PUBLIC DRAFT
LAWRENCE STATION AREA PLAN
Sunnyvale, California
February, 2015

Attachment 6

Attachment 6

PUBLIC DRAFT
LAWRENCE STATION AREA PLAN

Sunnyvale, California

BMS DESIGN GROUP • FEHR + PEERS • BKF • ECONOMIC & PLANNING SYSTEMS
for the Sunnyvale Department of Community Development

February 2015

CONTENTS

ES
EXECUTIVE SUMMARY

1
INTRODUCTION

1.2 PURPOSE OF THE PLAN
1.2 LOCATIONAL CONTEXT
1.4 PLAN AREA DEVELOPMENT HISTORY
1.4 EXISTING CONDITIONS
1.6 RELATION TO OTHER REGULATORY AND POLICY DOCUMENTS
1.6 SUSTAINABILITY IN THE LAWRENCE STATION AREA PLAN
1.6 PLANNING PROCESS AND COMMUNITY INVOLVEMENT

2
VISION FOR THE STATION AREA

3
LAND USE

3.1 INTRODUCTION
3.3 LAND USE
3.3 HOUSING
3.4 RETAIL
3.5 INDUSTRIAL
3.6 OPEN SPACE AND RECREATION
3.8 LAND USE CLASSIFICATIONS
3.14 DEVELOPMENT POTENTIAL

4
CIRCULATION AND PARKING

4.1 THE CIRCULATION FRAMEWORK
4.8 PEDESTRIAN IMPROVEMENTS
4.13 BICYCLE IMPROVEMENTS
4.18 PUBLIC TRANSIT
4.22 PARKING

5
UTILITIES AND PUBLIC SERVICES

5.1 UTILITY INFRASTRUCTURE
5.7 PUBLIC SERVICES

6
URBAN DESIGN

6.2 DEVELOPMENT VISION
6.3 AREA-WIDE GUIDELINES
6.18 SPECIFIC GUIDELINES FOR URBAN DESIGN SUBAREAS
6.29 STREETSCAPE DESIGN GUIDELINES

7
PLAN IMPLEMENTATION

7.2 IMPLEMENTATION PRINCIPLES
7.2 IMPLEMENTATION ACTIONS AND RESPONSIBILITIES
7.13 NEXT STEPS

A
APPENDICES

A.1 APPENDIX A | CONCEPT ALTERNATIVES
A.8 APPENDIX B | AFFORDABLE HOUSING AND ANTI-DISPLACEMENT STRATEGY
A.24 APPENDIX C | FINANCIAL ANALYSIS AND DEVELOPMENT FEASIBILITY
A.29 APPENDIX D | IMPACT FEES AND ASSESSMENTS
A.31 APPENDIX E | WASTEWATER GENERATION ESTIMATES
A.32 APPENDIX F | CONCEPTUAL ENGINEERS ESTIMATE OF PROBABLE CONSTRUCTION COST
A.34 APPENDIX G | ACKNOWLEDGEMENTS

F FIGURES

1.3 Figure 1.1: Regional Location
1.3 Figure 1.2: Local Context
1.3 Figure 1.3: Study Area and Plan Area Boundaries
1.5 Figure 1.4: Development History
1.7 Figure 1.5: Phase One Community Workshop #1 Vision Plan (a)
1.7 Figure 1.6: Phase One Community Workshop #1 Vision Plan (b)
3.7 Figure 3.1: Open Space Framework
3.11 Figure 3.2: Land Use Plan
4.3 Figure 4.1: Circulation Framework
4.4 Figure 4.2: Fine-Grained Street Network
4.9 Figure 4.3: Pedestrian Circulation System
4.15 Figure 4.4: Bicycle Framework
4.19 Figure 4.5: Existing Transit Network
5.3 Figure 5.1: Flood Plain
6.5 Figure 6.1: Setbacks on Retail Street
6.6 Figure 6.2: Allowable Building Heights
6.15 Figure 6.3: Conceptual Illustration of Potential Sonora Court Pedestrian Improvements
6.18 Figure 6.4: Zones
6.20 Figure 6.5: Transit Core Subarea Location
6.20 Figure 6.6: Transit Core Conceptual Plan Diagram
6.21 Figure 6.7: Transit Core Illustrative Concept Plan
6.22 Figure 6.8: Transit Core Conceptual Land Use Study
6.23 Figure 6.9: Peninsula Subarea Key Map
6.23 Figure 6.10: Peninsula Subarea Conceptual Site Diagram
6.24 Figure 6.11: West Subarea Location
6.24 Figure 6.12: East Subarea Location
6.25 Figure 6.13: Calabazas Creek Subarea Location
6.26 Figure 6.14: Office/R&D East Subarea Location
6.26 Figure 6.15: Southern Residential Subarea Location
6.27 Figure 6.16: Lawrence/Reed/Willow Subarea Location
6.37 Figure 6.17: Conceptual Lighting Diagram
6.43 Figure 6.18: Typical Intersection
6.44 Figure 6.19: Section - The Loop
6.45 Figure 6.20: Section - The Loop at Sonora Court
6.46 Figure 6.21: Section - The Loop at Station
6.48 Figure 6.22: Section - San Ysidro Way Extension Retail Street
6.48 Figure 6.23: Section of Retail Street Zones
6.49 Figure 6.24: Plan of Retail Street Zones
6.51 Figure 6.25: Section - Kifer Road
7.6 Figure 7.1 Recommended Zoning Districts

T TABLES

3.10 Table 3.1: Station Area Density Assumptions
3.16 Table 3.2: Existing Land Uses
3.16 Table 3.3: Station Area Development
4.17 Table 4.1: Recommended Quantities For Bicycle Parking Provision
4.22 Table 4.2: Parking Strategies
4.23 Table 4.3: Plan Area Parking Requirements
6.5 Table 6.1: Development Setbacks
7.3 Table 7.1: Summary of Implementation Tools
7.4 Table 7.1: Summary of Implementation Tools (continued)
7.7 Table 7.2: Recommended Zoning Updates
7.10 Table 7.3: Potential Funding Sources
7.12 Table 7.4: Priority Improvement Projects

ES

The Preparation of this Plan was funded in large part by a station area planning grant from the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) as part of state and regional efforts to encourage planning for a sustainable future in the Bay Area region. The Plan is guided by the MTC's Resolution 3434 Transit-Oriented Development Policy (July 2005), which includes goals for transit ridership and related supporting land uses within a half-mile radius of rail transit stations throughout the Bay Area.

ES EXECUTIVE SUMMARY

BACKGROUND

This Lawrence Station Area Plan (LSAP or "the Plan") has been prepared to guide future development of the area surrounding the Lawrence Caltrain Station in Sunnyvale, California. The focus of this Plan is limited to approximately 372 acres of already urbanized lands within the City of Sunnyvale, adjacent to the Station. It is part of a larger 629-acre Study Area, which is generally defined by a one-half-mile radius circle centered on the Lawrence Station. Research indicates that this distance represents approximately a 10-minute walk for an average pedestrian, a threshold that pedestrians are generally willing to walk on a regular basis to access a transit station.

The larger Study Area includes portions of the City of Santa Clara, in order to ensure coordination of circulation systems and land uses between the two cities. But the plans, policies and guidelines of this Plan are limited to the jurisdictional area of the City of Sunnyvale.

Purpose of the Plan

Lawrence Station is surrounded by uses that do not support transit ridership, as well as a circulation framework that makes access through the area for pedestrians, bicyclists and motor vehicles a challenge. In 2010, the station ranked 17th out of 29 stations in the Caltrain system for average total boardings, causing the Peninsula Joint Powers Authority, the owner of the system, to seriously consider closing the station.

The purpose of this Plan is to promote greater use of this existing transit asset and guide the development of a diverse neighborhood of employment, residential, retail, other support services and open space. With a Plan horizon of 2035, the Plan includes goals, policies and guidelines to guide public and private investment in the area.

Planning Process and Community Outreach

The preparation of the LSAP took place in two distinct phases, beginning in December, 2010. The first phase included extensive research on existing conditions and the preparation of three conceptual alternative strategies for the future development of the area. The results of this first phase effort was summarized in the Lawrence Station Area Plan phase one report dated August 2011 and accepted by the Sunnyvale City Council on November 1, 2011. The three concept alternatives prepared during phase one of the process are also summarized in Appendix A of this document.

During the second phase of the planning process, a 19-member Citizens Advisory Group (CAG) was appointed by the City Council to refine the goals and vision for the Plan area and recommend a preferred alternative. In February 2013, the Sunnyvale Planning Commission and City Council voted to accept the CAG's recommendation of a preferred plan for the area. The preferred plan accepted by the City Council provides the basis for the Lawrence Station Area Plan described in this document

Throughout the two-phase process, extensive input was received in community-wide workshops, business and property owner meetings, specific focus groups, the Sunnyvale Planning Commission, the Sunnyvale City Council, and, during Phase II, the CAG.

Important input was also provided in regular meetings of a Technical Advisory Group (TAG) comprised of representatives from the City of Sunnyvale, City of Santa Clara, County of Santa Clara, SamTrans, Valley Transportation Authority (VTA), and representatives from the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG).

PLAN VISION

The Plan is based on a set of seven guiding principles that establish the overall Vision for the Lawrence Station area and serve as the basis for all elements of the Plan and its implementing policies.

1 | Land Use Diversity: Promote a diversity of land uses and densities that will support transit usage and neighborhood services.

Mixed-Use

Twelve land use categories have been established for the Plan area. Six of these are new Mixed-Use categories that allow a mix of office/research and development (R&D), residential and retail uses. These are new land use categories that do not currently exist within the Sunnyvale General Plan and Zoning Ordinance. Therefore, drafting of new land use designations in the General Plan and Zoning Ordinance as well as a change of Zoning for the applicable properties will be required.

Four of the planned land-use categories are exclusively residential uses in already built-out areas that will not change.

Two of the planned land use categories are exclusively employment uses. These designations are already available in the City of Sunnyvale General Plan and Zoning Ordinance, but not previously applied in the Plan area. These areas will require a change of zoning in order to be compliant with the Plan.

Protect Existing Neighborhoods and Businesses

All existing residential areas will be protected and their current zoning will not change. In addition, existing uses in the Plan area will be allowed to remain as legal, conforming uses with the ability to grow and expand. These uses, however, will be discouraged from using hazardous materials in their operation, especially when located adjacent to residential uses.

Minimum Required Development Densities

A key goal of the Plan is to ensure that future new development is of a type and at sufficient density to create a diverse area that can support a mix of employment and residential uses, support transit use, and can provide necessary amenities and support services, such as open space and neighborhood retail. Therefore, for portions of the Plan area in Sunnyvale where new development will be allowed (roughly 70 % of the Plan area), minimum development densities are established. New development will not be allowed at densities less than these minimums. In most cases these minimum densities exceed densities currently allowed.

Maximum Allowable Development Based on Incentives

The LSAP is an incentive-based plan. Development incentives (in the form of density bonuses) will allow property owners to develop their properties beyond the minimum required densities in exchange for providing mixed-use development, street rights-of-way and enhancements, access easements, public open space, additional affordable housing, and other features that advance the goals of the Plan. Developers will not be required to build with incentives. Rather they will have the option to choose which incentives best suit their business plans and economic goals.

Estimated Likely Development

Total development of the Plan Area at build-out was estimated for purposes of environmental impact analysis and determining infrastructure needs. Based on the assumption that 50% of the maximum allowable development (with incentives) will occur, plus 50% of the existing industrial/office/R&D space will remain, total build-out of the Plan area will result in approximately 3,500 residential units, 3.6 million square feet of office/R&D development, 220,000 square feet of retail space, and 26,500 square feet of industrial space. This includes all existing residential development that will remain and be protected.

Focusing only on net new development, estimated likely development will result in approximately 2,300 new multifamily residential units, 1.2 million square feet of net new office/R&D development, approximately 9,000 square feet of net new industrial space, and a net loss of 2,500 square feet of retail space.

Development Cap and Growth Monitoring Program

In order to ensure that long-term development does not exceed the carrying capacity of infrastructure systems and the environment, a growth monitoring program will be established.

A Development Cap for the entire Plan area will be established that is consistent with the findings of the Environmental Impact Report (EIR) that has been conducted as part of the planning process. Findings of the EIR will be used to help establish a maximum development threshold for the Plan area. Once this development threshold is reached (which is unlikely within the time horizon of this Plan), development cannot proceed until new long-range plans and environmental documents have been prepared.

2 | Dense Station Area Development: Locate highest intensity development closest to the Lawrence Station.

Because of the abundant transportation options that are available, close proximity to Lawrence Station is a key determinant of the pattern of allowable densities in the Plan area. The highest intensities of future development will be allowed in an area that is generally located within ¼-mile of the Lawrence Station in two areas, designated Mixed-use Transit Core and Mixed-Use Transit Core South. Office, Research and Development (R&D), and residential at the highest densities are all allowed in these areas. Retail uses are also allowed and encouraged in these areas in order to create a critical mass of successful local-serving retail activity. Depending on location, uses may be configured as vertical mixed-use, such as with retail under several floors or residential or office, or as single use buildings.

Station Area Density Assumptions

		Office/R&D		Retail	Residential		Industrial
Land Use color	Land Use	Minimum density	Maximum density with incentives		Minimum density	Maximum density with incentives	
	Mixed-use Transit Core (1/4 mile radius)	*0.7 FAR*	*1.5 FAR*		*36 Dus*	*68 Dus*	
	Mixed-use Transit Core+ Retail	*0.7 FAR*	*1.5 FAR*	*Block length x 50'*	*36 Dus*	*68 Dus*	
	Mixed-use Transit supporting North (1/2 mile radius)	*0.5 FAR*	*1.5 FAR*		*24 Dus*	*68 Dus*	
	Mixed-use Transit supporting South	*0.35 FAR*	*1.0 FAR*		*24 Dus*	*54 Dus*	
	Mixed-use Transit supporting South + Retail	*0.35 FAR*	*1.0 FAR*	*Block length x 50'*	*24 Dus*	*54 Dus*	
	Office/R&D single use	*0.35 FAR*	*N/A*				
	High-density Residential- two parcels in the southwest				*24 Dus*	*54 Dus*	
	Industrial - small NW parcel to remain						*0.35-0.5 FAR*
	Office/Retail (on Reed & Willow)	*0.5 FAR*		*0.25 FAR*			

3 | Connectivity: Improve connectivity for all modes of travel.

A New Framework of Streets and Blocks

In order to provide improved access throughout the Plan area in general, and to Lawrence Station in particular, a framework of new streets and blocks will be established. In the residential areas south of the Caltrain tracks, the existing framework of streets and blocks will be retained. Minor improvements to provide safer street crossings and minor access improvements for pedestrians, bicycles and transit users will be provided.

In the area north of the Caltrain tracks, to the maximum extent feasible, a new grid of streets and blocks at a finer grain than currently exists will be established. To the extent feasible, the new street grid will have a pattern of blocks no longer than 400 feet on a side.

The new street network will emerge over time as individual properties are redeveloped by individual property owners. As these properties are reconfigured, developer incentives to provide right-of-way and improvements for these new corridors will be available.

Improved North-South Connectivity through the Area

East-west connections throughout the Plan area are relatively good. However, north-south linkages are poor. This is particularly true north of the Caltrain tracks, due to the barrier presented by the tracks and the historical large-lot industrial development of the area. Therefore, a primary goal of the planned new street and block network is to provide improved north-south access throughout the Plan area.

The Plan includes three key features to achieve this goal: 1) A new collector street known as The Loop on the north side of the tracks, 2) Improvements

Land Use Plan

LEGEND

- STUDY AREA BOUNDARY
- PLAN AREA BOUNDARY
- SUNNYVALE / SANTA CLARA BORDER
- EL CAMINO STORM DRAIN CHANNEL / CALABAZAS CREEK
- LAWRENCE CALTRAIN STATION

SUNNYVALE EXISTING LAND USE

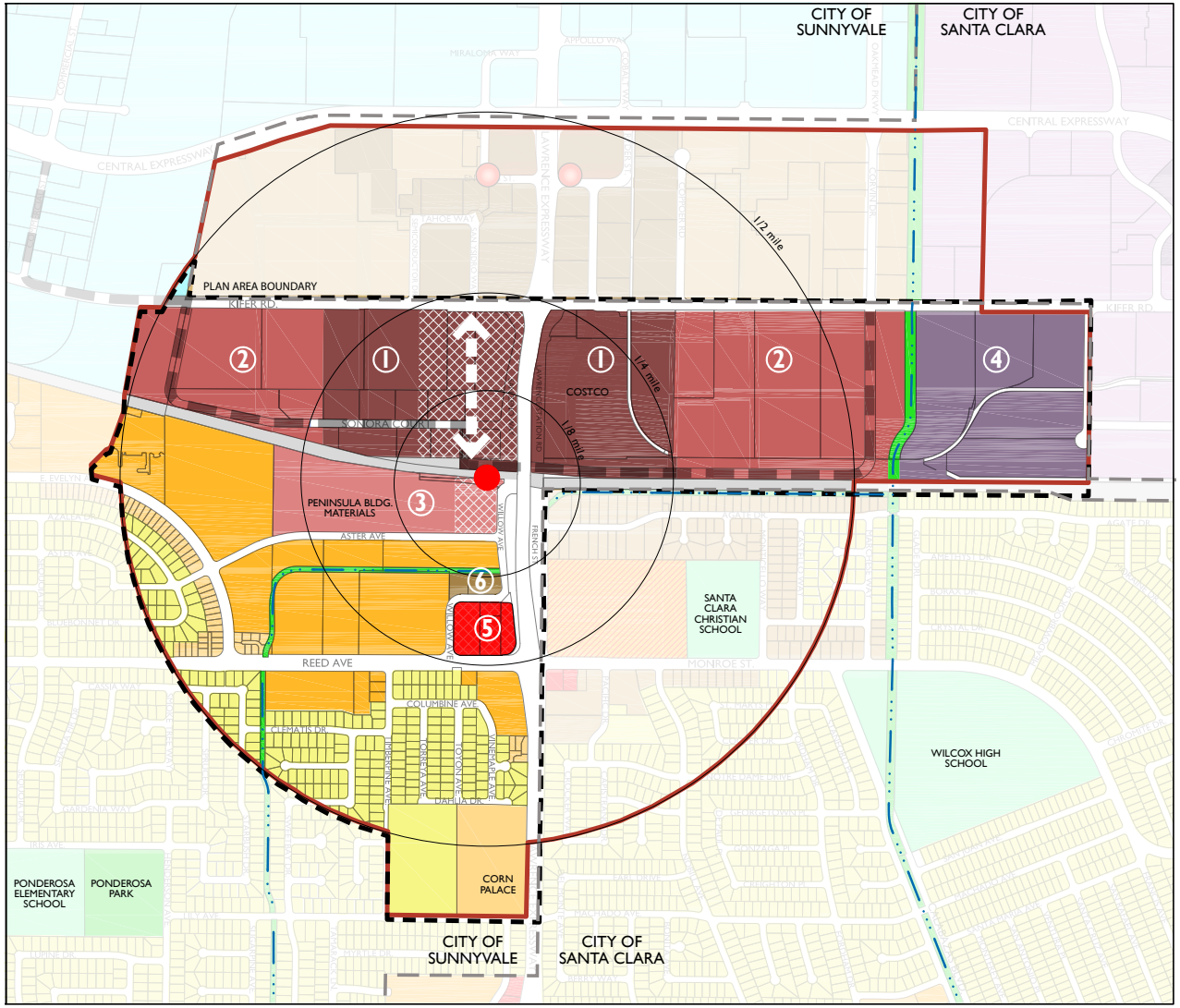
- LOW DENSITY RESIDENTIAL
- LOW-MEDIUM DENSITY RESIDENTIAL
- MEDIUM DENSITY RESIDENTIAL
- INDUSTRIAL & SERVICE
- EXISTING PUBLIC PARKS
- EXISTING SCHOOLS AND OTHER CIVIC USES

SUNNYVALE PROPOSED LAND USE

- MIXED USE TRANSIT CORE (1)
- MIXED USE TRANSIT SUPPORTING NORTH (2)
- MIXED USE TRANSIT SUPPORTING SOUTH (3)
- OFFICE/R&D (4)
- OFFICE/RETAIL (5)
- HIGH DENSITY RESIDENTIAL (6)
- RETAIL MIXED USE (STREET FRONTING RETAIL)
- PRIMARY LOOP ROAD
- NEW NORTH/SOUTH RETAIL STREET GENERAL LOCATION

SANTA CLARA EXISTING & GENERAL PLAN LAND USE

- MEDIUM DENSITY RESIDENTIAL
- HIGH DENSITY RESIDENTIAL
- REGIONAL MIXED USE
- LOW INTENSITY OFFICE/R&D
- LOW DENSITY RESIDENTIAL
- NEW NEIGHBORHOOD RETAIL



N

0 300 600 1200'

to Willow Avenue on the south side of the tracks, and 3) two new pedestrian /bicycle undercrossings of the tracks.

Secondary Street Network

In order to create a finer grained street-and-block framework the Plan includes a secondary network of new streets, lanes, and alleys that will provide enhanced local access and shortened travel paths to the station and commercial areas both within the neighborhood and to and from nearby areas. Based on local conditions, it may not be feasible for all secondary streets to accommodate automobiles. In these situations, bicycle/pedestrian lanes will be provided

Parking Management

Currently, there is an overabundance of on- and off-street parking in the Plan area, which is a costly, inefficient use of resources and contributes to high auto usage and low transit ridership. The Plan therefore outlines a strategy to manage the future parking supply so that it promotes and supports transit and more closely relates to the needs of employers and residents of the area.

A key feature of this strategy is the reduction of parking requirements for future development to more closely relate to actual demand in this location, combined with improved parking management such as shared parking, creation of a Parking District, establishment of a Transportation Management Association (TMS) and other programs.

Make Lawrence Expressway a Better Neighbor

The Lawrence Expressway is a key element of the circulation infrastructure of the City. It presents, however, a great challenge to the integration of the neighborhoods in the Plan area, and, despite its transportation function, actually presents an obstacle to the success of the Lawrence Station. In September of 2014, Santa Clara County released a study (partially funded by the cities of Sunnyvale and Santa Clara) titled the "Lawrence Expressway Grade Separation Study", with the goals of a) reducing traffic congestion on local intersections, b) reducing the barrier to east-west movement created by the existing design of the Expressway, c) better balancing vehicle access to the Lawrence Station, while minimizing conflicts with pedestrians, d) providing direct vertical access to the Lawrence Station, and e) improving through-capacity of the Expressway itself. On-going study and design engineering will be needed to realize these goals.

4 | Neighborhood Character: Ensure the area has a character that is unique to its location while being compatible with the overall character of Sunnyvale and sensitive to existing environmental assets.

The Plan area contains a variety of neighborhoods, districts and places with differences in scale and character and varying opportunities for conservation and development. In the area south of the Caltrain tracks, the overall scale of development will change very little, with policies to protect and enhance the character and quality of existing residential neighborhoods.

North of the Caltrain tracks, the Station Area Plan envisions a future that is a departure from the existing pattern of low scale, large footprint buildings and parking lots. Reflecting the overall trend toward higher density developments for office and R&D in Silicon Valley and increasing land values, this area will be allowed and encouraged to naturally transition to a more dense urban scale. Over time, the area north of the Caltrain tracks will thus become a defined and unique regional and local urban hub, job center, and new neighborhood for urban living, served by a diverse multi-modal circulation system.

The increased development of the northern area will have little impact on the existing residential neighborhoods in the Plan area to the south, due to the separation created by the Caltrain tracks and the lack of residential land use adjacencies. In addition, Design Guidelines that are a part of the LSAP will allow property owners to make their own design decisions while assuring that new development meets certain standards to ensure compatibility with the city and the environment.

5 | Community Identity: Create a strong sense of place and neighborhood identity with the development of a vibrant neighborhood center.

New Neighborhood Center

An identifiable sense of place and identity within the City and the region will be established with the development of a new neighborhood center focused around the Lawrence Station and it's approaching new streets.

The primary focus of retail activities in the Plan area will be along a new north-south retail street connecting Kifer Road, in the vicinity of San Ysidro Way, to Lawrence Station on the west side of the Lawrence Expressway. The new street, referred to here as San Ysidro Way Extension, will form the walkable heart of the new mixed-use Transit Core subarea and will provide a venue for a wide range of pedestrian-oriented commercial and social activities that can serve the nearby mix of uses north of the station as well as the residential neighborhoods to the south, thereby creating a destination and amenity for the entire area.

The character of the street is envisioned as a walkable, mixed-use neighborhood commercial street with a scale and character similar to Santana Row in San Jose, Castro Street in Mountain View or Murphy Avenue and its surrounding district in downtown Sunnyvale.

6 | Flexibility: Allow the area to redevelop over time through a flexible system that is responsive to the goals, schedule and needs of individual business and property owners, developers, and residents.

The Lawrence Station Area Plan is designed to accommodate development according to the timing and needs of property owners and the marketplace. All land use change in the Plan area will be undertaken at the initiative and schedule of private landowners. The City of Sunnyvale has no intent to purchase land for redevelopment or force private landowners and businesses to change land use in order to meet the objectives of the Plan. Existing uses will continue to be allowed and will not be adversely impacted by the implementation of the Plan. The Plan focuses primarily on guiding the future of new development.

Implementation of the Lawrence Station Area Plan will, however, require the coordinated efforts of both the public and private sector working cooperatively to achieve a common goal. This will be achieved through the coordinated application of four general types of public and private actions:

1. Public policy and regulatory actions, primarily through updates to the General Plan and the Zoning Ordinance
2. Impact fees and assessments
3. Direct public investment in infrastructure and public/private partnerships (P3)
4. Public administrative actions

Chapter 7: Plan Implementation lists the key improvements that will be needed to achieve the goals of the Plan and the range of implementation methods and potential responsibilities that can be used to complete these improvements.

1 INTRODUCTION

The purpose of the Lawrence Station Area Plan is to establish a framework for the future development of the area, in order to improve the relationship between transit availability and land use for the long-term development of an economically, environmentally and socially vibrant mixed-use district in Sunnyvale.

1 INTRODUCTION

This Lawrence Station Area Plan (the Plan) has been prepared in order to guide future development of a 629-acre area surrounding the Lawrence Caltrain Station in Sunnyvale, California. The project was funded in large part by a station area planning grant from the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) as part of state and regional efforts to encourage planning for a sustainable future in the Bay Area region. The Plan is guided by the MTC's Resolution 3434 Transit-Oriented Development Policy (July 2005), which includes goals for transit ridership and related supporting land uses within a half-mile radius of rail transit stations throughout the Bay Area.

> ***"The Policy aims to capitalize on investments in new transit corridors in the region by promoting the development of vibrant, mixed-use neighborhoods around new stations. It aims to stimulate the construction of at least 42,000 new housing units along the region's major new transit corridors, helping to ease the Bay Area's chronic housing shortage and preserve regional open space, while at the same time improving the cost-effectiveness of regional investments in new transit expansions."***
>
> ***– MTC's Resolution 3434 Policy (July 2005)***

PURPOSE OF THE PLAN

There is a growing awareness of the important role that land use plays in the success of public transportation systems. Anecdotal and empirical data indicates that without a sufficient population living and working in close proximity and easy access of a transit station, the use of the station is limited, resulting in low ridership on the overall system. Without adequate ridership, the transit system cannot achieve adequate farebox revenue, placing an unsustainably heavy burden on public subsidies to support ongoing investments in capital improvements, operations and maintenance.

The Lawrence Station is a good example of this problem. Surrounded by uses that do not support transit ridership, as well as a circulation framework that makes access for pedestrians, bicyclists and motor vehicles a challenge, the station ranked 17th out of 29 stations in the Caltrain system for average total boardings, comprising only 1.5 percent of the system-wide total, according to the Caltrain 2010 Ridership Report. Indeed, in 2011 the Peninsula Joint Powers Authority, the multi-agency owner of the system, seriously considered closing several stations, including Lawrence Station, due to low patronage.

Conversely, economic studies in the Bay Area in recent years indicate that proximity to an active and viable public transit facility is good for land values, the local economy and the environment. A diversity of employment and housing uses at a range of densities not only supports transit, it also supports the provision of desired retail, open space and other support uses and can encourage a lively, 24-hour community that is less dependent on the use of the automobile for daily needs.

This, then, is the Purpose of the Lawrence Station Area Plan: To establish a framework for the future development of the area, facilitated by a partnership between local residents, businesses, property owners and the City, in order to improve the relationship between transit availability and land use for the long-term development of an economically, environmentally and socially vibrant mixed-use district in Sunnyvale.

LOCATIONAL CONTEXT

The Lawrence Station Area Plan study area is situated at the southeastern edge of the City of Sunnyvale, in the heart of Silicon Valley and Santa Clara County, approximately 42 miles south of San Francisco. It lies in relatively close proximity to major transportation hubs and corridors, including US Highway 101, Interstate 280, and State Route 82 (El Camino Real), San Jose International Airport (7 miles away), freight and commuter rail corridors, VTA bus routes and other transportation corridors. Important nearby regional centers include Downtown Sunnyvale (3 miles), Downtown Santa Clara (4 miles), and downtown San Jose (9 miles).

The study area is generally defined by a one-half-mile radius circle centered on Lawrence Station. Research indicates that this distance represents approximately a 10-minute walk for an average pedestrian, a threshold that pedestrians are generally willing to walk on a regular basis to access a transit station. This distance is widely recognized as a typical unit of measurement for station area planning. The one-half-mile radius contains lands in both Sunnyvale and Santa Clara with city boundaries that interlock with one another. The boundary deviates from a symmetrical circle in order to correspond to the city boundaries north of the station and to encompass a remnant agricultural parcel (the Corn Palace) in the south.

While the overall study area includes portions of the City of Santa Clara in order to ensure coordination of circulation systems and land uses between the two cities, the area specifically addressed this Plan is referred to as the "Plan area," and is limited to lands within the City of Sunnyvale, or approximately 372 acres.

Lawrence Station is about 1.9 miles east of the downtown Sunnyvale Caltrain Station and about 3.6 miles west of the Santa Clara Caltrain and Altamont Commuter Express Station (serving downtown Santa Clara and Santa Clara University).

The Lawrence Station sits directly below an overpass of the Lawrence Expressway. The Lawrence Expressway bisects the Plan area north-south, while the Caltrain right-of-way bisects the area east-west. This results in major barriers to north-south and east-west circulation and divides the

Figure 1.1: Regional Location

Figure 1.2: Local Context

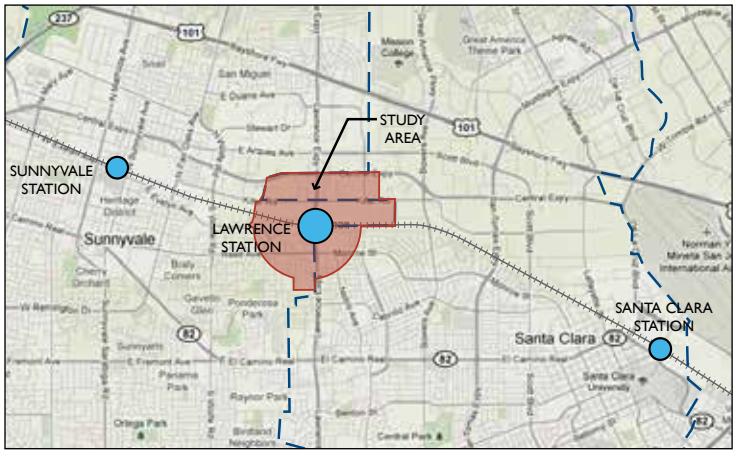
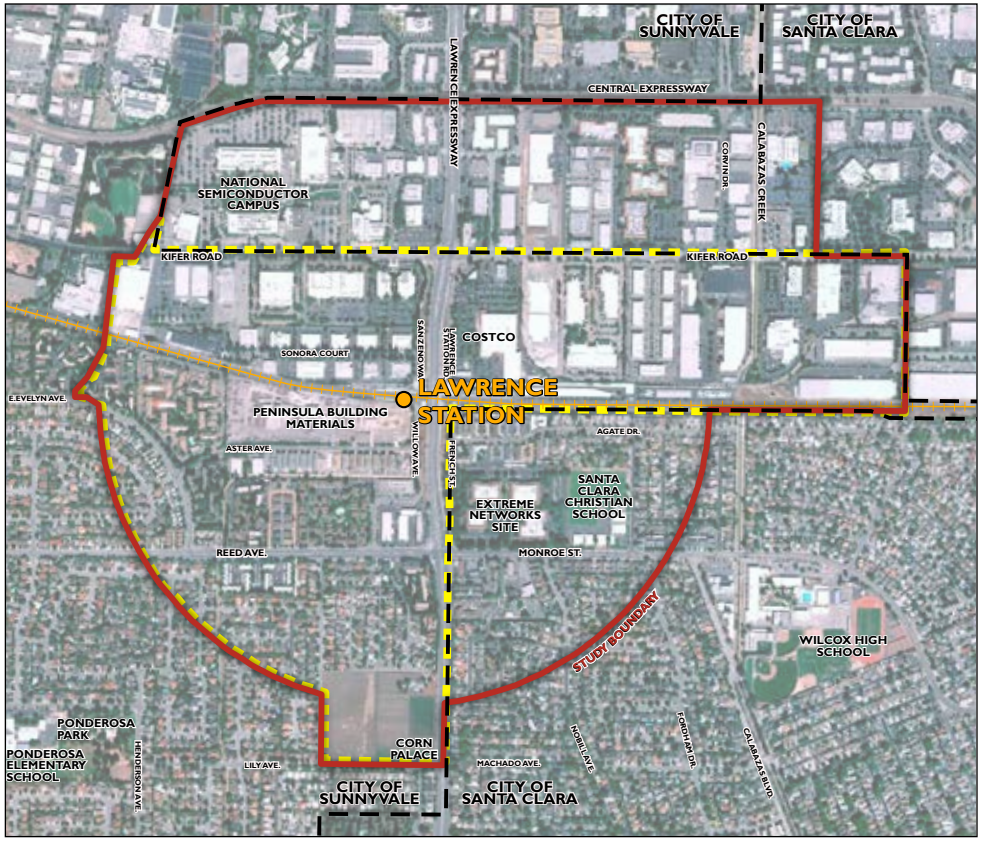


Figure 1.3: Study Area and Plan Area Boundaries



LEGEND

- STUDY AREA BOUNDARY
- PLAN AREA BOUNDARY (SUNNYVALE ONLY)
- SUNNYVALE / SANTA CLARA BORDER

Plan area into four nearly equal quadrants. Much of the analysis that was conducted during the planning process, as well as this Plan document, references these four quadrants, referred to as northwest (NW), southwest (SW), northeast (NE), and southeast (SE).

PLAN AREA DEVELOPMENT HISTORY

The Caltrain railroad line that currently runs from San Francisco to San Jose was built by the San Francisco and San Jose Railroad in 1863. Known as the Peninsula Commute, it was a private, for-profit commuter railroad operated by the San Francisco and San Jose Railroad, which ran between the two cities. In 1870, the rails were purchased by Southern Pacific Railroad, which continued to operate the commuter train service. Due to operating losses, the Southern Pacific Railroad petitioned to discontinue the commuter rail service in 1977. In 1980, subsidies were provided by the California Department of Transportation (CalTrans) to continue the rail service, and it was renamed Caltrain. In 1987, the Peninsula Corridor Joint Powers Board (PCJPB) formed an authority comprising the three counties of Santa Clara, San Mateo and San Francisco and their transit agencies. In 1991, the PCJPB purchased the tracks from Southern Pacific and in 1992, the PCJPB signed a contract with Amtrak as the contract operator for the Caltrain rail service.

Exactly when the Lawrence Station was built as a station is unclear; however, maps dating from 1908 show Lawrence as a station on the Southern Pacific line. Lawrence Station was most recently renovated by Caltrain in 2004.

Sunnyvale was founded at the end of the 1800s as one of several new communities that developed along the Southern Pacific line. Along with other communities in the area, Sunnyvale was once dominated by orchards and farms. As technology businesses flourished in the last half of the 20th century, the orchards gave way to industrial and business parks and residential subdivisions. Until recently, these uses have been configured almost exclusively in large, single-use districts or neighborhoods.

As shown in Figure 1.4, the majority of development in and around the Lawrence Caltrain station occurred forty or more years ago. Most of the residential neighborhoods that lie to the south of the rail line date from the 1970s or earlier. New residential development in the Plan area since the 1970s has been limited to townhouses fronting Aster Avenue and a multi-family rental project just southeast of the station in Santa Clara at the corner of French and Agate Streets.

EXISTING CONDITIONS

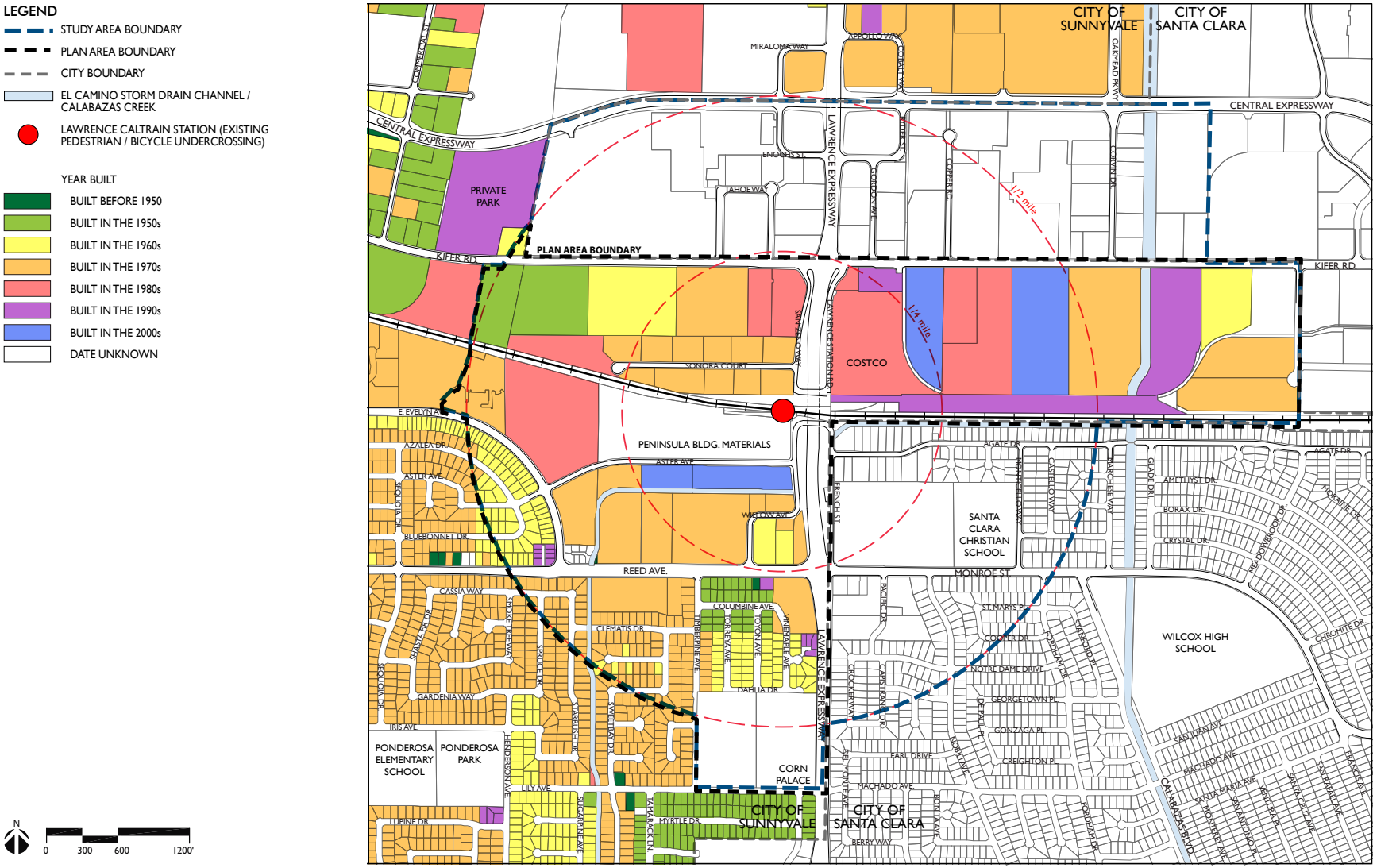
Today, the area north of the rail line is dominated by industrial and commercial uses on large parcels. Many of these date from the early years of Silicon Valley growth and consist of one story structures. East of Lawrence Expressway, more recent development has occurred, including new office and R&D uses and a large Costco store. Parking is typically in large surface lots. Roadways are wide and pedestrian and bicycle facilities are generally lacking.

South of the rail line, the Plan area consists primarily of low-density neighborhoods consisting of single-family detached homes and areas of multi-family apartments and condominiums.

The Plan area contains few distinguishing natural physical characteristics and is generally flat, with elevation relief provided only by the overpass of Lawrence Expressway at the Caltrain tracks. Calabazas Creek, which flows south-to-north to the San Francisco Bay, runs in a concrete channel along the eastern edge of the Plan area. It has little to no vegetation within its approximately 65 foot right-of-way. The El Camino Storm Drain Channel runs through the residential neighborhoods south of the station and along the south edge of the rail tracks before draining into Calabazas Creek. This channel, though mostly concrete, has stretches of grass and earthen banks along its 40 to 45 foot right-of-way.

The entire Plan area has no public parks or open space and very little natural vegetation. However, the streets and gardens of the existing residential areas and some of the industrial areas contain an abundance of mature planted street trees and ornamental plantings, including a dramatic stand of Redwoods along Sonora Court one block north of the station.

Figure 1.4: Development History



RELATION TO OTHER REGULATORY AND POLICY DOCUMENTS

The vision and policy recommendations contained in this plan have been coordinated with preparation of other Sunnyvale planning efforts including an update of the Land Use and Transportation Element (LUTE) and the Sunnyvale General Plan, and revisions to other regulatory documents.

SUSTAINABILITY IN THE LAWRENCE STATION AREA PLAN

Sustainable Development is generally defined as that which meets the needs of the present without compromising the ability of future generations to meet their own needs. It has three major components: environmental (making the best use of our resources), social (improving the quality of life for residents), and economic (spurring economic growth).

The City currently has several policies and plans in place to address sustainability. A key document the City uses to address sustainability issues is the Climate Action Plan (CAP). The CAP contains hundreds of current and future policies related to City facilities and infrastructure, development policies, and operational goals.

The City of Sunnyvale Consolidated General Plan also contains numerous goals and policies that address sustainability. These include goals and policies related to land use and transportation, heritage preservation, housing, environmental management, air quality and solid waste.

In addition, the City adopted its first Green Building Program for new development and alterations to existing buildings in 2009. The Green Building Program has been updated several times since its adoption, and continues Sunnyvale's commitment to being a leader in sustainable development.

The Lawrence Station Area Plan continues the City's commitment to sustainability. Environmental, social, and economic sustainability goals and policies are embedded throughout the Plan in all topical areas of this report: land use, circulation and parking, utilities and public services, and urban design. A particular focus has been placed on environmental sustainability; these goals and policies are indicated with the following symbol.

You will see this symbol throughout this document. Where it occurs indicates a goal or policy that exhibits the City's commitment to environmental sustainability.

PLANNING PROCESS AND COMMUNITY INVOLVEMENT

The preparation of the Lawrence Station Area Plan (LSAP) took place in two distinct phases.

Throughout the two-phase process, extensive input was received from the overall Sunnyvale community, business and property owners, specific focus groups, the Sunnyvale Planning Commission, the Sunnyvale City Council, and, during Phase II, a Citizens Advisory Group (CAG).

Important input was also provided in regular meetings of a Technical Advisory Group (TAG) comprised of representatives from the City of Sunnyvale, City of Santa Clara, County of Santa Clara, SamTrans, Valley Transportation Authority (VTA), and representatives from the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG).

LSAP PHASE I

The Sunnyvale City Council approved a feasibility study for the Lawrence Station Area Plan in May 2009, which subsequently led to receipt of the MTC/ABAG grant to prepare a Phase 1 study. This first phase of the Plan preparation process was initiated in December 2010. Early in the process, several community meetings were held to gain an understanding of the

community's attitudes and ideas regarding the station area. The meetings included a sharing of information related to existing conditions, related plans and projects, and relevant regulatory considerations.

The first Community Workshop was held in February 2011 and included a hands-on visioning effort to understand the needs and goals of residents and businesses in the area. Community meeting attendees met in small groups which allowed them to discuss issues in the area that were most relevant and meaningful to them and prepare illustrative plan maps for the Plan area.

Examples of work products from attendees at Community Workshop Number 1 are shown in Figures 1.5 and 1.6. Additional issues noted by attendees are summarized below:

Condition of Sidewalks and Pedestrian Crossings

- There is a pervasive lack of sidewalks or poor sidewalk conditions in virtually all parts of the study area including near the Lawrence Caltrain station, where good access is particularly important.
- It is difficult for the neighborhoods south of the station to reach the station by any mode (walking, bicycling, on transit or by car).
- The width and configuration of streets in the vicinity of the station results in high traffic speeds and unsafe pedestrian conditions.

Lack of Bicycle Facilities

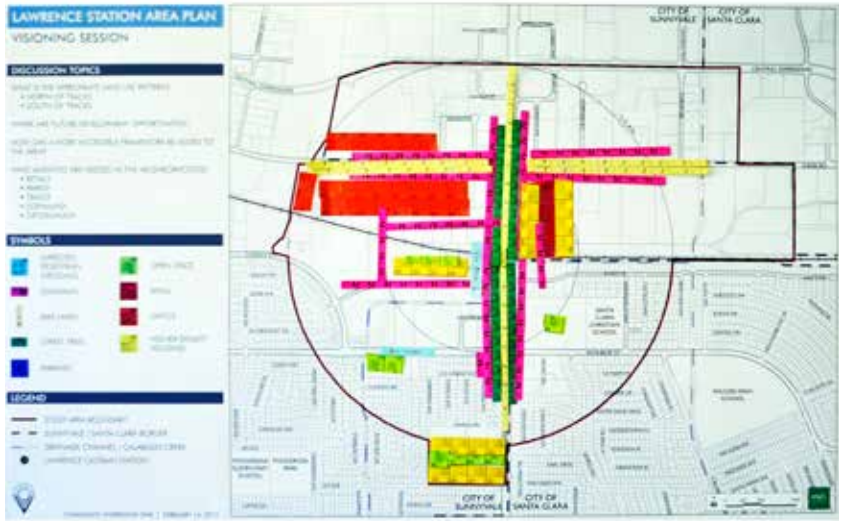
- Better bicycle access to the station and additional bicycle parking is needed.
- Improved bicycle facilities are needed in the vicinity of the station that will connect to the regional system of lanes and trails. Adequate bicycle parking must be provided at the station and in conjunction with development of any kind.

Insufficient Open Space

- The study area has a significant lack of open space in the form of parks or recreation facilities.
- The residential neighborhoods to the south of the station have no convenient open space within a reasonable distance.

Figure 1.5: Phase One Community Workshop #1 Vision Plan (a)

Figure 1.6: Phase One Community Workshop #1 Vision Plan (b)



Lack of Neighborhood-serving Retail

- There are no retail services in the station area or nearby to meet daily resident needs.
- Grocery stores are located at a significant distance away.
- The retail in the area requires auto access; there is no retail suitable for walking (e.g., corner store).

Land Use

- Retain small businesses in area wherever possible.
- Additional residential uses north of the station would offer opportunities for a more active community and for a diverse population such as seniors.

Parking Concerns

- Transit riders park on neighborhood and business streets near the station.
- Provide adequate parking for future development.

The first Community Workshop was followed by an outreach meeting with business and property owners, held in February 2011 in order to understand the needs and concerns of business and property owners in the Plan area.

Following these beginning outreach meetings, initial concepts were prepared for the future of the Plan area in an iterative process that included input and review from the TAG, City staff and the Consultant Team. These concepts included a preliminary circulation framework and three alternative conceptual land use plans, each of which emphasizes a different land use pattern:

Concept A: Residential Emphasis

This land use concept envisioned almost exclusively residential uses throughout the entire Plan area, with support services such as retail, restaurants, and small offices located to serve the new and existing residential neighborhoods.

Concept B: Office/Research and Development (R&D) Emphasis

New development under this concept emphasized the creation of more intensive employment uses. Land uses north of the Caltrain tracks were almost exclusively office and R&D, with a limited amount of support services. South of the tracks, all existing residential areas were retained and protected.

Concept C: Mixed-use Development

This land use concept combined the urban residential neighborhood qualities of Concept A with the job-creation qualities of Concept B in all new development areas. Like the other concepts, all existing residential areas were retained and protected.

For a more complete description of the alternatives prepared under Phase One of the Lawrence Station Area Plan, see Appendix A of this document as well as the document from Phase One titled "Lawrence Station Area Plan," dated August 2011.

COMMUNITY REVIEW OF ALTERNATIVE CONCEPTS

A second Community Workshop was held in May 2011 to discuss the preliminary circulation framework and the three alternative conceptual land use plans in an open house format. Of the three concepts, Concept C: Mixed-use Development, received the most favorable comments from members of the public who attended the Workshop although there was lesser support for the other two concepts as well.

This meeting was followed by a second business outreach meeting, held in June 2011, to discuss the concepts. During this meeting, business and property owners expressed support for the Mixed-use Development Plan, while also wanting to ensure that the changes in land use designations will not require changes to their business operations.

COUNCIL AND PLANNING COMMISSION FEEDBACK

Subsequently, on July 26, 2011, a joint study session and public hearing of the Planning Commission and the City Council was held to update City leadership on the research completed and share the findings of the community outreach process to date. During the meeting, a variety of issues and comments were raised. While there was strong support for enhancing residential opportunities and amenities and increasing accessibility to the station, there were mixed opinions as to whether one land use or another should predominate.

PHASE II

The second phase of the planning process refined the Preliminary Circulation Framework and Conceptual Land Use Alternatives and resulted in selection of a preferred plan, which is the basis of the plans, policies, and guidelines of this Plan document.

At the beginning of Phase II, in August, 2012 a Community Advisory Group (CAG) was established. The CAG, which was appointed by the City Council, included 19 members (and 3 alternates), and represented a broad spectrum of the Sunnyvale community, including neighborhood residents, business and property owners, and representatives from the Sustainability, Housing and Human Services, and Planning Commissions. Over the course of the Phase II planning process, the CAG met 10 times and devoted numerous hours to discuss options and review concepts, policies, guidelines and implementation strategies to shape the future of the area surrounding the station.

One of the first tasks the CAG undertook was to articulate four key goals which were intended to guide the selection of a preferred alternative and other details as the planning process moved forward:

Goal 1: Increase transit ridership by adding more jobs and residents in the area
Goal 2: Improve circulation to the station and throughout the study area
Goal 3: Provide transit-oriented development
Goal 4: Ensure quality development.

The CAG also articulated the following vision statement:

> ***"The Lawrence Station Area will achieve its full potential as a local residential and employment center where people can live, work, shop and play in a vibrant, walkable environment that takes advantage of its proximity to transit. Towards this end, the plan will establish land use and parking policies, access and circulation, pedestrian/bicycle and streetscape improvements, urban design guidelines, and infrastructure improvements through an extensive and inclusive public outreach and stakeholder process."***

Subsequently, the CAG engaged in a process to select a preferred land use concept from the three alternatives prepared during Phase I. After reviewing the three alternatives, the CAG selected Concept C: Mixed-use Development as the appropriate direction for the long-term evolution of the Plan area to meet their stated goals. The CAG further refined that concept by proposing a "flexible" mixed-use designation. The intent is to allow a mix of uses throughout the Plan area rather than in specifically assigned areas.

The CAG noted the benefits associated with having a mix of uses – jobs, residential, and retail and service – in proximity to one another, so that no single use would dominate and the mix of uses would help to ensure neighborhood vitality and a critical mass of activity. The CAG also noted the current lack of services and amenities and the opportunity for new land uses in the study area to mitigate this problem. With this direction, various draft elements of the Lawrence Station Area Plan, such as design guidelines, cost analysis and implementation strategies were prepared.

Two additional community meetings were held in the second phase of the planning process to gain further input from Sunnyvale residents, businesses and property owners. These meetings were supplemented with periodic updates with local property and business owners to solicit their direct input and reactions to the emerging concepts.

In February 2013, the Sunnyvale Planning Commission and City Council voted to accept the CAG's recommendation of a flexible mixed-use plan for the area. Subsequently, at its meeting of June 19, 2013, the CAG recommended that a strong incentive-based program be established in order to implement the Plan. Key priorities should include the following:

- Mixed use. A mix of uses should not be required on any specific property or area, but it should be a high priority of the incentive program.
- The Loop Roadway. Prioritize the provision of incentives for property owners who provide right-of-way and improvements for this key roadway.
- Affordable Housing. Place a high priority on incentives for property owners who provide affordable housing beyond current minimum City and State requirements.

The Plan accepted by the City Council, together with the implementation recommendations of the CAG, provides the basis for the goals, policies and guidelines described in this document. In addition, this Plan is accompanied by a Program Environmental Impact report (EIR), prepared in accordance with the California Environmental Quality Act (CEQA), which evaluates potential environmental impacts of the plan and describes potential mitigations that may be needed.

2 VISION FOR THE STATION AREA

The vision for the Lawrence Station Area Plan evolved through extensive public outreach and a dedicated Citizens Advisory Group. The four key goals are to: increase ridership, improve circulation, provide transit-oriented development and ensure quality development. Other guiding principles are discussed throughout the plan.

2 VISION FOR THE STATION AREA

"The Lawrence Station Area will achieve its full potential as a local residential and employment center where people can live, work, shop and play in a vibrant, walkable environment that takes advantage of its proximity to transit. Towards this end, the plan will establish land use and parking policies, access and circulation, pedestrian/ bicycle and streetscape improvements, urban design guidelines, and infrastructure improvements through an extensive and inclusive public outreach and stakeholder process."

- Lawrence Station Area Plan Citizens Advisory Group (CAG)

The Vision for the Lawrence Station Area Plan area was established based on the goals defined by the CAG and the TAG, as well as input from the public, City boards and commissions, and the City Council. The overall Vision serves as the basis for all elements of the Plan and its implementing policies. The seven major Vision goals follow.

V-1 LAND USE DIVERSITY

Promote a diversity of land uses and densities that will support transit usage and neighborhood services.

The Plan will guide the evolution of the area to become a new urban neighborhood in Sunnyvale with a mix of both employment and residential uses at a variety of densities. The mix of uses will allow people the opportunity to access their homes, jobs, recreational facilities and neighborhood goods and services within close proximity of one another, reducing their dependence on the automobile.

Densities will vary across the Plan area, ranging from the existing residential neighborhoods, which will be protected, to higher-density residential and employment uses near the Lawrence Station. The range of densities will allow a full range of housing options at all levels of affordability. It will also allow variety in business and job opportunities and provide a sufficient population base to support transit as well as provide critical mass to support neighborhood services and amenities such as retail, open space and recreational facilities.

V-2 DENSE STATION AREA DEVELOPMENT

Locate highest intensity development closest to Lawrence Station.

The higher employment and residential populations that will result from locating the highest intensities of development adjacent to Lawrence Station will support transit ridership and energize station area public spaces. This will further regional goals for housing and employment while also capitalizing on the Lawrence Station, an existing built asset that is currently underutilized. It will also lessen the need for increased expenditures on regional highways and associated increases in greenhouse gas emissions and other adverse environmental impacts related to heavy reliance on automobiles in the overall transportation system.

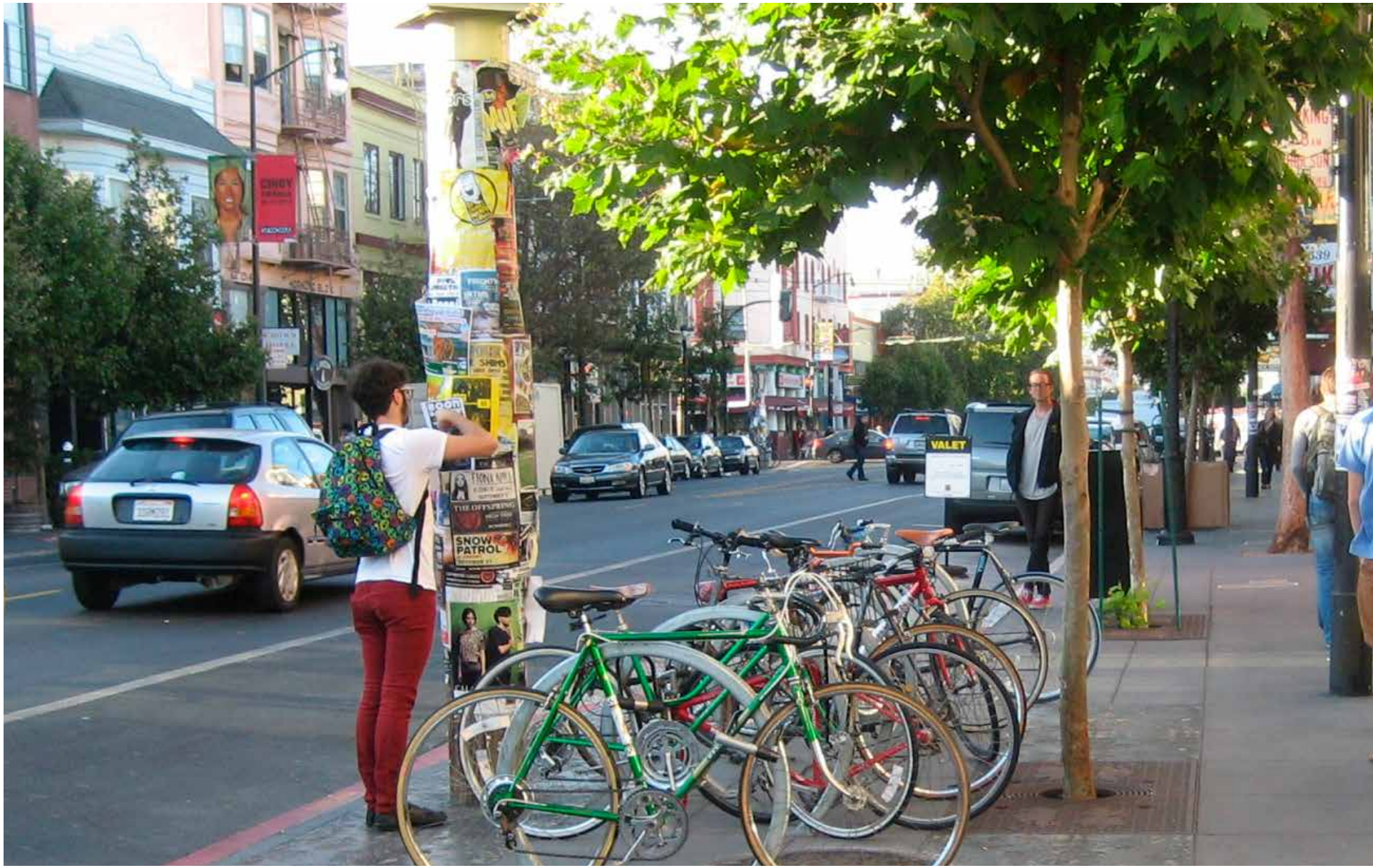
The higher populations will also support commercial establishments near the station, which will serve not only the needs of the new population, but will also help meet the needs of existing residents and workers in nearby neighborhoods.

V-3 CONNECTIVITY

Improve connectivity for all modes of travel.

Over time, a new framework of streets, blocks and paths will be created that allows access throughout the Plan area for pedestrians, bicyclists, transit vehicles, automobiles and service vehicles. This new framework will be generally in the form of an urban grid, derived from the existing developed grid of the area and scaled to allow efficient and economical development of a variety of land uses and densities. It will be designed to facilitate easy access to retail goods and services, transit, and open space amenities for residents, workers and visitors with minimal need for use of the automobile.

A particularly important component of this improved connectivity is the provision of improved north-south connections. The new framework of streets and paths emphasizes improved north-south connectivity, both to provide access to Lawrence Station as well as to link the neighborhoods on both sides of the tracks together and to improve access to regional transportation facilities such as the Central Expressway.


VALET
SNOW PATROL

V-4 NEIGHBORHOOD CHARACTER

Ensure the area has a character that is unique to its location while being compatible with the overall character of Sunnyvale and sensitive to existing environmental assets.

The new framework of streets and blocks, based on the existing orthogonal development pattern of the area, will help ensure that future development of the Plan area is consistent with the development patterns of the surrounding neighborhoods and Sunnyvale as a whole. Additionally, unique existing physical features of the Plan area, such as the Redwood street trees on Sonora Court and the Calabazas Creek channel will be protected and enhanced, thereby contributing to the unique character and fabric of this particular neighborhood.

New development will also be planned to make this area unique in the City by enhancing the quality and character of the neighborhood. While greater density and land use diversity is envisioned in new development areas, buffer zones, setbacks, building heights, sun, shade and wind patterns, landscape and open space and other physical design elements will be an essential ingredient of the design and review process, consistent with the guidelines established by this Plan.

V-5 COMMUNITY IDENTITY

Create a strong sense of place and community identity with the development of a vibrant neighborhood center.

With the development of a more intensive, mixed-use environment with added employment and households, there is a new opportunity to create a community with an identifiable sense of place and identity. The focus of this will be an active "main street" commercial area with a strong pedestrian orientation.

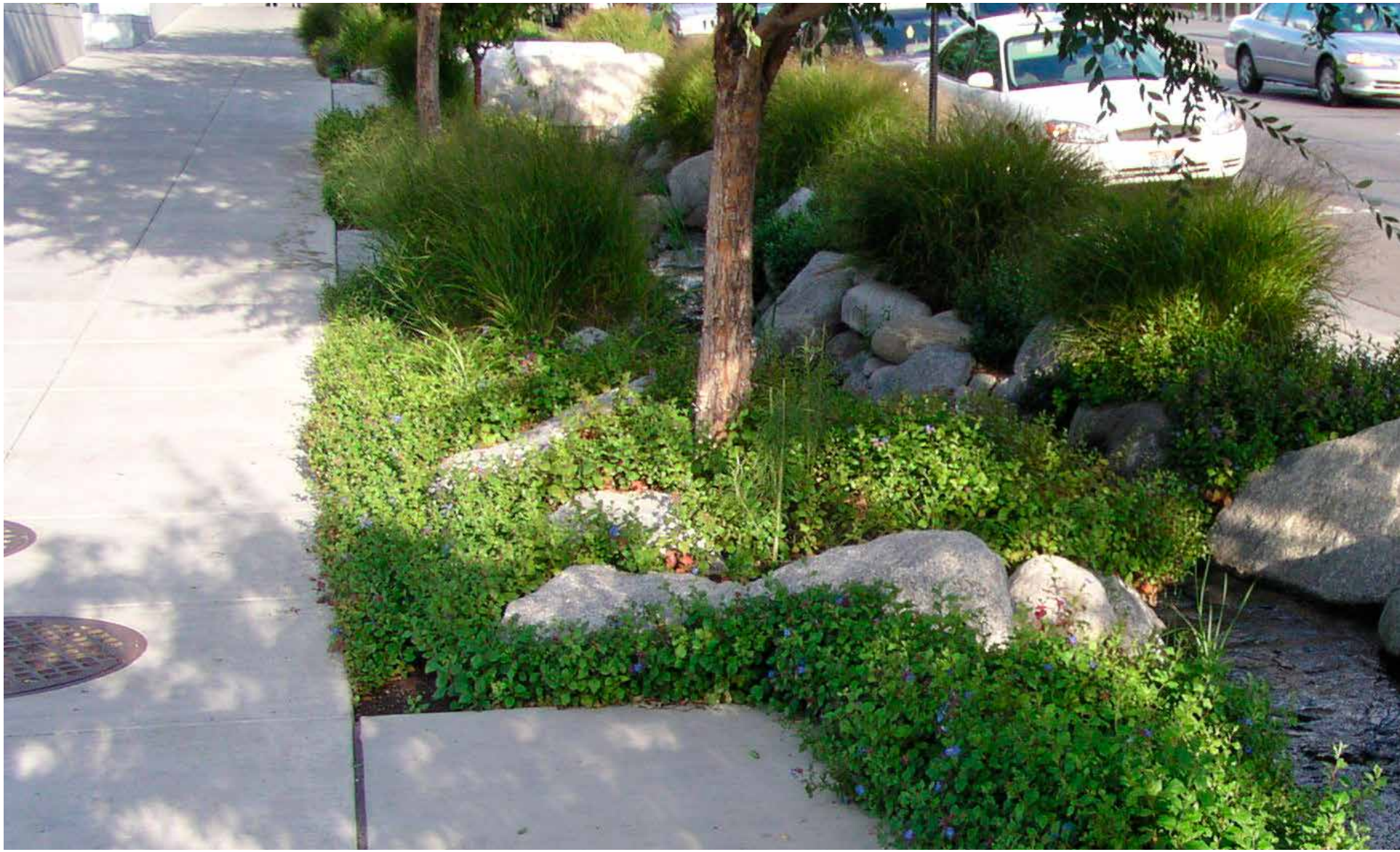
Somewhat like Murphy Avenue in downtown Sunnyvale, the area will be the center of the community, providing an active, mixed-use zone where offices or residential uses may be found over ground-level shops or dining. Wide sidewalks, low vehicular travel speeds, on-street parking and proximity to the Caltrain station will allow access to all modes of travel. Located in the center of the Plan area near Lawrence station, surrounded by walkable residential and employment uses, the new street will be active throughout the day and evening, providing much needed goods and services as well as a focal point for the neighborhoods around the station.

V-6 FLEXIBILITY

Allow the area to redevelop over time through a flexible system that is responsive to the goals, schedule and needs of individual business and property owners, developers, and residents.

The Plan is a long-range vision for change over time. It will be implemented through the coordinated efforts of the City of Sunnyvale working in partnership with businesses, property owners, developers and residents. Change will occur according to the timing and needs of property owners and the marketplace. This flexible, market-based approach will help ensure a diversity of land uses and densities are developed while also making certain that the process is orderly and that appropriate uses are developed in appropriate locations and at densities that are appropriate to meet the goals of the City as a whole and the neighborhood in particular.

The key to the success of such a flexible planning and development approach will be the establishment of two new primary regulatory tools, which will encourage development according to the vision of the Plan: 1) establishment of minimum densities in specific areas, particularly near the Lawrence Station, and 2) a system of development incentives and bonuses that will reward property owners in specific target areas who choose to go beyond minimum development requirements and provide the mix of uses, amenities and infrastructure necessary to achieve the vision of the plan.



V-7 SUSTAINABILITY

Re-develop the area in a manner that is environmentally, economically, and socially sustainable.

The City currently has several policies and plans in place to address sustainability, including the Climate Action Plan (CAP), the City of Sunnyvale Consolidated General Plan, and the Green Building Program. The Lawrence Station Area Plan embraces a similar commitment to sustainability.

Diversity is the key to the long-term sustainable development of the Plan area. Diversity of land use will allow flexibility in response to varying market conditions over time as well as allowing access to a range of job and housing opportunities. Diversity of transportation options will reduce dependence on a single mode of transportation and provide feasible long-term alternatives in response to fuel shortages, climate change and other unforeseen challenges.

By its nature, the Lawrence Station Area Plan has its roots in sustainability, as its focus is to enhance utilization of an existing commuter rail line: the Lawrence Station Caltrain station. Heavy dependence upon the automobile will decrease as future development in the Plan area provides a mix of uses to allow people to live, work, shop and relax in the area without needing an automobile for access. Increasing walking and bicycling opportunities also furthers the sustainability goal by providing a diversity of transportation choices.

Environmental, social, and economic sustainability goals and policies are embedded throughout the plan in all topical areas of this report: land use, circulation and parking, utilities and public services, and urban design. A particular focus has been placed on environmental sustainability; these goals and policies are noted with the following symbol.

3 LAND USE

Opportunities for the future of the Lawrence Station Area are dependent to some degree on conditions that currently exist. These may relate to existing land uses and the pattern of ownership and existing facilities; the degree to which the existing transportation network serves the project area; and the short, medium, and long-term opportunities provided by the real estate market in this part of Silicon Valley.

3 LAND USE

INTRODUCTION

The land use plan for the Lawrence Station area, illustrated in Figure 3.2, defines a land use pattern and allowable development densities that will result in a diverse neighborhood with an active daytime and nighttime environment that supports transit ridership both outbound and inbound of the Lawrence Station. It is a mixed-use plan, conceived to result in a new neighborhood with a variety of housing types as well as office/research and development (R&D) uses that will provide significant employment. And, it is a flexible plan, allowing business and property owners to play a central role in its implementation over time and according to their specific needs and circumstances.

Mixed-use refers to development that combines different types of land uses—usually homes, shops, offices and community facilities—within easy walking distance. Within that broad definition, mixed-use development can take many forms: it may be vertical (within the same building). For example, the traditional office over the store is vertical mixed-use. Mixed-use can also be horizontal, such as office and residential in different buildings but on the same block or adjoining blocks. It may be low-, medium- or high-density; it may combine just two uses or several; and it may be located near a transit station (in which case it is also known as transit-oriented development) or accessible primarily by other means.

Mixed-use development is an old concept that is being re-discovered and is gaining renewed popularity across the country. Through the early 20th century, before the widespread advent of zoning, most neighborhoods featured a diversity of land uses, and housing above stores was common. These development patterns can still be seen in older, traditional neighborhoods. Zoning developed as a response to rapid industrialization and urbanization, at a time when factories and many commercial activities

were noisy, odorous or hazardous. In its early stages, zoning focused on separating and buffering housing from industrial and commercial uses, to protect residents from polluting, noxious and harmful activities.

While many industrial uses still need to be segregated, most commercial activity today is benign or easily controlled. Retail, restaurants and offices can be safely integrated with housing. Indeed, there are many advantages to doing so. Compared to isolated and sprawling suburban development, mixed-use makes for more vibrant, active and convenient neighborhoods, and gives people more opportunities to socialize and work near home. Equally important, when properly planned, mixed-use reduces dependence on driving and increases transit usage, thereby optimizing the return on transit investments, reducing the rise of greenhouse gas emissions and reducing the need to build ever-more highways and parking lots.

Flexibility in this land use plan means that properties north of the Caltrain Station and portions of the Calstone/Peninsula Building Materials site just south of the station have the option to develop office/R&D or residential uses. This provides enormous advantages to property owners and developers to respond to market conditions as they may evolve and to tailor uses and densities to particular locations within the Plan area. This same flexibility is not the same in the existing residential neighborhoods, where the intent of the Plan is to protect and enhance these areas.

LAND USE CHALLENGES

Several existing land uses in the Plan area present challenges for a vibrant, transit-oriented neighborhood. Most existing land uses and densities do not support transit. Today there is a preponderance of low-density, light industrial, one- and two-story uses north of the railroad tracks. These low intensity employment uses are surrounded by surface parking lots. The area south of the tracks is dominated by single-family and some low-density multi-family residential neighborhoods, which have poor access to the station.

While the Plan area currently contains abundant square footage of retail uses, generally they are poorly located, inaccessible to pedestrians, and of a type that is inconsistent with the needs of the existing office/R&D uses, neighborhoods or transit users.

Although it is currently unknown how many properties in the area would redevelop as part of the plan, there will surely be properties and uses that will remain. A key aspect of the plan will be to allow existing properties in the Plan area to remain and thrive. Examples include Costco, Intuitive Surgical, and the industrial condominium complex on Kifer.

The Calstone/Peninsula Building Materials site is the only remaining manufacturing/heavy industrial use on the south side of the Plan area. Its location adjacent to residential uses results in noise and traffic impacts. It is also a poor use to be located directly adjacent to a commuter transit facility.

LAND USE

Land Use Goals

LU-G1 Protect existing residential areas south of the railroad tracks.

LU-G2 Allow existing uses in the Plan area to remain as legal, conforming uses with the ability to grow and expand. These uses, however, should be discouraged from using hazardous materials in their operation, especially when located adjacent to residential uses.

LU-G3 Promote a mix of employment and residential uses.

LU-G4 Although the plan allows for flexible use of property, a balance should be found to ensure the mix of uses remains diverse at all times.

LU-G5 Provide a mix of uses within the Plan area that encourages transit ridership, creates a neighborhood of 24-hour activity and supports the provision of amenities such as open space and support services such as retail.

LU-G6 Provide a flexible land use pattern that provides the desired balance of employment and residential uses in order to create an active daytime and nighttime environment.

LU-G7 Incorporate land use flexibility to respond to variable market conditions, while promoting a blend of employment, residential and retail uses.

LU-G8 Provide amenities and services for existing and new neighborhoods.

LU-G9 Provide sufficient development intensity to allow the feasible development of associated amenities (such as open space) and support services.

LU-G10 Maximize development intensities in order to support transit usage.

LU-G11 Respect the scale and character of the existing residential use

Land Use Policies

LU-P1 Buffer / transition new development located adjacent to existing residential neighborhoods through site planning, land use and design strategies.

LU-P2 Allow existing businesses to remain and prosper as legal conforming uses.

LU-P3 Allow transition to higher density transit-supportive uses as opportunities arise through turnover of businesses or property ownership.

LU-P4 Establish appropriate levels of development for employment and residential uses to ensure a balance exists in the plan area. The City Council should review the thresholds for each use type as redevelopment occurs to ensure a balance remains.

HOUSING

Housing in the area will be allowed in all areas of the plan, as stand-alone residential or a part of a mixed use project. The residential components of mixed-use projects should be planned to maximize privacy for the residents while taking advantage of new and existing employment centers in the area.

AFFORDABLE HOUSING

An Affordable Housing and Anti-Displacement Strategy was prepared to assess the potential need for affordable housing in the Plan area and recommend strategies to meet the City's affordable housing goals. The key findings and recommendations are listed here. For the full report, see Appendix C.

The City's existing affordable housing policies include a 12.5 percent affordability requirement on for-sale projects, current consideration of a nexus-based affordable housing fee for rental projects, and a plan to study the potential enhancement of the Housing Mitigation Fund program applied to higher density office/industrial development

The Regional Housing Needs Allocation (RHNA) is a program requirement established by the ABAG that sets goals for future housing in accordance with State law. Mandatory RHNA guidelines suggest that over 40 percent of new housing in Sunnyvale should be affordable at Low and Very-Low Income levels. Current Plan area demographics show similar income distribution and housing needs. However, requiring developers to provide affordable housing comparable to the RHNA targets is infeasible, as it creates an extreme cost burden that would eliminate the financial incentive to construct new housing.

In order to provide developers with a financial incentive to produce more affordable housing than is required under current City policy, benefits that maintain profitability through added value or reduced costs will be needed. Therefore, this Plan includes a variety of affordable housing strategies, including the following. For more detailed information, see Chapter 7: Plan Implementation.

- A local density bonus program that provides additional density (i.e., market-rate units) in exchange for additional affordable units for both for-sale and rental projects.
- Parking requirement reductions for all projects.
- Waiving certain City fees for new housing developments that pursue the added density, or simply deferring the payment of such fees until later in the development process.
- Provide financial support for the construction or renovation of units by nonprofit builders and apartment operators by prioritizing the use of local resources such as Housing Mitigation Fund fees in the Plan area.
- Procedurally support the construction or renovation of units by nonprofit builders and apartment operators. Facilitate providing affordable housing through the state density bonus law and assert that development projects reaching lower income levels through the use of tax credits and similar resources are expected and encouraged.

ANTI-DISPLACEMENT

To avoid displacement of existing lower-income residents, no upzoning or increases in allowable densities on sites currently occupied by housing will occur. Retaining existing density allowances will minimize the financial incentive to demolish and replace existing units to achieve higher property values, thus minimizing the concern that existing residents will be physically displaced by new development.

Housing Goals

H-G1 Provide sufficient housing in the Plan area to support an increase rail transit ridership.

H-G2 Provide a range of housing types in the station area to provide for all income groups and lifestyles.

H-G3 Encourage and support development of affordable housing in the Plan area.

Housing Policies

H-P1 Encourage a diverse mix of housing types, including ownership, rental, affordable and housing for seniors.

H-P2 Prioritize the provision of affordable housing in the Lawrence Station area.

H-P3 Provide City-based incentives to promote development of affordable housing.

RETAIL

Retail development is an important component of the plan area in order to serve employees and residents of the area. Retail components can include restaurants, stores and hotels. Sonora Court and the area near the station provide excellent opportunity locations for ground floor restaurants and retail uses in order to take advantage of the tree-lined street and proximity to the station.

Retail Goals

R-G1 Encourage a variety of retail uses.

R-G2 Provide retail that supports the needs of surrounding neighborhoods.

R-G3 Do not encourage regional-serving retail.

R-G4 Provide retail that is convenient and accessible to pedestrians and transit users.

R-G5 Do not encourage auto-oriented and auto serving retail.

Retail Policies

R-P1 Concentrate retail uses closest to the station in order to energize the station area.

R-P2 Encourage the development of restaurant uses on Sonora Court.

New retail uses in the plan area will be oriented to serve neighborhood needs for goods, services, dining and entertainment.

INDUSTRIAL

The industrial users that exist in the plan area are an important part of the city, and should be allowed to maintain the business and expand as necessary. Care should be taken, however, to ensure industrial materials, operations and work hours are compatible with the new uses as the area redevelops to more transit-oriented mix of uses

Industrial Goals

I-G1 Allow existing industrial uses to remain in the area, but ensure materials used, operations and work hours are compatible with nearby residential users.

OPEN SPACE AND RECREATION

Parks and open space are essential amenities for residents and workers that provide breathing room and recreational opportunities in a built urban environment. Its uses can include active and passive recreation, wildlife habitat, food production, and simple visual relief.

The Plan area contains no improved open space available for public use. Open space available for public use is only found outside the study area at Ponderosa Park and Elementary School and in Santa Clara at Santa Clara Christian School.

Visual open space and landscape improvements are found in various areas throughout the Plan area including the landscaped embankments of the Lawrence Expressway, within the Calabazas Creek and El Camino Drainage channels, the attractive mature Redwood plantings on Sonora Court, the mature street trees along Kifer Road and the mature landscape of the existing neighborhoods south of the Caltrain tracks. However, none of these landscape improvements provide usable open space that is available for public use.

Open Space Goals

OSG-1: Establish a system of parks and public spaces connected by green corridors and linear parks that serve and connect both new residential development and new non-residential development.

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

OSG-3: Connect open space areas to local and regional bikeways and trail networks to the greatest extent possible.

Open Space Policies

OSP-1: Strive to provide a total of 32.5-39.0 acres of new open spaces and plazas open to the public throughout the Plan area.

OSP-2: Utilize the El Camino Drainage Channel and Calabazas Creek corridors to create new linear open space connectors available to the public.

OSP-3: Improve the following public street corridors as Green Streets as linkages in the open space connector system.

- The Loop
- Sonora Court
- Kifer Road
- San Ysidro Way Extension (Retail Street)
- Willow Avenue

OSP-4: Provide pedestrian and bicycle amenities on all Green Streets, including abundant landscaping, Class I or Class II bicycle facilities, lighting and intersection amenity and safety improvements.

OSP-5: Locate all new dedicated open space to be adjacent to, and accessible from, the backbone open space system of linear parks and Green Streets.

OSP-6: Preserve and protect the existing mature street trees on Sonora Court (Redwoods) and Kifer Road.

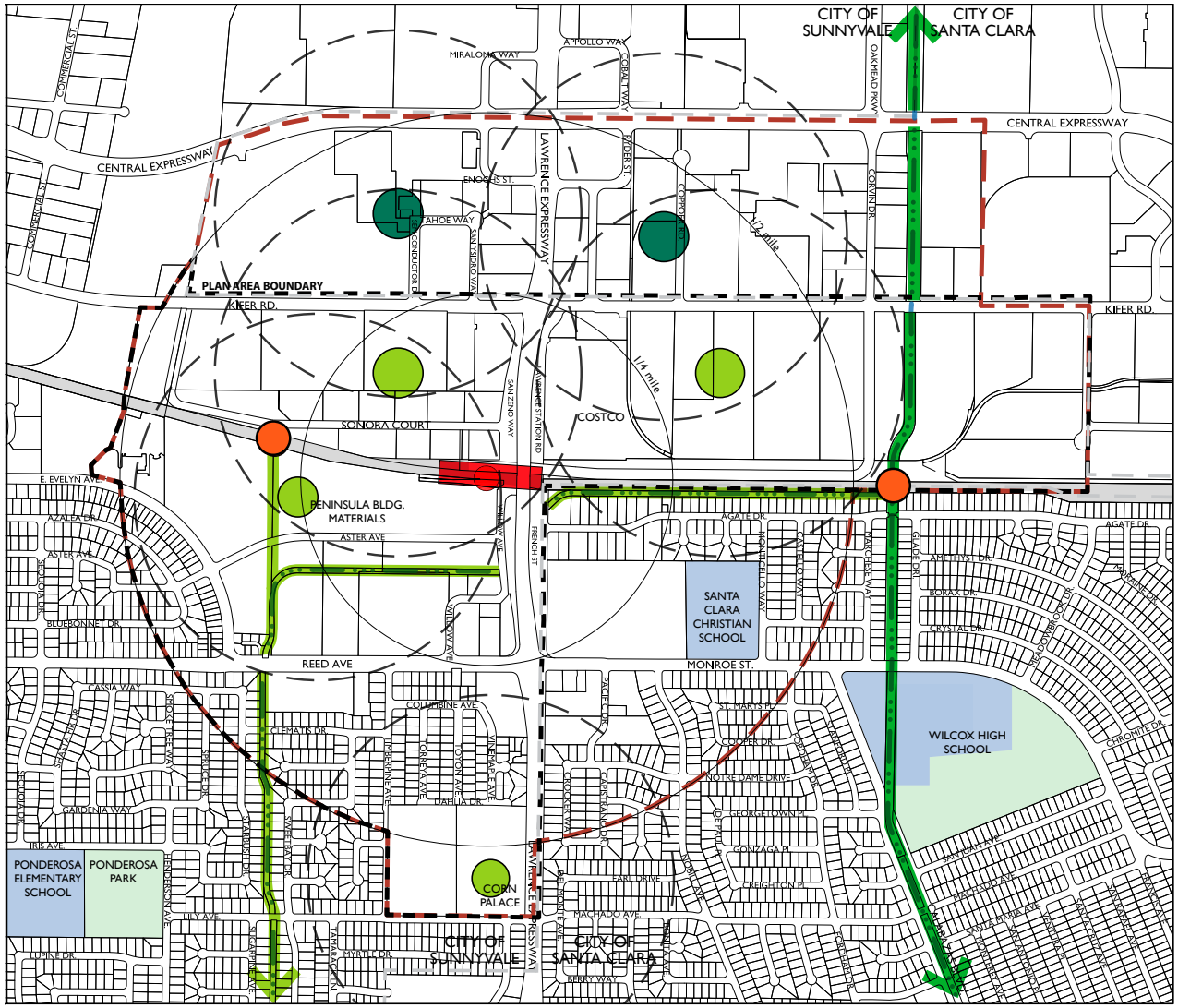
OSP-7: Prepare a comprehensive maintenance program for all open spaces, plazas, and landscape areas with defined responsibilities for public and private stakeholders in the Plan area.

Figure 3.1: Open Space Framework

LEGEND

- STUDY AREA BOUNDARY
- PLAN AREA BOUNDARY
- CITY BOUNDARY
- EL CAMINO STORM DRAIN CHANNEL / CALABAZAS CREEK
- LAWRENCE CALTRAIN STATION (EXISTING PEDESTRIAN / BICYCLE UNDERCROSSING)
- EXISTING PARK OR SCHOOL FIELD
- EXISTING SCHOOLS AND PUBLIC FACILITIES
- CONCEPTUAL PROPOSED PARK & OPEN SPACE AREA*
- NEW OPEN SPACE PER SANTA CLARA GENERAL PLAN - (DEPENDENT ON NEW DEVELOPMENT)
- 1/4-MILE PARK SERVICE AREA RADIUS
- PLANNED MULTI-USE TRAIL
- PROPOSED LINEAR PARK WITH MULTI-USE TRAIL
- PROPOSED PUBLIC CALTRAIN PLAZA
- NEW PEDESTRIAN/BICYCLE RAIL CROSSING

*Actual size and location of open space to be determined in future planning processes and with new development.



LAND USE CLASSIFICATIONS

The Land Use Plan (Figure 3.2) designates twelve land use categories for the Plan area, four of which are exclusively residential uses, two are exclusively employment uses and six are mixed-use designations. Several of these categories are existing land use designations already in use by the City of Sunnyvale in the existing neighborhoods within the Plan area. Others are existing land use designations available in the City of Sunnyvale General Plan and Zoning Ordinance, but not previously applied in the Plan area. These areas will require a change of zoning in order to be compliant with the Plan. Still others are new land use categories that do not currently exist within the Sunnyvale General Plan and Zoning Ordinance. These will require the drafting of new land use designations in the General Plan and Zoning Ordinance as well as a change of Zoning for the applicable properties in order to conform with the Station Area Plan.

The land use classifications in this section represent City of Sunnyvale policy and are intended to be broad enough to allow flexibility in implementation, but specific enough to provide sufficient direction to carry out the Station Area Plan. In addition to the direction related to uses provided here, public uses, including parks, government offices, police and fire station, and public schools, are permitted in all land use classifications, subject to environmental review and City approval. Table 3.1 describes the densities associated with these land use designations, including densities driven by incentives.

MIXED-USE TRANSIT CORE

Properties designated Mixed-use Transit Core are generally located within ¼-mile of the Lawrence Station, a walk of approximately 5 minutes or less. Because of this proximity to the station and commensurate abundant transportation access, the highest intensities of future development in the entire Plan area are allowed in this classification.

Office, research and development (R&D), and residential are all allowed in this classification. Retail uses are also allowed and encouraged in this area in order to create a critical mass of successful retail activity. Uses may be configured as vertical mixed-use, such as with retail under several floors of residential or office, or as single use buildings or parcels.

Residential

Minimum density: 36 dwelling units per acre

Maximum density: 68 dwelling units per acre with incentives

Office/R&D

Minimum density: .5 FAR

Maximum density: 1.5 FAR with incentives

Retail

Allowed and encouraged. No minimum or maximum densities.

MIXED-USE TRANSIT SUPPORTING NORTH

Areas designated Mixed-use Transit Supporting North fall within approximately ¼-½ mile of the station, or within a walk of 10 minutes or less. Under this classification, required minimum densities for future development are slightly lower than in the Mixed-use Transit Core, but maximum allowable intensities are equal to the Transit Core. A mix of land uses, including office, research and development, and residential uses are allowed and encouraged in this land use classification. Retail uses are not allowed, in order to avoid dispersal of retail throughout the station area and thereby reducing the feasibility of a critical mass of retail activity in the Mixed-Use Transit Core area.

Residential

Minimum density: 24 dwelling units per acre

Maximum density: 68 dwelling units per acre with incentives

Office/R&D

Minimum density: .5 FAR

Maximum density: 1.5 FAR with incentives

MIXED-USE TRANSIT SUPPORTING SOUTH

The Mixed-use Transit Supporting South designation applies to the existing Calstone/Peninsula Building Materials site that lies directly south of Lawrence

Station and the rail tracks. These parcels face the recently constructed Aster Avenue townhomes to the west and the existing multi-family apartments to the north. New development must therefore respect the scale and character of these existing residential uses. As a result, the allowable maximum densities are slightly lower than those found north of the station where there are no immediate residential neighbors. Retail development, as part of mixed-use, is allowed and encouraged along the Willow Avenue frontage.

Residential

Minimum density: 24 dwelling units per acre

Maximum density: 54 dwelling units per acre with incentives

Office/R&D

Minimum density: .35 FAR

Maximum density: 1.0 FAR with incentives

Retail

Allowed and encouraged. No minimum or maximum density.

OFFICE/R&D (SINGLE USE)

The Office/R&D designation applies to properties that lie beyond ½ mile of the station on the far eastern edge of the Plan area in Sunnyvale. Here it is not anticipated there will be demand for a mix of uses. The office/R&D designation will allow this zone to transition over time from the lower intensity industrial uses to somewhat higher intensities of the same use.

Office / R&D

Minimum density: .35 FAR

Maximum density: .5 FAR (no incentives available)

OFFICE/RETAIL

The office/retail land use designation is limited to one small area south of the station near the intersection of Lawrence Expressway and Reed and Willow Avenues. These parcels are separated from the nearby residential neighborhoods and are immediately adjacent to the expressway. This location is not optimal for residential development due to its close adjacency to the Lawrence Expressway and major arterial streets. In addition, with potential plans for the improvement of the Lawrence Expressway, the area is not an appropriate location for residential which may be subject to dislocation if improvements to the Expressway are undertaken. However, the area is a convenient location for local-serving retail services and office/R&D uses.

Office/Retail

Minimum density: .5 FAR

Retail

Maximum density: .25 FAR

HIGH-DENSITY RESIDENTIAL (SINGLE USE)

The high-density residential land use designation is found only on two parcels on Willow Avenue, south of the Caltrain tracks. These parcels are surrounded by residential uses to the west and north, which consist of multi-unit residential areas. Therefore, only residential uses are allowed in this area.

Residential

Minimum density: 24 dwelling units per acre

Maximum density: 54 dwelling units per acre with incentives

RETAIL MIXED-USE OVERLAY (STREET FRONTING RETAIL)

This land use designation establishes a mandatory pedestrian-oriented retail category that requires retail development to be local-serving, oriented to pedestrians, and facing the street at ground-level. Retail uses may be in single use low-rise buildings or in vertical mixed-use buildings containing either office/R&D, residential or parking in the upper floors.

Properties with this land-use designation are located only in close proximity to the Caltrain station west of Lawrence Expressway, both north and south of the tracks in the Mixed-use Transit Core and Mixed-use Transit Supporting

Table 3.1: Station Area Density Assumptions

		Office/R&D		Retail	Residential		Industrial
Land Use color	**Land Use**	**Minimum density**	**Maximum density with incentives**		**Minimum density**	**Maximum density with incentives**	
	Mixed-use Transit Core (1/4 mile radius)	*0.7 FAR*	*1.5 FAR*		*36 Dus*	*68 Dus*	
	Mixed-use Transit Core+ Retail	*0.7 FAR*	*1.5 FAR*	*Block length x 50'*	*36 Dus*	*68 Dus*	
	Mixed-use Transit supporting North (1/2 mile radius)	*0.5 FAR*	*1.5 FAR*		*24 Dus*	*68 Dus*	
	Mixed-use Transit supporting South	*0.35 FAR*	*1.0 FAR*		*24 Dus*	*54 Dus*	
	Mixed-use Transit supporting South + Retail	*0.35 FAR*	*1.0 FAR*	*Block length x 50'*	*24 Dus*	*54 Dus*	
	Office/R&D single use	*0.35 FAR*	*N/A*				
	High-density Residential- two parcels in the southwest				*24 Dus*	*54 Dus*	
	Industrial - small NW parcel to remain						*0.35-0.5 FAR*
	Office/Retail (on Reed & Willow)	*0.5 FAR*		*0.25 FAR*			

Figure 3.2: Land Use Plan

LEGEND

- STUDY AREA BOUNDARY
- PLAN AREA BOUNDARY
- SUNNYVALE / SANTA CLARA BORDER
- EL CAMINO STORM DRAIN CHANNEL / CALABAZAS CREEK
- LAWRENCE CALTRAIN STATION

SUNNYVALE EXISTING LAND USE

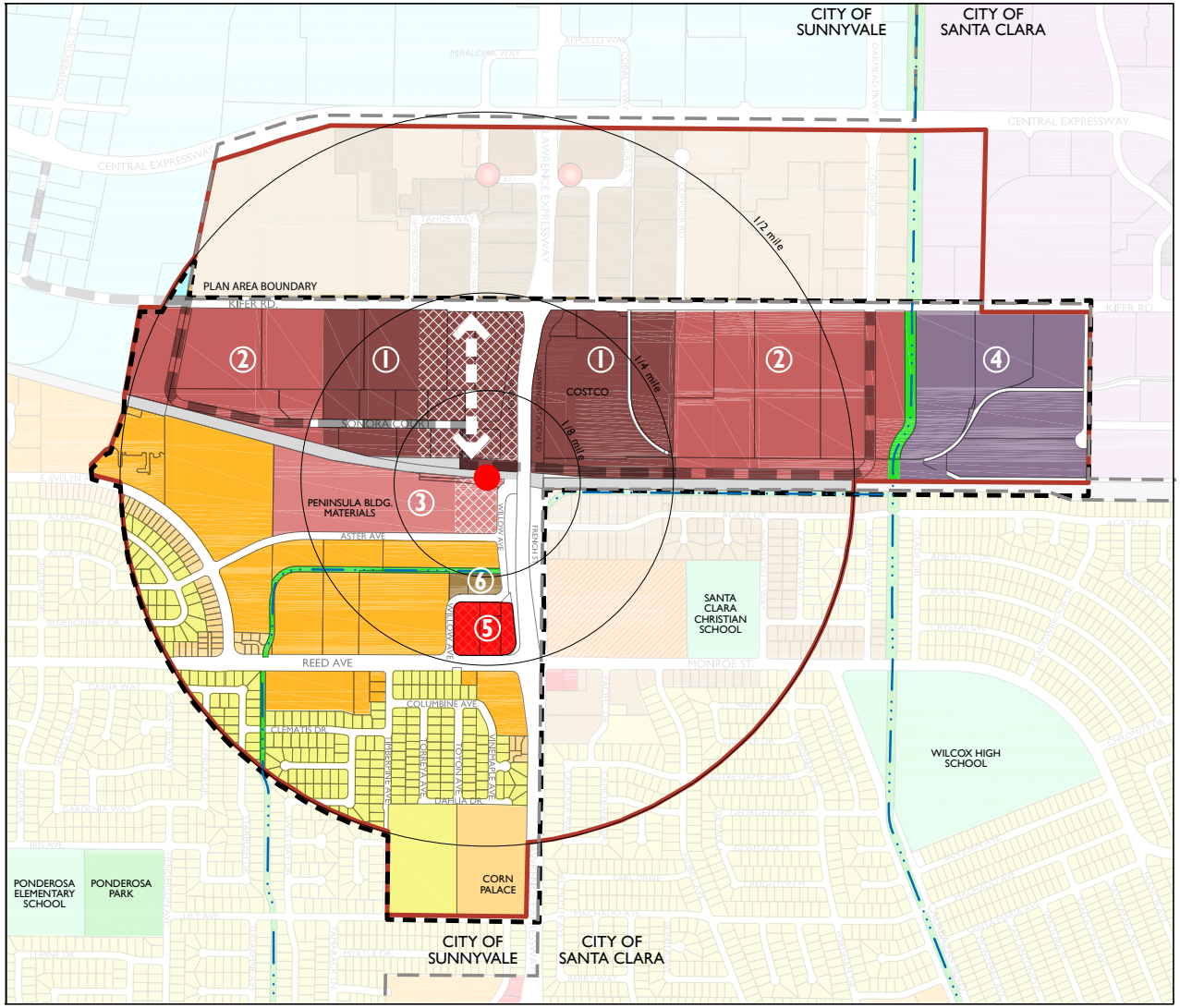
- LOW DENSITY RESIDENTIAL
- LOW-MEDIUM DENSITY RESIDENTIAL
- MEDIUM DENSITY RESIDENTIAL
- INDUSTRIAL & SERVICE
- EXISTING PUBLIC PARKS
- EXISTING SCHOOLS AND OTHER CIVIC USES

SUNNYVALE PROPOSED LAND USE

- MIXED USE TRANSIT CORE (1)
- MIXED USE TRANSIT SUPPORTING NORTH (2)
- MIXED USE TRANSIT SUPPORTING SOUTH (3)
- OFFICE/R&D (4)
- OFFICE/RETAIL (5)
- HIGH DENSITY RESIDENTIAL (6)
- RETAIL MIXED USE (STREET FRONTING RETAIL)
- PRIMARY LOOP ROAD
- NEW NORTH/SOUTH RETAIL STREET GENERAL LOCATION

SANTA CLARA EXISTING & GENERAL PLAN LAND USE

- MEDIUM DENSITY RESIDENTIAL
- HIGH DENSITY RESIDENTIAL
- REGIONAL MIXED USE
- LOW INTENSITY OFFICE/R&D
- LOW DENSITY RESIDENTIAL
- NEW NEIGHBORHOOD RETAIL



N

0 300 600 1200'

South areas. The intent is to ensure a critical mass of retail activity that supports local neighborhood needs and is compatible with the pedestrian-oriented nature of the area surrounding the Caltrain station. This retail zone could resemble Murphy Avenue in downtown Sunnyvale, with its mix of local restaurants and businesses, while also differing in that ground floor retail uses will be located in buildings of considerably higher density.

This is a mandatory land use in the areas designated in the Land Use Plan. Therefore, there are no minimum or maximum density requirements. Square footage of required retail under this category shall be determined according to form-based design criteria. See Chapter 6: Urban Design for further discussion.

LOW DENSITY RESIDENTIAL (EXISTING) - NO CHANGE

This land use designation is comprised of low density, single-family detached residential neighborhoods with densities that range from 0 to 7 dwelling units per acre. This designation corresponds to the existing R-O and R-1 designations in the Sunnyvale Zoning Code. It is essentially a single-use designation, meaning that only low density residential and associated land uses such as churches are allowed in the areas so designated. All of the areas in the Plan area with this designation are already existing and built-out according to this land use category. Generally, they are located in the southwest quadrant of the Plan area and exist as attractive, mature low-density neighborhoods with wide, shaded streets. As noted throughout this document, no land use changes are contemplated in these areas and they will remain as currently planned and zoned. Minor improvements in these areas, discussed in the Circulation and Parking chapter of this report, will primarily be oriented to improving pedestrian and bicycle access and safety.

LOW MEDIUM DENSITY RESIDENTIAL (EXISTING) - NO CHANGE

This land use designation is also comprised of low density residential areas, but with slightly higher densities that allow the development of duplex homes with densities from 7 to 14 dwelling units per acre. This designation corresponds to the existing R-1.5 and R-2 designations in the Sunnyvale Zoning Code. It is essentially a single-use designation, meaning that only low density residential and associated land uses such as churches are allowed in the areas so designated. All of the areas in the Plan area with this designation are already existing and built-out according to this land use category. They are only located in the southwest quadrant of the Plan area along East Evelyn Street and Reed Avenue and exist as attractive, mature low density neighborhoods with wide, shaded streets. As noted throughout this document, no land use changes are contemplated in these areas and they will remain as currently planned and zoned. Minor improvements in these areas, discussed in the Circulation and Parking chapter of this report, will primarily be oriented to improving pedestrian and bicycle access and safety.

MEDIUM DENSITY RESIDENTIAL (EXISTING) - NO CHANGE

This land use designation corresponds to the R-3 category of the Sunnyvale Zoning Code with residential densities from 14 to 27 dwelling units per acre. It too, is essentially a single-use designation, meaning that only medium-density residential and associated land uses, such as churches, are allowed in the areas so designated. With the exception of the existing facility at 1122-1134 Aster Avenue, all of the areas in the Plan with this designation are already built-out according to this land use category. They are generally located in the southwest quadrant of the Plan area and comprise attractive, mature, multi-family residential complexes. No land use changes are needed in these areas and they will remain as previously planned and zoned. The 1122-1134 Aster Avenue property will be allowed to remain in its current operation. If redevelopment of this site occurs, it will conform to the medium density residential classification. Minor improvements in these areas, discussed in the Circulation and Parking chapter of this report, will be focused primarily on improving pedestrian and bicycle access and safety.

INDUSTRIAL

The Industrial land use designation is limited to a portion of one parcel on the NW boundary of the Plan area along Kifer Road. It is a single-use designation, allowing only industrial types of uses. This area is currently designated as Industrial and Service in the City of Sunnyvale General Plan and Zoning Ordinance, which allows development densities of up to .35 FAR. The area will remain in that land use designation because it is part of a larger parcel that is predominantly outside the boundary of the Plan area.

Furthermore, it does not meet the station-related distance and accessibility criteria of the Plan and therefore does not merit revision to a new land use designation. However, the Plan does modify the density requirements for the area. Allowable development density is increased to a maximum of .5 FAR, with a minimum required development density of .35 FAR.

Industrial

Minimum density: .35 FAR

Maximum density (per existing zoning): .5 FAR

PUBLIC FACILITIES

Public facilities include government, civic, educational and public services, such as open space and recreation facilities, schools and community centers. The Plan area currently contains no public facilities. However, it is envisioned that a variety of public facilities will be needed to serve the area as development proceeds. Some of these will be provided through mandatory fees and assessments consistent with existing City of Sunnyvale policy. Others will be provided through development incentives and bonuses for new development. Therefore, the precise location and programmatic content of these facilities is unknown and is not illustrated on the land use plan.

PARKS AND OPEN SPACE

A key feature of the Plan is to ensure that a system of parks, recreational facilities and open space are developed. Current City of Sunnyvale policy relating to the provision of parks and recreation facilities sets a target standard of 5 acres of open space be provided per 1000 persons residing within each neighborhood planning area. In simple terms, based on an estimated existing population of 4292 residents (2011 estimate), the current need would be for 21.5 acres. With population growth estimated in the Plan of between 2,200 and 3,500 residents, the new demand will be for 11.0-17.5 acres, making a total need within the Plan area of 32.5-39.0 acres to serve both the existing population and future population growth.

Because of the urban nature of the planned new development and because there is very little public land available in the Plan area, the Plan envisions that parks, recreation and open space facilities will be provided through four measures:

1. Ponderosa Park. Some of the need can be met for those residents that are within access of Ponderosa Park. This generally applies to existing residents in the southwestern quadrant of the Plan area.
2. Capitalize on underutilized opportunities. These include the El Camino Drainage Channel and Calabazas Creek channels, both of which can provide linear park connections between neighborhoods, parks and open spaces.
3. Establishment of a system of designated Green Streets that serve not only for vehicular circulation, but also provide high landscape amenity value and add linkages between other elements of the park and open space system.
4. Land dedication and/or in-lieu fees consistent with established City policy noted above and applicable to population increases resulting from new development in the Plan area in the future. For design standards related to the provision of open space in new development areas and properties, see Chapter 6: Urban Design.

Figure 3.1: Open Space Framework, illustrates the key elements of the planned parks and open space system for the Plan area. Publicly-owned creeks and drainage corridors, combined with Green Street linkages will provide the backbone of the system. Land dedications resulting from the development process will provide the major public open spaces that are needed and will be strategically located to be accessible from the backbone system.

DEVELOPMENT POTENTIAL

The Lawrence Station Area Plan is a flexible mixed-use plan that will result in a blend of office/R&D, retail, industrial and residential development. In many areas, the Plan allows for the long-term development of significantly higher densities than are currently allowed in the area by the City of Sunnyvale. In other areas, notably existing residential neighborhoods, build-out of the Plan will result in no change to current uses and densities.

FLEXIBLE MIXED-USE

The Lawrence Station Area Plan is designed to accommodate development according to the timing and needs of property owners and the marketplace. Unlike traditional zoning, which typically establishes single-use districts with fixed densities, the LSAP allows a flexible mix of uses at a range of densities. Several new mixed-use land use classifications have been established to allow for this flexibility.

INCENTIVE-BASED PLAN

The LSAP is an incentive-based plan. Because very little land in the Plan area is publicly-owned, implementation of the LSAP will be heavily driven by private property owners. Development incentives (in the form of density bonuses) will be a primary tool of ensuring financial feasibly for new development as well as achieving many of the goals of the LSAP, such as the provision of mixed-use development, street rights-of-way and improvements, access easements, public open space, additional affordable housing, and other features. Developers will not be required to build with incentives, rather they will have the option to choose which incentives best suit their business plans and economic goals. A table of incentives will be prepared separately, and will be updated periodically. For additional information see Chapter 7: Plan Implementation.

DEVELOPMENT CAP

In order to ensure that long-term development does not exceed the carrying capacity of infrastructure systems and the environment, a growth-monitoring program will be established.

A Development Cap for the entire Plan area will be established that is consistent with the findings of the Environmental Impact Report (EIR) that has been conducted as part of the planning process. Findings of the EIR will be used to help establish a maximum development threshold for the Plan area. Once this development threshold is reached (which is unlikely within the time horizon of this Plan), development cannot proceed, until new long-range plans and environmental documents have been prepared. For further discussion of the Development Cap monitoring program and other growth management matters related to the Plan area, see Chapter 7: Plan Implementation.

DEVELOPMENT SCENARIOS

Development potential for the Plan Area was estimated under a variety of assumptions and scenarios. These scenarios include:

1. Minimum Density
2. Maximum Density with Incentives
3. Estimated Likely Development

All three of the above development scenarios include estimates for existing residential, industrial/R&D, and retail uses in areas of the Plan that will not change. All of the existing residential development in the Plan area is proposed to remain, as is the retail space currently occupied by Costco.

Existing Conditions

As a starting point, total existing development of the Plan area was estimated, for both the entire Plan area (including Sunnyvale and Santa Clara) and for Sunnyvale only. Existing development in Sunnyvale is summarized in Table 3.2: Existing Land Uses.

Minimum Density

A key goal of the Plan is to ensure that future new development is of a type and at sufficient density to create a diverse area that can support a mix of employment and residential uses, supports transit use, and can provide necessary amenities and support services, such as open space and neighborhood retail. Therefore, for portions of the Plan area in Sunnyvale

where new development will be allowed (roughly 70% of the Sunnyvale portion of the Plan area), minimum development densities are established. New development will not be allowed at densities less than these minimums. In most cases these minimum densities exceed densities currently allowed in the Plan area. This scenario is known as the Minimum Density scenario.

As illustrated in Table 3.3: Station Area Development, build-out of all Sunnyvale parcels under the Minimum Density scenario, including existing development to remain and new development will result in a total of approximately 3,200 residential units, 2.2 million square feet of office/R&D development, 300,000 square feet of retail space, and nearly 18,500 square feet of industrial space. This translates to a total residential population in the Plan area of 7,730 and a total of 5,960 jobs. (This assumes a residential ratio of 2.42 people per unit, and 400 square feet per employee for retail, and 420 square feet per employee for office/R&D/light industrial.)

Focusing just on new development (excluding existing development to remain), the Minimum Density scenario would result in new development of approximately 2,000 new multifamily residential units, a net loss of 250,000 square feet of office/R&D development, a net gain of 78,000 square feet of retail space, and approximately 700 square feet of net new industrial space.

Maximum Density with Incentives

Density incentives that allow increased development rights (density bonuses) beyond the minimum required densities will be available to developers who provide elements that will further the plan goals, such as street rights-of-way, public open space, additional affordable housing, and other features. This scenario is known as the Maximum Density with Incentives scenario. See Table 7.1 in Chapter 7: Plan Implementation for a listing of potential development incentives.

If developers were to avail themselves of the offered incentives in Sunnyvale, the Maximum Density with Incentives scenario would result in a total development (including existing development to remain and new development) of approximately 5,850 residential units, 4.85 million square feet of office/R&D development, 300,000 square feet of retail space, and 26,500 square feet of industrial space. This translates to a total residential population in the Plan area of 14,155 and a total of 12,360 jobs. (This assumes a residential ratio of 2.42 people per unit, and 400 square feet per employee for retail, and 420 square feet per employee for office/R&D/light industrial.)

Focusing just on new development, the Maximum Density with Incentives scenario would result in approximately 4,650 new multifamily residential units, 2.4 million square feet of net new office/R&D development, a net gain of 78,000 square feet of retail space, and approximately 9,000 square feet of net new industrial space. See Table 4.2: Station Area Development.

Estimated Likely Development

For planning purposes, it is important to determine a scenario of Estimated Likely Development that is based on reasonable development goals and assumptions for the Plan area. Actual development of the Plan area is likely to exceed the Minimum Density scenario, but unlikely to reach the maximums allowable under the Maximum Density with Incentives scenario. Some property owners may choose not to change their current land use during the horizon year of the Plan. Others may choose not to fully utilize the development incentive opportunities for increased development. The Estimated Likely Development scenario can thus be used to estimate reasonable future transportation and infrastructure needs of the Plan without planning for excessive development (and associated excessive infrastructure costs) of a plan that likely will not be built out within the Plan horizon. Such a scenario can also be used for purposes of environmental analysis and preparation of an environmental Impact Report (EIR) under the requirements of the California Environmental Quality Act (CEQA).

Estimated Likely Development potential varies, depending on the mix of uses and densities assumed for new development within the recommended range of allowable densities. For the Lawrence Station Area Plan, Estimated Likely Development yields were calculated based on the assumption that an average of 50 percent of the total development potential under the Maximum Density with Incentives scenario will be built within the horizon of this Plan (approximately 20 to 25 years, through 2035). It is also assumed that 50 percent of the existing of the existing industrial/office/R&D space will remain as is (at least through 2035).

Table 3.2: Existing Land Uses

	Existing Condition
Office/R&D	*2.4 million sf*
Retail	*200,000 sf*
Industrial	*Incl. in Office/R&D*
Residential	*1,200 units*
Civic/Religious	*50,000 sf*

Notes:
1. Total developed land area net of existing streets.
2. Built square footage for the existing condition was calculated by multiplying estimated building footprint sf by estimated number of stories.

Table 3.3: Station Area Development

	OFFICE/R&D (sf)	RETAIL (sf)	INDUSTRIAL (sf)	RESIDENTIAL (units)	
				total	net new
MINIMUM	2,171,801	296,868	18,552	3,194	1,994
MAXIMUM (WITH INCENTIVES)	4,853,713	296,868	26,503	5,849	4,649
ESTIMATED LIKELY	3,636,202	216,653	26,503	3,523	2,323

GENERAL NOTES

1 ALL SCENARIOS CALCULATED NET OF EXISTING AND PROPOSED ROADS.

2 INDUSTRIAL DEVELOPMENT INCLUDES PARCEL IN THE NW CORNER OF PLAN AREA, WHICH WILL REMAIN AS CURRENTLY ZONED.

3 FOR ALL SCENARIOS, DEVELOPMENT OF AREAS DESIGNATED AS "MIXED USE TRANSIT CORE" & "MIXED USE TRANSIT SUPPORTING" IS ASSUMED TO BE 50% OF THE ALLOWABLE OFFICE/R&D COMBINED WITH 50% OF THE ALLOWABLE RESIDENTIAL.

MINIMUM DEVELOPMENT NOTES

4 RESIDENTIAL DEVELOPMENT CALCULATED AT 100% OF ALLOWABLE CAPACITY FOR NEW DEVELOPMENT AREAS + 1,197 EXISTING UNITS IN AREAS TO REMAIN.

5 RETAIL DEVELOPMENT CALCULATED AS FOLLOWS: LINEAR FOOTAGE OF THE NEW RETAIL STREET X 50-FOOT DEPTH + .25 FAR AT SELECT LOCATIONS + EXISTING COSTCO TO REMAIN (136,438 SF) BASED ON THE ASSUMPTION THAT THE EXISTING COSTCO WILL NOT CHANGE IN THE HORIZON YEAR OF THE PLAN.

6 INDUSTRIAL SQUARE FOOTAGE PERTAINS TO ONE PARCEL IN THE NORTHWEST OF THE PLAN AREA, AND WAS CALCULATED AT 100% BUILD-OUT AT 0.35 FAR.

MAXIMUM (WITH INCENTIVES) DEVELOPMENT NOTES

7 RESIDENTIAL DEVELOPMENT CALCULATED BASED ON MAXIMUM ALLOWABLE DEVELOPMENT WITH INCENTIVES IN NEW DEVELOPMENT AREAS + 1,197 EXISTING UNITS TO REMAIN.

8 RETAIL DEVELOPMENT CALCULATED AS FOLLOWS: LINEAR FOOTAGE OF THE NEW RETAIL STREETS X 50-FOOT DEPTH +.25 FAR AT SELECT LOCATIONS + EXISTING COSTCO TO REMAIN (136,438 SF) BASED ON THE ASSUMPTION THAT THE EXISTING COSTCO WILL NOT CHANGE IN THE HORIZON YEAR OF THE PLAN.

9 INDUSTRIAL SQUARE FOOTAGE PERTAINS TO ONE PARCEL IN THE NORTHWEST OF THE PLAN AREA, AND WAS CALCULATED AT 100% BUILD-OUT AT 0.5 FAR.

MOST LIKELY DEVELOPMENT NOTES

10 OFFICE/R&D CALCULATED TO ASSUME 50% OF MAXIMUM ALLOWABLE DEVELOPMENT UNDER THE "MAXIMUM WITH INCENTIVES" SCENARIO PLUS 50% OF EXISTING BUILT OFFICE/R&D/INDUSTRIAL.

11 RETAIL CALCULATED AT 50% OF NEW RETAIL + EXISTING COSTCO TO REMAIN (136,438 SF) BASED ON THE ASSUMPTION THAT THE EXISTING COSTCO WILL NOT CHANGE IN THE HORIZON YEAR OF THE PLAN.

12 INDUSTRIAL INCLUDES ALL OF PARCEL NW1A CALCULATED AT 100% OF THE MAXIMUM.

13 RESIDENTIAL CALCULATED AT 50% OF MAXIMUM ALLOWABLE DEVELOPMENT UNDER THE "MAXIMUM WITH INCENTIVES" DEVELOPMENT SCENARIO + 1,197 EXISTING UNITS TO REMAIN.

Table 3.3 describes total development of the Plan Area at build-out based on the assumption that 50% of the maximum allowable development will occur during the horizon year of the Plan (2035) plus 50% of the existing industrial/office/R&D space will remain. Under this scenario, build-out of the Plan area will result in a total of approximately 3,500 residential units, 3.6 million square feet of office/R&D development, 220,000 square feet of retail space, and 26,500 square feet of industrial space. This translates to a total residential population in the Plan area of 8,525 and a total of 9,260 jobs. (This assumes a residential ratio of 2.42 people per unit, 400 square feet per employee for retail, and 420 square feet per employee for office/R&D/light industrial.)

Just focusing on new development, the Estimated Likely Development scenario would also result in approximately 2,300 new multifamily residential units, 1.2 million square feet of net new office/R&D development, approximately 9,000 square feet of net new industrial space, and a net loss of 2,500 square feet of retail space.

Development Goals

D-G1 Develop the Plan area with a diverse mix of uses at intensities sufficient to support and take advantage of the significant existing public investment in transit.

D-G2 Target minimum development of at least 2,000 new housing units and 5,960 jobs within the Sunnyvale portion of the Plan by the horizon year of 2035 in order to support a critical mass of retail services in the area and support existing and improved transit infrastructure.

D-G3 Encourage a range of development intensities in order to achieve neighborhood diversity and allow flexibility for businesses, property owners, workers and residents.

D-G4 Implement the development of the Plan, including the provision of amenities and support services through development incentives rather than relying exclusively on regulatory actions or direct public investment.

D-G5 Ensure that new development and construction activities improve, rather than adversely impact, the natural environment.

Development Policies

D-P1 Within the Plan area actively work with the City of Santa Clara to ensure consistency between the Station Area Plan and the City of Santa Clara General Plan and Zoning ordinance.

D-P2 Establish a program of development incentives.

D-P3 Encourage development at the maximum intensities allowable with incentives in order to maximize the provision of neighborhood-serving amenities, support services and infrastructure improvements.

D-P4 Maintain the character of established neighborhoods through programs that encourage existing property owners to maintain their properties, rather than through development incentives.

4 CIRCULATION AND PARKING

Circulation and Parking describes the circulation framework for the Station Area, which consists of the roadways and patterns of movement for vehicles, transit, bicyclists and pedestrians and focuses on improving access to the station and to parcels within the study area. Strategies to manage parking supply and demand are outlined as well.

4 CIRCULATION AND PARKING

The circulation system within the Lawrence Station Plan area will play an important role in supporting future development by expanding mobility choices and providing a safe, convenient way to travel within the area, and to other areas, regardless of one's travel mode. The Lawrence Station Area Plan incorporates a "complete streets" approach for circulation planning that accommodates all travel modes so that driving is an option, but not a necessity. Complete streets are designed and operated to enable safe and convenient access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. This Plan strives to meet both the mobility and parking needs of existing businesses, visitors, and employees while also accommodating future development planned for the area. Effective planning for future land uses requires creation of a truly multi-modal transportation system.

THE CIRCULATION FRAMEWORK

The Circulation Framework is the system of streets and blocks that are the primary determinants of structure in an urban area. The Framework determines where circulation for motor vehicles, pedestrians, bicycles and transit will occur, and where land uses and buildings will be arranged and located.

Today, the Circulation Framework in the Plan area is extremely limited. North of the Caltrain tracks, due to the industrial nature of existing uses, the area is designed almost exclusively for the use of motor vehicles, particularly automobiles and trucks. The area is dominated by parking lots and a pattern of large industrial parcels with very few streets. Due to the constraints imposed by the configuration of Lawrence Expressway, access to the station from the north is via San Zeno Way and Lawrence Station Road, both of

which are narrow streets, located close to the expressway that provide only partial access that is difficult to understand and navigate. These streets are also not well-located to optimize access to property along both sides of their street frontage.

South of the Caltrain tracks, the existing residential neighborhoods in the Plan area have a more fine-grained pattern of streets and blocks that, with a few exceptions, are well-scaled to pedestrians and bicycles and provide good access for motor vehicles. Access to Lawrence Station is constrained from this direction by the barrier presented by the large Peninsula Building Materials parcel, and indirect street access on Willow and French Streets. Although Willow Street provides two-way access to the station, it is difficult to find, does not occur at a full four-way intersection and does not have adequate pedestrian facilities. French Street is in the City of Santa Clara and is one-way in the southern direction, thus not allowing access to the station for most users.

Figure 4.1 illustrates the major new circulation elements of the LSAP Circulation Framework. The Circulation Framework Plan includes existing streets as well as new major and minor streets that are strategically located to allow multi-modal mobility throughout the Plan area. The new street alignments illustrated are conceptual in nature and do not represent specific alignments. In certain areas, new street alignments are shown in the Santa Clara portion of the Plan area. They are also conceptual and are shown for recommendation purposes, since they are outside the control of the City of Sunnyvale. They are shown only to assist in future coordination with the City of Santa Clara and property owners in that city.

Following is a discussion of the key major segments of the future circulation framework for the Plan area. The circulation framework contains two parts: new street improvements and existing street improvements.

NEW STREET IMPROVEMENTS

In order to provide improved access throughout the Plan area in general, and to Lawrence Station in particular, a conceptual framework of future streets and blocks has been established. While east-west connections throughout the Plan area are relatively good, north-south linkages at the local level, particularly north of the tracks, are poor, due to the barrier presented by the Caltrain tracks and the historical large-lot industrial development of the area. Therefore, a primary goal of the planned street network is to provide improved north-south access throughout the Plan area. This will require the development of new streets, particularly in the industrial areas north of the Caltrain tracks.

The new street network will emerge over time and specific alignments may vary as individual properties are redeveloped by individual property owners. As these properties are reconfigured, developer incentives to provide right-of-way and improvements for these new corridors will be available. For a more complete discussion of implementation strategies related to the Circulation Framework, see Chapter 7: Plan Implementation.

Primary Loop Road (The Loop)

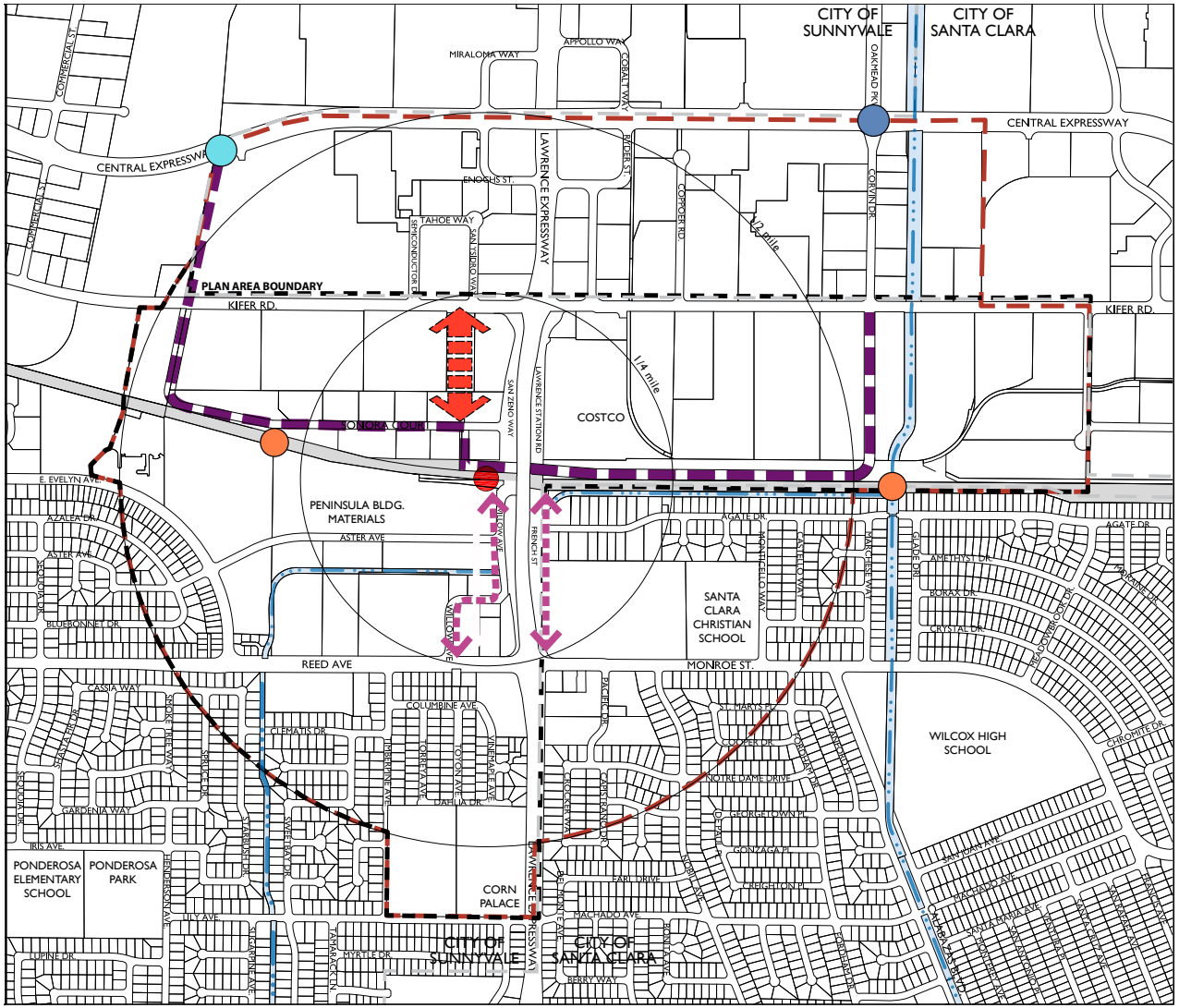
The Primary Loop Road (The Loop) will be a Collector boulevard that will provide direct north-south access throughout the northern portion of the Plan area. On the west, it is planned to connect with the Central Expressway at the city boundary with Santa Clara, extending south across Kifer Road to Sonora Court where it will run eastward, parallel to the tracks near the station. East of the Lawrence Expressway, it will extend north of the tracks to intersect with the existing Corvin Drive, connecting with Central Expressway at the existing signalized Corvin Drive-Oakmead Parkway/Central Expressway intersection in Santa Clara. The Loop will thus allow vehicles travelling east-west on Central Expressway and Kifer Road to readily access the north-bound platform of the Lawrence Station, as well as significantly improve visibility and access to properties along its length.

The Loop will be a richly-landscaped multi-modal boulevard, designed according to complete streets concepts, with a wide pedestrian zone containing sidewalks and street trees, bike lanes, bus transit stops, two travel lanes with turn pockets and on-street parking lanes wherever feasible. The Loop will be designed in such a manner that it can accommodate bus transit, serving the new neighborhood and providing an important bus transit link to Lawrence Station. Coordination with VTA will be required to identify timing, transit stop locations and amenities.

Figure 4.1: Circulation Framework

LEGEND

- STUDY AREA BOUNDARY
- PLAN AREA BOUNDARY
- CITY BOUNDARY
- EL CAMINO STORM DRAIN CHANNEL / CALABAZAS CREEK
- LAWRENCE CALTRAIN STATION (EXISTING PEDESTRIAN / BICYCLE UNDERCROSSING)
- THE LOOP
- SAN YSIDRO WAY EXTENSION (RETAIL STREET)
- IMPROVED SOUTH SIDE STATION CONNECTION
- NEW PEDESTRIAN/BICYCLE RAIL CROSSING
- NEW FULL ACCESS INTERSECTION
- EXISTING FULL ACCESS INTERSECTION



San Ysidro Way Extension Retail Street

The primary focus of retail activities in the Plan area will be along a new north-south retail street connecting Kifer Road, in the vicinity of San Ysidro Way, to Lawrence Station on the west side of the Lawrence Expressway. The street, referred to here as San Ysidro Way Extension, is centrally located in the dense Mixed-Use Transit Core land-use area and will provide a venue for a wide range of pedestrian-oriented commercial activities that can serve the nearby mix of uses north of the station as well as the residential neighborhoods to the south, creating a destination and amenity for the entire area.

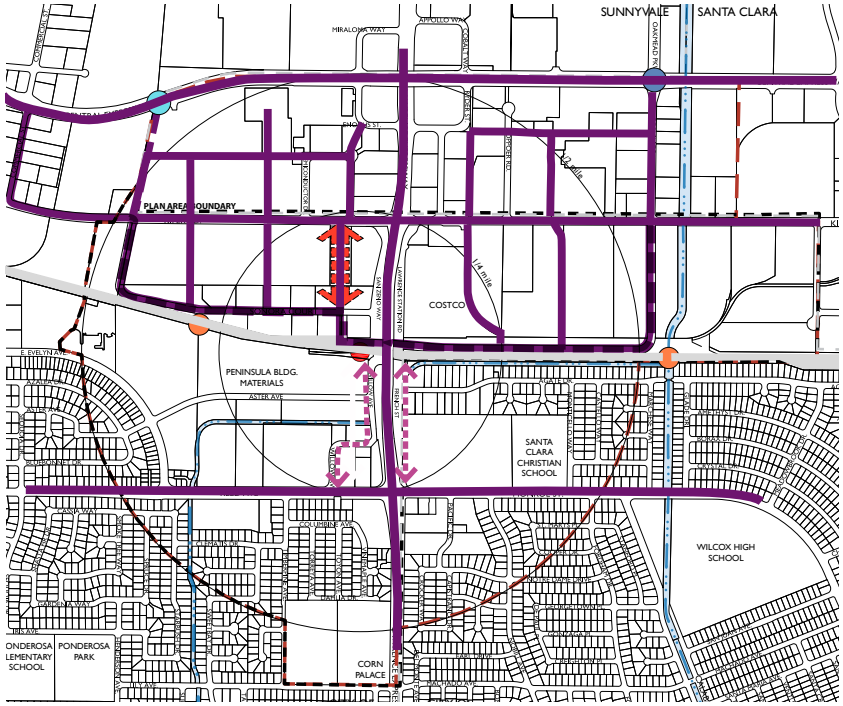
The new retail street will be a pedestrian-friendly place, with two travel lanes, parallel parking and a wide pedestrian zone containing sidewalks, street trees and street furnishings. San Ysidro Way Extension will be designed so that traffic speeds will be low. Therefore, designated bicycle lanes will not be needed, although bicycles will be welcome. It is not envisioned that this street will be a bus transit street.

The construction of San Ysidro Way Extension provides the opportunity to close San Zeno Way, allowing for a clearer and less circuitous connection to Lawrence Station and the possibility of reallocating the San Zeno Way right-of-way lands to adjacent parcels for development purposes. Like other new streets in the Plan area, the exact alignment of this vital connection will be determined as properties in the vicinity become candidates for new development and change.

Secondary Streets

The secondary street network for the Lawrence Station Area Plan includes new streets, lanes, and alleys that will complete the multi-modal circulation system and allow a balance between autos and trucks, transit, bicycle, and pedestrian activity. Based on the goal of providing a fine-grained street and block network of approximately 400 feet on center, it includes several new street alignments and connections, which will improve station access for automobiles, as well as pedestrians and bicyclists. This network will provide enhanced local access and will provide more opportunities for walking and bicycling through shortened travel paths to the station and commercial areas both within the neighborhood and to and from nearby areas. In certain circumstances, based on local conditions, it may not be feasible for these secondary streets to accommodate automobiles. In these situations, a bicycle/pedestrian pathway should be provided.

Figure 4.2: Fine-Grained Street Network



The locations of the secondary streets shown in Figure 4.2 are conceptual. The exact alignment and design of these vital linkages will be determined as properties in the vicinity become candidates for new development and change.

EXISTING STREET IMPROVEMENTS

In addition to providing new streets in the Plan area, improvements to existing streets will be needed to ensure safety and improved mobility for all street users.

Kifer Road

From an engineering design perspective, Kifer Road as it traverses the Plan area has pavement widths that exceed the needs of existing or projected traffic volumes. The wide roadway thus often encourages motorists to travel at excessive speeds, beyond posted speed limits, and is incompatible with the goal of creating a pedestrian and bicycle friendly mixed-use neighborhood.

It is therefore an ideal candidate for a roadway narrowing, or "road diet." Road diets are the re-design of existing streets which have been built wider than necessary for the volumes of traffic they are intended to carry. Narrowing an excessively-wide street has the benefit of allowing adequate motor vehicle mobility while improving access and mobility for pedestrians, bicyclists, and transit users.

Not all streets are suitable for road diets. Roadways should have moderate traffic volumes (up to 15,000 daily vehicles), though road diets can be successful on roadways with up to 20,000 vehicles per day. Kifer Road, which is five lanes wide for much of its length in the Plan area, carries approximately 12,000 vehicles per day. Based on initial traffic analysis conducted between 2010-13, traffic volumes on Kifer Road are projected to increase 15-20%, well within the initial traffic guidelines for consideration of a road diet.

Redesign of Kifer Road needs to balance providing access to the neighborhood with the need to move vehicles efficiently through the corridor. The road diet planned for the street will include the removal of one travel lane in each direction giving Kifer Road a three-lane cross-section (one travel lane in each direction and a center turn lane). This road diet will provide an additional 11 to 12 feet of right of way in each direction which can be used for other street users, including a wider sidewalk zone for pedestrians and continuous Class II (on-street) bicycle lanes for bicyclists.

Kifer Road in its existing configuration (top), and a rendering of Kifer Road after a road diet, which allows for on-street parking, widened sidewalks, and bicycle lanes.

One example of a potential Kifer Street re-design includes expanding the pedestrian zone from the existing narrow six feet to fifteen feet in width and also expanding the existing bicycle lane from five to six feet, which is consistent with City of Sunnyvale and Caltrans standards. Alternatively, the sidewalk can remain at six feet and the travel lane can be re-designed into a shared parking and bicycle lane or a buffered bicycle lane.

The majority of Kifer Road through the study area is shared with the City of Santa Clara, and coordination of roadway redesign must be done in concert with that jurisdiction. A detailed Kifer Road diet design is an important next step in the implementation of this Plan.

Lawrence Expressway

In 2003, the Santa Clara County Expressway Study recommended the grade separation of Lawrence Expressway at the Reed/Monroe, Kifer Road, and Arques Street intersections. In the summer of 2013, in a follow-up study jointly-funded by the County and the cities of Sunnyvale and Santa Clara, the Lawrence Expressway Grade Separation (LEGS) Concept Study was initiated to consider a range of alternatives for design of the grade separation at the three intersections. Three alternative concepts were studied. In the recommended concept, Lawrence Expressway would be depressed under the three study intersections as well as Central Expressway and the Caltrain tracks. Grade separated interchanges at each of the three intersections would include median ramps from the expressway up to the cross-streets with signalized intersections.

Bicycle and pedestrian movements along Lawrence Expressway would be provided in a corridor running adjacent to and slightly elevated above the vehicular roadway. Bicycle and pedestrian movements between the Lawrence Expressway corridor and the cross-streets would occur via two-directional shared ramps on either side of the cross-street. An optional feature of the recommended concept is the provision of bus pullouts along the expressway directly beneath the Lawrence Caltrain Station. Such pullouts, combined with vertical circulation elements such as stairs and elevators, would provide direct access between the station and bus service along the expressway. Pedestrian and bicycle crossing distances would be significantly shorter compared to existing conditions in the proposed concept plan. Additionally, vehicle conflicts with pedestrians and bicyclists would be reduced by eliminating a number of right turn movements that currently exist.

Upon receiving support for the concept study, these findings will be included in the Expressway Plan 2040 Study currently being prepared by the County.

In the long term, if designed well, initial studies indicate that grade separation of the Lawrence Expressway across the Plan area will provide opportunities to a) reduce traffic congestion on local intersections, b) reduce the barrier to east-west movement created by the existing design of the Expressway, c) better balance vehicle access to the Caltrain station while minimizing conflicts with pedestrians, and d) improve through capacity of the Expressway itself. Therefore, grade-separation improvements to the Expressway as it crosses the Plan area are a high priority of this Plan.

If the Lawrence Expressway is placed below grade, multiple east-west pedestrian and bicycle connections across the expressway should be provided. In addition, pedestrian and bicycle access to the Caltrain station from both north and south should be prioritized.

Willow and French Streets

Willow Street, with improved pedestrian and bicycle facilities, will provide adequate access on the west side of the Lawrence Expressway. French Street, which is in the City of Santa Clara, will remain only a partial and very limited means of access for vehicles. At a minimum, French Street should also receive pedestrian and bicycle improvements.

New Signalized Intersections

Additional signalized intersections are to be studied in the Plan area in order to create controlled crossings for all modes of travel and to facilitate the safe circulation of vehicles and buses. Signalized intersection improvements may be warranted at the following locations:

- The Loop at Central Expressway
- The Loop at Kifer Road

The Loop intersection at Central Expressway will likely require signalization but will require additional analysis as well as coordination with Santa Clara County to confirm its feasibility. Signalizing the intersection of The Loop at Kifer Road will provide controlled ingress and egress for vehicles to access the Plan area while enhancing Kifer Road as a bicycle, pedestrian, and transit street.

New signal and/or improved crossing markings at the intersection of the San Ysidro Way Extension with Kifer Road are also recommended. The intersection could potentially align with and operate in conjunction with the existing intersection and signal at San Ysidro Way Extension / Kifer Road or a new signal might be constructed for San Ysidro Way Extension at Kifer Road if the two roadways are offset. In such case, signal function will require coordination so that they operate as a single intersection.

Circulation Framework Goals

CF-G1 Create a complete, multi-modal transportation network the supports a mixed-use neighborhood throughout the Plan area.

CF-G2 Create a balanced circulation system that is accessible to all modes of travel and does not favor one mode over another.

CF-G3 Create a street and block framework that provides a variety of vehicular access options and is scaled to pedestrians.

CF-G4 Provide improved north-south access throughout the Plan area.

CF-G5 Improve access to bus and rail transit by all modes of travel.

CF-G6 Create streets (both new and improved) that are comfortable and convenient for pedestrians, so walking is a pleasure and accessing residences and businesses is easy.

CF-G7 Make the area in and around the station bicycle-friendly, so residents and employees of all ages and abilities can feel comfortable and secure biking to work, services, and for recreation.

CF-G8 Minimize the impacts of the Lawrence Expressway on the Plan area.

Circulation Framework Policies

CF-P1 In the residential areas south of the Caltrain tracks, retain the existing framework of streets and blocks. Improve existing streets to provide safer street crossings and minor access improvements for pedestrians, bicycles and transit users.

CF-P2 Prioritize the provision of improved north-south access for all modes of travel between the northern and the southern portions of the Plan area.

CF-P3 In the area north of the Caltrain tracks, establish a secondary network of north/south and east/west streets, lanes, alleys and other dedicated public rights-of-way configured generally as a functional grid.

CF-P4 In the area north of the Caltrain tracks, to the maximum extent feasible, establish the grid of streets and blocks at a finer grain than currently exists, with a pattern of blocks no longer than 400 feet on a side.

CF-P5 In the area north of the Caltrain tracks, develop a Primary Loop Road (The Loop) that will provide direct north-south access to Lawrence Station from Kifer Road and the Central Expressway on both the east and west sides of the Lawrence Expressway.

CF-P6 Locate The Loop to align with Corvin Road in the east and to intersect with Kifer Road approximately ¼ to ½ mile west of the Lawrence Expressway.

CF-P7 To the extent feasible, incorporate Sonora Court in the alignment of The Loop.

CF-P8 Provide direct frontage access to the Lawrence Caltrain Station along The Loop.

CF-P9 In the area north of the Caltrain tracks, establish a pedestrian-friendly north-south commercial Main Street located west of the Lawrence Expressway and connecting directly between Kifer Road in the vicinity of San Ysidro Way and the existing Lawrence Station pedestrian underpass.

CF-P10 To the extent possible, locate all new streets along property lines between parcels in order to minimize impacts on individual properties and building operations and to share benefits between property owners. This will also allow phased development on a parcel-by-parcel basis at the discretion and timing of property owners as they seek to redevelop their land. (See also Chapter 7: Plan Implementation).

CF-P11 Redesign Kifer Road from a five-lane vehicular cross-section to a three-lane vehicular cross-section (one travel lane in each direction and a center turn lane).

CF-P12 Provide a wide, landscaped pedestrian sidewalk zone, continuous Class II bicycle lanes, on-street parking and transit stops continuously along Kifer Road in the Plan area.

CF-P13 Support efforts to grade-separate the Lawrence Expressway across the Plan area in order to a) reduce traffic congestion on local intersections, b) reduce the barrier to east-west movement created by the existing design of the Expressway, c) better balance vehicle access to the Lawrence Station, while minimizing conflicts with pedestrians, and d) provide direct vertical access to the Lawrence Station, and e) improve through-capacity of the Expressway itself.

CF-P14 Ensure the existing mature street trees along Kifer Road and Sonora Court will not be adversely impacted by street improvement projects. Incorporate the mature trees into the landscape improvements of the street.

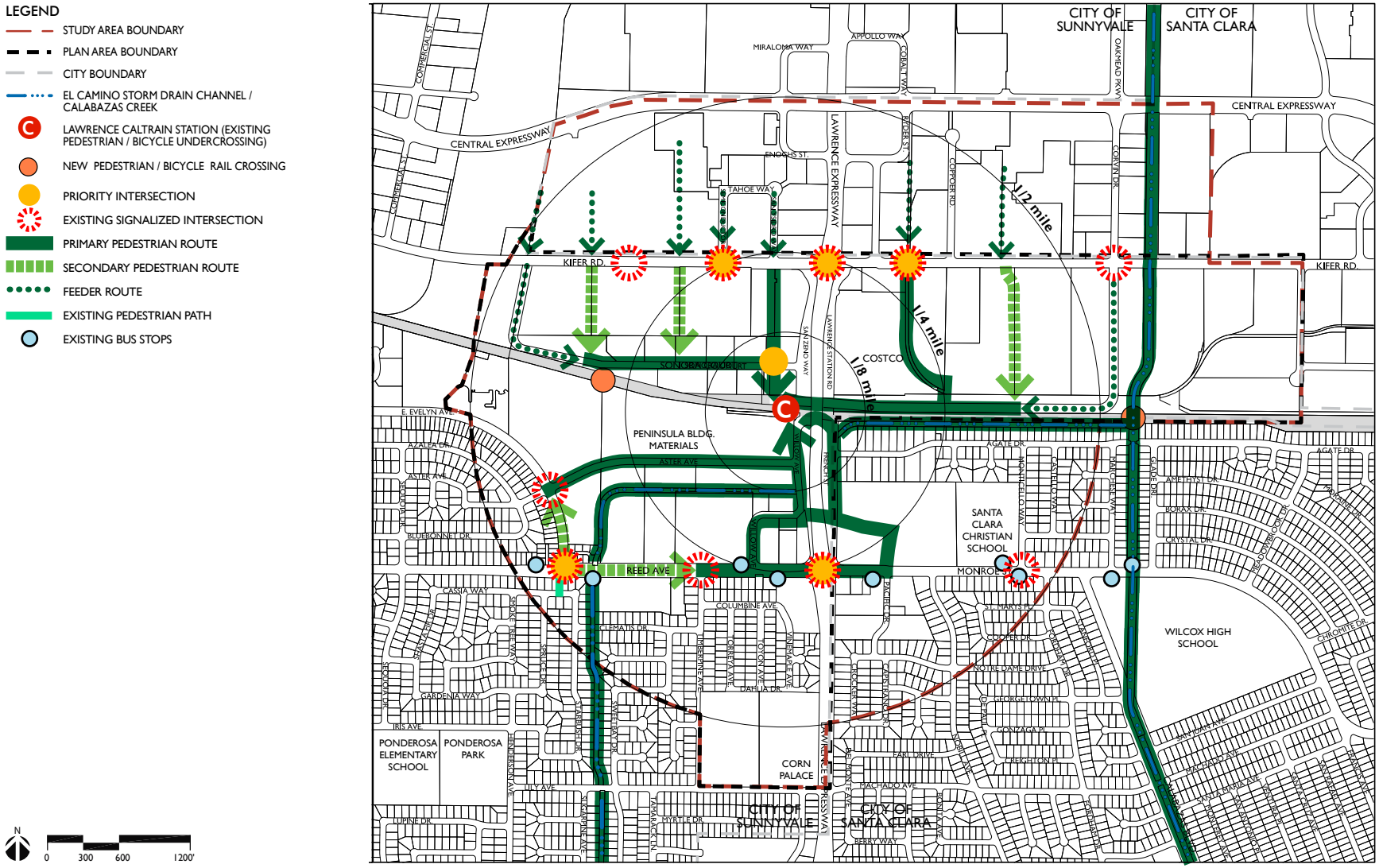
PEDESTRIAN IMPROVEMENTS

Today, pedestrian activity in the Plan area is constrained, due to the barriers presented by the Lawrence Expressway, Caltrain tracks, large busy intersections, and the industrial nature of large portions of the Plan area. Providing safe and attractive facilities for pedestrians throughout the area is an important goal of the LSAP, with strong emphasis on providing linkages to Lawrence Station and other destinations such as neighborhood parks, schools and shopping areas.

As shown in Figure 4.3, pedestrian activity around the Lawrence Caltrain station will likely increase as the Lawrence Station Area Plan lays the foundation for walkable streets throughout the Plan area. For example, the planned street network north of the Caltrain tracks will provide a walkable network of streets, providing access to all areas of the neighborhood as well as convenient connections to the station from areas both north and south of Kifer Road. South of the tracks, the existing street network in the single-family neighborhoods will be retained. Pedestrian improvements to the existing streets will be provided to enhance their role as important pedestrian corridors.

In addition, north-south connectivity for pedestrians and bicyclists will be vastly improved by two new Caltrain track crossings. Today, the underpass at the Caltrain station and the Lawrence Expressway overpass provide the only north-south track crossing opportunities in the area. Figure 4.3 illustrates the location of two additional grade-separated crossings of the Caltrain tracks that will serve to increase connectivity to the station as well as to local and regional destinations from the neighborhoods on either side of the Caltrain corridor. The crossing east of Lawrence Expressway is being evaluated as part of the Calabazas Creek Trail study by the City of Santa Clara and will likely include a pedestrian / bicycle under-crossing of the tracks. The crossing to the west of Lawrence Expressway will align with, and connect to, The Loop near the western end of Sonora Court, thereby providing north-south access between Aster Avenue and Kifer Road. Due to potential land use conflicts, traffic considerations and other physical constraints, it is unlikely that it is feasible to develop these two additional track crossings as vehicular streets.

Figure 4.3: Pedestrian Circulation System



Improved pedestrian access in the Plan area will also be facilitated through enhancements to the pedestrian environment including crosswalk enhancements, sidewalk extensions (bulbouts), and wider sidewalks along all major pedestrian corridors. For urban design guidelines related to these pedestrian improvements in the Plan area, see Chapter 6: Urban Design.

CROSSWALK ENHANCEMENTS

Improvements at major intersections throughout the Plan area, particularly along key pedestrian corridors, will enhance mobility for people of all ages and physical condition. Crosswalk enhancements can include improvements at both signal-controlled and uncontrolled intersections.

Pedestrian enhancements are particularly important at uncontrolled intersections to ensure the visibility of pedestrians to drivers. Improvements to enhance visibility in these situations may include:

- Enhanced crosswalk markings and striping
- Removal of free-right-turns and "pork chop" islands
- High visibility signs and markings
- Advance yield or stop lines
- Sidewalk extensions or bulbouts
- Rectangular rapid flashing beacons (RRFBs)
- Pedestrian crossing devices, including overhead flashing beacons and pedestrian hybrid beacons (PHB).

Crosswalk markings will be improved at all existing and proposed signalized intersections, as well as at all marked crossings at unsignalized locations, potentially including Aster Avenue/Willow Avenue, Willow Avenue/Reed Avenue, San Ysidro Way/Kifer Road, and the new intersections of The Loop and the San Ysidro Way Extension.

SIDEWALK EXTENSIONS (BULBOUTS)

A bulbout is an expansion of the width of a sidewalk, typically achieved by expanding into the parking zone. Bulbouts at intersection corners (corner bulbouts) greatly improve the pedestrian environment by providing increased pedestrian waiting area, reducing pedestrian/vehicle conflict points and reducing street crossing distances and associated crossing times, with no impact on vehicular travel lanes. They are particularly appropriate at intersections with wide crossing distances and high vehicle speeds which create a barrier to safe and easy pedestrian crossings.

Throughout the Plan area, wherever feasible, bulbouts will be provided at the intersection of all new streets and at locations where major pedestrian paths and trails intersect streets, where feasible. Bulbouts are not feasible on all existing streets, since only streets with on-street parking can be designed to include these improvements. Bulbouts will be considered along all primary pedestrian corridors where local conditions permit.

In the long term, if the Lawrence Expressway Grade Separation (LEGS) project moves forward, the need for bulbout improvements at Reed / Monroe and Kifer Road may diminish, depending on how access ramps for the Expressway are designed. If access ramps from the Lawrence Expressway to any streets in the Plan area are provided, then bulbout improvements will be needed wherever feasible. Recommendations for long-term improvements for pedestrian connectivity within the Plan area should be provided as part of the LEGS study.

SIDEWALK IMPROVEMENTS

Sidewalks are a critical element in the creation of good pedestrian environments. Wide sidewalks in good condition encourage walking and provide space for seating and socializing as well as for lighting and landscape amenities such as street trees.

Throughout the Plan area the recommended minimum sidewalk dimension, where right of way permits, is ten feet, including a minimum pedestrian travel zone width of six feet and a four-foot minimum landscaped buffer zone. These dimensions provide a comfortable travel path width and buffer between the pedestrian and vehicle traffic, but are considered minimums.

On streets and corridors where higher pedestrian volumes are anticipated, a wider 15-foot sidewalk is needed. See the Streetscape section of Chapter 6: Urban Design for additional sidewalk design considerations.

Clear definition of street and sidewalk areas will be provided throughout the Plan area for all users of the public right-of-way, including pedestrians, bicyclists, and motor vehicles. Sidewalk extensions (corner bulbouts) will enhance the pedestrian zone and improve accessibility for the elderly and disabled.

Remediation of sidewalk gaps and other unsafe conditions in the existing pedestrian network is also needed. These improvements include upgraded sidewalks to a minimum six foot-wide path of travel, and street tree planting behind the curb. Since many of these locations are along planned primary pedestrian access corridors, improvements will be to the higher 15-foot standard wherever feasible. In particular, sidewalk upgrades are needed in the following locations:

- both sides of Willow Avenue
- north side of Aster Avenue
- multiple locations along Kifer Road in the Plan area.

ADA ACCESSIBILITY

A network of accessible routes is a critical component of any transit-served environment. This is particularly true for disabled or older residents who may desire to walk to destinations but need safe and easy-to-use sidewalks, intersections and pathways.

One of the biggest challenges to accessibility is slopes or grades in excess of 5% grade. Fortunately, the Lawrence Station area is essentially flat, providing few such barriers to accessibility.

The most troublesome barriers in the area today are the missing or inadequate sidewalks and intersection corner ramps. These conditions can be found throughout the area, much of which was developed as much as 50 years ago. Public and private investments in new sidewalks and interior pathways will resolve these issues in all areas of the Plan over time.

All new pedestrian facilities and improvements to existing facilities will be designed to be fully accessible, with appropriate widths, grades, transitions, warning strips, and audio or other crossing indicators, in compliance with the accessibility standards established by the Americans with Disabilities Act (ADA).

Pedestrian Goals

P-G1 Provide safe, inviting, and attractive pedestrian connections for residents, workers and visitors to Lawrence Station and other key destinations in the Plan area.

Pedestrian Policies

P-P1 Promote walking access through new street connections.

P-P2 Provide two new Caltrain track crossings for pedestrians and bicyclists: one at the Calabazas Creek Trail (per study by the City of Santa Clara); the other west of Lawrence Expressway aligning with and connecting to The Loop near the western end of Sonora Court.

P-P3 Facilitate pedestrian access and safety along key pedestrian corridors through pedestrian enhancements, including crosswalk enhancements, sidewalk extensions (bulbouts), and wider sidewalks.

P-P4 Provide enhanced crosswalks on all legs of signalized intersections and at key pedestrian crossing locations.

P-P5 Provide new pedestrian crossings, including potential mid-block crosswalks, on Reed Avenue, Kifer Road, and The Loop.

P-P6 Provide sidewalk extensions (bulbouts) on all new streets, where feasible, and on select existing streets along primary pedestrian corridors.

P-P7 Continue to promote the inclusion of pedestrian improvements along and across the Lawrence Expressway as the Lawrence Expressway Grade Separation (LEGS) study is implemented.

P-P8 If the Lawrence Expressway is elevated or placed below grade, encourage the provision of multiple east-west connections between Sunnyvale and Santa Clara neighborhoods on each side of the expressway.

P-P9 Where right of way permits, for all new sidewalks in the Plan area, provide a minimum pedestrian zone width of nine feet inclusive of a minimum paved pedestrian travel zone width of six feet and a landscaped three-foot street buffer zone.

P-P10 For new sidewalks in areas of increased pedestrian activity and along all primary pedestrian corridors, provide a minimum sidewalk width of 15 feet inclusive of a minimum paved pedestrian travel zone of six feet.

P-P11 Improve sidewalk gaps on Willow Avenue and Kifer Road in the Plan area.

P-P12 Ensure that all new and improved pedestrian facilities are designed to comply with ADA standards.

BICYCLE IMPROVEMENTS

Encouraging the use of bicycles for local and inter-neighborhood access is a key goal of the Station Area Plan. Achieving this can help increase transit ridership, and reduce automobile usage, particularly for local trips. To achieve this goal, an essential requirement is a network of continuous, interconnected, and safe bicycle facilities that can be used by residents, workers and visitors.

In the Plan area, there are few existing bike lanes or other facilities designated for bicycle transportation. Providing safe and direct designated facilities for bicycles within the Plan area is essential in order to improve connections to Lawrence Station, parks, schools, and other local destinations, as well as to adjacent neighborhoods and citywide routes.

Bicycle facilities are designated according to three levels of service or "Classes."

A Class I bicycle facility is a path that is located entirely off-street and separated from motor vehicle traffic. Typically Class I bicycle paths are designed as multi-use facilities, available for use by pedestrians, joggers, baby carriages, and skaters as well as bicycles. To accommodate all users, typical design standards for Class I multi-use paths include an overall width of 12-14 feet, including a hard surface of 8-10 feet wide and a two-foot-wide walking / jogging surface on each side. City of Sunnyvale standard for Class I bicycle facilities is 12 feet. Currently, there are no Class I multi-use trails in the Plan area.

Class II bicycle facilities are striped bicycle lanes, typically on primary arterials and collector streets, designated for the exclusive use of bicyclists. The City of Sunnyvale standard for Class II bicycle lanes is 6 feet. However, Class II bicycle lanes may be wider, depending upon feasibility and local conditions.

Class III bicycle facilities are typically referred to as Bicycle Routes, where bicyclists share the street with vehicular traffic. While they do not have striped lanes, they often have bicycle route marking signs to guide bicyclists through the area, as well as street markings warning motorists of the increased presence of bicyclists and the need to "share the road." Class III Bicycle Routes are typically located on secondary streets with low traffic volumes and design speeds.

The Bicycle Framework Plan, Figure 4.5, illustrates the bicycle network planned for the Lawrence Station Plan area. When complete, the planned bicycle network will provide a continuous system of Class I and Class II facilities that will allow safe connections throughout the Plan area.

The Bicycle Framework Plan has three key elements:

- Existing bicycle facilities. Facilities that already exist in and adjacent to the Plan area.
- Planned bicycle facilities. Facilities that are currently in the planning stages or already part of adopted plans by the City of Sunnyvale, the City of Santa Clara or Santa Clara County, but are not yet built.
- Proposed bicycle facilities. New facilities proposed by this Station Area Plan.

EXISTING BICYCLE FACILITIES

Lawrence Expressway and Central Expressway (Class III)

Both of these major arterial roadways allow bicyclists and currently contain Class III bicycle lanes with wide shoulders. While these two facilities do provide long-distance bicycle access, because of the high vehicular speeds and traffic conditions, they are designated by the City of Sunnyvale as "Advanced Bicycle Routes," considered suitable only for the most experienced of bicyclists. Additionally, because the Lawrence Expressway is grade-separated at the railroad tracks, access to the Lawrence Station by bicycles is inconvenient and indirect.

Kifer Road West (Class II)

West of the Lawrence Expressway, Kifer Road contains bicycle lanes. Continuity of safe bicycle conditions along Kifer is broken, however, as the lanes do not exist east of the Expressway.

Reed Avenue (Class II)

In Sunnyvale, Reed Avenue currently contains on-street bicycle lanes, which extend to the city limits at the Lawrence Expressway. Bicycle lanes do not extend beyond that point into Santa Clara.

East Evelyn Avenue (Class II)

Although it does not connect to the core of the Plan area, the bicycle lanes along East Evelyn Avenue provide safe access for neighborhoods in the southwest quadrant of the Plan area to Reed Avenue and to Ponderosa Park via the pedestrian path that connects between Reed Avenue and Cassia Way.

PLANNED BICYCLE FACILITIES

Calabazas Creek Trail (Class I Multi-use)

The City of Santa Clara is in the planning stages to improve the Calabazas Creek corridor as a linear park that will include a Class I multi-use pedestrian–bicycle trail. Although the trail is mostly in Santa Clara, a portion of it will traverse Sunnyvale in the northeastern quadrant of the Plan Area.

The Calabazas Creek Trail preliminary alignment is located along the west side of Calabazas Creek north of the tracks and on the east side of the creek south of the tracks. This trail will form the backbone of a key north / south bicycle connection and alternative to riding on the Lawrence Expressway. The trail will provide linkages to many regional destinations, including the San Tomas Aquino on-street trail east of the Plan area. Therefore, future bicycle facilities that connect to the Lawrence Caltrain Station and neighborhoods of the Plan area will connect to this trail.

Monroe Street (Class II)

This bicycle lane is currently in the approved bicycle improvement plans for the City of Santa Clara. When completed, it will connect with the existing Class II bicycle lanes on Reed Avenue, providing through bicycle connections to Santa Clara Christian School and Wilcox High School.

PROPOSED BICYCLE FACILITIES

The Bicycle Framework Plan illustrated in Figure 4.5, is intended to close the gaps in the existing and planned bicycle network through the development of an interconnected system of Class I and Class II facilities.

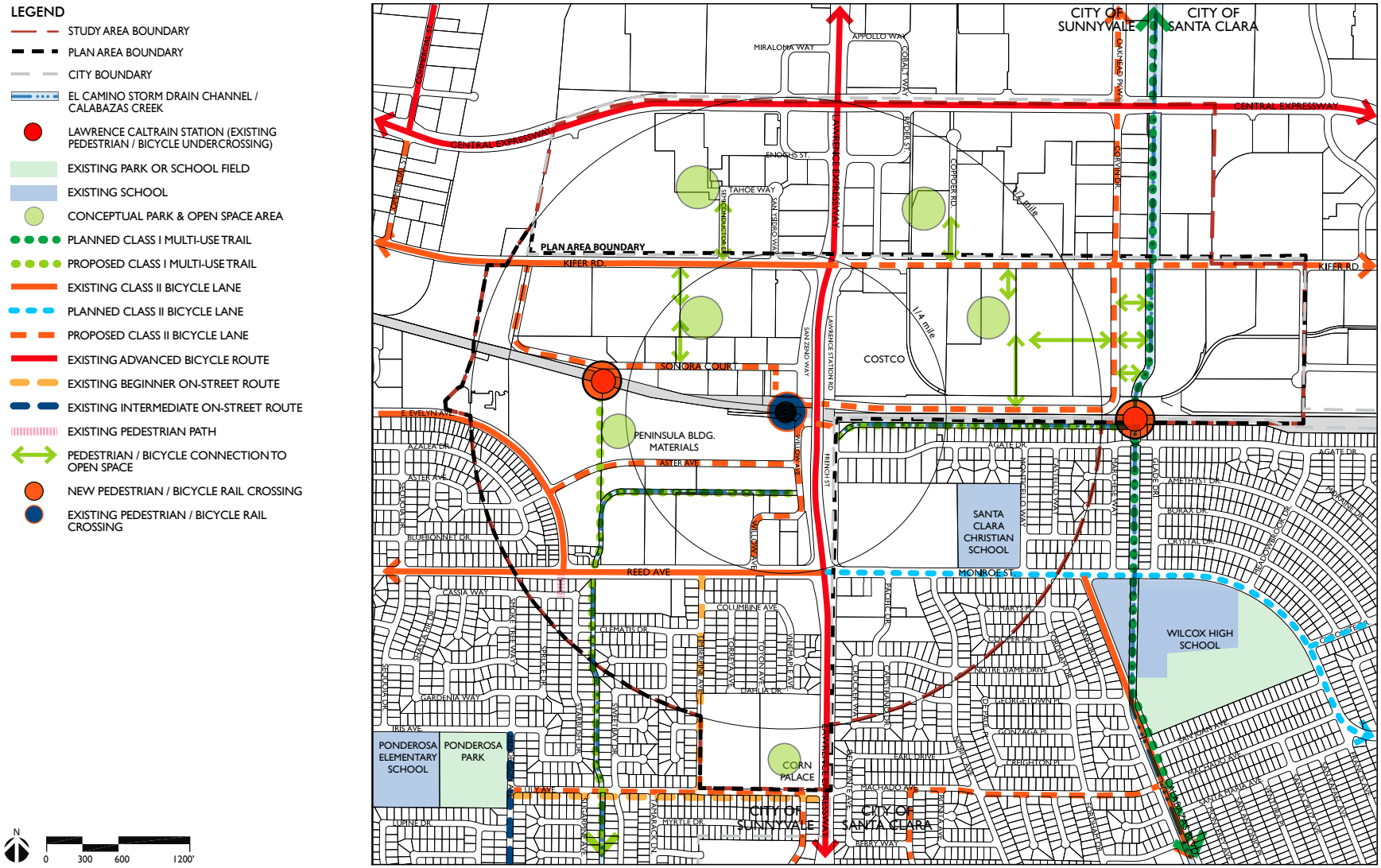
Class I Bicycle Improvements

Capitalizing on the planned Calabazas Creek Trail, the Class I multi-use trail network will be expanded in the Lawrence Station Plan area. This will include three important legs:

- South of the Caltrain tracks, a new Class I facility and linear park will follow the alignment of the El Camino Drainage Channel, linking to the Calabazas Creek Trail. This will include segments running in an east-west direction north of and parallel to Agate Drive, and south of and parallel to Aster Avenue (behind the Aster Avenue Townhomes), extending southward through the Ponderosa Park neighborhood. At Reed Avenue, this trail will have an enhanced pedestrian / bicycle street crossing, either at a mid-block location or at the Reed Avenue/Evelyn Avenue intersection, allowing access to the pedestrian path that connects between Reed Avenue and Cassia Way. This new Class I trail will thus allow safe bicycle connections between Ponderosa Park and the new neighborhoods north of the Caltrain Tracks.

The pedestrian path that runs between Reed Avenue and Cassia Way provides important mid-block connectivity for pedestrians and bicyclists. Additional such lanes (with improved landscaping and lighting) will be provided in all new development areas.

Figure 4.4: Bicycle Framework



- A new north-south Class I trail will link to the El Camino Storm Drain Channel trail, cross Aster Avenue and the rail line, and connect to The Loop on the north side of the tracks. It will be aligned approximately along the western property line of the existing Peninsula Building Materials property.
- As new development occurs on lands between the eastern leg of The Loop and Calabazas Creek, a direct linkage will be provided to allow connections from the neighborhoods in the northeast quadrant of the Plan area to the Calabazas Creek Trail. These linkages will be provided at a spacing of 300-400 feet along The Loop as indicated conceptually on the Bicycle Framework Plan.

Class II Bicycle Improvements

On-street Class II bicycle lanes will be provided to close gaps between existing bicycle lanes on existing streets as well as providing bike lanes along new primary street corridors, including the following:

- Kifer Road east of Lawrence Expressway. As discussed previously under the discussion of the Kifer Road road diet, this can be achieved without requiring the acquisition of additional right-of-way.
- The Loop. In addition to providing direct vehicular connections between Lawrence Station and the Central Expressway, Class II bicycle lanes along The Loop will allow bicyclists to access all of the neighborhoods between the Caltrain tracks and the Central Expressway.
- Aster Avenue. This street is currently designed with a pavement width that exceeds its traffic-carrying requirements. Like Kifer Road, it is a prime candidate for a road diet that can include the provision of Class II bicycle lanes. A 350-foot segment of Willow Avenue between Lawrence Station and Aster Avenue will complete this improvement, thereby providing improved access all the way to the Lawrence Station.
- Other Class II Facilities. Outside of the Plan area, the provision of Class II bicycle lanes will improve inter-neighborhood connectivity particularly for those seeking to access nearby parks and schools, including Ponderosa Park and School, and Wilcox High School. These streets include:
    - Machado Avenue between Briarwood Drive and Calabazas Boulevard
    - Briarwood Drive south of Machado Avenue
    - Lily Avenue between Henderson Avenue and the Lawrence Expressway
    - White Oaks lane south of Lily Avenue.
    - Commercial Street between Kifer Road and Central Expressway

Class III Bicycle Facilities

It is not envisioned that any street or circulation corridors will be designated as a Bicycle Route at this time. However, all new secondary streets will be designed to be friendly for bicycle travel with low vehicle speeds.

Track Crossings

As described in the Pedestrian Improvements section of this chapter, two additional grade-separated pedestrian/bicycle crossings of the Caltrain tracks will serve to increase north-south connectivity for bicyclists.

Open Space Connections

The Bicycle Framework Plan indicates, in a conceptual way, the location of new neighborhood open spaces in the future development areas of the Plan and the public linkages for pedestrian and bicycles to these open spaces. These open space locations and connections are conceptual and do not represent final specific locations. However, ensuring that all new open spaces are connected to publicly accessible streets, bicycle facilities and pedestrian linkages is an essential ingredient of the Plan and will be a required feature of future development proposals.

Intersection Improvements

On streets with Class II bicycle lanes, bicycle detection loops will be installed at signalized intersections to allow bicyclists to activate traffic signals without the need to dismount to use pedestrian push buttons and crosswalks. Detection of bicyclists at signalized intersections will also improve efficiency, decrease delay to bicyclists, and discourage red light running by bicyclists without causing inordinate delays to motorists.

Signage and Wayfinding

All Class I and Class II bicycle facilities will have directional signage and bicycle route marking signs directing bicyclists to Lawrence Station, parks, schools and other local and inter-neighborhood destinations.

Bicycle Parking and Storage

Together with perceived lack of safety riding on the streets, lack of secure bicycle parking is often cited in surveys as one of the top deterrents to bicycling. The provision of secure bicycle parking is, therefore, as essential to increasing bicycle ridership as the provision of safe bicycle lanes and routes. Bicycle parking and storage infrastructure is typically installed as part of a development project approved for property redevelopment.

The City of Sunnyvale has bicycle parking standards that are appropriate for the Plan area. Additionally, the Santa Clara Valley Transit Authority (VTA) has published bicycle parking guidelines that include elements appropriate for the Plan area. Based on the City of Sunnyvale and VTA guidelines, the bicycle parking supply requirements for the Station Area Plan include the following:

Long-term storage (>2 hours): Provide Class I bicycle parking, consisting of lockers, rooms with key access, or attended/unattended bike stations. This type of storage is appropriate at Lawrence station, multi-family residential developments, and places of work.

Short-term storage (up to 2 hours): Provide Class II bicycle parking, consisting of racks with two points of contact that allow for locking at least one wheel as well as the bicycle frame. Bicycle racks are most appropriate to serve visitors to retail establishments, libraries, medical offices, office buildings, and residential buildings. Locate bicycle racks such that pedestrian circulation is not adversely impacted, security is maximized (i.e., in well-lit, visible areas with high volumes of foot traffic), and with a layout that maximizes parking capacity.

Minimum quantities of bicycle parking shall be comparable to those shown in Table 4.1. Additional bicycle parking can be added relatively easily as demand warrants.

Table 4.1: Recommended Quantities For Bicycle Parking Provision

Use	Recommended Number of Bicycle Spaces*
Lawrence Station	*2% of daily home-based boardings (75%-Class I, 25% Class II)*
Residential *General, multi-dwelling* *Low-income housing, multi-dwelling* *Senior housing, multi- dwelling*	*1 Class I per 4 units + 1 Class II per 15 units* *1 Class I per 3 units + 1 Class II per 15 units.* *1 Class I per 20 units + 1 Class II per 15 units.* *(Minimum total 4 spaces for all residential developments)*
Retail	*1 Class I per 30 employees + Class II per 6,000 sq. ft.*
Office/Industrial/R&D	*1 Class I per 75% of 6,000 sq. ft. + 1 Class II per 25% of 6,000 sq. ft.*

Note: The minimum number of Class II bike racks in any location should be 2 (4-bicycle capacity).

BICYCLE SHARING

Over time, as the Lawrence Station area becomes a more important destination in Sunnyvale, a bicycle sharing program could be initiated. A bicycle sharing system consists of a fleet of specially-designed, heavy-duty, durable bicycles that are locked into a network of docking stations located throughout a region. Bicycles can be rented from, and returned to, any station in the system, creating an efficient network with many possible combinations of start and end points.

In the Bay Area, the program is sponsored by Bay Area Bike Share, a partnership among several local government agencies including the Bay Area Air Quality Management District (BAAQMD), San Francisco Municipal Transportation Agency (SFMTA), Sam-Trans, Caltrain, the County of San Mateo, the San Mateo County Transportation Authority, the City of Redwood City and VTA. The Bay Area Bike Share system was initiated in 2013 and currently has 700 bikes and 70 docking stations across the region, with locations in San Francisco, Redwood City, Mountain View, Palo Alto, and San Jose.

Bicycle Goals

B-G1 Encourage the use of bicycles for local and inter-neighborhood access by residents, workers, and visitors of all ages and abilities.

Bicycle Policies

B-P1 Require property development to provide Class I and Class II bicycle facilities to fill in the gaps in the existing and planned bicycle network.

B-P2 Provide direct Class I and Class II bicycle connections to the future Calabazas Creek Trail from The Loop.

B-P3 Provide direct Class I multi-use public linkages between The Loop in the northeast quadrant of the Plan area to the Calabazas Creek Trail at spacings not to exceed 400 feet.

B-P4 Connect new neighborhood open spaces with publicly-accessible streets, bicycle facilities and pedestrian linkages.

B-P5 Install bicycle detection loops at signalized intersections.

B-P6 Provide Class I or Class II bicycle parking per Lawrence Station Area Plan bicycle parking requirements.

B-P7 Implement a bicycle sharing program.

PUBLIC TRANSIT

Commuter heavy rail (Caltrain), local bus, and scheduled private shuttles currently serve the Plan area. See Figure 4.5 for the existing transit network.

COMMUTER HEAVY RAIL (CALTRAIN): LAWRENCE STATION

Data from 2014 indicates the Lawrence Caltrain Station currently serves about 1,580 weekday riders. Historical ridership data indicates that the average weekday ridership at the station reached over 2,500 in 2001, indicating the station has the capacity to serve higher numbers of passengers than current ridership.

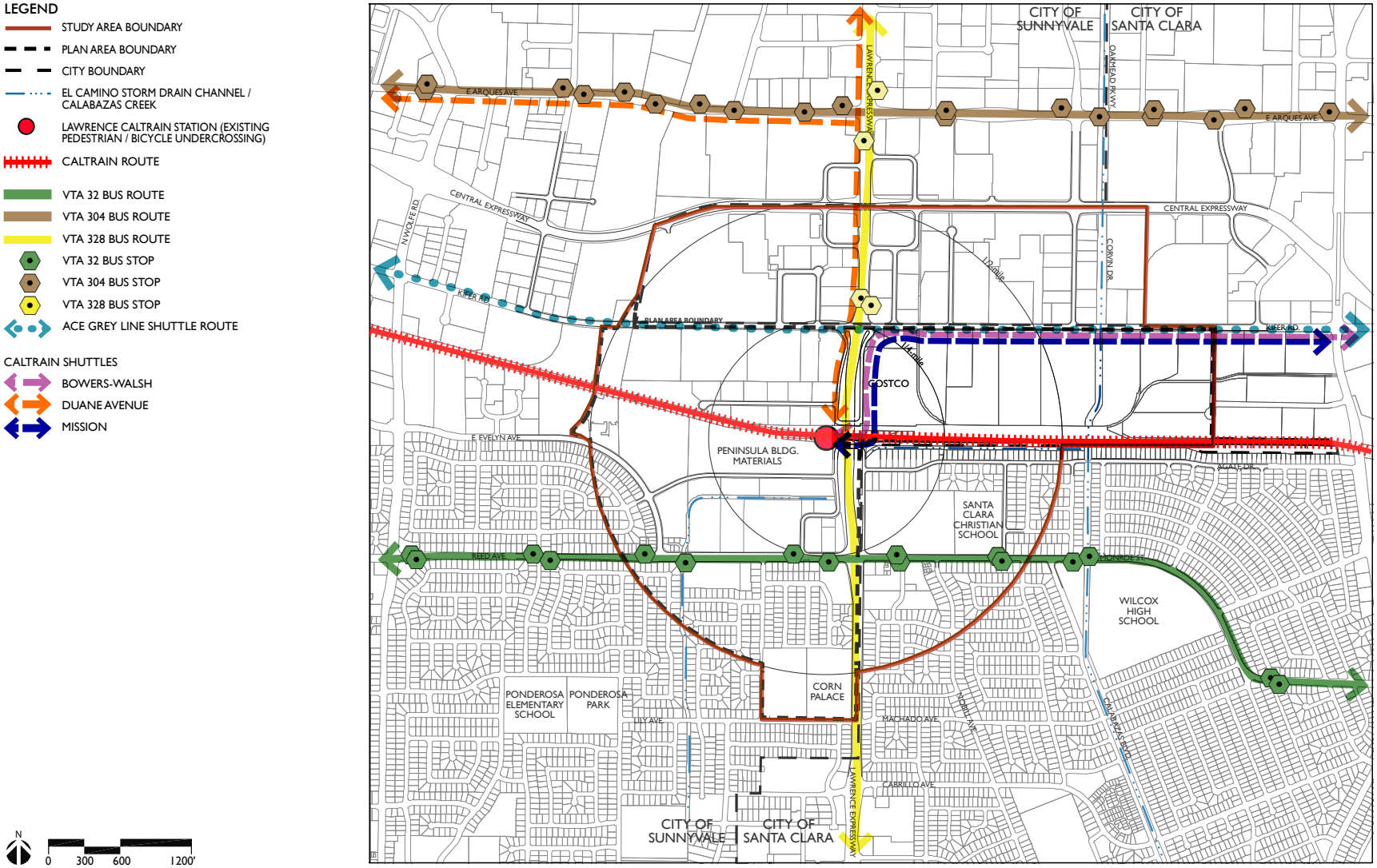
Diversifying land uses and increasing densities will support the long-term viability of the Caltrain station. Depending on the specific characteristics of land uses ultimately developed near the station, if developed to the levels anticipated under the Estimated Likely Development Scenario of this Plan, daily transit ridership is estimated to increase to levels comparable to those at the California Avenue Caltrain station in Palo Alto, a station that supports a range of users, including visitors and employees of the California Avenue retail district. There is potential for the Lawrence Caltrain Station area to similarly become activated as the station and its surrounding mix of land uses generates a range of users and activities.

The Lawrence Caltrain Station was reconstructed in recent years and already has many station amenities, including covered benches, adequate signage, schedule information, ticket vending machines, a public pay phone, real-time message boards, shuttle access, and bicycle and vehicle parking. As the Plan area develops and access to the station is improved, increased ridership will likely warrant the provision of additional amenities, such as more bicycle parking.

LOCAL BUS SERVICE

In the Plan area, bus service along three routes is provided by the Santa Clara Valley Transportation Authority (VTA). However, none of these routes currently serves Lawrence Station directly. The bus stop nearest to the station is on the local-serving Community Route #32, with a stop approximately ¼-mile from the station at the corner of Reed and Willow Avenues, in the

Figure 4.5: Existing Transit Network



southwest quadrant of the Plan area. North of the Caltrain tracks, the nearest bus stop to the station is on the Limited Stop Route #328 which stops at the corner of the Lawrence Expressway and Kifer Road, also approximately ¼-mile away.

COMMUTER SHUTTLES

While no VTA bus routes directly access the station, there are three public Caltrain shuttles that provide service, including:

- Duane Avenue: Between Mountain View and Lawrence Caltrain Station as well as Duane Avenue office buildings during commute hours.
- Bowers-Walsh: Between Lawrence Caltrain Station and Bowers/ Walsh area office building during commute periods.
- Mission: Between Lawrence Caltrain Station and Mission College and Intel areas during commute hours.

The project area is also served by VTA's Altamont Commuter Express (ACE) Gray Line South Sunnyvale Shuttle (VTA 822) that provides directional shuttle service (eastbound in AM and westbound in PM) along Kifer Road and connects the project area to the Great America ACE station in Santa Clara.

In addition to the four public shuttles, several private shuttles provide service between the Lawrence Caltrain Station and major employers within the Cities of Sunnyvale and Santa Clara.

ACCOMMODATING FUTURE TRANSIT

The limited bus transit connections within the Lawrence Station area are a result of low levels of demand and disconnected roadway access from nearby major roadway corridors. While the VTA does not currently plan to add bus transit service within the Plan area, the agency will re-evaluate the need for new service as access to the station improves, new development proceeds and demand increases. The higher intensity commercial, retail, and residential land uses established in this Plan will create an increase in transit demand compared with the existing low intensity office and research and development (R&D) land uses. Therefore, the Lawrence Station Area Plan includes planning and design measures that will allow both bus and rail transit service to be expanded in the future as demand warrants.

The increased roadway connectivity and mixed land uses will have a positive effect on the potential for direct bus access to the area. Potential transit connections south of the Plan area include re-routing VTA Route #32 on Reed Avenue/Monroe Street to the southbound platform.

North of the tracks, The Loop greatly increases the potential for transit connectivity to the northside of the station. Opportunities to signalize intersections, as summarized earlier in this chapter, should be evaluated in coordination with potential transit route accessibility. For example, a signal at the intersection of Central Expressway and The Loop will enable transit vehicles to directly access Lawrence Station. Additionally, the roadway design concept for The Loop adjacent to the northbound Caltrain platform, illustrated in the Streetscape Design section of Chapter 6: Urban Design, includes bus pull-outs for passenger loading and unloading.

Bus Transit Stop Improvements

In addition to potential bus route modifications, new and improved bus transit amenities will enhance the experience for transit patrons. Most existing bus stops along Kifer Road, Reed Avenue-Monroe Street, and Lawrence Expressway have minimal stop amenities and frequently only include a bus stop sign, without furnishings or shelters. Therefore, bus pull-outs, and added stop amenities such as shelters, furnishings, lighting and signage will be provided along The Loop and are needed along Kifer Road, Reed Avenue-Monroe Street, and Lawrence Expressway and all other potential future bus routes wherever local conditions allow. The road diet on Kifer Road, in particular, will provide space for new bus pull-outs on the south side between Lawrence Expressway and Commercial Street (the north side of Kifer Road has existing bus pull-outs) and on both sides of Kifer Road east of Lawrence Expressway.

Public Transit Goals

PT-G1 Support public transit in the Plan area, including both commuter rail and bus service.

Public Transit Policies

PT-P1 Reevaluate adequacy of amenities, such as bicycle parking, seating, and shelters, at Lawrence Station as ridership numbers increase.

PT-P2 Evaluate the requirements for new bus service as access improves, development proceeds and demand increases.

PT-P3 Assess the potential re-routing of existing bus service to directly reach Lawrence Station.

PT-P4 Provide bus stops with bus pull-outs, shelters, furnishings, lighting and signage along the Primary Loop Road and all other bus transit streets in the Plan area.

PT-P5 Locate bus stops on the Primary Loop Road approximately every ¼-mile (1,300 feet).

PARKING

The provision and management of the parking supply in the Lawrence Station Plan area is closely associated with how people travel to and from the area. Parking should be considered not in isolation, but in conjunction with pedestrian and bicycle access, transit availability, and land use decisions. In addition, while the implementation of individual parking strategies can contribute to the overall success of the transportation element for the project, the use of complementary and coordinated strategies will compound benefits.

Table 4.2 describes parking strategies that will be implemented as the Plan area is developed over time.

Parking strategies are organized into the following three sections:

- Parking Supply
- Parking Management Strategies
- Transportation Demand Management (TDM) Programs.

Table 4.2: Parking Strategies

Priority	Parking Strategy
Short-Term	*All land uses: Reduce the requirements for off-street parking.* *All land uses: Provide bicycle parking.* *All land uses: Unbundle parking costs from property costs.* *Lawrence Station: Work with Caltrain to find the appropriate price to attract drivers to the station parking lot and improve its utilization.* *Retail, Office/R&D, Industrial: Allow credits for TDM Program demonstrating high alternative mode share and corresponding to lower parking requirements on a case-by-case basis.*
Mid- and Long-Term	*Residential, Office/R&D, Industrial: Require shared parking.* *Residential: Provide car sharing.*

PARKING SUPPLY

It is critical that parking supply in the Plan area be effectively managed and not overbuilt in the future. The provision and management of parking should be such that it:

- Does not create an overabundance of parking, which may end up as an invitation to driving.
- Discourages auto trips for those who have an option to travel by other modes, including walking, bicycling and transit.
- Serves those who must drive and might not make the trip if they perceive that parking will not be available when they arrive.

Existing Parking Supply

Currently, there is an overabundance of on- and off-street parking in the Plan area. The 122-space Lawrence Station parking lot, which charges a fee for parking, is typically only 10-20 percent occupied. In order to avoid paying the parking fee, additional station-related park-and-ride demand is met on-street, particularly on Sonora Court. Despite the use of on-street parking by Caltrain riders, on-site observations indicate there is sufficient on-street parking for other drivers.

Comparing Sunnyvale's current parking requirement standards for new development with similar nearby communities, the parking provision in the existing residential and commercial uses in the Plan area are overabundant and contributes to the high auto usage observed in the Plan area (approximately 85 percent for Sunnyvale and approximately 68 percent for Lawrence Station) .

The existing overabundant parking supply in the Plan area provides an opportunity to manage future supply so that it promotes and supports transit and more closely relates to the needs of employers and residents of the area.

Parking Supply Requirements

Future parking requirements for development within the Lawrence Station Plan area are described in Table 4.3. Additional reductions in parking requirements will be allowed based the specific characteristics of the supply in question (e.g., senior housing, affordable housing) and on the incorporation of parking management strategies.

Based on the parking requirements described in Table 4.3, it is estimated that up to 52,000 parking spaces would be required under the Estimated Likely Development Scenario under the City's current parking standards. Applying the reduced LSAP Parking Requirement described in Table 4.3 will potentially reduce parking needed by up to 50%. This could amount to a potential savings of land or structured parking floors of approximately 208 acres that could be used for other purposes and also reduce development costs.

In order to allow flexibility for development, it is not envisioned that a cap be placed on the provision of parking at a specific site. However, to discourage parking from being provided at higher than necessary rates, a Parking Impact Fee or Parking Exceedance Fee (or through an increased contribution to the Sense of Place Fee) can be assessed for projects that elect to provide more parking than the base requirement, unless such additional parking is made available for non-exclusive use by other developments and/or the public.

PARKING MANAGEMENT STRATEGIES

Shared Parking

Restricting the availability of any parking pool to a single use (i.e. only residential or only office), results in poor utilization of the parking supply. The Lawrence Station Area Plan provides a great opportunity for the implementation of a shared parking scheme that can greatly reduce parking requirements on an individual basis. For example, office/industrial/R&D parking lots and garages see peak parking demand during the daytime whereas residential parking is most needed in the evening, nights and weekends. Rather than providing distinct parking supplies to meet these complementary uses, the same parking supply can be used by employees during the day and residents in the evenings and at night, significantly

Table 4.3: Plan Area Parking Requirements

Land Use Category	Current City Requirements[1]	LSAP Parking Requirement
Residential	*1.5-2.4 per unit (depending on unit size and type of parking)*	*1.0-1.7 per unit[2,3]*
General Retail	*2.0- 5.5 per 1,000sf*	*2.5-4.0 per 1,000 sf[3,4]*
Office, Industrial, and R&D	*2.0 - 4.0 per 1,000 sf*	*2.0-2.75 per 1,000 sf[3,4]*

Notes:

1. *City of Sunnyvale Municipal Code*
2. *Apply the following further adjustments for senior and affordable housing as appropriate:*
   - *Senior housing: multiply by 0.5.*
   - *Affordable housing: multiply proportion of housing units that is deed-restricted by 0.5-0.75 depending on population car ownership characteristics.*
3. *Allow for further reductions where parking demand management strategies are added to the supply on a case-by-case basis, as described in the Parking Management Section and as listed below:*
   - *Allow additional parking requirement reductions if parking is unbundled from property costs.*
   - *Allow shared parking credit for utilizing ULI methodology.*
   - *Require parking exceedence fee if building above recommended parking ratio.*
   - *Allow for on-street parking supply to count towards requirements.*
4. *Allow for further reductions in parking requirements for employers who commit to implementing Transportation Demand Management (TDM) programs. Reduction rates should be based on calculated % alternative mode share to single occupancy vehicles (walking, biking, shuttle, transit, carpools/vanpools).*

reducing parking requirements for both land uses and making their development more economically feasible.

Shared parking will be phased into the Plan area as development takes place. Initial developments will need to provide parking at the higher end of the rates as outlined in Table 4.3, since they will have less opportunity for shared parking in the initial development phases. Later developments can provide less parking and use available shared parking supply.

Shared parking requirements should be in place ahead of development and be implemented as nearby complementary land uses come online. If possible, it would be beneficial to phase development so that complementary projects are completed around the same time, so that shared parking can be implemented as soon as new projects are occupied.

Structured Parking

Where feasible, parking should be provided in structures rather than surface lots to avoid surrounding developments with parking lots. Although structures are more expensive (approximately $25,000 per space), there are potential cost efficiencies associated with constructing consolidated, shared parking structures, or constructing parking structures concurrent with a new development.

Planning for a parking structure should be considered when a shared parking analysis for proposed customer-serving uses (retail, restaurant) indicates that there are insufficient parking spaces (either surface or structured) located within a ¼-mile radius of the development to serve the estimated parking demand. The most logical space for a parking garage within the Plan area is near Sonora Court and Lawrence Expressway. This would be near the Caltrain station and the proposed San Ysidro Way Extension Retail Street.

Parking structures can also be integrated into housing as well as retail and office/industrial/R&D uses. However, the implementation of shared parking garages should only occur when there is substantial densification of the Plan area and a focus of uses (such as retail) that triggers the need for an adjacent high-capacity parking facility. Based on the parking supply requirements outlined in Table 4.3, the development of 100,000 sf of retail uses would have a parking demand of 300 spaces (assuming a rate of 3 spaces per 1,000 sf). Similarly, the development of 120,000 sf of office uses (assuming a rate of 2.5 spaces per 1,000 sf) or the development of 180 dwelling units (assuming a rate of 1.7 spaces per 1,000 sf) would have a 300 space parking demand.

Unbundling

There is frequently a mismatch between the fixed number of parking spaces provided with a unit of housing and the household's needs. Furthermore, a fixed parking provision raises the cost of housing and hides the true parking cost.

"Unbundling" parking is a strategy that sells or rents parking separately from the price of a residence or commercial lease. Unbundling parking from property costs provides transparency to the cost of parking so that people can make better informed decisions about housing and car ownership costs. It also makes better use of the parking supply by allowing parking spaces that would have been allocated to carless households to be used by households with additional cars. Lastly, unbundling is complementary to shared parking since any excess supply of spaces can be leased or rented to outside entities.

In the case of commercial tenants, commercial leases can unbundle parking (parking spaces are leased separately rather than automatically included with building space), and list parking as a separate line item (parking rents are listed separately from building rents).

Car Sharing

Car sharing is a complementary strategy to the reduction of the parking supply because it meets the needs of people who typically drive a car very infrequently and leave it parked the rest of the time. Empirical research has found that the availability of shared cars can significantly reduce car ownership, which has a direct impact on the need to provide parking. Thus, encouraging car sharing among employees and residents is an important strategy in the Lawrence Station Area Plan.

The Lawrence Caltrain station is an excellent initial opportunity site for a small number of car sharing spaces. For comparison, car sharing is currently

provided at the Redwood City station (three spaces), the downtown Palo Alto station (2 spaces), and the San Jose Diridon station (2 spaces). Initially, one car sharing spot for the Lawrence Caltrain station would be appropriate. As development occurs and ridership increases, the number of car sharing spaces can increase to two or even three spaces, depending upon demand.

Parking Pricing

Parking pricing is the most effective mechanism for managing parking demand for a fixed parking supply and can be implemented at any time. It can be used to optimize the use of parking resources by preventing auto storage and commuter parking while promoting turnover that benefits businesses, and provides flexibility for adjustment as parking demand changes over time. It is equitable because only those who use the parking pay for parking, and the resulting revenues can be used to improve streets and other aspects of the transportation system. Finally, although its most obvious application is at on-street parking locations typically adjacent to retail, it can be used effectively in connection with all land uses, and is most effective when the on-street pricing is coordinated with the off-street pricing based on the demand for each type of supply.

Parking pricing schemes should make paying for parking easy and convenient so that the only deterrent to parking is the parking rate in areas where demand warrants. Parking pricing works most effectively when parking demand is high; thus parking pricing should only be implemented as the Lawrence Station area develops and demand for parking increases.

Parking pricing is already in place at the Caltrain Station. However, due to the abundance of unrestricted free on-street parking nearby, Caltrain's current parking supply is underutilized as riders look for free opportunities to park around the station. Thus in the near-term, time restrictions on the streets immediately surrounding the station would help alleviate on-street parking by Caltrain riders and increase utilization of the Caltrain parking lot.

Residential Permit Parking (RPP)

RPP programs should be used as a mechanism to regulate on-street parking only if really needed. Such programs are counter to optimized utilization of the fixed parking supply, because they restrict who can park and at what times. In addition, since such programs typically place restrictions on how long non-residents can park, their enforcement tends to be inefficient because Parking Control Officers must establish that a car has been parked for a certain period of time before a citation can be issued. Sunnyvale should charge non-residents for parking in RPP zones rather than restricting their stay. An unpaid parking meter is much easier to enforce than a time limit.

The program should also be designed carefully to prevent underutilization of one type of parking and oversubscription elsewhere. For example, the residential parking permits should not be given to residents of developments where there are parking spaces available for rent or purchase. This will ensure that the on-street parking remains available for short-term visitors rather than being used for long-term auto storage.

RPP restrictions and the provision of additional parking at Lawrence Station should be implemented only if and when empirical data demonstrates an unambiguous need for such measures.

Parking Goals

PK-G1 Manage future parking supply so that it promotes and supports transit ridership as well as the needs of local retail, employment and residential uses.

Parking Policies

PK-P1 Adopt specific parking requirements for all new development in the Plan area.

PK-P2 Consider forming a Parking Management District for the Plan area.

PK-P3 Establish a shared parking program in advance of development, with the following features:

a. Require developers to submit a shared parking analysis.

b. Allow new development to either provide sufficient off-street parking supply to meet the incremental increase in parking demand associated with the proposed project, and/or lease parking spaces from earlier parcel owners who have available parking located adjacent to the development parcel (within ¼ mile radius or closer).

c. Require new residential development to provide no more than 1.7 parking spaces per residential unit for exclusive use by residents. Additional parking supply that may be needed for the development shall be provided in shared facilities that will be required to be open to all users, including transit station patrons.

d. Price shared parking facilities according to market conditions, and encourage management by either the parcel owner, or the Plan area Parking Management District.

e. Consider allowing on-street parking spaces to be added as part of the development of a parcel to count towards a project's required shared parking supply, but do not allow it to be used as reserved spaces for residential uses.

f. Verify the accuracy of the parking demand estimates of the shared parking model based on interim parking demand counts over the course of the build-out of the Plan area. Conduct parking counts during the peak parking demand period as identified in the shared parking analysis: weekday afternoons in December. Parking ratios in the shared parking model shall be calibrated to the parking demand counts if there is a significant discrepancy.

PMP-4: Plan for structured parking as demand increases. This can be in the form of a stand-alone parking structure for nearby users, or shared parking integrated with residential or office/R&D uses.

PMP-5: Unbundle parking costs from property or lease costs.

PMP-6: Provide parking spaces at the Lawrence Caltrain Station for the exclusive use of car sharing vehicles.

PMP-7: Implement a parking pricing system as demand for parking in the area increases.

PMP-8: Establish a residential parking permit (RPP) program in the Plan area in the future if / when analysis demonstrates a need for such measures.

TRANSPORTATION DEMAND MANAGEMENT

Jurisdictions in the Bay Area increasingly require Transportation Demand Management (TDM) strategies designed to reduce the number of people driving alone to and from their place of business (and in some cases residence) in favor of walking, bicycling, taking transit or shuttles, carpooling or vanpooling. Common TDM strategies include providing shuttle service, providing bicycle parking and "end-of-trip" facilities (showers, lockers), marketing campaigns to discourage auto trips, offering transit passes to employees, providing dedicated carpool/vanpool parking spaces, offering cash in place of a free parking space (parking cash-out), and charging for parking.

Currently, Sunnyvale has a codified TDM requirement for the Moffett Park Specific Plan area and for higher intensity office/industrial development. As a condition of project approval other sites have been required to implement a TDM program. Many large employers have had experience with TDM and understand the benefits of implementing such a program. Given the high proportion of auto usage in Sunnyvale, there is a great opportunity to realize benefits from TDM programs.

As part of the development incentive program in the Lawrence Station Area Plan, new development in the Plan area will be required to implement a TDM program with robust monitoring measures. For example, office/R&D developments will be required to meet a daily trip reduction target of at least 20 percent and a peak hour trip reduction target of at least 35 percent. TDM trip reduction for residential and retail uses is more difficult to achieve than for office uses. However, residential and retail projects will also be required to develop TDM programs and meet specific targets. Initially, trip reduction targets for residential and retail uses will be approximately five percent for trips during the peak hours.

Transportation Demand Management (TDM) Goals

TDM-G1 Reduce vehicle trips in the Lawrence Station Plan area through TDM programs

Transportation Demand Management Policies

TDM-P1 Encourage businesses and property owners to collaborate on areawide TDM strategies for their sites in the Lawrence Station Plan area.

TDM-P2 Achieve a daily trip reduction target of 20 percent and a peak hour trip reduction target of 30 percent for new Office/R&D development.

TDM-P3 Achieve a peak hour trip reduction of 5% for new retail and residential development

TDM-P4 Include incentives for the provision of the following features as part of a TDM program for the Plan area:

a. Provide shuttle service

b. Provide bicycle parking and end-of-trip facilities (e.g., lockers, showers)

c. Create marketing campaigns to discourage auto trips

d. Offer low-cost or free transit passes to employees

e. Dedicate carpool/vanpool parking spaces

f. Offer cash in place of a free parking space (parking cash-out)

g. Charge for parking

h. GreenTrip registration.

5 UTILITIES AND PUBLIC SERVICES

Public infrastructure, in the form of utilities and public services, is a very important part of the long-term success of a neighborhood, district or city. These facilities must not only be carefully planned for but they must also be provided in a timely manner, whenever possible in anticipation of growth rather than lagging behind and in response to growth.

5 UTILITIES AND PUBLIC SERVICES

Public utilities and public services such as schools and emergency services are an important part of the long-term success of a neighborhood, district or city. These facilities must not only be carefully planned for but they must also be provided in a timely manner in anticipation of growth. This section outlines the basic components of public infrastructure and public services that will be needed in the Plan area.

UTILITY INFRASTRUCTURE

The capacity of existing city-owned utilities to accommodate planned growth was assessed for the Plan area in early 2015. Estimated improvements that may be required are discussed in the sections that follow. Analysis of proposed conditions is limited to storm drainage, potable water supply and wastewater management within the incorporated boundary of Sunnyvale. Other utilities, including telephone, cable, gas and electric infrastructure are supplied by their respective private franchise operators and are not a part of this discussion.

STORM DRAINAGE

Local storm drainage facilities in the Lawrence Station Area are owned and maintained by the City of Sunnyvale. These local systems discharge into a regional system, under the jurisdiction of the Santa Clara Valley Water District (SCVWD), which conveys storm run-off to the San Francisco Bay.

In the Plan area, SCVWD facilities include the El Camino Storm Drain Channel (ECSDC), and Calabazas Creek. From the residential neighborhood located in the Plan area's southwest quadrant, the ECSDC flows northward and then eastward, running along the railroad's southern edge before connecting to Calabazas Creek, approximately one-half-mile east of the Lawrence Station. Calabazas Creek flows from south to north connecting into the San Tomas

Aquino Creek which empties into Guadalupe Slough approximately 3-miles north of the El Camino Storm Drain Channel confluence.

The northeast quadrant of the Plan area is currently characterized by industrial and R&D uses with interconnected parking areas and no internal public streets. As such, there is very little existing public storm drainage infrastructure in this area.

Planned Drainage Improvements

Drainage improvements within the Plan area will be required to conform to the parameters set forth by the Cities of Sunnyvale and Santa Clara, and the Santa Clara Valley Water District (SCVWD). The City's development policies address storm drain pipe design for capacity and quality. Storm drains are to be sized per the current Santa Clara County Drainage Manual approved in 2007. Storm drains are required to accommodate a 10-year design storm and post-development flow rates cannot exceed pre-development flow-rates, on a project-by-project basis.

New developments that create or replace more than 10,000 square feet of impervious surface must comply with Provision C.3 of the Municipal Regional Permit (MRP) and with California State Water Board requirements. The Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) has published a "C.3 Stormwater Handbook" that assists developers in meeting local municipal and State regulations through the use of Low Impact Design (LID) strategies.

The Plan area is underlain by soils with low percolation rates. Therefore, infiltration is generally not practical. In such situations, commonly-accepted LID strategies include treatment methods such as bio-retention basins and flow-through planters, as well as green roofs, media filtration devices and utilization of pervious surfaces.

While it is typical for individual, private projects to incorporate treatment systems within their individual sites on a project-by-project basis, provisions for treatment of run-off from either new or newly widened public facilities, such as streets, sidewalks and bicycle trails/paths will also be required. As site planning within the Plan area progresses, a comprehensive, areawide approach to storm water treatment should be considered. An areawide approach could include developing standards for public streets that allow storm water to be treated "at the source" before being captured in drainage inlets, and/or large, regional facilities that treat run-off from multiple parcels and/or public rights-of-way. In either case, adequate space for these facilities must be programmed into any land planning effort.

The Plan area currently consists of parcels with a diverse mix of uses from residential to commercial and industrial, but the majority of the Plan area is developed land with high percentages of impervious surfaces that direct storm water runoff directly into the public storm drain infrastructure with little to no retention or treatment. As projects are implemented that comply with the MRP requirements, it is anticipated that the overall percentage of impervious surface within the Plan area will decrease, so additional mitigations for storm water peak flow conveyance, either incorporation of detention facilities to attenuate peak flows, or upsizing of existing conveyance facilities to accommodate increased peak flows, is not anticipated.

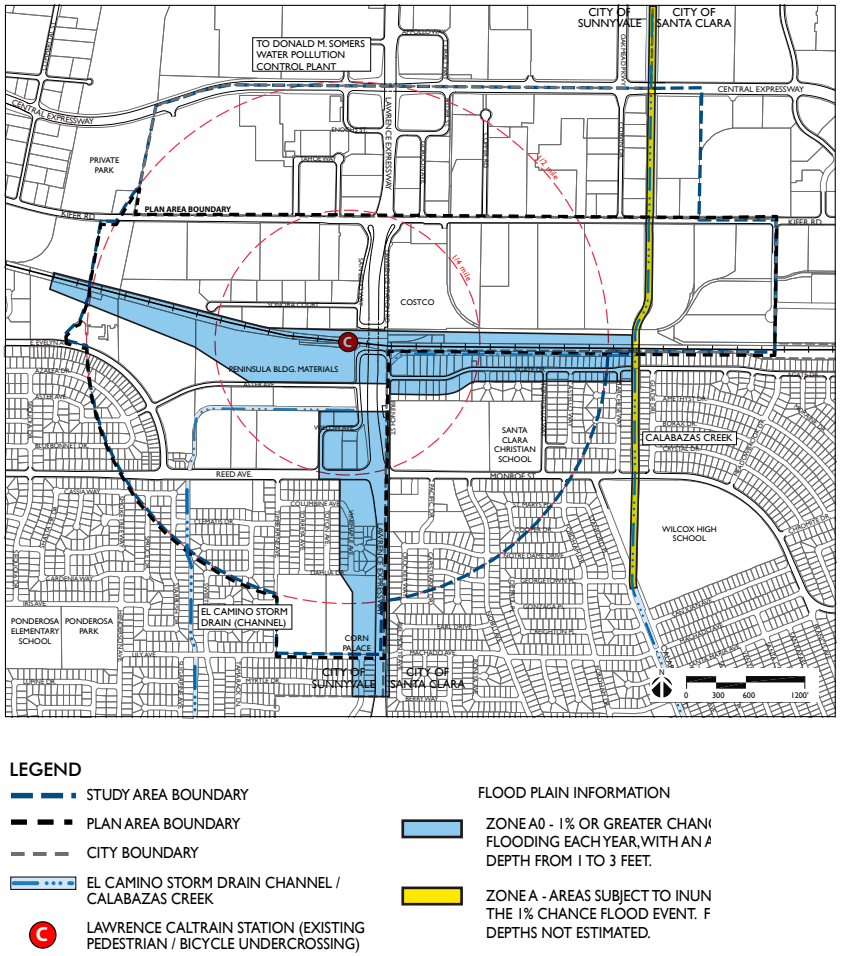
Local storm drainage infrastructure that collects and conveys runoff to major storm drain systems will need to be reconfigured to accommodate redevelopment. New streets serving new development will contain new storm drainage systems that will comply with City of Sunnyvale design standards and specifications.

Flood Plain Management

Areas along the southern portion of Lawrence Expressway and near the railroad right-of-way are currently identified by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) to be within Zone AO, as is shown in Figure 5.1. These properties have a 1% or greater chance of flooding each year (often referred to as "the 100-year event"), with an average inundation depth of 1-to-3-feet.

Projects proposed within Zone AO will require the raising of grades, most likely by importing fill material, by an average of 1.5 feet to elevate the building floor and mechanical features above the Base Flood Elevation per city policy on construction within Flood Zones. A regional study and Conditional Letter of Map Revision by Fill (CLOMR-F) will likely be required to ensure that fill within the existing flood plain does not adversely affect other properties.

Figure 5.1: Flood Plain



LEGEND

- STUDY AREA BOUNDARY
- PLAN AREA BOUNDARY
- CITY BOUNDARY
- EL CAMINO STORM DRAIN CHANNEL / CALABAZAS CREEK
- LAWRENCE CALTRAIN STATION (EXISTING PEDESTRIAN / BICYCLE UNDERCROSSING)

FLOOD PLAIN INFORMATION

- ZONE A0 - 1% OR GREATER CHAN(FLOODING EACH YEAR, WITH AN A DEPTH FROM 1 TO 3 FEET.
- ZONE A - AREAS SUBJECT TO INUN THE 1% CHANCE FLOOD EVENT. F DEPTHS NOT ESTIMATED.

POTABLE WATER

Water Supply and Demand

The City of Sunnyvale has adequate water supply commitments, through its local wells and its contracts with the Santa Clara Valley Water District and the San Francisco Public Utilities Commission, to reliably meet the projected water needs of its residents and businesses for the foreseeable future. It is not anticipated that increased densities in the Plan area will cause overall projected demands in the city to exceed supply.

Notwithstanding the above, in order to comply with the provisions of Senate Bills 610 and 221, which both passed the California State Senate in 2001, the City of Sunnyvale should consider preparing a Water Supply Assessment that defines the Plan area as a single project, and verifies that adequate water can be supplied to the area, consistent with the assumptions of the Lawrence Station Area Plan. The increased demands within the Plan area can then be incorporated into the baseline assumptions for any subsequent water supply analysis within the city.

Water Distribution

The water distribution system is owned and operated by the City of Sunnyvale Department of Public Works and consists of a pipe network which lies predominantly beneath the traveled roadways in the public street rights-of-way, and a system of reservoirs that store water and regulate pressures. Over 80% of the distribution and trunk lines in the City were installed in the 1960's and are nearing the end of their estimated 50-year service life, so rehabilitation and/or replacement is needed to minimize the need for emergency repairs.

Many of the distribution lines to and within the Plan area are 8-10 inches in diameter and pressures are between approximately 75 pounds per square inch (psi) and 90 psi. Like the City as a whole, these lines are mostly located within public street rights-of-way. Areas characterized by commercial uses with interconnected parking areas and no internal public streets have very little public water distribution infrastructure. Therefore, as new projects are developed and new public streets are installed, new public distribution mains will be needed to serve fire and domestic water needs.

Overall, the densities of development projected for the Plan area will represent an increase over existing conditions, which will, in turn, increase domestic and fire water demand in the area. It is estimated that the existing network of distribution mains in the area are adequate to meet increased fire flow demands.

It is estimated that new distribution mains will be located in The Loop street and will be 10-12 inches in diameter. Distribution mains will also be located in local streets and will be 8-10-inches in diameter. Hydraulic analysis will be required based on final land plans, building types, water demand estimates, fire flow requirements and phasing, in order to establish final, actual line sizes in each street, as well as confirm that the existing mains are adequate.

Recycled Water

Recycled water can be appropriate for developments with large non-potable water demands. Although it has not been adopted as policy, the City of Sunnyvale Recycled Water Feasibility Study provides guidance on how the City intends to develop its recycled water delivery network.

Currently, there is a storage tank and pump station north of the rail lines. A new recycled water main line, referred to as "Kifer East," is to be constructed along Kifer Road, from the existing main in Wolfe Road across the Plan area.

Service within the Plan area is included as an optional project in Phase 3 out of 4 phases of the recycled water development program. Completion dates are not set but late phasing indicates that this region has comparatively high costs to benefits. Development contemplated in the Lawrence Station Area Plan, as well as less expensive construction in new streets could move this area to a higher priority rank when the recycled water plan is updated in the future.

When recycled water arrives in the Plan area, landscape improvements along new streets and pedestrian ways will provide an opportunity for recycled water irrigation. Additional opportunities for the use of recycled water include site landscape improvements for mixed-use residential, office/R&D and industrial uses, as well as for public open space.

At some point, the City's sewage flows will simply not support additional reuse. The Recycled Water Feasibility Study indicates a desire to convert the entire 15 MGD waste flow to recycled water. The Study's scope is for 6.5 MGD peak day use. This seems to indicate significant theoretical capacity for expansion beyond those areas identified.

The Feasibility Study for Recycled Water Expansion explains that the city intends to fund expansion of the recycled water system through grants, low-interest loans, partnerships with neighboring agencies, and user rates.

WASTEWATER MANAGEMENT

Wastewater from the portions of the Plan Area that are southwest and north of the Lawrence Station is conveyed through the City's wastewater collection system to the Donald M. Somers Water Pollution Control Plant (WPCP), which is approximately four miles north of the Lawrence Station. The WPCP was last upgraded in 1984 and has an existing capacity to treat 29.5 million gallons of wastewater per day (MGD) before discharging to the San Francisco Bay. It is currently operating at approximately 50% of its capacity, as projections made in 1983 anticipated higher levels of industrial land uses and wastewater flow levels than have been realized. Flows are not expected to increase to levels that would approach the plant's design capacity in the foreseeable future.

Most wastewater from the Plan area is conveyed to the WPCP through a trunk main that flows from south to north in Lawrence Expressway. That trunk main is fed by a series of smaller public mains and private laterals. The conveyance facilities consist of gravity pipe lines made predominantly of vitrified clay, but mains are also constructed of various other materials including polyvinyl chloride (PVC), high density polyethylene (HDPE), reinforced concrete (RCP), ductile iron (DIP), and cast iron (CI).

The northeast quadrant of the study area is characterized by commercial uses with interconnected parking areas with no internal public streets. As such, there is very little public wastewater collection infrastructure in this area.

In order to determine what the wastewater infrastructure needs for the Plan area may be, baseline sewage generation for the existing conditions was estimated, based on rates published in the Sunnyvale Sewer Master Plan. No adjustment was made for future conservation measures which may reduce expected demands by customers.

Assigning the water consumption rates (see Appendix E) to the existing land uses, the resulting existing daily rates of wastewater generation are estimated and shown in Table 5.2. In total, baseline sewer generation for the Plan area is estimated to amount to approximately 0.90 Million Gallons per Day (MGD).

Wastewater generation for the Plan area will increase in the future due to the uses and densities envisioned in the LSAP. The likely increase was estimated, based on the Estimated Likely Development scenario described in Chapter 3: Land Use. As shown in Table 5.3, it is estimated that total wastewater generation in the Plan area will be approximately 1.78 MGD, which is nearly twice the estimated baseline.

In order to accommodate the anticipated increase in wastewater generation, local and trunk conveyance lines may require upgrades as well as the trunk line that conveys flows to the treatment plant. The City has prepared the decennial update to their Wastewater Collection System Master Plan. The estimated demands resulting from build-out of the Lawrence Station Area Plan should be incorporated into the update in order to determine the potential need for system upgrades.

In the future, as plans progress for the area, and the concentration of particular densities in specific locations are better understood, an areawide study on the requirements of the trunk mains should be considered so that potential required improvements and associated costs can be better understood and funding strategies can be established.

Utilities Goals

U-G1 Ensure that storm water management programs in the Plan area achieve overall storm water quality compliance at both the individual project level as well as the area-wide level.

U-G2 Provide each development area with a water conveyance system that is capable of delivering adequate flow and pressure to meet Uniform Fire Code requirements for all proposed buildings.

U-G3 Provide each development area with an available public sewer main that is capable of conveying wastewater to the City's Water Pollution Control Plant.

U-G4 Provide each development area with the highest bandwidth connectivity available.

U-G5 Avoid flooding of new development by requiring flood prevention measures for those developments located in the flood zone.

Utilities Policies

U-P1 Promote the use of bio-retention basins and flow-through planters, as well as green roofs, infiltration trenches, media filtration devices, and pervious surface treatments as a part of stormwater management strategies for new development.

U-P2 Prepare standards for public streets that allow storm water to be treated "at the source."

U-P3 Prepare a comprehensive, area-wide plan for storm water management and treatment.

U-P4 Ensure adequate land area is allocated for area-wide storm water management and treatment facilities.

U-P5 Require all proposed habitable structures' finished floors to have at least 0.5-feet freeboard to the 1% Flood Elevation.

U-P6 Prepare a Water Supply Assessment that defines the Plan area as a single project, and verifies that adequate water can be supplied to the area.

U-P7 Minimize the use of irrigation-dependent landscape improvements for public streets, rights-of-way, and open space.

U-P8 In areas where large irrigation demand is anticipated, construct improvements such that they can be efficiently switched to recycled water when it is available.

U-P9 Establish a program to encourage the use of recycled water for landscape improvements on private development projects.

U-P10 Require developers to coordinate with telecommunication providers and have the necessary infrastructure installed.

U-P11 A regional study and Conditional Letter of Map Revision by Fill (CLOMR-F) shall be submitted and approved by FEMA for each development.

U-P12 Prepare a regional sewer system master plan that identifies an overall plan and incremental public improvements that will be required for area build-out based on capacity or rehabilitation to reduce inflow and infiltration.

U-P13 Prepare a regional master domestic and fire water delivery plan, including hydraulic model, based on assumed building densities, height and construction types, that delineates infrastructure needs for area build-out.

PUBLIC SERVICES

The Lawrence Station Area Plan study area is served by multiple school districts.

Elementary and Middle School:

- Sunnyvale School District
- Santa Clara Unified School District.

High School:

- Fremont Unified High School District
- Santa Clara Unified School District.

6 URBAN DESIGN AND STREETSCAPE GUIDELINES

The character of the built environment is an important component of the success of city districts and neighborhoods. The significant change that is likely in the Lawrence Station Area over time requires that clear design guidelines be put in place to direct the design of buildings, their sites, and the surrounding public environment of streets and open spaces. This chapter describes and illustrates these guidelines.

6 URBAN DESIGN

Urban design focuses on the design of the physical environment, with particular emphasis on the character and design of the public realm, neighborhood identity, livability and sense of place. This chapter describes goals, standards and guidelines that focus on the future character and built form of the Plan area.

The Plan area and its surroundings have a relatively short history as a built urban environment. Much of what is seen today in the Plan area was built after World War II in the 1960s and 1970s. Prior to this time, the area was known for vast acreages of agricultural land, particularly orchards. The layout and development pattern in the area is a result of this development history, with an orthogonal pattern based on the original agricultural grid, infilled with post-war suburban development of large parcel development, discontinuous street patterns, curvilinear streets (especially in residential neighborhoods), and low scale buildings.

In 1962, the system of County expressways, including the Lawrence Expressway and the Central Expressway, was established, with subsequent widening and grade separations in intervening years. These expressways were also aligned with the north/south orthogonal grid, further strengthening the underlying urban framework of the Plan area. This underlying grid pattern has been used as the basis for the physical framework of new streets and blocks of the Lawrence Station Area Plan.

DEVELOPMENT VISION

The Plan area contains a variety of neighborhoods, districts and places with differences in scale and character and varying opportunities for conservation and development. The character and scale of development in the Plan area, as well as the surrounding areas, is noticeably different north and south of the Caltrain rail tracks.

South of the Caltrain tracks, land uses are almost entirely residential and development is typical of suburban neighborhoods developed as large tracts after World War II. These neighborhoods are stable and attractive places to live, with attractive tree-lined streets and single and multi-family buildings three stories or less in height. Since these areas were developed for vehicular access, pedestrian and bicycle access is often missing or incomplete, and walking to the Caltrain station is circuitous and challenging.

In the area south of the Caltrain tracks, the overall scale of development will change very little, with policies to protect and enhance the character and quality of existing residential neighborhoods. This will include ensuring adequate scale transitions between existing neighborhoods and new development areas. In select locations, such as the Calstone/Peninsula Building Materials property, and the corner property at Reed Avenue and Lawrence Expressway, new, higher intensity development is envisioned. These guidelines will help ensure that the development is compatible in scale and character with the surrounding residential neighborhoods.

The area north of the tracks is generally characterized by very large parcels, currently occupied by primarily one story industrial, research-and-development (R&D) and warehousing uses, as well as a large format retail (big box) establishment and free-standing restaurants along Kifer Road. Building coverage and overall intensities are low. Parking is typically in surface lots surrounding buildings.

North of the Caltrain tracks, the Station Area Plan envisions a future that is a departure from the existing pattern of low scale, large footprint buildings and parking lots. Reflecting the overall trend toward higher-density developments for office and R&D in Silicon Valley and increasing land values, this area will be allowed and encouraged to naturally transition to a more dense urban scale, consistent with this Plan and the design guidelines of this chapter. Over time, the area north of the Caltrain tracks will become a regional and local urban hub, job center, and new neighborhood for urban living, served by a diverse multi-modal circulation system.

The design guidelines in this chapter will help shape this physical development process. Although portions of the overall study area are in the City of Santa Clara, the design guidelines apply only to the Lawrence Station Area Plan, which deals with lands only within the City of Sunnyvale.

The design guidelines that follow have two general categories:

1. Area-wide guidelines that apply to the Plan area (in Sunnyvale) as a whole.
2. Specific Area Guidelines which apply to subareas within the Plan area.

These guidelines apply to the development of specific parcels, private and public, within the Plan area.

In addition, this chapter provides guidelines for the design of public streets and rights of way (Streetscape Guidelines).

Small-scale streets and pedestrian lanes can be used to create a street and block pattern scaled to pedestrians, bicycles and motor vehicles that provides direct connections to transit, parks, and important neighborhood destinations.

AREA-WIDE GUIDELINES

Several design guidelines apply to all areas throughout the Plan area. These include Sustainability, Block Size and Street Pattern, Site Planning, Building Design, Open Space and Landscape, and Parking.

SUSTAINABILITY

Sustainability is a key value of these urban design guidelines. The Plan's overarching concepts and goals are inherently sustainable, as they encourage transit use, promote bicycling and walking instead of driving, and encourage land use diversity and flexibility. The urban design guidelines, however, focus on the individual design aspects that will make the Plan area a livable a desirable place. Many of the guidelines have been included to ensure that the LSAP upholds the City's commitment to sustainability. Those that have strong environmental sustainability content have been noted with the following symbol.

BLOCK SIZE AND STREET PATTERN

A primary goal of the Lawrence Station Area Plan is to improve circulation and connectivity for all modes of travel, particularly pedestrians, bicyclists and other forms of transit, such as buses. One of the most important considerations in achieving this goal is block size and the pattern of streets. In general, block sizes of approximately 300 - 400 feet on a side are ideal as they allow multiple circulation routes in walkable increments in all directions. At an average walking pace, this means that each block length can be traversed in a few minutes, thereby allowing pedestrians to circulate through an area without lengthy and discouraging diversions. Such block sizes also provide multiple opportunities for vehicular traffic circulation and access to land and buildings.

There is no portion of the Plan area that has been currently developed with such an idealized street and block pattern. The single-family residential neighborhoods south of Reed Avenue have reasonable block depths but block lengths are typically very long, making access to any point – including parks, schools and the Caltrain station - circuitous and indirect. Between

Reed Avenue and the Caltrain tracks, the multifamily developments include internal walkways and open spaces that provide circulation routes for local residents but not the public at large and there is not a complete public street network serving the area. The industrial development pattern of the area north of the Caltrain tracks evolved with only one connection across the rail corridor and very large block sizes suited to truck and automobile access to serve the low scale industrial uses.

Block Size and Pattern Goal

BSP-G1 As properties redevelop incrementally, establish a publicly-accessible framework of streets and blocks scaled to pedestrian and bicycle users and accessible to all modes of travel.

Block Size and Pattern Guidelines

BSP-UDG1 To the extent feasible, establish a public street/walkway grid and block pattern with block sizes of approximately 300 feet on a side.

BSP-UDG2 Limit street block lengths between public streets to a maximum of 600 feet.

BSP-UDG3 Where block sizes exceed approximately 300 feet, provide mid-block pedestrian connections. Mid-block connections may take the form of a pedestrian access way or a shared pedestrian/emergency/services path.

BPS-UDG4 To the extent feasible, add publicly-accessible pathways in existing development areas where street connectivity is limited.

BPS-UDG5 Avoid security gates on publicly-accessible routes at all times of day.

BPS-UDG6 Maintain an open, walkable environment throughout the Plan area.

BPS-UDG7 In instances where creating a new public street is not immediately feasible, reserve space for future implementation and provide an initial pedestrian/bicycle path.

SITE PLANNING

Site Planning Goal

SP-G1 Site and design new development to have a more urban and visually interesting character, adjoining the public environment of streets and walkways, rather than being set back behind surface parking and large planted setbacks.

Site Planning Guidelines

SP-UDG1 Site buildings to reinforce the street edge or corner by maximizing building frontage along the street. Building setbacks will vary by street type, as detailed in Table 6.1: Development Setbacks.

SP-UDG2 For the San Ysidro Way Extension (retail street) and the retail area on Willow Street (south of the station), locate the primary building façade at the street right-of-way/property line (0 feet setback). As shown in Figure 6.1, exceptions to this rule are allowed and encouraged to emphasize the retail zone and widen the sidewalk as follows:

- Up to 10 feet maximum setback from the property line.
- Contiguous with the sidewalk grade and accessible to the public.
- Upper levels of the building may extend over the setback area to create arcades and overhangs.

SP-UDG3 On non-retail streets, allow for greater setbacks where the ground-floor use is residential.

SP-UDG4 Up to 15 percent of the horizontal length of the building façade may be stepped back beyond the setback. This allows entry courts, public plazas, and building articulation at the ground level, which must be publicly accessible.

SP-UDG5 Maintain neighborhood and street character by locating residential uses across the street from one another where possible.

SP-UDG6 Limit curb cuts to minimize pedestrian-vehicular conflicts.

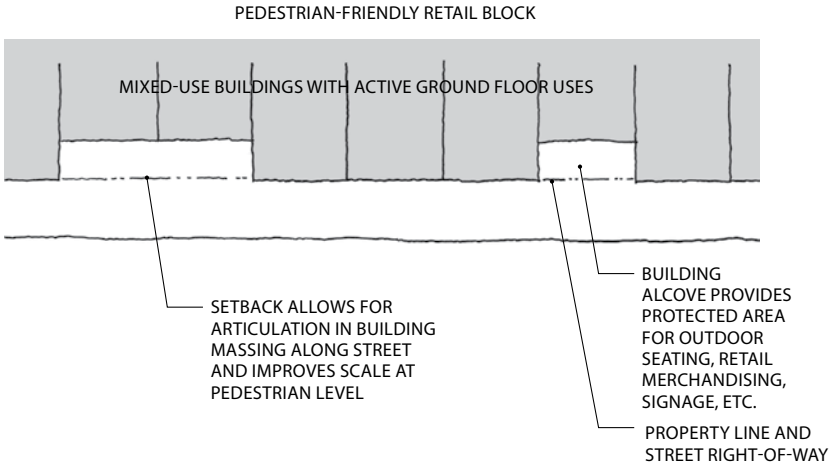
SP-UDG7 Accommodate fire and emergency access per state and local codes and away from pedestrian and bicycle conflicts.

Table 6.1: Development Setbacks

Street	Minimum Setback	Maximum Setback
The Loop	*10′*	*15′*
The Loop & Lawrence Station	*10′*	*15′*
Sonora Court	*35′**	*45′**
Kifer Road	*15′*	*25′*
New North/South Retail Street	*0′*	*10′*
Internal Circulation Street	*10′*	*15′*
Lawrence Expressway	*per Cty*	*per Cty*
Willow Street	*10′*	*15′*
French Street	*per S.C.*	*per S.C.*
Calabazas Creek	*10′*	*20′*

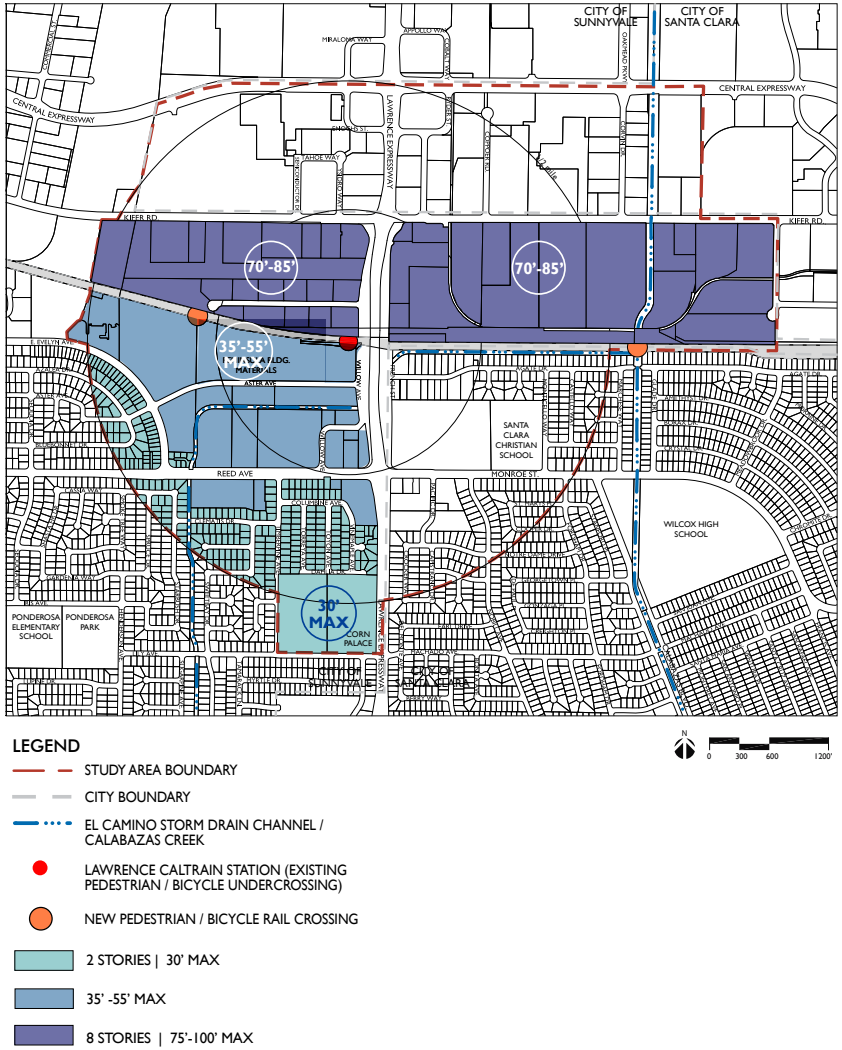
** Dependent upon location of existing redwood trees*

Figure 6.1: Setbacks on Retail Street



Small building setbacks and alcoves provide additional space for merchandising without interrupting pedestrian flows, while also maintaining a strong street wall.

Figure 6.2: Allowable Building Heights



BUILDING DESIGN

Several components of building design are particularly important in creating a comfortable and attractive pedestrian and transit-oriented development pattern.

Building Height

Figure 6.2 identifies maximum allowable building heights throughout the Plan area. These heights are consistent with current zoning. Building heights will vary considerably throughout the Plan area. In the areas south of the tracks, heights will be lower to be compatible with nearby low scale (generally one-to-three story) residential uses. North of the tracks, heights can be higher. The tracks themselves provide an ample physical separation from residential uses south of the tracks. Rising land values, changing spatial requirements and construction codes are resulting in taller buildings for office, R&D and residential uses.

Building Height Goal

BH-G1 Encourage the greatest concentration of taller buildings in the Plan area north of the tracks in the vicinity of Lawrence Station in order to ensure a high concentration of jobs and residents in close proximity to the station and emphasize the area's function as a transit hub.

Building Height Guidelines

BH-UDG1 Restrict building heights as indicated in Figure 6.2 and/or in the following situations:

- Around parks and public open spaces to maintain a pedestrian scale and maximize daylight/sky exposure.
- Along pedestrian walkways and sidewalks to provide a comfortable pedestrian scale.
- Adjacent to existing residential neighborhoods, stepping down to two or three stories to provide a transition in scale.

BH-UDG2 Place taller buildings or building elements at corner intersections to achieve greater visibility, scale relationships, and architectural massing and interest.

Articulation and step-backs of large building masses can enhance the pedestrian scale and allow penetration of sunlight. Such articulation also improves the relationship between existing residential areas and new development.

BH-UDG3 Ensure that building height, massing, and spacing allow views to the Lawrence Station from major arterials wherever possible.

BH-UDG4 Vary building heights within blocks and parcels in order to provide visual interest and variety and to avoid a blocky, uniform appearance.

BH-UDG5 On the San Ysidro Way Extension (retail street) and adjacent to public open space, buildings that exceed four stories in height shall step back by a minimum of 10 feet for floors 5 and above.

BH-UDG6 Residential buildings over three stories in height, located on residential streets or adjacent to public open space, shall step back a minimum of five feet for stories above three floors.

BH-UDG7 Provide optimal solar access for residents and workers in the design and location of buildings.

BH-UDG8 Ensure new development does not shade existing development and open space. Conform to guidelines of the City of Sunnyvale Shade Ordinance.

Building Massing and Articulation

Building massing refers to the apparent bulk and dimensions of various parts of a building. Articulation refers to potential variations in the planes of the building such as roofs and façades.

Building Massing and Articulation Goal

BMA-G1 Modulate and articulate the massing on large buildings in order to reduce their apparent scale, ensure their compatibility with the surrounding development, and help create a pedestrian-scaled environment.

Building Massing and Articulation Guidelines

BMA-UDG1 Reduce the apparent bulk of large buildings by breaking lager walls and volumes into smaller masses.

BMA-UDG2 Articulate building façades, walls and massing to reduce the impacts of shade and wind on important open spaces, pedestrian corridors and retail streets.

BMA-UDG3 The taller portion of a building (i.e., the tower) shall not occupy more than 25 percent of the length of a lot.

BMA-UDG4 Accentuate major gateways in the Plan area with architectural modulation.

BMA-UDG5 Reinforce street corners with changes in architectural massing and height.

BMA-UDG6 Screen mechanical and other equipment from sight per the Zoning Code.

Building Orientation, Entries, and Façades

Building design, particularly at the ground level, is important to creating pedestrian environment that is interesting, attractive and feels secure, particularly on retail streets and in areas surrounding the transit station.

Building Orientation, Entries and Façades Goal

BO-G1 Activate the street and sidewalk by providing active ground floor uses, locating building entries and windows in appropriate locations, and providing pedestrian-scaled elements.

Building Orientation, Entries and Façades Guidelines

BO-UDG1 Orient buildings to ensure that the primary façades and entrance areas of all buildings face the street, open space areas, or other pedestrian-oriented circulation areas.

BO-UDG2 Place windows and storefronts at the street level and ground floor.

BO-UDG3 Use clear, non-reflective glazing on all windows at street level.

BO-UDG4 Emphasize building entries with small entry plazas, vertical massing, and architectural elements such as awnings, arcades, or porticos.

BO-UDG5 Design entries so that they are clearly identifiable from the street.

BO-UDG6 Provide a walkway leading from the street to the building entrance if the building is not located directly on a public sidewalk.

BO-UDG7 Enhance building entries and the adjoining pedestrian realm with plazas and landscaping.

BO-UDG8 For retail development with multiple store entries, orient all entries to the street or public plaza. Utilize the outdoor space for cafés or other outdoor retail uses.

BO-UDG9 On pedestrian retail streets and other designated retail areas, design the floor-to-ceiling height of the first floor to be greater than that of upper floors to accommodate ground-floor retail space. Generally, the height should be a minimum of 14 feet.

BO-UDG10 Include features that add depth, shadow and architectural interest, such as balconies, recesses, cornices, bay windows, and step-backs at upper floors, consistent with the building's style and scaled for pedestrians.

BO-UDG11 Limit blank walls along pedestrian-oriented streets and pathways to no greater than 30 linear feet without being interrupted by a window or entry. For large-format retail buildings, see additional guidelines related to Mixed-Use/Retail Buildings along Pedestrian Retail Streets.

Design buildings to face the street and reinforce the overall circulation framework of the area, without large parking lots separating the public realm from the building. Use special design features to accent corners, as well as planting and lighting to unify and soften street corners.

(Above) Design residential buildings to provide open space that is usable and visually attractive for both residents and the public
(Right) Provide entries from residential units directly to the street wherever feasible, with plantings and raised terraces to provide privacy and amenity for both residents and the public.

Building Design Guidelines for Specific Building Types

In addition to the general building design guidelines that apply for all buildings, additional guidelines apply to specific building types.

Residential Buildings

Residential Building Goal

RB-G1 Ensure that residential buildings contribute activity to public streets and open spaces.

RB-G2 Ensure that residential buildings provide privacy for residents.

Residential Building Guidelines

RB-UDG1 Provide entries to residential buildings that are accessed directly from the street or public open spaces.

RB-UDG2 For residential development, design ground-floor units to have a direct relationship with the street and pedestrian realm.

RB-UDG3 On non-retail streets, maintain a minimum setback of 10 feet from the sidewalk or a raised ground floor height of three to five feet to ensure residential privacy.

RB-UDG4 Use balconies, stoops, windows, and courtyards to provide architectural interest.

RB-UDG5 Employ variation in scale and form for residential development, allowing for both pedestrian-scaled and larger-scaled massing.

RB-UDG6 For residential development facing onto local residential streets or public open space, use lower-scale residential forms such as townhomes up to three stories in height at the street. Buildings should step back to add an additional story.

Mixed-Use/Retail Buildings along Pedestrian Retail Streets

Also refer to the Toolkit for Mixed-use Development in Sunnyvale for mixed-use goals and policies.

Mixed-use/Retail Buildings Goal

MU-G1 Ensure that buildings contribute to the character of public pedestrian areas and support a successful retail environment.

Mixed-use/Retail Buildings Guidelines

MU-UDG1 Orient building entrances to the street and space no more than 50 feet apart.

MU-UDG2 Clearly address the public realm by providing glazing on at least 70 percent of the ground floor retail façade facing the street or public space.

MU-UDG3 Utilize architectural elements such as recesses, awnings, colonnades, and pronounced entrances.

MU-UDG4 Where entries orient to parking areas, provide continuous sidewalks from the street directly to the doorway.

MU-UDG5 If large-format, or "big-box," retail (over 25,000 square feet in gross building area) is developed along pedestrian retail streets, design buildings to support the pedestrian environment as follows:

- Locate and orient building along primary street edges and provide fenestration (windows, glass storefronts, and openings), signage, and entries.
- Fenestration and/or entries shall occupy a minimum of 30 percent of the façade with 50% fenestration being the goal.
- Place smaller retail spaces along the street side of large format retail buildings, thereby breaking down the massing of the building and creating a more pedestrian-friendly environment

(Top) Articulate building masses to clearly define entries and different functional areas. (Bottom) Provide continuous active ground-floor uses with a strong orientation to the sidewalk along pedestrian retail streets.

BUILDING MATERIALS

Building Materials Goal:

BM-G1 Encourage variety in building materials to create a visually interesting environment.

BM-G2 Use building materials to define the functional levels of a building and its relationship to the public realm (particularly at the street level).

BM-G3 Ensure that materials avoid excessive monumentality or a monolithic character.

BM-G4 Ensure that materials fit with the character and context of the existing development.

BM-G5 Prioritize sustainability as a key consideration.

Building Materials Guidelines

BM-UDG1 Use high-quality, durable architectural materials and finishes that provide a sense of permanence.

BM-UDG2 Use materials that express their true properties; faux reproductions of stone, for example, are discouraged.

BM-UDG3 Give preference to sustainable materials, buildings systems, and technologies.

BM-UDG4 Use materials that improve building envelope performance through insulation values and thermal mass.

BM-UDG5 Avoid highly reflective surfaces and materials that can cause heat or glare for pedestrians.

BM-UDG6 Avoid dark materials that absorb heat and reduce solar reflectivity.

BM-UDG7 Use glazing that is as clear and non-reflective as possible in order to provide transparency and visibility while meeting energy and daylighting performance requirements.

BM-UDG9 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 along all pedestrian corridors.

BM-UDG10 Employ color to differentiate between building elements and to moderate the scale of buildings.

Differentiate the levels of a building particularly at the ground floor, through the use of design elements and materials. Clear, non-reflective glazing contributes visual activity to the public realm and an improved sense of security at night.

OPEN SPACE AND LANDSCAPE

Well-landscaped, publicly-accessible open space is an essential ingredient of any urban environment for both passive and active recreation purposes. Appropriate landscaping also provides visual interest and beautification, helps mitigate heat island effects, and provides a means to satisfy storm water management mandates.

Today the Plan area has no publicly-accessible open space and few areas of attractive landscape that are consistent with current sustainability goals. Therefore, new development on parcels throughout the area will be required to provide landscaped open space for public use.

Open Space and Landscape Goal

OS-G1 Ensure that open space provided by new development is publicly accessible and attractive.

OS-G2 Design open spaces to prioritize sustainability, including incorporation of stormwater Best Management Practices (BMPs).

Open Space and Landscape Improvement Guidelines

OS-UDG1 For all blocks in redeveloped areas, provide a minimum of 20 percent of the land area for usable public open space, 10 percent of which shall be visible and accessible from the street or other public way.

OS-UDG2 Open space acreages may vary by block as block sizes vary. Open space from one block may be combined with open space required for an adjacent block in order to create a larger single open space area.

OS-UDG3 A portion of the open space may be utilized for outdoor dining and building entrances.

OS-UDG4 Up to 25 percent of required open space may be covered by the building above. For sites smaller than 15,000 square feet, if the overhead height of the building is 18 feet or higher, 100 percent of open space may be covered by the building.

OS-UDG5 Pedestrian rights-of-way can contribute to the public open space provisions.

OS-UDG6 The cross-section dimension of a plaza, courtyard, or mid-block pedestrian connection should be a minimum of 20 feet.

OS-UDG7 Do not exceed a grade differential greater than four feet between an open space or plaza area and the adjacent sidewalk grade.

OS-UDG8 Include public art as part of open space improvements, per the requirements of relevant Sunnyvale public art ordinances.

OS-UDG9 For residential uses, provide private and semi-private open space in accordance with the Sunnyvale Zoning Code.

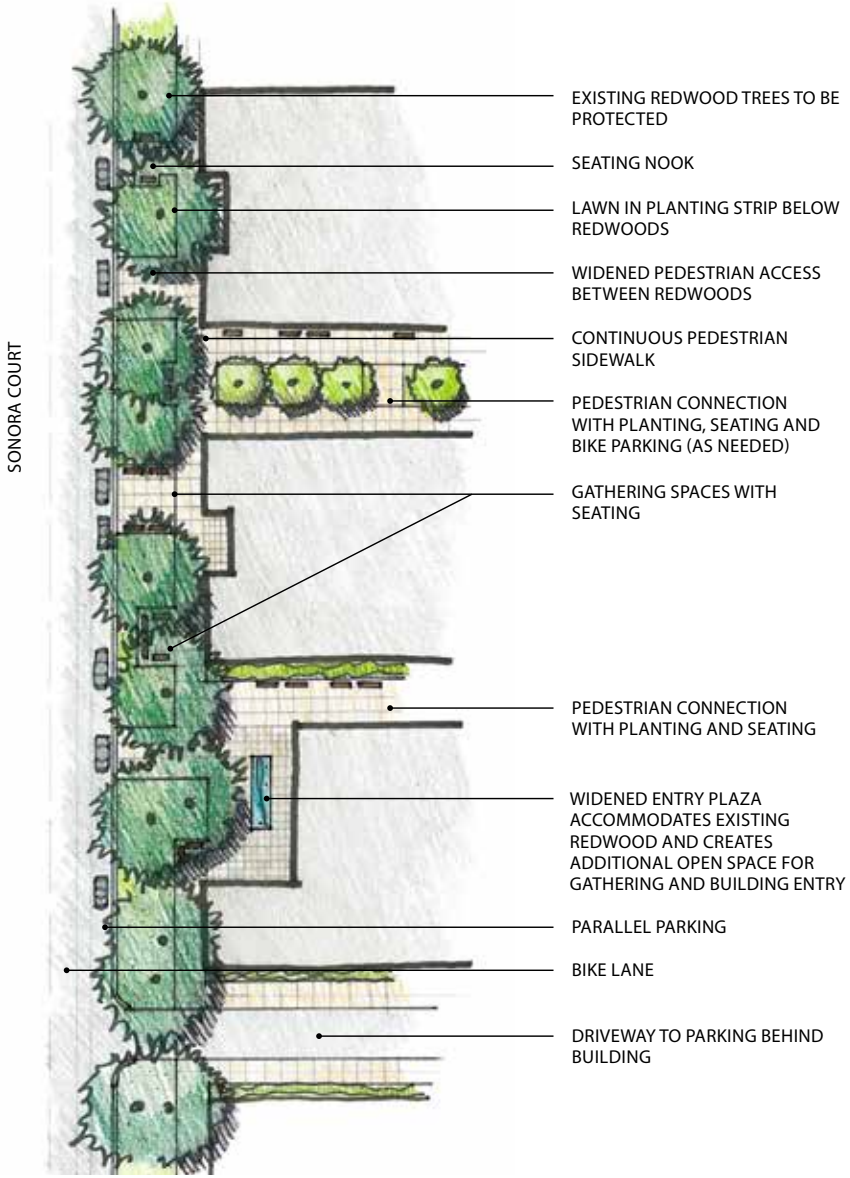
OS-UDG10 Use water pervious surface materials for parking areas, driveways and pathways to the extent that they do not cause damage to public streets or other infrastructure.

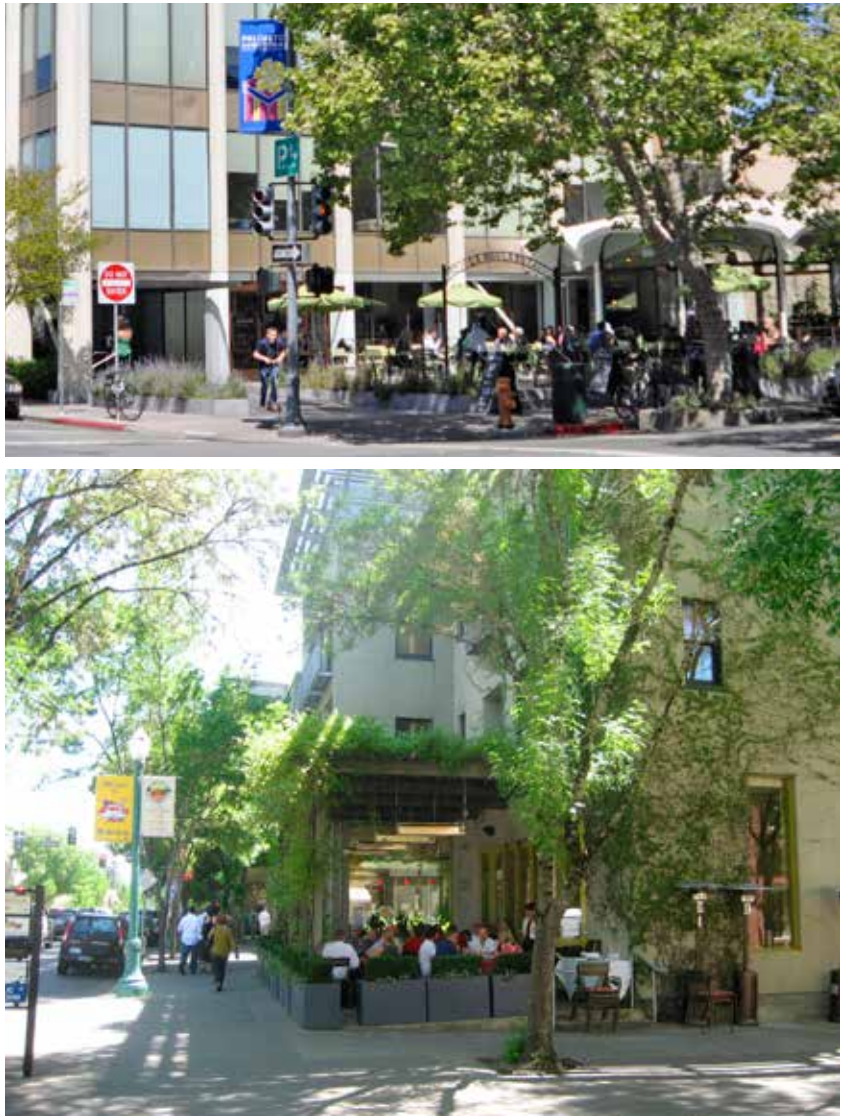
OS-UDG11 Use sustainable surface materials for paving, such as reclaimed pavers, locally produced materials, or concrete and asphalt with fly ash content.

OS-UDG12 Include sustainable landscape design strategies, materials and finishes.

OS-UDG13 If recycled water is available in the Lawrence Station Plan area, use salt tolerant planting to maximize use of this water resource. Avoid its use on salt-sensitive plantings to remain, such as the Redwood trees on Sonora Court.

Figure 6.3: Conceptual Illustration of Potential Sonora Court Pedestrian Improvements





Well-designed small pedestrian spaces, mini parks and plazas with seating, planting and lighting provide popular public space in the urban environment.

PARKING

As the Plan area evolves over time, densities will increase and it will become feasible to provide parking in structures or underground rather than at ground level in surface lots. This will have the benefit of minimizing the footprint of surface parking, which currently dominates existing development north of the Caltrain tracks. It will also free up additional land for new building development, open space and landscape improvements.

General Parking Goal

PK-G1 Minimize the footprint of parking in the Plan area and ensure that parking facilities, whether in structures, underground, or in surface lots, are well-designed, functional, attractive, and fit well into their surrounding context.

General Parking Guidelines

PK-UDG1 In order to minimize pedestrian/vehicle conflicts and optimize street operation, minimize curb cuts as follows:

- Share access drives and access easements to parking facilities
- Share parking among uses, such as residential and office, as well as between developments, and within entire subareas.
- In particular, minimize the number of vehicular access points (curb cuts) from the following streets: The Loop, Willow Avenue (South of Aster), Aster Avenue, and Sonora Court.

PK-UDG2 No curb cuts shall be allowed along the following pedestrian priority streets, unless no other access is feasible:

- San Ysidro Way Extension (Retail Street)
- Willow Avenue (north of Aster)

PK-UDG3 Arrange development in a configuration such that parking is internally-focused with the minimum number of access lanes necessary.

PK-UDG4 Provide bicycle parking stalls per the Zoning Code.

PK-UDG5 Ensure that bicycle parking is secure and weather-protected.

PK-UDG6 Provide car-sharing spaces, electric vehicle charging stations, compact parking spaces and disabled parking spaces per the Sunnyvale Zoning Code.

Surface Parking Lot Guidelines

PK-UDG7 Locate surface parking lots away from street edges behind buildings and provide decorative, landscaped, or other screening.

PK-UDG8 No surface parking lots shall be allowed along the following pedestrian priority streets:

- San Ysidro Way Extension (Retail Street)
- Willow Avenue (north of Aster)

PK-UDG9 Landscape perimeter setback areas around parking lots with a mix of trees, shrubs and ground cover.

PK-UDG10 Provide a ratio of one tree per three (3) parking spaces on the perimeter of the lot and one tree per six (6) parking spaces on the interior of the lot. Ensure trees are equally spaced to maximize shade cover over the entire parking lot.

PK-UDG11 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.

Parking Structure Guidelines

PK-UDG12 Design parking structure access lanes to have the character of an attractive, well-landscaped small urban street.

PK-UDG13 Locate parking structures away from primary pedestrian corridors.

PK-UDG14 Active ground floor uses (retail, restaurants) are required along the street frontage for all parking structures that are located along the following pedestrian priority streets:

- San Ysidro Way Extension
- Willow Avenue (north of Aster)

PK-UDG15 Direct vehicular access lanes to parking structures (driveways and curb cuts) are not allowed along the following pedestrian priority streets:

- San Ysidro Way Extension
- Willow Avenue (north of Aster)

PK-UDG16 Design parking structures that face the street so that façades are attractive, cars are screened, and sloped floors are not exposed.

PK-UDG17 Create visual interest and reduce the mass of parking structures through the use of:

- Variation in the dimension and proportion of openings of the façade.
- Decorative screens, railings, and trellis elements of durable, high-quality materials.
- Materials and designs that are similar to surrounding buildings on site.
- Awnings, arcades, trellises, or porticos along street-facing façades and pedestrian connections.

PK-UDG18 Locate and design pedestrian entries and stairwells for parking structures:

- As identifying architectural elements.
- Adjacent to public streets and along major pedestrian connections.
- To ensure that they are visually open and free of visual obstruction to promote a feeling of security and comfort.
- To minimize conflicts between pedestrians, bicycles, and vehicles.

PK-UDG19 For lower density residential development, such as row houses or townhouses:

- Multiple at-grade garage doors, aligned in a row, shall not directly face the street.
- Arrange at-grade garages around well-landscaped parking lanes and/or parking courts leading to individual garages.
- Provide parking access lanes and driveways at spacing along the street of not less than 100 feet.
- Where parking lanes or courts are visible from the street, planter beds with trees or potted plants should be located between garage doors.
- Create shared, unallocated parking spaces, such as carports, in order to maximize site area for new building development and open space.

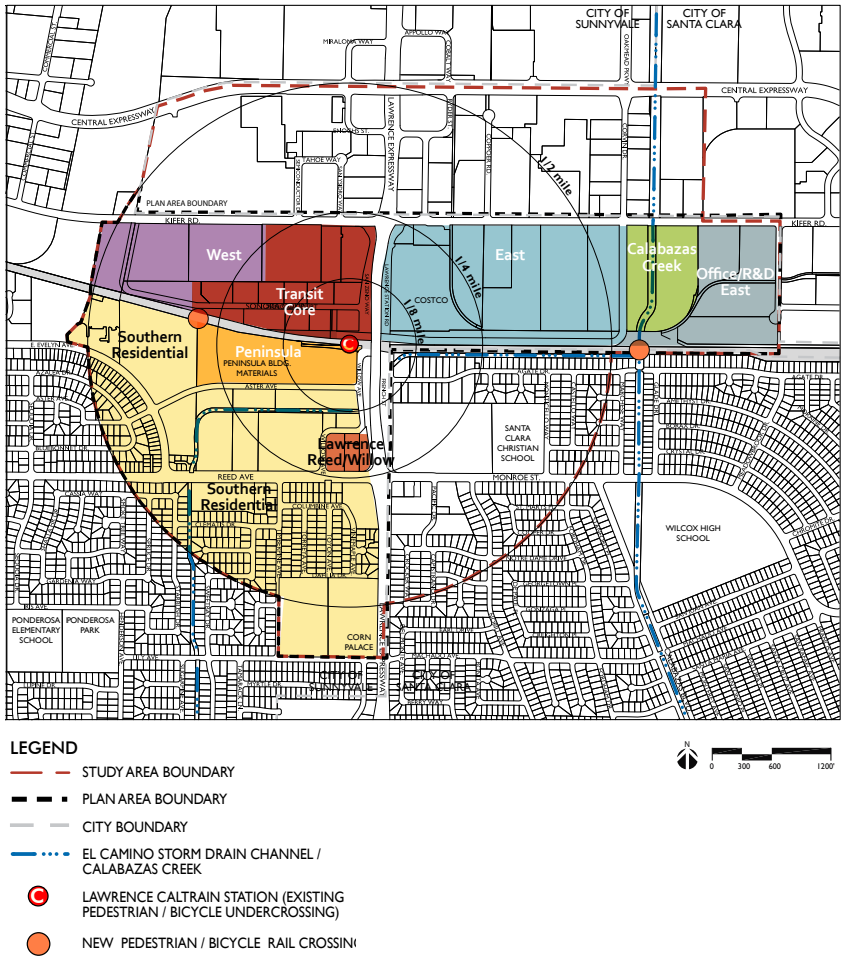
SPECIFIC GUIDELINES FOR URBAN DESIGN SUBAREAS

Within the overall Plan area in Sunnyvale, eight subareas have been identified that generally correspond to the Land Use Plan described in Chapter 3 and illustrated in Figure 3.2. Because of their locational and site characteristics, it is envisioned that each of these subareas will have a somewhat different physical character. Therefore, in addition to the general guidelines described above, which apply to site planning, building design, open space and parking throughout the entire Plan area, specific design guidelines for the development of each of these subareas are needed.

For purposes of these guidelines, these specific subareas are illustrated in Figure 6.4 . The eight subareas include the following:

- Transit Core
- Peninsula
- West
- East
- Calabazas Creek
- Office/R&D East
- Southern Residential
- Lawrence/Reed/Willow

Figure 6.4: Zones



The Lawrence Station Area Plan is structured such that change will not occur uniformly throughout the overall Plan area. Some areas will be encouraged to redevelop with a diversity of uses and at higher densities than exist today. These are referred to as High Change Subareas. Other areas will experience varying degrees of change over time horizon of this Plan. These are referred to as Moderate Change Subareas and Low Change Subareas.

HIGH CHANGE SUBAREAS

The two subareas in closest proximity to the station are where the greatest degree of change will likely occur. The two include:

- Transit Core. The Transit Core subarea is defined as the area north of and immediately adjoining the station, west of Lawrence Expressway. This area includes Sonora Court. Its location near the Caltrain station offers opportunities for increased development to more transit supportive uses.
- Peninsula. Located immediately south of the station, this property is an industrial site that is not well-suited to its location adjoining a commuter rail transit facility. Over time, this site offers opportunities to be converted to higher intensity residential uses with local serving retail services.

MODERATE CHANGE SUBAREAS

Four subareas north of the tracks offer strong opportunities for change in land use and intensity, but such change will likely be more moderate due to their distance from Lawrence Station and some of the current businesses that operate in the area:

- West. This subarea lies between Kifer Road and the Caltrain tracks to the west of the Transit Core. The West Subarea currently includes several properties owned by Intuitive Surgical, which is likely to continue these uses indefinitely.
- East. This large subarea lies between Kifer Road and the Caltrain tracks to the east of the Lawrence Expressway. The East Subarea includes the Costco site, Intuitive Surgical properties and other office/R&D uses. Major land use change is not expected in this subarea in the short term, but, like the West subarea, there may be opportunities for transitions to more transit-supportive uses and densities in selected areas as well as selected circulation and access improvements.
- Calabazas Creek. The Calabazas Creek Subarea is located between Kifer Road on the north, the Caltrain tracks on the south, the rail spur on the east and a new segment of The Loop on the west. Linear park improvements to the Calabazas Creek drainage channel as well as completion of The Loop roadway will help stimulate development in this subarea.
- Office/R&D East. The Office/R&D East Subarea is located at the extreme eastern end of the Plan area, between Kifer Road on the north, the Caltrain tracks on the south, the rail spur on the west and the City of Santa Clara boundary on the east. It is surrounded on three sides by the City of Santa Clara, and therefore integration with the land use patterns and circulation systems in that city is appropriate. The Office/R&D East Subarea includes a city-owned property and other industrial uses.

LOW CHANGE SUBAREAS

Areas south of the tracks, which include, or are in proximity to, existing residential neighborhoods, will experience very little change:

- Southern Residential. The Southern Residential Subarea includes all of the existing built residential areas south of the Caltrain tracks. This subarea will not experience any change in land use or density under the policies and guidelines of this Plan.
- Lawrence/Reed/Willow. This small southerly set of parcels, located at the northwest corner of Reed Avenue and the Lawrence Expressway, bounded by Willow Avenue on the west and north, is currently a mix of retail and service uses. The Plan allows increases in density in this small area, but it does not allow a significant change in use.

Following is a discussion of urban design guidelines related to each of the Urban Design Subareas.

TRANSIT CORE

With its location directly adjacent the station, this Transit Core Subarea will be one of the most active and diverse subareas in the Plan area (see Figure 6.5). The focus of the subarea will be the southern extension of San Ysidro Way, which will be the primary retail street in the entire Plan area, terminating in a transit plaza at Lawrence Station. Vertical mixed-use development is encouraged along San Ysidro Way Extension. Active ground floor uses (preferably retail, restaurant and entertainment uses), will be required along a large percentage of the ground floor frontage along the street in order to ensure it promotes a walkable, pedestrian-friendly street that provides

goods and services to surrounding neighborhoods and pleasant access to Lawrence Station.

The form of future development of this area will be crucial to improving connectivity to the station for all modes, particularly pedestrians and bicyclists. The Transit Core also has the landmark Redwood trees which line Sonora Court, making improvements to this area an opportunity to create a unique, character-defining environment while also protecting this unique resource.

The accompanying illustrative development diagram (Figure 6.6) shows a potential framework for development of the Transit Core subarea. Figure 6.7 is a conceptual plan of potential future development.

Transit Core Subarea Guidelines

TC-UDG1 On blocks facing the new retail street (San Ysidro Way Extension), devote a minimum of 70% of the ground level uses to retail.

TC-UDG2 Locate primary building entries to upper floors (residential and office/R&D) facing the street.

TC-UDG3 Design Sonora Court to be a special street with a strong open space/landscaped character incorporating the existing mature Redwood trees. See also Streetscape Guidelines.

TC-UDG4 For development directly adjoining the Lawrence Station and Caltrain tracks on the south side of Sonora Court, incorporate landscape and building design measures to mitigate the negative effects of noise and vibration.

TC-UDG5 Design the major transit plaza at the Caltrain station as a visual focus for the area.

TC-UDG6 Develop a major public open space in the Transit Core subarea to serve as a focal point for the neighborhood. Orient adjoining development toward this open space (unless they are oriented to San Ysidro Way Extension) and provide entries and other uses that will provide pedestrian activity.

Figure 6.5: Transit Core Subarea Location

Figure 6.6: Transit Core Conceptual Plan Diagram

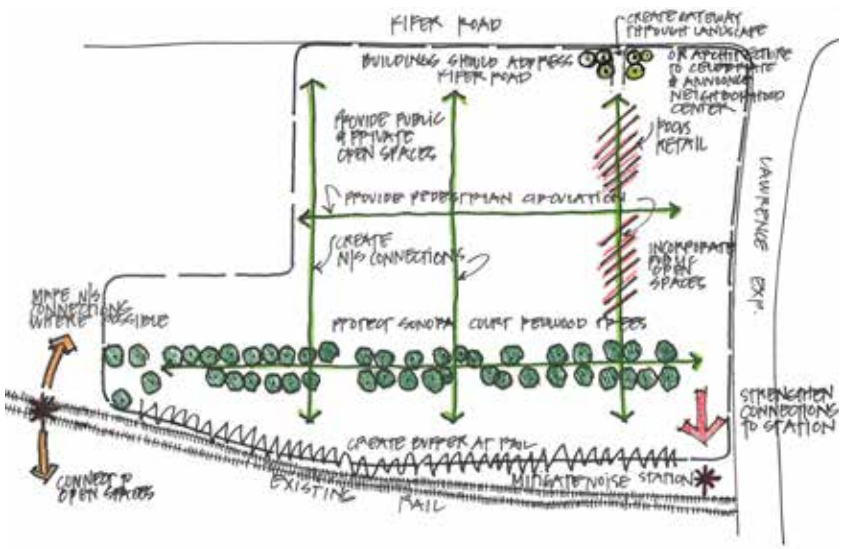
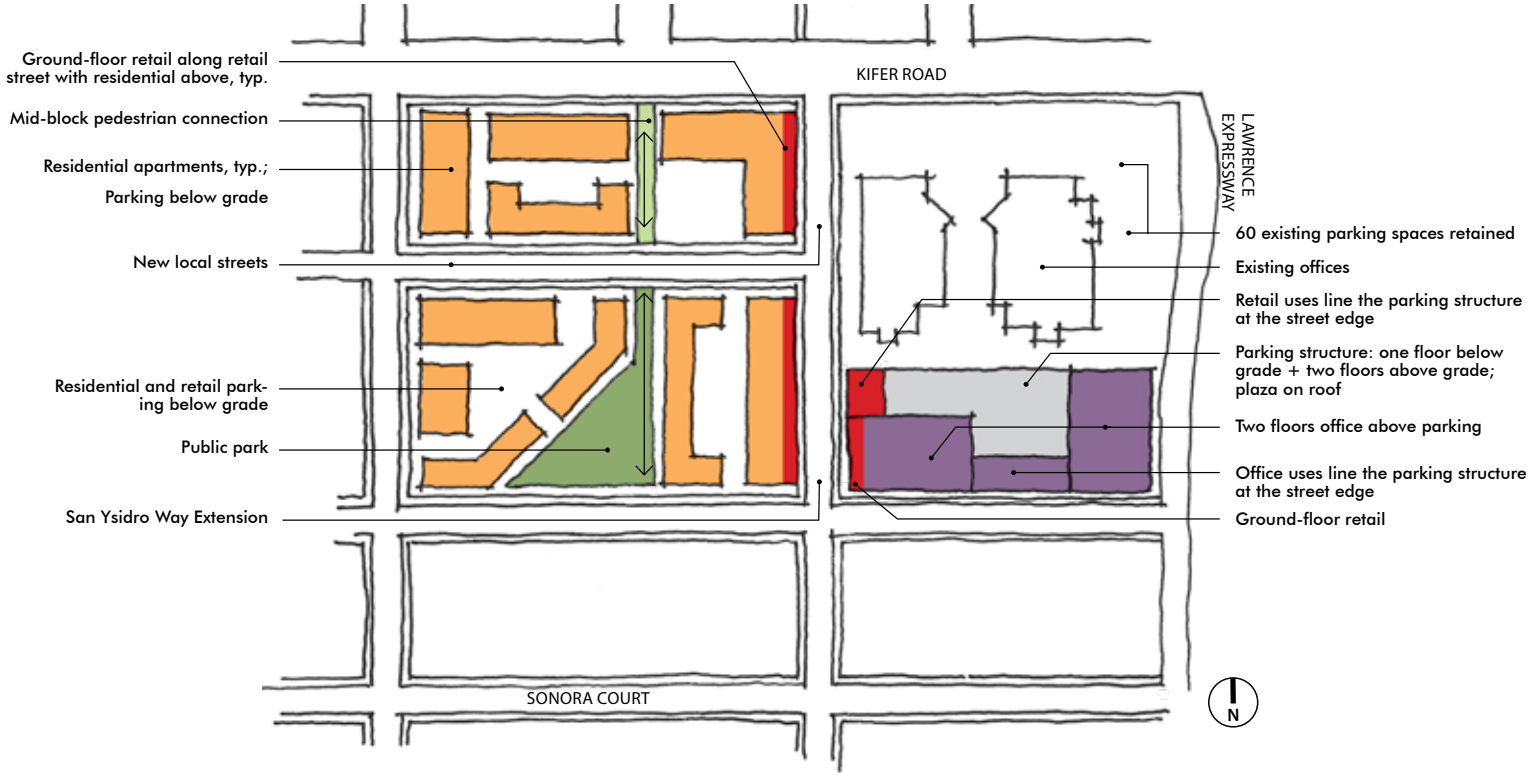


Figure 6.7: Transit Core Illustrative Concept Plan

Figure 6.8: Transit Core Conceptual Land Use Study



PENINSULA

The Peninsula Subarea shown in Figure 6.9, is currently devoted entirely to the Peninsula Building Materials and Calstone operations. It is envisioned that most of this urban design subarea will be devoted primarily to residential uses with open space and a small amount of support retail and office/R&D uses.

Like the Transit Core Subarea, with its location directly adjacent to Lawrence Station, the Peninsula Subarea will be one of the most important development subareas in the Plan area. However, since the subarea is directly adjacent to existing low/medium density, low-scale residential uses on the south and west, care in placement of land uses as well as the design of site and building improvements will be important considerations. Figure 6.10 shows a site diagram of development considerations.

Peninsula Subarea Goal

PS-G1 Ensure new development is compatible with the existing surrounding neighborhood.

Peninsula Subarea Guidelines

PS-UDG1 Incorporate pedestrian access lanes, on a spacing similar to the townhouses across Aster, in order to provide convenient pedestrian movement through the subarea.

PS-UDG2 Locate tallest buildings and highest densities along the train tracks, transitioning to lower scale buildings to the south and west, where they adjoin or face nearby apartments and townhouses.

PS-UDG3 For buildings adjacent to the tracks, incorporate landscape and building design measures to mitigate the negative effects of noise and vibration from train operations.

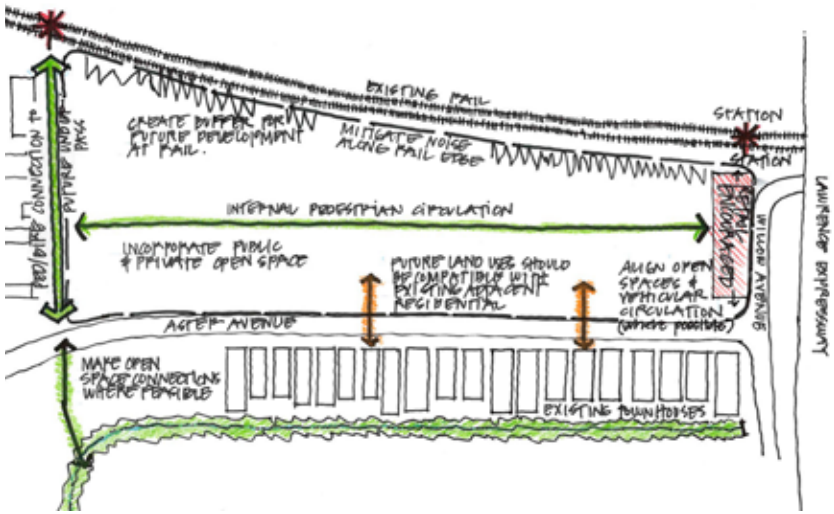
PS-UDG4 Expand the existing drop-off area adjoining Lawrence Station into a larger public plaza.

PS-UDG5 Concentrate small-scale retail uses, providing coffee, sandwiches or other services, at the eastern end of the subarea along Willow Avenue and around the expanded station plaza in order to serve residents as well as train passengers.

PS-UDG6 Locate public open space to be directly visible and accessible from Aster Avenue as well as from the west boundary pedestrian/bicycle linkage.

Figure 6.9: Peninsula Subarea Key Map

Figure 6.10: Peninsula Subarea Conceptual Site Diagram



WEST

West is envisioned as a Flexible Mixed Use area, suitable for both employment and residential uses. It is not envisioned as a retail location. A critical new segment of The Loop will traverse the subarea.

West Subarea Goal

WS-G1 TBD

West Subarea Guidelines

WS-UDG1 Provide a new pedestrian/bicycle linkage connecting between The Loop and the new pedestrian/ bicycle undercrossing of the tracks.

WS-UDG2 Provide multiple bike/pedestrian opportunities to tie Kifer Road to Sonora Court and accessibility to the station.

WS-UDG3 For buildings adjacent to the tracks, incorporate landscape and building design measures to mitigate the negative effects of noise and vibration from train operations.

EAST

The East Subarea has no residential adjacency constraints. Therefore, in the long term, this subarea is envisioned as a Flexible Mixed Use area, suitable for both employment and residential uses at relatively high densities. It is not envisioned as a long-term retail location although it is likely that Costco will remain in this location for many years.

The lack of north/south connectivity through this subarea is a significant impediment to improving access to the station. Improvements to provide pedestrian, bicycle and motor vehicle routes are needed. A critical new segment of The Loop will traverse the subarea paralleling the Caltrain tracks.

East Subarea Goal

ES-G1 TBD

East Subarea Guidelines

ES-UDG1 For buildings adjacent to the tracks, incorporate landscape and building design measures to mitigate the negative effects of noise and vibration from train operations.

ES-UDG2 Incorporate bike/pedestrian opportunities to tie properties north of Kifer Road to the station.

Figure 6.11: West Subarea Location

Figure 6.12: East Subarea Location

CALABAZAS CREEK

The Calabazas Creek subarea is located at the outside limit of the ½-mile distance to the Lawrence Station, the distance that is normally considered an appropriate walking distance to a rail passenger station.

Calabazas Creek flows north through the center of the subarea. The Creek is currently fenced, engineered with a trapezoidal concrete channel and serves as a drainage facility for the Santa Clara Valley Water District. It is currently inaccessible to the general public. However, long-standing plans envision Calabazas as an attractive linear park and multi-use trail facility in the future. Therefore, the Creek has strong potential to become a form-giving design amenity for all development in this subarea. The design of future site and building improvements in this subarea will therefore need to further enhance the linear park improvements.

As Figure 3.2: Land Use Plan illustrates, land uses in the Calabazas Creek Subarea differ from one side of the Creek to another. West of Calabazas Creek is envisioned as a Flexible Mixed Use area, suitable for both employment and residential uses at relatively high densities. East of Calabazas Creek, land uses are planned to be Office/R&D with no residential uses. The entire subarea is not envisioned as a long-term retail location.

Calabazas Creek Subarea Goal

CCS-G1 Capitalize on Calabazas Creek and the future linear park as a primary form-giving feature of development. Ensure new development enhances the Creek corridor and provides public access routes, activity, amenities, and an increased sense of security.

Calabazas Creek Subarea Guidelines

CCS-UDG1 Ensure new development along Calabazas Creek is compatible with future public access and park environment goals.

CCS-UDG2 Do not locate building service and parking areas facing the Creek or the Loop Road.

CCS-UDG3 Locate private open space in new development along the creekside property line to increase the perceived scale of the linear park.

CCS-UDG4 Set back new building development a minimum of 15 feet from the linear park property line.

CCS-UDG5 Limit building heights along the linear park setback to a maximum of three stories in order to be compatible with the pedestrian scale of the park and avoid shadows on usable public open spaces.

CCS-UDG6 Ensure that new development promotes a public feeling for the linear park.

CCS-UDG7 Provide visual indicators of the delineation between private parcel development and the public space of the linear park without the use of fences.

Figure 6.13: Calabazas Creek Subarea Location

OFFICE/R&D EAST

The Office/R&D East Subarea is furthest from the station and outside the customary ½-mile walk radius.

Due to its distance from the Caltrain Station and its adjacency to similar uses to the north and east, this long-standing industrial area is envisioned to remain as an exclusively employment area with no residential or retail uses. Nonetheless its long-term development can support transit ridership through improved bicycle and pedestrian circulation facilities and increased development intensities that are compatible with the adjacent land uses in Santa Clara. The subarea will, therefore, be allowed to transition over time to higher intensity Office/R&D uses.

Office/R&D East Subarea Goal

ORD-G1 Retain this subarea as an exclusively employment area with no residential or retail uses, while integrating it better with the land use patterns and circulation systems of the surrounding area. In particular, improve bicycle and pedestrian circulation facilities to allow easy connection to the Lawrence Station and other destinations.

SOUTHERN RESIDENTIAL

The Southern Residential Subarea currently comprises a large part of the Plan area south of the Caltrain tracks and west of the Lawrence Expressway. Uses in the area include single-family-detached and multi-family residential areas that are stable and attractive. Therefore, the Station Area Plan envisions very little change in this subarea. Emphasis will be on protecting and enhancing the character and quality of existing residential neighborhoods through pedestrian and bicycle enhancements in order to improve access throughout the neighborhood, across major streets, and to the Lawrence Station.

There are two primary development sites in the subarea: Corn Palace and the industrial operations at 1122-1134 Aster Avenue. Half of the Corn Palace site has a pending development plan for low-density residential development, while the other half is designated low-medium density residential. A publicly accessible open space should be provided with future development of this

Figure 6.14: Office/R&D East Subarea Location

Figure 6.15: Southern Residential Subarea Location

parcel. Should the industrial site south of Aster Avenue be redeveloped, it would be limited to medium-density residential, per the land use plan. Redevelopment is optional (not required) on this or any other parcel in the Plan area.

Southern Residential Subarea Goal

SR-G1 Protect and enhance the character and quality of the existing residential neighborhoods with an emphasis on pedestrian and bicycle enhancements and the provision of a new neighborhood-serving local park or open space.

LAWRENCE/REED/WILLOW

The Lawrence/Reed/Willow Subarea is currently devoted to a mix of small-scale retail and auto-oriented uses. As described in the Chapter 4 of this report, Santa Clara County is currently studying options for grade-separating the Lawrence Expressway adjacent to this subarea, either by elevating the roadway above grade or depressing the roadway below grade. Grade-separation of the Expressway will likely change the configuration at this intersection and may alter access patterns to this subarea.

This subarea is envisioned to remain as a mixed office/retail area catering mostly to local needs. No residential uses will be allowed in order to avoid potential future impacts on homes if grade-separation construction on the Lawrence Expressway is undertaken. Since this subarea is centrally-located among residential neighborhoods south of the Caltrain tracks and it is surrounded by important pedestrian corridors on three sides, new uses will be developed to enhance the pedestrian environment.

Lawrence/Reed/Willow Subarea Goal

LRW-G1 Redevelop this subarea with neighborhood-serving non-residential uses that are designed for easy access by pedestrians, bicyclists and transit.

Lawrence/Reed/Willow Subarea Guidelines

LRW-UDG1 Ensure that future development on the south side of Willow Avenue is scaled to be compatible with residential uses across the street.

LRW-UDG2 Place new buildings at the right-of-way line along Reed and Willow Avenues (no setback).

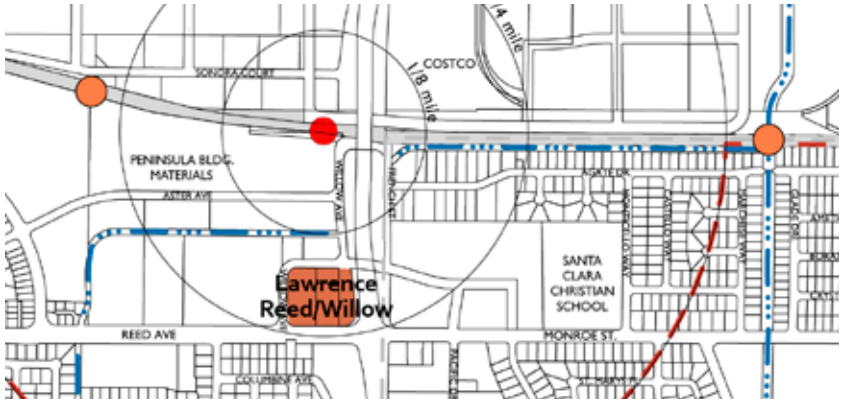
LRW-UDG3 Locate primary building entries to upper floors facing the street.

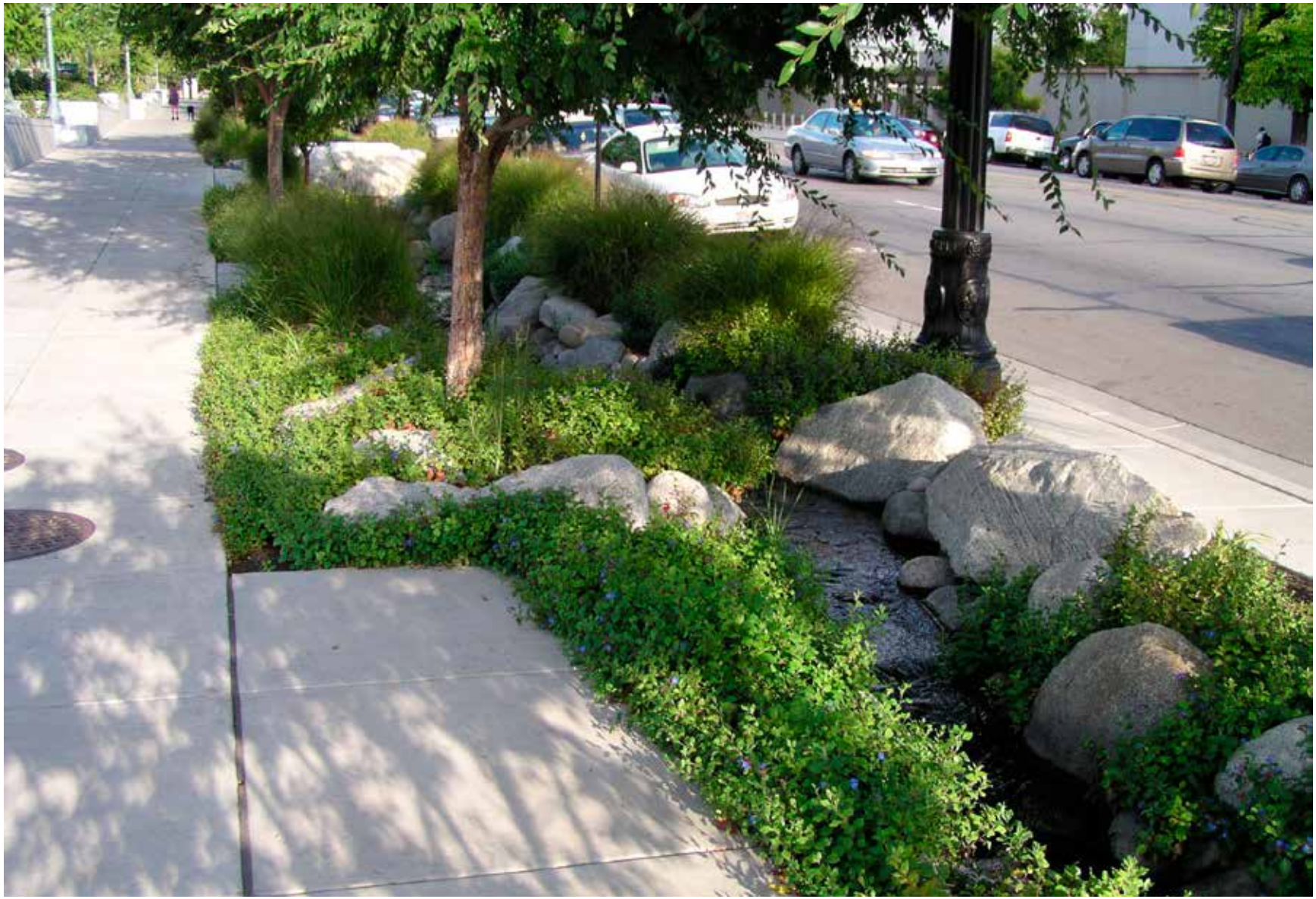
LRW-UDG4 Locate retail uses along Willow and Reed Avenues in conformance with General Site Planning Guidelines earlier in this chapter.

LRW-UDG5 Locate parking in this subarea as follows:

- Adjacent to the Lawrence Expressway
- Internal to the development and not visible from the street
- Below grade
- Allow on-street parking credit as described in Chapter 4: Circulation and Parking.

Figure 6.16: Lawrence/Reed/Willow Subarea Location





STREETSCAPE DESIGN GUIDELINES

INTRODUCTION

The street system in Sunnyvale provides the majority of the city's public space. It is the conduit through which most circulation passes, the place where a large amount of personal interaction and commerce occurs, a place of recreation, and the backdrop on which a memorable image of the city is created. While many people experience public parks and other open spaces occasionally, almost everyone experiences public streets daily. Creating a high quality street environment is, therefore, of benefit to the vast majority of Sunnyvale citizens and visitors.

These guidelines emphasize the quality of the street environment by focusing detail on the design of the streetscape – the area framed by building walls. The quality of public streets is thus dependent upon two things:

- Improvements within the public right-of-way.
- The character of improvements to properties that abut the public right-of-way, particularly the ground level of buildings. Where it is appropriate to influence building design to achieve the goals for the public environment, specific requirements have been established.

These Guidelines include requirements for both public and private decision-makers, working cooperatively to create safe, attractive and lively streets within the Plan area.

Existing conditions in the Plan area vary widely from street to street and parcel to parcel and new developments will vary depending on site conditions, market and financial conditions, and program requirements. Therefore, these guidelines must be tailored to the specific conditions of individual development areas.

The framework of streets, both existing and proposed, varies between the portions of the Plan area located north of the Caltrain tracks and those located south of the tracks. South of the tracks, a network of local, collector and arterial streets is well established and serves the existing neighborhoods well. These areas will be protected as currently developed, with only minor street improvements in selected areas in order to improve safety, enhance circulation by all modes and provide beautification. Therefore, the area south of the Caltrain tracks is not the primary focus of these Streetscape Design Guidelines, except in those areas where specific improvements are recommended.

North of the Caltrain tracks, the existing framework of public streets and pedestrian ways differs markedly from the south. Streets such as Kifer Road, San Zeno Way and Lawrence Station Road frame the area, but there are no public rights-of-way available which penetrate through the area in either a north-south or east-west direction (with the exception of a short, dead-end segment of Sonora Court). As Chapter 4 describes, new streets and public rights-of-way are needed to serve future development of the area and provide improved access to the station and other local destinations. These Streetscape Design Guidelines are therefore intended to supplement the proposed framework of future streets and public ways and provide guidance on the design and character of these new public rights-of-way.

Streetscape Goals

ST-G1 Create a coordinated street environment that is supportive of new development and strengthens connections to the Lawrence Station and other important neighborhood destinations.

ST-G2 Design and construct streets as Complete Streets: context-sensitive, safe, convenient and attractive for all modes of travel and users.

ST-G3 Create a pedestrian environment of streets and pathways that is:

- Interesting, with appealing things to see, touch, hear and smell that makes one's time in the area a positive experience and encourages return visits
- Attractive, with building and landscape improvements that create a beautiful setting in which people can walk, drive, shop, work, and live
- Safe, allowing people to feel comfortable and secure, whether alone or in a group, during the day, evening and night
- Successful, where walking becomes a primary means of local transportation, enhancing transit ridership and supporting a thriving neighborhood and retail climate.

ST-G4 Create a Streetscape Master Plan that defines a hierarchy of street spaces and places and relates to the varying functional roles of the Plan area streets.

The following guidelines provide both broad and detailed objectives for achieving these goals. Many elements of streetscape design should be consistent throughout the Plan area, while other elements may be more appropriate to particular street types or location. Therefore, these Guidelines contain two parts

- General guidelines that apply to all streets in the Plan area.
- Guidelines that apply to specific streets or specific situations, both existing and new, in the Plan area.

GENERAL DESIGN GUIDELINES FOR NEW AND RENOVATED STREETS

Implementation of the following guidelines must take into account the cost and difficulty of disrupting existing conditions. Therefore the guidelines are not rigid requirements. The idea is to adapt to existing conditions wherever necessary while ensuring the design intent and goals are achieved.

Sidewalk Extensions (Bulbouts)

As described in Chapter 4, bulbouts will be provided throughout the Plan area. In general, they are only feasible on streets with on-street parking, because the bulbout extends into the parking lane, thereby widening the sidewalk. Therefore, their location must be carefully considered in order to minimize parking losses in areas where parking supply is critical.

In the Plan area, there are three types of bulbouts:

- Corner Bulbouts. This is particularly important at unsignalized and wide (multi-lane) intersections that carry large volumes of traffic. At signalized intersections, bulbouts have an added benefit of allowing slightly shorter signal cycle timing, thereby potentially improving traffic flow.
- Transit Bulbouts (Transit Mini-Plazas) are typically located at corners with bus stop locations. They are longer to accommodate the length of a bus. Because of their larger size, they provide additional space for passenger queuing, shelters, seating and other transit-related amenities.
- Amenity Bulbouts can be placed in any location where additional sidewalk space is desired. They provide opportunities for seating, planting, outdoor dining, furnishings and other amenities. They also provide opportunities for mid-block street crossings where appropriate. Their length depends on location.

Sidewalk Extensions (Bulbouts) Guidelines

SE-UDG1 Minimize impacts on existing drainage systems, transit turning requirements, parking lanes and rights-of-way, existing trees and pedestrian paths of travel when locating and installing sidewalk extensions.

SE-UDG2 To the extent possible, accommodate subsurface utilities, including existing drainage facilities in the design and construction of curb extensions.

Sidewalk Paving

Sidewalk Paving Goal

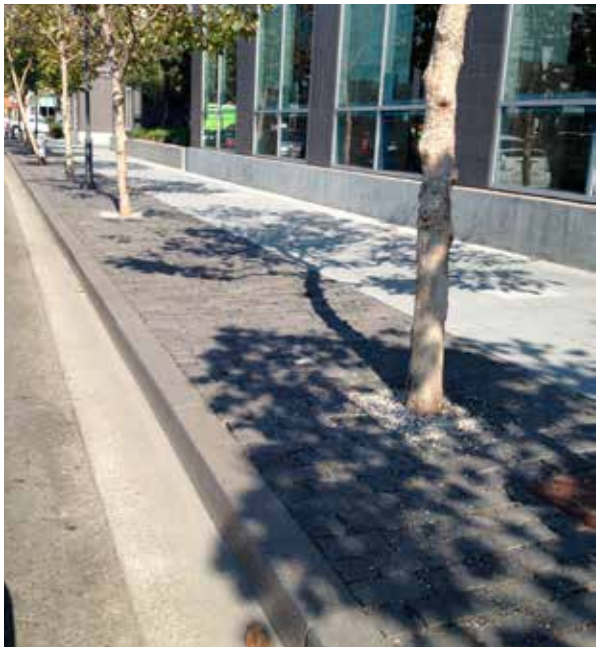
SW-G1 To provide a permanent, durable, interconnected network of pedestrian walkways that is accessible to all users, easily maintained, and provides a generally consistent appearance throughout the Plan area. Allow variation in materials and design in special nodes, plazas and gathering points.

Sidewalk Paving Guidelines

SW-UDG1 In general, use natural concrete (without unique color additives) for all sidewalks, including areas where public sidewalks extend into the setback area of a parcel.

SW-UDG2 Avoid special coloring, stamp patterns and unusual scoring patterns, except at special locations, since matching of colors and patterns can be difficult when future maintenance or repairs are conducted

SW-UDG3 Use special paving materials, such as unit pavers made of brick, stone, or concrete, at special nodes, plaza areas and streets, within sidewalk extensions and other special pedestrian areas in order to differentiate them from the sidewalk and define a specific place.



Street Planting

Street Planting Goal

STP-G1 Enhance the urban forest in the Plan area in order to:

- Provide shade and shelter
- Mitigate adverse environmental conditions such as wind and pollution
- Add scale to both pedestrian and vehicular streets
- Enhance property values
- Provide wildlife habitat
- Manage stormwater
- Beautify the area.

Street Planting Guidelines

STP-UDG1 Plant street trees on all streets.

STP-UDG2 Locate street trees in the curb zone of the street (within 4-6 feet of the curb, depending upon sidewalk width) unless the width of the sidewalk and/or right-of-way prevents planting in that area. In such cases, locate street tree planting within the front setback of private parcels if possible.

STP-UDG3 Use medium-to-large canopy trees on large streets.

STP-UDG4 Use pedestrian-scaled, ornamental trees to define small-scaled pedestrian ways.

STP-UDG5 To the extent feasible, space street trees a distance no greater than 40 feet.

STP-UDG6 Protect existing street trees wherever possible throughout the Plan area, particularly in the southern residential neighborhoods, along Kifer Road and on Sonora Court.

STP-UDG7 Where tree removal is unavoidable, provide replacement trees.

STP-UDG8 Ensure new tree plantings are appropriate for an urban environment and meet the following minimum criteria:

- Drought tolerance
- Ease of maintenance

(Top) An attractive "complete street" with access for pedestrians, bicycles and motor vehicles. Street trees and ground covers planted between the curb and sidewalk provide an attractive pedestrian zone and separate pedestrians from vehicular traffic.
(Bottom) Large deciduous canopy trees give definition and character to a neighborhood and provide shade in summer and sun in winter.

- Non-invasive root system
- Adequate canopy height to allow clearance for service, emergency and transit vehicles.
- Open branching and leaf structure to allow visibility both to and from buildings, particularly in retail areas.
- Deciduous (in most cases) to allow summer shade and winter sun to reach the pedestrian areas of the street.
- High water table tolerance.
- Salt water tolerance to allow use of potential future recycled water systems.

STP-UDG9 For shrub and groundcover planting in planting strips and medians, follow the criteria above for street trees. In addition:

- Select and maintain planting not to exceed 24" in height
- Select and maintain plantings that will remain within the confines of the planting strip area.
- Provide means of crossing planting strips for motorists parked adjacent to the planting.

(Top) Bioswales along the street provide an attractive landscape with low water requirements while also assisting in drainage and stormwater management from paved surfaces.
(Bottom) Trees and shrubs can add scale, help soften edges, and beautify pedestrian streets.

A variety of streetscape improvements can be provided that are attractive, provide areas for stormwater management and minimize the need for irrigation.

Lighting

Lighting Goal

L-G1 Use lighting to create a nighttime environment that:

- Creates a sense of safety and security
- Is appealing and attractive
- Meets the functional needs for vehicular and pedestrian circulation
- Defines specific gateways streets, and subareas
- Enhances special areas, such as retail districts, parks, and natural features.

Lighting Guidelines

L-UDG1 As part of the Streetscape Master Plan, prepare a Lighting Master Plan for the Plan area. Include a lighting standard specific to the Plan area in order to create a unique district within the City.

L-UDG2 Consider Dark Sky goals and requirements in the preparation of the Lighting Master Plan and selection of luminaires during project design.

L-UDG3 Provide roadway illumination levels that are not excessive, yet adequate for safe vehicle operation at the design speed of the street.

L-UDG4 Utilize energy-efficient lighting, such as light-emitting diode (LED) bulbs.

L-UDG5 Use luminaires that provide white light, rather than yellow light, in primary pedestrian retail locations, including San Ysidro Way Extension, Willow Avenue north of Aster and in the Lawrence Station Plaza Area. White light, such as that provided by LED's, renders colors more naturally and attractively than that provided by high pressure sodium (HPS) and similar luminaires, thereby enhancing merchandizing and making the street feel more secure.

L-UDG6 Consider the use of luminaires that provide white light, on all streets and pedestrian ways in the Plan area.

L-UDG7 Use poles and fixtures that are attractive and complement the character of the street and building environment.

L-UDG8 Use pole heights that relate to the scale of the street and its users.

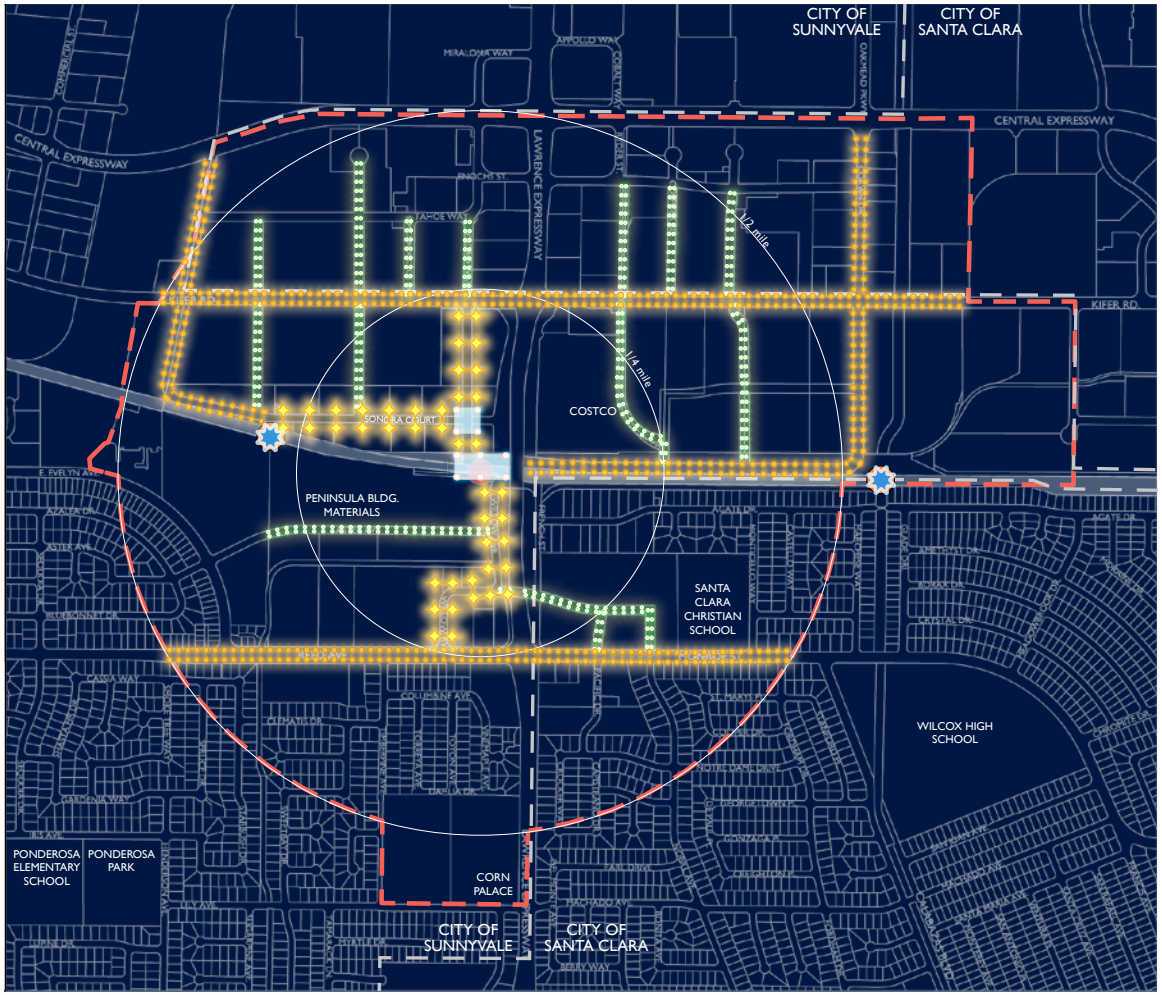
- Along pedestrian corridors and retail areas that are pedestrian in scale, mount luminaires on poles not exceeding 15 feet in height.
- On all other streets, mount luminaires on poles not exceeding 20 feet in height.

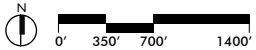
L-UDG9 In situations where light fixtures with a visible light source are desired, provide shielding or directionality to avoid glare into adjacent buildings.

Figure 6.17: Conceptual Lighting Diagram

LEGEND

- STUDY AREA BOUNDARY
- CITY BOUNDARY
- LAWRENCE CALTRAIN STATION (EXISTING PEDESTRIAN / BICYCLE UNDERCROSSING)
- NEW PEDESTRIAN / BICYCLE RAIL CROSSING
- PEDESTRIAN ORIENTED LIGHTING
- PLAZA LIGHTING
- BOULEVARD LIGHTING
- NEIGHBORHOOD STREET LIGHTING
- SAFETY LIGHTING AT UNDERPASS





The street lighting concept reinforces the character and function of the various street types and public spaces.

Street Furnishings

Street furnishings are the various elements that are placed along sidewalks and plazas and include:

- Seating
- Trash receptacles
- Consolidated newspaper racks
- Bicycle racks
- Tree grates
- Tree guards
- Bollards
- Planters
- Kiosks and flower stands
- Signage and wayfinding elements
- Transit shelters
- Parking meters
- Utility and service devices (e.g., traffic signal controls, mail boxes, fire hydrants, etc.).

Street Furnishing Goal

SF-G1 Provide well-designed furnishings along streets that are:

- Useful and comfortable for pedestrians
- Meet the functional needs of utilities and services
- Attractive
- Generally consistent throughout the Plan area.

Street Furnishings Guidelines

SF-UDG1 Generally, use street furnishings that are:

- Designed to convey a coordinated design expression between all of the furnishing elements in the Plan area.
- Readily available from established manufacturers to avoid expensive custom fabrication and ensure ease of replacement.
- Durable and easy to maintain.

SF-UDG2 Incorporate unique, specially-designed street furnishing elements to provide a unique character in special areas, such as gateways, nodes, pedestrian corridors and retail districts, and gathering places.

SF-UDG3 Design and/or finish utility and service devices to either visually recede or, as appropriate, match other furnishing items.

The following guidelines apply to specific street furnishing elements:

Seating

SF-UDG4 Install seating that is user-friendly, but does not encourage long term use and sleeping.

Trash Receptacles

SF-UDG5 Provide two trash receptacles at diagonally opposite corners of each intersection in areas with high pedestrian circulation.

SF-UDG6 Provide trash receptacles with recycling options.

Bicycle Racks and Lockers

SF-UDG7 In retail areas, provide three bicycle racks on each side of the street in each block.

SF-UDG8 Place bicycle racks in the curb zone such that locked bicycles do not obstruct the sidewalk pedestrian path of travel.

SF-UDG9 In places where a larger number of bicycle racks are needed, consider the use of an on-street parking space or creation of a sidewalk extension (amenity bulbout) for bicycle parking.

SF-UDG10 Monitor the use of bicycle rack use and adjust the location, quantity and type of bicycle racks, where warranted. This process should involve the local bicycling community.

SF-UDG11 Evaluate the adequacy of bicycle racks and bicycle lockers at the Lawrence Station plaza on each side of the tracks. Periodically adjust, as warranted.

Tree Grates and Guards

SF-UDG12 Provide tree grates for all new or transplanted trees that are located in paved pedestrian areas in order to increase the usable sidewalk area and protect the tree's roots.

SF-UDG13 Ensure all tree grates meet ADA accessibility standards.

SF-UDG14 City standards require 4 feet x 4 feet minimum dimensions, for tree grates. 5 feet x 5 feet is preferred if space allows.

SF-UDG15 Install tree guards on all new and transplanted trees in heavy pedestrian areas including the Transit Core and at the Caltrain Station plaza area in order to support and protect trees against vandalism and other damage.

SF-UDG16 Install tree guards that are strong and durable, appropriately sized to avoid damage to the tree as it reaches maturity and compatible with the design of the tree grate.

Bicycle parking located in the curb zone avoids the pedestrian path of travel.

Installed correctly, large tree grates provide increased sidewalk pedestrian space, a larger growing area, and additional water and air to tree roots.

Transit Shelters

SF-UDG17 To the extent feasible, provide transit shelters at all bus transit stops.

SF-UDG18 Shelters may be custom-designed or pre-manufactured products.

SF-UDG19 Shelter facilities may be incorporated into adjacent buildings.

SF-UDG20 Ensure transit shelter facilities are publicly-accessible 24 hours per day.

SF-UDG21 Include the following features in transit shelters:

- Shelter from wind and rain
- Seating
- Lighting, either from street sources or within the shelter
- Information related to areawide wayfinding, transit routes, scheduling and costs
- Transparent design to allow users be visible from the surrounding streets and feel secure
- Constructed and sited to minimize visual obstruction of adjacent businesses and residences
- ADA compliant, both in design and siting
- Compatible with the character of the street and surrounding built environment.

SF-UDG22 Coordinate with Santa Clara Valley Transportation Agency (VTA) on specific design requirements and location.

On-street Signage and Wayfinding

Today, wayfinding throughout the Plan area is exceedingly difficult. Even for longtime residents and employees of the area, it is not clear that the linkage to the Lawrence Station and other local destinations is close and easy. The new framework of streets and public rights of way will significantly help to facilitate connections for all travelers to the station. However, there will remain a need for a coherent and clear system of signage to direct pedestrians, bicyclists and motorists to the station and other important area destinations.

On-Street Signage and Wayfinding Goal

OSW-G1 Install a coordinated signage program that:

- Clearly and attractively directs people to Lawrence Station and other neighborhood destinations, services and amenities.
- Reinforces a sense of place with design elements that give the neighborhood a unique identity.

On-Street Signage and Wayfinding Guidelines

OSW-UDG1 As part of the Sense of Place plan to be completed per implementation of this Plan, create a Streetscape Master Plan, that includes a Signage and Wayfinding plan for the Plan area.

OSW-UDG2 Include the following features in the planning and installation of the signage and wayfinding system:

- Direct pedestrians, bicyclists and motorists to major area destinations, especially Lawrence Station.
- Promote transit use by indicating the location of bus and shuttle stops and system routing.
- Facilitate efficient traffic flow by directing drivers to destinations such as important roadways and parking facilities.
- Select typography, graphics, form, illumination and mounting to be compatible with the design of area street furnishings.
- Avoid visual clutter through the creation of efficient and clear signage that does not require a large amount of repetition.
- Consolidate information on a single pole, whenever feasible.
- Design directional signage in a consistent manner throughout the Plan area, regardless of the street type or land use.
- Design signage and wayfinding system to be appropriately-scaled to the various modes and speeds of travel.

OSW-UDG3 Coordinate with Santa Clara County, Caltrain and VTA on the design requirements of all public wayfinding systems.

Banners in Rights-of-Way

OSW-UDG4 To avoid visual clutter, limit the use of banners to retail areas and the Caltrain Station plaza areas in order to enhance the identity and visibility of these areas.

SG-51 To the extent feasible, integrate banner mounting systems into other necessary poles, such as those used for street lighting and signage.

Intersection Design (General Guidelines)

As the Lawrence Station Plan Area redevelops over time, modifications to several existing intersections will be required. Additionally, many new intersections will be created in locations where new streets are constructed. This section describes guidelines that apply to the renovation of existing intersections as well as the construction of new intersections in the Plan area. The guidelines that follow are conceptual in nature. Further traffic and civil engineering studies will be required prior to design and construction at specific locations.

General Intersection Design Goal

ID-G1 Enhance safety and convenience for all intersection users, particularly for pedestrians and bicyclists, in a manner that is compatible with the design character of the particular street and neighborhood.

General Intersection Design Guidelines

ID-UDG1 Provide highly visible crosswalks on all intersections in accordance with City standards.

ID-UDG2 Where feasible, provide maximum curb return radii of 15 feet in order to reduce pedestrian street crossing distance and slow turning traffic.

ID-UDG3 Wherever feasible, provide sidewalk extensions (bulbouts) with a 15-foot maximum curb return.

ID-UDG4 Where sidewalk extensions (bulbouts) are installed, install drainage improvements as needed in order to allow clear walkways. Alternatively, curb extensions may be built separate from the existing curb to continue drainage along the existing curb. Ensure such improvements are ADA compliant.

ID-UDG5 Provide lighting adequate for intersection safety as well as illumination of sidewalks.

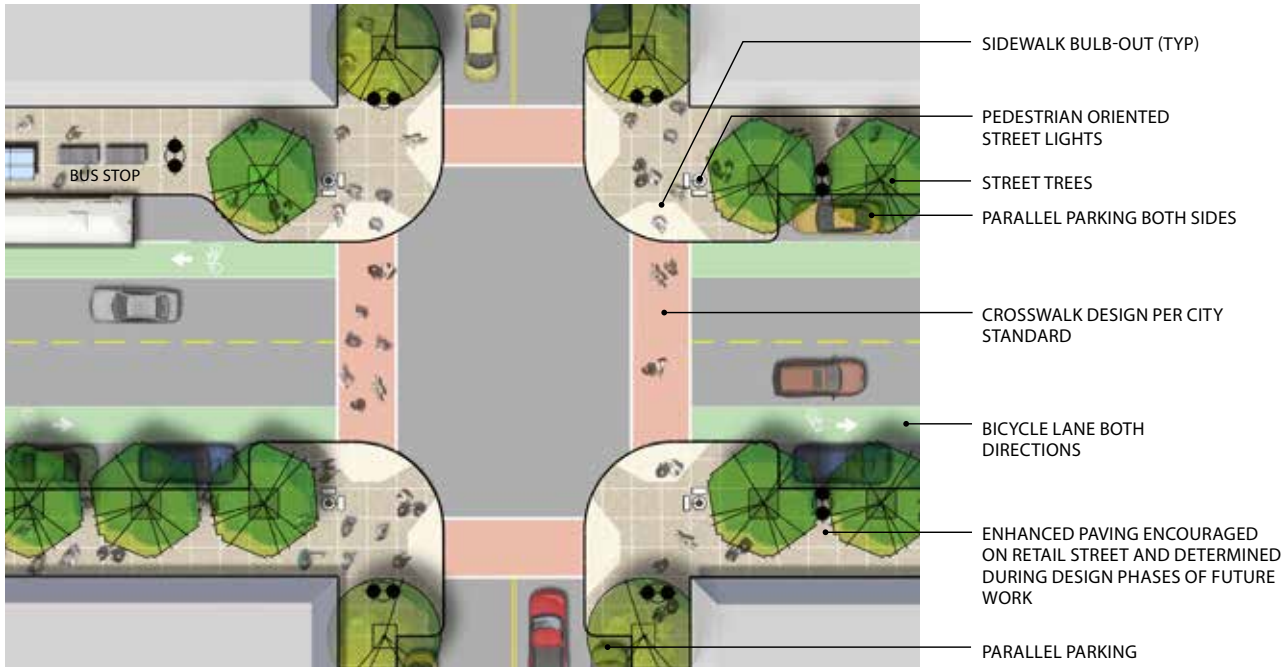
ID-UDG6 Stripe bicycle lanes, where designated, continuously to the stop bar.

ID-UDG7 At signalized intersections, provide:

- Pedestrian countdown signals to indicate how many seconds are available for pedestrians to cross and to signal motorists that they should anticipate and yield to pedestrians in the intersection.
- Pedestrian median refuges (where applicable) with pedestrian push buttons on noses of raised landscaped median.
- Visual and audible cues for pedestrians who are sight and hearing impaired.

ID-UDG8 Eliminate all "free-right" turns at intersections in the Plan area.

Figure 6.18: Typical Intersection



DESIGN GUIDELINES FOR SPECIFIC STREETS

The following guidelines are intended to provide more direction for specific streets that will play a particularly important functional role within the Plan area.

The Loop

The Loop Design Goal

TL-G1 The Loop will be a primary collector street, designed to convey the character of a richly-landscaped green boulevard, providing direct north-south and east-west connections to the Lawrence Station and other destinations in the Plan area north of the Caltrain tracks for all modes of travel.

Street Cross Section Guidelines

TL-UDG1 Provide a right-of-way width of 65 feet (see Figure 6.19). This dimension may vary in select locations based on local conditions.

TL-UDG2 Within this right-of-way, provide the following functional elements: one vehicular travel lane in each direction, a landscaped center median with left turn pockets, Class II bicycle lanes, on-street parking, and a pedestrian zone with wide sidewalks and street trees.

TL-UDG3 Coordinate with VTA to ensure the street cross-section is adequate for bus transit usage if desired in the future.

Intersection Design Guidelines

TL-UDG4 Provide sidewalk extensions (bulbouts) at all intersections along The Loop.

TL-UDG5 Install transit bulbouts, where appropriate, at all intersections.

TL-UDG6 Provide median pedestrian refuges as needed at select intersection locations.

TL-UDG7 Provide mid-block pedestrian crossings along the length of the street if distances between intersections exceed 400 feet.

TL-UDG8 Link mid-block pedestrian crossings directly to pedestrian routes to the station and other destinations.

TL-UDG9 Employ traffic calming devices to ensure safe pedestrian crossings.

Pedestrian Environment Guidelines

TL-UDG10 Include a generous planting strip for large street trees, signage and lighting, and a wide sidewalk between the curb and the right-of-way line.

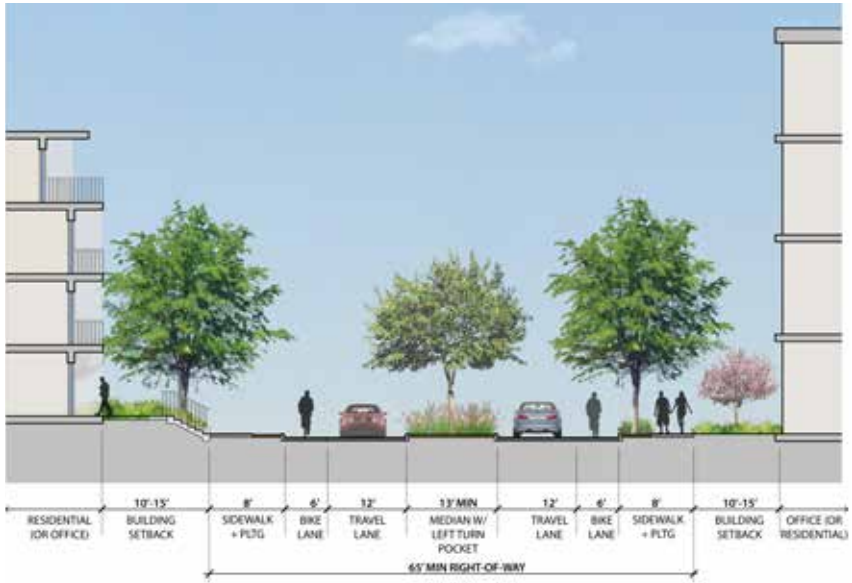
TL-UDG11 Provide a minimum sidewalk width of six feet.

Adjacent Land Uses and Setback Guidelines

Land uses adjoining the Loop will typically be office/R&D or residential. Retail will not be located along the street except in the vicinity of the Lawrence Station (see guidelines following for The Loop-Lawrence Station segment).

TL-UDG12 Set buildings back 15 feet from the back of sidewalk/right-of-way line to allow for generous landscaping in the front yard of all buildings as well as grade separation for residential units located at the ground floor.

Figure 6.19: Section - The Loop



The Loop (Sonora Court Segment)

Sonora Court runs in an east-west direction parallel to and north of the Caltrain tracks and Lawrence Station. The street is currently a dead-end local street with minimal traffic serving an area of low-density industrial / R&D uses. Perhaps the most noteworthy aspect of Sonora Court is the very large and handsome Redwood street trees that line the street on both sides in a wide planting strip between the curb and the sidewalk. These trees are among the most significant natural assets of the entire Plan area.

Sonora Court will become a key east-west segment of The Loop accessing Lawrence Station on the west side of the Lawrence Expressway. However, the cross-section of this street segment will vary, both in width and configuration, from that envisioned for most other segments in order to preserve and protect the existing mature Redwood trees.

The Loop (Sonora Court Segment) Design Goals

SC-G1 The design goals for the Sonora Court segment of the Loop include the following:

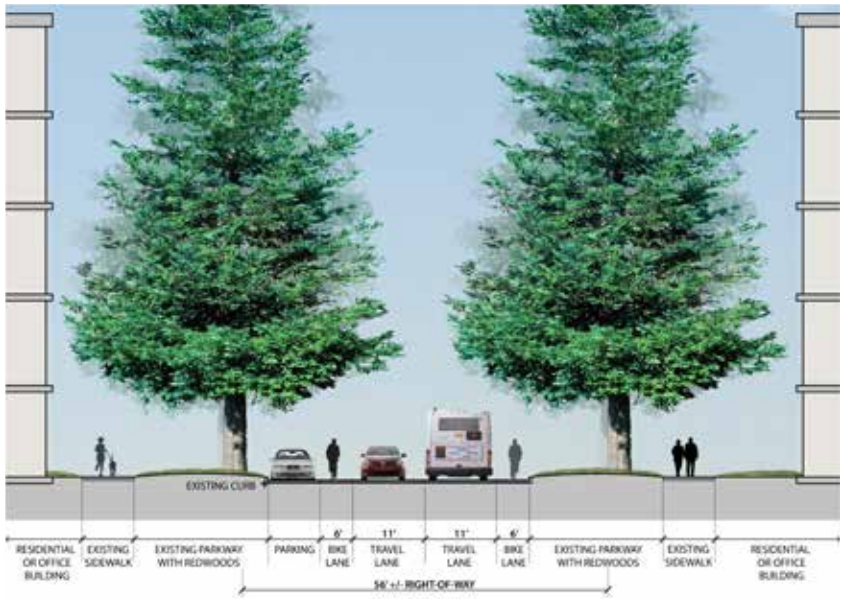
- Preserve and protect the existing Redwood trees.
- Design the street (particularly the pedestrian zone) to capitalize on the existing trees and wide planting areas to create a mature, park-like environment, with attractive, usable outdoor urban spaces that relate to, and enhance future building development along the street.
- Capitalize on the existing Redwood trees to create a unified design vocabulary for this segment of the Loop that is unique from other street segments.

Street Cross Section Guidelines

SC-UDG1 Provide an overall public right-of-way width of 56 feet. (See Figure 6.20)

SC-UDG2 Within this right-of-way, retain the existing paved roadway cross-section and curb locations and the existing curbside planting strip in order to avoid disturbance to the root systems of the Redwood trees.

Figure 6.20: Section - The Loop at Sonora Court



The mature redwood trees on Sonora Court are one of the strongest natural assets in the Plan area. Their protection is a high priority.

SC-UDG3 Reallocate the paved street space between the curbs to provide the following functional elements: one vehicular travel lane in each direction, Class II bicycle lanes, and parking on one side of the street.

Pedestrian Environment Guidelines

SC-UDG4 Retain the curbside planting strip where the Redwoods are located at its current dimension.

SC-UDG5 Incorporate small outdoor seating areas for passive activities and outdoor dining.

SC-UDG6 Retain the existing location and footprint of the sidewalk in order to protect the existing trees. Repairs and repaving will be allowed as needed.

SC-UDG7 Exercise extreme care when initiating construction activities in the vicinity of the Redwood trees. Minimize changes within the planting strip containing the Redwood trees.

SC-UDG8 Before construction activities, consult with a certified arborist.

Adjacent Land Uses and Setback Guidelines

Land uses adjoining the Sonora Court segment of The Loop will typically be office/R&D or residential at high densities. Retail will be allowed along the street in the vicinity of the Lawrence Station.

SC-UDG9 Retain the existing building streetwall line (set back from the curb) in order to protect the existing Redwoods and reinforce the park-like character of the street.

SC-UDG10 Use the space between the back of sidewalk and building line to create spaces for outdoor dining and passive activities.

The Loop (Lawrence Station Segment)

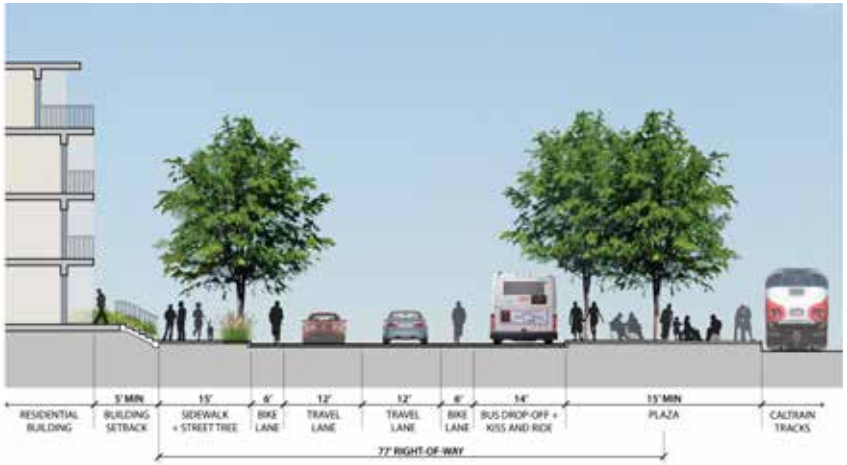
The Loop will align directly adjacent to, and parallel with the Lawrence Caltrain Station in this segment thereby providing direct access for passengers, transit riders, bicyclists and pedestrians to the station plaza. It will also intersect with the San Ysidro Way Extension retail street and the pedestrian/bicycle undercrossing from the southern residential neighborhoods. Therefore, its design configuration will change from the standard design that will be found over most of its length. This will be a highly active location and therefore safety, ease of movement for all modes, good visibility of the station, and abundant amenities to serve transit patrons and local residents and workers are all needed.

The Loop (Lawrence Station Segment) Design Goals

LS-G1 The design goals for the Lawrence Station segment include the following:

- Design the street as a multi-purpose plaza-like place that seamlessly anchors the retail street to the north with the Lawrence Station plaza.
- Emphasize the safe movement of pedestrians and bicycles throughout the plaza-like area while also allowing motor vehicles.
- Create a unified design vocabulary for the entire intersection plaza area that conveys the feeling that pedestrians and bicyclists have priority over motor vehicles.
- Provide safe and efficient bus drop-off facilities.

Figure 6.21: Section - The Loop at Station



Street Cross Section Guidelines

LS-UDG1 Provide the Lawrence Station segment of The Loop with a right-of-way width of 77 feet (see Figure 6.21).

LS-UDG2 Within this right-of-way, provide the following functional elements: one vehicular travel lane in each direction, Class II bicycle lanes, a pedestrian zone with a wide sidewalk and street trees on the north side of the street, a bus drop-off zone and an extension of the Lawrence Station Plaza on the south side of the street.

LS-UDG3 Design The Loop at this location to feel like a large plaza extending from the San Ysidro Way Extension retail street to the Lawrence Station Platform.

LS-UDG4 Generously size travel lanes to accommodate the confluence of buses, autos and other traffic that will traverse the area.

LS-UDG5 Provide a wide bus drop-off and kiss-and-ride zone adjoining the station-side plaza.

LS-UDG6 Coordinate the design of the plaza and street function with Caltrain, VTA and other transit agencies.

Intersection Design Guidelines

LS-UDG7 Design the intersection to accommodate all modes of travel with an emphasis on pedestrians and bicyclists.

LS-UDG8 If warranted, signalize the intersection and include "pedestrian scramble" signalization.

Pedestrian Environment Guidelines

LS-UDG9 Use special pedestrian paving, planting, lighting and other streetscape materials to create an identifiable plaza-like place that extends from the San Ysidro Way Extension retail street all the way to the station platform.

LS-UDG10 Provide space for passenger waiting and seating, public art, lighting and other amenities on the plaza space.

Adjacent Land Uses and Setback Guidelines

Land uses adjoining the Lawrence Station segment of the Loop will typically be office/R&D or residential at high densities, with retail uses required at the ground floor where The Loop intersects or traverses San Ysidro Way Extension.

LS-UDG11 Set buildings back to allow for increased pedestrian space and outdoor dining and merchandizing in conformance with guidelines for San Ysidro Way Extension.

LS-UDG12 Establish building setback requirements for the station side of The Loop based on the functional requirements of transit/station operations.

San Ysidro Way Extension Retail Street

Future retail uses and services will be focused along the southern extension of San Ysidro Way, a new pedestrian-oriented mixed-use street that will run north-south between Kifer Road and the Lawrence Station, west of the Lawrence Expressway. This street will form the walkable heart of the new mixed-use Transit Core neighborhood, providing neighborhood-serving goods and services for residents and workers in the Plan area.

The character of the street is envisioned as a walkable, mixed-use neighborhood commercial street with a scale and character similar to Santana Row in San Jose, Castro Street in Mountain View or Murphy Avenue and its surrounding district in downtown Sunnyvale.

San Ysidro Way Extension Retail Street Design Goals

SY-G1 The goals for this street include the following:

- Promote and emphasize pedestrian activity.
- Create an environment that supports the development of pedestrian-oriented retail.
- Support transit usage, particularly Caltrain, with safe and attractive pedestrian circulation to and from the station and nearby bus transit stops.
- Create a distinct identity for the retail area.
- Design for low vehicular travel speeds.

Street Cross Section Guidelines

SY-UDG1 Provide a right-of-way width of 68 feet (see Figure 6.22).

SY-UDG2 Within this right-of-way, provide the following functional elements: one vehicular travel lane in each direction, on-street parking, and a wide pedestrian zone.

SY-UDG3 Install traffic calming measures to ensure traffic speeds will be low.

SY-UDG4 Bicycle lanes will not be needed due to low traffic speeds. However, install bicycle notations and warning systems such as "sharrows" and "Share the Road" signs to indicate bicycles will be welcome.

SY-UDG5 Coordinate with VTA to ensure the street cross-section is adequate for bus transit usage if desired in the future.

Figure 6.22: Section - San Ysidro Way Extension Retail Street

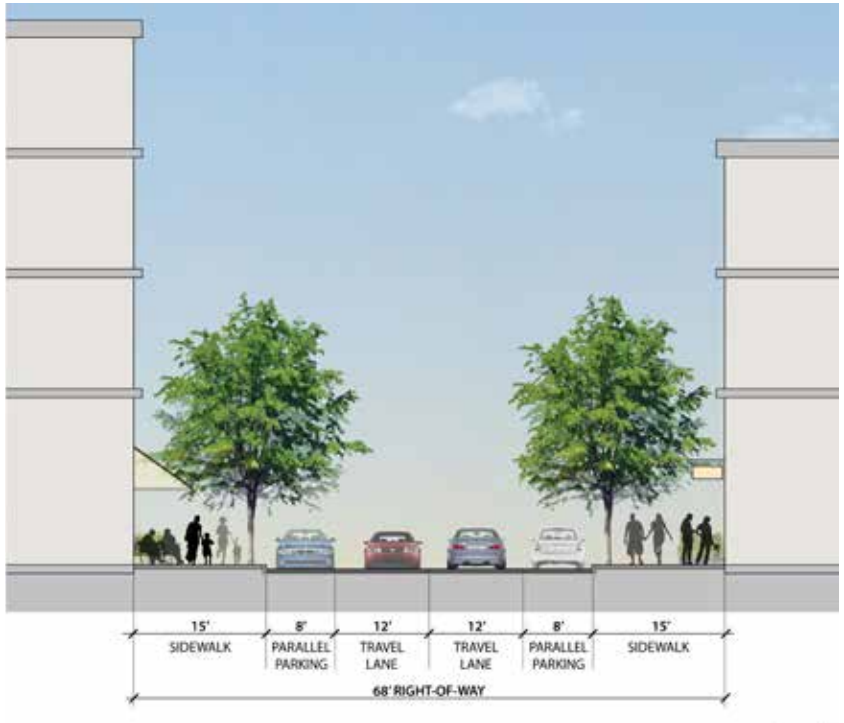
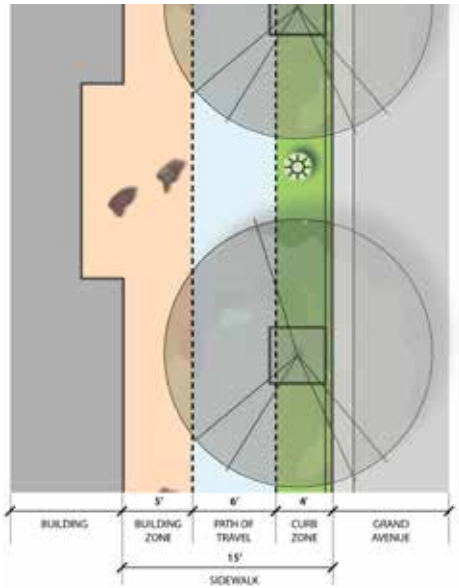


Figure 6.23: Section of Retail Street Zones

Figure 6.24: Plan of Retail Street Zones



Intersection Design Guidelines

SY-UDG6 Provide sidewalk extensions (corner bulbouts) at all intersections.

Pedestrian Environment Guidelines

SY-UDG7 Provide a minimum sidewalk width of 15-feet.

SY-UDG8 Since the buildings along the street will be built at, or near, the right-of-way line, the sidewalk is defined here as the entire area between the curb and the building wall. The sidewalk may be contained completely within the public right-of-way or may cross into the parcel.

SY-UDG9 Subdivide the sidewalk into three areas, or zones (see Figures 6.23 and 6.24):

- Curb Zone: minimum four feet wide, containing the elements that separate the sidewalk from the street and provide the necessary infrastructure to support pedestrian and motorist activity, including lighting, signage, furnishings, street trees, and other vertical elements.
- Pedestrian Circulation Zone: minimum six-feet wide, and clear of obstruction.
- Building Zone: immediately adjacent to the building wall. Depending on the width of the overall sidewalk, the building zone may contain amenities such as seating, outdoor dining, merchandise displays, planting or architectural elements of the building, as long as these do not interfere with pedestrian movement.

SY-UDG10 Wrap the 15 feet sidewalk around the building for a minimum of 25 feet at intersection corners.

SY-UDG11 Provide pedestrian scaled lighting with luminaires mounted at a height not exceeding 15 feet.

SY-UDG12 Use luminaires that provide a white light source, such as metal halide or LED, rather than yellow light sources such as high-pressure sodium.

SY-UDG13 Plant pedestrian-scaled ornamental trees unique to this location along the street.

SY-UDG14 Provide tree grates and tree guards for all trees planted in tree wells in pavement areas.

SY-UDG15 Provide a minimum tree well size of 4 feet x 4 feet.

Special Condition at The Loop/Lawrence Station Plaza

SY-UDG16 Provide a wider sidewalk (25 feet) on either side of the street between Sonora Court and the Lawrence Station Plaza.

SY-UDG17 Design the entire area between the Sonora Court segment of The Loop and the Lawrence Station Plaza as an extension of the Station Plaza.

SY-UDG18 Ensure the wider sidewalk contains a:

- 6 feet minimum unobstructed pedestrian circulation zone.
- 4 feet minimum curb zone.

SY-UDG19 Include street furnishings, street trees and other plantings, special paving, public art and amenities, public gathering places, temporary installations, cafe seating and merchandise displays in the wider sidewalk and plaza extension.

SY-UDG20 Specify a unique species of street trees in the Station Plaza area to enhance the unique quality of that area.

Adjacent Land Uses and Setback Guidelines

Land uses fronting the San Ysidro Way Extension will be office/R&D or residential at high densities on the upper floors. Retail is required at the ground floor.

SY-UDG21 Locate ground floor retail at the back of sidewalk right-of-way line (zero setback).

SY-UDG22 Minor additional setback is allowed in conformance with guidelines for retail buildings described earlier in this chapter.

Kifer Road

Kifer Road is an important existing thoroughfare, designated by the City of Sunnyvale as a Collector, which must accommodate relatively high volumes of traffic as well as transit vehicles and trucks. Despite its importance for motor vehicle traffic, however, Kifer Road currently has a right-of-way and pavement width that exceeds current or foreseeable traffic demand. It is also designed with an emphasis on accommodating vehicular traffic, with unappealing facilities for pedestrians and bicyclists, no on-street parking and few areas of attractive planting and streetscape improvements.

Kifer Road Design Goals

KR-G1 The goals for Kifer Road include the following:

- Ensure it provides efficient access for motor vehicles and bus transit without consuming unnecessary excess quantities of land for that purpose.
- Enhance its usability for pedestrians and bicyclists.
- Strengthen the existing visual quality and character of the street as a green boulevard.

Street Cross Section Guidelines

KR-UDG1 Provide a publicly-accessible right-of-way that accommodates the street and pedestrian environment (see Figure 6.25).

KR-UDG2 Within this right-of-way, to the extent feasible, retain the existing roadway curb locations.

KR-UDG3 Reallocate the paved street space between the curbs to provide the following functional elements: one vehicular travel lane in each direction, a landscaped center median with left turn pockets, Class II bicycle lanes, and on-street parking.

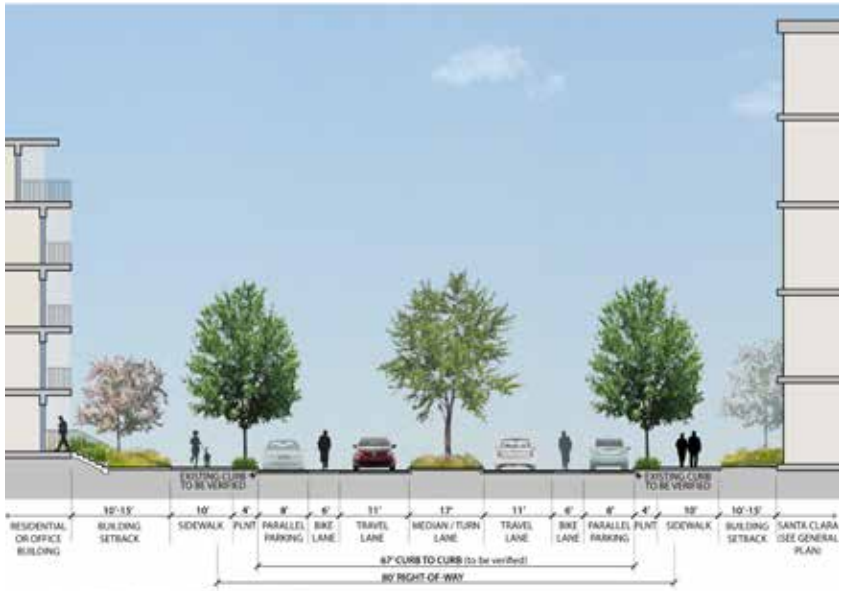
KR-UDG4 Coordinate changes to the cross-section of Kifer Road with the City of Santa Clara and Santa Clara County.

Intersection Design Guidelines

KR-UDG5 Provide sidewalk extensions (corner bulbouts) at all intersections where feasible.

KR-UDG6 Install transit bulbouts at all intersections, where appropriate.

Figure 6.25: Section - Kifer Road



Meander sidewalks on existing streets where necessary to provide a separation between pedestrians and vehicular traffic and avoid existing mature trees.

KR-UDG7 Provide median pedestrian refuges as needed at select intersection locations.

KR-UDG8 Provide mid-block pedestrian crossings along the length of the street if distances between intersections exceed 400 feet.

KR-UDG9 Link mid-block pedestrian crossings directly to pedestrian routes to the station and other destinations.

KR-UDG10 Employ traffic calming devices to ensure safe pedestrian crossings.

Pedestrian Environment Guidelines

KR-UDG11 Between the curb and the building setback line, include generous plantings of large trees, signage and lighting, and a wide sidewalk.

KR-UDG12 Provide a minimum sidewalk width of ten feet.

KR-UDG13 Protect all existing street trees over 3" caliper along Kifer Road.

KR-UDG14 Infill areas that lack existing trees with new street tree plantings.

KR-UDG15 Complement the existing character of the street by infilling new trees in an informal arrangement with a variety of species.

Adjacent Land Uses and Setback Guidelines

Land uses adjoining Kifer Road will typically be office/R&D or residential with retail uses required at the ground floor where Kifer intersects the San Ysidro Way Extension retail street. Densities will vary along the length of the street, depending upon proximity to the Lawrence Station.

KR-UDG16 Set buildings back a minimum of 25 feet from the existing curb to allow for a widened sidewalk and generous landscaping in the front yard of all buildings as well as grade separation for residential units located at the ground floor.

KR-UDG17 Minimize parking between front of building and any street. Provide no more than two rows of parking in this area.

New Internal Local Circulation Streets

In order to create a more accessible and pedestrian-oriented pattern of development, new internal circulation streets will be needed, especially north of the Caltrain tracks, and possibly in the Peninsula Subarea (Calstone/ Peninsula Building Materials property). The conceptual locations and alignment of these streets is illustrated in Figure 4.2: Fine-Grained Street Network. Actual locations of these streets will depend upon the development plans of individual property owners.

New Internal Local Circulation Streets Design Goals

NI-G1 Provide local access to Lawrence Station and other neighborhood destinations for pedestrians, bicycles and autos.

NI-G2 Provide direct access to property.

NI-G3 Establish a block framework for diverse neighborhood development at a range of densities.

NI-G4 Promote and emphasize pedestrian activity.

NI-G5 Design for low vehicular travel speeds.

Street Cross Section Guidelines

NI-UDG1 Provide a minimum right-of-way width of 50 feet.

NI-UDG2 Within this right-of-way, provide the following minimum functional elements: one vehicular travel lane in each direction, on-street parking on one side of the street, and a pedestrian zone with sidewalks and a planting strip on both sides of the street.

NI-UDG3 Install traffic calming measures to ensure traffic speeds will be low.

NI-UDG4 Due to low vehicular travel speeds, bicycles will share the street with vehicular traffic.

NI-UDG5 Employ traffic calming devices to ensure safe pedestrian crossings.

NI-UDG6 Build streets per city standards for residential streets.

Pedestrian Environment Guidelines

NI-UDG7 Provide a minimum sidewalk width of five feet separated from the street by a minimum four-foot-wide planting strip containing street trees, lighting and signage.

Adjacent Land Uses and Setback Guidelines

Land uses and densities adjoining the new Internal Circulation Streets will vary depending upon location.

NI-UDG8 In general, set buildings back a minimum of 15 feet from the back of sidewalk/right-of-way line to allow for landscaping unless a variation in setback is warranted due to local conditions.

NI-UDG9 Provide an adequate setback to ensure the pedestrian zone feels public and attractive.

NI-UDG10 Parking in the front yard is not allowed.

NI-UDG11 Parking access lanes may cross the pedestrian zone and front yard.

Pedestrian and Bicycle Ways (Class I Multi-use Trails)

New Pedestrian and Bicycle Ways Design Goals

PB-G1 In situations where access routes by motor vehicles is either unnecessary or impractical, complete the circulation framework for the Lawrence Station Plan area with a network of publicly accessible routes for pedestrians and bicycles.

PB-G2 Ensure pedestrian/bicycle ways are safe and accessible to all users.

Pedestrian and Bicycle Way Cross-Section

PB-UDG1 When located in an open landscape, provide a typical right-of-way width of 25 feet.

PB-UDG2 Within this right-of-way, provide a minimum paved width of 12 feet. This will allow adequate room for multiple pedestrian and bicycle users as well as maintenance and emergency vehicles, if needed.

PB-UDG3 In constrained situations, such as between buildings, pedestrian and bicycle ways shall have a minimum paved right-of-way of 10 feet.

Design and Materials Guidelines

PB-UDG4 Use concrete or similar permanent paving.

PB-UDG5 Provide continuous pedestrian-scaled lighting on all pedestrian ways to ensure a feeling security.

PB-UDG6 Use overhead lighting rather than with bollards to allow easy visibility of oncoming pedestrians and bicyclists.

PB-UDG7 Plantings may be of a design that is either consistent with the palette of adjoin properties or of a design that delineates the pedestrian way.

PB-UDG8 Ensure that plantings do not obscure visibility of the pedestrian way from surrounding properties and public spaces and do not interfere with emergency vehicle access.

Other Streets

Lawrence Expressway

As mentioned previously in this Plan, the Expressway is owned and managed by Santa Clara County, and therefore is not under the jurisdictional control of the City of Sunnyvale. However, the County is in the process of considering major modifications to the Expressway in the segment that traverses the Plan area, including grade-separation (elevated or below grade). These modifications have the potential to greatly improve local accessibility and quality of the neighborhoods in the Plan area. To support this process, the City of Sunnyvale has articulated several goals for the improvement of the Lawrence Expressway

Lawrence Expressway Design Guidelines

LE-UDG1 Improve the intersections at Reed/Monroe and Kifer, including the provision of pedestrian countdown timers.

LE-UDG2 Improve the appearance of the embankments by providing additional landscape improvements.

LE-UDG3 Widen sidewalks and provide wider, separated bicycle lanes on the Expressway in order to provide a safe and efficient means for pedestrians and bicyclists to cross the Caltrain tracks and access other areas of the city.

LE-UDG4 Provide additional east-west crossings of the Expressway, both north and south of the Caltrain tracks. These should be placed at a spacing not to exceed 400 feet, via tunnels through the embankments or elevated structure, or one or more bridges if the roadway is placed below grade.

Willow Street

Willow Street currently provides the only vehicular access to the Lawrence Caltrain station from the south, and is also a key access route for pedestrians and bicyclists.

Design Goals for Willow Street

WS-G1 Design to be safe and attractive for residents of the study area and those south of Reed who walk or ride to the station.

Design Guidelines for Lawrence Expressway

WS-UDG1 Provide continuous sidewalks on both sides of Willow Street, with a minimum 6 foot dimension.

WS-UDG2 Provide improved pedestrian lighting to give a sense of safety along Willow Street.

WS-UDG3 Improve signage to the station and expand to include signage on Reed and Monroe Avenues as well as Lawrence Expressway.

WS-UDG4 Accommodate bicycles in the roadway. The narrow right of way suggests that a shared lane is necessary. Install bicycle notations and warning systems such as “sharrows” and “Share the Road” signs to indicate bicycles will be welcome.

7 PLAN IMPLEMENTATION

Implementation of the LSAP will require the coordinated efforts of both the public and private sector working cooperatively to achieve the goals of the plan.

7 PLAN IMPLEMENTATION

The Lawrence Station Area Plan includes a variety of plans and policies to guide the future redevelopment of the area surrounding the Lawrence Caltrain Station. Many of these plans and policies will provide input to long-range city policy documents such as the City of Sunnyvale General Plan and the Zoning Ordinance that will require revision and update. The Plan also contains recommendations that will require direct action by the City, partner agencies and the private sector.

In many situations where change in an existing built-up urban area is contemplated, there are city-owned properties that can be used for public facilities or infrastructure improvements in order to support and stimulate new private investment. Such is not the case in the Lawrence Station Area Plan (LSAP) area, where, except for existing public street rights-of-way and drainage corridors, there is very little publicly-owned land. Therefore, implementation of the LSAP will require the coordinated efforts of both the public and private sector working cooperatively to achieve the goals outlined in this Plan. This section of the Plan provides a broad discussion of the key features of a program to implement the Station Area Plan. Included are discussions of principles, implementation actions and responsibilities, potential funding sources, and project priorities.

IMPLEMENTATION PRINCIPLES

Four core principles underlay all of the strategies outlined in this chapter and have guided the land use plans and other recommendations of the Lawrence Station Area Plan.

- All existing single and multi-family residential areas will be preserved and protected.
- All land use change in the Plan area will be undertaken at the initiative and schedule of private landowners. The City of Sunnyvale has no intent to purchase land for redevelopment or force private landowners and businesses to change land use in order to meet the objectives of the Plan.
- Existing uses will continue to be allowed and will not be adversely impacted by the implementation of the Plan. The Plan focuses on opportunities for new development.
- In cases where acquisition of land or easements may be needed for the improvement of areawide and regional infrastructure (such as water and sewer improvements, improvements to the Lawrence Expressway and other circulation improvements), it is the intent of the City of Sunnyvale that such acquisitions will take place through development incentives and other implementation tools discussed in this chapter in conformance with existing city regulations and policies and state statutes.

IMPLEMENTATION ACTIONS AND RESPONSIBILITIES

Implementation of the Lawrence Station Area Plan will require the coordinated efforts of both the public and private sector working cooperatively to achieve a common goal. Table 7.1 lists the key improvements that will be needed to achieve the goals of the Plan and the range of implementation methods and potential responsibilities that can be used to complete these improvements. As Table 7.1 illustrates, implementation of the LSAP can be achieved through the coordinated application of four general types of public and private actions, including:

1. Public Policy and Regulatory Actions: Primarily the General Plan and Zoning Ordinance
2. Impact Fees and Assessments
3. Direct Public Investment
4. Administrative Actions

PUBLIC POLICY AND REGULATORY ACTIONS

As private-sector development occurs in accordance with the Plan, various public improvements and benefits will be required as part of the approval process in order to provide needed infrastructure, open space, circulation and parking facilities and other needs that will result from the increased development.

Some of these public improvements will be required as a condition of development approval, or "By-Right Development Obligations" per existing procedures of the City of Sunnyvale. Others will be provided through development incentives, which will be administered through the City regulatory process, notably the Zoning Ordinance. Therefore, the policies of the General Plan as well as the Zoning Ordinance and other City regulations will be essential ingredients of a successful implementation strategy. To be effective, many of the recommendations of the Plan must be adopted or applied to current policy, including:

City of Sunnyvale General Plan Update

Many of the concepts for the Plan area described in the LSAP are consistent with the general policies of the City's General Plan. However, revisions to several existing Goals and Policies of the General Plan related specifically to the LSAP area will be needed in order to ensure that City policy promotes the goals of the Plan.

In addition, in some areas, specific new land use designations and policies for inclusion in an update of the General Plan will be required. City staff has been monitoring progress on this Plan simultaneously with the update of the Land Use and Transportation Element (LUTE) of the General Plan. The City will incorporate elements from this Station Area Plan into the LUTE and other elements of the General Plan as appropriate following adoption of this plan.

Table 7.1: Summary of Implementation Tools

This table is illustrative of potential development responsibilities; other mechanisms may be available.

	City of Sunnyvale								Partner Agencies
Project Component	**By-right Dev. Obligations**	**Regulatory (Zoning)**		**Impact Fees & Assessments**	**Direct Public Investment**			**Admin. Actions**	
		TDR/ PDR*	**Dev. Incentives**		**CIP***	**Joint Development**	**Grants/ Loans**		
Land Use Mix									
Mixed-use		◆	◆			◆			
Affordable Housing	◆	◆	◆	◆		◆	◆		
Retail in targeted areas		◆	◆			◆			
Adopt Mixed-use Toolkit								◆	
Circulation & Parking Improvements									
Loop Road ROW acquisition		◆	◆	◆					
Loop Road improvements			◆	◆	◆		◆		
Kifer Road improvements	◆		◆	◆	◆		◆		
Retail Street improvements			◆	◆	◆		◆		
Roadway connection modifications (inter-section improvements, ADA ramps, etc)			◆		◆		◆		
Internal streets ROW acquisition			◆		◆		◆		
Internal streets ROW improvements			◆		◆		◆		
Pedestrian & bicycle easements			◆						
Pedestrian & bicycle ROW improvements			◆		◆		◆		
Transportation Management Association			◆					◆	
TDM measures	◆		◆						
Track crossings (East and West)			◆		◆	◆	◆		
Structured parking			◆		◆	◆			
Below-grade parking			◆						
Grade separations -Lawrence Expressway				◆	◆				◆
Shared parking			◆	◆	◆	◆		◆	
Unbundled residential parking	◆		◆						

** TDR/PDR: Transfer of Development Rights / Purchase of Development Rights*
CIP: Capital Improvement Plan

Table 7.1: Summary of Implementation Tools (continued)

This table is illustrative of potential development responsibilities; other mechanisms may be available.

	City of Sunnyvale								Partner Agencies
Project Component	**By-right Dev. Obligations**	**Regulatory (Zoning)**		**Impact Fees & Assessments**	**Direct Public Investment**			**Admin. Actions**	
		TDR/ PDR*	**Dev. Incentives**		**CIP***	**Joint Development**	**Grants/ Loans**		
Residential parking permit program								◆	
Regional transit (infrastructure and facilities)									◆
Bus transit improvements (operations and facilities)	◆		◆		◆		◆		◆
Shuttle service improvements & expansion			◆				◆	◆	◆
Central Expressway Access Improvements				◆	◆				◆
Open Space									
Land acquisition	◆	◆	◆	◆	◆				
Open space improvements			◆	◆	◆	◆			
Calabazas Creek linear park improvements	◆		◆	◆	◆	◆			◆
El Camino storm drain linear park improvements		◆	◆	◆	◆	◆			◆
Caltrain Plaza			◆		◆	◆			◆
Pocket parks and plaza spaces	◆		◆	◆	◆	◆			
Urban Design objectives									
Sustainable development	◆		◆						
Setbacks to encourage pedestrian-friendly streets	◆		◆						
Noise mitigation	◆		◆						
Infrastructure Improvements									
Calabazas Creek linear park improvements	◆		◆	◆	◆	◆			◆
El Camino storm drain linear park improvements		◆	◆	◆	◆	◆			◆
Sewer upgrades					◆				
Water					◆				
Drainage					◆				
Recycled Water	◆		◆	◆	◆	◆	◆		

** TDR/PDR: Transfer of Development Rights / Purchase of Development Rights*
CIP: Capital Improvement Plan

Zoning

Physical development and implementation of the LSAP will primarily be driven by the activities of private landowners, developers and businesses in the area. The Zoning Ordinance, which regulates the activities of the private sector in development, and thereby implements the goals and policies of the General Plan, will therefore be one of the most important tools in the implementation of the Plan.

Approximately 200 acres (63%) of the Plan area will require rezoning in order to allow and encourage development in conformance with the goals and policies of the Lawrence Station Area Plan. Generally, this is nearly all of the land area north of the Caltrain tracks, which is currently zoned industrial, as well as specific industrial and commercially-zoned parcels south of the tracks. All existing residential areas will remain in their current zoning designation.

A variety of revisions to the Zoning Ordinance will be required, including provisions for parking, land use, density and others, as well as incentive systems for development bonuses. However, three key overriding Zoning provisions will be essential to the success of the Plan:

Flexible Mixed-use

Encouraging mixed-use development in a manner that is flexible and responsive to business and property-owner decision-making and the marketplace is a key goal of the LSAP. Therefore, several new mixed-use land use categories will be established and incorporated into the General Plan and Zoning Ordinance, consistent with the Land Use Plan described in Chapter 3. Figure 7.1 and Table 7.2 illustrate and describe these new districts and their general characteristics.

Development Incentives

Since very little land in the Plan area is publicly-owned, implementation of the LSAP will be heavily driven by the business plans and economic goals of private property owners. It is anticipated that new development will notably increase property values and should be able to support a significant amount of new infrastructure investment in the Plan area. Development incentives (in the form of density bonuses provided in the Zoning Ordinance) will be a primary tool of ensuring financial feasibly for new development as well as achieving many of the goals of the LSAP, such as the provision of mixed-use development, street rights-of-way and improvements, additional open space, additional affordable housing, and other features. Therefore, a key component of the Zoning Ordinance update will be establishment of a system of fixed incentives that will encourage development to provide a variety of improvements.

A preliminary listing of the range of improvements that may be implemented through development incentives is described in Table 7.1: Summary of Implementation Tools. The list of incentives will be finalized as the Zoning Ordinance is updated and will be updated over time as necessary due to changing conditions or completion of plan goals.

Development Cap

Unlike traditional zoning, which typically establishes single-use districts with fixed densities, an innovative development strategy such as this LSAP, which allows a flexible mix of uses at a range of densities, could result in a degree of unpredictability regarding both the pace of change and the ultimate result at build-out. In order to ensure that long-term development does not exceed the carrying capacity of infrastructure systems and the environment, a growth-monitoring program will be established.

A key feature of this program will be the establishment and monitoring of a Development Cap for the entire Plan area. The Development Cap will be consistent with the findings of the Environmental Impact Report (EIR) that has been conducted as part of the planning process. Findings of the EIR will be used to help establish a maximum development threshold for the Plan area. Once this development threshold is reached (which is unlikely within the time horizon of this Plan) a moratorium on future development will be declared, until new long-range plans and environmental documents have been prepared.

While the Development Cap and monitoring program are not a provision of the Zoning Ordinance per se, the mechanics of the Flexible Mixed-use and Development Incentives provisions of the Ordinance have a direct

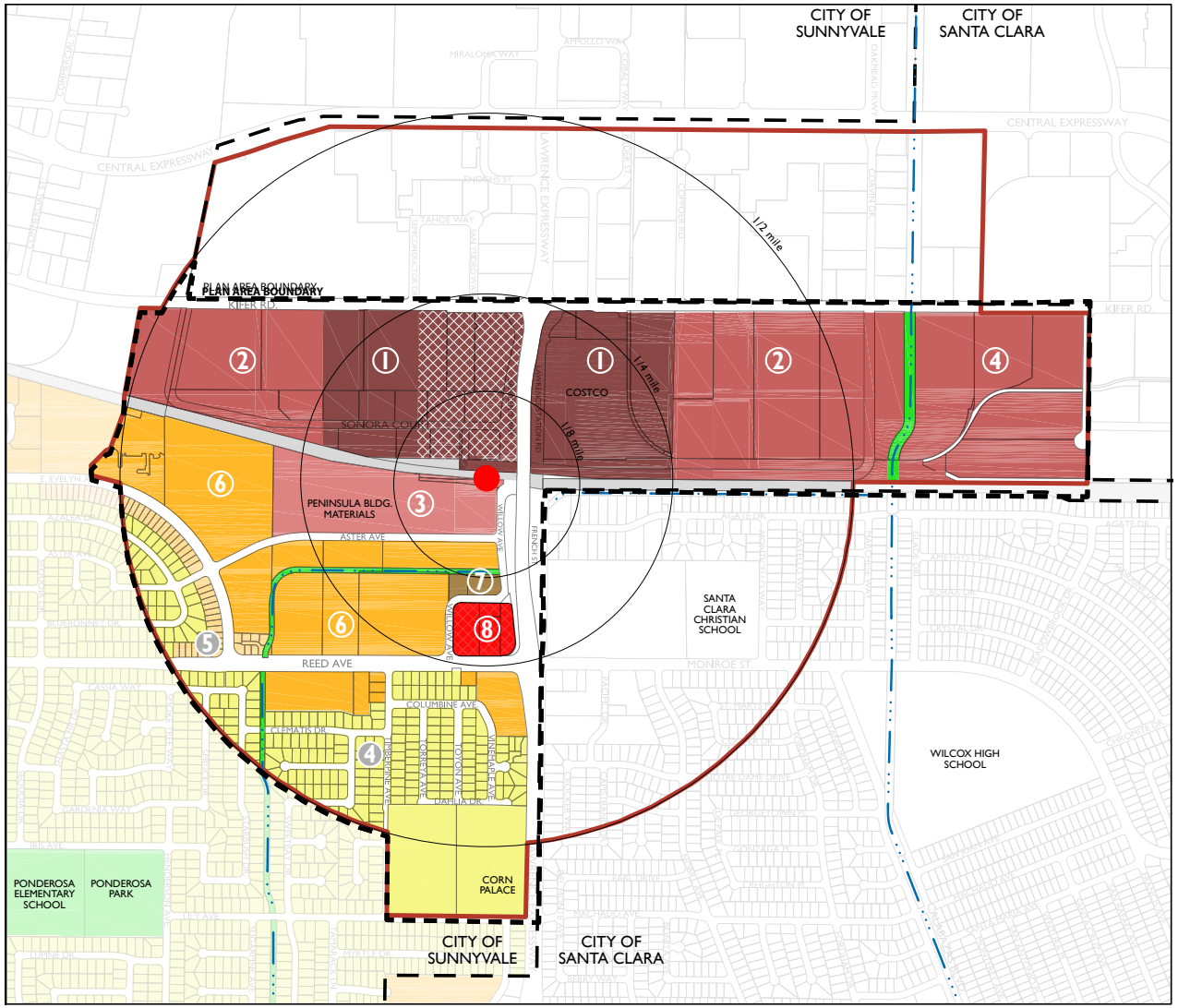
Figure 7.1 Recommended Zoning Districts

LEGEND

- STUDY AREA BOUNDARY
- PLAN AREA BOUNDARY
- CITY BOUNDARY
- EL CAMINO STORM DRAIN CHANNEL / CALABAZAS CREEK
- LAWRENCE CALTRAIN STATION (EXISTING PEDESTRIAN / BICYCLE UNDERCROSSING)

SUNNYVALE ZONING DISTRICT

- MIXED-USE I (1)
- MIXED-USE II (2)
- MIXED-USE III (3)
- MIXED-USE I WITH RETAIL
- R1-5 (4)
- R2 (5)
- R3 (6)
- R4 (7)



N 0 300 600 1200'

Table 7.2: Recommended Zoning Updates

District	Name	Location	Use	Minimum Density (Required)	Maximum Allowable Density (by right)	Required Improvements (new by-right development)	Maximum Density (allowed with incentive)
MXD I	*Flexible Mixed-Use I*	*Up to approximately 1/4 mile from Lawrence Station*	*Office / R&D*	*0.5*	*1.0 FAR*		*1.5 FAR*
			Residential	*36 du/ac*	*45 du/ac*	*affordable per City code; open space*	*68 du/ac*
			Retail	*Not Allowed*	*Not Allowed*		*Not Allowed*
MXD II	*Flexible Mixed-Use II*	*Approximately 1/4 - 1/2 mile from Lawrence Station*	*Office / R&D*	*.5 FAR*	*1.0 FAR*		*1.5 FAR*
			Residential	*24 du/ac*	*45 du/ac*	*affordable per City code; open space*	*68 du/ac*
			Retail	*Not Allowed*	*Not Allowed*		*Not Allowed*
MXD III	*Flexible Mixed-Use III*	*Existing Peninsula Building Materials Property*	*Office / R&D*	*NA*	*.5 FAR*		*1.0 FAR*
			Residential	*24 du/ac*	*36 du/ac*	*affordable per City code; open space*	*45 du/ac*
			Retail	*NA*	*Willow Avenue frontage X 50 feet*		*Willow Avenue frontage X 100 feet*
MXD I(R)	*Flexible Mixed-Use I (Retail)*	*New pedestrian retail street*	*Office / R&D*	*.7 FAR*	*1.0 FAR*		*1.5 FAR*
			Residential	*36 du/ac*	*45 du/ac*	*affordable per City code; open space*	*68 du/ac*
			Retail	*1/2 street frontage X 50 feet*	*.35 FAR*	*Retail*	*.5 FAR*
R-1.5	*Low Density Residential*	*Existing single family residential in SE quadrant of Plan area*	*Residential*	*NA*	*10 du/ac (per existing zoning)*	*affordable per City code; open space*	*NA*
R-2	*Low - Medium Density Residential*	*Existing single family residential in SE quadrant of Plan area*	*Residential*	*NA*	*12 du/ac (per existing zoning)*	*affordable per City code; open space*	*NA*
R-3	*Medium Density Residential*	*Existing multi-family residential in SE quadrant of Plan area*	*Residential*	*NA*	*24 du/ac (per existing zoning)*	*affordable per City code; open space*	*NA*

relationship to the management of the Development Cap program. For further discussion of the Development Cap monitoring program and other growth management matters related to the Plan area, see discussion later in this chapter.

In addition to the development cap, measures will also be taken to ensure a proper balance of uses within the cap numbers. Measures of the amount of each type of development (residential versus employment) will be followed, with established levels of redevelopment for each use followed. If a general type of use (residential versus employment) meets or nears the established levels, the City Council will review the levels to ensure one type of use does not predominate, which could undermine the mixed-use goals of the Plan.

IMPACT FEES AND ASSESSMENTS

In order to reach the long-term goals of the Plan Area, extensive public infrastructure improvements will be required. Infrastructure improvement categories include new and improved roadway connections, local streetscape improvements, bicycle and pedestrian improvements, local and regional utility improvements, and new and improved public open spaces and public facilities such as schools and recreation facilities.

Utilities and Public Services facilities demands and cost estimates have been summarized in Chapter 5 and Appendix F of this report and are estimated to exceed $75 million. Funding these necessary public infrastructure improvements will require the coordinated efforts of both the public and private sector working cooperatively.

Circulation improvements, including acquisition of right-of-way and costs associated with providing new rail crossings and other improvements for pedestrians and bicycles, will require unique funding mechanisms. The Loop and the two rail crossings are the two most costly circulation infrastructure improvements, at approximately $13 million and $16 million respectively. As indicated on Table 7.1, much of the cost associated with The Loop and other new streets and pedestrian / bicycle facilities, including right-of-way acquisition, can be provided through incentives to new private development.

However, it is likely that some of these improvements, as well as the new pedestrian rail crossings, parks and schools and local and regional utility and drainage improvements, will require additional funding. As Table 7.1 illustrates, these funds can come from a variety of sources, including direct public investments from the City's Capital Improvement Program (CIP), partner agencies, transportation and recreation grants, and from development Impact Fees and Assessments.

As with many California jurisdictions, the City of Sunnyvale already charges development impact fees to fund infrastructure improvements required by new development. The impact fee funding accrues incrementally over time as new development occurs. Development impact fees can only fund capital improvements (i.e., not ongoing maintenance expenses) that are on the fee program project list, which is amended from time to time by the City. Development impact fees cannot be used to fund infrastructure improvements required to serve existing development or cover existing deficiencies. The City currently collects the following development impact fees and assessments, many of which can be applied to new development in the Plan area.

- Housing Mitigation Fees
- School Mitigation Fees
- Park in-lieu Fees
- Tree Replacement in-lieu Fees
- Art in Private Development in-lieu Fees
- Storm Drainage Fees
- Water and Sewer Connection Fees
- Transportation/Traffic Fees (Sunnyvale Municipal Code, Chap. 3.50)
- Sense of Place Fee
- Community Facilities District

In addition, any non-standard right-of-way improvements will require supplemental maintenance funds.

For a more complete discussion of these Impact Fees and Assessments, see Appendix D.

DIRECT PUBLIC INVESTMENTS

Capital Improvement Program (CIP)

The City's CIP is updated every two years. CIP funds could be used within the Plan area but would be prioritized with Citywide needs.

Grant Funding

Grant funding sources may be available to assist with new development in the Plan area, particularly because of Plan goals to enhance and intensify a transit-served urban infill location. Grant funding can significantly reduce both the City's and the developers' obligation toward infrastructure financing.

As the planning process for the LSAP has proceeded, City staff has already begun the process of identifying potential external funding sources, which may include programs available at the regional or State level that particularly focus on infrastructure improvements, and provision of diverse housing and transportation improvements. Many of these are summarized in Table 7.3, Potential Funding Sources.

Grant funding sources and available amounts will vary over the long-term build-out of the Plan area, but recent examples include the State's Proposition 1B and 1C programs for transportation improvements and affordable housing, respectively, as well as the Metropolitan Transportation Commission's Transportation for Livable Communities and Housing Incentive Programs and One Bay Area Grants.

ADMINISTRATIVE ACTIONS

Certain actions can be provided as part of the daily administrative function of the City of Sunnyvale. Generally, these include responsibilities for the ongoing monitoring, management, marketing and maintenance of the Plan area. Perhaps the most important of these actions will be monitoring and managing the change that will occur in the Plan area.

Balanced Growth Monitoring Program

As mentioned previously, establishing and monitoring a Development Cap for the Plan area will be critically important to ensure future development does not exceed the carrying capacity of infrastructure systems and the environment. Therefore, the City will develop a monitoring program, to be reviewed every two years or as necessary, to:

1. Establish a maximum development threshold for the Plan area based on the goals of this Plan and the findings of the EIR.
2. Regularly monitor development proposals to ensure they are supportive of the goals and vision of the Plan. In particular, it is unlikely that reliance on market forces alone will achieve the mixed-use neighborhood that is envisioned. A single use environment could result if not carefully monitored. Therefore, both in the short-term and over the long-term, growth will be monitored to ensure a diverse mix and balance of uses. It is not, however, envisioned that fixed development thresholds will be established for particular time periods in the future.
3. Ensure that maximum development thresholds for the Plan area are not exceeded.
4. Update plans and environmental analyses as the area develops and approaches development thresholds.
5. Ensure that infrastructure improvements, including the provision of circulation improvements, open space, utilities and schools keep pace with the development of employment, residential and retail uses.

Table 7.3: Potential Funding Sources
This list is not inclusive. Funding sources are likely to change in the future.

Potential Funding Sources
Federal
National Endowment for the Arts (NEA) Grants ("Our Town", etc)
ArtPlace Grants
Congestion Mitigation & Air Quality
Recreational Trails Program
Transportation, Community and System Preservation Program
Federal Lands Highway Fund
Rivers, Trails & Conservation Program
Safe Routes to School - SRTS
Community Development Block Grants
Highway Safety Improvement Program
USDA Arts & Humanities Grants
Low-income housing Tax Credits
State
Caltrans Roadway Improvements
Caltrans Bicycle Transportation Account
Caltrans Transportation Development Act
California Art Council "Creating Places of Vitality" Grant
Proposition 1 Grant
Proposition 1C Grant - Transportation HCD
Safe Routes to Transit
Bicycle Transportation Account
California Conservation Corps
State Infrastructure Bond Funds
Office of Traffic Safety
Community Based Transportation Planning Demonstration

Transportation Development Act, Article III
Environmental Justice: Context Sensitive Planning Grants
Measure A
Wildlife Conservation Board Public Access Program
State Department of Housing and Community Development
Regional
Transportation Fund for Clean Air
Transportation for Livable Communities
Transportation Enhancement Program
Regional Bicycle and Pedestrian Program
Safe Routes to Transit
Housing Incentive Program
Lifeline Transportation Program
Air Quality Management District
County
VTA
Santa Clara County Transportation Funds?
City
Potential BID / PBID Formation
Potential Transit Occupancy Tax Add-On / Room Excise Tax
Remaining Redevelopment Agency Funds

Other administrative actions by the City that can help ensure the success of the Plan area include establishment and administration of:

- Lighting and Landscaping Assessment District
- Business Improvement District (BID)
- Transportation Management Association (TMA)
- Public Art Program.

PHASING

It is not envisioned that development of the area in accordance with the Plan will occur all at once. As property owners determine that it is financially advantageous, redevelopment of individual parcels will occur incrementally.

Although not all property owners will be seeking to change the use of their property in the near term, several established businesses are already increasing their footprints in the area through property acquisition and new construction to allow them to expand their current operations. In addition, based on discussions held between City staff and various property owners, several properties are likely candidates for redevelopment and land use change in the near and intermediate term, in accordance with the concepts of the LSAP. Redevelopment of these properties will thus provide an early phase start to achieving the goals of the LSAP.

Priority Improvement Projects

Throughout discussions with the CAG and the community at large, certain Plan elements were identified as having particular importance or priority. Table 7.4 provides a summary of all major improvement projects listed by priority. Each of the projects is assigned one of three categories depending on their importance. Where applicable, estimated costs associated with each project are provided. This Table is a companion to Table 7.1, which provides a description of implementation actions and potential responsible parties.

Early Action Public Projects

- Calabazas Creek stormwater and public access improvements.
- Pedestrian and bicycle enhancements at Kifer Road, Reed Avenue, Willow Avenue, Lawrence Station Road and San Zeno Way (short-term, temporary).
- El Camino Storm Drain Channel public access improvements.
- Acquisition of right-of-way for The Loop and San Ysidro Way Extension.

Certain projects will help advance the redevelopment of the Plan area and stimulate private investment, including the following:

Table 7.4: Priority Improvement Projects

Project Strategy	Project Description	Cost *
Priority One: Improvements that are essential to achieving the fundamental goals of the LSAP Plan.		
Loop road improvements	*Improvements within the right-of-way*	*$12,010,000*
San Ysidro Way Extension (Retail Street) improvements	*Improvements within the right-of-way*	*$1,340,000*
Pedestrian/bicycle rights of way improvements	*Pedestrian/bicycle north/south linkage on north side of rail line*	
Priority Two: Infrastructure improvements that will enhance the success of the station area.		
Public access rights-of-way for pedestrians/bicycles	*Easements granted on public property for public use.*	*N/A*
Unbundled residential parking		
Paid parking or permit program with ¼ mile of station	*Implementation of parking program surrounding the station.*	*Not available*
Improvements to Calabazas Creek	*Site design and engineering to reconfigure the creek to incorporate a multi-use trail.*	*$2,510,000*
Improvements to El Camino Storm Drain Channel	*Site design and engineering to reconfigure the creek to incorporate a multi-use trail.*	*$820,000*
Shared parking	*Include shared parking within new developments.*	*N/A*
Kifer Road improvements	*Reduce travel lanes, widen sidewalks and include bike lanes and planted median.*	*$570,000*
Roadway connection modifications	*Crosswalk improvements, bulb-outs, ADA ramps and flashing beacons.*	*$1,457,000*
Lawrence Station improvements	*Plaza at station with improved circulation and parking.*	
Bus transit service to the station	*Provide transit access and connections directly to the station on the north and the south.*	*N/A*
Regional utility improvements	*Recycled water extension across railroad*	*$23,180,000*
Priority Three:		
Establish Business Improvement District (BID) or other ongoing management/maintenance district	*Property owners within a determined district area agree to additional taxation or to pay into a fund to support maintenance within the district.*	*TBD*
Establish Transportation Management Association (TMA)		
Additional Transportation Demand Management (TDM.) measures		
Underground parking		
Pedestrian/Bicycle Crossing of Caltrain tracks (West)		*$8,125,000*
Pedestrian/Bicycle Crossing of Caltrain tracks at Calabazas Creek (East)		*$8,125,000*
Public parking structure(s)		

** Preliminary cost estimates only (2015); see Appendix F for more information.*

NEXT STEPS

The Lawrence Station Area Plan is a planning document that outlines overall concepts, goals, policies and guidelines. It is not a final design plan. Implementation of the Plan will require significant additional planning, design, development and programming in a phased process over multiple years. Immediate next steps in the implementation process include:

- Prepare a detailed Implementation Action Plan (IAP) and Phasing Strategy. Include in the IAP:
  - Priority public improvement projects and schedule
  - Capital improvement funding needs
  - Potential roles and responsibilities (public and private)
  - Potential funding sources.
- Establish a permanent Lawrence Station Area Task Force or Business Improvement District (BID) to assist the City in the ongoing planning, management, marketing and maintenance of the Plan area.
- Establish a Parking Management District. Since the Plan area will likely develop incrementally, prepare a financial model that allows for reimbursement or payment of a shared parking supply provided by initial developments, and/or a Parking Management District.
- Complete a policy and regulatory update related to the Plan area, particularly the Land Use and Transportation Element (LUTE) of the City's General Plan and the Zoning Ordinance, to conform to the goals and recommendation of this Plan.
- Prepare detailed design and capital development standards (companion to Zoning update).
- Initiate coordination with partner agencies to accelerate Plan improvements, including:
  - Peninsula Joint Powers Board: Lawrence Station improvements
  - Santa Clara County: Lawrence Expressway and Central Expressway improvements
  - City of Santa Clara: Coordination of development phasing, transportation, and public infrastructure improvements
  - School District: Facilities demand analysis and timing
  - Drainage District: Coordination of improvements for linear parks and pedestrian facilities along Calabazas Creek and the El Camino Drainage Channel.
  - Valley Transportation Authority: Coordination of potential transit route modifications and street design standards.
- Prepare applications for grant funding for detailed planning, design and capital improvements.

APPENDICES

A

APPENDICES

APPENDIX A | CONCEPT ALTERNATIVES

During the planning process for the preparation of the Lawrence Station Area Plan, three preliminary land use and circulation concepts were prepared for review by the general public, business and property owners, the Citizens Advisory Group (CAG), staff from the cities of Sunnyvale and Santa Clara, the Sunnyvale Planning Commission and the Sunnyvale City Council. The Plan described in this report is a hybrid that resulted from that community input and review process.

Following is a summary description of each of the concepts that were prepared and reviewed during the planning process. It should be noted that several major elements and assumptions are generally common to all of the concepts, including:

- All three concepts envision a gradual change of use and density over time to uses that are compatible with a more balanced, transit-oriented neighborhood.
- Existing residential neighborhoods will be protected. Therefore, opportunities for major land use change are focused north of the tracks. Changes south of the tracks primarily include replacement of auto-oriented uses with residential or neighborhood-serving retail/office mixed-use.
- All three concepts envision a higher density central core area focused within ¼-mile of the Lawrence Station, with densities somewhat lower as distance increases from the station.
- Each of the concepts is based on a similar circulation framework, but emphasizes a different land use pattern.
- In order to create a critical mass of local-serving retail and support services north of the Caltrain tracks, these uses are located along the new north/south pedestrian-oriented streets in each concept.

- While none of the concepts illustrate the location of new open space, it is envisioned that areas of new development will incorporate new parks, open space and recreational areas in conformance with current city policies and development incentives.
- Concepts for potential land use change may result in changes to city policy documents such as the General Plan and Zoning. However, actual change and redevelopment of properties will be at the discretion of the property owner.
- The City of Santa Clara's recently updated General Plan identified higher intensity residential uses north of Kifer Road within ½ mile of the Lawrence Station. This future land use pattern was assumed in all of the concepts.

CONCEPT A: RESIDENTIAL EMPHASIS

In the Residential Emphasis concept, illustrated in Figure A.1, new land uses are almost exclusively residential with a limited amount of support services such as retail, restaurants, and small offices located to serve the immediate neighborhood and surrounding area. Major office/R&D facilities are not found in the Plan area under this concept.

The Residential Emphasis concept expands the generally residential character of the Plan area found south of the Caltrain tracks into the area north of the tracks, although it is envisioned that the north would develop at considerably higher densities than the predominantly single-family detached densities found in the south. This strategy recognizes research that indicates that residential land uses, particularly at higher densities such as townhouses and above, results in increased transit ridership and also supports neighborhood-serving uses such as retail.

In this alternative, existing low-density industrial, research and development (R&D) and office uses will be replaced over time by residential development at higher densities. Densities range from 19 dwelling units (dus) per acre (townhouses) to 78 dus per acre in multi-story buildings (up to six stories) in new development areas. The highest densities are focused nearest the Lawrence Station, declining in density as the distance from the station increases.

Retail will be located along new pedestrian-oriented retail streets north of the Caltrain tracks on both sides of the Lawrence Expressway and in selected areas south of the tracks.

The Calstone/Peninsula Building Materials site is shown as residential. Along Willow Avenue, small auto-serving retail parcels on the north also become residential, consistent with adjoining uses, while the parcels between Reed and Willow Avenue become office/retail mixed-use with street-fronting and pedestrian-oriented retail.

In Santa Clara, north of Kifer Road, this concept incorporates that city's recently-adopted General Plan land use policies, which envision a future land use change to higher density residential with supporting commercial. South of the rail line, land uses are also consistent with Santa Clara's General Plan.

Table A.1: Residential Emphasis Summary

SUNNYVALE

Land Use	Units
Residential	*5,600-9,600 dus**
Office/R&D	*88,000 sf*
Industrial	*523,000-747,000 sf*
Retail	*353,000 sf*

** includes 1,200 dus existing*

SANTA CLARA

Land Use	Units
Residential	*3,900 - 5,900 dus **
Office/R&D	*621,000 sf*
Industrial	*0 sf*
Retail	*148,000 sf*

** includes 600 dus existing*

Table A.1 summarizes maximum theoretical potential development capacity under Concept A. It should be noted that these are maximum development estimates and should not be correlated with the Estimated Likely Development projected in the LSAP

Figure A.1: Preliminary Land Use Concept A | Residential Emphasis

LEGEND

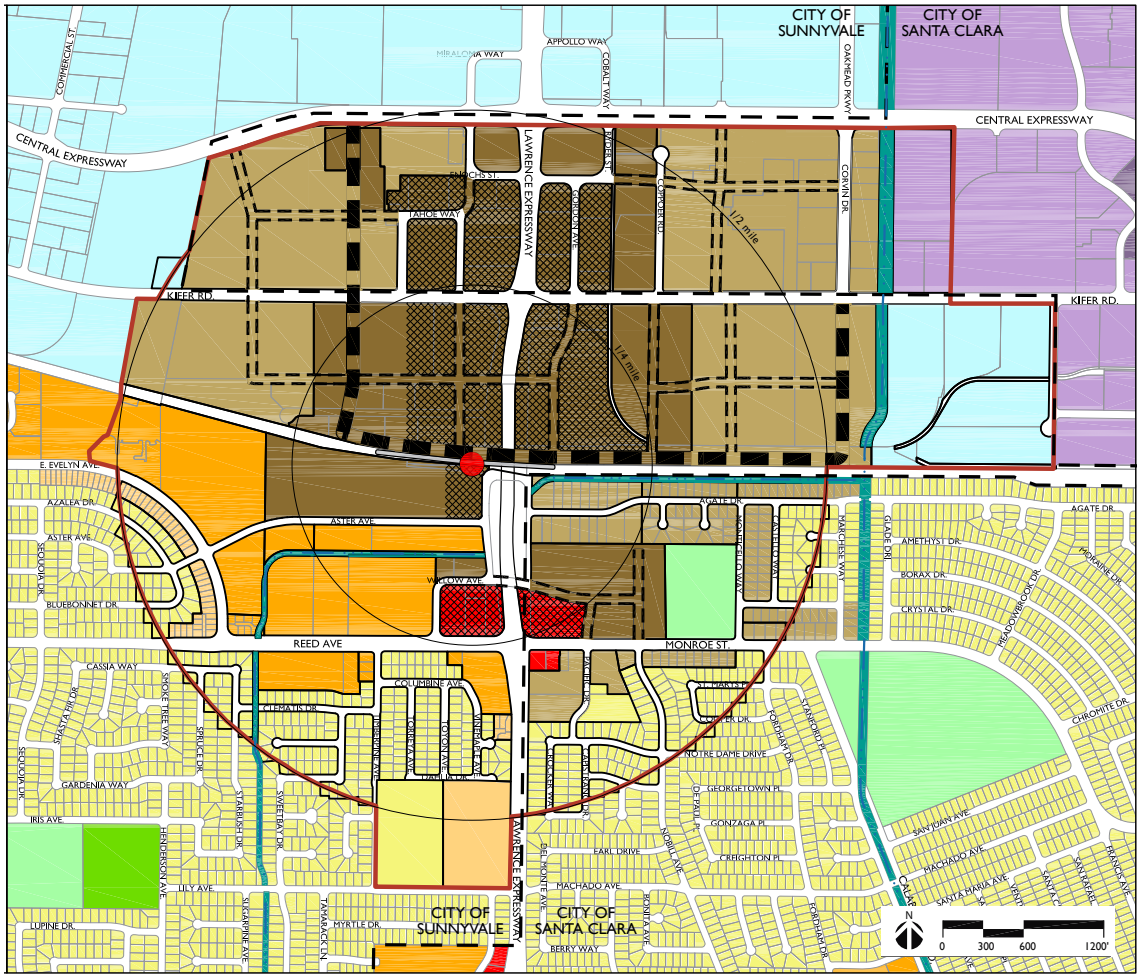
- STUDY AREA BOUNDARY
- SUNNYVALE / SANTA CLARA BORDER
- EL CAMINO STORM DRAIN CHANNEL / CALABAZAS CREEK
- LAWRENCE CALTRAIN STATION (EXISTING PEDESTRIAN / BICYCLE UNDERCROSSING)

PROPOSED NEW STREETS

- PRIMARY LOOP
- INTERNAL CIRCULATION

LAND USE DESIGNATIONS

- LOW DENSITY RESIDENTIAL (EXISTING)
- LOW-MEDIUM DENSITY RESIDENTIAL (EXISTING)
- MEDIUM DENSITY RESIDENTIAL (EXISTING)
- RESIDENTIAL TRANSIT SUPPORTING (SUNNYVALE)
- MEDIUM DENSITY RESIDENTIAL (SANTA CLARA)
- RESIDENTIAL TRANSIT CORE (SUNNYVALE)
- HIGH DENSITY RESIDENTIAL (SANTA CLARA)
- LOW INTENSITY OFFICE/R&D
- OFFICE/R&D TRANSIT CORE
- INDUSTRIAL & SERVICE
- INDUSTRIAL INTENSIFICATION
- MIXED USE TRANSIT SUPPORTING (SUNNYVALE)
- MIXED USE TRANSIT CORE (SUNNYVALE)
- OFFICE/RETAIL
- PUBLIC PARKS
- DRAINAGE CHANNELS
- CIVIC USES
- TRANSPORTATION/UTILITY
- RETAIL MIXED USE (STREET FRONTING RETAIL)



Notes:
1. Hatch on plan indicates the desired location of retail along the pedestrian-friendly retail streets.
2. Land use within city of Santa Clara per Santa Clara General Plan Phase III (2025-2035). Retail hatch overlay has been added to Santa Clara to align with Sunnyvale's retail zone. Santa Clara General Plan does not specify a retail location; however, it does indicate required square footage.

CONCEPT B: OFFICE/RESEARCH AND DEVELOPMENT (R&D) EMPHASIS

Under this concept, illustrated in Figure A.2, land uses in new development areas north of the station are almost exclusively office and research and development (R&D), with a limited amount of support services.

While land uses north of the Caltrain tracks look similar to the existing condition, there is less emphasis on industrial uses. Development is at higher densities, appropriate to R&D and office uses, and buildings and parking conform to the more accessible circulation framework. Highest densities are focused nearest the Lawrence Station, declining in density as distances from the station increase.

The Office/R&D Emphasis concept is based in part on input received from some members of the public who expressed a preference for retaining and increasing the skilled jobs base in Sunnyvale.

Like Concept A, this concept likely generates higher transit ridership at the Lawrence Station, although current research suggests that ridership levels may be somewhat lower than with residential uses.

It is anticipated that market demand for retail uses will be lower with the Office/R&D concept than for the concepts that include residential. Retail will be located along the new pedestrian-oriented retail streets north of the Caltrain tracks on both sides of the Lawrence Expressway and in selected areas south of the tracks. Such support uses would include copy and print shops, restaurants, delis, and business supply stores, with less demand for grocery stores and pharmacies than Concept A may generate.

New residential development is limited to specific parcels south of the Caltrain tracks, notably the Calstone/Peninsula Building Materials property, consistent with Concepts A and C.

In Santa Clara, a change to that city's recently-adopted General Plan land use policies would be required north of Kifer Road. Higher density office and R&D in this location would result in a land use pattern that is compatible with the office and R&D uses suggested between Kifer Road and the Caltrain tracks in Sunnyvale. South of the station all proposed land uses are the same as in Concepts A and C in both Sunnyvale and Santa Clara.

Table A.2 summarizes maximum theoretical potential development capacity under Concept B. It should be notes that these are maximum development estimates, and should not be correlated with the Estimated Likely Development projected in the LSAP.

Table A.2: Office/R&D Emphasis Summary

SUNNYVALE

Land Use	Units
Residential	*2,200-2,900 dus**
Office/R&D	*2,476,000-4,864,000 sf*
Industrial	*1,678,000-3,057,000 sf*
Retail	*215,000 sf*

** includes 1,200 dus existing*

SANTA CLARA

Land Use	Units
Residential	*1,000-1,100 dus**
Office/R&D	*3,174,000 sf*
Industrial	*2,238,000 sf*
Retail	*65,000 sf*

** includes 600 dus existing*

Figure A.2: Preliminary Land Use Concept B | Office/Research & Development Emphasis

LEGEND

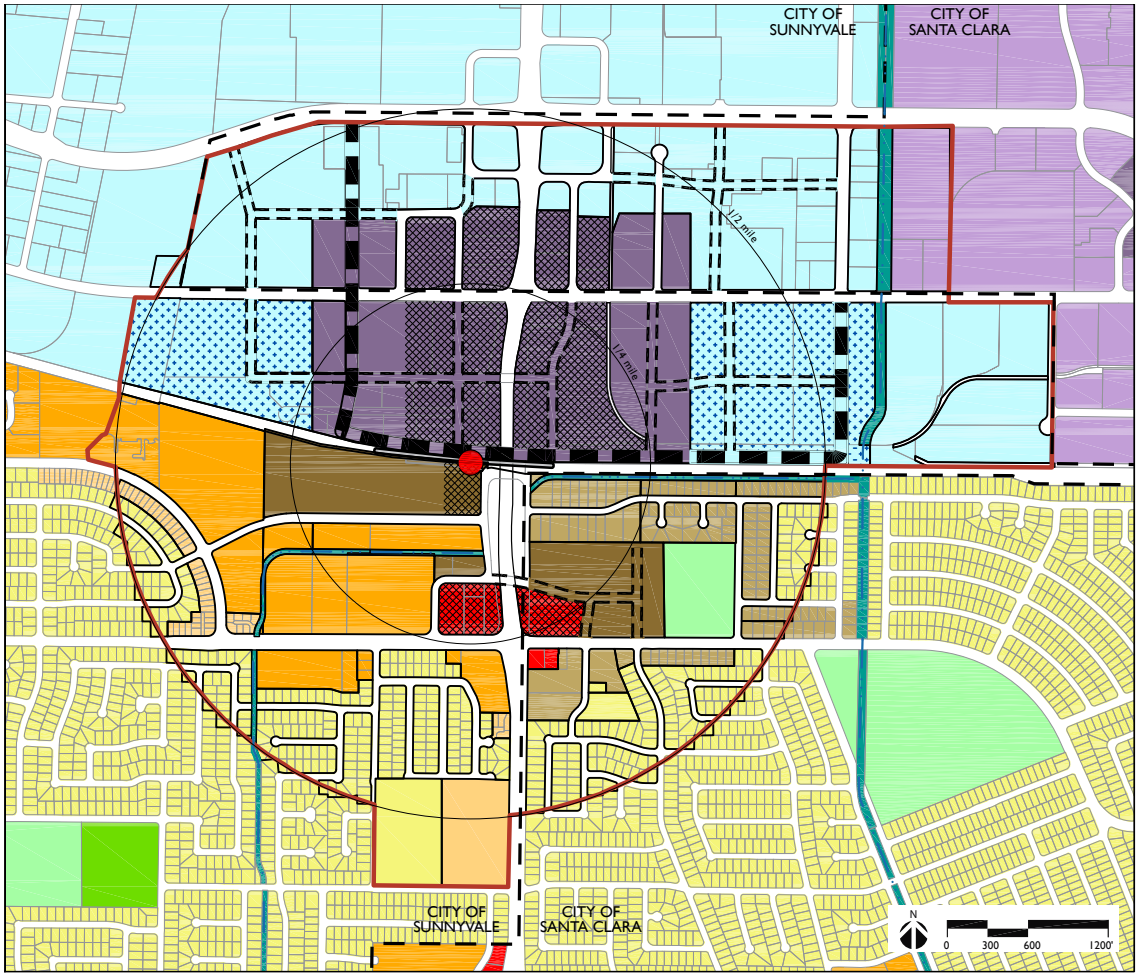
- STUDY AREA BOUNDARY
- SUNNYVALE / SANTA CLARA BORDER
- EL CAMINO STORM DRAIN CHANNEL / CALABAZAS CREEK
- LAWRENCE CALTRAIN STATION (EXISTING PEDESTRIAN / BICYCLE UNDERCROSSING)

PROPOSED NEW ROADS

- PRIMARY LOOP ROAD
- INTERNAL CIRCULATION

LAND USE DESIGNATIONS

- LOW DENSITY RESIDENTIAL (EXISTING)
- LOW-MEDIUM DENSITY RESIDENTIAL (EXISTING)
- MEDIUM DENSITY RESIDENTIAL (EXISTING)
- RESIDENTIAL TRANSIT SUPPORTING (SUNNYVALE)
- MEDIUM DENSITY RESIDENTIAL (SANTA CLARA)
- RESIDENTIAL TRANSIT CORE (SUNNYVALE)
- HIGH DENSITY RESIDENTIAL (SANTA CLARA)
- LOW INTENSITY OFFICE/R&D
- OFFICE/R&D TRANSIT CORE
- INDUSTRIAL & SERVICE
- INDUSTRIAL INTENSIFICATION
- MIXED USE TRANSIT SUPPORTING (SUNNYVALE)
- MIXED USE TRANSIT CORE (SUNNYVALE)
- OFFICE/RETAIL
- PUBLIC PARKS
- DRAINAGE CHANNELS
- CIVIC USES
- TRANSPORTATION/UTILITY
- RETAIL MIXED USE (STREET FRONTING RETAIL)



Notes:
1. Hatch on plan indicates the desired location of retail along the pedestrian-friendly retail streets.
2. Retail hatch overlay has been added to Santa Clara to align with Sunnyvale's retail zone. Santa Clara General Plan does not specify a retail location; however, it does indicate required square footage.

CONCEPT C: MIXED-USE DEVELOPMENT

The Mixed-use Development Emphasis concept, illustrated in Figure A.3, combines the urban residential neighborhood qualities of Concept A with the job-creation qualities of Concept B. The mix of uses found in this concept may generate the highest transit ridership of all of the concepts, although additional analysis will be needed in the future phases of the project to confirm this. The mix of uses may be achieved by either vertical mixed-use buildings (i.e., with residential or office over retail) or with a mix of uses (i.e., office buildings and residential buildings) on adjoining parcels. Of the three concepts, the Mixed-use Development concept received the most favorable comments from members of the public and served as the basis for further refinement resulting in the LSAP.

North of the Caltrain tracks in Sunnyvale, existing development of low-density industrial, office and R&D uses is generally replaced by a higher density mix of uses that includes residential, office/R&D and support retail and services. Like the other concepts, highest densities are focused nearest the Lawrence Station, declining in density as distances from the station increase.

Retail will be located along the new pedestrian-oriented retail streets north of the Caltrain tracks on both side of the Lawrence Expressway and in selected areas south of the tracks.

In Santa Clara, like Concept A, in the area north of Kifer Road, this concept incorporates that city's recently-adopted General Plan land use policies, which envisions that existing development of low-density industrial, office and R&D uses are replaced by higher density residential with supporting commercial. South of the station, uses are consistent with Concepts A and B in both Sunnyvale and Santa Clara.

Table A.3 summarizes the maximum theoretical potential development capacity under Concept C. It should be noted that these are maximum development estimates and should not be correlated with the Estimated Likely Development projected in the LSAP.

Table A.3: Mixed Development Summary

SUNNYVALE

Land Use	Units
Residential	*3,900-5,900 dus**
Office/R&D	*1,860,000-3,631,000 sf*
Industrial	*523,000-747,000 sf*
Retail	*353,000 sf*

** includes 1,200 dus existing*

SANTA CLARA

Land Use	Units
Residential	*3,900-5,900 dus**
Office/R&D	*621,000 sf*
Industrial	*0 sf*
Retail	*148,000 sf*

** includes 600 dus existing*

Figure A.3: Preliminary Land Use Concept C | Mixed Development

LEGEND

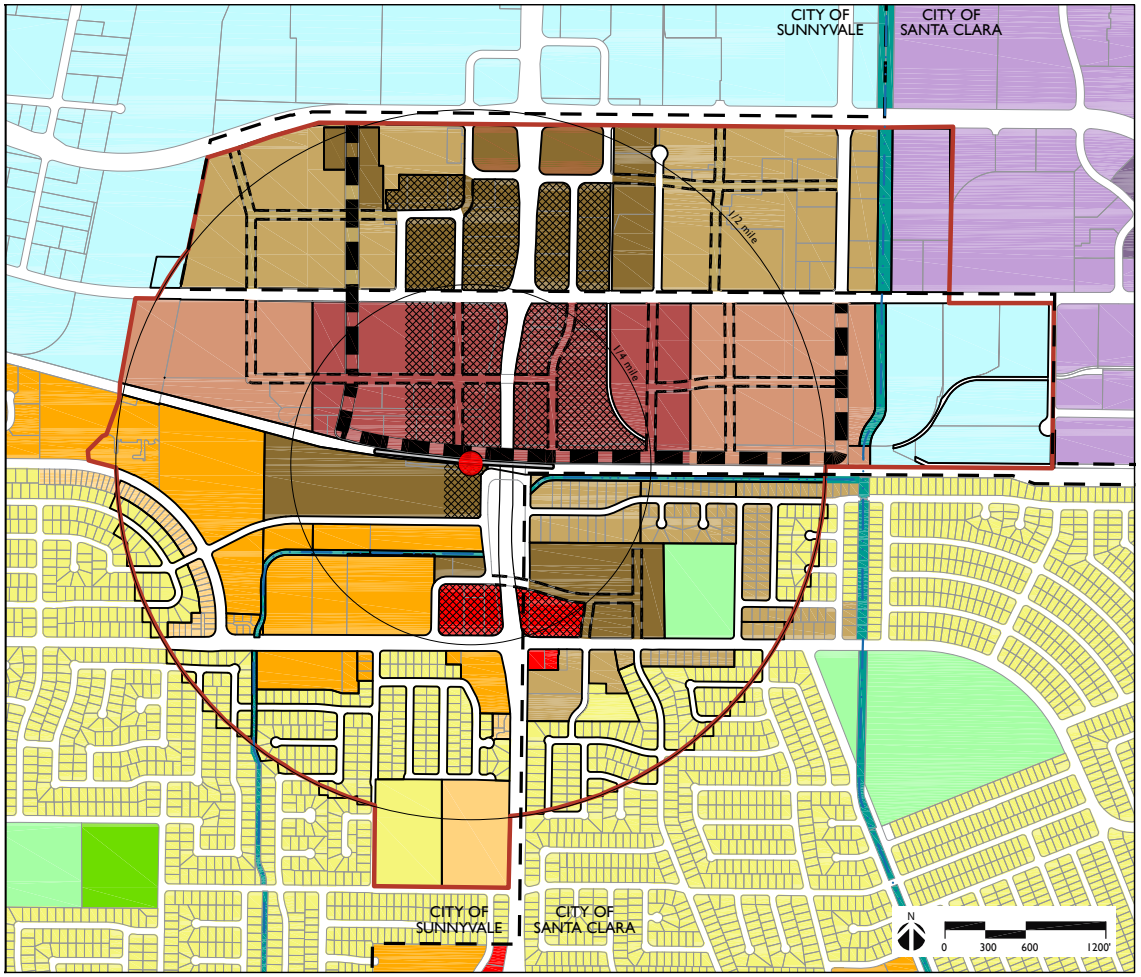
- STUDY AREA BOUNDARY
- SUNNYVALE / SANTA CLARA BORDER
- EL CAMINO STORM DRAIN CHANNEL / CALABAZAS CREEK
- LAWRENCE CALTRAIN STATION (EXISTING PEDESTRIAN / BICYCLE UNDERCROSSING)

PROPOSED NEW STREETS

- PRIMARY LOOP
- INTERNAL CIRCULATION

LAND USE DESIGNATIONS

- LOW DENSITY RESIDENTIAL (EXISTING)
- LOW-MEDIUM DENSITY RESIDENTIAL (EXISTING)
- MEDIUM DENSITY RESIDENTIAL (EXISTING)
- RESIDENTIAL TRANSIT SUPPORTING (SUNNYVALE)
- MEDIUM DENSITY RESIDENTIAL (SANTA CLARA)
- RESIDENTIAL TRANSIT CORE (SUNNYVALE)
- HIGH DENSITY RESIDENTIAL (SANTA CLARA)
- LOW INTENSITY OFFICE/R&D
- OFFICE/R&D TRANSIT CORE
- INDUSTRIAL & SERVICE
- INDUSTRIAL INTENSIFICATION
- MIXED USE TRANSIT SUPPORTING (SUNNYVALE)
- MIXED USE TRANSIT CORE (SUNNYVALE)
- OFFICE/RETAIL
- PUBLIC PARKS
- DRAINAGE CHANNELS
- CIVIC USES
- TRANSPORTATION/UTILITY
- RETAIL MIXED USE (STREET FRONTING RETAIL)



Notes:
1. Hatch on plan indicates the desired location of retail along the pedestrian-friendly retail streets.
2. Land use within city of Santa Clara per Santa Clara General Plan Phase III (2025-2035). Retail hatch overlay has been added to Santa Clara to align with Sunnyvale's retail zone. Santa Clara General Plan does not specify a retail location; however, it does indicate required square footage.

APPENDIX B | AFFORDABLE HOUSING AND ANTI-DISPLACEMENT STRATEGY

The affordable housing and anti-displacement work conducted to support the preparation of this Plan occurred primarily in the Spring of 2013 with most data from earlier. Since then, the Draft 2014-2022 Regional Housing Needs Allocation (RHNA) was finalized, with extremely modest adjustments to the draft figures (5,452 total units now vs. 5,447 in the draft, with virtually unchanged distribution by income level). In addition, the City has moved ahead on several different fronts related to affordable housing policy in the City. For example, nexus studies supporting updated affordable housing requirements and/or impact fees for both for-sale residential and commercial development were prepared and approved by City Council. The commercial impact fee ("Housing Mitigation Fee") represents a significant increase in revenue potential from the City's previous policy, as the new fee applies to more projects and at higher rates than were previously required. In addition, a nexus study for rental housing impact fees has been prepared, and will be brought to City Council for action in Spring 2015. Revenues collected through these fee programs can be used by the City to subsidize the development of affordable housing in the City. However, financial analysis conducted for the City's continuing work on housing policies indicates that developers can still only support a portion of the City's overall affordable housing demands (per RHNA figures) through fees or on-site requirements, given feasibility limitations, despite the increase in achievable market-rate rents and home prices since the initial Lawrence Station analysis was conducted. Moreover, the increase in residential values is likely to have created more pressure on "de facto" affordable housing previously identified in the station area, particularly as market-rate rents are likely to have increased beyond "affordable" levels for many lower-income residents in the study area. As such, additional affordable housing funding sources and/or incentives continue to be worth considering in the Lawrence Station Area Plan.

The Plan for the Lawrence Station Area proposes a diversification and intensification of uses. With the new residential development that could occur in the Plan area, an understanding of the Plan's implications for existing affordable housing that may be located within the Plan area as well as the provision of future affordable housing was desired.

Building on previous market analysis work for the Plan area and current affordable housing work in the City of Sunnyvale, this Affordable Housing and Anti-Displacement Strategy was prepared to assess the potential need for affordable housing in the Plan area and recommend strategies to meet the City's affordable housing goals.

SUMMARY OF RESULTS

KEY FINDINGS

1. The City's existing policies include a 12.5 percent affordability requirement on for-sale projects, current consideration of a nexus-based affordable housing fee for rental projects, and a plan to study the potential enhancement of the Housing Mitigation Fund program applied to higher density office/industrial development.
2. The Regional Housing Needs Allocation (RHNA) – the goals for future housing set by the Association of Bay Area Governments (ABAG) under State law – suggests that over 40 percent of new housing in Sunnyvale should be affordable at Low and Very-Low Income levels, and current Plan area demographics show similar income distribution and housing needs.
3. Requiring developers to provide affordable housing comparable to the RHNA targets is infeasible, as it creates an extreme cost burden that would eliminate the financial incentive to construct new housing.
4. Developers can have a financial incentive to produce more affordable housing than is required under current City policy, particularly if granted benefits that increase profitability through added value or reduced costs.

POSSIBLE STRATEGIES

1. To avoid displacement of existing lower-income residents, the LSAP should not propose "upzoning" or increased allowable densities on sites currently occupied by housing. The maintenance of existing density allowances will minimize the financial incentive to demolish and replace existing units to achieve higher property values, thus minimizing the

concern that existing residents will be physically displaced by new development.

2. To increase development values, creating a local density bonus program that goes beyond the State-mandated program and provides additional density (i.e., market-rate units) in exchange for additional affordable units is recommended. Both for-sale and rental projects can benefit from density bonus programs, and the City may consider granting a bonus density up to 50 percent above base zoning, whereas the State program currently allows up to a 35 percent bonus.
3. To reduce development costs, the City could consider reducing parking requirements for all projects in this transit-accessible location, though developers may or may not exercise this option depending on market considerations. Parking reductions may be effectively paired with travel demand management techniques, such as unbundling parking from basic housing costs and providing transit passes or carshare memberships or access.
4. To further reduce development costs, the City could consider waiving certain City fees for new housing developments that pursue the added density (as is already done for park in-lieu fees), or simply deferring the payment of such fees until later in the development process to reduce developers' financing costs.
5. To meet a wider spectrum of affordability than may be supportable through requirements or incentives for market-rate development, the City could consider financially supporting the construction or renovation of units by nonprofit builders and apartment operators by prioritizing the use of local resources such as Housing Mitigation Fund fees in the LSAP Plan area.
6. To procedurally support the construction or renovation of units by nonprofit builders and apartment operators, the LSAP should specifically state that affordable housing is a priority in the Plan area and development projects reaching lower income levels through tax credits and similar resources are expected and desired.

EXISTING CONDITIONS

CURRENT CITY POLICIES FOR NEW DEVELOPMENT

The City's current Below Market Rate (BMR) housing policy requires for-sale housing developments consisting of eight units or more to provide a minimum of 12.5 percent of the project's units at prices affordable to lower and moderate income households for a period of 30 years (enforced through occupancy and sale restrictions). As an alternative to providing the units within the project, the City has adopted a fee that for-sale developers can pay to support affordable housing elsewhere in the City.

In the past, the City required new market-rate rental apartment projects to provide 15 percent affordable units. At the present time, BMR units are no longer required in new rental developments, as a result of a recent court decision regarding affordable housing (Palmer) that found inclusionary zoning for rental housing projects to violate the Costa-Hawkins Act regarding restrictions on rent control. Like many cities, Sunnyvale is currently exploring the potential to adopt a nexus-based fee that rental projects would pay to support affordable housing in the City, with the possible alternative of providing affordable units within their projects.

The City charges a "linkage fee" for certain commercial developments that generate demand for affordable housing, and places those fees in a Housing Mitigation Fund to assist with construction or retention of affordable housing. As part of its Housing Element Implementation Program, in 2014 the City will be studying the potential to expand or increase the office linkage fee or Housing Mitigation Fund program.

CITYWIDE AFFORDABLE HOUSING NEEDS

As described in the City's 2009 Housing and Community Revitalization Sub-Element ("Housing Element"), every jurisdiction in California is assigned an RHNA. For Sunnyvale, the Association of Bay Area Governments (ABAG) is responsible for this allocation and assignment process, based on the following factors:

- Water and sewer capacity
- Land suitable for urban development or conversion to residential use

- Protected open space – lands protected by state and federal government
- County policies to protect prime agricultural land
- Distribution of household growth
- Market demand for housing
- City-centered growth policies
- Loss of units in assisted housing developments
- High housing cost burdens
- Impact of universities and colleges on housing needs in a community.

Sunnyvale's 2009-2014 RHNA is shown on Table B.1 and indicates that of the City's total allocation of 4,426 units, 40 percent should be affordable to Low and Very-Low Income households. Table B.2 indicates that the current Area Median Income (AMI) for Santa Clara County is $105,500 for a 4-person household. A Low Income household earns 51 to 80 percent of the AMI, or approximately $53,000 to $85,000, while a Very-Low Income household earns less than $53,000.

Also shown on Table B.1, in the draft RHNA for the period from 2014-2022, Sunnyvale has been allocated 5,447 total new housing units, of which 30 percent are Very-Low Income and 17 percent are Low Income, summing to 47 percent of the total units which must be lower-income units. This proportion is slightly higher than in Santa Clara County overall (44 percent) and the Bay Area overall (40 percent). The new RHNA figures are linked to the Sunnyvale's allocation of regional housing growth under the Sustainable Communities Strategy (tied to AB 375) and reflect an emphasis on development in "Priority Development Areas" such as the LSAP Plan area. The new RHNA figures are also influenced by factors including planned employment growth and the actual production of affordable housing units in past RHNA periods. Of note, the City of Sunnyvale appealed its housing growth allocation under the Sustainable Communities Plan and received a reduction of 531 units in April 2013.

All of these figures suggest that there is significant demand for affordable housing locally and regionally, and that, according to ABAG's analysis, the City has slightly greater capacity for providing affordable housing than some other cities in the area, due to its innovative land recycling programs and zoning. In short, the Plan area is both a current and expected location for housing, including units for a significant number of lower-income households.

AT-RISK AFFORDABLE HOUSING SUPPLY IN THE PLAN AREA

The City's Housing Element was reviewed to assess the amount and location of existing affordable units within the Plan area and to evaluate whether any of the City's current supply is at risk of transitioning to market-rate housing as a result of the Station Area Plan planning efforts. Of the City's official inventory of BMR rental and for-sale units—incorporated into otherwise market-rate projects through inclusionary zoning—and assisted rental housing units that have received governmental funding such as Low Income Housing Tax Credits (see Tables B.3 and B.4), there is one rental housing project called Aster Park, located at 1059 Reed Avenue, which is located within the Plan area. Aster Park provides 95 affordable units, most of which serve households meeting the Very Low Income category of 50 percent of the AMI. The City recently provided Aster Park a rehabilitation loan of $1.3 million in exchange for a new deed restriction requiring an additional 55 years of affordability. This means that this project is not at risk of converting to market-rate housing at least for roughly 50 years.

Although there is little risk of conversion of existing "official" affordable housing units in the Plan area, there is a supply of de facto affordable rental housing in the Plan area, the occupants of which could be at risk of displacement due to general market factors as the Plan area improves through development and investment. Displacement might occur, for example, if improvements to the area increase the market value of its existing housing stock, and households currently renting market-rate units can no longer afford those units. Rents have increased rapidly in the City and throughout Santa Clara County in recent years, and it is possible some displacement of this nature is occurring within and beyond the Plan area even before any redevelopment occurs in the Plan area. Homeowners are less likely to be displaced, even if they are lower-income, because California's tax laws severely restrict the amount that property taxes can be raised rather than allowing them to adjust to market values through re-assessments over time.

Table B.1: Sunnyvale Regional Housing Needs Allocation (RHNA)

		RHNA 2009-2014		RHNA 2014-2022 (DRAFT)	
Income Level	**Percent of AMI**	Units Allocated	Percent of Allocation	Units Allocated	Percent of Allocation
Very Low	Below 50%	1,073	24%	1,622	30%
Low	51 to 80%	708	16%	904	17%
Moderate	81 to 120%	776	18%	936	17%
Above Moderate	Above 120%	1,869	42%	1,985	36%
Total		**4,426**	100%	**5,447**	100%

Source: City of Sunnyvale Housing and Community Revitalization Sub-Element, Table 31; ABAG; EPS

Table B.2: Santa Clara County Affordable Housing Income Limits, FY 2013

		Household Size				
Income Level	**Percent of AMI [1]**	**1 person**	**2 person**	**3 person**	**4 person**	**5 person**
Median Family Income	*$105,500*					
Very Low	Below 50%	$37,150	$42,450	$47,750	$53,050	$57,300
Low	51 to 80%	$59,400	$67,900	$76,400	$84,900	$91,650
Median	100%	$73,850	$84,400	$94,950	$105,500	$113,950
Moderate	81 to 120%	$88,600	$101,300	$113,950	$126,600	$136,750

Source: California Department of Housing and Community Development.

Table B.3: Citywide Inventory of Active Below Market Rate (BMR) Units (Inclusionary Units)

Project Name	Address	Year Built	Affordability Period	Affordable Units	In Study Area
RENTAL					
Copley Square	979 Pinto Palm Terrace	1996	2016	5	No
Renaissance	718 Old San Francisco Road	1998	2018	24	No
Poplar Terrace	973-987 Wisteria Terrace	1999	2019	2	No
Villa del Sol	355 E. Evelyn Avenue	2001	2020	11	No
Cherry Orchard	350 W. El Camino Real	2001	2021	30	No
Magnolia	177 S. Mary Avenue	2002	2032	3	No
Tamarind Square	1160 Morse Avenue	2004	2059	12	No
Encinal Place	604 S. Fair Oaks Avenue	2005	2025	2	No
Via Apartments	621 Tasman Drive	2011	2066	43	No
Lawrence Station Apartments	1271 Lawrence Station Road	2012	2067	46	No
Total Active BMR Rentals				178	
Total BMR Rentals with Expiring Affordability in Next 10 Years				72	
FOR-SALE					
Existing BMR Homes (Owner-Occupied)	N/A (scattered sites)	1981-1999	20 years	63	No
Existing BMR Homes (Owner-Occupied)	N/A (scattered sites)	2000-2003	20 years	32	No
Existing BMR Homes (Owner-Occupied)	N/A (scattered sites)	2004-2012	30 years	242	No
BMR Homes under development *	N/A (scattered sites)	2013-2016	30 years	35	No
Total Active BMR For-Sale Units				372	
Total BMR For-Sale Units with Expiring Affordability in Next 10 Years				63	(estimated)

** Currently under construction or with active building permits issued.*

Source: City of Sunnyvale Housing and Community Revitalization Sub-Element, Table 24; City of Sunnyvale; EPS.

Table B.4: Citywide Inventory of Assisted Rental Housing (Government Subsidized)

Project Name	Address	Year Built	Affordability Period	Affordable Units	In Study Area
Aster Park	1059 Reed Avenue	1975	2065	95	**Yes**
Life's Garden	450 Old San Francisco Road	1977	2017	150	No
Klee Court	1230 Klee Court	1968 (Rehab 2010)	2023	5	No
Morse Court	825 Morse Avenue	2003	2023	35	No
Pacific Plaza	785 Reseda Drive	1995	2025	38	No
Grove Garden	243 Buena Vista Avenue	1987	2027	44	No
The Carroll Inn (SRO)	174 Carroll Street	1995	2035	119	No
Plaza de las Flores	233 Carroll Street	2006	2036	100	No
Borregas Court	West 101 Weddell Drive	1997	2037	192	No
Crescent Terrace	130 Crescent Avenue	1985	2040	48	No
Moulton Plaza	1601 Tenaka Place [1]	2005	2040	66	No
Stoney Pine	267 W. California Avenue	2001	2041	22	No
Bill Wilson Center Group Home	1353 Socorro Avenue	1956 (Rehab 2009)	2043	5	No
Eight Trees	183 Acalanes Drive	2006	2046	24	No
Homestead Park	1601 Tenaka Place [1]	1973 (Rehab 2002-13)	2052	211	No
Orchard Gardens	245-251 Weddell Drive	1998	2053	62	No
Fair Oaks Senior Housing	660 South Fair Oaks Avenue	2011	2066	124	No
Garland Plaza Apartments	662 South Fair Oaks Avenue	1959 (Rehab 2013)	2067	20	No
Momentum Group Home	Arbor Court	1920 (Rehab 2013)	2068	5	No
Momentum Group Home	Duane Court	1954 (Rehab 2011)	2068	4	No
Armory Apartments (Pending)	620 East Maude Avenue	Pending (2015)	2070	117	No
Senior Housing Group Home	1675 S. Wolfe Road	1959 (Rehab 2002)	n/a	4	No
Total Active Assisted Rentals				1,490	
Total Assisted Rentals with Expiring Affordability in Next 10 Years				190	

[1] Two different projects are noted with the same address on Table 25 of the City of Sunnyvale Housing and Community Revitalization Sub-Element.

Source: City of Sunnyvale Housing and Community Revitalization Sub-Element, Table 25; Sunnyvale staff; EPS.

Table B.5: Study Area Household Income Characteristics, by Tenure

	Households [1]					
	Owner Occupied		Renter Occupied		Total	
Income Category	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Less than $15,000	274	6%	693	9%	967	8%
$15,000 to $34,999	380	8%	1,037	13%	1,417	11%
$35,000 to $49,999	449	9%	918	12%	1,367	11%
$50,000 to $74,999	459	9%	1,297	17%	1,756	14%
$75,000 to $99,999	665	14%	1,242	16%	1,907	15%
$100,000 to $149,999	1,095	23%	1,531	20%	2,626	21%
$150,000 or more	1,522	31%	1,091	14%	2,613	21%
Total [2]	**4,844**	100%	**7,809**	100%	**12,653**	100%
Percent of Total Households	38%		62%		100%	

[1] Reflects data from the following census tracts:

Census Tract 5052.02, Santa Clara County, California

Census Tract 5053.01, Santa Clara County, California

Census Tract 5053.05, Santa Clara County, California

Census Tract 5085.08, Santa Clara County, California

Census Tract 5087.03, Santa Clara County, California

Census Tract 5087.04, Santa Clara County, California

[2] The total number of households noted here exceeds the number of households in the Study Area due to incongruous boundaries of the census tracts and the Study Area but is nevertheless an adequate indication of the distribution of household incomes in the Study Area.

Sources: 2007-2011 American Community Survey; Economic & Planning Systems, Inc.

Table B.6: Sunnyvale 2009-2014 RHNA Goals Applied to Study Area

			Allocation Applied to Study Area	
Income Level	**Percent of AMI [1]**	**Percent of Total Allocation**	**Minimum**	**Maximum**
Very Low	Below 50%	24%	242	564
Low	51 to 80%	16%	160	372
Moderate	81 to 120%	18%	175	408
Above Moderate	Above 120%	42%	422	982
Total		**100%**	**999**	**2,326**

Source: City of Sunnyvale Housing and Community Revitalization Sub-Element, Table 31; BMS Design Group; Economic & Planning Systems, Inc.

There are approximately 1,790 households located in the Plan area (including Santa Clara) with a median household income of $75,000 (in 2010 dollars). In the six Census tracts that include (and extend beyond) the Plan area, approximately 44 percent of households have incomes at or below the 80 percent of AMI threshold for Low Income, including 30 percent of households qualifying as Very-Low Income households at or below 50 percent of AMI. Interestingly, the proportions of households at Low and Very-Low Incomes around the Plan area are similar to those suggested under the current 2009-2014 RHNA and the draft RHNA for 2014-2022 in the City overall, suggesting that the RHNA figures would result in a comparable distribution of income levels as is already found in the Plan area.

Household income distribution varies by tenure, as shown on Table B.5. Of homeowner households in and around the Plan area, 32 percent qualify as Low Income or below, and of renter households, 51 percent qualify as Low Income or below. Again, the risk of economic displacement is higher among renters, as landlords may respond to rising market forces by raising rents while existing homeowners will not be required to absorb significantly increasing taxes or other housing costs.

PLAN AREA IMPLICATIONS

The Plan area is projected to yield between 2,422 and 4,731 new residential units through 2035, in addition to the 1,790 existing residential units. In Sunnyvale (excluding Santa Clara), the number of new residential units is between 999 and 2,326 units. Per City of Sunnyvale direction, these estimates represent 50 percent of the total potential housing build-out capacity under the Plan, reflecting the expectation that not all sites will be redeveloped to their maximum allowable capacity within that time period, if in fact they are redeveloped to include housing at all.

All new residential development in the Plan area will be subject to the City's affordable housing requirements. At present, that would mean that new for-sale projects would be required to provide 12.5 percent affordable units, while rental projects would not be required to provide any affordable units. As such, current policies would require the overall residential development in the Plan area to yield anywhere from zero to 12.5 percent affordable units, depending on the tenure of the projects built. These proportions obviously fall well short of those which would reflect the City's RHNA goals.

While there is no requirement that the Plan area meet its pro rata share of the City's housing allocation, if Sunnyvale's current RHNA were applied to the Plan area, it would suggest that between 400 and 940 of the new units (40 percent) should be available to "Low" and "Very Low" income households (see Table B.6). The City's affordable housing policies alone are insufficient to achieve this number of affordable units; other development incentives will be required. As will be discussed below, the City already offers effective incentives such as density bonuses to increase affordable housing production, and more incentives may be considered as part of the LSAP.

AFFORDABLE HOUSING GOALS

Given the Plan area's current income distribution as well as the current and expected RHNA goals for the City, it may be appropriate to set affordable housing goals in the Plan area that exceed the City's current inclusionary housing policies. This may also be both appropriate and financially possible because the City is contemplating, in the form of the Lawrence Station Area Plan, zoning and regulatory changes that will increase the allowable densities for development in the Plan area and should result in considerable increases to underlying property values. However, it would be very difficult for a given market-rate development project to provide affordable units that reflect the current demographics or the RHNA targets, because the cost to subsidize such high numbers of Low and Very-Low Income units would be expected to eliminate the profits that make new development an attractive investment.

Based on analysis to be described below, the City could consider a goal that new residential projects in the Plan area provide 20 percent affordable units—a goal that exceeds the City's current and previous policies of 12.5 to 15 percent. Such a goal could provide some flexibility allowing developers to provide more units at Low Income levels or fewer units at Very Low Income levels. The City may also consider establishing an overall goal for the Plan area that is higher still and approaching the RHNA targets (say, 35 to 40 percent), but the additional units would need to be provided through projects that receive funding assistance from various government resources.

IMPLEMENTATION STRATEGY

PRESERVATION OF EXISTING UNITS

The Plan area is home to many households and housing units today. Among these households, renters at lower income levels are most susceptible to displacement if the property owners stand to gain financially from demolishing existing lower-density units and replacing them with higher-density and potentially higher-value units. The Plan appropriately minimizes the risk of such displacement by not proposing increased density allowances on sites that are currently used for housing of any kind. Significant zoning capacity for housing is being proposed elsewhere in the LSAP Plan area, so the achievement of a dynamic, mixed-use environment is not contingent on redevelopment of existing housing units.

LOCAL DENSITY BONUS PROGRAM

Through Government Code Sections 65915-65918, the State of California requires jurisdictions to provide density bonuses to new development projects that offer certain proportions of affordable housing. The State law sets the maximum density bonus level at 35 percent (i.e., a project can include 35 percent more units than under the base zoning) for projects providing 11 percent Very-Low Income units, 20 percent Low-Income units, 40 percent Moderate Income units, or projects that dedicate sufficient land to accommodate affordable units equaling 30 percent of the project's total unit count. These figures are calculated based on the project under the base zoning: for instance, a 100-unit project providing 20 percent Low-Income units can be increased to 135 units, of which still only 20 would need to be offered at Very-Low Income levels. Table B.7 provides a chart showing the current State-mandated density bonuses associated with various affordability levels.

City of Sunnyvale staff members have indicated that the State density bonus program has been utilized by several residential projects, with the developers opting to provide 5 to 11 percent of the base zoning units as Very-Low Income units in exchange for density bonus up to 35 percent. The City also offers an additional 5 percent density bonus for projects utilizing green building techniques and materials, and several developers have

Table B.7: State of California Density Bonus Program

Affordable Unit Percentage**	Very Low Income Density Bonus	Low Income Density Bonus	Moderate Income Density Bonus	Land Donation Density Bonus
5.0%	20.0%	0.0%	0.0%	0.0%
6.0%	22.5%	0.0%	0.0%	0.0%
7.0%	25.0%	0.0%	0.0%	0.0%
8.0%	27.5%	0.0%	0.0%	0.0%
9.0%	30.0%	0.0%	0.0%	0.0%
10.0%	32.5%	20.0%	5.0%	15.0%
11.0%	35.0%	21.5%	6.0%	16.0%
12.0%	35.0%	23.0%	7.0%	17.0%
13.0%	35.0%	24.5%	8.0%	18.0%
14.0%	35.0%	26.0%	9.0%	19.0%
15.0%	35.0%	27.5%	10.0%	20.0%
16.0%	35.0%	29.0%	11.0%	21.0%
17.0%	35.0%	30.5%	12.0%	22.0%
18.0%	35.0%	32.0%	13.0%	23.0%
19.0%	35.0%	33.5%	14.0%	24.0%
20.0%	35.0%	35.0%	15.0%	25.0%
21.0%	35.0%	35.0%	16.0%	26.0%
22.0%	35.0%	35.0%	17.0%	27.0%
23.0%	35.0%	35.0%	18.0%	28.0%
24.0%	35.0%	35.0%	19.0%	29.0%
25.0%	35.0%	35.0%	20.0%	30.0%
26.0%	35.0%	35.0%	21.0%	31.0%
27.0%	35.0%	35.0%	22.0%	32.0%
28.0%	35.0%	35.0%	23.0%	33.0%
29.0%	35.0%	35.0%	24.0%	34.0%
30.0%	35.0%	35.0%	25.0%	35.0%
31.0%	35.0%	35.0%	26.0%	35.0%
32.0%	35.0%	35.0%	27.0%	35.0%
33.0%	35.0%	35.0%	28.0%	35.0%
34.0%	35.0%	35.0%	29.0%	35.0%
35.0%	35.0%	35.0%	30.0%	35.0%
36.0%	35.0%	35.0%	31.0%	35.0%
37.0%	35.0%	35.0%	32.0%	35.0%
38.0%	35.0%	35.0%	33.0%	35.0%
39.0%	35.0%	35.0%	34.0%	35.0%
40.0%	35.0%	35.0%	35.0%	35.0%

* All density bonus calculations resulting in fractions are rounded up to the next whole number.
** Affordable unit percentage is calculated excluding units added by a density bonus.

Source: http://www.kmtg.com/sites/default/files/publications/density_bonus_law_2012.pdf

Table B.8: Lawrence Station Area Plan Density Bonus Parameters

Income Category	Current State Ordinance		Potential LSAP Ordinance	
	% of Units	***Density Bonus***	***% of Units***	***Density Bonus***
Very-Low Income	*11%*	*35%*	*15%*	*50%*
Low Income	*20%*	*35%*	*30%*	*50%*
Moderate Income	*40%*	*35%*	*55%*	*50%*

utilized that program as well. These examples demonstrate that developers recognize the effectiveness and profitability of pursuing the density bonus programs, as the addition of market-rate units more than offsets the cost of subsidizing a modest number of affordable units.

Local jurisdictions have the opportunity to offer an enhanced density bonus program that provides more generous benefits than those under the State ordinance. In the LSAP, the City of Sunnyvale may consider offering a 50 percent density bonus for projects achieving 30 percent Low-Income units, or 15 percent Very-Low Income units. Such an approach, combined with an intermediate "base zoning" density (say, 50 units per acre with the potential to reach 75 through the density bonus), could yield a substantial amount of affordable housing as well as market-rate housing in the LSAP area.

Under the parameters suggested in Table B.8, a project that could include 100 units under base zoning would be able to construct 150 units under the LSAP Density Bonus program if the project included 15 Very-Low Income units or 30 Low Income units. Thus, the true proportion of affordable units would be 10 percent Very-Low Income or 20 percent Low Income. Each of these represents an increase in affordability compared to the City's past and present inclusionary zoning policies, combined with the State-mandated density bonus. For example, under the State program, a 100-unit project offering 11 Very-Low Income units would be eligible to build 135 total units, effectively resulting in a net percentage of only 8 percent affordable units.

A local density bonus program only provides a viable incentive if the developer's returns from a higher density project with affordable housing exceed those from a lower-density project with a lower affordable housing requirement. Market forces and site specifics will affect development costs and values over time, and it is impossible to say with certainty that a particular density bonus provision will yield such an incentive for every project. Still, it must be clear that allowing more than the State-mandated density bonus presents the opportunity for developers to realize higher returns and for the City to realize more affordable housing development. The following analysis demonstrates the potential financial attractiveness of such a program to developers.

Table B.9 estimates the typical costs of construction for wood frame apartments (4-5 stories) over podium parking, and compares those costs to the achievable unit values as various levels of affordability. The table provides these cost vs. value estimates under different density scenarios: base zoning (assumed to be 48 units/acre), the State-mandated 35 percent density bonus (65 units/acre), and the potential LSAP density bonus program (72 units/acre). As shown, the total costs per unit diminish slightly from base zoning through the maximum density bonus, as the cost of land acquisition is spread over a different number of units. Market-rate unit values, however, are expected to stay the same at each density level, and this results in the market-rate units (which are effectively Moderate Income units) being more profitable at higher densities. It is important to note that this analysis assumes that the full range of densities (48 to 72 units/acre) is achievable in a wood frame building over podium parking. Allowing still-higher densities may not prove fruitful, as buildings above five stories may have significantly higher costs per unit, thus negating the added profitability of market-rate units.

Table B.9 also shows the values of affordable units at Very-Low and Low Income levels, and compares these to the development costs. The values of these affordable units do not meet the costs of development, resulting in a subsidy required to construct those units. Again, however, the units at higher density levels require lower subsidies, because the land costs are lower per unit.

Finally, note that Table B.9 includes a scenario under the Base Zoning in which the project may be subject to an affordable housing impact fee of $10 per livable square foot. As will be discussed below, a fee program is currently being studied by the City of Sunnyvale for all new rental housing developments, but is not yet adopted.

Table B.9: Rental Feasibility Analysis by Density and Affordability Level

	Base Zoning		With 35% Density Bonus			With 50% Density Bonus		
	Market Rate (Moderate Income)	Market Rate with Aff. Hsg. Fee (Moderate Income)	Very Low Income (50% AMI)	Low Income (80% AMI)	Market Rate (Moderate Income)	Very Low Income (50% AMI)	Low Income (80% AMI)	Market Rate (Moderate Income)
Development Program Assumptions								
Density/Acre	48	48	65	65	65	72	72	72
Gross Unit Size	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
Net Unit Size	950	950	950	950	950	950	950	950
Number of Bedrooms	2	2	2	2	2	2	2	2
Number of Persons per 2-bedroom Unit [1]	3	3	3	3	3	3	3	3
Parking Spaces/Unit	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Cost Assumptions								
Land/Acre [2]	$4,000,000	$4,000,000	$4,000,000	$4,000,000	$4,000,000	$4,000,000	$4,000,000	$4,000,000
Land/Unit	$83,333	$83,333	$61,538	$61,538	$61,538	$55,556	$55,556	$55,556
Direct Costs								
Direct Construction Costs/Net SF [3]	$185	$185	$185	$185	$185	$185	$185	$185
Direct Construction Costs/Unit	$175,750	$175,750	$175,750	$175,750	$175,750	$175,750	$175,750	$175,750
Parking Construction Costs/Space	$15,500	$15,500	$15,500	$15,500	$15,500	$15,500	$15,500	$15,500
Parking Construction Costs/Unit	$31,000	$31,000	$31,000	$31,000	$31,000	$31,000	$31,000	$31,000
Subtotal, Direct Costs/Unit	$206,750	$206,750	$206,750	$206,750	$206,750	$206,750	$206,750	$206,750
Affordable Housing Impact Fee at $10/Net SF	$0	$9,500	$0	$0	$0	$0	$0	$0
Other Indirect Costs at 40% of Direct Costs [4]	$82,700	$82,700	$82,700	$82,700	$82,700	$82,700	$82,700	$82,700
Indirect Costs/Unit	$82,700	$92,200	$82,700	$82,700	$82,700	$82,700	$82,700	$82,700
Total Cost/Unit	$372,783	$382,283	$350,988	$350,988	$350,988	$345,006	$345,006	$345,006
Maximum Supported Home Price								
Household Income [5]	$117,400	$117,400	$47,750	$76,400	$117,400	$47,750	$76,400	$117,400
Income Available for Housing Costs/Year [6]	$35,220	$35,220	$14,325	$22,920	$35,220	$14,325	$22,920	$35,220
Less Utility Costs [7]	$1,620	$1,620	$1,620	$1,620	$1,620	$1,620	$1,620	$1,620
Income Available for Rent Payments	$33,600	$33,600	$12,705	$21,300	$33,600	$12,705	$21,300	$33,600
Operating Expenses per Unit/Year [8]	$10,487	$10,487	$6,000	$6,000	$10,487	$6,000	$6,000	$10,487
Net Operating Income	$23,113	$23,113	$6,705	$15,300	$23,113	$6,705	$15,300	$23,113
Capitalization Rate [9]	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
Total Supportable Unit Value [10]	$420,232	$420,232	$121,909	$278,182	$420,232	$121,909	$278,182	$420,232
Profit/(Subsidy)	**$47,449**	**$37,949**	**($229,079)**	**($72,807)**	**$69,244**	**($223,096)**	**($66,824)**	**$75,226**

[1] An average of 3 persons is used for this analysis based on Census data indicating the average family and household size in Sunnyvale is approximately 3 persons, and State law (Health and Safety Code Section 50052.5) indicates that a 2 bedroom unit should be assumed to be occupied by a 3-person household. Thus, EPS has assumed an average unit for income-qualified worker households would be 2-bedrooms.
[2] EPS estimate of multifamily residential land values based on a variety of sources, including appraisals provided by the City of Sunnyvale, interviews with developers, and recent land listings.
[3] Includes on-site work, offsite work, vertical construction, general requirements, overhead and developer fees.
[4] Includes costs for architecture and engineering; entitlement and fees; project management; appraisal and market study; marketing, commissions, and general administration; financing and charges; insurance; developer fee and contingency.
[5] Based on 2013 income limits for a three person household in Santa Clara County at the income-levels shown.
[6] Assumes housing costs to be 30% of gross household income based on maximum rents established under Sunnyvale's current BMR rental program.
[7] Based on Santa Clara County Housing Authority 2012 Utility Allowance Table assuming a low-rise apartment and natural gas service.
[8] Moderate income units generate rents similar to market-rate units, so EPS assumes that any moderate income units would be subject to property tax (1.0% of unit cost). Units for lower income levels are assumed to be produced by non-profit builders and thus not taxable.
[9] The capitalization rate is used to determine the current value of a property based on estimated future operating income, and is typically a measure of estimated development risk. Capitalization rates assumed herein are based on PwC Real Estate Investor Surveys from recent years.
[10] The total supportable unit value is determined by dividing the net operating income by the capitalization rate.

Sources: City of Sunnyvale; Affordable housing developers; HCD; PwC; Economic & Planning Systems, Inc.

Table B.10: Rental Project Profitability by Density Bonus Scenario

Scenario	Item	Factors by Affordability Level			Total
		Very Low	*Low*	*Market-Rate*	
A	**Base Zoning *without* Aff. Hsg. Fee (0% Affordable)**				
	Total Units	0	0	100	100
	Profit/(Subsidy) per Unit	N/A	N/A	$47,449	
	Total Profit/Subsidy	N/A	N/A	$4,744,863	$4,744,863
	Total Costs				$37,278,333
	Profit Margin				12.7%
B	**Base Zoning *with* Aff. Hsg. Fee (0% Affordable)**				
	Total Units	0	0	100	100
	Profit/(Subsidy) per Unit	N/A	N/A	$37,949	
	Total Profit/Subsidy	N/A	N/A	$3,794,863	$3,794,863
	Total Costs				$38,228,333
	Profit Margin				9.9%
C	**State 35% Density Bonus with 11% Affordable on Base Zoning (11% VLI)**				
	Total Units	11	0	124	135
	Profit/(Subsidy) per Unit	($229,079)	($72,807)	$69,244	
	Total Profit/Subsidy	($2,519,873)	$0	$8,586,195	$6,066,322
	Total Costs				$47,383,442
	Profit Margin				12.8%
D	**LSAP 50% Density Bonus with 15% Affordable on Base Zoning (15% VLI)**				
	Total Units	15	0	135	150
	Profit/(Subsidy) per Unit	($223,096)	($66,824)	$75,226	
	Total Profit/Subsidy	($3,346,447)	$0	$10,155,566	$6,809,119
	Total Costs				$51,750,833
	Profit Margin				13.2%
E	**LSAP 50% Density Bonus with 20% Affordable on Base Zoning (10% VLI and 10% Low)**				
	Total Units	10	10	130	150
	Profit/(Subsidy) per Unit	($223,096)	($66,824)	$75,226	
	Total Profit/Subsidy	($2,230,965)	($668,237)	$9,779,434	$6,880,232
	Total Costs				$51,750,833
	Profit Margin				13.3%
F	**LSAP 50% Density Bonus with 30% Affordable on Base Zoning (30% Low)**				
	Total Units	0	30	120	150
	Profit/(Subsidy) per Unit	($223,096)	($66,824)	$75,226	
	Total Profit/Subsidy	$0	($2,004,712)	$9,027,169	$7,022,457
	Total Costs				$51,750,833
	Profit Margin				13.6%

Source: EPS

Table B.10 builds upon Table B.9 by showing the profitability of alternative affordable housing goals for individual rental projects. Scenario A reflects a 100-unit project built under the base zoning that provides now affordable units but receives no density bonus. As shown, this illustrative project would yield a profit margin of 12.7 percent—an attractive return for a developer. Scenario B is the same project, but assumes that an affordable housing impact fee of $10 per square foot is imposed. That scenario achieves a 9.9 percent profit margin—marginally attractive but still potentially feasible. The remaining scenarios demonstrate why developers have utilized the density bonus program. Scenario C shows a project that provides 11 Very-Low Income units within the 100 units it can build by right, and then is allowed an additional 35 market-rate units through the State density bonus program. The 12.8 percent profit margin for this 135-unit project exceeds that for the 100-unit project under the base zoning. Scenarios D, E, and F demonstrate that a greater density bonus, if adopted by the City of Sunnyvale, can both achieve more affordable units and higher profit margins for the developers.

Tables B.11 and B.12 replicate the preceding analysis, but for multifamily for-sale developments. The City currently requires for-sale projects to provide 12.5 percent of units at prices affordable to Median Income (100 percent AMI) households. For this number of units at these price points, the State density bonus program appears to grant an additional 7.5 percent of units over the base density. To achieve the full 35 percent density bonus under the State program, 40 percent of units under the base zoning would need to be affordable at Moderate Income levels (including Median Income) or 20 percent at Low Income levels. If the City offered density bonus units up to 50 percent of base zoning with still greater affordability levels, Table B.12 suggests that profits could be similar to those under the State program, and greater than those under the City's basic inclusionary zoning program with a modest density bonus. As the for-sale housing market continues its recovery, the profitability of additional market-rate units may be still greater, making the density bonus more compelling for developers.

This analysis demonstrates that allowing higher density can support higher affordability goals for new projects, whether for-rent or for-sale, while also creating greater financial incentive for the redevelopment of existing underutilized properties in the Plan area.

Table B.11: For-Sale Feasibility Analysis by Density and Affordability Level

	Base Zoning	With 12.5% Inclusionary and 7.5% Density Bonus		With 35% Density Bonus			With 50% Density Bonus		
	Market Rate (Moderate Income)	Median Income (100% AMI)	Market Rate (Moderate Income)	Low Income (80% AMI)	Median Income (100% AMI)	Market Rate (Moderate Income)	Low Income (80% AMI)	Median Income (100% AMI)	Market Rate (Moderate Income)
Development Program Assumptions									
Density/Acre	48	52	52	65	65	65	72	72	72
Gross Unit Size	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
Net Unit Size	950	950	950	950	950	950	950	950	950
Number of Bedrooms	2	2	2	2	2	2	2	2	2
Number of Persons per 2-bedroom Unit [1]	3	3	3	3	3	3	3	3	3
Parking Spaces/Unit	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Cost Assumptions									
Land/Acre [2]	$4,000,000	$4,000,000	$4,000,000	$4,000,000	$4,000,000	$4,000,000	$4,000,000	$4,000,000	$4,000,000
Land/Unit	$83,333	$76,923	$76,923	$61,538	$61,538	$61,538	$55,556	$55,556	$55,556
Direct Costs									
Direct Construction Costs/Net SF [3]	$195	$195	$195	$195	$195	$195	$195	$195	$195
Direct Construction Costs/Unit	$185,250	$185,250	$185,250	$185,250	$185,250	$185,250	$185,250	$185,250	$185,250
Parking Construction Costs/Space	$15,500	$15,500	$15,500	$15,500	$15,500	$15,500	$15,500	$15,500	$15,500
Parking Construction Costs/Unit	$31,000	$31,000	$31,000	$31,000	$31,000	$31,000	$31,000	$31,000	$31,000
Subtotal, Direct Costs/Unit	$216,250	$216,250	$216,250	$216,250	$216,250	$216,250	$216,250	$216,250	$216,250
Other Indirect Costs at 40% of Direct Costs [4]	$86,500	$86,500	$86,500	$86,500	$86,500	$86,500	$86,500	$86,500	$86,500
Total Cost/Unit	$386,083	$379,673	$379,673	$364,288	$364,288	$364,288	$358,306	$358,306	$358,306
Maximum Supported Home Price									
Household Income [5]	$117,400	$94,950	$117,400	$76,400	$94,950	$117,400	$76,400	$94,950	$117,400
Income Available for Housing Costs/Year [6]	$35,220	$28,485	$35,220	$22,920	$28,485	$35,220	$22,920	$28,485	$35,220
Less Annual HOA Fees and Insurance [7]	$3,763	$3,756	$3,756	$3,737	$3,737	$3,737	$3,730	$3,730	$3,730
Less Property Taxes (1.1738%) [8]	$5,250	$4,135	$5,255	$3,200	$4,135	$5,255	$3,200	$4,135	$5,255
Income Available for Mortgage	$26,207	$20,594	$26,209	$15,983	$20,613	$26,228	$15,990	$20,620	$26,235
Mortgage Interest Rate [9]	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Mortgage Repayment Period (years)	30	30	30	30	30	30	30	30	30
Down Payment [10]	$44,762	$35,176	$44,767	$27,300	$35,208	$44,798	$27,312	$35,220	$44,811
Total Supportable Unit Value	$447,624	$351,763	$447,670	$272,995	$352,078	$447,985	$273,118	$352,201	$448,108
Profit/(Subsidy)	**$61,540**	**($27,911)**	**$67,996**	**($91,293)**	**($12,211)**	**$83,696**	**($85,188)**	**($6,105)**	**$89,802**

[1] An average of 3 persons is used for this analysis based on Census data indicating the average family and household size in Sunnyvale is approximately 3 persons, and State law (Health and Safety Code Section 50052.5) indicates that a 2-bedroom unit sho be assumed to be occupied by a 3-person household. Thus, EPS has assumed an average unit for income-qualified worker households would be 2-bedrooms
[2] EPS estimate of multifamily residential land values based on a variety of sources, including appraisals provided by the City of Sunnyvale, interviews with developers, and recent land listings.
[3] Includes on-site work, offsite work, vertical construction, general requirements, overhead and developer fees. Assumes for-sale homes are built to a higher level of finish than apartments, and have $10/SF higher costs.
[4] Includes costs for architecture and engineering; entitlement and fees; project management; appraisal and market study; marketing, commissions, and general administration; financing and charges; insurance; developer fee and contingency.

[5] Based on 2013 income limits for a three person household in Santa Clara County at the income-levels shown.
[6] Assumes housing costs to be 30% of gross household income.
[7] Assumes HOA dues of $275 per month and insurance costs of 0.12% of the total cost/unit.
[8] Includes special assessment districts in addition to the base tax rate of 1.00%, and is applied to total price/unit.
[9] Rate exceeds current prevailing terms for a 30-year fixed rate mortgages but is well below the historic average.
[10] Assumes a 10% down payment.

Sources: City of Sunnyvale; Affordable housing developers; HCD; PwC; Economic & Planning Systems, Inc.

Table B.12: For-Sale Project Profitability by Density Bonus Scenario

Scenario	Item	Factors by Affordability Level			Total
		Low	*Median*	*Market-Rate*	
A	**Base Zoning without Inclusionary Units or Density Bonus**				
	Total Units	0	0	100	100
	Profit/(Subsidy) per Unit	N/A	N/A	$61,540	
	Total Profit/Subsidy	N/A	N/A	$6,154,024	$6,154,024
	Total Costs				$38,608,333
	Profit Margin				15.9%
B	**Base Zoning with City's 12.5% Inclusionary Units and 7.5% State Density Bonus**				
	Total Units	0	13	95	108
	Profit/(Subsidy) per Unit	N/A	($27,911)	$67,996	
	Total Profit/Subsidy	N/A	($362,837)	$6,459,665	$6,096,828
	Total Costs				$42,723,000
	Profit Margin				14.3%
C	**State 35% Density Bonus with 40% Affordable on Base Zoning (40% Median)**				
	Total Units	0	40	95	135
	Profit/(Subsidy) per Unit	($91,293)	($12,211)	$83,696	
	Total Profit/Subsidy	$0	($488,424)	$7,951,160	$7,462,737
	Total Costs				$49,178,942
	Profit Margin				15.2%
D	**State 35% Density Bonus with 20% Affordable on Base Zoning (20% Low)**				
	Total Units	20	0	115	135
	Profit/(Subsidy) per Unit	($91,293)	($12,211)	$83,696	
	Total Profit/Subsidy	($1,825,866)	$0	$9,625,089	$7,799,223
	Total Costs				$49,178,942
	Profit Margin				15.9%
E	**LSAP 50% Density Bonus with 55% Affordable on Base Zoning (55% Median)**				
	Total Units	0	55	95	150
	Profit/(Subsidy) per Unit	($85,188)	($6,105)	$89,802	
	Total Profit/Subsidy	$0	($335,778)	$8,531,186	$8,195,408
	Total Costs				$53,745,833
	Profit Margin				15.2%
F	**LSAP 50% Density Bonus with 30% Affordable on Base Zoning (30% Low)**				
	Total Units	30	0	120	150
	Profit/(Subsidy) per Unit	($85,188)	($6,105)	$89,802	
	Total Profit/Subsidy	($2,555,633)	$0	$10,776,235	$8,220,602
	Total Costs				$53,745,833
	Profit Margin				15.3%

Source: EPS

COST-REDUCTION INCENTIVES

Fee Alternatives or Adjustments

The City is considering the adoption of an affordable housing fee for new rental residential projects. If adopted, these fees will represent an additional cost for development, although it should be noted that only in the past few years have rental residential projects not been required to provide inclusionary affordable units (due to the Palmer case). To encourage the construction of affordable units within new projects in the LSAP Plan area, the City may choose to allow developers to provide affordable units in lieu of paying this impact fee, which would then allow the project also to receive the benefits of the State and/or local density bonus program. Table B.10 suggests that such action would make the project more likely to achieve financial returns comparable or preferable to those under the impact fee program and base zoning. For example, if an affordable housing fee is adopted at $10 per residential square foot, the fee for a typical two-bedroom unit may be roughly $9,500. A project qualifying for the density bonus may be able to save $9,500 per unit through this fee waiver, plus be able to spread the land acquisition costs over more units to reduce the overall costs per unit and achieve the profits from additional market-rate units.

The City may also consider waiving or deferring certain other fees for affordable housing projects both in and beyond the LSAP Plan area. For example, some affordable projects have been exempt from the City's park fee. However, exemption from fees required for necessary infrastructure or services means other developments or the City taxpayers must pay the difference or receive lower levels of service. As an alternative, the City may consider deferring the payment of fees until late in the development process for affordable units or projects utilizing the density bonus, allowing developers to save many months of financing or carrying costs on those expenses while still generating the actual fee payments to the City.

Parking Reductions

The City may allow parking reductions for projects in the LSAP Plan area, with potentially deeper reductions for projects seeking the density bonus. With typical podium or structured parking costing at least $15,000 per

space, a project that provides 200 spaces would save at least $750,000 over one that provides 250 spaces.

To help make reduced parking a viable alternative for developers and residents, it may be advisable to encourage new housing projects to incorporate parking and travel demand management techniques. For example, some cities have required "unbundling" of parking so that occupants must pay separately for a parking space, but can achieve lower rents or sales prices if they require less parking. Similarly, projects that provide residents with transit passes or incorporate carshare programs can yield lower parking demands, and may be incented through credit for these efforts in a density bonus program.

Market forces will determine whether units with reduced parking availability can be competitive for renters, but providing an option for developers to reduce development costs and/or increase densities in exchange for affordable housing units is a proven approach to realizing affordability.

Financial Support for Affordable Housing Developers and Operators

In addition to requiring inclusionary units within market-rate projects, the City of Sunnyvale has assisted nonprofit builders and apartment operators by providing funding resources to support the construction or renovation of housing projects in exchange for deed restrictions assuring long-term affordability. These types of projects can provide more affordable housing units within the Plan area alongside the primarily market-rate development projects, and can meet price points and often provide services that are typically infeasible for market-rate builders to incorporate into their projects. The primary challenge in implementing this strategy is securing privately-owned property to serve as sites for these projects, as market-rate developers are able to pay higher land prices than can affordable builders without significant subsidy.

The City should continue to support such projects as financial resources are available, with special attention to projects within the Plan area given the Plan area's transit accessibility and other locational attributes as well as the documented demand for affordable housing throughout the City and within the Plan area. Local funding sources include in-lieu fees or affordable housing impact fees on residential development and Housing Mitigation Fund fees paid by office/industrial developments, and these can be combined with State and federal resources to make affordable housing projects feasible.

As the City considers updates to the Housing Mitigation Fund program, it may be worth considering expanding the program to include more types of projects. Currently only office and industrial projects exceeding a certain density threshold (0.35 Floor Area Ratio) are subject to the fee, and then only on the square footage above that density threshold. In this sense, the current program is similar to a density bonus program, but for office and industrial use. Other cities charge fees to more types of projects (retail, hotel, etc.), and implement the fees irrespective of base zoning allowances. The City could also prioritize the use of such funds in the Plan area and other Priority Development Areas, in recognition of the unique ability of these areas to provide access, services, and jobs critical to many lower-income households.

Policy Support for Affordable Housing Projects

The LSAP should also document that such projects are desirable and expected in the Plan area, so that future nonprofit partners can rely on policy and procedural support as they pursue their projects. With the proven history of neighborhood opposition to affordable housing developments throughout the Bay Area, having a strong policy statement in support of such projects can help clarify the LSAP's intentions and priorities for future decision-makers.

Approaches Not Recommended

Cities have limited resources and authorities to require or produce affordable housing or to directly address concerns about gentrification and displacement of lower-income households. Some cities (San Francisco, Berkeley, etc.) have adopted rent control ordinances that limit the amount that landlords can raise rents on renewing tenants. It is understood that this approach is not legally authorized for any apartments constructed since 1979, and does not recommend adoption of such restrictions for existing properties in the LSAP Plan area, as the benefits of preserving affordability

for a limited number of households may be outweighed by distortions in the marketplace, including disinvestment by property owners and a disincentive for renters with adequate means to acquire different housing.

It is also not recommended that the City of Sunnyvale actively acquire any parcels in the Plan area for future development as 100 percent affordable housing developments. As mentioned above, it may be highly appropriate for nonprofit builders to acquire such properties as they become available, and to use federal tax credits, State funding, and City funding (such as through affordable housing fees on new residential development) to subsidize the construction of such projects, which often can target Very-Low and even Extremely-Low Income households. However, it is not recommended that the City proactively acquire private properties for this purpose due to limited financial resources and a clear lack of success in past efforts at land banking, and the City does not control adequate property in the Plan area to offer a publicly-owned site for this purpose. The recent loss of Redevelopment authorities (such as parcel acquisition) and resources (such as tax increment) has made land banking more difficult as well.

APPENDIX C | FINANCIAL ANALYSIS AND DEVELOPMENT FEASIBILITY

The market and financial feasibility work conducted to support the preparation of this Plan occurred primarily in the Spring of 2013 with most data from 2012. Since then, there has been considerable improvement in the Bay Area's real estate market, across all land use types. For example, in the multifamily market in Sunnyvale, average residential rents have increased nearly 25 percent since the end of 2012. The average occupancy rate is 96 percent, and there are more multifamily residential units currently under construction (approximately 1,400) in the City than were delivered in total in the previous 15 years combined.

The non-residential market is also improving. At the time of the 2013 market analysis, significant office and industrial vacancies persisted and rent rates were modest. As of the end of 2014, there are nearly 4 million square feet of Class A office space under construction in the Sunnyvale/Cupertino submarket. Average class A office rents are approximately $42 per square foot per year. Across all classes of office space, lease rates are up approximately 15 percent from two years ago. Similarly, industrial properties in the South Bay are also seeing increases in rental rates. In the Sunnyvale/Cupertino submarket, lease rates are up more than 30 percent in the past two years to approximately $23 per square foot per year.

These improving real estate trends are important market signals and will support continued improvement with respect to the development feasibility conclusions drawn in 2013.

INTRODUCTION

Since very little land in the Plan area is publicly-owned, implementation of the LSAP will be heavily driven by the business plans and economic goals of private property owners. It is anticipated that new development will significantly increase property values and should be able to support a significant amount of new infrastructure investment in the Plan area. In order to help ensure this, development incentives as discussed in Chapter 7: Plan Implementation, will be a primary tool of ensuring financial feasibly for new development as well as achieving many of the land use goals of the Plan area.

While many property owners may have no current interest in selling or redeveloping their properties, others may be interested in exploring change now or in the future. They will not, however, be motivated to do so unless changing or intensifying uses is financially feasible and offers improved financial return and value.

The primary determinant of the overall feasibility of a particular real estate product type or development is the residual land value - the amount a developer could pay to acquire the land parcel and fund additional costs for infrastructure, right-of-way and open space improvements, lease buy-outs, and environmental remediation, as necessary, and still receive a sufficient return on those costs.

As part of the planning process for the LSAP, a financial pro forma analysis was prepared to evaluate development feasibility. The feasibility analysis was structured to reflect the challenges or opportunities for various types of development under near-term market conditions. The feasibility analysis uses financial pro formas to simulate the costs of developing and operating a given building prototype, and the potential revenues and resulting residual land value that can be achieved with each type.

DEVELOPMENT FEASIBILITY

Note: based on 2012 analysis.

The land value achieved from developing a new building must exceed the value of the existing property by a sufficient margin for a project to be feasible. If the residual land value margin is negligible, a property owner will not have an economic incentive to redevelop the property. Land residuals are likely to be attained by redeveloping uses at various densities under near-term market conditions. The land residuals provide an initial indication of the relative feasibility of different types and densities of use.

EXISTING LAND VALUES

While a comparison against existing values of specific parcels was beyond the scope of this study, per acre land values in the Plan area were researched and the current market value of a prototypical R&D property in the Plan area was estimated. Land value comparables are based on County assessor data and reflect the latest transaction data for select properties in the Plan area, primarily along Sonora Court. The average land value per acre of all properties researched is $863,000. Limiting the data to transactions that occurred in 2010 or 2011 reduced the land value to $722,000 per acre. The average land value per acre over the five- year period from 2007 to 2011 was $795,000.

The market value estimate of a prototypical property in the Plan area assumes a low-density R&D use on a one-acre parcel at an FAR of 0.3. Average R&D rents in the Plan area are approximately $0.90 per square foot per month and operating expenses are assumed to be 30 percent. A 7.0 percent cap rate is applied, resulting in a capitalized value of approximately $1.4 million per acre (including the value of the existing buildings as well as the land).

DEVELOPMENT VALUES

New development will significantly increase property values and should be able to support a significant amount of new infrastructure investment in the Plan area. Based on market research conducted for this study, the potential per-unit or per-square-foot building and land values for each land use category recommended in the Plan were estimated. Values for existing development, redeveloped and new development were compared to the existing value of the Plan area development, the gross build-out value, and the net new value. These values were then applied to the quantity of development proposed in each of the land use categories for each of the density scenarios.

The value of the new development at build-out was estimated (exclusive of the value of the existing development that is to remain) to range between $698.5 million and $2.1 billion (in today's dollars) depending on the density scenario. While the value of the development does not directly affect the revenues generated through development impact fees, development value does factor into estimates of supportable infrastructure costs and revenues from special assessments that may be established.

Residential Values

Residential property values in the City of Sunnyvale have increased significantly, and now reflect a citywide average sales price of $980,500 as of the end of July 2013 for all residential property types, reflective of a 25.6 percent increase from the previous year. Condominium/townhome prices are $660,100 for the same time period and are 28.3 percent higher than the prior year.

This analysis assumes that all existing residential development in the Plan area will remain. New, market rate, for-sale residential development in the Plan area will consist of multi-family housing and assumes a per unit value of $650,000. New, market rate, rental development is assumed to generate average per unit values of $420,000 based on findings from the Affordable Housing and Anti-Displacement Strategy summarized in Appendix B.

The City's current Below Market Rate (BMR) housing policy requires for-sale housing developments consisting of eight units or more to provide a minimum of 12.5 percent of the project's units at prices affordable to lower and moderate income households for a period of 30 years (enforced through occupancy and sale restrictions). For estimation purposes, new affordable for-sale units are assumed to be affordable to a household earning 100 percent of the 2013 Area Median Income (AMI) and priced at an average of $352,000, also based on findings from the May 2013 Affordable Housing and

Anti-Displacement Strategy. At present, new rental developments are not required to provide affordable units.

Commercial Values

Commercial value estimates are based on market research, including broker reports and commercial property listings as of 2013. Current office/R&D values in the Plan area are estimated to be approximately $314 per square foot, increasing to $510 per square foot with redevelopment or new development, based on current class A rents in the city. Retail values are estimated to be approximately $424 per square foot, and new or redeveloped retail values are shown to be approximately the same. Industrial values in the Plan area are assumed to be approximately $139 per square foot for both existing and new or redeveloped industrial uses, based on available broker reports.

INFRASTRUCTURE IMPROVEMENTS AND COST ESTIMATES

In order to determine whether new development in the Plan area can fund the required infrastructure or if there is a funding gap that will require the identification of alternative or new funding sources or a reconsideration of the identified infrastructure, estimated costs of the infrastructure improvements required to serve the Plan area were reviewed and compared with potential revenues.

As noted in the Circulation and Parking section, the Plan area will require extensive traffic and circulation infrastructure improvements as well as regional utility improvements. Infrastructure demands have been summarized in the Utilities and Public Services Chapter. Cost estimates have been summarized in Appendix E. Infrastructure improvement categories include local streetscape improvements, roadway connection modifications, bicycle/pedestrian improvements, and regional utility improvements at a total cost of $75.5 million. The Sunnyvale Primary Loop Road (approximately $12.57 million) and the two rail crossings (approximately $16.25 million) are the two most costly infrastructure improvements.

These circulation improvements represent the major facilities improvements that will be required or desired in the Plan area and may require unique funding mechanisms. Other public facilities, including parks and schools, are assumed to be funded in the typical manner—through impact fees imposed by the City or School District. Those entities would then collect the standard fees and use them to fund new or expanded facilities in Sunnyvale to address new demand created through intensified development in the Plan area.

PRO FORMA ANALYSIS

As mentioned previously, as part of the planning process for the LSAP, a financial pro forma analysis was prepared to evaluate development feasibility. Based on market research and other planning considerations, the analysis established appropriate physical parameters for the types of buildings to be analyzed. Such parameters include the densities and parking requirements for each building type. These determinations were made based on a desire to test a range of development options given how costs associated with various types of construction (e.g., wood frame vs. steel) and parking can vary, and appropriateness for a transit-served location. The types of buildings tested include townhome and low- to mid-rise residential structures, both for sale and for rent, as well as low-rise and mid-rise office buildings with structured parking.

The feasibility analysis uses financial pro formas to simulate the costs of developing and operating a given building prototype, and the potential revenues and resulting residual land value that can be achieved with each type. The pro forma models developed for these analyses are "static." They compare the development costs to the future resale value of the building after stabilized operations have been achieved for each of the building prototypes tested. For each of the building prototypes, the feasibility analyses have applied generalized development and operating cost figures. Achievable lease rates and sale prices are estimated based on market conditions in the Sunnyvale/Santa Clara area and assume high-quality, new construction products. The construction and operating cost estimates and the value estimates were all generated using published materials as well as research to ensure that they are consistent with similar recent developments within the region.

Potential feasibility is indicated when the residual land value for a given product type is not only positive but sufficiently positive to incentivize a

landowner to redevelop their property rather than maintaining the existing revenue-producing but lower-density use.

The pro forma analyses provide an estimate of the residual land values associated with each product prototype under near-term market conditions (i.e., the next five years). Product prototypes that are not currently feasible may become feasible as market conditions improve. Actual feasibility will depend on current land values, demolition required, site and infrastructure improvements required, and developer interest. Specific findings are noted below:

Residential

Under current market conditions, for-sale townhome, low-rise, and mid-rise residential product types return positive land residuals, but only the townhome prototype generates sufficient return to potentially incentivize redevelopment of an existing use. As market conditions improve, the other residential product types may begin to generate higher residual land values.

Office/High-Value R&D

Of the office/high-value R&D product types evaluated, none achieved positive residual land values under current market conditions. Development costs assume that each of the office developments would require structured parking. Lower-density development with lower-cost surface parking may yield improved financial feasibility results but would not be consistent with the development goals of the Plan.

Mixed-Use

The feasibility of mixed-use projects is dependent upon the proportions of housing, retail, and office land uses that are included in the development, as well as the parking format utilized. Because there are several variables in the ability of a project to achieve the price points necessary for feasibility, it is often most appropriate to address mixed-use projects' feasibility on a case-by-case basis, a task not supported by the scope of this analysis. Still, it is worth noting that most "mixed-use" buildings tend to have ground floor retail uses with office or residential space above, and that the primary factor in the feasibility of such buildings is the market support and achievable values for those upper-floor uses. Typically, the ground floor space is more of an amenity with an ancillary revenue stream that may or may not cover the added costs of its inclusion. Mixed-use buildings with more than one "upper floor" use (e.g., ground floor retail with office above and residential above that) have some precedent, but tend to be difficult to finance, given that the market conditions and lenders/investors for both the office and residential portions must coincide.

Feasibility Conclusions

This feasibility analysis is intended to reflect the challenges or opportunities for various types of development under near-term market conditions. The findings suggest that townhome-density residential development may be among the first product types to be feasible in the Plan area, and may be able to displace existing lower-value industrial/flex buildings occupying key sites. Higher-density residential and office/R&D buildings are likely to be developable only in the mid- to longer-term, as market conditions and prices recover and as existing vacant supply becomes less available.

The conclusions may seem counter-intuitive—that lower-density development actually generates the highest land values and thus are most feasible in the near term. This result reflects the fact that lower-density development has lower construction costs per square foot or unit, while the market values achievable per square foot or unit may be the same or higher than those for higher-density developments.

It is worth noting that the residual land value can be extremely sensitive to assumptions or market conditions, as a modest change to a cost or revenue assumption can make a very large difference in residual land value estimates. For example, a building that costs $90 per square foot to build and sells for $100 per square foot has a $10 residual land value per square foot. Increasing the development value by 1 percent to $101 would increase the residual land value by 10 percent to $11 per square foot. This example is provided to illustrate that the expected future of real estate sectors may alter the results of this analysis and make certain types of development more feasible than is suggested under near-term market conditions.

Table C.1: Per Unit/Per Square Foot Existing and Proposed Development Values
(based on 2012 analysis)

Land Use Category	Estimated Value
Residential (units)	
Existing Development	*n/a*
New Development, Market Rate (For Sale) [1]	*$650,000*
New Development, Market Rate (Rental) [2]	*$420,000*
New Development, Affordable [3]	*$352,000*
Office/R&D (sq.ft.)	
Existing Development [4]	*$314*
New Development [5]	*$510*
Retail (sq.ft.)	
Existing Development [6]	*$424*
New Development [6]	*$424*
Industrial (sq.ft.)	
Existing Development [7]	*$139*
New Development [7]	*$139*

1. The market rate, for sale housing value is based on condo/townhome sales in Sunnyvale as of July 2013.
2. The market rate rental value is based on prior EPS research for the Sunnyvale Affordable Housing and Anti-Displacement Strategy, dated May 21, 2013.
3. The value of the affordable units is based on what an household earning 100% of the 2013 Area Median Income (AMI) can afford, applying standard assumptions. See EPS's Sunnyvale Affordable Housing and Anti-Displacement Strategy, dated May 21, 2013.
4. Value assumes a NNN lease rate of $22 per square foot which is based on Loopnet listings in the Station Area as of September 2013. A 7% cap rate is applied.
5. Value assumes a full service lease rate of $4.25 per square foot per month for Class A space in Sunnyvale based on data compiled by CBRE, as of 1Q2013. Annual operating costs of 30% are assumed and a 7% cap rate is applied.
6. There is little appreciable difference between existing and new retail development values in the Sunnyvale market currently. Value assumes a NNN lease rate of $29.71 per square foot per year based on Sunnyvale/Cupertino data compiled by Terranomics, as of 2Q2013. A 7% cap rate is applied.
7. There is little appreciable difference between existing and new industrial development values in the Sunnyvale market currently. Value assumes a NNN lease rate of $0.81 per square foot per month based on Sunnyvale manufacturing data compiled by Cassidy Turley, as of 2Q2013. A 7% cap rate is applied.

Sources: Zillow; Loopnet; CBRE; Terranomics; Cassidy Turley; and Economic & Planning Systems, Inc

Table C.2: Total Existing and Proposed Development Values
(based on 2012 analysis)

Estimated Likely Development (at 50%)		
Land Use Category	**Minimum Density**	**Maximum Density w/ Incentives**
Residential (units)		
Existing Development	--	--
Future Buildout	--	--
Existing to Remain [1]	--	--
Market Rate For Sale	*$284,090,625*	*$661,456,250*
Market Rate Rental	*$209,790,000*	*$488,460,000*
Affordable	*$21,978,000*	*$51,172,000*
Subtotal, Net New	*$515,858,625*	*$1,201,088,250*
Office/R&D (sq.ft.)		
Existing Development [2]	*$754,549,714*	*$754,549,714*
Future Buildout	*$935,635,607*	*$1,619,523,677*
Existing to Remain [3]	*$377,274,857*	*$377,274,857*
New Development	*$558,360,750*	*$1,242,248,820*
Net New	*$181,085,893*	*$864,973,963*
Retail (sq.ft.)		
Existing Development	*$92,984,236*	*$92,984,236*
Future Buildout	*$91,953,723*	*$91,953,723*
Existing to Remain [4]	*$57,908,185*	*$57,908,185*
New Development	*$34,045,538*	*$34,045,538*
Net New	*-$1,030,513*	*-$1,030,513*
Industrial (sq.ft.)		
Existing Development [5]	*$2,478,600*	*$2,478,600*
Future Buildout	*$5,054,678*	*$6,158,731*
Existing to Remain	*$0*	*$0*
New Development	*$2,576,078*	*$3,680,131*
Net New [5]	*$2,576,078*	*$3,680,131*
Total Net New Value	*$698,490,083*	*$2,068,711,831*
Source: Economic & Planning Systems, Inc.		

MITIGATION AND IMPACT FEES

As with many California jurisdictions, the City of Sunnyvale already charges development impact fees to fund infrastructure improvements required by new development. The impact fee funding accrues incrementally over time as new development occurs. Development impact fees can only fund capital improvements (i.e., not ongoing maintenance expenses) that are on the fee program project list, which is amended from time to time and cannot be used to fund infrastructure improvements required to serve existing development or cover existing deficiencies. The City currently collects the following mitigation and impact fees:

- Housing Mitigation Fees
- Park in-lieu Fees
- Tree Replacement in-lieu Fees
- Art in Private Development in-lieu Fees
- Storm Drainage Fees
- Water and Sewer Connection Fees
- Transportation/Traffic Fees
- Sense of Place Fee
- Community Facilities District

The potential revenue for each of the above fee categories has not be estimated as this time because many require more detailed development program assumptions than are currently available, are not likely to apply, or may change over time. For example, the Housing Mitigation Fee currently applies to high intensity industrial development in the M-S or M-3 zoning districts, which do not apply in the Lawrence Station Plan area.

Park in-lieu fees, school impact fees and utility connection charges are set at levels intended to fund new development's share of these infrastructure improvements, and will apply to new construction in the Plan area.

In contrast, the circulation improvements needed to implement the Plan do represent unique facilities required to enhance access and safety in the Plan area, and exceed the financing capacity of the City's currently applicable Transportation Impact Fee, so funding mechanisms that can contribute to those costs have been evaluated.

TRANSPORTATION IMPACT FEES

Transportation impact fees are charged to new development to fund major transportation projects, including bicycle and pedestrian improvements necessary to support land use plans. The City's TIF program varies by area of the City (North of Highway 237 and South of Highway 237). Applicable development in the Plan area will pay the South of 237 fees which vary by land use based on peak hour trips. The fees are charged to net new development (i.e., new residential units and increased commercial square footage). The existing development that will remain will not pay transportation impact fees.

The Minimum Density scenario could generate approximately $1.2 million based on the application of the existing transportation impact fees. The alternatives with more density and, therefore, more net new development, generate higher revenues. The Estimated Likely Development scenario generates approximately $3.4 million in fee revenue and the Maximum Density with Incentives scenario generates approximately $6.0 million in transportation impact fee revenue. These calculations are based on development in the City of Sunnyvale only and exclude development in the City of Santa Clara. With Plan area transportation improvements estimated to cost roughly $46 million, it is clear that the current Transportation Impact Fee program will fund only a fraction of the total costs.

SENSE OF PLACE FEE

Elsewhere in Sunnyvale, in Industrial to Residential (ITR) Areas 7 and 8 and in East Sunnyvale, the City assesses a "Sense of Place" fee of approximately $1,100 per residential unit which is used to fund neighborhood amenities intended to improve livability and facilitate access to pedestrian, bicycle and transit use. Though applying a similar fee to new development in the Plan area would add costs that may affect feasibility, the fee would contribute to additional amenities in the area that may have off-setting gains in terms of property values, and could help ensure that the improvements are

coordinated both in form and in time, rather than produced in piecemeal fashion as new development occurs. At the current rate of $1,100 per unit, this type of fee could generate $1.0 million to $2.4 million in one-time fee revenue for Plan area improvements.

This fee could be increased in accordance with the Mitigation Fee Act. If the fee were increased to make up the gap between the required infrastructure improvements and what can be funded through transportation impact fee revenues, the fee per residential unit would need to be approximately $16,000 (under the Maximum Density with Incentives scenario) to $44,000 (under the Minimum Density scenario). These may not be feasible fee levels. However, such a fee could also be extended to commercial properties, which would lower the fee to residential units.

COMMUNITY FACILITIES DISTRICT

Additional funding sources that could be explored include a Community Facilities District (CFD), where the special fees generated would be focused on the Plan area and combined with inter-governmental grant programs. For estimating purposes, it has been assumed that a CFD would be assessed on the net new value generated through redevelopment and new development, not just the net new development in terms of units or square footage. At build-out, a CFD special tax of 0.4 percent of assessed value would generate between $2.8 million and $8.3 million per year of gross revenue in 2014 dollars. A $35.0 million to $103.5 million bond could be issued against this annual revenue (assuming 6.0 percent interest and a 30-year term), although the full funding capacity would not be realized until the full build-out of the Plan area. As such, incremental bonds may be issued for smaller phases over several decades.

Together, a CFD-backed bond plus revenue from Transportation Impact Fees generated by new development in the Plan area are estimated to generate $36.2 million under the Minimum Density scenario and up to $109.5 under the Maximum Density with Incentives scenario. These two sources are not sufficient to fund the required infrastructure of $46.3 million under the Minimum Density Scenario but more than sufficient under the Estimated Likely Development and Maximum Density with Incentives scenarios.

GRANT FUNDING

Grant funding sources may be available to assist with new development in the Plan area, particularly in light of the city's intent to enhance and intensify a transit-served urban infill location. If received, grant funding could significantly reduce the developers' obligation toward infrastructure financing. The city has already indicated its interest in pursuing external funding sources, which may include programs available at the regional or State level that particularly focus on infrastructure improvements and housing intensification and diversification in transit-served locations. Such funding sources and available amounts will vary over the long-term build-out of the Lawrence Station Area Plan area, but recent examples include the State's Proposition 1B and 1C programs for transportation improvements and affordable housing, respectively, as well as the Metropolitan Transportation Commission's Transportation for Livable Communities and Housing Incentive Programs and One Bay Area Grants.

APPENDIX E | WASTEWATER GENERATION ESTIMATES

Table E.1: Unit Flow Rate

	Units/Acre	Person/Unit	Flow (gal/acre/day)
Low Density Residential	*5*	*2.2*	*880*
Medium Density Residential	*10*	*2.2*	*1430*
Med/High Density Residential	*25*	*2.2*	*3025*
High Density Residential	*50*	*2.2*	*5500*
Commercial			*1200*
Industrial			*3000*
School/Park			*300*

Table E.2: Estimated Sewer Generation for Existing Land Use

	Low Density Residential	Low Medium Density Residential	Medium Density Residential	Industrial to Residential (Medium Density)	Industry	Total
Baseline Area (ac)	*44*	*15*	*48*	*29*	*165*	*301*
Units/Acre	*7*	*14*	*27*	*27*		
Units	*308*	*210*	*1,296*	*783*		
Unit Flow Residential	*80*	*75*	*65*			
FAR (Com/Ind)				*0.5*	*0.5*	
Unit Flow (gal/sf/day)				*0.138*	*0.138*	
Floor Area (sf)				*631,620*	*3,593,700*	
Flow (gal/day)	54,208	36,960	228,096	87,000	495,000	901,264

Table E.3: Estimated Sewer Generation for LSAP Estimated Likely Development

	Low Density Residential	Low/Medium Density Residential	Medium Density Residential	High Density Residential	Mixed Use Transit Support North	Mixed Use Transit Support South	Mixed Use Transit Support W/ Retail South	Mixed Use Transit Core	Mixed Use Transit Core + Retail	Office R&D	Industrial to residential	Industrial	Mixed Use Office/ Retail	Total
Area per LSAP (ac) at 100% Buildout	*44*	*15*	*56*	*1*	*37*	*14*	*3*	*48*	*37*	*35*	*0*	*0*	*4*	*294*
Dwelling Units/Acre	*7*	*12*	*24*	*54*	*68*	*54*	*54*	*68*	*68*					
Dwelling Units	*308*	*180*	*1,344*	*54*	*2,516*	*756*	*162*	*3,264*	*2,516*	*0*				
Unit Flow Residential (Gal/ Capita/Day)	*80*	*76*	*65*	*50*	*51*	*42*	*42*	*50*	*50*	*50*				
FAR (Com/Ind)					*1*	*2*	*3*	*1.5*	*1.5*	*1.5*		*0.5*	*0.75*	
Unit Flow (gal/sf/day)					*0.055*	*0.055*	*0.055*	*0.055*	*0.055*	*0.055*		*0.138*	*0.055*	
Floor Area (sf)					*1,611,720*	*1,219,680*	*392,040*	*3,136,320*	*2,417,580*	*2,286,900*		*0*	*130,680*	
Flow (gal/day) at 100% Buildout	*54,208*	*31,680*	*236,544*	*9,504*	*531,616*	*200,256*	*50,112*	*747,264*	*576,016*	*126,000*		*0*	*7,200*	*2,570,400*
Estimated Likely Development Flow (gal/day)	**54,208**	**34,320**	**232,320**	**4,752**	**265,808**	**100,128**	**25,056**	**373,632**	**288,008**	**106,500**	**43,500**	**247,500**	**3,600**	**1,779,332**

APPENDIX F | CONCEPTUAL ENGINEERS ESTIMATE OF PROBABLE CONSTRUCTION COST

BKF ENGINEERS / SURVEYORS / PLANNERS

LAWRENCE STATION AREA PLAN
INFRASTRUCTURE COST ANALYSIS
January 15, 2014

ITEM	DESCRIPTION	PRIORITY	UNITS	UNIT COST	QUANTITY	COST
A	LOCAL STREETSCAPE IMPROVEMENTS					
1	Sunnyvale Primary Loop Road (West end and East End)	I	LF	$2,000	5351	$10,700,000
2	Sunnyvale Primary Loop Road at Lawrence Station	I	LF	$1,900	343	$650,000
3	Sunnyvale Primary Loop Road at Neighborhood Center	I	LF	$2,000	213	$430,000
4	Sunnyvale Pedestrian Retail Street (extension of San Ysidro)	I	LF	$1,700	790	$1,340,000
5	Sunnyvale Primary Loop Road (Sonora: striping, signage)	I	LF	$200	1145	$230,000
6	Sunnyvale Kifer Rd. Improvements (median, striping, 1 sidewalk)	I	LF	$100	5656	$570,000
	LOCAL STREETSCAPE IMPROVEMENTS SUBTOTAL					**$13,920,000**
B	ROADWAY CONNECTION MODIFICATIONS					
1	Loop/Kifer (West): New signal, 3 crosswalks	I	EA	$376,500	1	$376,500
2	Loop/Kifer (East): Modify signal, 2 crosswalks	I	EA	$251,000	1	$251,000
3	Retail/Kifer: New signal, 4 crosswalks	I	EA	$376,500	1	$376,500
4	Semiconductor/Kifer: 3 crosswalks	I	EA	$1,500	1	$1,500
5	Costco/Kifer: 3 crosswalks	I	EA	$1,500	1	$1,500
6	E Evelyn/Aster: 4 crosswalks	I	EA	$2,000	1	$2,000
7	Aster/Azalea: 2 crosswalks	I	EA	$1,000	1	$1,000
8	Reed/E Evelyn: 4 crosswalks, 8 bulbouts	I	EA	$75,600	1	$75,600
9	Reed/Timberpine: 3 crosswalks	I	EA	$1,500	1	$1,500
10	Reed/Willow: 1 crosswalk, 2 ramps	I	LS	$18,900	1	$18,900
11	Aster/Willow: 3 crosswalks	I	LS	$1,500	1	$1,500
12	Lawrence/Reed: 5 crosswalks, 8 bulbouts (Sunnyvale side only)	I	EA	$76,100	1	$76,100
13	Lawrence/Kifer: 9 crosswalks, 12 bulbouts (Sunnyvale side only)	I	EA	$114,900	1	$114,900
14	Regional Trail crosswalk with flashing beacons	I	EA	$78,500	2	$157,000
15	Misc Crosswalks: at station, Loop Rd/rail undercrossing, Future trail to undercrossing/Aster	I	EA	$500	3	$1,500
	ROADWAY CONNECTION MODIFICATIONS SUBTOTAL					**$1,457,000**
C	BICYCLE, PEDESTRIAN IMPROVEMENTS					
1	Rail Crossing	I	LF	$8,125,000	2	$16,250,000
2	Sunnyvale Calabazas Creek Improvements (within new 150' Right of Way@$10/sf)	I	LF	$2,000	1254	$2,510,000
3	Sunnyvale El Camino Storm Drian (Channel) Trail Paving Only	I	LF	$200	2000	$400,000
4	Sunnyvale El Camino Storm Drian (Channel) Bridge	I	LF	$166,700	1	$170,000
5	Sunnyvale El Camino Storm Drian (Channel) New Channel Section, Trail	I	LF	$1,400	181	$250,000
	BICYCLE, PEDESTRIAN IMPROVEMENTS SUBTOTAL					**$19,580,000**
D	REGIONAL UTILITY IMPROVEMENTS					
1	Sunnyvale Recycled Water extension across railroad	I	LF	$103,000	225	$23,180,000
	REGIONAL UTILITY IMPROVEMENTS SUBTOTAL					**$23,180,000**
					TOTAL CONSTRUCTION COST	**$58,100,000**
					Design, Soft Costs, Mapping (at 15%)	$8,715,000
					Inspection, Staking, C/A (at 10%)	$5,810,000
					Project Management (at 5%)	$2,905,000
					GRAND TOTAL	**$75,530,000**

Notes:
1. This estimate excludes work within the city of Santa Clara except that signals and crosswalks crossing Kifer are included.
2. Costs do not include land acquisition or additional right of way costs. Condemnation may be required for some properties since the required width for new roads will reduce the property value sufficiently to preclude any voluntary redevelopment.
3. Costs do not include demolition of existing structures.
4. All storm drain, sanitary sewer, water and joint trench are included in $/LF cost for new roads.
5. This estimate is based on the Urban Design and Streetscape Guidelines (UDSG) dated June 2013.
6. Kifer TI=10(no improvements), Loop road TI=7, all other roads TI=5.5. Soil resistivity R=5
7. Sunnyvale is updating a citywide sewer capacity study in order to downsize the treatment plant and improve efficiency. Future upgrades to sewer trunk mains may be necessary. Value for this item will be determined once the city completes the study.
8. The estimated cost of recycled water crossing the railroad is for an independent bore and jack installation. The water might be placed within the pedestrian undercrossing at a substantially lower cost.

Lawrence Station Area Plan Improvements EXCLUDED from this estimate:
1. Caltrain Station improvements .
2. Grade separation of Lawrence Expressway.
3. Bridge , tunnel and road construction costs associated with crossing Lawrence Expressway at 2 new locations shown in the UDSG.
4. Portions of the loop road in Santa Clara or outside the plan area.
5. New Caltrain and neighborhood parking facilities.
6. Wider bridges at Rail crossing, and Kifer.
7. Removal of the existing rail spur.
8. Floodplane modification improvements.
9. Recycled water main extension to plan boundary and along existing streets. (Recycled water is included in new streets)
10. Demolition of San Zeno will be at the developer's cost.
11. Widening of streets surrounding the Corn Palace will be at the adjacent developer's cost.
12. Widening of right of way and sidewalk improvements will be at the adjacent developer's cost.
13. Sewer capacity improvements .

APPENDIX G | ACKNOWLEDGEMENTS

This Plan was prepared under the guidance and review of the following:

CITY OF SUNNYVALE COMMUNITY DEVELOPMENT DEPARTMENT, PLANNING DIVISION

Hanson Hom, AICP, Department Director

Trudi Ryan, AICP, Planning Officer

Andrew Miner, AICP, Principal Planner

SUNNYVALE CITY COUNCIL

Jim Griffith, Mayor

Tara Martin-Milius, Vice Mayor

David Whittum, Councilmember

Pat Meyering, Councilmember

Jim Davis, Councilmember

Glenn Hendricks, Councilmember

Gustav Larsson, Councilmember

SUNNYVALE PLANNING COMMISSION

Russell Melton, Chair

Ken Olevson, Vice Chair

Ralph Durham

Sue Harrison

Larry Klein

Ken Rheaume

David Simons

CITIZENS ADVISORY GROUP (CAG)

Appointees

Sue Harrison, Planning Commission

Russell Melton, Planning Commission

Barbara Fukumoto, Sustainability Commission

Younil Jeong, Housing and Human Services Commission

Mike Kim, Business/Property Owner rep

Conor Flannery, Business/Property Owner rep

Mark Cushman, Plan Area Resident

Saket Gadia, Plan Area Resident

Ron Aoyama, Plan Area Resident

Lois Smallwood, Resident At-Large

Ali Amin, Business/Property Owner Alternate

Dan Deibel, Business/Property Owner Alternate

TECHNICAL ADVISORY GROUP (TAG)

Connie Verceles, City of Sunnyvale, Economic Development Department

Judy Chu, City of Sunnyvale, Engineering Service Division-Department of Public Works

Robert Swierk, Valley Transportation Authority (VTA)

Steve Lynch, City of Santa Clara, Planning Division

Payal Bhagat, City of Santa Clara, Planning Division

Dawn Cameron, County of Santa Clara

Janice Spuller, County of Santa Clara

Therese Trivedi, MTC

Mark Shorett, ABAG

Marisa Espinosa, SamTrans

Jackie Winkel, Bay Area Air Quality Management District

Sebastian Petty, Caltrain

CONSULTANT TEAM

Page/BMS Design Group

Prime Consultant, Urban Design, Planning, Landscape Architecture

Barbara Maloney, Principal

Michael Smiley, Principal

Joy Glasier, Senior Landscape Architect

Tim Honeck, Designer

Tim Hurley, Urban Designer

Paige Martin, Senior Landscape Architect

Fehr & Peers

Transportation Planning, Traffic and Parking Analysis

Matt Haynes, Principal

Franziska Church, Senior Transportation Planner

Economic and Planning Systems, Inc.

Market and Financial Analysis

Darin Smith, Principal

Ashleigh Kanat, Vice President

BKF Engineers,

Surveyors and Planners

Daniel Schaefer, Principal / Vice President

Chris Mills, Project Manager

PMC

CEQA Analysis, Environmental Impact Report

Patrick Angell, Principal-in-Charge

Eisen | Letunic

Consulting Planners

Niko Letunic, Principal + Urban Planner

Attachment 6

Attachment 6

PUBLIC DRAFT
LAWRENCE STATION AREA PLAN

February 2015