



FEHR & PEERS
TRANSPORTATION CONSULTANTS



City of San José

ENVISION SAN JOSÉ 2040 GENERAL PLAN:

Draft Circulation Section

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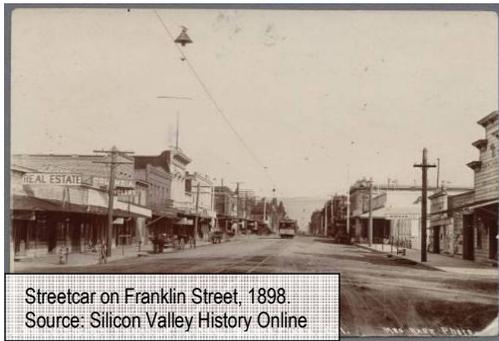
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I. BACKGROUND AND CONTEXT

The City of San José has evolved from a small, agricultural town in the 1950's to a bustling city with nearly 1,000,000 residents and thousands of employees. The City of San José is traversed by a number of key regional and local transportation facilities, notably US 101, I-280, I-880, I-680, SR 82, SR 85, SR 87; VTA bus and light rail lines; commuter rail lines including Caltrain, Amtrak, and ACE; the San José Mineta International and Reid Hillview Airports; and over 200 miles of constructed bicycle facilities. This extensive transportation network provides circulation and mobility that allow for local and regional connectivity that has helped transform San José into a major city at the heart of Silicon Valley.



However, the City's transportation network continues to be dominated by motor vehicles that results in increased congestion especially during peak commute times, increased air pollution from vehicles, and low density development patterns.

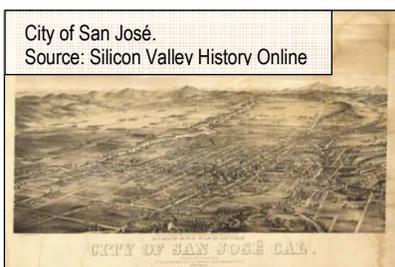
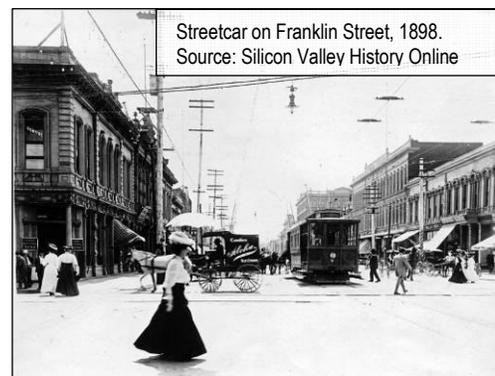


Without major changes to the City's transportation network and land use policies, these factors will only continue to worsen as San José population continues to grow over the next several decades. Over the past years, the City has made progress in addressing these factors through goals of the *2020 General Plan*: an infusion of residents in the downtown core, enhanced non-automobile transportation systems including new bikeways and light rail transit extensions, and distribution of



office/R&D employment and essential retail services closer to residential areas. These efforts help to maximize the efficiency of the existing transportation system by providing bike and transit capacity, adding traffic in the non-peak direction to freeways and major arterials, shortening trips, and reducing the overall commute time for residents.

Because buildout of the roadway system within the City is nearly complete, the potential for expanding vehicle capacity on major roadways is limited. Some improvements are possible at key constraint points such as intersections and interchanges. However, congestion on freeways and expressways has placed more of the regional travel burden on arterial and collector streets – a use that these streets were not intended to serve.



To increase the diversity and multimodal share of the City's transportation network, future plans are in place to extend the Bay Area Rapid Transit (BART) system from Fremont to the City of Santa Clara via downtown San José with four proposed stops at key locations within the City. Additionally, California High Speed Rail is proposed to link San Francisco and Los Angeles via high speed train serving major cities including San José. At the local level, the City has developed policies to forgo vehicle capacity improvements where

they would be a detriment to bicycle and pedestrian travel in neighborhood cores where non-auto travel is most feasible.

The Circulation Element recognizes that continued development and growth is necessary to sustain the City and to weather the inevitable economic low points. The Circulation Element sets out to avoid increasing vehicle capacity at the expense of the bicyclists, pedestrians and transit patrons and supports other General Plan goals to broaden the City's employment base to foster economic development (e.g., investing in bio-technology), revitalize downtown, protect neighborhoods, build housing, preserve open space, link land use and transportation planning, and direct growth to appropriate areas.

A. TRAVEL CHARACTERISTICS

Transportation in San José includes an array of options ranging from shared-use bicycle and pedestrian paths meandering along the Guadalupe River to tree-lined streets in the Cambrian neighborhood to the VTA light rail lines extending from Santa Teresa to Mountain View and from Campbell to Milpitas and North San José. With increased traffic congestion, increased fuel prices, and a renewed focus on healthy travel alternatives, non-automobile travel is becoming a more viable and frequently used mode choice. This section examines current characteristics and historical trends of travel in San José.



Table 1 compares the commute characteristics of San José residents to those of Santa Clara County, the State of California, and the United States (U.S.) as a whole based on the 2000 Census data. Approximately 90 percent of San José and Santa Clara County residents commute by automobile, which is consistent with the state and national trends of 87 and 88 percent, respectively. San José commuters tend to carpool slightly more than those in the rest of the county.



**TABLE 1
SAN JOSÉ RESIDENTS JOURNEY TO WORK TRAVEL CHARACTERISTICS**

Travel Characteristics	San José	Santa Clara County	California	United States
Commute Mode Choice				
Single-Occupant Automobile	76.5%	77.4%	71.9%	75.8%
Carpool	14.2%	12.3%	14.6%	12.2%
<i>Commute by Automobile</i>	<i>90.7%</i>	<i>89.7%</i>	<i>86.5%</i>	<i>88.0%</i>
Public Transit	4.1%	3.6%	5.2%	4.7%
Bicycle	0.6%	1.2%	0.8%	0.4%
Walk	1.4%	1.8%	2.9%	2.9%
Other Means	0.7%	0.6%	0.8%	0.7%
Work at Home	2.5%	3.1%	3.8%	3.3%
Other Commute-Related Data				
Percentage who work outside County of Residence	10%	12%	17%	23%
Percentage who Leave for Work between midnight and 7:00 am	29%	25%	32%	31%
Percentage who Leave for Work between 7:00 am and 9:00 am	47%	50%	45%	47%
Average Travel Time to Work	29.9 minutes	28.1 minutes	29.3 minutes	27.0 minutes
Source: Census 2000, SF-3				

San José transit usage is higher than transit usage in Santa Clara County and lower as compared to state and national data. San José's share of bicycle users is about half that of the County and comparable to bicycle usage in the state and nation; while the walk share is similar to the County and lower than state and nation shares. The 2000 Census shows a lower share of San José residents working at home in comparison to the County, state, or nation. Both San José and Santa Clara County show lower percentages of residents working outside their county of residence. However, average commute times remain close to 30 minutes with the majority of City and County residents leaving for work between 7:00 and 9:00 am.

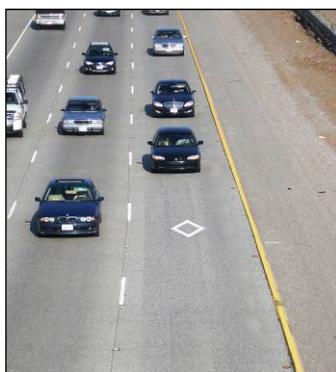


Table 2 shows changes in commute mode characteristics for San José residents between 1980 and 2008. Data presented for 1980, 1990, and 2000 are based on the United States Decennial Census, while the 2008 data is based on the American Community Survey. Throughout these periods, the single-occupant automobile mode has the highest mode share, where the lowest percentage occurred in 1980, and by 1990, 2000, and 2008 the single-occupant automobile mode share increased by approximately five percentage points. The carpool shares have steadily declined throughout the reporting periods, while bicycle and walk shares decreased between 1980 and 2000 but increased by 2008. The transit share increased between 1980 and 2000 and held steady at 4.1 percent in 2008. The number of residents working at home has experienced the greatest increase amongst non-automobile commuters. The average commute time has also increased from about 25 minutes in 1980 to 28 minutes in 2008, which also reflects the increase of commuters who work outside their county of residence.

In 2001, the *San José 2020 General Plan* was amended to include a goal to double the percentage of transit, bicycling, and walking trips each decade as determined by Census data. Based on the data presented in Table 2, the City has increased its share of bicycle and walking trips by 29 and 100 percent respectively, while percent transit ridership to work has not changed between 2000 and 2007. This data does not include the more recent spike in fuel costs and the reported increase in transit ridership and bicycling/walking.

TABLE 2 CHANGES IN SAN JOSÉ RESIDENT COMMUTE PATTERS				
Travel Characteristics	1980	1990	2000	2008
Commute Mode Choice				
Single-Occupant Automobile	72.6%	77.1%	76.5%	77.8%
Carpool	18.7%	14.7%	14.2%	9.2%
<i>Commute by Automobile</i>	<i>91.3%</i>	<i>91.8%</i>	<i>90.7%</i>	<i>87.0%</i>
Public Transit	3.4%	3.6%	4.1%	4.1%
Bicycle	1.0%	0.6%	0.6%	1.2%
Walk	2.3%	1.6%	1.4%	1.8%
Other Means	0.7%	0.5%	0.7%	1.6%
Work at Home	1.3%	1.9%	2.5%	4.2%
Other Commute-Related Data				
Percentage who work outside County of Residence	8%	9%	10%	10%
Percentage who Leave for Work between midnight and 7:00 am	n/a	32%	29%	27%
Percentage who Leave for Work between 7:00 am and 9:00 am	n/a	46%	47%	45%
Average Travel Time to Work	25.3 minutes	28.1 minutes	29.9 minutes	28.0 minutes
Source: United States Census 1980, 1990, 2000, SF-3; 2008 American Community Survey				

Journey to work is only one aspect of travel patterns. People also travel for shopping, school, personal business, recreation, and other reasons. However, while the journey to work is only one aspect of travel patterns, it is important to understand it because commute trips make up the bulk of the traffic during the busiest times of day, which largely determines the types of transportation changes that are typically proposed.

B. REGULATORY FRAMEWORK

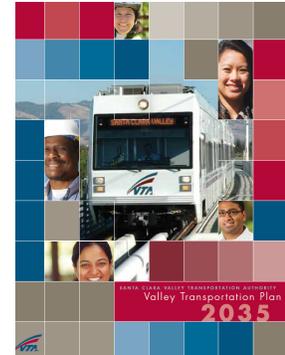
The Circulation Element is part of a larger body of plans and programs that guide the development and management of the City's transportation system.

The Regional Transportation Plan (RTP), prepared and adopted by the Metropolitan Transportation Commission (MTC), represents the Bay Area's regional comprehensive long-range (20-year) blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities. The purpose of the RTP is to encourage and promote the safe and efficient management, operation, and development of a regional transportation system that will serve the



mobility needs of goods and people. With this goal in mind, the RTP plans for and identifies projects to achieve a balanced regional transportation system and establishes project priorities for the expenditure of federal, state, and regional transportation funds.

The Santa Clara County's Congestion Management Program (CMP), prepared by the Congestion Management Agency (CMA) - the Valley Transportation Authority (VTA), is responsible for managing the county's blueprint to reduce congestion and improve air quality. VTA is authorized to set state and federal funding priorities for transportation improvements affecting the Santa Clara County CMP transportation system. CMP-designated transportation system components in San José include a regional roadway network, a transit network, and a bicycle network. The long-range countywide transportation plan and the means by which projects compete for funding and prioritization are documented in the Valley Transportation Plan (VTP) 2035 (adopted in January 2009). Some of the projects listed in the VTP that are applicable to San José include:



- Express Lanes (surplus HOV capacity sold to single occupant drivers) on SR 85, SR 87, US 101, I-280, I-680, I-880
- Interchange improvements including US101/Mabury Road/Taylor Road, US 101/Oakland Road, and US 101/Yerba Buena Road
- Ramp metering projects including US 101/10th Street and US 101/Bailey Avenue
- Local street projects including Charcot Avenue extension over I-280, Branham Lane widening between Vista Park and Snell Avenue, and the Downtown San José couplet conversion project.
- Transit projects including the Santa Clara/Alum Rock Phase I Bus Rapid Transit (BRT) extension, Capitol Expressway light rail extension, and the Monterey Highway BRT extension.

The VTA also requires local jurisdictions to analyze impacts of new developments or land use policy changes on CMP facilities if they are expected to generate 100 or more net new peak hour trips. VTA developed the *Transportation Impact Analysis Guidelines* (May 1998) that were adopted by all Cities and the County to provide local jurisdictions with a uniform program for evaluating the transportation impacts of land use decisions on the designated CMP System.

The importance of integrating transportation and land use planning decisions and using multimodal strategies to reduce both local and regional congestion while increasing travel choices are highlighted in the Circulation Element, as well as the RTP and CMP. The Circulation Element specifically identifies San José's transportation goals and policies and directly represents the City's interests, community values, and constraints, while the RTP and CMP provide more of a regional perspective.

C. RELATIONSHIP TO OTHER ELEMENTS

The Circulation Element of the City's General Plan presents how the City will meet its transportation goals and needs. The Circulation Element's goals are closely tied to goals and policies outlined in other sections of the *Envision San José 2040 General Plan*, especially the Land Use and Air Quality elements. The Land Use Element identifies existing and planned land uses and the Circulation Element identifies the proposed transportation network and strategies that are designed to meet the future transportation needs generated by the planned land uses. Similarly, the Air Quality Element identifies a set of goals and actions to reach air quality standards. Air quality is heavily influenced by proposed transportation network and strategies outlined in the Circulation Element. Therefore, it is critical that the goals and policies of the different elements are internally consistent and supportive of one another to ensure that they form one

cohesive vision for the City of San José's future physical, social, economic, and environmental dimensions.

D. BENEFITS OF SMART GROWTH DEVELOPMENT

The term "Smart Growth" has become an important element of the urban planning lexicon along with other terms such as sustainability, context-sensitive design, pedestrian-oriented development, and transit-oriented development. Creative planners have popularized these terms by recognizing that many current and historic suburban development types and patterns promote inefficient land and energy consumption, require extensive transportation systems, isolate people from one another, fail to meet the needs of our nation's changing family structures, and are inequitable. Smart Growth represents a return to planning concepts from the first half of the 20th century, reintroducing a sense of neighborhood through land use development patterns that are pedestrian-scale, have increased density, improve circulation and connectivity, and accommodate alternative travel modes.

Smart Growth is an integrated, environmentally-sensitive approach to land use and transportation planning. Smart Growth transportation strategies include:

- Transit enhancements and transit-oriented development (TOD) at stations
- Visionary community and regional policies and land use plans that reduce the need to travel and minimize impacts.
- Streets that provide context-sensitive, multimodal mobility for traffic, transit, pedestrians, and bicyclists.

A distinct advantage of smart, sustainable growth is that, given the same population and employment, a development based upon Smart Growth principles will produce fewer and less significant transportation impacts than typical suburban development. The reason for this is that Smart Growth when implemented effectively can result in several measurable benefits, most notably reductions in vehicle miles traveled (VMT) per capita and resulting air pollution and vehicle hours of delay.

A recent study finds that the State of California's effort to reduce greenhouse gas emissions (GHGs) can achieve much higher targets than previously suggested using smart growth strategies. The study, completed in a joint effort by Reid Ewing of the University of Maryland's National Center for Smart Growth and Arthur C. Nelson of the University of Utah, finds that smart growth strategies could result in global warming pollution emission reductions more than six times higher than the target now being considered by the California Air Resources Board (CARB).¹

¹ Ewing, Reid and Arthur C. Nelson. *CO2 Reductions Attributable to Smart Growth in California*. University of Maryland National Center for Smart Growth and The University of Utah Metropolitan Research. September, 2008.

II. STREET AND HIGHWAY NETWORK, CLASSIFICATION AND OPERATIONS

A. STREET CLASSIFICATION SYSTEM

All roadways are classified into categories depending upon the services they provide. Major categories included in the *2020 General Plan* are based on the functional classification system typically used by the state highway department that emphasize vehicle travel and focuses on the street realm between the curbs. As part of the *Envision San José 2040* process, the City reviewed the existing classification system and developed new street typologies that address travel for all users including pedestrians, bicyclists, transit riders, in addition to motorists, and takes into account the sidewalk and land use realms that includes the fronting uses and their characteristics. This section summarizes the existing functional classification system and the new street typologies proposed as part of the *Envision San José 2040* update.

FUNCTIONAL CLASSIFICATION SYSTEM

San José has historically defined its roadway network according to the standard Functional Classification system typically used by state highway departments: freeways, expressways, arterials, collectors, and local streets. This traditional approach to classifying streets establishes one set of standards for the design and operations of roadways within a jurisdiction that is primarily based on access and mobility provided for vehicles, and generally does not account for other travel modes or the surrounding context. A summary of the functional classifications system is provided below.

i. FREEWAYS

Freeways are facilities designed solely for traffic movement, providing no access to abutting properties, and designed to separate all conflicting traffic movements through the use of grade-separated interchanges.

ii. EXPRESSWAYS

Expressways are facilities designed primarily for traffic movement with limited access to abutting properties. These facilities generally include median areas dividing traffic directions, some intersecting streets allowing only right turn access, some grade-separated interchanges, and some signalized intersections allowing full access. Expressways are maintained and operated by the Santa Clara County Roads and Airports Department. While the City coordinates with the County regarding expressway operations and improvements, the County controls access to and operation of traffic signals on each of these facilities.



iii. ARTERIALS (MINOR/MAJOR STREET)

Arterials are facilities that accommodate major movements of traffic not served by expressways or freeways. They are designed mainly for the movement of through traffic and the provision of access to

abutting properties is a secondary function. Although abutting properties have direct access to these facilities, parking and loading may be restricted or prohibited to improve the capacity for moving traffic. The *San José 2020 General Plan* designates two types of arterials: major arterial streets and minor arterial streets distinguished by width. Minor arterials typically have an 80- to 106-foot right-of-way (including the sidewalk area) and major arterials have a right-of-way width between 115 and 130 feet. The number of lanes depends on the arterial's function, its location, and the volume of traffic it is expected to handle; however, arterials are generally planned to have four or six travel lanes. Some as matter of policy remain two lane roadways and the *San José 2020 General Plan* includes a list of planned two lane arterials (e.g., sections of N. 1st Street and Taylor Street).

iv. MAJOR COLLECTORS

Major Collectors are facilities that serve internal traffic movements within a specific area or neighborhood and provide connections to the arterial system. Major Collectors typically do not serve through trips but can provide access to abutting properties. Traffic control devices may be installed to protect or facilitate traffic on a collector street.



v. LOCAL STREETS

Local Streets are facilities having the primary function of providing access to immediately adjacent properties. These low-speed streets may be subdivided into classes according to the type of land served, such as residential or industrial. The design of a local street can have a substantial effect on travel speed and quality of life for residents. Newer designs include narrower curb-to-curb widths and parking pockets that preclude the need for traffic calming devices to be installed later. The vast majority of streets in the City of San José are Local Streets.

STREET TYPOLOGIES

To ensure a balanced, multimodal transportation network, the *Envision San José 2040 General Plan* organizes streets and other transportation facilities according to “typologies.” Street typologies are an expansion of functional classifications that consider street context and prioritize travel modes. This ensures that the standards consider a facility's relation to surrounding land uses, appropriate travel speeds, and the need to accommodate multiple travel modes.

The proposed typologies are intended to provide a network of “complete streets” that accommodates the various users of the street network. “Complete streets” describes a comprehensive approach to the practice of mobility planning that recognizes that transportation corridors have multiple users with different abilities and mode preferences (e.g., driving, biking, walking, and taking transit). Adjacent land use influences the functionality and character of the street environment. A well-integrated street system considers the complementary relationship between land use, local and regional travel needs. The “Complete streets” concept applies to all types of roads from downtown pedestrian streets and high-capacity commercial corridors, and it considers the range of users, including children, the disabled, and seniors.

In September 2008 the State passed Assembly Bill (AB) 1358. Starting in January 2011, AB 1358 requires the legislative body of a city or county (in this case the City of San Jose) when updating the circulation element of their general plan to identify how the jurisdiction will provide for routine accommodations of all roadway users, including motorists, pedestrians, bicyclists, individuals with disabilities, seniors, and users of public transportation. In other words, any General Plan update that

becomes effective after January 2011 is required to address the concept of complete streets. Thus the City of San Jose is required to address multimodal access in the *Envision San Jose 2040* update.

Complete streets, by addressing the needs of all uses of the transportation network, not only improve safety for all users and foster strong communities, but also address climate change, by increasing accessibility and viability of travel modes other than the automobile.

The concept of complete streets is by no means a new term for the City of San Jose. The City has developed several policies and programs that support some of the core values of complete streets. In 2002 the City has adopted its Pedestrian Design Standards, which decreased the minimum turning radius for corners (thus reducing speeds of turning vehicles) and increased the minimum sidewalk widths to ten feet. Additionally, the City has been pursuing couplet conversions on seven corridors (two have been completed, one is under construction, and four corridors are slated for future conversion). The City's Transportation Impact Policy also allows for overriding traffic congestion impacts and facilitates developer funding for pedestrian, bicycle, and transit improvements.

The following typology definitions, which address the principles of complete streets, apply to the streets and other facilities that make up San José's circulation plan, as shown in Figure 1. A sample cross-section for each typology is provided on Figure 2. The specific configuration for each individual street may be slightly different due to the unique needs and the adjacent land uses.

Grand Boulevards – Grand Boulevards serve as major transportation corridors that connect City neighborhoods. In most cases these are primary routes for VTA light-rail, bus rapid transit (BRT), and standard/community buses, as well as other public transit vehicles. Signal preemption for transit vehicles, bus stops, and, where appropriate, exclusive transit lanes, are provided. Other travel modes, including automobiles, bicycles, and trucks, are accommodated in the roadway, but if there are conflicts, transit has priority. Grand Boulevards contribute to the City's overall identity through cohesive design. Within the public right-of-way, special measures could include enhanced landscaping, attractive lighting, and identification banners. These streets accommodate moderate to high volumes of through traffic within and beyond the city. Pedestrians are accommodated with ample sidewalks on both sides, and pedestrian amenities are enhanced around transit stops. Transit service is accommodated within other street typologies but is the primary mode on Grand Boulevards.

Bicycle Priority Street – Bicycle Priority Streets are either classified with Class II (bike lanes) or Class III (signed routes) and are through routes for bicycles providing continuous access and connections to the local and regional bicycle network. Through and high volumes of motor vehicle traffic are generally discouraged, but may be allowed in localized areas where necessary to accommodate adjacent land uses. Local automobile, truck, and transit traffic are accommodated in the roadway, but if there are conflicts, bicycles have priority. Reduced speed limits and neighborhood traffic management strategies to slow and discourage through automobile and truck traffic may be appropriate. Pedestrians are also accommodated.

Main Street – Main Streets are roadways that are located along the City's Planned and Identified Growth areas where the City envisions increased density of commercial and residential development. The Main Street's physical form supports many transportation modes, with significant emphasis given to pedestrian activity. Main Streets are streets on which high volumes of pedestrian traffic are encouraged on the adjacent sidewalks. Each Main Street may be different in character, and should reflect the key characteristics of the surrounding neighborhoods. Sidewalks should be wide with ample pedestrian amenities, including street trees, high-quality landscaping, pedestrian curb extensions or bulbouts, and enhanced street crossings. Additionally, signals should be timed to minimize pedestrian delay. Building frontages should provide high level of pedestrian interest. Pedestrian crossings should have a high priority at intersections. In some locations, well-protected mid-block crosswalks may be appropriate.

Connector Street – Automobiles, bicycles, pedestrians, and trucks are accommodated equally in the roadway. Transit use, if any, is incidental. These streets accommodate moderate to high volumes of through traffic within and beyond the city. Pedestrians are accommodated with sidewalks.

Residential Street – Automobiles, bicycles, and trucks are accommodated equally in the roadway. Transit use is rare. These streets accommodate low volumes of local traffic and primarily provide access to property. Through traffic is discouraged. Neighborhood traffic management strategies to slow and discourage through automobile and truck traffic may be appropriate. Pedestrians are accommodated with sidewalks or paths.

Expressway – These facilities provide limited access to abutting land uses and are designated primarily for traffic movement by serving high volumes and high-speed regional traffic including automobiles, trucks, and express transit buses. Bicycles and pedestrians are either permitted or accommodated on separate parallel facilities. Expressways are maintained and operated by the Santa Clara County Roads and Airports Department.

Freeways – These facilities are designated solely for traffic movement of automobiles, trucks, and express transit buses. Freeways providing no access to abutting properties and are designed to separate all conflicting movements through the use of grade-separated interchanges. Bicycles and pedestrians are prohibited or accommodated on separate parallel facilities. Freeways are maintained and operated by Caltrans.

i. TRANSPORTATION FACILITIES MATRIX

This matrix describes how the different modes of transportation (shown in the columns) interact on various street typologies (shown in the rows) and which modes have priority on each facility type.

TABLE 3 TRANSPORTATION FACILITIES MATRIX					
Facility	Transit	Bicycles	Pedestrians	Autos	Trucks
Grand Boulevard ¹	★	■	■	■	□
Bicycle Priority Street	■	★	■	■	■
Bicycle and Pedestrian Path	X	★	★	X	X
Main Street Street ¹	■	■	★	■	□
Connector Street ¹	■	■	■	■	□
Residential Street ¹	□	■	■	■	X
Expressway	■	■	■	★	★
Freeway	■	X	X	★	★
Notes: ★ = Dominant ■ = Accommodated □ = Incidental					

X = Prohibited

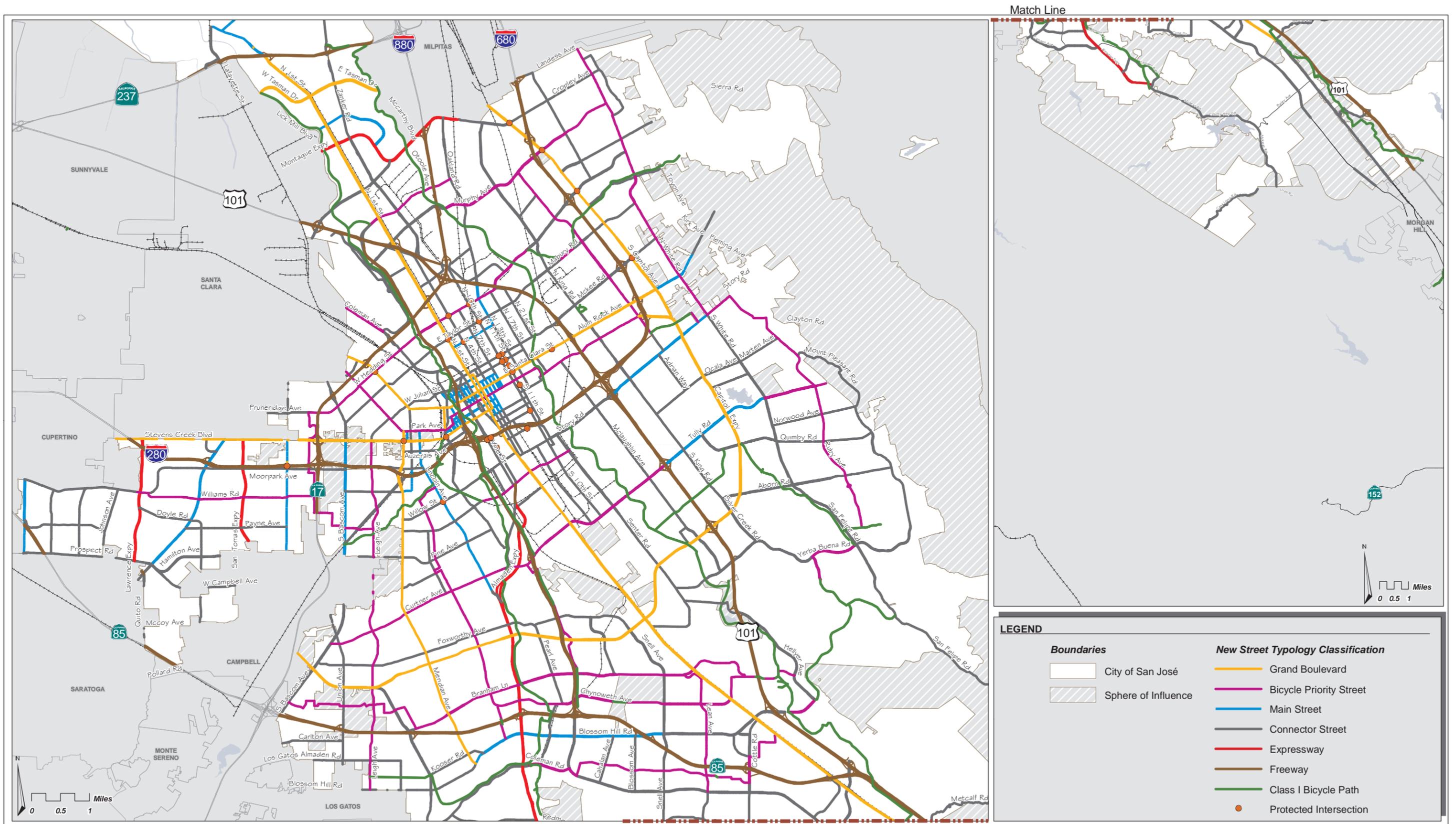
1. Bike routes (Class II and III) can be overlaid on these street types.

ii. FUNCTIONAL CLASSIFICATION

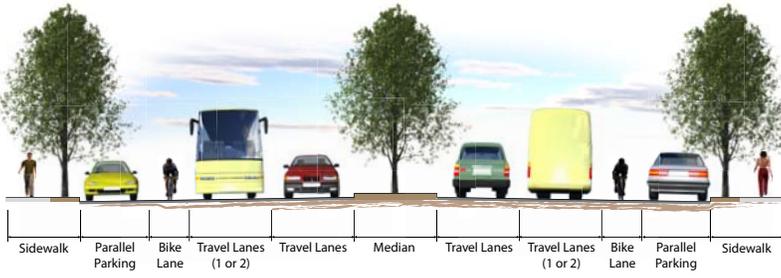
For reference purposes, the table below shows the relationship between these street typologies and the functional classification system.

TABLE 4 FUNCTIONAL CLASSIFICATION MATRIX						
Facility	Freeway	Expressway	Major Arterial	Minor Arterial	Collector	Local Street
Grand Boulevard	X	□	★	★	□	X
Bicycle Priority Street	X	X	□	□	□	★
Main Street	X	X	□	★	★	□
Connector Street	X	X	□	□	★	□
Residential Street	X	X	X	□	□	★
Expressway	X	★	X	X	X	X
Freeway	★	X	X	X	X	X

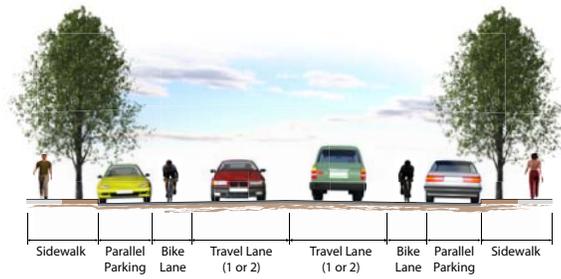
Notes:
 ★ = Primary Correspondence
 □ = Secondary Correspondence
 X = No Correspondence



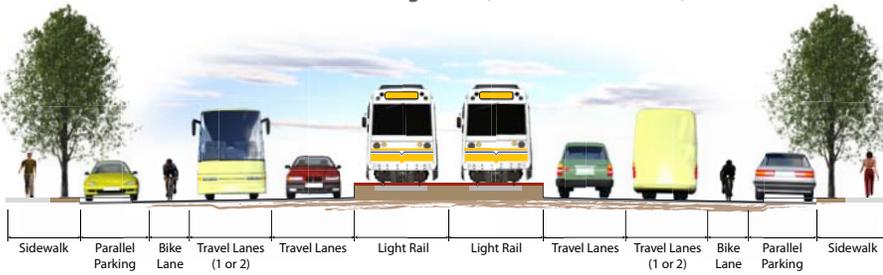
Grand Boulevard - Bus (106 ft to 130 ft ROW)



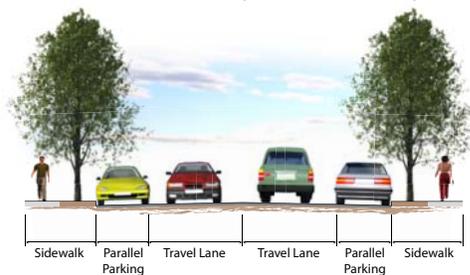
Bicycle Priority Street (70 ft to 106 ft ROW)



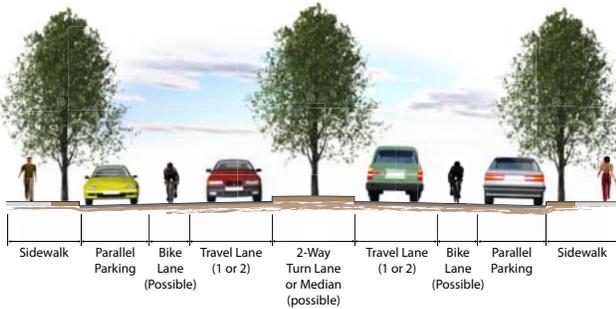
Grand Boulevard - Light Rail (106 ft to 130 ft ROW)



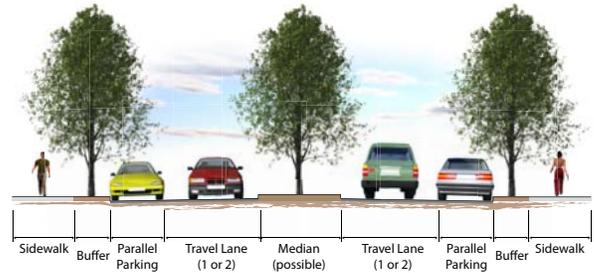
Residential Street (48 ft to 56 ft ROW)



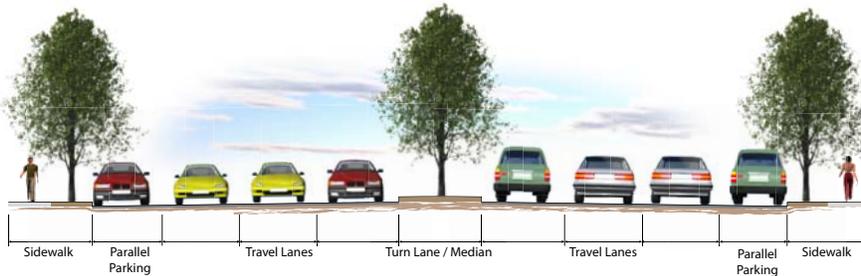
Connector Street (60 ft to 90 ft ROW)



Main Street (60 ft to 106 ft ROW)



Expressway



Note: ROW = Right-of-Way



B. STANDARDS FOR TRAFFIC LEVEL OF SERVICE

The operations of roadway facilities are described with the term level of service (LOS). LOS is a qualitative description of traffic flow based on such factors as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS A, with the best operating conditions, to LOS F, with the worst operating conditions. LOS E represents “at-capacity” operations. Operations are designated as LOS F when volumes exceed capacity, resulting in stop-and-go conditions.

The *2020 General Plan* includes policies for the minimum overall operating level and potential options for alternative mitigation or policies. It states that the City of San José should achieve a minimum overall performance of City streets during peak travel periods of level of service (LOS) “D,” which is consistent with most jurisdictions in Santa Clara County. Development proposals which have the potential to reduce the level of service to “E” or worse should be required to provide appropriate mitigation measures. These mitigation measures typically involve capacity enhancements for automobiles. The exemptions to the LOS performance measures and alternative mitigation measures as described below and have been implemented since the 1994 General Plan was approved.

However, maintaining a LOS of “D” for vehicles may not be conducive to mixed-use, high density, and TOD areas with enhanced pedestrian, bicycle, and transit activity. Under current City policy intersections that do not meet the City’s current LOS D standard require improvements, primarily by increasing vehicle capacity through added travel lanes. Widening roadways worsen conditions for bicycle and pedestrian travel by increasing riders and walkers’ crossing distances and their level of exposure to vehicles. The current policy limits vehicle congestion which in turn reduces the incentive for San José citizens to use non-automotive modes, such as transit, ridesharing, bicycling, and walking; all of which are vital modes for the success of the *Envision San José 2040* project.

The City does recognize the limitations of maintaining LOS D and has resisted implementing vehicle capacity expansions in key areas where community character and pedestrian, bicycle, and transit conditions would negatively be impacted from additional traffic lanes. The *2020 General Plan* has several areas with exceptions to the conventional performance measures and mitigations:

- **Downtown Core Area.** In the downtown core area the City has exempt development from traffic mitigation requirements in recognition of its role as the premier transit hub of Santa Clara County, and as the center for financial, business, institutional and cultural activities.
- **Infill Development.** Small infill development projects may be exempt from traffic mitigation requirements due to the significant other policy benefits of infill development which may be considered to outweigh and compensate for impacts to automobile traffic.
- **Special Strategy Areas.** Specific intersections within Special Strategy Areas are not required to meet a minimum LOS “D”. Special Strategy Areas are identified in the City’s adopted General Plan and include Transit Oriented Development Corridors, Transit Station Areas, Planned Communities, and Neighborhood Business Districts. Specific examples include the Berryessa Swap Meet Neighborhood Plan, Evergreen Specific Plan, Midtown Specific Plan, and the North San José Area Development Policy.
- **Protected Intersections.** The City of San José has also developed a “protected intersection” policy that exempts intersections identified as “protected” from roadway capacity-enhancing mitigation measures when LOS thresholds are exceeded. Protected intersections are located in the downtown core, along transit corridors, and in neighborhood business districts; the widening of intersections would erode the City’s ability to encourage infill, preserve community livability, and promote transportation alternatives to the sole reliance on automobile travel in these areas. Proposed developments causing a significant LOS impact at a protected intersection are required

to pay a fee that the City of San José uses to fund multimodal (non-automotive) transportation improvements in one of the City's designated Community Improvement Zones.

Though the City already recognizes some of the shortcoming of its LOS standards and has defined areas with reduced LOS thresholds or alternative mitigation measure policies, the City's LOS policy in all cases retains vehicle LOS as the only performance measure for its transportation network and does not address a citywide solution to transportation performance measures.

MULTIMODAL LEVEL OF SERVICE

Text to be completed.

C. RESULTS OF TRAVEL DEMAND FORECASTING

To be completed once model results are available (including discussion of VMT)

D. PLANNED TRANSPORTATION IMPROVEMENTS

To be completed once model results are available



III. PUBLIC TRANSPORTATION SYSTEM

Given San José's central location in the heart of Silicon Valley, it is served a multitude of public transit options, including fixed route standard and community bus service, Bus Rapid Transit (BRT), light rail service, and commuter rail service. Planned future transit service includes Bay Area Rapid Transit (BART) (extended from Fremont) and the California High Speed Rail system linking the northern and southern portions of the state. The Diridon Station in San José is a focal point for many of the bus and rail systems. The existing and future transit systems are illustrated on Figure 3 and described in more detail below.

A. VTA TRANSIT SERVICES

The Santa Clara Valley Transportation Agency (VTA) is the main transit operator in San José and provides bus, light rail, and paratransit operations throughout Santa Clara County. Bus service includes approximately 54 local routes, four limited-stop routes, five shuttle routes, and twelve express routes in the county. A majority of these routes serve the City of San José and typically operate along major corridors. The VTA also operates limited-stop service such as the 522 line and regional bus service, such as the joint VTA/Santa Cruz Metropolitan Transit District (SCMTD) Highway 17 Express route extending from Santa Cruz to San José.



The VTA also operates approximately 40 miles of light rail service in Santa Clara County. The system includes three light rail lines, all of which operate within San José, and segments of which serve Mountain View, Sunnyvale, Santa Clara, Campbell, and Milpitas.



Bus Rapid Transit (BRT) provides high quality rapid transit service with rubber-tire buses that is more flexible than fixed-guideway systems such as steel-wheel on rail trains. The VTA classifies BRT service as BRT1 and BRT 2, which are distinguished based on their capital and infrastructure requirements. BRT 1 is a premium level bus service, with higher operating speeds, greater reliability, and fewer stops than local bus service.



BRT 2 requires considerably higher capital investment than BRT 1 due to specialized or dedicated running ways, dedicated rail-like stations, transit signal priority-related infrastructure, and passing lanes at stations to allow vehicles the flexibility to bypass stations. VTA introduced Route 522 in 2005 as a BRT 1 service that provides enhanced transit service on the El Camino Real/The Alameda/Santa Clara Street corridor. VTA is planning BRT 2 service along the Santa Clara Street/Alum Rock Avenue/Capitol Expressway corridor to provide service between downtown San José's Diridon Station and the Eastridge Transit Center.

B. COMMUTER AND INTERCITY RAIL SERVICE

Three commuter rail services provide regional connectivity to and from San José: 1) Caltrain, 2) Altamont Commuter Express (ACE), and 3) Amtrak (including its Capitol Corridor line). With the exception of Caltrain, all commuter rail services only serve the San José Diridon Station, though other Caltrain stops in San José are limited to peak-hour service only. Ridership data for Caltrain shows that the number of



average weekday passengers has been steadily increasing since 2004, which illustrates the growing demand and need for expanded rail transit service.



The Altamont Commuter Express (ACE) commuter rail service has over 85 miles of service between Stockton and San José. ACE offers eight trains per day with four trains leaving Stockton in the morning and four returning in the evening. Intercity rail is provided by Amtrak on the Coast Starlight route and the Capitol Corridor. The Capitol Corridor, a 170-mile rail service connecting Sacramento to San José via Oakland, provides a limited number of daily round trips. The Coast Starlight provides a rail connection between Los Angeles and Seattle. One southbound and northbound train serves the San José Diridon Station daily.

C. SAN JOSÉ DIRIDON MULTIMODAL STATION



San José Diridon Station is a multimodal transit center located in downtown San José on Cahill Street near the HP Pavilion Arena. Bus, commuter rail, intercity rail, and light rail services are all provided at this station. Bus service includes local, express, and shuttle routes. This station serves VTA bus routes, the Highway 17 Express route, Downtown Area Shuttle (DASH), and Monterey-San José Express Route MST55.

Commuter rail service at Diridon Station is provided by Caltrain, Altamont Commuter Express (ACE), and Amtrak. Diridon Station has the fourth largest number of boardings of any Caltrain station in the system. Light rail transit is provided at this location by VTA on the Mountain View-Winchester line.

The *Diridon/Arena Strategic Development Plan* (2003) recommends a high-density mixed-use development pattern that balances living, working, and entertainment, and creates an environment that encourages walking, bicycling, and transit use. The City is currently evaluating specific level of development, identifying station area improvements, and conducting environmental review for the future redevelopment of the Diridon/Arena plan area.



D. FUTURE TRANSIT SERVICE

There are plans to further enrich the City's transit network with the provision of additional rail service via the future BART extension and the proposed California high speed rail project. The future rail services are a vital part of the *Envision San José 2040* General Plan update as they increase the City's connectivity, increase the City's share of transit ridership, and decrease dependence on motor vehicles.

BART

The Bay Area Rapid Transit (BART) system is proposed to extend 16 miles from the future terminus at the Warm Springs station in Fremont to Santa Clara via downtown San José. The route will be fully grade separated including a subway through downtown San José. Trains are expected to arrive on this extension every six minutes and would serve the routes to Daly City via San Francisco and to Richmond via Oakland. Stations within the City of San José include Berryessa (Road), Alum Rock (Avenue), downtown San José, and San José Diridon Multimodal station. Two station site alternatives are proposed



for downtown San José. The first alternative proposes two downtown stations: one station on Santa Clara Street near the Civic Center between 4th Street and 7th Street and another station on Santa Clara Street between Almaden Avenue and 1st Street. The second alternative proposes only one downtown station on Santa Clara Street between Market Street and 1st Street. The extension is estimated to have between 80,000 to 105,000 boardings and alightings per day on an average weekday. Currently the projected opening year is 2018.

HIGH SPEED RAIL

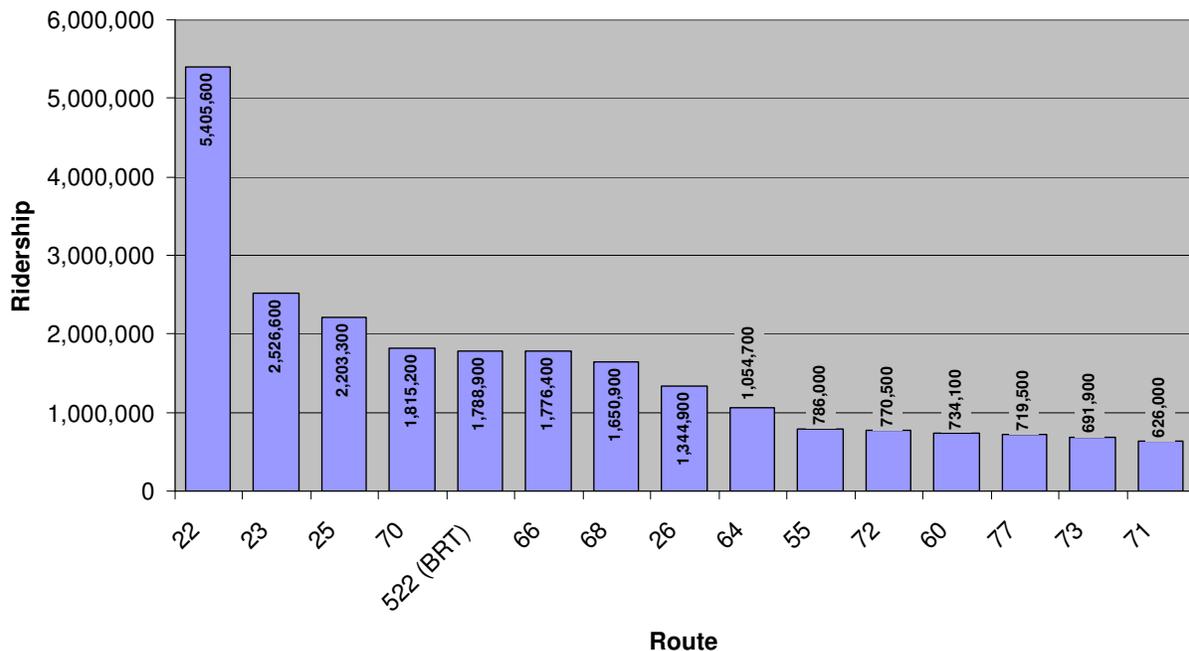
California High Speed Rail (HSR) is proposed to link San Francisco and Los Angeles via high speed trains. Major cities served would include San Francisco, San José, Fresno, Bakersfield, Los Angeles, and Anaheim. Future expansion of the system would further link additional areas of the state including Sacramento, Stockton, Modesto, San Diego, Riverside, and Ontario. High speed rail service would be provided between about 5:00 am and midnight daily and is projected to serve approximately 32.2 million riders annually by 2020. The San José Diridon Station is expected to have approximately 5 million annual boardings and alightings.



The addition of HSR in San Jose will decrease the need for vehicle trips for sub- and inter-regional travel and provide for a viable transportation mode for commuter and leisure travel. On the other hand, the increased in transit ridership at the Diridon Station will result in increased parking demand around the station. Thus, within the *Diridon/Arena Strategic Development Plan* the City will consider the development of additional parking structures near the station area.

E. TRANSIT RIDERSHIP

VTA is the primary transit service provider in San José, followed by Caltrain, ACE, and the Capitol Corridor commuter rail services. VTA highest ridership is on Route 22, which serves approximately 5.4 million passengers in 2006. The graph below shows the annual ridership numbers for the 15 busiest VTA bus routes for Year 2006.



On an average weekday, Caltrain ridership at the San Jose Diridon Station is at approximately 5,800 passengers, which equates to an annual ridership of nearly 1.5 million riders (assuming 50 work weeks). Diridon Station is the only ACE stop within the City of San José and serves approximately 2,700 passengers per day, or an annual ridership of 675,000 passengers.

To follow once modeling work is complete:

(Discussion on existing and projected ridership at key stations/locations. Discussion DRM and how beneficial it is to increase density around stations to increase ridership. To be finalized once model runs are available.)

IV. BICYCLE AND PEDESTRIAN SYSTEM

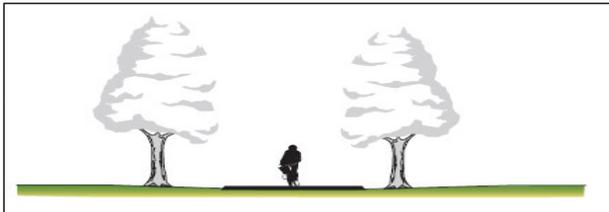
A. BICYCLE FACILITIES

While bicyclists may legally ride on any city street, many streets do not provide a bicycle-friendly environment. Streets with high volumes or faster traffic speeds can be intimidating to cyclists, especially when no roadway space or bike lanes are provided. Disconnected and incomplete bicycle facilities can strand bicyclists before they reach their destination. The City has made great strides in closing gaps in the bicycle system over the last 10 years, but increased investments are needed to achieve the level of noted bike-friendly cities such as Portland, Oregon or Copenhagen, Denmark.

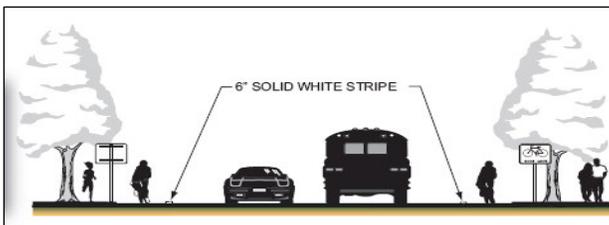
The *2020 General Plan* calls for the development of a safe, direct, and well-maintained bicycle transportation network that links residences, employment centers, schools, parks and transit facilities. The proposed network promotes bicycling as an alternative mode of transportation for both commuting and recreation. The City has a designated Bicycle and Pedestrian Coordinator on staff in the Department of Transportation who is responsible for overseeing the implementation and maintenance of a comprehensive bikeway system, as well as coordinating bike linkages to adjacent communities.

Bikeway is a generic term that covers all types of bicycle facilities. There are three basic types of bikeways based on Caltrans standards (Chapter 1000: Bikeway Planning and Design of the Highway Design Manual, 2001), as generally described below and shown on the accompanying illustrations. These are the standard bikeway types that the City of San José has adopted.

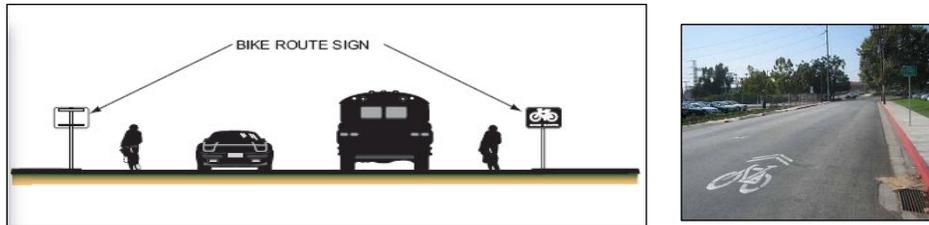
- **Bike paths (Class I)** are paved pathways separated from roadways that are designated for the exclusive use of bicycles and pedestrians. In general, bike paths serve corridors not served by streets and highways or where sufficient right-of-way exists to allow such facilities to be constructed away from the influence of parallel streets and numerous vehicle conflicts. Sample facilities include the Guadalupe River Trail, Los Gatos Creek Trail, and Coleman Avenue Trail, all of which include asphalt or concrete surfaces.



- **Bike lanes (Class II)** are lanes for bicyclists adjacent to the outer vehicle travel lanes. These lanes have special lane markings, pavement legends, and signage. Bike lanes are usually constructed to better accommodate bicyclists through corridors where insufficient room exists for safe bicycling on existing streets. Sample facilities include bike lanes on Curtner Avenue, Leigh Avenue, and San Fernando Street through the Downtown area.

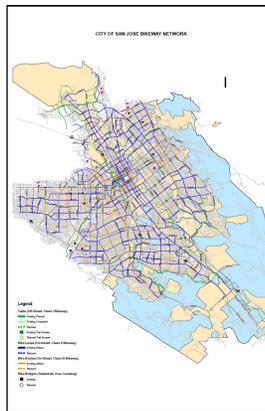


- **Bike routes (Class III)** in general are located on low traffic volume streets that provide alternate routes for recreational, and in some cases, commuter and school-age cyclists. These facilities are designated Class III and are signed for bike use, but have no separated bike right-of-way or lane striping. Bike routes serve either to: (1) provide continuity to other bicycle facilities, or (2) designate preferred routes through high demand corridors. Sample bike routes include Meridian Avenue, Blossom Hill Road west of Almaden Expressway, and King Street. In the case of San Fernando Street between SR 87 and the Diridon Rail Station where additional width for bike lanes was not available, the City has installed “sharrow” symbols on the pavement to designate the appropriate travel path for cyclists and increase driver awareness of bicycles.



Several hundred miles of bicycle facilities are currently provided in the City, with 34 miles designated as Class I multi-use trails, approximately 150 miles designated as Class II bicycle lanes, and nearly 20 miles designated as Class III bicycle routes. Additionally, the City of San José has nine (9) pedestrian-bicycle freeway overcrossings. City staff recently completed a comprehensive study to identify the priority bicycle corridors within the City and a 10-year implementation plan.

SAN JOSÉ BIKE PLAN 2020



As indicated in the San José Bike Plan, completing a connected and cohesive citywide bikeway network will create a truly bicycle-friendly community and increase the percentage of short home-based trips, as well as longer commute trips, made on bicycles. Based on the 2008 Census presented in Table 2, the City's share of bicycle commuters is just over one percent. Fehr & Peers is currently assisting staff finalize the citywide bicycle master plan, which includes a planned bicycle network of 500 miles of bikeways along with other specific goals and actions to provide for a comprehensive bikeway network and supporting facilities as bicycle parking at employment, retail, and other destinations (see Figure 4). Another important factor to the “convenience” of a bikeway network is safety, since many feel that riding a bicycle can be unsafe of particular roadways.

The Bike Plan lays out specific goals to improve bicycle access and connectivity in San José by the year 2020. These goals include:

- Complete 500 miles of bikeways;
- Achieve a five percent bike mode share;
- Reduce bike collision rates by 50 percent;
- Add 5,000 bicycle parking spaces; and
- Achieve Gold-Level Bicycle Friendly Community status.

The Bike Plan discusses specific actions to achieve the goals. One of the actions directly relevant to the Circulation Element includes the adoption and implementation of a complete streets policy to plan for a balanced, multimodal transportation network that meets the needs of all users including bicyclists. As

discussed in Chapter II of this report, it is the intent of the City to incorporate the concept of complete streets into its new street typology system, which includes Bicycle Priority Streets. Bicycle Priority Streets and Bike Path designations will create a connected bicycle network. The system of Bicycle Priority Streets is based on the *Primary Bikeway Network* Map prepared as part of the *2020 Bike Plan*. The Primary Bikeways serve as key crosstown facilities and support higher numbers of bicyclists at various skill levels. Primary Bikeways include trails and enhanced on-street treatments such as bike boulevards, colored bike lanes, sharrows, urban trails, and physically separated bike lanes.

To complete a Citywide bikeway network of 500 miles the City aims to expand and connect the citywide bikeway network, eliminate barriers and remove gaps for bicyclists, provide for bicycle-friendly signals and pavement markings, and improve maintenance of bikeways. Together these strategies can provide a foundation for the City to provide a comprehensive network of bikeways that are safe and convenient corridors for bicycle travel.

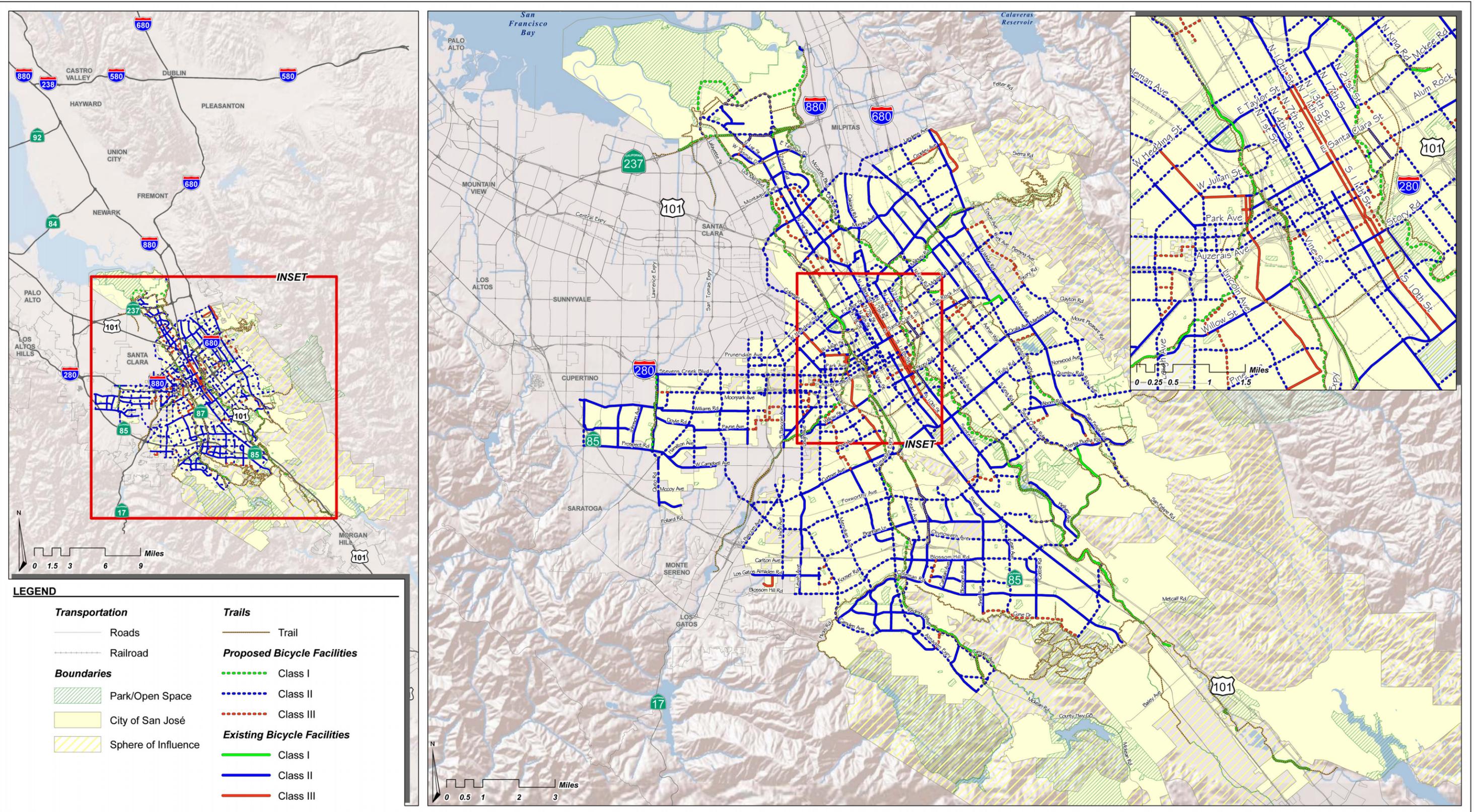
Adding 5,000 bicycle parking spaces is a critical element of the Bike Plan. While bicycles require only about 1/10 of the space of a car to park, bikes need secure bike parking facilities to prevent theft. Thus the Bike Plan outlines actions to secure and convenient bike parking at destinations. Other actions to increase the number of support facilities include updates to the City's current shower requirements for new development and implementation of a scalable public bike program that would allow automated bike rentals kiosks in high demand areas.



The combination of bicycling and public transportation offers convenient, flexible, and cost-effective alternatives to driving alone. Thus the Bike Plan provides several key strategies to increase access between the bicyclist and transit. The strategies include the provision of bikeways to transit, installation of bike parking facilities at transit stations, provision of bikes on transit, and offering public bike share systems at major transit stations.

To provide strategies to help the City meet its goal of achieving Gold-Level Bicycle Friendly Community the Bike Plan outlines strategies to increase education, encouragement, and enforcement programs to support its bikeway network. The Plan identifies actions to expand bicyclist education programs (Adult Bicycling Education, School Safety Program, and Bicycle Light & Helmet Program), to develop bicyclist encouragement programs, to increase bicyclist and motorist enforcement programs, and to work with bicycle retailers to offer education and encouragement programs.

Together with the goals outlined in the Circulation Element the City's Bike Plan 2020 provides a foundation for enhancing the bikeways network and increasing the mode share of bicycle travelers.



B. PEDESTRIAN FACILITIES

Walking is part of almost every trip, whether it is from the parking lot to a building or from a home to a bus stop, work or store. The walking environment is an important element of the public realm and fundamental component of land use planning, design standards, and guidelines.

San José's pedestrian network consists of sidewalks and street crossings with some off-road paths and trails. In specific areas, large blocks, railroad and freeway crossings act as barriers to pedestrian travel. On the other hand, the City has many areas that are especially conducive to walking for recreation and transportation, particularly within the downtown area; around Transit-Oriented Development corridors, rail stations, neighborhood shopping streets; and within planned communities.

The City encourages pedestrian travel as a viable mode of movement between high-density residential and commercial areas throughout the City, and in activity areas such as schools, parks, and transit stations. In more urban areas, particularly the Downtown Core and neighborhood business districts, walking is encouraged by providing safe and convenient pedestrian facilities.

The City of San José is also in the process of updating its American with Disabilities Act (ADA) transition plan. The main purpose of the plan is to develop policies and practices for implementing physical pedestrian improvements within the public right-of-way to improve accessibility for all residents, employees and visitors. The City currently anticipates that they will provide the Council a Draft Plan by Spring 2010 for review and approval.

The overall Citywide street network is essentially built out and most streets include at least a four-foot wide sidewalk on one or both sides. The street typologies in Chapter II identify Pedestrian Priority Streets and Pedestrian Enhancement District overlays where high levels of pedestrian activity currently exist or are likely in the future. The street typologies prioritize improvements to the physical environment that encourage higher levels of walking in these two areas. The goals and policies seek to promote walking within San José by improving pedestrian conditions through increased pedestrian safety, creating a land use context supportive of pedestrian travel, and creating or enhancing corridors to include shaded and attractive areas for recreational or primary walk trips.

V. FREIGHT TRANSPORTATION SYSTEM AND GOODS MOVEMENT

A. TRUCK TRAVEL

Truck travel is generated for a variety of reasons including the transport of raw materials for processing and the movement of finished goods and foods to retail establishments. Over the last 30 years, heavy industry uses have declined in San José, while less truck-intensive uses such as research & development activities have occupied and grown into the industrial areas. Several areas continue to serve heavy industrial truck or automotive uses including the areas of North San Jose, Berryessa International Business Park, East Gish, Mabury, Monterey Business Corridor, Senter Road, Evergreen Campus industrial, New and Old Edenvale, Coyote Valley; the Norman Y. Mineta San José International Airport; and to a lesser degree, the area bounded by Coleman and Stockton Avenues south of I-880. The areas are illustrated on Figure 5.

The City of San José does not have established truck routes; though the *City's Municipal Code* Section 11.96 establishes roadways on which heavy truck traffic is prohibited. The Municipal Code lists 88 roadway segments on which truck traffic for the movement of vehicles exceeding a maximum gross weight of five (5) tons is restricted and an additional 23 roadways on which vehicles exceeding seven (7) tons are prohibited. In general, the City encourages truck traffic to use state freeways, county expressways, and six-lane arterial streets.

It is imperative that the vehicles connections between the industrial areas and the regional highways and expressways readily accommodate heavy truck traffic to minimize impacts to neighborhoods and to ensure the timely delivery of goods and materials to support economic development. To serve the heavy industrial areas discussed above, the City has identified a network of Primary Freight routes as illustrated on Figure 5. Freight routes are not defined in the common sense of a "truck route", which are routes that trucks generally are required to use when traveling, rather freight routes identify the network on which increased truck traffic can be expected based on the surrounding land uses.

Truck traffic will continue to use a variety of roadway types to transport goods to local stores and should be accommodated without overbuilding of streets widths and driveways. Some delay due to freight movement should be expected and tolerated by all road users, even on the collector street providing access to the local grocery store as an example.

B. RAIL TRANSPORTATION AND CONNECTIONS TO THE STREET NETWORK

Currently there are four main railroad lines that are owned and used by Union Pacific Railway for freight movement within the City. Each line is summarized below.

The *Warm Springs Subdivision Line* runs from Milpitas to the San José Newhall Yard located just west of the Norman Y. Mineta San José International Airport. Monday through Friday, one train leaves Milpitas in the morning at 6:00 am and another at 9:00 am. The trains then return early in the afternoon. Most rail crossings are grade separated, though this line has approximately 10 at-grade crossings, which are primarily located in North San José.

The *Vasona Corridor (Kaiser Permanente Plant) Line* runs from Milpitas to San José and along the Vasona light rail line. Trains leave Milpitas Mondays, Wednesdays, and Fridays at 9:00 am and 11:00 am, and the trains return at around 2:00 pm. Similar to the Warm Springs Subdivision Line, this Line has approximately 10 at-grade crossings, which are primarily located in North San José

The *Monterey Corridor Line*, known in the western United States as the I-5 Corridor Line, runs from Seattle to Los Angeles and is the freight rail line in California that has the most frequent service.

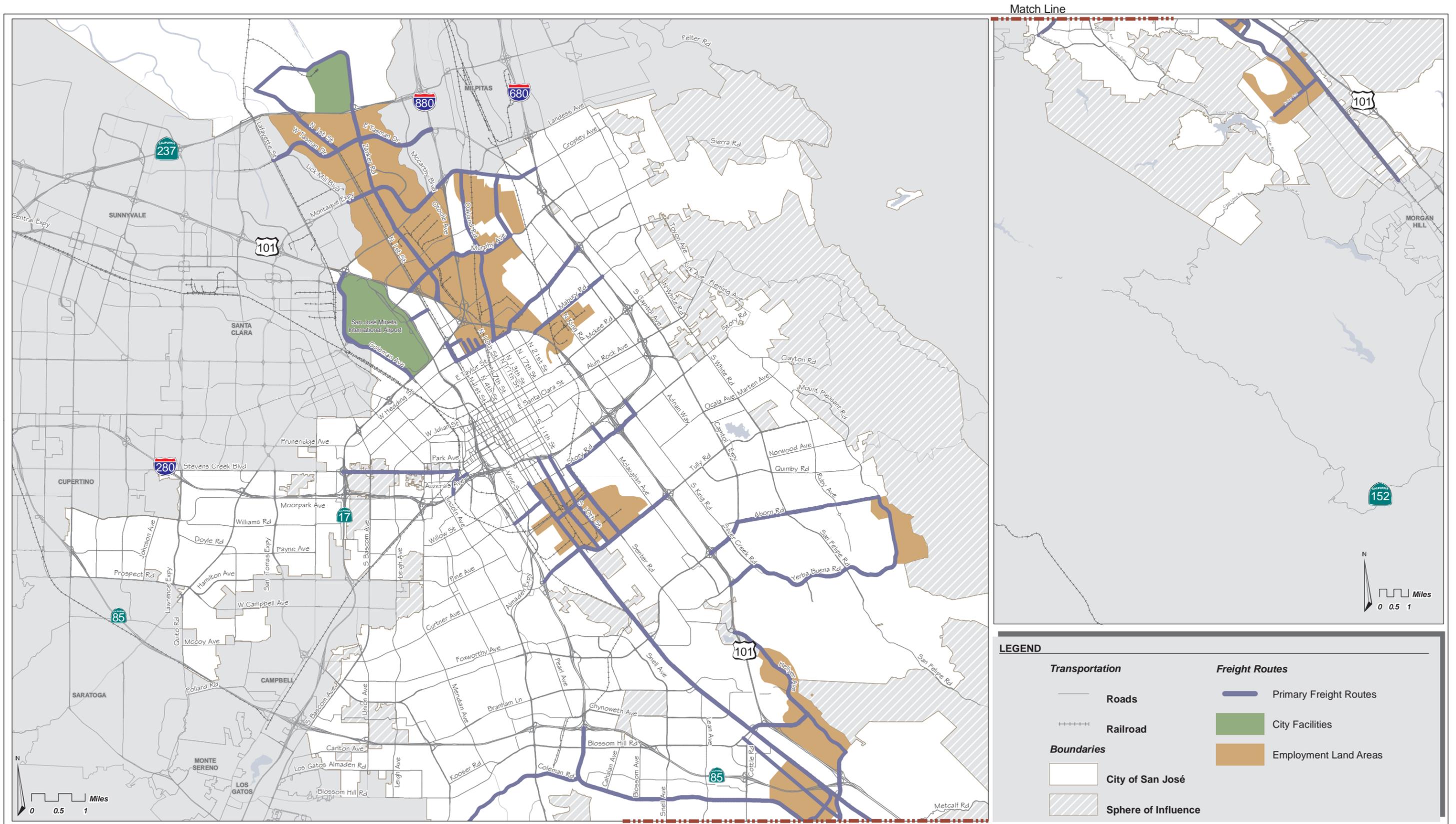


Approximately 15 to 20 trains travel through San José on a daily basis. Within the City, the line primarily is parallel to Monterey Road. There are two at-grade crossings in South San José, and the remaining crossings in San José are grade separated.

The *Western Pacific Line* runs from Fremont, through east San José, then along the Monterey business corridor to Willow Glen and terminates on The Alameda. The portion of this line from the City of Milpitas to approximately Mabury Road in San José was purchased by VTA for the future BART extension. Most of this line is currently out of operation with the exception of the segment north of Julian Street, which is still used for limited freight movement.

The City should continue to work with railroad operators to provide safe facilities of rail crossings and to improve pavement sections to the maximum extent possible. Crossings should address all modes and possibly provide different pavement treatments to minimize slippage by bicyclists and pedestrians.





VI. GOALS, POLICIES AND IMPLEMENTATION ACTION

(continued on following page)



Proposed General Plan Update Goals, Policies, and Implementation Actions



Circulation

The Circulation Element of the General Plan includes a set of balanced, long-range, multimodal transportation goals and policies that provide for a transportation network that is safe, efficient, and sustainable (minimizes environmental, financial, and neighborhood impacts). When appropriate land uses are mixed and intensified along transit corridors and other key development areas more linkages are created between neighborhoods, and the multimodal transportation network becomes an integral part of the City. San Jose's circulation goals, policies and actions aim to:

- Establish circulation policies that increase bicycle, pedestrian, and transit travel, while reducing motor vehicle trips, to increase the City's share of travel by alternative transportation modes.
- Promote San Jose as a walking- and bicycling-first city by providing and prioritizing funding for projects that enhance and improve bicycle and pedestrian facilities.

Balanced Transportation System

San Jose desires to provide a safe, efficient, and environmentally-sensitive transportation system that balances the needs of bicyclists, pedestrians, and public transit with those of automobiles and trucks.

Goal CR-1: Maintain a multimodal transportation system that prioritizes the mobility needs of bicyclists, pedestrians, and public transit users while also providing for the safe and efficient movement of automobiles and trucks.

CR-1 Policies:

Policy CR-1.1. Accommodate and encourage use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and vehicle miles traveled (VMT).

Policy CR-1.2. Consider impacts on overall mobility and all travel modes when evaluating transportation impacts of new developments or infrastructure projects.

Policy CR-1.3. Increase substantially the proportion of commute travel using modes other than the single-occupant vehicle. The 2040 commute mode split targets for San Jose residents and workers are presented in the following table.

COMMUTE MODE SPLIT TARGETS FOR 2040		
Mode	Commute Trips to and From San Jose	
	2008	2040 Goal
Drive alone	77.8%	TBD
Carpool	9.2%	TBD
Transit	4.1%	TBD
Bicycle	1.2%	TBD
Walk	1.8%	TBD
Other means (including work at home)	5.8%	TBD
Source: 2008 data from <i>American Community Survey (2008)</i> .		

Policy CR-1.4. Require new development or redevelopment projects provide adequate funding for necessary transportation improvements to all travel modes. Prioritize investments to reduce vehicle travel demand over investments that accommodate additional demand.

Policy CR-1.5. Design, construct, operate, and maintain City and private streets to enable safe, comfortable, and attractive access and travel for motorists and for pedestrians, bicyclists, and transit users of all ages, abilities, and preferences.

Policy CR-1.6. Actively coordinate with regional transportation, land use planning, and transit agencies to develop a transportation network with complementary land uses that encourage travel by bicycling, walking and transit and ensures that regional greenhouse gas emission standards are met.

Policy CR-1.7. Prioritize funding of multimodal projects that provide the most benefit to all users. Evaluate new transportation projects to make the most efficient use of transportation resources and capacity.

CR-1 Actions:

Action CR-1.8. Update the City’s engineering standards for public and private streets based on the new street typologies that incorporate the concept of “complete streets.”

Action CR-1.9. Reduce vehicle capacity on streets with projected excess capacity by reducing either the number of travel lanes or the roadway width, and use surplus public right-of-way to provide wider sidewalks, bicycle lanes, transit amenities and/or landscaping. Establish criteria to identify roadways for capacity reduction (i.e.

road diets) and conduct engineering studies to determine implementation feasibility.

Action CR-1.10 When it becomes feasible, develop multimodal level of service (LOS) standards that addresses all travel modes and include in the City's Transportation Impact Analysis (TIA) guidelines. These multimodal LOS standards should vary by facility type, travel mode, and location, and should establish a preference for selected modes based on the street type and/or location.

Action CR-1.11 Pursue multimodal commute share goals and annually monitor progress toward achieving these goals for both residents and employees, and report every five years using data from the Census Bureau's annual American Community Survey (ACS).

Walking and Bicycling

The pedestrian environment affects us all, whether we are walking to a transit stop, a store or school, or simply getting from a parked car or a bicycle rack to the entrance of a building. Pedestrian improvements together with land uses that promote pedestrian activities can help increase walking as a means of transportation, recreation, and exercise. Compatible land use and complete street design recommendations that benefit pedestrians also contribute to the overall quality, vitality, and sense of community in San Jose's neighborhoods.

Similarly, the flat topography and mild climate of San Jose make it an ideal city for bicycling. Construction of a comprehensive, safe, direct, and well-maintained citywide bikeway network with support facilities, such as bicycle parking at employment locations and other destinations, could greatly increase the mode share of bicycling. Reducing the number of vehicle trips by shifting those trips to bicycling or walking would help improve circulation, minimize the need for additional parking, contribute towards a healthier community and reduce green house gas emissions.

Goal CR-2 Improve walking and bicycling facilities to be more convenient, comfortable, and safe, so that they are primary transportation modes in San Jose.

CR2-Policies:

Policy CR-2.1 Coordinate the planning, and implementation of citywide bicycle and pedestrian facilities and supporting infrastructure. Prioritize bicycle and pedestrian safety and access improvements at street crossings (including proposed grade-separated crossings of freeways and other high vehicle volumes roadways) and near areas with higher pedestrian concentrations (schools, transit, shopping, hospital, and mixed-use areas)

Policy CR-2.2 Provide a continuous pedestrian and bicycle system to enhance connectivity throughout the City by completing missing segments. Eliminate or minimize

physical obstacles and barriers on City streets that impede pedestrian and bicycle movement, including consideration of grade-separated crossings at railroad tracks and freeways.

- Policy CR-2.3 Ensure, where feasible, that crosswalks and sidewalks shall be universally accessible and designed for people of all abilities.
- Policy CR-2.4 Encourage walking and bicycling and increase pedestrian and bicycle safety through education programs.
- Policy CR-2.5 Integrate the financing, design and construction of pedestrian and bicycle improvement projects with street projects.
- Policy CR-2.6 Require that 1) all new traffic signal installations, 2) existing traffic signal modifications, and 3) projects included in the Capital Improvement Plan include installation of bicycle detection devices where appropriate and feasible.
- Policy CR-2.7 Require new development to provide appropriate on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements.
- Policy CR-2.8 Coordinate and collaborate with the Santa Clara Valley Transportation Authority, Corridor Joint Powers Board, Amtrak, ACE, and local shuttle operators to permit bicyclists to transport bicycles and provide appropriate amenities on-board all commuter trains, buses, and shuttles. Coordinate with local transit operators to provide secure bicycle parking facilities at all park-and-ride lots, train stations, and major bus stops.

CR-2 Actions:

- Action CR-2.9 Implement and regularly update, as needed, the San Jose Bicycle Master Plan. Include top priority bicycle projects in the annual Capital Improvement Program update.
- Action CR-2.10 Develop and then implement a Pedestrian Master Plan. Include top priority pedestrian projects in the annual CIP update.
- Action CR-2.11 Identify funding sources for the regular maintenance and cleaning of all public bicycle and pedestrian facilities as part of the City's operation budget, and prioritize routine street maintenance for streets with bike facilities.
- Action CR-2.12 Pursue funding for the purchase of, and then purchase, when feasible, portions of railroad and utility rights-of-way from appropriate agencies for the development of exclusive or shared bicycle and pedestrian facilities.

Action CR-2.13 Establish a pilot public bike program that allows free or low-cost rental of bikes at key locations (e.g., transit stations, San Jose Diridon Station, San Jose State University) to encourage cycling as a primary mode and facilitate use of transit without having to transport a bicycle.

Action CR-2.14 Provide bicycle storage facilities as identified in the Bicycle Master Plan.

Action CR-2.15 Partner with other agencies and/or organizations to establish a comprehensive bicycle safety education program for bicyclists, pedestrians, and motorists of all ages. Provide bicycle safety education at all public and private schools, parks, and community centers. Also, participate in and support recommendations of a Safe Routes to School Program, and disseminate information through libraries, brochure mailings, and electronic media.

Action CR-2.16 Identify locations where traffic signals can be modified to reduce overall cycle times or where phases can be modified, eliminated, or added to reduce the wait and/or crossing times for pedestrians.

Action CR-2.17 Collect pedestrian and bicycle counts as part of routine traffic counts within an appropriate distance of a new development or redevelopment site. Quantifying pedestrian and bicycle activities will measure the amount of pedestrian and bicycle activities throughout the City and assist in determining and prioritizing infrastructure improvement projects.

Public Transit

While public transit is provided and maintained by other agencies, the City can greatly influence ridership through land use and zoning decisions, connectivity to other modes including biking and walking facilities, and improving traffic operations within key corridors to facilitate bus headways. The City can also dedicate rights-of-way for new systems and continue extensive coordination with various agencies to expand transit service and accessibility.

Goal CR-3: Maximize use of existing and future public transportation services to increase ridership and decrease the use of private automobiles.

CR-3 Policies:

Policy CR-3.1: Pursue development of BRT, bus, shuttle, and fixed guideway (i.e., rail) services on designated streets and connections to major destinations.

Policy CR-3.2: Ensure that roadways designated as Grand Boulevards adequately accommodate transit vehicle circulation and transit stops. Prioritize bus mobility along Stevens Creek Boulevard, The Alameda, and other heavily traveled transit corridors.

Policy CR-3.3: As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute towards transit ridership. In addition, require that new development is designed to accommodate and to provide direct access to transit facilities.

Policy CR-3.4: Maintain and improve access to transit stops and stations for mobility-challenged population groups such as youth, the disabled, and seniors.

CR-3 Actions:

Action CR-3.5 Collaborate with Caltrans and Santa Clara Valley Transportation Authority to prioritize transit mobility along the Grand Boulevards identified in Figure 1. Improvements could include installing transit signal priority, queue jump lanes at congested intersections, and/or exclusive bus lanes.

Action CR-3.6 Regularly collaborate with BART to coordinate planning efforts for the proposed BART extension to San Jose/Santa Clara with appropriate land use designations and transportation connections.

Action CR-3.7 Collaborate with transit providers to site transit stops at safe, efficient, and convenient locations, and to develop and provide transit stop amenities such as pedestrian pathways approaching stops, benches and shelters, nighttime lighting, traveler information systems, and bike storage to facilitate access to and from transit stops.

Action CR-3.8 Ensure that all street improvements allow for easier and more efficient bus operations and improved passenger access and safety, while maintaining overall pedestrian and bicycle safety and convenience.

Goal CR-4 Provide maximum opportunities for upgrading passenger rail service for faster and more frequent trains, while making this improved service a positive asset to San Jose that is attractive, accessible, and safe.

CR-4 Policies:

Policy CR-4.1 Support the development of amenities and land use and development types and intensities that increase daily ridership on the BART, Caltrain, ACE and Amtrak California systems and reduce potential negative effects on the community.

Policy CR-4.2 Support the development of amenities and land use and development types and intensities that contribute to increased ridership of potential high-speed rail, while balancing the needs of the greater community.

CR-4 Actions:

Action CR-4.3 As appropriate, continue to regularly coordinate with rail operators in San Jose on the following matters:

- Maintenance of rail lines, landscaping, and easements
- Rail electrification to increase the frequency of train service
- Grade separations (either above-ground or underground) to improve street connectivity and pedestrian and bicycle mobility at ground level
- Providing timed transfers with other transit providers in the area.
- Analyzing and mitigating potential negative impacts resulting from increased train service, corridor expansion, and the eventual upgrading of a rail line.

Action CR-4.4 Work cooperatively with the California High-Speed Rail Authority to ensure that rail corridors within the City are planned and constructed in a manner that prevents or minimizes physical or visual barriers in the City and impacts to the community.

Vehicular Circulation and Vehicle Miles Traveled (VMT)

Between 1980 and 2008, San Jose's population increased by nearly 45 percent. A general trend nationwide has been that increases in vehicle trips and trip length proceed at a higher rate than growth in population. This is due in part to changing lifestyles (the prevalence of two-income families and a greater percentage of non-work trips on a day-to-day basis) and increased reliance on the private automobile. Even with substantial increases in non-automobile mode shares expected in the years ahead, some increase in automobile travel in San Jose is expected. To this end, policies focus on maximizing efficiency of the existing street system and making minor capacity enhancements, without negatively affecting other modes.

Goal CR-5 Maintain the City's street network to promote the safe and efficient movement of automobile and truck traffic and minimize negative impacts to bicyclists, pedestrian, and transit users.

CR-5 Policies:

Policy CR-5.1 Develop and maintain a roadway network that categorizes streets according to function and type, considering the surrounding land use context through the City's street typologies that incorporate the concepts of "complete streets".

Policy CR-5.2 Encourage implementation of Intelligent Transportation Systems (ITS) strategies to maximize the efficiency of the existing transportation systems through advanced technologies, such as adaptive signal controls, real-time transit information, and real-time parking availability.

Policy CR-5.3 The minimum overall performance of City streets during peak travel periods should be level of service "D" except for designated areas.

- Development proposals should be reviewed for their impacts on the level of service and should be required to provide appropriate mitigation measures if they have the potential to reduce the level of service to "E" or worse. These mitigation measures typically involve street improvements. When the mitigation for vehicular traffic compromises community livability by removing street trees, reducing front or side yards, or creating other neighborhood impacts, or when a mitigation detracts from the bicycle, pedestrian and transit environment, then improvements to transit, bicycle, or pedestrian facilities may be considered in combination with more appropriate street improvements.
- To strengthen the neighborhood preservation strategy and objectives of the Plan, the City Council may adopt Council Policy which establishes alternate mitigation measures, including improvements to transit, bicycle, and/or pedestrian facilities, for projects whose required traffic mitigation would result in an unacceptable impact on an affected neighborhood or City street.
- An "area development policy" may be adopted by the City Council to establish special traffic level of service standards for a specific geographic area which identifies development impacts and mitigation measures. These policies may take other names or forms to accomplish the same purpose. Area development policies may be first considered only during the General Plan Annual Review and Amendment Process; however, the hearing on an area development policy may be continued after the Annual Review has been completed and the area development policy may thereafter be adopted or amended at a public meeting at any time during the year.
- In recognition of the substantial non-traffic benefits of infill development, small infill projects may be exempted from traffic mitigation requirements.
- In recognition of the unique position of the Downtown Core Area as the transit hub of Santa Clara County, and as the center for financial, business, institutional and cultural activities, development within the Downtown Core Area Boundary is exempted from traffic mitigation requirements. Intersections within and on the boundary of this area are also exempted from the level of service "D" performance criteria.

Policy CR-5.4 Maintain and enhance the interconnected network of streets and short blocks that support all modes of travel, provide direct access, calm neighborhood traffic, reduce vehicle speeds, and enhance safety.

Policy CR-5.5 Accommodate anticipated growth in land use and population while reducing vehicle miles traveled (VMT) per capita by 10 percent as compared to 2009 levels.

CR-5 Actions:

Action CR-5.6 Complete buildout of the City’s street system per the Land Use and Transportation Diagram.

Action CR-5.7 Implement the City’s Neighborhood Traffic Management Program that formalizes:

- Comprehensive strategies to improve safety and livability of local and collector streets
- Procedures that can uniformly be applied to all neighborhoods to identify and prioritize traffic management measures
- A program that can be clearly followed by residents, City staff, and other stakeholders

Action CR-5.8 Develop a comprehensive Electric Vehicle infrastructure plan that considers the unique needs of full size and low speed electric vehicles (e.g. neighborhood electric vehicles) and other electric mobility devices such as e-bikes and Segways. The plan should include a preferred network for neighborhood electric vehicle travel, specific improvements necessary to allow their use on as many streets as possible, and locations of public charging stations.

Goods Movement

An effective and efficient goods movement system is essential to the economic livelihood of the City. Policies for goods movement address all transportation facilities’ abilities to accommodate the effective and efficient movement of goods, while balancing the needs of other travel modes.

Goal CR-6 Provide for safe and efficient movement of goods to support commerce and industry

CR-6 Policies:

Policy CR-6.1 Minimize potential conflicts between trucks and pedestrian, bicycle, transit, and vehicle access and circulation on streets with truck travel.

Policy CR-6.2 Maintain Primary Freight Routes that provide for direct access for goods movement to industrial and employment areas.

Policy CR-6.3 Support the efficient and safe movement of goods by rail where appropriate and promote the continued operation of freight rail lines that serve industrial properties and the transportation of goods.

CR-6 Actions:

Action CR-6.4 As part of the project development review process, ensure that adequate off-street loading areas in new large commercial, industrial, and residential developments are provided, and that they do not conflict with pedestrian, bicycle, or transit access and circulation.

Action CR-6.5 Continue to pursue the development of an Interstate 280 and Senter Road interchange that would provide a primary freight route to the Monterey Business Corridor.

Transportation Demand Management (TDM) and Parking

Transportation Demand Management (TDM) refers to a set of strategies to reduce vehicle trips by promoting alternatives such as public transit, carpooling, bicycling, walking, and telecommuting. Many of the features that are incorporated into the Envision San Jose 2040 General Plan are part of the City's current TDM strategy, including:

- A street typology system that assigns priority to alternate modes of travel, including the concept of complete streets
- Pedestrian and bicycle facilities, including Safe Routes to Schools
- Expanded and enhanced public transit service, including exclusive bus lanes
- Measures such as shuttle services, discounted transit passes, carpooling and car-sharing that reduce vehicle trips
- Compact land use pattern that reduces trip length and allows for “park once and walk” destinations
- Balanced housing and jobs.

These measures are included in the plan for the City's physical transportation infrastructure and implementing actions such as maintaining zoning requirements and supporting public transit operations.

Goal CR-7 Develop and implement effective Transportation Demand Management (TDM) strategies that minimize vehicle trips and vehicle miles traveled.

CR-7 Policies:

Policy CR-7.1 Encourage large employers to develop TDM programs to reduce the vehicle trips generated by their employees.

CR-7 Actions:

Action CR-7.2 Establish a citywide or area wide TDM program potentially funded by annual fees or assessments on existing and new developments, or grants. The program may include subsidized transit passes, free shuttle service, ridesharing, preferential carpool parking, flexible work schedules, car-sharing, parking pricing, and other measures. Explore the feasibility of providing neighborhood

electric vehicles (NEVs) or Segways for short trips within residential neighborhoods or office parks.

Action CR-7.3 Explore alternative techniques and requirements, as they pertain to various transportation modes including parking, land use, and traffic mitigation, that would encourage the use of alternative transportation modes.

Action CR-7.4 Update and enhance the existing TDM program for City of San Jose employees. The program may include subsidizing transit passes, free shuttle service, preferential carpool parking, ridesharing, flexible work schedules, parking pricing, car-sharing, and other measures.

Goal CR-8 Develop and implement parking strategies that reduce automobile travel through parking supply and pricing management.

CR-8 Policies:

Policy CR-8.1 Promote transit-oriented development with reduced parking requirements and other amenities around appropriate transit hubs and stations to facilitate the use of available transit services.

Policy CR-8.2 Balance business viability and land resources by maintaining an adequate supply of parking to serve demand while avoiding excessive parking supply that encourages automobile use

Policy CR-8.3 Support using parking supply limitations and pricing as strategies to encourage use of non-automobile modes where feasible.

Policy CR-8.4 Reduce parking requirements for mixed-use developments and for developments providing shared parking or a comprehensive TDM program, or developments located near major transit hubs or within Urban Villages and Corridors.

Policy CR-8.5 Encourage private property owners to share their underutilized parking supplies with the general public and/or other adjacent private developments.

CR-8 Actions:

Action CR-8.6 Update existing parking standards to reduce parking requirements for transit-oriented developments, mixed-use projects and projects within the Urban Villages and Corridors to take advantage of shared parking opportunities generated by mixed-use development. Establish a program and provide incentives for private property owners to share their underutilized parking with the general public and/or other adjacent private developments. Updates to the existing parking standards should also address TDM Actions. The standards shall require amenities and Actions to support reduced parking requirements.

Action CR-8.7 As part of the entitlement process, require large developments to complete a parking demand analysis that accounts for shared parking, TDM Actions, and parking pricing to determine the appropriate parking supply. Encourage the parking reserve in landscaping concept (i.e., landscaping that can be converted to parking in the future if necessary) to ensure that excessive parking is not provided.