

3

PLAN FRAMEWORK: LAND USE, CIRCULATION, AND OPEN SPACE

3.1 OVERVIEW

This chapter presents the Hillcrest Station Area Specific Plan framework, including the land use, circulation, and open spaces plans, as well as the regulatory policies that support the plans. The three Development Areas within the Hillcrest Station Area are shown in Figure 3-1. A Plan Overview drawing is presented in Figure 3-2, which shows the major land use, circulation, and infrastructure components. The western portion of the Station Area is a transit village designed around the eBART station. The eastern portion of the Station Area is planned as a mixed-use town center around the future Phillips Lane Interchange; it could also include a second eBART station located adjacent to the Union Pacific Railroad right-of-way (UP ROW). The area between SR 4 and the UP ROW in the western portion of the Station Area has a more auto-oriented character, and is referred to as the “Freeway Area.”

The Land Use Plan and policies show the type of development that is envisioned for the Station Area. The Circulation and Open Space Plans identify the improvements that tie the Hillcrest Station Area together, and integrate the area into the larger context of Antioch and East County.

An additional level of planning will be required prior to land subdivision and construction for the Transit Village and the Town Center areas. Master plans for these development areas must be prepared to show the parcel layout, mix of land use types, street design, open space and public space design, and detailed infrastructure plans.

The development of each of the three areas is contingent on the construction of specific circulation and utilities infrastructure. Some of the major infrastructure components are beyond the City of Antioch’s jurisdiction, including: approval of a new SR 4 Phillips Lane interchange in the eastern portion of the Station Area; the final location of the eBART station(s); alignment of the future eBART extension; configuration of the Hillcrest Interchange improvements; and the resumption of freight rail activity on the UP ROW. The master plans will need to address the final approved designs for each of these circulation improvements. It is also possible that the Hillcrest Station Area Specific Plan will need to be amended to reflect the ultimate decisions about these major roadways and rail systems.

Transit Village

Transit villages maximize opportunities for the use of public transit by creating compact neighborhoods where people can live, work, and walk to shops, restaurants, and services. Such villages provide a mix of uses that are mutually supportive, such as housing with neighborhood retail or offices with commercial services. The Hillcrest Transit Village is focused on the eBART Median Station in the SR 4 median, just east of Hillcrest Avenue. An alternative East Median Station location is illustrated 2,175 feet from Hillcrest Avenue. The alternative station location increases the pedestrian accessibility to the Transit Village; however, it increases the cost of the eBART project.

The Transit Village emphasizes office development near the eBART station, to help the City of Antioch meet its need for a greater employment base and to balance the SR 4 traffic flow. Office Transit-Oriented Development (TOD) will create a compact employment center generally between the UP ROW and Oakley Road within walking distance of the station, so that employees have the option to use public transit to commute. At buildout, the Transit Village could support more than 2,300 jobs.

A mixed-use residential area is located north of Oakley Road. This Residential Transit-Oriented Development (TOD) area allows a maximum of 1,000 new housing units, with some ground floor retail, commercial services, and office space. The neighborhood will include a variety of housing types such as live-work units, lofts, condominiums, apartment buildings, senior housing, and/or townhouses. Transit Village residents will be able to walk or bicycle to neighborhood services and potentially to work, or have easy access to public transit. Parks and open space will be integrated with the residential development.

A network of new roads with pedestrian and bicycle facilities efficiently connect walkers, bikers, and vehicles to major destinations, such as the eBART station, shopping, public plazas, and open space. The western segment of Oakley Road will be a pedestrian-oriented street at the heart

of the transit village, serving both residents and office employees. It will be fronted with buildings that have retail, restaurants, commercial service, and other active uses on the ground floor. Outdoor dining and landscaped public spaces will enhance the pedestrian experience so that workers and residents are able to walk to the services they need on a daily basis. This dynamic public space will create a transition area between the office and residential uses.



San Jose, CA

Transit Village:

Transit villages provide compact neighborhoods where people can live and work, and walk to shops, restaurants, services, and the eBART station.

Town Center

A Town Center can generally be described as a high-intensity commercial core including retail, restaurants, entertainment and hospitality uses surrounded by residential and office uses. A second eBART station would potentially be a focal point of this 100-acre mixed-use area. The development of a Town Center in the eastern portion of the Station Area is predicated on a new Phillips Lane freeway interchange, to accommodate both local and regional traffic. When the Phillips Lane Interchange is approved, a Town Center Master Plan will need to be prepared to show how land uses east of Willow Avenue are integrated with a network of streets, parks, and public spaces. Pedestrian connections will be a key feature, providing access to public transit, East Antioch Creek, and parks. The goal is to create a unique, attractive, and memorable destination for Antioch residents and visitors.

The Hillcrest Town Center can support almost 1.4 million square feet of commercial and hotel uses and a maximum of 1,500 housing units. New higher-intensity uses at the pedestrian core of this area will need to be transitioned to the existing neighborhoods north of Oakley Road. This transition can be facilitated by locating similar uses near each other, reducing building heights, designing building step-backs, and providing larger set-backs and/or landscaped buffer areas. Office or other major commercial uses are proposed to be located along the highway and railroad to increase visibility and access for new businesses. Residential and other sensitive uses should be limited in this same area in order to reduce the potential for noise and air quality impacts.

A primary asset in the eastern portion of the Station Area is East Antioch Creek. In order to preserve the creek’s natural functions while enhancing the area’s recreational opportunities, a loop trail system will be installed around the perimeter of the protected wetland areas. A minimum 50-foot buffer will be maintained to preserve wildlife habitat and critical flood management. An adjacent 25-foot wide area will be landscaped and enhanced to create a recreation corridor. A continuous multi-use trail will provide a critical link between the Town Center and the Transit Village.

If the Phillips Lane Interchange is not approved, land use and circulation plans for the eastern portion of the Hillcrest Station Area will have to be reevaluated and revised, and the Specific Plan amended.

Freeway Area

In addition to the Transit Village in the western portion of the Station Area, Office TOD and commercial retail uses are located along the SR 4 highway to take full advantage of the freeway access and the high-visibility location. The area will also accommodate transit facilities, including eBART and bus facilities, parking, passenger drop-off, and shuttle and taxi areas, plus a small public plaza at the eBART station. The initial phase of parking development will accommodate the estimated eBART demand of 1,000 spaces when the system opens in 2015. Parking will be located adjacent to the Hillcrest Avenue Interchange, incorporating the existing Park-and-Ride lot. The future projected eBART parking demand, estimated to be 1,600 additional spaces, will need to be accommodated by structured parking located primarily within this freeway area. It is anticipated that most eBART maintenance activities take place within the freeway median, and in a small maintenance yard adjacent to the freeway.

Town Center:
The Town Center is envisioned as a high-intensity pedestrian area with retail, restaurants, entertainment and hotels, surrounded by residential and office uses.



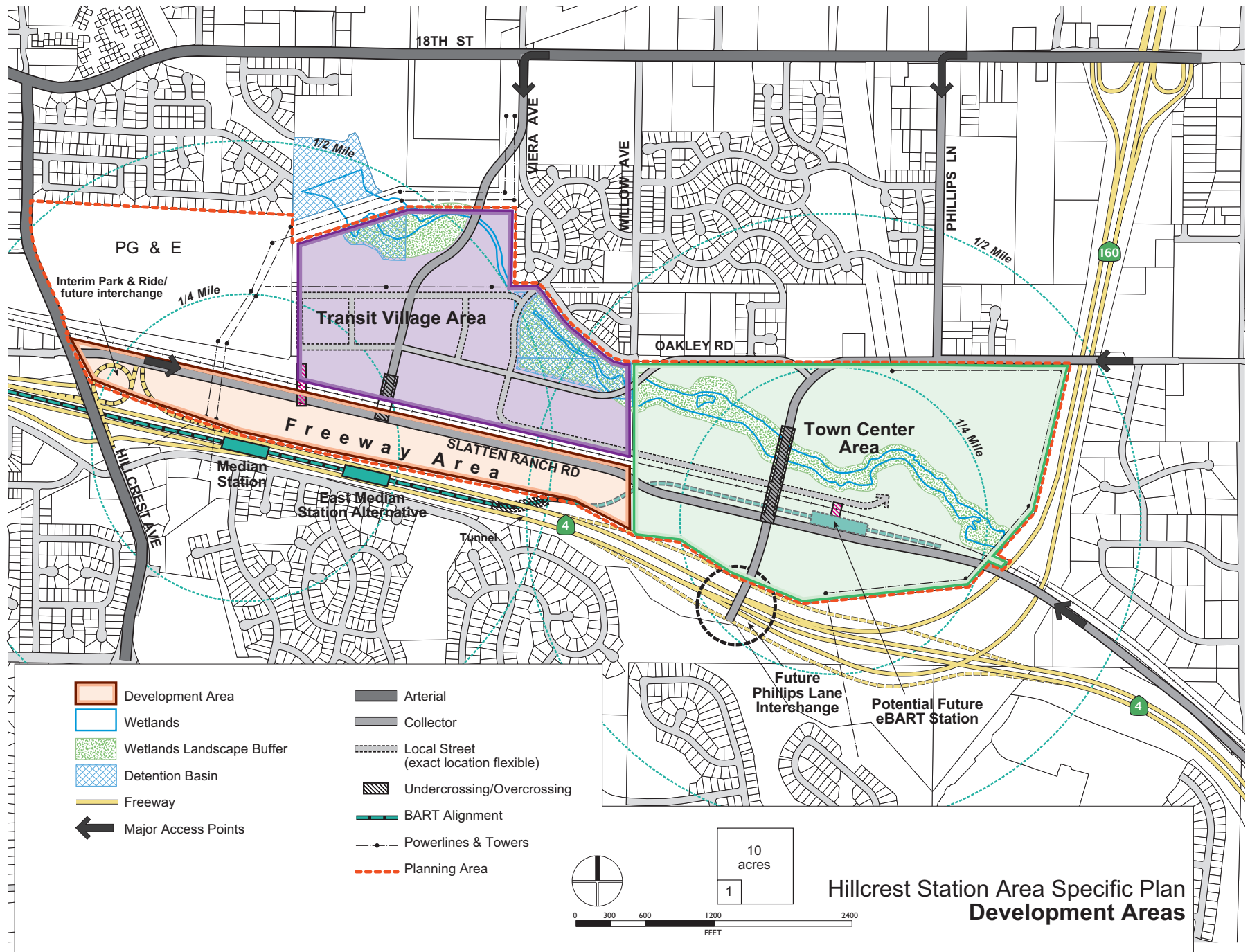
Fruitvale BART Station Area, Oakland, CA



Santa Clara, CA

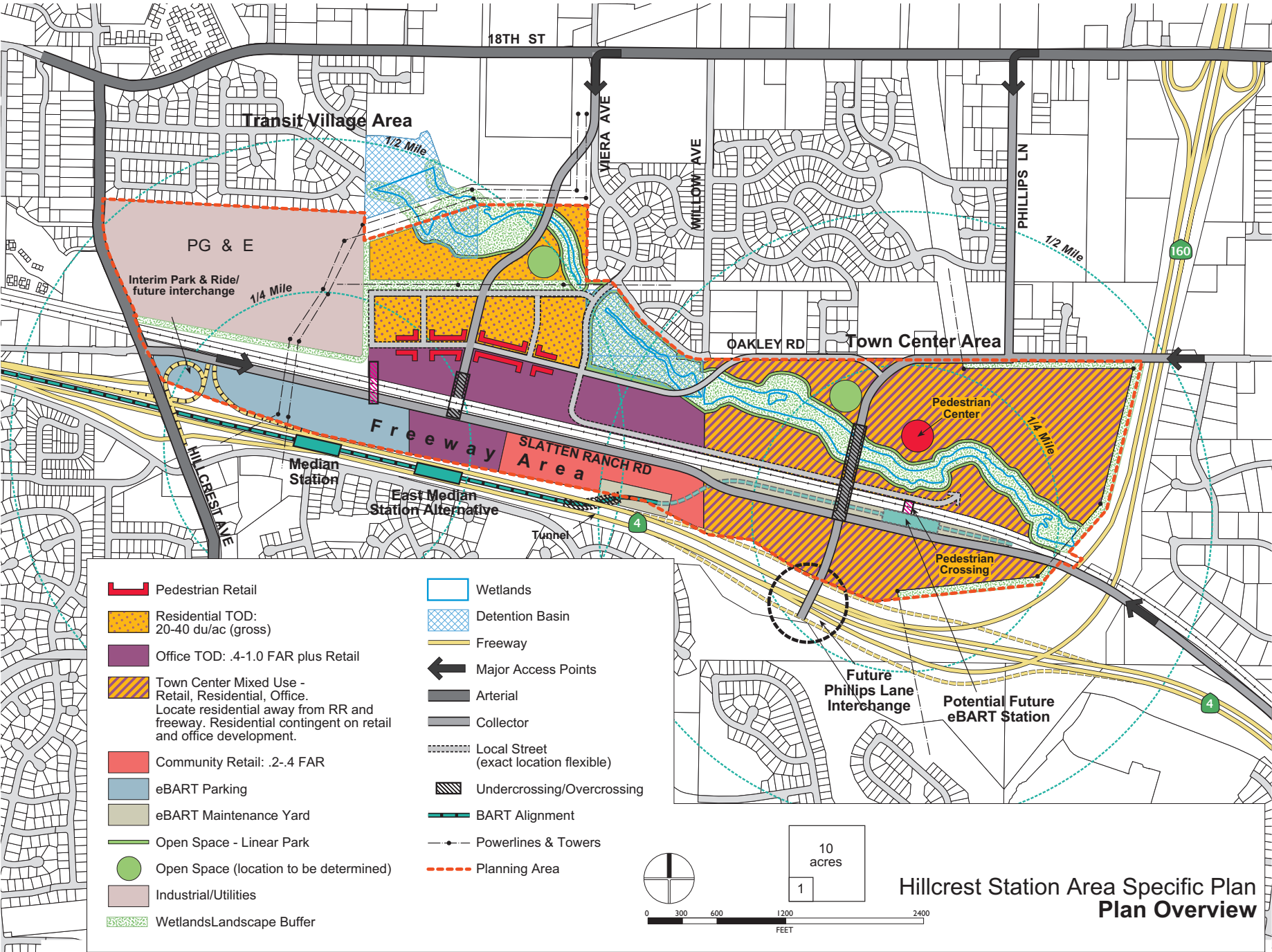
Freeway Area:
The Freeway Area would include eBART parking, office buildings next to the eBART station, and community retail uses that take advantage of freeway access and visibility.

Figure 3-1: Development Areas



**Hillcrest Station Area Specific Plan
Development Areas**

Figure 3-2: Plan Overview



3.2 DEVELOPMENT PROGRAM

Total Buildout Projections

The Specific Plan creates a land use and regulatory framework that allows up to 2,500 residential units and 2.5 million square feet of commercial uses in the Station Area. The following buildout projections were prepared to assess the need for transportation and utilities infrastructure to serve development, and potential impacts on circulation in the surrounding area. Growth projections are based on gross acreage of each land use category, as seen in Table 3-1. The ultimate amount of development could be less than projected, depending on market conditions and

whether sites are built to the maximum limits. If the amount of development exceeds the projections, additional environmental review would be required.

It is assumed that development will be built at approximately the midpoint of the permitted density or intensity range, when averaged over the entire development area. Assumptions were also made about the percentage of land uses types within the mixed-use categories; for example, 2,100 square feet of commercial space per acre (80 square feet per unit) is assumed within the Residential TOD area. Residential units are assumed to be 1,200 gross square feet each (including lobbies, circulation, etc.). The Town Center Mixed Use area is assumed to have 325 hotel rooms.

TABLE 3-1: HILLCREST STATION AREA LAND USE SUMMARY

LAND USE	GROSS ACRES	PERCENT OF TOTAL
Community Retail	13	3%
Office TOD	36.6	10%
Residential TOD	38.2	10%
Town Center Mixed Use	105.5	28%
Parks/Open Space ¹	8.6	2%
Public/Institutional – Transit Parking	17.5	5%
Public/Institutional – BART Yard & Future ROW	9.7	3%
Wetlands, Buffer & Detention Basins	41.6	11%
Industrial/Utilities – PG&E Substation	61.1	16%
Union Pacific Railroad Right-of-Way	19.5	5%
Other: Arterial Roads and Collectors	23.8	6%
TOTAL	375.1	100%

1. Except for the creek-side loop trail, the locations of the parks have not been defined. When the master plans are completed, land will be dedicated from the appropriate parcels. The amount of park/open space land is based on the estimated number of residential units and household size.

Source: Dyett & Bhatia, 2008.

TABLE 3-2: BUILDOUT ASSUMPTIONS: BUILDING INTENSITY AND DENSITY

LAND USE	TOTAL FAR	AVERAGE RESIDENTIAL DENSITY	AVERAGE SF OFFICE PER ACRE	AVERAGE SF RETAIL PER ACRE
Residential TOD	-	26	0	2,100
Office TOD	0.60	0	24,600	1,400
Town Center Mixed Use	0.75	14	2,800	6,900
Community Retail	0.25	0	0	10,800

Source: Dyett & Bhatia, 2008.

Housing Units and Population Projections

Buildout projections include a maximum of 2,500 residential units, which is the maximum allowed under the Specific Plan policies. The majority of the housing will be in multi-unit structures, some of which will be in mixed-use buildings. Based on the residential densities of the land uses in the Station Area, no single-family homes are assumed. Multi-family households are assumed to have 2.0 persons each. This assumption is based on Antioch 2000 US Census block data showing an average multi-family household size of 2.42 persons per unit; and the average household size around the Concord, Pleasant Hill, and Walnut Creek BART Stations which is 1.57 persons per unit.

TABLE 3-3: BUILDOUT PROJECTIONS: HOUSING UNITS AND POPULATION

	MULTI-FAMILY UNITS ¹	POPULATION ²
Transit Village	1,000	2,000
Town Center	1,500	3,000
TOTAL	2,500	5,000
1. The maximum number of units allowed by the City of Antioch in the Hillcrest Station Area is 2,500. 2. Multi-family units are assumed to have 2.0 persons per household.		

Source: Dyett & Bhatia, 2008.

Commercial Square Footage and Employment Projections

One of the City’s goals is for this area to develop as an employment center in order to help balance the jobs/housing ratio in the City of Antioch, and improve traffic flows on SR 4. Based on the land use designations and buildout projections, the Station Area could support up to 5,600 new jobs. Up to 1.2 million square feet of office space may be built, most of which is designated in the Transit Village area. Up to 1.0 million square feet of retail space is projected at buildout. The majority of the retail space is anticipated to be built in the Town Center area. In addition, up to 325 hotel rooms are allowed in the Town Center. The following employment generation rates were used to estimate employment at buildout:

- Retail: 1 employee per 500 square feet gross floor area
- Office: 1 employee per 350 square feet gross floor area
- Hotel: 0.8 employees per room.

	OFFICE SF	RETAIL SF	HOTEL ROOMS	JOBS ¹
Transit Village	730,000	120,000	–	2,300
Town Center	300,000	730,000	325	2,500
Freeway Area	170,000	150,000	–	800
TOTAL	1,200,000	1,000,000	325	5,600
1. Approximate employment generation rates (values rounded): <ul style="list-style-type: none"> • Retail: 1 employee per 500 sf gross floor area • Office: 1 employee per 350 sf gross floor area • Hotel: 0.8 employees per room. 				

Source: Dyett & Bhatia, 2008.

Regional Plan Consistency

BART System Expansion Policy

BART adopted a System Expansion Policy in 1999. The eBART project is the first application of the policy. The policy requires that BART set Ridership Targets (Thresholds) for the eBART service in the Pittsburg to Antioch Corridor, which has been defined as a total of 5,801 patron entries and exits for an average weekday in 2030. As a “terminal” station, the Hillcrest Station is projected to serve many commuters from East Contra Costa County. Based on standard modeling methodology that incorporates assumptions regarding land use and transportation policies (including draft Ridership Development Plans), and projected growth, BART estimates that in 2030 there will be 10,100 total daily riders. The Hillcrest Station is projected to serve more than 80 percent of eBART’s riders (8,200). Thus, the eBART service should far exceed BART ridership targets. (East Contra Costa County BART Extension Draft EIR, September 2008)

MTC Transit-Oriented Development Goals

The Metropolitan Transportation Commission (MTC) adopted a Transit-Oriented Development (TOD) Policy in 2005. Resolution 3434 specifies that by 2030, a total of 6,600 units must be located within a half-mile of the three stations on the eBART corridor. Table 3-5 illustrates the number of projected corridor housing units, assuming that the Railroad Avenue Specific Plan is adopted by the City of Pittsburg without significant reductions in proposed densities. The estimated 10,403 units far exceed the minimum 6,600 units required.

TABLE 3-5: EXISTING & PLANNED CORRIDOR HOUSING WITHIN A HALF MILE OF AN EBART STATION			
	EXISTING	PLANNED	TOTAL
Pittsburg/Bay Point	1,873	1,595	3,468
Railroad Avenue	1,477	1,590	3,067
Hillcrest Station	999	1,000	1,999
SUBTOTAL	4,349	4,185	8,534
Future Phillips Station	369	1,500	1,869
TOTAL	4,718	5,685	10,403

Source: eBART Draft EIR, 2008; ABAG Projections 2005; Pittsburg/Bay Point Specific Plan, 1997; Draft Railroad Avenue Specific Plan, 2008.

3.3 LAND USE

Figure 3-3, the Land Use Plan, designates the proposed location, distribution, and extent of land uses. The Land Use Plan is a graphic representation of policies contained in the Hillcrest Specific Plan. Land use classifications—shown as color/graphic patterns on the plan—allow for a range of uses within each classification. Allowable building intensities and densities are delineated in Table 3-6.

Land Use Principles

The following principles were used to guide the layout of the land use plan:

- Create an East County employment center.
- Provide a mix of uses that supports transit ridership.
- Ensure that vibrant pedestrian-oriented retail/restaurant/entertainment centers are the focus of the Transit Village and Town Center.
- Integrate new development with existing uses and neighborhoods.
- Limit sensitive receptors' exposure to noise and air quality emissions.
- Preserve the natural features and functions of East Antioch Creek, while enhancing its recreational uses.
- Reduce total vehicle miles traveled and regional greenhouse gas emissions.

Adopting a mix of land uses around the proposed eBART stations will generate the greatest benefits for the City of Antioch and BART. Office will help establish the needed major employment center. Retail uses will serve the residents and employees of the area and also provide sales tax revenue for the City of Antioch. Residential units within walking distance of the stations will provide the riders necessary to support the eBART system. Studies have shown that residential units within walking distance of the stations provide the greatest number of riders compared to other land uses.

Land Use Classifications

The land use classifications in this chapter represent adopted policy and are meant to be broad enough to provide flexibility in implementation, but clear enough to provide sufficient direction to carry out the Specific Plan.

Land Use Classifications Policy

LU-1 Projects in the Hillcrest Station Area shall be consistent with the Land Use Plan in Figure 3-3, and the land use classifications described below. In addition to the permitted uses provided here, public uses such as parks, police and fire stations, and government offices are permitted in all land use classifications.



Redwood City, CA

Mixed Use:
A mix of land uses around the proposed eBART stations will create a lively transit village.

Residential TOD

This mixed-use classification is intended to create a primarily residential neighborhood within walking distance to the eBART station, with complementary retail, service, and office uses. Residential densities are permitted between a minimum of 20 and a maximum of 40 units per gross acre. A range of housing types may be included in a development project, some of which may be as low as 10 units per acre, provided the total project meets the minimum density standard.

The photos below illustrate the types of housing envisioned in the Residential TOD land use classification. Residential units should be at least 300 feet away from rail and freeway rights-of-way, or should incorporate construction measures that mitigate noise and air emission impacts. Retail, restaurants, commercial services, and office are allowed on the ground floor and second floor, particularly on pedestrian retail streets and adjacent to Office TOD designations. Low intensity stand-alone retail or restaurant uses with surface parking are not permitted. Fee parking in surface parking lots is not permitted as a primary use.

Attached Residential Townhomes (10-15 du/ac): These are attached units of 2-3 stories. The units occupy their own lot, because no units are above or below. They typically have an attached parking garage, often accessed from an alley or parking court. They also have private open space in the form of a porch and/or small rear courtyard.



Stacked Residential (20-25 du/ac): These are 2-3 story apartment or condominium buildings. Units are grouped into buildings, and units are typically located on a single floor. Parking is usually grouped in surface parking areas, though some units may have an attached parking garage. The example shown is a recent development in Antioch.

Attached Residential Townhomes (15-20 du/ac): These are attached units of 3 stories, with an attached parking garage on the ground floor accessed from an alley or parking court. Units are sometimes interlocked at upper levels, for example with the bedrooms of one unit above the living space of another unit, to achieve an efficient layout.



Mixed Use (20-40 du/ac): These are 3-4 story buildings with retail, restaurants, or services on the ground floor, and residential above. Residential units are apartments or condominiums typically located on a single floor. Parking is usually located behind the ground floor commercial uses, or underground. Open space is provided in courtyards and balconies.

Office – Surface Parking:
These are 3-5 story office buildings with surface parking. Buildings need to be carefully located so that employees can easily walk to the retail/restaurant areas without having to cross large parking lots.



Office – Structured Parking:
These are 4-8 story office buildings with parking provided on the ground floors of the building and/or in parking structures adjacent to the building. The development is more compact, and more integrated into the transit village.



Walnut Creek, CA

Office TOD

This classification is intended to provide a compact office employment center close to the eBART station. The types of development envisioned in the office TOD land use classification are shown in the photos to the left. The maximum Floor Area Ratio (FAR) allowed is 1.0. A portion of the parking should be in parking decks or structures. Retail, restaurant, and commercial service uses that serve employees are permitted and encouraged on the ground floor. Low density, single-use retail or entertainment developments with surface parking are not permitted. Commercial parking in surface lots requires a conditional use permit (where it is a primary use, not associated with a development project).

Town Center Mixed Use

This classification is intended to provide for an integrated mix of high-intensity uses in the area surrounding the potential second eBART station near Phillips Lane, as illustrated in the photos on this page. Residential, commercial, employment, entertainment, and hospitality uses are permitted. Both horizontal mixed-use and vertical mixed-use projects are appropriate in this area. Retail, restaurant, and service uses are to be located on the ground floor in the pedestrian Town Center. Office space or residential space may be on upper floors. Development is to be high-density to support pedestrian and bicycle use, and shall provide easy pedestrian access to the potential transit station. The maximum floor area ratio (FAR) allowed is 1.0.

Residential densities may range from a minimum of 6 to a maximum of 25 units per gross acre (calculated based on the entire Town Center Mixed Use area). A range of housing types may be included in a development project, some of which may be as high as 50 units per acre with City Council approval, provided the total project does not exceed the maximum density standard. Residential units should be at least 300 feet away from rail and freeway rights-of-way, or should incorporate construction measures that mitigate noise and air emission impacts.



Town Center Mixed Use:
Detached Residential



Town Center Mixed Use :
Hotel



Town Center Mixed Use:
Office uses above
ground floor retail.

San Mateo, CA



Town Center Mixed Use:
Multi-family Residential

Dublin, CA

Community Retail

This classification is intended to facilitate the development of a community commercial center with highway frontage. The site shall be at least 10 acres and shall be developed with a maximum FAR of 0.30. This site may share parking with the adjacent office or Town Center Mixed Use development.

Public/Institutional – Transportation Facilities

This classification is intended to include the eBART parking, maintenance yard, and other associated transit uses, such as the drop-off areas, taxi or shuttle areas, and bus stops.

Open Space

This classification includes public open space areas that serve the residents and employees of the Hillcrest Station Area. A minimum of five acres of improved public or private open space per 1,000 residents must be provided. Open space areas may include: multi-use trail areas, public and private recreational facilities such as tot lots or picnic areas, public parks, and plazas open to the public. Development sponsors can apply for park credit to meet a portion of the park requirements by providing appropriate native landscaping in the wetland buffer area, as approved by the City and a certified wetland biologist, and by providing trails in the utility easement landscape buffers.

Industrial

The PG&E substation parcels are designated as industrial, and are not assumed to redevelop with any other industrial uses.

Development Density Standards

Development density standards in the Hillcrest Station Area Specific Plan are based on gross land acreages, including land that will be dedicated for streets and parks. Therefore, the net project densities may be higher than those expressed in the standards shown in Table 3-6. Density standards for residential land use classifications are expressed as dwelling units per gross acre (du/ac). For non-residential and vertically mixed-use developments, development density is described as Floor Area Ratio (FAR). FAR is obtained by dividing gross floor area by total lot area. Structured parking areas are not counted as floor area.

Development Density Standards Policy

LU-2 Projects in the Hillcrest Station Area shall be consistent with the density standards in Table 3-6.

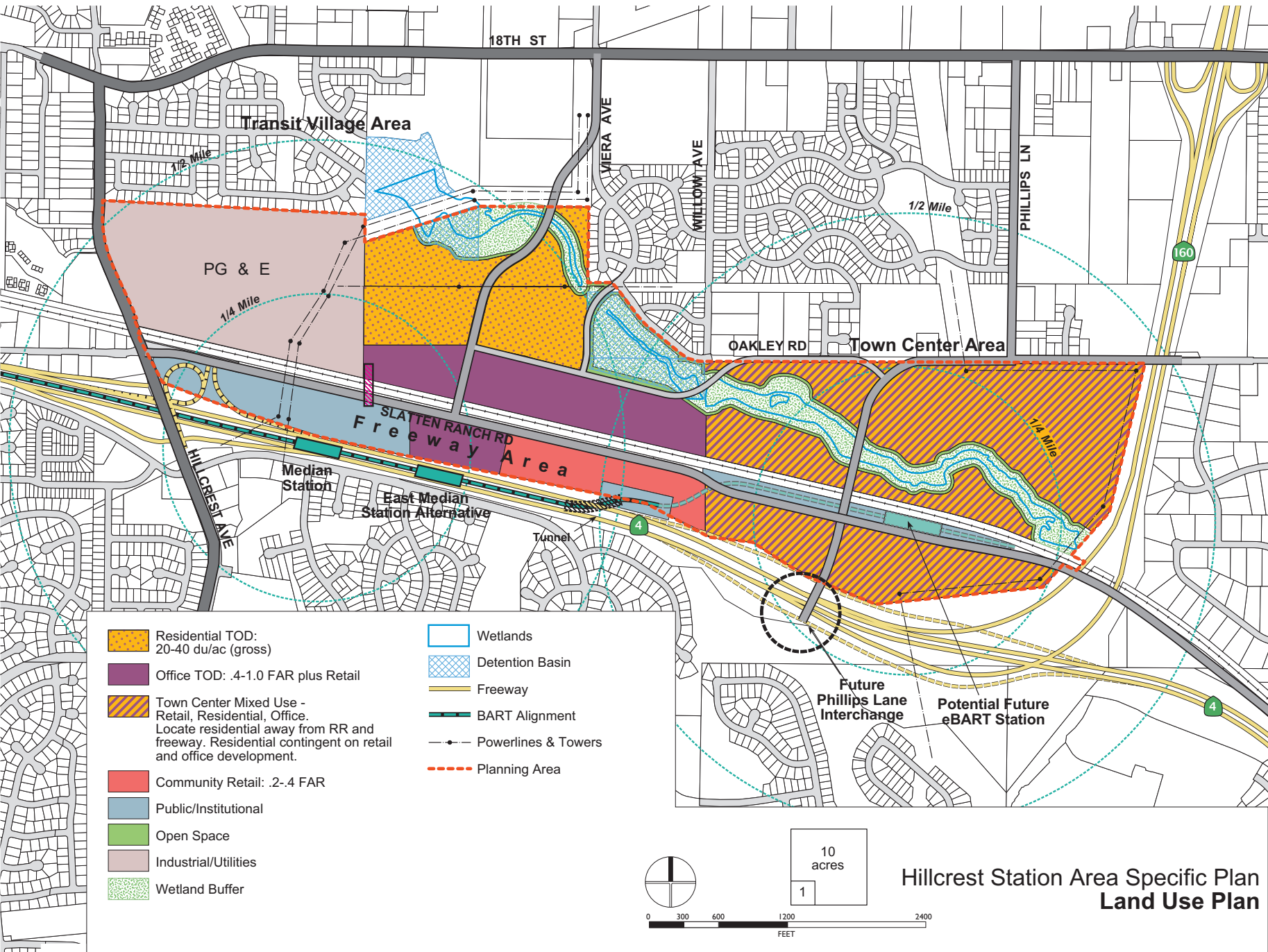
TABLE 3-6: DEVELOPMENT DENSITY STANDARDS

LAND USE	FAR	RESIDENTIAL DENSITY		OTHER DENSITY PROVISIONS
	Maximum	Minimum	Maximum	
Residential TOD	N/A	20	40	Up to 100 sf commercial space permitted per residential unit. (includes retail, restaurant, office, and personal services)
Office TOD	1.0	N/A	N/A	Up to 2.5 FAR possible on individual sites.
Town Center Mixed Use	1.0 *	6	25	<ul style="list-style-type: none"> Up to 2.5 FAR possible on individual sites. Up to 50 units per acre possible on individual sites.
Community Retail	0.3	-	-	-

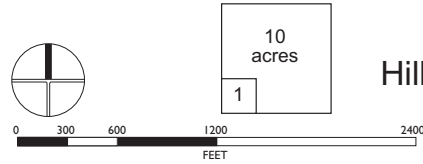
* The maximum FAR is calculated over the entire Town Center Master Plan area and includes the floor area of all uses including residential and hotel.

Source: Dyett & Bhatia, 2008.

Figure 3-3: Land Use Plan



- Residential TOD: 20-40 du/ac (gross)
- Office TOD: .4-1.0 FAR plus Retail
- Town Center Mixed Use - Retail, Residential, Office. Locate residential away from RR and freeway. Residential contingent on retail and office development.
- Community Retail: .2-.4 FAR
- Public/Institutional
- Open Space
- Industrial/Utilities
- Wetland Buffer
- Wetlands
- Detention Basin
- Freeway
- BART Alignment
- Powerlines & Towers
- Planning Area



Hillcrest Station Area Specific Plan
Land Use Plan

LAND USE POLICIES

Transit Village

- LU-3** Create a Transit Village in the western portion of the Hillcrest Station Area north of the Union Pacific Railroad right-of-way, with direct pedestrian, bicycle, bus transit, and automobile connections to the eBART station in the median of SR 4.
- LU-4** Locate high-density residential development within a half-mile walk from the eBART station.
 - A range of housing types may be included in a development project, some of which may be as low as 10 units per acre provided the total project meets the minimum density standard.
 - Residential units should be at least 300 feet away from rail and freeway rights-of-way, or incorporate construction measures that mitigate noise and air emission impacts.
- LU-5** Establish a 3 to 4-block pedestrian-oriented street along Oakley Street and/or Viera Avenue to serve the new residential community, station visitors, and area employees in the Transit Village.
 - Require active pedestrian-oriented retail, restaurants, personal services, and other commercial services and amenities on the ground floor on Oakley Road and near the Oakley/Viera intersection to meet the needs of transit riders, residents, employees, and visitors.
 - Incentivize eating and drinking facilities in the pedestrian center, for example by allowing shared parking, or reducing parking requirements for small businesses less than 2500 square feet.
- LU-6** The Transit Village Master Plan will include the following land use provisions:
 - A percentage of the office and retail uses are built prior to or in conjunction with residential uses.
 - The Master Plan for the Transit Village area shall allow:
 - No more than 1,000 total residential units;

- Up to 730,000 square feet of office uses; and,
- Up to 120,000 square feet of neighborhood retail, restaurant, and commercial service uses.

Town Center

- LU-7** Development in the eastern portion of the Hillcrest Station Area, the Town Center area, is contingent on the approval and funding of the Phillips Lane Interchange.
- LU-8** Develop a Town Center in the eastern portion of the Hillcrest Station Area that incorporates retail, entertainment, hospitality, and residential uses in a “lifestyle center” or other pedestrian-oriented format.
- LU-9** The Town Center Master Plan will include the following land use provisions:
 - A percentage of the office and retail uses are built prior to or in conjunction with residential uses.
 - The Town Center Master Plan shall allow:
 - No more than 1,500 total residential units;
 - At least 300,000 square feet of office uses;
 - Up to 730,000 square feet of retail, restaurant, hotel, and entertainment uses; and,
 - Up to 325 hotel rooms.
 - The FAR in the Town Center Master Plan area shall not exceed 1.0. Individual projects within the area may be built up to a maximum of 2.5, provided that the total FAR in the master plan area does not exceed 1.0.
- LU-10** Establish a cluster of 3 to 4 pedestrian-oriented blocks (“Town Square”) to serve the new residential community, area visitors and employees in the Town Center.
 - The pedestrian center should be focused on a public plaza or park to serve as a central gathering area.
 - Require active pedestrian-oriented retail, restaurants, personal services, and other commercial services and amenities on the ground floor to meet the needs of transit riders, residents, employees, and visitors.

- Incentivize eating and drinking facilities in the pedestrian center, for example by allowing shared parking, or reducing parking requirements for small businesses less than 2,500 square feet.

LU-11 Allow theaters and cultural facilities in the Town Center Mixed Use district.

Freeway Area

LU-12 Development projects in the Freeway Area shall comply with the following land use provisions:

- Up to 170,000 square feet of office uses with some ground floor retail adjacent to the eBART parking lot; and,
- Up to 150,000 square feet of community retail uses.
- Residential uses are not permitted in this area due to noise and air emissions from the freeway and railroad.

Office TOD

LU-13 Create a compact employment area that can accommodate at least 2,500 employees within walking distance of the eBART Median station.

LU-14 Allow compatible retail, restaurant, personal service, and other commercial uses within the Office TOD district. These uses must be on the ground floor and publicly accessible.

LU-15 Fee parking in surface parking lots (where it is a primary use, not associated with a development project) requires approval of a Conditional Use Permit. The CUP can be approved only if the project meets the following conditions:

- The parking use is temporary until structured parking and/or mixed-use development is feasible.
- The Conditional Use Permit is time-limited to a maximum of five (5) years.

Residential TOD

LU-16 Up to 100 square feet of compatible retail, restaurant, personal service, office, and other commercial uses per residential unit is allowed within the Residential TOD district. These uses must be on the ground floor or second floor, and must be publicly accessible.

Community Retail

LU-17 Allow a community retail site of at least ten acres, which benefits from SR 4 visibility and is easily accessible from Slatten Ranch Road.

LU-18 Allow shared parking arrangements between community retail and uses with different peak parking periods, such as office uses, to maximize development potential.

Residential Uses

LU-19 Provide a wide variety of housing opportunities, including multi-family, affordable, and senior housing, within walking distance of the proposed eBART station(s) or other public transit.

LU-20 Promote a variety of multi-family housing types throughout the Hillcrest Station Area. Include a mix of apartments, condominiums, and townhomes.

LU-21 Residential development must be built to meet the minimum housing density standard, to ensure that a level of affordability and housing variety is maintained. Detached single-family homes on traditional suburban lots are not appropriate in this area.

LU-22 At least fifteen percent of new housing units in the Station Area shall be affordable to moderate-income, low-income, or very low-income households, as required under state law for Redevelopment Project Areas.

LU-23 Locate residential units away from railroads and freeways, to minimize impacts from noise and air emissions. Units should be at least 300 feet away from rail and freeway rights-of-way, or incorporate construction measures that mitigate noise and air emission impacts.

Transit Facilities and other Public Uses

- LU-24** Locate eBART parking so that it is accessible to passengers arriving by car, bus, bicycle, or on foot.
- LU-25** Work with BART to ensure that at least 1,000 parking spaces are provided in close proximity to the eBART Station by 2015, and that 2,600 spaces are provided by 2035.
- LU-26** Locate the eBART maintenance facilities away from pedestrian-oriented areas.
- LU-27** Provide public bus facilities near each eBART station.

eBART Parking:
Work with BART to ensure that at least 1000 parking spaces are provided in close proximity to the eBART Station by opening day in 2015; and that 2600 spaces are provided by 2035, located in parking structures, or in shared parking with new development.



Park and Ride Lot; Antioch, CA



VTA Bus to Light Rail Transfer; Milpitas, CA

Bus and eBART Connection:
Provide public bus facilities near the eBART station, and make the transfer from bus to eBART easy and direct.

3.4 CIRCULATION

The addition of BART service will increase the mobility of existing and future residents and employees of Antioch and other East Contra Costa County communities. However development near the station will not be feasible if access within and access to the Hillcrest Station Area is not improved. This is one of the most important goals for the Specific Plan. The Station Area will need substantial circulation improvements, including eBART, bus transit, local streets, and improved access to regional freeways. When completed, these local and regional transportation facilities will enhance linkages between Antioch neighborhoods, neighboring communities, and the greater San Francisco Bay Area.

The Circulation Plan and policies in this chapter guide the necessary improvements related to circulation and access for automobiles, public transit, pedestrians and bicycles. Planned roadway improvements are shown in Figure 3-4, and the complete Circulation Plan is presented in Figure 3-5. The backbone of this network is the streets – arterials, connectors, and local streets. However the Circulation Plan also prioritizes alternative modes of transportation, particularly public transit, bicycling, and walking. The Plan encourages these alternative modes over personal vehicle use by providing safe and attractive streets complete with sidewalks, bike lanes, and bus transit access; supporting walking and bicycling with short block lengths and connectivity between major destinations; and integrating land use and transportation planning so that activities are concentrated within an easy walk to transit.

Street design standards are presented in Chapter 4, Urban Design. Street design is critical to the character of the area, and to the ultimate quality of life for residents and workers. Street sections in that chapter depict the number of travel lanes as well as bicycle lanes. The drawings and policies also focus on street landscaping, building to street relationships, and pedestrian safety in intersection design.

Circulation Principles

The Circulation Plan is based on the following principles:

- Provide access to all parts of the Hillcrest Station Area with a walkable, fine-grain street grid.
- Minimize impacts of Station Area development on existing residential development adjacent to the project area.
- Reduce total vehicle miles traveled and regional greenhouse gas emissions.
- Support rail and bus transit.
- Emphasize pedestrian, cyclist, and transit-rider connections to the eBART station and major destinations.
- Provide parking for BART and development as efficiently as possible.



eBART:
The future eBart train in the median of Highway 4.

City and Regional Roadway Improvements

There are several roadway improvement projects in East Contra Costa County that are intended to address existing and future traffic congestion. Those applicable to the Hillcrest Station Area are described below; they are assumed to be completed by 2035. Planned Roadway Changes in the Study Area and the Planning Area are shown on Figure 3-4. The detailed Circulation Plan for the Hillcrest Station Area is shown in Figure 3-5.

Regional Improvements Outside the Planning Area

SR 4 Widening Project. The Contra Costa Transportation Authority (CCTA) in cooperation with the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA) are working to widen SR 4, upgrade its interchanges and affected local roadways from about 0.8 mile west of Loveridge Road to approximately 0.7 mile east of Hillcrest Avenue. The project will reduce existing traffic congestion, improve traffic operations, encourage high-occupancy vehicle (HOV) use, and accommodate travel demand anticipated through the year 2030.

Hillcrest Avenue Interchange Improvements. The Hillcrest Avenue interchange adjacent to the Planning Area is planned to be modified including: widening the eastbound SR 4 off-ramp to two lanes at the gore point, widening the overpass to allow for additional through and left turn lanes, adding a northbound to westbound loop on-ramp, constructing a westbound SR 4 hook ramp to Slatten Ranch Road. These improvements are consistent with those identified in the State Route 4 (East) Widening Project.

SR 4 Bypass Project. The State Route 4 Bypass Project (Bypass) is a roadway project being constructed cooperatively between Contra Costa County and the Cities of Antioch, Brentwood, Pittsburg, and Oakley. The Bypass is intended to ease traffic congestion in Antioch, Brentwood and Oakley; to provide access to the growing areas of southeast Antioch

and western Brentwood; and, to provide more efficient connections throughout East Contra Costa County.

City Road Improvements Outside the Planning Area

The following roadway improvements are identified on the General Plan Circulation Map, and affect traffic flow in the vicinity of the Hillcrest Station Area.

East 18th Street Widening. This project is currently under construction and will widen East 18th Street to provide a continuous four-lane roadway with a median from SR 160 to Viera Avenue. This project is a gap closure project so that the corridor will be a continuous four-lane facility through the study area. This project is fully funded.

Wild Horse Road Extension. This project would extend the two-lane Wild Horse Road from its current terminus (east of Hillcrest Avenue) to Slatten Ranch Road. The Wild Horse Road extension would be constructed as part of planned residential development along the corridor.

Laurel Road Extension. This project would extend Laurel Road between its current terminus in Antioch and Hillcrest Avenue. The Laurel Road extension would be constructed as part of planned development along the corridor.

Road Improvements Proposed as Part of the Specific Plan

The Hillcrest Station Area will need a connected internal street network, and improved connections to the freeway network. In addition, bridges or tunnels are required for all new rail line crossings, because the Union Pacific Railroad line runs through the Station Area. Union Pacific has indicated that they may resume freight train service on that line, which may necessitate grade separations on Hillcrest Avenue.

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

The roadways in the Planning Area are described below. Internal collectors and local streets are also needed. These will be planned as part of project applications, and thus are not detailed on the Circulation Plan. Figure 3-4 shows the details of the proposed roadway improvements—new streets and segments where changes in number of traffic lanes, intersection improvements, or new signalized intersections are proposed.

Phillips Lane Interchange. The Phillips Lane interchange is identified in the 2008 Contra Costa Countywide Transportation Plan. The interchange project is not funded at this time. The Specific Plan includes policies to limit the amount of development that can be constructed if the Phillips Lane Interchange is not approved and constructed.

Oakley Road Extension. This project would include a two-lane roadway extending from Oakley Road at Viera Avenue to the west, terminating at the PG&E facilities. While it is shown on the General Plan circulation map as extending all the way to Hillcrest Avenue, this is not feasible due to the location of the PG&E facilities and the proximity to existing intersections.

Slatten Ranch Road Extension. This project would continue Slatten Ranch Road north from Laurel Road as a two-lane roadway to Phillips Lane, and then as a four-lane roadway from Phillips Lane to Hillcrest Avenue. The extension would intersect Hillcrest Avenue opposite the existing Sunset Drive signalized intersection. New SR 4 westbound ramps would be constructed at Slatten Ranch Road.

Phillips Lane Extension. This project would include a two- to four-lane roadway with a median from East 18th Street to the Slatten Ranch Road Extension. This project would also include a grade separation at the railroad tracks, and possibly a new interchange with SR 4.

Viera Avenue Extension. This project would include a two-lane roadway from East 18th Street to the Slatten Ranch Road Extension. A central third lane would be included between the PG&E easement and Slatten Ranch Road; the central lane would function as a turn lane near intersections, and would be a landscaped median in other segments. This project includes constructing a left-turn lane from northbound Viera Avenue to westbound East 18th Street. It would include a bypass around the existing residential neighborhood and a grade separation at the railroad tracks.

Figure 3-4: Planned City and Regional Roadway Improvements

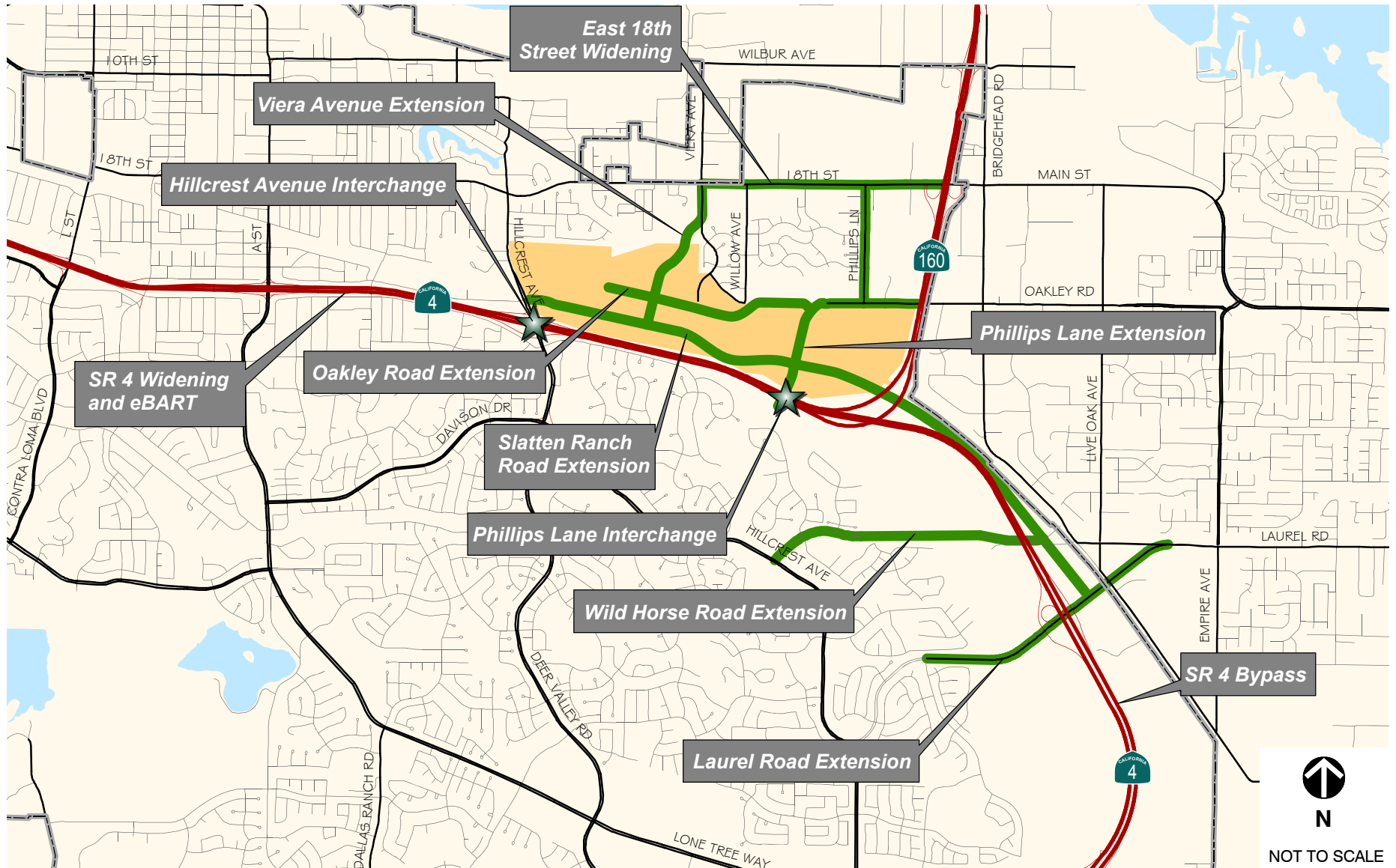
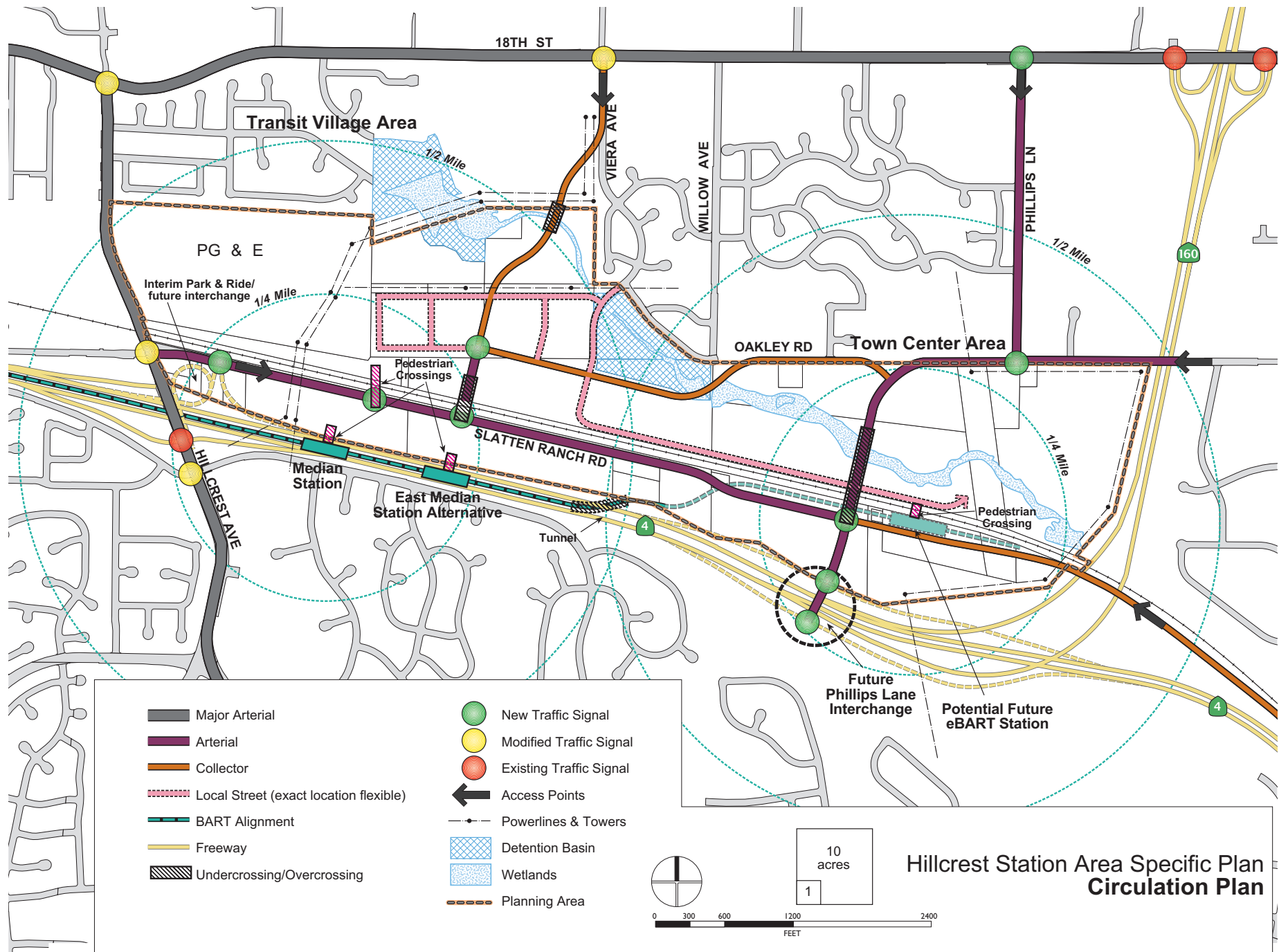


Figure 3-5: Circulation Plan



STREET NETWORK POLICIES

Street Network Design

- C-1** Create a connected street network of arterials and collectors that connects with existing local and regional roadways, and provides circulation throughout the Station Area.
- C-2** Create a connected network of local streets appropriate for a mixed use, pedestrian-oriented environment that extends throughout the Hillcrest Station Area. The network should establish:
 - Blocks that are two to four acres in size to facilitate direct and easy pedestrian access between different land uses and destinations; and,
 - Maximum block lengths of approximately 450 feet, or 600 feet where a mid-block pedestrian connection is provided (measured on the longest side of the block).
- C-3** Design streets so that they incorporate medians, landscaping, sidewalks, street trees, travel lanes, bike lanes, and on-street parking, such that they:
 - Are consistent with the desired pedestrian-oriented character and safety; and,
 - Meet the needs of all users including drivers, pedestrians, persons with disabilities, bicyclists, and transit users.
- C-4** Require land dedication and street improvements to be built consistent with street designs described in Chapter 4, Urban Design, for all arterials, collectors, and local streets in the Hillcrest Station Area.
- C-5** Limit potential traffic and parking impacts from new development on existing neighborhoods by:
 - Re-routing existing collector alignments outside existing neighborhoods, where feasible;
 - Providing direct access to the arterial and regional road network from any new streets; and,
 - Installing traffic calming measures where necessary.

- C-6** Minimize cul-de-sacs to the maximum extent possible. Where cul-de-sacs are necessary due to barriers such as freeways and detention basins:

- Provide at least one pedestrian and bicycle path at the circular end in order to connect to other streets and trails, to allow emergency vehicle access when warranted and to minimize response times for emergency access; and,
- Consider designing cul-de-sacs with a planted cul-de-sac island to limit the amount of pavement and increase stormwater management opportunities.

- C-7** Promote the use of permeable paving for parking aisles, off-street bike lanes, and parking lots, where feasible.

Station Area Street Improvements

- C-8** All applications for master plans, subdivisions, and development projects shall indicate how streets are connected to existing local and regional roadways, and how a connected network of streets is created throughout the Hillcrest Station Area.
- C-9** Arterials and collectors should be located as shown in Figure 3-5 Circulation Plan; however, locations may be modified based on additional engineering or environmental analysis, or a completed master plan that shows how all parcels will be adequately served. Streets shall be located consistent with the following criteria:
 - Arterials are to be generally located along property lines.
 - Collector alignments may vary to accommodate site conditions and development proposals, provided that the streets align and join directly with existing and/or future collector streets on adjoining properties.

C-10 Construct a four-lane east-west road, Slatten Ranch Road, south of the Union Pacific Railroad from Hillcrest Avenue to SR 160 to serve the eBART Station and development between SR 4 and the Union Pacific right-of-way. Design this road consistent with the following criteria:

- Connect Sunset Drive west of Hillcrest Avenue with the Station Area;
- Accommodate easy and direct access for buses in and out of the eBART station; and
- Ensure that BART service can be extended to the east in or adjacent to the Union Pacific railroad right-of-way. Design of this corridor will need to be coordinated with Caltrans, Union Pacific Railroad, and BART.

C-11 The City shall address traffic congestion at the Hillcrest Avenue and East 18th Street intersection. Starting in 2015, the City shall monitor the turning movements at this intersection with annual traffic counts.

- When the average delay per vehicle exceeds 45 seconds (or the current CCTA level of service standard), the City engineer shall initiate a comprehensive engineering study to define feasible mitigations and the project's fair share of the cost of improvements.
- When the average delay per vehicle is 55 seconds (or the Level of Service reaches E), proceed with design and construction of the improvements defined in the engineering study.

C-12 Extend and re-align Viera Avenue between East 18th Street and Slatten Ranch Road. Design this road consistent with the following criteria:

- Realign Viera Avenue so that Station Area traffic does not impact existing neighborhoods, as generally shown in Figure 3-5.
- Add a left turn lane from northbound Viera Avenue to westbound East 18th Street.
- Work with PG&E to design the alignment so that Viera Avenue minimizes impacts to the PG&E electrical transmission and natural gas rights-of-way.

- Construct an overcrossing at East Antioch Creek that minimizes impacts to the creek, detention basins, and recreational areas.
- Construct an overcrossing or undercrossing at the railroad tracks that serves vehicles, pedestrians, and bicycles. Design the crossing to maximize developable land. The design of this crossing should also be coordinated with the design of the railroad grade separation at Hillcrest Avenue.

C-13 Extend and improve Oakley Road to serve the Hillcrest Station Area. Design this road consistent with the following criteria:

- Minimize impacts to the Oakley Detention Basin;
- Limit traffic and parking from the Station Area within existing neighborhoods;
- Support and encourage pedestrian-oriented land uses between the Oakley Detention Basin and the PG&E substation; and,
- Do not preclude a future connection with Hillcrest Avenue featuring a right-in, right-out intersection, if warranted.

C-14 Create a cul-de-sac at existing Willow Avenue near Oakley Road to avoid traffic impacts on existing residential neighborhoods. Consult with neighborhood residents prior to proceeding with this improvement to ascertain support and review alternative designs.

C-15 Extend and improve Phillips Lane south of East 18th Street to Slatten Ranch Road. Design this road consistent with the following criteria:

- Serve the development within the Town Center;
- Minimize impacts to East Antioch Creek and recreational uses;
- Cross over the railroad;
- Intersect with Slatten Ranch Road; and
- Provide access to the Phillips Lane Interchange.

City and Regional Transportation Improvements

- C-16** Work with CCTA and Caltrans to implement Hillcrest Avenue Interchange improvements. The final design of the improvements should consider the potential railroad grade separation at Hillcrest Avenue.
- C-17** Work with Union Pacific Railroad to provide a grade separation at the intersection of the Mococo Railway right-of-way and Hillcrest Avenue, if it is determined that the rail operator will resume active rail service. Explore all feasible design solutions with the goal to minimize the impacts on existing development and new development in the Hillcrest Station Area.
- C-18** Work with Caltrans to approve, design, and construct a full SR 4 interchange at Phillips Lane. Work with federal, state, and local agencies such as the Fee and Finance Authority to secure funding for the Phillips Interchange.
- C-19** The City and project sponsors shall work with neighboring cities and regional agencies to construct Slatten Ranch Road from west of SR 160 to Laurel Avenue.
- C-20** The City shall ensure that Wild Horse Road is extended and connected to the SR 4 Bypass Frontage Road, “Slatten Ranch Road,” to improve local access to parks, schools, and fire stations.
- C-21** Work with the City of Oakley to monitor traffic levels and level of service at the Neroly Road and Oakley Road intersection, and support efforts to design and construct needed improvements.

Transportation Demand Management

- C-22** Apply a Transportation Demand Management (TDM) program that reduces single-occupant vehicle trips to development exceeding 25,000 square feet of non-residential space. Components of TDM programs could include:
 - Contributions to urban design projects, such as:
 - Bicycle parking, both short- and long-term, located in appropriate places; and,
 - Direct routes to transit (station, shuttle, or bus) and other key destinations that are well-lit and designed for pedestrian comfort.
 - Employer-based programs, such as:
 - Carpool and vanpool ride-matching services;
 - Designated employer TDM contact;
 - Guaranteed ride home for transit users and car/vanpoolers;
 - Transit subsidies for employees;
 - Flexible work schedules, shortened work weeks, or options to telecommute;
 - Information campaigns using brochures, boards/kiosks, or other communication outlets; and,
 - Employer provided showers and lockers.
 - Meeting or exceeding project design standards, such as:
 - Free and preferential parking for carpools, vanpools, low-emission vehicles, and car-share vehicles;
 - Passenger loading zones; and,
 - Bicycle- and pedestrian- friendly site planning and building design.

Construction Traffic Management

C-23 Project sponsors shall develop a Construction Traffic Management Plan for City review and approval. The plan shall include at least the following items and requirements to reduce traffic congestion to the maximum extent feasible during construction:

- A set of comprehensive traffic control measures, including major truck trips and deliveries that avoid peak traffic hours, detour signs if required, lane closure procedures, sidewalk closure procedures, signs, cones for drivers, and designated construction access routes.
- Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur.
- Location of construction staging areas for materials, equipment, and vehicles (must be located on the project site).
- Identification of haul routes for movement of construction vehicles that minimize impacts on vehicular and pedestrian traffic, circulation and safety;
- Temporary construction fences to contain debris and material and to secure the site.
- Provisions for removal of trash generated by project construction activity.
- A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager.
- Provisions for monitoring surface streets used for truck routes so that any damage and debris attributable to the trucks can be identified and corrected.

Parking

Parking is a critical component of transit-oriented development. Provide too much and the environmental benefits of transit and pedestrian-oriented design are negated. Provide too little and development and transit may not thrive. The provision and management of on-site parking is directly related to issues such as the efficient use of the internal circulation system, and integration of parking into urban design, transit uses, and economic development. The goals for providing sufficient parking may complement, or compete with, one or more of these related issues. Parking is also very expensive to build; therefore, parking requirements can be an incentive or a deterrent for certain types of development.

Research shows that some reductions in off-street parking requirements are appropriate within transit-oriented development areas, based on: (1) the mix of uses (which allows trip chaining instead of separate auto trips); (2) the availability of pedestrian, bicycle, transit and other non-automobile modes of travel; and (3) the smaller sizes of units compared to single family homes. This can be combined with shared parking arrangements to reduce the amount, and therefore the cost, of providing parking. The amount of reduction is typically somewhere between 10 and 20 percent, compared to the standard City parking ratios.

With the proposed mixed-use development throughout much of the Station Area, several opportunities will be available to reduce the amount of parking through shared parking arrangements. The extent of parking reduction will depend on factors such as: transit station access, size and mix (type) of land uses with complementary parking patterns, physical location of the complementary uses, cooperation between various land owners/developers for shared parking arrangements, and the phasing and implementation of these developments. Parking studies and proposals will need to be provided as part of major development applications to determine the appropriate amount of parking.

PARKING POLICIES

Parking Location

- C-24** Locate off-street parking behind buildings or in structures, to the maximum extent feasible. Do not locate parking between public streets and building entrances, except on commercial retail sites within the freeway area.

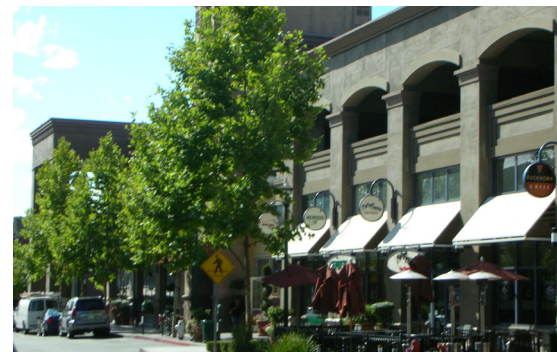
Parking Standards and Guidelines

- C-25** Maintain flexible parking standards that balance the need for parking with the broader Station Area goals of encouraging transit ridership, ridesharing, and nurturing the area’s pedestrian appeal.
- C-26** Distribute parking throughout the Station Area to help balance traffic flow on the street grid network.
- C-27** Include on-street parking on collector and local streets, following detailed recommendations in Chapter 4, Urban Design.
- C-28** Adopt specific parking standards for the Station Area. Consider some or all of the following strategies to prevent oversupply and encourage the use of alternate modes of transportation:
- Allow shared parking between uses with different peak periods of parking demand;
 - Reduce minimum off-street parking requirements for multi-family and commercial developments;
 - Adopt maximum off-street parking requirements;
 - Allow credits for adjacent on-street spaces;
 - Allow exemptions for small retail and dining establishments (e.g. less than 2,500 square feet) in pedestrian centers; and,
 - Allow tandem parking in residential developments.
- C-29** Work with property owners to emphasize shared parking arrangements where appropriate to maximize efficient use of parking resources.
- C-30** Incentivize parking structures, rooftop parking, and underground parking, through flexibility in conditions of approval and in negotiations for any City financial participation in the development.

- C-31** Require surface parking lots to be designed so that it is feasible to use them for other uses, such as farmers’ markets or community events, without reducing the landscaping requirements.
- C-32** Identify opportunities for parking pricing strategies. Work with property owners to price parking so as to discourage automobile trips that could be made by other modes.
- C-33** Prohibit parking lots and structures as a primary use in the Hillcrest Station Area, other than on land identified in the Station Area Plan for eBART parking.

eBART Parking

- C-34** Work with BART to identify funding sources for parking at the eBART stations, consistent with the following criteria:
- 1,000 spaces at the time eBART service begins; and,
 - 2,600 spaces by 2030, if the Hillcrest Station continues to be the terminus station for the eBART service. These spaces may be developed in phases.



Parking:
Public Parking Structure with retail and restaurant on the ground floor

Walnut Creek, CA

Transit

The Hillcrest Station Area Plan has been prepared based on the construction of the eBART line from Pittsburgh to Antioch, and the location of a new station in the median near Hillcrest Avenue. As discussed in Chapter 2, Background, the station location has not been finalized. The City’s preferred location is the East Median location, approximately 2,175 feet from the Hillcrest Interchange. This location has several advantages for the development of the Hillcrest Station Area. It decreases the walking distance from the station to developable areas, improves the visual context of the station area (by not focusing on the PG&E substation), and provides more flexibility for shared parking and future eBART parking.

In addition, the new rail transit system must be integrated with the existing bus transit system in order to optimize rail and bus transit, and reduce automobile use. Tri Delta Transit uses the existing Park-and-Ride lot at Hillcrest Avenue and Sunset Avenue for nine routes. This bus transit hub will be integrated into the parking area near the eBART station.



Transit: Tri-Delta Transit will provide bus service to the eBART station, creating a multi-modal transit center.

Transit Policies

- C-35** The City shall continue working with BART, CCTA, Caltrans, and property owners to study design, funding, and construction options for the Hillcrest eBART station, including but not limited to the East Median Station, which is the City’s preferred station location. The design and location of the station should be modified from the current Median Station plan to achieve the following goals:
 - Provide a more direct pedestrian and bicycle route from the Transit Village pedestrian center to the eBART station, with a distance of no more than one-quarter mile, and the minimum number of grade changes;
 - Provide shorter, more direct vehicular access between the Transit Village Area to the eBART station;
 - Maximize developable land, especially properties with freeway visibility, and properties in the Transit Village Area; and
 - Provide an attractive view from the eBART station, that includes a direct line of sight to the Transit Village, and screens the view of the PG&E station; and
 - Maximize opportunities for shared parking between BART patrons and other land uses.
- C-36** Develop a multi-modal transit center at the median eBART station that provides access to eBART, buses, taxis, and shuttles. Design the transit facilities to include:
 - Bus transit center and approximately 8-12 bus bays (moved from the Hillcrest Park-and-Ride lot to the eBART Station parking area);
 - Kiss-and-ride limited term parking area;
 - Disabled parking;
 - Shuttle pick up and drop off area; and,
 - Safe and attractive pedestrian and bike crossings to the station.
- C-37** Work with Tri-Delta Transit to minimize impacts to existing service while serving the Station Area.
- C-38** Design arterials and arterial intersections, particularly near pedestrian-oriented streets, to accommodate transit services, including bus stops, pull-outs, and shelters.

Pedestrian and Bicycle Access and Circulation

The Hillcrest Specific Plan aims to create attractive, inviting, and safe pedestrian and bicycle connections for residents, workers, and visitors. Pedestrian and bicycle circulation systems should be created throughout the Station Area, with specific linkages over East Antioch Creek and the railroad, and between the western and eastern areas. Major destinations such as the transit station(s), parks, and retail or shopping districts, should have clearly defined access paths.

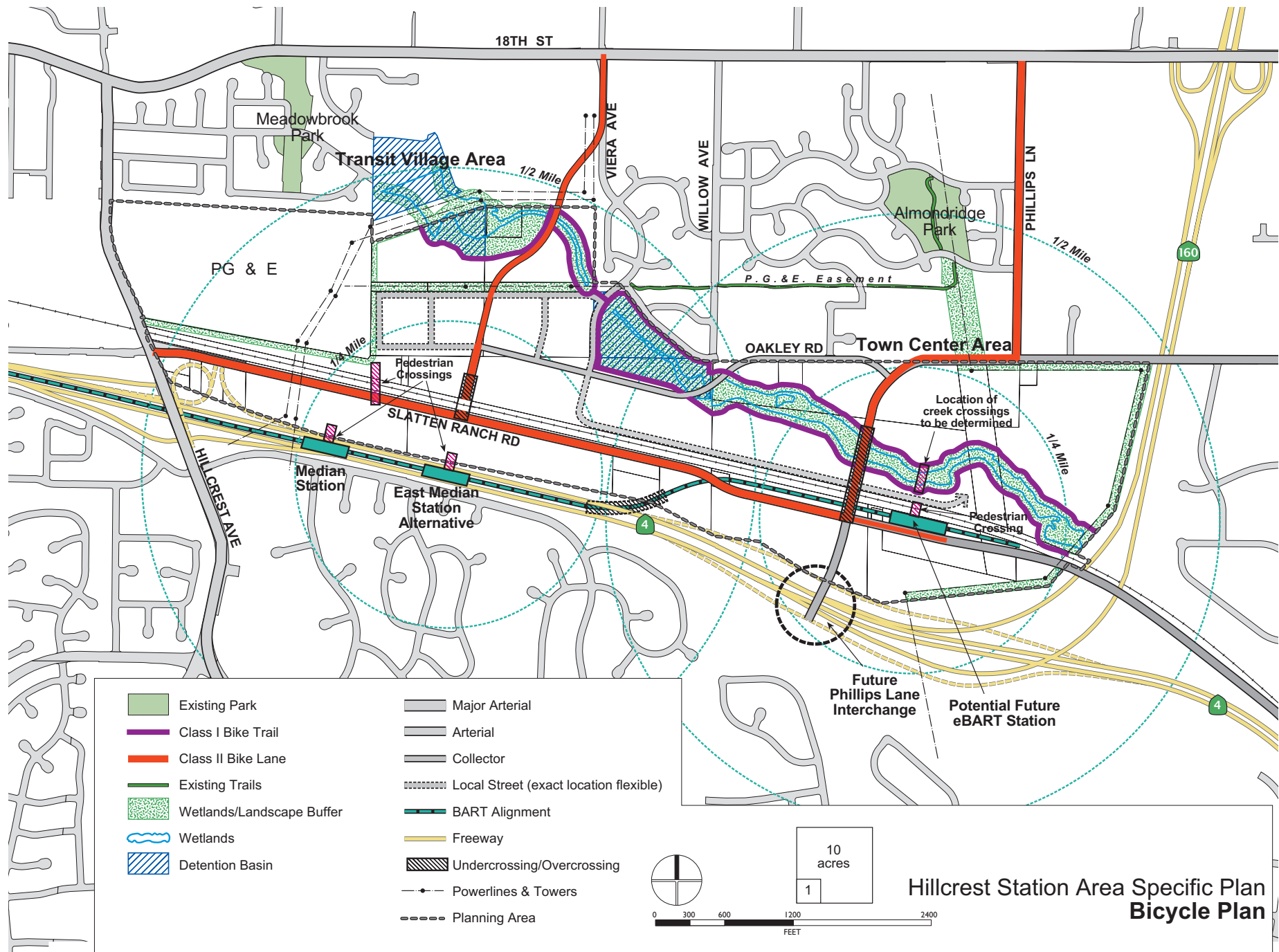
The backbone of the pedestrian and bicycle networks will be the internal street network, plus the multi-use trail around East Antioch Creek. Bicycle lanes will be provided on key internal roadways. Figure 3-6 shows key bicycle routes within the Station Area that should be established and maintained. All new streets are to be equipped with sidewalks or other adjacent pedestrian facilities, as illustrated in the street sections in Chapter 4, Urban Design. Mid-block pedestrian pathways are encouraged to create greater pedestrian and bicycle access through the Station Area. Likewise, internal ground-level circulation and open spaces can be encouraged through new development. The Plan policies seek to ensure that pedestrian and bicycle networks are linked beyond the Station Area to the greater City and neighboring communities.

Pedestrian Connections: Pedestrian connections will be created throughout the Hillcrest Station Area. Projects will provide routes directly to major destinations such as parks, pedestrian centers, and eBART stations.

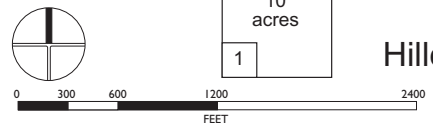


Bicycle Paths: Bicycle paths will be provided along East Antioch Creek; and bicycle lanes will be provided on major roadways.

Figure 3-6: Bicycle Plan



- | | |
|---------------------------|--|
| Existing Park | Major Arterial |
| Class I Bike Trail | Arterial |
| Class II Bike Lane | Collector |
| Existing Trails | Local Street (exact location flexible) |
| Wetlands/Landscape Buffer | BART Alignment |
| Wetlands | Freeway |
| Detention Basin | Undercrossing/Overcrossing |
| | Powerlines & Towers |
| | Planning Area |



Hillcrest Station Area Specific Plan
Bicycle Plan

PEDESTRIAN AND BICYCLE CIRCULATION POLICIES

- C-39** Prioritize pedestrian and bicyclist safety at intersections and street crossings with measures such as:
 - Contrasting and/or textured paving crosswalks;
 - In-ground, blinking crosswalk lights; and,
 - Pedestrian refuges and bulb-outs.
- C-40** Implement a way-finding signage program for common destinations.
- C-41** Require development projects to provide walking and biking routes directly to major destinations such as parks, pedestrian centers, and eBART stations.
- C-42** Adopt minimum bicycle parking requirements for residential and commercial projects. Bicycle parking should be designed with the following criteria:
 - Short-term parking should be visible from the main entrance of buildings.
 - Long-term parking should be provided in secure, well-lighted areas.
- C-43** Encourage employers to provide showers and lockers.
- C-44** Limit the number of curb cuts allowed on each block face.
- C-45** On pedestrian-oriented streets, design streets and sidewalks consistent with the provisions in Chapter 4, Urban Design, including:
 - Tree wells or planter strips with trees between the sidewalk and parking;
 - On-street parking between sidewalks and travel lanes;
 - Pedestrian-scale street lights;
 - Limited curb cuts that cross the pedestrian path of travel;
 - Outdoor seating for restaurants and cafes;
 - Projections into the right of way for awnings, canopies, pedestrian-oriented signs, bay windows, and other elements that enhance the pedestrian realm; and
- C-46** Sidewalks should have at least a five-foot wide clear path of travel.

Pedestrian and Bicycle Circulation Improvements

- C-47** Provide bike routes throughout the Station Area, as illustrated in Figure 3-6.
 - Class 1: Continuous multi-purpose trail along East Antioch Creek and the detention basins
 - Class 2: Slatten Ranch Road, Phillips Lane, and Viera Avenue
- C-48** Allow bicycle circulation on all local streets, to the extent feasible.
- C-49** Design and implement a multi-use trail loop around the wetlands and East Antioch Creek. This loop should include at least two pedestrian crossings across the creek.
- C-50** Provide multi-use trails that connect from East Antioch Creek to existing neighborhood parks north of the Station Area.
- C-51** Provide at least two pedestrian and bicycle crossings across the railroad, at least one each in the Transit Village and the Town Center. If the Median Station is the selected eBART station location, provide a third pedestrian and bicycle crossing opposite the eBART station entrance, as shown in Figures 3-5 and 3-6.



VTA Bridge to Light Rail; Milpitas, CA

Pedestrian/Bicycle Bridges:

At least two pedestrian and bicycle crossings will be provided across the railroad, one in the Transit Village and one in the Town Center.

Freight Rail Service

The Union Pacific Railroad Mococo right-of-way traverses the entire east-west length of the Station Area. Union Pacific is planning to increase the number of trains using this corridor from very infrequent trips to up to 40 trains per day. Active freight rail service would have noise, air quality, and safety impacts on future residents and employees of the Station Area. The City will be working with Union Pacific to ensure that the resumption of freight rail service on the Mococo tracks does not create unacceptable public health and safety issues.

The Antioch General Plan indicates that a grade separation project is planned at Hillcrest Avenue. Construction of a grade separation would reduce the noise impact of the train since trains would not have to sound warning whistles. The design of the grade separation will significantly impact existing and future development and circulation access.

Freight Rail Policies

- C-52** Work with Union Pacific to ensure safe pedestrian and vehicular railroad crossings.
- C-53** Work with Union Pacific to limit rail noise impacts on building occupants, and circulation impacts on roadways, bike paths, and sidewalks.
- C-54** Work with federal, state, and other sources to secure funding for a grade separation at Hillcrest and the Union Pacific tracks.

Railroad Crossings: Work with Union Pacific to ensure safe pedestrian and vehicular railroad crossings. Work with federal, state, and other sources to secure funding for a grade separation at Hillcrest and the Union Pacific railroad tracks.



Redwood City, CA

Truck Access

In order to support the pedestrian-oriented nature of the Station Area, truck routes and loading areas should be carefully considered. Access to garbage and recycling areas should also be considered early in the project design process. Access should be provided in a way that facilitates truck service without detracting from the pedestrian realm.

Truck Access Policies

- C-55** Where truck routes are necessary, do not locate them on the core pedestrian streets in the pedestrian centers.
- C-56** Service and loading areas should be strategically located and screened so as not to impact the attractiveness and safety of the pedestrian realm. Therefore, they should be located to the side or rear of buildings, away from the primary pedestrian areas.
- C-57** Loading requirements for smaller building may be met through curbside loading zones. For larger developments that require loading docks, the docks should be located in the interior of the building or parking garage, to the maximum extent feasible.

3.5 PARKS AND OPEN SPACE

Parks and open spaces are critical features in pedestrian-oriented areas and other high-density areas. They provide greenery and breathing room between buildings, and contribute to the overall character of the district. Streetscape improvements and landscaping also help to identify major activity centers and primary walking routes. In addition to serving as visual and recreational amenities, open spaces are critical to the environmental health and safety of the development area. Landscaped areas also help manage stormwater by providing short-term and long-term storage areas, which help filter the water before it re-enters the natural systems.

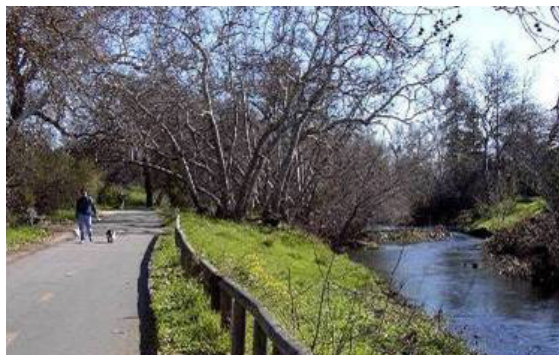
Typically, parks in compact, pedestrian-oriented districts are small, ranging from 3,000 square foot public plazas to neighborhood parks of about two acres. The City of Antioch has established a parks standard of five acres per 1,000 residents. The Hillcrest Station Area should include a variety of public and private open spaces, distributed throughout the area to ensure that all properties benefit from the amenities and that adequate open space is available for residents and employees. Open space areas in the Station Area may include: multi-use trail areas, public and private recreational facilities such as tot lots or picnic areas, passive recreation areas, and public parks and plazas. The Open Space Plan is illustrated in Figure 3-7.

Parks and Open Space Principles

The Open Space Plan is based on the following principles:

- Create a unique park and trail system that enhances the natural features and functions of East Antioch Creek and wetlands.
- Provide adequate developed park space to meet the recreation needs of Station Area residents and workers.
- Use landscape buffers to limit the visual impacts of PG&E and utilities.
- Provide an attractive, dynamic public realm that includes urban plazas, enhanced streetscapes, landscaped setbacks, and landscaped buffer areas.

Park and Trail System:
Create a unique park and trail system that enhances the natural features and functions of East Antioch Creek and wetlands.



Neighborhood Parks:
Small neighborhood parks should be located within walking distance of homes and pedestrian centers.

Davis, CA

East Antioch Creek Linear Park

The unique features of the Station Area will help to define the open space elements. The most dynamic of these features is East Antioch Creek and its surrounding wetlands. The Army Corps of Engineers has delineated the wetlands along East Antioch Creek. The creek is a prominent component of the local stormwater management system, including two detention basins in the Station Area. The riparian habitat along the creek is protected by state and federal law for its role in flood control, erosion protection, water quality protection, and as wildlife habitat.

In order to protect the natural stormwater management and habitat functions of the wetlands, a minimum 50-foot buffer has been established from the delineated wetlands. Landscaping within the 50-foot buffer area may be allowed to enhance the visual aspects of the creek, as long as the improvements are consistent with habitat conservation best practices. A fence shall be built at the outer edge of this 50-foot buffer to minimize intrusions from people and pets. An additional 25-foot buffer has been established outside the fence. This buffer will be landscaped and enhanced to create a linear park with a multi-purpose trail.

The new East Antioch Creek linear park will be created as a defining element of the Hillcrest Station Area. The park will include: a multi-use trail built as a walking, jogging, and biking loop; small recreation areas along the trail such as benches, tot-lots and picnic areas; and staging areas where people can park and enter the trail system. This linear park will be publicly owned and maintained.



Multi-Use Trail:
Provide a trail along East Antioch Creek that can be used for walking, jogging, and biking.

Public and Private Open Space

Additional open space areas will need to be provided to serve the recreation needs of residents and employees. In the Transit Village area, a small neighborhood park within walking distance of all residents is needed. It could be located adjacent to the multi-use trail. In the Town Center area, a neighborhood park with at least one sports field is needed.



Davis, CA

Creekside Recreation Facilities:
Locate small recreational areas along the trail such as benches, tot lots, and picnic areas.

Public Plazas

Urban plazas are to include both paved areas and landscaping, and provide seating and areas for interaction. Successful plazas usually feature a variety of flexible seating options (ledges, steps, or movable chairs), water features or art, connectivity to the street, environmental protection, and access to food (food carts or adjacent cafés). Plazas tend to be more used when they are adjacent to retail and restaurant uses rather than primarily office uses. Plazas should be large enough to accommodate a variety of active and passive uses while maintaining a human scale. The Open Space Plan, Figure 3-7, includes at least three public plazas that will be scaled to suit their location. There should be a plaza at the transit station(s) to serve as a gathering place and to help define the character of the Hillcrest Station Area. In addition there should be a “town square” in the pedestrian center of the Town Center area. A smaller plaza should be included in the heart of the Transit Village.

Urban Plazas:
Urban plazas will be provided in the pedestrian centers of the Transit Village and Town Center.



Walnut Creek, CA

Landscape Buffers

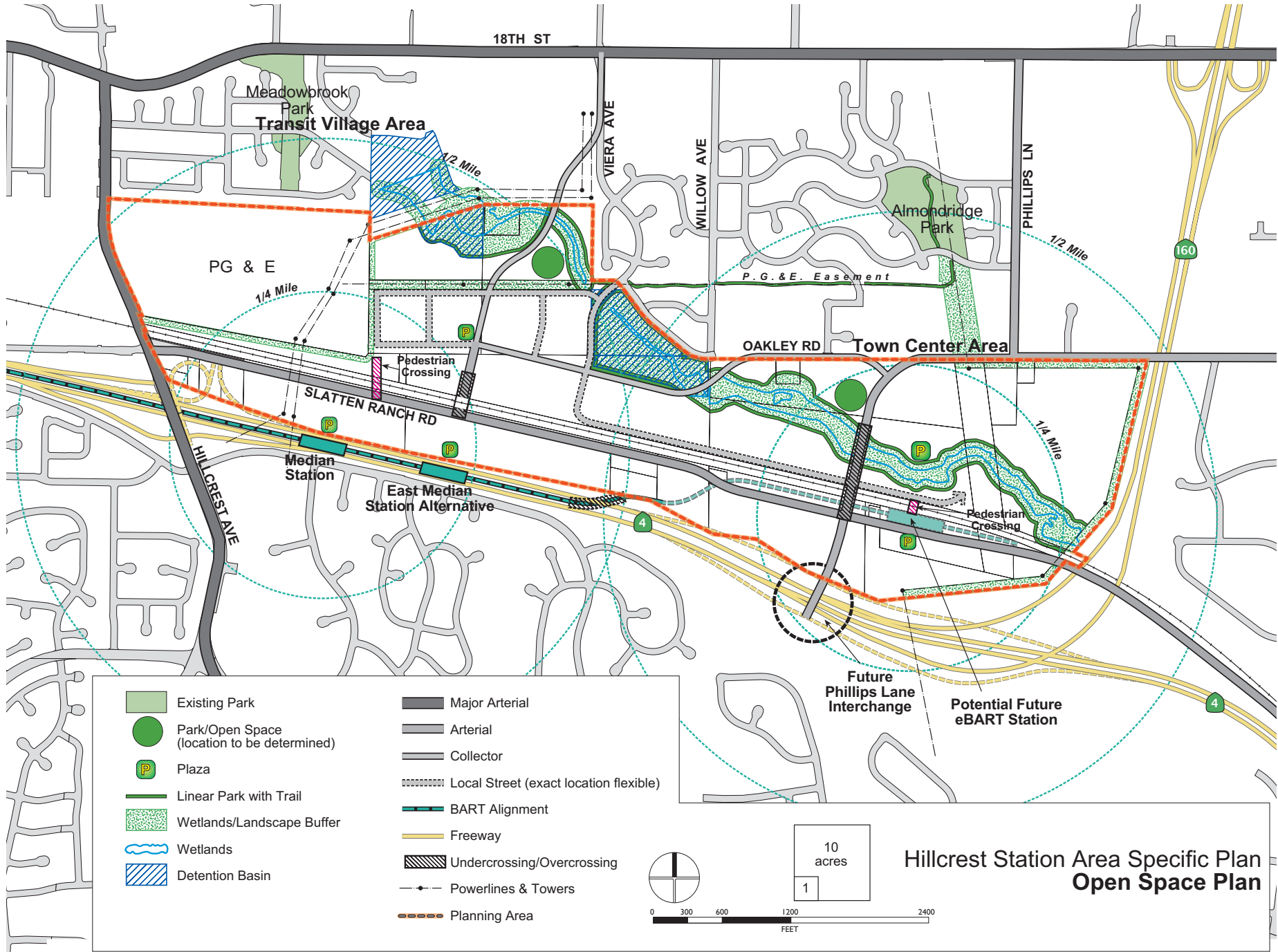
Landscape buffers will be used to provide a visual and noise separation between the railroad, highways, and high traffic streets, and the buildings that face them. The PG&E substation and easements with transmission towers are additional features that require landscaping to reduce the visual impact. See Chapter 4, Urban Design for standards and guidelines related to landscape buffers.



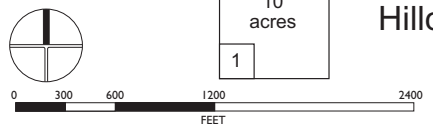
Redwood City, CA

Landscape Buffers:
Landscape Buffers will be used to provide a visual and noise separation between the railroad, highways, and high-traffic streets, and the buildings that face them.

Figure 3-7: Open Space Plan



- | | | | |
|--|---|--|--|
| | Existing Park | | Major Arterial |
| | Park/Open Space (location to be determined) | | Arterial |
| | Plaza | | Collector |
| | Linear Park with Trail | | Local Street (exact location flexible) |
| | Wetlands/Landscape Buffer | | BART Alignment |
| | Wetlands | | Freeway |
| | Detention Basin | | Undercrossing/Overcrossing |
| | | | Powerlines & Towers |
| | | | Planning Area |



Hillcrest Station Area Specific Plan
Open Space Plan

PARKS AND OPEN SPACE POLICIES

Parks

- OS-1** Prepare parks plans as part of the required Master Plans for the Transit Village and Town Center areas, in order to meet the recreational needs of the residents and employees of the Station Area. The parks components of the Master Plans should fulfill the following criteria:
- An integrated network of public open spaces, parks, plazas, and trails should be created to connect the Transit Village, Town Center, and existing neighborhoods.
 - Open space types and locations should be generally consistent with Figure 3-7.
 - All new employees and residents should be within a five- to ten-minute walk of a park or plaza.
 - For all new public parks, the design, program, and facilities must be approved by the City.
- OS-2** Park and open space land must be provided as part of new development. Park dedication requirements will be based on the number of units and size of residential units proposed in an individual development project, following the provisions of the City’s ordinances. With City approval, impact fees may be paid in lieu of park dedication for small properties where no parks are shown on the Open Space Plan.
- In the Transit Village area, provide a small neighborhood park approximately two acres in size within walking distance of the residential units. This park could be located adjacent to the East Antioch Creek Linear Park trail.
 - In the Town Center area, provide a neighborhood park approximately three acres in size, with at least one sports field.

- OS-3** Provide a comprehensive maintenance program for all open spaces, parks, plazas, and landscape buffers. Any parks or open spaces less than five acres in size should be maintained by private property owners, rather than by the City of Antioch, using mechanisms such as Homeowners’ Associations (HOAs) or Street Lighting and Landscaping Maintenance Districts (LLMDs).
- OS-4** Incorporate wind protection and shade structures into new parks.
- OS-5** Encourage the use of drought-tolerant and/or native plant materials and trees in all open spaces.
- OS-6** Project sponsors may apply for partial credit of park requirements by improving utility easement landscape buffers with trails, benches, and other recreational amenities.

Creekside Trail and Creek Improvements

- OS-7** Connect trails and parks to the City’s existing trail network.
- OS-8** Create a linear public open space at least 25 feet wide around the wetlands and detention basins. Design the open space consistent with the following criteria:
- A multi-use trail 8-12 feet wide is provided around the perimeter of the 50-foot inner wetland buffer area;
 - The trail connects to public streets, public parks, and plazas;
 - At least two pedestrian and bike paths are available to cross the creek;
 - At least one staging area with parking is provided adjacent to the trail in the Transit Village area and one in the Town Center area;
 - Recreational facilities, such as seating, picnic tables, tot lots, and exercise areas or par course, are provided adjacent to the trail;
 - Viewing platforms may be built to observe the natural areas; and
 - If feasible, informational signage is provided so that the riparian habitat can be used as an educational destination for local schools.

- OS-9** Improve the creek and wetlands so that they are visually attractive, and at the same time protect wildlife habitat, movement corridors, special status species, and stormwater management functions, consistent with the criteria below.
- Any creek, wetland, and wetland buffer improvement must be reviewed and approved by a certified biologist.
 - Appropriate types of fencing must be provided between the wetlands and the park areas to ensure that pets and children do not disturb sensitive habitats.
 - Plants must be native and appropriate to East Antioch Creek.
- OS-10** Development sponsors may apply for credit toward a portion of the park land dedication requirements for creek and wetlands restoration and/or improvements.
- OS-11** Improve areas around the detention basins with trails, trees, landscaping, and other amenities so they become an integral and attractive portion of the open space network within the Station Area.

Public Plazas

- OS-12** Incorporate public plazas in commercial and mixed use development within the pedestrian center areas. Plazas should be designed consistent with the following criteria:
- The size of the plaza is to be commensurate with the size of the development project and the height and scale of the buildings.
 - Plazas must be located adjacent to a public street.
 - Plazas must be open to the public during all daylight hours.
 - Plazas must be located generally adjacent to retail and restaurant uses, rather than primarily office uses.
 - Both paved areas and landscaping must be included, and seating and areas for interaction must be provided.
 - A variety of flexible seating options (ledges, steps, or movable chairs), water features or art, connectivity to the street, environmental protection, and access to food (food carts or adjacent cafés) must be provided.

