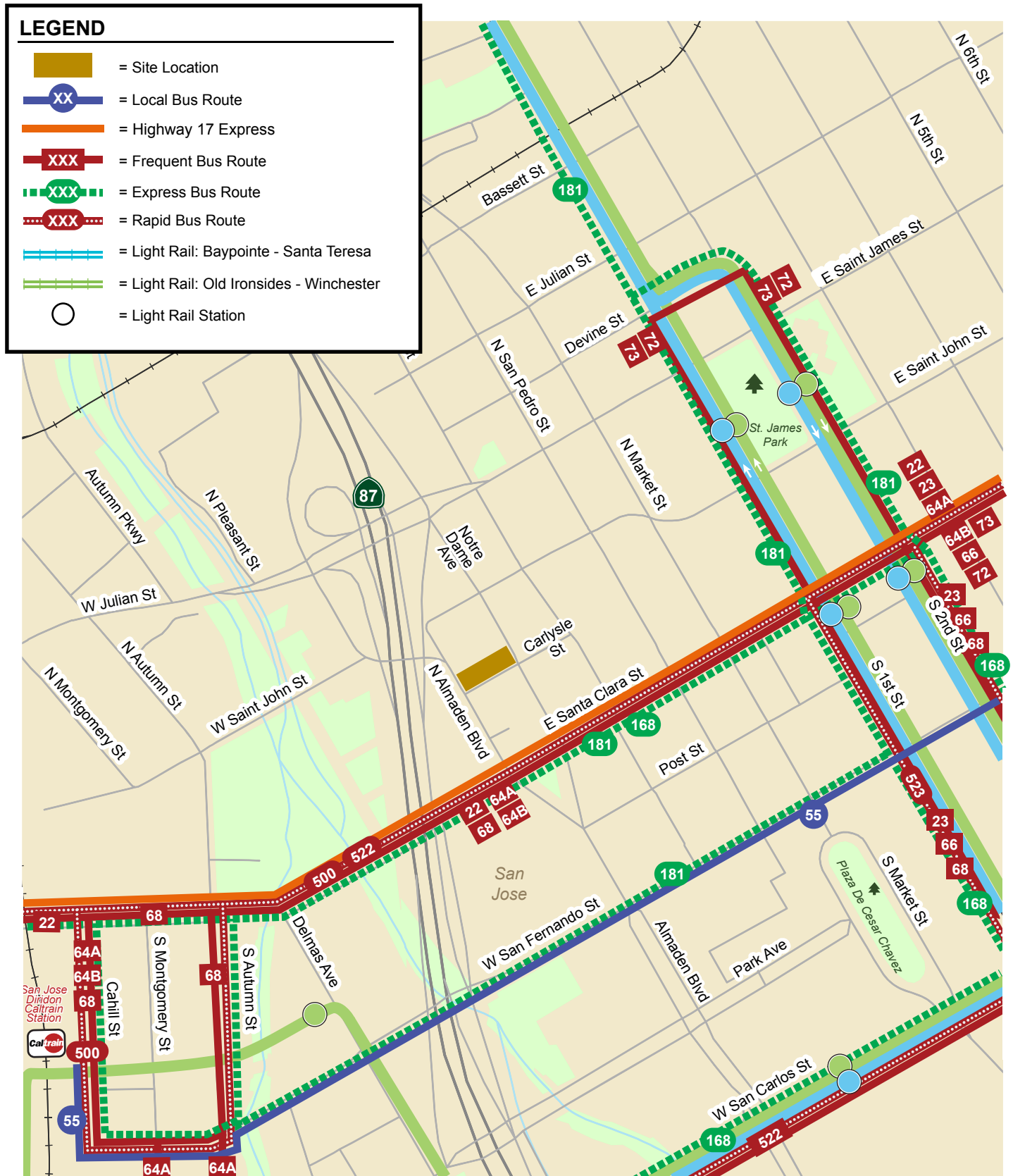
Transit Route	Route Description	Hours of Operation	Headway <sup>1</sup>
Local Route 22	Palo Alto Transit Center to Eastride Transit Center	24 hours	15 mins
Local Route 23	De Anza College to Alum Rock via Stevens Creek	5:00 am - 1:30 am	15 mins
Local Route 55	Old Ironsides Station to De Anza College	5:30 am - 11:00 pm	30 mins
Local Route 64A	McKee&White to Ohlone-Chynoweth Station	5:15 am - 12:30 am	30 mins
Local Route 64B	McKee&White to Almaden Expressway/Camden	6:00 am - 9:30 pm	30 mins
Local Route 66	North Milpitas to Kaiser San Jose	5:00 am - 12:15 am	15 mins
Local Route 68	Gilroy Transit Center to San Jose Diridon Station	4:00 am - 1:30 am	15 mins
Local Route 72	Downtown San Jose - Senter & Monterey via McLaughlin	5:30 am - 11:30 pm	15 mins
Local Route 73	Downtown San Jose - Senter & Monterey via Senter	5:30 am - 11:45 pm	15 mins
Express Route 168 <sup>2</sup>	Gilroy Transit Center to San Jose Diridon Station	5:30 am - 9:00 am (NB) 3:30 pm - 7:00 pm (SB)	20 mins
Express Route 181	San Jose Diridon Station to Warm Springs BART	5:30 am - 12:30 am	20 - 30 mins
Rapid 500	San Jose Diridon Station to Downtown San Jose	6:45 am - 9:30 pm	15 mins
Rapid 522	Palo Alto Transit Center to Eastride Transit Center	4:45 am - 11:45 pm	12 mins
Rapid 523	Berryessa BART to Lockheed Martin via De Anza College	5:00 am - 11:30 pm	15 mins
Highway 17 Express	Downtown Santa Cruz/Scotts Valley to Downtown San Jose	4:45 am - 11:45 pm	15 - 30 mins

**Notes:**  
<sup>1</sup> Approximate headways during peak commute periods.  
<sup>2</sup> Express Route 168 is primarily a commuter route. It runs in the northbound direction only in the mornings and the southbound direction only in the evenings.



**Figure 2**  
**Existing Bicycle Facilities**





**Figure 3**  
**Existing Transit Services**

**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.

**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 seven times during the weekdays between approximately 7:37 AM and 9:05 PM in the westbound direction. In the eastbound direction, Amtrak stops at the Diridon Station seven times during the weekdays between 6:42 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, 10th Edition* for each of the proposed site land uses. 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.

**Trip Reductions****Mixed-Use Adjustment**

A mixed-use development with complementary land uses such as office, residential, and commercial (food/beverage establishment), will result in a reduction of external site trips. Thus, the number of vehicle trips generated for each use may be reduced, since a portion of the trips would not require entering or exiting the site. The percent reduction is based on the VTA Transportation Impact Analysis Guidelines (October 2014). Housing and retail mixed uses can reduce the number of trips generated by 15% of the smaller trip generator. Housing and employment mixed uses can reduce the number of trips generated by 3% of the smaller trip generator. Employment and retail mixed uses can reduce the number of trips generated by 3% of the smaller trip generator.

**VMT Adjustment**

A VMT adjustment was applied to the trip generation based on the VMT per capita estimate obtained from the *San Jose VMT Evaluation Tool*. It is assumed that for each percentage of VMT per capita reduced with the project was equivalent to a one percent reduction in peak-hour vehicle trips. The existing residential VMT per capita at the project site is 8.78 VMT per capita. With the proposed project, the estimated residential VMT per capita is 8.06, an 8.2% decrease. Thus, an 8.2% reduction was applied to the baseline trips estimated to be generated by the proposed project. No reductions were applied to the retail and employment uses, as there was no reduction in VMT.

**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*. The results of the VMT Evaluation Tool can be found

in Appendix D. Based on the VMT Evaluation 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 is characterized as an area with high density, good accessibility, high public transit access, low single-family homes, middle-aged and older housing stock. Housing, retail, and office uses within urban high-transit areas have a vehicle mode share of 78 percent, 83 percent, and 69 percent, respectively. Thus, a 22 percent, 17 percent, and 31 percent reduction were applied to the baseline trips estimated to be generated by the proposed uses of the project.

### **Net Project Trip Generation**

Based on the trip generation rates and reduction, it is estimated that the proposed project would generate 1,817 daily trips, with 157 trips (98 inbound and 59 outbound) occurring during the AM peak hour and 174 trips (61 inbound and 113 outbound) occurring during the PM peak hour. The trip generation estimates for the proposed project are shown in Table 2.

### **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 location, 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 project are shown on Figures 4 and 5, respectively.

### **Site Access and Circulation**

A review of the project site plan 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 preliminary site plans dated February 22, 2019 prepared by Steinberg Hart, and in accordance with generally accepted traffic engineering standards and City of San Jose design standards. The first level site plan is shown on Figure 6. The layout of Levels 2, 3, and 4 are shown on Figures 7, 8, and 9.

### **Project Driveway/Site Access Design**

A two-way driveway along Almaden Boulevard will provide ingress and egress for the proposed on-site parking garage. According to the City of San Jose Department of Transportation (DOT) Geometric Design Guidelines (Addendum Drawing No. R-8), the typical width for a two-way driveway that serves a commercial development is 16 to 32 feet wide. This provides adequate width for vehicular ingress and egress and provides a reasonably short crossing distance for pedestrians. The driveway is shown to be 26 feet wide, which meets City guidelines.

### **Sight Distance at the Driveway Serving the Project**

There are no existing trees or visual obstructions along the project frontage that would obscure sight distance at the project driveway. The project access points should be designed to 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 Almaden Boulevard. Any landscaping and signage should be located in such a way to ensure an unobstructed view for drivers exiting the site.

**Table 2**  
**Project Trip Generation**

Land Use	ITE Land Use Code	Size	Daily		AM Peak Hour						PM Peak Hour					
					Split			Trip			Split			Trip		
			Rate	Trip	Rate	In	Out	In	Out	Total	Rate	In	Out	In	Out	Total
Multifamily Housing (High-Rise) (ITE LU 222)	222	290 Dwelling Units	4.45	1,291	0.31	24%	76%	22	68	90	0.36	61%	39%	63	41	104
<i>Housing &amp; Retail Mixed-Use Reduction (15%)<sup>1</sup></i>				-43				0	-1	-1				-2	-2	-4
<i>Housing &amp; Employment Mixed-Use Reduction (3%)<sup>2</sup></i>				-36				-1	-2	-3				-2	-1	-3
<i>Location-Based Reduction (22%)<sup>5</sup></i>				-267				-5	-14	-19				-13	-8	-21
<i>VTMT Reduction (8.2%)<sup>6</sup></i>				-76				-1	-4	-5				-4	-2	-6
Shopping Center (ITE LU 820)	820	7,600 Square Feet	37.75	287	0.94	62%	38%	4	3	7	3.81	48%	52%	14	15	29
<i>Housing &amp; Retail Mixed-Use Reduction (15%)<sup>1</sup></i>				-43				-1	0	-1				-2	-2	-4
<i>Employment &amp; Retail Mixed-Use Reduction (3%)<sup>3</sup></i>				-36				-1	-3	-4				-4	-1	-5
<i>Location-Based Reduction (17%)<sup>5</sup></i>				-35				0	0	0				-1	-2	-3
<i>Retail Passby (34%)<sup>4</sup></i>				-5				0	0	0				-2	-3	-5
General Office Building (ITE LU 710)	710	123,500 Square Feet	9.74	1,203	1.16	86%	14%	123	20	143	1.15	16%	84%	23	119	142
<i>Housing &amp; Employment Mixed-Use Reduction (3%)<sup>2</sup></i>				-36				-2	-1	-3				-1	-2	-3
<i>Employment &amp; Retail Mixed-Use Reduction (3%)<sup>3</sup></i>				-36				-3	-1	-4				-1	-4	-5
<i>Location-Based Reduction (31%)<sup>5</sup></i>				-351				-37	-6	-43				-7	-35	-42
<b>Total Project Trips</b>				<b>1,817</b>				<b>98</b>	<b>59</b>	<b>157</b>				<b>61</b>	<b>113</b>	<b>174</b>

Source: ITE Trip Generation Manual, 10<sup>th</sup> Edition 2017

<sup>1</sup>As prescribed by the VTA Transportation Impact Analysis Guidelines (October 2014), the maximum trip reduction for a mixed-use development project with housing and retail components is equal to 15% off the smaller trip generator.

<sup>2</sup>As prescribed by the VTA Transportation Impact Analysis Guidelines (October 2014), the maximum trip reduction for a mixed-use development project with housing and employment components is equal to 3% off the smaller trip generator.

<sup>3</sup>As prescribed by the VTA Transportation Impact Analysis Guidelines (October 2014), the maximum trip reduction for a mixed-use development project with employment and employee-serving retail components is equal to 3% off the employment component.

<sup>4</sup>An PM average retail pass-by reduction of 34% was applied based on ITE Trip Generation Handbook, 3<sup>rd</sup> Edition.

<sup>5</sup>The project site is located within an urban high-transit area based on 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 2018). The trip reductions are based on the percent of mode share for all of the other modes of travel beside vehicle.

<sup>6</sup>Existing (8.78) and project (8.06) VMTs per capita were estimated using the City of San Jose Evaluation Tool (February 29, 2019). It is assumed that every percent reduction in VMT per capita is equivalent to one percent reduction in peak-hour vehicle trips. VMT reduction was not applied to the office and retail uses because there's no reduction in VMTs.





## Carlisle Mixed-Use

<b>1</b> Santa Clara St 54(34) → 3(6) → 5(3) → Notre Dame Ave	<b>2</b> Santa Clara St 6(11) ↓ 3(6) ↓ 3(6) ↓ 54(34) → Almaden Blvd	<b>3</b> Carlisle St 46(90) → 64(40) → Notre Dame Ave	<b>4</b> 13(23) ↓ 46(90) ↓ 66(41) → Almaden Blvd Carlisle St
<b>5</b> W. St. John St 7(5) ↓ 25(15) → Almaden Blvd	<b>6</b> W. St. John St 7(5) ← 44(84) ↑ 3(6) → Notre Dame Ave	<b>A</b> 32(20) → 59(113) → 66(41) → Almaden Blvd Project Dwy	



**Figure 5**  
**Project Trip Assignment**



Existing street parking is present on the east side of Almaden Boulevard on the project frontage. The project site plan is unclear on whether parking will be allowed on the project frontage. Since the project will construct a new 26-foot driveway, new red curb should be installed equal to a car length on both sides of the driveway to ensure exiting vehicles will have clear vision of oncoming traffic on Almaden Boulevard.

Adequate sight distance (sight distance triangles) should be provided at the project driveway in accordance with the *American Association of State Highway Transportation Officials* (AASHTO) standards. Sight distance triangles should be measured approximately 10 feet back from the traveled way. Providing the appropriate sight distance reduces the likelihood of a collision at a driveway or intersection and provides drivers with the ability to exit a driveway and locate sufficient gaps in traffic. The minimum acceptable sight distance is often considered the AASHTO stopping sight distance. Sight distance requirements vary depending on the roadway speeds. Almaden Boulevard does not have a posted speed limit. Therefore, it will be assumed that the speed limit is 25 mph. The AASHTO stopping sight distance for a facility with a posted speed limit of 25 mph is 150 feet. Thus, a driver exiting the proposed project driveway must be able to see 150 feet to the north and south along Almaden Boulevard in order to stop and avoid a collision.

Since there is an all-way stop-controlled intersection approximately 50 feet north of the project driveway, it can be assumed that vehicles approaching from that direction will be traveling at low speeds, as they have just stopped at the intersection. Similarly, with the existing configuration, vehicles from the south can only access northbound Almaden Boulevard via Carlysle Street. Carlysle Street, which is approximately 100 feet south of the project driveway, is also stop-controlled. Therefore, it can also be assumed that vehicles will not be moving at a high rate of speed after turning onto Almaden Boulevard. With the proposed conversion of Almaden Boulevard to two-way operations, vehicles would be able to travel northbound on Almaden Boulevard between Carlysle Street and Santa Clara Street.

Based on the project site plan and observations in the field, vehicles exiting the project site driveway would be able to see approaching traffic from the south on northbound Almaden Boulevard as far away as 200 feet, past the intersection of Almaden Boulevard and Carlysle Street. Therefore, it can be concluded that the project driveway would meet the AASHTO minimum stopping sight distance standards.

**Recommendation:** Red curb equal to a minimum of one car length on both sides of the project garage driveway should be implemented to provide adequate sight distance. The red curb will require the removal of two existing on-street parking spaces located directly north and south of the project garage driveway.

### Project Driveway Operations

The project trip assignment at the proposed project driveways is shown in Figure 6. Based on the estimated project trips, it is projected that a maximum of 98 inbound trips (during the AM peak-hour) would enter the parking garage. A maximum of 115 outbound trips would exit the site onto Almaden Boulevard during the PM peak hour.

The proposed site plan does not indicate any type of control or gate in the driveway area. If gates are to be implemented at the garage entrance, the flow rate at which vehicles enter the garage will depend primarily on the processing ability, or service rate, of the entry gates. Based on the site plan, the entry gates could consist of one inbound lane and one outbound lane at the driveway. The gates must be able to process a minimum of 98 vehicles per hour (approximately two vehicles per minute, on average) to avoid inbound queueing during the AM peak hour. Based on previous parking design information, parking garage entry gates that utilize a transponder style device are capable of servicing between 600 to 800 vehicles per hour or up to 13 vehicles per minute. Standard card readers or ticket machines

have service rates of approximately 4 to 6 vehicles per minute. Therefore, it is unlikely that queues would form at the garage entrance should gates with standard card readers be used.

The projected flow rate at the project driveway assumes an evenly distributed arrival rate. However, it is unlikely that inbound project traffic would be spread out evenly throughout the peak-hour. There would likely be instances where multiple vehicles (two to three vehicles for example) would arrive at the same time. Therefore, it is recommended that gates, if implemented, be located within the parking garage and provide queuing space for at least two vehicles to avoid vehicle queuing onto the sidewalk. Appropriate visible and/or audible warning signs also should be provided at the project driveways to alert pedestrians and bicyclists of vehicles exiting the garage.

Since vehicles will need to turn left into the driveway from southbound Almaden Boulevard, vehicles may occasionally block southbound traffic momentarily while waiting for vehicles travelling northbound on Almaden Boulevard to pass. Since this section of northbound Almaden Boulevard carries a relatively low volume of traffic, it is not expected to have an adverse effect on traffic operations entering the garage or on traffic heading south on Almaden Boulevard.

Almaden Boulevard carries a relatively low volume of traffic, which would generally allow for vehicles to easily exit the garage. Some minor on-site vehicle queuing could occur due to a combination of the inherent unpredictability of vehicle arrivals at driveways and the random occurrence of gaps in traffic along Almaden Boulevard. A maximum of 112 outbound trips is equivalent to approximately one vehicle exiting every 32 seconds. Since parking primarily occurs on the upper level, vehicles could queue from the exit ramp into the garage, if necessary.

Restricting left-turns to and from the garage entrance would eliminate the queueing issues described above. However, such an access restriction would require lengthy and circuitous routes to and from the project site due to the one-way operations of Almaden Boulevard, north of St. John Street. The left-turn restriction at the garage entrance would not result in circuitous routes if Almaden Boulevard were to be converted to two-way operations between St. John Street and Notre Dame Avenue. However, the planned Almaden Boulevard/Notre Dame Avenue to two-way operations, as described below, does not currently include the conversion of Almaden Boulevard to two-way operations between St. John Street and Notre Dame Avenue.

### **Planned Almaden Boulevard Two-Way Street Conversion**

The City of San Jose is planning to convert Almaden Boulevard, between Carlysle Street and Santa Clara Street, from one-way to two-way operations. The proposed improvements (shown in Figure 10) include the addition of one northbound vehicular travel lane and signal modifications at the Almaden Boulevard/Santa Clara Street intersection to provide a new left-turn lane from eastbound Santa Clara Street to Almaden Boulevard. However, there is no implementation schedule nor has funding been secured for the implementation of the Almaden Boulevard conversion project. Access to the project site for project trips originating from Santa Clara Street, west of Almaden Boulevard would be able to use Almaden Boulevard rather than circulating to Notre Dame Avenue. The project may be required to make a fair-share contribution towards proposed signal modifications at the Almaden Boulevard/Santa Clara Street intersection since the improvements would provide the project with a more direct access route.

### **Vehicular On-Site Circulation**

Continuous drive aisles run throughout the four above-ground parking levels. In general, the layout provides opportunities for circulating vehicles to loop around without requiring U-turns. The project would provide 90-degree parking stalls through the parking areas. The City's standard minimum width for two-way drive aisles is 26 feet wide where 90-degree parking is provided. This allows sufficient

room for vehicles to back out of the parking spaces. According to the site plan, the drive aisles throughout the parking garage vary between 24 to 25.5 feet wide. Since the proposed drive aisles do not meet City standards, the project applicant should coordinate with City staff to determine whether the proposed drive aisles are acceptable.

Stacked mechanical parking lifts will be provided within Levels 2 to 4 (L2 to L4). The automatic stacking lifts will require vehicles to yield in front of the lift or on the drive aisles until the space in the lift is ready for them to park in. Parking and retrieving vehicles from the mechanical parking lifts would momentarily interfere with vehicular circulation as most of the drive aisle would be blocked by the extended lift.

Since the automatic stacking lifts will require knowledge of how to use them, the project should assign residents and office employees with an assigned parking spot. Those who are assigned a spot in an automatic stacking lift should be provided instructions on how to use the lifts. After project opening, it is likely that residents and employees will slowly learn to block drive aisles less frequently and give way to other drivers needing to pass.

**Recommendation:** The project should coordinate with city staff to determine whether the proposed drive aisles are sufficient width.

**Recommendation:** The project should assign parking. Those who are assigned a space in an automatic stacking lift should be provided with instructions on how to operate the automatic stacking lift.

## Parking

### Vehicle Parking

According to the site plan, the project proposes 318 parking spaces within stacked mechanical parking lifts and 12 standard 8.5 feet wide by 18 feet long parking spaces. The proposed parking stalls meet the minimum requirement for a uniform-sized parking stall.

According to the City of San Jose Downtown Zoning Regulations (Table 20-140), the project is required to provide 1 parking space per residential unit and 2.5 off-street vehicle parking spaces per 1,000 square feet of office use. The project is not required to provide any off-street parking for the proposed retail uses. The project includes 123,500 square feet of office space. Based on the City's off-street parking requirements, a total of 599 off-street parking spaces would be required (290 for the residential and 309 for the office use). The project proposes to provide a total of 330 off-street parking spaces with 290 allocated to the residential units and 40 allocated to the office space. The proposed residential parking spaces will meet the City's parking requirement. However, the proposed 40 parking spaces for the office use will represent an 87% reduction from the required 309 off-street parking spaces.

### Reduction in Required Off-Street Parking Spaces

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

1. The structure or use is located within two thousand feet of a proposed or an existing rail station or bus rapid transit station, or an area designated as a neighborhood business district, or as an urban village, or as an area subject to an area development policy in the city's general plan or the use is listed in Section 20.90.220.G; and
2. The structure or use provides bicycle parking spaces in conformance with the requirements of Table 20-90.

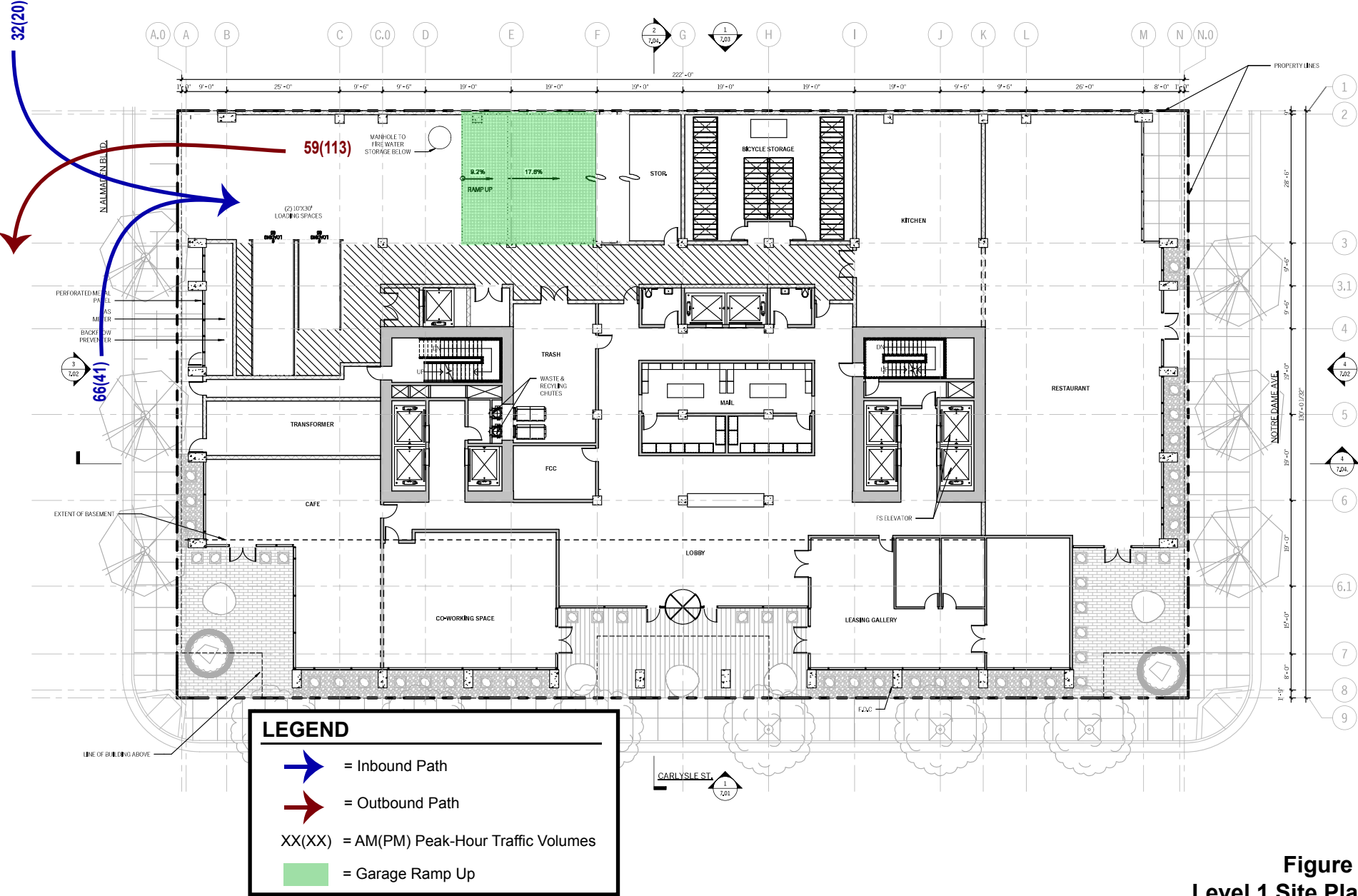


Figure 6  
 Level 1 Site Plan

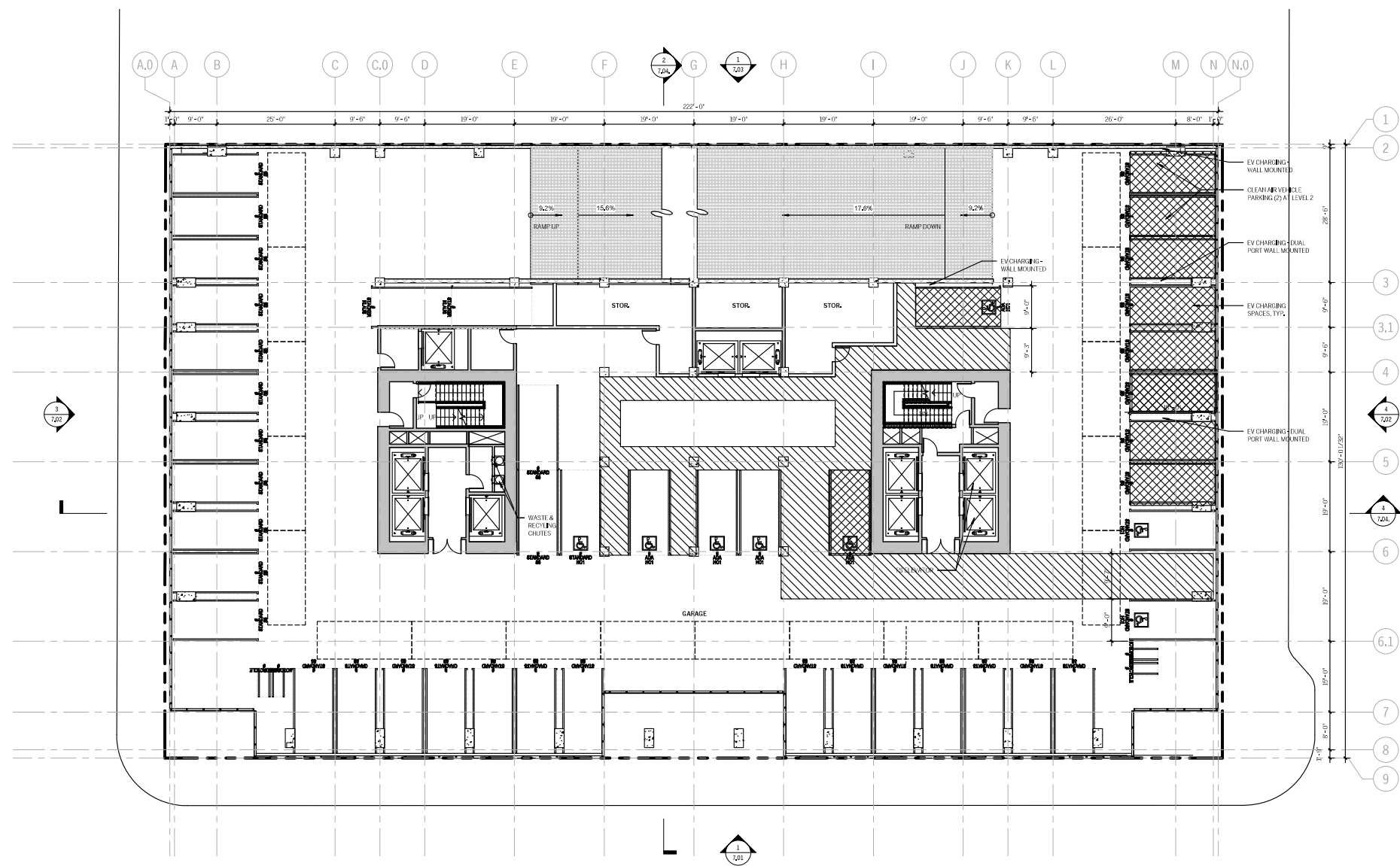


Figure 7  
 Level 2 Site Plan



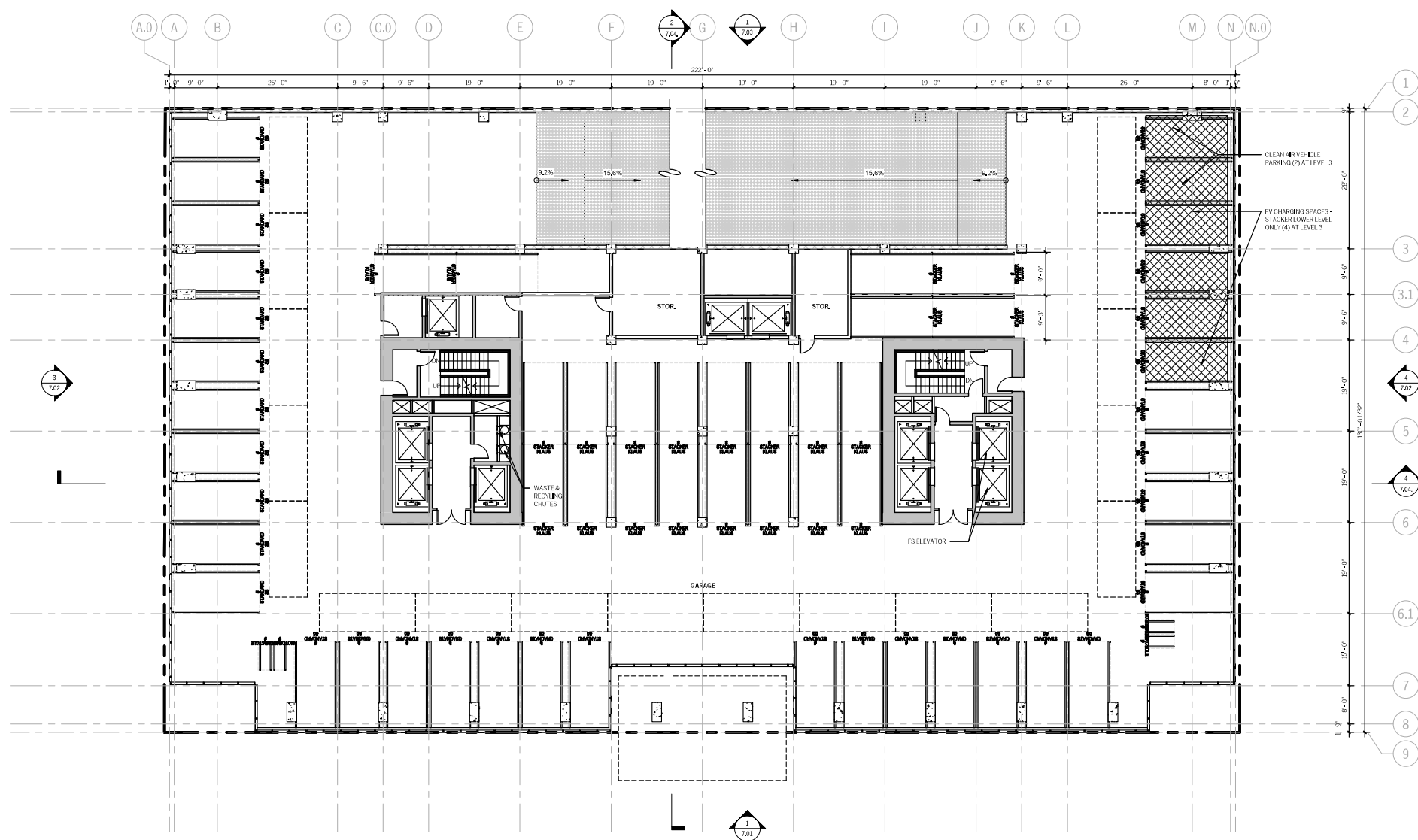


Figure 8  
 Level 3 Site Plan



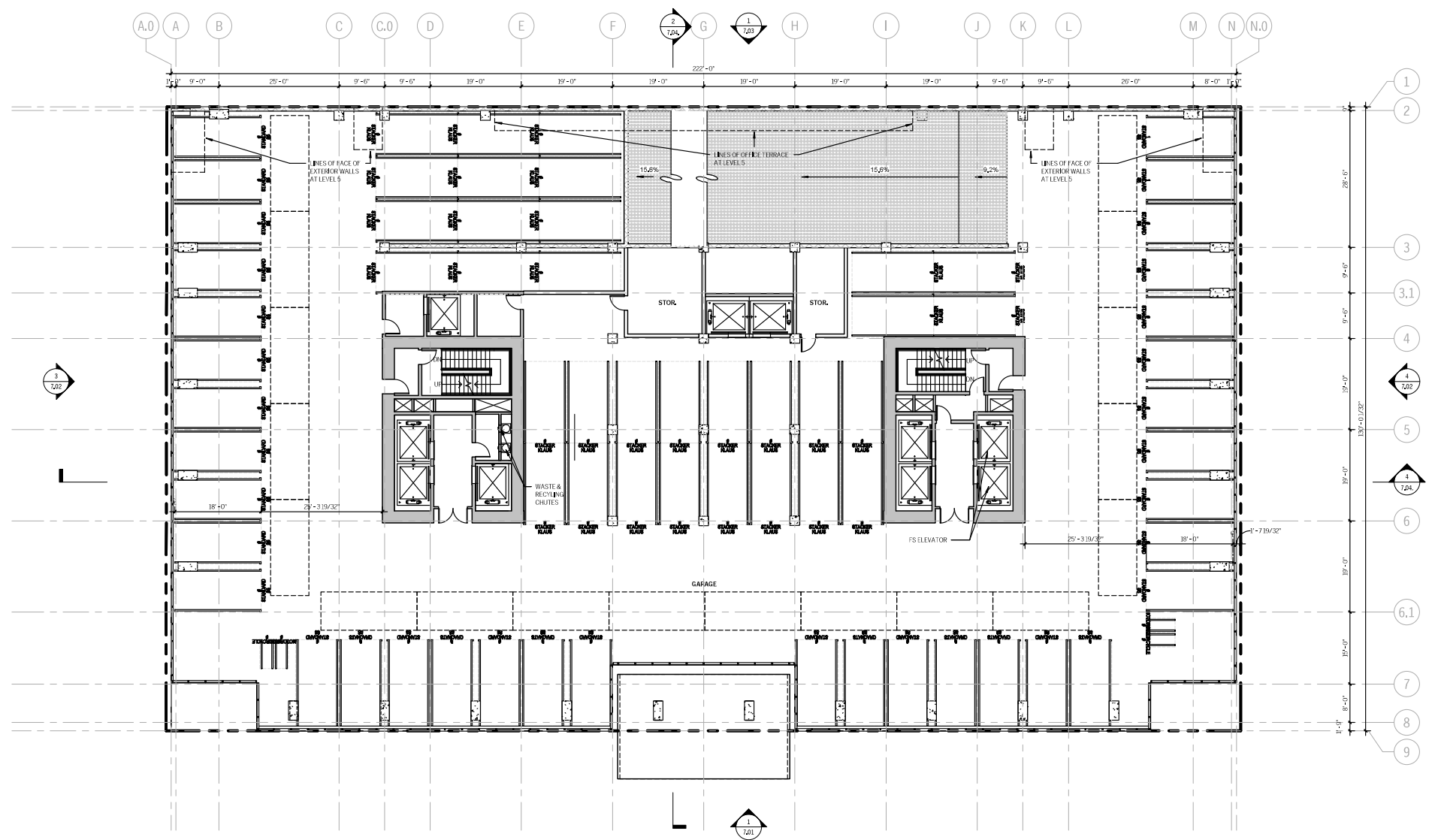


Figure 9  
 Level 4 Site Plan

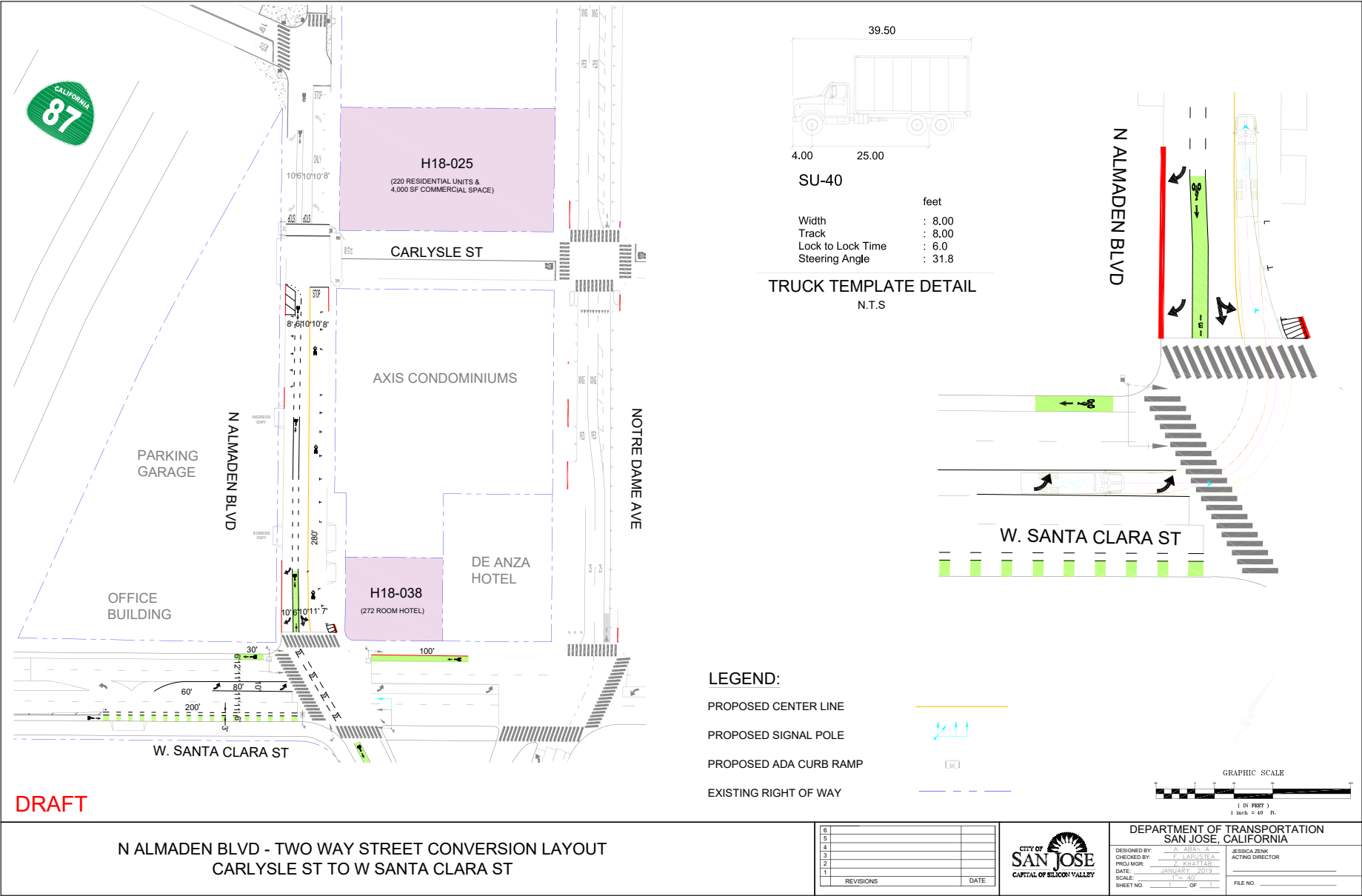


Figure 10  
 Almaden Boulevard Conversion

The project site is located within the Downtown Core and is within 2,000 feet walking distance of the Santa Clara Street LRT Station along the Winchester-Old Ironsides line. Assuming that the project will meet the City Bicycle Parking requirements per Table 20-90, the project will conform to Code 20.90.220.A.1 Subsections A and B and may be granted up to a 20 percent reduction in off-street parking spaces.

The project may pursue an additional 30 percent parking reduction by implementing a Transportation Demand Management (TDM) program that contains but is not limited to at least three of the measures described in Code 20.90.220.A.1 Subsections C and D. City Code 20.70.330.A also allows for an additional 15% reduction for mixed-use development projects within the Downtown area which implement a TDM program. Therefore, the project will be required to submit and have approved its TDM program. Overall, the TDM reductions will allow the project to reduce its required on-site parking spaces for the office space by up to 65 percent. The project may be required to identify off-site parking locations that could provide additional parking to meet the proposed 87 percent reduction in office parking.

### **ADA Compliance**

Per the 2016 California Building Code (CBC) Table 11B-208.2, projects providing between 301 and 400 parking spaces are required to provide 8 accessible parking spaces. Of the required accessible parking spaces, 2 van accessible spaces are required.

The project proposes to provide a total of 8 accessible spaces, all located on level 2 of parking garage. Of the provided ADA accessible spaces, 5 spaces are shown to be designated van accessible. As proposed, the project provides an adequate number of accessible parking spaces to meet accessible parking space requirements. Based on the site plan, the proposed accessible parking spaces are generally located within 100 feet walking distance of building entrances.

### **Clean Air Vehicle Spaces**

The project is also required to provide Clean Air Vehicle spaces, pursuant with Table 20-215. The project proposes to provide 290 off-street parking spaces for residents, leaving 40 off-street parking spaces for office employees. According to Table 20-215 in the City of San Jose Zoning Code, 40 off-street parking spaces for non-residential uses will require a minimum of 3 Clean Air Vehicle spaces. The site plan shows 4 Clean Air Vehicle spaces, meeting the City's requirements for Clean Air Vehicle spaces.

### **Bicycle Parking**

Based on the project's downtown location, it is likely that employees and residents of the proposed project will be able to live in close proximity employment to the site or will be able to quickly access transit to reach other employment areas or their place of residence. Therefore, the project is required to meet the City's Bicycle Parking requirements.

The City Municipal Code (Table 20-190) requires one bicycle parking space per 4,000 square feet of office use and one bicycle parking space per four residential units. Bicycle parking spaces shall consist of at least eighty percent short-term and at most twenty percent long-term spaces. Per Code 20.70.485, uses which are not required to provide vehicle parking spaces (i.e. the ground-floor commercial use) are required to provide only two short-term bicycle parking spaces and one long-term bicycle parking spaces. Thus, the proposed mixed-use project is required to provide a total of 107 bicycle parking spaces: 85 short-term bicycle parking spaces and 22 long-term bicycle parking spaces to meet the City standards. The City's definition of short-term and long-term bicycle parking is described below.

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

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

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

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

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

The 108 bicycle parking spaces proposed to be provided within a bicycle storage room will meet the City's bicycle parking requirements. The bicycle storage room is accessible from the lobby. Since the café and the restaurant are not connected the lobby, the bicycle storage room is likely to be used only by residents and office employees. The project should consider adding short-term bicycle parking racks on the project frontage for patrons of the café and restaurant.

**Recommendation:** The project should provide short-term bicycle parking racks on the project frontage.

### **Off-Street Loading**

The project proposes to locate two loading docks within the ground floor of the parking garage. The loading docks will be located immediately east of the garage entrance on the south side of the drive aisle leading to the garage ramp.

The City of San Jose off-street loading standards within the Downtown Area and applicable to the project are listed below:

- Offices with one hundred thousand to one hundred seventy-five thousand square feet of total gross floor area shall provide one loading space. (20.70.420).
- Residential uses between two hundred and five hundred units shall provide two off-street loading spaces (20.70.435)
- Retail and commercial stores and shops, restaurants, bars and drug stores less than ten thousand GFA are not required to provide a loading space. (20.70.430)

The proposed development will have office uses totaling 123,500 square feet, 290 residential units, and 7,600 s.f. of retail uses. Therefore, the City code requires the project to provide a total of three off-street truck loading spaces (one space for the office use, two spaces for the residential use, and none required for the retail use). Per section 20.70.450 of the Downtown Zoning Regulations, the Planning Director may authorize the reduction of two on-site loading spaces to one on-site loading space in connection with the issuance of a development permit if the Director finds that sufficient on-street loading space exists to accommodate circulation and manipulation of freight. All loading spaces should be designed to be no less than 10 feet wide, 30 feet long, and 15 feet high per the City code (20.90.420).

The project frontage currently has metered parking along Carlyle Street, Notre Dame Avenue, and North Almaden Boulevard. Since the project proposes two loading spaces, the project should coordinate with city staff to determine whether the proposed off-street loading spaces are sufficient.

Additionally, with the popularity of shared-ride transportation services, it is beneficial to provide a place for passengers to be picked up and dropped off. The site plan is unclear on whether any on-street loading spaces are provided. A passenger loading area is recommended along the project frontage on Carlyle Street. Loading along Carlyle Street will be determined during the implementation phase.

**Recommendation:** The project should coordinate with city staff to determine the number of off-street loading spaces the project should provide.

**Recommendation:** The project should provide a passenger loading area on Carlyle Street.

### Truck and Emergency Vehicle Access

As previously mentioned, the project proposes two off-street loading spaces near the project driveway on Almaden Boulevard. The site plan shows a trash enclosure on the first floor of the project. Garbage trucks will not be able to directly access the trash room. Therefore, trash bins should be moved near the loading spaces on garbage pick-up days.

The project should consider relocating the docks so that they are served by a driveway on Almaden Boulevard. This option would allow trucks to access loading docks during peak hours without conflicting with vehicle entry/exit to the garage and could simplify the maneuvers needed to enter and exit the loading docks. However, this option would also re-direct the project's truck activities onto Almaden Boulevard.

Fire trucks will access the proposed site via the Almaden Boulevard, Carlyle Street, and Notre Dame Avenue frontages.

### Pedestrian and Bicycle Access and 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 11, Almaden Boulevard and Notre Dame Avenue 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.

Sidewalks are provided along the project frontages along N. Almaden Boulevard, Carlyle Street, and Notre Dame Avenue. Crosswalks are available at Carlyle Street with N. Almaden Boulevard and Notre Dame Avenue. Crosswalks and pedestrian signal heads are available at the intersections of W. Santa Clara Street with Almaden Boulevard and Notre Dame Avenue. Overall, the existing sidewalks have good connectivity and provide pedestrians with safe routes to the surrounding pedestrian destinations in the area. In addition, bikeshare and Zipcar stations are provided throughout the downtown area. A bikeshare station is located on the south side of Santa Clara Street, between Almaden Boulevard and Notre Dame Avenue. The nearest Zipcar location is located approximately 1,000 feet from the project site at the southwest corner of the Almaden Avenue/W. Santa Clara Street intersection.

Class II bicycle facilities (striped bike lanes) are provided on Santa Clara Street west of Notre Dame Avenue and on Almaden Boulevard south of W. St. John Street (along the west project frontage). St. John Street east of Autumn Street is designated as a Class III bikeways and provide “sharrow” or shared lane markings. The Guadalupe River Park Trail, a Class I pedestrian and bicycle trail, is accessible west of W. Santa Clara Street and N. Almaden Boulevard just 750 feet west of the project site.

In addition to existing pedestrian facilities, there are proposed pedestrian improvements at the Notre Dame Avenue & Carlysle Street intersection. Half bulbouts and Rapid Rectangular Flashing Beacons (RRFB) will be installed on the northwest and northeast corners. The design will match the north leg of the upstream intersection at Notre Dame Avenue & St. John Street. In addition, ADA compliant ramps are located at all crosswalks at the intersections of Carlysle Street with both Almaden Boulevard and Notre Dame Street with the exception of both corners of the project site. The project will be required to improve the ramps at both the intersections as part of its frontage improvements. Additionally, the City will require the project to build a crosswalk along the north leg of the Almaden Boulevard/Carlysle Street intersection. The crosswalk would allow pedestrians to travel between the project site and the west side of Almaden Boulevard without having to walk to St. John Street or Santa Clara Street. The proposed improvements will improve safety and connectivity of the pedestrian network within the vicinity of the proposed development.

## 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 Santa Clara LRT station is a major transit transfer point between VTA bus and light rail services. Several VTA bus services, described earlier, run on Santa Clara Street. Northbound and southbound platforms for light rail are located on S. First Street and S. Second Street, respectively, are connected by a pedestrian- and bike-only path (Fountain Alley) and are located within walking distance (less than 0.3-mile), of the project site. In addition, the San Jose Diridon Station is located along the Green (Winchester-Old Ironsides) 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.

An evaluation of the effects of project traffic on transit vehicle delay also was completed. The analysis was completed for all transit routes that travel through the study intersections utilizing delay information produced by intersection Level of Service analysis. The results of the transit delay analysis are presented in Table 3.

Within the project vicinity, bus transit routes only travel along Santa Clara Street in the immediate project vicinity. Therefore, traffic associated with the proposed project would have the greatest effect on the Almaden Boulevard/Santa Clara Street and Notre Dame Avenue/Santa Clara Street intersections. The analysis indicates that the proposed project would increase delay to transit vehicles by less than three seconds per vehicle at the subject intersections. The City does not currently have established policies or significance criteria related to transit vehicle delay. However, the City is currently reviewing potential policies that could require development projects to contribute towards the implementation of transit improvements along the Santa Clara Street and San Carlos Street corridors. Thus, this data is presented for informational purposes only.



**Table 3**  
**Transit Delay**

Study Intersection	Background	Background Plus Project	
	Delay (s) <sup>1</sup>	Delay (s) <sup>1</sup>	Change in Delay (sec)
<b>Almaden Boulevard &amp; Santa Clara Street</b>			
Eastbound AM	19.2	19.1	-0.1
Eastbound PM	8.4	8.7	0.3
Westbound AM	3.6	3.6	0.0
Westbound PM	6.8	7.0	0.2
<b>Notre Dame Avenue &amp; Santa Clara Street</b>			
Eastbound AM	17.3	17.4	0.1
Eastbound PM	18.4	18.4	0.0
Westbound AM	26.2	29.2	3.0
Westbound PM	21.4	23.1	1.7
Notes:			
<sup>1</sup> Delay experienced by each vehicle.			

## Vehicular Queuing Analysis

A vehicle queuing analysis was completed for high-demand movements at the study intersections. The study locations were selected based on the number of projected project trips at utilizing left-turning lanes at surrounding intersections. The vehicle queuing analysis was estimated using a Poisson probability distribution, which estimates the probability of “n” vehicles for a vehicle movement using the following formula:

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

Where:

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

n = number of vehicles in the queue per lane

$\lambda$  = average number of vehicles in the queue per lane (vehicles per hour per lane/signal cycles per hour)

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95<sup>th</sup> percentile maximum number of queued vehicles per signal cycle for a particular movement; (2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the movement. The results of the queue analysis are summarized in Table 4.

The queuing analysis shows that the eastbound left-turn movement at the Notre Dame Avenue and Santa Clara Street intersection currently experiences a queue that exceeds the available storage capacity under existing conditions and would continue to do so under background conditions. The proposed project is projected to increase the queue for the eastbound left-turn movement by two vehicles during the AM peak hour and one vehicle during the PM peak hour when compared to background conditions. Providing additional queue storage capacity for the described location is not feasible as the existing eastbound left-turn lane already extends to the upstream intersection at Almaden Boulevard/Santa Clara Street.

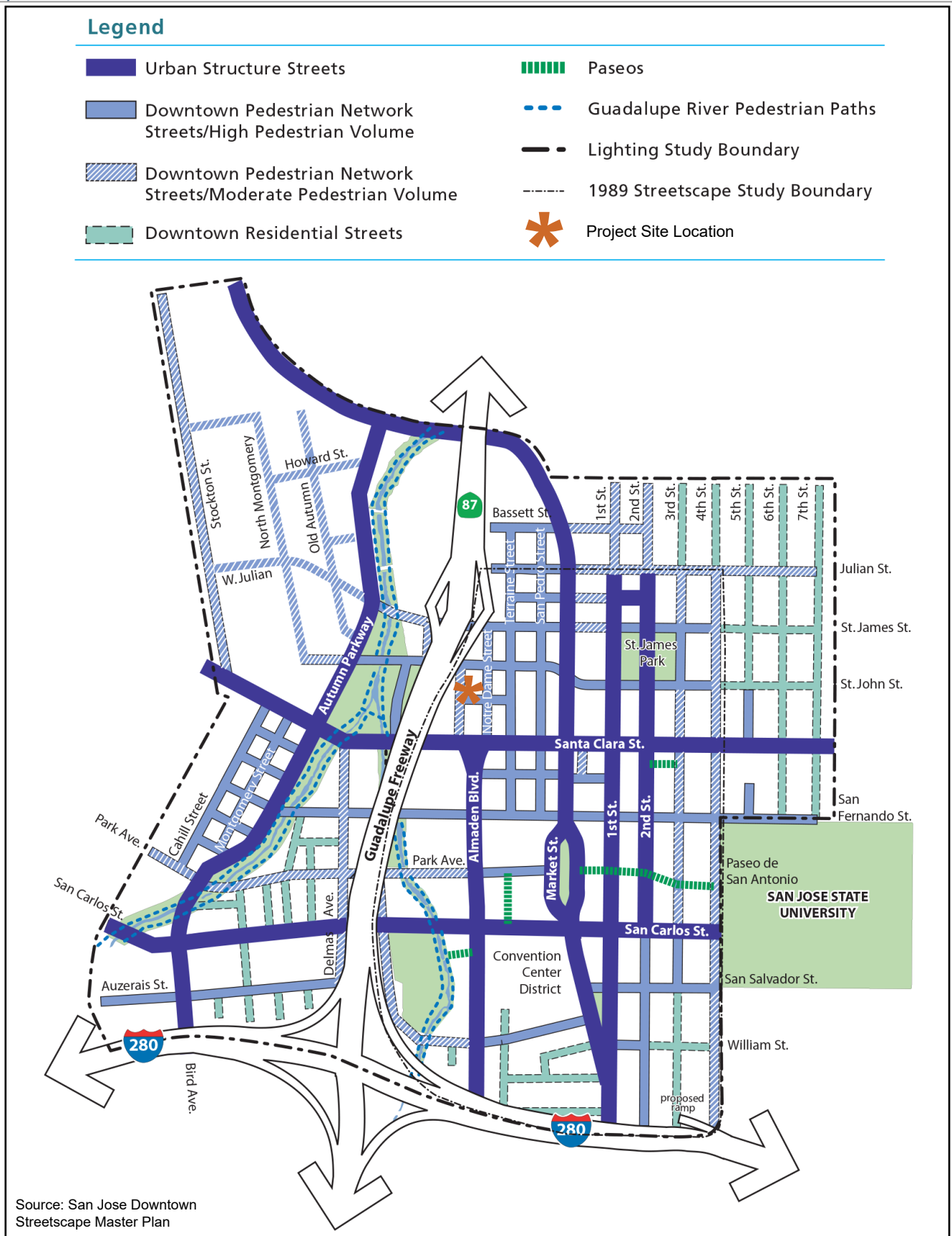
Installing a third eastbound lane at the at the west leg of the Almaden Boulevard/Santa Clara Street intersection would require shortening of an upstream left-turn pocket along with narrowing of sidewalks and/or removal of bike lanes. The removal and/or alteration of improvements intended to encourage the use of multi-modal travel to accommodate vehicular demand is not consistent with General Plan goals. Therefore, the extension of eastbound left turn-lane at the Notre Dame Avenue/Santa Clara Street intersection is not recommended.

Additionally, since the City of San Jose has plans for N. Almaden Boulevard, between Santa Clara Street and Carlysle Street, to be converted to two-way operation, the upstream left-turn pocket will be converted into a left-turn lane. Since the project driveway is located on N. Almaden Boulevard, a large portion of, if not all, project trips would utilize the left-turn from Santa Clara Street onto N. Almaden Boulevard instead of onto Notre Dame Avenue. The two-way street conversion, which would add a left-turn lane on Santa Clara Street, would help improve eastbound left-turn operations at the Notre Dame Avenue and Santa Clara Street intersection. Since the project will be adding a number of trips to a movement that is already at capacity, the city will likely ask the project to contribute its fair-share cost towards the proposed two-way street improvements.

All other movements which the project is expected to add a significant number of turning movements to, which include the northbound left and eastbound left at Notre Dame Avenue/Carlysle Street, the southbound left and westbound right at Almaden Boulevard/Carlysle Street, and the eastbound right at Almaden Boulevard/West St. John Street, currently have sufficient storage. The addition of project trips at these movements would not cause any queuing that would exceed storage.

**Table 4**  
**Queuing Analysis Summary**

Measurement	Notre Dame Avenue & Santa Clara Street		Almaden Boulevard & Santa Clara Street		Notre Dame Avenue & Carlysle Street				Almaden Boulevard & Carlysle Street				Almaden Boulevard & W. St. John Street	
	EBL		SBR		NBL		EBL		SBL		WBR		EBR	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
<b>Existing</b>														
Cycle/Delay <sup>1</sup> (sec)	100	100	100	100	7.3	7.3	20.1	18.2	7.3	7.3	13.5	12.6	7.9	7.6
Volume (vphpl)	174	211	76	58	101	61	34	33	55	59	2	18	332	230
95th % Queue (veh/ln.)	9	10	5	4	1	1	1	1	1	1	0	1	2	2
95th % Queue (ft./ln.) <sup>2</sup>	225	250	125	100	25	25	25	25	25	25	0	25	50	50
Storage (ft./ln.)	130	130	80	80	360	360	225	225	150	150	225	225	300	300
Adequate (Y/N)	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
<b>Background</b>														
Cycle/Delay <sup>1</sup> (sec)	100	100	100	100	7.3	7.3	20.1	18.2	7.3	7.3	13.5	12.6	7.9	7.6
Volume (vphpl)	187	235	77	69	101	61	34	33	55	59	2	18	332	230
95th % Queue (veh/ln.)	9	11	5	4	1	1	1	1	1	1	0	1	2	2
95th % Queue (ft./ln.) <sup>2</sup>	225	275	125	100	25	25	25	25	25	25	0	25	50	50
Storage (ft./ln.)	130	130	80	80	360	360	225	225	150	150	225	225	300	300
Adequate (Y/N)	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
<b>Background Plus Project</b>														
Cycle/Delay <sup>1</sup> (sec)	100	100	100	100	7.3	7.3	20.1	18.2	7.3	7.3	13.5	12.6	7.9	7.6
Volume (vphpl)	241	269	83	80	165	101	80	123	101	149	68	59	357	245
95th % Queue (veh/ln.)	11	12	5	5	1	1	2	2	1	1	1	1	2	2
95th % Queue (ft./ln.) <sup>2</sup>	275	300	125	125	25	25	50	50	25	25	25	25	50	50
Storage (ft./ln.)	130	130	80	80	360	360	225	225	150	150	225	225	300	300
Adequate (Y/N)	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
<b>Notes:</b>														
EBL = eastbound left movement, SBR = southbound right movement, NBL = northbound left movement, SBL = southbound left movement, WBR = westbound right movement, EBR = eastbound right movement.														
<sup>1</sup> Vehicle queue calculations based on cycle length for signalized intersections and control delay for unsignalized intersections.														
<sup>2</sup> Assumes 25 Feet Per Vehicle Queued.														



**Figure 11**  
Downtown Pedestrian Street Network

## Conclusions

The proposed mixed-use project will provide approximately 123,500 square feet of leasable office space, 290 residential units, and approximately 7,600 square feet of retail/restaurant space. Parking for the proposed project will be provided within three above-ground parking levels, accessed via a driveway on Almaden Boulevard.

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.

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

## Recommendations

- Red curb equal to a minimum of one car length on both sides of the project garage driveway should be implemented to provide adequate sight distance. The red curb will require the removal of two existing on-street parking spaces located directly north and south of the project garage driveway.
- If gates at the garage entrance are to be implemented, they should be located within the parking garage and provide queuing space for at least two vehicles to avoid vehicle queuing onto the sidewalk. Appropriate visible and/or audible warning signs also should be provided at the project driveways to alert pedestrians and bicyclists of vehicles exiting the garage.
- The project will be required to submit and have approved its TDM program to support its proposed reduction in on-site parking spaces for the office space by up to 65 percent. The project may be required to identify off-site parking locations that could provide additional parking to meet the proposed 87 percent reduction in office parking.
- The project should coordinate with city staff to determine whether the proposed drive aisles are sufficient width.
- The project should assign parking. Those who are assigned a space in an automatic stacking lift should be provided with instructions on how to operate the automatic stacking lift.
- The project should provide short-term bicycle parking racks on the project frontage.
- The project should coordinate with city staff to determine the number of off-street loading spaces the project should provide.
- The project should consider relocating the docks so that they are served by a driveway on Almaden Boulevard. This option would allow trucks to access loading docks during peak hours without conflicting with vehicle entry/exit to the garage and could simplify the maneuvers needed to enter and exit the loading docks. However, this option would also re-direct the project's truck activities onto Almaden Boulevard.
- The project should provide a passenger loading area on Carlysle Street.

- Access to the project site for project trips originating from Santa Clara Street, west of Almaden Boulevard would be able to use Almaden Boulevard rather than circulating to Notre Dame Avenue with the planned conversion of Almaden Boulevard to two-way operations. The project may be required to make a fair-share contribution towards proposed signal modifications at the Almaden Boulevard/Santa Clara Street intersection that are planned as part of the Almaden Boulevard conversion since the improvements would provide the project with a more direct access route.
- Pedestrian improvements are planned at the Notre Dame Avenue & Carlysle Street intersection. Half bulbouts and Rapid Rectangular Flashing Beacons (RRFB) will be installed on the northwest and northeast corners. In addition, ADA compliant ramps are located at all crosswalks at the intersections of Carlysle Street with both Almaden Boulevard and Notre Dame Street with the exception of both corners of the project site. The project will be required to improve the ramps at both the intersections as part of its frontage improvements.
- The project will be required to construct a crosswalk along the north leg of the Almaden Boulevard/Carlysle Street intersection.