

Existing Conditions Report

October 2017



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I Introduction



This Existing Conditions Report provides baseline spatial information on the existing conditions, opportunities, and challenges in the Bayhill Specific Plan Area (Planning Area).



The focus of this report is on resources, trends, and critical concerns that will frame choices for Bayhill’s long-term physical development.

- Facilitating community input on planning issues and priorities;
- Evaluating issues and options and preparing alternative land use and transportation concepts;
- Formulating policies and implementation actions for the Specific Plan Area; and
- Creating the environmental settings portion of the Environmental Impact Report for the Specific Plan.

1.1 Location and Planning Area

San Bruno is located in northern San Mateo County, just west of the San Francisco International Airport (SFO). The Bayhill district is centrally located in the city, within a half mile of Downtown, City Hall, the San Bruno Caltrain and BART stations, and the Tanforan shopping center. See Figure 1-1 for a map of the city and the location of the Bayhill district.

The Planning Area is approximately 98 acres in size. As shown in Figure 1-2, it is bounded by Interstates 280 to the west and 380 to the north, El Camino Real to the east, and San Bruno Avenue West to the south. It features a downward slope of approximately 140 feet, generally from the western edge down toward El Camino Real. In addition, the entire Bayhill Specific Plan Area is classified as a Priority Development Area.

1.2 Specific Plan Purpose and Process

OVERVIEW AND KEY PROJECT GOALS

The Bayhill Specific Plan will outline a cohesive, long-term, community-driven vision for this key district, that is home to the largest cluster of offices in San Bruno, including the headquarters of YouTube, as well as other commercial uses. Preparation of a Specific Plan will ensure that YouTube’s plans for campus expansion are integrated into an attractive setting that benefits all of Bayhill’s property owners, as well as the broader San Bruno community.

- Provide a cohesive vision for Bayhill, ensuring that development is an asset to the community and enhances the area’s and the city’s image and quality of life.
- Take advantage of the site’s topography and natural setting to create a unique and memorable place that inspires creativity and serves as a source of pride for Bayhill businesses and the San Bruno community.
- Integrate the office park and its surroundings with well-designed transitions, “soft edges,” and ample public spaces that are inviting to workers and community members.
- Ensure that the neighborhood commercial uses at the Bayhill Shopping Center that serve office park employees and the surrounding neighborhoods are retained.
- Promote multimodal connectivity to and through Bayhill, so that walking and biking is a safe and enjoyable experience, and connections to the adjacent San Bruno Caltrain and BART stations are strengthened.



■■■■■ Planning Area

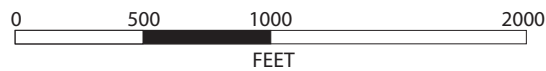
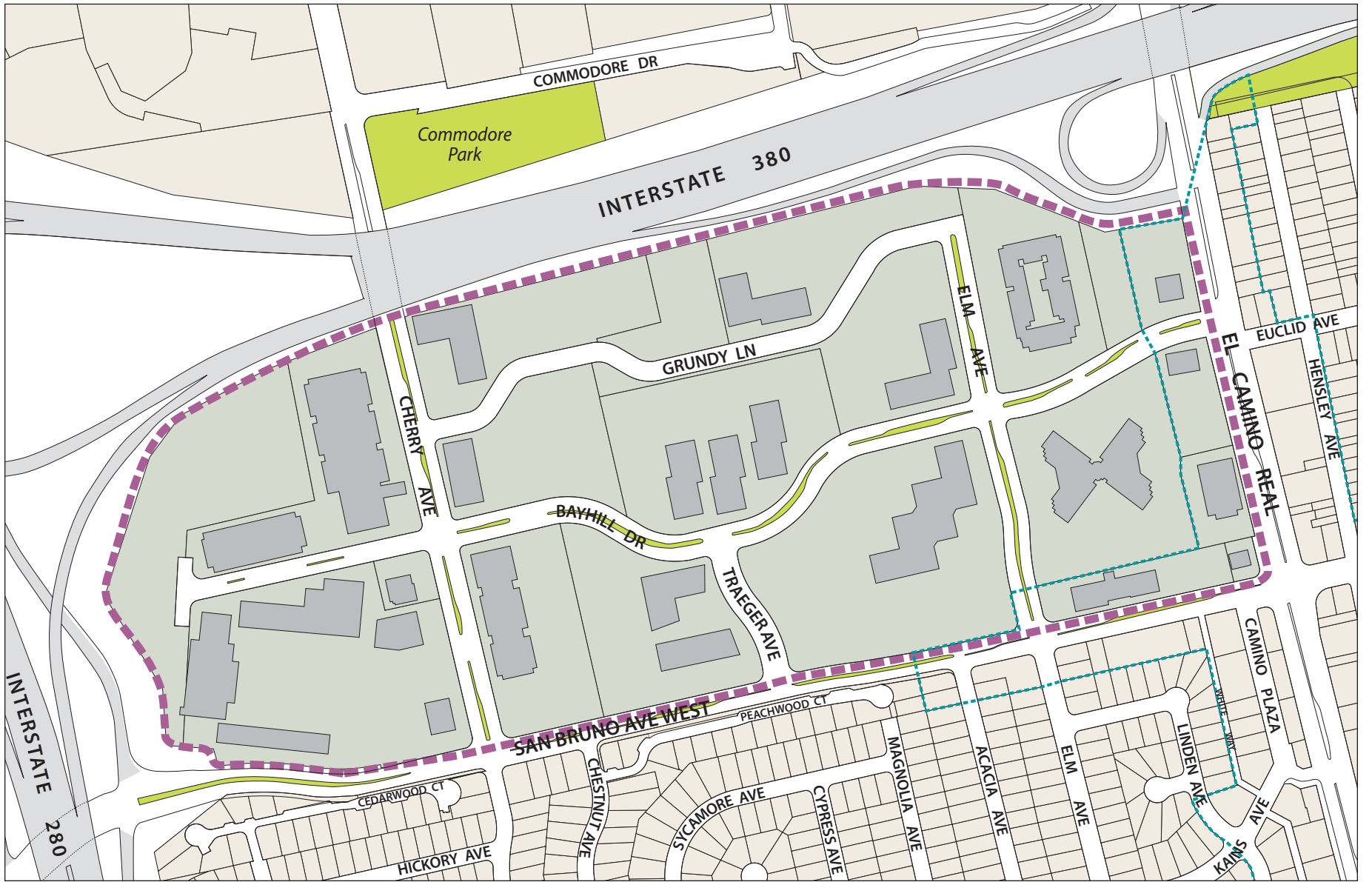


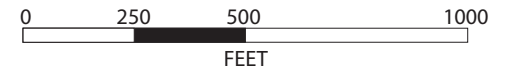
Figure 1-1: Location



----- Planning Area

----- Transit Corridor Specific Plan

Figure 1-2: Planning Area



- Consider a mix of land uses that may include a combination of housing, office, retail/commercial, parks, and other public amenities.
- Accommodate the expansion needs of existing businesses, while being flexible and adaptable to changing economic conditions and business needs.

These goals will be refined following the initial community outreach and visioning process underway.

SPECIFIC PLAN PROCESS

The Bayhill Specific Plan planning process will include the following four phases:

1. **Visioning and Background Studies.** The planning team will engage the community, property owners, and other stakeholders in developing a cohesive vision and set of guiding principles, while concurrently analyzing existing conditions to identify the key issues and opportunities that the Specific Plan should address.
2. **Alternatives and Preferred Plan.** Based on the results of the visioning exercises and background research, the planning team will prepare and analyze a series of alternative design concepts. After additional public outreach and decision-maker input, the options will be narrowed to a single “Preferred Plan.”
3. **Draft Specific Plan and Environmental Review.** Based on the Preferred Plan, a public review draft of the Bayhill Specific Plan will be prepared along with an Environmental Impact Report (EIR) that analyzes the effects of Specific Plan policies and development potential on the environment.

4. **Adoption.** Following a public review period, a revised Specific Plan will be presented to the Planning Commission and the City Council for adoption at public hearings.



Community workshops and other outreach events will be held throughout the planning process to ensure robust public participation.



1.3 Report Organization

This Existing Conditions Report describes Bayhill’s existing land use patterns, regulatory framework, urban form, transportation and infrastructure networks, and environmental hazards. It seeks to identify issues and opportunities within Bayhill, so that the community may better envision potential for future development. Chapters in the report are organized by topic as follows:

Chapter 1: Introduction describes the Planning Area and its regional setting, outlines the objectives of the Specific Plan and the planning process, and provides an overview of the report’s organization.

Chapter 2: Land Use and Development discusses existing land uses in the Planning Area, allowable development densities and intensities, property ownership information and the future plans of current property owners, major development projects in the Planning Area and its vicinity, and related plans and regulations.

Chapter 3: Urban Design examines the existing character of the Planning Area, including the scale and character of its blocks and buildings, as well as the site’s topography, views, and street design.

Chapter 4: Access and Connectivity provides an overview of Bayhill’s roadway system, including its pedestrian and bike network, and public transit accessibility.

Chapter 5: Infrastructure describes the Planning Area’s water, wastewater, and storm water infrastructure.

Chapter 6: Environmental Resources and Hazards addresses noise, hazards, and air quality issues that affect the Planning Area at a broad planning level; more detailed analysis will be done during the later stages as part of the Environmental Impact Report (EIR) on the Specific Plan.

Analysis in each chapter is communicated through text, tables, photographs, diagrams, and maps. In addition, each chapter concludes with a brief summary of key planning issues and implications, which will serve as a bridge to the next phase of the planning effort – development and analysis of alternative concepts.

2 Land Use and Development



This chapter documents the existing land use and regulatory context of the Bayhill Specific Plan. It reviews the existing land use patterns, existing and allowable building densities and intensities, land ownership, and major development projects in the Planning Area and the vicinity, as well as related plans and regulations such as the 2009 San Bruno General Plan, the San Bruno Zoning Ordinance, and relevant transportation plans.



2.1 Existing Land Uses

This section describes how land is currently used in the 98-acre Bayhill area, irrespective of the current General Plan and zoning designations. As shown in Figure 2-1 and Table 2-1, office uses constitute the most prominent existing land use in the Planning Area, followed by retail and commercial uses.

Table 2-1: Summary of Existing Land Uses

<i>Existing Land Use Categories</i>	<i>Acres</i>	<i>Percent of Total</i>
Office	56.2	57.2%
Retail/Commercial	16.1	16.4%
Vacant	6.4	6.6%
Hotel	4.3	4.4%
Stand Alone Surface Parking Lot	0.9	0.9%
Streets/Rights-of-Way	14.2	14.4%
Total	98.1	100%

Note: Numbers may not add due to rounding.

Source: City of San Bruno

Golden Gate National Cemetery

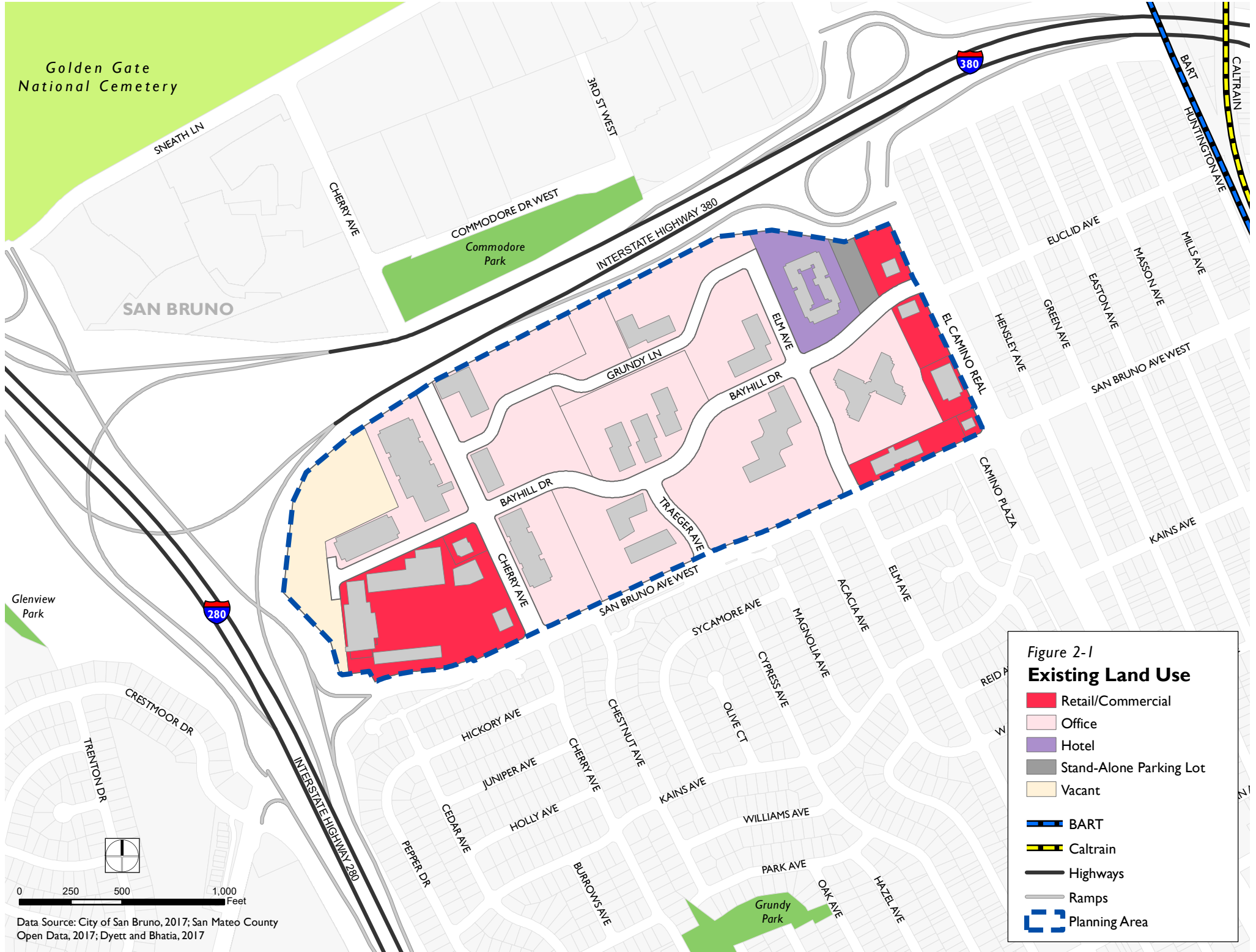


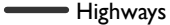




Figure 2-1
Existing Land Use

- Retail/Commercial
- Office
- Hotel
- Stand-Alone Parking Lot
- Vacant
-  BART
-  Caltrain
-  Highways
-  Ramps
-  Planning Area

Data Source: City of San Bruno, 2017; San Mateo County Open Data, 2017; Dyett and Bhatia, 2017



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CURRENT LAND USE PATTERN AND DISTRIBUTION

As is stated above, office land uses account for the majority of the Planning Area (56.2 acres or 57 percent of the Planning Area). Office uses are located largely in the center of the site on either side of Grundy Lane and Bayhill Drive, and include the YouTube headquarters, Walmart.com e-commerce offices, as well as several other businesses.

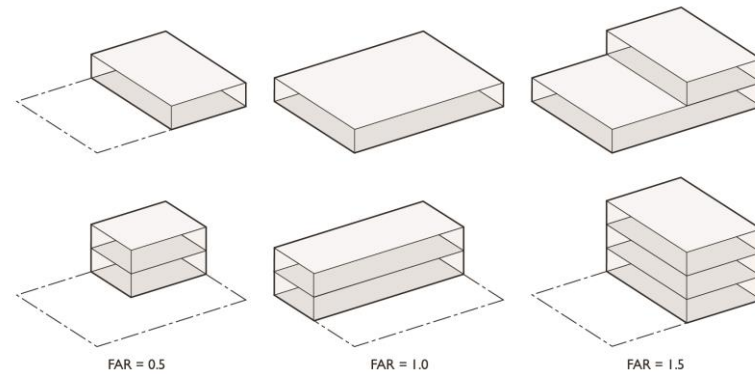
Retail and commercial land uses account for 16.1 acres or 16 percent of the Bayhill site. Retail and commercial uses are found in the southwest corner in the Bayhill Shopping Center, as well as further east along San Bruno Avenue West and El Camino Real, and include a mix of dining establishments, retail stores, medical offices, and an auto service establishment.

Vacant land makes up 6.4 acres or approximately 7 percent of the Planning Area and is located in the northwestern corner of the site, behind the office building at 901 Cherry Avenue and the Bayhill Shopping Center. The Courtyard Marriott Hotel occupies 4.3 acres or 4 percent of Bayhill and is found in the northeastern quadrant of the site on Elm Avenue.

2.2 Densities and Intensities

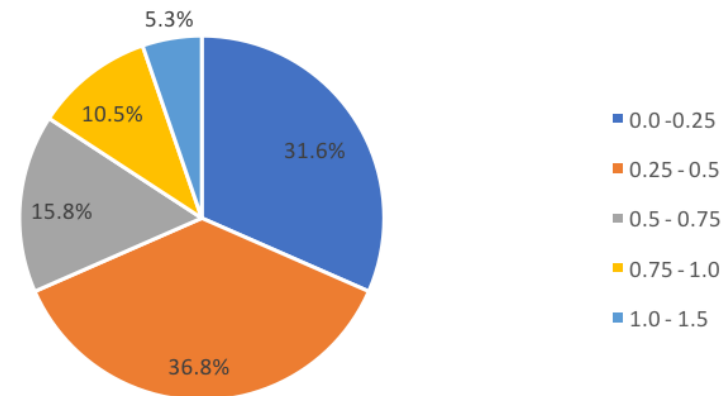
There are currently no residential buildings within Bayhill, so this section focuses on building intensity of non-residential buildings. Development intensity is expressed as Floor Area Ratio (FAR), which is the ratio of a building's total floor area to the site area. For instance, as shown in Figure 2-2, a one-story building occupying half of a site has an FAR of 0.5; a two-story building occupying the same half of a site has an FAR of 1.0.

Figure 2-2: Determining Floor Area Ratio (FAR)



The intensity of existing non-residential development in Bayhill is shown in Figure 2-3. Non-residential buildings in Bayhill have a median FAR of 0.46. More than two-thirds of the 19 buildings on the site have an FAR of less than 0.5.

Figure 2-3: FAR of Existing Buildings



Building heights in Bayhill vary from one story to six stories, as shown in Figure 2-4. The six-story building on Cherry Avenue and Bayhill Drive currently occupied by Walmart.com represents a notable exception; this building was a United States Post Office developed into an office building, and federal land is generally exempt from local zoning and development regulations. The existing building located at 900 Cherry Avenue is also six stories tall.

2.3 Ownership

YouTube owns approximately two-thirds of the developable acreage in the Bayhill Planning Area, as shown on Figure 2-5. However, it currently only occupies three buildings at 901 Cherry Avenue (which it leases from Gap), 900 Cherry Avenue, and 1000 Cherry Avenue. Other major property owners include Walmart.com and The Gap. The remaining parcels are owned by a variety of other local and regional individuals and firms.

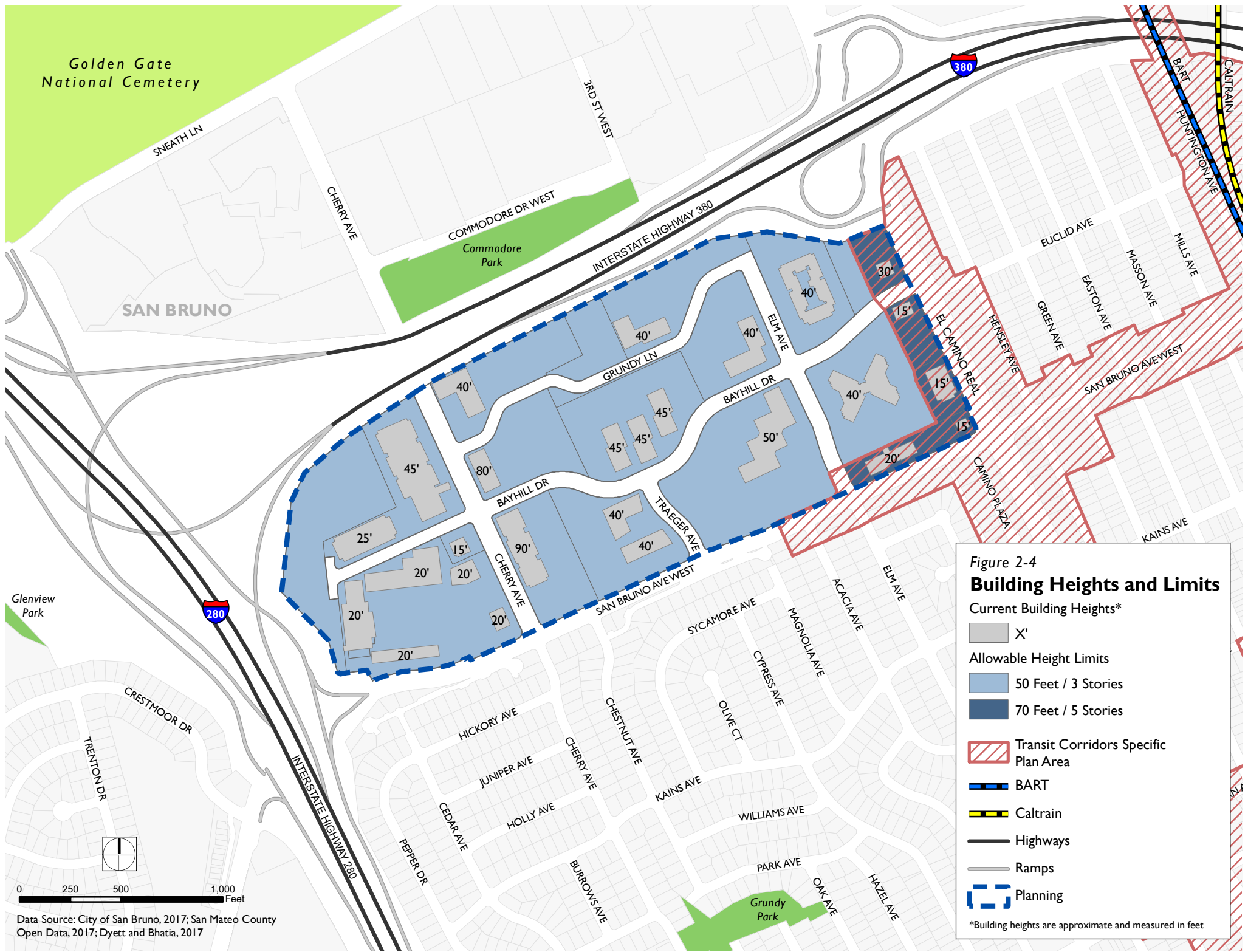
YouTube is currently examining development alternatives and opportunities to expand its headquarters in Bayhill to meet additional growth and space needs, and expects to add approximately 350 new workers to San Bruno annually. YouTube anticipates a phased development strategy, with sites closest to where most workers are presently located at Cherry Avenue being developed first, and additional development on other sites subsequently, resulting in an open campus-style plan.

2.4 Major Development Projects in the Vicinity

As of June 2017, eight development projects are under review, permitted, or under construction within or near the Bayhill Planning Area. One of the projects, the San Francisco Police Credit Union, is located within the Bayhill Planning Area and is currently under construction. The location and description of all current developments in the vicinity of the Bayhill Planning Area is illustrated in Figure 2-6 and summarized in Table 2-2.



The new SF Police Credit Union building will contain approximately 67,000 square feet of new office



Golden Gate National Cemetery

SAN BRUNO

380

280

0 250 500 1,000 Feet

Data Source: City of San Bruno, 2017; San Mateo County Open Data, 2017; Dyett and Bhatia, 2017



**Figure 2-5
Parcel Ownership**

- YouTube
- SFPD Credit Union
- Gap
- Walmart.com
- Other
- BART
- Caltrain
- Highways
- Ramps
- Planning Area

0 250 500 1,000 Feet

Data Source: City of San Bruno, 2017; San Mateo County Open Data, 2017; Dyett and Bhatia, 2017



Figure 2-6
Major Development Projects

- Major Development Projects
- BART
- Caltrain
- Highways
- Ramps
- Planning Area
- City Limits

0 250 500 1,000 Feet

Data Source: City of San Bruno, 2017; San Mateo County Open Data, 2017; Dyett and Bhatia, 2017



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Table 2-2: Major Development Projects

<i>Project</i>	<i>Type</i>	<i>Location</i>	<i>Status</i>	<i>Description</i>
Within Planning Area				
SF Police Credit Union	Office	1250 Grundy Ln.	Under construction	Three-story, approximately 67,000 square foot office building for the SF Police Credit Union on a 1.71-acre site.
Planning Area Vicinity				
841 San Bruno Ave W	Medical Office	841 San Bruno Ave. W	Under construction	Two-story, 15,223 square foot medical office building with 43 parking spaces on a 0.7-acre site.
Crossing Hotel	Hotel	Admiral Ct The Crossing	Approved; delayed	Approved project consisting of 152 hotel rooms, 3,000 square feet of space for events, and 163 parking spaces on a 1.5 acre site.
Mills Park Plaza	Mixed-use	715 El Camino Real	Pre-application	Proposed five-story mixed-use development in two buildings on a 4.8 acre site. Building A includes 167 residential units and 283 parking spaces. Building B includes 162 units and 264 parking spaces. Both buildings include ground floor retail.
111 San Bruno Ave	Mixed-use	111 San Bruno Ave.	Under Review	Proposed five-story mixed-use building with 60 dwelling units, ground floor retail, and 86 parking spaces at the northern gateway to downtown opposite the Caltrain Station on a 0.65 acre site.
500 Sylvan Ave	Multi-Family Residential	500 Sylvan Ave.	Pre-application	Proposed three-story, 9-unit multi-family building on a 0.17 acre site. The project will include a mix of studio, one-bedroom, and two-bedroom units.
Plaza Apartments	Mixed-use	406 – 418 San Mateo Ave.	Under construction	Three-story mixed use development on a .95 acre site. Includes 83 apartments, ground floor retail, and underground parking with 106 spaces.
Crestmoor Neighborhood	Single Family Residential – Detached	Crestmoor Neighborhood	Nearing completion	Rebuilding 10 homes that were destroyed in the San Bruno pipeline explosion.

Source: City of San Bruno

2.5 Existing Plans and Regulations

Several existing plans and regulations establish development directives relevant to the Bayhill Specific Plan including San Bruno's 2009 General Plan as well as the municipal Zoning Ordinance, Ordinance 1284, the 2013 Transit Corridors Plan, Measure N, and the 2016 Walk N' Bike Plan. The General Plan, the Zoning Ordinance, and Ordinance 1284 designate land uses and development regulations such as building densities, intensities and heights for the entirety of the Bayhill Planning Area, while the Transit Corridors Plan and Measure N specify updated development regulations for the parcel-deep El Camino Real Transit-Oriented Development portion of the Planning Area. The Walk 'n Bike Plan outlines proposed short and long-term pedestrian and cycling projects, several of which are found in the Bayhill Planning Area.

GENERAL PLAN

The San Bruno General Plan 2025, adopted in 2009, establishes a vision and action plan for the city's long-term development. The plan outlines goals and policies to encourage balanced development that conserves and revitalizes established neighborhoods and commercial areas, while promoting mixed-use and transit-supportive developments adjacent to transit stations. The resulting land use designations and development standards that are relevant to the Planning Area are described below.

As is shown in Figure 2-7, the San Bruno General Plan prescribes three different land uses in Bayhill: Regional Office, Neighborhood Commercial and Transit Oriented Development.

General Plan Land Use Designations

- **Regional Office (FAR 1.5).** The Regional Office land use designation accommodates administrative, professional, and medical offices located in a campus-style setting or office park. Small convenience retail uses, personal services, and eating and drinking establishments are permitted as ancillary uses. Regional Office allows 1.5 base maximum FAR, with potential additional discretionary 0.5 FAR incentive for projects that provide transportation demand measures and urban design amenities, as specified in the Zoning Ordinance.
- **Transit Oriented Development (FAR 2.0).** This designation applies to parcels within the Transit Corridors Plan Area, including San Mateo Avenue (Downtown), San Bruno Avenue, and El Camino Real, in areas within proximity to BART and Caltrain Stations. Allows 2.0 base maximum FAR combined for residential and/or non-residential for parcels less than 20,000 square feet. FAR for parcels of 20,000 square feet or larger is determined by setback, stepback, open space, and height limits. The maximum number of new dwelling units allowed in the Transit Corridors Plan Area is 1,610, which is equal to the residential build out analyzed in the Transit Corridors Plan Environmental Impact Report. Any increase in the total number of units will require a new General Plan amendment. Overall density within the Transit Corridors Area, excluding public streets, will not exceed 50 units per acre. This classification permits a variety of uses, either individually or in mix with other permitted uses, including: retail sales; eating and drinking establishments; personal and business services; professional and medical offices; financial, insurance, and real estate offices; hotels; educational and social services;

government offices; and residential. In the Downtown, active uses are required at the ground level. Residential uses are permitted by right on the second and upper floors and are allowed subject to obtaining a Conditional Use Permit at the ground level on all streets in the downtown, except San Mateo Avenue. In addition to the permitted uses described above, theaters and entertainment uses are also permitted in the Downtown. Wholesale trade, drive-through facilities, and auto-related uses are prohibited in the Downtown.

- **Neighborhood Commercial (FAR 1.2).** The Neighborhood Commercial land use designation permits convenience and retail commercial uses, including grocery and drug stores, eating and drinking establishments, personal and business services, professional and medical offices, financial, insurance, and real estate offices, and auto repair and services. Neighborhood Commercial allows 1.2 maximum FAR. Residential is conditionally permitted on upper floors as part of mixed development with commercial use, subject to combined maximum FAR limits.

ZONING ORDINANCE

The San Bruno Zoning Ordinance designates zoning requirements and regulations for established land uses. Figure 2-8 illustrates the various zoning districts in Bayhill. As Figure 2-8 indicates, the Planning Area contains C General Commercial, C-O Community Office, A-R Administrative and Research, and P-D Planned Development zoning districts. The majority of Bayhill is occupied by Planned Development districts. While each Planned Development district has its own development standards set by the City Council, in general, P-D zoning districts are meant to support a mix of uses or unusual density, building intensity, or design that will produce an environment and land uses superior

to that which would result from the usual zoning regulations. Zoning regulations for the three additional zoning districts found in Bayhill are summarized in Table 2-3 below.

ORDINANCE 1284

Ordinance 1284, adopted in 1977, sets height limits on all new buildings within San Bruno to 50 feet or three stories. This height limit applies to the majority of the Bayhill Planning Area, as is shown in Figure 2-4. Notably, three structures within the Planning Area do not conform to this limit. The current Walmart.com building at 850 Cherry Avenue is the tallest building in the Planning Area at six stories and approximately 90 feet. This structure was constructed at the time the United States Post Office was an occupant. As a federal property, it was not subject to local land use regulations, and thus could exceed the height limit established by Ordinance 1284. The building located at 900 Cherry Avenue is also a six story structure that exceeds the height limit established by Ordinance 1284.

In addition, the Gap-owned property at 811 - 901 Cherry Avenue (currently leased by YouTube) is also permitted to exceed this height limit resulting from a public vote in 1987. Specifically, the voters approved a senior housing structure (not to exceed 60 feet or four stories), a commercial office building (not to exceed 165 feet or 10 stories), a hotel (not to exceed 165 feet or ten stories) and related parking structures (not to exceed to feet or five stories) for the site. However, the site's current development agreement states that in addition to what is already constructed at 901 Cherry Avenue (a three-story office building with a parking terrace), two additional two- to three-story office buildings and a five-level subterranean parking garage are allowed.



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Golden Gate National Cemetery

SNEATH LN

CHERRY AVE

COMMODORE DR WEST
Commodore Park

3RD ST WEST

INTERSTATE HIGHWAY 380

380

BART

CALTRAIN

SAN BRUNO

EUCLID AVE

MASON AVE

MILLS AVE

GREEN AVE

EASTON AVE

HENSLEY AVE

SAN BRUNO AVE WEST

GRUNDY LN

BAYHILL DR

EL CAMINO REAL

BAYHILL DR

TRAEGER AVE

CAMINO PLAZA

KAINS AVE

Glenview Park

280

CHERRY AVE

SAN BRUNO AVE WEST

ACACIA AVE

ELM AVE

EL CAMINO

CRESTMOR DR

HICKORY AVE

CHESTNUT AVE

OLIVE CT

WILLIAMS AVE

TRENTON DR

JUNIPER AVE

CHERRY AVE

KAINS AVE

PARK AVE

HAZEL AVE

PEPPER DR

HOLLY AVE

BURROWS AVE

OAK AVE

Grundy Park

INTERSTATE HIGHWAY 280

Figure 2-7
General Plan Land Use Designations

- Transit Oriented Development
- Neighborhood Commercial
- Regional Office
- BART
- Caltrain
- Highways
- Ramps
- Planning Area

0 250 500 1,000 Feet

Data Source: City of San Bruno, 2017; San Mateo County Open Data, 2017; Dyett and Bhatia, 2017

Golden Gate National Cemetery

SNEATH LN

CHERRY AVE

COMMODORE DR WEST
Commodore Park

3RD ST WEST

INTERSTATE HIGHWAY 380

380

BART

CAITRAIN

SAN BRUNO

EUCLID AVE

MASON AVE

MILLS AVE

GREEN AVE

EASTON AVE

SAN BRUNO AVE WEST

HENSLEY AVE

EL CAMINO REAL

CAMINO PLAZA

KAINS AVE

EL CAMINO R

Glenview Park

280

INTERSTATE HIGHWAY 280

BAYHILL DR

BAYHILL DR

TRAEGER AVE

CHERRY AVE

SAN BRUNO AVE WEST

SYCAMORE AVE

MAGNOLIA AVE

ACACIA AVE

ELM AVE

CRESTMOR DR

TRENTON DR

HICKORY AVE

JUNIPER AVE

HOLLY AVE

CHERRY AVE

CHESTNUT AVE

KAINS AVE

WILLIAMS AVE

PEPPER DR

CEDAR AVE

BURROWS AVE

BURROWS AVE

PARK AVE

OAK AVE

HAZEL AVE

Grundy Park

Figure 2-8
Zoning Designations

- C General Commercial
- C-O Community Office
- A-R Administrative and Research
- P-D Planned Development
- BART
- Caltrain
- Highways
- Ramps
- Planning Area

0 250 500 1,000 Feet

Data Source: City of San Bruno, 2017; San Mateo County Open Data, 2017; Dyett and Bhatia, 2017

Table 2-3: Summary of Existing Zoning Regulations

	<i>C-O Community Office</i>	<i>C General Commercial</i>	<i>A-R Administrative and Research</i>
Intent	Mix of office and professional uses with ancillary retail uses	Mix of retail, food stores, personal and professional services, and professional and administrative offices. Auto related uses are conditional	Mix of light industrial uses, research facilities, large scale administrative offices, and professional and medical offices in addition to ancillary personal service and business uses along the West San Bruno Avenue corridor.
Maximum Coverage by all structures	40%	80%	40%
Minimum Building Site Required	20,000 square feet	None specified	1 acre
Maximum Building Height	35 feet; height up to 50 feet may be permitted subject to obtaining a use permit	50 feet or 3 stories, whichever is more restrictive	40 feet
Minimum Site Width	None specified	50 feet; corner lots 60 feet	100 feet
Front Yard/ Setback	25 feet from any public street; 15 feet from any other property line	None specified	40 feet, plus 1 foot for each foot of building height above 25 feet
Rear Yard/ Setback	None specified	None specified	25 feet; 45 feet when adjacent to a residential district
Side Yard/ Setback	None specified	None specified	Exterior side: same as front; interior side: 25 feet, except 45 feet when adjacent to a residential district

Note: Zoning Designations and development standards identified above are not Consistent with the Transit Corridors Plan (TCP). Future development would need to conform with provisions of the TCP unless amended.

Source: San Bruno Municipal Code, Title 12, Article III



TRANSIT CORRIDORS PLAN AND MEASURE N

The 2013 San Bruno Transit Corridors Plan addresses the Transit Corridors Area previously identified in the 2009 General Plan. The Specific Plan lays out a vision as well as corresponding policies, design guidelines and development standards for future development within the Transit Corridors Area. As Figure 2-9 indicates, several parcels within Bayhill are included in the El Camino Real Transit Corridor Area designation.

Given that the Transit Corridors Plan proposed building height limits that exceeded the allowable three-story limit regulated by Ordinance 1284, an amendment to Ordinance 1284 referred to as the Downtown and Transit Corridors Economic Enhancement Initiative, or Measure N, was placed on the November 4, 2014 municipal election ballot. The Amendment, which passed, allows for buildings in the El Camino Real Transportation Corridor to exceed current height limits by 20 feet or two stories,

increased density of certain residential parcels, and above-ground multi-story parking structures consistent with the objectives of the 2013 Transit Corridors Specific Plan.

In keeping with the General Plan, the Transit Corridor Area Plan encourages mixed-use residential and commercial and single-use residential development within the El Camino Real Transit Corridor Area designation, with ground-floor retail required at primary intersections such as the El Camino Real and San Bruno Avenue West intersection. While commercial uses such as restaurants and neighborhood-serving retail are encouraged, auto service and industrial storage uses are prohibited, indicating a departure from the current C General Commercial zoning of the parcel in the southeast corner of the Bayhill Planning Area, which is currently occupied by an auto service business. Many of the current tenants located within the Planning Area along El Camino Real have well-established long-term leases, which reduces the likelihood of redevelopment in the short-term.

Table 2-4: Summary of El Camino Real District Development Standards

Intent	Mixed-use residential and commercial and single-use residential development and commercial uses such as restaurants and neighborhood-serving retail are allowed, while auto service, industrial storage uses and new automobile repair uses are prohibited
Density or Intensity	Maximum 2.0 FAR for parcels <20,000 sq. feet; no maximum for parcels ≥ 20,000 sq. feet
Maximum Building Height	70 feet (5 stories) with 15 foot setbacks required above the 3rd floor (voter approved through Measure N)
Front Yard/ Setback (from back of sidewalk)	10 feet on average
Rear Yard/ Setback	0, 10 feet when next to residential

Source: City of San Bruno Transit Corridors Specific Plan

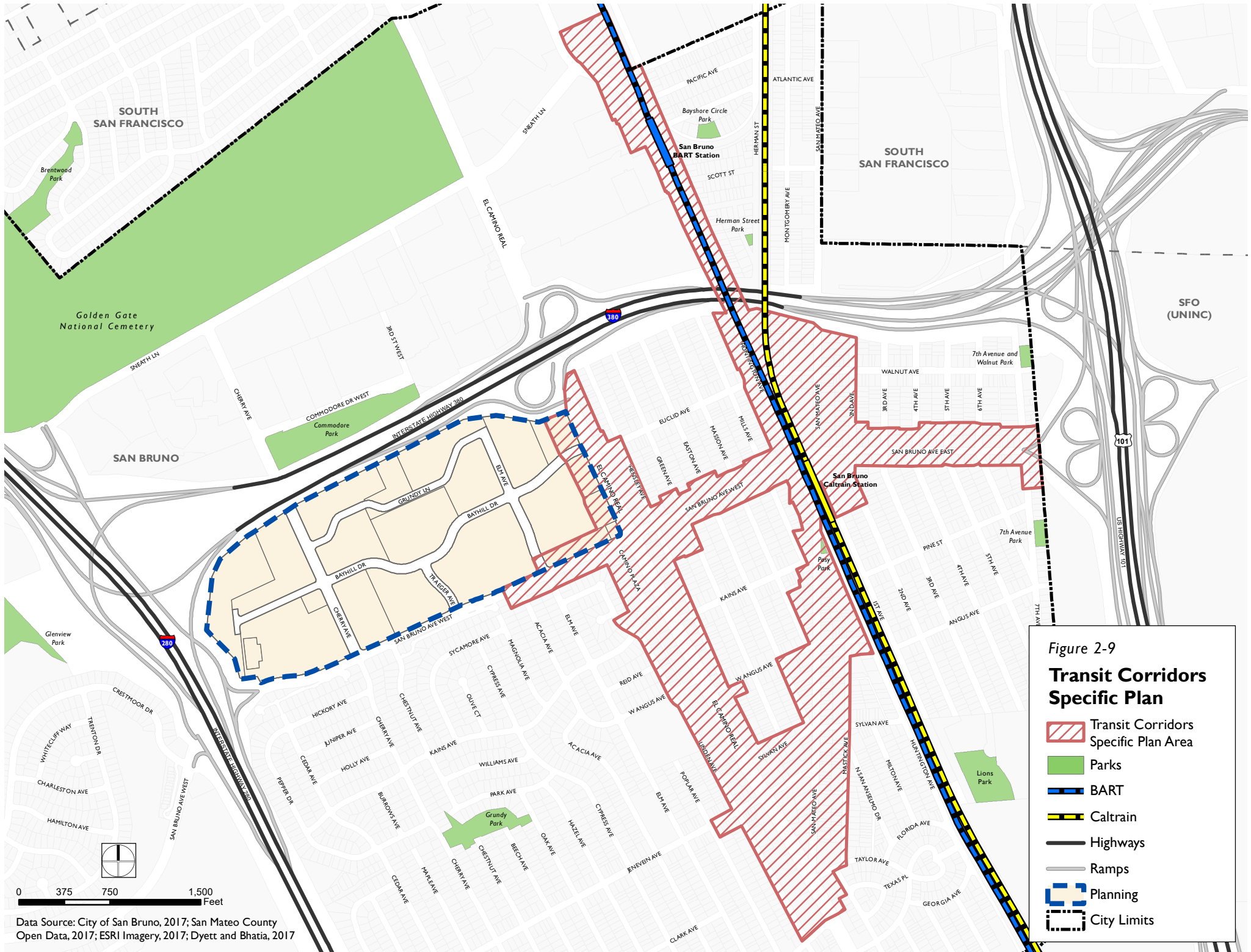


Figure 2-9
**Transit Corridors
 Specific Plan**

-  Transit Corridors Specific Plan Area
-  Parks
-  BART
-  Caltrain
-  Highways
-  Ramps
-  Planning
-  City Limits

0 375 750 1,500 Feet

Data Source: City of San Bruno, 2017; San Mateo County Open Data, 2017; ESRI Imagery, 2017; Dyett and Bhatia, 2017



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WALK 'N BIKE PLAN

The 2016 Walk 'n Bike Plan is San Bruno's first walking and biking master plan. It responds to a growing interest on the part of San Brunans in walking and cycling for recreation and transportation and a recognition by the City that walking and biking can improve neighborhood livability by reducing air pollution and energy consumption as well as contributing to a wider array of transportation options. The principal objective of the Plan is to make walking and biking in San Bruno safer and easier for both transportation and recreation. This objective is addressed through an action plan that comprises a series of short term proposed projects and programmatic activities as well as longer term improvements to walking and cycling infrastructure.

A variety of pedestrian and cycling improvement projects are proposed for Bayhill, including several pedestrian streetscape and crosswalk improvements along Cherry Avenue and El Camino Real as well as linear bicycle facilities along Cherry Avenue, Bayhill Drive and San Bruno Avenue West that would provide north south and east west bicycle connectivity. Refer to Chapter 4: Access and Connectivity, for additional information about these proposed improvements.

2.6 Planning Issues and Implications

The existing land use patterns, development regulations, and voter-approved measures present both challenges and opportunities.

There are multiple opportunities for new development in the Planning Area, as development regulations generally permit more intense development than prevails. However, there is very little vacant land in the Planning Area. Virtually all new development, with potentially the exception of land just west of Gap building that is vacant, will result from reuse and redevelopment of existing parcels. In some instances, property owners may be able to accommodate new development on surface parking lots with subterranean garages; in others, existing buildings may need to give way to new ones for development potential of sites to be realized.

The new development standards for El Camino Real and portions of San Bruno Avenue West specify more intense mixed-use development, which adds to the potential for more housing units, jobs, and retail space in the area. Infusing the edge of the Bayhill Planning Area with development is likely to activate the area and provide additional customers for commercial establishments throughout the site, as well as housing for Bayhill employees and others in the community. The number of major development projects in the vicinity of Bayhill may also increase the number of nearby residents and potential commercial customers. However, many of the current tenants located within the Planning Area along El Camino Real have well-established long-term leases, meaning that new, higher density development along this segment of the corridor may not occur for some time.



During outreach conducted in parallel with preparation of this report, several community members have expressed interest in exploring options for housing locations in Bayhill, in addition to El Camino Real, given the housing pressure in San Bruno and the region at large, as well additional pressures that would result because of the amount of growth being contemplated by YouTube. Currently, the General Plan would permit housing on the upper floors only at the location of the Bayhill Shopping Center with a Conditional Use Permit, and the General Plan and Transit Corridors Plan would allow for housing along El Camino Real and San Bruno Avenue West. In addition, voters have approved senior housing for the Gap property (811 – 901 Cherry Avenue), but this is not part of the current development agreement, which calls for the construction of additional office space. Elsewhere in the Planning Area, the General Plan does not currently permit residential use, although these are not prohibited by Ordinance 1284. Thus, additional locations could be explored as part of the next stages of the planning process, if desired. However, the three-story height limitation combined with the need to provide parking below ground may render residential development infeasible without changes in development standards.

Because development standards—aside from building height—are not specified under Ordinance 1284, development standards and intensities—such as housing densities along El Camino Real—could be fine-tuned as the planning process proceeds.

YouTube’s ownership of two-thirds of the Bayhill Planning Area presents another significant opportunity for the City. Collaborating with YouTube to leverage shared interests could result in a more cohesive development plan for Bayhill that could benefit all of the Planning Area’s property owners as well as the larger community. This includes opportunities to enhance and activate the Planning Area through creative urban design and public spaces, new community services, and increased transit options such as pedestrian and cycling connections as identified in San Bruno’s Walk ‘n Bike Plan.

3 Urban Design



This chapter documents existing urban design within Bayhill. Included is an analysis of the Planning Area's existing scale, the character of existing development, the area's topographical features, and significant views of and from the Planning Area.

3.1 Scale and Character

Bordered by two interstates (I-280 & I-380), the six-lane El Camino Real and the four-lane San Bruno Avenue West, Bayhill is a contained district with a distinct character. Bayhill comprises eight irregular-shaped blocks, between 15 and seven acres each. Each block has no more than five parcels and each parcel has no more than five buildings, with the majority of parcels containing one stand-alone building. Surface parking abuts all buildings with the exception of 901 Cherry Avenue, behind which a parking structure is built into the hillside. Structured parking is also located at the Walmart.com building (850 Cherry Avenue). Average lot coverage is 18 percent, and there is little formal relationship between adjacent parcels and buildings. As a result, the massing of development is dispersed and generally lacks visual continuity across the Planning Area.

Almost all the buildings within the Planning Area were built between 1975 and 1985, with the exception of GAP-owned building (currently leased by YouTube) at 901 Cherry Avenue and the Walmart.com building at 850 Cherry, which were built in the late 1990s. Buildings are typically between one and three stories, with two buildings – the Walmart.com building (850 Cherry Avenue) and the YouTube owned building located at 900 Cherry Avenue – both reaching six stories. Building design generally incorporates few architectural features visible from the street and virtually no building articulation at the pedestrian scale. Essentially, Bayhill is typical of many office parks developed in the 1970s with individual buildings surrounded by surface parking lots, designed to be navigated in a car. Existing development in the Planning Area features a few communal landscaped areas, some of which are publicly accessible and others only to building occupants (see Figure 3-1).

3.2 Topography and Views

The Bayhill Planning Area rises a total of 140 feet, from 40 feet above sea level at the intersection of El Camino Real and San Bruno Avenue, to its highpoint of 180 feet above sea level at its southwest corner. Figure 3-2 shows a longitudinal section through the center of the Planning Area. This diagram also illustrates the scale of existing buildings compared to the change in elevation, with the taller buildings in the center of the Planning Area generally even with the grade level at the Planning Area's west end. As shown by the topo lines in the bottom half of the diagram, the elevation across the Planning Area in the north/south direction remains generally level, with the Bayhill Drive west of Cherry Avenue slightly below the adjacent parcels, and a rise along Elm Avenue between Bayhill Drive and San Bruno Avenue West.

Prominent views from within the Planning Area of nearby topographical features are limited to glimpses of San Bruno Mountain from the southwest corner of the Planning Area, at the northbound I-280 off-ramp and San Bruno Avenue. In addition, foliage on hilltops to the west is visible from Bayhill Drive near Elm Avenue. Aside from these two views, the Planning Area's topography and existing vegetation block views of nearby ridgelines and hillsides from the street level public realm of the Planning Area.



The Courtyard by Marriott San Francisco Airport located at Bayhill Drive and Elm Avenue is a typical two-story auto-oriented hotel with surface parking on three sides.



1150, 1200, and 1250 Bayhill Drive, located in the center of the Planning Area, are surrounded on three sides by surface parking. Along Bayhill Drive and between the buildings, however, are ponds and landscaping.



The Gap-owned building leased by YouTube at 901 Cherry Avenue is a contemporary structure that features curved, green rooftops, terraced landscaping, and podium parking. Behind it is the only parking structure in the Planning Area.



1111 Bayhill Drive, located at the intersection of Elm Avenue, is a 1970s four-story office building with extensive landscaping and a prominent entrance located 230 feet from Bayhill Avenue.



A single-story office building on San Bruno Avenue West between El Camino Real and Elm Avenue is one of few buildings in the Planning Area located at the street.



The tallest buildings in the Planning Area are located on Cherry Avenue. The ground level of 900 and 850 Cherry Avenue have a high degree of transparency but no active uses.



The Planning Area's few active retail uses are located on El Camino Real between San Bruno Avenue West and Bayhill Drive. All are auto-oriented in design.



The three-story X-shaped office building at 999-1001 Bayhill Drive is set far back from the adjacent roadways. The building design features reflective glass and chamfered corners.



The design of this three-story office building on Grundy Lane emphasizes the horizontal. It incorporates a variety of colors and textures but exhibits minimal facade articulation.

Figure 3-1: Existing Scale and Character

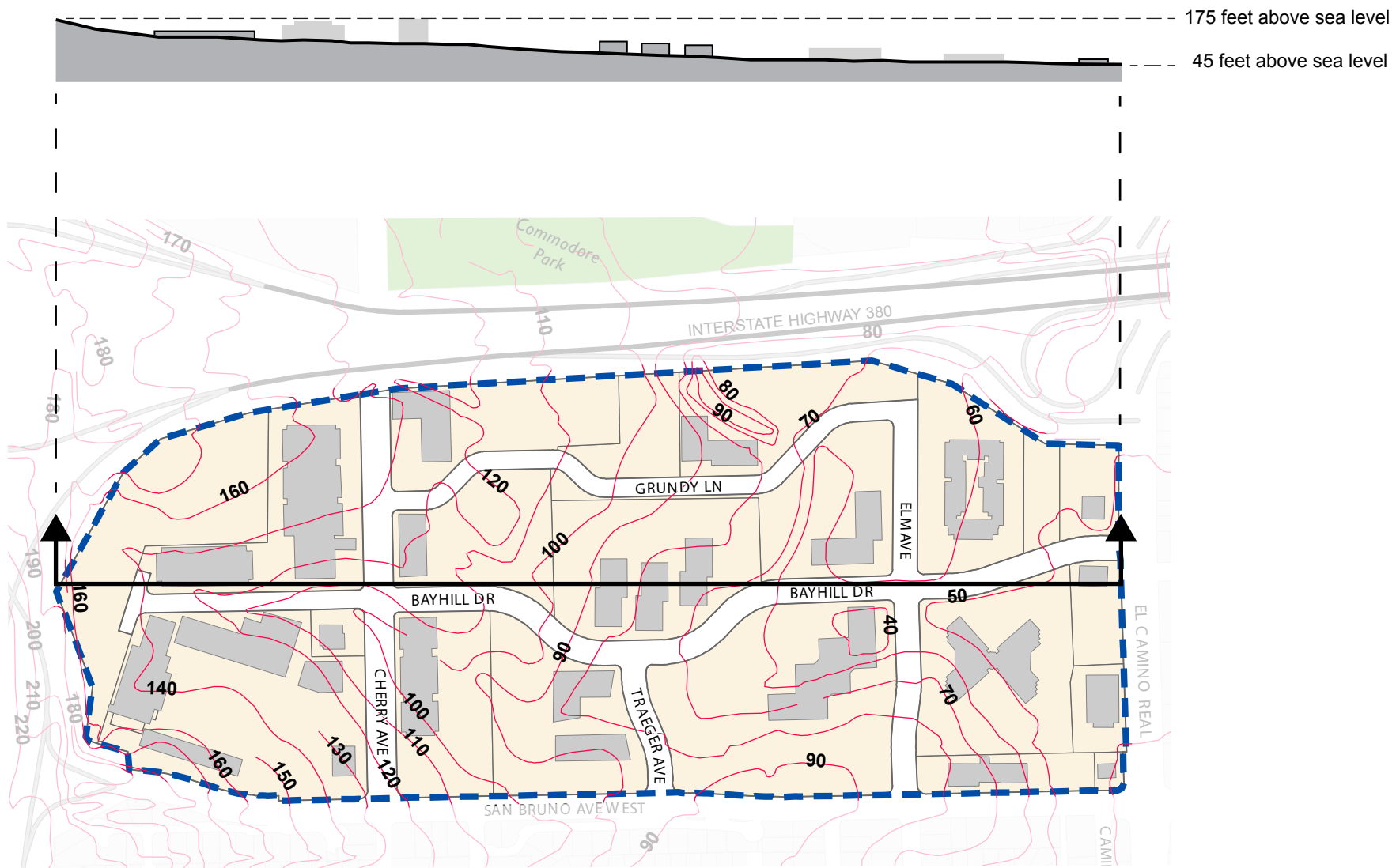
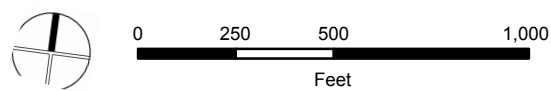


Figure 3-2: Longitudinal Section



3.3 Streetscapes and Street Design

The quality of streets as public spaces, and their role in creating an attractive, interconnected public realm that encourages walking and social activity, is an important focus of the Specific Plan. Walkability has become a valued community attribute in recent years, one the Specific Plan will promote as it guides creation of a revamped employment district. San Bruno's recently-adopted Transit Corridors and Walk n' Bike Plans both reflect the city's commitment to creating a public realm that promotes community life and supports community investment.

Figure 3-3: Street Types and Pedestrian Connections, identifies the basic elements that affect the pedestrian environment, including pedestrian movement to, from, and within the Planning Area. Figure 3-4: Public Realm Elements, highlights key features of the Planning Area's street environment. Figures 3-5 through 3-9 illustrate typical conditions on key streets.

STREETSCAPE CONTEXT

Most of the Planning Area was developed as the Bayhill Office Center in the 1970s and 1980's, and the configuration of development and roadways reflects the suburban, auto-oriented spirit of the time. Curving roadways and relatively dense, informal site landscaping create a park-like setting, to be viewed by passing motorists and workers from inside the Planning Area's office buildings. Sidewalks are relatively narrow with minimal shade. Landscaping focuses on screening and buffering of the considerable expanses of surface parking.

Surrounding roadways separate the Planning Area from the adjacent neighborhoods. In fact, a defining feature of the Planning Area is its lack of connection to its surroundings. Interstate 380 borders the Planning Area on the north and Interstate 280 borders

it on the west. On the east, El Camino Real is a six-lane roadway with minimal pedestrian or bicycle amenities or street crossing opportunities. On the south, San Bruno Avenue West is a four-lane arterial with a similar lack of pedestrian- or bicycle-related facilities. Cherry Avenue provides a connection to the neighborhood to the north in the form of an underpass across I-380.

The lack of pedestrian and bicycle connections to local destinations is an important consideration if the Planning Area is to accommodate an expanded working population while also accommodating local traffic needs. The eastern edge of the Planning Area is relatively close to the San Bruno BART and San Bruno Caltrain stations: a little more than a half mile and a quarter mile, respectively—distances that generally correspond to 10-minute and 5-minute walks in a typically urban area. However, the large block sizes within Bayhill and the presence of El Camino Real and the I-380 underpass – both of which are not pedestrian friendly - lengthen these walk times.

To the north across I-380 is an expanding higher-density residential neighborhood. Across San Bruno Avenue to the south is a large single family residential area that extends south to Millbrae and beyond. Pedestrian and bicycle links to transit and to these neighborhoods are weak, as none of the intersections that serve as gateways to the Planning Area contain are designed to encourage pedestrian access. Additional consideration of the street, pedestrian, and bicycle networks is addressed in Chapter 4, Access and Connectivity.

PUBLIC REALM

The public realm is space to which the general public has access. It includes physical features within the space itself and those that border and define it. Typically, this includes spaces that are public, such as streets, sidewalks, and plazas, as well as spaces that are

private but publicly-accessible, such as adjacent buildings and courtyards. In addition to roadways, the public realm includes:

- Sidewalks and pedestrian ways
- Frontage buildings and parking areas
- Street trees and landscape
- Street furnishings and lighting

These elements of the existing public realm are discussed in detail below.

Sidewalks and Pedestrian Ways

Sidewalks are narrow relative to roadways throughout the Planning Area, typically eight feet wide, though in some locations six feet or less. A monolithic concrete curb, gutter and sidewalk configuration is typical, without physical or visual separation of pedestrians from adjacent roadways and traffic. Sidewalks throughout the Planning Area are in generally good condition with minimal cracking or displacement. ADA compliance needs to be verified. A five-foot wide Public Utility Easement (PUE) is located at the back of all interior Planning Area sidewalks, while the PUE along Cherry Avenue is eight feet.

Today, parking lots provide an informal network of pedestrian pathways that are more useful than the Planning Area's sidewalks. For example, the central block bounded by Elm Avenue, Cherry Avenue, Grundy Lane, and Bayhill Drive is approximately 450 feet by 1,600 feet in size, a "superblock" without designated pedestrian ways to cross it. The walking distance around the block from midpoint to midpoint via sidewalk is approximately 2,400 feet, a little less than half a mile. The distance straight across through surface parking lots is approximately 450 feet. Building orientations (see below) ensure that most pedestrian activity takes place in parking lots rather than along Planning Area streets.

A number of office buildings have small outdoor courtyards that provide quasi-public spaces, and the Bayhill Shopping Center has a pathway along its shopfronts that borders the central parking lot. However, there are no spaces intended to attract and be shared by Planning Area workers and visitors.

Frontage Buildings and Parking Areas

Frontage buildings can have a strong effect on streetscape character. They shape the street space by physically defining its boundaries and creating a sense of enclosure. Buildings oriented with main entrances that face streets directly, and that contain land uses with high levels of daily activity, generally create a more lively and attractive public realm that encourages walking and social activity.

Planning Area buildings exhibit a variety of orientations. Some are parallel to streets, some are perpendicular, and some are located at other angles. Most are oriented to face adjacent surface parking lots rather than street frontages. Building setbacks are generally 20 to 30 feet from adjacent sidewalks, though in some instances they are as little as five feet.

Within the Planning Area (i.e., excluding the frontages of El Camino Real and San Bruno Avenue), an average of 40 percent of sidewalk frontage is bordered by buildings, with 60 percent bordered by parking lots. Cherry Avenue is the most "urban" street, with approximately 75 percent of the frontage bordered by buildings. By contrast, approximately 80 percent of the frontages of Grundy Lane and Elm Avenue are bordered by parking areas.

Few main building entrances face onto streets. For example, of the four buildings with a Bayhill Drive address, only one (1111 Bayhill) has a main entrance facing the street. Along Cherry Avenue, the Walmart.com building (850 Cherry) and the YouTube headquarters (901 Cherry) face the street. However, the YouTube entrance is located above a parking garage, approximately 15 feet above sidewalk grade. With the exception of the attractive entry stair and canopy, the sidewalk frontage is bordered by a retaining wall and landscaped berm.

Of five buildings along El Camino Real, only one, Chili's restaurant, faces the street. The single building located along San Bruno Avenue, an ATT maintenance office, faces the street.

Street Trees and Landscape

Curbside street trees provide shade and buffer pedestrians from adjacent roadways. A double row of street trees is provided along a portion of the frontage of the Walmart.com building on Cherry Avenue, and a short gateway segment of Bayhill Drive, on the east side of the Planning Area, contains a parkway strip planted with street trees. Apart from these locations, however, there are no curbside street trees in the Planning Area or along its perimeter streets.

In general, each parcel exhibits its own on-site landscape approach. Sidewalk-adjacent parking areas with perimeter landscape and tree plantings provide shade and screening, and some properties provide London Plane or Brisbane Box trees in back-of-walk of locations. A number contain wind row-like plantings of Eucalyptus and Poplar trees, while others contain screen plantings of Pine and Cypress trees.

Landscaped median islands are located along all Planning Area roadways except Grundy Lane. Median plantings are mixed but have a recognizable theme, with Pittosporum trees, some London

Plane, flowering plum, Eucalyptus, and flowering and evergreen shrubs that include Raphiolepis and Agapanthus.

Clusters of large, landmark Eucalyptus trees exist at the Bayhill Drive/El Camino Real entrance to the Planning Area, in the Bayhill median just east of Elm Avenue, and in scattered clumps in parking and landscape areas.



Trees within a parking lot along Elm Avenue provide shade to the adjacent sidewalk.



Landscaping within the Bayhill Shopping Center.

Street Furnishings and Lighting

No street furnishings – e.g., benches, trash receptacles, bus shelters – are provided within the Planning Area, consistent with the suburban, automobile-oriented configuration of development. Pedestrian-scale light fixtures are provided along the Walmart.com building frontage. Otherwise, lighting is auto-oriented, with mast-arm light fixtures approximately 230 feet to 300 feet apart, in a staggered offset pattern along either side of the roadways. Along El Camino Real, standard Caltrans “cobra-head” mast-arm lights are located at approximately 120 feet on center. Street lights within Bayhill are all LED.

Impervious Surfaces

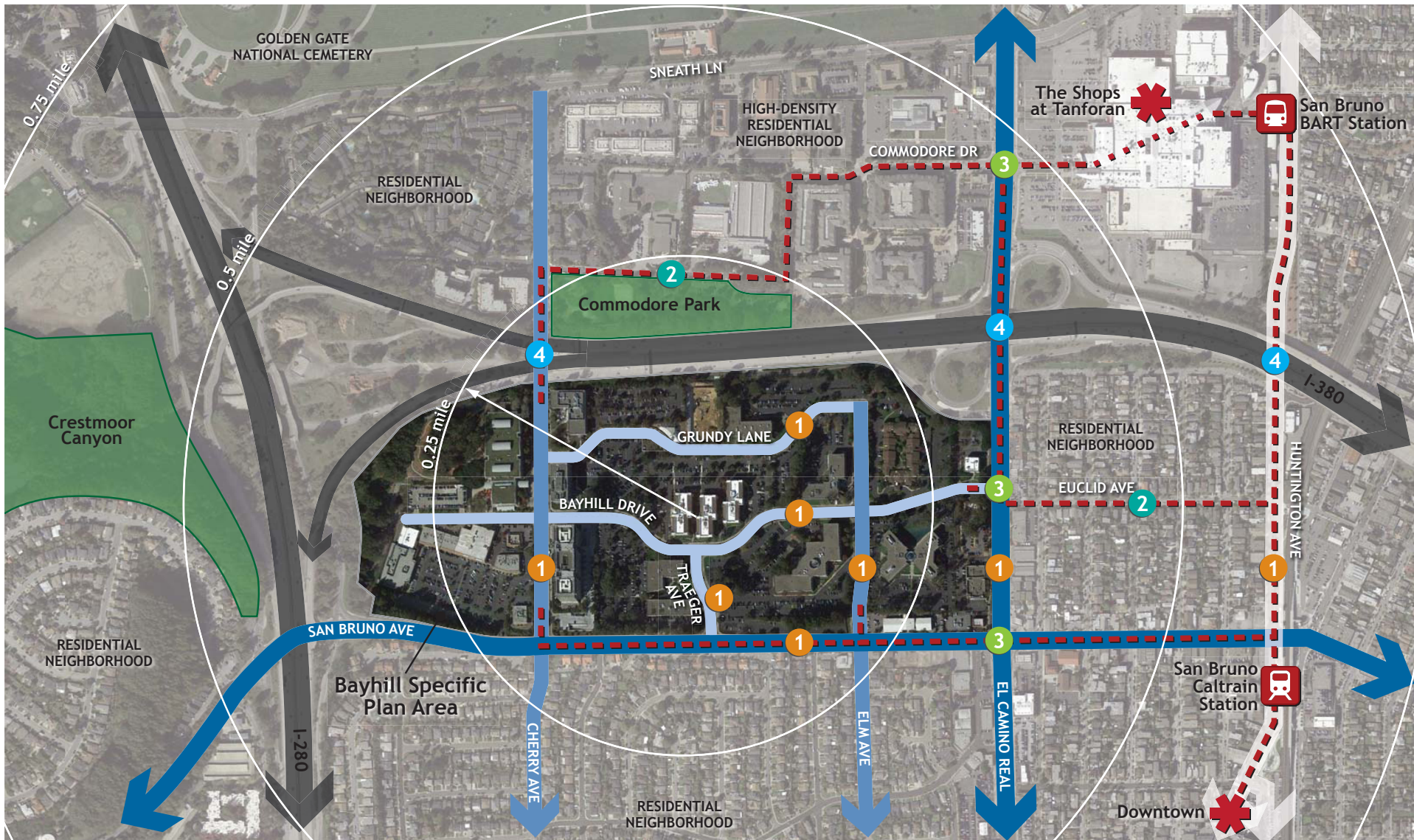
Despite significant parking lot-associated landscaping, much of the Planning Area consists of impervious surfaces that direct stormwater runoff to local creeks and the Bay City, County, State, and federal policies encourage capture and filtering of runoff to reduce the discharge of auto-related and other pollutants into water bodies. Grading and landscape areas within the Planning Area were not designed to capture runoff from paved areas. The San Mateo County Sustainable Green Streets and Parking Lots Design Guidebook assumes that 4 percent of pervious surface is needed to capture and filter runoff in rain gardens and/or related areas, provided underlying soils have an acceptable percolation rate. The lower the percolation rate, the larger the treatment area needed.



Tables and benches on private properties provide amenities for employees at those individual sites. However, the Planning Area lacks pedestrian amenities within the public realm.



Pervious paving allows stormwater runoff to percolate directly into the ground.



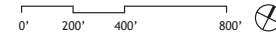
Plan Area Street Types

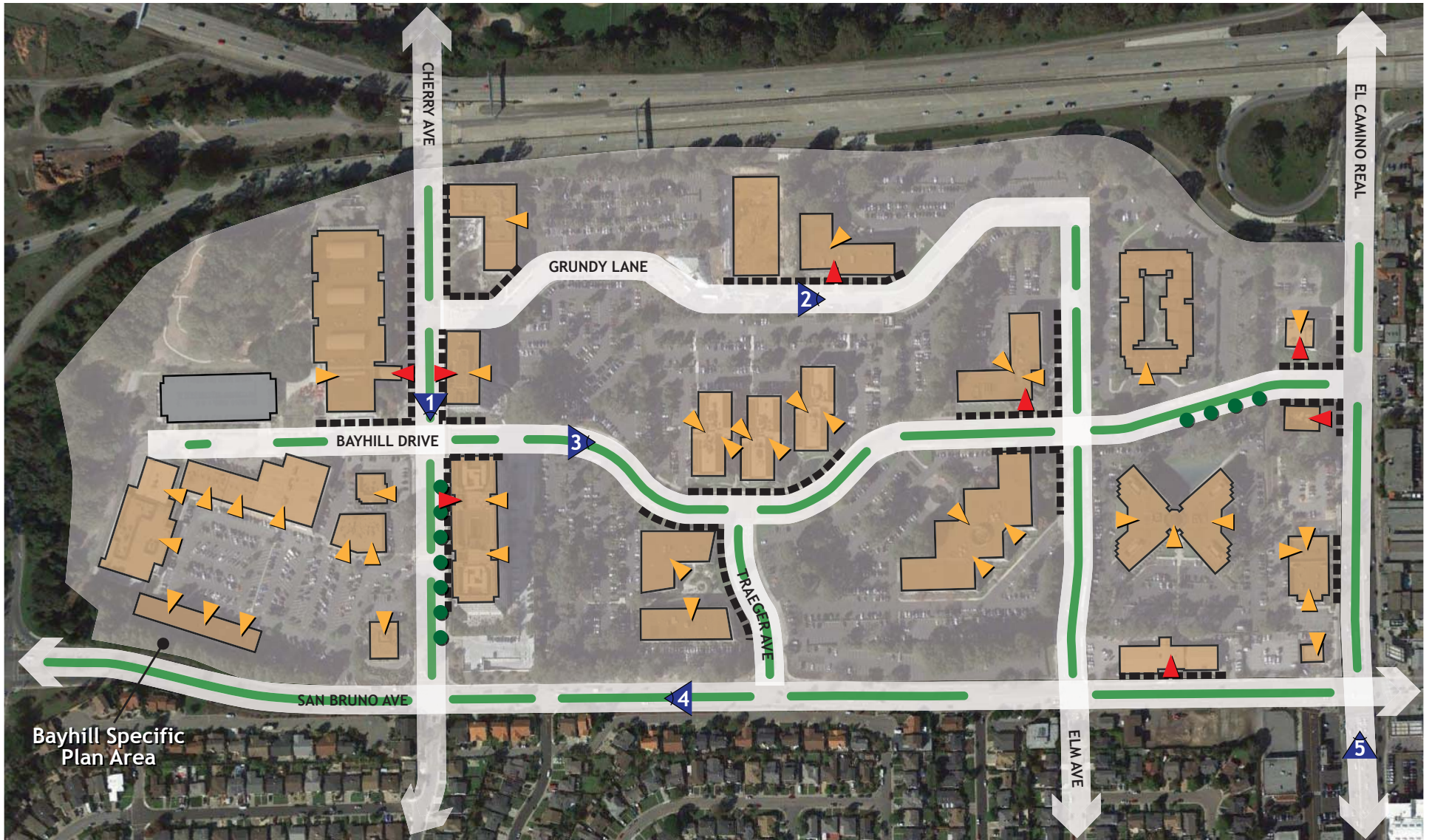
- Internal Street
- Link Streets
- Connector Streets

Pedestrian Route to Transit, Downtown, and Shopping

- Sidewalks narrow, adjacent to curb; minimal or no street trees, pedestrian-oriented lighting, or furnishings
- Pedestrian-friendly, low-traffic, shade trees along Euclid Avenue and Commodore Park
- Long unprotected pedestrian crossings at El Camino Real and San Bruno Ave
- Highway overpass creates visual barrier, undercrossings dark, sidewalks narrow

Figure 3-3: Street Types & Pedestrian Connections

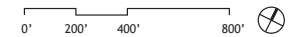




Bayhill Specific
Plan Area

- ▶ Street-Facing Building Entrance
- ▶ Parking Lot-Facing Building Entrance
- Parking Structure
- Building Adjacent to Sidewalk
- Landscaped Median
- Street Trees
- ▶ Location of 3D Illustrations

Figure 3-4: Public Realm Elements





Key Elements

- 1) Narrow sidewalks - 6' - 8'±
- 2) Surface parking along frontages
- 3) Parking oriented buildings
- 4) Lack of pedestrian furnishings and amenities
- 5) Long pedestrian crossings without refuges (100' ±)
- 6) Sidewalk street trees
- 7) Pedestrian Oriented lighting
- 8) Street facing lighting
- 9) Contains only Bott's dots, no lane stripping

Figure 3-5: Cherry Avenue Existing Condition - 4 Lanes



Key Elements

- 1) Narrow sidewalk - 6'±
- 2) Surface parking along frontages
- 3) Street facing buildings
- 4) No street trees
- 5) Curbside parking

Figure 3-6: Grundy Lane Existing Condition - 2 Lanes



Existing Conditions

- 1) Narrow sidewalk - 8'±
- 2) Surface parking along frontages
- 3) Parking oriented buildings
- 4) No street trees
- 5) No pedestrian furnishings and amenities

Figure 3-7: Bayhill Drive Existing Condition - 4 Lanes



Key Elements

- 1) Narrow sidewalk - 5'- 6'±
- 2) Surface parking along frontages
- 3) Residential frontage road makes street seem wider
- 4) No street trees
- 5) Lack of pedestrian furnishings and amenities

Figure 3-8: San Bruno Avenue West Existing Condition - 4 Lanes



Existing Conditions

- 1) Narrow sidewalk - 6' - 8'±
- 2) Surface parking along frontages
- 3) Parking oriented buildings
- 4) No street trees
- 5) Lack of pedestrian furnishings and amenities
- 6) Long pedestrian crossings without refuges (125' ±)
- 7) Bus stop, no shelter

Figure 3-9: El Camino Real/San Bruno Avenue West Existing Condition - 6 Lanes



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RELEVANT PLANS

In addition to the City of San Bruno General Plan, a number of focused policy plans provide guidance for streetscape and public realm improvements. These are:

- **Transit Corridors Plan**, which contains detailed policies, design guidelines and development standards for improved pedestrian and multi-modal facilities along San Mateo Avenue, San Bruno Avenue, and El Camino Real. Identifies the Planning Area intersections of San Bruno Avenue and El Camino Real, Camino Plaza, and White Way for pedestrian crossing improvements.
- **Walk n' Bike Plan**, which contains policies for making walking and biking in San Bruno safer and easier citywide, with recommended infrastructure projects, proposed citywide bikeway network, and near and longer-term pedestrian and bicycle improvements. Identifies five commercial and employment areas as the focus for walking and bicycling improvements, two of which, Bayhill Office Park and Bayhill Shopping Center, are located in the Planning Area. The others are Downtown, the Shops at Tanforan, and San Bruno Towne Center.
- **Grand Boulevard Initiative/TIGER II Complete Streets Project**, a preliminary design for El Camino Real between San Bruno Avenue and Taylor Avenue, featuring lane narrowing, pedestrian crossing improvements, sidewalk and median enhancements, pedestrian-oriented lighting, and green street elements such as rain garden planter strips, pervious concrete pavement, canopy street trees.

3.4 Planning Issues and Implications

The Specific Plan offers an opportunity to promote existing policy and capital improvement recommendations, provide additional and updated recommendations as needed, and introduce new urban design ideas. Specific opportunities, potential challenges, and preliminary recommendations related to urban design and the public realm are summarized below.

BLOCK SCALE AND BUILDING ORIENTATION

The existing streetscape and urban design conditions within Bayhill generally do not encourage pedestrian activity. As new development intensifies and transforms Bayhill in the near future, there is great opportunity to establish a more walkable block pattern that is better able to serve a range of uses and connect existing employment uses, allow better pedestrian connections within the Planning Area and to surround amenities and transit. The expanses of existing surface parking may make it more feasible to establish new rights-of-way or re-align existing rights-of-way that establish direct walking paths across the Planning Area. In addition, YouTube ownership of many contiguous and adjacent parcels may facilitate improvements of this nature across the Planning Area.

In addition, new pedestrian and bicycle paths may provide a framework on which new development can shape and frame the public realm. New buildings should be located close to Planning Area streets, and new and/or renovated buildings should provide main building entrances facing a principal street. This will help establish an identifiable character to the public realm between vehicular rights-of-way and private development, and also encourage employees and visitors to use streets and sidewalks as primary pedestrian routes.

PEDESTRIAN AMENITIES

The existing public realm and site landscaping gives the Planning Area a pleasant appearance, but does not create the pedestrian-oriented environment and circulation network needed to create a walkable district. Key issues and opportunities are summarized below.

Sidewalks and Crossings

In general, Planning Area sidewalks are adjacent to large lawn or landscape setback areas. Narrow sidewalks constrain pedestrian movement and limit the potential for installing sidewalk shade trees, pedestrian-oriented lighting, bus shelters, seating, and other amenities. Even in locations where attractive frontage landscaping exists, adjacent parking lots prevent the sense of enclosure needed for an attractive streetscape and public realm. Activity is focused on individual parking lots rather than the streets and sidewalks that tie the city together.

Though public utility easements are adjacent, there is space to relocate sidewalks behind them, or over them, with unit paving. This would provide additional room for pedestrians, as well as street trees, lighting, furnishings, and other amenities. Reconfiguration of walks should be coordinated with installation of street trees and lighting, as discussed below.

Consistent with the Transit Corridor Plan and the Walk n' Bike Plan's policies, enhanced pedestrian crossings should be provided at all Planning Area intersections. Particular emphasis should be focused on El Camino Real and San Bruno Avenue, key connecting streets to important local destinations. In addition, the changes in elevation across the Planning Area—particularly where Bayhill Drive slopes up to the west—may provide an opportunity for separating pedestrian pathways and sidewalks from vehicular rights-of-way.

Lighting and Other Furnishings

The east frontage of Cherry Avenue is one of the few portions of the Planning Area that provides pedestrian-oriented street and sidewalk lighting. In general, pedestrian-oriented lighting should be installed to replace or augment the highway-type street lights located along all Planning Area street frontages. New lights should be installed at approximately 100 feet on center, and could fit within existing sidewalk areas.

Street Trees

Street trees, particularly canopy trees, make sidewalks more attractive by buffering traffic and providing shade. Most Planning Area roadways do not have sidewalk street trees, and medians do not contain trees that have significant canopies for shade or stormwater capture. Widened sidewalks would allow for consistent street tree planting throughout the Planning Area. Assuming a minimum six-foot tree well and six-foot passing space, sidewalks would need to be a minimum 12 feet in width. Tree preservation and installation within the plan area shall be in accordance with the Heritage Tree Ordinance (Chapter 8.25 of the San Bruno Municipal Code). In addition, and given that San Bruno is designated as a Tree City USA, the San Bruno City Council has a demonstrated interest in the expansion of the city's urban forest.

Gateway Features

Pedestrian accommodation for access to off-site destinations is minimal, discouraging pedestrian and bicycle access to nearby housing, shopping, and transit facilities. Pedestrian and bicycle access at Bayhill Drive/El Camino Real; Cherry Avenue/San Bruno Avenue; and Elm Avenue/San Bruno Avenue should be improved. Corner curb bulb-outs, countdown pedestrian signals,

median refuge areas, bike way markings, and other elements should be considered at these locations.

IMAGE AND IDENTITY

Consistent streetscape treatments and improved building orientation and design would have the added benefit of providing Bayhill with a unified aesthetic that would help to elevate the district's overall image. Street banners and wayfinding signage that incorporate a unique Bayhill logo and/or branding scheme could further define the district's identity, helping to establish a defined sense of place.

OPEN SPACE AND VIEWS

A publicly-accessible space for day-to-day socializing and/ or recreation could be incorporated within the Planning Area. In the near- to medium- term, this space could help to establish the common identity that the area's configuration of development currently precludes. It could incorporate structures for food, drink and/or recreation, and possibly programmed activities, to promote community interaction.

Integration of stormwater management may also be an important component of new open space. Curbside rain gardens, pervious paving, and other stormwater management elements should be incorporated into Planning Area streetscape and site improvements. They can be integrated in a variety of forms, including roadway buffers, a focus for parking area landscaping, and design accents in active public spaces. Refer to Chapter 5: Infrastructure for more on the Planning Area's storm drainage system.

Lastly, new development and site improvements may also present the opportunity to incorporate new public views from within the Planning Area. While the existing vegetation and topography

currently block views of nearby hillsides and ridgelines, future development may incorporate elevations on-site public open space, such as decks or rooftop gardens and plazas, which may introduce into Bayhill new public views of San Bruno Mountain, ridgelines west of I-280, or other views of the peninsula.



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4 Access and Connectivity



This chapter addresses the transportation network within the Planning Area and its vicinity. In addition to the overall roadway system, the pedestrian, bike and transit networks are also analyzed.

4.1 Roadway System

Four prominent regional routes surround the Planning Area: US-101, I-280, I-380, and SR-82/El Camino Real. The latter three routes form western, northern, and eastern Planning Area boundaries, respectively. The regional and local circulation system in the vicinity of the Planning Area is shown in Figure 4-1.

REGIONAL ACCESS

US Route 101 (US-101) is a major north-south freeway in San Mateo County and provides regional access to the Planning Area. The freeway is located about a mile east of Bayhill and extends southward to Santa Clara and beyond and northward to San Francisco and beyond. Near the Planning Area, the freeway provides four travel lanes in each direction and occasionally an auxiliary lane in both the northbound and southbound directions. There are no HOV lanes in either direction on this stretch of US-101. The I-380/US-101 interchange provides the most direct access to the Planning Area, though the entrance and exit ramps at San Bruno Avenue provide an alternative route.

Interstate 280 (I-280) is a north-south freeway, which runs north from San Jose to San Francisco. I-280 acts as the western boundary of the Planning Area and can be accessed directly from San Bruno Avenue or the I-380 interchange. There are no HOV lanes on I-280 in San Mateo or San Francisco counties. Near the Planning Area, there are four travel lanes in each direction and occasionally an auxiliary lane in both the northbound and southbound directions.

Interstate 380 (I-380) is a 1.7-mile east-west freeway in San Mateo County that connects I-280 with US-101. The I-280 and I-380 junction wraps the northwestern corner of the Planning Area and I-380 continues to act as the entire northern boundary for the

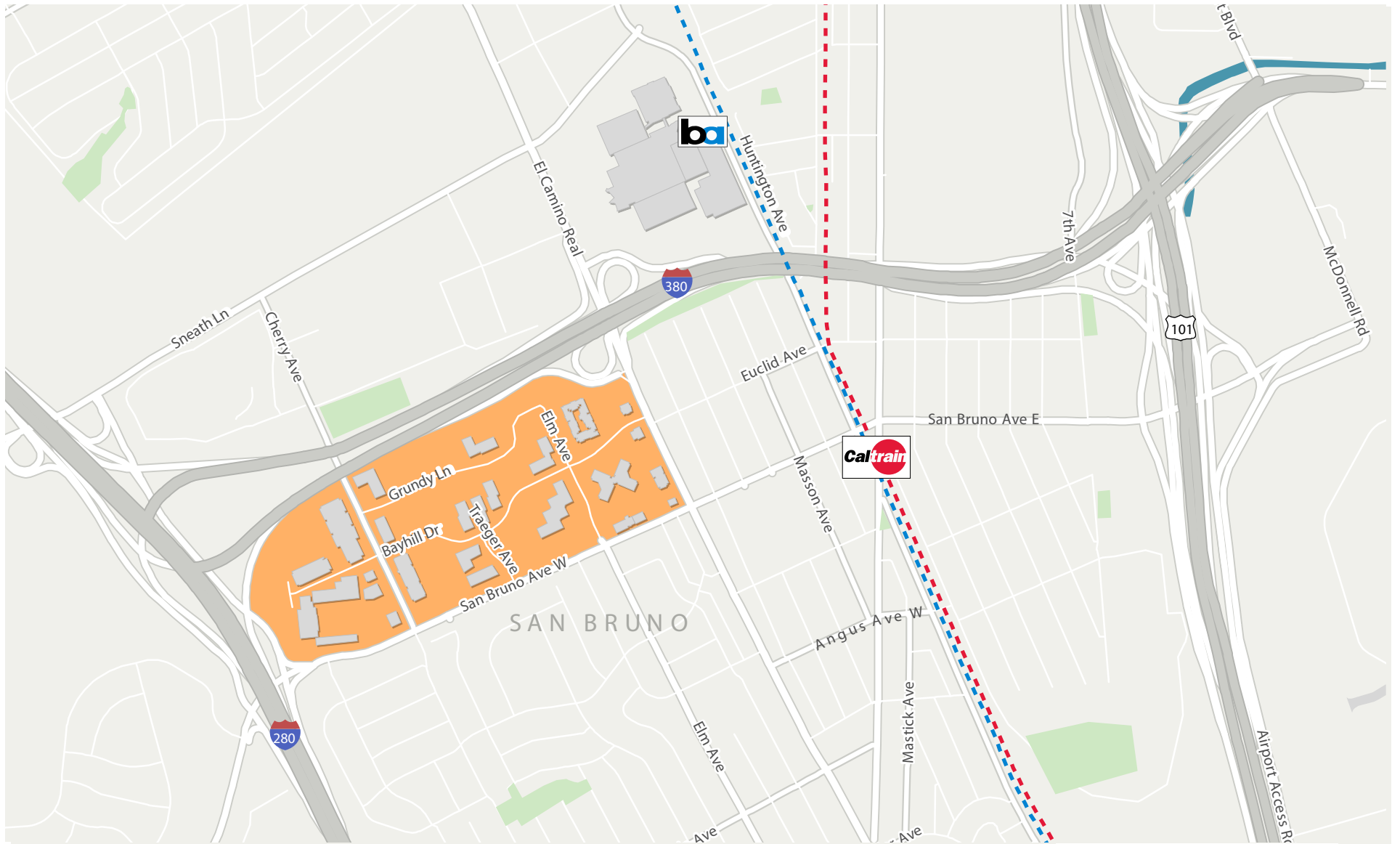
Planning Area. There are four travel lanes in the westbound and eastbound directions and no HOV lanes on the freeway.

State Route 82 / El Camino Real (SR-82/ECR) refers to a segment of the historic “King’s Highway” route through southern and much of northern California. SR-82/ECR defines the section of this route that runs north-south along the southwestern boundary of the San Francisco Bay, connecting I-880 in San Jose with San Francisco. The six-lane roadway parallels Caltrain tracks for much of its route through San Mateo County and defines the eastern boundary for the Planning Area. Although traffic volumes and speed limits are lower than on the surrounding freeways, SR-82/ECR is an important regional route, which connects many downtowns and important commercial centers along the peninsula. SR-82/ECR is also the primary bus transit route through San Bruno and surrounding cities. Near Bayhill, there are sidewalks on both sides of SR-82/ECR, but no bicycle facilities.

LOCAL ACCESS

The local circulation system serving the Planning Area and its vicinity is shown in Figure 4-1. The following roadways provide local access to Bayhill.

Cherry Avenue is a four-lane roadway running north-south through the western half of the Planning Area from San Bruno Avenue West to Sneath Lane. Cherry Avenue serves commercial properties within Bayhill in addition to residential uses both north and south of the Planning Area. On-street parking and loading is permitted on Cherry Avenue within the Planning Area. Fehr & Peers observed substantial passenger and commercial loading activity on Cherry Avenue near the Bayhill Drive intersection during an August 16, 2017 site visit in the AM (8:30 AM – 10:00 AM) period. Loading activity consisted of pick-ups and drop-offs by YouTube and Walmart company



- Planning Area
- BART
- Caltrain

0 0.5 Miles



Figure 4-1: Regional and Local Roadways



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shuttles, SamTrans public buses, Transportation Network Companies (TNCs) such as Uber and Lyft, and small commercial trucks. Approximately eight-foot sidewalks exist on both sides of the street, which expand into large pedestrian plazas fronting 901 and 850 Cherry Avenue. No bicycle facilities exist on Cherry Avenue.

San Bruno Avenue is a four-lane roadway that defines the southern boundary of the Planning Area. San Bruno Avenue is a major east-west arterial through the City of San Bruno extending to Skyline Boulevard to the west and the San Francisco International Airport to the east. San Bruno Avenue provides freeway access to both I-280 and US-101. Near the Planning Area, on-street parking is not permitted and a planted median divides the roadway. A narrow sidewalk extends along the north side of San Bruno Avenue, but no sidewalk exists on the south side. There are no bicycle facilities on San Bruno Avenue.

Grundy Lane is the northernmost local street within the Planning Area, running east-west for just under a half-mile. Several surface parking lot driveways are accessed from Grundy Lane and on-street parking is permitted along most of the street. There are sidewalks on both sides of the street, but no bicycle facilities. During the same August 16, 2017 site visit, Fehr & Peers observed multiple shuttles using Grundy Lane as a layover point after dropping off YouTube or Walmart employees.

Bayhill Drive runs east-west, bisecting the Planning Area. The four-lane local road has a landscaped median with trees and standard curb heights that breaks at intersections and a few driveways. Bayhill Drive provides access to SR-82/ECR, Cherry Avenue, Elm Avenue, and Traeger Avenue. On-street parking is not permitted. There are sidewalks on both sides of the street, but no bicycle facilities.

Traeger Avenue serves as a north-south connection between San Bruno Avenue and Bayhill Drive. There are two travel lanes in either direction, one driveway on the eastern side, and two driveways on the western side. On-street parking is not permitted. There are sidewalks on both sides of the street, but no bicycle facilities.

Elm Avenue is the easternmost north-south street within the Planning Area. There are two travel lanes in either direction south of Bayhill Drive and only one in each direction north of Bayhill Drive. Elm Avenue curves west to become Grundy Lane near the northeast corner of the project site. On-street parking is not permitted, but Fehr & Peers observed Walmart shuttle unloading on the northwest corner of Elm Avenue and Bayhill Drive during the AM commute period. There are sidewalks on both sides of the street, but no bicycle facilities.

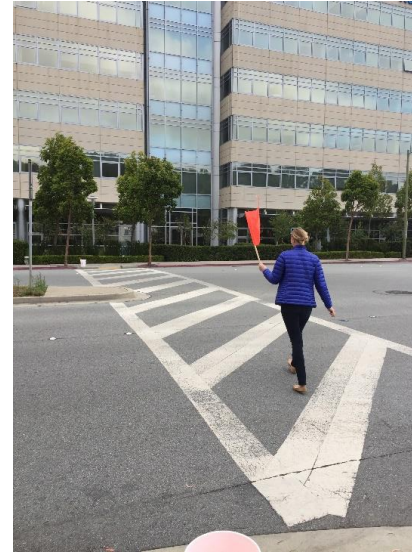
4.2 Pedestrian and Bicycle Network

PEDESTRIAN NETWORK

The Planning Area provides a robust sidewalk and crosswalk network. Sidewalks are provided on both sides of all streets within Bayhill, as well as on both sides of SR-82/ECR. San Bruno Avenue has a sidewalk on the north, and on the south side of the roadway between Cherry Avenue and Chestnut Avenue, continuing for approximately 150 feet east of Chestnut Avenue. Sidewalks range in width from approximately five feet on San Bruno Avenue to approximately ten feet on Cherry Avenue and Bayhill Drive; other sidewalk widths are somewhere in between this minimum and maximum. All sidewalks included ramps at intersections and crossings, but nearly all ramps were missing. ADA-accessibility features such as directional curb ramps and truncated domes. Sidewalk pavement was generally in good condition with minimal obstructions.

Standard crosswalks—parallel lines with no internal markings—are provided for all internal intersections (excluding driveway openings to surface parking lots). In addition, there are three high visibility crosswalks: one crossing Cherry Avenue at the Bayhill Shopping Center driveway and two crossing Cherry Avenue at the Grundy Lane intersection. Rectangular Rapid Flashing Beacons (RRFBs) are installed for the two Cherry/Grundy crossings. Standard crosswalks are also provided at all major intersections adjacent to the site on El Camino Real and San Bruno Avenue West. Limited crossings are provided at the Bayhill/El Camino and I-380 EB ramps/El Camino intersections. Additionally, the crosswalk striping across the I-380 EB off-ramp is significantly worn and difficult to see. There are no crosswalks at the following San Bruno Avenue West cross streets: White Way, Acacia Avenue, Traeger Avenue, Chestnut Avenue, and the Bayhill Shopping Center driveway. Figure 4-2 illustrates existing and proposed pedestrian facilities in the area.

Based on field observations, there is moderate to high pedestrian activity on Cherry Avenue relative to the rest of the site. This is due to the location of shuttle and transit stops on Cherry Avenue, and very low levels of pedestrian activity in the rest of the site. Based on AM peak period field observations, the Cherry Avenue sidewalks, between San Bruno Avenue and Grundy Lane, had a minimum of five pedestrians and a maximum of up to 30 when multiple shuttles unloaded at once. A majority of pedestrians crossing Cherry Avenue utilized the RRFB; however, no pedestrians were observed using the orange flags¹ provided at the intersection of Cherry Avenue and the Bayhill Shopping Center driveway. Pedestrians crossed at the Cherry Avenue/Bayhill Drive intersection almost every cycle and appeared to be a mix of office park employees, neighborhood residents, and Bayhill Shopping



High visibility crosswalk at Cherry Avenue and the Bayhill Shopping Center driveway.



A pedestrian walks up the north side sidewalk on Bayhill Drive.

¹ Orange pedestrian flags are a safety device intended to assist the pedestrian in gaining the attention of the approaching motorist. With the aid of the brightly colored flag that can be held out in front of the pedestrian and/or waved, the pedestrian may be able to attract the attention of the driver sooner by becoming more visible.

Center customers. The few pedestrians observed throughout the rest of the site were almost all office park employees or construction workers on Grundy Lane.

Despite the provided sidewalk facilities along internal roads, there is very little direct building-to-building pedestrian infrastructure because of the multitude of large surface parking lots which present a connectivity challenge for pedestrians. As a result, many pedestrians were observed using parking lots and informal paths as shortcuts between buildings. The site slopes downward from west to east and this slight grade presents another potential barrier for pedestrians, especially those originating on SR-82/ECR (coming from buses, Caltrain, or BART) with a destination on the far west side of the Planning Area. Lastly, SR-82/ECR and San Bruno Avenue may be intimidating streets for pedestrians and bicyclists to maneuver and cross. While sidewalks are provided along both streets, the sidewalk widths are narrow relative to the vehicle speed traversing the corridor. Neither street includes bicycle facilities, and both present a long pedestrian crossing distance. Despite these obstacles, a handful of pedestrians and cyclists were observed crossing SR-82/ECR during the AM period. Many cyclists used the crosswalks to traverse SR-82/ECR indicating their discomfort with cycling in mixed traffic across the busy street. I-380 and I-280 also present obstacles to entering the site on foot or by bike from the north or west.

As illustrated in Figures 4-2, proposed facilities in the Planning Area include sidewalk, streetscape, crosswalk, and intersection improvements. The City of San Bruno Walk 'n Bike Plan (2016) proposes adding a continuous sidewalk along Sneath Lane a minimum of six-feet wide, and pedestrian-scale lighting, street furniture, public art, and landscaping along El Camino Real and on San Bruno Avenue east of El Camino. In addition to these streetscape improvements, proposed crosswalk improvements on San Bruno Avenue include yield lines, painted bulbouts, and removal of corner parking and other elements that restrict

visibility. The Walk 'n Bike Plan also calls for intersection improvements along Cherry Avenue, SR-82/ECR, San Bruno Avenue, and Sneath Lane. Suggested improvements include adding corner bulbouts and pedestrian refuge islands, which would reduce crossing distance for pedestrians and improve pedestrian visibility at the intersection. A further recommendation suggests adding push buttons and RRFBs, which would activate pedestrian crossings at signalized intersections and add flashing lights to alert vehicles to the presence of a pedestrian. Two conceptual designs from the Walk 'n Bike Plan are shown in Figures 4-3 and 4-4, which provide details on these proposals. Already since the publication of the Walk 'n Bike Plan, two intersections on Cherry Avenue—one at the Bayhill Shopping Center driveway and one at Grundy Lane—were upgraded with the installation of high-visibility crosswalks, additional yield lines, and an RRFB at Grundy Lane.



Surface lots present a connectivity challenge for pedestrians circulating within the site.



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- Planning Area
- Existing Marked Crosswalk Near Study Area
- Existing Marked Crosswalk with Proposed Improvements
- Proposed Streetscape Improvements
- Proposed Streetscape & Crosswalk Improvements
- Proposed Sidewalk



Figure 4-2: Existing and Proposed Pedestrian Network

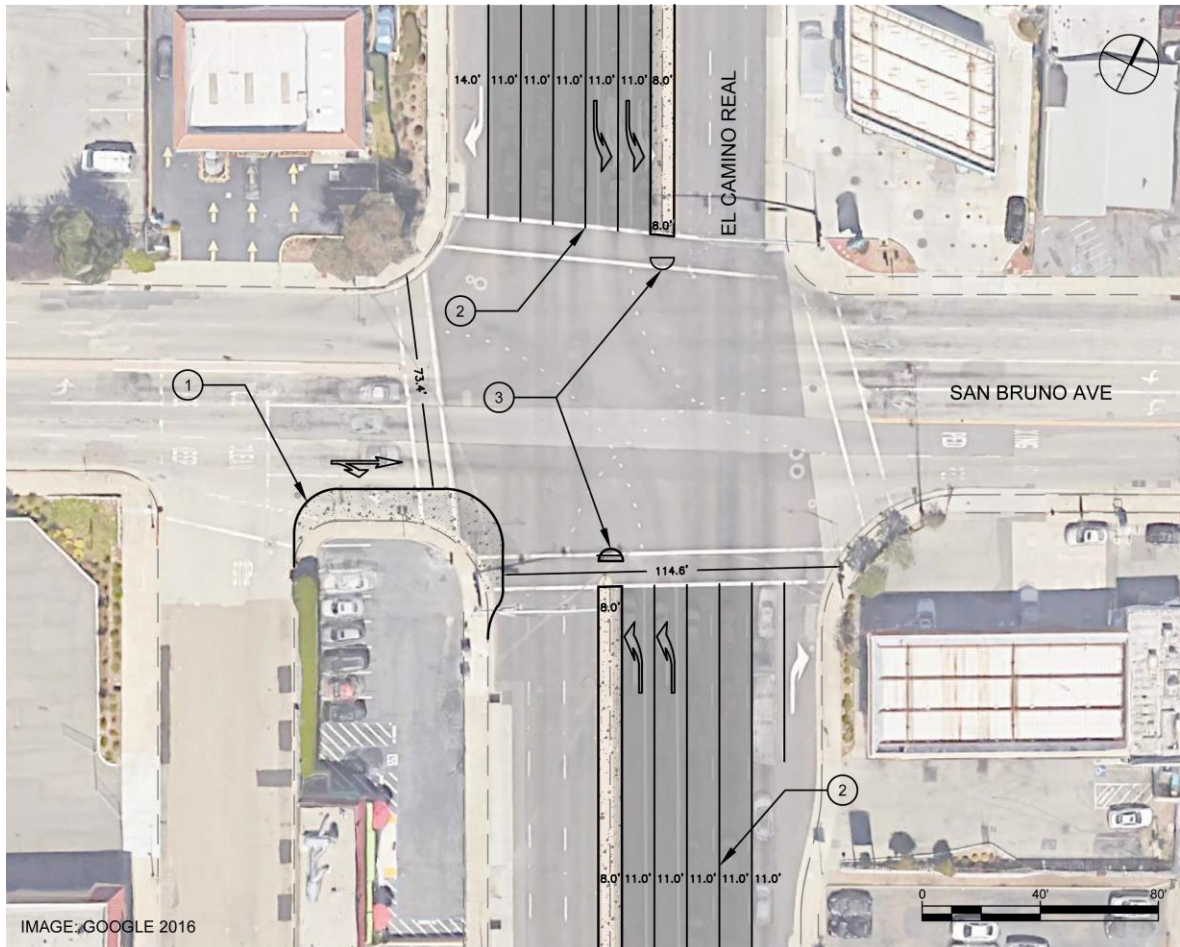


IMAGE: GOOGLE 2016

Image credit: Parisi Transportation Consulting

Source: City of San Bruno Walk n' Bike Plan, 2016

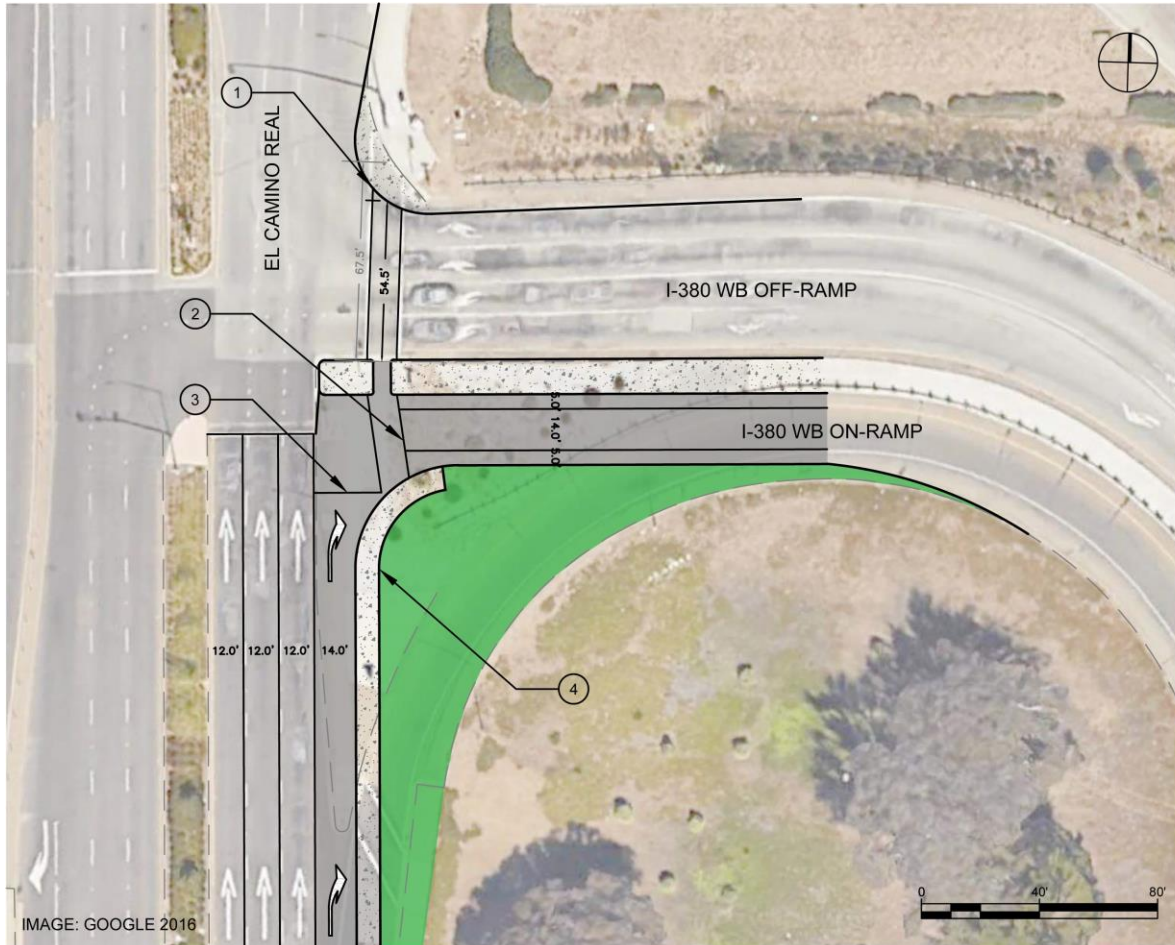


EXAMPLE FACILITY: PEDESTRIAN REFUGE (MEDIAN) ISLAND

NOTES

- ① TURN POCKET REMOVAL WITH BULB-OUT
- ② LANE NARROWING
- ③ PEDESTRIAN REFUGE ISLAND

Figure 4-3: San Bruno Avenue and El Camino Real Pedestrian Improvement Concept, Walk n' Bike Plan



EXAMPLE FACILITY - SQUARED-OFF LOOP RAMPS

NOTES

- ① BULB-OUT WITH REDUCED CORNER CURB RADIUS
- ② ON-RAMP REALIGNMENT (SQUARE-UP)
- ③ RIGHT TURN POCKET
- ④ NEW SIDEWALK

Image credit: Parisi Transportation Consulting

Source: City of San Bruno Walk n' Bike Plan, 2016

Figure 4-4: I-380 Ramps and El Camino Real Pedestrian Improvement Concept, Walk n' Bike Plan



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BICYCLE NETWORK

Bicycle facilities are typically separated into four classes:

- **Class I (Bicycle Path):** These facilities are located off-street and can serve both bicyclists and pedestrians.
- **Class II (Bicycle Lanes):** These facilities provide a dedicated area for bicyclists within the paved street width through the use of striping and appropriate signage.
- **Class III (Bicycle Routes):** These facilities are installed along streets that do not provide sufficient width for dedicated Class II bicycle lanes. The street is designated as a bicycle route where bikes and cars share the road through the use of on-street markings and signage, which inform drivers to expect bicyclists.
- **Class IV (Cycletrack/Protected Bicycle Lanes):** These facilities are for the exclusive use of bicycles and require a vertical element that serves as a barrier separating the bikeway and adjacent vehicular traffic.

Currently, Class II bicycle lanes are provided along Sneath Lane and a small stretch of Commodore Drive north of the Planning Area. Neither of these facilities serve as direct routes to the site. Figure 4-5 illustrates these existing, plus any proposed bicycle facilities in the Planning Area, as described in Chapter 6 of the City of San Bruno Walk 'n Bike Plan. As illustrated in Figure 4-5, the Walk 'n Bike Plan proposes several new facilities within Bayhill, including a separated bikeway on Cherry Avenue and Class II bike lanes on Bayhill Drive, Elm Avenue, and San Bruno Avenue (with road widening). The Plan also proposes Class III bike routes on Euclid Avenue, Elm Avenue, Cherry Avenue, and Commodore Drive extending out from the Planning Area into residential or commercial districts.

4.3 Transit

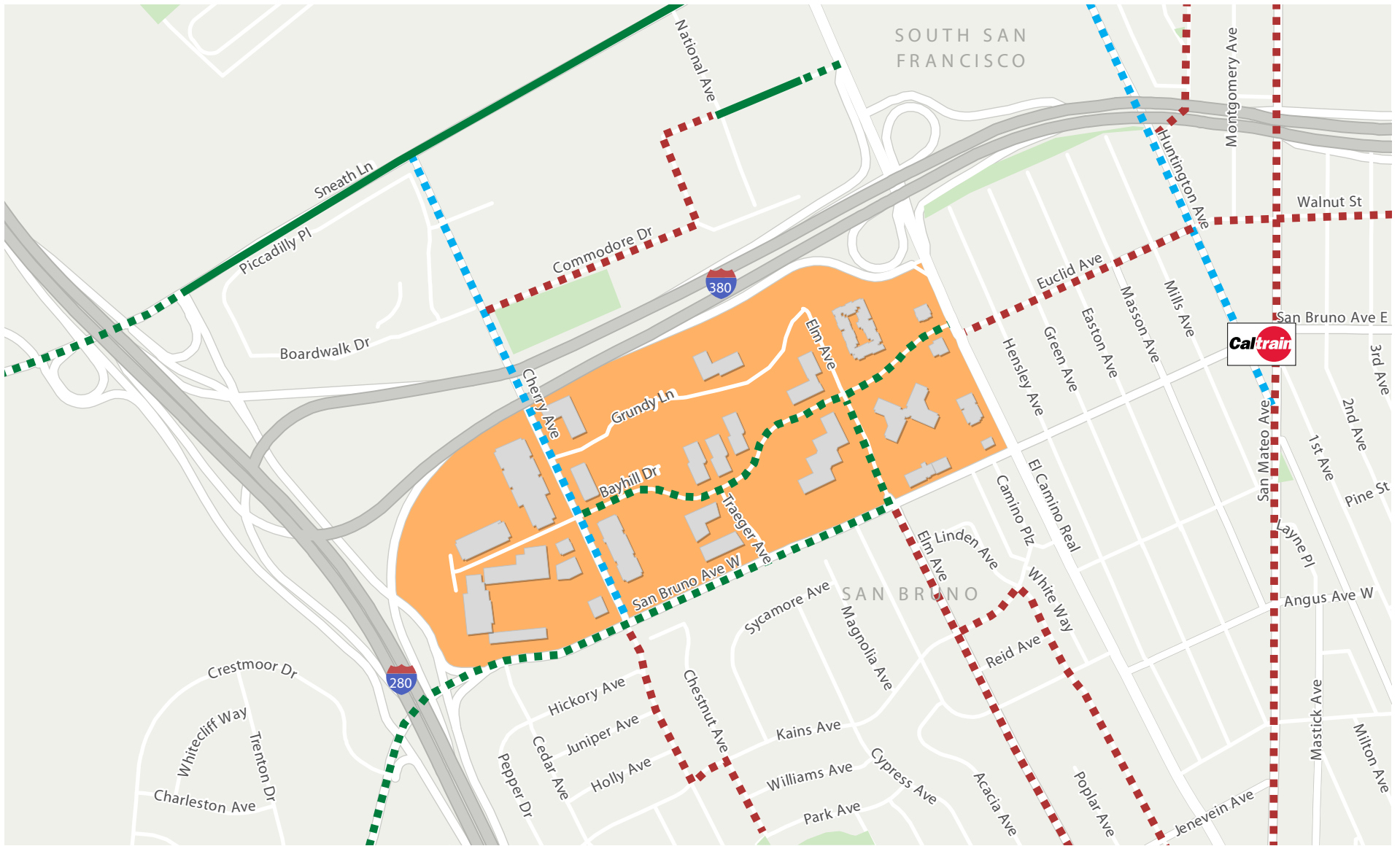
SamTrans is the primary regional and local transit provider within San Mateo County, serving all rail stations within the County and major transit transfer points for Santa Clara and San Francisco counties. Both BART and Caltrain provide free commute shuttles to and from the Planning Area and their respective San Bruno stations. Per the BART website, the BART shuttle is funded jointly by BAAQMD Transportation Fund for Clean Air, San Mateo County Transit District, and Walmart-Stores, Inc. In addition, YouTube and Walmart corporate offices separately operate private shuttles to and from the Planning Area open only to their respective employees. Bus service in the Planning Area is provided along San Bruno Avenue, SR-82/ECR, Cherry Avenue, Bayhill Drive, and along I-380. Figure 4-6 illustrates the existing SamTrans, BART, and Caltrain routes and stops in the vicinity of the Planning Area. YouTube and Walmart shuttle stops are also indicated in Figure 4-6. Table 4-1 describes the service provided on these routes and the nearest stops to the Planning Area. All shuttle services and a few bus routes stop at Cherry Avenue and Bayhill Drive. For most other routes; however, the nearest stop is on SR-82/ECR, either at San Bruno Avenue or adjacent to the I-380 eastbound ramps.

El Camino Real is an active bus corridor, particularly for regional bus travel. SamTrans' ECR route, from Daly City BART to the Palo Alto Transit Center, is the most frequent route serving the site. It runs every 15 minutes on weekdays and every 20 minutes on weekends. Other nearby routes provide local service and operate on 30- to 60-minute headways. In addition to regional and regular local service, Samtrans operates one school route (49) and one all-nighter route (399) near the Planning Area. Routes offering weekend service include 140, ECR, 398, and 399. The BART, Caltrain, YouTube, and Walmart shuttles only operate on

weekdays during business hours. BART and Caltrain shuttles operate direct routes between their respective San Bruno stations and 850 Cherry Avenue with no stops in between. On average, the BART and Caltrain shuttles operate on approximately 15-minute and 20-minute headways, respectively. YouTube and Walmart provide employee-only shuttles that connect other campuses and provide an alternative to public transit. Based on field observations, shuttles come to and from San Francisco, the South Bay, and the East Bay. YouTube/Walmart also provides a local shuttle connecting the campus to the BART and Caltrain stations. Shuttle service run throughout the day with peak service operating during the morning and evening peak hours. As illustrated on Figure 4-6, the YouTube and Walmart shuttle stops front their respective buildings on Cherry Avenue and Elm Avenue.



Surface lots present a connectivity challenge for pedestrians circulating within the site.

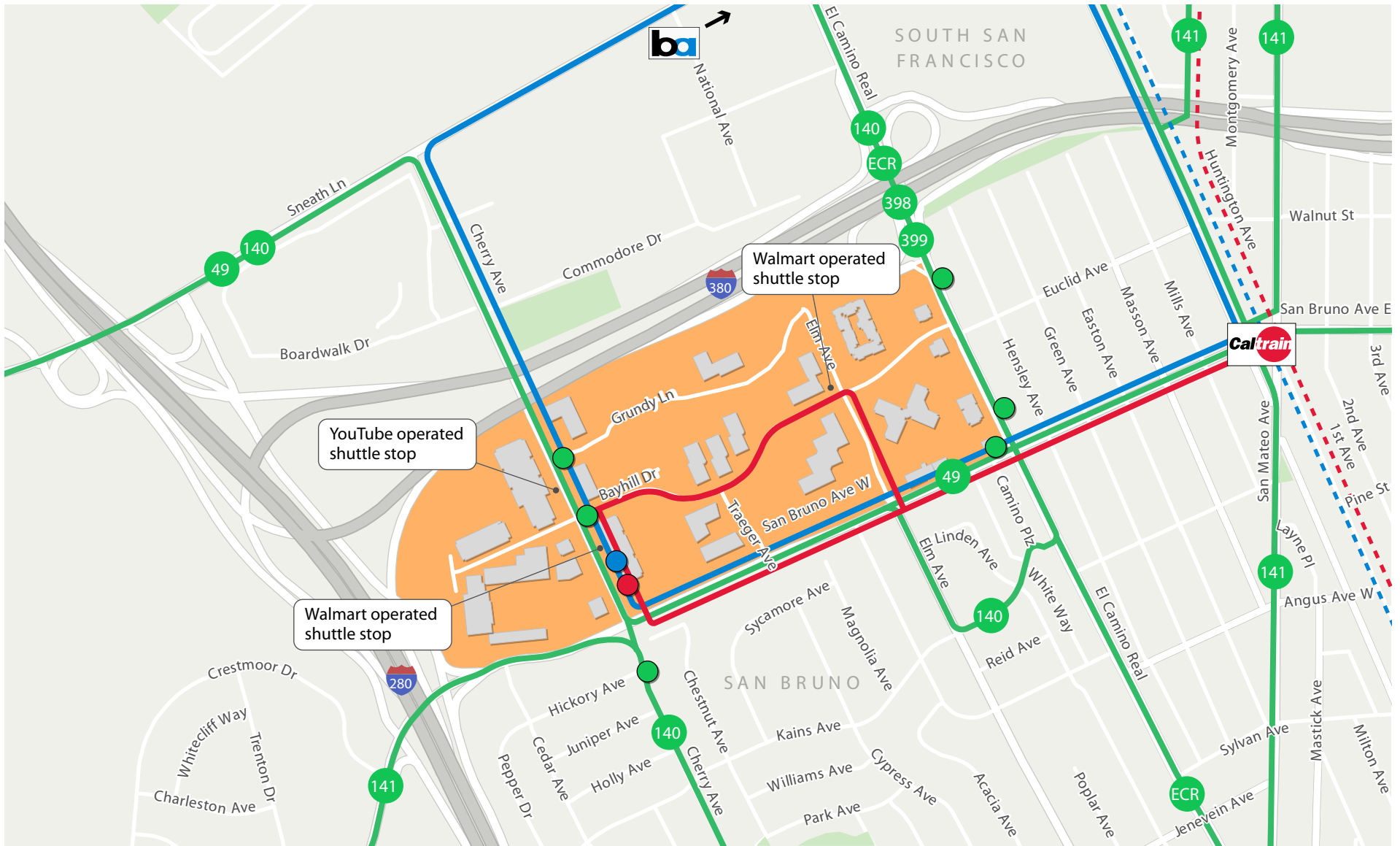


- Planning Area
- Existing Class II Bike Lanes
- Proposed Class II Bike Lanes
- Proposed Class III Bike Routes
- Proposed Class IV Separated Bikeway



Figure 4-5: Existing and Proposed Bicycle Network

Source: City of San Bruno Walk n' Bike Plan (July 2016)



- Caltrain Shuttle Stop
- BART Shuttle Stop
- Public Transit Stop
- Planning Area
- Caltrain Shuttle
- BART Shuttle
- Samtrans Routes
- Caltrain Rail Line
- BART Rail Line



Figure 4-6: Existing Transit Network

Source: Samtrans.com and Fehr & Peers field observations, 2017

Table 4-1: SamTrans, Caltrain, and BART Shuttle Service

Line	Route	Nearest Stop	Weekday Operations		Weekend Operations	
			Hours of Operation ¹	Average Headway	Hours of Operation ¹	Average Headway
140	SFO AirTrain – Manor/Palmetto	Cherry at Hickory	5:50 AM – 11:45 PM	30 minutes	8:00 AM – 6:45 PM	60 minutes
141	San Bruno BART – Shelter Creek	Cherry at Bayhill	6:00 AM – 7:30 PM	45 minutes	-	-
ECR	Daly City BART – Palo Alto Transit Center	El Camino at I-380	4:00 AM – 2:00 AM	15 minutes	4:45 AM – 2:15 AM	20 minutes
398	San Bruno BART – Redwood City Transit Center	El Camino at San Bruno	9:00 AM – 12:00 AM	60 minutes	5:50AM – 11:45 PM	60 minutes
399	Daly City – SF Airport	El Camino at I-380	1:00 AM – 5:00 AM	60 minutes	1:00 AM – 5:30 AM	60 minutes
49	Terra Nova High – Airport	Cherry at Grundy	7:00 AM – 7:45 AM 3:00 PM – 4:00 PM	1 bus (school route)	-	-
BART	San Bruno BART – Bayhill Shopping Center	Cherry at Bayhill	7:00 AM - 10:15 AM 4:00 PM – 6:45 PM	15 minutes	-	-
Caltrain	San Bruno Caltrain – Bayhill Shopping Center	Cherry at Bayhill	7:30 AM - 10:30 AM 4:00 PM – 6:45 PM	20 minutes	-	-

Note:

1. Hours of operation are rounded to the nearest 15 minutes.

Source: SamTrans, BART, and Caltrain 2017

4.4 Planning Issues and Implications

PEDESTRIAN AND BICYCLE CONNECTIVITY

Although the Planning Area provides a robust network of sidewalk and crosswalk facilities, there is a lack of both inter-building connectivity and connectivity to the surrounding environment. This is true for both pedestrians and cyclists. The City of San Bruno Walk 'n Bike Plan (2016) suggests improvements for the bicycle and pedestrian network in and around the site. These suggestions address many of the barriers to accessing the site, but leave the challenges with intra-site circulation largely untouched. The following ideas summarize planning issues and implications for pedestrian and bicycle connectivity:

- There is no bike supportive infrastructure (such as bicycle parking, striped bike lanes, bike share, etc.) provided on or adjacent to the site. Without dedicated facilities, as a mode to commute to work.
- Large surface parking lots present obstacles to pedestrian and bicycle travel between buildings within the Planning Area. Without designated aisles or pathways for pedestrians and cyclists, surface lots are unfriendly and hazardous environments for these modes. Safety is a challenge given limited visual awareness of pedestrians who must weave between parked cars to navigate the lot. Designated space for each mode would address these safety and aesthetic barriers, while also reducing walk or bike time between buildings. This will be important as YouTube expands its campus to multiple disconnected buildings on the site.
- San Bruno Avenue and SR-82/ECR are currently multi-lane roadways with high traffic volumes and traffic speeds

that would require substantial investment to create a truly bicycle- and pedestrian-friendly environment. Addressing these barriers would require coordination with outside agencies, including Caltrans and SamTrans.

- I-280 and I-380 as well as moderate grades are possible barriers, which may be discouraging pedestrian and bicyclist connection between residential neighborhoods to the north and west of the Planning Area.
- The predominately single-use nature of Bayhill discourages pedestrian and bicycle travel, which is most common in mixed-use environments. A more-mixed use environment with increased retail and service options would encourage internal trips that would most likely be completed on foot or by bicycle.

TRANSIT ACCESS AND LOADING ACTIVITY

The Planning Area is accessible by multiple regional and local public transit services, including SamTrans bus service, BART and Caltrain. YouTube and Walmart employees have the added option of private shuttle services available for East Bay, South Bay, and San Francisco residents. Under current operating conditions, loading activity associated with these services occurs on Cherry Avenue and Elm Avenue. If the number of employees increase as proposed, loading activity for private shuttles may surpass on-street curb capacity, especially during peak periods with simultaneous curb needs of public transit services, commercial loading, and TNC passenger loading. The following ideas summarize planning issues and implications for transit access and loading activity:

- Although multiple bus and rail services stop nearby the Planning Area, the lack of pedestrian connectivity between buildings could mean up to a half-mile walk from transit stops within the site boundaries. The same is true of stops bordering the site on SR-82/ECR or San Bruno

Avenue, and distances are even farther (up to a mile) for those desiring to walk from Caltrain or BART.

- As an alternative to walking the first/last mile, BART and Caltrain offer peak period shuttles to and from Cherry Avenue. These services; however, are limited to a few runs per peak period and were observed to precede the peak arrival period for employees in the Planning Area. The limited and un-synced service may discourage potential transit users because of its lack in daytime service.
- Recent trends in the Bay Area suggest that TNC usage will continue to increase. The loading activity necessitated by these trips means a greater demand for curbspace at all destinations. Given these trends, additional passenger loading zone locations should be considered throughout the site. These zones should be accompanied by clear wayfinding and permissions signage so as to direct the various loading services (transit, shuttles, and TNCs) to their designated curbspace.
- Assuming that YouTube's private shuttle program will grow proportionally with its employee growth projections, substantially more on-street loading space will need to be designated than currently exists today. It is also possible that when combined with the loading needs of public transportation service, commercial loading, and TNCs (see above), the on-street loading demand will exceed a capacity that simultaneously maintains safe traffic, bike, and pedestrian conditions.
- Many of the private shuttles were observed using curbspace on Grundy Lane as a layover point after unloading employees on Elm Avenue or Cherry Avenue. This seemed workable under the current conditions—low traffic volumes and low demand for on-street parking—but could present spatial conflicts if employee volumes and curbspace activity grow as anticipated.

VEHICULAR ACCESS AND PARKING

The Planning Area is bounded by three access roads: Cherry Avenue, San Bruno Avenue, and SR-82/ECR. Each corridor provides direct access to and from the site. While the site provides multiple means to enter and exit, the vehicular activity presents challenges to other modes. Based on a review of existing data, the corridors adjacent to the site include a fair amount of available capacity with exception of SR-82/ECR due to its proximity to the I-380 interchange.

- San Bruno Avenue and SR-82/ECR include narrow sidewalks along high-speed corridors. Cherry Avenue is a four lane collector with parking or loading on either side of the street. The high speed corridors and wide cross-sections may discourage pedestrians from walking to and from the site. Consider streetscape improvements such as street trees, corner bulbouts, and wider sidewalks to manage vehicular speeds and improve the pedestrian environment.
- Due to the fact that travelers make modal decisions based on effort-level and cost, the provision of ample, free parking will likely discourage commuters from choosing transit, bike, or walk alternatives. Parking supply and pricing could be managed to incentivize use of these other modes.
- Should TNC usage continue to increase, it is possible that parking demand will actually decrease. This outcome is dependent on the current mode of commuters who elect to shift their trips to TNC; if those who shift were previously using transit, bike, or walk modes, the demand will not decrease. This will be important to monitor and factor into parking supply decisions over time.



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5 Infrastructure



This chapter analyzes the infrastructure network that supports the Planning Area, including its water supply and distribution system, the sanitary sewer system, and the storm drainage system

5.1 Water Supply

Potable water supply planning for the Planning Area is provided by the City of San Bruno. The Public Works Department is responsible for drinking water storage and distribution, and groundwater well production. The water system has two supply sources. Surface water from the San Francisco Public Utilities Commission (SFPUC) and groundwater produced by five local wells. These two sources are blended together to meet the water quality and demand requirements. The major source of surface water provided by the SFPUC originates from spring snowmelt from the Sierras flowing down the Tuolumne River to storage in the Hetch Hetchy Reservoir. Approximately 50 percent of the water supply is from the SFPUC and 50 percent is produced by the City's groundwater wells, according to current estimates by the Public Works Department.

The most recent data on current usage and near term projections is contained in the 2015 Urban Water Management Plan.

The average total potable water demand in the San Bruno Service area for the years 2013 and 2014 was 1,274 million gallons (MG) and the projected supply availability for 2017 through 2019 for the City of San Bruno from SFPUC is 583 million MG and projected supply from San Bruno's water wells is estimated at 839.5 MG. These two sources together can provide up to 1422.5 MG.

Longer term planning for water supply reliability to meet future water demands from 2020 to 2040 is addressed in the 2015 Urban Water Master Plan (UWMP). The City's UWMP confirms the City's ability to meet projected demand inclusive of during drought years.

The Planning Area is serviced by a network of distribution lines ranging from 4 inches in diameter to 12 inches. An evaluation of

the existing system that addresses capacity and reliability is provided in the Water System Master Plan (WSMP), dated November 2012. One of the recommended system improvements is a future 12 inch line in Elm Avenue from San Bruno Avenue to Bayhill Drive. There are no other deficiencies or required upgrades noted in the Planning Area as defined in the City's WSMP. See Figure 5.1 for the Existing Water System.

5.2 Wastewater

The City of San Bruno owns and maintains the sewer system within the city limits. All waste water is conveyed to the City of South San Francisco's Shaw Road sewage pump station, from where it is pumped to the South San Francisco/San Bruno Water Quality Control Plant (WQCP) which is operated and maintained by South San Francisco.

The City completed a Sewer Master Plan in 2014 and an updated Sewer System Management Plan in 2016. One of the required elements of the Master Plan is a System Evaluation and Capacity Assurance Plan (SECAP) and a plan for rehabilitation and replacement of sewers based on their condition. The capacity analysis results indicated no gravity pipeline deficiencies in the Planning Area. Based on the condition assessment process completed as part of the 2014 Master Plan, there were no serious problems identified in the Planning Area which would require pipe replacement. The condition assessment process for reviewing the gravity sewer system involved the use of closed circuit tv (cctv) inspection of the pipe lines. The cctv inspections were initiated in 2009. More updated inspections may be warranted to confirm current condition. See Figure 5-2, Existing Sanitary Sewer System.

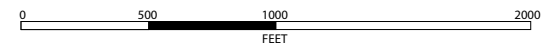
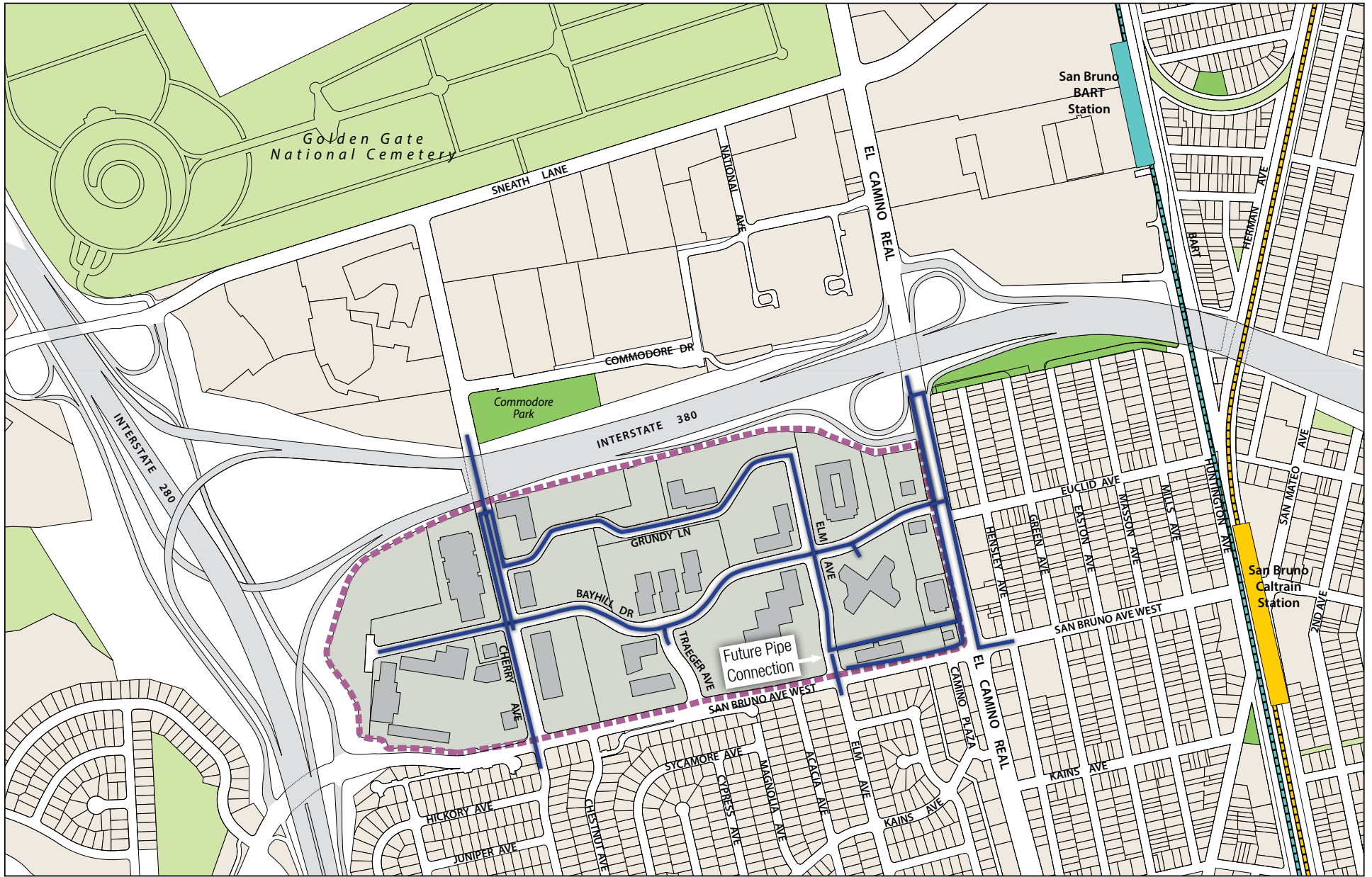


Figure 5-1: Existing Water System

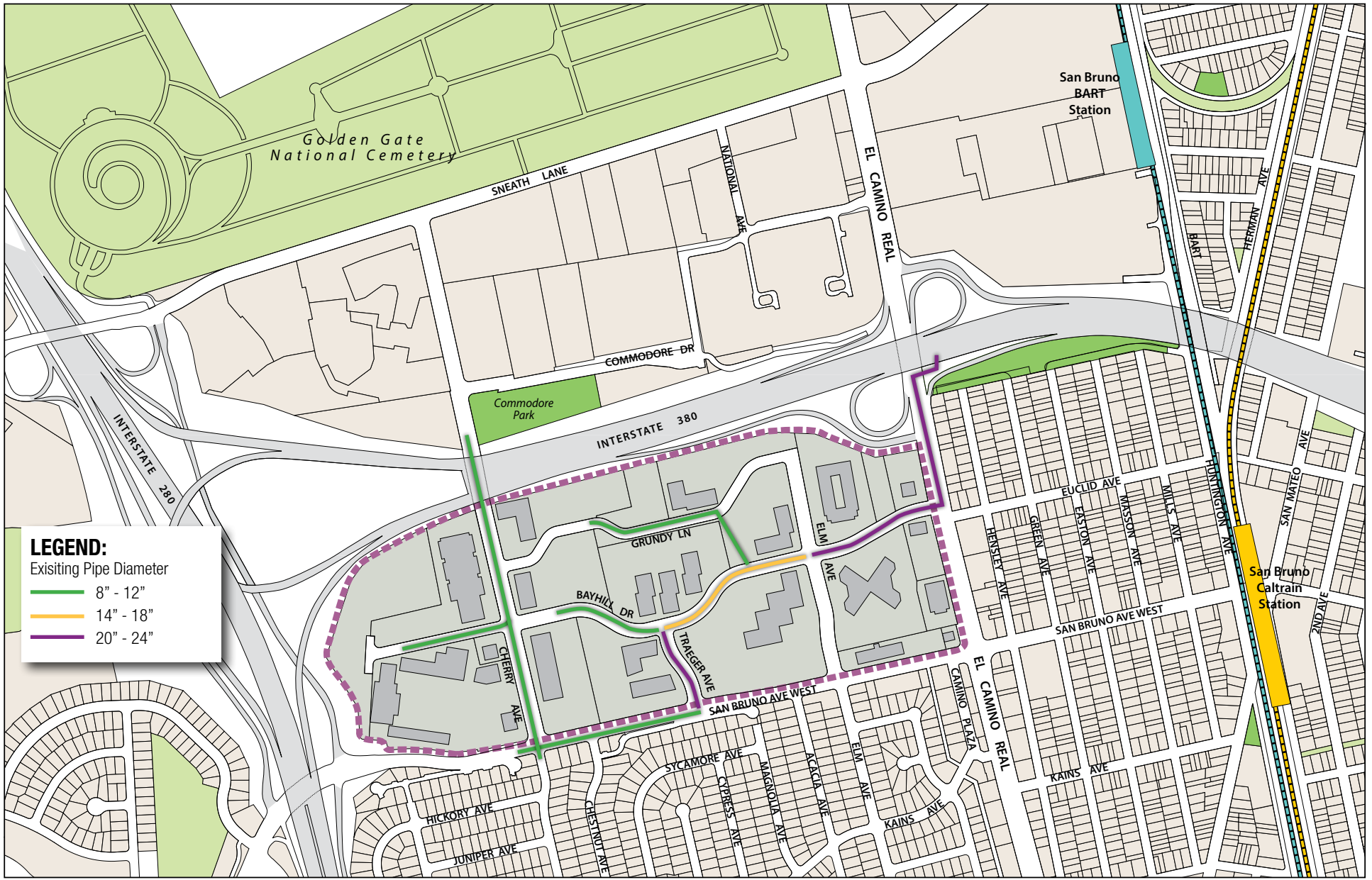


Figure 5-2: Existing Sanitary Sewer System

Treatment

The wastewater treatment plant, which is operated by the City of South San Francisco has sufficient capacity to handle existing conditions and planned growth. A major upgrade and plant expansion was completed approximately 15 years ago. Secondary treatment of the wastewater of both cities is treated along with wastewater treatment for the Town of Colma. The facility also provides the dechlorination treatment of chlorinated effluent from the cities of Burlingame and Millbrae, and from the San Francisco Airport. The average dry weather flow through the facility is 9 million gallons per day (MGD) and peak wet weather flows can exceed 60 MGD.

Treated wastewater is discharged to the San Francisco Bay. Discharge from the treatment plant is monitored for compliance with State and federal mandates for water quality control and waste discharge requirements.

5.3 Storm Drainage

The City owns and operates the storm drain system. It is managed by the Public Works Department. The system covers six main watersheds that in general flow from west of Highway 280 to the east towards the San Bruno Channel. The channel outfalls to the San Francisco Bay via a tide gate located north of the San Francisco International Airport. The City completed a Storm Drain Master Plan in 2014 with the primary purpose of addressing potential flooding and capacity deficiencies in the existing system. Alternative improvements to address the potential for flooding were presented in the Master Plan as part of a Capital Improvement Programs list. System capacity deficiencies were noted in the Planning Area.

Existing infrastructure around and serving the Planning Area includes pipes ranging from 12 inches to 24 inches in diameter.

Following the natural drainage patterns of the terrain, most storm drain pipes run west to east, with the majority of the flow direction to the east. Pipeline capacity deficiencies, based upon hydraulic modeling, were noted on the main trunk line segments that runs along Elm Avenue within the Planning Area. The proposed improvement to mitigate the capacity deficiency is to construct larger capacity pipes or an enlarged downstream detention basin located near Crestmoor Canyon. See Figure 5-3: Existing Storm Drain System.

STORMWATER TREATMENT

Surface water run-off in an urbanized area is subject to pollution control before discharge into a water body. This run-off is regulated through the National Pollutant Discharge Elimination System permit process which is administered through the State Water Resources Control Board which issues discharge permits to municipalities. The City has developed a Storm Water Management Plan and has joined the San Mateo Countywide Stormwater Pollution Prevention Program for compliance with the permit.

All new construction projects require localized improvements to manage run-off in a way that incorporates storm water quality treatment provisions, in accordance with the San Mateo Countywide Water Pollution Prevention Program. The current Planning Area is largely impervious. Future development will be required to implement Low Impact Development (LID) site design measures which encourage capture and re-use or rainwater or infiltration of surface run-off through bio-retention planting areas.

5.4 Planning Issues and Implications

With few exceptions, the existing public utilities in the Planning Area for water, waste water and storm water are in good condition and have the capacity to serve the Planning Area as described in the infrastructure master planning documents most recently updated and adopted by the City.

The few areas of identified deficiencies are noted for future improvement as part of a capital improvement program although funding is not secured for all necessary improvements. The redevelopment of the Planning Area is likely to trigger the construction of these improvements as part of the construction of the new development.

While the infrastructure master planning documents conclude that there is adequate capacity based on certain growth projections, significant hiring and expansion by YouTube could exceed the growth projections and the capacity issues may need to be re-evaluated.



Figure 5-3: Existing Storm Drain System



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6 Environmental Resources and Hazards



This chapter documents the environmental context of the Bayhill Specific Plan. It reviews significant noise factors, including from the San Francisco International Airport, potential hazards, and air quality concerns.

6.1 Noise

Noise can be defined as unwanted sound. Excessive noise exposure can cause adverse physical and psychological responses, in addition to interfering with speech, concentration, and performance. These effects are particularly disruptive for noise-sensitive land uses, such as schools, churches, hospitals, convalescent homes, and residential neighborhoods.

The decibel (dB) scale, a logarithmic scale, is used to quantify sound intensity. Different types of measurements are used to characterize the time-varying nature of sound. These measurements include the equivalent sound level (L_{eq}), the minimum and maximum sound levels (L_{min} and L_{max}), percentile-exceeded sound levels (such as L_{10} , L_{20}), the day-night sound level (L_{dn}), and the community noise equivalent level (CNEL). L_{dn} and CNEL values differ by less than 1 dB. San Bruno's General Plan identifies land use compatibility with L_{dn} for community noise environments and CNEL for airport noise exposure.

Aircraft departures from San Francisco International Airport (SFO) are the primary source of noise in San Bruno. Because of the federally mandated replacement of Stage 2 aircraft with Stage 3 aircraft by 2000, noise contours at SFO (discussed below) have continued to shrink in recent years. As required by State law, SFO has installed and maintained a noise monitoring system.

Other sources of noise in San Bruno include roadways, railways, and industrial activities. Traffic along I-280, I-380, and Highway 101 generate the most roadway noise adjacent to neighborhoods and commercial areas. Trains operating on the Southern Pacific Transportation Company tracks through San Bruno affect the noise environment in surrounding residential areas. Light industrial and heavy service uses in the northeastern portion of the city also generate noise.

AIRPORT NOISE

SFO is owned and operated by the City and County of San Francisco and located adjacent to the City of San Bruno, east of Highway 101, in unincorporated San Mateo County. SFO has a total of four runways, of which two are east-west and two are north-south. Approximately 90 percent of arrivals at SFO occur on the east-west runways, with approaches over San Francisco Bay. Approximately 70 percent of departures occur on the north-south runways. Portions of San Bruno are situated under the east-west runways; as such, aircraft noise from SFO is a primary source of noise in San Bruno.

The *Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport* (ALUCP), prepared by the City/County Association of Governments of San Mateo County in February 2012, is a State-mandated land use plan that addresses the compatibility of airport operations with surrounding land uses in local jurisdictions. Exhibit IV-6 of the ALUCP shows airport noise contours ranging from 65 to 75 CNEL. The CNEL noise contours designate areas where noise exposure is great enough to warrant land use controls to promote noise compatibility.

As shown in Figure 6-1, the airport's 65 dB CNEL noise contour crosses the northeast corner of the Planning Area. No other portions of the Planning Area fall within an airport noise contour. The ALUCP designates recreational, commercial, and industrial/production land uses as compatible uses within the 65 dB CNEL contour. Residential land uses are designated as conditionally compatible uses within the 65 dB CNEL contour, meaning that the use must be sound insulated to achieve an indoor noise level of 45 dB CNEL or less from exterior sources in order to be considered compatible. Public/institutional uses are also considered conditionally compatible, with the exception of outdoor music shells and amphitheaters which are deemed not compatible.

Chapter 7, Health and Safety, of the San Bruno General Plan provides noise compatibility guidelines at the local level. The airport noise/land use compatibility standards provided in Table 7-1 of the Health and Safety chapter are consistent with the land use compatibility standards in the ALUCP.²

ROADWAY NOISE

The Planning Area is located adjacent to I-380, I-280 and El Camino Real, as well as the I-380 eastbound on ramp towards SR-101. Traffic on I-380, I-280 and El Camino Real is the primary source of traffic noise in the vicinity of the Planning Area, with other nearby local arterials generating some noise that may affect the Planning Area as well. Existing and projected (2030) roadway noise contours provided in Chapter 7, Health and Safety, of the San Bruno General Plan are shown in Figure 6-1. Due to its proximity to I-380 and I-280, a majority of the Planning Area is within a 70 dB CNEL³ existing roadway noise contour, while a small portion in the southeast corner (farthest from the freeways) is in a 65 dB CNEL contour. The projected noise contours do not show anticipated changes within the Planning Area in 2030.

Table 7-2 in the General Plan provides noise land use compatibility standards for areas outside the airport-impacted areas (for sites impacted by both airport and non-airport related sources, the more stringent of the two restrictions apply). All land use types are normally acceptable or conditionally acceptable⁴

within exterior noise levels of 65 dB CNEL or below. Within exterior noise levels of 70 dB CNEL or below, all land use types are considered normally acceptable or conditionally acceptable, with the exception of playgrounds, parks, auditoriums, concert halls, and amphitheatres, which can be considered either conditionally acceptable or normally unacceptable⁵ in exterior environments of 70 dB.

RAILROAD NOISE

BART and Caltrain both provide access to San Bruno from other parts of the Bay Area. While there is a BART station less than 0.4 miles northeast and a Caltrain station less than 0.3 miles east of the Planning Area, both are outside the applicable railroad noise exposure contours (see Figure 6-1).

6.2 Hazards

Releases, leaks, or disposal of chemical compounds, such as petroleum hydrocarbons, on or below the ground surface, can lead to contamination of underlying soil and groundwater. Disturbance of a previously contaminated area through grading or excavation operations could expose the public to health hazards from physical contact with contaminated materials or hazardous vapors. Improper handling or storage of contaminated soil and groundwater can further expose the public to these hazards, or

² The noise contour map in Figure 7-5 of the Health and Safety chapter of the General Plan (last adopted in 2009) is based on airport noise contour maps in the 1996 *San Mateo County Comprehensive Airport Land Use Plan* and has not yet been updated to reflect the noise contours in the 2012 ALUCP.

³ CNEL (Community Noise Equivalent Level) is a noise metric which is calculated by summing all noise over a 24-hour period with weight given to evening and nighttime hours.

⁴ The San Bruno General Plan defines “Conditionally Acceptable” as follows: “New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.”

⁵ The San Bruno General Plan defines “Normally Unacceptable” as follows: “New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.”

potentially spread contamination through surface water run-off or air-borne dust. In addition, contaminated groundwater can spread downgradient, potentially contaminating subsurface areas of surrounding properties.

Chemical compounds located on or buried below the ground surface have the potential to contaminate soil and groundwater. Excavation and grading work associated with construction activities can potentially expose the public to contaminated materials. Figure 6-2 indicates areas of potential soil contamination in San Bruno caused by leaking underground storage tanks or other potential sources of hazardous materials. In cooperation with the RWQCD and the California Department of Toxic Substance Control, the San Mateo County Environmental Health Department coordinates investigation and remediation of sites that have been affected by leaking underground storage tanks or hazardous waste.

UNDERGROUND STORAGE TANKS AND LEAKING UNDERGROUND STORAGE TANKS

The California Water Resource Control Board maintains GeoTracker, a data management system which provides information on the location of underground storage tanks (USTs), leaking underground storage tanks (LUSTs), land disposal sites, and other areas which may require groundwater cleanup. The GeoTracker database lists two locations within the Planning Area

and west of Elm Ave. The site has undergone cleanup and the State has closed the case. The Chevron 9-2759 ECR location is located at the corner of San Bruno Avenue West and El Camino Real. The site has undergone remediation and no active remediation is anticipated; however, monitoring and sampling continue in order to confirm the success of the remediation. There are no permitted USTs in the Planning Area, although there are several adjacent to the Planning Area. The LUSTs in the Planning Area are listed below.

Table 6-1 Leaking Underground Storage Tanks (LUST) within Planning Area

<i>Name</i>	<i>Address</i>	<i>Type of Case</i>	<i>Clean-Up Status</i>
Chevron 9-2759 ECR SB Comingled (<i>currently SpeeDee Oil</i>)	801 El Camino Real	LUST Cleanup Site	Open – Verification Monitoring
Bayhill Office Center	950 Elm Avenue	LUST Cleanup Site	Completed – Case Closed

Source: California State Water Resources Control Board, Geotracker website, <https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Bayhill+San+Bruno>

which contained leaking underground storage tanks (Table 6-1). The Bayhill Office Center location is located north of Bayhill Drive

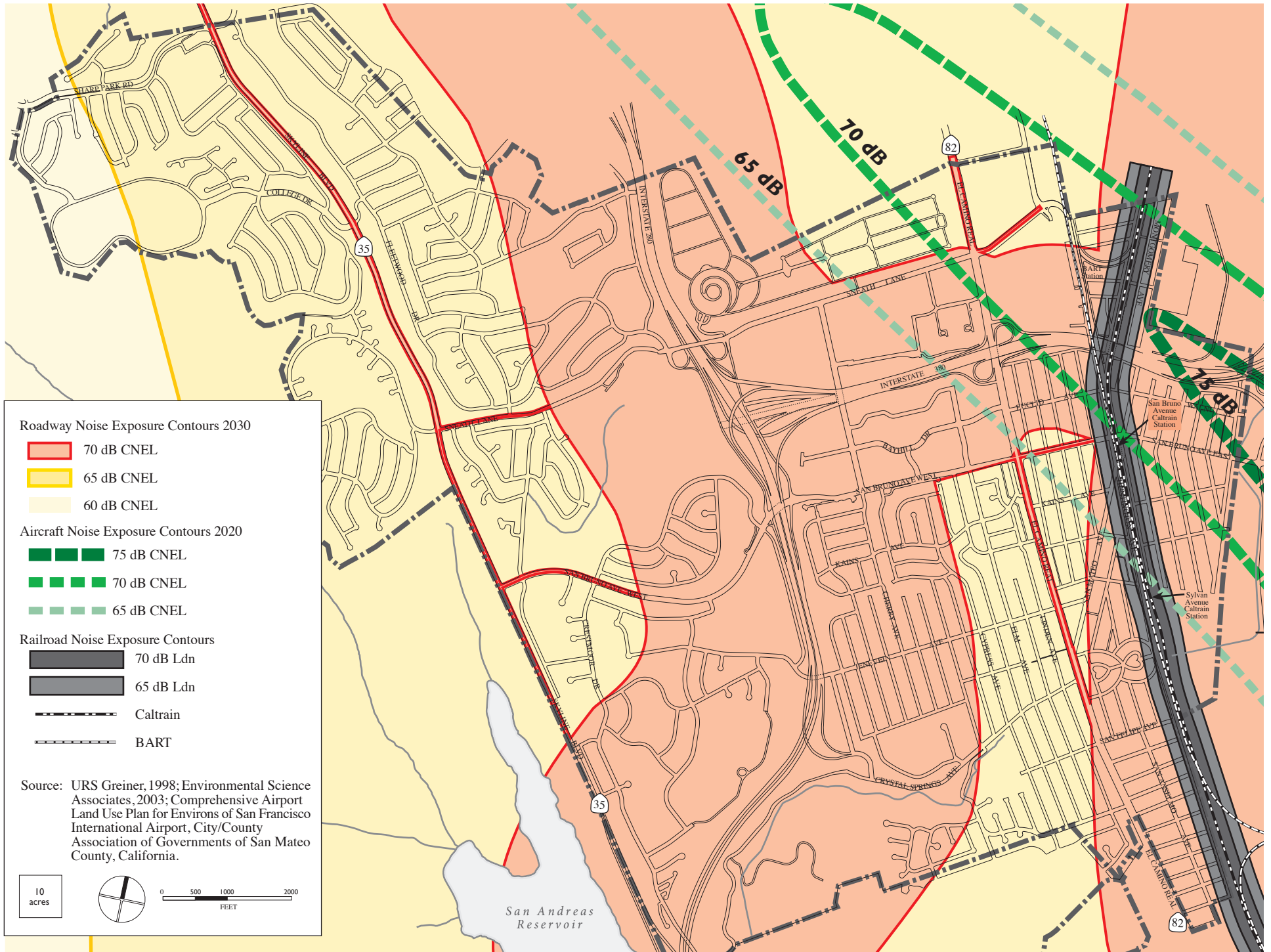
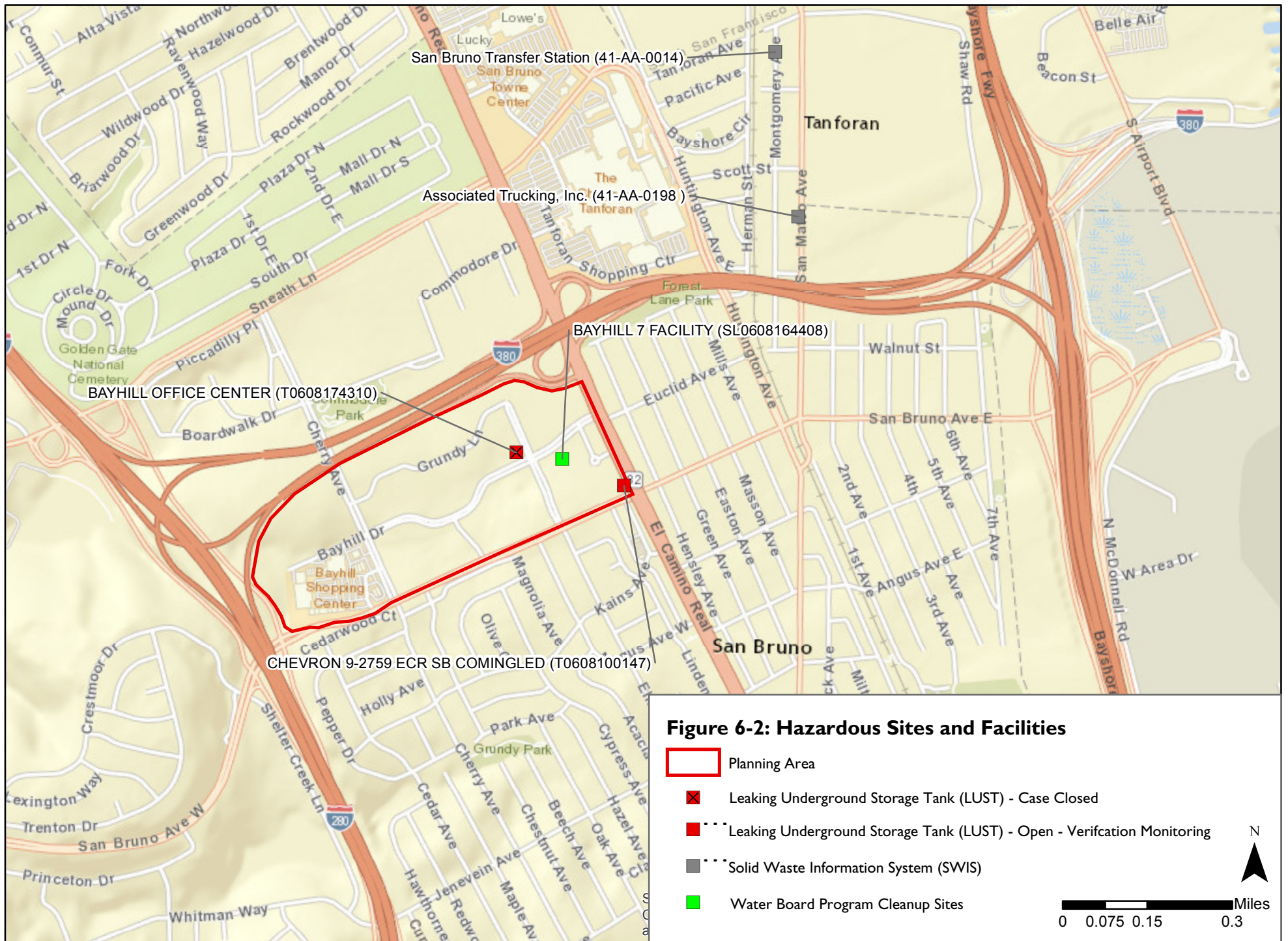


Figure 6-1: Projected Noise Contours



WATER BOARD PROGRAM CLEANUP SITES

The GeoTracker database lists one location within the Planning Area which contains a Water Board Cleanup Site (Table 6-2). The Bayhill 7 Facility location site is located south of Bayhill Drive and east of Elm Avenue. The site has undergone cleanup and the State has closed the case.

SOLID WASTE INFORMATION SYSTEM (SWIS)

The Solid Waste Information System (SWIS) is a database which contains information on solid waste facilities, operations, and disposal sites throughout the State of California. The database lists active, planned, and closed sites. There are no active, planned, or closed sites within the Planning Area. The nearest facilities are located approximately one half-mile from the planning area and are listed in the Table 6-3 below.

CORTESE LIST

The Hazardous Waste and Substances Sites (Cortese) List is used by the State, local agencies and developers to provide information on the location of hazardous materials release sites in compliance with the California Environmental Quality Act (CEQA). Government Code Section 65962.5 requires the California Environmental Protection Agency to update the list annually. The Cortese List contains no hazardous material release sites within the Planning Area.

Table 6-2 Water Board Cleanup Sites within the Planning Area

<i>Name</i>	<i>Address</i>	<i>Type of Case</i>	<i>Clean-Up Status</i>
Bayhill 7 Facility	999-1001 Bayhill Drive	Cleanup Program Site	Completed – Case Closed

Source: California State Water Resources Control Board, Geotracker website, <https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Bayhill+San+Bruno>

Table 6-3 Solid Waste Facilities Near the Planning Area

<i>Name</i>	<i>Activity</i>	<i>Operational Status</i>	<i>Regulatory Status</i>	<i>Distance from Planning Area</i>
Associated Trucking Inc., 1065 San Mateo Ave.	Small Volume CDI Debris Processing Operation	Planned	Proposed	0.45 miles
San Bruno Transfer Station, 1271 Montgomery Avenue	Large Volume Transfer/Processing Facility	Active	Permitted	0.66 Miles

Source: CalRecycle. 2017. Solid Waste Information System (SWIS): Facility/Site Listing. <http://www.calrecycle.ca.gov/SWFacilities/Directory/SearchList/List?COUNTY=San+Mateo>

FIRE HAZARDS

Government Code 51175-89 directs the California Department of Forestry and Fire Protection (CALFIRE) to identify Fire Hazard Severity Zones (FHSZ) and Very High Fire Severity Zones (VHFHSZ) throughout the State. These zones are based on data and models of potential fuels and their associated fire behavior. Zones are used by the State Fire Marshal to justify the adoption of applicable building code standards for these areas. The Planning Area is categorized as Non-VHFHSZ (non-very high fire hazard severity zone), meaning that the likelihood of wildfire is very low.

AIRPORT HAZARDS AND CONSIDERATIONS

Safety Compatibility Zones

The *Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport* (ALUCP) contains safety compatibility policies to protect public health, safety, and welfare by minimizing the public's exposure to the risk associated with potential aircraft accidents within the vicinity of SFO. The ALUCP also includes policies which protect the public interest by preventing the creation of new safety problems resulting from development within the Airport environs. The ALUCP delineates safety zones which establish land use compatibility standards which restrict the development of land uses that could pose particular hazards to the public in case of aircraft accident. As shown in Figure 6-3, the Planning Area lies outside of the established safety zones.

Airspace Protection

The ALUCP contains policies necessary to protect the navigable airspace around the airport for the safe and efficient operation of

aircraft in flight. Airspace protection is implemented through policies that restrict maximum allowable height of structures and types of hazardous land uses within certain planning area boundaries.

The FAA has developed a system of standards and criteria for assessing which tall structures and high terrain would represent obstacles to safe air navigation. Caltrans rather than FAA has the legal authority to prohibit the erection of a structure that the FAA determines to be a hazard to air navigation. Specifically, the law prohibits the construction of any object that would be an obstruction and a hazard to air navigation without a permit issued by Caltrans. However, Caltrans has never issued a permit for the construction of an object deemed by the FAA to be a hazard. The maximum building height for the Planning Area according to the ALUCP (Exhibit IV-4)⁶, is the most permissive category of 150 feet or greater.

6.3 Air Quality

REGIONAL CLIMATE AND METEOROLOGY

Atmospheric conditions, such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. Unique geographic features throughout the state define fifteen air basins with distinctive regional climates. Located within San Mateo County, the Planning Area is situated in the peninsula region of the San Francisco Bay Area Air Basin.

⁶ City & County Association of Governments of San Mateo County. 2012. *Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport*. November, Redwood City, CA.

POLLUTANTS OF CONCERN

Criteria Air Pollutants

Concentrations of ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead (Pb), and particulate matter (PM₁₀ and PM_{2.5}) are commonly used as indicators of ambient air quality conditions. These pollutants are known as “criteria pollutants” and are regulated by the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (ARB) through national and California ambient air quality standards (NAAQS and CAAQS), respectively. The primary criteria pollutants of concern in the Planning Area are ozone (including its precursors, nitrogen oxides [NO_x] and reactive organic gases [ROG]⁷), CO, and PM.

Toxic Air Contaminants

Toxic air contaminants (TACs) are a broad class of compounds known to cause morbidity (illness) or mortality (death). Although NAAQS and CAAQS have been established for criteria pollutants, no ambient standards exist for TACs. The primary TAC of concern associated with the Planning Area are fine particulate matter (PM_{2.5}) and Diesel Particulate Matter (DPM).

Asbestos is also a TAC of concern, particularly in association with demolition of older buildings and structures. Asbestos is a fibrous mineral, which is both naturally occurring in ultramafic rock (a rock type commonly found in California) and used as a processed component of building materials. Because asbestos has been proven to cause serious adverse health effects, including asbestosis and lung cancer, it is strictly regulated based on its natural

widespread occurrence and its former use as a building material. Geological mapping in California does not indicate the presence of naturally occurring asbestos near the Planning Area or in the City⁸.

Existing Ambient Air Quality Conditions

Local Criteria Pollutant Monitoring Data

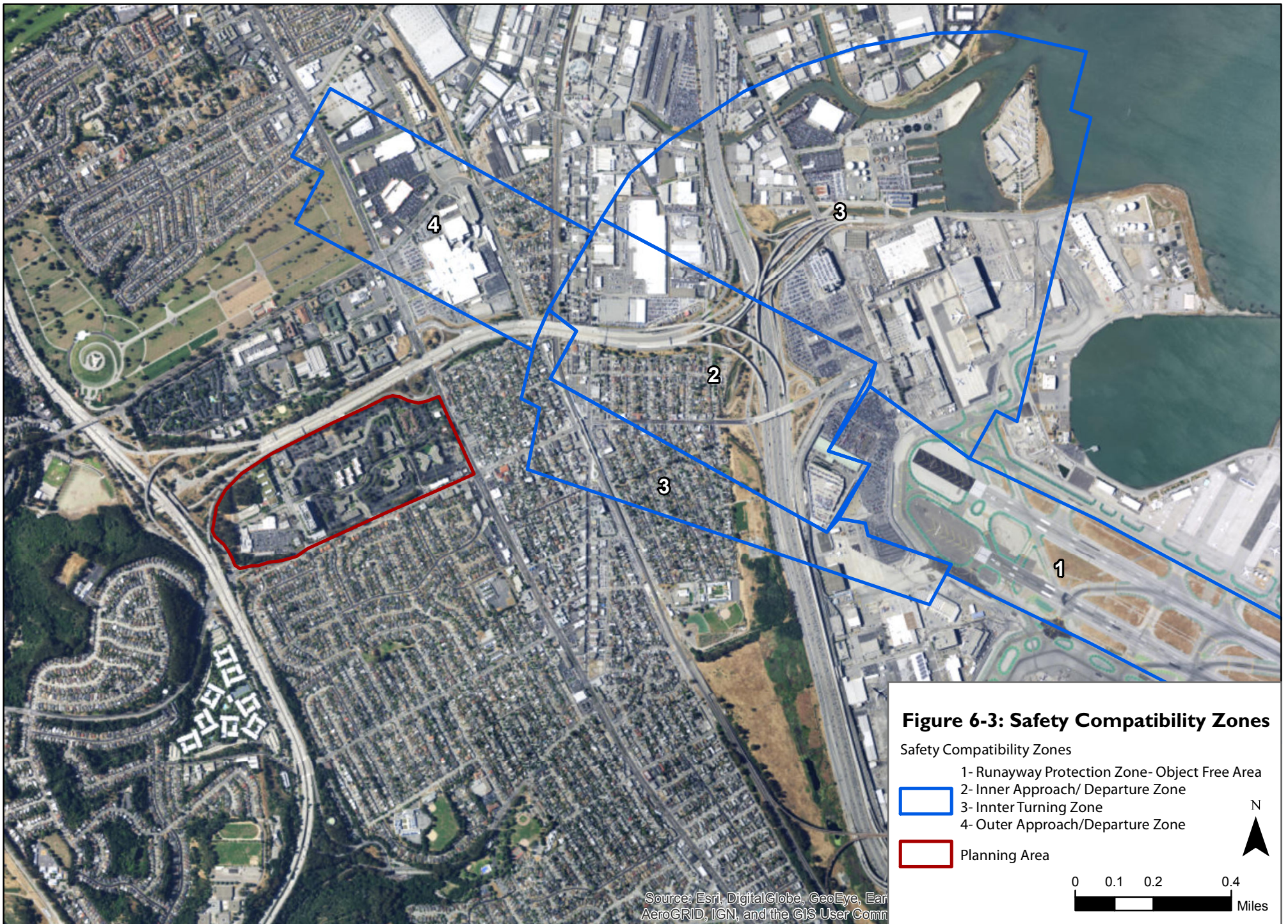
A number of ambient air quality monitoring stations are located in the San Francisco Bay Area Air Basin to monitor progress toward air quality standards attainment of NAAQS and CAAQS. The nearest monitoring station to the Planning Area is the San Francisco-Arkansas Street station located at 10 Arkansas Street in the City of San Francisco. This monitoring station is located approximately 9.2 miles northeast from the northeastern boundary of the Planning Area.

⁷ ROG is synonymous with volatile organic compounds (VOC), which is commonly used to describe compound limits for architectural coatings such as paint.

⁸ U.S. Department of the Interior. 2011. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California. Available: ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ms/59/MS59_Plate.pdf. Accessed: August 24, 2017.



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Attainment Status

Local monitoring data collected by the ambient air quality monitoring stations, such as the aforementioned San Francisco-Arkansas Street station, are used to designate areas as nonattainment, maintenance, attainment, or unclassified for NAAQS and CAAQS. The ARB compiles an emissions inventory for all sources of emissions within San Mateo County, in which the City of San Bruno, including the Planning Area, resides. This inventory is used by the BAAQMD and ARB for regional air quality planning purposes and is the basis for the region's air quality plans. San Mateo County is classified as a nonattainment area for the federal and State ozone and PM_{2.5} standards, and a nonattainment area for the State PM₁₀ standard.

TAC Inventory

The BAAQMD maintains an inventory of health risks associated with all permitted stationary sources within the SFBAAB. The inventory was last updated in 2012 and is publicly available in Google Earth format. Stationary sources include You Tube/Google Incorporated, Holiday Cleaners, Iron Port Systems, The Lash Group, ASN, Tanorfan Crossing, San Bruno Shell, Progressive Operating Co, LP, and Mills Park Cleaners. Some of the sources may be removed or relocated as a result of development supported by the Specific Plan.

Aside from stationary sources, emissions of TACs in and around the Planning Area are also generated from mobile sources. BAAQMD considers roadways with greater than 10,000 average daily traffic (ADT) as “high volume roadways” and recommends

they be included in the analysis of health risks. Currently, roadways located in the immediate proximity of the Planning Area that have ADT greater than 10,000 vehicles include Interstate 380 (I-380), Interstate 280 (I-280), and State Route 82 (SR 82)/El Camino Real. Additionally, both San Bruno Avenue West, which runs along the southern boundary of the Planning Area, and Cherry Avenue, which traverses the western portion of the Planning Area between San Bruno Avenue West and I-380, are classified as arterial streets in the City that have a roadway capacity for 10,000-35,000 average daily trips. Of the roadways mentioned, the segments of I-380, I-280, and SR 82 that pass by the Planning Area represent the greatest mobile source of TACs (primarily DPM from diesel-powered vehicles) due to the high volume of vehicles that travel on these freeways and highway on a daily basis. These segments of I-380, I-280, and SR 82 have annual average daily traffic volumes of 145,000, 103,000, and 43,000, respectively⁹. According to BAAQMD's screening tools, the lifetime cancer risk 10 feet south of the segment of I-380 that runs past the Planning Area may exceed 45 cases per million; the lifetime cancer risk 10 feet east of the segment of I-280 that runs past the Planning Area may exceed 29 cases per million; and the lifetime cancer risk 10 feet west of the segment of SR 82 that runs past the Planning Area may exceed 10 cases per million¹⁰. Thus, development of new land uses in locations within the Planning Area that have sensitive populations (e.g., residences, hospitals, schools, etc.) near these high-traffic roadways could result in increased local exposure to health risks associated with elevated levels of TACs. In 2016 the BAAQMD published its *Planning Healthy Places* guidebook that provides recommended best practices for reducing emissions

⁹ California Department of Transportation. 2015. 2015 Traffic Volumes on California State Highways. Available: <http://www.dot.ca.gov/trafficops/census/docs/2015_aadt_volumes.pdf>. Accessed: August 28, 2017.

¹⁰ Bay Area Air Quality Management District. 2011. Highway Screening Analysis Tool. Last Revised: April 29, 2011. Available: <<http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools>>. Accessed: August 28, 2017.; Lau, Virginia. Bay Area Air Quality Management District. San Francisco, CA. February 3, 2016—email message to Ramboll Environ.

from and exposure to local air pollution sources¹¹. This guidebook is accompanied by an interactive web-based mapping tool that illustrates where best practices are recommended and where “further study” is recommended to assess the local concentrations of TACs and fine particulates, and therefore the health risks from air pollution¹². Based on the interactive mapping tool, the segments of the I-380, I-280, and SR 82 and their immediate adjacent areas located within the Planning Area are shown as locations with elevated levels of air pollution where the implementation of best practices are recommended to reduce air pollution.

Sensitive Receptors

The NAAQS and CAAQS apply at publicly accessible areas, regardless of whether those areas are populated. For the purposes of air quality analysis, sensitive land uses are defined as locations where human populations, especially children, seniors, and sick persons, are located and where there is reasonable expectation of continuous human exposure according to the averaging period for the air quality standards (e.g., 24-hour, 8-hour, and 1-hour). Typical sensitive receptors include residences, hospitals, and schools. Currently, the Planning Area consists of commercial and business office uses, and does not contain any sensitive receptors. However, single-family residential uses are currently located to the west, across the Interstate 280, south, across San Bruno Avenue, and east, across El Camino Real, of the Planning Area boundaries. Additionally, multi-family residential uses are also located to the north and northwest of the Planning Area, across Interstate 380.

6.4 Planning Issues and Implications

NOISE

Chapter 7 of the San Bruno General Plan indicates that for sites impacted by both airport and non-airport related sources, the more stringent of the two restrictions applies. The portion of the Planning Area that falls within the 2012 ALUCP’s 65 db CNEL noise contour is also located in the General Plan’s 70 db CNEL roadway noise contour, as is the majority of the Planning Area. This indicates that roadway noise is the greater noise source in this location, and that the land use compatibility guidelines provided in Table 7-2 of the General Plan are the more restrictive (and therefore applicable) guidelines. Refer to Table 6-4 below for the City of San Bruno Land Use Compatibility guidelines.

Based on these guidelines, all land use types would be considered either normally acceptable or conditionally acceptable within the Planning Area, with the exception of playgrounds, parks, auditoriums, concert halls, and amphitheaters, which could be considered normally unacceptable within the 70 dB CNEL zone that covers most of the Planning Area. It is noted that because of the overlap between the normally acceptable and normally unacceptable exterior noise ranges for playground/park uses, playgrounds and parks may also be considered normally acceptable in the 70 dBA CNEL zone. Where there is overlap between noise compatibility guidelines, the City maintains discretion to determine appropriate land uses on a case-by-case basis, subject to a site specific/project specific acoustical analysis.

¹¹ Bay Area Air Quality Management District. 2016a. Planning Healthy Places: A Guidebook for Addressing Local Sources of Air Pollutants in Community Planning. May.

¹² Bay Area Air Quality Management District. 2016b. Planning Health Places Interactive Map. Available: <<https://www.arcgis.com/home/webmap/viewer.html?webmap=9b240e7066545e0996be9df227a5b8c&extent=-122.5158,37.5806,-122.0087,37.8427>>. Accessed: September 18, 2017.

Table 6-4 City of San Bruno Land Use Compatibility for Community Noise Environments

LAND USE CATEGORY	EXTERIOR DAY/NIGHT NOISE LEVELS DNL or Ldn, dB					
	55	60	65	70	75	80
Residential—Single Family	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Clearly Unacceptable
Residential—Multiple Family	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Clearly Unacceptable
Transient Lodging—Motels, Hotels	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Clearly Unacceptable
Schools, Libraries, Churches, Hospitals, Nursing Homes	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Clearly Unacceptable
Auditoriums, Concert Halls, Amphitheaters	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Clearly Unacceptable	Clearly Unacceptable
Sports Arena, Outdoor Spectator Sports	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Clearly Unacceptable	Clearly Unacceptable
Playgrounds, Parks	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Clearly Unacceptable	Clearly Unacceptable
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Clearly Unacceptable
Office Buildings, Business, Commercial and Professional	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Clearly Unacceptable	Clearly Unacceptable
Industrial, Manufacturing, Utilities, Agriculture	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Clearly Unacceptable	Clearly Unacceptable

INTERPRETATION

	Normally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
	Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.
	Normally Unacceptable	New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
	Clearly Unacceptable	New construction or development should not be undertaken.

Source: Table 7-2, Land Use Compatibility for Community Noise Environments from the City of San Bruno General Plan Health and Safety Section.

According to the General Plan, a normally unacceptable noise level means that “new construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.” Sound walls are the only potential mitigation for outdoor spaces. Because it may be impractical to place sound walls at all proposed outdoor spaces, it may be necessary to adopt a policy in the specific plan that indicates that parks and other outdoor spaces are considered normally acceptable uses within some or all of the 70 dB CNEL portion of the Planning Area, which would not be inconsistent with the General Plan’s land use compatibility guidelines. This policy should be supported by a Statement of Overriding Considerations in the EIR for the Specific Plan that determines whether the noise levels would be acceptable based on community benefits derived from the anticipated recreational outdoor space (park) uses. New development that is considered conditionally acceptable, which includes most land use types in the 70 dB CNEL, would be required to undergo detailed analysis and mitigate noise levels to within compatible levels.

HAZARDS

Disposal or leakage of hazardous materials into soil or groundwater poses potential threats to the health and safety of San Bruno residents. Reuse of former industrial or commercial sites may be complicated by hazardous materials impacts. Construction in an area with existing hazardous waste sites or permitted hazardous material sites may require special techniques or approaches to protect both construction workers and users of the finished construction from exposure to these materials.

Only one active hazardous waste site is reported in the Planning Area, a LUST located at the northwest corner of El Camino Real and San Bruno Avenue that has already undergone remediation

and is now in the verification monitoring phase. Construction near the site must be informed by results of the monitoring. If there are any volatile pollutants present in shallow groundwater, vapor barriers might be required for building construction. If monitoring indicates that the cleanup procedure has been successful, no special procedures are required.

AIR QUALITY

Air pollutant emissions in and surrounding the Planning Area are generated primarily by mobile sources. In particular, the Planning Area is located adjacent to I-380 to the south, I-280 to the east, and SR 82 to the east, all of which carry high volumes of vehicle trips. The BAAQMD cautions that locating sensitive populations in close proximity to major sources of air pollution (such as high-volume roadways) can expose people to harmful air pollution, especially elevated concentrations of TACs and fine particulates that can put people who live there at risk of developing adverse health effects. Consequently, the location of potential new residential uses within the Planning Area in the future must consider the exposure of these sensitive land uses to emissions of criteria pollutants and TAC emissions generated from these three high-volume highways. As such, future development in areas within the Planning Area that are shown to be locations with estimated elevated levels of TACs and fine particulates in BAAQMD’s interactive map that accompanies its *Planning Healthy Places* guidebook (see Figure 6-4) should implement the recommended best practices to reduce exposure to harmful air pollutants. These best practices include:

- Planning sensitive land uses as far from local sources of air pollution such as freeways as is feasible¹³
- Installation of air filters rated at a minimum efficiency reporting value (MERV) 13 or higher in buildings associated with sensitive land uses (e.g., schools, residences, hospitals);
- Placing open space, commercial buildings, or parking garages between sensitive land uses and air pollution sources;
- Locating operable windows, balconies, and building air intakes as far away from any emission source as is feasible;
- Incorporating solid barriers into site design between buildings and sources of air pollution;
- Planting dense rows of trees and other vegetation between sensitive land uses and emission sources;
- Limiting sensitive land uses on the ground floor units of buildings near non-elevated sources (e.g., ground level heavily traveled roadways and freeways); and
- Planning and/or re-routing truck routes through non-residential neighborhoods to avoid sensitive land uses such as daycare centers, schools, and elderly facilities.

Additionally, because the Planning Area is located adjacent to existing single-family residential uses to the south, directly across San Bruno Avenue West, the potential siting of new land uses within Planning Area that may emit TAC emissions or odors should take into consideration their proximity to these off-site sensitive receptors.

¹³ While ARB's 2005 Land Use Handbook had recommended the siting of sensitive land uses at least 500 feet from a freeway or major urban roadway with 100,000 vehicles per day, more recent studies conducted since the publication of the Land Use Handbook have shown that elevated health risks from near-roadway pollution exposure can extend well beyond 1,000 feet during nighttime and early morning hours (California Environmental Protection Agency – California Air Resources Board 2017).



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