SANTA CLARA
Station Area Plan

Santa Clara Valley Transportation Authority

City of Santa Clara

City of San José

August 2010

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CHAPTER 1
INTRODUCTION AND OVERVIEW

This plan, for 432 acres of land surrounding the existing Santa Clara Transit Center and future BART Station, is a result of a partnership between the cities of San José and Santa Clara, and the Santa Clara Valley Transportation Authority (VTA). The Plan is guided by the Metropolitan Transportation Commission's Resolution 3434 Transit-Oriented Development Policy, which includes provisions for housing and ridership criteria for land within a half-mile radius of each station along the San Francisco Bay Area Rapid Transit (BART) extension to Milpitas, San José, and Santa Clara. As a result, the Plan encompasses a significant portion of land within and adjacent to the half-mile area around the Santa Clara Transit Center and future Santa Clara BART Station.

The existing Santa Clara Transit Center is currently served by Caltrain, Altamont Commuter Express (ACE), VTA bus lines, and employee shuttles. Future plans call for a Capitol Corridor stop, and an Automated People Mover (APM) system connecting the Transit Center with San José Norman Y. Mineta International Airport (or Airport) and VTA's Metro/Airport light rail station. Additionally, a major effort is underway to extend BART from Fremont to Silicon Valley, with the Santa Clara BART Station forming the terminus of this extension.

The combined existing Transit Center and future BART and APM facilities are referred to as the Santa Clara Station, or Station, throughout this plan document.

With direct rail service to virtually all parts of the San Francisco Bay Area and beyond, easy connection to the Airport, and proximity to major activity centers such as Santa Clara University and the planned Santa Clara downtown, the Santa Clara Station will emerge as a key inter-modal hub with one of the highest transit ridership projections in the Bay Area.

While the area includes many uses, industrial operations and low-intensity development dominate, especially adjacent to the Station along the rail corridor. The Santa Clara Station Area Plan, hereafter referred to as the Station Area Plan, lays the foundation for the development and revitalization of this area, fostering a dynamic social and economic environment by cultivating a wide spectrum of uses including housing, live/work units, offices and employment generating uses, stores, hotels, restaurants, parks, and other amenities. The confluence of these activities with direct access to a user-friendly transit hub—the Station or Santa Clara Station—will help generate a vital environment for residents, workers, and visitors to live, work, play, and travel with ease.

1.1 GUIDING PRINCIPLES

The Guiding Principles are at the heart of the Station Area Plan. They express a vision for the Station and surrounding area, together creating the overarching goals that the Plan strives to achieve. The Principles create a target point for a 20-year horizon, and provide the springboard for the detailed policies of the Plan. They have been shaped by input from community members and stakeholders, research into overall existing conditions and opportunities, and specific issues such as subregional economic and market conditions.

GUIDING PRINCIPLES

1. **A landmark gateway and destination that integrates the old with the new.** Public gathering places, interspersed with higher-intensity development of employment uses, hotels, restaurants, residential developments, and neighborhood-serving retail uses create a vital, active destination for existing and new residents, visitors, and employees. Design of public spaces, buildings, and transportation facilities visually defines the Santa Clara Station and surrounding area as a major gateway into Santa Clara and San José. Development around the Station captures the historic depth and character of the surrounding area, integrating historic assets like the Old Quad and Newhall residential neighborhoods, Mission Santa Clara site, and Santa Clara Historic Depot into new development. Access and visibility to these assets is accentuated by view corridors and visual references.

2. **Higher-intensity, transit-supportive development.** The Station Area Plan encourages an intensity of development and resulting population that energizes and supports the Station with key public space, transit, education, and commercial destinations. Development intensities are orchestrated to maximize ridership and access to the Station, accessibility to amenities as well as connectivity to the nearby Airport. Higher intensities will also further regional transit goals for housing and employment, supporting transit and infill development.

3. **Development that respects the scale and character of surrounding neighborhoods.** Several well-established single-family neighborhoods are located within and adjacent to the Planning Area, including the Old Quad in Santa Clara and the Newhall Neighborhood in San José. New development respects the existing culture and character of these neighborhoods, stepping the scale of new buildings down to be compatible with existing heights and utilizing building and streetscape design to reflect the existing culture and history of the area. Taller buildings are focused east of the tracks in the vicinity of the Station, with development west of the tracks stepping down in scale.

4. **A mix of uses, including residential, east of the UPRR corridor.** Community participants, stakeholders, and decision-makers in both Santa Clara and San José believe that the Planning Area should have a mix of uses on both sides of the Union Pacific Railroad (UPRR) corridor. The Station Area Plan emphasizes residential uses near the Station to help support and intensify commercial, office, and recreational uses surrounding the Station[1]—thus establishing a critical mass for local-serving amenities, and providing opportunities for more people to live and work adjacent to transit for shorter commutes and to reduce vehicle trips. While employment uses are emphasized east of the rail corridor with residential uses to the west, the development is designed to maximize livability of the overall environment around the Station, with well-defined blocks and neighborhoods, open space, and access to retail and other uses. The residential component also maximizes potential for housing units within a half-mile radius of the Station, which helps meet the regional housing requirement for the transit corridor station.

5. **Improved east-west connectivity.** The UPRR corridor divides the entire length of the Planning Area, without a single vehicular or pedestrian crossing between De La Cruz Boulevard to the north and I-880 to the south, a distance of 1¼-miles (see Figure 1-2 for directional reference). Crossing the corridor is prohibited for pedestrians and bicyclists nor do the I-880 and De La Cruz overpasses provide adequate or safe crossing facilities. Intensification of the eastern side of the tracks, as well as the need for direct local access to the Station will necessitate greater connectivity between the west and east sides

[1] The Station includes both BART and Caltrain facilities.

of the Planning Area. The Station Area Plan identifies several opportunities for east-west connections of various modes, including pedestrian bridges and a vehicular underpass. The vehicular connection, in particular, benefits the Planning Area, redistributing traffic off of De La Cruz Boulevard and providing better local access to Station parking and transit facilities.

6. **A place for connections; a connected place.** The Station is a key transfer station along the Silicon Valley Corridor, with connection opportunities between BART, commuter rail, the APM to the Airport, and major VTA bus lines. Therefore, the Station Area Plan establishes guidelines and criteria for connectivity between transit modes, emphasizing short transfer times and easy access. Equally important to connections within the Station itself, connectivity to destinations just outside of the Planning Area is essential to the vitality and success of the Station. Mitigating the challenging perceptual and physical barriers of the busy Coleman Avenue and El Camino Real corridors to the east and west of the tracks, the Station Area Plan focuses on creating a cohesive environment that extends beyond these corridors and connects to key activity nodes like downtown Santa Clara, Santa Clara University, Downtown San José, and the Diridon Station.

7. **A diversity of transportation modes and parking choices.** Land uses capitalize on the proximity to BART, Caltrain, ACE, and Capitol Commuter rail lines, and VTA bus lines, and are integrated with a shuttle system that extends to key locations. Residents will be able to access stores, offices, downtown Santa Clara and Santa Clara University, and San José in addition to the Station, without needing a car. Bicycle paths and pedestrian bridges link housing, activity centers, and recreational amenities, and are buffered where feasible from automobiles to enhance safety. Parking is distributed throughout the Planning Area, rather than located and accessed at one high-traffic location. Pedestrian access to the Station from parking will be prioritized and supported by land use and street design.

8. **Pedestrian orientation.** An activated pedestrian realm creates an engaging and well-populated environment with a variety of uses and activities. The fine-grained pattern of blocks and streets promotes walkability through arrangement of activities, creation of smaller parcels/blocks and inter-connections as large sites redevelop, and improved sidewalks and streetscapes. Pedestrians will have priority over automobiles, and buildings will be articulated and designed to visually engage and offer comfort and security to pedestrians.

9. **Synergistic mix of uses and parking.** The Station Area Plan establishes a synergistic, vital transit center, where uses complement and support one another. Residential neighborhoods are located adjacent to neighborhood-serving retail and employment opportunities, while transit-supportive retail or restaurants also serve nearby offices and hotels. Parking for

transit facilities and uses within the Planning Area is shared and distributed in several locations allowing transit-supportive and other active uses to be located in the vicinity of the Station as well as throughout adjacent neighborhoods. Opportunities for shared parking between weekday and evening/weekend uses allows for a more holistic approach to overall parking supply in the area to minimize land area devoted to parking.

1.2 PROJECT BACKGROUND

SANTA CLARA TRANSIT CENTER

The existing Santa Clara Transit Center and historic depot[2] are located in the heart of the Silicon Valley, directly adjacent to such major centers and landmarks as the Airport and Santa Clara University, Old Quad neighborhoods, and historic Santa Clara Downtown.

Straddling the boundary between the cities of San José and Santa Clara, the Santa Clara Transit Center is already a well-established transit hub. On a daily basis, the Transit Center provides service to Caltrain and VTA bus lines, with over 1,400 and 2,300 boardings and alightings, respectively[3]. In addition, the station typically provides ACE service, which has been suspended temporarily during UPRR track work. Future expanded service is likely to include ACE, Amtrak, Capitol, BART, and an APM system between the Transit Center and the Airport. With multiple opportunities for increased transit connectivity to the rest of the San Francisco Bay Area, the Transit Center and surrounding area offer tremendous potential for creating a vibrant, transit-supportive center that will serve both local and regional interests.

The historic depot remains a key physical marker in the Transit Center landscape.

[2] The Santa Clara Depot, built in 1863 and on the National Register of Historical Places, was the oldest continuously operating railroad depot in the State of California until the ticket office was closed in 1997. The facility is now a museum.

[3] 2007 VTA data for Silicon Valley Rapid Transit Corridor SEIR.

SANTA CLARA COUNTY: CONTINUED STRONG GROWTH

Santa Clara County is the San Francisco Bay Area's economic engine. Despite the loss of nearly 14 percent of jobs between 2000 and 2005 following the dot-com collapse, more than one in four jobs in the nine-county Bay Area Region continues to be located in Santa Clara County. Current projections by the Association of Bay Area Governments (ABAG) indicate that growth in the County will remain strong through 2035—population is expected to increase by 27 percent, while employment growth is expected to increase by 46 percent (ABAG Projections 2007).

With its strong concentration of high-technology employment, Santa Clara County attracts workers from the East Bay and beyond, making the county's I-680 Fremont-South Bay corridor one of the most congested in the Bay Area. With increases in people and jobs over the next 25 years, work trip growth along the corridor is expected to increase 92 percent (VTA County-wide Model, 2005). As a result, alleviating traffic congestion and improving future transit mobility will continue to be a high priority for both the County and region.

SILICON VALLEY RAPID TRANSIT CORRIDOR

The need to mitigate growing traffic congestion and meet the area's need for greater transit mobility and housing has spurred several transportation improvement projects, all of which focus on connecting and facilitating transit between the Bay Area's three major cities—San Francisco, Oakland, and San José. The most significant planned improvement for the Fremont-South Bay corridor is the Silicon Valley Rapid Transit Corridor (SVRTC) project. Stretching 20 miles between the City of Fremont and the cities of Milpitas, San José, and Santa Clara, The SVRTC is envisioned as a key connection within the Bay Area transportation network. In November 2001, the BART Extension to Milpitas, San José, and Santa Clara was selected as the Locally Preferred Alternative (LPA) for the SVRTC. The 16.1-mile extension within the corridor would include six stations between Fremont and Santa Clara, with the Santa Clara Station forming the terminus.

The Station Area Plan is primarily funded through grant funds from the Metropolitan Transportation Commission (MTC). In July 2005, MTC adopted the Resolution 3434 Transit-Oriented Development (TOD) Policy, which includes provisions for housing and ridership criteria for receiving regional funding for transit area planning.[4] According to the TOD Policy, each station along the planned BART extension must meet an average threshold of 3,850 housing units within a half-mile radius to support ridership for the corridor. However, along the planned extension corridor, some stations may accommodate more housing units than others, depending upon site conditions, access, and transit connectivity. These factors will be accounted for in each station plan and will help determine the actual distribution of housing units throughout the corridor. Additionally, while not specified in the MTC resolution,

[4] The TOD policy applies to physical transit extensions funded in Resolution 3434, which includes the Santa Clara BART Station as part of the BART extension from downtown Fremont to San José/Santa Clara. No regional funds will be programmed and allocated for construction until the requirements of the TOD policy have been satisfied.

uses such as office, education, recreation, and hotel uses have the potential to generate significant ridership as well. Additionally, a high level of ridership could be expected at the Santa Clara Station from those accessing the Airport with the proposed APM.

STATION AREA PLAN ROLE

Development and expansion around Santa Clara Station will play a critical role in providing a mix of residential and non-residential uses and transit ridership within the SVRTC. The new Santa Clara BART stop, alone, is projected to be one of the busiest in the corridor, with over 26,000 estimated daily boardings and alightings[5]. With the anticipated BART connection, the Station will be one of the most transit-accessible stations in the entire Bay Area, with access to commuter rail and BART, bus lines, a people mover, and kiss–and–ride. Additional ridership will result from Caltrain, ACE, Capitols, and buses. Thus, establishing a Station Area Plan now for the Santa Clara Station will ensure that the BART connection is accessible and well integrated into the existing Transit Center facilities. However, the Station Area Plan is not contingent on the BART extension; rather the Plan will focus on developing access and ridership for multiple modes of transit in the Planning Area. Moreover, the Station Area Plan will provide direction for future development around the Station to meet regional and corridor-wide housing, ridership, job growth, and accessibility goals.

AGENCIES RESPONSIBLE FOR THE PROJECT

The Station Area Plan project is being led by the cities of Santa Clara and San José. Both Santa Clara and San José have joined the planning process in order to establish a long-range, pro-active land use and circulation plan for the Santa Clara Station and surrounding area. With key opportunities for access, connectivity, and transit-oriented development in both jurisdictions, creating a holistic vision for the Station is a high priority for each city. The Plan recognizes that each city may implement the Plan in accordance with its own land use regulations.

Facilitating the project is the Santa Clara Valley Transportation Authority (VTA), a transit provider and multi-modal transportation planning organization within Santa Clara County. The lead agency for the SVRTC study process, VTA is responsible for design, construction, and environmental review of the BART extension project. Upon approval of MTC's Resolution 3434, VTA initiated the planning process for the Station Area Plan, and has worked with the cities of Santa Clara and San José to meet the MTC housing threshold and ridership goals, and prepare a Station Area Plan that will be a model for other regional transit centers and stations.

[5] June 2007 Silicon Valley Rapid Transit Corridor SEIR.

Light industrial manufacturing and service industries characterize the northeastern edge of the Planning Area.

Well-established neighborhoods like the Newhall Neighborhood in San José (shown) and Old Quad in Santa Clara abut the north and southwestern ends of the Planning Area.

Santa Clara University is located along El Camino Real and comprises the Western edge of the Planning Area.

1.3 REGIONAL LOCATION AND PLANNING AREA

While the Santa Clara Station is located in Santa Clara, the Station Planning Area encompasses land within the jurisdictions of both Santa Clara and San José. Situated just a few miles south of the San Francisco Bay in Santa Clara County, the Planning Area is located in the heart of the Silicon Valley, in proximity to major transportation corridors and hubs, including Interstate 880, U.S. 101, State Route 82, the Airport, freight and commuter rail corridors, light rail, VTA bus routes, and other public transportation corridors. The regional location of the cities and the Planning Area are provided in Figure 1-1 on the following page.

Encompassing approximately 432 acres (roughly 1.3 miles by 0.5 miles), the Planning Area comprises 244 and 188 acres in Santa Clara and San José, respectively. The area incorporates land within a half-mile radius of the existing Caltrain/ACE facilities and the proposed BART Station, as well as adjacent land. The adjacent areas are beyond the half-mile radius, but also encompass underutilized land and vacant parcels along the UPRR corridor and the former Food Machinery Corporation (FMC) site for the purposes of a comprehensive land use planning effort.

The Planning Area's western edges are formed by established neighborhoods such as the Old Quad in Santa Clara and the Newhall Neighborhood in San José to the south, and Santa Clara University. The De La Cruz Boulevard overpass and the Airport form the northern and eastern boundaries. Interstate 880 (I-880) is located one block to the south. The UPRR corridor and former Newhall Rail Yard run through the center of the Planning Area (Figure 1-2). *Directional references throughout this document are based on those shown in Figure 1-2.*

1.4 SCOPE AND STATION AREA PLAN

With a planning horizon to 2030, the Station Area Plan articulates a community vision and includes policies for the future development of the Station surrounding area. It provides guidance for land use, urban design, open space, streets, and other improvements in the area, developed through a process guided by participation of community members and decision-makers from San José and Santa Clara. The Plan seeks to ensure that the Santa Clara Station is well integrated with the proposed development in the Planning Area and existing surrounding neighborhoods, as well as current and future plans for Santa Clara University. It also outlines an implementation strategy and provides guidance for the two cities.

The Station Area Plan does not include the planning of the facilities for the anticipated BART or existing Caltrain stations located within the rail rights-of-way; those facilities are addressed by separate planning efforts. Additionally, the Station Area Plan integrates the Santa Clara University Master Plan, which includes portions of the Planning Area.

The Station Area Plan provides concepts and

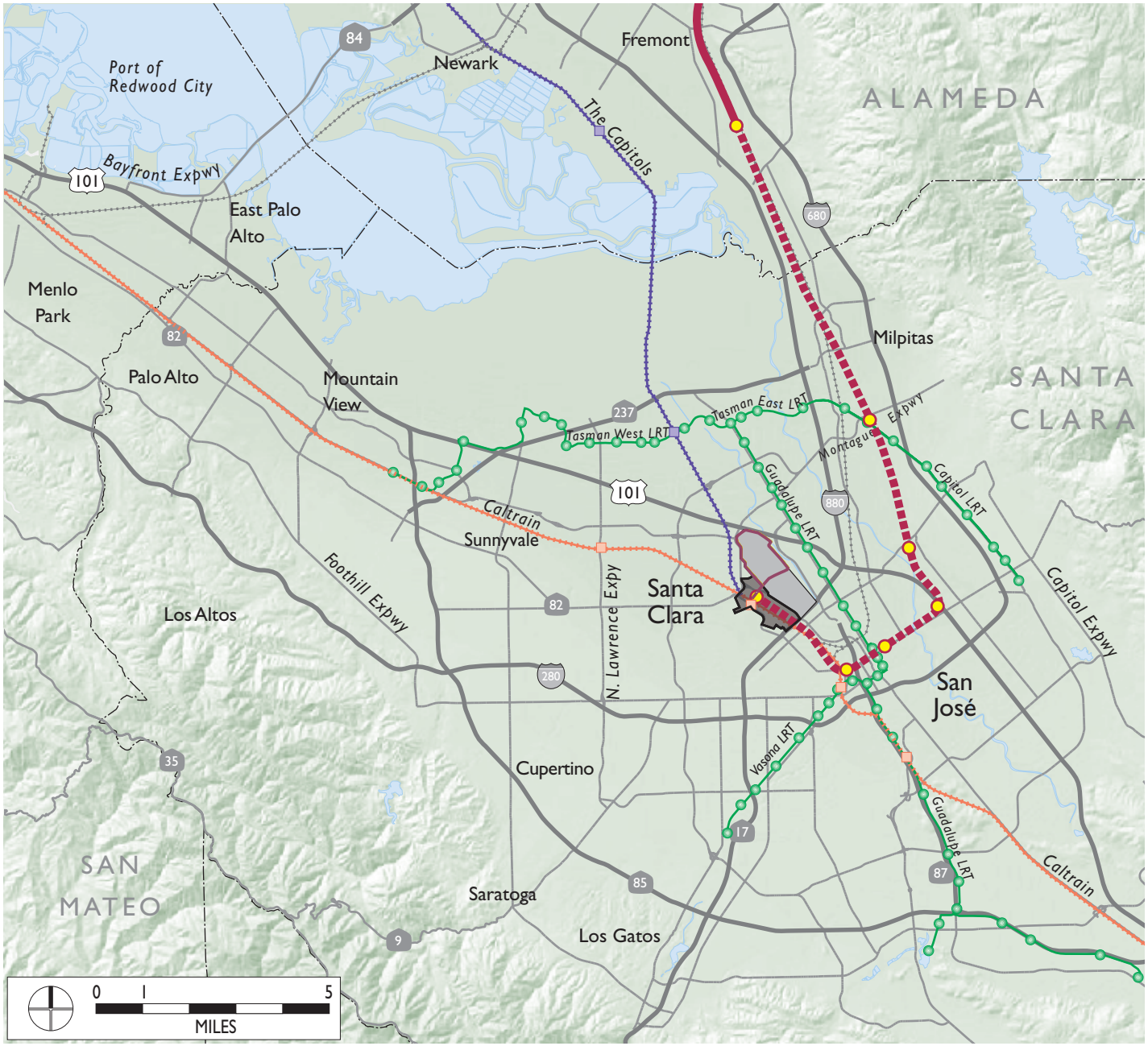


Figure 1-1

Regional Location

- Santa Clara Station Planning Area
- San José International Airport
- BART (existing/proposed)
- VTA Light Rail
- Caltrain
- ACE/Capitol
- Automated People Mover-Future Possible Alignments

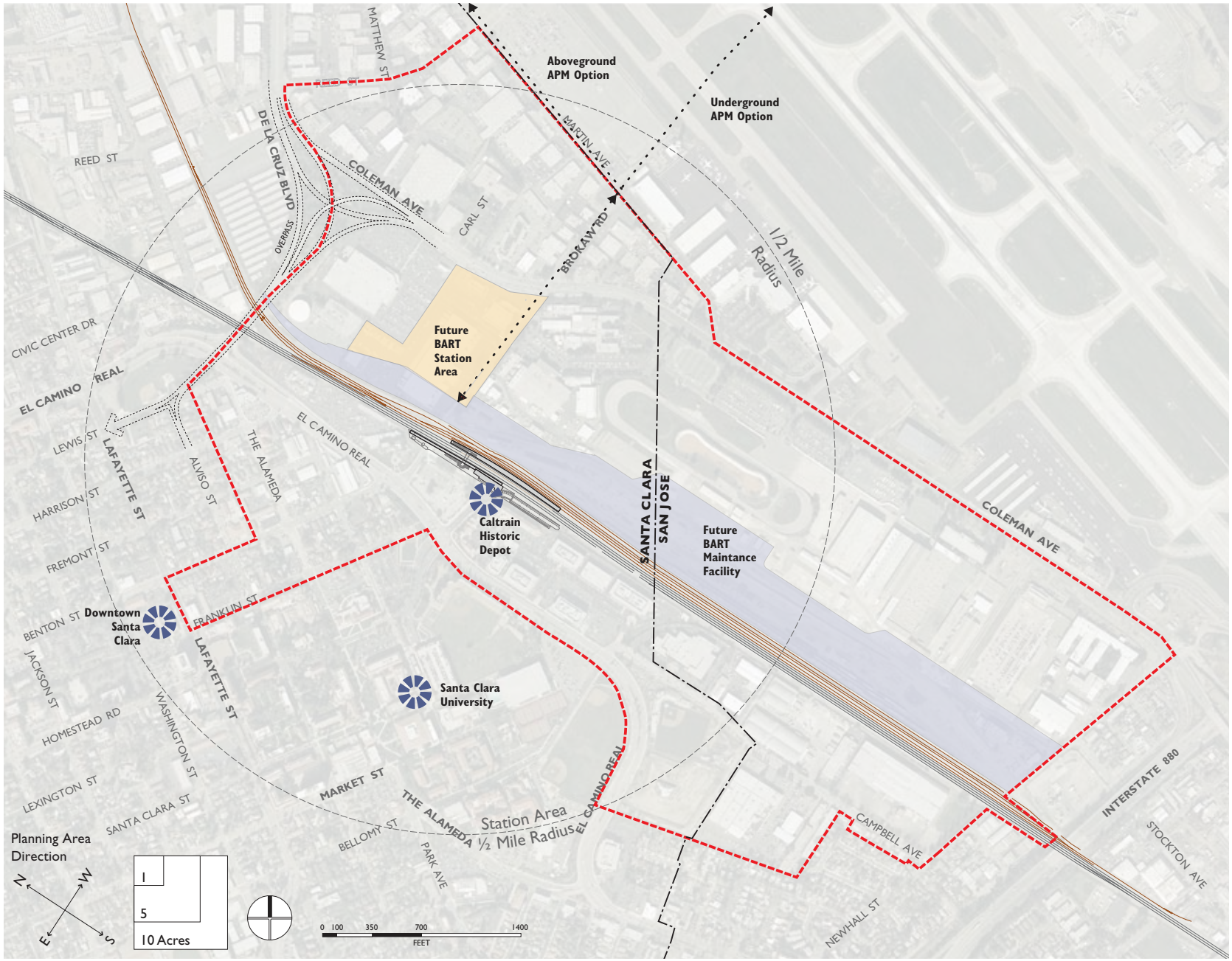


Figure 1-2
Planning Area

ideas for successful transit-oriented development within the planning area. The Plan serves several purposes:

- Outlines a vision for the Station Area's long-range physical development and enhancement that reflects the aspirations of the community;
- Provides strategies and specific implementing actions that will allow this vision to be accomplished;
- Establishes a basis for judging whether specific development proposals and public projects are consistent with Plan policies and standards;
- Allows the cities, other public agencies, and private developers to design projects that will enhance the character of the community, taking advantage of its setting and amenities; and
- Provides the basis for establishing priorities for detailed plans and implementing programs, such as financing plans, redevelopment plans, and design standards.

The Station Area Plan articulates a vision for the area and provides a realistic implementation strategy for that vision. Plan policies focus on what is concrete and achievable and set forth actions to be undertaken by the cities at their discretion. The Plan is both general and long-range.

In cases where the policies or guidelines set forth in this document conflict with other adopted policies or guidelines, the other policy or guidelines will take precedence to the extent necessary to resolve that conflict. In particular, the City of San José will continue to use its adopted guidelines in cases of potential conflict.

AGENCIES RESPONSIBLE FOR IMPLEMENTATION

While the Plan has resulted from the collaboration of various agencies, stakeholders, and public involvement, land use and urban design implementation will be carried out independently by the two cities. Although much of the land in the Station Planning Area is privately-owned, the cities have the right to carry out any necessary General Plan and Zoning Ordinance changes to ensure smooth implementation.

Infrastructure, including roadway, and streetscape improvements, and other features that extend through or impact the two cities, may require interagency collaboration, including participation by VTA as appropriate.

The Plan is a result of comprehensive community outreach, including workshops, stakeholder and decision-maker meetings, media coverage, and an active project website.

1.5 COMMUNITY PARTICIPATION

This Plan is the product of a two-year discourse with community members, stakeholders, and decision-makers structured around issue identification, vision and goal setting, alternatives analysis, and synthesis.

Broad public input was obtained through stakeholder meetings and community workshops, where residents, property owners, as well as representatives of advocacy groups and the surrounding neighborhoods, weighed in on issues and provided recommendations. Ideas and comments were also gathered via an active project website (www.SantaClaraSAP.com), e-mail list, decision-maker meetings, and media coverage. Coordination was provided by a Policy Advisory Group (PAG) consisting of representatives from the City of Santa Clara, City of San José, and VTA, and a Technical Advisory Group (TAG), which included representative of numerous agencies.

The participation program included:

- Four community workshops,
- Three round of stakeholder interviews, including an initial round of individual interviews,
- E-mail sign-up and project updates, and
- The Santa Clara Station Area Plan website.

1.6 PLAN ORGANIZATION AND USE

The Station Area Plan is organized into seven chapters, as outlined in the table below. Each chapter contains an approach section at the beginning that describes its contents and relationship to the Plan. Many chapters are divided into sections that deal with specific topics. Each chapter (excluding this introductory one) also contains goals and policies describing major objectives and implementing actions to be taken in order to realize them:

- **Goals** express broad intent;
- **Policies** reflect specific direction, practice, guidance, or directives. In some instances policies may need to be carried out through implementing plans (such as for transit or streetscapes), programs (such as zoning or capital improvements), or guidelines (such as Design Guidelines). Where appropriate, standards—items that can be mapped or measured—are also proposed; these standards may be fixed (such as building height or floor area ratio) or performance-based (such as attainment of a specific noise level).

In addition to the goals and policies, the land use classifications and map (Chapter 2) also represent adopted policy.

Italicized text accompanying some goals and policies explains these in further detail or refers to other parts of the Plan where the same topic is covered that should be referred to for a complete picture. Text in italics included with the goals and policies does not represent adopted direction.

Table 1-1: Station Area Plan Organization

Chapter	Contents
1 Introduction and Overview	Guiding Principles, history, context
2 Land Use	Key features of Planning Area's structure, land use diagram and classifications, intensity and incentives, open space, direction for mixed-use districts
3 Circulation, Access, and Parking	Planning Area's street system; bicycles and pedestrians; transit; and parking demand management
4 Urban Design	Street grid, block size, and connections; building bulk and massing; streetscape design; and view corridors. Also includes suggested urban design guidelines
5 Public Facilities	Facilities and amenities related to educational resources, civic/community facilities, and public services
6 Health and Safety	Airport influence, hazards, and noise
7 Implementation Strategies	Implementation mechanisms, infrastructure and public improvements financing, general plan and zoning amendments

1.7 RELATED STATION AREA PLAN DOCUMENTS

Several documents have aided preparation of the Station Area Plan, including, project reports, working papers, and community input. However, these do not represent adopted policy.

EXISTING CONDITIONS ANALYSIS AND WORKING PAPERS

Comprehensive assessment of existing conditions, opportunities and challenges, and development options is documented in several reports:

- *Existing Conditions Analysis Report:* This includes in-depth analysis of land use, urban design, transportation, and infrastructure conditions, and identified sites with opportunity for redevelopment, reuse, or intensification.
- *Working Paper: Opportunities and Constraints:* This paper documents land use, transportation, urban design, environmental, and infrastructure opportunities and constraints, and provides an overall understanding of major issues. The analysis also includes an extensive study of circulation and access, which identifies opportunities for connectivity across the railroad corridor;

- *Working Paper: Market Assessment:* A market feasibility analysis was prepared that helped guide land use concepts for the alternatives and the final Plan.
- *Working Paper: Alternatives:* The alternatives show a range of options to guide future development, growth, and intensification in the Station Area, and addressed goals for revitalization, economic growth, and community enhancement. Input from the community and stakeholders on the alternatives led to formulation of a Preferred Plan, which served as the foundation of the Station Area Plan.

COMMUNITY PARTICIPATION

Community participation occurred at all key stages in the planning process; results of this process are documented in several reports and working papers, including stakeholder reports (for each city); reports documenting community consensus at each workshop; as well as meeting summaries from all TAG and PAG meetings. All key reports are available at the planning offices of each city.

These include:

- *Report on Community Workshop #1*, October 2006
- *Report on Community Workshop #2*, April 2007
- Report on Community Workshop #3, July 2007
- *Initial Santa Clara Stakeholder Meeting Report*, June 2006
- *Initial San José Stakeholder Meeting Report,* March 2007
- *Stakeholder Meeting #2 Summary*, January 2007
- *Stakeholder Meeting #3 Summary*, May 2007

CHAPTER 2
LAND USE

The Santa Clara Station Area is poised to emerge as a major urban district in the heart of Silicon Valley, centered on one of the busiest transit hubs in the Bay Area, with access to all forms of ground and air transportation. Significant new residential and employment-oriented development will transform the area into one of the most active residential and employment nodes in the Santa Clara/San José area.

The Station Area Plan envisions mixed-use Transit Oriented Development (TOD) structured around a concentrated employment core. New residential neighborhoods to the east of the rail corridor will adjoin employment uses, and the new mixed-use "Center Street", providing an active, pedestrian-oriented experience—will act as an anchor and connection between surrounding areas. To the west, new development is integrated with the fabric of the Old Quad neighborhoods and southwest with the Newhall Neighborhood. Building intensities will be modulated to support urban design and livability goals as highlighted in Chapter 4: Urban Design. These include development in direct proximity to the Station, while letting sunlight into parks and public spaces, and building height and bulk scaled to be sensitive to both the public realm and surrounding established residential neighborhoods.

This vision establishes the Station Area as a key gateway to major destinations, building upon: the revitalization of Santa Clara's downtown; growth of Santa Clara University—the oldest institution of higher learning in California; and San José's Norman Y. Mineta International Airport (or Airport), one of the Bay Area's busiest airports. At the center of Santa Clara's historic core, downtown Santa Clara is planned as a high-intensity, mixed-use center with new residential and

commercial development. The core of this area is defined by Benton, Lafayette, and Jackson streets, and Homestead Road in the heart of old Santa Clara. The Station Area Plan emphasizes visual and physical connections between downtown Santa Clara and the Station along Benton Street with pedestrian-oriented development and a strong residential and commercial anchor at the Station itself. Likewise, the Plan will foster supportive hotel and commercial uses that will serve Airport travelers and nearby Santa Clara University. The Station will also be linked directly to the Airport by the APM system.

Planned residential development adjacent to the Station will provide a significant amount of new transit-oriented housing in a region that is primarily built-out, with limited housing opportunities close to major transit. Santa Clara University plans to house a greater proportion of students on-campus. Currently, the campus has 50 percent of students distributed within and directly adjacent to the campus.[1] The University just underwent a significant expansion of facilities, including new library and business school buildings. Over the next 20 years, projects approved for development will occur through infill development and redevelopment of underutilized sites. Together with new residential development at the south end of the Planning Area in San José, these new residential clusters and neighborhoods will help provide impetus for intensified commercial and employment development. These changes will provide the historically industrial Planning Area with a new influx and diversity of people and activity, resulting in approximately 6,600 new residents and up to 12,800 additional jobs. This new population will need a complement of uses—parks, public facilities, neighborhood shopping and services—to ensure livability. Similarly, the proximity to downtown Santa Clara, Santa Clara University and the Airport, and easy transit access to downtown San José and San Francisco, necessitates demand for hotels, transportation, and other infrastructure improvements, as well as parking.

Achieving the vision for the Station Area requires development of an array of uses; ensuring balanced neighborhood development; improved connections; an enhanced public realm; and better integration of the Station Area to downtown Santa Clara, Santa Clara University, and surrounding neighborhoods. This chapter of the Station Area Plan focuses on strategies to:

- Ensure an overall balance of uses that establishes the Santa Clara Station Area as a vibrant destination where people desire to live, work, dine, shop, and be entertained;
- Achieve high-density mixed-use TOD with building intensities that ensure efficient and compatible use of available land;
- Enhance livability through arrangement of land uses and development intensities, including development of a network of streets scaled and designed for walking, ADA, and bicycle travel.
- Attain an overall employment and residential base to support transit services through increased ridership and investment in TOD opportunities—targeting a residential buildout of 3,850 housing units within a half-mile radius of the station; and

[1] Source: Joe Sugg, Santa Clara University, 2006.

- Create a barrier-free environment by integrating the Transit Station with future development through a comprehensive circulation network, including the United Defense site and the FMC site developments, as well as surrounding neighborhoods.

2.1 EXISTING CONTEXT

This section provides an understanding of the context of the Station Area Plan with a summary of the existing land use pattern and characteristics of the Planning Area. For a more detailed evaluation of existing conditions, including an analysis of land ownership, existing development and intensities, development trends, and opportunities and constraints in the Planning Area, refer to the *Existing Conditions Report and Opportunities and Constraints Working Paper*. Both documents are available from the the cities of Santa Clara and San José planning departments.

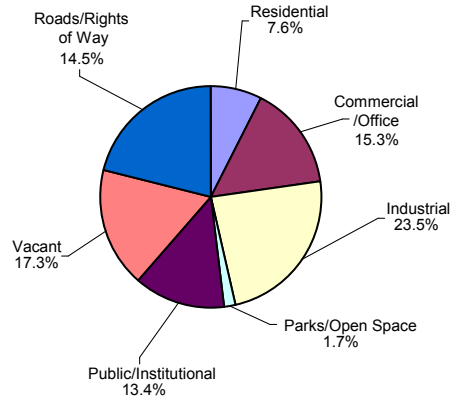
EXISTING LAND USE

The 432-acre Planning Area contains a mix of large-scale industrial uses, several dating to the World War II era that are now vacant or dormant, as well as fairly new office, public, hotel, residential, and commercial uses. The greater proportion of land in the Planning Area (59%) is situated east of the UPRR corridor, where much of the land is either industrial or vacant formerly-industrial uses. The rest of the area east of the rail corridor is devoted to a variety of airport-serving and light manufacturing industries north of Coleman Avenue and along De La Cruz Boulevard; and big-box retail, distribution, and research and development uses along the rail corridor. The southern portion of the Planning Area (at the border of San José and Santa Clara) has recently seen several new residential developments. There are no residential uses east of the railroad tracks. In addition to these existing uses, the proposed BART station and 58-acre BART Maintenance Facility will be located at the former Union Pacific Newhall Rail Yard between the rail corridor and the FMC site.

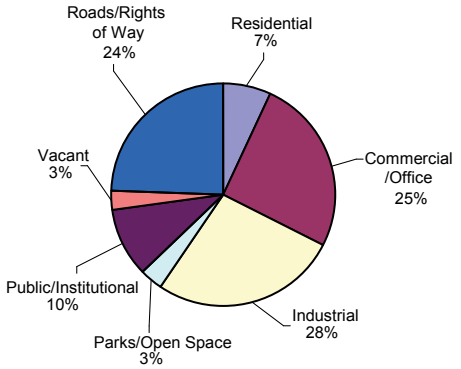
The existing pattern of land uses in the Planning Area can be seen in Figure 2-1, and is described by specific acreages for each land use in Table 2-1. Of the net land area—land that excludes roads, highways, railroads, and other rights-of-way—almost half is industrial or commercial use (30% and 19% respectively), and just under a quarter is vacant, primarily formerly-industrial uses (20%). The remainder of land is comprised of public (17%), residential (10%), or a mix of uses (2%).

Existing Land Use Distribution

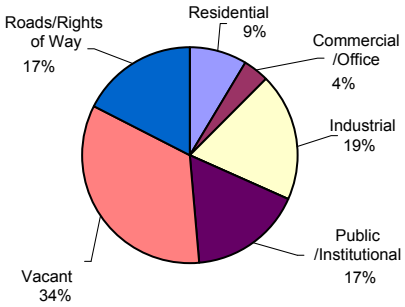
Total Planning Area



City of Santa Clara



City of San José



BAE/United Defense leases this Hunter Properties site off of Brokaw Road and Coleman Avenue.

Costco and Staples are the two major commercial uses with the Planning Area.

The Old Quad neighborhood is well-established, with several historically significant residences.

Table 2-1: Existing (2007) Land Use Distribution

	Acres			
	Santa Clara	San José	Total	% of Total
Residential	**17.1**	**18.7**	**35.8**	**9.9%**
Single-Family	7.1	0.0	7.1	2.0%
Multi-Family	2.0	0.2	2.2	0.6%
Multi-Family (Under Construction/Approved)	7.1	18.5	25.6	7.1%
Fraternities/Sororities	0.9	0	0.9	-
Commercial	**62.1**	**8.0**	**70.2**	**19.4%**
Commercial	27.9	1.0	29.0	8.0%
Office	34.2	7.0	41.2	11.4%
Industrial	**65.9**	**41.6**	**107.4**	**29.8%**
Industrial	25.6	1.6	27.2	7.5%
Light Industrial	40.3	40.0	80.3	22.2%
Parks/Recreation	**8.0**	**-**	**8.0**	**2.2%**
Public, Institutional, & Civic	**24.8**	**36.6**	**61.4**	**17.0%**
Public	23.3	36.6	59.9	16.6%
Institutional/Schools/Civic	1.5	-	1.5	0.4%
Vacant	**6.6**	**72.6**	**79.2**	**21.9%**
Vacant - Public	5.5	0.0	5.5	1.5%
Vacant - Formerly Commercial/Industrial	3.3	70.4	73.7	20.3%
Net Land Area (Excluding Rights-of-Way)	**184.4**	**177.5**	**361.9**	**100.0%**
Roads and Other Rights-of-Way	59.6	10.5	70.1	N/A
Land Total	**244.0**	**188.0**	**432.0**	

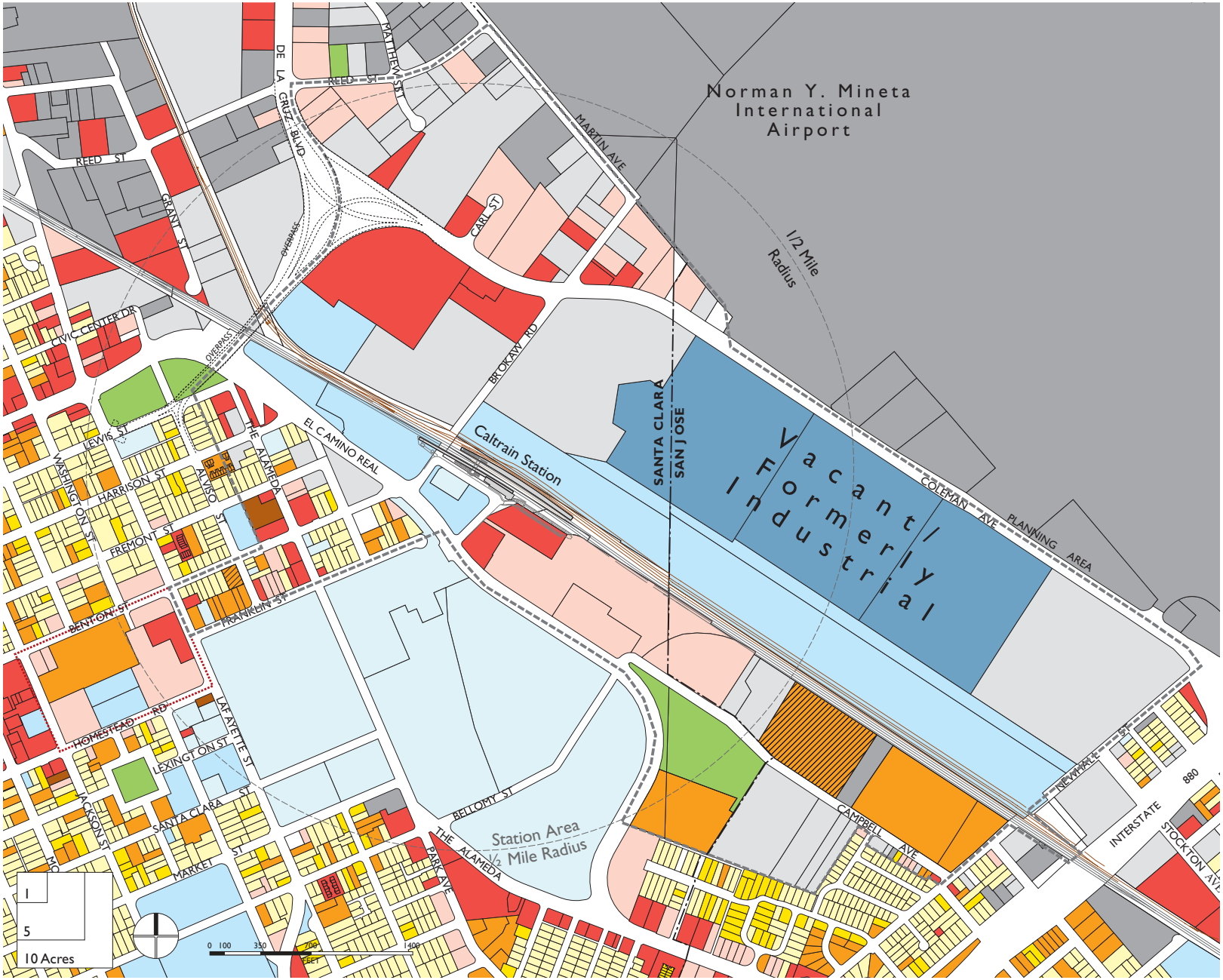


Figure 2-1

Existing (2007) Land Use

- Single Family Residential
- Low Density Multifamily Residential
- Multifamily Residential
- Fraternities/Sororities-Residential
- Commercial
- Office
- Public
- Institutional/Civic/Social Facilities
- Commercial/Industrial
- Heavy Industrial
- Light Industrial
- Park/Open Space
- Under Construction
- Vacant
- Caltrain
- Union Pacific Tracks
- Planning Area Boundary

New multi-family residential development along El Camino Real serves the nearby University population.

RECENT AND PLANNED DEVELOPMENT

Over the past 15 years, many of the industrially-oriented uses east of the UPRR corridor—like FMC, the largest site within the Planning Area—have been in transition, with properties either being redeveloped or left vacant. With the expansion of the Airport, airport-related services and manufacturing uses have increased in the Planning Area north of Coleman Avenue and De La Cruz Boulevard; while newer commercial, educational/institutional, office, and high-density residential development has located along the UPRR corridor off of El Camino Real and Campbell Avenue. This transition and redevelopment within the Planning Area has resulted in approximately 49 acres of new development that has replaced either vacant or underutilized industrial uses along the rail corridor, comprising roughly 13 percent of the Planning Area's net land. However, many of the recent non-residential developments have maintained an overall low intensity in the remainder of the Planning Area. As a result, although they are relatively recent additions, several of these sites are considered as future opportunities for intensification.

Of the projects that are under construction or recently approved, almost all are residential and located west of the UPRR corridor along Campbell Avenue between El Camino Real and Newhall Street, listed in Table 2-2. These projects will expand the Planning Area's existing housing supply by 104 units, or 13.5 percent. Additional projects are being planned (as of October, 2007) and include several residential developments along Campbell Avenue, as well as a potential soccer stadium in the FMC site area. The latter use will require flexibility in the overall Station Area Plan framework in order to maintain a strong mixed-use core that is self-supportive as well as compatible and accessible to a wide range of surrounding uses.

Low-rise office development built within the last ten years occupies frontage along El Camino Real and is within a three- to five-minute walk of the the station.

Table 2-2: Under Construction, Approved and Pending Projects (December 2007)

Description	Acres	Units	Existing Use	City	Associated General Plan/ Entitlements Zoning
Pending					
Medium Residential (20-50 hu/ac)	7.1	Unknown	Light Industrial	San José	GP05-06-03, San José
San José Soccer Stadium		N/A	Industrial/Commercial	San José	PDC09-004, San José
Approved or Under Construction					
Retail Addition (5,000 sf)		N/A	R&D Office	San José	PD07-049, San José
Medium Density Residential (12-20 hu/ac)	7.6	104	Planned Development	San José	GP04-03-02, San José
Medium Density Residential (12-20 hu/ac)	2.7	Unknown	Light Industrial	San José	GP05-06-04, San José
Medium/High Density Residential (20-50 hu/ac)	5.1	Unknown	Light Industrial	Santa Clara/San José	GP05-03-02, San José/ Santa Clara

Note: hu/ac = housing units per acre; sf = square feet.

Approximately 72 acres of the FMC site is currently vacant and undergoing remediation.

FUTURE DEVELOPMENT

With several large vacant industrial sites, and many others that are underutilized with relatively low-intensity development, the range of sites that have greater opportunity for development within the Planning Area is extensive. As shown in Figure 2-2 and described in Table 2-3, these sites make up almost 57 percent of the developable land area. Several key opportunity sites and areas were identified in the opportunities and constraints analysis of the Planning Area.

The largest opportunity site in the Planning Area is the FMC site, which is located primarily in the City of San José. Already approved under a Planned Developmental (PD) District for San José in September 2000, the FMC site will accommodate a significant portion of new development in the Planning Area. While the site is subject to several deed restrictions,[2] the Development Agreement for the FMC site calls for approximately 3,000,000 square feet of office and research and development (R&D) space, as well as an additional undetermined amount of hotel, retail, and commercial uses. The City of San José is also currently considering a soccer stadium use on the FMC site as well, which is contemplated in the breadth of potential uses of the site, but if implemented, will be analyzed separately from the Station Area Plan. Interim development plans for the FMC site include airport-supportive services such as parking, car rental, and construction staging to serve the expansion of the Airport over the next ten years. These are shown in combination with prescribed deed restrictions in Figure 2-3. The character and transition of these interim uses of the site will be an important aspect of the Urban Design Chapter.

Other important opportunity sites in the Planning Area with large land area and few owners include:

- United Defense/Hunter Properties,
- KJL/Fed-Ex,
- Costco,
- El Camino Real/Benton Street, and
- Campbell Avenue.

These opportunity sites were defined for the purposes of land use and redevelopment planning. The sites represent portions of the Planning Area that have good potential for change in land use, or intensification of activity, and include vacant and underutilized land. While larger parcels such as those mentioned previously may provide more immediate opportunity for redevelopment, small lots could be combined to enhance redevelopment opportunities in smaller-scale, more built-out areas as infill development.

[2] Multiple deed restrictions have been filed or are in progress for several FMC properties - including Plant 7, Test Track Area, and the Central Plant Area. Land uses are restricted to commercial and industrial uses only. Any request for changes in use other than those allowed within the covenant-such as residential development, would require application to the Regional Water Quality Control Board and DTSC, and may require additional clean-up on the site. See the Santa Clara Station Area Plan Existing Conditions Report for more information regarding the FMC site and covenants.

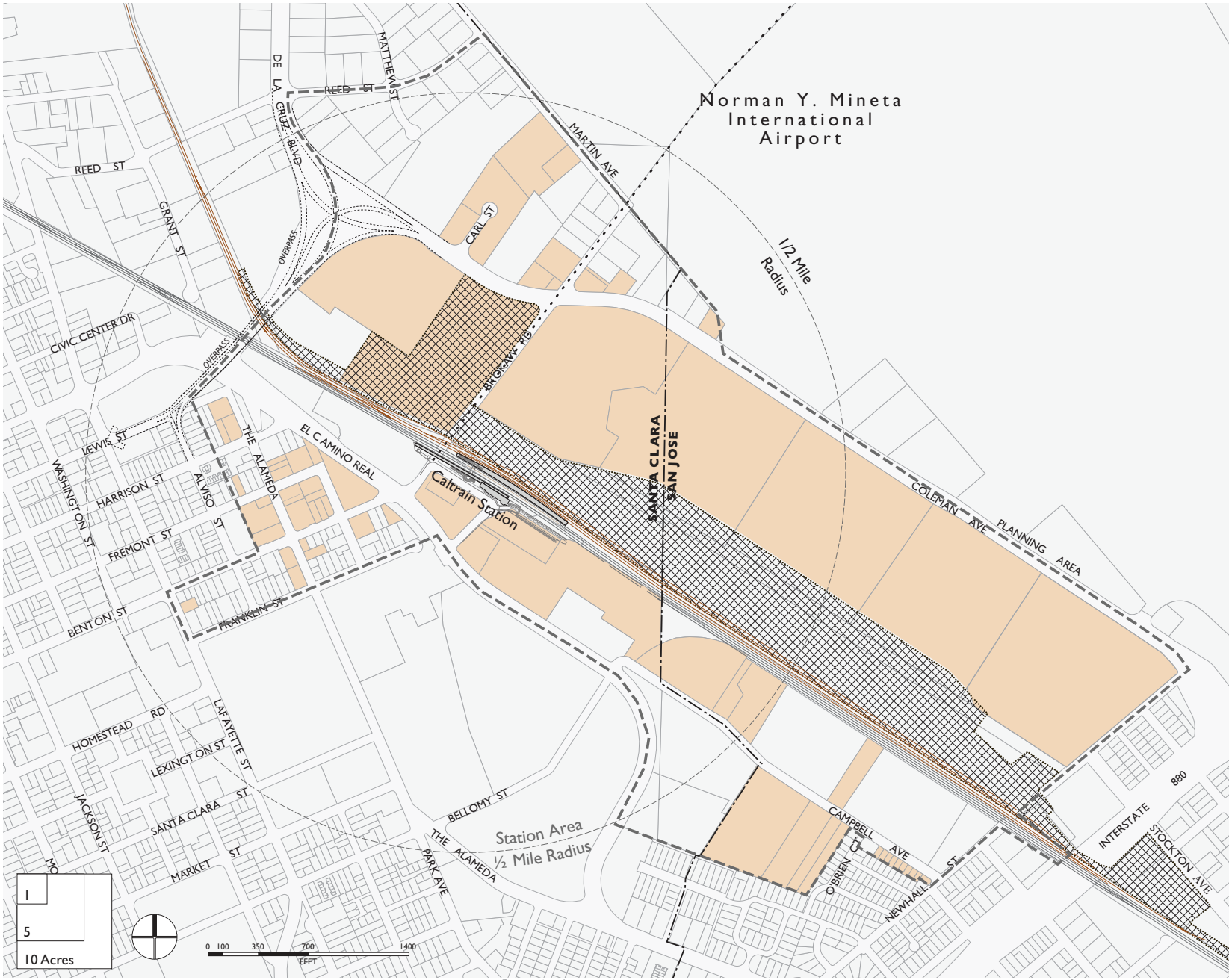


Figure 2-2

Opportunity Sites (2007)

- Opportunity Site
- Below-grade BART Alignment
- Caltrain, ACE, and Capitol
- Union Pacific Tracks
- Future APM Alignment
- Area of Future BART Facilities
- Planning Area Boundary

Table 2-3: Opportunity Sites Land Use Distribution

	Acres			
	Santa Clara	**San José**	**Total**	**% of Total**
Vacant	**0.8**	**65.0**	**65.8**	**32.6%**
Vacant - Public/Formerly Industrial		42.9	42.9	21.3%
Vacant - Formerly Commercial/Industrial	0.8	22.1	22.9	11.3%
Underutilized	**88.3**	**47.4**	**135.7**	**67.4%**
Residential	**1.2**	**0.1**	**1.3**	**0.7%**
Single Family	1.0	0.0	1.0	0.5%
Multi-Family	0.3	0.1	0.4	0.2%
Commercial	**40.9**	**6.5**	**47.4**	**23.5%**
Commercial/Retail	25.5	1.0	26.6	13.2%
Office	15.4	5.4	20.8	10.3%
Industrial	**42.2**	**40.8**	**83.0**	**41.2%**
Industrial	24.8	1.6	26.5	13.1%
Light Industrial	17.3	39.2	56.5	28%
Public, Institutional, & Civic	**4.0**	**0.0**	**4.0**	**2.0%**
Public	2.1	0.0	2.1	1.0%
Institutional/Schools/Civic	2.0	0.0	2.0	1%
Total Opportunity Site Land Area	**89.1**	**112.4**	**201.5**	**100.0%**

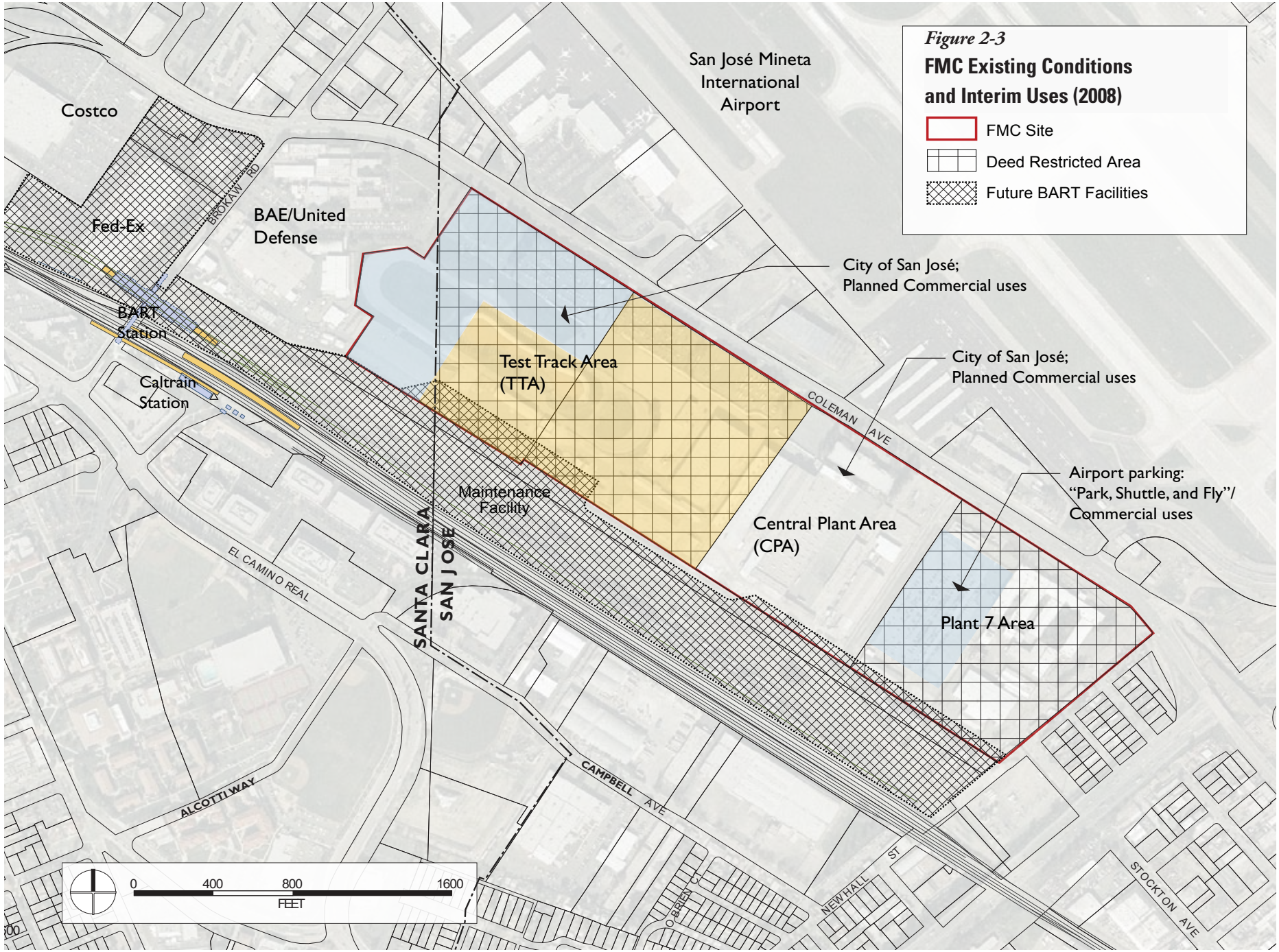


Figure 2-3
FMC Existing Conditions and Interim Uses (2008)
FMC Site
Deed Restricted Area
Future BART Facilities
San José Mineta International Airport
Costco
Fed-Ex
BROKAW RD
BAE/United Defense
BART Station
Caltrain Station
Test Track Area (TTA)
Maintenance Facility
Central Plant Area (CPA)
Plant 7 Area
City of San José; Planned Commercial uses
City of San José; Planned Commercial uses
Airport parking: "Park, Shuttle, and Fly"/ Commercial uses
COLEMAN AVE
EL CAMINO REAL
SANTA CLARA
SAN JOSE
CAMPBELL AVE
ALCOTTI WAY
NEWHALL ST
STOCKTON AVE
O'BRIEN
0
400
800
1600
FEET

Conceptual view to the northwest from Santa Clara Caltrain Station Platform. Source: BART Extension to Milpitas, San José, and Santa Clara EIR, November, 2004.

PLANNED TRANSIT FACILITIES

The Station Area Plan builds upon the multi-modal transit facilities that are both existing and planned for Santa Clara Station. Complementing the commuter rail and bus service, new BART and APM transit facilities are planned for completion within the next ten years. Both facilities will require major infrastructure improvements and significant land area, which will affect the character and land uses in the surrounding area. This section provides an overview of these facilities—more detailed information can be found in the *Sation Area Existing Conditions Report* and *BART Extension to Milpitas, San José, and Santa Clara EIR.*

BART Station and Maintenance Facility

The terminus of the proposed BART Extension to Milpitas, San José, and Santa Clara, the Santa Clara BART Station is projected to be one of the busiest BART stations in the Fremont-South Bay Corridor. Projected daily boardings at the Station in 2030 are 16,500[3], representing 17 percent of the activity along the six-station extension; this includes estimates for several thousand riders on other transit systems—Caltrain, ACE/Capitol, buses, and the future APM—serving the Santa Clara Transit Station. The adjacent 58-acre BART Maintenance Facility will serve as the end-of-the-line storage, cleaning, and maintenance facilities for the BART extension.

[3] Source: VTA, March 2008.

BART Station Campus

Illustrated in Figure 2-4, the BART campus—including the platform and facilities—comprises just over 16 acres at the northern end of the Planning Area. Entering the Planning Area from the southeast, the BART extension runs primarily at grade, parallel to the UPRR corridor. The BART alignment "daylights" from an underground tunnel north of Interstate 880 (I-880) at Newhall Street and terminates in a tail track just north of De La Cruz Boulevard. The BART platform and raised terminal are located northeast of the existing (Caltrain) platform, approximately centered along the Brokaw Road/Benton Street alignment. Additional BART facilities include an entry plaza, bus transit center and kiss-and-ride, and an approximately a five- to six-level parking structure[4]—all located off of Brokaw Road. A pedestrian bridge overcrossing the UPRR corridor links the BART plaza and platform with the Caltrain platforms, bus plaza, and kiss-and-ride area to the west. In addition, there is discussion over an additional connection between stations via an extension of the Caltrain underpass, although construction of this extension is currently not funded (shown in Figure 2-4). The BART campus also includes substantial land for "Potential Future Transit Facilities," which would provide opportunities for future surface parking and transit-supportive development.

[4] Source: VTA, 2007.

BART Maintenance Facility

In addition to the Santa Clara BART Station, the BART extension also includes a substantial maintenance and storage facility at the end of the line. The new BART Maintenance Facility will be located at the former Union Pacific Newhall Yard and western portion of the FMC site—in the center of the Santa Clara Station Planning Area, as shown in Figure 2-5. The 58-acre facility is designed to accommodate approximately 240 BART train cars in order to store new vehicles acquired for the extension, as well as existing BART vehicles needed for morning start-up service, ready reserve, maintenance, and future growth. In addition to storage of vehicles, the facility will have multiple maintenance and operations components, including several large structures oriented along the eastern boundary of the site. Smaller structures on-site will include a Maintenance Facility, Car Cleaner Facility, and Police Facility. Additional on-site facility components include a turntable, train washer, transfer tracks, yard control tower, and approximately 450 parking spaces for employees.

In addition to being an expansive project both visually and geographically, the Maintenance Facility will be a 24-hour operation. Environmental and noise studies have not flagged the facility as having a significant impact[5]—however, the surrounding uses studied were primarily industrial. Planned mitigation measures to minimize noise and visual impacts of the facility include: minimizing announcements and train horns during sensitive time periods; use of downward-facing lights on all structures in the facility; and use of some landscaping to provide an additional buffer against lighting and glare. Since these measures are based upon the needs of the existing industrial context, new, sensitive uses such as residential development along the rail corridor may still be impacted and require mitigation.

[5] Source: BART/VTA SEIR, 2007.

Airport Automated People Mover

In addition to the commuter rail connection, the BART Station campus also includes a future connection to a proposed APM. Although the alignment of the APM is still in planning, the approach and connection to the BART Station will be along Brokaw Road within the Planning Area. As of November, 2007 planning for the APM alignment identifies a raised, above-grade structure that is centrally aligned along Brokaw Road east of Coleman Avenue, with a direct connection to the BART Station platform. Two options exist for the alignment outside of the Plannig Area as it connects to the Airport: the first option includes an underground tunnel below the Airport property from Brokaw Road to the terminal, the second circumscribes the Airport, heading north along Martin Avenue and De la Cruz Boulevard and east along US-101 into Airport property. (These preliminary alignment options are shown in the SAP Existing Conditions Report.)

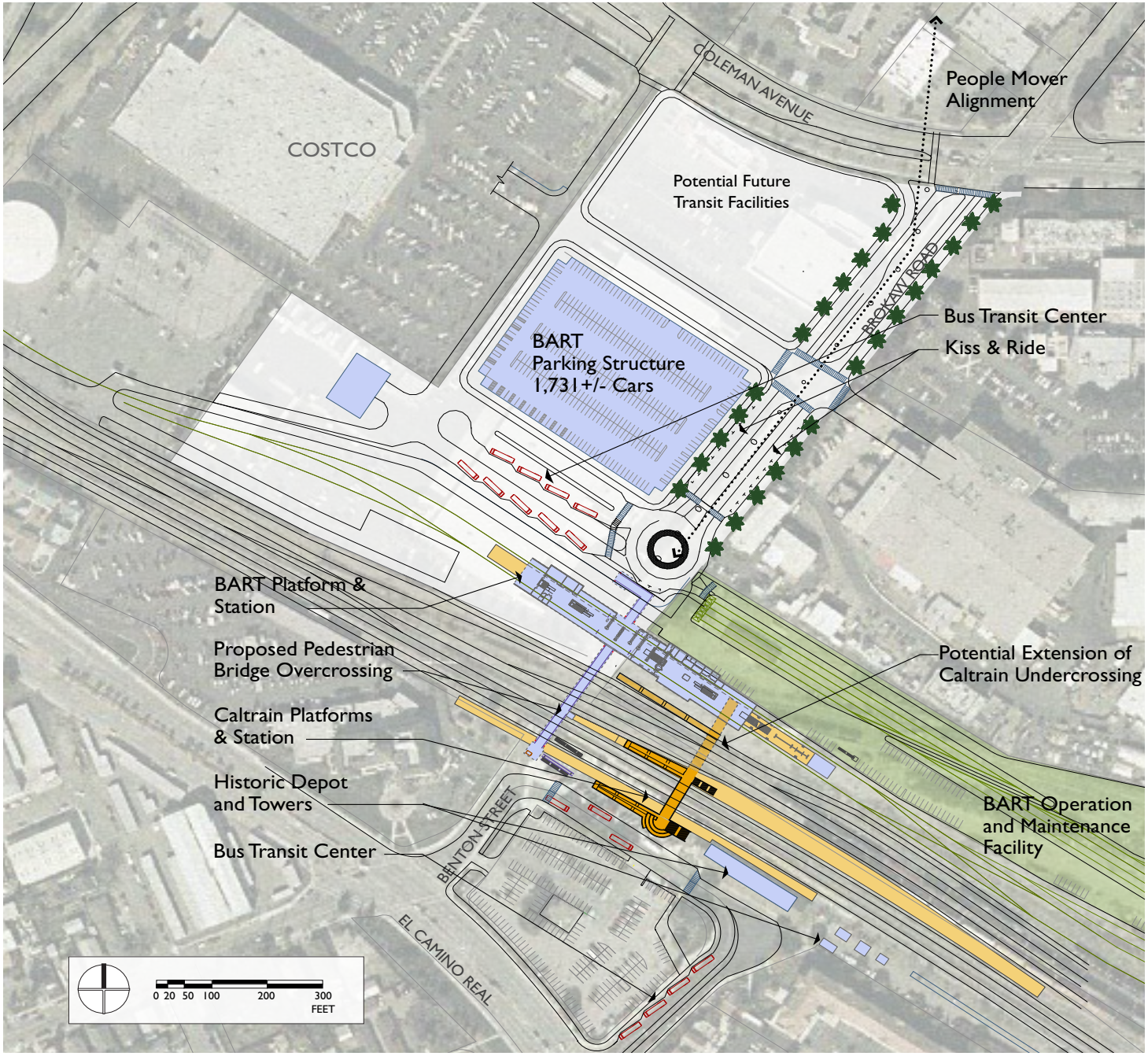


Figure 2-4

Bart Station Campus

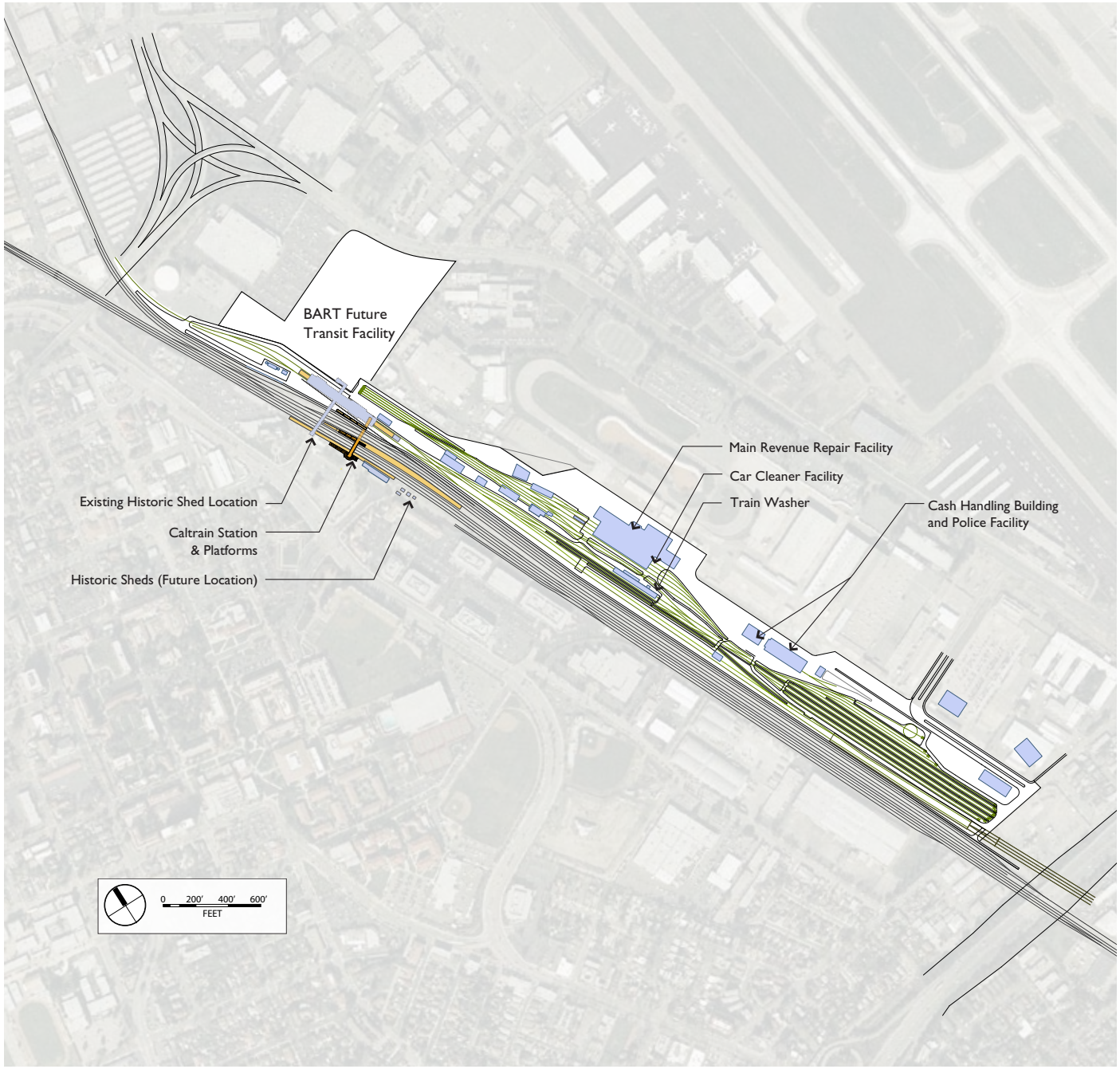


Figure 2-5

Maintenance and Operations Facility

PHYSICAL CONSTRAINTS

Due to its location along an active rail corridor, future BART maintenance facility, busy airport, and several major roadways and transportation corridors, the entire Planning Area is subject to several environmental constraints and impacts. These include noise impacts from the Airport and transportation network to hazardous materials contamination, such as in the FMC site. (See the Opportunities and Constraints Working Paper for more detail and additional constraints, as well as Chapter 6: Health and Safety.) The extent of the constraints in the Planning Area does not prevent development from occurring. Rather, these constraints can either be mitigated (such as through cleanup of contaminated sites) or mainly affect potential development intensity and type of use (such as limitation on building heights).

The greatest source of constraints in the Planning Area is the Airport, which produces significant noise impacts on surrounding development, as well as Federal Aviation Administration (FAA) height restrictions. Coupled with impacts from the UPRR corridor and I-880, noise from the Airport generates noise levels of 65 to 70db CNEL (Community Noise Equivalent Level) over the rail corridor and the southeast portion of the FMC site within the Planning Area. As a result, these areas will require additional measures for noise reduction to be implemented in building design. Those areas within the 70dB CNEL are typically unacceptable locations for residences, schools, and other sensitive sites, including playgrounds and recreational areas. These and other issues regarding noise impacts in the Planning Area are discussed in greater detail in Chapter 6: Health and Safety.

Airport Safety Zones

While noise impacts can be mitigated to allow a greater degree of flexibility in land uses, the Airport Safety Zones and height limits are more restrictive. The Safety Zones, determined by the Santa Clara County Airport Land Use Commission (ALUC) and the FAA, protect the airspace around Airport runways. (See Chapter 6: Health and Safety for a more detailed description of Safety Zones for the Airport.) The portions of the Planning Area that are within the designated Airport Safety Zones are shown in Figure 2-7. These are regulated by the 10/25 Rule, which requires a population of no more than 10 persons per acre on an annual average, and no more than 25 persons per acre at any one time. The requirement precludes uses such as residences, offices, or other businesses in which large groups would assemble. Approximately 32 acres of the Planning Area along Coleman Avenue and Newhall Drive are within the Airport Safety Zone and subject to the 10/25 Rule. A small portion, just under five (5) acres, is within the Inner Airport Safety Zone where no new objects can be constructed in areas above the primary runway surface.

FAA Height Regulations

Similar to the Safety Zone regulations, height limitations determined by the FAA and the ALUC also shape the character of development within and around the Planning Area. FAA Part 77 requirements and policies in the ALUC Plan require that proposed projects do not include the erection of structures that would intrude in to this airspace, and they maintain height restrictions for new structures to ensure that the navigable airspace immediately surrounding airports is free

from intrusions such as cell towers and tall buildings. As shown on Figure 2-7, the entire Santa Clara Station Planning Area is within the FAA-defined horizontal surface associated with runways at the Airport. Structures within this area cannot exceed a height of 212 feet above mean sea level (msl)[6], which must be calculated on a case-by-case basis. However, despite the potential 212-foot height limit on structures, for the purposes unrelated to Airport uses this Plan proposes maximum structure height of 150 feet. This height is only in some Plan areas in order to be compatible with other surrounding uses in the area.

Legal Constraints

The cities of San José and Santa Clara have jurisdiction over their respective lands in the Planning Area. However, the majority of properties in the Planning Area are privately-owned, which will necessitate a collaborative effort among property owners and each city to implement the Station Area Plan.

Strategies and incentives to implement land use and street network changes will be key, especially in areas designated for significant change in physical and land use character. In particular, dedication of new rights-of-way, parks, and public spaces will need to be coordinated with redevelopment efforts for each property.

Other Hazards

Specific facilities and land uses can create hazards to navigation by obscuring a pilot's view, by creating glare, dust, steam, or distracting lights, or by interfering with communications and instrumentation. The FAA also warns against creation of wildlife hazards through the use of water features such as fountains or stormwater management ponds, as they can attract large concentrations of birds, or landscaping that would produce fruit, nuts, or berries to attract birds and other wildlife. These features are especially attractive to wildlife who may not find other sources of food or water in urban settings. Proposed landscaping and water features should be designed to prevent the attraction of potential wildlife that could pose hazards to aircraft.

[6] This height restriction thus implies that if a site is 60 feet above msl, then the maximum building height allowed by FAA would be 152 feet.

Figure 2-6

Physical Constraints

- Opportunity Site
- BART
- Below-grade BART Alignment
- Ramped & At-grade BART Alignment
- Caltrain, ACE, Capitol
- Union Pacific Tracks
- Future APM Alignment
- Buildings of Future BART Facilities

FAA Height Regulations and Contours

- FAA Height Limits
- Elevation (1-foot interval)
- Planning Area Boundary

Saftey Zones

- ALUC Safety Zone
- Runway Protection Zone

Hazardous Materials

- Hazardous Materials[1] Release Sites
- Deed Restricted Area

Projected Noise Levels

- 80 dB CNEL
- 75 dB CNEL
- 70 dB CNEL
- 65 dB CNEL

Burrowing Owl

- Burrowing Owl Occurrences
- Burrowing Owl Habitat
- Ruderal/Barren Habitat

[1] Hazardous materials release sites are defined in Chapter 6; Figure 6-6

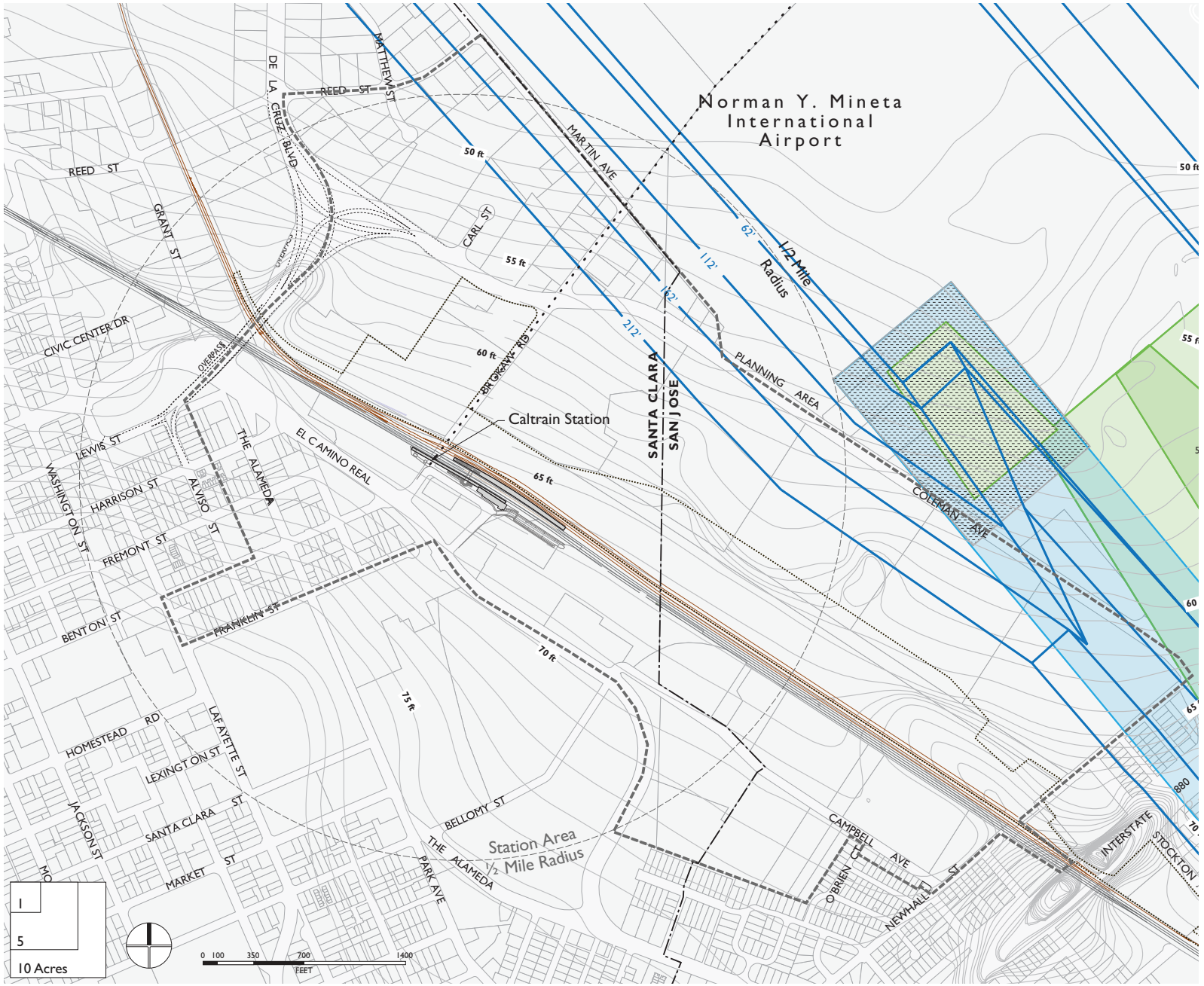


Figure 2-7

Surfaces and Safety Zones

- Caltrain, ACE, Capitol
- Union Pacific Tracks
- Future APM Alignment
- Area of Future BART Facilities
- ALUC Safety Zone
- Runway Protection Zone
- Inner Safety Area

FAA Height Regulations and Contours

- FAA Height Limits
- Elevation (1-foot interval)
- Planning Area Boundary

Note: See Chapter 6: Noise and Safety - for entire FAA Surfaces and Safety Zone areas.

2.2 STRUCTURE AND LAND USE

PHYSICAL STRUCTURE

The overall structure of the Planning Area reflects its history and evolution. Situated along the UPRR corridor, the Planning Area is structured around the former UPRR rail yard/future BART maintenance facility. Agricultural and industrial uses that developed adjacent to the rail yard and corridor along Coleman Avenue denote the evolution of the area into a rail distribution and manufacturing center within Santa Clara and San José. Likewise, the area's proximity to the Airport and the supportive airport industry has also influenced the pattern of uses in the Planning Area. Development east of the rail corridor is thus primarily industrial in use, and includes several large vacant industrial sites in the FMC area. In contrast, development along the west side of the rail corridor has transitioned over the past 15 years to include office, commercial, and residential uses. Redevelopment of future parcels along the corridor off of Campbell Avenue is planned for residential uses, which will continue the transformation of this side of the Planning Area into a residential corridor.

Distinct from the majority of larger-scale development along the corridor, the portion of the Planning Area west of El Camino Real reflects the land use character of Santa Clara's historic core. Adjacent to downtown and Santa Clara University, the area is comprised of a grid street network and a neighborhood-serving mix of uses—both residential and non-residential. Because of its smaller scale, this area is more walkable and thus creates the foundation for a more pedestrian-oriented environment between the station and downtown Santa Clara.

Station Area Plan

The Station Area Plan envisions maintaining some aspects of the overall Planning Area structure and building upon key land use assets like the Airport and Santa Clara University, while considerably modifying others. The Station Area in particular—defined as the area within a half-mile, or ten-minute walk, from the Station—will acquire a substantial increase in intensity with a mix of transit-supportive commercial and residential uses. With this change in development character, the structure and land uses will accommodate a more accessible pedestrian environment with a finer-grain street network and active ground-floor uses. Development and land uses will also build upon the proximity to the Airport, which is a key driver for employment in the area, as well as a major generation of transit trips via the APM. In addition, a new vehicular connection between El Camino Real and Coleman Avenue, beneath the rail corridor and maintenance facility, will reinforce the new street grid and connectivity to the station and between both sides of the Planning Area.

The remaining Planning Area outside of the Station Area will remain relatively unchanged in overall physical structure (i.e., block size and street network). However, in support of a more pedestrian-accessible environment, larger parcels surrounding the Station Area will be intensified with mixed use development including office, commercial, hotel, and in some areas, residential

uses. These areas include a portion of the industrial/employment area along Brokaw Road and the APM, as well as the Costco site just north of the Station. To the south, new mixed office, commercial, entertainment, and hotel development within the FMC site will be oriented along a central pedestrian/vehicular corridor and street running from the BART Station to Newhall Street to the south. Further development of these areas, including the FMC site, will include a network of streets and blocks to encourage greater walkability and a more urban-scaled environment.

West of the rail corridor, development along the Benton Street corridor and within the older historic core of Santa Clara will be intensified with pedestrian- and transit-supportive commercial and residential uses. North of Benton Street along El Camino Real, the Plan focuses on redevelopment of existing industrial and storage facilities into medium and medium-high density residential uses. The planned transition of these uses into residential development creates a stronger edge to the existing community, while ensuring that any transition in scale or density occurs gradually and complementary to existing homes. Thus, heights and intensities of new development will step down to those of the surrounding area.

The new residential development, coupled with the planned development along Benton Street will also enhance connectivity between the Station Area and Santa Clara University. As the University looks to shift the focus from commuter to on-campus living, the student population living in and adjacent to campus will increase significantly.[7] This additional population will need easily-accessible supportive retail services and amenities, and will add to transit ridership at the Station. Similarly, further south of the Station Area, the Campbell Avenue area will follow the current development trend toward replacement of industrial uses with medium to high density residential development. This change in land use will transform the larger development scale of the former industrial uses into a smaller-scale street network accessing primarily single-family homes and townhouses. New development in this area along Campbell Avenue and in the older historic core of Santa Clara will be sensitive in both land use and scale to the existing Old Quad and Newhall residential neighborhoods. (Specific measures and guidelines are outlined in Chapter 4: Urban Design.)

[7] Conversation with Joe Sugg, 2006, Santa Clara University.

LAND USE

Land Use Diagram

The Land Use Diagram (Figure 2-8) designates the proposed location, distribution, and extent of land uses. Land use classifications—shown as color/graphic patterns on the diagram—allow for a range of uses within each classification. Allowable building intensities and densities (measured as FARs, and dwelling units) are independent of use, and are delineated in Section 2.4.

The diagram is a graphic representation of policies contained in the Station Area Plan; it is to be used and interpreted only in conjunction with the text and other figures contained in the Plan. The legend of the Land Use Diagram abbreviates the land use classifications described in the following section.

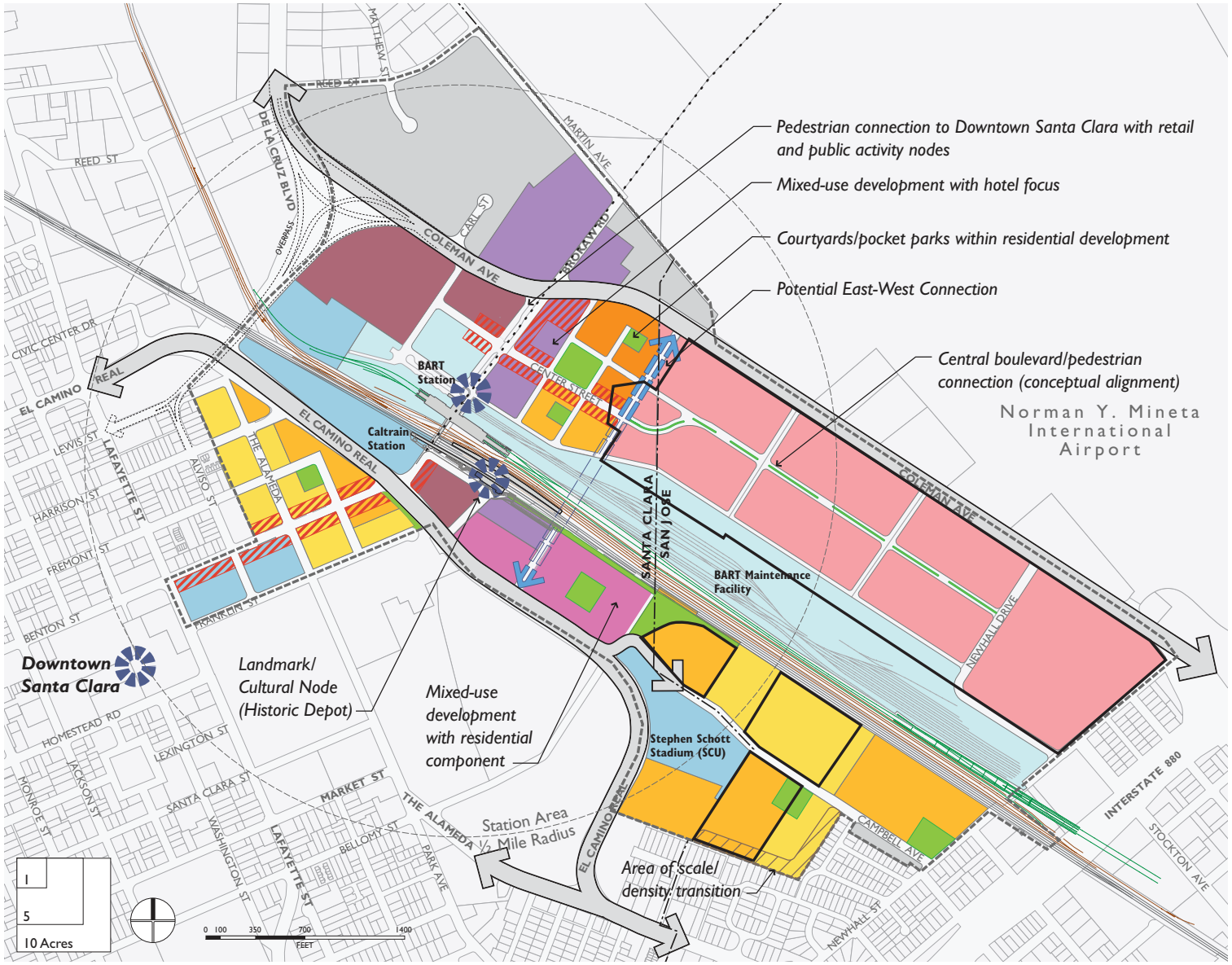


Figure 2-8

Land Use Structure

Residential

- Medium Density (12-20 hu/ac)
- Medium/High Density (20-50 hu/ac)
- High Density (50-90 hu/ac)

Mixed Use

- Mixed Use 1 - Office/ Industrial/Commercial/ Hotel
- Mixed Use 2 - Office/ Commercial/Hotel
- Mixed Use 3 - Office/ Residential
- Mixed Use 4 - Office/ Commercial/ Residential/Hotel

Non-Residential

- Ground Floor Retail
- Light Industrial
- Future BART Facilities
- Public/Institutional/ University
- Parks & Open Space
- BART
- Caltrain
- Union Pacific Tracks
- Automated People Mover
- Activity Node
- Potential East-West Connection
  - *Below Grade*
  - *Ramp*
  - *At-Grade*
- Primary Arterial
- Planned and Approved Projects

Development Intensity

The Station Area Plan establishes density standards for each residential land use classification, expressed as housing units per gross acre (hu/ac). For non-residential and mixed uses, development intensity is described as FAR. FAR is obtained by dividing gross floor area (not including floor area in parking use) by lot area, and does not include floor area devoted to parking. For mixed-use development that includes housing, the housing floor area is included in the FAR calculations.

The Plan sets a maximum as well as a minimum development density or intensity for all sites within the Planning Area (as described in the land use classifications or shown in Figure 2-9). Maximum intensities shown on the map may not be attainable on all sites as superseding development regulations (building height limits or building scale transition zones) or site conditions may reduce development potential. On all sites throughout the Planning Area, intensities can be averaged over an individual project which covers contiguous multiple parcels.

The residential density standards are attached to the different residential classifications; mixed-used and non-residential FARs are to be determined using Figure 2-9. Regardless of the FAR designation, residential densities on sites with a mixed use designation do not exceed 90 units per gross acre.

The overall pattern of development in the Planning Area focuses higher densities and intensities within the immediate Station Area—thus locating a higher proportion of employment and activity close to the transit station. Outside of this area, development scale and intensity decreases, especially in proximity to smaller-scale residential neighborhoods on the west and southwest side of the Planning Area. Residential densities in the Planning Area range from 12 to 90 hu/ac, with smaller ranges identified respective to each residential land use classification, as described in the following section. Proposed base development intensities in the Planning Area range in scale from 0.5 to 3.0 FAR, and are modulated to provide diversity of scale, as well as higher intensities in specific locations. Within the FMC site and northeastern industrial and mixed use area, development may be further restricted by Airport land use and height regulations for the San José Airport.

Incentives

The Station Area Plan establishes two types of density/intensity bonuses and exemptions to promote desirable civic benefits:

Affordable Housing. Density bonuses for affordable and senior housing, in accordance with California Government Code, are in addition to the maximum densities/FARs permitted by the Station Area Plan. The density bonus would be calculated in increments depending on the amount and type of affordable and senior housing provided, reaching a maximum of 35 percent of the maximum allowable intensity, as defined by State law and City ordinances. For residential developments, this bonus would be in the form of density. For projects with a mix of residential and non-residential, this bonus would be in the residential portion of the project in the form of an increase in residential units per acre or additional residential area.

Figure 2-9

Densities & Intensities

Non-Residential/ Mixed Use Intensities

- 0.5
- 0.75 FAR, Ground Floor Retail Required
- 1.0
- 1.5
- 2.0
- 3.0

Residential Densities

- Medium Density (12-20 du/ac)
- Medium-High Density (20-50 du/ac)
- High Density (50-90 du/ac)

Parks & Open Space

Facilities

- BART
- Caltrain, ACE, Capitol
- Union Pacific Tracks
- Automated People Mover
- Planning Area Boundary
- Primary Arterial

In addition to the State-allowed density bonuses for affordable housing, MTC Resolution 3434 provides an additional planning incentive for affordable housing. New below-market housing units in the Station Area would receive a 50 percent bonus toward meeting the corridor threshold (i.e., one planned below-market housing unit counts for 1.5 housing units for the purposes of meeting the corridor threshold. Below market is defined as 60 percent of the area median income for rental units and 100 percent of area median income for owner-occupied units).

Both of these incentives for affordable housing will be integrated with existing and future inclusionary housing policies for each city. The City of Santa Clara Inclusionary Housing Policy requires ten percent of units in new for-sale and rental housing developments with more than ten units to be affordable. Currently (Spring 2008), the City of San José does not have an inclusionary housing policy; however, the City is currently working on establishing one in the near future.

Specific Amenities and Improvements. Each city may consider adopting a policy to allow intensification of development related to specific improvements. In locations not directly adjacent to existing (as of 2008) single-family development, up to a ten percent discretionary increase in FARs/densities (above the base FARs shown in Figure 2-9) is allowed for provision of improvements or amenities over and beyond those required as part of normal development requirements. These include green roofs, urban open spaces, right-of-way improvements, and other amenities that enhance the public realm. This incentive is discretionary, subject to findings and approval by the city in which the project is located.

Land Use Classifications

The Plan designates seven land use categories, three of which are residential, and four mixed-use. These categories are similar to many existing land use designations used by the cities of Santa Clara and San José, but allow for standardization within the Planning Area across city boundaries.

The classifications in this section represent policy and are meant to be broad enough to provide flexibility in implementation, but clear enough to provide sufficient direction to carry out the Station Area Plan. In addition to the direction related to the uses provided here, public uses, including parks, government offices, police and fire stations, and public schools, are permitted in all land use classifications, subject to environmental suitability and city approval.

Medium Density Residential

(12-20 hu/ac)

This classification encompasses primarily single family attached dwellings and multi-family housing (including apartments and condos). Single family detached dwellings are also permitted. In general, these properties are located the furthest from the Station and also provide a transition in scale and density between existing single family neighborhoods and higher-intensity development. Densities are at a minimum 12 units per gross acre (hu/ac), and at maximum 20 hu/ac.

Medium-High Density Residential

(20-50 hu/ac)

Sites with this designation are intended primarily for higher-density residential neighborhoods further from the Station (outside of the half-mile radius from the station) with a density range between 20 to 50 hu/ac. Some of these properties are located near smaller-scale residential neighborhoods such as the Old Quad and Newhall Neighborhoods; development scale and density on these sites will be stepped down to meet the existing scale of these existing neighborhoods.

High Density Residential

(50-90 hu/ac)

This classification is intended for residential neighborhoods within walking distance of the Station, farther away from existing single-family neighborhoods. The permitted density range is 50 to 90 hu/ac. All development is required to be pedestrian-oriented with emphasis upon activating the ground level with entries to residences (townhomes, for example, at the ground level with stacked flats above).

Mixed Use 1: Office, Industrial, Commercial and Hotel (FMC Mixed Use)

This classification is intended to incorporate the Planned Development zoning approved for the FMC site in the City of San José and to address San José's long-term vision for how the site might develop. This classification retains the uses allowed in the Planned Development, which includes a mix of office, R&D, and industrial business park uses; and hotel, retail, and commercial uses at an intensity consistent with the threshold trip generation delineated in the FMC EIR. Recreational uses and other commercial uses beyond the scope of the existing Planned Development are also supported by San José's General Plan. Potential FARs vary with respect to accessibility to the Station and are delineated in Figure 2-9. Areas closer to the Station are recommended for higher FARs in order to encourage the concentration of office and R&D uses that create substantial new jobs, and do not include regional retail or commercial uses in closer proximity to the Station. Residential uses are not permitted in this designation.

Mixed Use 2: Office and Hotel

This classification is primarily intended to encourage, support, and enhance the immediate Station Area as a high-intensity hotel and employment center. The area with this designation is located along Brokaw Road, west and east of Coleman Avenue, and along the APM alignment. The Station Area Plan establishes this area as an employment and activity center, building upon direct accessibility to the Peninsula and Downtown San Francisco via Caltrain and BART; as well as the Airport, Downtown San José and Santa Clara, and Santa Clara University. Office and hotel uses are permitted in this designation and area-specific FARs are identified in Figure 2-9. Retail, cultural, educational, civic, governmental, and entertainment uses are also permitted. All development is required to be pedestrian-oriented. In areas designated as 2.0 FAR or higher, a minimum 60 percent of the designated building intensity, or 1.2 FAR, is required.

Mixed Use 3: Office and Residential

This classification provides a transition between residential neighborhoods and commercial/office uses, and is located primarily along El Camino Real across from Santa Clara University. Allowing office, residential, and live/work uses, the mixed-use designation provides opportunity for additional employment and residential developent close to the Station as well as residential development serving the University. The maximum FARs allowed for residential and non-residential development combined are shown in Figure 2-9. In areas designated as 2.0 FAR or higher, residential is a required use, and should be at a minimum 40 hu/ac. Furthermore, at least ten (10) percent of the building area is required to be devoted to permitted non-residential uses.

Mixed Use 4: Office, Commercial, Residential, and Hotel

This classification is intended to accommodate a diverse array of uses, including residential, live/work, hotel, office, retail, and entertainment uses. Additional uses such as public, cultural, or civic uses are also permitted. This designation allows the most flexibility of uses within the Station Area, and allows existing retail uses north of Brokaw Road to be incorporated into the evolution of the Station as a mixed-use hub. The overall intensity of residential and non-residential development is dictated by the maximum FAR, shown in Figure 2-9. In areas designated as 2.0 FAR or higher, residential is a required use, and should be at a minimum 40 hu/ac. Furthermore, at least 50 percent of the building area is required to be devoted to permitted non-residential uses.

Active Ground Floor Retail Overlay

Although retail is not a primary land use component in the Planning Area, it does play a role in defining key pedestrian streets and providing commercial uses such as restaurants and services to the residents and workers in the area. The Overlay District for Active Ground Floor Retail Uses aims to ensure that retail and commercial uses are available within walking distance of residences, employment areas, and the Station, thereby reducing the need to drive. Also, a mix of uses will increase vitality and safety as more people walk and are outside during a broader extent of the day. This Overlay is shown in Figure 2-9. Ground floor retail along required retail streets is exempt from FAR calculations.

Light Industrial

This classification permits a range of industrial uses such as light manufacturing, repair, and storage, as well as supporting office and commercial functions. The designated area is located primarily along Coleman and Martin avenues at the northern end of the Planning Area and encompasses existing light industrial uses.

Future BART Facilities

BART facilities include the BART Station and accompanying transit facilities, parking garage, and the BART Maintenance Facility. In addition, this designation allows supportive commercial uses such as ground floor retail.

Public/ Civic/ University

Uses permitted within this classification include government, civic, cultural, educational, and public services such as the Santa Clara Police Station, Women's Shelter, City-owned property, and property of Santa Clara University.

Parks/ Open Space

Public open space developed for passive and active recreation and community gathering space. Below-ground parking facilities and small cafés are also permitted, subject to City approval.

Land Use Goals

2-G-1 Provide a land use and development framework to guide the Planning Area's evolution as a vibrant activity node and transit center for surrounding neighborhoods and uses.

2-G-2 Provide for a mix of uses that supports transit ridership, with emphasis upon office, residential, and commercial/hotel uses.

2-G-3 Allow service commercial uses that can be easily accessed by existing uses and airport functions.

Land Use Policies

2-P-1 Permit the diverse range of uses within the Station Area, as shown on Figure 2-8: Land Use Structure.

2-P-2 Discourage development of drive-through facilities or gas stations.

2-P-3 Encourage ground floor retail along Benton Street to create a pedestrian-oriented commercial connection between downtown Santa Clara and the Station Area.

2-P-4 Establish a pedestrian activity spine ("Center Street") with ground floor retail uses to service the new residential community, station visitors, and area employees on the east side of the rail corridor.

2-P-5 Provide public space along primary pedestrian corridors.

2-P-6 Locate parks and public space to be easily accessible for residents, with minimum park size and locations suggested by land use designations shown in Figure 2-8: Land Use Structure. Refer to Section 2.7 Public Realm and Open Space for additional policies.

2-P-7 Provide opportunities for hotels to locate adjacent to the Station, Automated People Mover transit corridor, and I-880.

2-P-8 Retain active light industrial uses east of Coleman Avenue.

Housing

2-P-9 Emphasize higher-density residential development in proximity to the Station, especially within a half-mile radius of the Station.

2-P-10 Promote a diverse range of housing types within each development.

2-P-11 Provide housing for all income levels and household types, with emphasis on affordable housing.

- Utilize density bonuses for affordable housing available in each city, whenever possible.
- Integrate affordable housing into residential projects.
- Provide housing opportunities to support ABAG projections and State housing requirements (regional fair share requirements).

Under-utilized sites like these: a self-storage facility at Benton and El Camino Real, and auto service use at Benton and The Alameda will be key areas for redevelopment.

The Caltrain parking lot is a publicly-owned parcel that is planned as high-intensity mixed use in the Station Area Plan.

2.3 DEVELOPMENT AND BUILDOUT

This section describes the overall development that can be expected under the Station Area Plan using assumed average densities and intensities allowed by the different land use classifications for vacant and underutilized sites. Designation of a site for a certain use does not necessarily mean that the site will be built/redeveloped within the 2030 Plan horizon. Additionally, identified opportunity sites may not redevelop while sites that are not anticipated to be redeveloped may actually be reused. Thus, while all of the identified opportunity sites are included in the overall buildout, an assumption of the likelihood of individual sites to redevelop is also included in the calculation as a percentage applied to each site. This assumption—either 80 or 100 percent—is based upon each site's existing use, new land use designation, and proximity to the Station. For example, vacant opportunity sites and those located within a quarter-mile (five-minute walk) of the Station are assumed to have a 100 percent likelihood of redeveloping while opportunity sites with existing development outside of the quarter-mile area might have an 80 percent likelihood of redeveloping.

In addition to each site's likelihood of redevelopment, the Plan's overall buildout also assumes that intensities and densities, on average, will not reach the maximum allowable FAR or housing density. In keeping with current (November, 2007) development trends in surrounding areas, including residential densities being built within and adjacent to the Planning Area, the buildout calculation assumes that 80 percent of the maximum intensity or residential density will be attained.

NEW DEVELOPMENT

Table 2-4 shows a breakdown of net new development resulting from the Station Area Plan within the east and west portions of the Planning Area. The table also includes existing and pipeline development—development that is either under construction or approved. The latter development consists of primarily residential projects, with minimal non-residential uses.

Net new residential development on opportunity sites in the Planning Area would likely result in 2,250 new housing units—the majority of which would be condos, townhomes, and multi-family structures in both residential neighborhoods and mixed-use districts. (In mixed use areas, it is assumed that residential development will comprise 90 percent of the Mixed Use 3 designation and 35 percent of the Mixed Use 4 designation.) These new housing units will increase the existing residential base in the Planning Area substantially, thus establishing a new residential district within both Santa Clara and San José.

Under the Plan, total net new non-residential uses would increase by almost 4.2 million square feet, to a total of almost 6.7 million square feet in the Planning Area. Non-residential development is expected to include office, retail, and hotel uses in several mixed-use districts, including roughly three (3) million square feet of development on the FMC site, consistent with the site's current Planned Development approval by the City of San José. Assumptions for the breakdown of uses within each mixed-use designation are described in Table 2-5.

Table 2-4: Station Area Plan Net Total Development (December 2007)

	Existing	Pipeline	Projected Net New Development by Location: East of Tracks	Projected Net New Development by Location: West of Tracks	Total Net New	Total
Population[1] (residents)	2,130	287	2,510	3,750	**6,260**	**8,677**
Employment (number of jobs)	5,500	10	11,000	800	**11,800**	**17,310**
Residential[2] (units)	773	104	910	1,340	**2,250**	**3,127**
Office	638,500	-	3,113,300	-139,600	2,973,700	3,612,200
Commercial[3]	343,400	5,000	489,300	88,400	577,700	926,100
Industrial	1,242,500	-	-518,900	-243,900	-762,800	479,700
Hotel	96,000	-	1,322,600	58,200	1,380,800	1,476,800
Hotel Rooms	200	-	1,890	80	1,970	2,170
Public/Civic/ Institutional	212,400	-	-	-	-	212,400
Total Non-residential Development	2,532,800	5,000	4,406,300	-236,900	**4,169,400**	**6,707,200**
Parks and Open Space	-	1.0	2.2	4.8	7.0	**8.0**

[1] Includes ground floor retail.

[2] Total housing units only include those within the Planning Area. Total housing units within the half-mile area around the Station including university housing are tabulated in Table 2-6.

[3] Includes entertainment uses.

Note: With a lower person-per-household rate of 2.0 for medium-high and high density multi-family housing, potential new population would be 4,500, resulting in a total Planning Area population of roughly 6,200.

Existing housing in the Planning Area also includes single family residences.

New development will be multi-family residences, similar to these along El Camino Real, just outside of the Planning Area.

Table 2-5: Projected Breakdown of Non-Residential Development in Mixed Use Designations

Mixed Use Designation	Proportion of Development
Mixed Use-1	
Office/Industrial	0.65
Entertainment	0.20
Commercial/Regional Retail	0.10
Hotel	0.05
Mixed Use-2	
Office	0.35
Hotel	0.65
Mixed Use-3	
Office	0.10
Residential	0.90
Mixed Use-4	
Commercial/Retail	0.25
Office	0.20
Residential	0.35
Hotel	0.20

In general, projected office and hotel uses are concentrated along Brokaw Road and Coleman Avenue on the east side of the Planning Area while ground floor retail uses are focused within pedestrian-oriented districts along Benton Street and the Station Area Main Street. Some minor existing retail uses are expected to be redeveloped or intensified, such as a portion of the existing commercial development north of Brokaw Road. While no light industrial or manufacturing uses will be added, a substantial portion of existing industrial uses in the northeastern portion of the Planning Area are slated to remain. Overall, almost 1.3 million square feet of light industrial uses are projected for removal and redevelopment, including almost 600,000 square feet of vacant industrial uses on the FMC site.

HOUSING, POPULATION AND EMPLOYMENT

Housing

Housing is projected to increase substantially within the Planning Area, from just under 1,000 existing and pipeline units to a total of 3,120 housing units. Of these new units, just over 2,000 will likely be located within the half-mile Station Area, significantly increasing the number of housing units in walking distance to the Station (see Table 2-6). Additional residential units outside of the Planning Area are also projected within the half-mile Station Area. These will include approximately 1,000 Santa Clara University units within and adjacent to the University. The combination of Station Area Plan new units and existing units within the half-mile Station Area amounts to just under 3,600. This total is comparable to the MTC per-station targets of 3,850 residential units within a half-mile radius of a station.

Population

Assuming an average household size of 2.9 persons (an average of 2.56 persons in Santa Clara and 3.16 persons in San José) by the year 2030[8], buildout of the Station Area Plan will result in almost 8,700 total residents. This would mean an increase in population of approximately 6,600 new residents. However, since the composition of housing units is likely to be predominantly multi-family structures, smaller household sizes than those in single family detached homes are more likely. As a result, average household size could be as low as 2.0 people per unit for higher density housing units, which would mean a smaller increase of 4,500 residents for total projected population of 6,200 in the Planning Area.

Employment

Non-residential building space in the Planning Area is projected to increase from an estimated current 2.5 million square feet to 6.7 million square feet at buildout (an increase of almost 270 percent of existing development). This new development will accommodate an employment increase from an estimated 5,500 jobs currently to as much as 17,300 jobs at buildout; primarily as formerly industrial uses and sites with low-intensity warehousing and distribution uses are succeeded by higher intensity office, retail, and other similar uses. This gross estimate of jobs at buildout does not reflect the number of jobs lost by demolition of existing buildings for new development. Based

[8] ABAG 2007 Projections for Sub-regional Study Areas, Santa Clara County.

on a simple ratio of square feet per employee of existing industrial uses, roughly 1,100 jobs would be displaced. Therefore, the Station Area Plan is projected to provide a net increase of approximately 11,800 jobs, with roughly 5,000 jobs in Santa Clara and 7,000 jobs in San José. As a proportion of the job growth expected for each city through the Plan's 2030 horizon, the jobs in Santa Clara represent approximately 13 percent of new job growth, while the jobs in San José represent just over three (3) percent of total job growth.

The majority of this new employment—75 percent—will be within a ten-minute walk of the transit station, which will contribute significantly to increased transit ridership. However, this level of employment attainment will likely take place over a time-period that may extend beyond the 2030 Plan horizon.

Table 2-6: 2030 Housing Within Half-Mile Station Area

Existing and Under Development	**Housing Units**
Single Family	127
Multi-family	126
Multi-family - Fraternity/Sorority	60
Subtotal	*313*
Under Construction/Approved[2]	428
Santa Clara University On-Campus Housing[3]	1,000
Subtotal	***1,741***
Projected Buildout of Preferred Plan	
Medium Density	57
Medium-High Density	506
High Density	434
Residential in Mixed Use Areas	854
Subtotal	***1,851***
Total Residential Units in Half-Mile Radius from Station in 2030	**3,592**

Note: Total housing units within the 1/2-mile radius include housing units outside of the Station Planning Area, as shown in the Scenario illustrative diagram.

1 Includes ground floor retail

2 Includes 396 units in Downtown Santa Clara.

3 Santa Clara University currently (as of April 2007) has 2,500 beds. An estimate of an average of three beds per unit was used to calculate existing units, and a growth of 20 percent was included for the 2030 projection. These growth estimates and projections were obtained from Joe Sugg, Assistant VP of University Operations.

Development Goals

2-G-4 Develop the transit area with high-intensity land uses that can both support and take advantage of the major public investment in transit.

2-G-5 Target development of at least 2,000 new housing units and employment of between 9,000-10,000 jobs within a ½-mile radius of the station by 2030, to create vitality, a market for a broad array of supporting stores and services along the Center Street area and opportunities for living close to jobs and transit.

2-G-6 Maintain a range of development intensities to provide diversity, while maintaining high overall intensities to use land efficiently and to meet population and employment targets.

2-G-7 Provide incentives to encourage development of public amenities, retail, and other active uses in activity centers.

2-G-8 Provide a range of housing opportunities suitable for urban environments and the accommodation of a diverse population.

2-G-9 Preserve the scale and character of existing residential neighborhoods within and around the Planning Area.

2-G-10 Promote the production of affordable housing in the Station Planning Area, creating Below-Market-Rate opportunities for ownership and rental housing.

2-G-11 Provide and promote conservation of historical resources and rehabilitation of historic structures and/or adaptive reuse.

2-G-12 Ensure that new development and construction activities do not detract from the existing natural environment.

Development Policies

2-P-12 Facilitate consistency between the Station Area Plan and the City of Santa Clara and City of San José zoning codes.

2-P-13 Update the City of Santa Clara and City of San José zoning codes to support the Station Area Plan. Consider the establishment of new mixed-use districts and development and design criteria that reflect the policy direction contained throughout the Plan.

2-P-14 Encourage a minimum and maximum FAR on development sites, as shown in Figure 2-9.

2-P-15 Exempt the following from intensity calculations:

- Active ground level uses, as well as publicly owned and used facilities, on the first floor, in areas where ground level active uses are shown in Figure 2-9 (i.e., retail can be in addition to the maximum FAR allowance.)
- Designated historic structures, so long as the historic and/or architectural character is not adversely affected. (Reference this policy in historic resources section.)

2-P-16 Restrict building intensities underneath the approach path to the Airport consistent with

the Airport Land Use Compatibility Plan and FAA Height and Safety Zone regulations.

2-P-17 Maintain existing character of established neighborhoods in and around the Planning Area by ensuring that infill development is in keeping with scale, bulk, and density of existing neighborhood. Promote zones of scale transition as shown in the Land Use Structure Map.

2-P-18 Encourage a mix of housing types and forms, consistent with FAR and urban design policies of the Station Area Plan.

2-P-19 Through design review, foster a diverse mix of housing opportunities within residential projects. Utilize land use, regulatory, and financial tools to facilitate the development of housing affordable to all income levels, including:

- Homebuyer assistance programs for moderate and lower-income buyers.
- Development intensity bonuses for builders creating affordable units.
- Agreements to secure long-term affordability restrictions.

2-P-20 Use the environmental review process and other opportunities for discretionary review (e.g., a use permit) to ensure that new construction does not detract form the historic significance of registered historic sites and structures.

2-P-21 Ensure that heritage trees in the Planning Area are identified and protected as properties redevelop.

2-P-22 During review of specific development proposals made to the City of Santa Clara and/or the City of San José, ensure that sponsors of individual development projects under the proposed Plan implement the BAAQMD's approach to dust abatement.

This calls for "basic" control measures that should be implemented at all construction sites; "enhanced" control measures that should be implemented in addition to the basic control measures at construction sites greater than four acres in area; and "optional" control measures that should be implemented on a case-by-case basis at construction sites that are large in area, located near sensitive receptors or which, for any other reason, may warrant additional emissions reductions (BAAQMD, 1999).

Center Street

Benton Street

2.4 RETAIL AREAS

The Station and Planning Area are located in a unique setting where the old historic edge of Santa Clara meets a new bustling multimodal transit center. Several well-established neighborhoods and communities including the Old Quad, Santa Clara University, and the Newhall Neighborhood adjoin the west end of the Planning Area. With the addition of new development in downtown Santa Clara, these neighborhoods will continue to provide a sense of place and community in the immediate area. The Station Area Plan connects to these community assets through the creation of pedestrian-oriented activity centers and neighborhoods that complement and enrich already-existing activity nodes and communities in Santa Clara and San José.

CENTER STREET

The Station Area Plan identifies a new mixed-use activity spine just outside of the transit station. The new Center Street reinforces the Station and new residential neighborhood south of Brokaw Road with a vision for a "Main Street" activity center, where retail, park space, and streetscape design can establish a strong public realm. The ground floor retail overlay serves as a mechanism for activating the public realm along the Center Street, where restaurants, services, and small shops would serve the new residential neighborhood as well as surrounding office and hotel uses. The suggested retail area also extends to Brokaw Road and Coleman Avenue to establish a physical and visual presence along these highly-accessed roadways. Pedestrian linkages throughout the ground level further enhance the connectivity of the area to transit and surrounding employment uses.

The Plan also establishes a new residential neighborhood east of the rail corridor, adjacent to the Center Street area. As the first residential development between the rail corridor and US-101 in the City of Santa Clara, this new neighborhood can provide primarily high-density housing within a five-minute walk of the Station, as well as in close proximity to Santa Clara University. In addition to residential uses, this small neighborhood includes office, some commercial, and hotel uses, which will both complement and invigorate the neighborhood both during the day and night.

BENTON STREET

Benton Street will also play an important role in the Planning Area as a major pedestrian connection between downtown Santa Clara and the Station Area itself. Like Center Street east of the rail corridor, ground floor retail and streetscape improvements can enhance the public realm, inviting pedestrians and accommodating street parking. In addition to retail, new medium to medium-high density residential development would replace existing vacant lots and underutilized commercial and storage uses. The resulting development would extend and complement the existing Old Quad neighborhood, providing a strong edge to the community along El Camino Real. Because parcels along Benton Street are small in size, evolution of Benton Street as a retail and neighborhood services hub may occur over an extended period.

Retail Area Goals

2-G-13 Cultivate Center Street as the primary activity center within the Planning Area, where residential, commercial development, employment, and civic activities are supported by transit, parks, parking, and a walkable environment.

2-G-14 Promote mixed-use districts for hotel and office development in the immediate Station Area and along the APM alignment.

2-G-15 Establish a visual and physical connection between the Station and downtown Santa Clara with uses that complement the public realm and promote pedestrian activity.

Retail Areas Policies

2-P-23 Encourage Center Street and Benton Street areas as fine-grain walkable district around the station through:

- Supporting development that provides streets and pedestrian connections as delineated in the new Station Area Plan street grid, in accordance with guidelines outlined in Chapter 4: Urban Design;
- Encouraging development that has ground floors fronting pedestrian-oriented streets and connections; and
- Including site designs that complement pedestrian linkages to the station, Benton Street, Center Street District, and new/existing residential neighborhoods.

2-P-24 Target 80 percent of the frontage within retail overlay zones along the new Center Street, Brokaw Road, and Benton Street to be retail, eating establishments, and personal service uses such as copy shops, hair salons, dry cleaners, etc.

2-P-25 Allow a diverse range of retail establishments of any size along Benton Street and Center Street, provided they maintain a pedestrian orientation, and provide active street frontage.

2-P-26 Facilitate creation of public parks, plazas, and gathering places through requirements for open space and designation of park areas, as shown on the Land Use Structure Map.

2-P-27 Support a program of landscape improvements, especially along Benton Street, to accentuate connection to the Station.

2.5 PUBLIC REALM AND OPEN SPACE

PUBLIC REALM

Establishing a distinct and attractive public realm throughout the Station Planning Area is a key goal of the Station Area Plan. Identifying key routes to the Station, as well as to major activity centers within and around the Station, will be the primary goal of landscape and streetscape improvements within the Planning Area. Likewise, connections between park spaces and public plazas will be defined by landscaping and wayfinding signage to create a cohesive and easily navigable Station Area. The Plan incorporates several major landscape components:

- Enhanced street landscaping along Benton Street to reinforce pedestrian connection between downtown Santa Clara and the Station;
- Landscaped setbacks along El Camino Real and Coleman Avenue to buffer uses from heavy traffic;
- Designated Green Streets (described in Chapter 4: Urban Design) that serve as paths connecting residential, retail areas, and employment areas to the transit station will support the open space network; and
- Landscaped buffer between new and existing residential development and the rail corridor.

Chapter 4: Urban Design provides design policies that focus on establishing a distinct public realm through building and landscape design. The relationship between these elements and the public realm is also delineated in Chapter 4, where the interplay between the street and built form is described in both section and plan.

PARKS AND OPEN SPACE

Although the Planning Area currently has no existing park space, there are several parks within a 10- to 15-minute walk of the Planning Area. These include Marsalli Park, the Mission Library park space, Fremont Park, and Washington Park; as well as the Guadalupe River Park which provides 170 acres of parkland adjacent to I-880 and the Airport. The parks provide over 20 acres of existing open space and recreational facilities, and are valuable assets for new residents within the Planning Area.

Because of the urban nature of the planned new development and the need to locate higher intensity development adjacent to the transit station, space for new parks will be important but limited. While a network of smaller open spaces and plazas is planned for the Station Planning Area, larger parks throughout Santa Clara will provide residents in the Planning Area with recreational space for ball games and other sports activities. Throughout the Planning Area, direct, pleasant, and safe connections to community and nearby neighborhood parks are essential, especially as a new residential and daytime population is established in the Planning Area and demand for open space increases.

As shown in the Plan's Land Use Structure, Figure 2-8, the Plan identifies a network of open space and paths that would create a navigable and

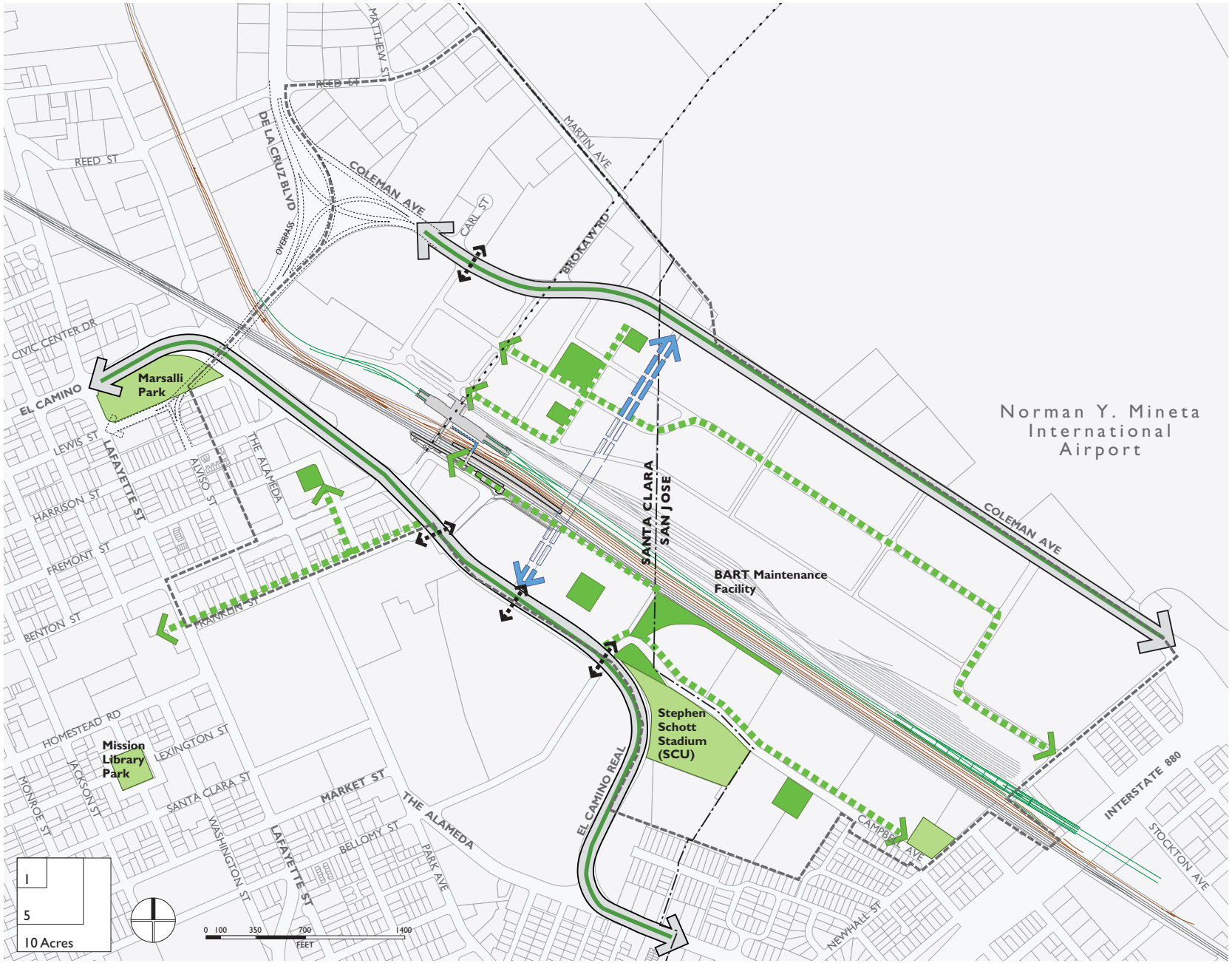


Figure 2-10
Vision for Open Space

- Proposed Open Space
- Existing Parks
- Landscaped Boulevard
- Landscape Connection
- Potential East-West Connection
  - *Below Grade*
  - *Ramp*
  - *At-Grade*
- BART
- Caltrain, ACE, Capitol
- Union Pacific Tracks
- Automated People Mover
- Planning Area Boundary
- Primary Arterial

easily-identifiable public realm through the Station Area and among new residential development. Connections to the Station are emphasized by bicycle and pedestrian paths along the rail corridor, as well as through landscaped pedestrian boulevards and streets. A central open space just south of Brokaw Road on the east side of the rail corridor could create a primary gathering place for nearby residents, visitors, employees, and transit riders. Proposed at the center of the Center Street/new residential district, an urban 1.5-acre open space would accommodate multiple activities that may range from passive uses like reading, walking, or picnicking, to active temporary uses like farmer's markets and performance space.

Smaller open spaces and plazas are proposed throughout the rest of the Planning Area, and provide 5.5 acres of additional park space. These parks could be created in conjunction with development projects and, although accessible to the public, will likely be privately owned and maintained. For the most part, open spaces would be small, neighborhood-oriented spaces programmed to accommodate seating and gathering, attractive landscaping, and possibly play areas. More importantly, these small open spaces and plazas will serve to break up the built environment, providing pleasant views and enhancing the public realm and pedestrian experience. They should be located on corners or mid-block and will be oriented along primary pedestrian connections, as shown in Figure 2-10. Together with well-landscaped pedestrian-oriented streets, these smaller open spaces would provide new residents and visitors with multiple opportunities for recreation and open space within a five- to ten-minute walk.

In addition to the public open space system, all residential projects should be subject to requirements to incorporate common open spaces—such as courtyards, roof decks, and terraces—on-site to provide more private and sheltered open air retreats for residents.

Parks and Open Space Provision

Both the City of San José and the City of Santa Clara have established methods for meeting the demand for new park space from new development. San José has specific standards in its Greenprint for Parks and Community Facilities, with a service level goal of 3.5 acres of locally-serving recreational lands per 1,000 residents. This standard is comprised of a minimum 1.5 acres of neighborhood/community parks and up to two (2) acres of school playgrounds within a 0.75-mile radius of all residents. As of June, 2005, San José had 2.99 acres of parks per 1,000 residents. Santa Clara, on the other hand, does not regulate park provision within the city as a development standard. Rather, park acreage is negotiated as a part of development agreements, and thus varies with each new development depending on the size of the development and the opportunity to dedicate land area for park space. Recent projects have developed ratios of anywhere between two (2) to 3.5 acres per 1,000 residents, and the city as a whole has approximately two (2) acres per 1,000 residents[9].

[9] LAFCO Draft South and Central Santa Clara County Service Review and Sphere of Influence Update, April 2006.

The Station Area Plan accepts the existing park provision policies already established in the cities and provides additional details, guidelines, and incentives. Ultimate decisions about park facilities and open soace programming will be determined by the City of San José's Parks, Recreation, and Neighborhood Services Department and the City of Santa Clara's Parks and Recreation Department. Adjustments to the open space sites and locations in Figure 2-10 are acceptable.

Public Realm and Open Space Goals

2-G-16 Establish a network of parks and public spaces connected by green corridors that serve both new residential development and non-residential development in the Planning Area.

2-G-17 Provide open space within a five- to ten-minute walk of all residents and employees.

2-G-18 Create a landscaped buffer between new residential development and the rail corridor.

2-G-19 Make new public open spaces and plazas sources of community pride and character, where connections to historic and cultural assets are emphasized through community participation, public art, and design.

2-G-20 Provide a comprehensive maintenance program for all open spaces, plazas, and landscaped buffers.

2-G-21 Connect to local and regional bikeways and trail networks to the greatest extent possible.

Public Realm and Open Space Policies

2-P-28 Strive for seven (7) acres of new open spaces and plazas open and accessible to the public.

2-P-29 Promote open spaces consistent with the land use designations shown on the Land Use Structure Map, Figure 2-8. Adjustments may be necessary depending on the type of development proposed, and may be approved through the Site Plan Review process.

2-P-30 Encourage parkland and open space as part of new developmetn rather than payment of impact fees. Park dedication should be based on the number of units or size of project, following the provisions of each City's ordinances.

- If a greater amount of park land is required by the City than identified on the Plan, this additional requirement may be satisfied as deemed appropriate. In-lieu fees may be used to enhance other City parks with greater recreational amenities. Parks created or improved with in-lieu fees should be located as close to the Planning Area as possible.
- Give preference to providing park space as shown on the Plan.

2-P-31 In addition to residential neighborhoods, all new employees should be within a five- to ten-minute walk of a park or plaza, including within mixed-use areas. Encourage the provision of either public or private common open space as part of new, high-intensity development.

2-P-32 Encourage any development surrounding designated open spaces larger than one acre in size is designed to avoid casting a shadow on the open space between 10 a.m. and 3 p.m. on September 21 (fall equinox).

2-P-33 Work closely with the City of Santa Clara and City of San José Parks and Recreation Commissions to establish appropriate programming and design for park and open space locations.

2-P-34 Provide a landscape buffer between new residential development and the western edge of the rail corridor.

- The buffer should be a minimum 20-foot-wide continuous landscape area along the west side of the rail corridor between new residential development and the rail rights-of-way. Land dedicated to the buffer could be credited toward park land requirements.
- Bike paths and sidewalks should be used to maintain a continuous pedestrian/bike connection between Newhall Street to the south and the Station to the north.

2-P-35 A landscaped connection between Newhall Street and the intersection at Campbell Avenue and El Camino Real should be provided by:

- A landscaped bike path and separate sidewalk along the eastern street edge of Campbell Avenue.
- A bike path and sidewalk connection to a landscaped buffer along the west side of the rail corridor.
- Refer to Section 4.2 for Streetscape Design.

2-P-36 Provide tree-lined open spaces and connections to the Station, retail areas, parks, and plazas.

2-P-37 Encourage private common open space as part of all large new residential developments, with standards established in applicable regulations.

2-P-38 Encourage the provision of outdoor seating and/or cafés where appropriate.

2.6 HISTORICAL AND CULTURAL RESOURCES

The area surrounding the Santa Clara Station Planning Area is rich with historical and cultural significance. The site is located within an area that was once inhabited by the Ohlone Native American tribe, and later by Spanish missionaries who established the Santa Clara Mission in 1777. Thus, the Planning Area has several sites with significant cultural and archaeological sensitivity, which include both Native American and former mission components. Building upon the origins of the Mission and settlements in the area, the City of Santa Clara was established just outside of the Planning Area boundaries. Much of the old residential core of the city remains; and many of these homes and older structures in the Old Quad and surrounding neighborhoods are registered as State or National Historic Resources, as shown in Figure 2-11. Likewise, many buildings within Santa Clara University—the oldest university in the State of California—are historically significant and landmarks within the community.

However, the most important historical and cultural resources in and adjacent to the Planning Area are the Santa Clara Mission, the Women's Adobe Center, and the Santa Clara Historic Railroad Depot. These sites are especially significant, as they are both listed on the National Register of Historic Places, which establishes substantial protections in recognition of the contributions to national and regional heritage. As shown in Figure 2-11, the area surrounding the current Mission Santa Clara, as well as the previous incarnations of the Mission are sensitive as both archaeological resources and historical resources.

Similarly, the historic depot building and adjoining tower structures also encompass a larger area of sensitivity. These buildings comprise the oldest operating railroad station west of the Mississippi, which operated until 1997, when the ticket booth was finally closed, and later turned into a historic railroad museum. In addition to these sites, the Planning Area also includes several historical homes along Benton Street and Alviso Street that have been identified by the State Office of Historic Preservation as locally significant properties that could be eligible for the National Register.

The Station Area Plan's direction for historic preservation is premised on maintaining a visual and physical connection to National Register and other important historic and cultural sites. New development, especially in the vicinity of the historic Santa Clara downtown, Old Quad, and Santa Clara University/Mission areas, will be scaled and designed to complement the historic character of these areas. Additionally, view corridors and public spaces adjacent to historic sites will both preserve and reinforce historic sites and properties. Thus, the Plan promotes the creation of a public plaza adjacent to the Historic Depot, as well as a view corridor from Benton Street and El Camino Real. Preserving the visibility to the Depot, and establishing the Depot and associated structures will contribute to the Station's role as a cultural and historical resource and gateway into Santa Clara and San José.

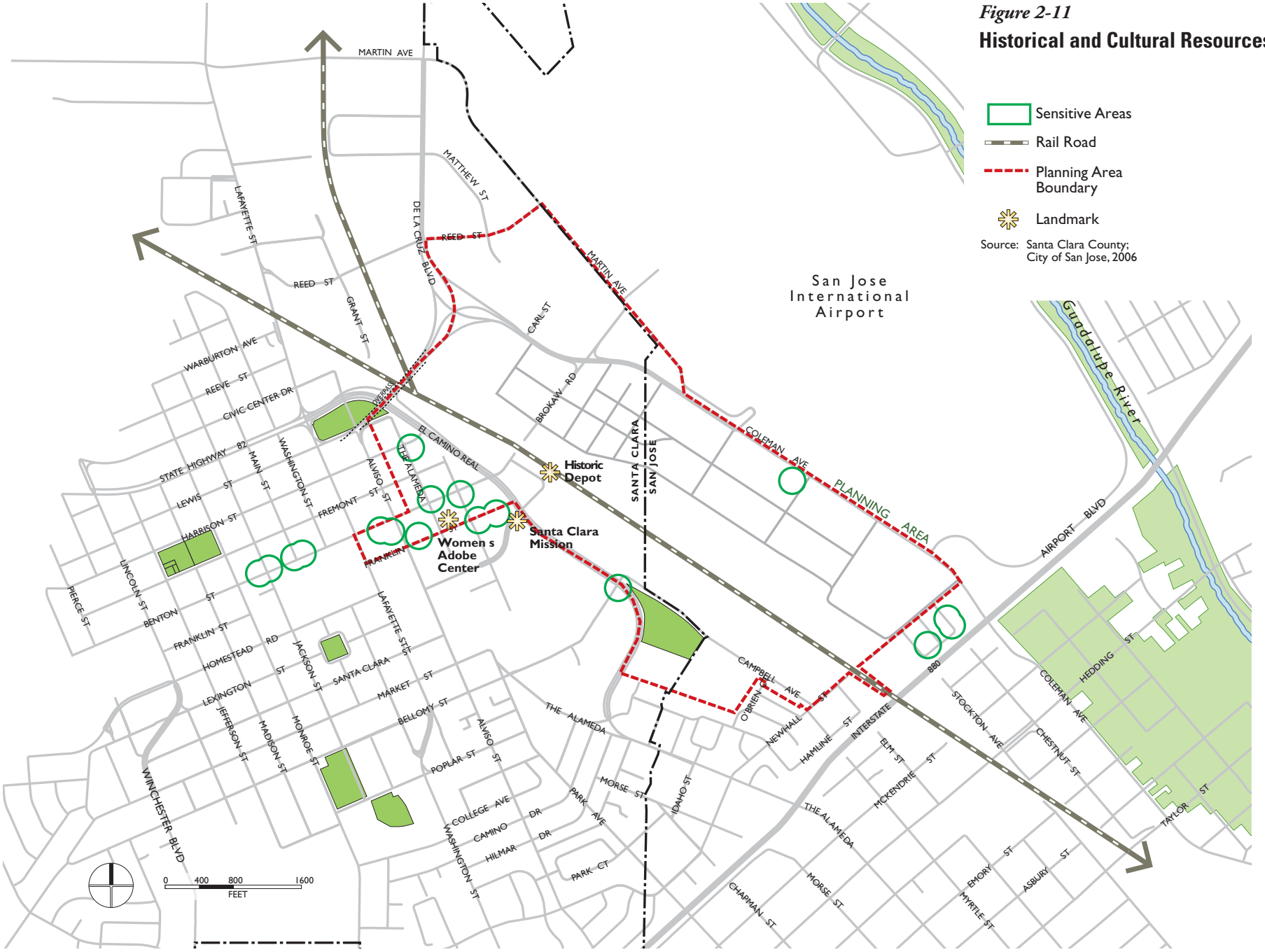
In addition, the Plan promotes conservation of the historic qualities of existing properties and surrounding neighborhoods. The responsibility for designating Local Register sites and districts belongs to the City of Santa Clara's and City of

Santa Clara's Old Quad neighborhood and surrounding historic core have beautifully restored homes and buildings (Above and below).

The Santa Clara historic depot is located in the heart of the Planning Area.

Figure 2-11

Historical and Cultural Resources



San José's Historical Resources Boards and Commission, while the Federal Department of Interior and State Office of Historic Preservation respectively designate National Register and California Register sites and districts.

Historical and Cultural Resources Goals

2-G-22 Protect significant cultural and historic resources to communicate the Station's and surrounding area's cultural and historic heritage.

2-G-23 Allow development adjacent to designated National Register sites that is respectful of context and heritage, while permitting contemporary design solutions.

Historical and Cultural Resources Policies

2-P-39 Maintain review procedures for projects potentially affecting National Register, State Register, and Local Register properties and districts.

2-P-40 Maintain a view corridor from Benton Street and El Camino Real to the Historic Rail Depot. Promote a public plaza adjacent to the depot as part of new development.

2-P-41 Work together with the Historical and Landmarks Commission of Santa Clara and the South Bay Historical Railroad Society to identify opportunities for expanding upon the Historic Rail Depot Museum (i.e. hours, activities, or shared uses).

2-P-42 Avoid known cultural and paleontological resources within the Planning Area and follow the procedures and protocols set forth in CEQA guidelines.

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CHAPTER 3
CIRCULATION, ACCESS, AND PARKING

The Santa Clara Station Planning Area has extraordinary access to a broad range of transportation systems, including commuter rail, bus transit, local streets, regional freeways, and the Airport. The addition of BART and APM will increase the mobility of future residents and employees that will live, work, and shop within the Planning Area. When completed, these local and regional transportation facilities will enhance linkages between the Santa Clara Station and other activity centers within Santa Clara County and the greater San Francisco Bay Area.

As redevelopment occurs within the Planning Area, opportunities will arise to create a new local multimodal circulation system to serve the needs of drivers, transit users, pedestrians, and bicyclists. The internal circulation system should be designed to minimize the need to use autos within the Planning Area and promote the use of walking and bicycling, with short block lengths and connectivity to all uses including the Station. Additionally, linkages with the surrounding established neighborhoods will be enhanced to reduce need for residents and workers to use their cars to access the Planning Area. Land use and transportation planning are also closely correlated—the Planning Area concentrates activities and densities within an easy walk to transit, prioritizes pedestrian safety and friendliness in intersection design, and creates a highly connective network to enhance interaction amongst the various land uses.

3.1 STREET NETWORK

The Planning Area street network is used for walking, bicycling, and bus and vehicle travel; and includes both regional and local internal circulation. While the regional network is well developed and connects the Station Planning Area to the larger community, no coherent internal street network exists to provide circulation and access to uses within the Planning Area. The existing internal network reflects the large block sizes of the primarily industrial uses within the Planning Area, and thus has very little connectivity. Additionally, the Planning Area is divided by the UPRR and Caltrain corridor into two development areas and lacks any cross connections within its boundaries. As future development occurs, an integrated circulation network should be provided to serve the needs of the new residents, workers, and visitors, and a more walkable street grid within the vicinity of the Station. An improved internal street system will enhance travel by all modes within the Planning Area, including pedestrian, bicycle and vehicle connections between the eastern and western areas.

In addition to the overall extent of the street network, streetscape design will play an important role in transforming the Planning Area. As the most pervasive visual and physical component of the public realm, the design of the street network is integral to the Santa Clara Station Area's image and experience. Chapter 4: Urban Design describes specific street design typologies and character to improve and guide development of new and existing streets.

REGIONAL NETWORK

Figure 3-1 shows the regional roadway network that serves the Planning Area. These regional facilities include freeways and arterial streets that move people to and from the Planning Area. The facilities that provide access to the Planning Area are:

- *Interstate 880 (I-880)*. This six-lane freeway is located near the southern boundary of the Planning Area. I-880 extends north to the East Bay, connecting to Interstate 80 in Oakland, and south through San José, becoming State Route 17 south of the I-280 interchange. I-880 connects to both US 101 (1.5 miles north of the Planning Area) and Interstate 280 (2.0 miles south of the Planning Area). The interchanges of Coleman Avenue and The Alameda (via El Camino Real) provide direct access to the Planning Area from I-880. The Coleman Avenue interchange has been recently upgraded and will serve the eastern portion of the Planning Area.
- *US Highway 101 (US 101)*. This eight-lane freeway is located approximately 2.0 miles north of the Planning Area. US 101 extends north to San Francisco and south to Morgan Hill and Gilroy, continuing on to Los Angeles. Direct access to and from the Planning Area is provided via the interchange at De La Cruz Boulevard, which primarily serves traffic to and from the north.
- *State Route 87 (SR 87)*. This six-lane freeway connects between US 101 in the north and State Route 85 in the south. SR 87 also con-

Figure 3-1
Street Network (Regional Scale)

Planning Area Boundary

Brokaw Road is currently configured as a two-lane road with street parking. Significant improvements will include additional travel and bike lanes, sidewalks, and the APM alignment.

Benton Street will play a key role in the Planning Area, connecting the Station to downtown Santa Clara and surrounding neighborhoods.

nects to I-280 in downtown San José. Access to the Planning Area is provided via the interchange at Taylor Street. Planning Area traffic will use Coleman Avenue and Taylor Street to access State Route 87.

- *Coleman Avenue/De La Cruz Boulevard Corridor*. This corridor runs north-south along the east side of the Planning Area. Coleman Avenue is a four- to eight-lane facility that extends from its connection with De La Cruz Boulevard in the north to downtown San José in the south, where it becomes Market Street. De La Cruz Boulevard provides a link to Central Expressway and US 101, and De La Cruz becomes Trimble Road north of US 101. At the north end of the Planning Area, De La Cruz Boulevard and Coleman Avenue are connected to El Camino Real via a grade-separated roadway over the rail corridor that ramps to Lewis and Lafayette Streets in the westerly direction. Access to the ramp in the opposite direction is via Alviso Street.
- *The Alameda/El Camino Real Corridor*. This corridor lies just west of the Planning Area and is designated State Route (SR) 82. The Alameda is a four- to six-lane facility with sidewalks that extends from Santa Clara University southeast to downtown San José, where it becomes Santa Clara Street. El Camino Real is a six-lane facility that extend from its connection with The Alameda northwest through Santa Clara to Sunnyvale and other Peninsula cities, and terminates in San Francisco.

LOCAL/INTERNAL ROADWAYS

Existing local streets will continue to provide direct access to and circulation within the Planning Area. While not every street is discussed in this section, those that generally define the future access points to the Planning Area include:

- *Brokaw Road*. An east-west two-lane facility providing direct access to the Planning Area. It extends west from the signalized intersection of Coleman Avenue to the rail corridor. East of Coleman Avenue, Brokaw Road connects to Martin Avenue, which provides access to Airport parking lots and light industrial uses adjacent to the Airport.
- *Aviation Avenue.* A two-lane facility providing access to general aviation uses on the west side of the Airport, including the San José Jet Center and ACM Aviation. It meets Coleman Avenue at a signalized intersection on the east side of the Planning Area. West of the intersection, Aviation Way provides access to several large Airport parking lots.
- *Newhall Drive*. Built to provide access to Newhall Street as part of the reconfiguration of the I-880 interchange at Coleman Avenue. Newhall Drive meets Coleman Avenue at a signalized intersection northwest of the original intersection of Coleman Avenue and Newhall Street. Newhall Drive provides access to several businesses located along Newhall Street between Coleman Avenue and the rail corridor.
- *Railroad Avenue*. A two-lane facility connecting Benton Street and El Camino Real, providing direct access to the existing Santa Clara Caltrain Station, Santa Clara Police Station, and associ-

ated parking lots. Railroad Avenue also serves the Train Museum located in the historic depot and office and retail developments located just to the south. West of El Camino Real, Railroad Avenue becomes Palm Drive at the Santa Clara University entrance street. This entrance is an internal roadway for the University and does not provide direct access to surrounding residential areas.

- *Benton Street.* A two- to four-lane facility extending from west of Lawrence Expressway in western Santa Clara to east of El Camino Real where it becomes Railroad Avenue along the rail corridor in the Planning Area. In the vicinity of the Planning Area, Benton Street includes only two lanes. The Santa Clara Police Station is located at the northeast corner of Benton Street and El Camino Real at Railroad Avenue. Benton Street terminates west of the rail corridor and is generally aligned with Brokaw Road on the east side.
- *Campbell Avenue*. A two-lane facility extending south from El Camino Real and parallel to the rail corridor. Several new developments are pending, approved, and/or constructed along Campbell Avenue by the Cities of Santa Clara and San José, including a new University baseball stadium, a University-related housing project, and other multi-family and single family housing projects. Campbell Avenue has been converted to a cul-de-sac at its southern end and no longer connects to the adjacent Newhall Neighborhood via Newhall Street or O'Brien Court. The recently-constructed (2006) housing development at the intersection of Campbell Avenue and El Camino Real has direct access to and from El Camino Real.

Additional internal streets in the Planning Area include Franklin, Harrison, Lewis, Fremont, Sherman, Reed, Matthew, and Carl streets, and Martin Avenue.

PLANNING AREA INTERNAL CIRCULATION SYSTEM

Figure 3-2 shows potential roadway modifications—new streets and segments where changes in number of traffic lanes, intersection improvements, or new signalized intersections are proposed; Table 3-1 provides a detailed description of the changes. Several other roadways may have other kinds of changes (such as addition of bicycle lanes, reconfiguration of parking, etc.) that are not shown on this map. Future modifications to the street system are anticipated to improve connectivity, help activate retail areas, improve pedestrian safety, and increase diversity of transit. Significant potential changes include:

- Creating a fine grain street grid, extending streets where possible, and providing increased porosity and opportunity for pedestrian and vehicular movement.
- Establishing a new vehicular and bikeway connection between the east and west sides of the Planning Area between El Camino Real and Coleman Avenue.
- Improving the flow of traffic through the Campbell Avenue and El Camino Real intersection to accommodate increased residential and mixed-use development.
- Providing streetscape improvements, such as landscaping, separated sidewalks, street trees, and decorative lighting, signage and street furniture (i.e. benches).

Table 3-1: Proposed Roadway and Streetscape Segment Improvements

Roadway	Segment	Proposed Improvements[1]
The Alameda	Franklin Street to Lewis Street	2 lanes; bike lanes; street tree bulb-outs
Benton Street	Lafayette Street to El Camino Real	Bike lanes; street tree bulb-outs; wider sidewalks
Brokaw Road	Station to Coleman Avenue	4 lanes, no parking east of new Main Street; continuous median with left-turn and APM[1] alignment; underground utilities
Brokaw Road	Coleman Avenue to Martin Avenue	Continuous sidewalks; underground utilities
El Camino Real	Intersection with new cross-connection	Signalized intersection
Campbell Avenue	El Camino Real to Newhall Street	Bike lanes; street trees
Coleman Avenue	De La Cruz Boulevard to Newhall Street	Continuous sidewalks; street trees
Coleman Avenue	Former Costco entrance	Signalized intersection
Coleman Avenue	Between Campbell Avenue and Railroad Avenue, intersection at new cross-connection between Aviation Avenue and Brokaw Road	Signalized intersection
Coleman Avenue	Intersection at new street between Aviation Avenue and Newhall Street	Signalized intersection
Newhall Street	Campbell Avenue to railroad tracks	Bike lanes
Railroad Avenue	El Camino Real to Caltrain Station	Bike lanes; street trees
Sherman Street	Franklin Street to Fremont Street	2 lanes; bike lanes; street tree bulb-outs

Note: See Chapter 4: Urban Design, Section 4.2: Streetscape for more detailed streetscape plans and sections.
[1] Bike lane improvements may entail a separate bike line or shared bike and vehicular lane (bike route) depending on street cross-section and each city's lane width requirements.

Internal Planning Area Streets

The internal street network on the east side of the rail corridor can be different from the street network for the west side. On the east side, the anticipated internal roadway network envisions a grid system that runs parallel to Coleman Avenue. Serving as the circulation spine within the east side of the Planning Area, a north-south, central boulevard could extend from Newhall Drive on the south end to the retail areas beyond Brokaw Road on the north end of the Planning Area. This boulevard would provide direct access to the development areas and facilitate north-south movements within the Planning Area. In the high-density, mixed-use district adjacent to the BART station, the proposed boulevard would serve as the "Center Street"[1] with retail, commercial and residential uses. Parallel to this central boulevard, a second roadway could be located along the eastern edge of the BART Maintenance Facility. This roadway extension is proposed from Brokaw Road near the BART Station entrance to Newhall Drive, to provide direct access to public and private parking areas and support Planning Area development and the BART Maintenance Facility.

Perpendicular to the new north-south connections, a total of seven east-west-oriented streets that provide access into the Planning Area along the 1.2-mile length of Coleman Avenue from I-880 to De La Cruz Boulevard are anticipated. Three of these streets currently exist and have signalized intersections at Coleman Avenue: these include Newhall Drive, Aviation Avenue, and

[1] This proposed street is referred to as Center Street throughout the rest of this document.

Figure 3-2

Vision for Internal Street Network

- New Street
- New Street Conceptual Alignment
- Improved Street
- Existing Signalized Intersections
- New Signalized Intersection
- Existing Signalized Intersection to be Improved
- BART
- Caltrain, Ace, Capitol
- Union Pacific Tracks
- Automated People Mover
- Planning Area Boundary
- Mid-Block Pedestrian Connection/Limited Access Road

Potential East-West Connection

- *Below Grade*
- *Ramp*

The Coleman Avenue/El Camino Real intersection will be improved with greater vehicle queuing on the east side—allowing for better access for planned residential development along Campbell Avenue.

The current entrance to Costco will become a full-access intersection at Coleman Avenue, providing a direct connection to the BART parking garage and Station.

Brokaw Road/Transit Boulevard. Two new signalized access points are planned along Coleman Avenue within the City of San José between Newhall Street and Aviation Avenue, and between Aviation Avenue and Brokaw Road. A new full-access intersection is envisioned within the City of Santa Clara between Brokaw Road and the De La Cruz Boulevard overcrossing to provide signalized access to the BART station and parking garage. This new access point would be created at the existing right-turn-in/right-turn-out driveway to Costco. The alignment will need to consider access to Carl Street located on the east side of Coleman Avenue.

On the west side of the Planning Area, fewer opportunities are available to create new roadways to serve future development because of the existing street grid and parcel layouts. El Camino Real subdivides the western portion of the Planning Area, creating a narrow strip of development between the street and the rail corridor. However, four east-west streets provide access into this area from El Camino Real, with Campbell Avenue as the primary connection serving existing and future residential development at the southern end of the Planning Area.

The other major east-west connections within the Planning Area include Benton Street, De La Cruz Boulevard and Newhall Street. While few new streets are planned within this area, several improvements are envisioned along El Camino Real—primarily streetscape changes that will add safer bicycle and pedestrian facilities (refer to Chapter 4: Urban Design). However, a significant potential improvement along El Camino Real is the intersection with Campbell Avenue.

Improvements to access between Campbell Avenue and El Camino Real should include creating additional capacity on the Campbell Avenue approach. This could be accomplished by modifying the existing 90-degree bend in Campbell Avenue that occurs at El Camino Real. By extending the approach to the east and curving the roadway back to conform to the existing alignment, it would allow for greater vehicle stacking on the east approach of the intersection. With vehicles properly queued at the intersection, it would be possible to better serve the demand and improve the overall operation of the intersection. This improvement is likely necessary to serve existing and proposed residential development along Campbell Avenue and optimize the traffic operations along El Camino Real. In addition, the City of Santa Clara, at its discretion, may consider removal of the driveway of 471 El Camino Real located on Campbell Avenue if or when that parcel is considered for redevelopment.

Finally, the northwest portion of the Planning Area, generally bounded by Franklin Street, Lafayette Street, Alviso Street and El Camino Real, is located on the existing downtown grid street system with multiple access points and connections to adjacent roadways. This area should remain relatively the same, with principal changes occurring at the streetscape level rather than the creation of new streets or connections. However, a new signalized intersection is suggested on El Camino Real by the proposed east-west underpass

discussed below. This proposed east-west cross connection would intersect El Camino approximately halfway between Campbell Avenue and Railroad Avenue, and would replace the existing unsignalized site access to the existing developments located between Campbell Avenue and Railroad Avenue. The existing unsignalized site entrance does not allow left turns out of the site onto El Camino Real. The proposed cross connection intersection would be a "T"-intersection that allows all movements into and out of the Station Area. The Station Area approach should, at a minimum, include one inbound lane and two outbound lanes (one left turn and one right turn lane). Additional lanes may be needed on the site to facilitate internal site circulation. The final configuration will depend on the design of the development on the south side of the railroad tracks. A traffic signal should be interconnected to, and coordinated with, the adjacent intersections on El Camino Real. The coordinated signal timings should be designed to minimize the potential for queuing between the intersections to ensure that traffic can enter and exit the station area.

Potential East-West Underpass

An optional improvement to the street network is the potential creation of a new underpass between the east and west sides of the Planning Area. The alignment for the potential roadway connection is proposed in the middle of the Planning Area between Coleman Avenue and El Camino Real in the form of an underpass that runs from El Camino Real to Center Street in the Station area. This cross connection would provide a convenient local link between the two sides of the Planning Area for automobiles and bicyclists. In addition, the connection would facilitate access to the Station parking facilities located on the east-side from the existing neighborhoods that are to the west; as well as provide improved connectivity to nearby activity centers outside the Planning Area (e.g., the Safeway store at The Alameda/Park Avenue intersection, and Santa Clara University). The design of this connection would allow bicyclists to ride between the two sides of the Planning Area rather than dismounting and crossing as a pedestrian in the Station area; because of lower vertical clearance need, the vertical grade changes for bicyclists would be less than that for motor vehicles. While this connection would be a long underpass (greater than 600 feet), pedestrian facilities could also be provided within this corridor to provide maximum opportunities for non-automobile travel. A schematic section of the underpass is provided in Chapter 4: Urban Design.

While the new underpass option would serve as a key connection between both sides of the rail corridor, the potential cost and construction of the roadway poses several challenges. The cost of the underpass may be prohibitive without external support through transportation grants and regional resources. Additionally, timing of the underpass construction may also pose a challenge, as the BART Maintenance Facility is scheduled to start construction in 2009. Without immediate financing for the underpass, the likelihood of constructing the roadway prior to the Maintenance Facility is very low. Close coordination with BART and the cities is essential to maintain a sub-grade right-of-way through the site. Additionally, the alignment of the roadway

bisects existing development west of the rail corridor. Future redevelopment of the site will need to maintain a right-of-way to ensure future accommodation of the underpass.

Street Network Goals

3-G-1 Develop street typology based on functional and urban design considerations, emphasizing connections, pedestrian, ADA, and cyclist comfort, transit movement, and compatibility with adjacent land uses.

3-G-2 Maintain, re-establish, and enhance the street grid with multiple access points to the local street system to promote flexibility of movement, balance the traffic flow, and create a pedestrian-scaled, walkable environment within the Station Area.

3-G-3 Provide additional connectivity for all modes of travel between the eastern and western portions of the Planning Area.

Street Network Policies

3-P-1 Promote implementation of the street typologies, as described in Chapter 4: Urban Design, Streetscape Design.

3-P-2 For new development, encourage dedication and/or complete public access at all times to all streets shown in Figure 3-2.

For right-of-way requirements, refer to Section 4.2: Streetscape Design.

3-P-3 Support a comprehensive, multi-jurisdictional effort (cities of Santa Clara and San José, and the Valley Transportation Authority) for detailed planning, financing, and implementation of the proposed east-west roadway undercrossing to improve access within and across the Planning Area, for vehicles, pedestrians, and bicyclists.

While much of the right-of-way is within the City of Santa Clara, a cross-connection would help increase connectivity from existing neighborhoods in both cities to the Station.

3-P-4 Identify new connections as larger sites are redeveloped, opening rights-of-way that connect to the planned street network in Figure 3-2. Potential extensions of the street grid are shown in Figure 4-3.

3.2 PEDESTRIAN AND BICYCLE NETWORK

The Station Area Plan aims to create attractive, inviting, and safe pedestrian and bicycle connections for residents, workers, and visitors to key destinations in the Planning Area. The major destinations for walking and bicycling within the Planning Area are anticipated to be transit stations, parks, and retail or shopping districts. Since the Planning Area is relatively level, most of the area can be canvassed by foot within a 20-minute walk. Existing development around the Planning Area also contributes to the walkability of the Station Area, where the Caltrain Station, downtown Santa Clara, and Santa Clara University provide additional pedestrian activity and destinations.

However, there are several barriers throughout the Planning Area that detract from the area's walkability and access. The UPRR/Caltrain rail corridor and future BART Maintenance Facility currently form a significant barrier to east-west pedestrian and bicycle movements between the eastern and western portions of the Planning Area. No existing pedestrian crossings currently exist within the Planning Area, including on the De La Cruz Boulevard overpass. The closest pedestrian crossings of the rail corridor are at Lafayette Street north of El Camino Real and Hedding Street south of I-880. As a result, the Station Area Plan focuses on enhancing the connection between the east and west Planning Area, with several types of major pedestrian/bicycle connection improvements:

- *Overcrossings* that are needed to cross the rail corridor and connect the Caltrain and the BART Station.
- *Pedestrian and Bicycle Connections* from Hedding Street to the Station paralleling the rail corridor, where possible.
- *Pedestrian and Bicycle Connections* below grade, to make a safer more direct crossing for bicyclists and pedestrians from within the Station and between El Camino Real and the central boulevard.
- *Pedestrian Connections with Limited Access* provide shared fire vehicle access on otherwise pedestrian-only connections through larger blocks.

Key pedestrian and bicycle routes within the Planning Area that should be established and maintained are shown in Figure 3-3 and include:

- *Residents, visitors, and employees to and from the Station and retail areas.* Pedestrians need a variety of options to approach the Station, especially from the south and east, where they will be competing with vehicular and bicycle traffic on primary approaches to the BART garage and station area. Likewise, improved pedestrian intersection crossings at El Camino Real along Benton Street will be a key aspect of connecting the Benton Street retail area and downtown Santa Clara to the Station.
- *Residents from the Campbell Avenue area to the Station.* Safe and direct routes to the Station area from Campbell Avenue and the Newhall Neighborhood are necessary to discourage at-grade crossing of the tracks through the BART

Intersections at El Camino Real and Coleman Avenue will need to be improved for pedestrian safety and access to the Transit Station.

A conceptual view of the BART overpass and Caltrain connection is shown above. Source: BART extension to Milpitas, San José, and Santa Clara EIR, November, 2004.

facility. Optimally, residents should be able to access the Station without crossing major roadways or infrastructure.

- *Residents to retail and neighborhood services.* Residents on both sides of the rail corridor should have safe and attractive routes to the Benton Street corridor to the west and Center Street retail area. They should be able to easily walk to neighborhood-serving retail or restaurants within their subdistrict, without having to cross major roadways.
- *Direct bicycle connection from El Camino Real to the BART Station and parking garage.* Bicyclists need a simple, direct connection that will not require walking their bicycles, using elevators, or negotiating ramps that are commonly used on pedestrian overcrossings.

Regionally, the Station Planning Area is connected into both of the City of San José and City of Santa Clara bicycle networks via the street networks. The 2004 update of the City of San José Bicycle Plan proposes to add bicycle lanes to Coleman Avenue. The 2002 City of Santa Clara Bicycle Plan proposes to add bicycle lanes on De La Cruz Boulevard and Benton Street. The Santa Clara Plan also includes a special study corridor that is designated along the Caltrain right-of-way for the entire length of the city. The most significant regional bicycle/pedestrian facility near the Station Planning Area is the Guadalupe River Trail, which is located approximately one mile east of the Planning Area and is accessible via Coleman Avenue and Hedding Street. The opening of new pathways through the Planning Area would facilitate regional bicycle movement and connections between regional and city networks.

PLANNED IMPROVEMENTS

Connections Across Railroad Tracks

Two new connections are proposed:

- *Proposed Underpass.* The planned roadway cross connection (underpass) would also serve as a bicycle and pedestrian link between the east and west sides of the Planning Area. While this would be a lengthy pedestrian crossing, this connection would allow bicyclists an easy and direct route to the central boulevard on the east and BART transit facilities.
- *Newhall Street.* A third pedestrian and bicycle overcrossing is proposed at the eastern end of the Planning Area at Newhall Street. This connection would provide an additional location where pedestrians and bicyclists can cross the Caltrain and BART tracks and travel between the Planning Area and adjacent neighborhoods. Located where the BART tracks emerge from below grade, this connection would provide a shorter overcrossing over the Caltrain tracks. In addition, this connection would also improve accessibly to regional facilities such as the Guadalupe River Trail as well as movement between San José and Santa Clara.

In addition to these connections, the Plan also identifies planned and proposed connections, that although are located in the Planning Area are part of separate planning efforts. Since the Station Area Plan and these planned improvements are mutually beneficial, they are discussed in the context of the Plan.

In the future, a new pedestrian connection is proposed across the Caltrain and BART tracks as a

Figure 3-3

Visions for Pedestrians and Bicycles/Connectivity

Biking:

- Class I
- Class I Conceptual Alignment
- Class II
- Class III
- Mid-block Pedestrian Connections
- Proposed Parks & Open Space
- Existing Parks
- Proposed Bike/ Pedestrian Overpass
- BART
- Caltrain
- Union Pacific Tracks
- Automated People Mover

Potential East-West Connection

- *Below Grade*
- *Ramp*

- Planning Area Boundary

component of the BART project. A pedestrian and bicycle overcrossing would be available during BART operational hours to connect the BART platform with the BART parking facility to the east, both Caltrain platforms, and Railroad Avenue, El Camino Real, and Benton Street to the west. While the primary purpose of this connection is to provide access to the BART Station, the creation of this link would improve mobility for pedestrians and bicyclists from the broader community including Santa Clara University, downtown Santa Clara, and development located along Coleman Avenue. However, this crossing requires dismounting from bikes to use either stairs or elevator to cross. In addition to the planned overcrossing, an underpass connecting the Caltrain platform to the BART Station area has also been identified as an optional extension of the planned Caltrain underpass between the western and central platforms. However, while the inter-platform underpass is anticipated with the central platform expansion of the Caltrain station, the extension across the remaining tracks is not currently funded by either Caltrain or BART.

Local Improvements

In addition to these linkages across the tracks, pedestrian and bicycle circulation systems should be created within both the eastern and western portions of the Planning Area. The backbone of the pedestrian and bicycle networks would be the internal street network. Bicycle lanes can be provided on key internal roadways, and wide landscaped sidewalks can be accommodated along the internal roadways and through larger blocks. Mid-block pedestrian pathways would also permit greater porosity through the Station area. Likewise, internal ground-level circulation and open spaces can also be encouraged through new development to further enhance the pedestrian network.

Pedestrian and Bicycle Network Goals

3-G-4 Create a coherent system of pedestrian- and bicycle-friendly streets that support the use of alternative travel modes and directly connect the station areas and the residential, office, and mixed-use developments.

3-G-5 Link the internal pedestrian and bicycle circulation system to the existing and planned regional pedestrian and bicycle circulation facilities.

Pedestrian and Bicycle Network Policies

See Section 4.2: Streetscape Design for more detail on planned sidewalk/streetscape improvements and wayfinding signage.

3-P-5 Create internal streets that maximize safe and efficient pedestrian-oriented circulation by incorporating design elements such as wider landscaped sidewalks, reduced traffic speeds, pedestrian-oriented lighting, bulb-outs/curb extensions at intersections and on-street parking to buffer pedestrians from vehicles.

3-P-6 Provide bicycle facilities within the Planning Area that provide links between planned regional facilities adjacent to the Planning Area.

3-P-7 Investigate opportunities to extend a bicycle/pedestrian pathway along the west side of the rail corridor paralleling the tracks.

3-P-8 Encourage provision of bike racks and locking systems in all multi-family residential projects, multi-tenant retail and office projects, and government and institutional uses.

3-P-9 Encourage shuttle service within the Planning Area to reduce travel times from development outside the ½ mile radius to the Station.

3.3 PUBLIC TRANSIT

Local bus, bus rapid transit, and commuter rail service currently serve the Planning Area. The existing transit services are centered around the Santa Clara Caltrain Station, which is located on the west side of the Planning Area. Bus service within the Planning Area is provided by VTA and primarily operates along the Benton Street and El Camino Real/The Alameda corridors. Some limited bus service is provided in the Coleman Avenue/De La Cruz corridor. Four commuter rail lines have operations that stop at, or pass through, the Santa Clara Station. The existing commuter rail services operating within the Planning Area include: Caltrain, ACE, Capitol, and AMTRAK.

The existing average weekday passenger boardings (February 2007) at the Santa Clara Caltrain Station were reported as 663 passengers, which represents approximately 2 percent of the total passenger boardings for the Caltrain system. The existing commuter rail services would be supplemented by the BART extension and the addition of the people mover connection to the Airport. The Supplemental Environmental Impact Report (SEIR) prepared and certified for the BART extension indicated a future ridership of approximately 26,000 daily boardings for the Santa Clara Station. This was the third-highest in number of boardings anticipated for the six extension stations, placing the Santa Clara Station behind only the Diridon and Montague/Capitol stations.

Daily boardings identified in the SEIR did not include the high-intensity development anticipated within the half-mile Station area for

VTA bus lines will also access the BART Station area east of the tracks.

The Caltrain station and platform area will expand to include a center platform.

the Station Area Plan. Implementation of the planned mixed-use development with housing, retail, and office uses will make the Station area a more attractive destination and will increase potential BART and Caltrain ridership. Based on direct ridership forecasting techniques used to study other BART/Caltrain stations, the proposed Station area development could generate an additional 2,200 to 2,900 new daily passenger boardings. This increase in passenger boardings reflects the synergies created between the various land use components and are based on empirical studies performed at existing BART and Caltrain stations in the Bay region.

The Santa Clara BART Station will serve as the end-of-the-line for the BART extension project. Based on the SEIR, a substantial portion (56 percent) of BART patrons will access the Station by automobiles either for parking or drop-off. However, with the addition of substantially more residential units within the Santa Clara Station Planning Area, the Station will be able to capture more of the home-based residential commute trips which could be served with pedestrian and bicycle connections. The proximity of Santa Clara University to the Station will also make BART an attractive mode of travel for students, faculty, visitors, and staff. These patrons will access the Station as pedestrians, on bicycles, or via shuttles to/from the University campus. Finally, the APM connection to the Airport will also be a factor at this Station for travelers and visitors to the area.

With the addition of the Santa Clara BART Station, local bus operations will increase in service, serving both the Caltrain and BART facilities. While the existing bus station will remain, a new bus loading area is planned to be located on the east side of the Planning Area immediately adjacent to the BART Station on Brokaw Road. This new Station could increase the local transit and shuttle service in the Coleman Avenue/De La Cruz corridor. With expanded commuter rail service at the Santa Clara Station, additional shuttle service is anticipated between the Planning Area and activity centers located in Santa Clara and North San José.

Increased shuttle service and bus access to the BART Station will also benefit APM ridership. Connecting to the Airport, the people mover is proposed as an elevated automated transit system that would extend from the Airport and along Brokaw Road to the BART Station. Since the people mover is proposed to be elevated, passengers using the system would arrive in the Planning Area at the same level as the BART Station entry.

Local bus and bus rapid transit service will continue to operate along the El Camino Real/The Alameda corridor on the west side of the Planning Area. To increase the use of the commuter rail service within the Planning Area, local shuttles should be operated to attract more riders that work and/or live outside the typical half-mile walking distance.

TRANSIT STATION ACCESS AND INTEGRATION

The future BART Station will include a bus transit center as well as a “kiss-and-ride” loading area. The primary access point for these station access functions is proposed via Brokaw Road. Local bus

This conceptual section of the APM interchange at the BART/Caltrain Station shows the integration of bus, APM, and rail line through pedestrian underpass and overpass connections.

Source: BART Extension to Milpitas, San José, and Santa Clara, Final Impact Report, November 2004.

and bus rapid transit service will continue to operate along the Benton Street and El Camino Real/ The Alameda corridors and there are passenger loading areas anticipated on the west side of the Planning Area at the Caltrain Station. As mentioned previously, the APM would operate above Brokaw Road right-of-way. In addition a new signalized intersection is proposed at the current right-turn-in/right-turn-out access point to the Costco site approximately opposite Carl Street. This new connection would also provide access to the BART Station area. The new cross connection of the rail corridor can also enable buses and shuttles to access the BART Station area from locations south of the Planning Area. This centralized area would allow quick transfers between transportation modes and reduce the need for private automobiles by residents, workers, students, shoppers and visitors.

PEDESTRIAN/TRANSIT ACCESSIBILITY

In 1990, the Federal Government enacted the Americans with Disabilities Act (ADA). The ADA required all public agencies to adopt a Transition Plan identifying physical obstacles limiting access to programs, services, and activities by persons with disabilities. Both the City of Santa Clara and City of San José have transition plans. The City of Santa Clara updated its city-wide transition plan in 2002 and the City of San José is currently in the process of updating its city-wide transition plan. These transition plans will ensure that pedestrians and those with physical challenges will be able to access the Santa Clara Station Planning Area at all points.

New construction for the Planning Area's pedestrian circulation system and transit stations must comply with the requirements of the ADA. While the majority of the Planning Area is relatively flat, pedestrians will need to circulate within the multilevel stations and across the Caltrain and BART tracks. Therefore, pedestrian circulation will require vertical transportation options such as

mechanical systems (elevators and escalators) or ramps to ensure unobstructed pedestrian access consistent with the ADA. As with all new construction, the stations and the associated Planning Area buildings must comply with current ADA design standards.

In addition to following ADA design standards, it is critical to create an integrated system for accessibility throughout the Planning Area. An integrated system ensures that persons with disabilities can easily move between the various activity centers within the Planning Area. Creative planning is required to provide accessible routes that flow between buildings, the transit stations, and parking areas. For example, Appendix I of the VTA publication Community Design & Transportation—A Manual of Best Practices for Integrating Transportation and Land Use may be helpful and provides specific guidance on the best practices related to accessibility for persons with disabilities as of the date of this plan. This document provides examples of best practices in terms of designing user-friendly environments for individuals with disabilities. These best practices are focused on the goal of universal design, which has been considered in the design of the Station Area Plan. As best practices continue to develop, the most current should be considered as appropriate at the time of development.

HIGH SPEED RAIL

The California High-Speed Rail Authority is proposing a high-speed train system to provide a safe and reliable mode of travel linking major statewide metropolitan areas in the state. The Authority, in cooperation with the Federal Railroad Administration (FRA), released a Final Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) in September 2005 for the statewide High-Speed Train (HST) System. The Authority, with the FRA, has prepared a Program EIR/EIS that further examines the San Francisco Bay Area to Central Valley region as the second part of programmatic analysis in the tiered environmental review process. This second Program EIR/EIS generally describes the environmental impacts of a proposed HST system within the broad corridor between and including the Altamont Pass and Pacheco Pass.

The Authority has begun implementation of the 700+-mile high-speed train system serving Sacramento, the San Francisco Bay Area, the Central Valley, Los Angeles, the Inland Empire, Orange County and San Diego. The HST is capable of maximum speeds of at least 200 miles per hour with an expected trip time from San Francisco to Los Angeles in just over two hours and 30 minutes. The system is forecast to potentially carry over 100 million passengers per year by 2030.

The HST would share the Caltrain Peninsula alignment within the Santa Clara Station Planning Area. Station stops have tentatively been proposed in San José, Palo Alto/Redwood City, Millbrae (with connections to San Francisco International Airport) and downtown San Francisco. Recently, the Authority announced the selection of the Pacheco Pass alignment for the proposed system, which will allow the trains to directly serve Santa Clara, San Mateo, and San Francisco counties.

Public Transit Goals

3-G-6 Develop a multimodal transit center that provides convenient access to commuter rail, buses, shuttle, and taxi services.

3-G-7 With new construction, ensure access is provided for persons with disabilities within the rail stations and throughout the Planning Area development.

Public Transit Policies

3-P-10 Locate the highest intensity of development within a half-mile of the Station.

3-P-11 Coordinate with the VTA, major institutions such as Santa Clara University, and other appropriate organizations to implement:

- Internal shuttle service for local trips, connecting the station with activity and employment centers, and using smaller, cleaner vehicles for flexible neighborhood trips.
- Bus service modifications to improve service, and to increase transit accessibility when the internal shuttle and BART service begin.

3-P-12 Promote participation in an area-wide shuttle program or programs for development, both residential and non-residential.

3-P-13 For the BART station/campus design, include inviting, safe, enjoyable places, with shade, public art, landscaping, and memorable design features reflective of the surrounding environment. Coordinate with VTA to develop such a plan.

3-P-14 Provide uninterrupted access for transit services by minimizing travel paths and times for transit vehicles to enter and exit the Station area.

3-P-15 Maintain a healthy environment for transit patrons, pedestrians, and bicyclists by using alternative fuel vehicles (electric/compressed natural gas), where feasible, to transport persons within the Planning Area.

3-P-16 Ensure access is provided for persons with disabilities within the Station and throughout the Planning Area development.

3.4 AUTOMOBILE CIRCULATION

As described in Section 3.1: Street Network, the Planning Area is served by an extensive regional roadway network and is served by four key regional highways—I-880, US 101, SR 87, and SR 82. Automobiles will typically access the Planning Area from either Coleman Avenue or El Camino Real. The grid pattern planned for the east side of the Planning Area facilitates automobile access by creating multiple points of access into the Station area and the new development to the south. The proposed grid pattern disperses automobile traffic over multiple roadways, balancing the traffic volumes, and providing access to public and private parking areas. By balancing the traffic volumes over multiple roadways, the number of lanes and curb-to-curb widths of individual roadways can be minimized.

The proposed east-west underpass option should further expand the choice and ease of access within the Planning Area, providing a link between the east and west sides of the rail corridor. The new crossing will divert some traffic from the heavily-traveled De La Cruz Boulevard overpass at the north end of the Planning Area by providing more direct access into the new employment and Main Street districts as well as to the BART Station.

Automobile Circulation Goals

3-G-8 Provide sufficient capacity on the planned internal network to efficiently and safely serve local traffic needs.

3-G-9 Provide direct connections between the local street system and parking locations within the Planning Area.

3-G-10 Distribute traffic volumes on multiple streets and manage volume and speed of travel.

Automobile Circulation Policies

3-P-17 Encourage the street typology as described in *Chapter 4: Urban Design*.

3-P-18 Maximize the number of internal street connections to Coleman Avenue and El Camino Real and provide full access at these intersections to the maximum extent feasible.

3-P-19 Locate entrances to parking facilities as close to signalized intersections as possible to minimize auto circulation through the Planning Area.

3-P-20 Facilitate traffic flow through the Planning Area along El Camino Real, Coleman Avenue, Benton Street, and Lafayette Street by coordinating signal timings to minimize potential queuing between intersections to the extent possible.

3.5 FREIGHT MOVEMENT (RAIL AND TRUCK)

Union Pacific Railroad (UPRR) retains the right to provide freight operations within the Joint Powers Board (JPB)/Caltrain right of way; therefore, freight operations will continue to operate within the Planning Area. These freight operations take place outside of the peak commuter periods. Based on the proposed land uses within the Planning Area, the need for freight rail services in this area will be minimal. While freight operations will pass through the Planning Area, the rail freight operations should not directly affect the Station Area Plan proposed development.

Truck freight movement is currently allowed within the Coleman Avenue/De La Cruz and El Camino Real/The Alameda corridors. The Coleman Avenue/De La Cruz corridor serves as the truck route used to access the adjacent business parks and light industrial areas. The El Camino Real/The Alameda corridor is a part of the State highway system and is a designated truck route that serves businesses in the City of Santa Clara and Santa Clara University. The truck route corridor also serves the City of San José as it becomes The Alameda and Santa Clara Street. Both of these roadways will continue to be used by trucks to serve the Planning Area freight needs. Continuation of these activities may have potential impacts upon new development, including residential uses in particular. This will need to be addressed as the area redevelops.

Within the Planning Area, truck loading and waste hauling facilities for trash containment and removal will need to be provided for each of the office, retail and residential developments where applicable. To minimize the size of the internal roadways, loading areas should be located to avoid blocking vehicle movements. Ideally, these areas will be located within building structures where possible. Shared locations may be developed between land uses.

Freight Movement (Rail and Truck) Goals

3-G-11 Ensure that street cross-sections and turning radii are sufficient to accommodate truck access through and within the Planning Area.

3-G-12 Minimize disruption of traffic flow due to truck traffic and deliveries.

Freight Movement (Rail and Truck) Policies

3-P-21 Provide off-street loading areas for deliveries within the Planning Area.

3-P-22 Include detailed evaluations of truck access patterns and loading areas in site plan reviews.

Freight service will continue to run through the Planning Area along the Union Pacific right-of-way.

3.6 PARKING MANAGEMENT

As development occurs within the Planning Area, sufficient parking will be needed to meet the future parking demands of the various land uses. The provision and management of the on-site parking is directly related to several key issues including the efficient use of the internal circulation system, and integration of parking into urban design, transit uses, and economic development. The visions and goals for providing sufficient parking may complement, or compete with, one or more of these related issues.

As residential, commercial, and transit activity intensifies, there will be an increased need for parking within the Station area. The Station Area Plan seeks to balance this need to provide parking through a comprehensive approach to parking management. The Plan emphasizes reductions in the parking supply to account for shared parking and transit usage, while providing sufficient parking to support economic development. While transit access and transportation demand management techniques—such as carpooling—may reduce the level of increase in parking demand, new parking will be needed to support the proposed development.

The Station Area Plan does not include any airport-related parking since the Station is intended as an alternative to personal vehicle access to the Airport. Moreover, San Jose's adopted Airport Master Plan already has provisions for accommodating parking on-site, thus freeing up off-Airport property for Plan related transit-oriented land uses.

With the proposed mixed-use development throughout much of the Planning Area, numerous opportunities will be available to reduce the amount of parking supplied through the use of shared parking arrangements. Additional opportunities may exist to reduce the parking supply based on access to transit services. Reductions in the amount of parking provided within the Planning Area will be dependent on factors such as transit station access, size and mix (type) of land uses with complementary parking patterns, physical location of the complementary uses, cooperation between various land owners/developers for shared parking arrangements, and the phasing and implementation of these developments.

In order to accomplish shared parking among land uses, it will be important to work with the various land owners to develop a comprehensive parking system for the Planning Area. While there may be some single-owner mixed-use developments, the greatest opportunity for shared parking would occur if the various land owners work cooperatively. Since there may be some large areas of single-use development, arrangements should be made for all users to share parking with other developments where their peak parking demands occur at different times of the day. By working cooperatively to develop a larger shared parking pool, overall development cost savings could be achieved by reduced parking costs.

The extent and level of supply reduction due to shared parking would need to be determined as specific development proposals move forward. Once the mix of uses and size of a project is defined, a shared parking analysis should be conducted to determine the peak demand of

the project. The Urban Land Institute has documented a systematic approach to calculating shared parking demands in their publication entitled, "Shared Parking", Second Edition, 2005. The shared parking technique was developed from empirical data related to the daily parking characteristics of various land uses. The key to estimating the overall parking demand for a project is based on the interrelationship between the peak parking demand for each land use throughout the day. A shared parking analysis should take into account the peak parking periods during the day (weekday and weekend) and the peak parking for year (particularly for retail uses). Depending on the size of project and the operation of the parking facilities, supply reductions due to shared parking may be as small as five to ten percent or as substantial as 30- 40 percent.

With transit-oriented development, many residents and workers may choose to use commuter rail, BART, or bus to access the Planning Area. The increase in transit usage may reduce the overall demand for parking and, therefore, the need to supply parking. Further reductions in parking demand could be achieved, by promoting amenities such as car share and guaranteed ride home programs; as a convenience to promote transit use and minimize the need for personal vehicles. There are several articles that have been published that document reduced parking demand at transit-oriented developments below typical municipal parking codes. As is the case with shared parking, the level of reduction in the parking supply will be dependent on the characteristics of a specific project or projects. Transit parking reductions are generally related to the type of land use and accessibility to the station (by walking or shuttle).

The City of San José has established parking requirements in its Zoning Ordinance, sections 20.90.200 through 20.90.230 and shared parking in Table 20-100, that should be used for determining all parking requirements for development in the City of San José. Within Planned Development Zoning Districts in the City of San José, parking standards that depart from the Zoning Ordinance enumerated parking requirements may be considered at the City's discretion, and subject to a parking analysis by the project proponent completed to the satisfaction of the City of San José.

Parking Management Goals

3-G-13 Promote quality of life and business vitality by allowing the provision of parking to serve the needs of the Planning Area, while avoiding excessive supplies that discourage transit ridership.

3-G-14 In areas designated for mixed-use development, locate and design parking structures to accommodate the needs of all uses to maximize shared parking arrangements between the uses to the extent legally possible.

3-G-15 Distribute parking throughout the Planning Area to help balance traffic flow on the street grid network.

Parking Management Policies

3-P-23 Maintain flexible parking standards that balance the need for parking with the broader Station Area Plan goals of encouraging transit ridership, ridesharing, and nurturing the area's pedestrian appeal.

Encourage specific parking standards for the Planning Area in zoning regulations. Consideration should be given to reducing or eliminating minimum parking requirements to prevent oversupply.

3-P-24 Emphasize shared parking arrangements where appropriate to maximize efficient use of parking resources:

- Developing parking facilities that serve multiple uses, to enable efficient use of parking spaces over the course of the day and weekday/weekends.
- Allowing Station parking to serve neighborhood shopping, entertainment and other needs during off-peak hours (weekends and evenings).

3-P-25 Provide sufficient capacity at parking entrances to avoid queuing or backup onto the internal circulation system.

3.7 TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) seeks to provide alternatives to single-occupancy vehicular (SOV) transportation, reducing the number of vehicles using the street network at a given time; as well as parking need. TDM programs can be especially effective in large intense districts such as the Santa Clara Station Planning Area, and when coordinated through large institutions.

The Planning Area will have extensive transit opportunities with both BART and Caltrain stations. In addition, feeder bus service to the stations can be used by residents and workers to access the Planning Area. With the increased use of transit, reduction in parking demand would be feasible. If a formal TDM program is implemented for the Planning Area, further reductions may be attained in the overall parking demand through the implementation of carpool and vanpool programs by employers.

Transportation Demand Management Goals

3-G-16 Encourage use of Transportation Demand Management strategies to minimize traffic contributions from new and existing development.

3-G-17 Promote use of Transportation Demand Management programs throughout the Planning Area, and in particular for large, new development projects.

Transportation Demand Management Policies

3-P-26 Apply a Transportation Demand Management (TDM) program to development exceeding 25,000 square feet of non-residential space to the greatest extent feasible.

Components of TDM programs could include:

- Bicycle parking, both short- and long-term, located in appropriate places.
- Carpool and vanpool ride-matching services.
- Designated employer TDM contact.
- Providing direct routes to transit (station, shuttle, or bus) that is well-lit and designed for pedestrian comfort.
- Free and preferential parking for carpools and vanpools.
- Guaranteed ride home for transit users and car/vanpoolers.
- Information boards/kiosks.
- Passenger loading zones.
- Pedestrian connections to surroundings.
- Promotional programs.
- Showers/clothes lockers.
- Wayfinding and signage.
- Bicycle- and pedestrian- friendly site planning and building design.

3-P-27 Consider including a TDM requirement within the city zoning ordinances.

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CHAPTER 4
URBAN DESIGN

This chapter focuses on issues of public realm, identity, character, livability, and experience within the Station Planning Area. Policies and guidelines focus on the built form and character of the Station Area, and the creation of a cohesive district that connects and relates to surrounding neighborhoods and districts.

Both Santa Clara and San José are environmentally and culturally rich—with a favorable, warm climate and connectivity to regional parks and river ways. The Planning Area and its surroundings have a deep cultural history embodied by the Santa Clara Mission and Santa Clara University—the oldest institution of higher learning in California. The Old Quad and the Newhall neighborhoods directly adjacent to the Planning Area have a traditional street grid system, as well as numerous historical buildings and well-established neighborhood character. The Santa Clara Depot is on the National Register of Historic Places.

While the Planning Area is flanked to the south by traditional neighborhoods with short blocks, the Planning Area itself contains some very large parcels, formerly occupied by industrial uses, as well as large blocks of active industrial and warehousing uses. As these uses redevelop, they provide an opportunity for establishing a new, fine-grain and pedestrian-oriented street grid around the station. The Station Area Plan capitalizes on these unique opportunities, creating an outdoor-focused, sustainable environment that emphasizes vitality, connectivity, and gathering places that reflect the area's history and community character.

The Station Area Plan envisions the Planning Area as a gateway into both downtown Santa Clara and to San José via El Camino Real/The Alameda and Coleman Avenue/De La Cruz Boulevard. This node of activity is comprised of a dense collection of compact, vital districts that provide energy and identity to the Station. Diversity in scale, design, and texture will help build complexity and an

engaging human experience. Likewise, variations in building height, massing, and open space will create both visual and physical markers for the Station as a gateway and identify more intimate settings for neighborhoods and parks. This chapter seeks to establish a policy framework for new development:

- Maximize the opportunity to create a more walkable environment surrounding the Station—emphasizing the public realm, a grid street network, and public spaces;
- Foster vital and active street life along retail street districts, aided by maximized sunlight penetration into streets and open spaces;
- Build upon historic and cultural assets to promote richness and identity for the Station area;
- Ensure that development is designed with a pedestrian orientation within the Station Area;
- Promote fine-grained development where appropriate, while enabling desired development intensities to be achieved; and
- Enlist Green Urban Design principles to create a foundation for sustainable development throughout the Planning Area.

Many of the urban design components addressed in this chapter directly relate to land use and transportation topics covered in Chapter 2: Land Use and Chapter 3: Circulation, Access, and Parking: these include land use and character, street grid, street design, and street designations.

4.1 URBAN SCALE AND DESIGN

This section describes the overall scale and design character of the Station Area Plan, and includes description of the Planning Area in both a macro and individual design zone scale. Illustrated in Figure 4-1 and discussed in greater detail at the end of this section, these zones describe specific activity nodes and changes in scale and character. They provide a more detailed understanding of the relationship between the Station and surrounding uses. Thus, the goals, policies, and guidelines at the end of this section provide a similar hierarchy, where the goals and policies address the Planning Area as a whole to establish an overall continuity. The urban design guidelines that follow are organized into Planning Area-wide and zone-specific guidelines.

DEVELOPMENT SCALE

The existing development scale in the Planning Area reflects the industrial character and uses of the area along the rail corridor. These industrial uses utilize extensive land area, with parcel sizes ranging from just below three acres in the northern industrial area along Martin Avenue to well over 20 acres within the FMC site. These developments are comprised of large, primarily single-story buildings with expansive surface parking lots and outdoor storage areas. Building coverage and overall intensity are low, especially on sites with extensive outdoor uses. As a result, this less-intense and dispersed massing of development lacks both visual continuity and a sense of place.

Figure 4-1

Urban Design Zones

- Caltrain
- Union Pacific Tracks
- Automated People Mover
- Planning Area Boundary

The overall scale of the Station Area Plan is a departure from this existing lower-scale traditional suburban pattern to a decidedly urban fabric that is integrated with the existing surrounding neighborhood. The proposed increased densities and mixed uses around the Station Area will add much-needed residential capacity to the City of Santa Clara's housing market; make public transit more viable; and contribute to sustainable development patterns. The development scale represents the area's regional function as a transit hub, job center, and new neighborhood for urban living. Within this overarching urban theme, the Station Area Plan defines an area that is diverse in scale and character; where specific subareas, or zones, are emphasized through height and massing, according to their role and location within the Planning Area. As shown in Figure 4-1, these areas are defined as seven distinct urban design zones within the Planning Area: the Station Area, Transition Areas, El Camino Real, Martin Avenue, Coleman Avenue, Benton Street, and Campbell Avenue Zones. The most intensely-developed zone is the Station Area Zone, which is generally located around the station with a focus along Brokaw Road and the new surrounding mixed-use and residential areas.

Station Area Zone

The most significant amount of development and intensity is planned within the core, or within a quarter-mile radius, of the Station Area, as defined in Figure 4-1. This area is comprised of three urban design zones—Station Area, Transition Areas, and the El Camino Real Zone. The scale of development in the Station Area Zone is the most intense, and is urban and dense in character, with the tallest building heights in the Planning Area (see Figure 4-4). Generally, the non-residential mixed-use buildings planned along Brokaw Road form the core of the Station Area, and are emphasized by greater heights and high intensities of development up to 3.0 FAR; (see Figure 2-9). Mid-rise residential blocks are located immediately adjacent to this mixed-use node along Brokaw Road and lie generally within a five-minute walk of the Station. The block sizes within this area are minimized to generate a traditional walkable development pattern while providing adequate dimensions to support the various planned uses.

Station Area Transition Zones

Adjacent to the Station Area Zone, in the areas to the north and south, development scale transitions to a slightly less-intense character, with lower building heights and FARs. The overall attention to walkability and the pedestrian environment is expressed through building scale and street frontage; however, blocks may be larger in size in order to accommodate office, commercial, and hotel uses with larger floorplates. Over time, these zones will most likely transition into higher-intensity uses and a more walkable development scale with smaller block sizes and building floorplates.

El Camino Real Zone

On the west side of the rail corridor, the El Camino Real Zone is an extension of the urban scale of development surrounding the Station. Development scale includes heights of up to 100 feet and an FAR ranging between 2.0 and 3.0, with the

highest FAR along Railroad Avenue. While this zone provides a strong western edge to the Station, it also acts as a transition in scale to the adjacent, less-intense development pattern of historic Santa Clara and the Old Quad neighborhood.

Benton Street Zone

Adjacent to the El Camino Real Zone, on the opposite side of El Camino Real, the Benton Street Zone provides a buffer between the urban scale of the Station Area, and the predominant low-rise scale of the historic Old Quad. Along El Camino Real, this transition is defined by medium-high residential densities and on average, 50-foot building heights that create a distinct edge to the extended residential district. Development scale steps down in height and intensity as it nears the existing Old Quad neighborhood. As in the Station Area zones this zone emphasizes the pedestrian scale, especially along the Benton Street corridor between the Station and downtown Santa Clara.

Martin Avenue Zone

This area is located at the northern-most end of the Planning Area, between Coleman Avenue and the Airport. Many of the uses north of Brokaw Road and along De La Cruz Boulevard and Martin Avenue are well-established and perhaps the least likely to change within the planning horizon of the Station Area Plan. However, opportunities exist for both intensifying and connecting this area into the fold of the Station and surrounding employment activity. This includes potential extension of existing streets and a finer street grid, with smaller block sizes and greater intensities. Heights in this zone will range from one to two stories in less intense areas to up to 100 feet around Brokaw Road/Coleman Avenue intersection.

Coleman Avenue Zone

The future development scale in this area should vary, with the northern-most portion developed the most intensely and the southern-most the least, in keeping with proximity to the Station and Airport safety and height restrictions. Much of the area is within a ten- to fifteen-minute walk of the Station: thus, the design character of development within this zone should maintain a strong pedestrian orientation. Emphasis should be upon providing for a strong pedestrian connection to the Station from within the FMC site and along new streets and Coleman Avenue, including a potential new street or pedestrian way through the center of the FMC site. Additionally, providing flexibility in the overall structure of the development pattern and block layout will be key in allowing a fluid transition between interim uses and a potentially higher-intensity future build-out.

Campbell Avenue Zone

Similar to the size and scale of development within the Benton Street Zone, the character of the Campbell Avenue Zone should maintain a lower profile than the higher intensity Station Area. In keeping with existing and recently planned residential development along Campbell Avenue, and the adjacent low-rise single family Newhall Neighborhood, building heights are limited to 60 feet and residential densities to 20-50 hu/ac.

BLOCK SIZE

The Planning Area's original development pattern evolved from its location along the UPRR corridor, where large-scale developments and few connections across the rail corridor resulted in large block sizes. As shown in Figure 4-2, few streets penetrate this large block pattern, where almost a mile separates Brokaw Road from Newhall Street to the south. With the construction of the adjacent San José International Airport, connectivity to the surrounding area became even more limited, especially on the east side of the Planning Area.

The only portion of the Planning Area that has retained a greater level of connectivity and smaller block size is the area adjacent to downtown Santa Clara and the Old Quad neighborhood—west of El Camino Real. With the rich historical and cultural significance of the Mission Santa Clara and Santa Clara University, and well-established historic neighborhoods, this area has remained relatively intact. Block sizes in this area are roughly 2 to 2.75 acres, measuring 300 feet by 300-400 feet curb to curb, depending on the location.

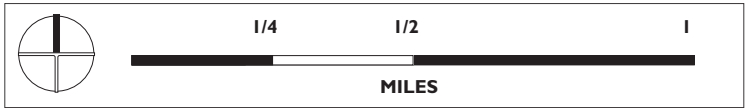
As the Planning Area evolves into a more urban environment with higher intensities, a new residential population, and emphasis on pedestrian movement, there is a need to ensure that new development is organized by a finer street grid pattern. Thus, as shown in Figure 4-3, the Plan proposes a new street grid for the eastern portion of the Planning Area. In the Station Area Zone, block sizes are small and designed for greater flexibility of movement. On average, these blocks are 2.5 to 3.0 acres and measure 300-350 feet from curb to curb. At an average walking pace, this means that each block length can be traversed in just over a minute, thus creating a finer-scaled, diversified pedestrian experience. In some locations, blocks are further divided by the extension of a street right-of-way for pedestrian use, where vehicular access would be limited to emergency use only. These mid-block pedestrian connections are illustrated in Figure 3-3 in Chapter 3: Circulation, Access, and Parking, as well as Figure 4-3.

Outside of the Station Area Zone, block sizes are larger, and represent a basic street network that can be expanded upon as development intensifies. For instance, in the moderate-intensity zone of the Coleman South, or FMC area, interim uses like large-format commercial development may retain the larger planned block sizes of roughly 400 by 1,000 feet. However, as these blocks redevelop with higher-intensity office and other non-residential uses, a secondary, smaller block pattern may be implemented as shown in Figure 4-3. Thus, additional streets are encouraged in this area to break down large blocks into approximately 300- to 400-foot blocks. Likewise, as other areas in the Planning Area are developed, a smaller block structure will be essential for both access and walkability. Whether the new streets that ensue will be public or private will be determined in conjunction with each city as sites are developed. Conceptual street sections for new and existing streets in the Planning Area are presented in Section 4.2: Streetscape Design.

Figure 4-2
Existing Block Pattern

Figure 4-3
Station Area Plan Future Block Pattern

Note: White dashed lines represent future potential extension or intensification of proposed block pattern.



HEIGHTS, MASSING, AND ARTICULATION

Heights, massing and articulation of buildings play an important role in establishing the character of an area. Generally, the entirety of all buildings, streets, and open spaces will set the tone of the district where single buildings play a relatively small role in determining the overall character. Buildings are the most present elements in the built environment due to their verticality. Their form influences the perception of space and enclosure and shapes the overall human experience.

Guidelines for the height, massing, and articulation of new buildings are key tools for the creation of an urban, walkable, and enjoyable environment. They also serve to define an area's character and visual identity. The Station Area Plan provides overall guidelines for development as well as more detailed standards for building character, massing, and design within each urban design zone.

Heights

The greatest concentration of taller buildings in the Planning Area are proposed for the core Station Area along Brokaw Road to emphasize the area's function as a transit hub and center for jobs and visitors. Generally, taller buildings are limited in their dimensions to prevent them from being out of scale for the area. Instead, their allowed scale create points of interest in the Station Area skyline.

Buildings of up to 150 feet in height are allowed in the Station Area and would be visible from surrounding areas and transportation corridors, clearly demonstrating the location of the Station and immediate Station Area. The average height of the office buildings and hotels in this area can range between seven (7) and 10 stories, with typical office floor heights of 14 feet. Residential and residential mixed-use buildings in the core area will be slightly shorter in height on average, ranging from six to eight stories with the occasional tower that may reach up to 150 feet. From the Station Area, building heights will incrementally step down to maximums of 100 feet, 70 feet, 60 feet, 40 feet, 35 feet, and 25 feet to ensure smooth transitions between new uses and existing, lower-height neighborhoods (Figure 4-4).

Towers and Floor Plates

Because full-block development at lower floors is envisioned in the most intense areas in the Planning Area, large-floor-plate building bases will likely result. To ensure generous light and views, towers above the base should be slender and spaced well apart. Variety of uses and floor plate sizes, step-backs, and building articulation, as well as reflectivity standards, can ensure that sunlight reaches the street level and public and open spaces.

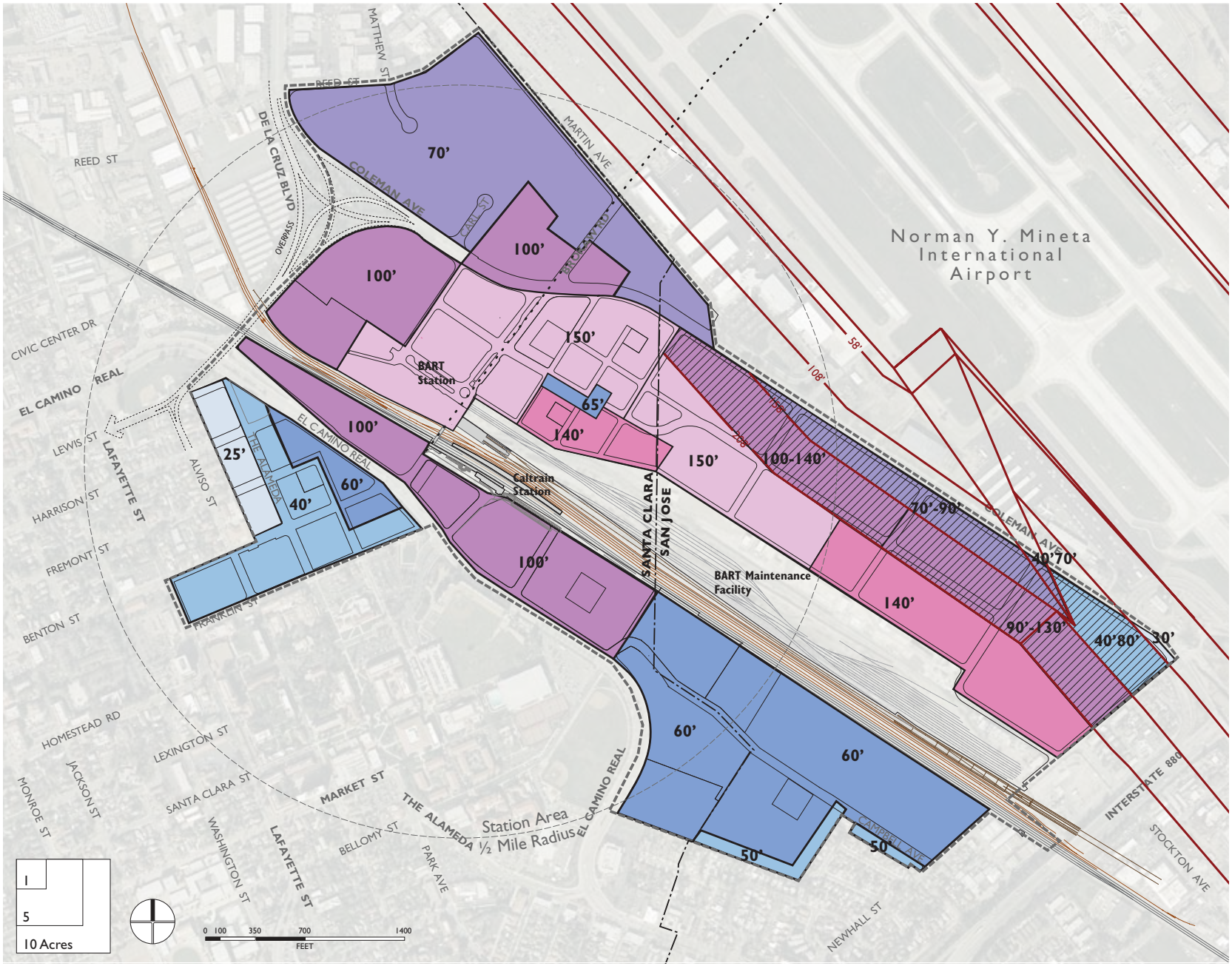


Figure 4-4

Maximum Building Heights

From Ground Level

- 25 or 35 feet as noted
- 40 or 50 feet as noted
- 60 or 65 feet as noted
- 70 feet
- 100 feet
- 140 feet
- 150 feet
- Sloped Surface[1]
- FAA Height Regulations
- Caltrain
- Union Pacific Tracks
- Automated People Mover

[1] Building heights limits vary throughout FMC site in relation to FAA Heights Limits and Ground elevation, which varies. Generally, building heights slope from Northeast to Southwest, in a perpendicular line from the runway alignment.

Mid-block pedestrian connections will expand the pedestrian network and access to the station.

Urban Scale and Design Goals

Development Scale and Block Size

4-G-1 Develop a new district that is urban in scale and an attractive and walkable place to live and work.

4-G-2 Develop the area as a showcase for mixed-use and transit-oriented development that has its own identity and strong presence.

4-G-3 Accommodate a variety of uses that are mixed vertically and horizontally to make the district as vibrant and heterogeneous as possible. Integrate a high level of flexibility in design to allow future change.

4-G-4 Create an area that builds on existing and future infrastructure and assets while respecting the scale and pattern of existing neighborhoods. Carefully design new development to provide transitions to surrounding lower density neighborhoods.

4-G-5 Foster a walkable and pedestrian-scaled environment within the Station Area and to connections beyond. Provide a network of streets and connections that expands circulation opportunities for pedestrians and bicyclists.

4-G-6 Create visual gateways through design and building massing to establish identity and to support wayfinding for the Station Area.

Building Heights and Massing

4-G-7 Maximize sky exposure and views along streets and at public spaces. Ensure that building height, massing, and tower spacing allow views to the Station from major arterials, including Coleman Avenue and El Camino Real.

4-G-8 Strive for slender towers in the residential district on the east side of the rail corridor, permitting a greater daylight/sky exposure for adjacent sidewalks and open spaces, as well as from a distance.

Urban Scale and Design Policies

Development Scale and Block Size

4-P-1 Limit block lengths between streets and add publicly-accessible pathways where street connectivity is limited. Mid-block pedestrian connections may take the form of a pedestrian access way or a shared pedestrian/emergency services path.

4-P-2 Maintain an open, walkable environment throughout the Planning Area:

- In higher-intensity areas within the Station Area[1], provide space at ground level for enhanced pedestrian connections, either through open promenades or internal semi-public pathways; and

1 As defined in Chapter 1, the Station Area encompasses the area within a 1/2 -mile radius of the BART Station. Figure 2-6 shows the Station Area radius.

- Avoid security gates in all areas of the Planning Area.

Building Heights and Massing

4-P-3 Restrict building heights as indicated in Figure 4-4 and/or in the following situations:

- Around parks to maintain maximum daylight/sky exposure. (See Policy 2-P-29.)
- Adjacent to the Old Quad and Newhall residential neighborhoods, stepping down to two or three stories for a transition in scale, as identified in Figure 4-4.
- Throughout the Planning Area; consistent with policies and regulations for airport operations established by the FAA, the Airport Land Use Compatibility Plan, and the Airport Approach Safety Zones.
- For tower separation to increase sky exposure for developments with multiple towers. (See Guideline GL-3.)

4-P-4 Establish gateways with taller building heights, and distinctive architectural design at the intersections of Brokaw Road and Coleman Avenue and Benton Street and El Camino Real.

Building Articulation and Design

4-P-5 Promote fine-grain development along retail streets, using horizontal and vertical building articulation that engages pedestrians; and diversity in color, materials, scale, texture, and building volumes.

4-P-6 Use mixed use districts to showcase innovative design that embraces urbanity and integrates public transit.

4-P-7 Accentuate major gateways in the Planning Area, particularly around the Station, at the intersection of Brokaw Road and Coleman Avenue, and at El Camino Real and Benton Street. Take special care with façade treatments at these high-visibility locations.

4-P-8 Define standards for building reflectivity to maximize daylight on sidewalks and streets, and minimize glare.

Site Planning and Open Space

4-P-9 Include sustainable landscape design as an element of development. Incorporate onsite stormwater management through the use of covered retention areas, rills (narrow channels to aid water runoff), bioswales, and cisterns.

URBAN DESIGN GUIDELINES

The Station Area Plan provides both macro-scale urban design guidelines for the whole Planning Area to establish a unified, cohesive, and connected environment; as well as focused guidelines that are specific to each established urban design zone within the Planning Area. The zone-specific guidelines are illustrated with the use of figurative plan and massing diagrams. Provided as a tool for visualizing the zone guidelines, they suggest potential changes to the street grid and possible scenarios for future development and massing. Each jurisdiction may rely upon their existing TOD Guidelines or accept these.

However, the figurative plan and diagrams are conceptual in nature and act solely as a guide for future street layout and building massing.

Planning Area-Wide Guidelines

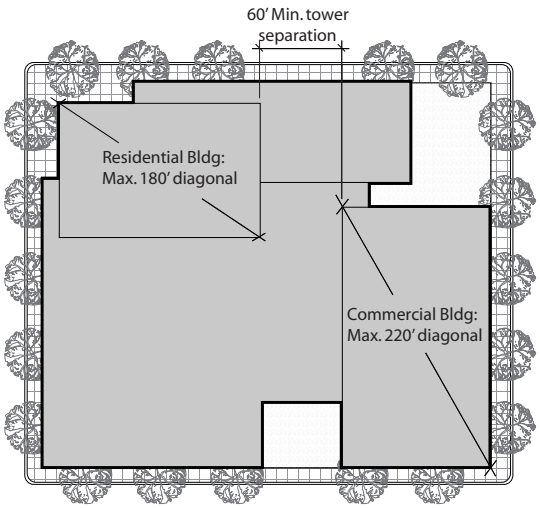
Building Heights and Massing

GL-1 The taller portion of a building (i.e., the tower) should not occupy more than 50 percent of the length of the lot dimension.

GL-2 Limit the diagonal dimension of the building footprint for buildings above 50 feet in height to 220 feet maximum for commercial buildings and 180 feet maximum for residential buildings. Refer to guidelines 44 through 53 for parking garages.

- Residential floor plate should not exceed 10,000 square feet.
- Floor plates of office buildings should not exceed 25,000 feet.

GL-3 Promote minimum tower separation of 60 feet between all building types.



GL-2 and GL-3

GL-4 Design the floor-to-ceiling height of the first floor to be greater than that of upper floors to accommodate ground-floor retail space where permitted. Generally, the height should be within 15 to 20 feet.

GL-5 Reduce the apparent bulk of a building by breaking it into smaller masses that correspond to the internal function of the building.

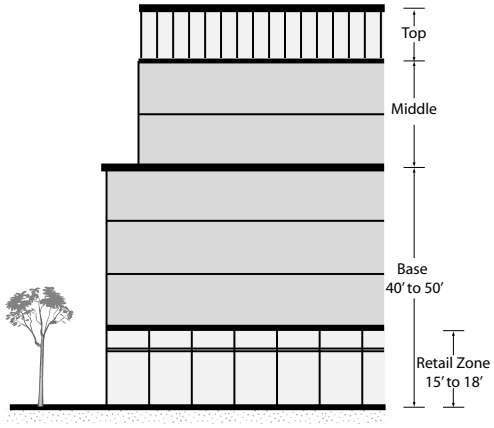
- Include features that add depth, shadow and architectural interest, such as balconies, recesses, cornices, bay windows, and step-backs at upper floors. Integrate features consistent with the style of the building.

GL-6 Buildings on the former FMC site should conform to customized standards of the approved zoning district for the subject site.

Building Form and Articulation

GL-7 Incorporate a distinguishable base, middle, and top:

- Distinguish the base of the building through the use of materials, massing, or articulation of the façade.
- Include a portion of the top habitable floor and penthouse for mechanical and other equipment. The use of different materials, or façade rhythm, is encouraged to distinguish the top from the middle of a building.
- In cases where the overall height of the building would not allow a clear middle zone, the top can be placed above the base. This situation in particular may occur if a high base along a street frontage is intended.



GL-7

Variations and articulation of material create a finer-grain to larger masses (GL-5).

Varied massing and transition of scale reduce overall bulk (GL-5).

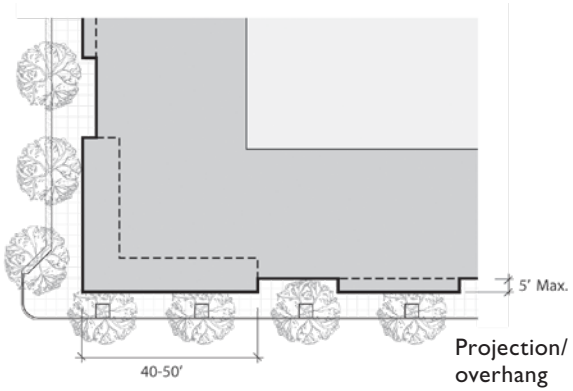
Identify entries through building massing materials, and articulation (GL-8).

Use windows, balconies and setbacks to break up building facades (GL-10).

GL-8 Emphasize street corners through building design:

- Expand the pedestrian realm at street corners with increased ground level setbacks.
- Reinforce street corners with changes in architectural massing and height.

GL-9 Allow a maximum overhang of five (5) feet for balconies, bay windows, and other building projections at the second floor and above if such overhangs are otherwise permitted.



GL-8 and GL-9

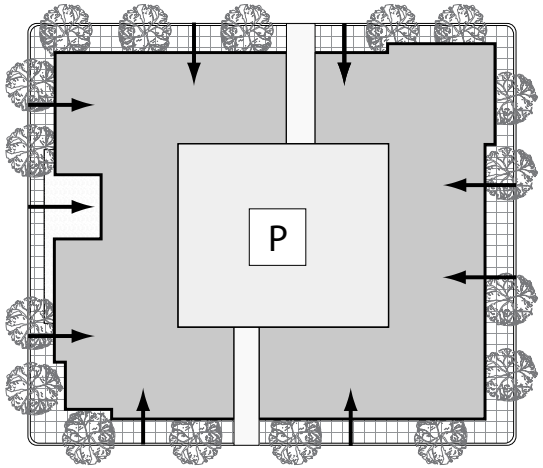
GL-10 Articulate building facades to break up the building mass.

- Incorporate design features, including but not limited to, windows, window frames, cornices, reveals, and brackets, with sufficient depth to create building articulation and shadow;
- Employ variations in floor level, facades (such as shallow recesses at entries, arcades, roof styles, architectural details), and finishes that break up the appearance of large buildings;
- Provide visual interest for residential buildings along street-facing facades through the use of stoops, porches, recessed windows, bay windows, and balconies.
- Integrate architectural features so that they are consistent with the style of the building.

Building Orientation, Entries, and Facades

GL-11 Locate and orient buildings along the street edge while maintaining required setbacks.

GL-12 Orient additional building entrances towards public spaces in combination with a high quality design of the building facades facing the interior open space as appropriate.



Entries along street edge (GL-11 and GL-12)

GL-13 Design building facades to include street-facing entries, windows, special corner treatment, and other articulation. Ensure that the primary facades and entrance areas of all buildings face the street, open space areas, or other pedestrian-oriented circulation areas, but do not obstruct the public right-of-way.

- Encourage windows and storefronts at the street level and ground floor to have clear, non-reflective glazing.
- Define building entrances with special architectural treatment including a recessed or projecting element.
- Emphasize building entries with small entry plazas, vertical massing, and architectural elements such as awnings, arcades, or porticos. Design entries so that they are clearly defined and distinguishable from the street.
- Provide a walkway leading from the street to the building entrance if not located directly off of a sidewalk.

GL-14 Enhance building entries and the adjoining pedestrian realm with plazas and landscaping. For retail development, orient multiple store entries to the plaza in addition to street-side entrances. Utilize outdoor space for cafés or other outdoor retail uses.

Building Design and Materials

GL-15 Use awnings to provide shelter and shade along the sidewalk of pedestrian-oriented retail streets to enhance and better articulate the pedestrian realm.

GL-16 Limit blank walls to no more than 30 percent of the principal frontage, and any section of blank wall to no more than 20 linear feet without being interrupted by a window or primary entry. For large-format retail buildings, see Guideline 20.

Utilize awnings entries, and continuous windows at the ground level to activate the pedestrian realm (GL-13).

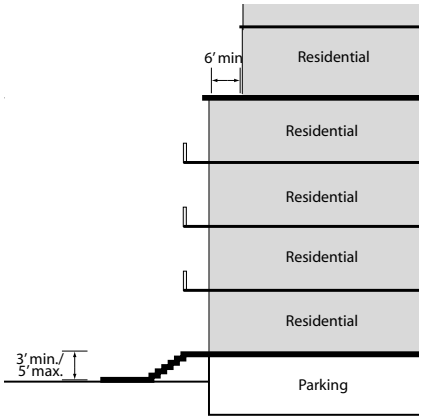
Residential entries raised and set back from the street (GL-16).

Employ variation in scale and form for residential development, allowing for both pedestrian and larger-scaled massing (GL-17).

Residential Buildings

GL-17 For residential development, design ground-floor units to have a direct relationship with the street and pedestrian realm. (Use balconies, stoops, windows, and courtyards.)

- Maintain a setback of ten (10) feet from the sidewalk or a raised ground floor height of three (3) to five (5) feet to ensure residential privacy.

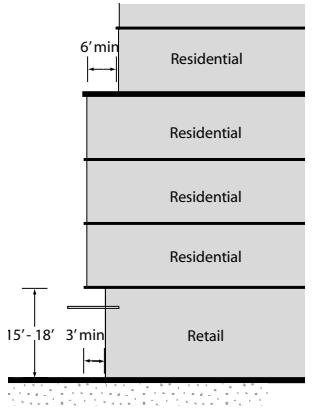


GL-17

GL-18 For residential development facing onto residential streets, green streets, or public open space, use more lower-scale residential forms such as two- to three-story or double-stacked townhomes at the street level with entries that are accessed directly from the street. For street types, see Section 4.2.

Commercial/Mixed-Use Buildings

GL-19 In buildings that accommodate retail on the ground floor, clearly address the public realm by providing glazing of at least 70 percent along the retail area facing the street. Utilize architectural elements such as recesses, awnings, colonnades, and pronounced entrances. Additional setbacks of three (3) feet minimum from the property line are encouraged to emphasize the retail zone and widen the sidewalk.



GL-19

GL-20 For commercial and retail uses at the ground floor along retail streets, orient entrances to the street and space no more than 50 feet apart. For street types, see Section 4.2.

GL-21 Where large-format, or big-box, retail (over 25,000 square feet in gross building area) is used, design buildings to support the transit-oriented environment of the Planning Area as follows:

- Locate and orient buildings along primary street edges and provide fenestration (windows, glass storefronts, and openings), signage, and entries. Fenestration and/or entries should occupy a minimum of 30 percent of the facade.
- Where entries orient to parking areas, provide continuous sidewalks from the street directly to the doorway.
- Blank walls should be no more than 30 linear feet without being interrupted by a window, primary entry, or design element: Employ a permanent trellis planted with vines or other architectural and landscape design elements incorporated into the building design to reduce the visual impact of blank walls.

Materials

GL-22 Use high-quality, durable architectural materials and finishes that provide a sense of permanence throughout the exterior and public interior spaces of the buildings.

GL-23 To minimize the overall environmental impact of development, give preference to sustainable materials, buildings systems, and technologies over conventional methods.

GL-24 Employ accent materials such as tile insets or natural stone at the ground level to add texture, color, and visual interest at the pedestrian level.

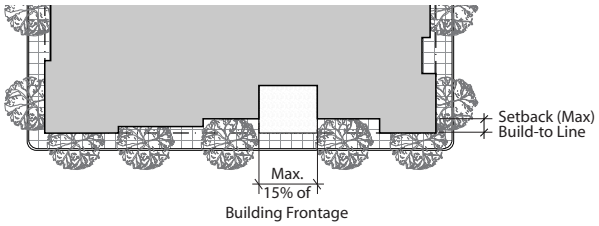
GL-25 Use water pervious materials for parking areas, driveways and pathways to the extent such that they do not cause damage to public streets or other infrastructure. Use sustainable surface materials for paving, such as reclaimed pavers, locally produced materials, or concrete and asphalt with fly ash content, for example.

Site Planning and Open Space

Site Planning

GL-26 Site new development to reinforce the street edge or corner, maximizing building frontage along primary streets throughout the Planning Area (including along boulevards, green streets, residential streets, and retail streets). See Table 4-1 for minimum building frontage standards for each urban design zone.

GL-27 Setbacks from the street are proposed for each street typology, as discussed in Section 4.2: Streetscape Design. Up to 15 percent of the building façade may be stepped back beyond the setback delineated for each Urban Design Zone. This allows entry courts, public plazas, and building articulation at the ground level.



GL-27

Encourage pedestrian activity by locating building entries onto public plazas where stores are grouped (GL-20).

Previous pavers can be used for parking areas as well as pedestrian connections (GL-24).

GL-28 Maintain neighborhood and street character by locating residential uses across the street from one another where possible. Use stepbacks, enhanced landscaping, and/or open space to buffer changes in use.

GL-29 Minimize the number of access points from streets or alleys to reduce the total number of curb cuts. Limit curb cuts along the following streets, unless no other access is feasible:

- Benton Street
- Brokaw Road
- Center Street
- central boulevard
- Coleman Avenue
- El Camino Real

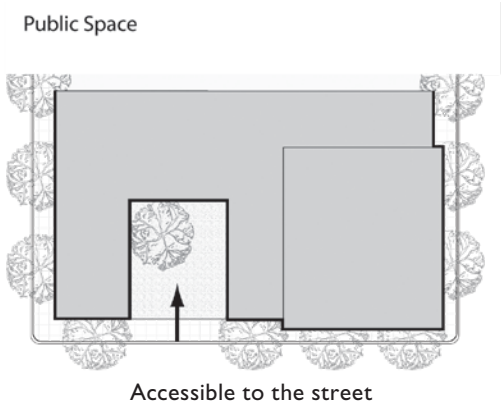
See Section 4.2 for streets and street typologies.

Open Space

GL-30 Encourage a minimum 20 percent block area for open space, 10 percent of which should be public open space visible or accessible from the street. A single plaza or courtyard should be provided equal to at least five (5) percent of the block area. Other areas may be for outdoor dining, building entrances, etc. Pedestrian rights-of-way can contribute to the public open space provisions:

- Up to 25 percent of open space may be covered by building above. If it meets minimum ground floor height of 18 feet for sites smaller than 15,000 square feet, 100 percent of open space may be covered by building space above.
- The grade differential of open space should be within four (4) feet of sidewalk grade.
- Public art should be included and equal to at least one percent of the value of plaza or open space improvements, or $5,000-50,000 (per 2008 dollars), depending on size or per jurisdictional ordinance.

GL-31 For residential uses, encourage a minimum of 100 square feet per unit, which can be balconies, rooftop gardens, pool, courtyard, indoor gym with windows, etc. Public parks located on the same block could count toward this provision.



GL-31

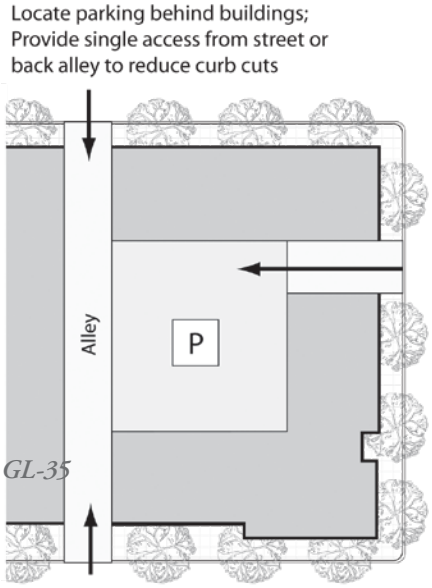
GL-32 The minimum dimension of a plaza, courtyard, or mid-block pedestrian connection cross-section should be 20 feet.

Parking

GL-33 Share access drives to parking facilities wherever feasible in order to reduce curb cuts and potential conflicts with pedestrians.

GL-34 Locate parking underground, behind commercial space, or in surface lots or stand alone structures toward the rear of the property. Locate surface parking lots away from street edges and vantage points at street level behind buildings and provide decorative, landscaped, or other screening.

GL-35 For surface parking areas, provide a ratio of 1:3 trees per parking space on the perimeter of the lot, and 1:6 trees per parking space on interior stalls, whenever possible.



GL-36 Landscape perimeter setback areas around parking lots and structures.

GL-37 Accommodate pedestrians and bicycle traffic with pedestrian-only pathways and bicycle facilities through parking areas. Shade these areas with trees and architectural elements such as trellises and awnings.

GL-38 Provide adequate bicycle parking stalls where both surface and parking structures are located. At a minimum, meet Leadership in Energy and Environmental Design (LEED) guidelines for bicycle parking spaces per land use: one (1) space per five (5) percent of non-residential building occupants and 1 space per 15 percent of residential building occupants.

GL-39 Ensure that bicycle parking is secure and weather-protected.

Private or Shared Garages

GL-40 In areas where traditional street and block patterns will be difficult to create, due to the configuration of land adjacent to the rail corridor, arrange development in a mews configuration that provides an internal focus as well as a street orientation, where applicable.

GL-41 Mews should be well-landscaped and display the character of a small urban street. Where feasible, planter beds with trees or potted plants should be located between garage doors and adjacent to porches.

GL-42 Organize at-grade garages for lower density residential development (i.e., rowhouses, townhouses) in well-landscaped mews and parking courts leading to individual garages.

GL-43 Encourage shared detached parking spaces (for example carports) in lower density residential development to generate car-free common spaces and play areas.

Parking Structures

GL-44 Where possible, locate parking structures away from primary pedestrian connections, as defined in Chapter 3, Section 3.2.

GL-45 Wrap at least the ground level of parking structures with active uses (commercial, residential, office, etc.) when such structures front along residential and pedestrian-oriented green streets and retail streets. See urban design guidelines for each zone for additional guidance along specific street frontages.

GL-46 Design parking structures that face the street as an architectural façade so that facades are attractive, cars are screened, and sloped floors are not exposed.

GL-47 Design facades as compatible extensions of adjacent multistory buildings. Either employ the same cadence of windows and massing as in adjoining or adjacent buildings, or use contrasting, high-quality materials that generate a multi-layered façade (for example glass, perforated metal, wood panels). Blank single-layered concrete façades are not desireable.

GL-48 Compose openings within the façade to appear similar to well-proportioned windows rather than continuous open strips.

GL-49 Use variation in the dimension and proportion of openings of the façade to create visual interest and to reduce the mass of the parking structure.

GL-50 Utilize decorative screen, railings, and trellis elements of durable, high-quality materials to provide variation and interest on the façade and at the ground level. Employ similar base materials and design as surrounding buildings on site to enhance the visual interest of the structure at the ground level. Similarly, use awnings, arcades, trellises, or porticos along street-facing facades and pedestrian connections.

GL-51 Locate pedestrian entries and stairwells within parking structures adjacent to public streets and along major pedestrian connections. Ensure that they are visually open and free of visual obstruction to promote a feeling of security and comfort and to minimize conflicts between pedestrians, bicycles, and vehicles.

GL-52 Emphasize stair towers and entries as identifying architectural elements.

GL-53 Locate garage entries off of alleys, minor, or side streets in the Planning Area, in a manner that minimizes pedestrian, bicycle, and vehicle conflicts.

An articulated facade with emphasis on materiality, massing and lighting provide visual interest and create identity for parking facilities (GL-49).

Automated parking garages are an option where space is limited, and have a much smaller typical footprint and massing than the standard parking garage.

URBAN DESIGN ZONES

The Station Area Plan encompasses a diverse area divided by several major infrastructure and roadway barriers. Land uses are distinct and related to their immediate context, and as such, several different design scales and characters are expressed in the land use and design plan for the Planning Area. For the purposes of describing each area in greater detail and in relation to its own context and location, the Planning Area has been divided into seven different Urban Design Zones. These are:

- Station Area
- Transition (North and South)
- El Camino Real
- Benton Street
- Campbell Avenue
- Coleman South, and
- Martin Avenue

In this section, each zone is described through both text and illustration. Key concepts are summarized and complemented by plan diagrams and three-dimensional representations with associated design guidelines. Guidelines for design standards for each zone are summarized in Table 4-1. While the design guidelines can be interpreted directly, the plan and block illustrations are figurative, and represent one of many possible interpretations of the guidelines.

Table 4-1: Conceptual Urban Design Zone Guidelines

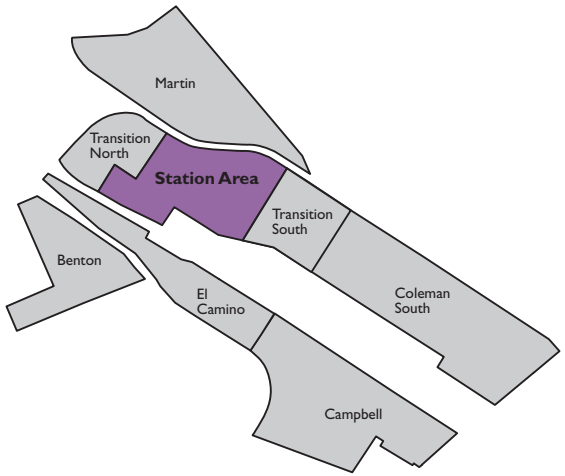
Guideline	Station Area	Transition	El Camino	Martin Avenue	Coleman Avenue	Benton Street	Campbell Avenue
Building Frontage	100%	100%	90%	70% where FAR>0.5	70% where FAR>0.5	90% on Benton Street	-
Encased/ Wrapped Parking	100% along residential and retail streets	100% along residential and retail streets	100% along residential and retail streets	-	100% if placed along Coleman Avenue	100% if placed along Benton Street	100% if placed along Campbell Avenue
Lot Coverage Minimum	80-90%	80%	80%	-	-	-	-
Setbacks	0-10';[1] 20-25' on Brokaw Road	0-10'	0-10'; 10-20' on El Camino Real;	0-10'; 20' on Coleman and Brokaw Road	10-20'; 20' on Coleman Avenue	5-10'[1]	5-10'; 10-20' on Campbell Avenue
Sidewalk Width[2]	10-12'; 15-20' on Center Street	10-12'; 15-20' on Center Street	5-10'	5-10'	5-10'	5-10'	5-10'

Note: Suggestions for building setbacks and sidewalk width per street typology are illustrated in Section 4.2.

[1]Along Center Street and Benton Street, a 0' setback is suggested.

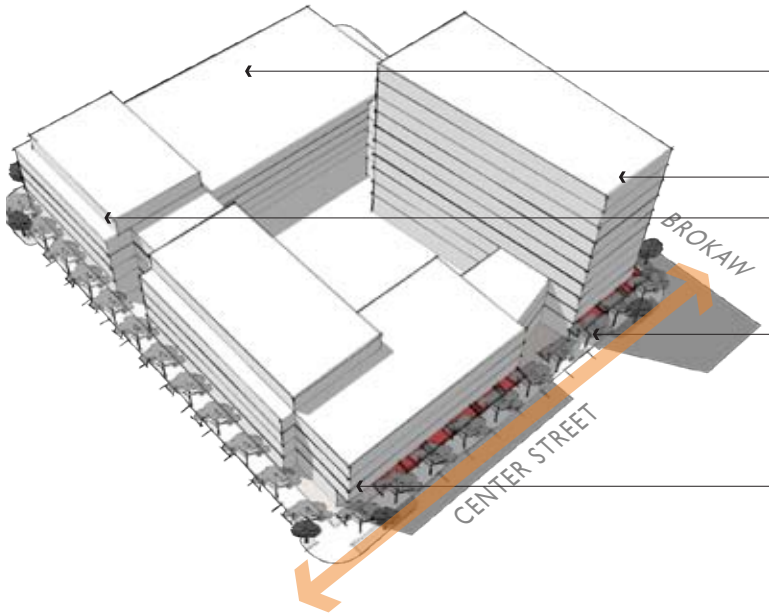
[2]Includes landscape elements like trees and planters as well as pedestrian amenities like benches and receptacles.

STATION AREA ZONE



The proposed character and form of the Station Area Zone reflects an urban type and scale of development where buildings line the street, and quality public spaces are provided between the building and the curb, as well as in plazas and courtyards along the street. The focus of the area as a whole is along Brokaw Road and the Santa Clara Station. While these will be the main focal point of the Station and surrounding area, pedestrian activity is aligned along the retail-oriented Center Street and around the central park. Taller building heights are located in the blocks adjacent to the transit boulevard, while height limits around the park and pedestrian-oriented areas allow more daylight and sky exposure to enhance the pedestrian realm.

The typical mixed-use block would be comprised of a four- to six-story base with taller towers and structured parking. This block type represents a basic urban building form with commercial, retail and other active uses close to the sidewalk, at the street level, to create interest for pedestrians. The typical residential block in this zone is similarly formed, with an average building base height of four stories and towers that reach up to eight to ten stories, to a maximum of 150 feet in most areas. Parking will either be wrapped by development or located along non-pedestrian-oriented streets. Opportunities for shared parking and reduced parking requirements are key components of the parking strategy in this zone. The plan diagram shows the overall form and relationship of buildings and parking to the block, street, and public space. The block illustrations represent axonometric diagram of a mixed-use block at the corner of Center Street and Brokaw Road, as well as a typical residential block.



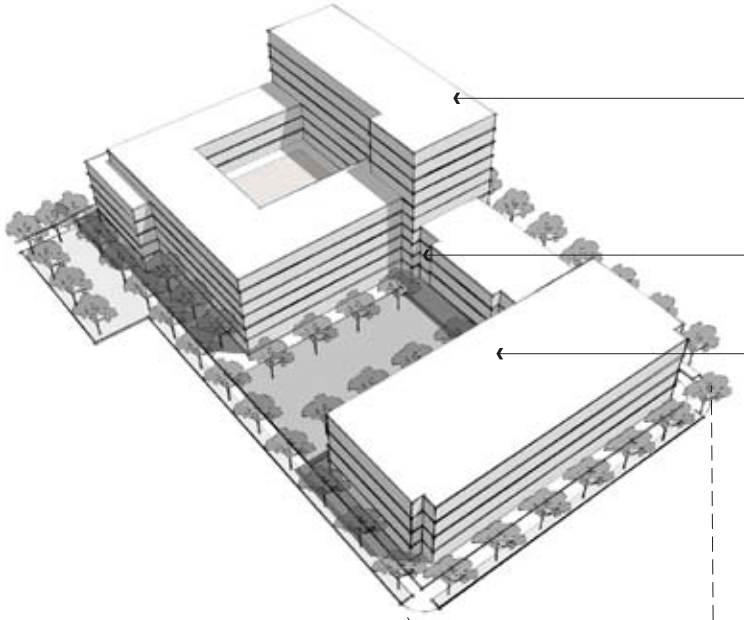
Locate parking structures away from public view on residential and pedestrian-oriented streets.

Locate taller buildings along Brokaw Road.

Wrap parking with habitable space (includes retail, office, and residential) on residential and retail streets.

Utilize setbacks, awnings, and enhanced articulation at the street level to emphasize human scale along pedestrian-oriented streets.

Emphasize street corners with changes in building mass and height.



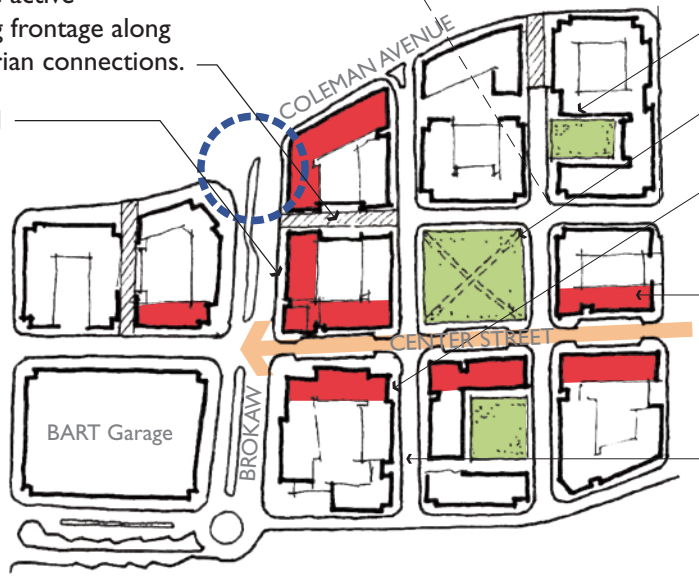
Provide a mix of housing types, including towers and smaller-scale typologies at the ground level to emphasize the pedestrian realm.

Orient facades and entries to public parks.

Plan heights of buildings adjacent to public park with sensitivity in design for shadows and sun access.

Provide active building frontage along pedestrian connections.

Along Brokaw Road maintain a 20 foot setback from the street to generate pedestrian-scale public spaces



Front potential open space with a consistent building edge.

Provide direct pedestrian connections through park areas.

Expand the pedestrian realm with small plazas with building setbacks of 20 feet deep.

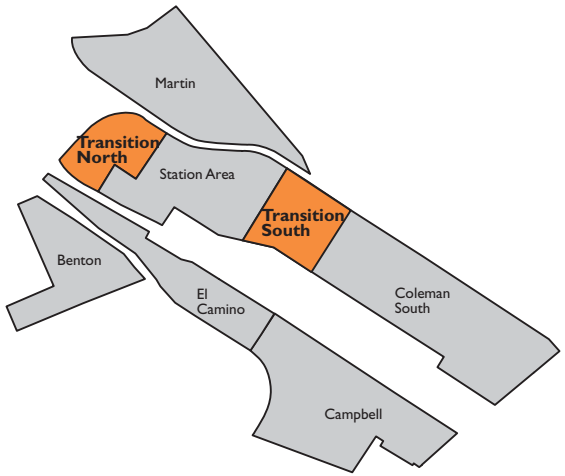
Maintain a consistent building edge and frontage throughout the Station Area Zone. Allow up to 15 percent of building wall to be set back from lot line.

Ensure that parking structures are wrapped by habitable space on residential streets and locate residential-compatible uses across from residential development.

- Open Space
- Pedestrian Connection
- Retail (Ground Floor)
- Gateway
- Potential Street
- Existing or Planned Street

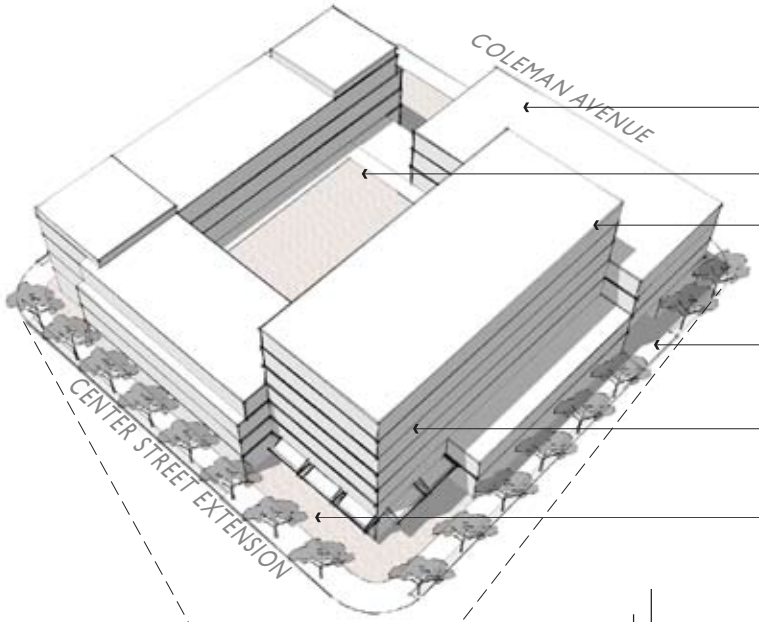
Station Area Zone Concept Plan

TRANSITION ZONES



Characterized by a change in scale and intensity, the Transition Zones adjoin the Station Area to the north and south and are within a five- to seven-minute walk from the Station. Thus, while intensities and heights are slightly lower in these areas, the proximity to the Station and ease of access necessitate an extension of the pedestrian-oriented, walkable environment of the Station Area. The northern Transition Zone includes the Costco site and is bound by the De La Cruz overpass and Coleman Avenue to the north and east, and a Santa Clara public utilities site to the west. Although essentially bound by these uses and infrastructure, future intensification of the site could include a more refined street grid and smaller block sizes as shown in the adjacent plan diagrams. Extension of Center Street will allow uses to be oriented along a central axis, with similar massing and orientation to the street as in the Station Area. Potential residential uses would be buffered from surrounding uses and noise impacts by open space and a wide landscaped setback along Coleman Avenue.

The southern Transition Zone is also a part of the FMC Planned Development District. However, as the transition between the Station Area and lower-scaled development in the Coleman South Zone, this zone should be more urban in scale and dimension. The plan illustration on the opposite page shows a more intense lot coverage than the Coleman South area—similar to that of the Station Area—where parking is structured and wrapped by habitable uses along major streets. Future breakdown of the larger block size suggests a smaller block size with roughly 300 x 400-foot blocks curb to curb.



Wrap parking with habitable space.

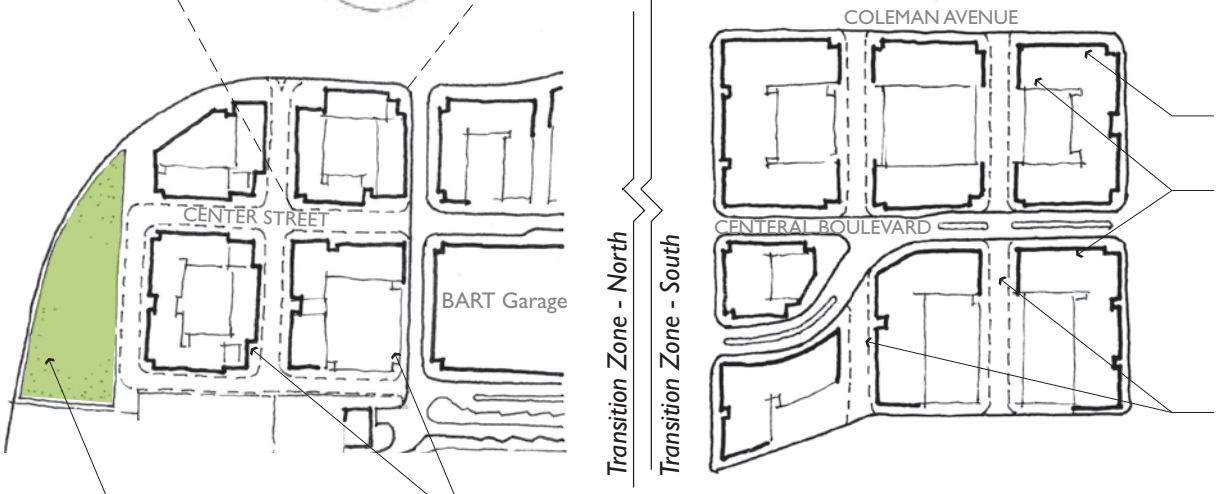
Utilize roofs of parking structures for open space.

Set back buildings of heights greater than 80 feet at least 10 feet where street-facing length exceeds 100 feet.

Locate garage entrances and curb cuts on side streets.

Emphasize street corners with changes in building mass and height.

Expand the pedestrian realm with small plazas, entry courtyards, and landscaped planter areas.



Maintain 100 percent building frontage throughout area.

Orient buildings to Coleman Avenue, the central boulevard, Aviation Avenue, and the new east-west connection. Wrap parking with habitable space along these and potential new pedestrian-oriented street frontages and public spaces.

Consider providing pedestrian/landscape rights-of-way every 300 feet to preserve opportunities for a smaller street grid in the future. These can contribute to fulfilling open space requirements.

Use open space and landscaping to buffer uses along De la Cruz overpass.

Wrap parking along Center Street and residential streets. Ensure that facing development is compatible to residential uses.

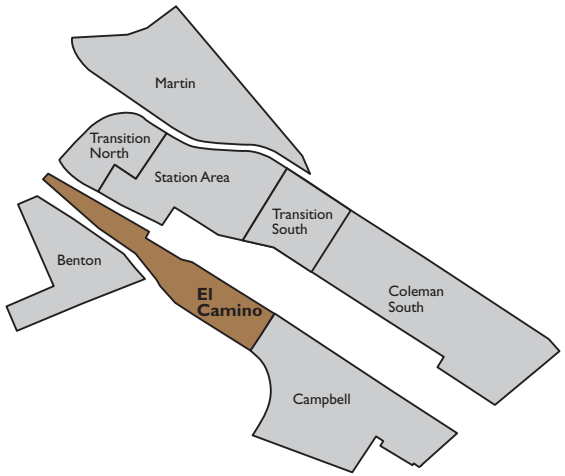
Open Space

Potential Street

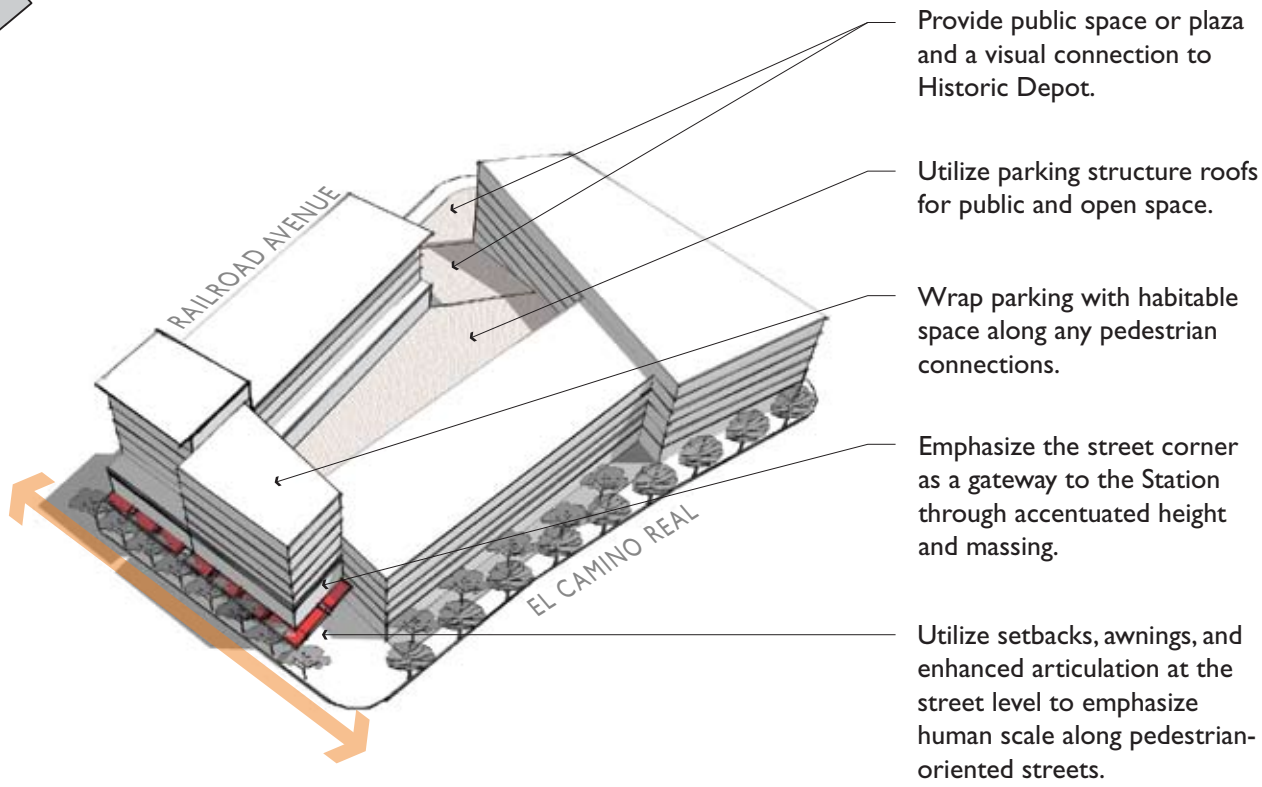
Existing or Planned Street

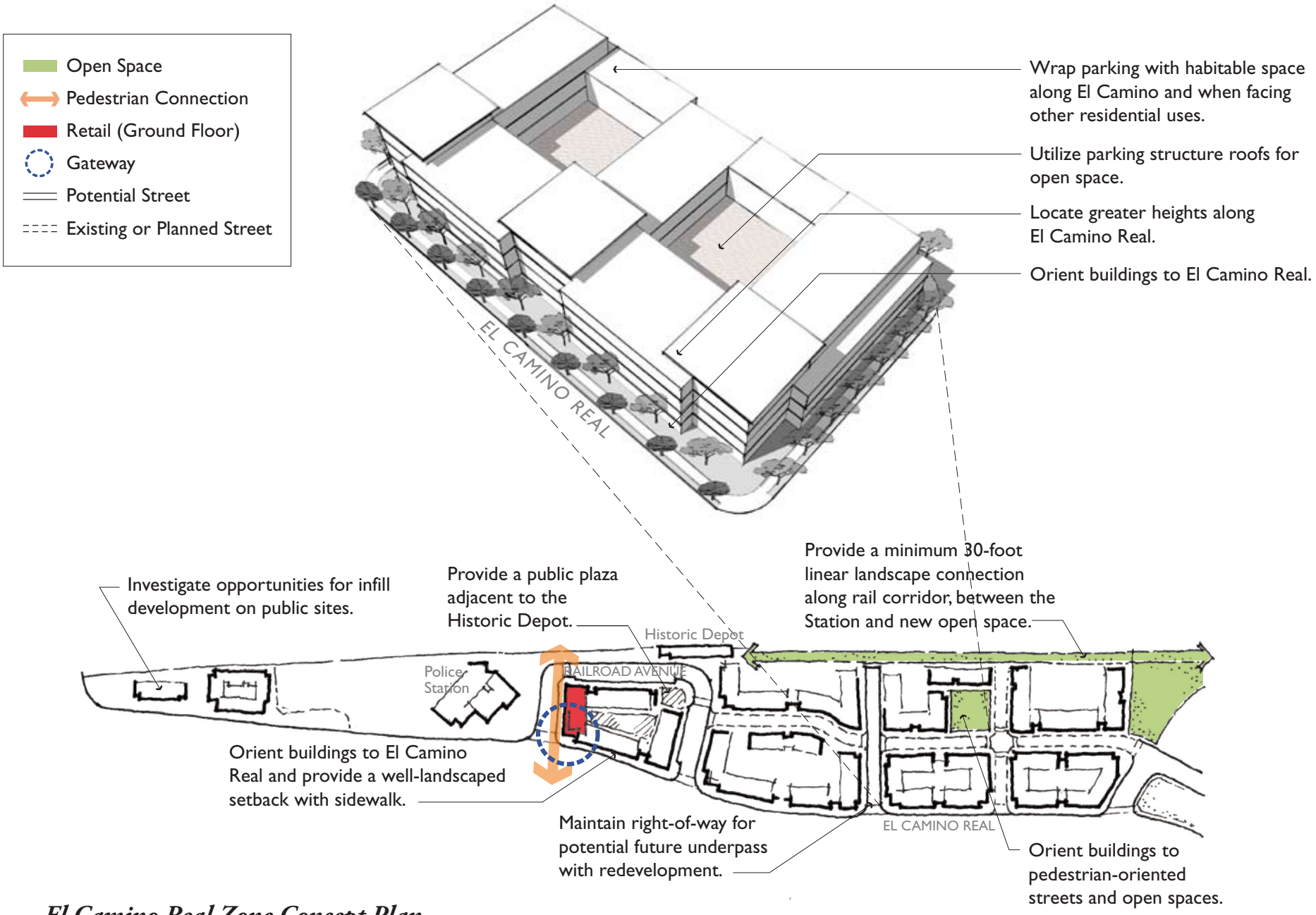
Transition Zone Concept Plan

EL CAMINO REAL ZONE



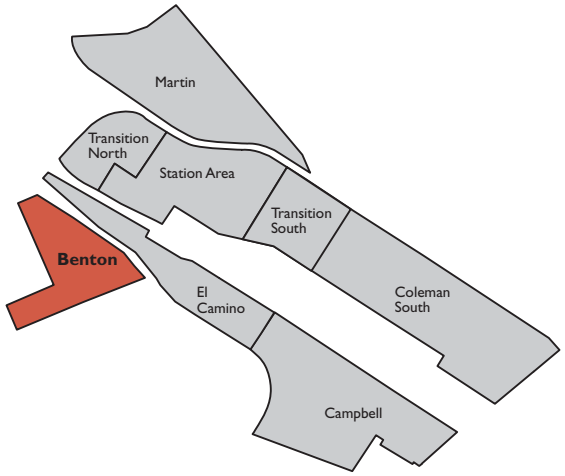
A narrow portion of land between El Camino Real and the rail corridor, the El Camino Real Zone is intended to be a transition in use and intensity between the high-intensity mixed-use Station Area Zone and the low- to medium-density residential Benton Street Zone and Old Quad neighborhood. The area's proximity to the Station and the potential new east-west connection make it a key location for a mix of commercial and residential uses: thus, the building heights and form are more intense in this zone. The average building form is comprised of a four- to six-story building with structured parking, with taller buildings up to eight stories, or 100 feet in height. A minimum of 90 percent of building frontage throughout the zone should establish an urban, pedestrian-oriented scale. Taller buildings are emphasized along El Camino Real and the intersection with Benton Street, where distinctive design and massing will act as a visual marker for the Station entrance. Along El Camino Real, a wide landscape setback is suggested to achieve an attractive boulevard streetscape and to buffer uses from noise and traffic.





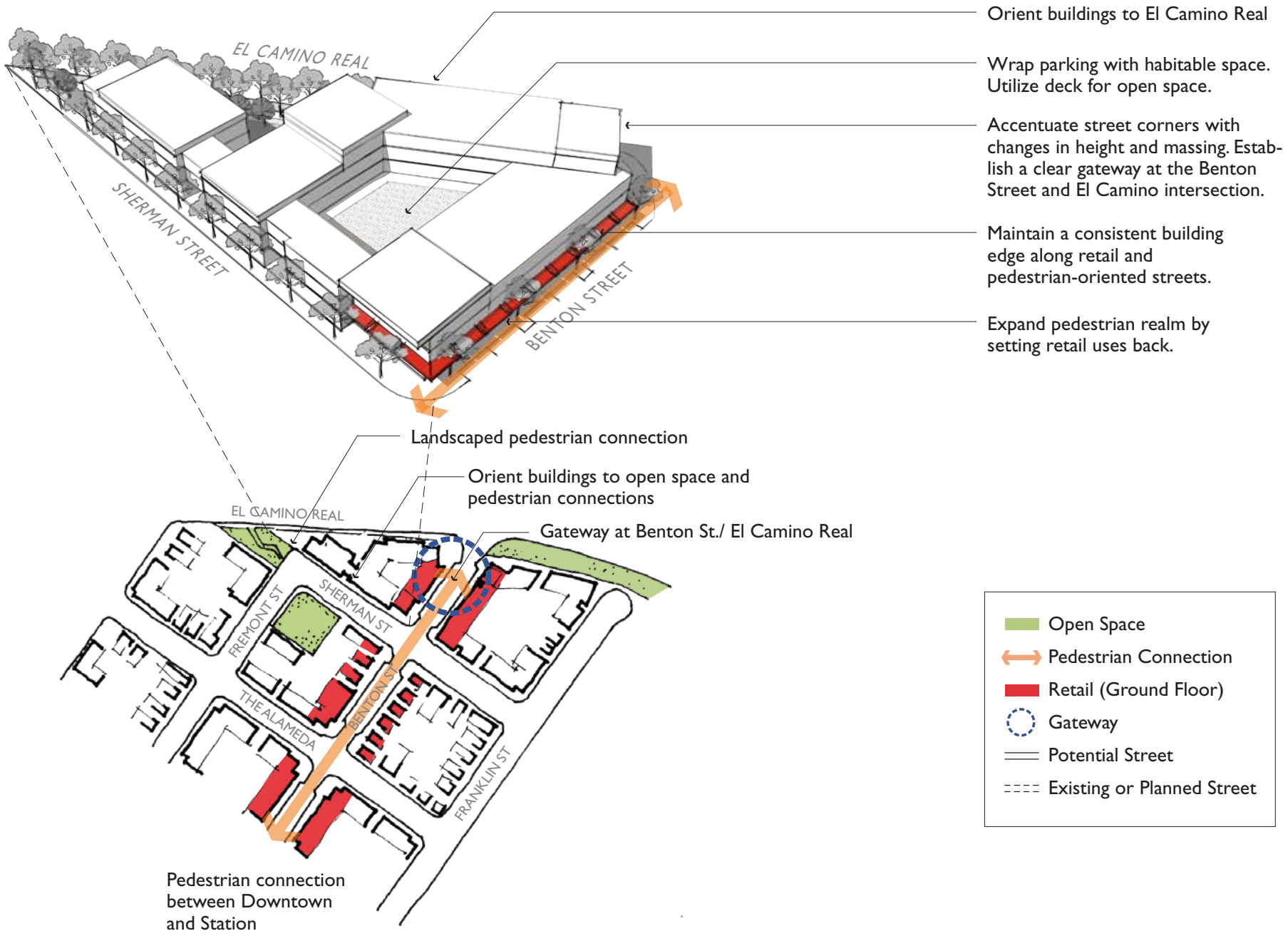
El Camino Real Zone Concept Plan

BENTON STREET ZONE



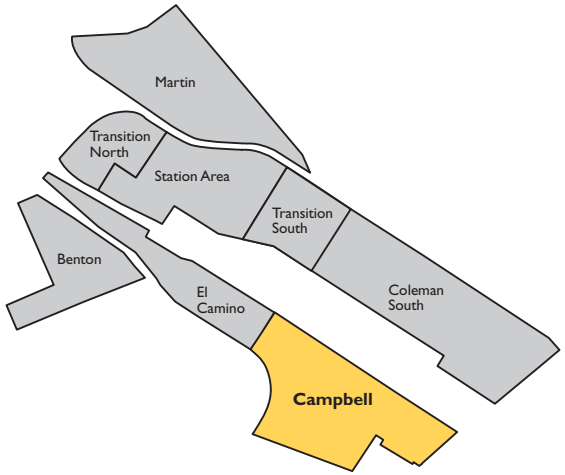
The Benton Street Zone retains the older fabric of the City of Santa Clara, with several historic sites and a smaller block pattern that is more oriented to a walkable neighborhood and pedestrian scale. Thus, provisions for this zone focus on establishing a consistent street design that is complementary to the historic pattern of the area; improving connectivity to adjacent areas like the Old Quad, the Station, and Santa Clara University; and encouraging restaurants and neighborhood-serving commercial development on Benton Street. Higher-intensity development on vacant and underutilized properties along El Camino Real and Sherman Street is appropriate; both to establish a gateway connection to downtown and the BART station, and to define the edge of the Benton Street Zone.

Average height in the area would be three to four stories. Along Benton Street, a minimum of 90 percent of building frontage should provide a strong built edge with active uses engaging and activating the pedestrian experience. Throughout the residential areas a minimum front yard setback of 10 feet would allow a slightly greater density, and would also complement the setbacks in the surrounding existing area that range between 10-20 feet. Greater lot coverage should be allowed to accommodate the slightly higher residential densities on the eastern end of the zone and along Benton Street. However, height limitations toward the west end of the zone ensure that development adjacent to the existing Old Quad neighborhood will remain compatible to the one- to three-story homes and structures in this area.



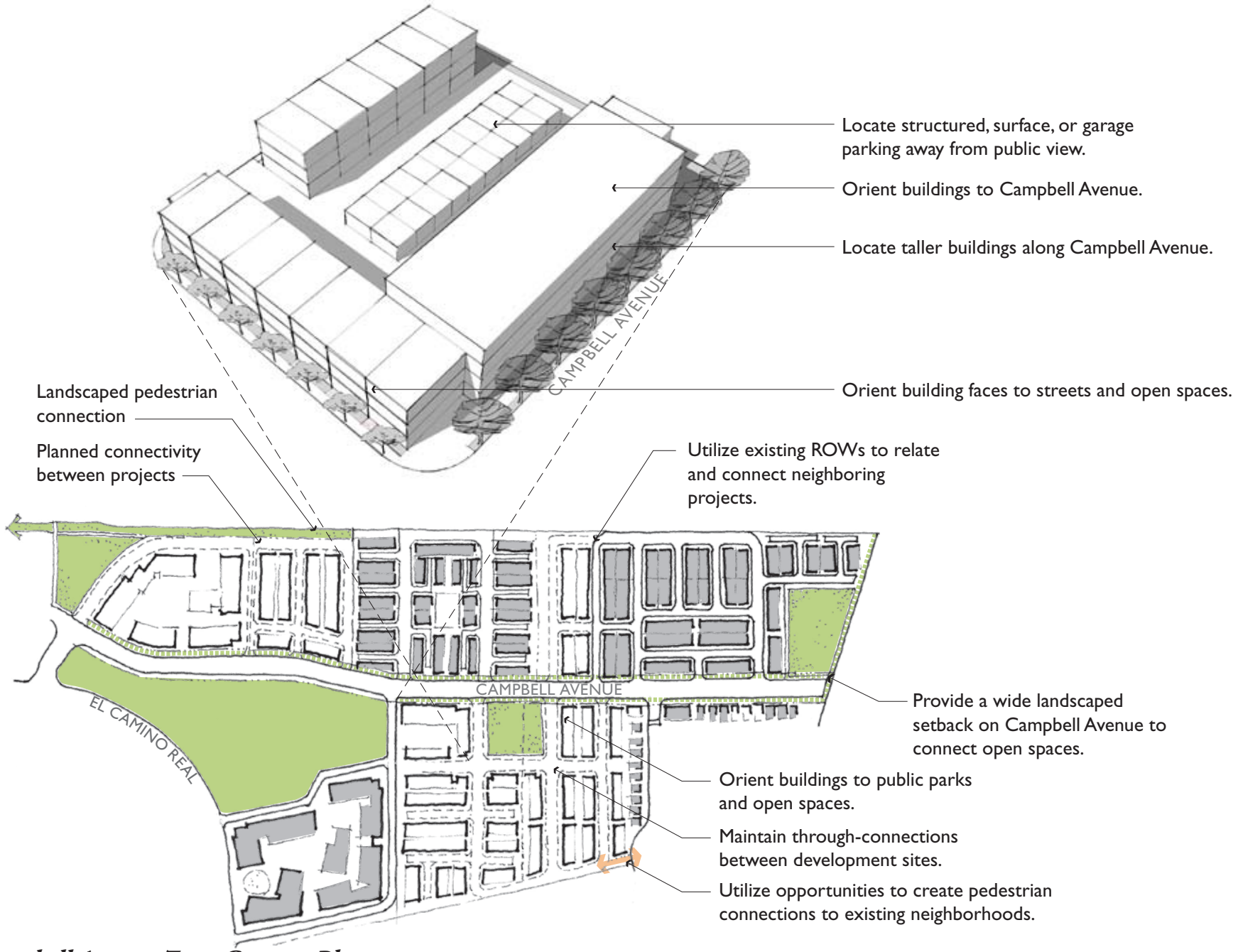
Benton Street Zone Concept Plan

CAMPBELL AVENUE ZONE



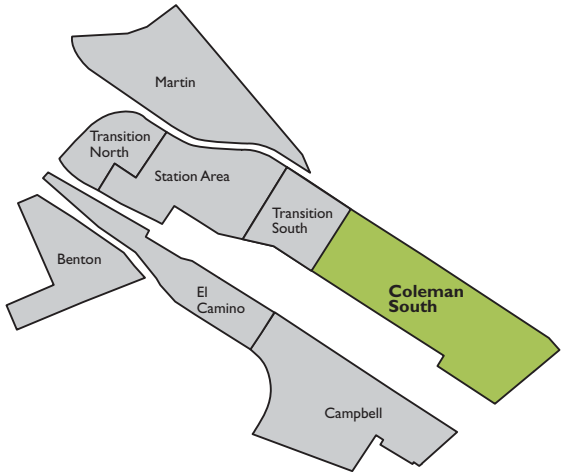
As an area that will continue to transition, urban design and uses in the Campbell Avenue Zone are geared towards the anticipated replacement of existing industrial development over time into mid- to high-density residential uses. Maximum height in the area should be 60 feet, with an average height of 50 feet, and lower heights adjacent to existing single-family residential uses. As sites develop incrementally over time, an important element of creating a more connected, walkable neighborhood will be the provision and planning for streets and pedestrian paths between developments. The plan diagram shows a future development pattern that hinges site planning of each parcel on existing and potential rights-of-way; thereby providing an internal connectivity throughout the zone that is currently lacking. Existing and approved residential developments are highlighted in gray to emphasize future opportunities for greater connectivity.

Additionally, redevelopment of this zone will focus on the extension of the open space network to new and existing open spaces and bicycle paths. A landscape buffer along the rail corridor should connect the new park space at the corner of Campbell Avenue and El Camino Real to the BART Station. Additionally, a wide, well-landscaped setback on both sides of Campbell Avenue could reinforce connectivity to future regional bikeways as well as connections to existing and new open spaces further south on Campbell Avenue.



Campbell Avenue Zone Concept Plan

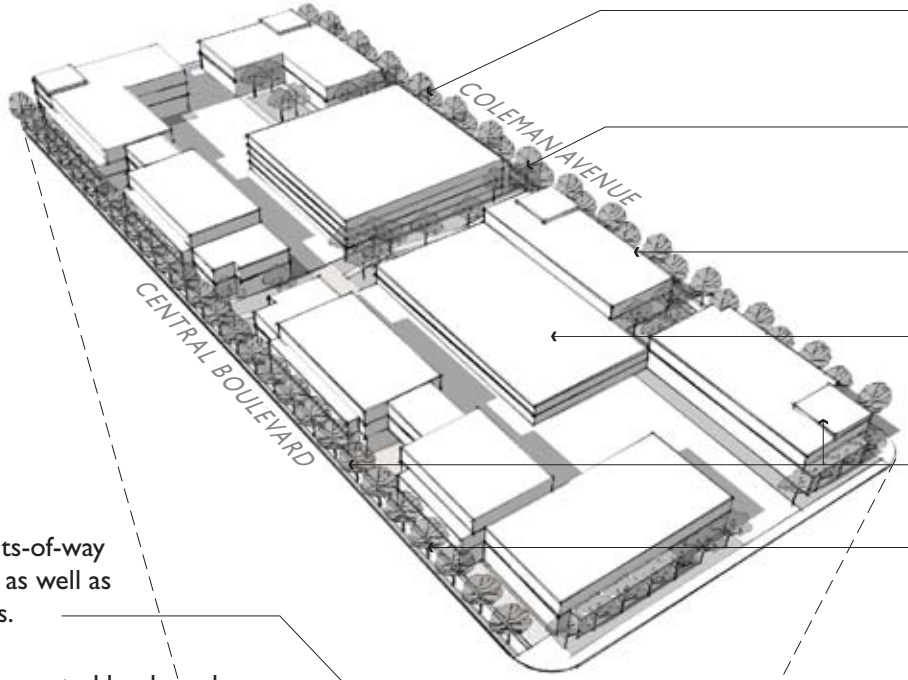
COLEMAN AVENUE ZONE



Included in the FMC Planned Development District, the Coleman Avenue Zone is proposed as a mixed-use commercial area of varying intensity and non-residential uses, with increasing FARs in proximity to the Station. Average building heights in the area should be between three to four stories, with greater heights oriented to a central boulevard and located closer to the Station. The adjacent plan diagram suggests the possibility of an expanded median parkway at least 80 feet in width within a central boulevard as a focal identifying open space and identity within the zone.

If implemented the median parkway should be designed as a public open space, providing pedestrian and bicycle amenities including: sidewalks, a separate bike path extensive landscaping, and seating areas. Landscaped rights-of-way should divide the large blocks into a smaller grid pattern while also preserving the opportunity for future streets as the area intensifies over time.

Landscaping will also play a role in the area's relationship to Coleman Avenue, where a wide landscaped setback would provide a buffer between the road and development, allowing development to be oriented to Coleman Avenue as well as a central boulevard.



Screen street-facing parking structures architecturally as well as with landscaping.

Provide mid-block pedestrian connections where blocks are greater than 400' in length.

Provide a 20-foot landscaped setback along Coleman Avenue.

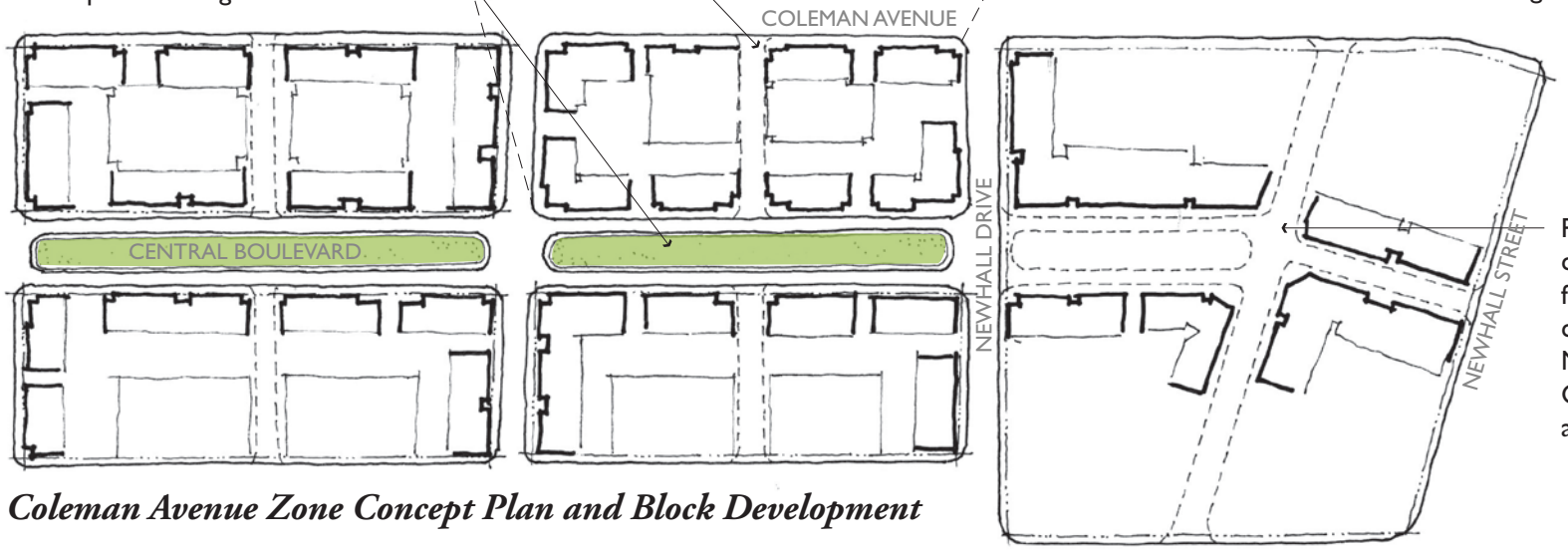
Locate surface and structured parking away from public view along a central boulevard.

Orient buildings and entrances to a central boulevard.

Maintain at least a 70 percent building frontage along a central boulevard in areas identified for 0.5 FAR and above. For interim development where retail uses are 25,000 square feet or larger, allow buildings to be set back from a central boulevard edge, with parking areas screened along the street edge.

Provide mid-block rights-of-way to allow future streets as well as pedestrian connections.

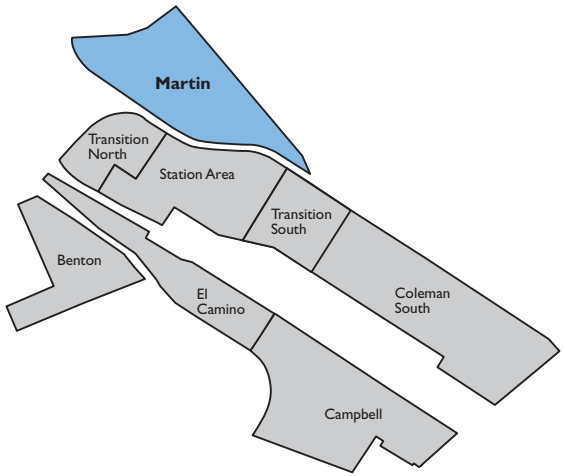
Orient buildings along a central boulevard. Explore the opportunity to create a median parkway of 80 feet in width for added place-making value.



Plan development in consideration of future potential connections to Newhall Street, Coleman Avenue, and Airport Way.

Coleman Avenue Zone Concept Plan and Block Development

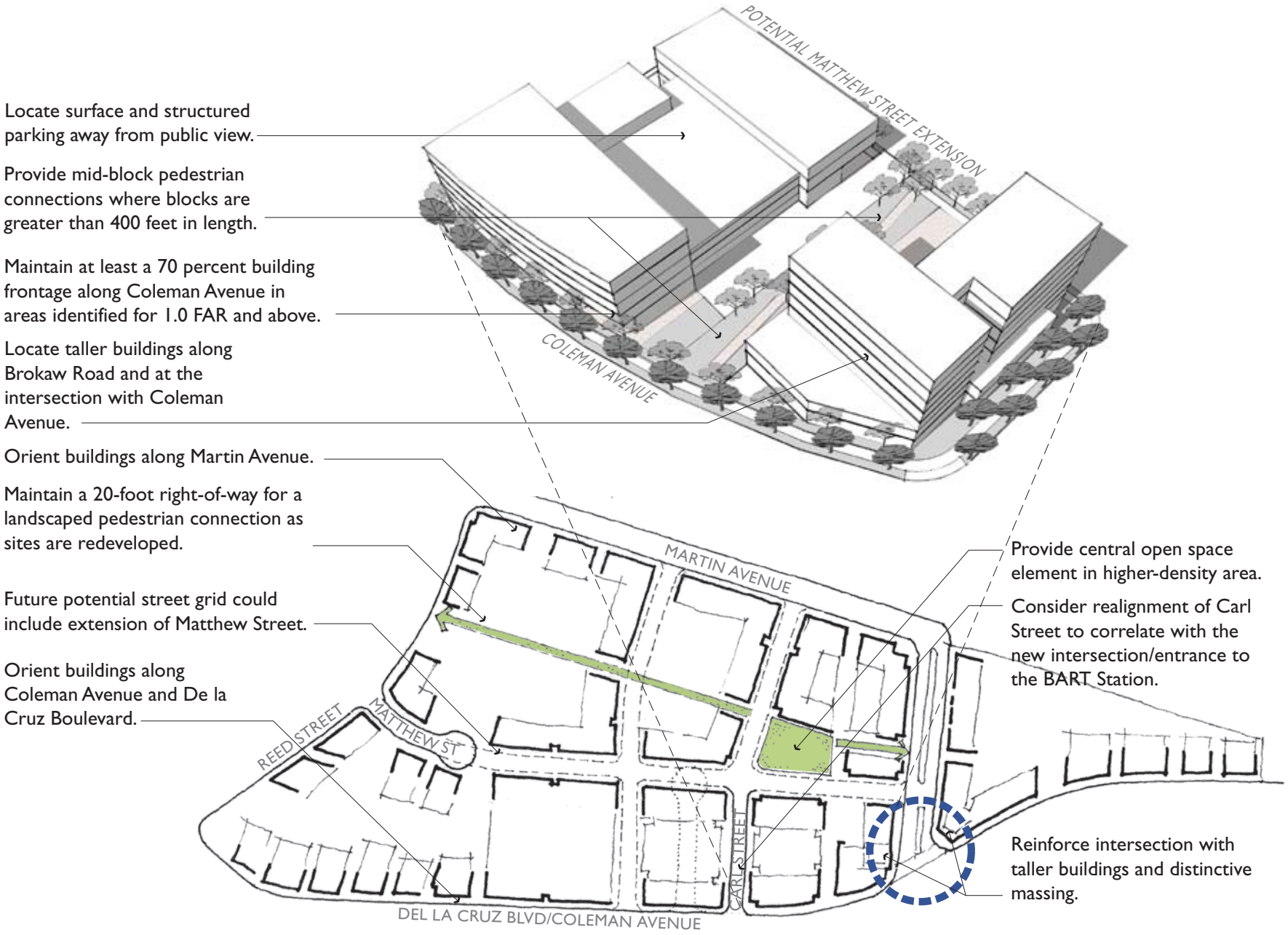
MARTIN AVENUE ZONE



The Martin Avenue Zone is comprised of a mix of scales and uses—to the north, uses should remain light industrial with lower heights and larger floorplates; while to the south, uses should encompass higher-intensity mixed-use commercial development in the vicinity of the Station and along the Airport APM alignment. Over time, these two areas could evolve into a more cohesive business district. Thus, while development to the north may not change within the 2030 horizon of the Station Area Plan, opportunities for increased connectivity and improved internal structure should be preserved as redevelopment occurs. The adjacent plan diagram shows potential realignment and/or future extensions of Carl Street and Matthew Street, as well as potential open space amenities that would provide greater definition and cohesiveness to the area.

Additionally, incorporating a second APM stop east of Coleman Avenue could also increase opportunities for higher-intensity development in the area, especially along Brokaw Road.

The majority of the Martin Avenue Zone will retain the existing 70-foot height limit currently allowed by Santa Clara's ML (Light Manufacturing) Zoning District designated for the area. However, as shown in Figure 4-4 (Maximum Building Heights), heights closer to the Station could be a maximum of 100 feet. This area should also have greater lot coverage and a building frontage requirement of 70 percent along existing and future public streets.



Martin Avenue Zone Concept Plan

4.2 STREETSCAPE DESIGN

Streets are central to an area's identity, movement, and pedestrian experience. Regardless of method of transportation used, visitors, residents and workers must travel on streets; the way these are treated physically has an impact on the perception of the area as a whole. Street design can incorporate a wide variety of elements, ranging from benches to paving to tree grates, or even signage. Many of these detailed elements can be grouped into larger categories such as pavement and sidewalk width, landscaping, parking, medians and sidewalk amenities. Themes to consider in creating an effective street design include enclosure and street wall, continuity, character, relationship between pedestrians and traffic, shade and light. Specific components and areas of focus within the Station Area Plan include:

- Providing opportunities for pedestrian-only access to and from the Station and new development.
- Where feasible, reconfiguring streets in residential neighborhoods and retail areas to accommodate diagonal or parallel parking, widening or improving sidewalks, and improving pedestrian and bicycle safety.
- Reinforcing the role of Benton and Franklin streets as key pedestrian and open space corridors; providing the primary connection between the station, downtown Santa Clara, and Santa Clara University.

In conjunction with these plan components, the Plan identifies several street typologies that play distinct roles within the public realm. This proposed street hierarchy helps to direct movement through the area while contributing to the overall character and continuity of place. Figure 4-5 shows a system of boulevards, green streets, and residential streets, and retail streets. Concepts for these street typologies are summarized in Box 4-1 and illustrated in the following diagrammatic sections. More detail on these concepts is provided in the following Building to Street Relationship discussion.

Several key streets should play an important role in defining the identity and character of the Planning Area—most importantly, a pedestrian-oriented Center Street area and the highly-visible arterial streets. A new retail street in the Center Street area can be the center of activity in the Planning Area; with slow traffic; a pedestrian-friendly public realm that integrates a central open space area; and mixed-use buildings with retail on the ground floor. This street should have 15-foot-wide sidewalks, bike lanes, and a parallel parking strip with integrated street trees on both sides. Sidewalks can be used for outdoor seating related to cafes and restaurants. Design elements such as pavement materials, street lighting, landscaping, and street furniture including bike racks would support the pedestrian focus of this street. In addition, special attention should be paid to the design of pedestrian crossings in order to make pedestrian movement as easy and safe as possible.

The arterial streets serving the Planning Area will likely remain high traffic corridors with six traffic lanes along El Camino Real and between four and six traffic lanes along Coleman Avenue.

Figure 4-5

Vision for Street Typologies

- Transit Boulevard
- Boulevard
- Central Boulevard
- Green Street
- Residential Street
- Retail Street
- Multi-Function/Other
- Proposed Parks & Open Space
- Existing Parks
- BART
- Caltrain/ACE/Capitol
- Union Pacific Tracks
- Automated People Mover
- Planning Area Boundary

Proposed East-West Connection

- *Below Grade*
- *Ramp*

(1) *Section*

Expansion of narrow sidewalks along Benton Street and Brokaw Road will improve the pedestrian realm in the Station Area.

Nonetheless, both arterials should be improved to better accommodate pedestrians and cyclists. Additional medians and street trees will not only make the streets visually more pleasant but also improve the driving experience and safety. The proposed improvements for El Camino Real are consistent with the Grand Boulevard Initiative, a regional effort currently underway by cities along the Peninsula to improve and redefine El Camino Real. The initiative focuses on changing El Camino Real into a boulevard that better accommodates all modes of transportation and better serves existing and future local uses. Since the existing El Camino Real rights-of way are very wide, the following measures could be incorporated depending on the location:

- Widening sidewalks in areas with increased pedestrian activity: for example, at the intersection of El Camino Real and Benton Street; eliminating parallel parking strips; narrowing travel lanes; or eliminating separate right-turn lanes.
- Integrating new street trees in widened sidewalks.
- Undergrounding utility infrastructure.
- Integrating street trees in existing parallel parking strips.
- Adding bulbouts at intersections to improve pedestrian safety at crossings.
- Extending or adding green medians to provide a safe haven for pedestrians crossing wide streets and boulevards.
- Accommodating bike lanes or bike routes as part of a local or regional network.
- Improving bus stops by integrating bus shelters and bus bays into the street design.
- Lighting for safety and illumination.
- Adding signage for wayfinding.

BOX 4-1: STREET TYPOLOGIES

Boulevard. El Camino Real and Coleman Avenue serve as the main boulevards that define the western and eastern borders of the Planning Area. As boulevards, these streets share a common unifying role within the Planning Area, and have extensive landscaping, pedestrian, and bicycle amenities. Buildings should face onto the street, creating a well-defined street edge.

Transit Boulevard. Brokaw Road would serve as a major transit street that accommodates several modes of transportation including the elevated APM, buses, taxis, cars, cyclists, and pedestrians. The transit boulevard is the main east-west connection between Coleman Avenue and the Caltrain/BART Station. The boulevard's most visible component is the elevated APM structure that is envisioned in the center of the street, flanked by two traffic lanes and a separate bike lane in each direction. Extensive landscaping should mitigate the visual impact of the elevated structure and create an urban scale pedestrian environment through vertical trees along the boulevard and large canopy trees in public spaces.

Central Boulevard. A central pedestrian/vehicular boulevard to tie the FMC site area into the Station Area could play a dual role as both a visual and physical connection within the Planning Area. By connecting the Center Street area and the Station with the new underpass and employment-oriented development to the south in the Coleman Avenue, the Station Area, and Transition zones, this corridor would play a key role to development on the east side of the rail corridor. Thus, the street would incorporate and enhance pedestrian amenities as delineated for green streets at a greater scale (wider landscape strips or sidewalks).

Green Streets. Green streets link public and other cultural and historic amenities; connect neighborhoods to the Santa Clara Station, Downtown Santa Clara and Santa Clara University; and provide outdoor destinations. These include Franklin Street, The Alameda, Railroad Avenue, and new streets within the Station Area Zone as identified in Figure 4-5. Enhanced landscaping, including a double row of trees, and expanded sidewalk widths; as well as visual wayfinding elements like signage or banners, are important components. Cars and transit may also use these streets, but traffic calming measures should give priority to pedestrians.

Residential Streets. These streets traverse neighborhoods and have a residential orientation. Cars, pedestrians, and cyclists will be the primary users, and on-street parking will be maximized, including diagonal parking where feasible. Buildings set back five to ten feet from the sidewalk will provide transition between the public and private domains; and may consist of landscaped patios, walkways, stoops, fountains, and plaza features. Car traffic is low volume and low speed, and transit or truck traffic should be prohibited except for service vehicles. Traffic calming measures are emphasized.

Retail Streets. Providing focus to the Planning Area, retail streets serve as a spine and activity node in the neighborhoods directly adjacent to the Station. These are lined with commercial activity, and are to comfortably accommodate pedestrian, transit, and vehicular traffic, as well as on-street parking. Travel speeds are intended to be slow on retail streets.

Multi-Function Streets. Streets that serve a variety of purposes and do not fall under another classification are called Multi-Function Streets. Pedestrian orientation and quality streetscape remain priorities.

Bikeways. A network of bike facilities is also established and is a primary element of the Planning Area's streetscape design, with connections to the Station and surrounding neighborhoods and regional bikeway networks. The bicycle network is addressed in more detail in Chapter 3: Circulation, Access, and Parking.

BUILDING TO STREET RELATIONSHIP

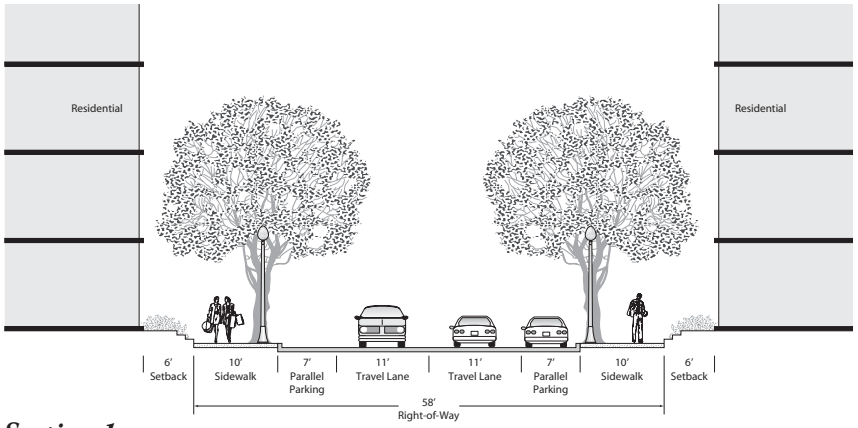
As streets are improved and created in the Planning Area, there are several challenges and opportunities for streetscape design and shaping the public realm. Most importantly, new streets should address the diverse access needs of a multimodal Station—especially those that affect the pedestrian environment. The Planning Area is envisioned to have an increased population and dramatically increased employment and visitor intensity. The retail and employment districts as well as the residential neighborhoods should accommodate increased pedestrian and bicyclist mobility. More importantly, as vehicular traffic increases along main connections into the Station Area, specific measures of separating and enhancing the pedestrian realm from the street are essential for avoiding conflict between modes of travel.

This cultivation of the public realm can be accomplished not only through streetscape improvements, but through the interplay between the built environment and the street. Opportunities to provide refuge at center medians, shade, and sense of place for pedestrians are affected by the relationship of the building to the street: alcoves and plazas, awnings, and building height shape the public realm and experience.

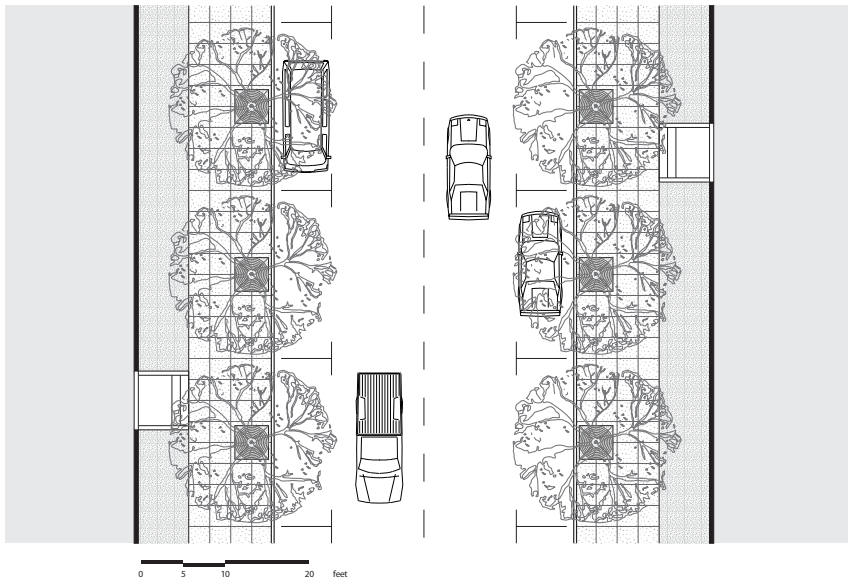
The following streetscape plans and sections illustrate the interplay between the street and public realm as they could relate to established street typologies throughout the Planning Area. Guidelines for street width, landscaping, lighting, pedestrian and bicycle amenities, and building design at the street edge are identified in each of the diagrams. The illustrated street sections are conceptual, and will vary due to width of right-of-way. Since street widths, number of lanes, desired sidewalk widths, etc., may vary from street to street, cross-sections for specific streets will need to be individually designed.

Section 4-1a

Residential Street Parallel Parking (Conceptual)



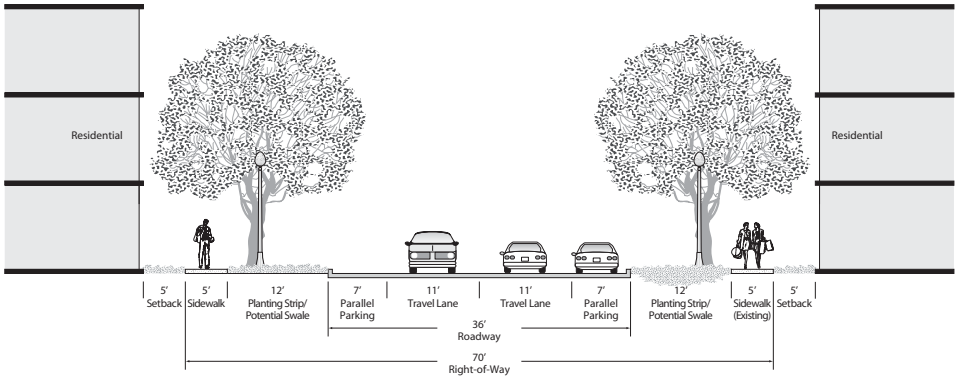
Section 1a



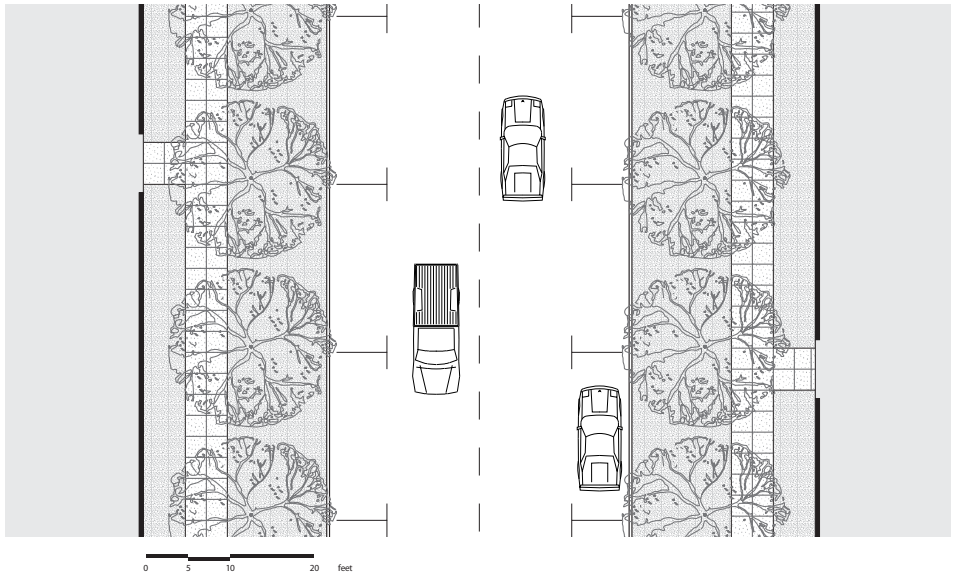
Streetscape Plan 1a

Section 4-1b

Residential Street West of Rail Corridor (Conceptual)



Section 1b

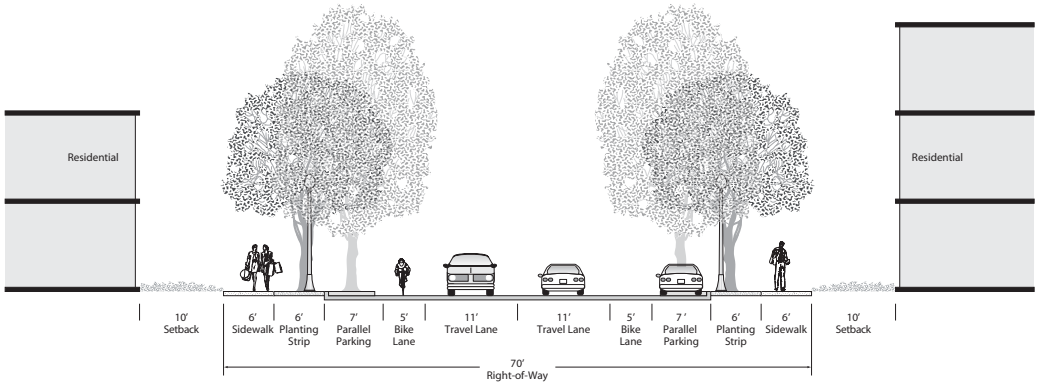


Streetscape Plan 1b

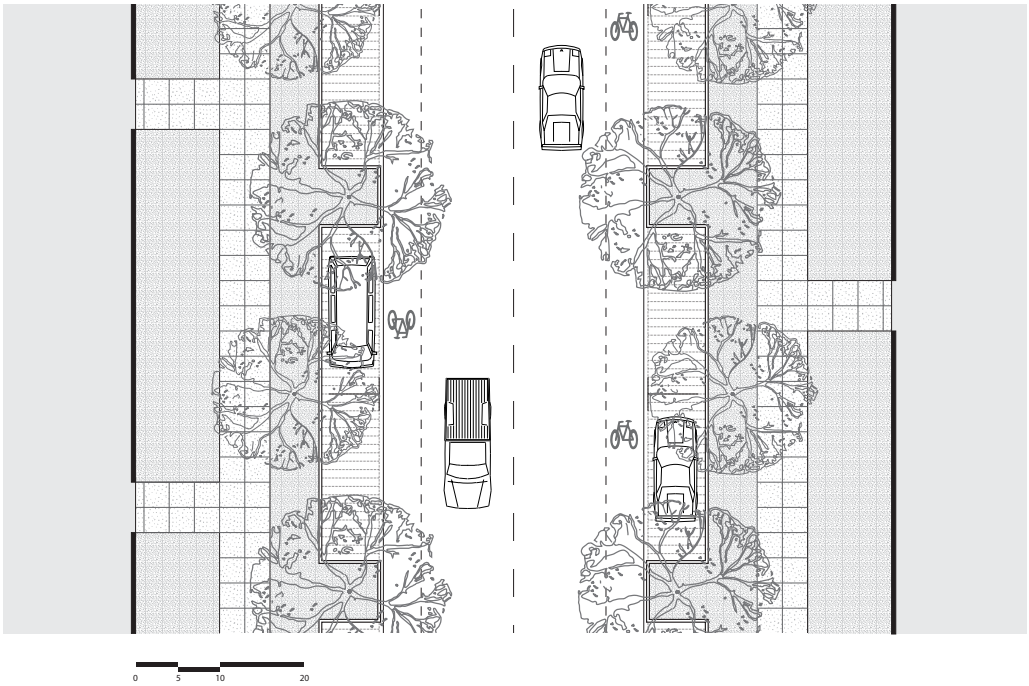
Section 4-2

Green Street (The Alameda) (Conceptual)

Existing view of The Alameda looking south.



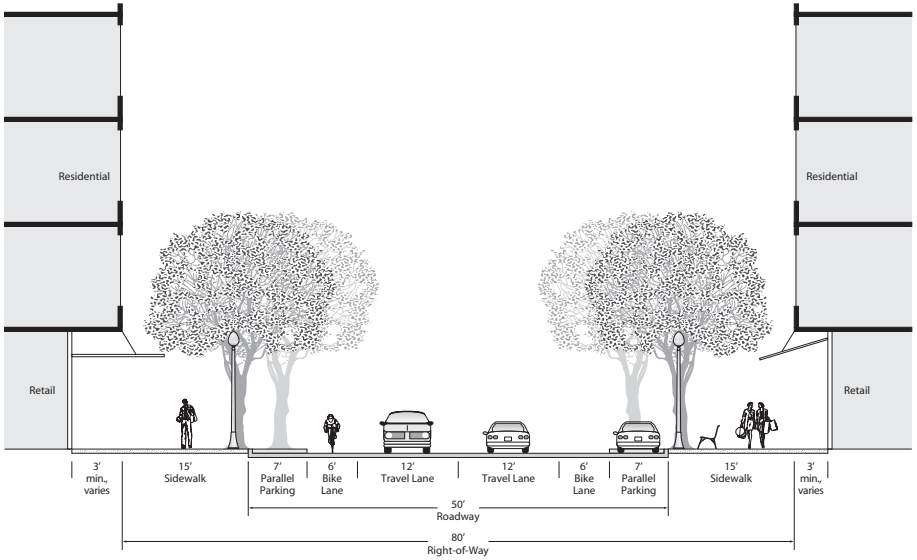
Section 2



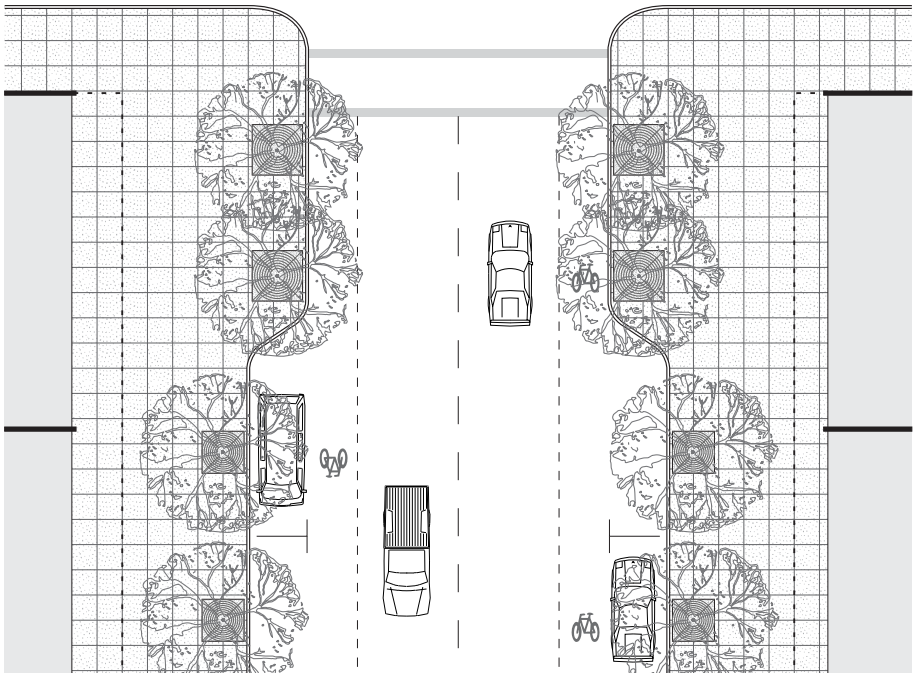
Streetscape Plan 2

Section 4-3

Center Street (Conceptual)



Section 3

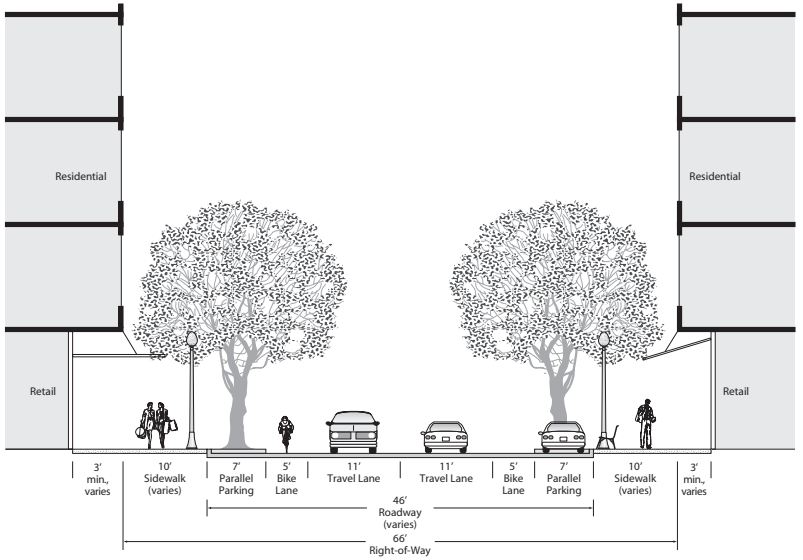


Streetscape Plan 3

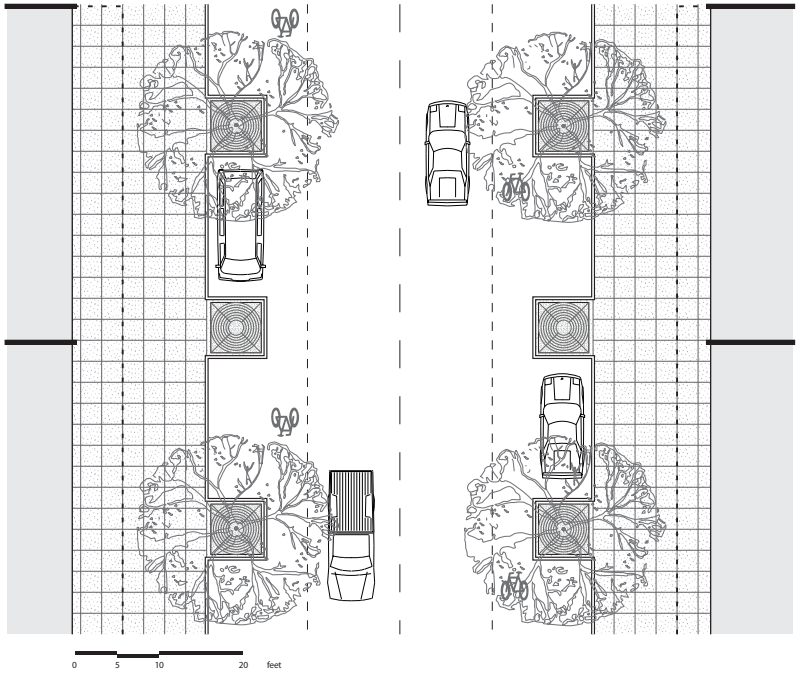
Section 4-4

Main Street (Benton) (Conceptual)

Existing view of Benton Street looking east.



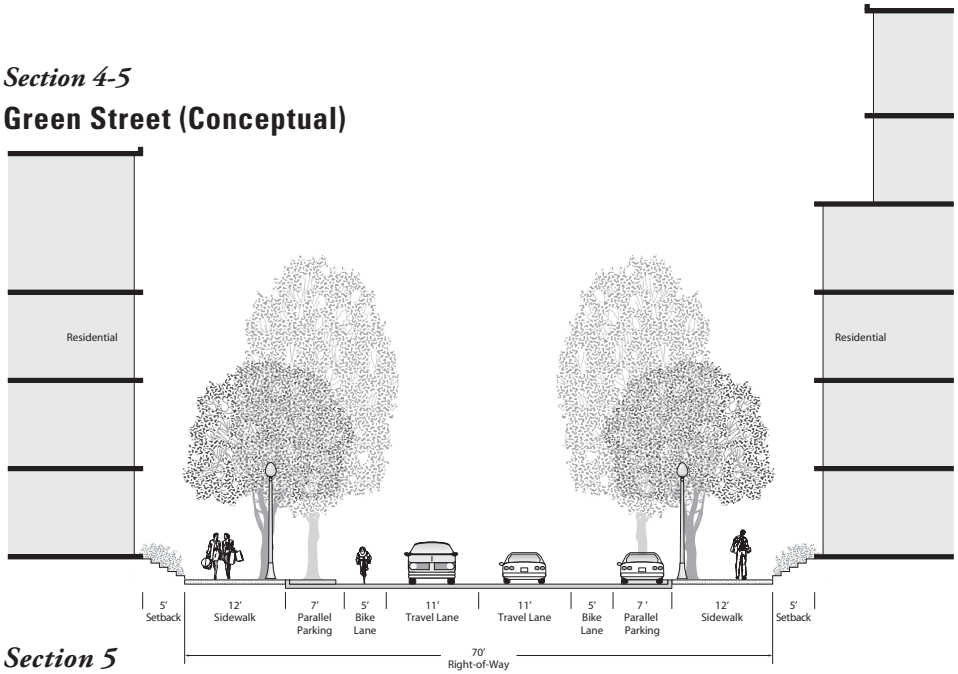
Section 4



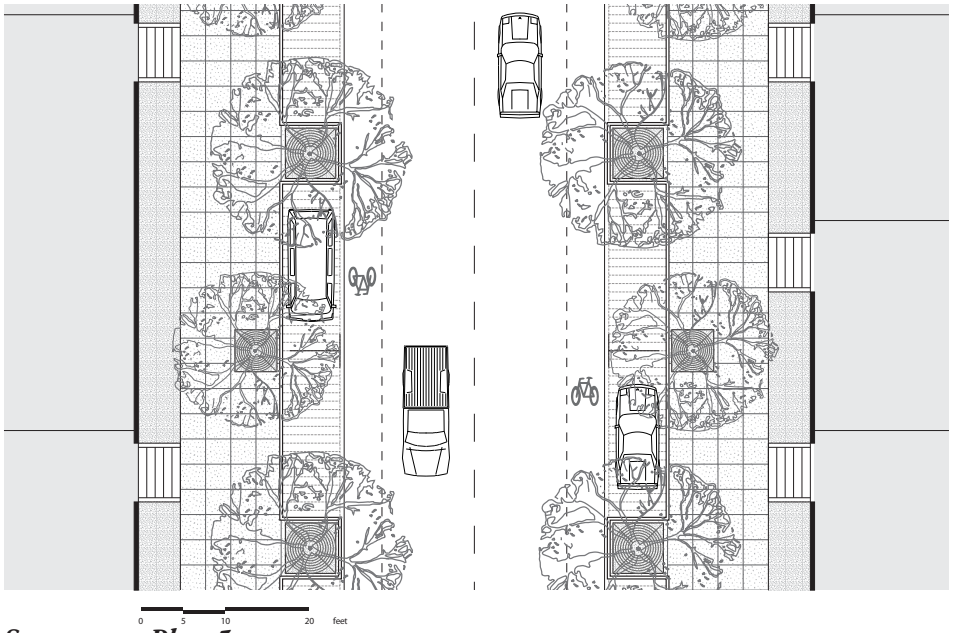
Streetscape Plan 4

Section 4-5

Green Street (Conceptual)



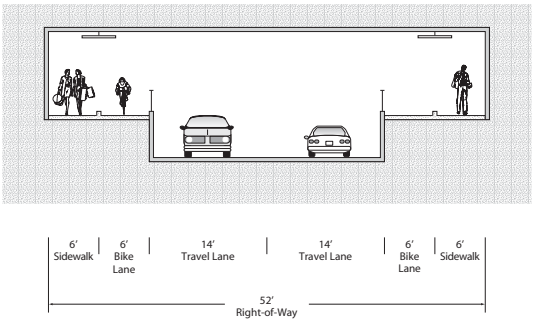
Section 5



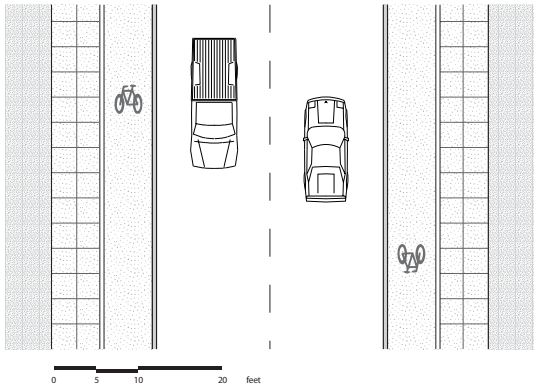
Streetscape Plan 5

Section 4-6

Underpass (Conceptual)



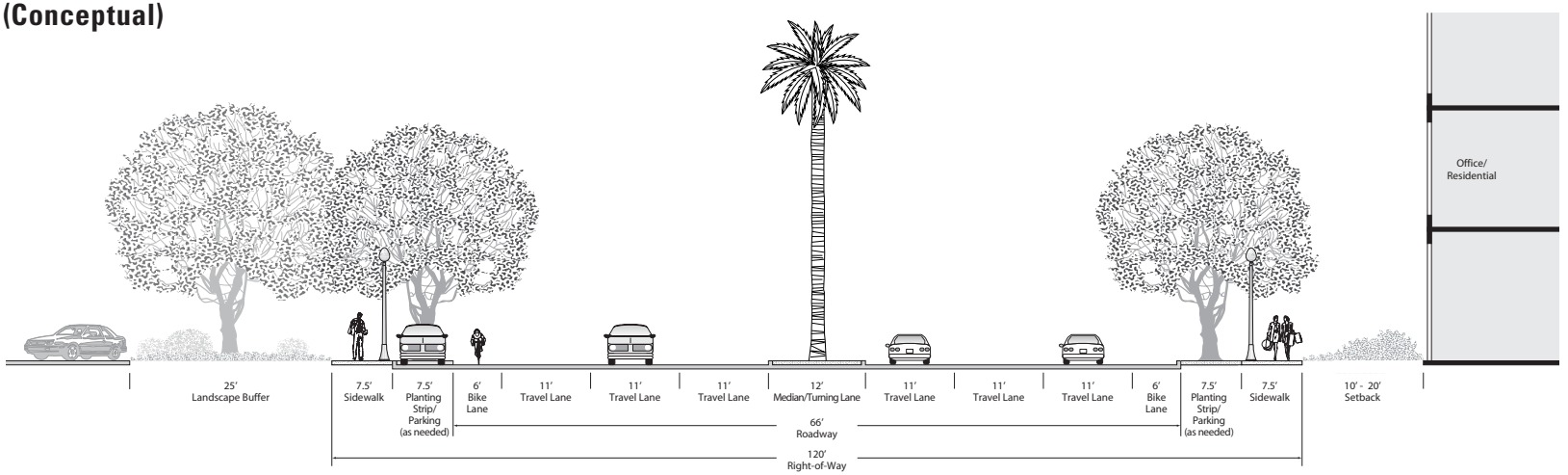
Section 6



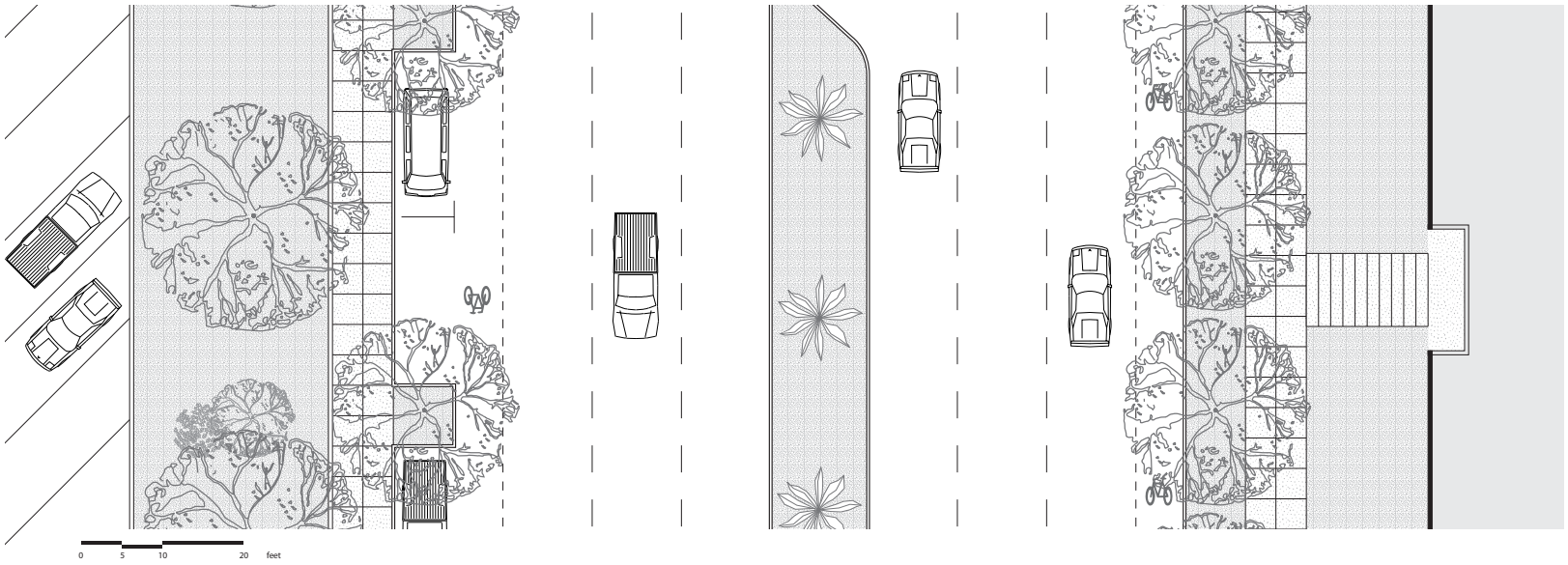
Streetscape Plan 6

Section 4-7

El Camino Real (Conceptual)



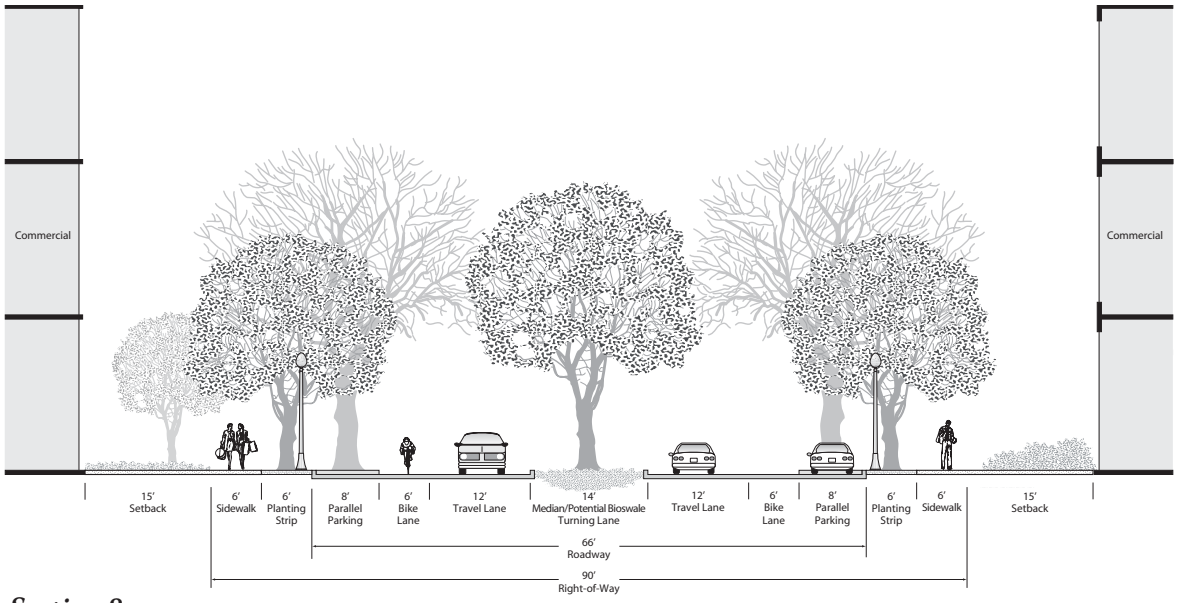
Section 7



Streetscape Plan 7

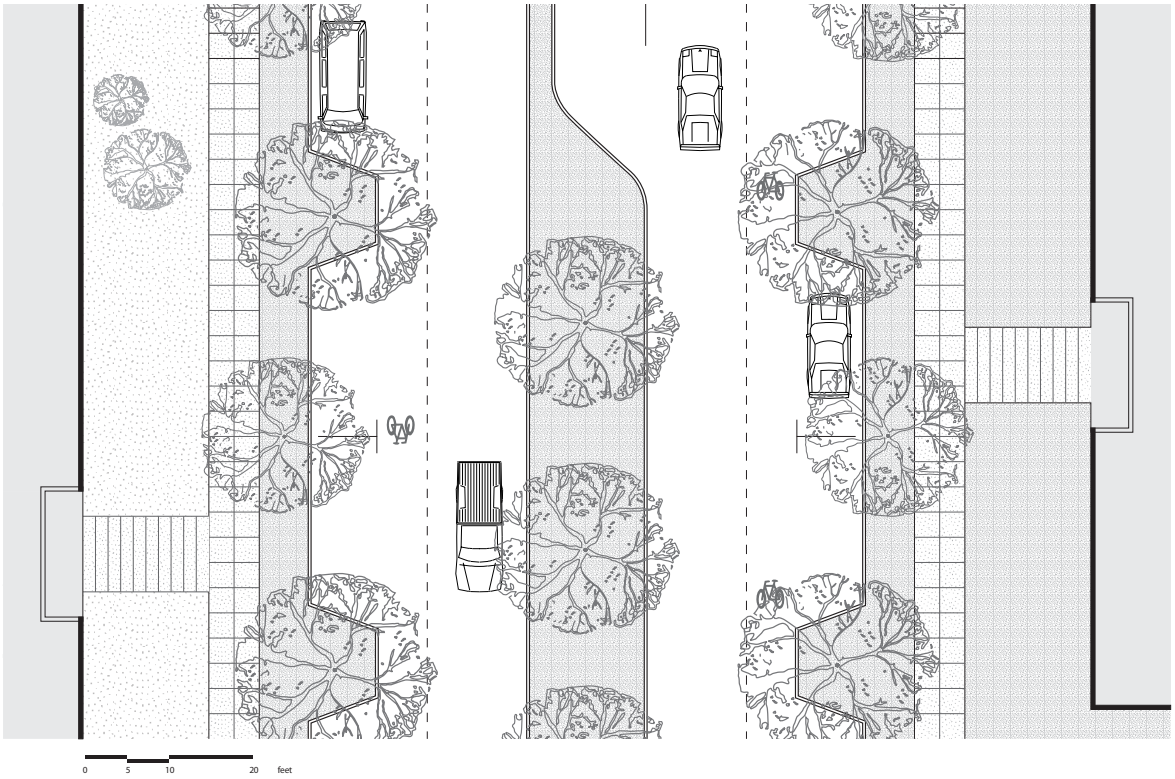
Section 4-8

Central North-South Boulevard (Conceptual)



Section 8

Central N-S Boulevard

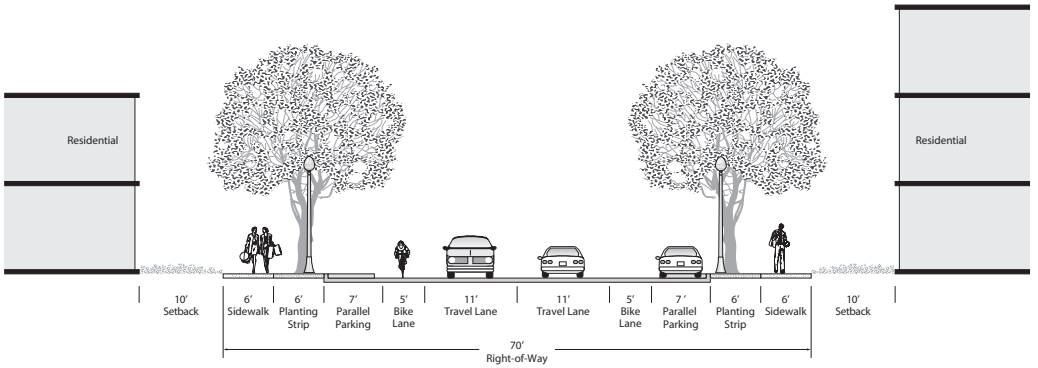


Streetscape Plan 8

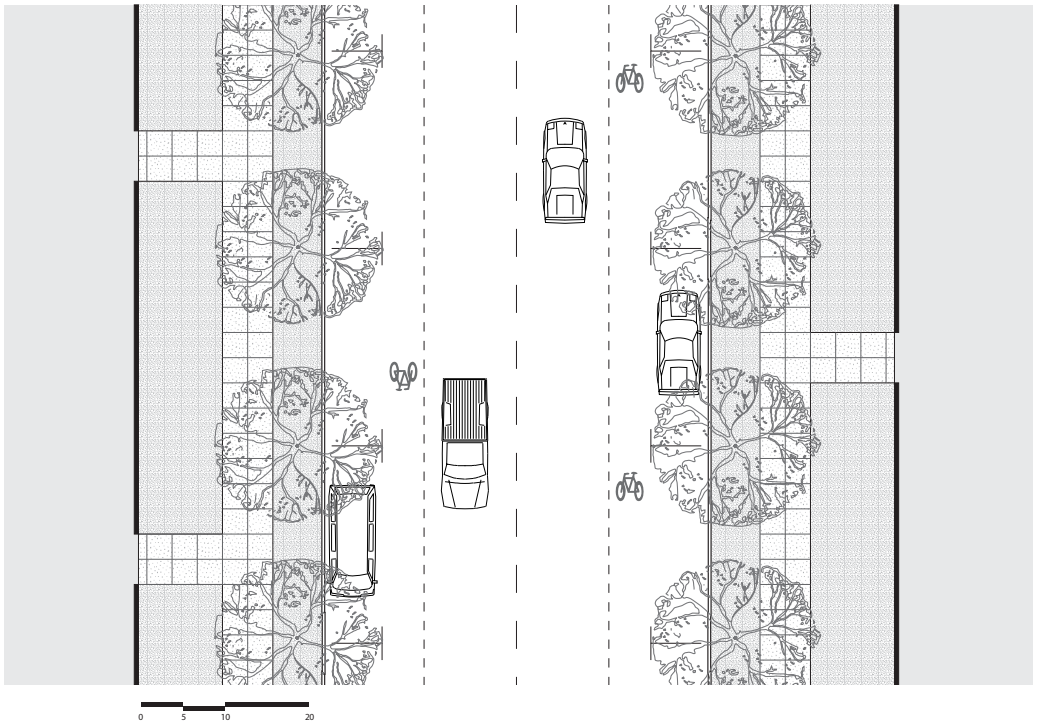
Section 4-9

Campbell Avenue (Conceptual)

Campbell Avenue looking south.



Section 9



Streetscape Plan 9

Streetscape Design Goals

4-G-9 Develop high-quality, sustainable streetscapes throughout the Planning Area that reflect its culture and identity.

4-G-10 Foster a walkable, accessible, safe street environment that connects the Station to the many unique surrounding neighborhoods and districts.

4-G-11 Design the streetscape to the human scale with wide sidewalks, bike lanes and amenities for pedestrians and cyclists such as bike racks, inviting street furniture, sufficient lighting, and street trees for shading and visual experience.

4-G-12 Improve the visual character and quality of Coleman Avenue and El Camino Real as major gateways into the Planning Area from both the north and south.

Streetscape Design Policies

4-P-10 Support capital improvement projects such as street redesign, community landscaping, lighting, and other similar projects in order to improve the appearance of streets in the Planning Area and foster a unique Station Area identity.

- Prepare and implement streetscape plans for the new Center Street, central boulevard, Brokaw Road, and Benton Street through the Planning Area.
- Ensure streetscape improvements as part of building approval and construction, to the extent possible.

4-P-11 Design street improvements in consideration of the typology and function envisioned within the Planning Area street network.

- Minimize street and lane widths for the Planning Area's internal street network for traffic calming.
- Encourage sustainable landscape design with the use of hardy, native, low-water consumption, drought tolerant planting; as well as stormwater management systems. Utilize bioswales rills, and rain gardens in street medians or landscape buffers.
- Maximize lighting for safety, especially along connections between transit facilities, pedestrian-oriented destinations, and parking areas.

4-P-12 Work with cities and Caltrans to ensure that vehicle speeds are moderated for pedestrian and bicycle movement on streets throughout the Planning Area.

4-P-13 Support local utility providers in the undergrounding of utilities.

- Work with PG&E, Silicon Valley Power, and other public agencies to underground existing overhead utility lines.

4-P-14 Install pedestrian amenities in the planting strip such as street lighting and seating at bus stops.

4-P-15 In residential areas, use traffic calming measures such as pavers, bollards, bulb-outs, alternating parking layouts, and speed bumps to slow travel speeds.

4-P-16 Minimize curb cuts in pedestrian-oriented retail areas to expand pedestrian space and increase the supply of curbside parking.

- Provide curb bulb-outs at street corners and mid-street for expanded landscape opportunities and traffic calming.

4-P-17 Encourage adjacent new developments to share a single access point from the road;

- Minimize number of curb cuts per building and reduce the width, with exceptions for larger developments; and
- Encourage side street entrances to minimize curb cuts along retail streets.

4-P-18 Provide continuous sidewalks on streets throughout the Planning Area.

Crosswalks

4-P-19 Visually highlight crosswalks through a change in paving material or striping, signage, and/or signalization.

- Provide greater pedestrian safety by utilizing street medians for pedestrian refuge across wide streets.

4-P-20 Develop a wayfinding and signage scheme along the primary streets in the Planning Area. Use public art and street elements such as banners and street furniture to reinforce the station's identity and geographic presence. Important wayfinding streets include Brokaw Road south of Coleman Avenue, Center Street, the new underpass, and Railroad Avenue.

Building-to-Street Guidelines

Build-to Lines and Setbacks

GL-54 Residential and green streets provide opportunities to build within 10 feet of the property line.

- For residential streets, provide landscaped setbacks with attractive low hedges, flowering shrubs, and trees planted in the same configuration as the street trees to create a pedestrian colonnade along the sidewalk.

GL-55 For buildings along retail streets and with ground floor retail, maintain a building setback of 15 feet from the edge of the curb. Include street trees, sidewalks, and pedestrian amenities within the 15 foot dimension.

- An additional setback of three (3) feet is encouraged to emphasize and expand the public realm and retail zone at the ground floor. See Guideline GL-17.

GL-56 Maintain a setback width of 20 feet along Brokaw Road, El Camino Real, Coleman Avenue, and the central boulevard.

Multi-functional Streets:

GL-57 Maintain a minimum 10-foot and maximum 20-foot setback from the edge of the sidewalk.

- Assume a minimum 10-foot sidewalk along green streets and retail streets and minimum eight (8)-foot sidewalk on all other streets.
- Provide main building entrances onto the street upon which they front.

GL-58 Landscape or pave required setback areas to allow outdoor seating, entry plazas, or street furniture.

GL-59 Eliminate interior side yard setbacks for ground level retail uses.

4.3 RETAIL AREAS

The Station Area Plan provides concentrations of activity that will offer retail, services, and other amenities. The Center Street area could serve as the primary hub within the Planning Area, located along a primary route to the Station and BART parking garage. Illustrated in Figure 4-6, the area will serve both new residential neighborhood and employment districts, as well as existing local service and shopping needs from both Santa Clara and San José. The Benton Street area could also serve as a primary route to the Station, with direct access to the Caltrain Station and parking. Illustrated in Figure 4-7, this area would serve as a key pedestrian connection between the Station and downtown Santa Clara, as well as a destination point for new residents and the neighboring Santa Clara University population.

AREA STRUCTURE

With their pedestrian orientation and centrality among new residential and employment areas, the Center Street and Benton Street areas could be bustling nodes of activity. They are practical destinations for errand-running, as well as public gathering for social and recreational uses. Both areas will provide a three- to five-block long linear experience—roughly a five- to ten-minute stroll. Activity should be located at the street level and defined by buildings and landscaping that line the street edge. Streetscape improvements are essential to strengthening the pedestrian realm and level of activity, and are intended to foster pedestrian comfort and emphasize neighborhood character.

Figure 4-6

Center Street View

Looking north toward the Station.

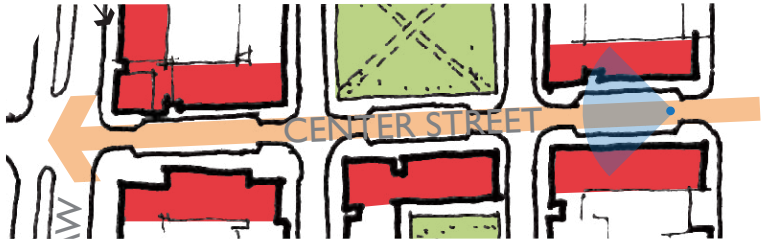
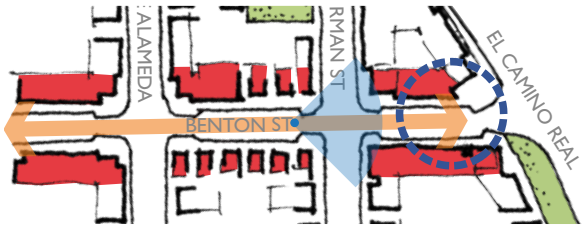


Figure 4-7

Benton Street View

Looking east toward the Station.

Existing view of Benton Street



Linking the retail areas with the surrounding neighborhoods, green streets will play a key role in providing a landscaped connection between old and new residential and employment areas, as well as Santa Clara University. Additionally, the height and massing requirements for areas within and around the retail areas will also emphasize their role and location within the Planning Area—development will be differentiated along retail streets to provide an intensity of activity as well as a balance of height and massing that will not overshadow the pedestrian realm or the existing neighborhood character.

Thus, the Center Street area, illustrated in Figure 4-6, is scaled to complement the surrounding higher intensity development along Brokaw Road, and to tie into the adjacent less-intense residential neighborhood. Similarly, development along the Benton Street area is at a lower scale to reflect the heights of the surrounding residential neighborhoods.

Figure 4-7 shows a view of Benton Street at El Camino Real. Wider sidewalks, street trees, and street parking create a buffered pedestrian connection from the Station. To ensure the vitality of the areas, retail is limited or has a distinctively different character than in downtown Santa Clara or north of Brokaw Road.

Retail Areas Goals

4-G-13 Create focal nodes within the Planning Area that act as a center for local services and amenities, and which build upon the character and identity of the Station and surrounding area.

4-G-14 Promote walkability by providing amenities in proximity to employees and residents within and adjacent to the Planning Area, and linking retail areas with green streets and other landscaped connections.

Retail Areas Policies

4-P-21 Foster development along the new Center Street and Benton Street, as shown in figures 4-6 and 4-7.

4-P-22 Maintain and enhance a strong pedestrian scale and orientation in retail areas through the design of buildings, landscaping, and streetscapes:

- Reinforce the pedestrian character with pedestrian-scale signage, ornamental lighting, continuous street trees, wide sidewalks, building canopies or awnings, on-street parking, and bicycle facilities (such as bicycle parking areas or bike lanes that do not obstruct the public right-of-way).

- Use measures such as minimal building setbacks, restrictions on surface parking, curb cut limitations, ground floor retail areas, and minimum building heights to define the edge of the street and to frame the activities that happen in public spaces.
- Apply these concepts through development review of development proposals and Capital Improvement Programs.

4-P-23 Encourage street-level uses that reinforce retail areas and encourage opportunities to extend retail uses into the sidewalk or adjacent public spaces.

4-P-24 Ensure developments immediately adjacent to open spaces and plazas create an integrated and memorable relationship of architecture and open space with retail uses.

- Employ similar or complementary materials and landscaping schemes along Center Street and Benton Street between El Camino Real and Lafayette Street;
- Align entries, crosswalks, and pedestrian pathways where possible to maintain a clear connection between buildings and public space; and
- Use consistent lighting, signage, and architectural styles or forms to establish a physical and visual continuity of spaces.

4.4 PUBLIC REALM AND OPEN SPACE

An essential component for livable and healthy communities is availability of open space. Comprised of a network of open spaces and plazas, pedestrian pathways, and streets, the public realm is the "backbone" of a community, providing space for movement, gathering, and recreation. The hierarchy of streets and open spaces within the public realm sets the stage for a variety of environments, differentiating the uses, activities, and character within a space. While smaller open spaces and plazas provide a venue for primarily passive uses, especially in urban areas, larger open spaces can act as a central gathering place and as an identifying element of a community. Likewise, streets with wide sidewalks for strolling or seating at a café, and even landscaped medians and setbacks, also foster social interactions and a sense of community that define the public realm and urban culture.

As the Planning Area evolves into a busy transit hub with multiple retail street and employment opportunities as well as residential neighborhoods, the public realm will play a key role in the creation of an overall continuity and connectivity between these various places and uses. The Station Area Plan provides a strategy for defining the key components of the public realm; as well as how they connect to each other, and the Station and surrounding areas. These components include pedestrian connections along streets and through open spaces and development; open spaces and plazas both centralized and nested within neighborhoods and building clusters; a landscaped buffer

Provide pedestrian amenities and landscaping to reinforce pedestrian connections.

Design pedestrian connections to connect through development and public space, reinforcing a continuous pedestrian network.

with pedestrian and bicycle paths along the rail corridor; and a visual overlay of public art, signage, and lighting that provides an overall continuity and character within the Planning Area.

Figure 4-8 shows how these various elements can interconnect within the Planning Area. Many of these elements correlate with streetscape design strategies, described in Section 4.2: Streetscape Design. However, the goals and policies in this section focus on the creation of public space beyond the streetscape; identifying strategies for expanding the versatility of and development opportunities for open space within the public realm.

Public Realm and Open Space Goals

4-G-15 Establish well-defined pedestrian connections between the Station and adjacent neighborhoods, districts, and parking structures.

4-G-16 Provide opportunities for public gathering, outdoor eating, and passive and active recreation throughout the Planning Area.

4-G-17 Create a linked network of open space, pedestrian connections, and bikeways.

4-G-18 Where possible, incorporate public art into the public realm, streetscape design, and distinctive wayfinding elements within the Station Area.

Public Realm and Open Space Policies

Pedestrian Connections

4-P-25 Along designated pedestrian connections, as described in Section 3.2: Pedestrian and Bicycle Network, support a pedestrian street of at least 20 feet with pedestrian-scaled amenities (i.e., 12 to 16 feet-high) light fixtures.

- Use landscaping, light fixtures, street furniture, special paving, wayfinding, and public art.
- Consider street furniture and elements that contain a high percentage of recycled materials and energy-efficient street lighting.

4-P-26 Encourage opportunities for small pedestrian plazas, enclaves, or mid-block connections along primary pedestrian routes, especially along Brokaw Road, to reinforce the pedestrian realm and sense of safety along transit-oriented corridors.

4-P-27 Orient retail at the ground level along pedestrian connections, both along the street and at mid-block. Provide entrances along internal pedestrian-only pathways for retail establishments.

4-P-28 If located within a building or structure, mid-block pedestrian connections should be clearly defined with signage and a clear view corridor to the opposite end.

4-P-29 Locate open spaces along major pedestrian connections, emphasizing wayfinding and accessibility. Public open spaces should be located in proximity to the residential areas they serve.

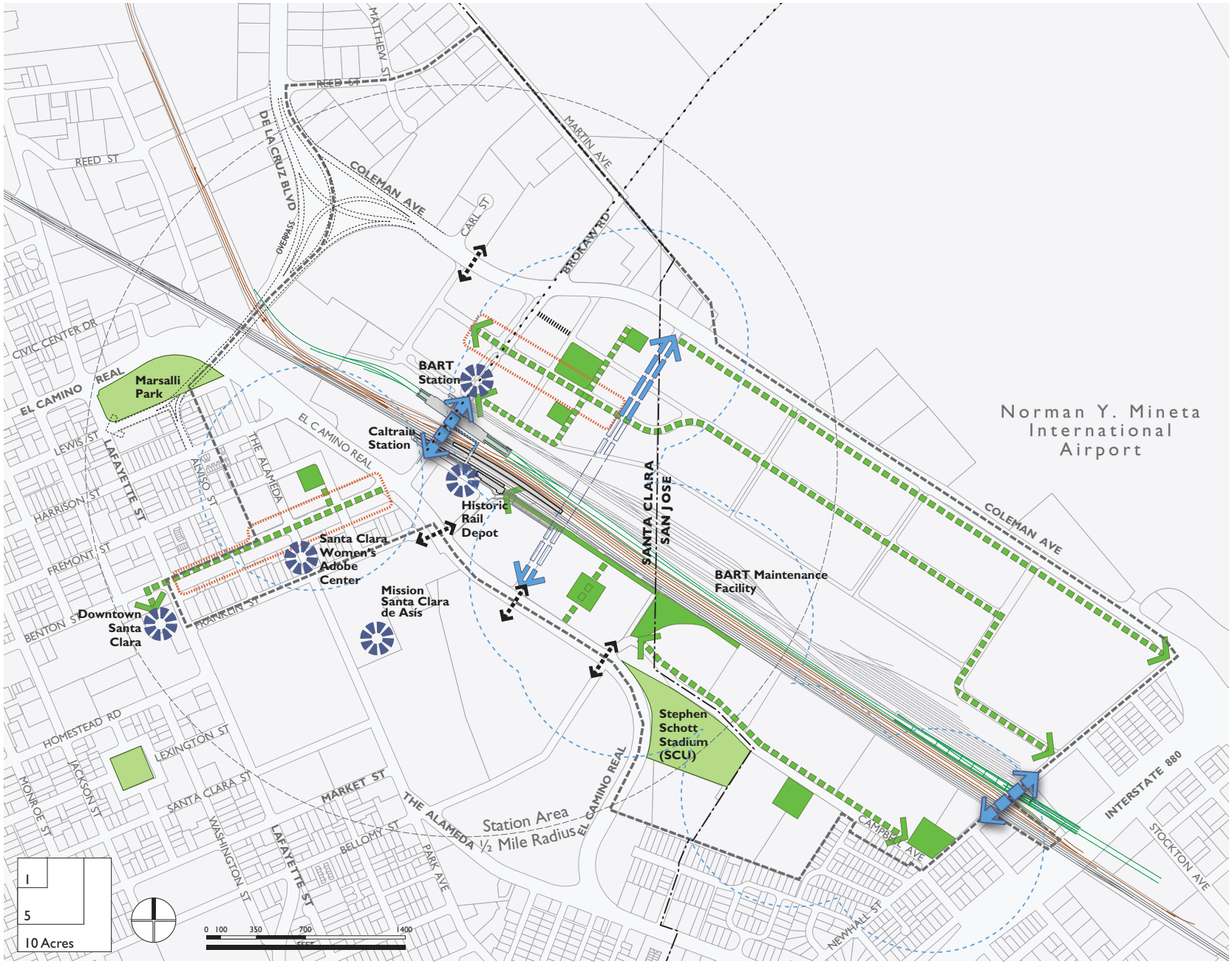


Figure 4-8

Vision for Public Realm

- Pedestrian Connections
- Main Street/Pedestrian-Oriented District
- Pedestrian Connection
- Primary Pedestrian/Bicycle Route
- Activity Node or Cultural/Historical Resource
- Proposed Open Space
- Existing Parks
- Proposed Bike/Pedestrian Overpass
- Potential East-West Connection
  - *Below Grade*
  - *Ramp*
  - *At-Grade*
- BART
- Caltrain
- Union Pacific Tracks
- Automated People Mover
- 3 Minute Walking Radius
- 1/2 Mile Radius
- Planning Area Boundary

Central Open Space Area

4-P-30 Ensure that the design for a central open space would help create focus for the immediate Station Area.

- Provide opportunities for public gathering, including landscape features such as lawns; decorative, permeable paved areas; planters and raised landscape features for informal seating; and groupings of trees that provide shade and visual interest.
- Orient the primary frontage of any centrally-located open space to Center Street.

4-P-31 Ensure that streetscape design is compatible in both access and design to that of the open space (i.e., pedestrian pathways align with street crossings and major pedestrian connections through the Planning Area) and the established landscape and visual identity of the open space is complementary with that of the street.

4-P-32 Design the open space to be both visually and physically accessible. Incorporate lighting levels and view corridors that ensure safe travel after daylight hours.

4-P-33 Design pedestrian crossings for greatest accessibility and efficiency to the Station and retail areas.

4-P-34 Orient surrounding buildings to the open space with entries, windows, and seating areas.

Other Open Spaces and Plazas

4-P-35 Maintain view corridors and visual accessibility from public streets.

4-P-36 Emphasize links to public areas with landscaped walkways, highly-visible pedestrian crossings, and green streets.

4-P-37 Provide a range of amenities suitable to the open space size, which could include fixed and movable seating, shade trees, play lot, paved areas, planted areas with native vegetation, picnic areas, and grass fields for recreation.

4-P-38 Encourage the use of native vegetation and conservation of resources in the design of open spaces. Utilize drought tolerant plantings and develop gray water systems for irrigation. Include use of moisture-sensitive irrigation systems.

4-P-39 If located in the vicinity or within view of historical or cultural landmarks, retain views and use signage, public art, monuments, or educational displays to celebrate these assets.

4-P-40 Maintain appropriate lighting levels to ensure safety at all hours. Use fixtures that direct light downward and orient to minimize light pollution to public right-of-way.

4-P-41 Create and locate open space, landscape buffering and linear pathways along the rail corridor to lessen the visual and physical affects of the rail corridor.

4-P-42 Encourage a publicly accessible plaza adjacent to the Historic Train Depot at the Caltrain Station. Maintain visibility to the plaza and Depot from El Camino Real, as described in Policy 4-P-48 (view corridors).

Public Art

4-P-43 Promote public art in streetscape and open space design throughout the Planning Area.

- Focus efforts along green streets, where wayfinding and pedestrian connectivity are emphasized. These streets include Benton Street, Center Street and a central boulevard, as well as others identified on the street typology map (Figure 4-5).

4-P-44 Develop a unique station banner and/or signage that can be displayed in the Planning Area in key locations as a means for wayfinding and identity.

4-P-45 Use public art from both cities as a means to establish a distinct community identity for new residential neighborhoods and open spaces. See GL-30.

4-P-46 Incorporate opportunities for public art as elements of open space and streetscape design. Utilize local contests for sculpture or murals, or rotating displays could showcase and foster community talent.

4.5 GREEN URBAN DESIGN

Everyone involved in the planning and design process can contribute to improving the environment and society on many levels—public, private, education, social advocacy—and a variety of scales—global, national, state, regional, community, and project site design.

The built environment plays an increasingly relevant role in the consumption and production of the earth's natural resources. At the time of Plan adoption, generally, buildings and construction alone consume 70 percent of electricity (50 percent of overall energy consumption), contribute 30 percent of greenhouse gas emissions in the atmosphere, and generate 65 percent of our solid waste. As a result, planning and urban design decisions impact vast amounts of energy and resource use and lifestyles. It is incumbent on cities, planners, designers and developers to embrace sustainable design and practice strategies, in order to gain the inherent and cumulative benefits possible and ensure that future generations inherit a viable, healthy, and sustainable ecosystem.

The Station Area Plan incorporates sustainable and green design principles in all facets of its land use, design, and transportation components. Capitalizing on the site's strategic regional location and transit accessibility, the Plan promotes the conversion of an existing low intensity land use pattern into a vibrant, high intensity urban area with maximized connectivity to transit. Additionally, the Plan lays the foundation for a sustainable redevelopment process by minimizing impacts through a mix of uses, focus on transit, integration of public and green spaces, walkability, recycled materials,

Use public art as an opportunity to create identity for public spaces within the Station Area.

and resource conservation technology. This section addresses the overall principles that the Plan seeks to implement; individual goals and policies that promote sustainability and green design are incorporated throughout the Plan document. The goals describe the intent of the Station Area Plan: and provide a framework for sustainable design. Additional zoning and other measures may be necessary to ensure a high level of sustainability for the Planning Area. Goals and policies within this section will guide new development and infrastructure toward established sustainability measures and methods.

Green Urban Design Goals

4-G-19 Establish a framework for sustainability through neighborhood design and structure, providing integrated and diversified uses and amenities.

4-G-20 Encourage conservation of resources through site and building design.

4-G-21 Foster cooperation between developments, utilities, and jurisdictions to support sustainable and conservation practices.

Green Urban Design Policies

4-P-47 Minimize waste and permanent impacts on air quality, water, and endangered habitat while reducing emissions and pollutants. The use of renewable energy is encouraged, capitalizing on opportunities for closed loop recycling and reuse of resources such as water run-off.

4-P-48 Provide a range of mobility options through establishment of transit networks and routes as the primary framework for land use and mobility. Finally, develop a circulation system that includes a complete pedestrian and bike network, efficient and minimal auto and service access, and an augmented transportation program with Transportation Demand Management techniques, carshares, vanpools, shuttles, and reduced parking requirements (see Section 3.7 Transportation Demand Management for more on this topic), all of which promote transit use.

4-P-49 Create complete and integrated neighborhoods, directly linked together through a variety of pedestrian connections along streets and through building blocks; as well as a comprehensive "green network" of diverse plazas and open spaces linked by trails, paths and sidewalks.

4-P-50 Provide a diversified range of uses and affordability of housing in the Planning Area, where emphasis is placed upon co-location of complementary uses like jobs and housing to minimize travel. Likewise, minimize the need for parking and the use of impervious surfaces, opting for green/cool roofs, trees, and landscape to reduce heat islands and enhance the public realm.

4-P-51 Locate and site buildings to maximize access to natural assets like daylight, solar gain, and ventilating breezes, as well as connect to citywide recycled or gray water systems. Use buildings to define, energize and naturally survey dynamic public places and features; prioritizing the shared public realm over quasi-public or private spaces.

4-P-52 Encourage a high level of coordination between communities and jurisdictions. Encourage development that avoids impacting the ecological carrying capacity of each site and the Planning Area as a whole.

4-P-53 For all developments and other projects that create new impervious surfaces, incorporate into their design grassy swales, pervious pavement, French drains, and other BMPs that would promote the infiltration of stormwater. Ensure that solutions within the Airport sphere of incluence are consistent with airport operations. BMPs for each project should be sized such that no reduction in groundwater recharge would occur, as compared to existing conditions.

PRIVATE REALM SUSTAINABLE DEVELOPMENT

Sustainable development includes a high level of environmental, social, and economic measures that can only be achieved if the public and private sector projects work hand and hand to create synergies that form a comprehensive whole. While the public realm has a key role in the overall design and structure of an area, true sustainability can not be reached without a cohesive strategy to design and guide the practices within private development—or, the private realm. The private realm can exist at many scales, such as an individual building, or a large-scale planned development. Whatever the scale, the private realm constitutes the fabric of an area—the built form that occupies the base structure of the public realm. This private realm constitutes the majority of development and is often the more visible element of an area. Therefore, the impact of the sustainable design guidelines will achieve the greatest success if both the public and private realms exercise the same level of diligence.

Green Building Standards

In addition to the guidelines for private development, a comprehensive approach to sustainable design can be achieved by applying guidelines that establish measurable building performance standards, such as LEED standards. LEED is the acronym for Leadership in Energy and Environmental Design, and is a nationally recognized organization that formalized a certification system for sustainable/green design. LEED uses comprehensive and measurable performance standards in five areas of human and environmental health. The standards consider: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.

LEED certification can be achieved at silver, gold, and platinum levels dependent upon points awarded for levels attained at effectively reducing operating costs and conserving our natural resources. Some communities have adopted other standards for green building design, such as “Build it Green.” To ensure a consistent level of high quality and sustainable design, the development review process should include set and prioritized criteria for evaluation.

Private Realm Sustainable Goal

4-G-22 Encourage sustainable development within the public and private realms to enhance overall sustainability of the Station Planning Area.

Private Realm Sustainable Policies

4-P-54 Encourage minimum LEED certification for new private and public projects.

4-P-55 Consider incentives for greater level of certification (silver, gold, platinum) through streamlined design review and permitting, or other incentives prescribed by each City.

Private Realm Sustainable Guidelines

GL-60 Integrate green systems (LEED standards), elements, and measures early on in the design process. Consider long-term benefits and life-cycle costs in the applied cost model.

GL-61 Design the private realm in a way that reinforces and complements the public realm network of streets, open space and pedestrian links.

GL-62 Encourage walkable communities by providing additional pedestrian connections; for example, mid-block pathways, shared streets and driveways.

GL-63 Strengthen street edges by orienting the buildings to the street and providing well-designed transitions between public and private areas. Emphasize pedestrian orientation, landscaping, and the relationship of the building to the street.

GL-64 Provide convenient, safe, and attractive access to public transportation.

GL-65 Provide open spaces, courtyards, roof gardens, and playgrounds for the benefit of residents, employees, visitors, and the general public.

GL-66 Minimize environmental impacts—encourage use of drought tolerant and native species, as well as moisture-sensitive irrigation systems.

GL-67 Encourage planting of native and drought tolerant plants, pervious paving materials, furniture with recycled content, reclaimed and/or locally manufactured materials, drip irrigation and/or reclaimed water.

GL-68 Minimize the amount of paved and impervious surfaces. For projects that introduce new impervious surfaces, promote the infiltration of stormwater without the use of detention or retention ponds. Incorporate grassy swales, pervious pavement, French drains, and other Best Management Practices.

GL-69 Intensify uses around transit.

GL-70 Encourage a vertical mix of uses, different types of residential and office units; as well as a high level of flexibility in layouts, for example plan for dividable or combinable units.

GL-71 Choose building orientation and floor plate dimensions that optimize natural light and ventilation.

GL-72 Mitigate the visual and physical impact of parking lots and garages by using an efficient layout, high quality design and materials, and designing roofs that can be used as roof gardens, green roofs or for the installation of photovoltaic systems. Consider shared facilities, reduced parking ratios, car share programs, incentives for alternative fuel vehicle use through reduced parking fees, and new systems such as automated or managed parking.

GL-73 Provide secure bicycle parking facilities.

GL-74 Use buildings systems and materials that minimize both the short-term and long-term impact on resources and the environment, and improve the indoor air-quality. This includes but is not limited to the preferred use of:

- Recycled, reclaimed and/or certified materials, preferably from local sources.
- Materials that come from renewable resources, use low energy during the manufacturing and distribution process, have low VOC emissions and are recyclable.
- Energy-efficient and low emission HVAC systems.
- Passive, low or no energy building systems.
- Water saving appliances and systems such as gray water systems, moisture-sensitive irrigation, rainwater cisterns, low-flow toilets and faucets.

GL-75 For larger developments, consider high-efficiency co-generation heat and electricity plants.

4.6 VIEWS

Views and vistas of downtown San José and the surrounding hillsides, as well as adjacent landmark cultural and historical resources, are significant assets for the Planning Area. Providing distant views and a sense of expansiveness are especially critical to balance the planned high development intensities in the Planning Area. Additionally, views of the Station are equally important, with respect to cultural and historical context, identity, and wayfinding.

The Station Area Plan identifies opportunities for establishing view corridors to important landmarks (Figure 4-9). The Plan outlines design criteria to preserve and reinforce existing views and as redevelopment occurs. View policies focus on maintaining existing views of Downtown San José and establishing view corridors to the Historic Rail Depot, Mission Santa Clara, and the surrounding hillsides. Both the views and vistas identified in the Plan originate from streets and public places rather than from private development.

Views Goal

4-G-23 Protect public views of the Santa Cruz Mountains, Downtown San José, and the east foothills with appropriate development standards. Capture and emphasize new public views to the Mission Santa Clara and Historic Depot as new development occurs.

Views Policies

4-P-56 Provide views of the mountains and Downtown San José, along public streets, as illustrated in Figure 4-9. Encourage view/public access easements where the ground-level right-of-way width or open space areas are sufficient to maintain views of a significant portion—if not all—of the designated landmarks or vistas.

4-P-57 Maintain view corridors to the historic train depot, as suggested in Figure 4-9, using building massing, setbacks, and sensitive streetscape design.

4-P-58 Ensure that landscape and streetscape design in view corridors are sensitively integrated onto the view corridor.

4-P-59 Provide visual access from public streets to the Station, public plazas, and publicly accessible open spaces and pedestrian corridors.

Figure 4-9

Vision for View Corridors

- View Corridors
- Proposed Open Space
- Existing Parks
- BART
- Caltrain
- Union Pacific Tracks
- Automated People Mover
- 1/2 Mile Radius

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CHAPTER 5
PUBLIC FACILITIES

A strong framework of public facilities and amenities is an essential component of a livable district. Parks and open spaces, schools, and community facilities are vital to support the incoming residential and employee population, while police and fire stations are essential for safety. Institutions and resources such as the San José Airport, future BART Station, Historic Depot, Santa Clara Mission, and Santa Clara University also act as catalysts for redevelopment and economic activity.

This chapter focuses on educational facilities, police and fire emergency facilities, cultural and civic facilities, and public utilities. Additional types of public facilities are addressed in other chapters of the Station Area Plan, including Chapter 2: Land Use, Chapter 3: Circulation, Access, and Parking, and Chapter 4: Urban Design.

5.1 SCHOOLS

The Planning Area lies within both the Santa Clara and San José unified school districts (Figure 5-1). This section describes: (1) the existing facilities and their relationship and proximity to the Planning Area; (2) enrollment trends and accessibility to schools; and (3) policy recommendations for school facilities for the districts.

EXISTING FACILITIES

The Santa Clara Unified School District (SCUSD) is responsible for 24 primary and secondary schools, with a student enrollment of 14,253 as of the 2007/2008 school year. With the addition of the Don Callejon K-8 School in 2006, SCUSD's enrollment capacity now stands at 15,282. The district, therefore, is at 93 percent of capacity,

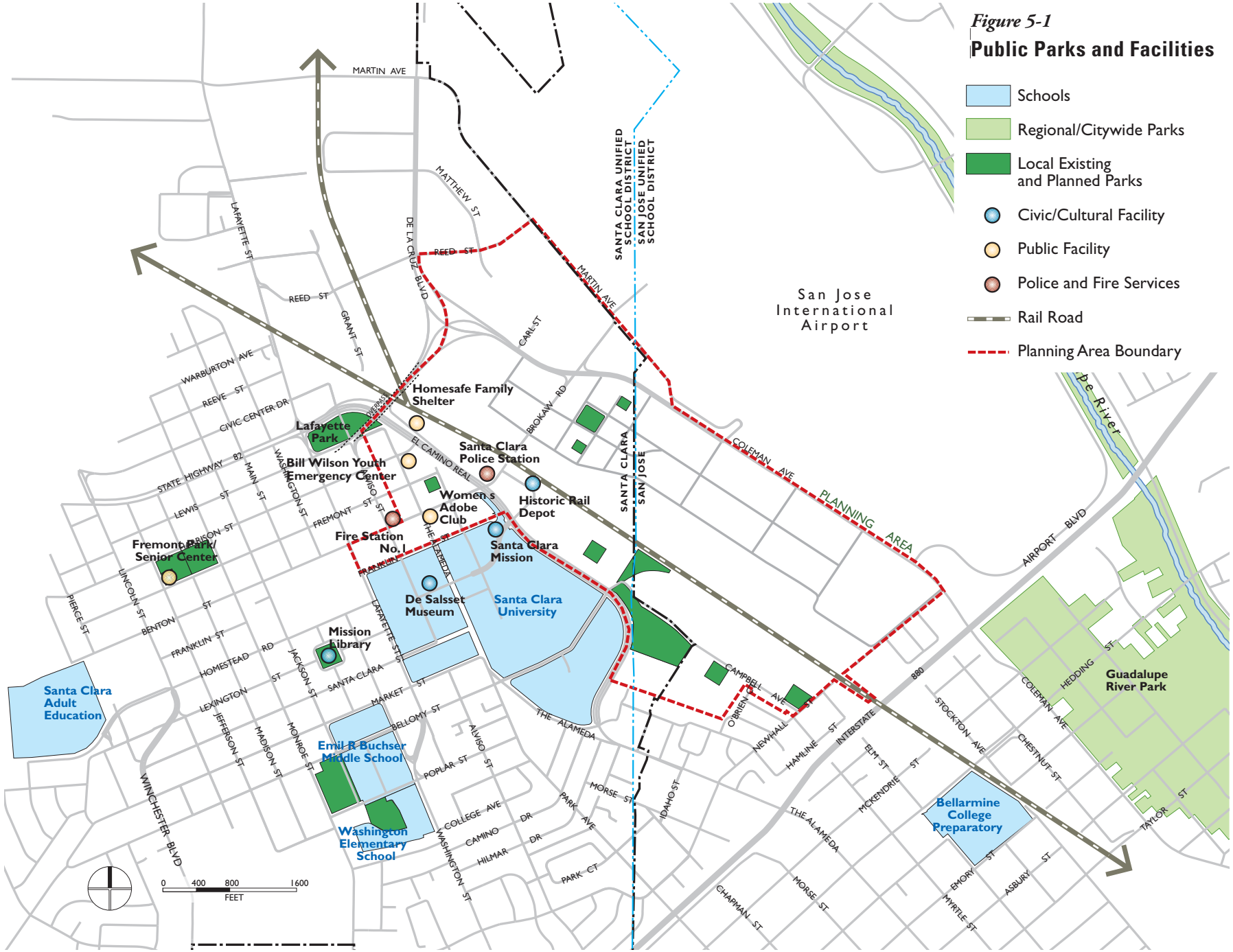


Figure 5-1
Public Parks and Facilities
Schools
Regional/Citywide Parks
Local Existing and Planned Parks
Civic/Cultural Facility
Public Facility
Police and Fire Services
Rail Road
Planning Area Boundary
San Jose International Airport
SANTA CLARA UNIFIED SCHOOL DISTRICT
SAN JOSE UNIFIED SCHOOL DISTRICT
SANTA CLARA SAN JOSE
PLANNING AREA
Homesafe Family Shelter
Lafayette Park
Bill Wilson Youth Emergency Center
Santa Clara Police Station
Historic Rail Depot
Women's Adobe Club
Fire Station No. 1
Fremont Park/ Senior Center
De Saisset Museum
Santa Clara Mission
Santa Clara University
Mission Library
Santa Clara Adult Education
Emil R Buchser Middle School
Washington Elementary School
Bellarmine College Preparatory
Guadalupe River Park
Guadalupe River
MARTIN AVE
MATTHEW ST
DE LA CRUZ BLVD
LAFAYETTE ST
REED ST
GRANT ST
CARL ST
BROKAW RD
COLEMAN AVE
AIRPORT BLVD
WARBURTON AVE
REEVE ST
CIVIC CENTER DR
STATE HIGHWAY 82
EL CAMINO REAL
WASHINGTON ST
MAIN ST
LEWIS ST
FREMONT ST
CARLISO ST
PARKER ST
LINCOLN ST
PIERCE ST
BENTON ST
FRANKLIN ST
HOMESTEAD RD
JACKSON ST
LEXINGTON ST
JEFFERSON ST
MADISON ST
MONROE ST
SANTA CLARA ST
MARKET ST
BELLOMY ST
POPLAR ST
ALVISO ST
WINCHESTER BLVD
COLLEGE AVE
CAMINO DR
HILMAR DR
PARK AVE
PARK CT
MORSE ST
IDAHO ST
THE ALAMEDA
CHAPMAN ST
CAMPBELL AVE
O'BRIEN DR
NEWHALL ST
HAMLINE ST
INTERSTATE 880
STOCKTON AVE
ELM ST
MCKENDRIE ST
HEDDING ST
COLEMAN AVE
CHESTNUT ST
TAYLOR ST
EMORY ST
ASBURY ST
MYRTLE ST
0 400 800 1600
FEET

excluding the capacity of currently closed school sites. SCUSD currently has four schools not being used for school purposes.

Only a small portion of the units identified in the Plan fall within the boundaries of the San José Unified School District (SJUSD). The SJUSD—the largest school district in Santa Clara County—has 41 open schools and 8 closed school sites. Enrollment for 2007/2008 stands at 30,943 students. SJUSD's enrollment capacity now stands at 31,991, based on the schools that are currently open. The District, therefore, is at 97 percent of capacity. Additional capacity could be provided by the currently-closed school sites in both SJUSD as well as SCUSD should the need arise.

The only public schools located in the vicinity of the Planning Area (defined as the area within a half-mile radius from the Planning Area) are part of SCUSD. These are the Washington Open Elementary School and Buchser Middle School. Since Washington Open is one of SCUSD's "choice" schools, students from anywhere in the district are welcome to apply (admission is by lottery); however, District policy could change based upon demand. Buchser Middle School, which serves students from 6th through 8th grade, is populated with students from surrounding neighborhoods.

In addition to primary and secondary schools, the Planning Area is also served by the Santa Clara Adult Education main campus. This facility is located on Benton Street near Scott Boulevard, just west of the Planning Area. The campus is comprised of several programs and schools, including GED Preparation, Wilson High School (a 500-student needs-based school), Family/Child Education, Career Center, and English as a Second Language (ESL).

ENROLLMENT TRENDS AND ACCESSIBILITY

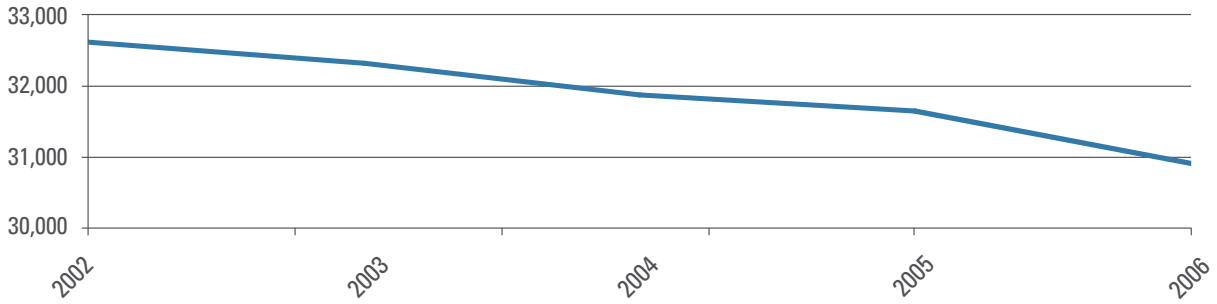
As of October 2007, both school districts are operating under capacity based on their currently open schools without considering the additional capacity in their closed schools. During the last five years, enrollment in SCUSD has increased slightly, while enrollment in SJUSD has declined steadily (Figure 5-2).

The upward trend shown in SCUSD has come about as the result of Rivermark—a 2,200-plus unit housing development situated on approximately 100 acres in the northern part of the City. Rivermark housing units consist of multi-family apartments, townhouses, and single-family homes—housing types that attract families with school-aged children. Santa Clara is a nearly built-out community, with the Rivermark site constituting one of the last large available sites for residential development. Most of the land within the City that is available for additional housing is principally limited to infill sites, which, if built at higher densities, may not attract families with children. Therefore, it is uncertain that the recent rise in enrollment will extend at a similar rate into the future. Furthermore, SCUSD evaluates enrollment on a yearly basis in concert with new development as it is approved by the City.

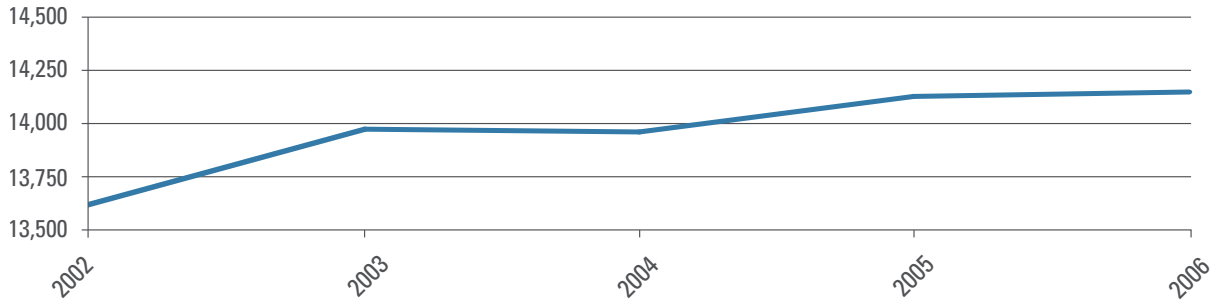
SJUSD, on the other hand, has had declining enrollment over the past five years. The District has closed eight facilities within the past three years. While this decline in enrollment is

Figure 5-2

San Jose Unified School District
Enrollment: 2002-2006



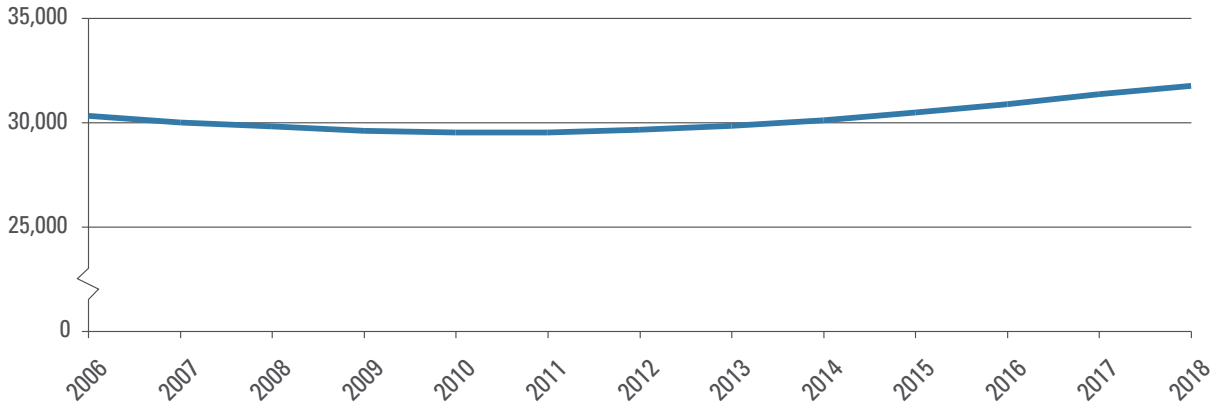
Santa Clara Unified School District
Enrollment: 2002-2006



Source: California Department of Education, Educational Demographics Unit

Figure 5-3

San Jose Unified School District
Projected Enrollment



projected to continue until 2010, SJUSD projects that enrollment will actually increase after that time by about one percent per year through at least 2020, according to the district's 12-year projections (described in the next section).

While the residential development in the Planning Area west of the rail corridor will be adjacent to existing residential neighborhoods, roughly 900 new units are planned east of the tracks, mixed with office and commercial space. This high level of density of the planned units east of the tracks, however, is unlikely to be attractive to families with children, suggesting that student generation rates may be lower for these units. SCUSD currently buses elementary school children living near the Planning Area to Scott Lane Elementary School on the west side of the tracks which would accommodate the limited number of new students anticipated from new units in the Planning Area. New elementary school students from the planned units east of the rail corridor would likely be bused to this school.

In addition to the downward trend in enrollment in SJUSD during the last five years, it should also be noted that much of the residential development in the District in the Planning Area is already underway. Furthermore, this housing is adjacent to the established Newhall Neighborhood and therefore is well connected to a range of amenities, including schools.

Schools Goal

5-G-1 Promote adequate and accessible school facilities for the Planning Area population within the statutory limits pursuant to State law.

Schools Policy

5-P-1 Work closely with SCUSD and SJUSD with regard to school impact mitigation to address any increases in enrollment and other demands on school resources to the extent possible.

5-P-2 Work with SCUSD to ensure integration of housing development east of the railroad tracks with school bus routes.

Larry J. Marsalli Park

5.2 CIVIC/COMMUNITY FACILITIES

While the Planning Area has few community facilities within its boundaries, the surrounding area has a rich diversity of parks and community and public facilities. Located generally within a half-mile, or ten-minute walk of the Planning Area, many of these facilities will directly serve the Plan's new residential and employment districts. However, additional facilities will need to be developed as the Planning Area's population and employment increases. This section provides an overview of the existing and new planned facilities both within and around the Planning Area, including a brief discussion of parks and open space, community centers, and fire and police facilities.

PARKS AND OPEN SPACES

As discussed in Chapter 2: Land Use, there are several parks within a half-mile vicinity of the Planning Area. Many existing parks in the area are located in the City of Santa Clara, covering approximately 23.5 acres and include: Larry J. Marsalli Park, green space on the Mission Library site, Fremont Park, and Washington Park. In addition to these four parks, a new one-acre park is planned at the intersection of Campbell Avenue and Newhall Street within the Planning Area. The Guadalupe River Park, which provides 150 acres of parkland adjacent to I-880 and the Airport contains 2.6 miles of trails and multiple recreational facilities including playgrounds, tennis courts, and a carousel. The park is located a short distance from the Planning Area—across the I-880 corridor. In addition, Santa Clara University, which is contiguous with the Planning Area, offers several recreational facilities on and adjacent to its campus. The Stephen Schott Baseball Stadium, for instance, is located at Campbell Avenue and El Camino Real.

Because of the transit-oriented, urban intensity of the Station Area Plan development, the opportunity to set aside large tracts of land for park space is limited. The Station Area Plan proposes seven (7) acres of additional open space in the form of smaller landscaped areas and plazas distributed throughout the Planning Area. For the most part, open space should be created in conjunction with development projects. These open spaces can be publicly or privately owned and maintained, and should be both visually and physically accessible to the public.

Aside from a central open space area in the Station Area Zone, the open spaces or plazas should be located on corners or mid-block, and oriented along primary pedestrian connections. Connections are envisioned with a network of green streets and pedestrian spines. The small scale of these open spaces can provide new residents with multiple opportunities for recreation and passive space within a five-minute walk. In addition to this network of open spaces, residential projects should incorporate well-designed common open space—such as courtyards, roof decks, and terraces—on-site to provide more private and sheltered open space. Furthermore, maintaining direct, pleasant, and safe access to existing parks that surround the Planning area is an important aspect of the Station Area Plan.

CIVIC AND CULTURAL CENTERS

The civic and cultural centers located within the vicinity of the Station Area Plan include libraries and clubs as well as museums and historic buildings. Many of these facilities are located in the older historic core of Santa Clara. These include the Mission Library and Santa Clara Women's Club Adobe. The Mission Library Family Reading Center is located on Lexington Street at Main Street; the library is a satellite location of the Santa Clara City Library. "READ Santa Clara," a free adult education program focusing on building reading, writing, and math skills is located in this facility. The Santa Clara Women's Club Adobe, located on The Alameda, is the oldest cultural center inside the Planning Area. The structure was built circa 1790 and offers support to Santa Clara youth, as well as organizations that aid seniors, veterans, and the disabled.

The Santa Clara Mission and the De Saisset Museum, located on the Santa Clara University campus, are important cultural markers in the Planning Area context. The Mission dates back to 1777 and was the first outpost of Spanish civilization in the Santa Clara Valley. Today it serves as the Santa Clara University campus chapel and is open to the public. Also located on the campus is the largest cultural facility in the area—the Santa Clara University De Saisset Art History Museum. The 19,210 square foot facility is open to the public and exhibits art and California native history.

On the opposite side of El Camino Real, the Edward Peterman Museum of Railroad History/ Santa Clara Historic Railroad Depot is located on Railroad Avenue at the Santa Clara Caltrain station. The museum offers access to historic structures, maintains an operating scale model railroad display, and runs a railroad-specific library.

Implementation of the Station Area Plan can celebrate and provide connections to these community and cultural centers. Policies focus on access and connectivity to these sites, as well as the preservation of key cultural assets. These assets include the Santa Clara downtown, Old Quad, the Santa Clara University/Mission area, and the Historic Depot. The Plan seeks to provide:

- Development that is appropriately scaled and designed to complement historic areas;
- Enhancement to historic sites through view corridors and adjacent public spaces;
- Conservation of historic qualities of existing properties and surrounding neighborhoods; and
- Preservation of cultural and archaeological resources.

The Station Area Plan promotes the creation of a public plaza adjacent to the Historic Depot, as well as a view corridor from Benton Street and El Camino Real. Preserving the visibility of the Depot and connectivity to nearby cultural assets would contribute to the Station's role as a major center and gateway into Santa Clara and San José.

The Santa Clara Historic Depot is both a historic site as well as museum facility.

Civic/Community Facilities Goals

5-G-2 Encourage a diversity of civic and cultural facilities in the Planning Area.

5-G-3 Enhance visibility and connectivity to existing and new cultural facilities within and around the Planning Area.

5-G-4 Provide a diverse range of community facilities in and around the Planning Area, including recreation centers, daycare, youth centers, and senior and transitional services.

Civic/Community Facilities Policies

5-P-3 Establish strong pedestrian connections, as described in Chapter 3: Circulation, Access, and Parking, and Chapter 4: Urban Design, to connect new and existing neighborhoods to open spaces and community facilities.

5-P-4 Encourage the location of cultural and community facilities in mixed-use buildings in retail areas as well as in proximity to existing historic and cultural amenities.

5-P-5 Encourage community space or a plaza as part of development on sites exceeding five acres in size; including at least one community facility east of the railroad tracks, preferably close to Center Street or centrally located open space amenity.

5-P-6 Examine opportunities to expand or synergistically co-locate open spaces and cultural facilities.

5.3 PUBLIC SERVICES AND FACILITIES

The Planning Area encompasses the headquarters of the Santa Clara Fire Department (SCFD) as well as the Police Headquarters. Several social services are also located within or directly adjacent to the Planning Area. This section examines existing and needed community (social, safety, and infrastructure) services and facilities.

PUBLIC AND SOCIAL SERVICES

Several social services are located within and adjacent to the Planning Area. The Bill Wilson Youth Emergency Center and Homesafe Family Shelter are both located just outside of Santa Clara's downtown area, along The Alameda at Harrison Street and El Camino Real, respectively. These facilities offer shelter for youth, women, and children, and are clustered in proximity to the recently-built Santa Clara Police Station at El Camino Real and Benton Street. Outside of the Planning Area, within Fremont Park, the Santa Clara Senior Center offers recreational and educational activities to community members aged 50 years and older. The largest senior center in the Bay Area, the 45,000 square-foot facility just finished a major expansion in early 2007. All of these services will benefit those living in the Planning Area.

POLICE, FIRE, AND SAFETY SERVICES

Santa Clara: Current Services

The SCFD headquarters is located within the Planning Area at Benton and Alviso streets. The SCFD consists of 10 strategically-placed fire stations throughout the city, staffed with 39 active on-duty response personnel. Each station is equipped with at least one three-person engine or ladder truck company. Three stations also have a two-person ambulance that provides paramedic service; a Rescue Response vehicle and a Hazardous Materials Response vehicle are housed at two other stations. The current facilities, equipment, and staff allow a three-to-five minute average response time to all areas of the city. The current facilities for the SCFD provide the necessary personnel and equipment for a high level of service to the city. In fact, the Department receives a Class 2 ISO (International Organization for Standards) rating.[1] Neither current traffic flow or building height impedes the SCFD's ability to quickly respond. The City also participates in the Santa Clara County Fire and Rescue Mutual Aid Response Plan to further ensure that fires and other emergencies will be efficiently handled.

Unlike the City's Fire Department, the Santa Clara Police Department (SCPD) was not at full strength in 2007. The SCPD currently has 138 officers and eight (8) open positions, with an authorized strength of 146. These officers

[1] ISO (International Organization for Standards) creates a Fire Suppression Rating Schedule that evaluates the fire-fighting capabilities of individual communities. The schedule produces a numerical grading which rates fire departments on a scale of 1-10 with 1 being the best and 10 being the worst.

The Bill Wilson Youth Emergency Center

The Homesafe Family Shelter

Santa Clara Fire Station No. 1, located immediately adjacent to the Planning Area, was the first station built in the city.

The Santa Clara Police Station headquarters is located off of El Camino Real at Benton Street, adjacent to the Santa Clara Transit Center.

are divided by bureau as follows: Field Operations Division—97, Investigations Division—26, and Administrative Services—23. In 2006, the SCPD received 37,600 911-calls, with an average response time of 3 minutes or less. Given that the SCPD was not at its authorized strength, keeping up with calls for service was challenging. The City is recruiting to fill the vacant positions.

Santa Clara: Future Services

While no new SCFD facilities are planned at this time, as the population of Santa Clara rises, more equipment and personnel may be required to provide additional emergency services. Currently it is not clear whether infrastructure upgrades will be necessary to service the Planning Area. A more thorough, detailed study should be undertaken as development occurs within the Planning Area.[2]

As the result of the intensification in the Planning Area as well as other developments in the city, the SCPD may require additional officers and facilities in the future. While the SCPD is currently researching another substation on the west side of town and is in the process of building an addition to its Communications Center, a new storefront police facility in the Planning Area may be appropriate.

San José

During the 20-plus year horizon of the Plan, three new Public Safety Bond-funded fire stations are currently programmed. These are not relocations/replacements for existing stations. The SJFD uses Standards of Response Cover, a risk- and performance-based methodology, to determine performance objectives. The SJFD will be able to provide services to the Planning Area with the existing capacity of Stations 1, 4, 5, and 7 within adopted performance objectives.[3]

The SJPD will be opening the South Valley Substation in 2009. As of the writing of this plan, there are no significant problems with crime associated with the portion of the Planning Area in the city of San José.[4] Over time, as new development is completed, additional service needs may require more investment in additional staff and equipment.

[2] Information was provided on behalf of the Santa Clara Fire Department on 10/22/07 by William Kelly, Deputy Fire Chief.

[3] Email correspondence with Geoff Cady, Resource Planning and Deployment AO, San Jose Fire Department, on 11/2/2007.

Response time performance objectives are established for first and second due resources, an initial fire-fighting force (IFF), and for an effective firefighting force (EFF). Performance objectives for first and second due resources are 8 and 10 minutes, respectively for 80 percent of emergencies, with the performance objective of 10 minutes for 80 percent of emergencies for an IFF. Impacts to response time performance can occur from traffic congestion and increases in service demand that exceed Unit Hour Utilization (UHU) values of .35. When projected service demand results in UHUs of greater then .35, an additional resource may be required in addition to modifications to existing or new fire facilities.

[4] Email correspondence with David Santos, Sergeant #3203, Research and Development Unit, San José Police Department, on 11/5/2007.

PUBLIC SERVICES

As of 2008, there are no known deficiencies regarding public services such as safety, water, wastewater, solid waste, and telecommunications. Rather, infrastructure and services are evaluated and updated with new development as needs dictate.

Public Services and Facilities Goals

5-G-5 Maintain a safe and livable environment in the Planning Area by ensuring appropriate levels of fire and police services proportionate to population and activity level, and design.

5-G-6 Promote coordinated provision of services by the two cities where and as appropriate.

Public Services and Facilities Policies

5-P-7 Ensure participation by the fire and police departments of the two cities in the detailed engineering evaluation and design of the underpass between El Camino Real and Coleman Avenue.

5-P-8 Ensure full accessibility of emergency services for the underpass as it is critical for station access and safety services to the area east of the tracks due to the location of the Santa Clara police and fire stations in the western portion of the Planning Area.

5-P-9 Integrate any new fire and police facilities into mixed-use development projects to the extent possible to help achieve overall development intensity goals established for the Planning Area.

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CHAPTER 6
HEALTH AND SAFETY

Health and safety issues in the Planning Area stem from its proximity to an international Airport, noise from transportation systems, residual hazardous materials from agriculture, historic railroad development, and industrial activities. Reducing or avoiding the risks associated with these conditions will create a safer, more livable environment. The need to proactively address health and safety concerns is underscored by the Plan's directives to significantly increase the household and employment population within the Planning Area, while creating a safe, livable community. This potentially increases the number of people exposed to risks, and the possibility of creating new health and safety threats.

This chapter addresses environmental and man-made hazards affecting the Planning Area. These include an overview of Airport influences affecting the Planning Area, which pertain to both noise and safety concerns, as well as additional noise sources in the environment, geologic and seismic hazards, and hazardous materials. Fire and police emergency services are discussed in Chapter 5: Public Facilities. For further information on existing noise and safety conditions and constraints in the Planning Area, refer also to the *Existing Conditions Report* and *Opportunities and Constraints Working Paper*. Both documents are available from the cities of Santa Clara and San José planning departments.

6.1 AIRPORT INFLUENCE

The Airport is located directly northeast of the Planning Area in the City of San José. While its proximity is an asset, airport activities also represent potential risks. Noise and safety impacts related to airport activities affect surrounding areas, and need to be considered as part of the planning dialogue for the affected areas.

Airport operations, Airport lands, and the land uses in areas adjacent to and surrounding airports are regulated by a variety of federal, state, and local agencies:

- *The Federal Aviation Administration (FAA)* regulates airport operations and the use of Airport lands to ensure the safety of the traveling public.
- *County Airport Land Use Commissions* develop comprehensive land use plans to provide the orderly growth of the area surrounding each airport within their jurisdiction. The commissions develop Airport Land Use Compatibility Plans (ALUC Plans) with policies to ensure compatibility between aircraft noise and various types of land use, as well as to ensure the safety of people and property within an Airport Influence Area (AIA) or Airport Referral Area (ARA). Although the ALUC has no jurisdiction over existing land uses, its role is to ensure that new land uses or other proposed actions are compatible with the airport environment.
- Counties and cities develop general and specific plans that include specific elements and policies or elements pertaining to noise and land use.

The Station Area Plan must consider the policies set forth by these various agencies pertaining to noise, safety and land use compatibility.

AIRCRAFT NOISE

The greatest source of noise in the Planning Area is the Airport, which produces significant noise effects on surrounding areas. The Airport is one of the busiest airports in the Bay Area and it is the only commercial airport in Santa Clara County. The 2010 Airport Master Plan projects these noise levels to 2017, as shown in Figure 6-1.

Airport noise from the Airport is generated from a variety of sources and operations that include:

- **Aircraft Arrivals and Departures:** Neighbors and communities are usually most concerned with the noise that is generated during arrivals and departures (take-offs and landings). Noise levels measured during departures reflect the worst-case noise environment.
- **Engine Run-ups or Maintenance/Testing Operations.** Aircraft engines also operate while aircraft are on the ground, either before departure or during engine run-ups and testing. Because commercial aircraft maintenance at the Airport is usually performed when aircraft are not in service (usually between 11:30 p.m. and 6:30 a.m.).
- **Ground Service Equipment.** In addition to aircraft, ground vehicles such as airport-generated traffic and service equipment (baggage carts, etc.) also contribute noise.
- **Helicopter Noise.** Since helicopters fly at lower altitudes, their noise can be considered to be intrusive to those beneath.

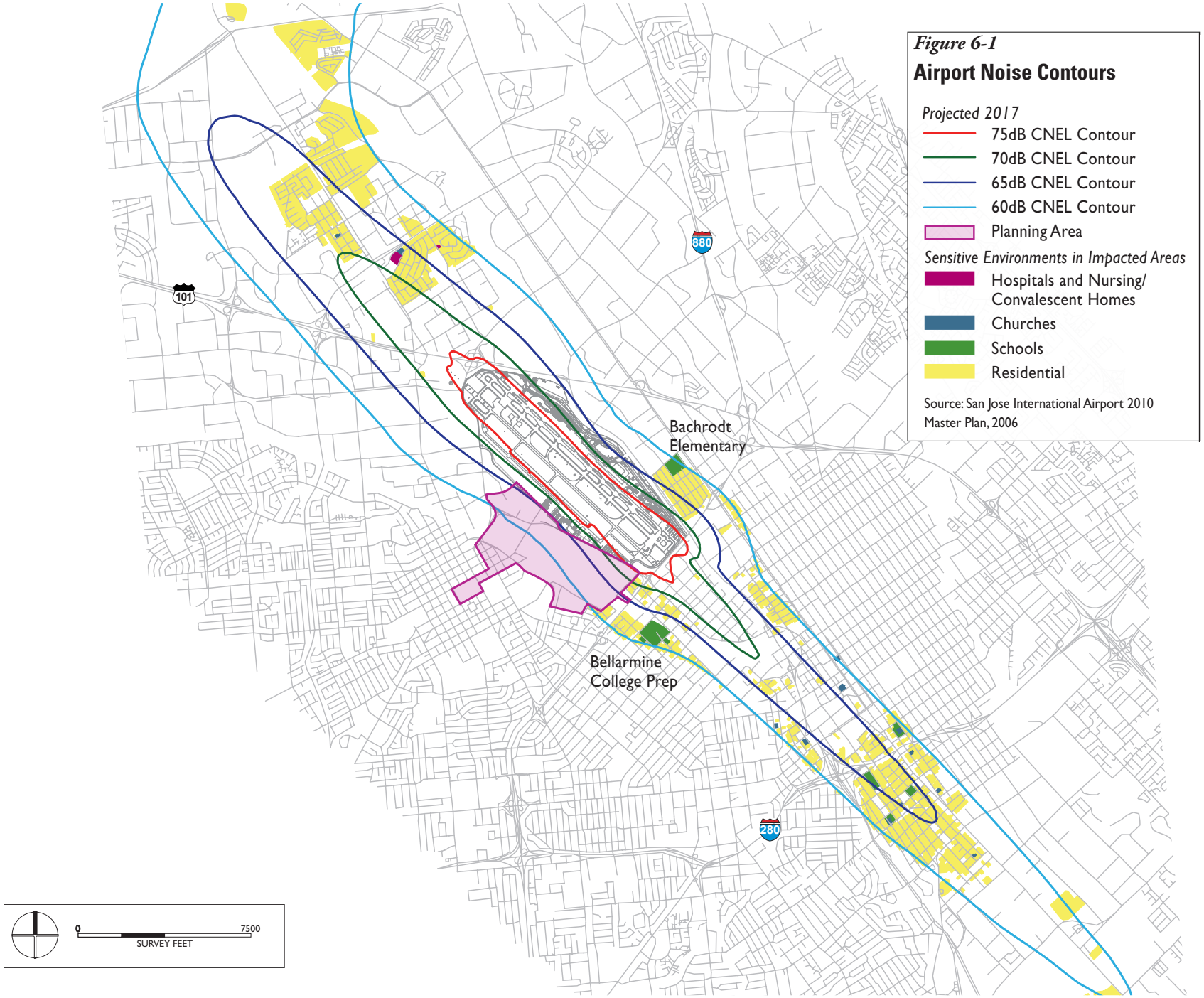

Figure 6-1

Airport Noise Contours

Projected 2017

- 75dB CNEL Contour
- 70dB CNEL Contour
- 65dB CNEL Contour
- 60dB CNEL Contour
- Planning Area

Sensitive Environments in Impacted Areas

- Hospitals and Nursing/ Convalescent Homes
- Churches
- Schools
- Residential

Source: San Jose International Airport 2010 Master Plan, 2006

The FAA, the State, the ALUC, and local jurisdictions have developed standards for evaluating land uses in relation to the Airport noise environment, with particular emphasis on noises that might interfere with audible conversation and speech or sleep. Maximum standards have been incorporated into State laws pertaining to land use and into the Uniform Building Code to prevent noise from intruding on interior living and working spaces. In addition to interior noise levels, the ALUC also is concerned with exterior noise levels in recreational and habitable exterior space, such as balconies, parks, patios, etc. In general, outdoor recreation areas such as parks, patios, or decks are not considered by the ALUC to be compatible in areas where noise exceeds 75 dBA CNEL (Community Noise Equivalent Level). The ALUC has adopted a Land Use Compatibility Chart (summarized in Table 6-1), which complies with State noise standards, for projects in the vicinity of the Airport.

Since portions of the proposed Planning Area are located within various noise contours associated with the Airport (Figure 6-1), proposed land uses should comply with the criteria set forth by the governing agencies and be designed with appropriate sound insulation pursuant to each appropriate agency's regulations and building code requirements. For specific details regarding noise, land use, and evaluation criteria, refer to Section 6.2 of this chapter.

Table 6-1: Land Use Compatibility for Aircraft Noise

Generalized Land Use	Noise Level (CNEL Value)				
	60 – 65	65-70	70-75	75-80	80-85
Residential	Satisfactory	Avoid	Avoid	Avoid	Avoid
Educational	Satisfactory	Avoid	Avoid	Avoid	Avoid
Commercial	Satisfactory	Caution	Caution	Avoid	Avoid
Recreation	Satisfactory	Caution	Caution	Avoid	Avoid
Industrial	Satisfactory	Satisfactory	Caution	Caution	Avoid
Livestock	Satisfactory	Satisfactory	Satisfactory	Avoid	Avoid
Open Space/Agriculture	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory

1. Satisfactory = Land use is compatible within specified noise contour.

2. Caution = Review noise insulation needs carefully.

3. Avoid = Avoid land use unless related to Airport services.

Source: Santa Clara County, 1992. ALUC Plan, Table 3.

SAFETY ZONES

The FAA and the ALUC have established policies pertaining to the location of and types of land uses and structures that should be developed near or adjacent to runways. The ALUC has established Safety Zones that extend 5,000 feet from the end of the runway pavement and 750 feet from each side of the runway pavement. Safety Zones are also divided into inner and outer portions. The 1,500-foot-long portion of the Safety Zone nearest the runway is considered to be the "Inner Safety Zone," and no new structures can be constructed in the areas that would be above the primary runway surface. The remaining area is the Outer Safety Zone, in which residential uses are prohibited and population densities are limited (i.e., the 10/25 Rule).

Approximately 6.5 acres in the northeastern corner of the Planning Area are within the Safety Zone associated with the south end of Runway 11R-29L, most of which is adjacent to Coleman Avenue (Figure 6-2). Most of the area within the Airport Safety Zone has been cleared of all structures. In addition, the area within the Safety Zone is under an avigation easement with the City of San José. Any development in this area will need to be reviewed through FAA's 7460 process.

HEIGHT RESTRICTIONS/OBSTRUCTIONS TO NAVIGABLE AIRSPACE

The FAA and the ALUC must protect public health and safety by ensuring that navigable airspace is free of obstructions—especially in the approach and departure areas near runways. FAA Part 77 requirements and policies in the ALUC Plan require that proposed projects do not include the erection of structures that would intrude in to this airspace, and maintains height restrictions for new structures to ensure that the navigable airspace immediately surrounding airports is free from intrusions; such as cell towers, tall buildings, etc. The entire Planning Area is within the FAA-defined Horizontal Surface associated with runways at the Airport (Figure 6-3). Structures within this area cannot exceed a height of 212 feet above mean sea level (msl), which must be calculated on a case-by-case basis as underlying ground elevation at different sites varies. (To determine the allowable height of a proposed structure, the existing ground elevation is subtracted from 212 feet msl.) A small portion of the Planning Area is located within the 7:1 transitional surface which has slightly more restrictive building heights.

Any proposed structure that would exceed one of the imaginary surfaces or slopes which radiate from the Airport runways, or which would stand at least 200 feet in height above ground, must be referred to the FAA for an airport safety determination. Such structures are reviewed on a case-by-case basis and only those determined by the FAA to be a potential hazard would be prohibited.

Because this Plan includes no structures over 150 feet in the Plan area, there is no concern that structures will interfere with Airport Operations since building heights will all be below the FAA Part 77 maximum height requirement.

OTHER AIRCRAFT SAFETY HAZARDS

According to the ALUC Plan, specific facilities and land uses can create hazards to navigation by obscuring a pilot's view, by creating glare, dust, steam, or distracting lights, or by interfering with communications and instrumentation. FAA also warns against the creation of wildlife hazards through the use of water features, such as fountains or stormwater management ponds, as they can attract large concentrations of birds, or the use of landscaping that would produce fruit, nuts, or berries to attract birds and other wildlife.

PLANNING APPROACH

The Station Area Plan includes a number of policies to minimize potential airport-related safety issues. The Plan encourages the development of higher intensity uses closer to the Station that coincides with location away from the Airport Safety Zones. Landscaping, tree planting, and water features, within the Airport approach and climb-out areas should be designed to minimize attraction of bird populations in the Airport flight paths and prevent the creation of potential wildlife hazards for aircrafts. The Plan would also encourage the design of proposed new buildings to include features that minimize light and glare, thereby reducing potential hazards to aircraft navigation.

Airport Influence Goals

6-G-1 Minimize the risk of injury, life loss, and property damage associated with aircraft activity at the Airport.

Airport Influence Policies

6-P-1 Regulate development within those zones in the Planning Area affected by the Airport. Use and development limitations, as established by the ALUC Plan and cities of Santa Clara and San José General Plans and regulations for that portion of the Planning Area with ALUC jurisdiction.

6-P-2 Avoid land uses that pose potential hazards to air navigation in the vicinity of the Airport. These uses include the following:

- Any use that would direct a steady or flashing light of white, red, green or amber color towards an aircraft engaged in an initial straight climb following takeoff or towards a landing, other than FAA-approved navigational lights;
- Any use that would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach toward a landing;
- Any use that would generate smoke or rising columns of air;
- Any use that would attract large concentrations of birds within aircraft approach and climbout areas; and
- Any use that would engage electrical interference that may interfere with aircraft communications or aircraft instrumentation.

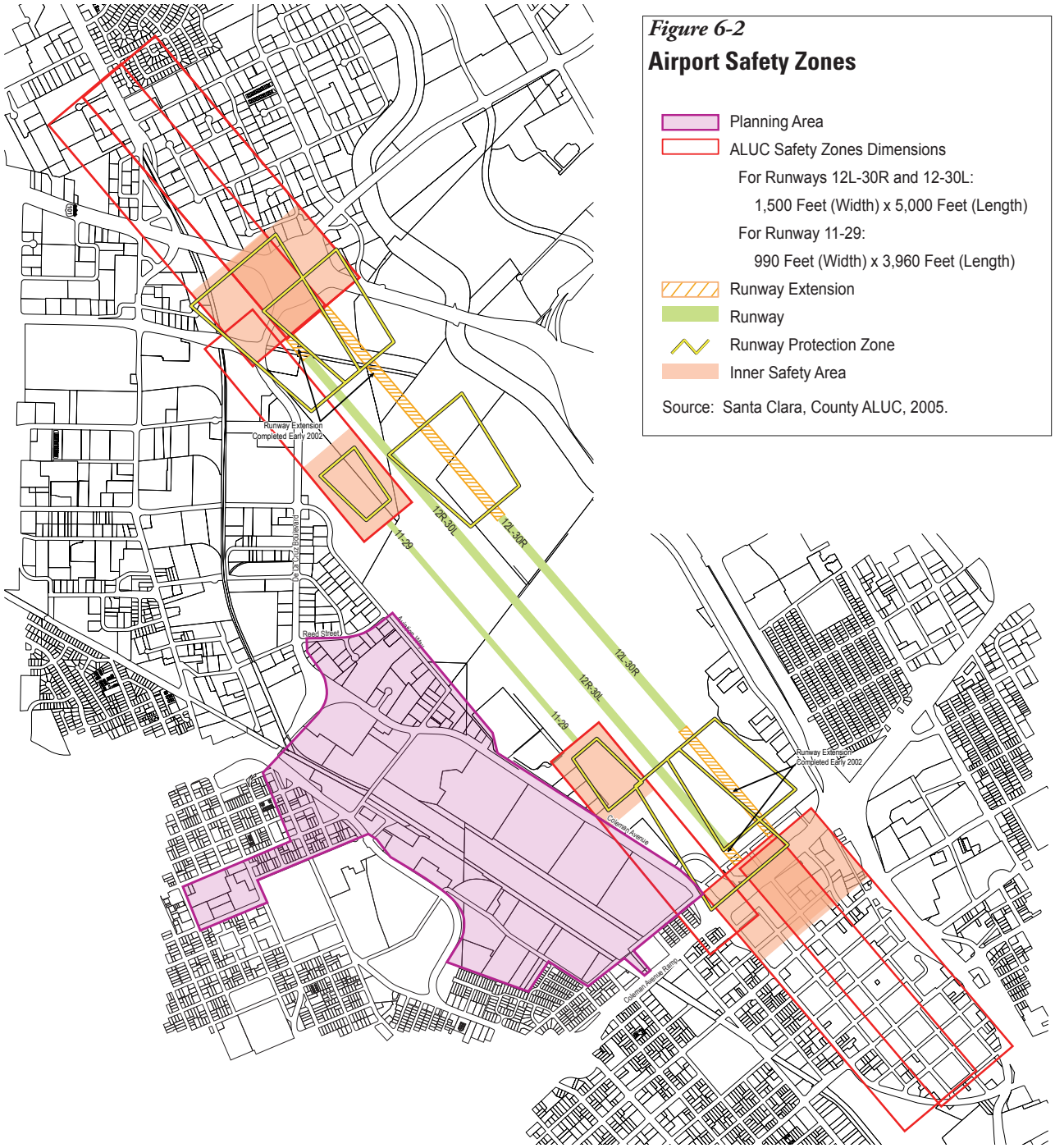

Figure 6-2

Airport Safety Zones

- Planning Area
- ALUC Safety Zones Dimensions
  - For Runways 12L-30R and 12-30L:
    - 1,500 Feet (Width) x 5,000 Feet (Length)
  - For Runway 11-29:
    - 990 Feet (Width) x 3,960 Feet (Length)
- Runway Extension
- Runway
- Runway Protection Zone
- Inner Safety Area

Source: Santa Clara, County ALUC, 2005.

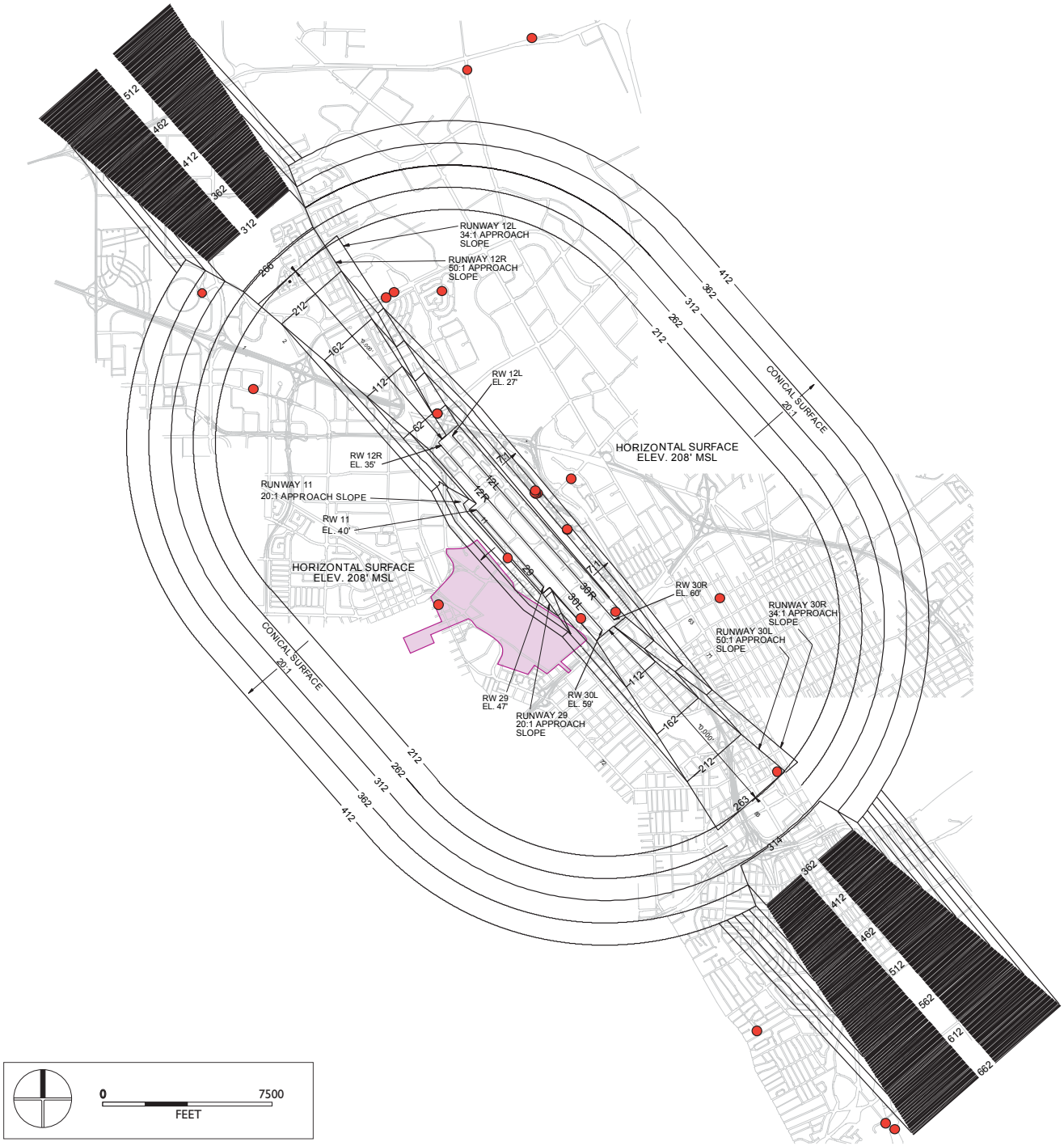

Figure 6-3

FAA Surfaces

Known Obstructions

208 Elevation (msl)

Planning Area

Source: FAA, 2008.

6.2 NOISE

Noise has a significant effect on the quality of human habitation, health, and safety. While the Airport impacts the Planning Area noise environment the most dramatically, transportation systems and railroad and freeway traffic are also principal sources of noise in the Station Area. Noise impacts resulting from the Airport are discussed in Section 6.1: Airport Influence and addressed in the Santa Clara County ALUC Plan. Additionally, the juxtaposition of residential with more active uses that generate noise may be problematic as well.

Reducing impacts from transportation noise involves identifying the geographic extent of noise in mapped contours and 1) avoiding uses sensitive to noise—such as residences, parks, and schools—in affected areas, and/or 2) integrating noise attenuation components in buildings for noise-sensitive uses to reduce interior sound levels. The State of California establishes acceptable interior noise levels for habitable uses. In addition, the State has established guidelines for evaluating the compatibility of various land uses with different noise levels. Each jurisdiction has developed noise standards based on these guidelines. These are included in each city's General Plan.

PROJECTED NOISE ENVIRONMENT

With the significant population and job growth expected in the Planning Area under the Station Area Plan, automobile traffic will increase on the area's arterial streets. In addition, continued development in the cities of San José and Santa Clara will increase automobile traffic on the highways and roadways that pass through the Planning Area. Rail freight traffic is also likely to increase at a rate of two to three percent per year[1] (a total of 24 freight cars will pass through the Planning Area by 2030), in addition to increased rail transit service by Caltrain, ACE, and Capitol, as well as new BART service. Increased traffic congestion on highways, however, may actually lower speeds and, thereby reduce noise levels since greater speeds tend to create more noise. Additionally, proposed infill development in the Planning Area will increase temporary point sources of noise from construction activities. However, these activities will not be permanent noise sources after construction is completed.

Projected noise level contours for the Airport (up to 2017), railroad (freight, commuter, Amtrak, and BART trains), and Highway 880 (up to 2030) are shown in Figure 6-4. It is important to note that the future noise contours shown in Figure 6-4 do not include noise levels related to implementation and development under the Station Area Plan. Overall, the majority of the Planning Area is situated within the outer 60 dBA CNEL noise contour, which is the outer limit of acceptability for noise-sensitive uses like residences, schools, and playgrounds. Roughly all of the area designated for residential use by the Station Area Plan is located within this outer limit. However, residential development situated along the rail corridor will be subject to 65 and 70 CNEL within 100 to 200 feet of the rail right-of-

[1] Future rail freight projections along the UPRR corridor were provided by Gary Riddle of Union Pacific Railroad Company, February 2006.

Figure 6-4

Projected Noise to 2030[1]

- 80 dBa CNEL
- 75 dBa CNEL
- 70 dBa CNEL
- 65 dBa CNEL
- BART
- Below-grade BART Alignment
- Ramped Above-grade BART Alignment
- Caltrain, ACE, Capitol
- Union Pacific Tracks
- Future APM Alignment
- Area of Future BART Facilities
- Conceptual Street Grid on FMC Property
- Planning Area Boundary

[1] Noise from highway and rail conditions are projected to 2030 and Airport conditions are projected to 2010 per the Airport 2010 Master Plan.

way. Specific mitigation measures will be required for new development in this portion of the Planning Area, similar to the measures implemented for recent residential development along the rail corridor. These developments—located east of Campbell Avenue in San José—currently mitigate the higher CNEL levels with sound-insulating walls and other buffering/sound-mitigating features in their respective building designs.

In addition to areas directly adjacent to the rail corridor, approximately 64 acres of the Planning Area lie within the 65 and 70 dba CNEL contours associated with the Airport and I-880. As a result, this portion of the Planning Area will require additional measures for noise reduction to be implemented in new building design. While existing residential uses have constructed sound walls to reduce noise levels, the urban nature of development contemplated for the majority of the Station Area Plan will necessitate alternate, more appropriate solutions that will meet the cities of Santa Clara and San José noise standards. Thus, proposed new uses would be required to incorporate more sound-insulating building materials than typical construction (i.e., window and wall construction with higher Sound Transmission Class [STC] ratings), similar to the aforementioned existing projects along the rail corridor in San José.

Additionally, the Federal Railroad Administration issued a Final Rule for the Use of Locomotive Horns and Highway-Rail Crossings that took effect in June 2005 (and amended August 2006). This rule allows local jurisdictions to establish quiet zones with limits on crossing horns and whistles, and the Planning Area railroad crossings may be eligible. Other options for providing railroad sound barriers may reduce some noise and vibration effects and other safety and urban design concerns, but these would not fully mitigate the noise effects of railroad operations.

The Station Area Plan includes specific policies in Chapter 2: Land Use and Chapter 4: Urban Design sections, as well as in this Noise section, to regulate noise effects on residential uses and other noise-sensitive uses. Since industrial and commercial land uses have less-stringent noise level standards, fewer noise-mitigating standards would be necessary, however these uses are required to comply with code requirements.

Noise Goals

6-G-2 Maintain a pleasant and livable sound environment along-side rising levels of activity and increasing intensity and mix of uses.

6-G-3 Minimize the impact of noise on people through careful land use and site planning, and noise reduction and suppression techniques.

6-G-4 Work with responsible agencies to mitigate, to the extent possible, severe noise impacts from unchangeable sources—such as Airport, railroad, and freeway and roadway traffic.

Noise Policies

See also noise insulation-related policies in Chapter 4: Urban Design (Policies 4-P-8).

6-P-3 Continue working towards innovative solutions with Airport and railroad regulators and operators to balance noise attenuation, public safety, land use, and urban design goals. Monitor federal legislation pertaining to aircraft noise for new possibilities for noise-reducing modifications to aircraft engines beyond Stage 3 requirements. In addition, monitor the ongoing FAA study group discussions pertaining to land use around Airports in order to advise local officials appropriately of new developments.

6-P-4 Locate residential and other noise-sensitive uses consistent with the projected Planning Area noise environment.

6-P-5 Continue to require safe and compatible land uses within the Airport noise zone (defined by the 65 DNEL contour as set forth in State law). Permit residential development on Planning Area sites within the Airport noise impact area only when mitigable through noise insulation.

6-P-6 Consider collaboration between the cities of Santa Clara and San José, VTA, Caltrain, Capital Corridor, ACE, High-speed Rail, and Union Pacific to establish a Planning Area "Quiet Zone." The Quiet Zone would limit the sounding of horns, bells, and whistles. From between I-880 to the south and De la Cruz Boulevard to the north.

6-P-7 Prior to issuance of building permits, require applicants to demonstrate that noise exposure to sensitive receptors from construction activities has been mitigated to the extent feasible pursuant to the respective City Noise Ordinance. Mitigation may include a combination of techniques that reduce noise generated at the source, increase the noise insulation of the receptor, or increase the noise attenuation rate as noise travels from the source to the receptor.

6-P-8 Require an acoustical analysis for projects located within a "conditionally acceptable" or "normally unacceptable" exterior noise exposure area. Require mitigation measures to reduce noise to acceptable levels.

6-P-9 Adhere to the City of Santa Clara and City of San José general plans and noise ordinances for new development in the Planning Area.

6-P-10 Reduce the noise exposure in existing residential areas where feasible. Construction should be in adherence with building code requirements as amended.

6-P-11 Construct appropriate sound insulation measures to buffer residential uses from BART and UPRR train tracks, as well as the BART Maintenance Facility.

6-P-12 Provide mechanical ventilation in each residence where use of windows for ventilation would result in higher than 45 Ldn interior noise levels. All Station Area Plan residential buildings should have mechanical ventilation/air conditioning acceptable to the Building Department of each

city. This would assure habitability in accordance with the Uniform Building Code and California Title 24 noise insulation standards, and as amended.

6-P-13 In all rental and sale agreements, provide disclosures to future residents about all surrounding substantial noise sources (i.e., BART Maintenance Facility, UPRR tracks, industrial uses, etc.) and the permanent rights of existing uses to remain. This notification must be made prior to the sale or rental of tenant space, and provide information about the extent of uses throughout the Planning Area and specific information about each use that is immediately adjacent to the property.

6-P-14 Provide a Vibration Reduction Plan during the design phase for any projects on sites adjacent to or within 200 feet of active UPRR and BART alignments to demonstrate that interior vibration levels within all new residential development (single family and multi-family) and lodging facilities would be at acceptable levels. If needed, require mitigation measures to reduce vibration to acceptable levels.

6.3 GEOLOGY, SOILS, AND SEISMIC HAZARDS

Within the Planning Area, the composition of geologic material, topography and groundwater conditions affect geologic hazards. Natural hazards, including seismic hazards, soils and liquefaction, pose significant safety risks in the Planning Area.

Seismicity

The Planning Area is located within the seismically active region of the Bay Area. Within the next 30 years there is a 62 percent probability that an earthquake of Richter magnitude (M) 6.7 or higher will occur in the Bay Area.[2] The California Building Code (CBC)[3] locates the entire Bay Area within Seismic Risk Zone 4. Areas within Zone 4 are expected to experience maximum magnitudes and damage from an earthquake. There are several major active faults in the Bay Area, including the San Andreas, Hayward, and Calaveras Faults.[4] Recorded seismic events have occurred on these three faults within the last 150 years. Other

[2] Based on estimates of the United States Geological Survey (USGS).

[3] The most current (for 2008) California Building Code was last updated in January, 2007.

[4] An active fault is defined by the State of California as a fault that has had surface displacement within Holocene time (approximately the last 11,000 years). A potentially active fault is defined as a fault that has shown evidence of surface displacement during the Quaternary (last 1.6 million years), unless direct geologic evidence demonstrates inactivity for all of the Holocene or longer. This definition does not, of course, mean that faults lacking evidence of surface displacement are necessarily inactive. Sufficiently active is also used to describe a fault if there is some evidence that Holocene displacement occurred on one or more of its segments or branches (Hart, 1997).

principal faults capable of producing significant ground shaking in the Bay Area include the Concord–Green Valley, Marsh Creek–Greenville, San Gregorio, and Rodgers Creek Faults. The Hayward fault is the closest active fault to the Planning Area, located seven miles northeast; however, no active faults are located within the Planning Area.

Several hazards can be produced by a single earthquake event. Ground shaking, landslides and liquefaction are the specific hazards associated with earthquakes. The severity of these hazards depends on several factors, including soil and slope conditions, proximity to the fault, earthquake magnitude and the type of earthquake. Station Area Plan policies seek to ensure that new structures are built with consideration of the major hazards associated with earthquakes.

Groundshaking

Earthquakes on active faults are expected to produce a range of groundshaking intensities in the Planning Area. Historic earthquakes have caused strong groundshaking and damage in the San Francisco Bay Area, the most recent being the Magnitude 6.9 Loma Prieta earthquake in October 1989. The epicenter for this event was approximately 18 miles south of the Planning Area and caused strong ground shaking (MM VII) throughout Santa Clara County.[5]

Although the entire Planning Area is susceptible to damage from ground shaking, geological conditions can greatly influence the amount of shaking experienced. The majority of the Planning Area is underlain by alluvial soils, derived from the sedimentary rocks of the upland areas, which are less resistant to shaking than other soil types. Certain building types, notably unreinforced masonry buildings, are more vulnerable to damage from earthquakes.

Liquefaction

Liquefaction is the rapid transformation of saturated, loose, fine-grained sediment to a fluid-like state because of earthquake ground shaking. Liquefaction and associated failures could damage foundations, roads, and underground cables and pipelines, and disrupt utility service. Hazard maps produced by the Association of Bay Area Governments (ABAG) depict liquefaction and lateral spreading hazards for the entire Bay Area in the event of a significant seismic event.[6] According to these maps, the Planning Area has a moderate to high potential to experience liquefaction (Figure 6-5).[7] The California Geological Survey (CGS) has designated the entire Planning Area and the surrounding area as a Seismic Hazard Zone for liquefaction potential.

Seismic Risks to Development

Within the Planning Area, earthquake damage to structures can be caused by ground rupture, near-field effects, liquefaction, and ground shaking.

[5] See Association of Bay Area Governments (ABAG), Modified Shaking Intensity Map for NW San José/Milpitas/Santa Clara, Scenario: 1989 Loma Prieta Earthquake, October 20, 2003.

[6] Lateral spreading is a ground failure associated with liquefaction and generally results from predominantly horizontal displacement of materials toward relatively unsupported free slope faces.

[7] See ABAG, Liquefaction Susceptibility Map, 2004.

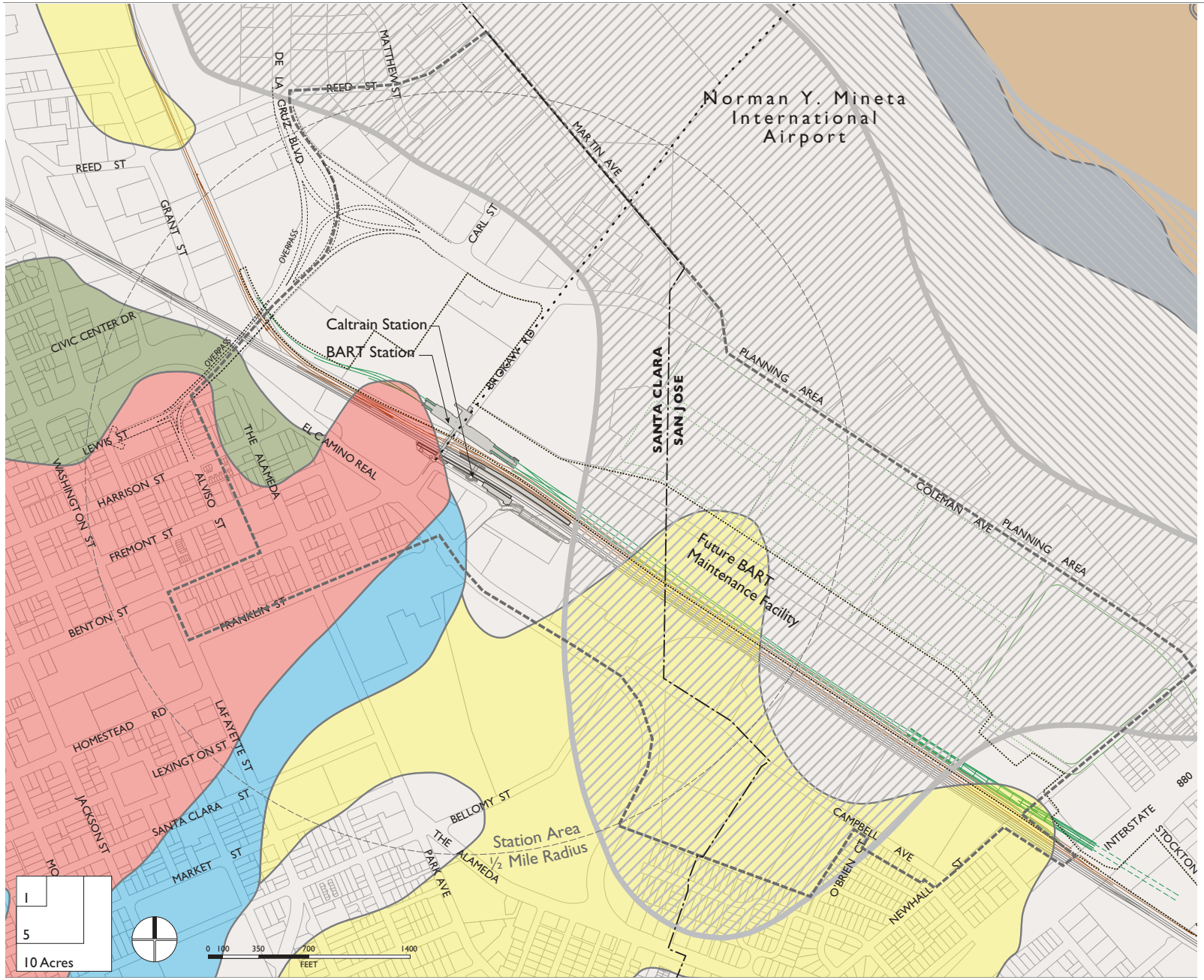

Figure 6-5

Liquifaction and Soils

- Very High Liquefaction
- High Liquefaction

Soils

- Sunnyvale Silty Clay
- Clear Lake Clay
- Orestimba Silty Clay Loam
- Orestimba Clay Loam
- Bayshore Clay Loam
- Campbell Silty Clay
- Cropley Clay Loam
- BART
- Below-grade BART Alignment
- Ramped Above-grade BART Alignment
- Caltrain, ACE, Capitol
- Union Pacific Tracks
- Future APM Alignment
- Area of Future BART Facilities
- Conceptual Street Grid on FMC Property
- Planning Area

The level of damage resulting from an earthquake will depend upon the magnitude of the event, the epicenter distance from the area, the response of geologic materials, and the strength/construction quality of structures. Despite known seismic hazards, development in the Planning Area is considered feasible under the CBC Zone 4 Seismic Criteria, which would limit the potential damage from a large earthquake. Buildings constructed prior to the 1970s in most cases would not meet current (2006) design provisions in the Uniform Building Code (UBC) for earthquake safety. The most severe hazards are presented by unreinforced masonry buildings constructed of brick or concrete block. Under strong intensity ground shaking, many of these structures may collapse and require demolition. Other types of buildings that may also be severely damaged are older buildings of steel and concrete framing that were not designed to resist earthquake vibrations and older reinforced brick and masonry structures. However, under the UBC, any removal of existing buildings require an upgrade for seismic safety.

Overall, geologic and seismic constraints do not limit potential development in the Planning Area. However, the location of just over half of the Planning Area in the Seismic Hazard Zone for Liquefaction Hazards (Figure 6-5) would require that development projects undergo a geotechnical investigation to identify and mitigate these hazards, according to the requirements set forth in the state Seismic Hazards Mapping Act, and UBC. For the most part, the area in the High Liquefaction Zone is planned primarily for non-residential uses within the Planning Area.

Geology, Soils, and Seismic Hazards Goals

6-G-5 Regulate development in high-risk seismic areas to avoid exposure to hazards, minimize losses to existing property and reduce the potential for damage to future development.

Geology, Soils, and Seismic Hazards Policies

6-P-15 Minimize the risk to life and property from seismic activity and geologic hazards by requiring development to undergo site-specific geotechnical investigation.

- The geotechnical assessment should consider the seismic hazards of the site with regard to the type of structure, material, and construction quality proposed. Seismic hazards addressed in this report should include, but not be limited to: evaluation of and recommendations to mitigate the effects of ground shaking, landslides, surficial debris flows, expansive soils, subsidence and settlement, and fault displacement.
- The report should be completed by Certified Engineering Geologists and Registered Geotechnical Engineers.
- Appropriate mitigation measures to reduce seismic hazard risks may be required as a condition of approval for development.

6-P-16 Avoid siting civic structures used by large numbers of people, such as schools and hospitals, in areas of potential liquefaction.

6-P-17 Conform geotechnical and seismic design criteria with engineering recommendations, in accordance with seismic requirements of Zone 4 of the UBC and the CBC (Title 24) additions. Furthermore, require design and construction to be consistent with applicable policies of the City of Santa Clara or City of San José to reduce the reduction of the damaging effects of groundshaking and ground failure.

6-P-18 Encourage programs to retrofit existing buildings with unreinforced masonry including additional transfer taxes on property sales which can be used by the owner to pay for seismic retrofit work, reduced permit fees, grants to offset retrofit costs, or loan programs.

6-P-19 Disseminate information to the public on ways to reinforce buildings to reduce damage from earthquakes via links to educational resources on City websites.

6.4 HAZARDOUS MATERIALS

While it does not often pose an immediate physical threat like earthquakes, exposure to hazardous materials can cause harm over time, and should also be avoided and/or mitigated to ensure a high standard of living. Considerable progress has been made in the Planning Area over the past 15 years in the identification and mitigation of hazardous materials.

Several properties within the Planning Area have contaminated soil problems that have either been ameliorated as part of redevelopment activities or are in the process of clean-up. According to the Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Board (RWQCB), about eight sites with exposed hazardous materials are located within the Planning Area.[8] The location of these sites is shown on Figure 6-6.

The largest contaminated site in the Planning Area is the FMC Corporation (formerly, the Food Machinery and Chemical Corporation), which has occupied the southeastern half of the project area since 1948 (see Figure 2-3 in Land Use chapter). The FMC Corporation initially produced

[8] DTSC maintains a Hazardous Waste and Substances Sites (Cortese) List to provide information about the locations of hazardous materials releases. Similarly, the State Water Resources Control Board (SWRCB) maintains a database of sites that are part of the Leaking Underground Fuel Tanks (LUFT) program, and for non-fuel sites, the Spills, Leaks, Incidents, and Cleanup (SLIC) program. A review of the Cortese List, LUFT sites, and SLIC sites revealed the eight contaminated sites located within the Planning Area.

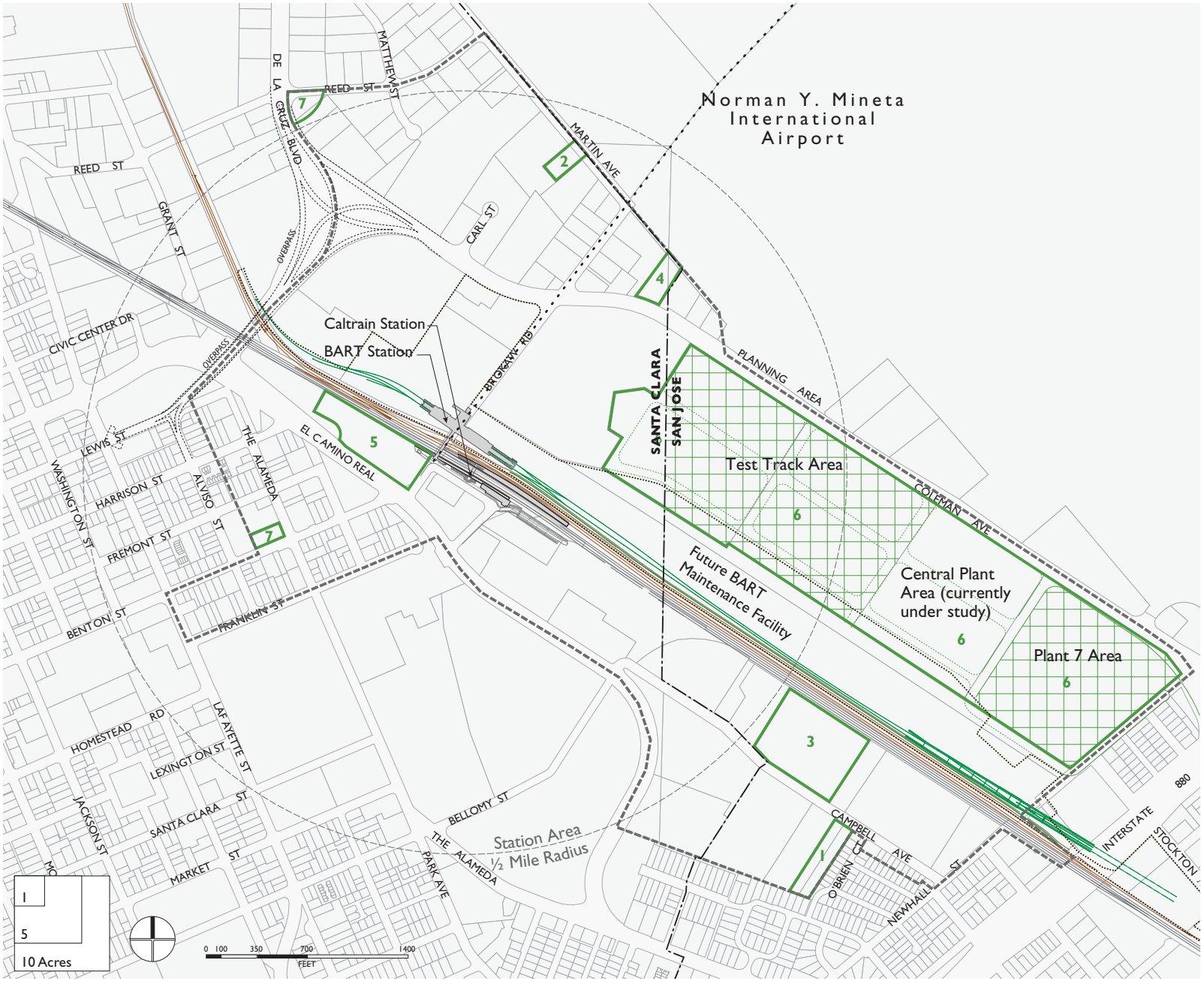

Figure 6-6

Hazardous Materials

Hazardous Materials Release Sites

- 1 AJ Commercial Laundry
- 2 Champion Building Products
- 3 Custom Food Machinery*
- 4 G & M Construction
- 5 Santa Clara Police Station*
- 6 FMC Site*
- 7 Unknown
- Deed Restricted Area

* Indicates Presence of Deed Restriction

- BART
- Below-grade BART Alignment
- Ramped Above-grade BART Alignment
- Caltrain, ACE, Capitol
- Union Pacific Tracks
- Future APM Alignment
- Area of Future BART Facilities
- Conceptual Street Grid on FMC Property
- Planning Area Boundary

agricultural and fire-fighting equipment, but later it manufactured armored personnel vehicles (tanks), pumps, sprayers, and airline handling equipment until 1998. In more recent years, FMC phased out operations and some structures were demolished as part of ongoing hazardous materials remediation activities. Chemical contaminants of concern at the FMC Corporation site include petroleum hydrocarbons, solvents, lead-based paint, asbestos, fluorescent light tubes and ballasts that contain mercury and polychlorinated biphenyls (PCBs), chlorofluorocarbons, and metals. These hazardous substances are present in onsite groundwater and building materials but have reportedly been removed from the soils on-site during remediation activities.[9]

Besides the FMC Corporation site, seven other facilities within the Planning Area have documented releases (see Figure 6-6 for locations of these facilities). These facilities include two sites with deed restrictions (the Santa Clara Police Station and Custom Food Machinery site), two sites with reported diesel leaks, a site with a volatile organic compounds release, and two sites where no recorded information was available.

In addition to hazardous waste production due to mechanical and industrial processes, the Planning Area may contain other hazardous materials from structural and building components and railroad operations. Building and industrial components that may be present include: asbestos, used in building construction in the 1970s; synthetic organic oils (PCBs), used for electrical equipment and identified in soil samples at the machinery manufacturing facility at 1180-1184 Campbell Avenue; elevated lead concentrations, from lead-based paint and soils adjacent to busy roadways or freeways; and Underground Storage Tanks—some of which have already been removed from the Planning Area. Railroad and agricultural operations may have also contributed hazardous materials to the Planning Area, which might include: petroleum products, metals, pesticides and herbicides, wood preservatives, and solvents; as well as metals such as arsenic, copper, lead, and zinc which may be found in surface soils and potentially in the groundwater.

Development Constraints Due to Hazardous Materials

As a result of past hazardous materials investigations and remediation activities, some of the contaminated sites within the Planning Area have been given land use or deed restrictions to limit potential adverse effects on human health. The types of land use restrictions include deed notice, deed restriction, or a land use restriction that binds current and future owners. Three sites within the Planning Area were identified with land use restrictions. DTSC has placed deed restrictions on the FMC Corporation facility, which restrict type of development on this site. Within the FMC Corporation facility, the Plant 7 area has a deed restriction that limits development to industrial and commercial activities, while the Test Track area has a deed restriction that limits development to commercial, industrial, research

[9] See City of San José, FMC Coleman PD Rezoning Draft Environmental Impact Report, 2003.

and development, and office uses only. The Central Plant area of the FMC Corporation facility is currently under investigations for potential hazardous materials and remediation activities necessary. The Custom Food Machinery site has a deed restriction which prevents digging at a certain depth in the area of identified PCB contamination. In addition, the Santa Clara Police Station site has an asphalt cover with a deed restriction that prohibits excavation or other ground-disturbing activities and limits future use of this site to commercial/office or industrial activities.

Most of these covenants were arranged, because the economics of the situation did not justify remediating certain sites to residential levels at the time of the agreement. Clean-up of contaminated sites with significant amounts of residual hazardous waste was considered particularly cost-prohibitive to smaller scale, lower-intensity development. However, economics of the situation are subject to change in the future, especially as higher intensities are proposed under the Station Area Plan, especially in areas closer to the Station. Additionally, clean-up technologies are also continuously improving. Deed restrictions can be amended or terminated; however, proponents of future development would have to demonstrate to the DTSC that there is no potential threat to human health for the proposed land use. Amending the deed restriction may involve the preparation of a Health Risk Assessment or entering into the DTSC's Voluntary Cleanup Program to do additional remediation to levels acceptable to the DTSC. Overall, the presence of toxins may inhibit specific uses, such as residential development, unless substantial additional clean-up is pursued on the site. Future proponents of development on the FMC Corporation site or other restricted sites in the Planning Area may choose to do additional remediation to levels acceptable to the DTSC. One of the primary considerations at the FMC Corporation site is the potential threat of contaminated soil vapor intrusion into buildings, and this safety concern would have to be addressed during remediation. These reasons are why uses of the FMC site within the currently existing restrictions are considered most likely.

Construction activities, including demolition, grading, and earthwork activities, as a result of development in the Planning Area could also encounter contaminated soils and groundwater. These activities could present a considerable safety hazard to construction workers and the public, because it could expose them to hazardous building materials such as asbestos, lead-based paint, PCBs, and materials from undocumented underground storage tanks. Therefore, construction activities will necessitate adhering to the requirements of the various governing agencies, such as Cal-OSHA, Bay Area Air Quality Management Department (BAAQMD), DTSC, and the Santa Clara County Department of Environmental Health, as well as the use of appropriately licensed contractors.

Hazardous Materials Goals

6-G-6 Encourage efforts to minimize hazardous materials exposure.

6-G-7 Minimize risks to life and property from production, use, storage and transportation of hazardous materials and waste by complying with all applicable State and local regulations for the storage, use and handling of hazardous substances as established by federal, State, and local regulations.

6-G-8 Encourage remediation of contaminated sites.

Hazardous Materials Policies

6-P-20 Require remediation and cleanup to levels required for the proposed use, and evaluate risk prior to reuse, in areas where hazardous materials have impacted soil or groundwater.

6-P-21 Require documentation of hazardous materials investigation, addressing site and building conditions, during review of development projects in the Planning Area.

6-P-22 Restrict siting of businesses, including hazardous waste repositories, incinerators or other hazardous waste disposal facilities, that use, store, process or dispose of large quantities of hazardous materials or wastes in areas subject to seismic fault rupture or violent ground shaking.

6-P-23 Identify and regulate appropriate regional and local routes for transportation of hazardous materials and hazardous waste, where applicable.

6-P-24 Require that fire and emergency personnel be able to easily access transportation routes to minimize response times.

6-P-25 Require demolition activities potentially involving building materials, such as asbestos, lead-based paint, PCBs, and materials from undocumented USTs, to adhere to the standards of the various governing agencies.

6-P-26 Require the use of appropriately-licensed contractors.

6-P-27 To minimize the potential negative effects from accidental release to groundwater and soils, require the use of construction Best Management Practices to handle or transport hazardous materials during construction.

CHAPTER 7
IMPLEMENTATION STRATEGIES

While the Station Area Plan provides a comprehensive development framework as well as policies to carry out the vision and the framework, effective implementation may require a range of measures. These can include amendments to general plans of both cities to incorporate policies of the Area Plan, zoning and other implementation tools to help attain specific urban design concepts.

This chapter provides an overall implementation strategy for the Station Area Plan that includes potential regulatory changes, as well as an evaluation of tools and strategies available for funding new facilities.

MAJOR PUBLIC IMPROVEMENTS

Substantial public improvements—streets, bikeways, parks, pedestrian amenities, and landscaping, for example—are necessary to transform the Station Planning Area into a vibrant community. These require close coordination among governmental entities in the affected jurisdictions to ensure project feasibility and attainment of consistent standards and quality in the built environment.

Public improvements necessary for the full realization of the Station Area Plan and a vibrant community should include the following major elements:

- Regional transit infrastructure (Santa Clara Station) implemented by VTA, Caltrain, and BART (includes BART parking);

- APM system connecting the Airport with the Station and VTA's Metro/Airport light rail system;
- New surface streets;
- Widened sidewalks and streetscape improvements to link the Station with downtown Santa Clara and Santa Clara University;
- A potential new underpass linking Coleman Avenue and El Camino Real;
- Consideration of streetscape improvements, including utility undergrounding, landscaping, and wayfinding/signage along:
  - Brokaw Road and Benton Street,
  - Coleman Avenue,
  - Campbell Avenue/El Camino Real intersection, and
  - El Camino Real/State Route 82 (coordinated with Caltrans);
- Pedestrian bridges and overpasses; such as:
  - BART Station pedestrian overcrossing from Railroad Avenue to BART plaza off of Brokaw Road;
  - Caltrain inter-platform pedestrian underpass from western platform to central platform;
  - Potential extension of Caltrain underpass to eastern side of the rail corridor and BART plaza;
  - Newhall Street pedestrian bridge across the rail corridor to the south; and
  - Open spaces and landscape buffer/bikeway connections along the west side of tracks.

POTENTIAL IMPLEMENTING STRATEGIES

One effective vehicle for implementation of some of the infrastructure components of the Station Area Plan could be a Joint Powers Authority (JPA), authorized under Section 6500 of the State Government Code. Facilitating coordination between cities, the JPA could have oversight for construction and on-going maintenance of public facilities.

A JPA must be authorized by the governing bodies of the participating entities, which would define their discretion and powers. The law provides considerable flexibility in how JPAs operate; it may exercise any authority common to the contracting parties.

A JPA could cover physical improvements, or focus on certain critical interagency components—such as the open space areas and the east-west underpass.

Another possible method of implementation is a Memorandum of Understanding between the two cities to align and implement common objectives, with each entity controlling entitlements in its own jurisdiction. This may be a more flexible approach given the potential complexity of future development proposals in the two jurisdictions.

Policy-makers should also be aware of the potential use of financing options associated with the adoption of an Infrastructure Finance District (IFD). Developer fees are another potential source of revenue, as development sites in the Station Plan Area will be major beneficiaries of proximity to publicly-financed transportation infrastructure. Existing fee structures could be reevaluated within this overall context and fees specific to certain Planning Area-wide improvements could be adopted by each city.

7.1 PHASING STRATEGY

The major timing parameters for the Station Area Plan are: the construction of the BART maintenance facility, the BART Station, and the APM. Cost factors suggest that the east-west underpass connecting Coleman Avenue to El Camino Real will need to be constructed at an early date, ahead of the BART maintenance facility. Preliminary estimates of the costs of these improvements have not been established at this time. To fund these improvements, a combination of public and private funding sources, mechanisms and/or strategies will likely be needed. Policy 3-P-3 addresses the need for joint financing between the cities of Santa Clara and San José.

The Station Area Plan provides a projected net addition of 2,250 dwelling units; 2.9 million square feet of office space; 0.6 million square feet of commercial space; and 1,970 hotel rooms to existing development in the Planning Area. The private development that would occur in the Planning Area as a result of the public investment in transit infrastructure could provide a revenue base from which to fund public improvements through impact fees, special districts, and potential taxing strategies. These mechanisms could be a prerequisite to further development in the Planning Area.

7.2 FUNDING STRATEGIES

This section evaluates potential approaches to funding capital costs. An explanation of the overall process and funding sources and potential facilities that could benefit by each approach is summarized in Table 7-1. Capital improvements proposed for the Station Area Plan and the various funding approaches that could be tapped for implementation are identified.

These strategies are offered as a menu of choices that the cities and other agencies can select from.

MUNICIPAL IMPACT FEES

The municipalities collect a variety of impact fees from new development that could be used to fund capital improvements in the Planning Area. These typically include park fees from residential developments, drainage fees, sewer fees, water connection fees, and traffic mitigation fees. Municipalities could decide to allocate a portion of development impact fees generated within the Planning Area to fund capital investment in public facilities. For instance, park fees from residential development could fund open space development in the Planning Area. Since park fees are collected only from residential development by law, the City of San José will not be collecting any park fees for parks in the Plan as there is no residential development planned in San José.

Schools are funded based on requirements of Education Code Section 17620, subject to the limitations set forth in Chapter 4.9 (commencing with Section 65995) of the Government Code, which

provide no other method of mitigation other than the assessment of development fees for schools construction (current maximum is $2.97 per square foot for residential and $0.47 per square foot for commercial/industrial development).[1]

To encourage development in the Planning Area, fees on development could be reduced through the Statewide Community Infrastructure Program (SCIP), which utilizes 1913/15 Act bonds. SCIP could be used for commercial and residential projects; fees can either be funded directly prior to obtaining a building permit, or subsequently reimbursed.

DEVELOPER CONTRIBUTIONS

Developer contributions are payments made in addition to normal impact fees as part of the development approval process for specific projects; these most often apply to larger developments with significant associated impacts. Examples of contributions include: dedications of right-of-way for streets and utilities; and provision of open space, parks or landscape improvements. Since large-scale development is anticipated in the Planning Area, potential revenue from this source could be appreciable.

Where developers provide parks as part of their developments, they could be exempted from park impact fees at the discretion of each city.

[1] Source: Report of the Executive Officer, State Allocation Board Meeting, January 30, 2008.

SPECIAL ASSESSMENTS

Community Facilities District

The 1982 Mello-Roos Community Facilities Act enables cities, counties, special districts, and school districts to establish Community Facility Districts (CFDs) and to levy special taxes to fund a wide variety of facilities and services. This mechanism could have significant applicability for funding Station Planning Area improvements on a tax-exempt basis.

A CFD is created by a sponsoring local government agency upon petition by property owners or the city council. The proposed district will include all properties that will benefit from the improvements to be constructed or the services to be provided. A CFD cannot be formed without a two-thirds majority vote of residents living within the proposed boundaries. Or, if there are fewer than 12 residents, the vote is instead conducted of current landowners, with each acre of ownership counting as one vote. In many cases, that may be a single owner or developer.

A special district may not be feasible to implement on the FMC property, since entitlements for development already include a package of impact fees for installation of project-wide infrastructure.

Landscape and Lighting District

The formation of a Landscape and Lighting District may be used by local government agencies to pay for financing the costs and expenses of elements such as landscaping and lighting public areas. The District is based on the concept of benefit assessment, which is not subject to Proposition

13 limitations. Approved uses include installation and maintenance of landscaping, public art, fountains, general lighting, traffic lights, recreational and playground courts and equipment, and public restrooms. In addition, the Act allows the acquisition of land for parks and open spaces, plus the construction of community centers, municipal auditoriums, or halls.

With formation of a Landscape and Lighting Districts pursuant to the 1972 Act, each lot or parcel in the District is assessed proportionately for improvements and services that are determined to be a special benefit.

In order to approve the District, a majority vote of affected property owners is required through an assessment balloting procedure.

Business Improvement District (BID)

Business or property owners within a defined geographic area may agree to assess themselves annual fees to fund activities and programs to enhance the business environment. Fees can be applied toward a wide range of activities that include marketing and promotion, security, streetscape improvements, and special events. Once established, the annual BID fees are mandatory for business/properties located within the BID.

In a business-based BID (BBID), fees are assessed to businesses, with the amount of the fees varying by location, type and size of business. With a property-based BID (PBID), assessments may vary by location, size of lot/building, and linear footage. Generally, this mechanism is most frequently used in existing commercial retail districts and has marginal applicability in funding infrastructure due both to the limited revenue base and the short-term nature of the BID structure, which makes issuance of debt infeasible.

INFRASTRUCTURE FINANCE DISTRICT (IFD)

This is a method of finance based upon use of tax increment financing. Cities and counties can form the District to fund region-wide infrastructure. There is no blight test necessary to establish an IFD. Additionally, an IFD cannot be part of a redevelopment project area. Unlike a redevelopment project area, participation by the taxing jurisdictions is voluntary, except with respect to school districts, which cannot participate. An IFD may be used to fund region-serving infrastructure and may apply to funding some capital improvements in the Planning Area if deemed appropriate.

CITIES' CAPITAL IMPROVEMENT PROGRAMS

The CIP is typically a discretionary component of a city's General Fund. The municipalities could decide to direct portions of CIP expenditures to the Planning Area.

JOINT DEVELOPMENT

Public/private partnerships, in which developers join forces with municipalities to achieve development is an option, particularly in respect to strategies to implement parking development. Achieving joint development may draw upon a mix of implementation approaches and funding

7-5

sources such as the use of Mello-Roos/CFD, leveraged by city impact fees. Within the Station Area Plan, there may be opportunities for joint development on lands adjacent to the BART parking structure, where parking infrastructure could possibly be shared by public and private interests.

CDBG FUNDS

Some or all of the cities' annual allotment of Community Development Block Grant funds from the Federal Government could be capitalized into a Section 108 loan, to increase the immediate ability to fund improvements. Needs of the Planning Area must be weighed against other needs of the municipalities in the allocation of these typically scarce funds by each city.

GRANTS AND LOANS

- *SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act–A Legacy for Users)* provides a variety of funding options for smaller, neighborhood-based projects relating to streetscape improvements and bicycle and pedestrian facilities. Programs include the Surface Transportation Program (STP); Congestion Management Air Quality (CMAQ) funds; Transportation Enhancements (TE); State Transportation Improvement Program (STIP)/ Regional Transportation Improvement Program (RTIP); and the Bicycle Transportation Account (BTA), which is available to cities and counties with Caltrans-approved bicycle plans.
- *State Proposition 1B (Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006)* will make available $20 billion in funding for local governments; the $2 billion allocated for local streets and road improvements appear potentially applicable to projects in the Station Plan Area. The League of California Cities is drafting legislation with the California State Association of Counties for allocation of the revenue.
- *State Proposition 1C (Housing and Emergency Shelter Trust Fund Act of 2006)* allocates $1.35 billion to fund three new programs aimed at increasing development projects in existing urban areas and near public transportation. The programs provide loans and grants for a wide variety of projects, such as parks, water, sewerage, transportation and housing.
- *State Proposition 1E (Disaster Preparedness and Flood Prevention Bond Act of 2006)* allocates $4.1 billion for various categories of flood control and storm water management projects that could be applicable to remediation of hazardous environmental conditions in the Station Plan area.
- *State Proposition 84 (The Safe Drinking Waster, Water Quality and Supply, Flood Control, River and Coastal Protection Bond of 2006)* allocates $5.4 billion for a variety of measures; including floodplain mapping, flood control and prevention projects, and parks and nature education facilities. Lead agencies are the Department of Water Resources and the Department of Parks and Recreation.

Table 7-1: Potential Station Area Plan Infrastructure Financing Sources

		Summary of Possible Major Funding Sources							
Project Components	**Lead Entity(ies)**	**Impact Fees**	**Developer Contributions[1]**	**Special Assessments/ Districts**	**CIP**	**Joint Development**	**Tax Increment/ Redev. or IFD**	**Other Grants & Loans (SAFETEA, etc.)**	**Issues/ Recommendations**
Public Infrastructure/Improvements									
1. Major Streets	Possible JPA/Cities	✓	✓	✓ (Mello-Roos/ CFD)	✓		✓	✓	May consider special assessments on properties that benefit from the new streets, for both construction and maintenance.
2. Potential East-West Underpass	Possible JPA/Cities	✓	✓		✓		✓	✓	Significant costs may require use of multiple sources.
3. Streetscape Improvements, including utility undergrounding, wayfinding/signage, and landscaping along: • Brokaw Road & Benton Street • Campbell Avenue/El Camino Real intersection • Coleman Avenue • El Camino Real	Possible JPA/Cities	✓	✓	✓ (Mello-Roos/ CFD, LLD [2])	✓	✓	✓	✓	May consider allocating some of the costs to private developments which benefit from these improvements for both construction and maintenance.
4. Pedestrian Bridges & Overpasses • BART pedestrian overcrossing • Extension of Caltrain pedestrian undercrossing • Newhall bridge to the south	Possible JPA/Cities	✓	✓		✓		✓	✓	Significant costs will likely require participation from multiple entities.

Table 7-1: Potential Station Area Plan Infrastructure Financing Sources

		Summary of Possible Major Funding Sources							
Project Components	**Lead Entity(ies)**	**Impact Fees**	**Developer Contributions[1]**	**Special Assessments/ Districts**	**CIP**	**Joint Development**	**Tax Increment/ Redev. or IFD**	**Other Grants & Loans (SAFETEA, etc.)**	**Issues/ Recommendations**
5. Parks—including landscape buffer/bikeway connection along west side of tracks	Possible JPA/Cities/ Developers	✓ Park Fees	✓	✓ (Mello-Roos/ CFD, L&LD [2])	✓	✓	✓	✓	May consider special assessments on properties that benefit and user fees for construction and maintenance.
6. Schools	Possible JPA/Cities/ School Districts	✓	✓	✓		✓	✓	✓	Coordinate with SCUSD & SJUSD to determine facility requirements and possible joint use of some recreation and meeting facilities.
7. Public Safety	Possible JPA/Cities/ Affected Districts	✓	✓	✓		✓	✓	✓	Coordinate siting, building and equipment needs with affected Districts.
Parking									
1. Shared Parking	Possible JPA/Cities/ Developers	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Development regulations
2. Reduced Minimum Parking Requirements		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Development regulations
3. Centralized Parking Facilities	Possible JPA/Cities	✓	✓	✓ (Parking)		✓	✓	✓ (Parking Revenue)	Could involve parking in-lieu fees.
4. Shuttle Service	Possible JPA/Cities/ Businesses	✓	✓	✓ (BID[3])				✓	JPA/Cities may initiate with business association operating once stabilized.
5. Maintenance/Public Facilities	Possible JPA/Cities		✓	✓ (Mello-Roos/ CFD, LLD[2])		✓			

[1] Includes possible land dedications.
[2] LLD: Landscaping and Lighting District
[3] BID: Business Improvement District

- *The California Infrastructure and Economic Development Bank (CIEDB)* provides low-cost financing to public agencies for a wide variety of infrastructure projects. Infrastructure State Revolving Fund (ISRF) Program funding is available in amounts ranging from $250,000 to $10,000,000, with loan terms of up to 30 years. Eligible projects include city streets, drainage, flood control, and environmental mitigation.

PARKING DISTRICT AND IN-LIEU FEE

Local governments may propose a Special District formation to finance parking-related activities, including acquisition of land for parking facilities, construction of parking lots and garages, issuance of bonds, and funding of operating costs. The majority of affected property owners must vote in favor of the District formation. The District actually has two aspects: creation of new parking, and management of parking. Creation of a Parking District might allow the public entities to better determine present and future parking resources, including use of in-lieu fees to fund parking in the Planning Area.

A possible approach to funding is imposition of an in-lieu fee; whereby developers pay the fee instead of providing on-site parking, thereby reducing the cost of development and potentially increasing substantially the efficient use of development sites. Fees are set in various ways; the most widely used approach is a uniform fee per space, generally at a cost that is less than the cost of developing the parking.

7.3 PARKING STRATEGIES

Resolution of parking issues is a critical component in the creation of a pedestrian-friendly, walkable community. The ideal solutions typically require a mix of carrots and sticks to create a proper balance of parking to ensure that parking resources are not excessive but are yet sufficient to ensure the economic feasibility and sustainability of development. Examples of parking strategies which have been used successfully to achieve such a balance in other urban communities—and which may be applicable to the Santa Clara Station Planning Area—include the following:

SHARED PARKING

Uses that operate at different peak times, such as office and entertainment, can be clustered so that the number of parking spaces required by each use can be reduced and/or shared for a more efficient use. The clustering of uses also encourages drivers to park only once to access different facilities in the area.

Pros:

- More efficient use of scarce land resource;
- Reduces development costs with fewer land and space requirements;
- Reduces short-distance driving between facilities;
- Reduces land area allocated for parking;
- Increases tax revenue from substitute land use; and
- Allows for higher and best use of land for business, residential, or open space.

Cons:

- Possible parking conflicts, i.e., if the uses are not compatible (such as between residential and industrial uses) and/or if the parking demand peaks at the same time;
- Difficult to monitor over long-term, i.e., with changes in use;
- Requires recorded easements to ensure parking does not disappear or become unavailable;
- May create insufficient parking; and
- Spillover parking to adjacent land uses.

REDUCED MINIMUM PARKING REQUIREMENTS

Given the proximity of development sites to multiple transit modes, standard parking requirements in the Station Area could be reduced somewhat to take transit ridership into account. Parking requirements could potentially be met through a combination of on-site parking, off-street spaces, in-lieu fees, and shared parking arrangements. This approach has been adopted by a number of cities to support transit-oriented developments.

Pros:

- More efficient use of scarce land resource;
- Reduces development costs with fewer space requirements;
- Creates incentive to use public transit; and
- Increases tax revenues from substitute land use.

Cons:

- Underparked uses could potentially create parking overflows into the surrounding neighborhoods and/or adjacent lots (such as use of transit lots by non-transit riders that are not part of shared parking agreements or parameters);
- May be more difficult to market for some uses, i.e., grocery stores;
- May increase circling of cars looking for the more limited number of spaces–resulting in more environmental and congestion issues;
- May create insufficient parking;
- Spillover parking to adjacent land uses; and
- May pose difficulties for private financing of development

DEVELOPMENT OF CENTRALIZED PARKING FACILITIES

The municipalities could assist in the development of a public and/or a private centralized parking facility to serve the community's parking needs and/or for shared parking use at a large, centrally-located site in the Station Planning Area. The facility could be funded through the use of a range of financing mechanisms, such as through private fund sources like in-lieu parking fees, assessment districts, and public funding such as federal, state and local capital improvement programs, parking revenue bonds, and certificates of participation. Given the significant costs of constructing a centralized parking facility, a combination of both public and private funds will likely be needed for implementation.

Pros:

- More efficient use of scarce land resource;
- More efficient management and operation;
- May reduce costs for individual projects;
- Reduces short-distance driving between facilities; and
- Allows revenue sharing from parking fees.

Cons:

- Requires availability of large, centralized site;
- Not the highest and best use of the underlying land;
- The use of potential funding sources is also problematic:
  - Private funding sources (exactions, in-lieu parking fees) would constitute an additional cost/cost burden to the developer – which may impact project feasibility; and
  - Federal, State and local programs, are often constrained and highly competitive; and
- Maintenance and operations cost of parking facilities.

SHUTTLE SERVICE

The municipalities could assist in the development of a shuttle loop between the Santa Clara Station and various destination points in the area to maximize parking resources and improve overall accessibility. This service could be funded using the financing mechanisms identified above.

Pros:

- May reduce costs for smaller developments;
- Reduces short-distance driving between facilities;
- Reduces circling of cars for limited parking spaces–less adverse environmental impacts; and
- Encourages transit ridership.

Cons:

- Typically, not self-supporting–requires long-term subsidies. Public funds alone are usually unavailable or highly competitive; and
- Requires active participation by benefiting businesses.

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