# East Bay



# Greenway



Concept Plan for a Bicycle and Pedestrian Path A healthier, greener, and safer passage from Oakland to Hayward



### Acknowledgments

#### **Urban Ecology Volunteers**

This concept plan is the result of a lot of hard work and volunteer hours. The following individuals gave their time and energy to creating this vision. It could not have been accomplished without them.

Cate Bainton -site analysis, design, storm water management, graphics Suzanne Beahrs – site analysis Christina Beard – graphic design Meghan Beitiks – site analysis Brandon Dughman – history research Rachel Eley – meeting facilitation, writing Katherine Foo - graphics Francis Gadayan – layout Ivis Garcia Zambrana - meeting facilitation, writing, graphics Tema Goodwin – copy editing Matthew Green – site analysis Carrie Harvilla – meeting facilitation, research, writing Stephanie Hsia – GIS support Andrew Hyder - graphics, Google Earth, and website Daniel Jacobson - layout Joe Joeng – graphics, layout Sean King – design materials research Hoi Ian Lei – site analysis, design, graphics Tom Mikkelsen - photograhpy Michael Rhodes - research Kamya Ramachandran – layout Joanne Siew – GIS support Matthew Silva – layout Richard Simmonds - printing, layout advice Yohannes Tesfaldet - graphics, layout Ellen Thompson – copy editing Andrew Waggoner – meeting facilitation

#### University of California Berkeley **Environmental Justice Class, Fall 2007**

Design Team: Christina Tsang Rosanna Rosso Kelly Cha Myo Ohn Robert Cassaras *Community Team:* Jessica Bowling Andrew DeGregorio Jennie Li Jonah Lipsitt Preeti Makwana

#### **Community Organizations and Events**

We depended on the communities along the corridor for information on how best to design for their neighborhoods. We appreciate all the community groups that shared their time with us. And we especially thank the community members who attended these meetings for sharing their local knowledge, ideas, and enthusiasm.

Alameda County Physical Activity Coalition Bay Fair Transit-Oriented Development and Access Plan Public Workshops, BART Beat 19x Neighborhood Crime Prevention Committee, Oakland Beat 20x Neighborhood Crime Prevention Committee, Oakland Beat 26x Neighborhood Crime Prevention Committee, Oakland Beat 26y Neighborhood Crime Prevention Committee, Oakland Beat 23x Neighborhood Crime Prevention Committee, Oakland Broadmoor/Farelly Pond Homeowners Association, San Leandro Brookfield/Sobrante Park Neighborhood Crime Prevention Committee, Oakland Best Manor Homeowners Association, San Leandro Car Free Day, City of Oakland Cherryland Homeowners Association, Alameda County Cherrywood Homeowners Association, San Leandro City of Oakland, Bicycle and Pedestrian Advisory Committee City of San Leandro, Citizens Advisory Committee Coliseum Business Association, Oakland Earth Expo, City of Oakland East Bay Bicycle Coalition East Bay Asian Youth Center Estudillo Estate Homeowners Association, San Leandro Foothill Homeowners Association, San Leandro Halcyon Homeowners Association, San Leandro Lion Creek Crossing Community Association, East Bay Asian Local Development Corporation New Horizon Neighborhood Association, Oakland Oakland Chamber of Commerce (OCC): Coliseum Commerce Advisory Committee San Antonio Hill Neighborhood Association, Oakland San Leandro Citizen Action Network San Leandro Transit-Oriented Development Community Meeting, City of San Leandro Sobrante Park Artists, Oakland Sobrante Park Improvement Association South of Fruitvale Artists (SoFA), Oakland SPUR Forum, San Francisco The Unity Council Volunteers of America Day Laborers Center, Oakland

#### **Local Agencies**

Local agencies along the Greenway corridor took time to meet with us several times to go over our concept and design ideas. We thank them for their time, support, and feedback throughout the design process.

Alameda County Transportation Improvement Authority East Bay Regional Park District Bay Area Rapid Transit District Alameda County Transit District Department

Alameda County Public Works Department Alameda County Department of Public Health

#### **Technical Advice**

We thank the following for taking the time to share with us information on what has worked and what has not worked for trail planning and design in the Bay Area:

Tim Chan, Planning Department, BART Commission of San Leandro Melanie Mintz, Public Works, City of El Cerrito F. Kenya Wheeler, Planning Department, BART

- Alameda County Congestion Management Agency
- Alameda County Board of Supervisors, Transportation and Land Use Committee
- City of Oakland, Community and Economic Development Agency, Department of Public Works, and Department of Parks and Recreation
- City of San Leandro, Planning Department and Engineering and Transportation
- City of Hayward, Engineering and Transportation Division

Cameron Bauer, Earthquake Safety Program Transit System Development, BART Peter Chun, Transportation Services Division, City of Oakland Rich Cunningham, Public Works Manager, City of Albany Ben Gettleman, Manager, Trail Development, Rails to Trails Conservancy Kristin Hathaway and Markley Bavinger, Watershed Program, City of Oakland Rosey Jencks, Stormwater Management and Planning, San Francisco Public Utilities

Kathleen Livermore, Planning Manager, Community Development Department, City

Jason Patton, Bicycle and Pedestrian Program Manager, City of Oakland

# East Bay Greenway **Concept Plan**



September 2008

**Prepared by:** 

**Urban Ecology** with DKS Associates and Human Impact Partners

Funded by:

State Coastal Conservancy The California Endowment The Evelyn and Walter Haas, Jr. Fund

#### **Urban Ecology Staff**

Don Neuwirth, Executive Director Phil Olmstead, Project Manager Katherine Melcher, Lead Designer Winston Dong Kali Futnani Ivis Garcia Zambrana Paul Goodwin Carrie Harvilla Andrew Hyder Hoi Ian Lei Lisa Parker Aditi Rao Kamya Ramachandran Linda Roberson Amy Tanner

Copies of this plan are available:

On-line: free download at www.urbanecology.org/greenway Black and white hard copy: \$50 plus shipping Color hard copy: \$100 plus shipping CD-ROM: \$5 shipping included

Questions, comments. and queries are welcome. Please contact us at:

Urban Ecology 582 Market Street, Ste. 1020 San Francisco, CA 94104 phone: 415-617-0161 www.urbanecology.org

#### © Urban Ecology, Inc Creative Commons Attribution-Share Alike 3.0 United States License

This plan is being released under the Creative Commons license. It may be reproduced for any purpose so long as attribution is given in full to Urban Ecology, and the resulting work is also released under a Creative Commons copyright.

Plans and Drawings are not for construction purposes.

### chapter 1

introduction

- genesis :: 2
- history :: 5
- current context :: 8
- planning process :: 13

## chapter 2

the vision :: 25

### chapter 3

design overview

- link :: 34
- edge :: 41
- seam :: 53

### chapter 4

segment design :: 58

### chapter 5

- implementation :: 141
  - stewardship :: 151
  - programming :: 155



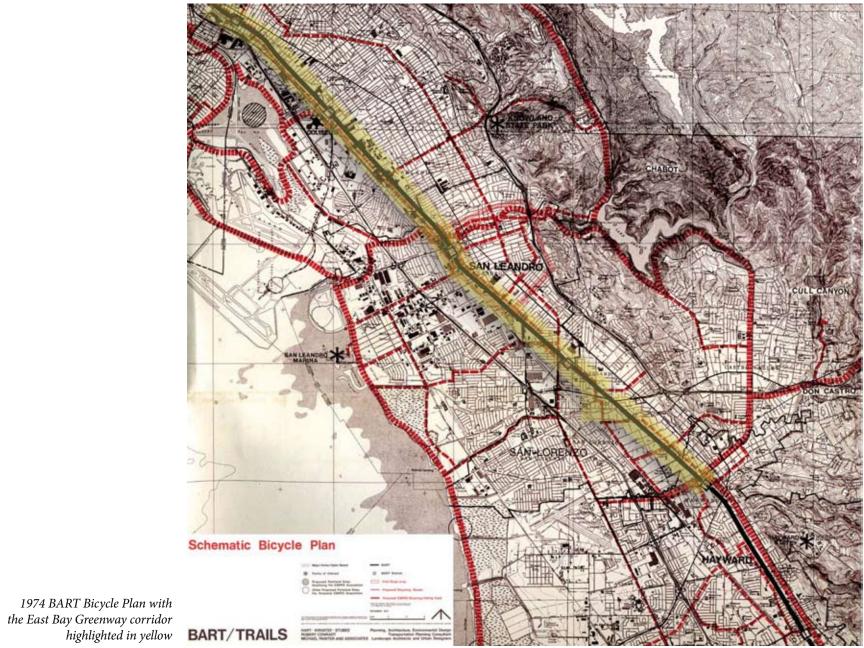
### appendix

- a. bibliography :: 160
- b. related plans :: 161
- c. surveys and results :: 163
  - d. plant list :: 165
- e. community event list :: 169
  - f. cross sections :: 171

# introduction







Picture this: mothers struggling to push strollers through gravel and garbage-strewn paths; plastic flower memorials where pedestrians have been hit crossing intersections; day laborers on bicycles navigating traffic lanes filled with container trucks; children walking to school in the street because there is no sidewalk; abandoned lots filled with car parts; and whole neighborhoods with no safe walking or biking connections to schools, parks, mass transit, or parks. These are frighteningly common scenes from daily life in the flatland communities near the elevated BART tracks running between downtown Oakland and Hayward.

When BART was conceived it was heralded as one of the greatest achievements in public transportation history. Promotional videos from the 1960s depict beautiful elevated tracks with landscaped grounds beneath the structure, allowing for free and pleasant movement from one side of the tracks to the other. The BART/Trail map from 1974 *(left)* shows plans for a bike trail along the same corridor as the one proposed in this plan. BART designs were intended to minimize the impact of these imposing tracks in the heart of our urban environment. Although these promises came true in some Bay Area communities, the real story in parts of the East Bay is far more bleak.

Today roughly twelve miles of elevated tracks run from 18<sup>th</sup> Avenue in Oakland south to Hayward, cutting through urban areas. Beneath these aerial tracks are cement pillars in muddy, rocky, and uneven ground, with fences sporadically blocking access. People try to bike underneath the tracks, creating ad hoc paths, but they can only go for a few blocks before a barrier rises up. Instead of the elevated tracks allowing for free movement between the two sides as promised, they have created a divide and a dead zone in the heart of some of our densest urban areas. (*right*)





Conditions on the Ohlone Greenway

But there is an alternative. In Berkeley, Albany, and El Cerrito, the promise of usable public space under the BART tracks has come true: the Ohlone Greenway (*left*) provides a multi-use path and a crucial link between neighborhoods and transit for many East Bay residents. It is a landscaped bike and pedestrian path that runs underneath the BART right-of-way, providing amenities and lush greenery.

The Ohlone Greenway was Urban Ecology's original inspiration and model for the East Bay Greenway. Although the cities, conditions, and resources of the two areas are very different, we believe the communities and residents along the East

Bay Greenway corridor deserve access to the same types of paths and public spaces as the citizens of Berkeley, Albany, and El Cerrito. By developing strategic design and implementation options based on community and agency input, this vision can become reality.

# the genesis of the east bay greenway





*Existing conditions along the East Bay Greenway corridor* 



genesis history current context planning process

The East Bay Greenway will transform this section of the BART corridor into an attractive bike and pedestrian path with vegetation, benches, play areas, lighting, landscaping, art work, and other services and amenities. The plan will convert the BART right-of-way underneath the elevated tracks into a public amenity that positively influences the neighborhoods it now cuts through and divides. The centerpiece of the Greenway will be a bike and pedestrian path running the length of the elevated BART tracks. The corridor will be transformed into a space that connects East Bay area residents in healthier, safer, more accessible, more vibrant, and stronger communities.



Urban Ecology starts each project getting to know the communities we work with: What are their stories and history? What are their concerns and needs? What is most important to them? And what are the major issues they are grappling with today? In this introduction, we describe what we learned about the communities along the East Bay Greenway, their history, their current concerns, and the planning context they live within.

*The development of a city, any city, is bound up directly with the ways in which people get from place to place in their daily activities.* 

- Beth Bagwell, Oakland: The Story of a City

The Greenway corridor follows the BART Fremont line, built in 1972. The BART Fremont line runs adjacent to the Union Pacific Railroad (formerly the Western Pacific) constructed in 1910. These transportation routes had a large influence on the development of the neighborhoods along the corridor. But prior to the rail lines, waterways defined the region.

The San Francisco Bay was formed 10,000 years ago when the ice age ended and water filled the valley of the Coastal Range. Fresh water from creeks in the Oakland hills and salt water from the San Francisco Bay came together in a large salt and fresh water marshland that covered much of the existing Greenway corridor.

The Jalquin, Yrgin and Tuibun Indians lived along the Fremont line for over a thousand years. Ohlone or Costanoan Indians lived in the Pacific Prairie at the base of the Coastal Range. The Ohlone's livelihoods depended on the Bay and creeks for food and transportation.

During the Ranchero Era (mid-19th century), the creeks became boundaries for land grants given by the Spanish and Mexican government. San Leandro Creek and San Lorenzo Creek defined the edges of three large land grants – Rancho San Antonio, Rancho San Leandro, and Rancho San Lorenzo.

During this period the area was sparsely populated, but the Gold Rush, starting in 1848, brought in people from all over the United States. Very few got rich from the Gold Rush, but many stayed in the area, turning to agriculture instead. Cherry, apricot, and apple orchards replaced the former ranches. Old farm houses with wooden water towers in the backyard, also called tank houses, still exist along the corridor.

After the Gold Rush and statehood, towns in the corridor were laid out, named, and incorporated; stores, factories, schools, hotels, town squares, and post offices were built. In 1869, the transcontinental railroad (Central Pacific Railroad) was built through this area. Industry related to agriculture, like canneries and food processing plants, grew up adjacent to the rail lines. From 1890 to 1940 the East Bay led the nation in canning output. During this time period, much of the San Francisco Bay was filled in to accommodate growth and industry. Although the Greenway corridor lies several miles inland from the current shoreline, it crosses the original bay shoreline.

World War II was described as a second Gold Rush for the Bay Area. Oakland and the East Bay were well positioned to be instrumental in wartime manufacturing because of the existing factories and the auto and truck manufacturing plants. The Nimitz Freeway, now called I-880, which runs south through the corridor, was built in 1952. Planning the Bay Area Rapid Transit (BART) system started in this era as a way to connect suburban areas to the urban centers.



#### genesis history current context planning process

history to low to of Aland later Contro Coster Just referents as a sea totan deel between Joseph & Houng both leaperton & Huld Aays Sunn & Poot Joseph Lugens Heatlanus bis who Hardles anders H Boung and Sunn & Husay dated august 15th 1853

MAP

CONTRA-CO

5

# early settlers and first towns pre 1800 to 1855

#### About 500 C.E.

Evidence suggests that around this time the Ohlone (Coastanoan) Indians arrive in the San Francisco Bay Area.



**1772** Spanish explorers are the first Europeans to reach San Francisco's East Bay.

#### 1797

Mission San Jose is founded, which secures Spanish control over the entire area the Greenway passes through. El Camino Real is the road that connects Mission San Jose to Missions north and south.



#### 1820

The King of Spain awards retired soldier Luis Maria Peralta a 45,000 acre land grant that includes most of present day Alameda County.

#### 1821

Peralta builds his hacienda at Paxton and 34th Avenue in what is now Oakland. It is considered the first non-Native American dwelling in Oakland.



**1821** Mexico gains independence from Spain. The East Bay becomes a part of Mexico.

#### 1842

The Mexican government grants Rancho San Leandro, the land between San Leandro and San Lorenzo Creeks, to Jose Joaquin Estudillo.

#### 1843

The Mexican government grants retired soldier Guillermo Castro 27,000 acres of flatlands, hills, and canyons named El Rancho San Lorenzo, an area now known as Hayward and Castro Valley.

1849 California is annexed for the Union. Two years later it becomes the 31st state in the United States of America.

#### 1849

Beginning of the Gold Rush. Agricultural production flourishes as unsuccessful prospectors settle in the East

Bay.



#### 1852

Oakland is incorporated by the state legislature.

#### 1852

Castro lays out the town of San Lorenzo

#### 1853

The County of Alameda is created and divided into townships. The township containing Hayward, Castro Valley, San Lorenzo, Ashland, and Cherryland is named Eden.



**1856** San Leandro becomes the County Seat of Alameda.

### industry arrives 1855-1900



#### 1865

Alameda Stockton Railroad opens from Alameda to Davis Street. Many factories are built along the railroad line.

#### 1867

Dr. Samuel Merritt donates 155 acres of dammed tidal water from the headwaters of the Indian Slough to Oakland, which forms Lake Merritt. In 1870 Lake Merritt becomes the first wildfowl refuge in North America.



**1868** An earthquake destroys the San Leandro courthouse, prompting relocation of the county seat to Oakland.

#### 1869

The Central Pacific Railroad, the first transcontinental railroad (which runs parallel to the Greenway corridor) is constructed.



#### 1873

Horse car lines are extended from downtown Oakland through the communities of Fruitvale, Melrose, and Elmhurst.



#### 1874

The Federal government dredges a channel, separating Alameda from Oakland. Oakland is opened as a deep water port.

#### 1890s

Hunt's cannery opens in Hayward.



# 1900-1950

1900 - 1910 Oakland's population more than doubles in ten years, from 66,960 to 150,000.

#### 1906

Earthquake and fire devastates much of San Francisco. 100,000 refugees settle in the East Bay.



1909

Oakland annexes Claremont, Fruitvale, Melrose, Fitchburg, and Elmhurst, increasing the area of Oakland from 22.9 square miles to 60.25 square miles.

1910 The Western Pacific Railroad (currently the Union Pacific Railroad) is built.

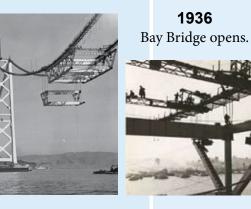
#### 1927

Port of Oakland is established, including opening of 700-acre Oakland Municipal Airport.



1928 Port of Oakland becomes an official port of entry to the United States, leading to an expansion of foriegn trade.





#### 1941

Port of Oakland is turned over to the Armed Forces for the program. To create Oakland Army and Naval Supply Bases, large-scale filling of the estuary begins. Thousands arrive from all over the country to work in factories. The population increase triggers a massive boom in housing.



1943 The Pacific Coast leads the nation in ship building and Oakland produces 35 percent of the ship output.



# 1950 to present

1952

Nimitz Freeway (I-880) is built between the bay and the Greenway corridor.

1957 Cypress Freeway opens in Oakland.



1960 Construction begins on new jet runway at the Oakland Airport.

1962 First container ship arrives at Port of Oakland.

1963

Rumford Fair Housing Act is passed by California State Legislature. The act was meant to stop housing discrimination.



1965 McAteer-Petris "Save the Bay" Act essentially stops infill of the Bay.

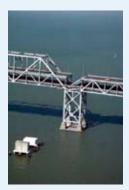
1972 Construction of the original BART system concludes.

1974 BART Transbay tube opens for operation.

1964 Construction of BART begins.

1989 Loma Prieta earthquake hits the Bay Area.





1997 Renovation of the Oakland-Alameda County Arena.



2004 Fruitvale Village opens at the Fruitvale BART Station.

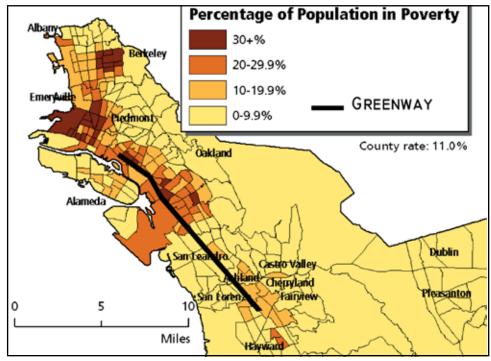
# current context

Why do we need the East Bay Greenway?

- 1. It addresses environmental and social justice issues.
- 2. It improves health through access to recreation and open space.
- 3. It provides safe, sustainable and economic transportation alternatives.
- 4. It increases community pride and public safety.
- 5. It establishes a sense of place and restores the natural environment.

Communities along the Greenway corridor are still grappling with the legacy of industrial development that spurred their growth. Looking at the demographics of the neighborhoods along the Greenway gives us a picture of some of the issues the current residents have to face every day. More positively, these statistics also provide some of the strongest arguments for the importance of a Greenway.

#### Poverty



Source: Alameda County Public Health Department, CAPE unit with data from Census 2000

#### **1. Environmental and Social Justice**

#### current conditions

Although the communities along the Greenway differ greatly, they are predominantly non-white, low income, and with high percentages of youth and seniors. These groups have a history of being overlooked and neglected, and the current conditions of their neighborhoods reflect this.

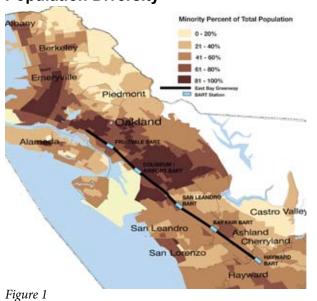
- Although Alameda County's population is 73.9% white, the communities along the East Bay Greenway corridor are predominantly Asian, African American, and Hispanic (*Figure 1*).
- Alameda County has 11.2% of its population living in poverty. The highest percentages of people living in poverty are in Oakland with 15% to 20%, followed by Hayward with 10% to 15%, and San Leandro with 7% to 10%. In 2006, Oakland had the lowest median household income in the region (under \$50,000), followed by Hayward and San Leandro (both with \$50,000 to \$60,000).
- The 2000 Census showed that throughout all Alameda County, 17% of the children under 18 were living in poverty. The map on the previous page shows how poverty is concentrated along the Greenway corridor.
- According to the 2000 Census, children under 18 accounted for 25.1% of population in Alameda County and seniors over age 65 accounted for 10.5%. Youth population is particularly dense adjacent to the Greenway corridor in Oakland, as seen in *Figure 2*.

#### benefits of a greenway

The East Bay Greenway a step in addressing some of these inequalities for the residents of the Oakland – Hayward corridor.

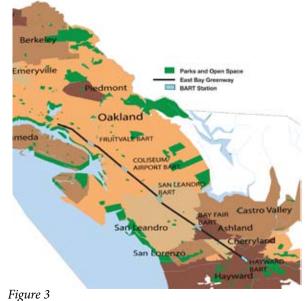
- There is a strong correlation between socio-economic status and access to parks and recreation areas. From the equity and environmental justice standpoint, it is critical to provide more park access to the underserved communities living in this area. *Figure 3* shows how large areas of open space are far from the Greenway corridor.
- Low-income people are more likely to use alternative modes of transportation. According to the Urban Land Institute, Latinos are three times more likely to use transit than non-Latinos, and African Americans are six times more likely to use transit than their white counterparts. Yet the Greenway corridor in many places lacks the most basic pedestrian facilities (sidewalks) to connect to public transit.
- Recreation areas are needed more where there is the highest percentage of youth and elderly because both of these groups have limited mobility.

#### **Population Diversity**



Age RangeImage: Age Range<

#### **Open Space and Parks**





#### genesis history current context planning process

> Parks are not distributed evenly in Alameda County. The communities near the BART tracks have far fewer parks than Oakland's average or National Standards.

Community	Acres of Parkland (per 1000 people)		
San Antonio	0.8		
Fruitvale	0.6		
Central East Oakland	0.9		
Elmhurst	2.1		
San Leandro	1.3		
Ashland	0.6		
Cherryland	0.9		
Hayward	2.0		
Oakland	5.4		
National Recreational and Park Association Standard	>6.0		

#### 2. Health, Recreation, and Open Space

#### current conditions

Communities along the Greenway are grappling with health issues of all types, from asthma to coronary heart disease.

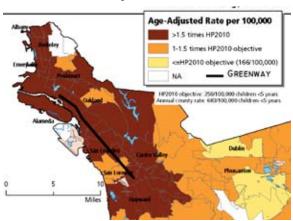
- Obesity is a growing public health concern in Alameda County with • about 18% of adults and 30.5% of children being overweight.
- The California Department of Education reported on the 2006 Fitness Test in Alameda County public schools that only 29.8% of the students in grade five, 32.9% in grade seven, and 30.2% in grade nine achieved healthy levels of fitness standards.
- There is a high incidence of diabetes and asthma in the neighborhoods along the study area (see figures below).
- The neighborhoods through which the proposed East Bay Greenway runs lack sufficient access to trails, parks, and recreational areas. While the National Recreation and Park Association recommends having more than 6 acres of parks per 1,000 people and the City of Oakland recommends at least 4 acres per 1,000 residents, the areas around the Greenway have between 0.6 (Fruitvale) and 2.1 (unincorporated Alameda County) acres per 1,000 people (Heller 2007, 12).

The Greenway will provide access to recreational opportunities in

#### benefits of a greenway

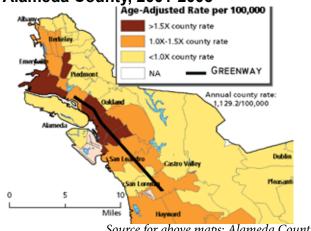
communities severely lacking in open space. Access to trails and recreational amenities has a direct correlation to the health of residents.

- 2007).
- 40%.



#### Childhood Asthma (<5yrs) Hospitalization Alameda County, 2001-2003

**Diabetes Hospitalization** Alameda County, 2001-2003

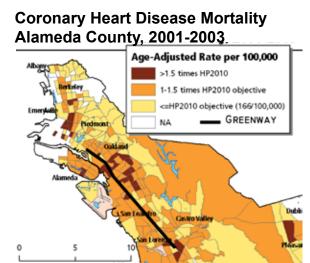


• According to the Centers for Disease Control (CDC), people who live within walking distance of recreation areas are more likely to exercise than people who live far away from them; in a recent study they concluded that increasing access to parks resulted in a 25.6% increase in the number of people who achieved the recommended levels of physical activity.

Regular moderate physical activity every day helps prevent obesity, thus reducing the risk of numerous illnesses, such as coronary artery disease type 2 diabetes, gallbladder disease, some cancers (endometrial, breast, and colon), stroke, osteoarthritis, and respiratory problems (CDC

• According to a study done by Harvard University, walking 30 minutes a day can reduce the incidence of chronic health conditions by 30% to

Moreover, exercising also plays a vital role in increasing lifespan and improving mental health and the quality of life.



Source for above maps: Alameda County Public Health Department, CAPE unit with data from Census 2000

#### 3. Safe, Sustainable, and Affordable Transportation Alternatives

#### current conditions

The BART stations along the corridor present an opportunity to provide affordable, safe, and sustainable transportation to those who need it most.

- People in Alameda County already use the space under the BART tracks for walking and biking; but they do so in unsafe and unattractive conditions where there are often no sidewalks or crosswalks (*below*).
- Traffic accident hotspots are detailed in the Greenway's Health Impact Assessment (HIA) *(far right).* Within a half-mile buffer of the proposed Greenway, there were 34 pedestrians killed, 531 pedestrians injured, 5 bicyclists killed, and 279 bicyclists injured between 1996 and 2006.
- According to the 2006 Census, 9% of Alameda County households reported not having a car, while about 33% percent reported having only one car.
- According to the 2000 Census, in Alameda County 1.2% of residents bike and 3.2% walk to work.
- Alameda County's population grew by a 0.7% from 2005 to 2006, adding 10,075 new residents in a one-year period. Moreover, the Bay Area is expected to experience the highest population growth in Alameda County, and the population is projected to increase to by 118,100 residents and 41,350 households by 2030.
- Transit-oriented developments (increasing residential and commercial development around transit centers in order to increase pedestrian access to transportation and services) are being planned and implemented at all the BART stations on the Greenway corridor (*right*). Successful transit-oriented developments depend on good pedestrian and bicycle access as well as adequate open space for recreation.

#### benefits of a greenway

The Greenway is an excellent way to create more efficient mobility and manage the transportation demands of future population growth. The Greenway will provide a safe transportation alternative to cars. And it will make getting places easier and safer for pedestrians, bicyclists, and masstransit users.

- Biking and walking trails provide mobility for people with no other transportation options and an alternative to driving for people who would otherwise use their cars. The resulting reduction in traffic congestion will decrease the incidence of motor vehicle collisions and car emissions.
- In California, the use of alternative transit development is increasing at a rate of 40% greater than the national average.
- According to the California Department of Transportation, transitoriented development (TODs) can help increase the use of transit near BART stations by 20% to 40%.



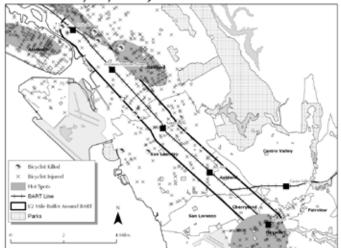
*Transit-oriented development planning and construction along the East Bay Greenway corridor* 



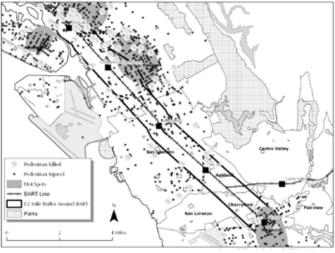
Despite lack of sidewalks, crosswalks, and other basic pedestrian facilities, people use the East Bay Greenway corridor everyday.

#### genesis history current context planning process

BART Greenway Bicyclist Injuries and Deaths



BART Greenway Pedestrian Injuries and Deaths



Source: HIA

#### 4. Public Safety

#### current conditions

Crime and public safety is a major concern for residents along the Greenway corridor. Crime mapping within Oakland shows that crime occurs more in the neighborhoods adjacent to the corridor rather than directly on the corridor.

- Oakland's police department reports the highest violent crime rate in the county with 1,421 violent crimes for every 100,000 residents, while Hayward's rate is 452 violent crimes per 100,000, and the unincorporated area covered by the Alameda County Sheriff's department reports a rate of 372 violent crimes per 100,000.
- Crime affects all the communities along the corridor. Crime reporting from the BART stations show similar levels of incidents at all stations.
- The current conditions of the area include an absence of regular patrols or maintenance, and lack of landscaping, signage, lights, and visibility; these create uninviting conditions for local residents and attractive areas for drug dealing, prostitution, and other types of crime and inappropriate activity.

#### Violent Crime in Oakland, July-August 2008



Crime locations with the Greenway corridor highlighted in green

#### benefits of a greenway

Although the Greenway cannot solve the crime problem, it can make the area safer by activating the space and adding "eyes on the street." Adding wellmaintained landscaping and lighting and encouraging a sense of community ownership of the space will also deter crime.

- 2001).

STATIONS	RAPE	ROBBERY	ASSAULT/ BATTERY	AUTO THEFT	AUTO BURGLARY
FRUITVALE	0	21	20	38	159
COLISEUM	0	31	28	181	258
SAN LEANDRO	2	13	24	120	192
BAY FAIR	3	40	39	137	113
HAYWARD	2	24	45	51	97

Source: BART police

• Land use patterns that encourage neighborhood interaction and a sense of community have been shown not only to reduce crime, but also to create a sense of community safety and security (Calhoun 2002).

A movement to prevent crime through environmental design has been shown to be successful in reducing robberies by 30% to 84%, depending on how many components of CPTED (Crime Prevention Through Environmental Design) were implemented (Casteel 2000).

• "Incivilities" (abandoned buildings, overgrown lots, graffiti, and loitering on corners, for example) leads to an increase in fear of crime and perceived crime. Some studies show that addressing incivilities leads to short-term decreases in crime. Also initial incivilities lead to some change in serious crime over a long period (Taylor 2001).

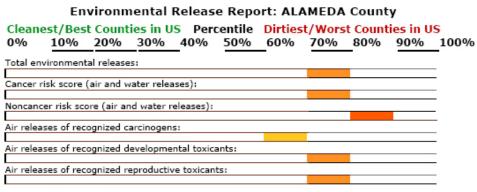
Housing developments with well-maintained landscaping have lower rates of crime than comparable housing with no landscaping (Kuo,

Crime at BART Stations, 2004-2007

#### 5. Environment, Nature, and Sense of Place

#### current conditions

Communities along the Greenway suffer not only from lack of open space but also from decades of industrial and traffic pollution. The Bay has been filled in, and creeks have been buried under concrete. The Greenway corridor today is more gray and brown than green.



Scorecard's report for ALAMEDA County

Source: www.scorecard.org

- Alameda County ranks 12th highest among the 48 counties in California regarding worst toxic chemical releases to the environment. Many of these chemical releases are carcinogens, cardiovascular/blood toxins, reproductive toxins, among others.
- The East Bay Greenway crosses seven creeks and water corridors. Most of these are in concrete channels and attract illegal dumping.
- The freeway and railroad corridor, while bringing economic opportunities to the area, have also brought air and soil pollution. Several brownfields and toxic sites are located along the corridor.
- According to the *Initial Site Assessment of the Seismic Retrofit of the BART Aerial Structures and Stations along the Concord, Richmond, Daly City and Fremont Line Project,* "A variety of industrial facilities associated with hazardous materials were identified along this segment of the Fremont Line, including business associated with the use of petroleum products, metals, solvents, PCBs, PAHs, and corrosives."

#### benefits of a greenway

The Greenway can bring nature back to the actual site, as well as the adjoining communities. Simple acts like adding trees and planting a garden can enhance community pride, stewardship, and mental health as well as improve the environment.

- Green areas help filter air pollutants that can cause respiratory problems and related illnesses, reduce air pollution, improve the general air quality and reduce the negative effects of global warming.
- TODs can help reduce the amount of greenhouse emissions that are released into the atmosphere from personal commuting by 2.5 to 3.7 tons per year, per household (California Department of Transportation 2007).
- In addition, plants can help control the climate by providing shade and reducing heat, blocking the wind, reducing soil erosion, and acting as a noise barrier.
- Green areas catch runoff and storm water, replenish aquifers, catch pollutants, and are more cost effective than building drainage systems.
- Increased vegetation dampens sound and mitigates noise pollution.

In addition to all these environmental benefits, green areas beautify and create a sense of place, contributing to neighborhood pride. Well-tended green space can also increase social cohesion and interaction between neighbors.

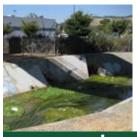
- A study in Chicago showed that people living in a housing project who had some green space near them scored higher on the ability to manage major life issues. They also procrastinated less, found their issues to be less difficult, and reported them to be less severe and long-standing than those who lived in barren surroundings (Kuo, 2001).
- Parks increase neighborly interaction and socialization. Observations of vegetated areas with trees and grass indicated that green spaces contained on average 90% more people than barren public spaces. In addition, 83% more people were involved in social activities in green spaces compared to barren spaces (Sullivan, 2004).

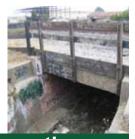


#### genesis history current context planning process









# creeks along the east bay greenway





creeks along the ohlone greenway

# planning process

Trban Ecology has been the catalyst for the East Bay Greenway, but it is community members and groups who will U ultimately make the Greenway a reality. Their input into the vision, design, implementation, and maintenance of the Greenway plays an essential role in ensuring the success of the project.

#### **Community Engagement and Workshops**

In total, Urban Ecology participated in more than 40 community meetings as part of the Greenway planning process. These meetings have engaged nearly 500 individuals in discussions about the Greenway and its impact on their communities and health.

Primarily, Urban Ecology attended meetings of existing community-based organizations. These types of organizations include homeowners associations, neighborhood associations, neighborhood crime prevention councils, youth-focused community-based organizations, community schools, artist collaboratives, and community and small-business groups.

We visited most groups twice. In the first phase of community engagement, we asked community members about the existing conditions of their neighborhood and the opportunities and constraints of a Greenway. In the second phase, we returned to these groups to discuss some of the solutions we developed based on their original input.







what we wanted to learn

#### what we found out

#### Do residents want a Greenway?

In general people embraced the concept of the Greenway and believed it would benefit their communities. The most common concerns related to safety and to the Union Pacific railroad tracks.

#### What do residents think are the main benefits of the project?

- Improvements to pedestrian/bike safety (especially where people are already using the corridor)
- New spaces for kids to play
- A reason for people to come to the neighborhood
- The potential to reduce crime
- Health opportunities free gym
- Greening the neighborhood good for nature, good for morale
- Could be linked to (or lead to) other area improvements

#### What do residents see as the main obstacles for the project?

- Dangerous railroad tracks and crossings
- Dangerous traffic and intersections
- Crime will the Greenway lead to more crime or less? People are unsure.
- Space is there enough room to play?
- Connections from the neighborhoods/access points to the corridor are there enough?
- Who will maintain it?

#### What do residents consider as essential conditions for the project?

- Security for users of the trail and for homeowners near the trail. Trail needs lighting, call boxes, good visibility. (Residents from all communities were clear that crime had to be addressed for the project to succeed.)
- Traffic safety, particularly relating to intersections, railroad crossings, and the railroad tracks.
- Access to water and bathrooms
- Good maintenance

The table to the right is a summary of comments we heard from the communities during the workshops. Neighborhood-specific comments are included in the segment design chapter (Chapter 4).





genesis

history

current context

planning process

# 

Community groups along the corridor that participated in the planning of the Greenway

introduction

genesis history current context planning process

People have been killed crossing the railroad. How can it be made safe?

(see crossing guidelines page 38)

Get police cadets-intraining to patrol the BART parking lot.

(see stewardship recommendations page 156)

Lighting is essential but will residents object to new lighting near their homes?

(see design materials page 49)



How will police get on the Greenway? Is it wide enough for cars? If not, it makes a good escape route for people fleeing the police.

(see design materials page 45)

Example of Questions, Comments, and Suggestions from the Community

Is there potential to incorporate and celebrate local history e.g. cherry trees in Cherryland?

> (see design materials page 56)

Could you work with businesses and industries along the corridor to fund maintenance of the Greenway, as Greenway users are their potential customers?

> (see maintenance recommendations page 153)

What barriers will there be between the trail and the adjacent houses? How can you guarantee the security of homes along the trail?

(see design materials page 47 and crime prevention page 54)



#### We incorporated the ideas we heard from the communities into our design and implementation recommendations. Below are some of the comments we heard and where in the Concept Plan we address those comments.

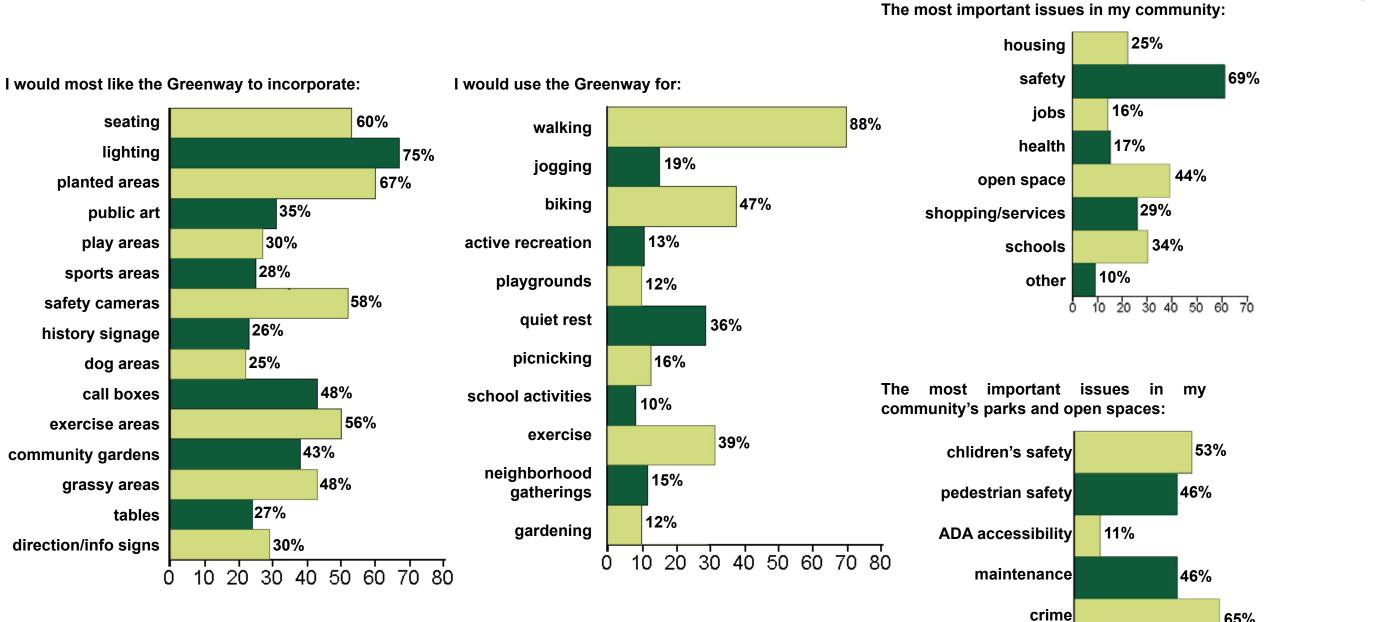






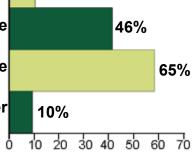
#### community survey

Over eighty people completed a survey on their use of BART, the needs of their community and their thoughts about the Greenway. See Appendix C for the full survey and results.





#### genesis history current context planning process



other

Greenway with

pedestrian and bicycle

paths & other amenities for exercise & gathering

A social

interaction

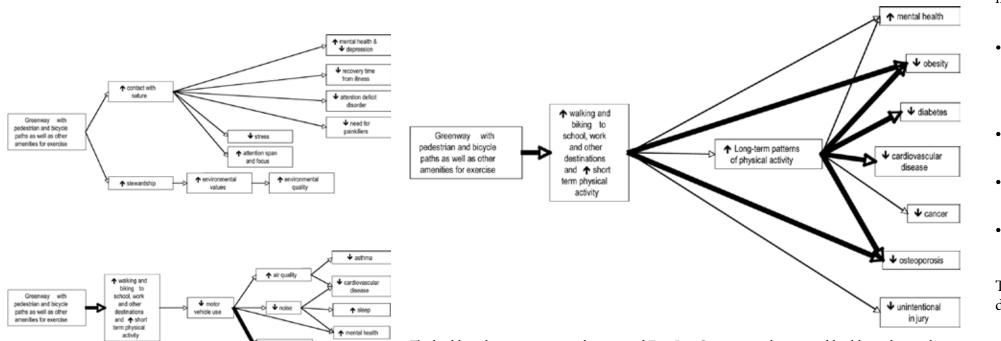
#### genesis history current context planning process

#### **The Health Impact Assessment**

A key objective of the Greenway project is to increase opportunities for physical activity in communities adjacent to the project, and in doing so to help support healthier lives. The potential positive health impacts of the project, however, go much further. In order to better understand the health opportunities presented in the Greenway, Human Impact Partners conducted a Health Impact Assessment of the Greenway project.

Increasingly, the health impacts of land use planning are explored through a process known as the Health Impact Assessment (HIA). HIA is not one single tool or procedure. It is defined by the World Health Organization (WHO) as a combination of procedures, methods, and tools by which a policy, program, or project may be judged as to its potential effects on the health of a population and the distribution of those effects within the population.

The HIA defined the potential health benefits of the Greenway. The primary benefit is increased physical activity, while secondary benefits are social connection, more natural green space, and reduced car use.



all cause mortality

↓ intentional injury

+ mental health

↑ collective efficacy

neighborhood safety

motor vehicle

unintentional

The health pathways connecting the proposed East Bay Greenway with improved health conditions that are associated with increased physical activity. Connections in bold are those best documented.

The barriers to realizing health benefits of the Greenway include:

- Safety and security concerns
- Excessive noise
- Poor air quality
- Lack of maintenance
- Inadequate access or connectivity
- Poorly-planned amenities
- Lack of programming

lengthen people's lifespan. potential barriers.

Most significantly, both the HIA and community residents are clear that if the Greenway is to benefit the health of communities, key safety issues must be addressed in the design and programming. The following measures received the most comments:

- heavy user
- and road users
- at schools and community centers

These mitigation measures have been incorporated into the Concept Plan's design and implementation recommendations.

If these barriers are addressed, the Greenway has the potential to reduce obesity and diabetes, improve mental health, reduce cardiovascular disease, reduce pedestrian and bicycle related injuries, reduce osteoporosis; and

The findings of the HIA reinforce much of what we learned through the initial community outreach process. Officials, planners, and community residents alike see in the Greenway project both positive impacts and

Efforts should be focused on intersections and other hotspots that currently have many accidents and those parts of the Greenway where vulnerable populations (e.g., children and seniors) are expected to be

The design should create proper sight lines between Greenway users

The Greenway could be patrolled and monitored by some responsible agency, such as one modeled on New York City's Urban Park Rangers

Bike groups could provide further patrols as well as bike safety lessons

#### **Existing Plans, Policies, and Projects**

The East Bay Greenway not only addresses many of the issues that the communities are facing, but it also fits with the priorities and objectives of the jurisdictions and agencies involved with the corridor. From General Plans to Bicycle Master Plans to individual site developments, the Greenway can connect with them all. See Appendix B for a list of all related plans.

#### regional agencies

#### **Metropolitan Transportation Commission**

The MTC coordinates the regional nine-county transportation network in the San Francisco Bay Area. Their projects include Transportation for Livable Communities (TLC), which supports small-scale community- and transit-oriented projects that improve neighborhood vitality.

The MTC authored a *Regional Bicycle Plan* (2001) that prioritizes bikeway facilities for the San Francisco Bay Area. The portion of Greenway from E 12<sup>th</sup> Street in Oakland to the Bay Fair BART station is identified as Project

8: BART Trail/San Leandro Street in the Proposed Regional Bikeway System. The project was estimated to cost \$5,507,700 for 6.9 miles of trail.

MTC adopted an updated *Regional Rail Plan* in 2007, which includes recommendations for the UPRR/Oakland Subdivision line that runs adjacent to much of the proposed Greenway route. The Regional Rail Plan recommends that the Oakland Subdivision be purchased by the year 2015 as a component of the strategy for the East Bay corridor. The plan proposes restoring the track connection between High Street, Oakland, and East Oakland for short -haul freight.

As a general policy, the Regional Rail Plan states, "In the event that passenger service does not appear to be viable in the near term, these corridors should be preserved for rail use in the long-term future... Some abandoned rail corridors have been preserved and converted to trails or paths. If



MTC Regional Bicycle Plan showing the Greenway corridor (highlighted in green)

a corridor is to be preserved for future rail use, it needs to be understood that development of interim uses does not preclude returning the right-of-way to an active railroad. In most cases the interim use can be retained side by side with the reinstated rail service" (p. 28).

#### Bay Area Rapid Transit (BART)

BART's *Strategic Plan* adopted in 1999 and updated in 2003, recognizes bicycle and pedestrian access to BART stations as a key strategy in increasing ridership. BART prepared a *Bicycle Access and Parking Plan* (2002) in order to encourage cycling to BART stations by coordinating with local jurisdictions to provide links between BART stations and bikeway networks. Following the primary report, station access plans have been created for each specific station detailing recommendations on how to improve pedestrian and bicycle access.

On July 14, 2005, the BART Board adopted a *Transit-Oriented Development* (*TOD*) *Policy*, which includes the goal of increasing "transit-oriented development projects on and off BART property through creative planning

and development partnerships with local communities."

#### **AC Transit**

AC Transit operates the bus system within the Greenway corridor. AC Transit supports creating transit-based communities, creating safe routes to transit, and coordinating transit services with BART. In their publication, *Designing with Transit: Making Transit Integral to East Bay Communities* (2004), they outline recommendations for improving pedestrian access to transit facilities.

AC Transit is currently implementing Bus Rapid Transit lines throughout its service area. Two routes, International Boulevard/ E 14<sup>th</sup> Street and Foothill Boulevard, run parallel to the East Bay Greenway corridor. As the Bus Rapid Transit (BRT) makes those corridors bus priority areas, it is important that a parallel corridor, like the Greenway, be designated for pedestrians and bicycle traffic.



#### genesis history current context planning process



EBRP Master Plan map with the Greenway highlighted

#### Union Pacific (Oakland Subdivision) Railway Corridor Improvement Plan

Alameda County Public Works Agency is conducting a feasibility study to evaluate alternatives for future development of the railroad corridor from Fruitvale BART Station in Oakland to the Union City BART Station in Union City.

The Greenway corridor is directly adjacent to the Union Pacific Rail Road (UPRR) corridor. The East Bay Greenway Concept Plan is a vision of what can be done with city-and BART-owned land adjacent to the UPRR land. Our vision is that the Greenway will be a short-term plan, while use of the railroad land can be viewed as a longer-term project, depending on acquisition of the UPRR Oakland Subdivision.

#### East Bay Regional Parks District

The East Bay Regional Parks District plans and manages regional park and trail facilities in Alameda and Contra Costa counties. The updated 2007 Master Plan for the Parks District "reflects the current situation and will help guide the district in the acquisition of new parklands and trails over the next ten years" (EBRPD 2007). The East Bay Greenway corridor is included in the Master Plan.

#### general plans

The cities along the Greenway have General Plans promoting visions for their communities that incorporate safe routes to transit, open space, and bicycle and pedestrian facilities. For example, the City of Oakland's General Plan Policy OS-5.2, states: "Joint Use of Rights-of-Way: Promote the development of linear parks or trails within utility or transportation corridors, including transmission line rights-of-way, abandoned railroad rights-of-way, and areas under the elevated BART tracks" (p.2-37).

#### pedestrian and bicycle master plans

The Alameda Countywide Bicycle Plan and the Countywide Pedestrian Plan establish countywide priorities for pedestrian and bicycle improvements. The Countywide Bicycle Plan places high priority on projects that are interjurisdictional and projects that connect with transit centers. The Greenway qualifies in both of these categories. The Pedestrian Plan gives three top priorities for pedestrian projects: transit access, activity centers, and interjurisdictional trails. Again, the Greenway fits into all three categories.

Each jurisdiction along the Greenway corridor (City of Oakland, City of San Leandro, Unincorporated Alameda County, and City of Hayward) has a Bicycle Master Plan. (See appendix) The East Bay Greenway is included in each of these plans. The City of San Leandro identifies the "scarcity of continuous north-south connections for neighborhoods west of Bancroft and east of the Bay Trail, such as no north-south bikeway through western San Leandro that would connect Oakland and San Lorenzo," as a key gap in its current bicycle network.

#### site developments

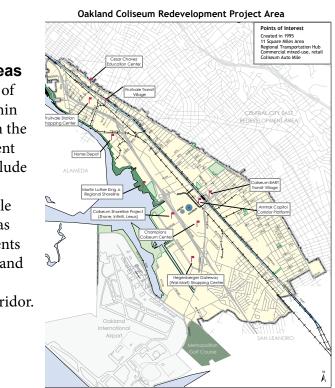
Within each jurisdiction there are planning and development projects that could complement the Greenway. These projects are explained in more detail in the segment design chapter. Some of the main development and planning efforts are discussed below.

#### Coliseum Redevelopment and Center City

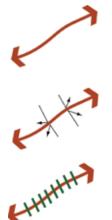
**Redevelopment Areas** Almost half the length of the Greenway falls within redevelopment areas in the City of Oakland. Current projects in the area include the Coliseum Transit Village and the Fruitvale Transit Village as well as streetscape improvements on San Leandro Street and housing developments scattered along the corridor.

#### **Transit-Oriented** Development

The City of San Leandro Map with redevelopment areas highlighted (Source: CEDA) has recently completed a plan for the development of lands around the San Leandro BART Station. BART has completed a Bay Fair TOD study for the Bay Fair Station and the adjacent shopping center. The East Bay Greenway runs through both these areas and could be a key transportation and recreation facility for both of them.



#### The East Bay Greenway Corridor: Link, Edge, and Seam



Link: a single connecting element or a unit in a transportation or communications system

Edge: a dividing line or point of transition

Seam: a line of junction formed by sewing two pieces of material along their edges or a similar line, ridge or groove formed by fitting or joining together two sections

The East Bay Greenway corridor originally developed as a link, a railroad line leading from East Bay communities to the Oakland waterfront, the terminus to the Trans-Continental Railroad. This link, a means to transport goods from one point to the next, spurred the development of industry and agriculture along the corridor — from the cotton mills of Jingletown (in Oakland) to the cherry trees of San Leandro and the Eden area.

But, eventually, the rail line became an edge as well as a link. In older communities, it became a dividing line between residential and industrial uses; in newer communities, neighborhoods grew up with their backs to the rail line. Additional rail lines and I-880 contributed to the division along this corridor, separating it from the waterfront. And even the presence of the BART elevated tracks reinforces this feeling of the corridor as an edge.

The edge is not just physical; the communities along the corridor are also "edge" communities, living with fewer resources than most, less access to transportation and open space, and more pollution and health disparities.

The East Bay Greenway is an opportunity to turn this corridor into a seam that joins the edges together again. Community members along the corridor were enthusiastic about this vision of turning a community eyesore into a community asset. Local agency policies and plans support the vision for a sustainable transportation alternative.

But, in order for the plan to be successfully implemented, it needs to address the key concerns voiced by both the residents and the local agencies.

The four main concerns that came up during our design process were:

Public Safety Pedestrian and Bicycle Safety Stewardship Land Ownership

#### **Public Safety and Crime Prevention**

Although the Greenway provides an opportunity to activate a neglected area in a positive manner that will deter crime, we recognize that the Greenway cannot completely solve the crime problem in the adjacent communities. We have incorporated "Crime Prevention through Environmental Design" strategies into the design recommendations (Chapter 3), and we provide programming and patrol recommendations in the implementation chapter (Chapter 5). Many of our crime prevention recommendations are based on lessons learned from similar urban trails such as the Ohlone Greenway and the Richmond Greenway.

#### Pedestrian and Bicycle Safety

The East Bay Greenway adjacent to streets with truck traffic and railroad tracks, so pedestrian safety is of paramount importance. Design recommendations pay particular attention to intersection improvements and how to improve pedestrian and bicycle access to the Greenway. Chapter 3 outlines our general traffic safety guidelines, while Chapter 4 describes designs for specific intersections. As the design progresses, further evaluation of these improvements will be conducted.

#### Stewardship

Every community Urban Ecology has talked to was eager to know how the Greenway will be maintained. Therefore we wanted the Greenway Concept Plan to include some solid recommendations on ways to maintain and program the Greenway. By its very nature, the inclusive community design process lays out the groundwork for stewardship in the communities and among the agencies and jurisdictions. Chapter 5, discussing implementation, lists potential funding sources for operations and maintenance as well as organizations structures to oversee the work.



#### genesis history current context planning process

In order to use the best stewardship ideas and learn from past mistakes, we studied comparable urban pathways. We discussed these trails with those who have been charged with designing and maintaining local projects, including the Ohlone Greenway, Eastshore Regional Park, Fremont UPRR Corridor Study, and the Richmond Greenway. We also looked at best practices implemented in urban trail and greenway projects, especially in other California jurisdictions and in New York City.

#### Land Ownership

Land ownership underneath the BART tracks is a combination of City or County, BART, and UPRR ownerships. In some places one agency owns all the land, in others the ownership is split by all three. Our design objective was to minimize the use of UPRR-owned land. This diverse land ownership (four jurisdictions and BART and the railroad) makes the implementation of the plan a challenge. Chapter 4: Segment Design describes the typical land ownership for each of the sixteen segments of the Greenway. The implementation section of this plan (Chapter 5) lays out the best practices, structures, options, and opportunities available to make this Greenway Concept Plan a reality.

All four of the main concerns and obstacles expressed by the communities and agencies call for a solution that integrates design, implementation, and stewardship. Design can help deter crime by opening up views, while programming can further activate a space. Traffic safety education along with well-designed intersections can lessen the number of traffic accidents. Lowmaintenance design elements can complement a well-planned maintenance strategy.

By truly integrating design with implementation and management, we believe we can solve the challenges of creating an urban greenway. Properly designed, managed, and maintained, the Greenway can become a community resource and source of community pride.

# the vision





## east bay greenway corridor and regional connections

Castro Valley

HAYWARD

Hall of Justice

r:VIT

Eden Greenway

CSU East Ba

#### Life is full of destinations. Go Green, Go Greenway.

Tired of waiting for the bus to go to work everyday? Tired of being stuck on I-880 and rising gas prices?

Riding and walking along the Greenway will be a sustainable and healthy way to see the cities of the East Bay. It will also provide people with a greener travel alternative to using cars, thus creating less pollution while they gain health benefits from exercise.

The East Bay Greenway will be a pedestrian - and cyclist-friendly path providing regional connections within the existing East Bay bicycle network. The East Bay Greenway runs parallel to the San Francisco Bay Trail and the Ridge Trail and is an urban counterpart to these two existing recreational routes. Along the entire stretch of the Greenway, local bike routes link the East Bay Greenway to the Bay and Ridge trails; cyclists and walkers can create their own loops by combining portions of each of these paths.

# the vision: a tour along the



### a tour along the east bay greenway





#### Take a Tour of the East Bay Greenway

**1. E 12<sup>th</sup> Street at 18<sup>th</sup> Avenu**e in Oakland is the gateway of the East Bay Greenway. From here the East Bay Greenway runs along E 12<sup>th</sup> Street to the southeast. Following the city's proposed bike lanes north on E 12<sup>th</sup> Street, you can connect to Downtown Oakland, the Estuary, and the Lake Merritt Waterfront. You will notice a number of auto shops dotting E 12<sup>th</sup> Street.

At 23rd Avenue, you can head west to the **2. Bay Trail** where you can fish with your family, surrounded by cool sea breezes.

Traveling west on 29<sup>th</sup> Avenue, you will come to **3. Jingletown**, historically a collection of cotton factories, where workers would "jingle" their wages in their pockets, it is now a colorful, growing, local art community. Jingletown holds monthly art events within the neighborhood where bookstores, yoga studios, and art shops thrive. More than 25 artists open their studios for the Jingletown Art Walk.

One block east of the East Bay Greenway, **4. International Boulevard** is home to many taco trucks and down-home Mexican restaurants. Feel like taking a walk to burn off those calories? No problem, International Boulevard is also scattered with historical buildings, and it's a fun way to explore historic Oakland.

**5. Fruitvale Village**, located next to the Fruitvale BART station, is a transit-oriented village that hosts a Farmer's Market on Thursdays from 2 to 7 p.m. throughout the year; Fruitvale Village has an outdoor plaza with seating, which is a nice place to enjoy a cup of coffee, churros, or homemade ice-cream. At 45<sup>th</sup> Street, **6. Vulcan Thai Café**, a popular gathering spot, welcomes you. And next to the café is a SoFA artist studio, which is worth a visit for its collection of community-produced art.

Near 54th Avenue, there is a site where you can take a rest and catch a 7. view of the Oakland hills.

The Oakland Coliseum is another place worth a stop if you are a sports fan. **8. The McAfee Oakland Stadium** has held football and baseball games throughout the year since 1966; nearby is the "Jewel Box," home of the NBA's Golden State Warriors.

If you are interested in local waterways, you can bike or walk along 66<sup>th</sup> Avenue westbound, which will lead you to **9. Damon Slough**. The slough is on the list of the Bay Area's trashiest creeks, though this 9.8 acres of wetland has begun to be restored. And to the east, the Lion Creek Crossing housing development has restored a portion of the creek than runs into the Damon Slough. From here, you can bike or take a long walk along the 1.7-mile **10. Martin Luther King Jr. Shoreline**. Soon there will be a BART to Bay Trail that will connect the Coliseum BART station with the MLK, Jr. Shoreline.

At the shoreline, you can visit Roger Berry's sculpture *Duplex Cone*, which stands inside the park at Doolittle Drive and Swan Way. The sculpture is site specific: on the winter solstice, the sun follows along the edge of the smaller cone; on the summer solstice, the sun follows along the edge of the larger cone. The shoreline can lead you to the 50-acre 11. **Arrowhead Marsh**, which is a stopover on the Pacific Flyway and is part of the Western Hemisphere Shorebird Reserve Network. The Bay Trail continues past the marsh along Airport Channel.

#### H1 Historical Sites

H1 Henshaw House H2 Brooklyn Presbyterian Church H3 Bamford House H4 Brooklyn Fire House H5 Oldender Building H6 Brooklyn Brewery H7 Old Alameda County County House and Jail H8 Old Third Avenue Library H9 St. Josephs home H10 California Cotton Mills H11 Triplex H12 Mary Help of Christians Church H13 Cohen Bray House H14 Central National Bank H15 JJ Krieg Building H16 Masonic Temple H17 UC BoatHouse



Water tower near 49<sup>th</sup> Ave





Tank house near Fruitvale Station

Water tower near 60<sup>th</sup> Ave



Water tower near 61<sup>st</sup> Ave



Following the East Bay Greenway from the Coliseum to the south, you pass through a gritty, less crowded, industrial neighborhood, which is filled with factory buildings, some of them converted into artist studios. Bargain shoppers can find used items at **12. Habitat for Humanity's ReStore** and St. Vincent De Paul's Thrift Store near 98<sup>th</sup> Avenue.

At the southern edge of Oakland 105<sup>th</sup> Avenue is **13. Stonehurst Park** (and a heritage Oak Tree across the road). In the City of San Leandro, at the junction between San Leandro Boulevard and Park Street, is Siempre Verde Park. San Leandro Creek passes through the neighborhood. You can get a close-up view of the creek in Root Park at East 14<sup>th</sup> Street and Chumalia Street.

Then you arrive at **14. Downtown San Leandro**, which is located next to the San Leandro BART Station. The downtown has a strong historic preservation effort under way; you can walk around the neighborhood on a newly implemented history walk that points out historic sites and buildings. If you want to learn more about the local history, visit the San Leandro History Museum and Art Gallery on Estudillo Avenue.

From the East Bay Greenway, you can take either Davis Street or Marina Boulevard west to the **15. Oyster Bay and Oyster Lighthouse**. It is the historic site of the former Oyster Bay Beds, the largest oyster fishery in the Americas. Continuing along Monarch Bay Drive to the west, you will come to **16. San Leandro Marina and Shoreline**, a city park and San Leandro's only city shoreline. One of the city's four water recreational facilities hosted the Cherry Festival until 2007, when it was moved to the main library.

Further south, at 139<sup>th</sup> Avenue on the east side of the Greenway, you can find the 17. Ghirardelli Chocolate Factory Store and Headquarters, where you can get delicious world-famous chocolate at discount prices.

At 143<sup>rd</sup> Avenue, there is a historic tank house, and at 147<sup>th</sup> Avenue you can take a break at **18. Halcyon Park.** 

#### H1 Historical Sites

H18 Alta Mira Club/Peralta House H19 Manuel Garcia Home H20 Best Bldg. H21 San Leandro History Museum H22 Casa Peralta H23 San Leander's Church H24 Victorian Residence H25 Blacksmith Shop H26 Daniel Best House H27 Italianate Residence



Water tower near 98th Avenue





Tankhouse near San Leandro creek



Tankhouse near Castro Street



Tankhouse near 143<sup>rd</sup> Avenue



If you bike east to Fairmont Drive, you can get to **19. Chabot Regional Park**, one of the largest regional parks in Northern California. This park offers you and you family great views, picnic areas, boat trips on the lake, a coffee shop, golf, fishing, bird viewing, camping, and sightseeing. It is also home to Chabot Dam – the first Dam built in northern California.

The next intersection along the Greenway is Hesperian Road, which connects to 20. Hayward Shoreline Park.

Next you arrive at the Bay Fair BART Station and the **21. Bay Fair Shopping Center**. The center currently contains stores such as Target, Kohl's, Bed Bath and Beyond, Old Navy, and Staples, along with a Century Theatres multiplex. It's fun to stop to shop, eat, and watch a movie as you take a break from touring the East Bay Greenway. Past Bay Fair BART is Elgin Street, a quiet residential neighborhood. Many children use these streets every day to walk to and from the schools and parks in this neighborhood.

Along Hampton Road to the east, you can find Meek Park. Standing in the park is **22. Meek Mansion**, an Italian-style villa built in 1869 by William Meek. San Lorenzo Creek flows along Hampton Road throughout the neighborhood, marking the boundary between Ashland and Cherryland.

Crossing the creek, the Cherryland neighborhood welcomes you with blooming cherry trees in the spring. The East Bay Greenway runs along Western Boulevard, which is a nice, quiet area for a bike ride.

The final destination of the East Bay Greenway is Hayward. At Sunset Boulevard you can take a rest at Sunset Park; the Hayward BART Station is located at B Street. Nearby, **23**. **Downtown Hayward** includes historical buildings, shops, a restaurant, a public library with a WPA mural, a supermarket, and a history museum. Hayward BART Station is the end of East Bay Greenway. However, this does not have to be end of your trip, you can follow local bike routes to regional destinations such as CSU East Bay, the Eden Greenway and Fremont.

#### H1 Historical Sites

H28 Holy Ghost Church/IDES Hall H29 Southern Pacific Railroad Station H30 Old Lamplighter's House H31 Winton House H32 IDES Lodge H33 Eggert Building H34 Historic City Hall H35 The Castle H36 Victorian House H37 Queen Anne Victorian House H38 Victorian House



Tankhouse in Cherryland







# design overview: link, edge, and seam

The link, edge, and seam are the organizing elements of our design. The Greenway corridor first developed as a **link**, a railroad transportation system that was later augmented by roadways and the BART line. This link created an **edge**, a dividing line between land uses and neighborhoods. The East Bay Greenway is an opportunity to turn this corridor into a **seam** that joins the edges together again. But the seam does not erase the link and the edge; it builds on their strengths to become a place in and of itself—a destination in its own right.

#### The Link: Pathway Alignment

The link gives the corridor its original significance and strength. As our economy has shifted from manufacturing to service-based, the corridor has shifted from transporting goods to transporting people. Every day, the BART line transports people throughout the Bay Area and, by connecting to Amtrak and the Oakland International Airport, to the rest of the country and world. The Greenway will add a safe bicycle and pedestrian route to this vital transportation link.

#### The Edge: Material Guidelines

The juxtapositions and transitions that characterize an edge infuse the corridor with excitement and energy, giving it "edginess." In edge communities—where artist groups and recent immigrants live, and new industries and local businesses grow—fresh opportunities for innovation arise. The edge gives the Greenway character and vibrancy, informing its overall look and style.

#### The Seam: Community Connections

Urban Ecology hopes to build on the strength and the edginess that already exists in the Greenway corridor by adding connectivity and healing. As a seam, the Greenway will attract people and activity to a space that has long been neglected. To create a seam, our design uses carefully planned access to the Greenway, community designed spaces, and environmental restoration along the corridor's length.

The Greenway is designed to meet the needs of the communities along the corridor. Some of these neighborhoods have a L high percentage of youth; others have many seniors. In general, the potential users of the Greenway are inexperienced cyclists who are not used to negotiating heavy traffic. Our goal is to make the Greenway comfortable and inviting for inexperienced and/or beginning cyclists.

So that the Greenway is attractive to novice cyclists, we aim to create a separated multi-use pathway (Class I bike path) for as much of the route as possible. Along streets with high levels of traffic where space for a separated path is inadequate, we propose Class II bike lanes. On residential streets with less traffic, we propose installing Class III Bicycle Boulevards (for *definitions of bikeway types see the next page).* 

The Greenway will provide a safe and continuous pedestrian path from 18th Avenue in Oakland to the Hayward BART station.

# the link: pathway alignment

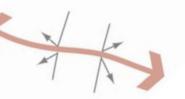




link

edge seam





#### **Bicycle Route Guidelines**

The minimum standards for the Greenway path design are based on Caltrans's Highway Design Manual "Chapter 1000: Bikeway Planning and Design (HDM)" and the Federal Highway Administration (FHWA)'s Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD).

To increase the visibility of the route and the comfort of novice cyclists, we propose the following design recommendations in addition to the federal and state standards:

- 1. Color the Greenway Class II bike lanes solid green. A solid color identifies the lanes as part of the Greenway route and, more important, makes the lane more visibile to motorists. On Class II bike lanes, paint a 6-inch bike lane marking strip that either ends or changes to a dashed line 100 to 200 feet from intersections. Use stencils with the bike lane symbol at proper intervals.
- 2. Design Greenway Class III bike routes as Bicycle Boulevards. Bicycle Boulevards are roadways where cars and cyclists share the travel lane with priority given to cyclists. Often located on residential streets with low volumes of traffic, these bike routes are designed to discourage cut-through motor vehicle traffic.

Bicycle Boulevards work well for young and inexperienced riders. Designate Bicycle Boulevards with signage and pavement markings, following the City of Berkeley's Bicycle Boulevard Design Tools and Guidelines for design standards. Additional traffic-calming measures may be needed to discourage throughvehicle traffic.

Much of the Greenway runs parallel to the existing Union Pacific Railroad (UPRR) rail line. The minimum width required for a paved multi-purpose path between UPRR tracks and BART structures is 27 feet (12-foot wide path set 15 feet from rail center line). Though much of the path exceeds this minimum, two cases — segments 11 and 14 — noted in chapter 4, would require a variance from this standard.

Note: in a 1999 survey of 61 existing rails-with-trails, the average distance between the centerline of the track and the nearest edge of the trail was 33 feet, the responses varying from 2 to 7 feet (12%) to 91 to 100 feet (10%). All of the Greenway proposed route falls within these parameters.

Bikeway types in the Greenway plan are based on the following Caltrans Highway Design Manual definitions:

#### **Class I Bikeway** (Bike Path)



Provides a completely separated right-of-way for the exclusive use of bicycles and pedestrians with crossflow by motorists minimized.



Provides a striped lane for one-way bike travel on a street or

highway.

**Class II Bikeway** 





link

edge

seam

design overview

#### distance from the railroad tracks

Provides for shared use with pedestrian or motor vehicle traffic. (HDM p. 1000-1 to 1000-2).

#### **The Greenway Crossings**

The correct design and alignment of the East Bay Greenway as it crosses roads, waterways, and railroad tracks are essential to creating a safe pedestrian and bicycle link. Greenway crossings can be classified as follows:

Grade Crossings:

- Crossing roadways at existing intersections
- Crossing roadways midblock
- Crossing railroad tracks

#### Overpasses:

- Creek and waterway overpasses
- Road overpasses

#### grade crossings: existing intersections

Where possible, the Greenway path crosses roadways at existing intersections. Pedestrians and cyclists on the Greenway can use the existing crosswalk and traffic signals at these intersections.

Striping and signage at these crossings should follow the minimum standards set by the FHWA's *Manual on Uniform Traffic Control Devices* and local jurisdictions. Pavement markings and signs should define the crossing location clearly by directing pedestrians and cyclists on the Greenway (as well as approaching motorists)... anticipate cross traffic.

Where the Greenway crosses at an existing intersection, we recommend installing high-visibility crosswalks. The typical high-visibility crosswalk consists of wide yellow or white cross stripes that cover the entire crosswalk area. The most typical high-visibility crossings are continental and ladder-type crossings.

In many jurisdictions, however, the ladder crossing implies that pedestrians have the right-of-way. If placed at intersections with a traffic light, ladder crossings may confuse motorists and pedestrians. Because pedestrians should follow traffic lights at signalized intersections, some engineers discourage the use of laddertype crossings. In these cases we recommend alternative high-visibility crosswalks such as asphalt stamped imprints or solid-painted crosswalks.

Where possible at intersection crossings, curb extensions, also known as bulbouts or pop-outs, should be installed. Curb extensions make the pedestrians and cyclists more visible to motorists and shorten the roadway crossing distance.



High-visibility asphalt-imprinted crosswalk in San Leandro



High-visibility ladder style crosswalk on the Ohlone Greenway



Curb extension (bulb-out) on the Ohlone Greenway



link edge seam

#### grade crossings: midblock

In areas where the Greenway path is more than 300 feet from an existing intersection, we recommend installing midblock crossings. On streets with a low level of traffic and only two lanes to cross, we recommend installing high-visibility crosswalks, signage, and pavement markings per the FHWA's MUTCD and local agency guidelines. Curb extensions should also be installed where feasible. Proposed non-signalized midblock crossings are located at 139<sup>th</sup> Avenue, 143<sup>rd</sup> Avenue, and Halcyon Drive in San Leandro; Lewelling Boulevard in Ashland; and B Street in Hayward.

At crossings with high levels of traffic, we recommend an on-demand crossing signal along with a high-visibility crosswalk and appropriate signage for cyclists and on-coming traffic. Where feasible, curb extensions and pedestrian refuge medians should also be installed. We propose a signalized midblock crossing on Hesperian Boulevard in San Leandro.



Midblock crossing on the Ohlone Greenway

#### grade crossings: railroad tracks

The proposed Greenway route crosses the railroad tracks where existing roadways now cross the tracks. These crossings are located at 47th Avenue, 69th Avenue, Snell Street, 105th Avenue, Thornton Street, Access road near Hudson Lane, 147th Avenue, Lewelling Boulevard, and B Street.

These crossings need to be improved with crossing signals, new railroad surfacing (rubberized material between the tracks is preferred) and an evaluation of sight distances. Pedestrian crossings should be designed to minimize pedestrian crossing time, and devices should be designed to avoid trapping pedestrians and cyclists between sets of tracks. Further guidelines for non-motorist signals and crossings are found in the FHWA's MUTCD.

In two places—south of 85th Avenue and north of 98th Avenue in Oakland—the Greenway crosses a railroad spur. These spurs appear to be inactive, but the inactivity needs to be verified before proceeding with the design.



#### Land Ownership

Land under the BART tracks is owned by a combination of city or county, BART, and UPRR. In some places one entity has ownership; in others, all three do. One design objective was to minimize the use of UPRR-owned land. However, visibility issues and obstacles in the pathway made using UPRR land highly desirable in some cases. The route that best balances concerns for visibility and safety with land ownership is called the preferred route.

Two segments require use of UPRR-owned land for the preferred route: Segment 8: 105<sup>th</sup> Avenue to Davis Street, Oakland and San Leandro Segment 11: Hudson Lane to 147<sup>th</sup> Avenue, San Leandro

Because the land ownership along the Greenway is so complex, our Concept Plan includes several alternative routes if the preferred route cannot be implemented. These alternatives are illustrated in Appendix F.

link

edge

seam



Pedestrian railroad crossings need to be accessible, with a reubberized surface or concrete slab insert.

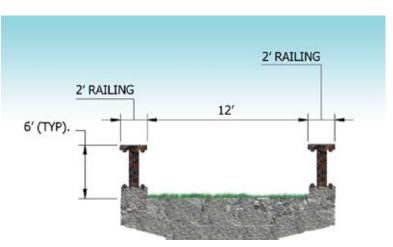


Location of Segments 8 and 11

#### overpasses

Seven streams or creeks intersect the Greenway; of these, only two, Estudillo Canal and San Lorenzo Creek, require the construction of new overpasses. Only one new road overpass at Thornally Drive, near the Bay Fair BART station—will be necessary. An existing unused railroad bridge over Washington Avenue in San Leandro can work as a a functional crossing for the Greenway.

Specific recommendations for the overpasses are listed in the Chapter 4. In general, proposed bridge structures will have a minimum width of 12 feet between railings, and bridge railings will have a minimum height of 6 feet. Bridge structures constructed adjacent to existing UPRR bridge crossings will have a minimum 2-foot clearance.



*Typical overpass design dimensions* 



Bike crossing Estudillo Canal near Bay Fair Station

#### **Traffic Impact of the Greenway**

A preliminary traffic analysis was conducted on the impact of the preferred Greenway route on existing traffic flow. In general, the proposed changes make only a minor impact on traffic delays. But several of the streets studied are projected to fail for 2030 traffic volumes, both with or without the Greenway project. By changing the signal timing plan for 2030 traffic volumes, performance of these intersections can be improved.

As more detailed levels of the design are developed, additional safety evaluations of the Greenway based on design speed, horizontal and vertical alignment, grade levels, and sight distances need to be conducted.



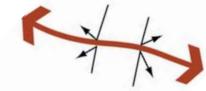
link edge seam



The East Bay Greenway runs through different cities, distinct neighborhoods, diverse land uses, and L unique communities. The style of the Greenway should reflect the identity and the history of each place it passes through, and yet maintain a unified identity of its own.

The urban environment along the Greenway corridor grew up within the natural ecology of the area, and in many places paved over and erased it. The contrast between the harsh, urban, industrial environment and the soft, evanescent, ecological setting creates a juxtaposition that is strong and intriguing. This urban + ecology edge is the framework within which the different neighborhoods and communities can express their own character.

# the edge: material guidelines

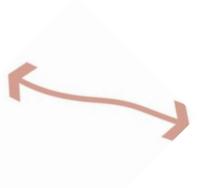






link

seam



# urban

Urban is the railroad, the factories, the roadways and the BART structure, the warehouses and water towers.

Urban is strong, durable, vandal-resistant, functional, and low maintenance.

Urban form is simple and minimal with clean, straight lines.

Urban colors are rust brown, gray, metallic, brick red.

Urban materials are concrete, steel, wood, brick, aluminum.





# ecology

Ecology is the San Francisco Bay and the creeks that drain into the Bay, former marshlands and native plants, the sky and horizon, and birds travelling on the Pacific flyway.

Ecology is flexible and adaptable, using renewable resources and recycling old materials, healthy and alive.

Ecological form is soft and detailed, naturalistic, finely textured.

Ecological colors are all shades of green, gold, and blue.

Ecological materials are plants, wood, soil, stone, and rock.

# urban + ecology

The combination of urban + ecology creates strong, durable materials that last in a harsh environment but at the same time flexible, healthy and green, soft and beautiful. These are the principles we used to develop the following recommendations for paving, wayfinding, fencing, site furnishings, plant materials, and storm water management. These are a preliminary vision for the character of the Greenway. Final selection of materials will be determined by local jurisdictions and community members.

Attention to comfort, convenience, and aesthetics guide the material section of this plan. People using the Greenway should be able to walk and ride along the corridor with ease, and to sit and relax at community hubs while enjoying public art and historic signage. They should feel safe at night walking or riding along a well-lit, clearly marked path that is beautifully landscaped.



#### Paving

The paving types described below—all of which meet Americans with Disabilities Act standards—were selected because of their durability and installation and maintenance requirements.

#### class I bike path paving

- 1. Asphalt is the preferred paving material for bicycle and multi-use paths. Concrete or other paving types may be used for pedestrian paths and bridges or overpasses.
- 2. Rubberized asphalt is a good alternative to standard asphalt where there is a Class I separated bike lane or a shareduse path. It has greater capacity to absorb shock and shock attenuation to the legs, knees, feet, and lower back than standard asphalt. The greater initial investment in rubberized asphalt is offset by the longevity of the material and the increased safety and comfort for Greenway users.
- 3. Where the path is not adjacent to a roadway, the path should be wide enough to allow for emergency and maintenance vehicle access. Removable bollards (with standard paving striping and reflective markers) should be located at intersections to discourage use by non-authorized vehicles. Additionally, the pavement base should be engineered to withstand vehicle use.
- 4. "Soft" shoulders of gravel or decomposed granite with a 2-foot minimum width should be incorporated where space allows.

#### class II and III bike route paving

- 1. The paving material will not be altered from the asphalt on the road in Class II or III bike lanes. Potholes and cracks will be filled.
- 2. As stated in the Link section, Class II bike lanes will be painted solid green, while Class III bike routes will have the Bicycle Boulevard markings based on the City of Berkeley's Bicycle Boulevard Design Guidelines.

#### other paving

Small seating areas, places to stop for directions or information, and other community amenities will be located at logical points along the route. These areas may be paved with permeable materials such as interlocking pavers, permeable concrete, or decomposed granite.



Examples of paving options



Bollards and paving define this small seating space



*Removable bollards with striping* and reflective markers stops vehicles from driving on the Greenway.



wide soft shoulders are shown in this simulation of the Greenway at 81<sup>st</sup> Avenue in Oakland





Rubberized asphalt, a Class I bikeway, BART column signage, and 2-foot

design overview



The logo for the East Bay Greenway could be stamped in the Class 1 bike routes along the entire route in quarter-mile intervals.

To the right is a map of the Greenway that could be printed on sleeves to wrap around the BART columns. This map would assist people in planning their trips on the Greenway and also give identity to the route.

14th avenue		FRUITVALE
23RD AVENUE		(SAMERIND)
		(TOLISTIC)
FRUITVALE AVENUE	<b>6</b>	COLISEUM OAKLAND AIRPORT
35th avenue		
HIGH STREET		
SEMINARY AVENUE		
73rd Avenue		SAN LEANDRO
HEGENBERGER AVENUE		
98th avenue		
		SAN LEAMDRO BAY FAIR
DAVIS ESTUDILLO		
	6	HAYWARD
WASHINGTON		
HALYCON		
		HAYWARD
HESPERIAN	The second s	10

## Wayfinding Signage

A comprehensive wayfinding system will be developed to help people navigate the Greenway and easily find other pathways and nearby places of interest.

- top of paths on the Greenway route.
- places of historical or ecological interest.

1. The main form of signage will be maps on the BART columns at intersections and places where people enter the Greenway. The columns, large enough to be seen from a distance, will be painted with maps of the route. The maps will create a strong visual statement, identify the Greenway route, and reduce the clutter of independent signage, as well as provide directional information.

2. Where the Greenway route is not underneath BART tracks, free-standing signs will identify the Greenway and provide directional information.

3. A uniform signage system is important for the Greenway. Often different agencies have different route numbering and signage systems. As much as possible, all signs should be combined into one BART column or one freestanding sign to reduce clutter and confusion.

4. An asphalt imprint of the Greenway logo should be placed where the Class I pathway meets an existing road. These symbols will establish continuity, providing a consistent marking system and identity for the Greenway.

5. Along the path, <sup>1</sup>/<sub>4</sub>-mile markers will be inset into the pathway and painted on

6. Larger asphalt imprints can be used along the length of the path, or in specific areas that invite people to slow down, such as community hubs with benches or

## Fencing

#### along railroad tracks

 The Greenway runs next to the Union Pacific rail lines through much of the route. Even though many of these lines are inactive or seldom used, fencing must be placed between the rail tracks and the Greenway at all locations.



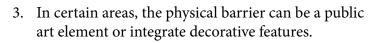
- 2. The height of the fencing will be determined by the Pubic Utility Commission (PUC) and UPRR standards. The existing chain-link fences between the railroad and BART tracks are 6 feet high.
- 3. Fences shall be black vinyl-coated chain link or welded wire mesh. In more visible areas with more activity, steel picket fences or more decorative fences may be used.

#### in community hubs

- 1. In areas with a high levels of activity, the fencing can be decorative, made of recycled local material and assembled by local artists.
- 2. Low fencing (42 inches or lower) will be used to delineate boundaries of children's play areas, community gardens, ecological restoration sites, and other community amenities. Low fences can be of recycled wood or metal and can incorporate art panels.
- 3. An ecological option for low fences is a "living fence" (right) made of willow trees. Willow fences, which must be kept under 42-inches tall and require a regular maintenance plan. In general, low shrubs and plantings may be used instead of fencing to delineate boundaries.

#### as a road buffer - barrier rail

- 1. In areas where the Class I bike path/multi-use path is less than 5 feet from a road edge, Caltrans requires a physical barrier between the path and the road.
- 2. The physical barrier should be a 42-inch tall guardrail of post and beam construction. It should be made of metal (cor-ten steel, aluminum, steel) and wood, including recycled materials when possible. The form should be simple and unobtrusive.



4. In some areas where a barrier rail is not required by Caltrans but parking under the BART structure has become a problem (near the Coliseum BART Station, for example), we recommend incorporating a barrier rail into the planted buffer zone.



#### property edges

Most properties along the edge of the Greenway are already fenced. Fencing along property edges needs to balance personal privacy with concerns for the Greenway's visibility.

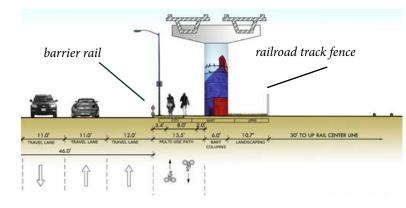
- 1. Behind residences
  - New privacy fencing is not needed for most of the route because fencing has already been installed to screen the railroad right-of-way.
  - Residents may, however, feel that increased use of the corridor will require new fencing. We recommend creating a program that supports individual homeowners in upgrading their fencing when the Greenway is constructed.
  - Fencing type will be determined by the homeowners, but we recommend that fencing behind residences be solid to protect the home owners' privacy.
- 2. Between the Greenway and commercial/industrial uses and parking lots
  - Encourage adjacent commercial/industrial properties to use fences with 5% to 20% opacity to improve views into the Greenway area, especially on parking lot edges.
  - Work with the design of new developments so they open up to the Greenway and provide pedestrian access to the Greenway route.











According to the authors of *Safescape* (Zelinka and Brennan 2001), while fences are important boundary markers, seeing and being seen can enhance public safety. A solid brick wall with 100% opacity obscures an area, whereas a chain-link fence, which has a 5% to 20% level of opacity, can provide visibility and thus contribute to public safety. edge

seam

#### **Site Furnishings**

Site furnishings-practical amenities such as benches, bike racks, and trash cansare fundamental to the comfort and convenience of Greenway users.

In general, the form, color, and style of site furnishings should reflect the urban industrial feel of the area, while the material choices should reflect ecological principles (recycled, reused, renewable resources).

#### bike racks and stations

Bike racks should be concentrated in and near the BART stations along the Greenway and placed near community destinations: parks, schools, and retail centers. Bike racks should be located in well-lit areas with high visibility where they do not block pedestrian and bicycle traffic flow.

See the Topic Box to the right for more details about Bike Stations and existing bike parking capacity at BART stations.

Bike rack style will be determined by the local jurisdiction, property owners, and the East Bay Bicycle Coalition. Bicycle racks should allow for locking of both frame and wheels.



#### benches

Seating is important along a path shared by community members of all ages. In order to make the Greenway family friendly, benches need to be accessible and placed in locations with enough light and visibility to discourage misuse.

Benches can be clustered in community hub areas and evenly dispersed along the path. In places where Greenway users need a moment to rest, smaller, single-user benches are most appropriate. In places where Greenway users may spend more time, such as community hubs or pocket parks, the benches will be larger with back and arm rests.



#### litter receptacles

An adequate number of litter receptacles spaced out evenly along the Greenway will help the path stay litter free. They will supplement the city and county trash cans already placed along the route. Areas of high use, like community hubs, need at least one litter receptacle.

A uniform style will be used throughout the Greenway. Litter receptacles should have a separate recycling bin on the top. Litter receptacles with planters on top can add greening at community hubs.

The Fruitvale BART station has a much larger capacity for bike parking than do other BART stations along the Greenway (see the table) because of the Bike Station operated by Alameda Bicycle with the support of BART, CalTrans, the RUITVALE BIKE STAT Unity Council, the City of Oakland, and Alameda County Congestion Management Agency. Over 200 bikes are stored on weekdays during extended business hours in a safe enclosure. This free public service encourages people to bike to the BART station. Bicycle repair and tune-up services are available on request.

People are generally more willing to bike to the BART station if they have a safe place to park their bikes. Urban Ecology recommends that the Fruitvale Station model be used in other BART stations along the Greenway.

#### **Existing Bicycle Parking Spaces at BART** stations along the Greenway

BART station	Total	
Hayward	90	
Bayfair	58	
San Leandro	140	
Coliseum	65	
Fruitvale	332	

Figures from BART Fall 2006 Parking, Access and Occupancy Summary Survey





Racks	Lockers	Station
70	20	0
42	16	0
84	56	0
63	2	0
56	40	236

## Lighting

Lighting along the corridor is vital to safety. The issue of adequate lighting was brought up in every community meeting Urban Ecology attended. Seventy-five percent of those surveyed about the Greenway listed lighting as an amenity they would like to see incorporated into the design.

#### inset lighting

Most of the lighting fixtures will be inset into the elevated BART structure between columns. This inset lighting provides almost full illumination under the BART columns, yet it does not produce spillover glare into adjacent homes and businesses. It is also vandal-resistant.



Inset lighting on the Ohlone Greenway



Accent lighting can add interest and improve safety

#### street lights

In areas where the Greenway is not near the BART tracks, solar-powered, pedestrianscaled lights approximately 12 feet to 15 feet high should be used. This lighting can be attached to existing street lights.

Pedestrian lights should match the style, form, and color of the existing street lights and be durable and vandal-resistant.

#### accent lighting

Accent lighting will be used for public art pieces, special architectural features, interpretive signage, and the wayfinding signs on the BART columns wherever possible.

Accent lighting needs to be durable and vandal-resistant.

All lighting will meet the standards set by the Illuminating Engineering Society

of North America (IESNA) and jurisdictional requirements.





Solar-powered lighting

Pedestrian scale lamps

The lighting design that Urban Ecology recommends for the Greenway is based on lessons learned from the Ohlone Greenway, a linear multi-use path under the BART tracks in North Albany and El Cerrito. In 1999, after years of dealing with routinely vandalized globe lighting, the City of El Cerrito installed

intermediary lighting between the BART columns beneath the cat walk (One light between each pair of columns). Albany is following the example. Α standard parking garage light that has no light spillover into residential areas has proven to be an excellent choice. The energy-efficient 100kWh bulbs take about 10 minutes to reach full illumination after being turned on.



Ohlone Greenway

In a discussion with Urban Ecology staff in 2007, the Public Works Manager of the City of Albany, Rich Cunningham, stressed the importance of vandalresistant lighting. The lights inset into the elevated BART structure provided the best option. Mr. Cunningham strongly recommended against ground-level lighting because it is often vandalized. Ground-level accent lights will be used sparingly where pedestrian activity is high.

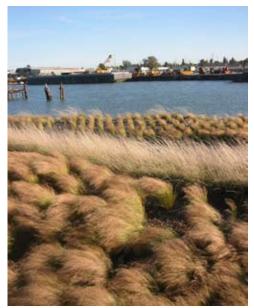




Amply-spaced plantings with mulch allows for visibility through the site



Detailed arrangements in highly-visible areas



**Plant Materials** 

Plants for the Greenway were selected to be urban (able to survive in harsh, oftenpolluted urban environments) and ecological (California natives and droughttolerant species). The plant palette (see Appendix D) consists predominantly of California native species, with the addition of some Mediterranean-type plants. The benefits of using these plant species include low maintenance and water needs, fewer pest and disease problems, and the potential to provide food and habitat for birds and butterflies.

#### planting design recommendations

- 1. Along the corridor, planting design should be simple with ample spacing between plants to allow for mature growth. Mulching around plants will retain soil moisture and deter weed growth.
- 2. Areas of high visibility and high activity should have plants with colorful flowers and/or foliage and more detailed planting arrangements.
- 3. Include plants that flower at different times of the year to foster an awareness and appreciation of seasonal natural beauty.
- 4. The plant palette should emphasize tough, durable plants that can thrive in an urban setting with minimal maintenance, water-use, and care. The plants selected should tolerate pollutants and, in some cases, remove pollutants from the air and soil.
- 5. Plants should be kept under 3 feet tall, and tree and shrub branches trimmed to 8 feet or higher, to allow for views throughout the corridor and to minimize hiding spaces.
- 6. Include plants like cherry and apricot trees that have historical significance for the corridor.
- 7. Minimize lawn areas. Lawn is appropriate in larger, high-use spaces (for example, playing ball and picnicking), but it is not recommended for narrow planting areas where people will not be walking.
- 8. When used, lawn should be a low-water variety intended for areas that are difficult to mow or water often. These areas should be large enough to be power mowed for easy maintenance.
- 9. Encourage the creation and adoption of community gardens within the Greenway by local community organizations, botanical associations, and school groups throughout the corridor.

- 10. The landscape design should use the
- 11. Using the Bay-Friendly Model Landscape
- 12. Planting underneath the BART tracks staff.

Bay-Friendly Landscaping staff work with the Alameda County Waste Management Authority's 17 member agencies to help make informed decisions about sustainable landscaping in their communities Many tools and resources have been developed that will benefit elected officials and public agency staff including planners, capital project managers, landscape architects, engineers, and landscape maintenance workers.

that:

- Provide a sense of place and are suited to local climate, soils, and topography

- •
- Reduce greenhouse gas emissions

Bay-Friendly's services include free technical assistance and landscape grants for civic landscapes in Alameda County. These services are designed to assist local and regional governments in Alameda County to incorporate bay-friendly practices and materials into public landscapes.

Native grasses

best practices promoted by the Bay-Friendly Gardening. The Bay-Friendly Landscaping Plan Review & Scorecard tool should be used to evaluate the plan. The landscape plan should incorporate all the "Required" practices as indicated in the Plan Review and score 60 points on the Scorecard (see box below for web address).

Maintenance Specifications as guidelines, develop a maintenance plan in conjunction with the landscape construction plan.

is subject to review by BART operations



Native and drought -tolerant species



Cherry trees reflect local history

#### **Bay-Friendly Gardening and Landscape Maintenance**

For public agencies, Bay-Friendly means that civic landscapes can model practices

- Reduce waste and help meet recycling goals
- Reduce water use on landscapes by 50% or more
- Prevent or reduce storm water pollution to local creeks and bay
- Lower maintenance associated with mowing and shearing

Source: http://www.stopwaste.org/

### **Storm Water Management**

Proper treatment of storm water falling on the site and channeled onto the site from the BART tracks can:

- Remove pollutants from water as it filters through soil and plants
- Increase public awareness of the hydrological cycle
- Provide water for plants while reducing flooding and stagnant water puddles
- Protect and recharge existing groundwater systems and creeks

Current conditions underneath the site demonstrate a need for new and better storm water management design. During seasonal storms, water collects in puddles between the BART line and the railroad. In addition to appearing unsightly, these puddles are potential breeding grounds for mosquitoes. Water runoff from the BART tracks contributes to the erosion of the concrete curbs in certain areas. The current drainage system could be less urban and more ecological – making use of rain to water plants and slowing the flow of water to reduce erosion.

There are two basic types of storm water systems – self-contained and under-drained. Self-contained systems can drain all the water on a site into the ground within two hours. Vegetated drainage swales and infiltration basins are examples of self-contained systems. Under-drained systems have drain pipes beneath the surface to drain excess water that the soil cannot absorb within the two-hour time frame.

Based on the infiltration rates of the soils on site and the average width of the Greenway, opportunities for self-contained systems are limited. Following is a description of the limited use of self-contained drainage systems.

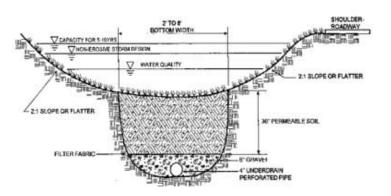


Diagram of a vegetated swale with an underdrain system

#### vegetated drainage swales

The ideal storm water management solution would be to create a vegetated

drainage swale adjacent to the Greenway path. A vegetated drainage swale would slow water run off, filter pollutants, and increase the infiltration of water into the ground (and decrease the amount in the storm drain).

Structural considerations, however, render vegetative swales infeasible in many Greenway areas. The swales must be placed at least 10 feet from BART column foundations, and be a minimum of 12 feet wide. In most places the proposed Greenway is not wide enough to accommodate a vegetated swale. One exception is the median along E  $12^{\text{th}}$  Street in Oakland.

#### Vegetated Swale Recommendations:

Install demonstration gardens in E 12<sup>th</sup> Street medians along with public art and interpretive signage that explains the purpose of the swales. Involve local school groups in the project.

If additional easements (10-foot minimum) of the current Union Pacific Railroad land between BART and the railroad are obtained, the vegetated drainage swale would be the best storm water management practice for draining both the site and the elevated BART tracks.





Puddles between BART and UPRR in Oakland



Vegetated swale example at Lake Merced





A simulation of a vegetated swale in Oakland under the BART columns using upper easements

#### infiltration basins



An infiltration basin at Lake Merced

Since there is not enough space for a vegetated swale along the columns, a second option would be to provide an infiltration basin between columns.

However, the infiltration rates of the soil along much of the Greenway are low. In many cases, the space between the columns cannot handle infiltration of all the water from a typical storm.

The best infiltration rates are in the following areas (based on U.S. Department of Agriculture/ National Resources Conservation Agency Web Soil Survey):

- Oakland between 99<sup>th</sup> Avenue and 105<sup>th</sup> Avenue.
- San Leandro between Davis Street and Hudson Lane
- Ashland and Cherryland between Lewelling Boulevard and Willow Avenue

On-site testing would need to be done in these areas to determine the seasonal high-ground water level. Ideally, the infiltration rate should be between 0.5 and 2.4 inches per hour. Initial research indicates that the infiltration rate for the above areas is only 0.27 inches per hour, enough to infiltrate only about 65% of the annual area.

Although this evidence suggests that infiltration basins are not the solution for the entire Greenway or for full storm events, installing several basins has some advantages. First, treating even small amounts of

runoff is valuable to the environment. Additionally, if combined with a rain garden, an infiltration basin could serve as a model demonstration garden used by cities or other agencies.

#### **Infiltration Basin Recommendations:**

Install a demonstration infiltration rain garden. Because of its soil infiltration rates and proximity to downtown, the highly visible pocket park near San Leandro Station would be the best site.

#### rain gardens and surface water treatment

Constructing an underdrain rain garden system throughout the Greenway is cost prohibitive. But any treatment that slows the flow of water and filters the water through plant materials benefits the storm system.

Rain gardens offer an alternative to the concrete pads now in use under the BART downspouts. A rain garden is a shallow,

constructed depression planted with deep-rooted native plants and grasses. Rain gardens slow the rush of water from down spouts, briefly holding the water before allowing it to naturally infiltrate into the ground.

#### Surface Treatment Recommendations:

At a minimum, we recommend that splash rocks and a planted swale be installed beneath the BART downspouts. The splash rocks will slow the water draining down from the BART tracks; the planted swale will filter the water and allow it to infiltrate into the ground.

Although this treatment will not infiltrate all rainfall, it will impede the flow of water, allow for some infiltration, remove some pollutants and particles, reduce erosion and puddling and create an attractive landscape. It will also make the hydrologic cycle visible for environmental education purposes.





HYDROLOGIC SOIL GROUPS A & B ONLY,

10' MIN DEPTH FROM BOTTOM OF BASIN

TO SEASONAL HIGH GROUNDWATER

OVERFLOW DRAIN INLET 6" BELOW TOP OF BASIN,

LOW-MAINTENANCE CALIFORNIA NATIVE PLANTS THAT CAN

TOLERATE INTERMITTENT STANDING WATER IN WINTER AND

9" ABOVE BOTTOM OF BASIN

SIDE SLOPE

PROLONGED DROUGHT IN SUMMER

MIN PLANTING MEDIUM DEPT

OVERFLOW DRAIN AND UNDERDRAIN TO STORM DRAIN SYSTEM

12.0'

GREENWAY

18.0

INFILTRATION BASIN

the Greenway between the BART columns.

**D** evond getting people from one place to the next, the Greenway also has the potential to bring people together. As a Beam, the Greenway will attract people and activity to a space that has until now been neglected. Our hope is that the Greenway will bring people together to begin to heal past injustices and repair the fragile environment.

We propose to turn the Greenway into a seam by applying four main design principles:

- 1. Design to address people's concerns about crime and safety.
- 2. Focus on the roads that connect to the Greenway, and make crossings—both road and railroad—less daunting. For the Greenway to become a community space, people must be able to get to it easily. Traffic calming and improved pedestrian crossings will connect people to the Greenway.
- 3. Identify opportunities for community-based public places. Design these spaces to respond to the needs of the community members, especially those near the corridor. Involve community groups—homeowners, school groups, artist collectives—in the design and programming of the places. Specific community openspace opportunities are identified and explained in Chapter 4.
- 4. Enhance the visibility of the social and environmental conditions that tie the neighborhoods together: the history of the area, the cultures of its residents, and the geography of the creeks and watersheds that cross the corridor. Use public art to tell some of these stories along the corridor. See the following recommendations for public art, interpretive signage, and creeks and waterways. Public art opportunities and points of interest are labeled on the site maps in Chapter 4.

# the seam: community connections

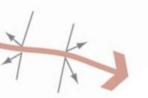




link

edge seam





# design overview



Solar powered call box on the Ohlone Greenway

## **Crime and Safety**

The best way to ensure safety is to activate the space with people who will provide "eyes on the Greenway." Including program elements such as play areas, exercise equipment, and community gardens that relate specifically to the community's preferences will encourage more use of the Greenway. In this way programming and design go hand-in-hand.

#### Other design principles to make the Greenway safe include:

- 1. Keeping vegetation low and discouraging any elements that would block views through the site.
- 2. Making the place attractive and well cared for. Well maintained places are less likely to attract crime and vandalism than neglected, abandoned places.
- 3. Designing a path that can be accessed by emergency vehicles.
- 4. Using durable and vandal-resistant materials.
- 5. Installing evenly spaced solar-powered call boxes along the route.
- 6. Considering adding security cameras in areas not visible from adjacent streets.





*Community places like playgrounds (left) and farmer's markets (right) will draw people to the Greeway,* activate the space, and deter crime

#### Access to the Greenway

Several areas along the Greenway have busy streets that pedestrians are hesitant to cross. Traffic calming measures can help make pedestrians and cyclists more comfortable crossing these streets to get to the Greenway.

#### Traffic calming recommendations include:

- truck traffic).
- street.

#### In general, pedestrian-crossing improvement recommendations include:

- 1. Installing high-visibility crosswalks.
- 2. Adding curb extensions to narrow the length of crossings.
- 3. Installing pedestrian count-down signals where warranted.
- 4. Removing free right-turn lanes where possible.
- 6. Making sure crossings are well lit at night.



Traffic-calming measures like street trees and medians can completely change the feel of a street

• Narrowing traffic lanes that are extra wide (12-feet wide is adequate for

• Adding street trees and planted buffer zones between the sidewalk and the

- 5. Adding a median pedestrian refuge area in multi-lane streets.



High visibility crosswalk in San Leandro

## **Creeks and Waterways**

The creeks and waterways that intersect the Greenway are existing seams that can be highlighted to tie the corridor back together. Along its twelve miles, the Greenway crosses approximately nine creeks and channels.

#### **Recommendations:**

- 1. In general, use interpretative signage, vertical elements, and public art to make the stream crossings more visible to pedestrians, cyclists, and motorists on nearby roads.
- 2. For waterways that are culverted and underground where they intersect the Greenway (Sausal Creek near 30<sup>th</sup> Avenue, Peralta Creek near 34<sup>th</sup> Avenue, Lion Creek near 69<sup>th</sup> Avenue), use pavement markings and watershed maps to designate the creek locations.
- 3. For creeks that are underground but briefly exposed next to the Greenway (Courtland Creek near 47<sup>th</sup> Avenue, Arroyo Viejo near Hegenberger Road, and an unnamed channel near 81<sup>st</sup> Avenue), clean up the creek, use signage to discourage dumping, install plants around the creek edges, and install interpretive signs.
- 4. For creeks that are exposed but in concrete-lined channels (San Leandro Creek, Estudillo Canal, San Lorenzo Creek), clean up the creek, plant the edges with native plants, and consider mural art in the concrete channel to discourage graffiti.

In the long term, encourage the establishment of trail systems along the creeks connecting the Greenway to the San Francisco Bay. Damon Slough and San Leandro Creek already have trails along portions of their corridors.





## link edge seam



*Pavement design indicates* where creeks are underground



*Interpretive signage informs people about the watershed. In the long term, trails along* creek edges can connect to the Greenway

55

design overview edge seam

ink



Artwork that interacts with the existing environment makes people more aware of their surroundings.



Symbols, like this heart in San Francisco, placed around the city incorporate art *into everyday places.* 



Installing art pieces on one theme throughout the site (like this exhibit of "urban trees" in San Diego) draws people through a site.

## **Public Art**

Public art makes a place's stories and history visible to visitors and residents alike. Properly designed and executed, public art can make a place unique and special. By including the community in the creation of art, art can also bring people together and provide a space for everyone's voices to be heard.

#### **Recommendations:**

- 1. Create a public art competition focusing on the design of one Greenway element-benches or bike racks, for example. Install the artwork at points throughout the Greenway to encourage visitors to travel the length of the project to each art installation.
- 2. Engage local artists to plan and participate in an art competition aimed at reusing found materials that tell stories about the neighborhood. A uniform theme or art concept for the Greenway should be decided by those who live and work there.
- 3. Involve local school children in producing semi-permanent art installations and artwork that can be added to year after year. Art pieces should be well-lit and placed in areas of maximum visibility.
- 4. Select public art that relates specifically to the site's environmental, historical, and/or cultural context. Artwork that encourages a new awareness of or interaction with the existing environment is preferred.
- 5. Provide information about the art work, artists' statements about the process, and maps at kiosks and BART stations.
- 6. In order to integrate art into the Greenway site and avoid clutter, use existing structural elements and site furnishings as potential canvases for art. Some of these potential canvases include BART columns and overhead structures, fencing, vertical barrier rails, pavement, building walls (especially the backs of industrial buildings along the route), water towers, benches, litter receptacles, and bike racks.



*Incorporating art into site furnishing like seatwalls (left)* and signage (right) integrates artwork with the site.

## **Interpretive Signage**

area.

#### **Recommendations:**

- the Greenway.
- can be completed in one to two hours.



Interpretive signage promotes awareness of the natural and cultural history of the

1. Use signage and art to highlight the history of the area, including the architecture, industry, and cultures of the people along the corridor. Use signage and art to highlight the natural elements in the corridor, including buried creeks and lost wetlands.

2. Work with community groups, watershed groups, historical societies, and arts organizations to develop themes to highlight along each segment of

3. Incorporate public art into the signage design and placement.

4. Create short walking "tours" with separate themes—local ecology, art, historical buildings, and cultures along the Greenway, for example-which

5. Make interpretive signage as interactive and engaging as possible with the ultimate goal of increasing awareness of the surrounding environment.

6. Place maps of nearby connecting bicycle and pedestrian routes, current information about neighborhood events, and possibly displays of children's art work from neighborhood schools in information kiosks. Position kiosks at busy intersections and places of heightened activity.



# segment design

- site analysis
- path alignment
- community connections



**T**n order for the design to best respond to the different conditions and communities along the corridor, we divided L the Greenway into sixteen segments. The design for each segment includes the link, our preferred path alignment for the Greenway, and the seam, opportunities to connect adjacent communities to the Greenway.

Segment 1: E 12<sup>th</sup> Street: 18<sup>th</sup> Avenue to Fruitvale Avenue, Oakland Segment 2: Fruitvale BART Station: Fruitvale Avenue to 37<sup>th</sup> Avenue, Oakland Segment 3: San Leandro Street: 37<sup>th</sup> Avenue to 50th Avenue, Oakland Segment 4: San Leandro Street: 50<sup>th</sup> Avenue to Seminary, Oakland Segment 5: San Leandro Street: Seminary Avenue to 69<sup>th</sup> Avenue, Oakland Segment 6: Coliseum Station: 69<sup>th</sup> Avenue to 75<sup>th</sup> Avenue, Oakland Segment 7: San Leandro Street: 75<sup>th</sup> Avenue to 105<sup>th</sup> Avenue, Oakland Segment 8: San Leandro Street: 105<sup>th</sup> Avenue to Davis Street, Oakland and San Leandro Segment 9: San Leandro Station: Davis Street (SR-61) to Thornton, San Leandro Segment 10: Thornton Street to Hudson Lane, San Leandro Segment 11: Washington Industrial: Hudson Lane to 147<sup>th</sup> Avenue, San Leandro Segment 12: Halcyon Foothill: 147<sup>th</sup> Avenue to Hesperian Avenue, San Leandro Segment 13: Bay Fair Station: Hesperian Avenue to Elgin Street, San Leandro and Ashland Segment 14: Elgin Avenue to Hampton Road, Ashland Segment 15: Western Boulevard: Hampton Road to A Street, Cherryland and Hayward Segment 16: Hayward Station: A Street to Hayward BART Station, Hayward

The East Bay Greenway starts near 19<sup>th</sup> Avenue in Oakland where the BART tracks emerge from the Lake Merritt Station. This segment, running along East 12<sup>th</sup> Street, connects downtown Oakland and Lake Merritt to the Fruitvale neighborhood and the Fruitvale BART station.

#### Site Analysis

#### Land Ownership

On E 12<sup>th</sup> Street, the BART tracks are elevated above a median in the middle of the street. The City of Oakland owns the land under the BART tracks.

#### Site Observations

E 12<sup>th</sup> Street runs roughly parallel to International Boulevard, a busy street with a high number of pedestrian and bicycle accidents. The Health Impact Assessment designated International Boulevard as one of the main pedestrian and bicycle injury "hot spots" near the Greenway.

Segment 1 typical land ownership





Pedestrian/vehicle collisions are high along International Boulevard which runs parallel to the Greenway corridor. Image from the City of Oakland's Pedestrian Master Plan





High speeds and truck traffic now make E 12<sup>th</sup> Street feel unsafe for pedestrians and cyclists, especially children and the elderly. To accommodate left-turn lanes, the travel lanes convert back and forth between two and three lanes. The intersection at 22<sup>nd</sup> Avenue, which connects directly to Interstate 880, is especially difficult for pedestrians to cross.

Although traffic safety is a problem on E 12<sup>th</sup> Street, with proper pedestrian and bicycle facilities it could provide an alternative route that is safer than International Boulevard. Unlike International Boulevard, E 12<sup>th</sup> Street stays active during the day and at night. The presence of day laborers, fruit stands, and sports activities at the Cesar Chavez Education Center provides "natural surveillance" and "eyes on the street."

#### **Community Comments**

At community workshops, residents agreed that E 12<sup>th</sup> Street was a desirable route for pedestrians and cyclists. But they were concerned about current levels of maintenance on the street. Despite high levels of activity in this area, residents were concerned about crime. Community members in this segment listed lighting, safety cameras, and planted areas as their top desires for the Greenway. Exercise areas, call boxes, and seating ranked second.

#### **Existing Plans and Developments**

The City of Oakland Bicycle Master Plan proposes on-street Class II bike lanes for this segment of E 12<sup>th</sup> Street. The City is currently developing the design and feasibility

analysis for the bike lanes. The City of Oakland is also developing streetscape improvements for Frutivale Avenue from E 12<sup>th</sup> Street to Foothill Boulevard.

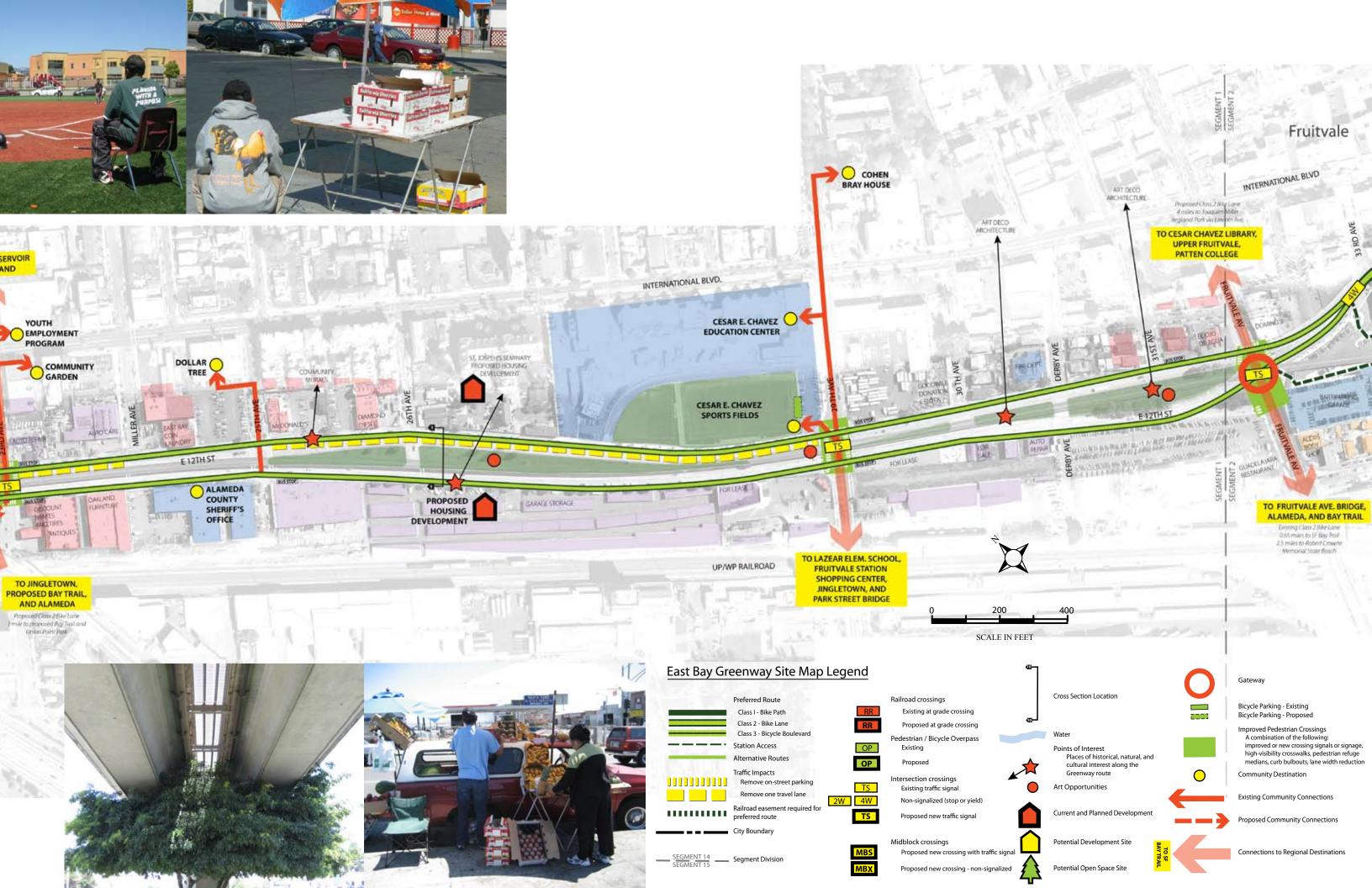




## **segment 1:** E 12<sup>th</sup> Street, 19<sup>th</sup> Avenue to Fruitvale Avenue, Oakland







segment 1

## The Link: Greenway Path Alignment

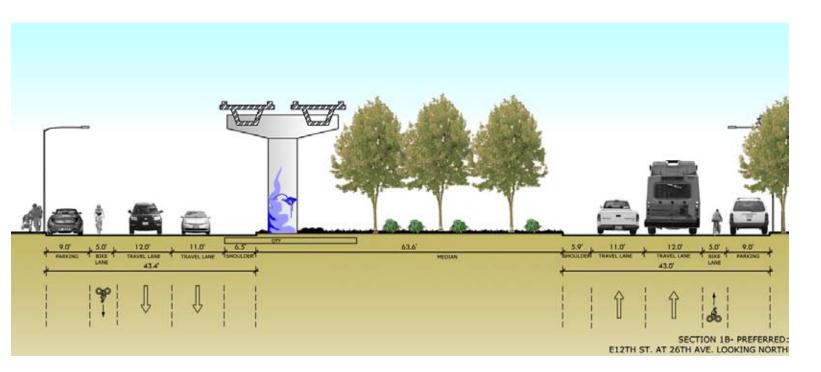
#### **Preferred Route**

We propose that the Greenway work with the City of Oakland's current plan to install Class II bike lanes in this segment. Installing bike lanes will make the number of travel lanes consistent (2 travel, 1 parking each direction) and clarify traffic flow.

Along with bike lanes, we recommend adding sidewalk improvements, street trees, and other pedestrian amenities as development occurs along the street. New developments should also be encouraged to minimize the number of driveway entrances on E 12<sup>th</sup> Street.

A preliminary traffic study finds that reducing the number of lanes from three to two in each direction marginally increases the intersection signal delay but would not change the Level of Service (LOS). Closing the median at non-signalized intersections increases the intersection control delay, but again the LOS would remain at the same level. Also, analysis shows no significant drop in arterial speeds by reducing lanes from three to two or closing medians at non-signalized intersections.

Further studies are needed to determine if closing median openings at certain nonsignalized intersections would improve traffic safety.



#### **Crossing Treatments**

Key intersections in this segment selected for improved crossings are:

- of traffic coming off the interstate
- 23<sup>rd</sup> Avenue because of its connections to community facilities
- proposed housing developments

At each of these intersections we recommend:

- Creating high-visibility crosswalks •

The City of Oakland is proposing improvements to the Fruitvale Avenue and E 12<sup>th</sup> Street intersection, including high-visibility crosswalks and signage. Directions to the Greenway should be included in the proposed signage.

#### Alternatives

An alternative Greenway design would be to close all the intersections that cut through the median except where a traffic signal exists, and expand the median to include a multi-use path. By restricting crossing to signalized intersections, the design provides for improved pedestrian and bicycle flow. Inexperienced riders would appreciate the longer stretches of continuous pathway. Additionally, closing the unsignaled intersections would minimize the number of vehicles that pull far into the intersection and stop before turning, unsafely blocking the pathway.

Placing a pathway in a median creates other traffic conflicts, however. Caltrans's Highway Design Manual does not recommend bike paths in the medians of highways "because they require movements contrary to normal rules of the road" (p 1000-7).

• 22<sup>nd</sup> Avenue because of the high speeds

• 29<sup>th</sup> Avenue because of its adjacency to the Cesar Chavez Education Center and Fruitvale Avenue because of the high volume of traffic



22<sup>nd</sup> Avenue intersection

• Removing "free right turn" lanes where feasible Adding pedestrian count-down signals where there are none • Adding curb extensions (bulb-outs) where feasible



Mandela Parkway in Oakland has a pedestrian path in the median and bike lanes on the street.

#### **The Seam: Community Connections**

#### **Community Character**

This segment contains a vibrant mix of neighborhoods, from the predominantly Asian neighborhoods of Eastlake to the Hispanic neighborhood of Fruitvale, from the former brick factories of Jingletown to Art Deco buildings on International Boulevard. This area is rich in community organizations, historic architecture, restaurants, and markets. Points of interest include a community garden, colorful murals, and historic architecture. The Cohen Bray House at 1440 29<sup>th</sup> Avenue is home to the Victorian Preservation Center of Oakland, which offers tours of the 1884 home.

#### **Access and Traffic Calming**

The majority of pedestrian activity in this segment is along International Boulevard and Fruitvale Avenue. The existing sidewalks and traffic signals create adequate access from the Greenway to these commercial areas. The intersection improvements on E 12<sup>th</sup> Street listed in the Crossing Treatments section will help pedestrians and cyclists cross the corridor.

#### **Community Opportunities**

E 12<sup>th</sup> Street has several opportunities to create a community corridor of art, nature, and culture that supports pedestrian and bicycle traffic.

The unused grass field between 22<sup>nd</sup> and 23<sup>rd</sup> Avenues next to the railroad overpass could become a community park. Local schools and community youth groups could use the open space for sports, nature exploration, and other activities.

The street median (up to 76 feet in width) across from the Cesar Chavez Education Center and near 31<sup>st</sup> Street could become a place to display children's art or set up a demonstration rain garden for science classes.

This segment has many community organizations and assets that could benefit from and support the Greenway. Some ideas include:

- Cycles for Change, located at EBAYC near 19<sup>th</sup> Avenue, could work with the Greenway on programming that encourages young people to ride bicycles.
- Youth and art organizations in the community—East Side Arts Alliance, local schools and church groups, and the Youth Employment Program, for example—could participate in art and gardening projects in the median.
- Several local iron workers and artisans who live and work in the area could help construct the Greenway.



One of the many murals found in the neighborhood



*An opportunity for community open space at 23<sup>rd</sup> Avenue* 



*This simulation of the median along E* 12<sup>th</sup> *Street shows examples of rain gardens and public art* 





segment 1

The wide median could provide space for gardening or public art

Truitvale Village at the Fruitvale BART Station is a model mixed-use development with housing, community services, **F**restaurants, and more. It serves as a gateway to the Fruitvale neighborhood, a vibrant Latino community.

#### **Site Analysis**

#### Site Observations

Fruitvale Village contains the Bike Station, which stores 20 to 70 bicycles per day and has a capacity to store up to 250. Next door to the Bike Station is the East Bay Bicycle Coalition office.

The plaza outside the Fruitvale BART Station is the site of many festivals and celebrations and, on Thursdays, a farmers' market. Because of its high level of pedestrian activity, the plaza lacks adequate space for a bicycle path.

#### **Existing Plans and Developments**

Completed in 2004, Fruitvale Village Phase 1, a mixed-use development next to the BART station, is a national model for community-based and transit-oriented development. Phase II is expected to add another 275 to 450 mixed-income residential units in the parking lot south of the station.

The Fruitvale BART Station Access Plan, completed in 2002, includes plans to improve pedestrian and bicycle routes to the station and provide pedestrian and bicycle amenities at the station.



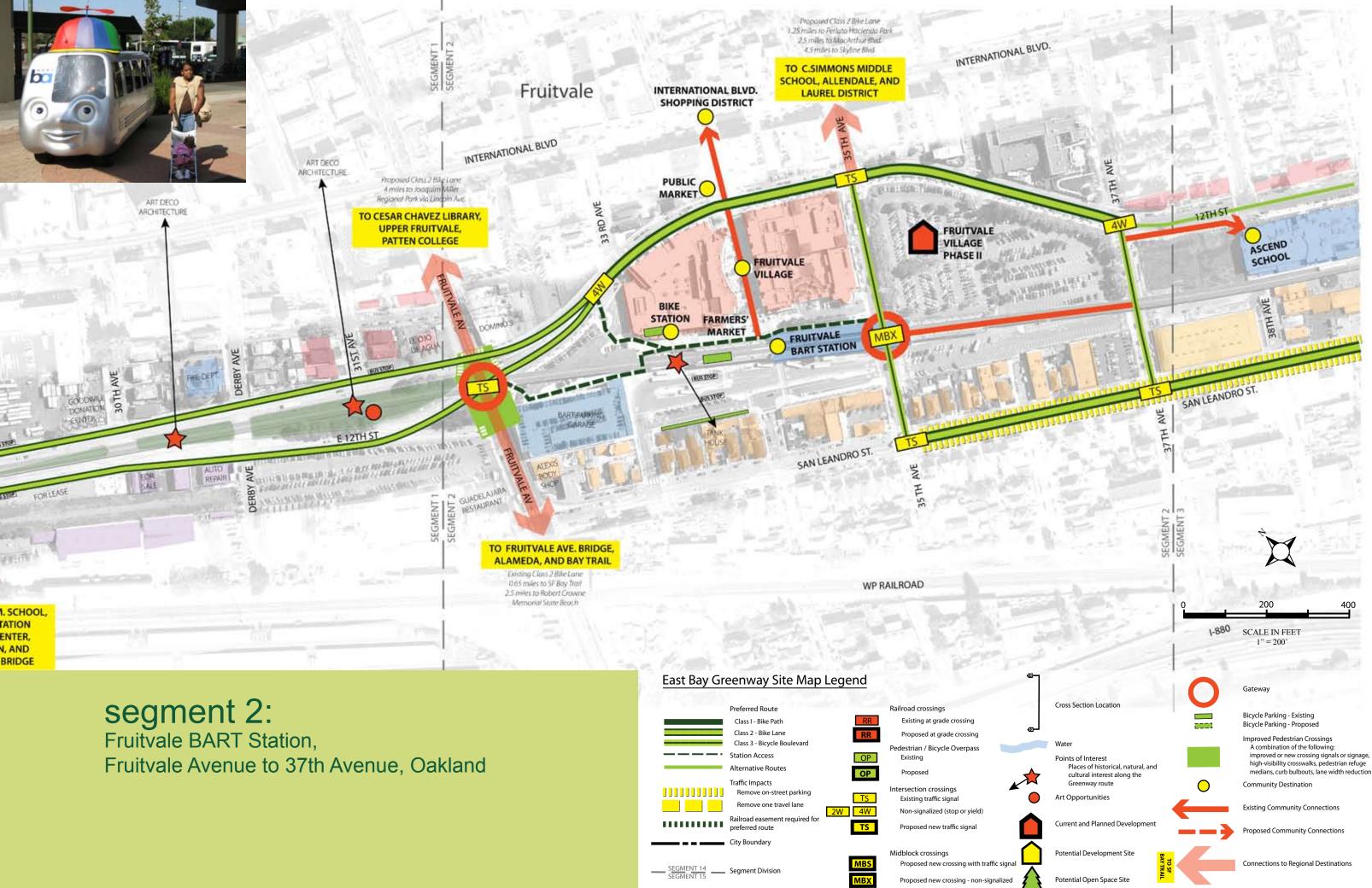


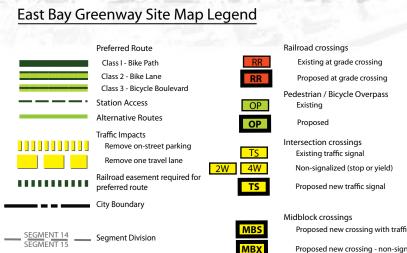
segment 2: Fruitvale BART Station, Fruitvale Avenue to 37th Avenue, Oakland





# segment design





# **The Link: Greenway Path Alignment**

#### **Preferred Route**

From the north, cyclists and pedestrians will enter the Fruitvale Village and BART Station from E 12<sup>th</sup> Street; from the south, they will enter at the existing midblock crossing on 35<sup>th</sup> Avenue. At these entrance points, we recommend signage that asks cvclists to dismount and walk their bikes and directs them to bike storage.

Cyclists traveling on the Greenway through the area will continue on E 12<sup>th</sup> Street (Class II) to 35<sup>th</sup> Avenue and 37<sup>th</sup> Avenue (Class III) to connect to San Leandro Street.

We recommend keeping a pedestrian and bike path under the BART tracks between 35<sup>th</sup> Avenue and 37<sup>th</sup> Avenue when, in the future, the existing parking lot is developed into Fruitvale Village Phase II.

#### Intersections and Crossing Treatments

The key turns in the cycling route—E 12<sup>th</sup> Street and Fruitvale Avenue, E 12<sup>th</sup> Street and 35<sup>th</sup> Avenue, and 35<sup>th</sup> Avenue and San Leandro Street—all have traffic signals.

The pedestrian and bicycle entrance to the north of the station has a marked crosswalk and a stop sign. The midblock crossing to the south of the station on 35<sup>th</sup> Avenue needs improved signage and a more visible crosswalk, preferably with a speed table (raised crossing).

#### Alternatives

An alternative through route for cyclists is to follow the bike route along E 12<sup>th</sup> Street, per Oakland's Bicycle Master Plan, and connect back to the BART tracks near 50<sup>th</sup> Avenue.



Midblock crossing at 35th Avenue

# **The Seam: Community Connections**

#### **Community Character**

Fruitvale Village hosts several annual festivals such as the Dia de los Muertos and Cinco de Mayo. The Village, which contains a local library and a new public market, connects directly to the International Boulevard Shopping District, the commercial core of the community. A half-mile away on 34<sup>th</sup> Avenue is the Peralta Hacienda Historic Park, the former home of the Peralta family land owners. A tank house west of the station, another historic site, serves as a reminder of the area's rich agricultural past.

#### **Community Opportunities**

The prime community opportunity in this area is to incorporate the Greenway into the Fruitvale Village Phase II, while preserving the character of the existing neighborhood and providing needed open space. The Unity Council, a communitybased non-profit managing Fruitvale Village, and Ascend Academy, an adjacent school, should be included in developing the programming for the Greenway.



Sidewalk underneath BART tracks in BART parking lot



Cegment 3 connects the Fruitvale Village and BART Station through a mixed neighborhood of older housing and light Jindustry to the industrial corridor of San Leandro Street.

# **Site Analysis**

# Land Ownership

In this segment, the elevated BART tracks pass over an abandoned railroad right-ofway (the railroad tracks have been removed) that runs through several neighborhood blocks behind buildings and backyards. BART owns approximately 38 feet of this rightof-way, while the railroad owns approximately 11 feet.

# Site Observations

Currently, the areas under the BART tracks are fenced off. However, residents say that people break into the area to walk their dogs. One property owner mows the area because no one else is maintaining it.

The neighbors here are concerned about crime. Some fear that the area behind buildings, if opened up and then neglected, would attract more crime and vandalism. However, the short blocks in this area allow for views through the entire space from adjacent streets.

The short blocks and frequent midblock crossings make this location less than ideal for a bicycle route. Additionally, the space between  $37^{\text{th}}$  and  $39^{\text{th}}$  Avenues is being used by Ascend Academy.

# **Community Comments**

At community meetings people suggested that the abandoned rail area could become usable open space, which is lacking in the community. At the same, concerns about safety were high. Many viewed benches negatively because of the large homeless population in the neighborhood.

Given a choice for a travel corridor between E 12<sup>th</sup> Street, the midblock area, and San Leandro Street, the majority of the people we talked to preferred San Leandro Street because it is more visible, feels safer, and provides a more direct connection to key destinations.

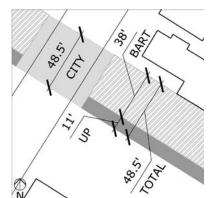
# Existing Plans and Developments

The City of Oakland's Bicycle Master Plan recommends a Class III bicycle route on E 12<sup>th</sup> Street. The City of Oakland prefers this route over San Leandro Street because of the high traffic volumes and street-width constraints on San Leandro Street. However, where E 12<sup>th</sup> Street crosses 42<sup>nd</sup> Avenue and becomes one way, cyclists face difficulties negotiating the freeway's on and off ramps.

Segment 3 typical land ownership

segment 3: San Leandro Street, 37th Avenue to 50th Avenue, Oakland

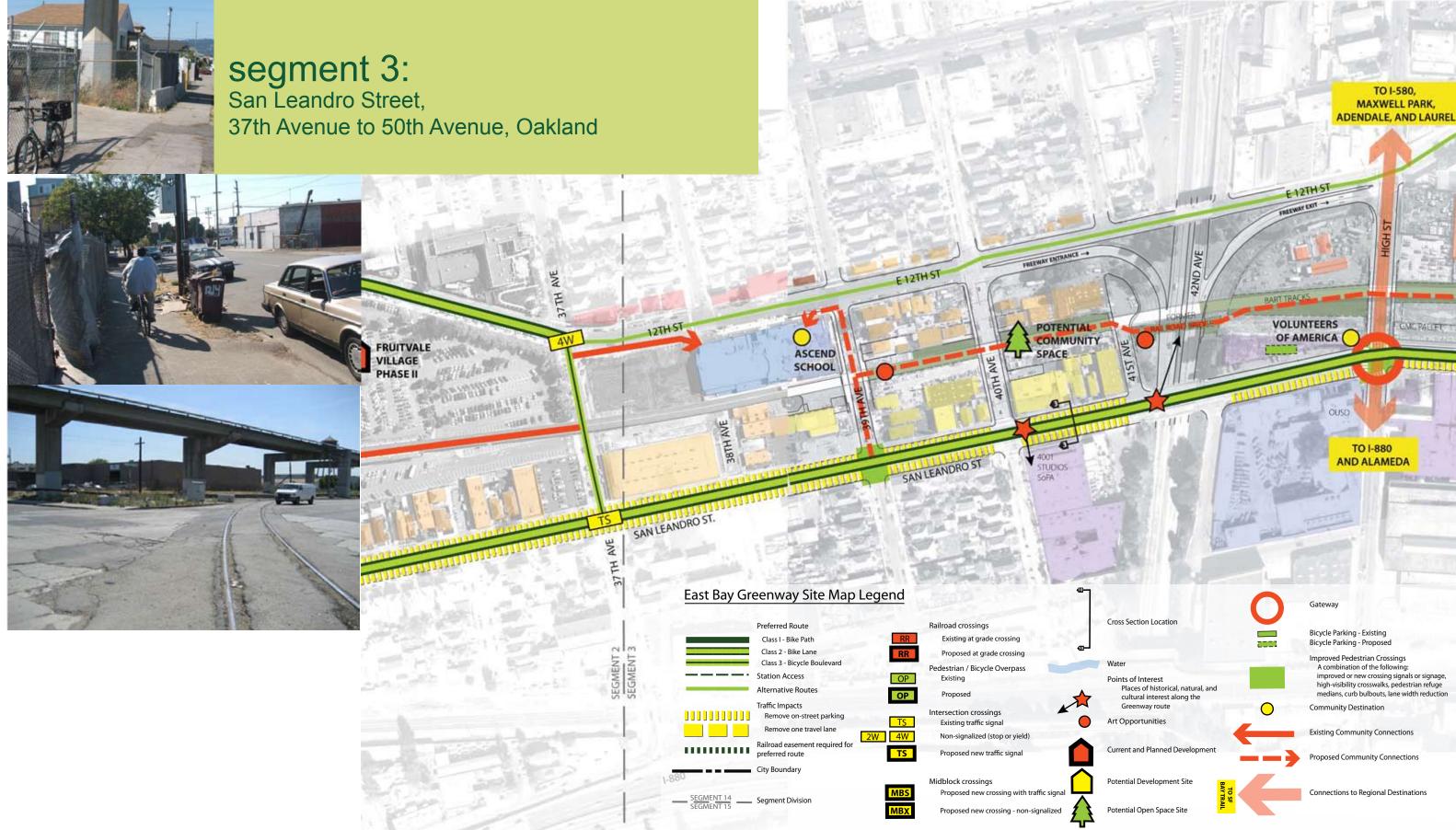


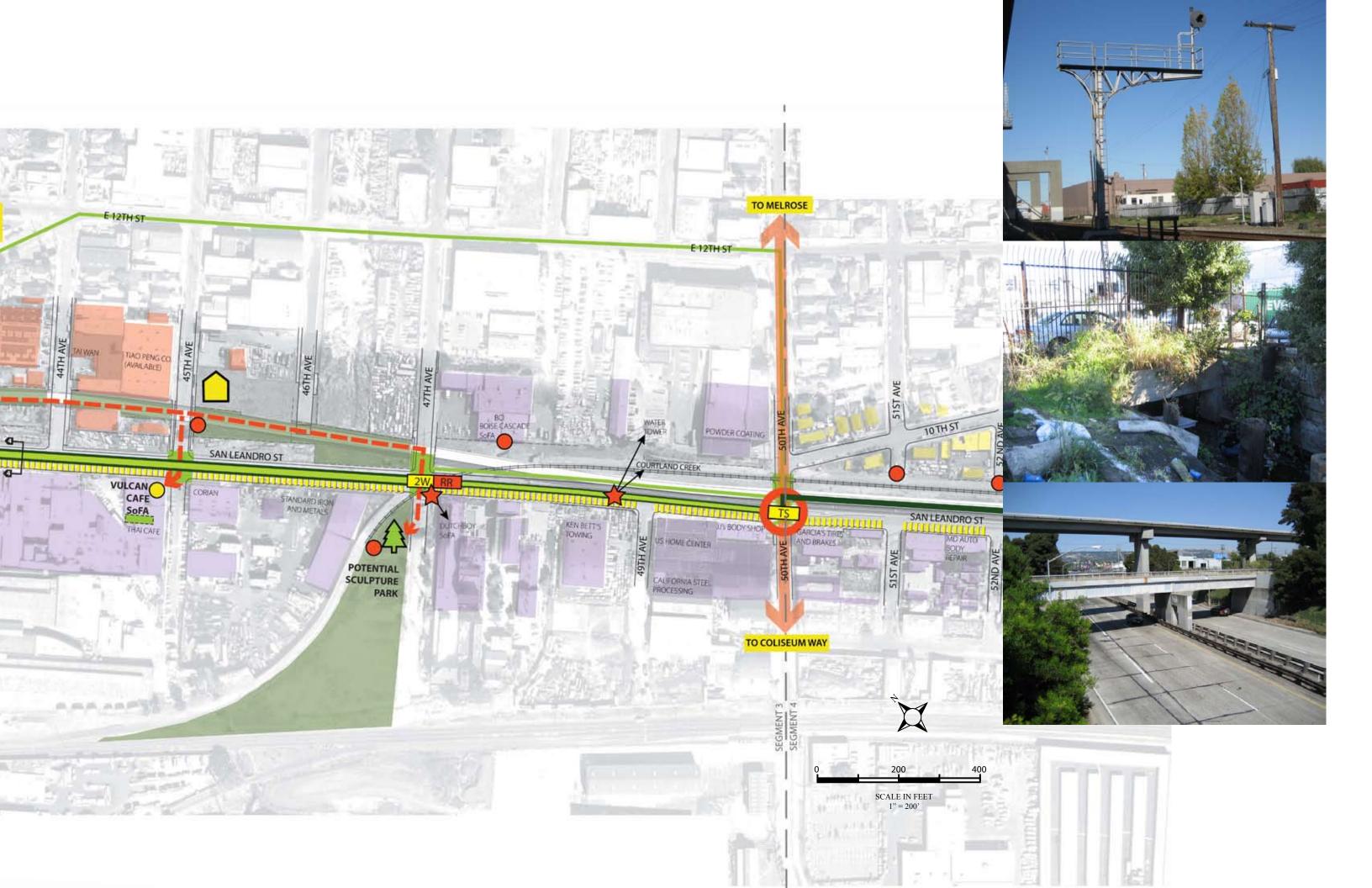












segment 3

# The Link: Greenway Alignment

# **Preferred Route**

The frequent midblock crossings along the BART corridor, the out-of-the-way quality of E 12<sup>th</sup> Street, and the community's preference for using San Leandro Street make San Leandro

Street the preferred Greenway bicycle route. Because of the community's interest in using the abandoned rail corridor, we include the area under the BART tracks as an opportunity for community open space discussed in this segment's Community Opportunities section.

From 37<sup>th</sup> Avenue to 42<sup>nd</sup> Avenue, San Leandro Street is approximately 60 feet wide—too narrow even for the existing four lanes of traffic and parking on both sides of the street. In order to add bike lanes, we would need to widen the street at least 2 feet and eliminate parking on both sides. Although this is not an ideal situation, from talking with community members and observing existing patterns of travel for pedestrians and bicycles, we recommend that San Leandro Street is still the preferred the route for the Greenway cyclists.

From 42<sup>nd</sup> Avenue to 47<sup>th</sup> Avenue, San Leandro Street narrows even further to approximately 50 feet for four lanes of traffic and parking on one side only. In this segment, the east side of San Leandro Street has no curb or sidewalk, and the adjacent properties, which are used for storage, have no existing structures. If these parcels become available, we strongly recommend acquiring a portion of the land for road widening, bike lanes, sidewalks, and curbs.

The preliminary traffic analysis found that the proposed modification will not have any impact on traffic operations. Parking use was observed in this area, and apparent opportunities for off-street parking were noted. The removal of on-street parking would require action by the City Council, as well as a special parking study.

If the current industrial uses become redeveloped into residential or commercial uses, then we recommend widening the road to allow for both on-street parking and bike lanes.

# **Crossing Treatments**

Through most of this section, the cross streets along San Leandro Street have very light traffic; most instersections do not have traffic lights. San Leandro Street has a large volume of traffic that does not stop often for cross traffic. The busiest intersection in this segment is High Street, which has a traffic signal.

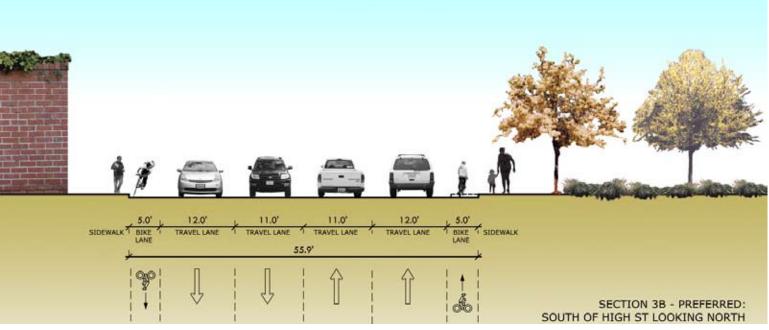
The Greenway is a Class II bike lane in this segment, so the cyclists will follow the existing traffic signals along San Leandro Street. At 47th Avenue the BART tracks, the UPRR tracks, and San Leandro Street convene and run parallel to each other. The Class I bike path could start here or at 50<sup>th</sup> Avenue, where an existing traffic signal makes the transition between the two types of Greenway pathways safer.

#### Alternatives

If bike lanes or a bike route on San Leandro Street is not feasible, a Class IIIA bike route on E 12<sup>th</sup> Street as proposed by City of Oakland's *Bicycle Master* Plan is an alternative. However, significant obstacles must be addressed: the difficult intersections and one-way traffic flow around 42<sup>nd</sup> Avenue, the lack of "eyes on the street" on E 12<sup>th</sup> Street, and a required detour from the Greenway route onto several side streets. But if San Leandro Street is not a feasible bike route, cyclists traveling from Fruitvale Station can use E 12<sup>th</sup> Street, taking 50<sup>th</sup> Avenue south to connect to San Leandro Street.



From 42nd to 47th Avenue on San Leandro Street there is no sidewalk



# **Community Character**

Through the 19<sup>th</sup> century, much of this part of Oakland was farmland. The dawning of the 20<sup>th</sup> century saw industry growing up around the railroad. Today the juxtaposition of older housing and light industry remains, even while new development, new immigrants, and the search for affordable housing change the nature of the community.

Commercial activity is primarily small and large retail mixed with repair shops, light industrial, and shipping and storage. A significant portion of both residential and commercial structures are older, dating from late 19<sup>th</sup> century through the 1950s.

The older brick factories and warehouses, the railroad fixtures, and the water tower give this neighborhood an historic, urban, industrial quality. The SoFA (South of Fruitvale Avenue) artist collective has several studios in the area, including the Vulcan Café and the Thai Café near 45th Avenue. Courtland Creek runs under the Greenway path near 49th Avenue. Day laborers gather at the Volunteer for America site at the intersection of High and San Leandro Streets.



SoFA studios and Volunteer for America day laborers site

# Access and Traffic Calming

The existing conditions along the corridor are not conducive to walking and biking. Many sections of the sidewalks along San Leandro Street are either blocked, narrow, or have badly damaged paving.

The Vulcan Café and the Thai Café on San Leandro Street and 45th Avenue are difficult to access from the other side of San Leandro Street because there is no crosswalk or stop sign/light.

Intersections along San Leandro Street that need improved street crossings include:

- 39<sup>th</sup> Avenue because it connects to Ascend Academy
- High Street because it has a high volume of traffic and pedestrian activity, including the day laborers' association

- 45<sup>th</sup> Avenue because it is a potential community hub with the Vulcan Café and artists studios
- 50<sup>th</sup> Avenue because the Greenway transitions from Class II bike lanes to a Class I multi-use path at this point
- 47<sup>th</sup> Avenue, if a sculpture park is developed on the adjacent property in the future (see Community Opportunities below)

At each of these intersections, we recommend:

- Installing high-visibility crosswalks
- Adding pedestrian count-down signals where there are none
- Adding curb extensions (bulb-outs) where feasible
- Removing "free right turn" lanes and reducing turning radii where feasible

# **Community Opportunities**

If activated and used, the space under the BART tracks from 39<sup>th</sup> Avenue to 47<sup>th</sup> Avenue can bring different sections of the community together. This area would not be for through traffic; instead, it would be a community hub used for local public art displays and environmental education. Nestled in a complex urban neighborhood, this patch of green space would provide enjoyment for children, families, and the elderly.

With good design and planning, the area will be an asset to those working and living in the neighborhood. However, safety and maintenance must remain top priorities in design and stewardship if this area is to become a safe community space.







Difficult pedestrian crossings

# segment 3

segment design

People in the community viewed an improvement to this space as important. Because of the marked lack of open space and the many children living in the neighborhood, any small pocket park or play area would be used and appreciated, they said.

A public art project in collaboration with the local SoFA artists could help enliven the space. One artist suggested creating a program in partnership with local schools to create art for the Greenway. SoFA artists also suggested an art competition to create excitement and visibility for the project. The theme could center around recycled materials from the area and tie into the urban/ecology design theme.

#### **Community Space Design Recommendations:**

- To improve visibility into the space, remove 2 to 3 on-street parking spaces where the area intersects cross streets.
- Incorporate the Union Pacific rail bridge over 42<sup>nd</sup> Avenue into the space as a unique focal element.
- Involve residents, homeowners, business owners, local schools and community organizations, SoFA, and the police in planning for the space.



Although not part of the main Greenway route, the community desires a pocket park underneath the BART tracks near 40th Avenue



# 45<sup>th</sup> and 47<sup>th</sup> Avenues Artist Hub

The Greenway will create an opportunity to bring more attention and interest

to the cafes and the SoFA artist community located in several buildings along San Leandro Street. This provides the potential to create an artist hub with open studios and cafes.

If the railroad spur west of San Leandro Street at 47<sup>th</sup> Avenue is unused, the lot could become a temporary sculpture park for the surrounding art studios.

Eventually, the cafes, artist studios, sculpture park, creek, railroad bridge, and community spaces under BART could be tied together in an art walk. This effort would require the involvement of local



The unused UPRR railbridge could be an interesting section of the East Bay Greenway with community art and landscaping

homeowners and businesses, SoFA, community organizations such as the Unity Council, and schools such as Ascend Academy.

Community members in this neighborhood underscored the importance of using local labor to build the Greenway. This would generate jobs for the area and thus create a sense of ownership for the Greenway.



The railroad corridor and BART tracks meet up with San Leandro Street at 47<sup>th</sup> Avenue. All three continue running **L** parallel to each other through the rest of Oakland.

# **Site Analysis**

# Land Ownership

Where the BART tracks and railroad line meet up with San Leandro Street, the land ownership under the BART tracks is divided into three parts: the UPRR on the northeast side (2-10 feet), BART in the middle (12-18 feet) and the City of Oakland on the southwest side (8-9 feet).

#### Site Observations

San Leandro Street is narrow in this area with an average width of 54 feet for four travel lanes and parking on one side of the street. People often park their vehicles on the sidewalks because of the narrowness of the street. At Seminary Avenue, San Leandro Street widens significantly.

However, a few cross streets help break up the Greenway route, and the traffic on San Leandro Street adds "eyes on the Greenway."

# **Community Comments**

At community meetings in this area, people said that the route is well-used, and they believed putting a greenway there would make it safer and more attractive. Residents also pointed out that few parks exist in the area, and that those are poorly maintained.

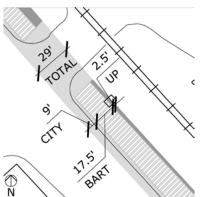
Residents urged us to work with schools on art projects for the Greenway and hire local contractors and local laborers. They felt that the Greenway will be appreciated and enjoyed more if locals help build it. They also felt that seating should be located and designed in a way to encourage positive use.

#### **Existing Plans and Developments**

The City of Oakland studied the option of bike lanes on San Leandro Street in this segment and concluded that the present high volume of traffic and narrow street width made it unfeasible. The City of Oakland's Bicycle Master Plan proposes a Class III bike route on E 12<sup>th</sup> Street, connecting back to San Leandro Street at 54<sup>th</sup> Avenue.

# segment 4: San Leandro Street, 50th Avenue to Seminary, Oakland





Segment 4 land ownership near 50<sup>th</sup> Avenue





segment 4

# The Link: Greenway Path Alignment

# **Preferred Route**

The preferred route is to use the shoulder on the west side of BART tracks (on City land) and narrow the street 8 feet to accommodate a 12-foot-wide multi-use pathway between the BART columns and the street, separated from the road by a low, vertical barrier.

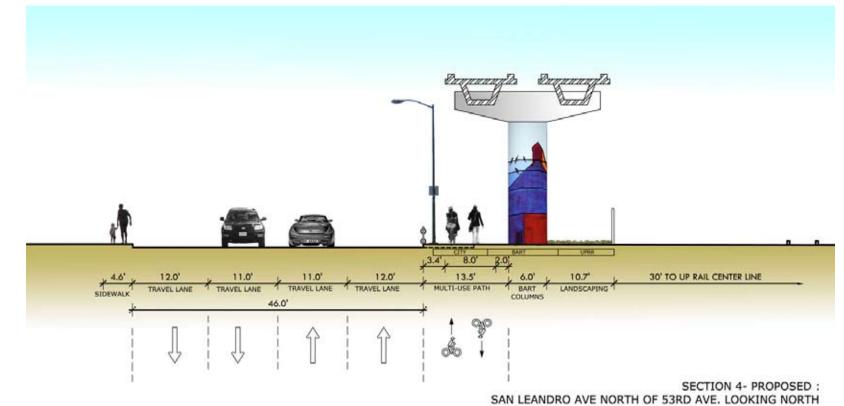
Parking in the southbound direction will have to be removed. This will not have any impact on traffic operations. However, action by the City Council will be required to remove on-street parking, and a special parking study will have to be conducted.

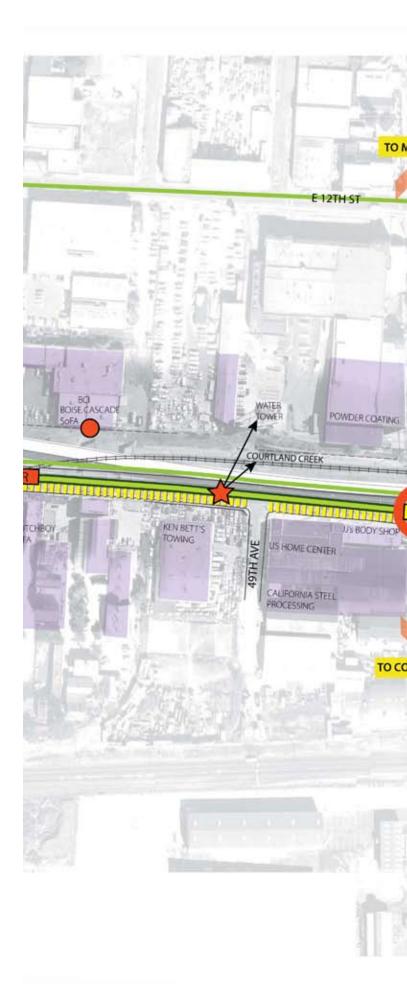
# **Crossing Treatments**

Bicycles and pedestrians on this segment of the Greenway would have to cross only two streets: 54<sup>th</sup> Avenue and Seminary Avenue. Cross traffic at 54<sup>th</sup> Avenue is controlled by a stop sign, while Seminary Avenue has traffic lights.

# Alternatives

- 1. If the joint-use UPRR easement under the BART tracks can be used, a bicycle path can be located on east side of BART tracks, and a sidewalk can be installed on west side next to San Leandro Street. This would avoid removing on-street parking. Where existing railroad signal boxes near intersections would block this proposed bicycle path, the pathway would join the pedestrian path on the west side of the BART columns.
- 2. Install Class II bike lanes on San Leandro Street. This alternative would still require removing on-street parking.
- 3. Install Class IIIA bike routes on E 12<sup>th</sup> Street connecting to the BART tracks at 54<sup>th</sup> Street per the City's *Bicycle Master Plan*.







# **Community Character**

Along this segment of the Greenway, the industrial character of San Leandro Street is more apparent. The Oakland hills are visible in the background, and the buildings here are much larger than in previous segments. Points of interest include historic warehouse buildings, artist studios, and water towers.

#### Access and Traffic Calming

The railroad track crossings for people coming from the east on 50<sup>th</sup> Avenue, 54<sup>th</sup> Avenue, and Seminary Avenue are a significant barrier to accessing the proposed route. We recommend making these railroad crossings accessible and safe for pedestrians.

Neighborhoods near 51<sup>st</sup>, 52<sup>nd</sup>, 53<sup>rd</sup>, and 57<sup>th</sup> Avenues are blocked from the Greenway by the existing railroad. If the rail becomes abandoned, we recommend opening these streets to the Greenway.

# **Community Opportunities**

The former General Electric facility at 54<sup>th</sup> Avenue, currently a brownfield site, could become a large park for the adjacent communities. Its railroad tracks and old warehouses could become interpretive elements in a historic railroad park. Community members were enthusiastic about seeing the only green space in the area become a recreational park.



Access to the Greenway blocked by UPRR land



Existing condition of the railroad crossings



This brownfield site could become a neighborhood park



One of the many water towers that dot the East Bay Greenway route

This segment connects the Greenway to the Oakland Coliseum and Arena; the BART station and AirBART; and Lion L Creek Crossing, a new housing development adjacent to the BART station.

# Site Analysis

#### Land Ownership

As in the previous segment, the BART tracks run alongside San Leandro Street and the UPRR tracks, with landownership split between the three controlling entities (the City, BART, and UPRR). But San Leandro Street is much wider in this segment, and it contains an unused shoulder (up to 8 feet in width) adjacent to the BART tracks.

# Site Observations

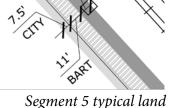
From 47<sup>th</sup> Avenue to 66<sup>th</sup> Avenue, heavy truck traffic and a wide roadway make the space uninviting for pedestrians and cyclists. There are no sidewalks or pathways under the BART tracks—only bare dirt. Despite these unfavorable conditions, people still walk and ride bikes here. People also bicycle on the street shoulder.

# **Community Comments**

At community meetings, people told us that the Greenway is an opportunity for beautification and community pride. People were concerned about safety, especially around the Coliseum BART Station. People now park their cars under the BART tracks to attend games at the Coliseum stadium. When the Greenway is implemented, measures should be taken to discourage parking on the pathway.

# **Existing Plans and Developments**

The City of Oakland's Bicycle Master Plan includes a proposal for both Class I and Class II bike facilities along San Leandro Street.



R

ownership



# segment 5: San Leandro Street, Seminary Avenue to 69th Avenue, Oakland





segment 5: San Leandro Street, THE OAKLAND CANNERY 5733 Seminary Avenue to 69th Avenue, Oakland TO SEMINARY, PICARDY MILLSMONT AND MILLS COLLEGE 12335353555555 FRUITVALE BUSINESS Proposed Class 2 Bike Lane 1.5 miles to Bancroft Ave PARK TO CLOCKWOOD, **GREENMAN REC. CENTER** ROOFING SUPPLY AC TRANSIT GLOBE PLUMBING LIPPLY ACTRANSIT SAN LEANDRO STREET BADGER FOREST PRODUCTS States and Links NRC WAREHOUSE STORE GLESBY ABI WHOLESALE QUEST COPENHAGEN INDUSTRIES SUZIN ROOFING FURNITURE 76 GAS GMENT STATION TO COLISEUM WAY, SF BAY TRAIL, **MJK, JR SHORELINE** 0.75 miles to SF Bay Trail East Bay Greenway Site Map Legend Gateway Cross Section Location Preferred Route Railroad crossings Bicycle Parking - Existing Existing at grade crossing Class I - Bike Path Bicycle Parking - Proposed 2003 Class 2 - Bike Lane Proposed at grade crossing Improved Pedestrian Crossings Class 3 - Bicycle Boulevard Water A combination of the following: Pedestrian / Bicycle Overpass Station Access Existing Points of Interest Places of historical, natural, and Alternative Routes 200 400 Proposed cultural interest along the Traffic Impacts Greenway route **Community Destination** Intersection crossings Remove on-street parking Art Opportunities SCALE IN FEET Existing traffic signal Remove one travel lane Existing Community Connections 1" = 200' Non-signalized (stop or yield) Railroad easement required for Current and Planned Developmen .......... TS Proposed new traffic signal preferred route Proposed Community Connections City Boundary Potential Development Site Midblock crossings Proposed new crossing with traffic signal Connections to Regional Destinations SEGMENT 14 SEGMENT 15 \_\_\_\_\_ Segment Division

Potential Open Space Site

Proposed new crossing - non-signalized



# **The Link: Greenway Path Alignment**

# **Preferred Route**

The preferred Greenway alignment would be to use the shoulder on San Leandro Street and narrow the street's travel lanes, creating 16 feet between San Leandro Street and the BART columns for a multi-use path. This places pedestrians and cyclists between the BART columns and San Leandro Street where visibility is good, and pedestrians and cyclists can cross at existing intersections.

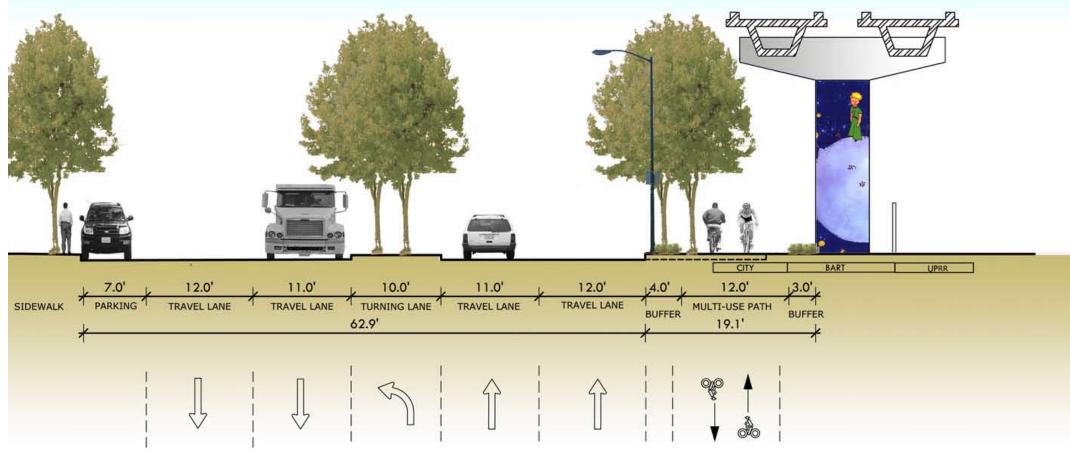
The preliminary traffic analysis shows that reducing lane width has no significant effect on traffic performance. But due to the high truck volume, lane reduction below 11 feet is not desirable.

# Crossings

In this segment, the only street the Greenway crosses is 66<sup>th</sup> Avenue, which has a new traffic signal.

Alternative 1: If using the UPRR joint-use easement is possible, a separate bicycle path could be located between the railroad tracks and the BART columns. The area adjacent to the San Leandro Street curb would have a sidewalk. This would lessen the impact to San Leandro Street, and reduce the costs of a new curb and gutter as proposed in the preferred route.

Alternative 2: At a minimum, the Greenway could consist of Class II bike lanes on San Leandro Street as proposed in the City's Bicycle Master Plan, planted medians, and additional sidewalks similar to the streetscape improvements recently installed near the Coliseum BART Station.



SECTION 7A - PROPOSED : SAN LEANDRO ST. NORTH OF 81ST AVE. LOOKING NORTH

# segment design

# **Community Character**

Much like Segment 4, this segment consists of industrial warehouses with residential neighborhoods east of the corridor. Streetscape improvements have been installed on San Leandro Street between 66<sup>th</sup> Avenue and 75<sup>th</sup> Avenue.

#### Access and Traffic Calming

For traffic calming and beautification, we recommend extending the streetscape improvements implemented near the Coliseum BART Station to the rest of San Leandro Street. Improvements include planted medians, street lights, and street trees where space allows.

The San Leandro Street crossings at Seminary Avenue and 66<sup>th</sup> Avenue should be improved to encourage pedestrians to cross at these signalized intersections instead of cutting across the street midblock. 66<sup>th</sup> Avenue connects to the Bay Trail.

As in the previous segment, the on-street railroad crossing at 66<sup>th</sup> Avenue should be made accessible for pedestrians and cyclists.

# **Community Opportunities**

Involving youth in a public art project that highlights the area's history is a key opportunity for community participation. Lion Creek (Lion Creek Crossing development) is being restored. Connecting the Greenway to Lion Creek through signage and interpretive art elements, cleaning up Damon Slough, and planning for a future creekside trail are ways to bring nature and green back into this segment.





Streetscape improvements between 66<sup>th</sup> and 75<sup>th</sup> Avenue





Railroad crossing at 66<sup>th</sup> Avenue

Lion Creek

The Coliseum BART Station is a regional and national transportation hub, connecting BART to the Coliseum Stadium **L** and Arena, the Oakland International Airport, and Amtrak. The new housing at Lion Creek Crossing and future plans for creating a mixed-use transit-oriented development on the existing BART parking lot provide opportunities for the Greenway.

# **Site Analysis**

# Site Observations

The most direct access to the Coliseum BART Station is on San Leandro Street. However, there are no bicycle-parking facilities nearby; the bicycle lockers and racks are located on the other side of the railroad tracks at Snell Street.

Also, there are many obstacles for cyclists riding past the Coliseum BART Station on San Leandro Street. The sidewalk and pedestrian area is too narrow to allow for a bicycle path. The new streetscape has room for bicycle lanes, although it is not striped as such. Even with bicycle lanes, the large number of buses stopping at the station make it difficult for a northbound cyclist to maneuver on the street.

Snell Street runs parallel to San Leandro Street on the other side of the railroad tracks. The most direct access to the station from Snell Street and the BART parking lot is an underpass that goes under the railroad tracks. BART's Coliseum Station Access Plan describes this pedestrian tunnel as having "crime activity"; residents stated that they felt unsafe in the tunnel. Alternatively, cyclists and pedestrians could access San Leandro Street from 69<sup>th</sup> and 75<sup>th</sup> Avenues, but the railroad crossings in both these locations are not up to ADA standards and pose an obstacle for both bike users and pedestrians.

BART's Station Access Guidelines states that bike racks should be placed in the view of Station Agents to prevent vandalism and theft. Bike racks should also be located under some kind of weather protection. In addition, bike facilities should be close to the bike path. Currently bike storage in the BART parking lot does not meet any of these guidelines.

# **Existing Plans and Developments**

Plans for this area include adding mixed-use and multi-family residential units, as well as improving connections to the airport and to the Bay Trail.

The Coliseum Station Access Plan recommends including Snell Street in the Oakland bike plan's Class II street proposals to improve and encourage bike access to the station.

In the Coliseum Transit Village Plan, created by the City of Oakland, the current BART parking lot will become a mixeduse Transit Village with 300 to 400 residential units and supporting retail; a new BART parking structure on the west side of San Leandro Street would replace the current parking lot. The lots near the Coliseum would be developed to include hotels, office space, retail, entertainment, and restaurants.

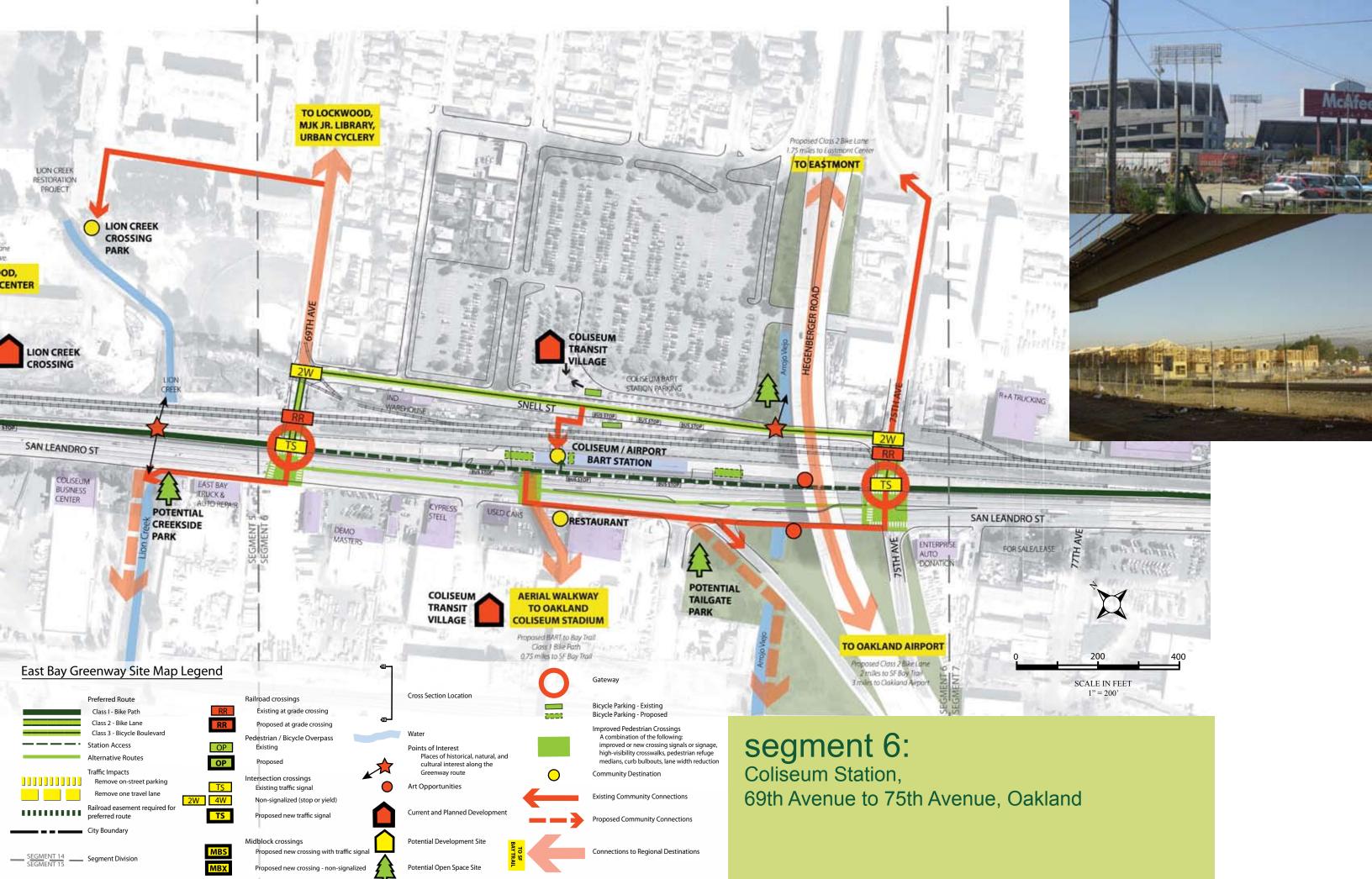
The BART Oakland Airport connector (OAC) will provide a rail link between the Oakland International Airport and BART, Amtrak, and local AC Transit.

The BART to Bay Trail is currently being designed; the trail would create a pedestrian and bicycle path from the Coliseum BART Station to the Bay Trail along Damon Slough and the MLK, Jr. Shoreline.

# segment 6: Coliseum Station, 69th Avenue to 75th Avenue, Oakland







# The Link: Greenway Path Alignment

# **Preferred Route**

Cyclists and pedestrians going to the Coliseum BART Station will continue on San Leandro Street. We recommend adding bike lockers and racks under the BART tracks where the multi-use path becomes a pedestrian only area, perhaps relocating some of the racks from Snell Street. Signage should be installed instructing cyclists to dismount and walk bikes through the pedestrian zone.

Cyclists traveling on the Greenway through the area (not stopping at the BART station) will travel around the congested bus stop on San Leandro Street by using Snell Street, 69<sup>th</sup> Avenue, and 75<sup>th</sup> Avenue.

Since Snell Street has low amounts of traffic and portions of it are too narrow for Class II bike lanes, a Class III bicycle boulevard with shared road markings should be adequate for the Greenway route. However, the street needs to be activated further by introducing other functions and activities to add "eyes on the street" and discourage crime.

When the BART parking lot is converted into the Coliseum Transit Village, Snell Street should be retained as a bike and pedestrian corridor. The corridor would take the form of a bike boulevard in the center of the road, with pedestrian walkways on either side. The boulevard could be activated by adjacent retail shops.



San Leandro Boulevard in front of Coliseum BART contrasted with Snell Street behind the station

# **Crossing Treatments**

The key turns in the cycling route – 69<sup>th</sup> Avenue-San Leandro Street and 75<sup>th</sup> Avenue-San Leandro Street-are signalized. The turns at 69<sup>th</sup> Avenue-Snell Street and 75<sup>th</sup> Avenue-Snell Street have lower amounts of traffic and are controlled by stop signs. The level of signalization is adequate for pedestrians and cyclists.

- To help guide bicycles along the Greenway, we recommend:
  Installing signage at 69<sup>th</sup> and 75<sup>th</sup> Avenues clearly directing cyclists to Snell Street and pedestrians along San Leandro Street
- Adding high-visibility crosswalks at the intersections of 69<sup>th</sup> and 75<sup>th</sup> Avenues with San Leandro Street
- Adding Greenway signage at the intersections of 69<sup>th</sup> and 75<sup>th</sup> Avenues with Snell Street
- Installing on-street bicycle boulevard markings on Snell Street
- Improving the on-street railroad crossings at 69<sup>th</sup> and 75<sup>th</sup> Avenues to be ADA and bicycle accessible
- Studying the potential for reconfiguring the intersection of 75<sup>th</sup> Avenue and Snell Street by straightening the intersection and removing the free right-turn lane.

# Alternatives

An alternative through route for cyclists is to create Class II bike lanes on San Leandro Street between 69<sup>th</sup> Avenue and 75<sup>th</sup> Avenue. The bicycle lanes would connect back to the multi-use trail at those points. However, transitioning from a multi-use trail to Class II bike lanes for such a short segment is not ideal, and it is questionable whether cyclists will follow the transition.

#### **Community Character**

The Coliseum Stadium dominates this segment both visually and as a generator of activity. Other points of interest include Lion Creek and Arroyo Viejo, two streams that run through the industrial lands around the Coliseum and drain into Damon Slough.

Community destinations in addition to the Coliseum Stadium and Arena include the Bay Trail, the Lion Creek Crossing community park, and restaurants catering to sports fans.

#### Access and Traffic Calming

The new traffic signals, a new at-grade pedestrian crossing at the BART station, and planted medians have improved pedestrian access on San Leandro Street. In addition, Class II bike lanes are proposed along 66th Avenue and Hegenberger Road, connecting neighboring areas to San Leandro Street, and the Coliseum Station to the MLK Shoreline (66<sup>th</sup> Avenue) and the airport (Hegenberger Road).

The planned BART to Bay Trail will be connected to the BART station and the Greenway by the Coliseum overpass that currently connects the BART station over San Leandro Street to the Coliseum Stadium.

# **Community Opportunities**

Both Lion Creek and Arroyo Viejo are significant water corridors that run through this segment, but they are currently overlooked and neglected. To whatever extent possible, we recommend cleaning up these waterways, making them visible to Greenway users, and restoring the natural habitat around them.

We also recommend considering the long-term potential of adding trails along the creeks and using the open space adjacent to the creeks for recreation. Areas that are not accessible to people (like the areas adjacent to the Hegenberger access roads) could be locations for habitat beautification and art projects.





New pedestrian crossing and planted medians at the Coliseum BART Station



Amtrak Station

This segment connects the Coliseum area with neighborhoods on the Oakland and San Leandro border. Although residential neighborhoods are only a few blocks away on each side of San Leandro Street, the street is dominated by large-scale industry, factories, and warehouses. Many of the former factories have been converted into storage. New housing developments like Arcadia Park at 98th Avenue are adding residents to the corridor.

# **Site Analysis**

# Land Ownership

As in Segment 5, land ownership under the BART tracks is divided in three parts: a joint-use easement with the UPRR on the east side adjacent to the existing rail (10.5 feet), BART ownership around the BART columns (11 feet), and an easement with the City adjacent to San Leandro Street (7.5 feet). From 98<sup>th</sup> Avenue to 105<sup>th</sup> Avenue, the amount of the cityowned land decreases while the UPRR land increases. At 105<sup>th</sup> Avenue, the entire area under the BART tracks is owned by the UPRR.

# Site Observations

The initial impressions of this segment—the smells from a metal foundry, heavy truck traffic, litter and graffiti, a complete lack of vegetationreinforce the notion that it is not a pleasant place to walk or bike. But with very few cross streets (only four street crossings in 1.75 miles), it has the potential to become a useful pedestrian and bicycle corridor. Despite the current conditions, people continue to bicycle and walk under the BART tracks here.

Trucks parked between  $81^{st}$  and  $92^{nd}$  Avenues block views of the corridor from the street, which makes this segment feel much less safe than the areas with no parked vehicles. More dumping and litter was observed in the truck parking area than in adjacent no-parking areas.

# **Community Comments**

At community meetings, residents in the adjacent neighborhoods said that safety is their primary concern. They also complained about illegal dumping and overnight truck parking in the area. They believed that the adjacent neighborhoods would use the proposed Greenway only after access across the railroad tracks was improved.

Lighting, cameras, and call boxes topped the list of elements the communities wanted. Seating, exercise equipment, and plants and grass were their second priorities.

# **Existing Plans and Developments**

The City of Oakland's *Bicycle Master Plan* proposes both a Class I path under the BART tracks and Class II bike lanes on San Leandro Street in this segment. Additionally, a new elementary school and library complex are being constructed on 81<sup>st</sup> Avenue. At 98<sup>th</sup> Avenue and San Leandro Street, a new housing development, Arcadia Park, is under construction.





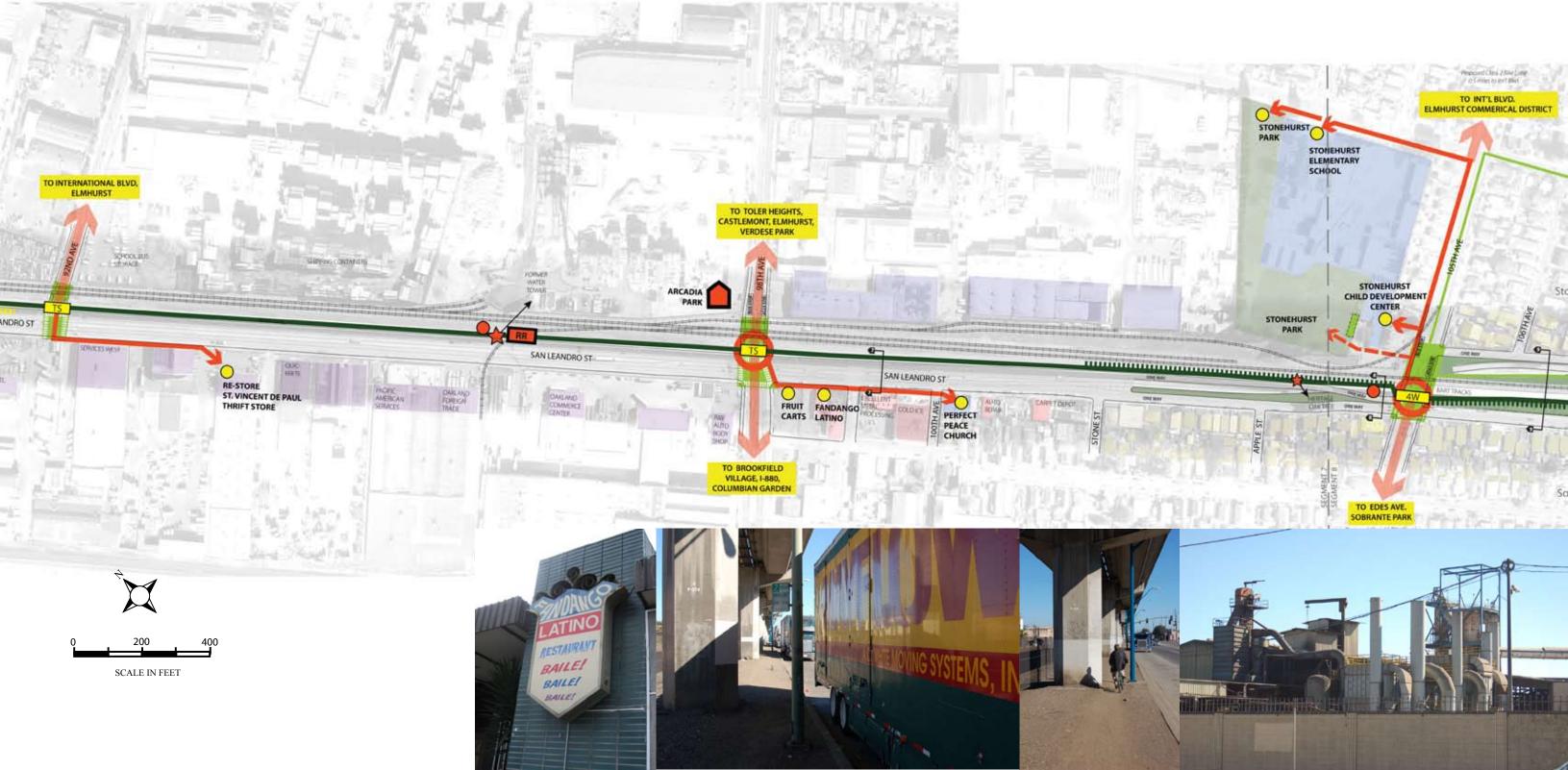
# segment 7: San Leandro Street: 75th Avenue to 105th Avenue, Oakland





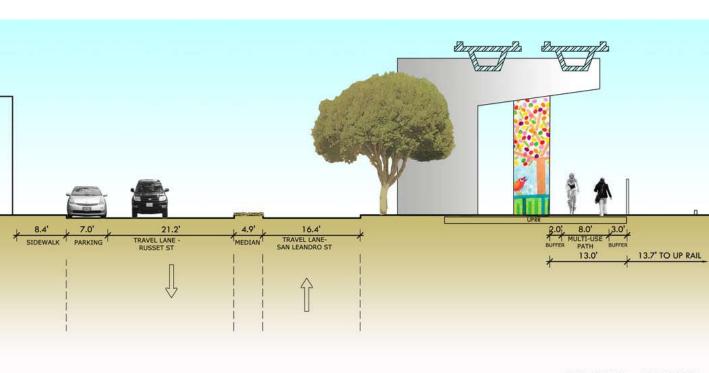






segment 7

# 11.0 12.0 12.0' 10.0 TRAVEL LAN TRAVEL LANE TRAVEL LANE MULTI-USE PATH BUFFER BUFFER 62.9' 191' Ţ



SECTION 7B - PROPOSED: SAN LEANDRO ST AT 105TH AVE. LOOKING NORTH

SECTION 7A - PROPOSED

SAN LEANDRO ST. NORTH OF 81ST AVE. LOOKING NORTH

# The Link: Greenway Path Alignment

#### **Preferred Route**

The preferred Greenway alignment would be to use the existing shoulder on San Leandro Street and narrow the travel lanes, creating approximately 16 feet between San Leandro Street and the BART columns for a multi-use path. Placing the pedestrians and cyclists between the BART columns and San Leandro Street is preferred because visibility is better than on the other side of the BART columns, and the pedestrian and cyclists can cross at existing intersections.

This alignment would require relocating the truck parking between 81st and 92nd Avenues. Removing the shoulder on the northbound side and shifting the travel lanes does not significantly impact the performance of traffic operations in this segment.

AC Transit runs line 45 through this segment. If there are any transit stops in this segment, the buses will have to stop in the travel lane. However, this is not seen as a major issue. The bikeway would share the transit stop, which may be an issue.

Since the traffic performance is not significantly influenced by reducing lane width, travel lane width in this segment can be reduced to 11 feet, and the shoulder under BART tracks can be converted to a Class I bike facility.

Between 98<sup>th</sup> Avenue and 105<sup>th</sup> Avenue, traffic on San Leandro Street gets directed into an underpass at 105<sup>th</sup> Avenue. Narrowing San Leandro Street at this location is not possible. Instead, we propose transitioning the path to the other side of the BART columns (on UPRR land) until it reaches 105<sup>th</sup> Avenue.

# **Crossing Treatments**

The Greenway route will cross four streets in this segment: 81<sup>st</sup>, 85<sup>th</sup>, 92<sup>nd</sup>, and 98<sup>th</sup> Avenues; all are controlled by existing traffic signals. The Greenway route will also cross two railroad spurs in this segment, one between 85<sup>th</sup> Avenue and 92<sup>nd</sup> Avenue and one between 92<sup>nd</sup> Avenue and 98<sup>th</sup> Avenue. These spurs do not appear to be in use, but this should be verified before creating the Greenway.

# Alternatives

Alternative 1: If using the UPRR joint-use easement land is a possibility, a separate bicycle path could be located between the railroad tracks and the BART columns. The area adjacent to the San Leandro Street curb would have sidewalk. This would avoid narrowing San Leandro Street and the costs of building the new curb and gutter proposed in the preferred route.

Alternative 2: At a minimum, the Greenway could consist of a Class II bike lane on San Leandro Street (as proposed in the City's Bicycle Master Plan), planted medians, and additional sidewalks similar to the streetscape improvements recently installed near the Coliseum BART Station.

# **Community Character**

Although this segment appears at first to be a bleak, industrial no-man's land, a second look at this segment reveals a hidden richness of both human and natural history that the Greenway could highlight and celebrate.

Points of interest include:

- Two former cookie factories; both Sunshine and Mother's Cookies were located here
- The creek near 85<sup>th</sup> Avenue, which is currently a neglected and littered site
- A water tower near 98<sup>th</sup> Avenue which was recently removed for the Arcadia Park development but could be remembered through an art installation or interpretive signs
- Historic heritage trees growing in the San Leandro Street median near the 105<sup>th</sup> Avenue underpass

Community destinations include:

- Artist studios that are a part of the SoFA collective
- Habitat for Humanity's ReStore shop for recycled building supplies and Saint Vincent de Paul's thrift store
- 98<sup>th</sup> Avenue, which attracts fruit carts and connects to Fandango Latino and the Perfect Peace Church
- The Stonehurst Elementary School Child Development Center and Park at 105<sup>th</sup>
   Avenue

# **Access and Traffic Calming**

Narrowing travel lanes on San Leandro Street, as we propose, will help calm traffic. Additionally, in order to create a better walking environment, we recommend:

- Installing landscaped medians on San Leandro Street
- Improving crossings over San Leandro Street at 81<sup>st</sup>, 85<sup>th</sup>, 92<sup>nd</sup> and 98<sup>th</sup> Avenues
- Improving the on-street railroad crossings to connect to adjacent neighborhood

Key intersections in this segment selected for improved crossings are:

- 81<sup>st</sup> Avenue because of the new elementary school and library and because residents said traffic is too fast on the street
- 85<sup>th</sup> Avenue because of its direct connection to the communities and a proposed bike route
- 92<sup>nd</sup> Avenue and 98<sup>th</sup> Avenue because of the bus routes and new housing developments

At each of these intersections we recommend:

- Creating high-visibility crosswalks
- Adding pedestrian count-down signals where there are none
- Adding curb extensions (bulb-outs) where feasible

# **Community Opportunities**

Community members said that the primary opportunity the Greenway presents is increasing community pride by creating a green, beautiful, safe place where there is existing blight. The pathway, along with planting, maintenance, and lighting, will make a huge difference in this segment.

The creek located north of 85<sup>th</sup> Avenue could be cleaned up, replanted with native plants, and made more visible through interpretive signage and art installations. The former bay edge and heritage trees could also be a part of an interpretive tour about the historical interaction between nature and industry.

Art could be also used at key intersections to bring interest to the Greenway and create activity hubs. Resources such as the ReStore and SoFA artists could enhance public art. Re-using industrial materials in art pieces could highlight the area's heritage and emphasize a green and earth-friendly future.

The high number of youth and seniors in the surrounding neighborhoods means that including programming such as youth bike rides and senior walks would bring those communities to the Greenway. One community member suggested that businesses along this segment help sponsor sections of the Greenway, especially since their potential customer and employees could

customers and employees could use the Greenway. Another felt that getting youth involved in the artwork is important to this area.



This simulation of the East Bay Greenway at 81st Avenue shows how a new path is possible by relocating the truck parking



A t 105<sup>th</sup> Avenue, the BART tracks and the UPRR line separate from San Leandro Street and run behind residential neighborhoods and small-scale light industry. This link ties together the cities of Oakland and San Leandro and connects them to the San Leandro BART Station.



# segment 8: San Leandro Street, 105th Avenue to Davis Str





segment 8

# 105th Avenue to Davis Street, Oakland and San Leandro





SIEMPRE VERDE

BIXCO ST

PARK

segment 8: San Leandro Street: 105th Avenue to Davis Street, Oakland and San Leandro

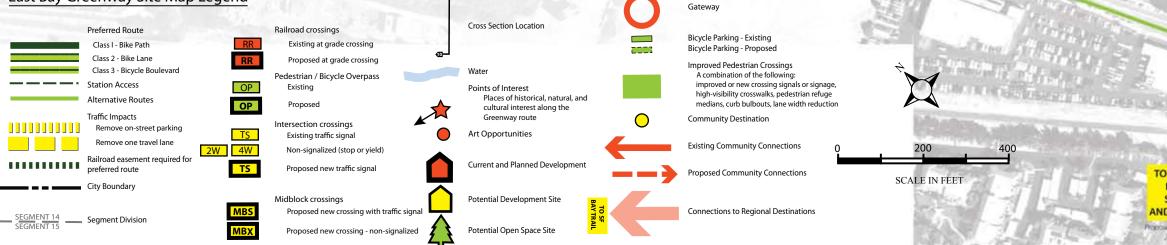
> FIFTH WHEEL

FOOD

East Bay Greenway Site Map Legend

herrywood

LVD



BEST

PERALTA STORAGE

ING/RECEIVING

PARKST



segment 8

# 

Segment 8 typical land ownership



Low visibility from the street

# Site Analysis

# Land Ownership

In this segment, the entire area under the BART tracks is owned by the UPRR. BART owns some land adjacent to San Leandro Creek.

# Site Observations

Currently, no safe and direct connection to the San Leandro Station exists for cyclists coming from 105<sup>th</sup> Avenue neighborhoods. Since the underpass at 105<sup>th</sup> Avenue turns San Leandro Street into a one way at 105<sup>th</sup> Avenue, cyclists must either go against traffic or take a detour along Apricot Lane to get to the station.

However, many obstacles to putting a bicycle and pedestrian path under the BART tracks in this segment exist. The first is the uncertainty that UPRR will allow use of this land. The second is whether there is enough space where the BART tracks cross San Leandro Creek and the railroad tracks at the same place. The third is creating a safe crossing midblock at Davis Street (SR-61), a high-volume state highway. And, finally, the issue of visibility: As the tracks move further from San Leandro Boulevard, they are less and less visible from the road, cutting down on "natural surveillance." In addition, the raised railroad tracks and the vegetation along San Leandro Boulevard block views to the BART tracks.

# **Community Comments**

Residents in Sobrante Park, Oakland, stated that they often go to San Leandro to use Siempre Verde Park, and they would like to have a similar, well-maintained facility in their own neighborhood so they wouldn't have to travel to enjoy open space. They also wanted to make 105<sup>th</sup> Avenue safer for children riding bicycles to school.

People in the Broadmoor, Estudillo, and Farelly Pond neighborhoods of San Leandro were supportive of the idea of a greenway. But they felt that access from

their neighborhoods across San Leandro Boulevard would have to be improved before they would use the path. They also pointed out crossing difficulties at the Broadmoor and Park intersections with San Leandro Boulevard. Cherrywood residents said that they have problems with tagging in their neighborhood and homeless people living in the creek bed.

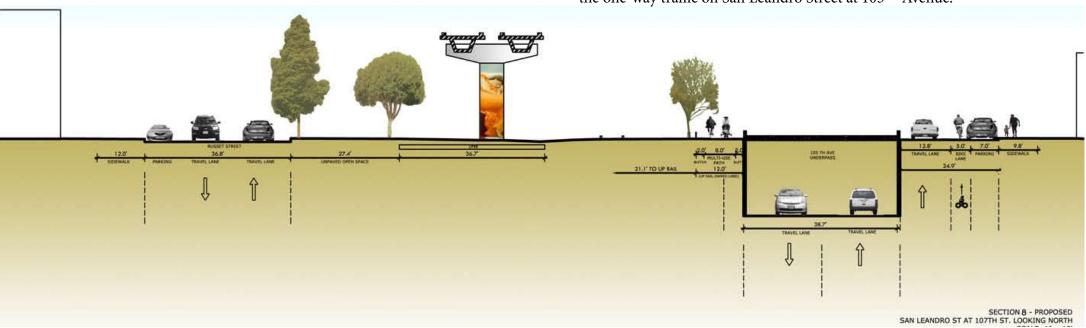
Communities in San Leandro liked the idea of a butterfly garden and community gardens. There is an active artist community in the Sobrante Park neighborhood that is willing to help with public art designs or competitions. All communities near this segment emphasized the need to address personal safety. Top choices for safety elements included lighting, exercise areas, and safety cameras. Also ranked high were seating, planting, call boxes, grass, and signage.

# **Existing Plans and Developments**

The Sobrante Park neighborhood is currently implementing improvements to Edes Avenue. The City of San Leandro is working on improving the Broadmoor and San Leandro Boulevard intersection with a new design.

The *Downtown San Leandro Transit-Oriented Development Strategy* was approved by the San Leandro City Council in September 2007. The plan includes the Greenway in its open space plan, along with a trail along San Leandro Creek. In the community meeting the Greenway tied for first on a list of open space priorities in the downtown area. The plan also includes improvements to San Leandro Boulevard and intersection improvements to make the area more pedestrian-friendly.

Both the City of Oakland's *Bicycle Master Plan* and the City of San Leandro's *Bicycle Master Plan* propose a Class I path along the Greenway route. Oakland's *Bicycle Master Plan* also proposes a Class III bike route on Apricot Lane to avoid the one-way traffic on San Leandro Street at 105<sup>th</sup> Avenue.



# The Link: Greenway Path Alignment

#### **Preferred Route**

Keeping the Greenway route under the BART tracks in this segment would require a signalized mid-block crossing at Davis Street. Davis Street carries a significant amount of vehicular traffic because of its proximity to an existing interchange serving I-880. The Davis Street intersection with San Leandro Boulevard is especially heavily traveled, with multiple lane approaches on all legs, including dual left-turn lanes for all approaches. BART and local agencies have provided a keep-clear striping in front of the BART parking lot entrance, which implies that the peak-hour traffic backup at the nearby San Leandro Boulevard intersection queues up past the BART driveway entrance.

The proximity of the two intersections to the proposed at-grade crossing for the Greenway, with the added complication for the at-grade crossing of the UPRR, rules out a practical solution for a mid-block crossing where the BART tracks cross Davis Street.

The preferred Greenway route would instead run along San Leandro Boulevard, making use of the existing traffic signal at Davis Street and San Leandro Boulevard. Between 105<sup>th</sup> Avenue and Siempre Verde Park would be a multi-use path on the southbound side of the road (on UPRR land) and a bike lane on the northbound side. Southbound cyclists could use the multi-use path instead of riding against traffic on a one-way street. Northbound cyclists would use the bike lane. At Siempre Verde Park, the path would transition into Class II bike lanes on San Leandro Boulevard.

#### **Crossing Treatments**

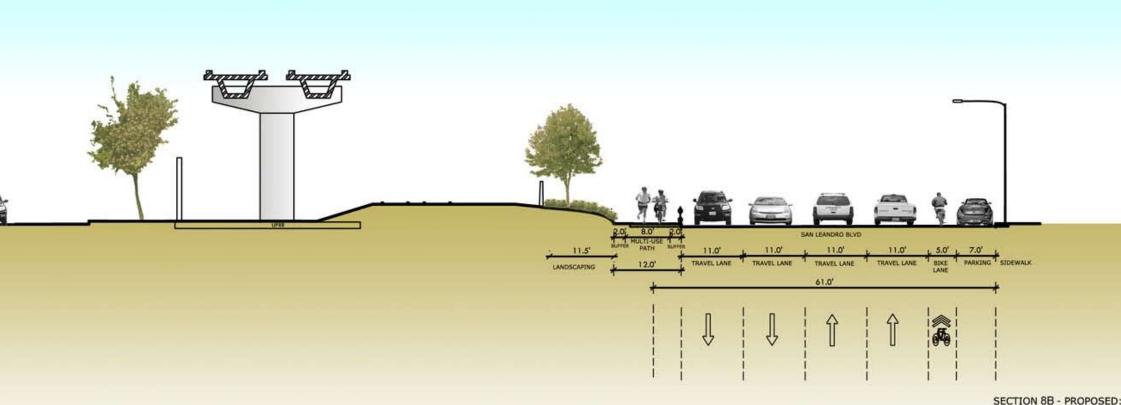
In this segment the Greenway route crosses three major streets: 105<sup>th</sup> Avenue, Peralta Street, and Davis Street (SR-61). It also crosses San Leandro Creek on the existing San Leandro Boulevard bridge.

105<sup>th</sup> Avenue intersects San Leandro Street in two places. The four-way stop with San Leandro and Russet Streets is the preferred crossing point for people traveling southbound on the Greenway. Minor adjustments to where the cars on 105<sup>th</sup> Avenue stop will have to be made. Northbound pedestrians and cyclists should cross at 105<sup>th</sup> Avenue and San Leandro Street.

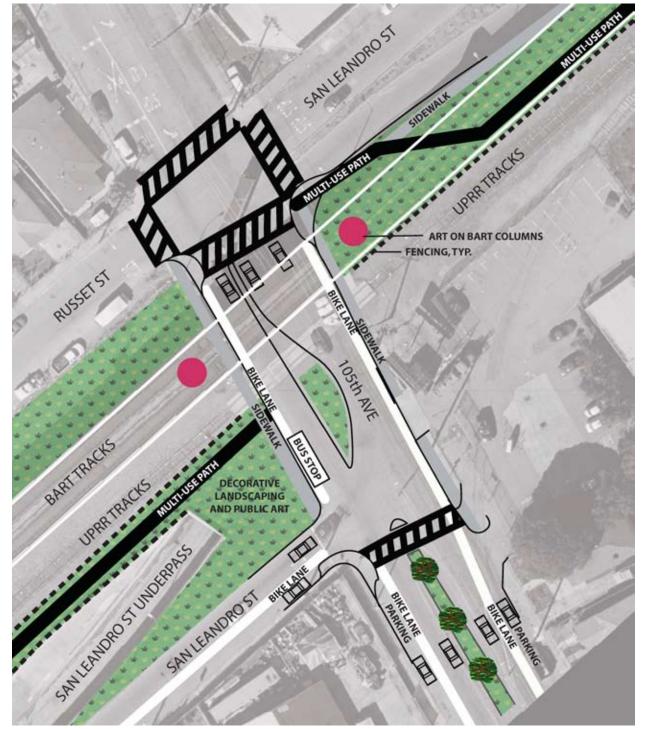
#### Alternatives

**Alternative 1:** Install a multi-use path under the BART tracks from 105<sup>th</sup> Avenue to Peralta Street, where the route would connect to the Class II bike lanes on San Leandro Boulevard. This would require installing the proposed Class III bike route on Peralta Street and adding a crossing at Peralta Street and San Leandro Boulevard.

Alternative 2: Another option would be for the route to cross Davis Street at Alvarado Street by connecting the path through the Antonio Street cul de sac near San Leandro Creek.



# segment design



Schematic diagram for Greenway route, pedestrian crossings, and landscaping areas at 105th Avenue

# **Community Character**

The communities along this segment contain a mix of old and new neighborhoods with small-scale light industry and retail sprinkled in. San Leandro Creek, the heritage oak tree near 105<sup>th</sup> Avenue, and a farmhouse with a tank house near Peralta Street provide hints of a more rural past. The relatively new housing development of Cherrywood suggests changes in the area.

The Stonehurst Elementary Child Development Center and Park as well as small commercial businesses on San Leandro Street are community destinations in Oakland. Destinations along this segment in San Leandro include Siempre Verde Park, the adjacent plant nursery, Fifth Wheel Food restaurant, and Creekside Plaza (the Tri-Net Building).

# Access and Traffic Calming

At community meetings in the area, community residents told us that the Broadmoor Boulevard and Park Street intersections with San Leandro Boulevard are confusing. The City of San Leandro is redesigning the Broadmoor intersection. Additionally, trafficcalming measures (narrowing travel lanes to 12 feet and planting street trees) should be installed along San Leandro Boulevard to discourage speeding. Installing crosswalks across San Leandro Boulevard at Broadmoor Boulevard and Siempre Verde Park will help residents access the Greenway.

# **Community Opportunities**

Streetscape and landscape improvements where the Greenway meets 105<sup>th</sup> Avenue would tie together the Stonehurst school and park, the bus stops, and the median to create a community hub. Artists in the 105<sup>th</sup> Avenue area have already developed conceptual ideas for how this space could incorporate public art.



Exisiting railroad-owned open space

The railroad land in Oakland south of 105<sup>th</sup> Avenue is an average of 125 feet in width, including the railroad tracks. The land to the west of the railroad tracks is 65 feet in width. Residents and business owners on Russett Street have complained about the dumping and lack of maintenance on the site. Transforming this site into a community open space would increase community pride, address maintenance, and provide much-needed recreation space in the neighborhood. A local school requested including a running track in the space.

Creating a spur route or an alternative route to San Leandro Creek on Peralta Street creates an opportunity for interpretive signage, seating, and art at the creek (*right*).



Adding landscaping and seating can create a play area out of this unused UPRR land adjacent to San Leandro Boulevard





A spur route or an alternative route to San Leandro Creek on Peralta Street creates an opportunity for interpretive signage, seating, and art at the creek



The Downtown San Leandro BART station is adjacent to the historic center of San Leandro. From the BART station, L people can walk or bike to a history walk, shopping center, and other attractions of the downtown San Leandro area. The Downtown San Leandro Transit Oriented Development Strategy approved by the San Leandro City Council in 2007 sets the stage for increasing residential and commercial activity around the BART station, creating a more walkable area, and improving the connections between the downtown and the BART station. The Greenway will support this plan by providing pedestrian and bicycle access to the station and creating open space for recreation.

# **Site Analysis**

# Land Ownership

BART owns the parking lots around the San Leandro Station, and the UPRR owns the land that has the railroad tracks west and north of the station.

# Site Observations

The current parking lot has no additional room for improved bike and pedestrian access. An existing at-grade pedestrian crossing of the railroad tracks connects the station to Martinez Street, where many people park. San Leandro Boulevard and Davis Street (SR-61) are wide, high-traffic streets in this segment.

# **Community Comments**

At community meetings, the community's concerns for this area focused on crime and safety. In general, people said they feel safe in the BART parking lot but not on Martinez Street or walking home away from the parking lot.

Several people said that San Leandro Boulevard and Davis Street are too busy, difficult to cross, and unpleasant to bike along.

# **Existing Plans and Developments**

As mentioned in the previous segment, the Downtown San Leandro Transit Oriented Development Strategy provides a framework for the redevelopment of parcels surrounding the station that complements the density of the current downtown. The plan proposes some new roads and alignments as well as intersection improvements.

The City of San Leandro's Bicycle Master Plan proposes a Class I bike path along the railroad corridor in this segment.

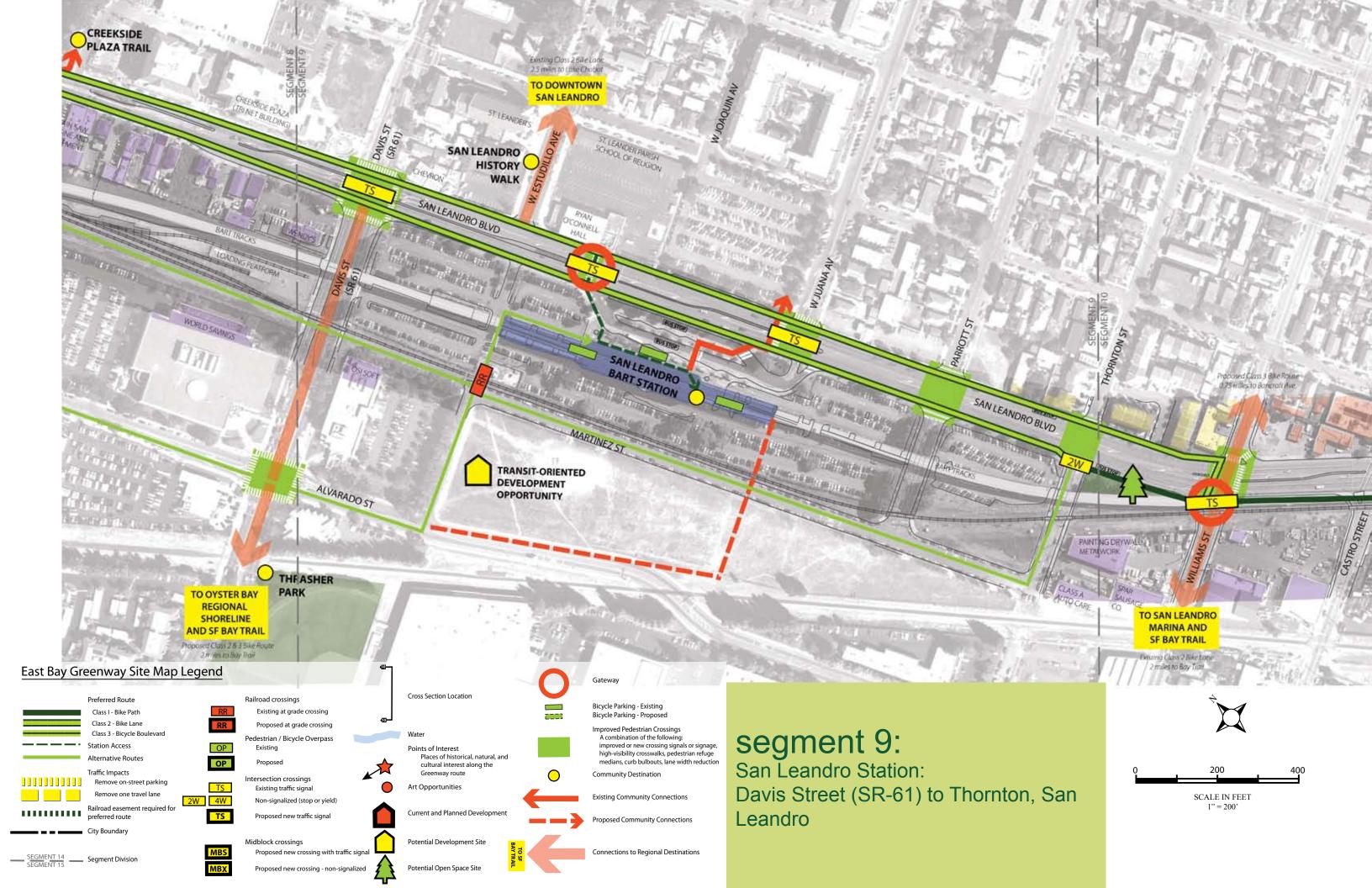
segment 9: San Leandro Station, Davis Street (SR-61) to Thornton Street, San Leandro





Boulevard





## The Link: Greenway Path Alignment

#### **Preferred Route**

The preferred route to the San Leandro BART Station would be to use the existing Class II bike lanes on San Leandro Boulevard.

#### **Alternative Routes**

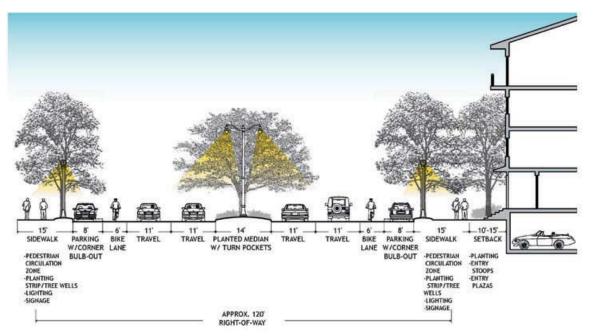
There are two alternative routes to the San Leandro BART Station:

- 1. A Class I path following the elevated BART tracks and UPRR corridor, which is not feasible due to the need for a mid-block crossing at Davis Street (SR-61).
- 2. A Class II or III route on Alvardo Street and Martinez Street. In our community meetings Alvarado and Martinez Streets were not popular as a route because of the lack of activity on these streets and people's fear of crime. Once these areas become activated with new housing and retail as proposed in the *Downtown San Leandro Transit Oriented Development Strategy*, it is likely they will become a safer and more attractive route.

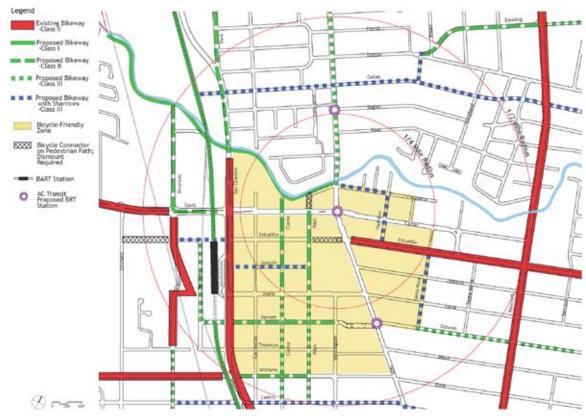
The *Downtown San Leandro Transit Oriented Development Strategy* proposes eventually closing Martinez Street. We recommend retaining it (or a similar corridor through the new developments) as a bicycle- and pedestrian-only path.

#### **Crossing Treatments**

In this segment the Class II bike lanes along San Leandro Boulevard cross Davis, Estudillo, Juana, Parrott, and Thornton Streets. The *Downtown San Leandro Transit Oriented Development Strategy* contains proposal for improving pedestrian and bicycle access across these intersections. These proposed improvements are adequate for the Greenway.



*Cross Section of San Leandro Boulevard from the Downtown San Leandro Transit Oriented Development Strategy* 



Circulation Plan from the Downtown San Leandro Transit Oriented Development Strategy



#### **Community Character**

The San Leandro BART station is at the historic heart of San Leandro. San Leandro's old public square was on the block between Estudillo Street and Joaquin Avenue across from the existing BART parking lot. Several points of interest are located near the square: San Leander's church, historic homes, and the San Leandro History Museum and Art Gallery. Other community destinations accessible from the Greenway include Thrasher Park and the Pelton Plaza shopping center.

#### Access and Traffic Calming

The Downtown San Leandro Transit Oriented Development Strategy proposes a new street configuration for San Leandro Boulevard as well as intersection improvements to streets that connect San Leandro station to downtown across San Leandro Boulevard (San Leandro Boulevard and Davis, Estudillo, Juana, Parrott, and Thornton Streets).

Davis Street is an important link to the Bay Trail and Thrasher Park to the west and downtown to the east. In addition to the improvements recommended for the San Leandro Boulevard and Davis Street intersection, the *Downtown San Leandro Transit Oriented Development Strategy* also proposes improvements to the Davis Street and Alvarado Street intersection.

These proposed improvements will complement the Greenway by improving pedestrian and bicycle connections to downtown and the Bay, and by making San Leandro Boulevard a more pedestrian- and bicycle-friendly street.

#### **Community Opportunities**

The Greenway in this segment could expand on the existing downtown History Walk; it could add information about the agricultural and industrial development of San Leandro by adding sites such as the railroad, San Leandro Creek, and the two tank houses to the north and south of downtown. (See segments 8 and 10).

Adding a public-art element where the Greenway meets the BART entrance at Estudillo Street could increase the visibility and awareness of the pathway.

Programming in this area should respond to the needs of the seniors who live in the area's senior housing and the church





Downtown History Walk signage



#### Open Space Plan from the Downtown San Leandro Transit Oriented Development Strategy

s the Greenway route leaves San Leandro BART Station and runs south under the BART tracks, it is adjacent to San A Leandro Boulevard for approximately 10 blocks before separating from the road.

# Site Analysis

#### Land Ownership

Land ownership in this segment is split in two. Approximately 12 feet of the land under the BART tracks adjacent to San Leandro Boulevard is owned by the City of San Leandro, and 18 feet between the BART columns and the railroad is owned by the UPRR.

#### Site Observations

San Leandro Boulevard in this segment has extra-wide lanes (up to 17 feet), which encourages traffic to speed. Although there are bike lanes on San Leandro Boulevard, the side of San Leandro Boulevard adjacent to the BART tracks has no sidewalks. People often walk in the on-street bike lanes.

Traffic crossing San Leandro Boulevard is limited to key signalized intersections (Williams Street and Marina Boulevard). Other intersections (Castro, Harlan, and Estabrook Streets) are closed with a median and allow for only right turns onto San Leandro Boulevard.

#### **Community Comments**

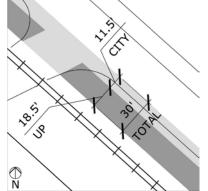
At community meetings residents in the area said they avoid walking and biking on San Leandro Boulevard because there is so much traffic. They prefer using side streets. Community members also said that Marina Boulevard and Williams Street are busy intersections that are difficult for pedestrians to cross.

#### **Existing Plans and Developments**

The Downtown San Leandro Transit Oriented Development Strategy proposes parking and bicycle lanes on both sides of San Leandro Boulevard from San Leandro Creek to Williams Street. The vacant parcel adjacent to the railroad near Hudson Lane will be developed as a cold-storage facility. A new traffic signal on San Leandro Boulevard is planned for the driveway to the facility.

# segment 10: Thornton Street to Hudson Lane, San Leandro





Segment 10 typical land ownership





segment 10

## The Link: Greenway Path Alignment

#### **Preferred Route**

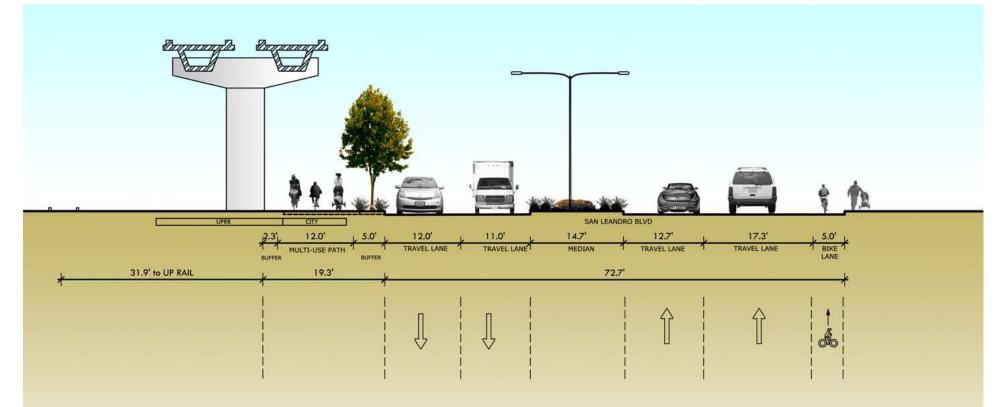
We propose narrowing the southbound travel lanes on San Leandro Boulevard to 11 feet and 12 feet and removing the southbound bike lane. In addition to calming traffic, narrowing the lanes would create an area of over 20 feet in width on the side of the street for a multi-use pedestrian and bike path under the BART structure. The northbound bike lane, the northbound traffic lanes, and the existing medians would remain as they are.

The preliminary traffic analysis finds that this concept would have no impact on vehicular traffic.

#### **Crossing Treatments**

In this segment, the Greenway path would cross seven intersections. Five of these intersections (Parrot, Thornton, Castro, Harlan, and Estabrook Streets) have 2 to 4 lanes and low levels of traffic. The cross traffic is controlled by stop signs. At these intersections the median blocks through traffic from the west as well as left turns from San Leandro Boulevard. At these intersections, we recommend installing high-visibility crosswalks with warning signage. We also recommend evaluating the potential removal of free right turns from San Leandro Boulevard. Further studies on sight distance and turning radii would be required.

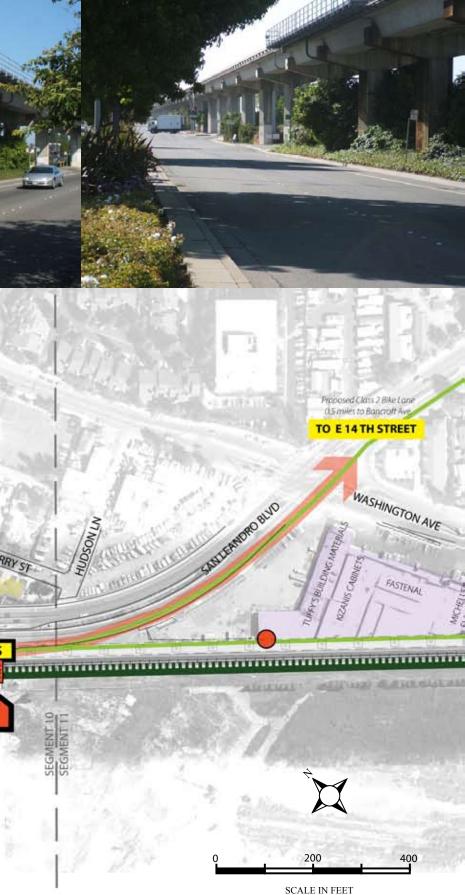
Two intersections (Williams Street and Marina Boulevard) have higher levels of traffic and allow for left turns from San Leandro Boulevard. Both of these intersections have traffic signals. Community members stated that Marina Boulevard is an especially difficult intersection to navigate. We recommend that pedestrians and cyclists at these intersections follow the traffic signals. We also recommend installing high-visibility crosswalks and warning signage and evaluating the potential for removing the free right turns.





# segment 10: Thornton Street to Hudson Lane, San Leandro





CALE IN FEE 1" = 200'

#### **Community Character**

The small-scale residential neighborhood to the east of San Leandro Boulevard contrasts with the industrial development to the west of the tracks. In the backyard of one of these residences is another tank house, reminding us of the rural history of the area. A local destination in this segment is the Boys and Girls Club Pool at Marina Boulevard.

#### **Access and Traffic Calming**

The biggest obstacle in this segment is San Leandro Boulevard itself. It separates the residential neighborhoods to the east from the proposed Greenway. The proposed intersection improvements and the narrowing of San Leandro Boulevard as discussed above will help calm traffic and make the street easier to cross. We recommend keeping the northbound bike lane and sidewalks on San Leandro Boulevard for people who do not wish to cross the street.

The intersection at Marina Boulevard, which connects the Greenway to the Boys and Girls Club, needs high-visibility crossings and other pedestrian improvements.

As in many other areas along the Greenway, the Union Pacific Rail line is another barrier between adjacent land parcels and the Greenway. But since there are almost no pedestrians in this industrial area, the rail line is not considered as much of an obstacle as it is in the more residential areas of Oakland.

### **Community Opportunities**

There is a triangular piece of land at the intersection of Thornton Street and San Leandro Boulevard with an adjacent bus stop that is currently unused and overgrown with ivy. This small area could be transformed into a pocket park, community garden, model storm-water garden, or enhanced bus stop.

Greenway planners and promoters should work with the Boys and Girls Club on programming. The Greenway could provide a safe way for people to travel to the club and provide a space for athletic events and outdoor excursions.



The Marina Boulevard and San Leandro Boulevard intersection



Potential site for a pocket park

This segment runs through the industrial heart of San Leandro, past the Ghirardelli Chocolate Factory and the Kraft L Foods Factory. It provides a direct link between the residential neighborhood of Halcyon Foothill and downtown San Leandro.

## **Site Analysis**

#### Land Ownership

After Hudson Lane, the Greenway separates from San Leandro Boulevard and continues south under the elevated BART structure. For the most part, the right-of-way ownership is split between BART (16 feet on the east) and the UPRR (18 feet on the west).

#### Site Observations

The corridor running behind windowless industrial warehouses is removed from the eyes of passersby, creating a feeling of seclusion. It needs to be designed and programmed with safety and security in mind.

In some areas along this segment, the BART property under the tracks is being used for parking. In one area the BART tracks are on cantilevered structures. These factors, plus the constrained feeling of the BART-owned land between the industrial buildings and the BART columns, makes placing a multi-use path on the BART-owned land unappealing.

Use of the UPPR joint easement land directly under the BART tracks is constrained by a BART switching-station box just north of the Washington Avenue overpass.

The only unconstrained route would be on the UPRR land to the west of the tracks, and this would require the Greenway route to cross the railroad tracks in two locations (near Hudson Lane at the beginning of this segment and near 147th Avenue at the end of this segment).

### **Community Comments**

At community meetings residents explained that 134th Avenue is an emergency route because San Leandro Hospital is located on E 14th Street. A grocery store nearby also

attracts significant traffic. One community member suggested that the Ghirardelli Chocolate Factory be incorporated into the plans as a destination and a potential theme for the segment.

## **Existing Plans and Developments**

The City of San Leandro's Bicycle Master Plan proposes a Class I bike path on the UPRR corridor in this segment.

segment 11: Washington Industrial, Hudson Lane to 147th Avenue, San Leandro

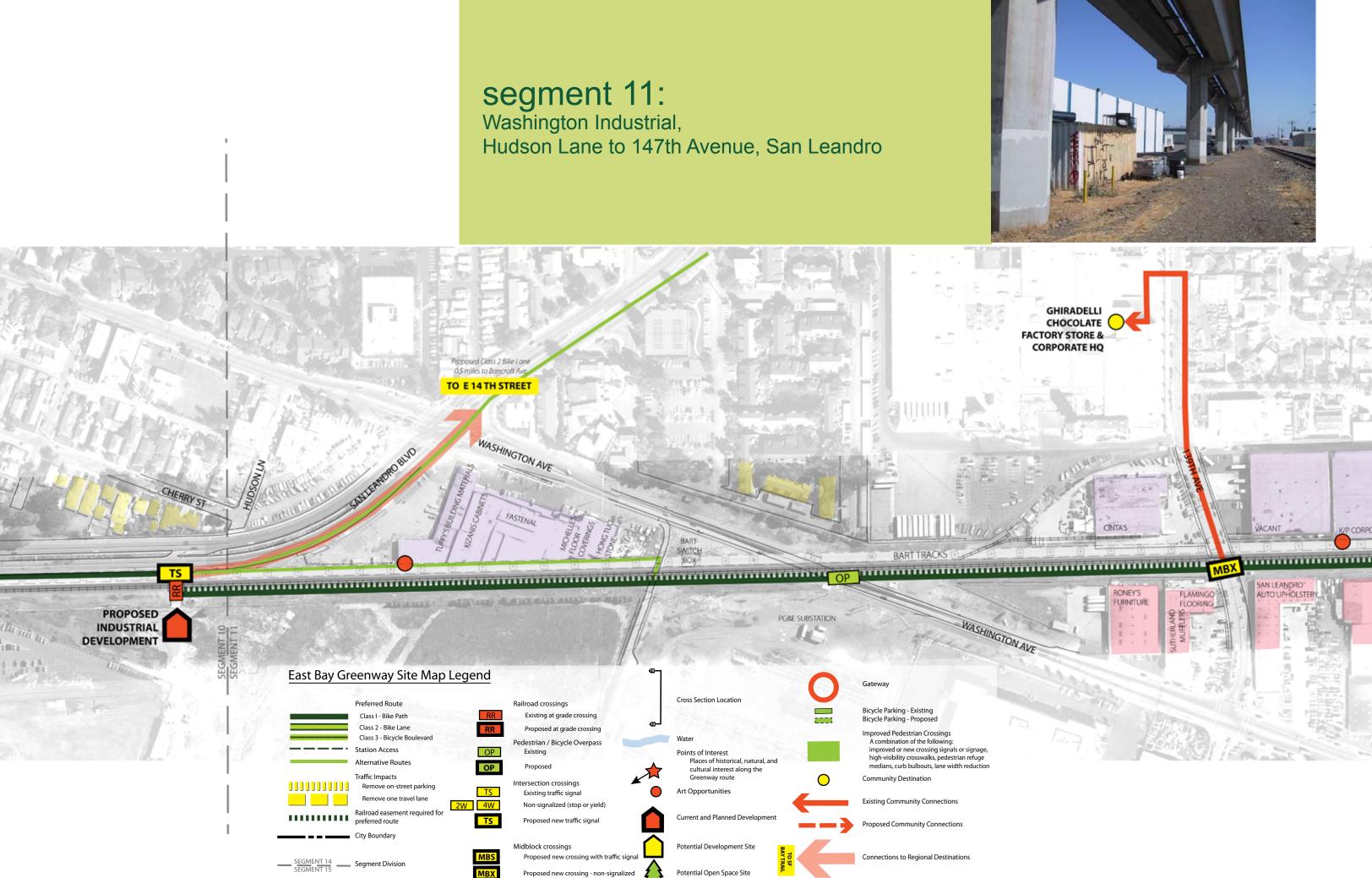
Alameda



Washington Avenue

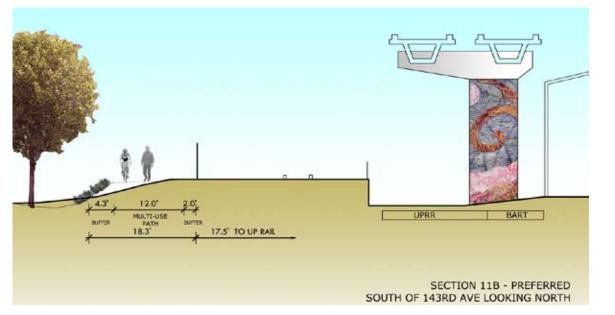








## segment 11





# The Link: Greenway Path Alignment

#### **Preferred Route**

In this segment, the Greenway route will have to cross the UPRR tracks near Hudson Lane and then run on the west side of the tracks in order to avoid the BART switching box. The Greenway can cross back over the tracks at 139<sup>th</sup>, 143<sup>rd</sup>, or 147<sup>th</sup> Avenues.

#### **Crossing Treatments**

The number of intersections in this segment is low, but the preferred route would require an elevated crossing over Washington Avenue.

Two existing pairs of metal rails cross over Washington Avenue. Each pair is 14 feet wide. The UPRR tracks run down the middle of the easterly pair. We propose using the westerly pair of metal rails for the Greenway path over Washington Avenue. The path cannot be located on the east side of the tracks because of inadequate room to construct a path through the eastern metal rails or adjacent to the PG&E substation.

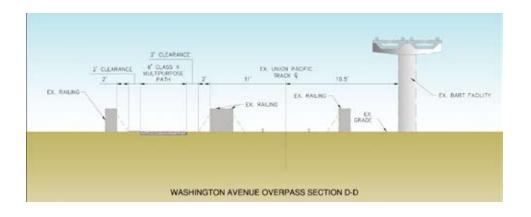
The distance from the centerline of the UPRR tracks and the southernmost metal rail is approximately 25 feet. This width is 2 feet short of the minimum width of 27 feet and would require a design exception from UPRR.

The preferred Greenway route also 139<sup>th</sup> and 143<sup>rd</sup> Avenues.

#### Alternatives

If any of these changes are not possible, then we propose running the Greenway as a Class III bicycle route along San Leandro Boulevard to E 14<sup>th</sup> Street, and from there to 147<sup>th</sup> Avenue. At 147<sup>th</sup> Avenue, it would connect with Segment 12. This is a significant detour for the route and is not recommended.

If the BART switching box can be relocated, the pathway will not have to cross the UPRR tracks and can remain under the elevated BART tracks.





The preferred Greenway route also requires adding non-signalized mid-block crossings at

#### **Community Character**

This segment traverses the industrial heart of San Leandro and contains several unknown and overlooked points of interest. There is a tank house in good condition adjacent to the Greenway on 143<sup>rd</sup> Avenue. The Ghirardelli Chocolate Factory Store (139<sup>th</sup> Avenue) sells undamaged chocolate at very low prices. Halcyon Park (147<sup>th</sup> Avenue) has a small community building, barbecue grills, picnic tables, volleyball court, and tot lot.

#### Access and Traffic Calming

The community can enter the Greenway at 139<sup>th</sup>, 143<sup>rd</sup>, and 147<sup>th</sup> Avenues. The railroad track crossings at these streets are not in as poor condition as those in Oakland, but they still need to be made accessible.

The Bay Trail can be reached by taking proposed bike routes on 143<sup>rd</sup> Avenue to Washington Avenue to Lewelling Boulevard, or by taking existing bike lanes on Hesperian Boulevard to Springlake Drive to Washington Avenue to Lewelling Boulevard.

A Greenway entrance incorporating public art should be added where 147<sup>th</sup> Avenue dead ends at the corridor. There should be signage directing people from the Greenway to Halcyon Park and also from the park to the Greenway.

#### **Community Opportunities**

Murals or art installations on the back sides of industrial buildings or lighting installations on the BART structure could add interest while simultaneously creating a sense of security. Additionally, working with adjacent landowners to open up their buildings facing the Greenway could provide more "eyes on the pathway."

The owners of the Ghirardelli Factory could be approached to see if they are interested in sponsoring a section of the trail or encouraging bicycle riders or pedestrians to visit their factory outlet store.



Murals on the backs and sides of industrial buildings, like this one on the Greenway corridor in San Leandro, can add character and interest to the area



*This simulation of the Greenway at 147<sup>th</sup> Avenue shows landscaping and the BART columns being used for art and wayfinding* 





This segment runs between the residential neighborhoods of Halcyon Foothill and Lower Bal. It connects these L neighborhoods to the Bay Fair Center shopping mall and the Bay Fair BART Station.

## Site Analysis

#### Land Ownership

As in the previous segment, BART owns approximately 16 feet to the east of the BART columns and the UPRR owns approximately 18 feet to the west.

#### Site Observations

People already use this corridor to walk to the Bay Fair BART Station and to local schools. The corridor runs between residential communities from147<sup>th</sup> Avenue to Halcyon Drive. Because there are no "eyes" from an adjacent street, personal safety is a concern. Homeless people often set up camp in the segment between Halcyon Drive and Hesperian Boulevard.

#### **Community Comments**

At community meetings, local residents said that they want to make sure the path addresses

security for the homeowners whose backyards are adjacent to the pathway. They would like to see improved fencing between the backyards and the Greenway. Since there is no adjacent roadway, community members stressed the importance of having a path wide enough so that police could access the area by vehicle. They also felt that maintenance needs to be a part of the plan.

The community listed lighting, planted areas, and grass areas as their top desires for the Greenway. Seating, safety cameras, and call boxes were second-level priorities. Residents

liked the idea of signage and site furnishings that highlight the history of the area. They also felt it was important to include youth programs and park rangers to "encourage appropriate use" of the Greenway.

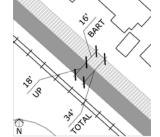
### **Existing Plans and Developments**

The City of San Leandro's Bicycle Master Plan proposes a Class I bike path on the UPRR corridor.

ownership

segment 12: Halcyon Foothill, 147th Avenue to Hesperian Avenue, San Leandro





Segment 12 typical land





segment 12

## The Link: Greenway Path Alignment

#### Preferred Route

From 147<sup>th</sup> Avenue to Hesperian Boulevard, we propose running the Greenway as a multi-use path on the east side of the BART columns (on BART-owned land). This would minimize the use of UPRR-owned land.

#### Intersections and Crossing Treatments

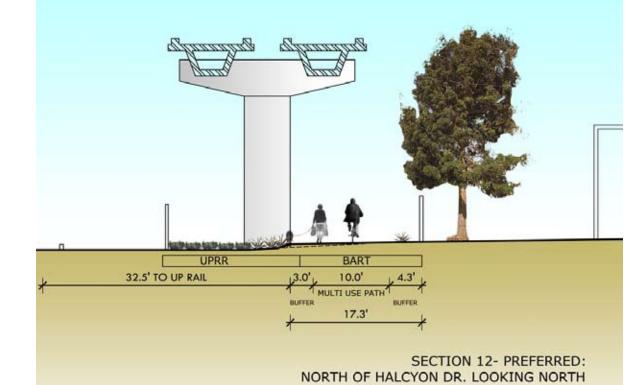
This segment crosses only one street: Halcyon Drive. Halcyon Drive is a large street with four lanes of traffic and bike lanes. The nearest intersections are more than 300 feet away. We recommend that a high-visibility midblock crossing and median refuge be installed where the Greenway crosses Halcyon Drive. Further traffic studies should be conducted to determine whether the crossing needs an on-demand traffic signal.



Halcyon Drive

#### Alternatives

If access to the UPRR easement is available, the Greenway can be expanded to the other side of the BART tracks. The area between the BART tracks and the railroad tracks is more open, visible, and inviting for a path. With access to the UPRR land, separate bicycle and pedestrian paths could be installed and there would be more space for exercise facilities, gardens, or other community amenities.





Potential Open Space Site

Proposed new crossing - non-signalized





#### **Community Character**

This segment runs through quiet, modest residential areas. Other than Halcyon Park at 147<sup>th</sup> Avenue, the Halcyon Baptist Church at Halcyon Drive is the only significant community destination in this segment.

#### Access and Traffic Calming

Access to the Greenway in this area is limited to 147<sup>th</sup>Avenue, Halcyon Drive, and Hesperian Avenue. Access improvements at 147<sup>th</sup> Avenue were discussed in the previous segment. The existing bike lanes and the railroad crossings on Halcyon Drive are adequate for pedestrians and cyclists to access the Greenway from the surrounding neighborhoods. Hesperian Avenue access will be discussed in the following segment.

## **Community Opportunities**

The Halcyon Greenbelt, a patch of open space on Halcyon Drive to the east of the BART tracks, could become a meeting and/or resting place for cyclists, pedestrians, and neighbors. A mini-plaza with a seating area and gardens could be installed.



The Halcyon Greenbelt



A simulation of the East Bay Greenway near Hesperian Avenue shows lighting, landscaping, and a wayfinding map



The Bay Fair BART station, at the southern edge of San Leandro and the northern edge of the unincorporated Ashland L community, is adjacent to the Bay Fair shopping center, which also contains community meeting space and a cinema. The Greenway would provide direct access to the BART station as well as connections to the shopping center and other community destinations.

## **Site Analysis**

#### Land Ownership

From Hesperian Boulevard to the Estudillo Canal, land ownership under the BART tracks is split between BART and the UPRR, as in the previous segment. South of Estudillo Canal, BART becomes the primary landowner.

### Site Observations

Existing pedestrian and bicycle access to the Bay Fair BART Station is severely constrained. Currently, the only at-grade, accessible entrance is from Elgin Street. Access from the Bay Fair Center requires crossing a pedestrian bridge over Estudillo Canal. Access from the west requires going through a pedestrian underpass under the railroad.

To get from Segment 12 of the Greenway to the Bay Fair BART Station, people must cross Hesperian Boulevard, a high-traffic arterial, mid-block. Then they must cross Estudillo Canal and use the BART station access road underpass. Even with these obstacles, we observed people using the corridor to get to the BART station.

## **Community Comments**

People at community meetings commented that Hesperian Boulevard is a very difficult road to cross. They said that people have been hit by trains at Hesperian Boulevard. People also had concerns for personal safety in the underpass between the BART parking lot and the BART station.

## **Existing Plans and Developments**

In 2007, BART completed a Bay Fair BART Transit Oriented Development and Access Plan for the station and the adjacent shopping center. The report states that "[l]ack of direct connections from BART to Bayfair Center, Hesperian Boulevard and East 14th Street creates access and development challenges. Physical barriers such as Estudillo Canal, Union Pacific (UP) and BART tracks also create access and development challenges" (p 1-1).

The plan lists three options for future development and station access. The third-the long-term option-includes a pedestrian and bicycle path on the UPRR corridor similar to the proposed Greenway.

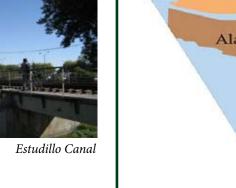
Next, BART is planning to complete a CPTED (Crime Prevention Through Environmental Design) study of the Bay Fair Station. The study will address crime and safety for people accessing the station. Additionally, plans are being developed to expand the Estudillo Canal to provide protection for a 100-year flood.

segment 13: Bay Fair Station, Hesperian Avenue to Elgin Street, San Leandro and Ashland













## The Link: Greenway Path Alignment

#### **Preferred Route**

The preferred route is the most direct route, staying under the BART tracks while approaching the station from the north. This would require crossing Hesperian Boulevard, a high-volume arterial road. Hesperian Boulevard is divided with a median island separating three through lanes in each direction. There is an existing single track at-grade UPRR crossing next to the BART elevated crossing. The rail crossing has gates and flashing warning signals.

The nearest vehicular intersection is Oliver Street, located approximately 150 feet south of the UPRR crossing on Hesperian Boulevard. This is a side street with a stop-controlled intersection. To the north the nearest intersection is Bayfair Drive, approximately 250 feet from the UPRR tracks. Bayfair Drive forms a T intersection with Hesperian Boulevard.

Crossing Hesperian Boulevard by pedestrians and bikes will be problematic without some form of traffic control. Installing a traffic signal at the Greenway crossing is the most effective method. However, the proximity to a nearby signalized intersection at Bayfair Drive is problematic. Signals separated by less than 600 feet results in poor signal progression and undesirable traffic congestion. One remedy would be to redirect pedestrian and bike traffic to the nearest intersection (250-feet to the north at Bayfair Drive). Currently the near-side crosswalk is not available, requiring pedestrians to cross three streets instead of one.

Diversion of pedestrians away from the Greenway alignment would be very difficult because of the nearby UPRR grade crossing. We are concerned that no feasible way of providing a barrier to prevent jay walking exists. Our preferred option would be to have the crossing controlled by a slave signal. This would be a traffic signal that would be controlled by the nearby traffic signal at Bayfair Drive. It would interrupt vehicular traffic when actuated by the pedestrian, which is similar to the way the red cycle at Bayfair works.

Queuing at the slave light is likely to extend across Oliver Street for northbound vehicles. Southbound, there is sufficient capacity to stop 30 vehicles without blocking the Bayfair Drive intersection. Extending a barrier across Oliver Street or restricting left turns out from Oliver Street during peak periods may be feasible.

Pedestrian bridges over the Estudillo Canal and the BART access road (Thornally Drive) will be required for the preferred route. The pathway and bridge structures should be located northeast of the UPRR tracks. The proposed bridge structures should run parallel to the UPRR bridge facilities. The span over the Estudillo Canal should extend a distance of approximately 25 feet and the span over Thornally Drive should be a length of approximately 38 feet. A 6-foot high railing should be placed on both sides of the bridge structures. The 35.5-foot clearance distance between the UPRR tracks and the BART structure provides ample room for installation of the multi-purpose trail and bridge structures.

The pathway would cut into the station parking lot at the northeast edge of the station and go through the parking lot to the station entrance. Although not ideal, the existing parking lot does not have space for additional bike lanes or pedestrian paths. When redeveloped, room for a separate bicycle path and a sidewalk that would not have to negotiate through the parking lot should be incorporated into the plan.

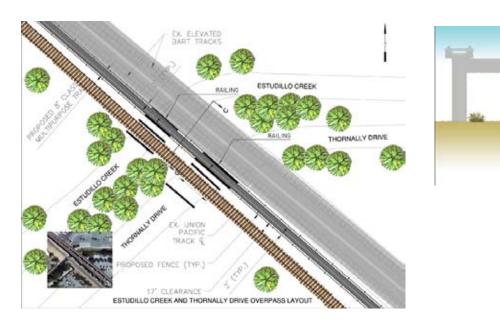
From the Bay Fair BART Station to the south, the Greenway would continue on Elgin Street. The current connection between the BART station and Elgin Street is adequate for pedestrians, but cyclists have to ride on a one-way road. Bicycles can leave the station and connect to Elgin Street, but to get to the station from Elgin Street they have to go against the one-way traffic flow. In order to connect to Elgin Street we recommend replacing the sidewalk with a multi-use path that allows for two-way bicycle flow as well as pedestrian traffic.



Widen this connection between Bay Fair BART and Elgin to provide space for cyclists

#### Alternatives

If the midblock crossing at Hesperian is not possible, then we propose using the existing bike lanes, the BART station underpass, and the pedestrian bridge to make a loop to the station. Non-disabled pedestrians and south-bound cyclists would take Hesperian Boulevard and Thornally Drive to the station underpass. Disabled pedestrians and north-bound cyclists would use the Bayfair Center bridge, Bayfair Center driveway, and Hesperian Boulevard. The Bay Fair Center bridge should be widened to accommodate both pedestrians and cyclists. This round-about approach could be confusing and will need very clear signage.





segment design



#### **Community Character**

The Bay Fair Mall (now Bay Fair Center) opened in 1957. Prior to that the site was an automobile raceway; from 1931 to 1955; Community destinations include a 24-Hour Fitness gym; a Target; and the shopping center with community meeting rooms, a cinema, and the bus and BART transit hub. The channelized Estudillo Canal connects the area to the Bay.

#### Access and Traffic Calming

Providing safe and clear connections between the Greenway and the E 14th commercial corridor and the Bay Fair Center is crucial. The *Bay Fair BART Transit Oriented Development and Station Access Plan* options address these access points.

Hesperian Boulevard is a commercial corridor that connects communities throughout the East Bay as well as connecting to the Bay Trail with existing Class II bike lanes.

Additionally, access from the residential communities and the schools to the southwest of the station should be addressed. Streets in this neighborhood are calm, with low levels of traffic, and they are ideal for bicycling and walking. Clearly marked pedestrian and bicycle routes should be extended from Wagner Street through the BART parking lot to the Bay Fair BART Station.

#### **Community Opportunities**

A strip of land between the Estudillo Canal and Thornally Drive is undeveloped. It is the ideal location and width for a connector path from Hesperian Boulevard to the Bay Fair Station. However, using it would require a new at-grade crossing over the UPRR and a bridge over Thornally Drive. The third option (*Diagonal Long-Term Plan*) proposed in the *Bay Fair BART Transit Oriented Development and Station Access Plan* would elevate Thornally Drive to grade level and make the roadway bicycle and pedestrian friendly. If a trail on this land is not possible, we recommend turning this space into a visual asset by planting a garden and/or adding public art.

Public art could also be used to highlight the Greenway's intersection with Hesperian Boulevard and the Bay Fair BART Station. An interpretive sign or art elements at Estudillo Canal could highlight the former automobile raceway, the creation of the canal, and/or current developments.



Diagonal Long Term Plan from BART's- Transit Oriented Development Plan



Open space next to Estudillo Canal

This segment runs through the Ashland community of unincorporated Alameda County. It connects several local L schools to the Bay Fair BART Station and Western Boulevard in Cherryland. The BART tracks are at grade in this segment. The BART tracks and the railroad tracks cut through this neighborhood. Interstate 238 also bisects these communities.

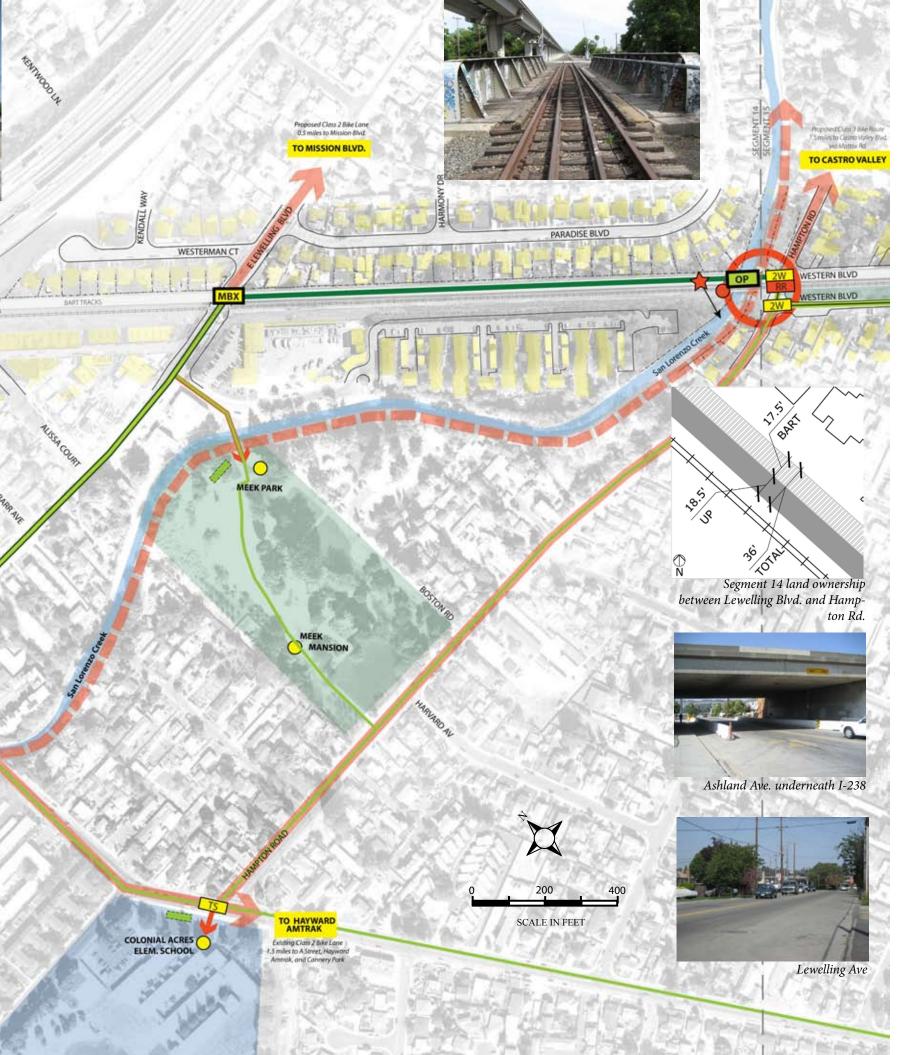


# segment 14: Elgin Avenue to Hampton Road, Ashland









# Site Analysis

#### Land Ownership

The BART tracks run at grade from the Bay Fair BART Station to just south of Interstate 238. Therefore, this segment will take on-street routes, mostly following the proposed bike network in Alameda County's *Bicycle Master Plan for Unincorporated Areas*. Where the BART tracks intersect Lewelling Boulevard, the Greenway can continue under the elevated BART track to Hampton Road.

## Site Observations

Elgin Street is a low-traffic street that has a high number of school children walking to and from the Bay Fair Center and BART station. It is also a bus route.

Ashland Avenue is one of the only connections in the neighborhood under Interstate 238. It has some steep areas (going under the BART/UPRR overpass) that inexperienced cyclists might find difficult. The BART/UPRR overpass is dark and needs more lighting.

Ashland Avenue is approximately 50 feet wide north of Interstate 238 with ample shoulders for bike lanes. South of Interstate 238 is approximately 40 feet narrower with parking on both sides of the street and a high level of traffic (since it is one of the few connections under the interstate).

Lewelling Boulevard is a busy road with narrow sidewalks and in some places no sidewalks. Intersections with Ashland Avenue and Meekland Avenue have high volumes of traffic.

### **Existing Plans and Developments**

Ashland Avenue is involved in the Eden Area Livability Initiative, which is charged with creating the vision and plan for the unincorporated urban communities in Alameda County.

Alameda County's *Bicycle Master Plan for Unincorporated Areas* proposes the following:
Elgin Street: proposed Class III B (wide curb lane) and Class III C (wide shoulder)

- Elgin Street: proposed Class III B (w bike route
- Delano Street: none
- Ashland Avenue: proposed Class II bike lanes
- Lewelling Avenue: proposed Class II bike lanes
- Meekland Avenue: existing Class II bike lanes
- Hampton Avenue: proposed Class III bike route

Additionally, the UPRR corridor is listed as a proposed Class I bike path.

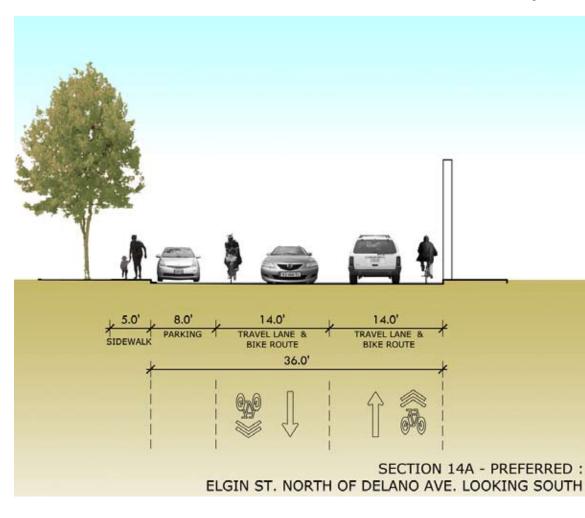
Alameda County's Department of Public Works is currently widening Lewelling Boulevard from Meekland Avenue to Hesperian Boulevard (west of the Greenway route). The widening plans include sidewalks and bike lanes. The County has plans to expand these improvements east to Mission Avenue, which would include the Greenway route.

bike lanes I bike lanes bike lanes II bike route

## segment 14



Elgin Avenue



# The Link: Greenway Path Alignment

#### **Preferred Route**

Starting at the Bay Fair BART Station, the Greenway route will run southeast on Elgin Street to Delano Street. Then it will turn east at Delano Street for a block to Ashland Avenue. It will then turn south along Ashland Avenue and then east on Lewelling Boulevard. Lewelling Boulevard connects back to the elevated BART tracks where the Greenway can run along the vacant land under the BART tracks to San Lorenzo Creek and Hampton Road.

**Elgin Street:** The 33-foot existing right-of-way provides enough room for cyclists without disturbing traffic. The ideal configuration would be to install a Class I bike lane on the west side of the street adjacent to the wall that separates the road from the BART tracks. However, that would require removing parking on Elgin Street.

During a weekday field visit, three vehicles were parked on Elgin Street. But on the weekend more than ten vehicles were parked on this street. Parking on cross streets is primarily used by its residents, and vehicles from Elgin Street cannot be accommodated. Therefore, it would be appropriate to use Elgin Street as a Class III bicycle boulevard. We recommend turning Elgin Street into a Class III bicycle boulevard with highly visible pavement markings and traffic-calming measures.

**Delano Avenue:** The Greenway will run on Delano Avenue for only one block. The 35-foot existing right-of-way does not have enough room for a Class III bike route. We recommend creating a bicycle boulevard with shared road markings for this street.

Ashland Avenue: The 42-foot existing right-of-way provides an opportunity to create Class II bike lanes on Ashland Avenue. The northern section of the street has ample room for bike lanes, although the steepness of the grade as it goes under the BART/UPRR corridor overpass makes it difficult for inexperienced cyclists.

Sidewalks under the BART/UPRR overpass structure are narrow and separated from the street by a concrete barrier that creates a "trapped" feeling for pedestrians. Pedestrians were observed walking on the street shoulder instead of on the sidewalk.

South of Interstate 238, on-street parking will have to be removed in order to make space for bike lanes. Since this area is adjacent to two schools, we feel the bike lanes would be a great asset and are worth the loss of parking.

On a field visit during peak hour on a regular weekday (Wednesday) it was observed that there were not a significant number of vehicles parked on Ashland Avenue. Most were parked along minor cross streets. No parking restrictions were observed on the study segment. Since there is little parking activity, the shoulder in each direction can be converted to bike lanes. Lewelling Avenue: The Greenway would follow the proposed Class II bike lane along Lewelling Avenue back to the BART tracks. Currently the right-of-way width is not adequate for sidewalks, bike lanes, and the existing traffic. The County's plans for right-ofway acquisition for Lewelling Avenue from Meekland Avenue to Mission Boulevard should be a part of the Greenway project.

#### **Crossing Treatments**

This on-street Greenway segment makes most of its turns at signalized intersections. One exception is the Elgin and Delano Street intersection, which has stop signs, but the traffic volume is low on both these streets.

The transition from the on-street route to a Class I path at Lewelling Avenue and the BART tracks will require the installation of a high-visibility mid-block crossing for cyclists (especially for northbound cyclists turning left on Lewelling Avenue).

The Greenway route will cross the UPRR tracks on Lewelling Avenue, and the path will require a pedestrian and bicycle overpass at San Lorenzo Creek.

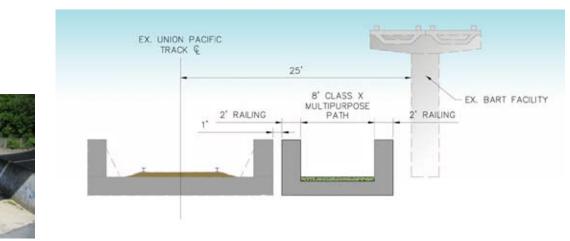
The San Lorenzo Creek crossing will be east of the UPRR tracks. The span over the San Lorenzo Creek should be a length of approximately 45 feet. A 6-foot railing should be placed on both sides of the bridge structure. There is only 25 feet of clearance between the BART pillar and the centerline of the UPRR tracks. This does not meet the 27-foot minimum requirements, so a design exception from UPRR will be required.

### Alternatives

If the mid-block crossing at Lewelling Avenue or the overpass at San Lorenzo Creek is not possible, we propose connecting Lewelling Avenue to Hampton Road via Meekland Avenue. This route would also connect to Meek Mansion and Park.

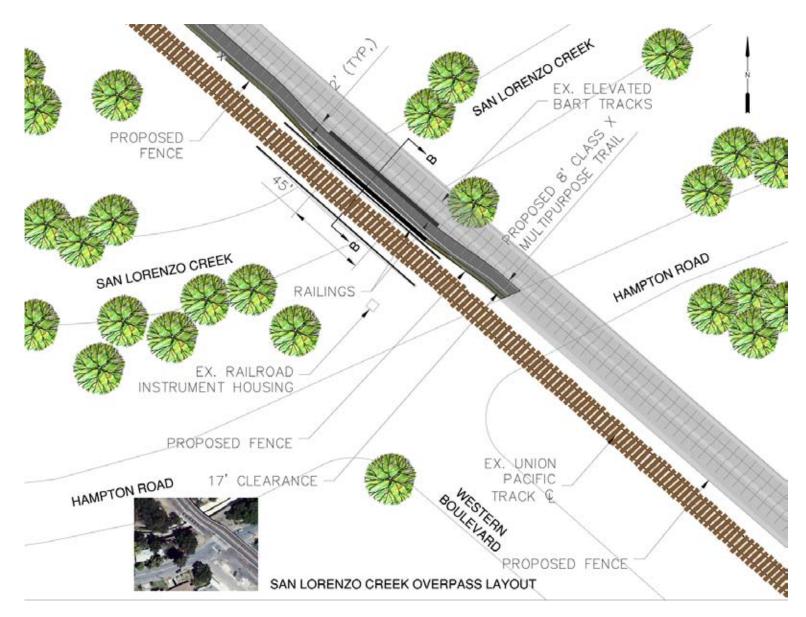
Another potential on-street route connecting the Bay Fair BART Station to Ashland Avenue runs through a neighborhood to the southwest of the railroad tracks, connecting Hesperian Elementary School and Park to the Greenway and the BART station.

If the entire UPRR corridor is available for a multi-use path, the Greenway could follow the UPRR corridor. However, crossing under I-238 is still a significant obstacle.



San Lorenzo Creek





127

#### **Community Character**

In general the Ashland neighborhood is a quiet, modest, single-family residential neighborhood. San Lorenzo Creek, which forms the border between Ashland and Cherryland was the home of the Ohlone Indians and the dividing line for Spanish Ranchos. Many of the houses in this area retain a historic character and feeling. Community destinations along this segment include the Japanese Cultural Center on Elgin Street, Edendale Elementary and Park, Hesperian Elementary and Park, San Lorenzo High School, and Colonial Acres Elementary.

Meek Mansion, located within Meek Park, is an 1869 Italianate house listed in the California and National Registers of Historic Places.

#### Access and Traffic Calming

We hope that the proposed Greenway improvements (bike lanes, planted sidewalk buffers, and improved sidewalks) to Ashland and Lewelling Avenues will not only support the Greenway but also improve connections within this neighborhood to local schools and parks.

Extending the Lewelling Avenue streetscape improvements to Mission Boulevard to the east and Hesperian Boulevard to the west will improve access to the Greenway from the adjacent neighborhoods and wider region. We also recommend extending the proposed Ashland Avenue bike lanes and sidewalk improvements north to connect to Edendale Elementary School and Park.

#### **Community Opportunities**

Several opportunities for public art along this segment of the Greenway exist. The wall between Elgin Street and the BART tracks could incorporate art. The underpasses could appear less threatening with lighting and art installations. The many schools in the area could be involved in the public art efforts.

Interpretive signs at San Lorenzo Creek and the entrance to Meek Park could highlight the historical and natural resources of the area.



This simulation of the Ashland Avenue underpass displays how removing barriers while adding landscaping, painted bikepaths, and lighting will significantly change the feel of this previously intimidating pedestrian area



A fter the Greenway route crosses San Lorenzo Creek and Hampton Road, it runs along Western Boulevard for approximately one mile to Sunset Boulevard. This is an unincorporated area of Alameda County known as Cherryland. At Sunset Boulevard, the Greenway route enters the City of Hayward. Western Boulevard runs on both sides of the UPRR and BART corridor. Houses face the corridor on both sides, but the raised berm from the railroad creates a sense of division between the two sides. With an average width of 76 feet, the railroad and BART corridor could become a linear park with facilities for running and cycling among other activities, if the UPRR corridor is abandoned. Even without paving, people currently use the corridor for jogging and walking to school. At the very least this area presants an opportunity for improved pedestrian and bicycle facilities on Western Boulevard along with greening and beautification of the UPRR land.



# segment 15: Western Boulevard, Hampton Road to A Street, Cherryland and Hayward









Proposed Class 3 Bike Poute .0.4 miles to Mission Blad

#### TO MISSION BLVD.

BART TRACKS

WESTERN BLVD

WESTERN BLVD

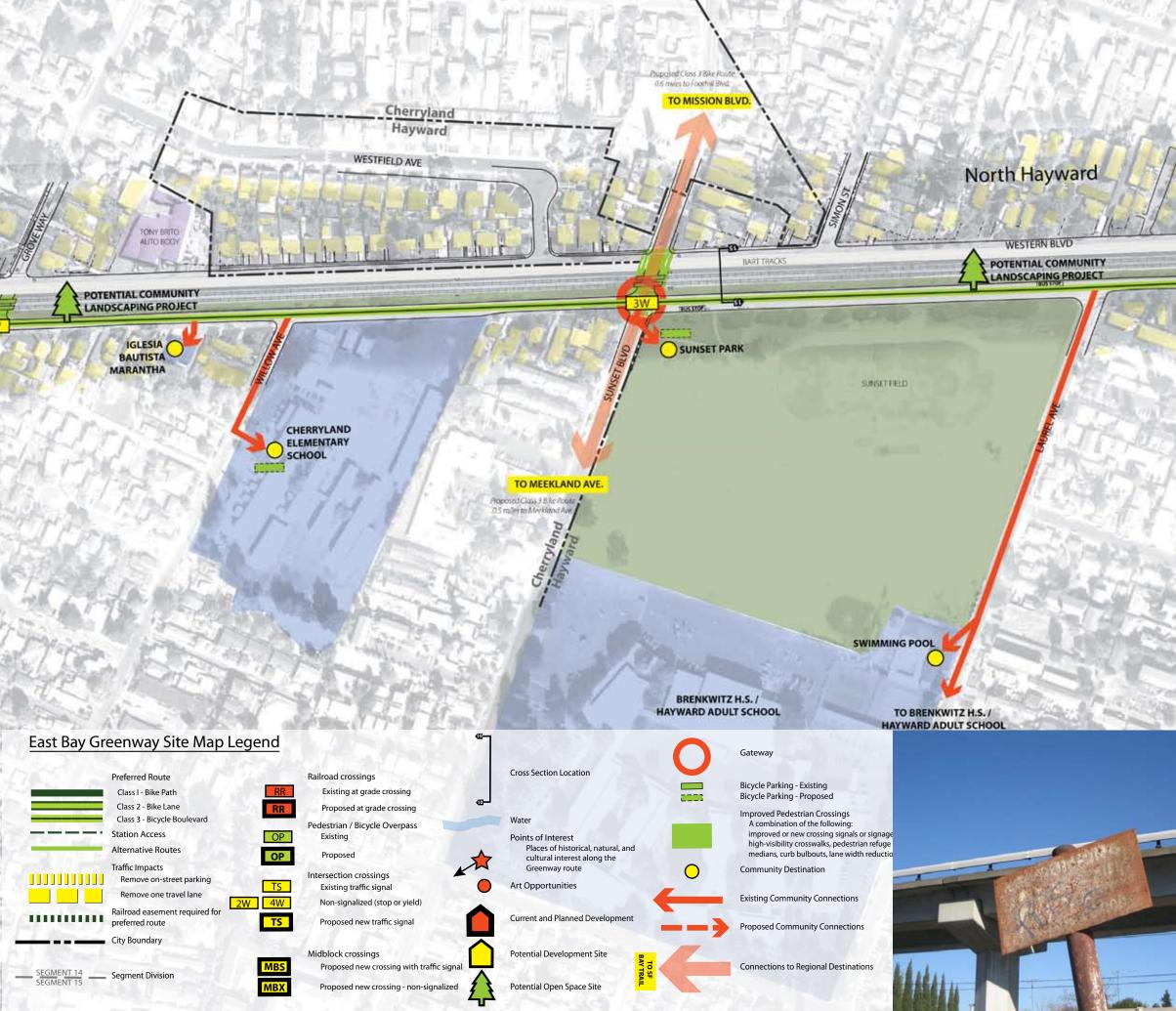
TO CHERRYLAND PARK 0.5 miles to Cherryland Park

# TO SAN LORENZO PARK AND SF BAY TRAIL

Proposed Class 3 Bike Route 0.5 miles to Meekland Ave. o Hoyward Reakanal Sho and St. Boy Trul

# segment 15: Western Boulevard,

Hampton Road to A Street, Cherryland and Hayward





PERALTA

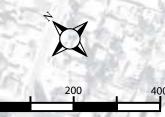
TOHOUSE

Burbank

#### TO AMTRAK STATION, HAYWARD EXECUTIVE AIRPORT, & HAYWARD REGIONAL SHORELIN

Excling Class 2 Bite Lane 0.75 miles to Antholk Station 1.75 miles to Aliport and Hayward Regional Shorring

and the second second



IME

SMALLEY

SCALE IN FEET

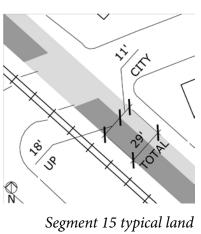
segment 15

## Site Analysis

#### Land Ownership

The BART/UPRR corridor runs between two parallel streets, both called Western Boulevard. The eastern street, directly adjacent to the BART tracks, is only 18 feet wide. The western street, on the other side of the railroad tracks, connects with Cherryland Elementary, Sunset Park, and Hayward Adult School, is 39 feet wide.

Land ownership under the BART tracks is split between City and County jurisdiction (11 feet over Western Boulevard) and a UPRR joint-use easement (18 feet adjacent to the rail tracks).



ownership

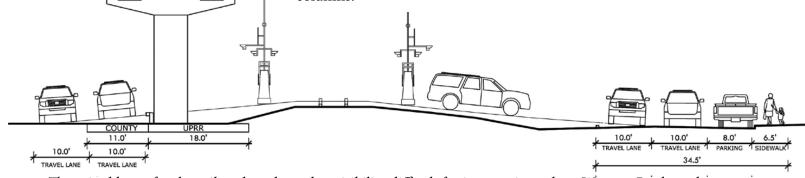
#### Site Observations

Even in its current condition (without paved pathways or landscaping) people in the neighborhood use the corridor for exercise and to walk to downtown Hayward and the Hayward BART Station.

Unfortunately, the opportunity to install a bicycle and pedestrian path in this segment is severely limited by the raised railroad tracks.

On the cross streets, cars traveling over the railroad berm do not stop, and no change can be made that might cause them to stop on the railroad tracks or under the railroad crossing arms. The steep angle of the crossing grade (6% to 9%) limits the sight distance of drivers as they crest the mound and makes it impossible to run an ADA path (maximum 2% cross slope, less than 5% longitudinal slope) between the railroad tracks and the BART columns.

On the eastern side, Western Boulevard is too narrow for an additional bike path or bike lanes. Even if the eastern sections of Western Boulevard were made oneway, there would not be enough room for a bike path on the east side of the BART columns.



The Cherryland community primarily wanted seating, lighting, and exercise areas. Planting areas and security cameras were secondary desires.

#### **Existing Plans and Developments**

in Oakland.

also raised.

Alameda County's Flood Control and Water Conservation District is looking at opportunities to create paths along the edge of San Lorezno Creek and to connect neighborhoods to the creek.



Boulevard

The raised berm for the railroad tracks makes visibility difficult for intersections along Western Boulevard

#### **Community Comments**

In general, at community meetings, the majority of people embraced the concept of the Greenway, but there was significant concern about the UPRR tracks and how the Greenway project would impact past and future community efforts to improve that area. Several community members believed strongly that the UPRR tracks need to be removed if any significant improvements were to be made. Others felt that the Greenway could be a "stepping stone" to larger improvements. Concerns about safety and maintenance along the corridor were

Alameda County has recently installed sidewalks, intermittent medians, and an articulated road edge along the west section of Western Boulevard.

Alameda County's Department of Public Works is initiating a feasibility study on the potential uses of the UPRR corridor from Hayward north to High Street



No sidewalks are available on the east side of Western

## **The Link: Greenway Path Alignment**

#### **Preferred Route**

Placing a bicycle path on the east side of Western Boulevard is not feasible because the BART columns and the raised railroad berm make it difficult for cross traffic to see on-coming bicycles. Also, the street is too narrow for a bicycle path.

Adjacent to the west side of Western Boulevard is a wide area that is owned by the railroad. Although the visibility problems with the cross traffic over the berm remain, more potential for a bike path on this side of Western Boulevard exists.

We propose running the Greenway as an on-street bicycle boulevard along Western Boulevard from Hampton Road to A Street. We encourage the installation of curbs and sidewalks on Western Boulevard and the addition of landscaping on the UPRR corridor to add green to the road. Sidewalks also should be added on the west side of Western Boulevard between Laurel Avenue and A Street.

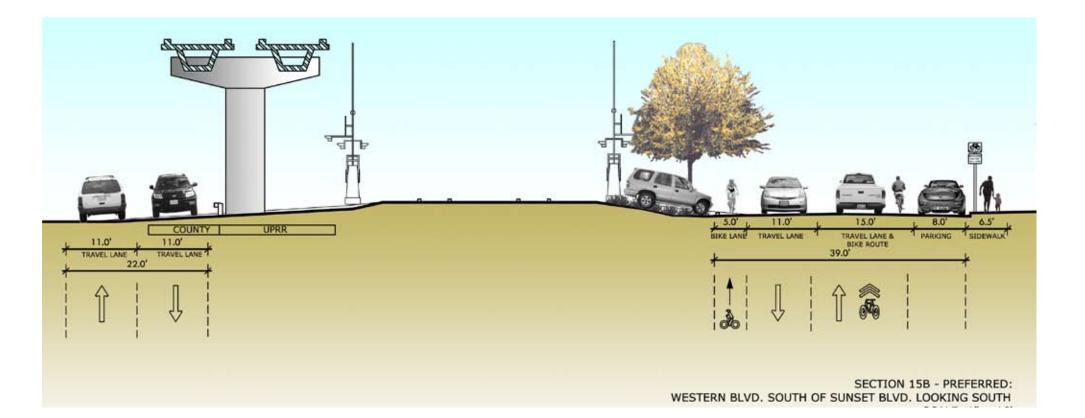
On low-volume, low-speed residential streets, cyclists are safer riding on a shared (Class III) bicycle route than in a separated (Class II) bicycle lane, largely because of driveways. There are no driveways entering from the railroad mound. The northbound Greenway on Western Boulevard (adjacent to the railraod land) could have a Class II bicycle lane rather than a Class III bicycle route, space permitting.

#### **Crossing Treatments**

The Greenway route crosses the railroad tracks at Hampton Road. Extra width should be provided at the railroad crossing so bicycles will not have to compete with traffic. Where the Greenway intersects with Hampton Road, high-visibility crosswalks with "Yield to Pedestrians" signs should be installed.

After Hampton Road, the Greenway will cross five intersections: Medford Avenue, Cherry Way, Blossom Way, Grove Way, and Sunset Boulevard. Greenway travelers will have to stop at all of these intersections. West-bound vehicles intersecting the Greenway do not have a stop sign because a stop sign could cause cars to stop on the railroad tracks or under the railroad crossing arms.

Pedestrians and cyclists will have to stop at these intersections and yield to traffic crossing the railroad berm. Signage should clearly indicate this and the hazard inherent in not stopping. High-visibility crosswalks should be installed at all crossings.





*Marine mural* 





Sam's Cherryland Groceries

## **Community Character**

Cherryland and north Hayward are much like Ashland, with small, modest, single-family houses. Some unique sights are mixed into the neighborhood. Two points of interest are the tank house at 21070 Western (the final one on the Greenway route) and a house that has a marine mural painted on it at near Smalley Avenue.

Community destinations in this segment include Sam's Cherryland Grocery, a neighborhood corner store; Iglesia Bautista Marantha, a Baptist church on Western Boulevard; and Cherryland Elementary School. The block between Sunset Boulevard and Laurel Avenue contains Sunset Park, which includes a playing field, a track, a playground, and a swim center; and Hayward Adult School.

#### Access and Traffic Calming

Alameda County is already implementing traffic-calming measures on the west section of Western Boulevard. These measures will help the walkability of the neighborhood.

For communities to the east of the Greenway, access across the railroad berm needs to be improved. Making at least some of the crossings ADA accessible will be challenging but necessary.

#### **Community Opportunities**

An interpretive trail incorporating public art could connect the points of interest in the community including Sunset Park, Meek Park, San Lorenzo Creek, and downtown Hayward.

San Lorenzo Creek, at the northern end of Western Boulevard and the historic boundary between communities, could become a focal point of this segment. The small spaces beside San Lorenzo Creek at Hampton Road are opportunities for building a resting or meeting place. Improvements to San Lorenzo Creek, such as planting native habitat and adding a trail and interpretive signage, should be implemented to whatever extent possible.

A community greening project, which has already started with tree planting along Western Boulevard, could further beautify the railroad corridor. With permission from the railroad, rain gardens, community gardens, native plants, and butterfly gardens could be planted along the corridor.



Tank house on Western Boulevard



*A simulation of landscaping on the UPRR land adjacent to Western Bouldvard* 



The Hayward BART Station is the southern end of the East Bay Greenway. There are opportunities to connect the **L** Greenway south to Fremont through bike networks and the UPRR corridor.

## **Site Analysis**

#### Site Observations

The elevated BART tracks connect Western Boulevard to the Hayward BART Station by crossing A Street mid-block, running through an existing parking lot, and crossing B Street. The traffic at A Street is heavy and the signalized crosswalk at Grand Street is only 200 feet away. Additionally, the Health Impact Assessment designated A Street as a "hot spot" for pedestrian and bicyclist injuries and deaths.

### **Existing Plans and Developments**

The City of Hayward's *Bicycle Master Plan* contains the following recommendations for this segment:

- Western Boulevard.: existing Class III bike route •
- Grand Street: existing Class III bike route •
- A Street: existing Class II bike lanes ٠
- B Street: proposed Class II bike lanes •
- Greenway Corridor: proposed Class I bike path



A Street



The Hayward BART station

# segment 16: Hayward Station, A Street to Hayward BART Station, Hayward







## The Link: Greenway Path Alignment

#### **Preferred Route**

To avoid an undesirable mid-block crossing at A Street, the preferred Greenway route remains on Western Boulevard as it turns away from the UPRR corridor and becomes Grand Street. It crosses A Street at the existing signalized intersection and then travels along Grand Street for one block. The route then turns onto B Street and travels half a block to the Hayward BART Station. We recommend installing a Class III Bicycle Boulevard on Grand Street and Class II bike lanes on B Street.

#### **Crossing Treatment**

The intersections of Grand Street with A Street and B Street are both signalized. A midblock crosswalk would be added (non-signalized, with "Yield to Pedestrians" sign) at the B Street mid-block BART station entrance.

The bicycle entrance to the Hayward BART Station at B Street would need to be widened from 5 feet to 8 feet by straightening the ADA entrance path beside it. We recommend adding signs and pavement markings indicating the bicycle entrance and exit paths and where cyclists should dismount.



Signage and a wider pathway are needed at the Hayward BART entrance from B Street



Proposed midblock crossing location at B Street



This simulation of B Street in Hayward shows painted Class II bikelanes and landscaping near the Hayward BART station





#### **Community Character**

A model of transit-oriented development, the revitalization of downtown Hayward includes a new City Hall and town homes complementing the historic buildings of interest, shops, restaurants, the Hayward Public Library, a post office with a WPA mural, a supermarket, the East Bay El Camino Real, a history museum, and the Hayward Fault. Walking-tour maps of the Hayward Fault are available for purchase at the history museum.

The town of Hayward began as a transportation crossroads, and the City of Hayward continues in that tradition. The BART station, AC Transit transfer area, Greyhound Bus Station, and CSU-East Bay shuttle make a transit hub. The Hayward Amtrak Station (Capitol Corridor rail service), Hayward Executive Airport, and two interstate highways (I-880 and I-580) are within two miles of downtown.

#### **Access and Traffic Calming**

The Hayward BART Station is easily accessible from downtown Hayward and the City Hall to the east of the station.

New Class II bicycle lanes on B Street as proposed in the City of Hayward's Bicycle Plan will improve connections to the Amtrak Station and the Cannery Park and Development. The proposed Eden Housing Development for Seniors on C Street creates an opportunity to make street crossings safer for residents crossing at C Street and Grand Street and B Street and Grand Street, which residents would cross to access the Hayward BART Station and the Greenway, especially need safety upgrades.

We recommend improving the C Street and Grand Street intersection by adding a fourth crosswalk. There is currently no crosswalk leading directly to the one sidewalk that borders the driveway.

Cyclists can continue southward on Grand Street to the Eden Greenway and CSU East Bay (approximately 1.5 miles).

### **Community Opportunities**

Public art could be used on the columns where the BART tracks cross B Street to identify the Greenway and the station entrance. We encourage the City of Hayward to create a history walk tying together the historic sites of the downtown area.



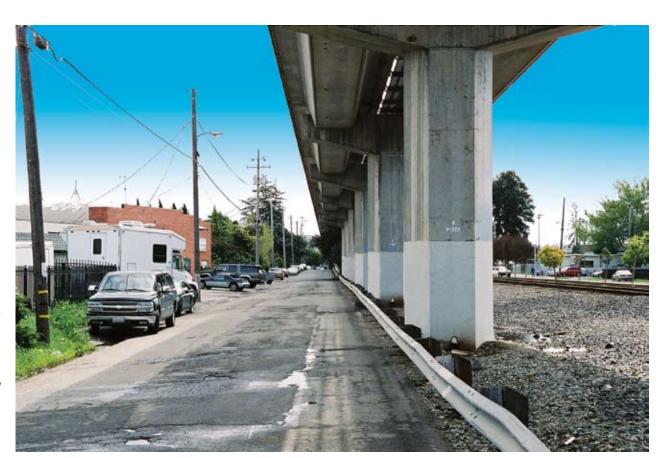
Downtown Hayward



Hayward's new City Hall

# implementation





Esto de la Via Verde es una gran idea, pero si la misma no es mantenida y protegida, sería una desgracia para esta comunidad.

*This Greenway is a great idea, but if it is not maintained and protected, it will be a disgrace for this community.* 

Quote taken from a community meeting in Sobrante Park, Fall 2007

From the outset we wanted to make sure that the East Bay Greenway Concept Plan would not be a set of drawings sitting on a shelf, but a real working document that would assist the communities, agencies, and cities along the route in making the Greenway a reality. At our very first community workshop, we were asked questions about how the Greenway would get built, how it would be maintained, and how it would be made safe and secure.

The actual design of the Greenway, no matter how well done, is only half of the answer. A plan for the Greenway's implementation as well as a plan for its ongoing stewardship is necessary to turn the concept into reality. An implementation plan needs to address the approval process, easement acquisition, and funding for construction costs. A stewardship plan needs to address how maintenance will be paid for, who will conduct the maintenance, and how to create programs that promote safe use of the Greenway.

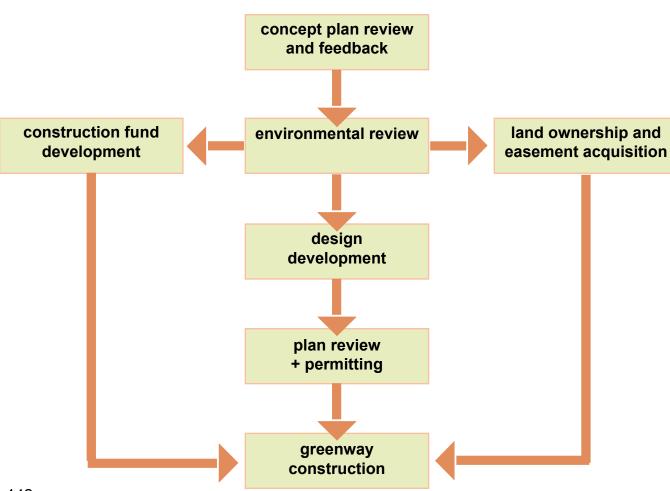
The route of the Greenway runs through four jurisdictions: unincorporated Alameda County and the cities of Oakland, San Leandro, and Hayward. Federal, state, and regional agencies will also be involved in the implementation of the plan. Clearly, implementation and stewardship planning will require detailed coordination. Establishing an agreed-upon organizational structure for the development of the Greenway will help all stakeholders to communicate, participate in decision-making, and execute the Greenway plan. In this chapter we list organizational structure alternatives that could oversee the implementation and stewardship of the Greenway. We also select "preferred routes," the organizational structures that appear to be the most plausible for the Greenway's implementation and stewardship.

# implementation and stewardship



# implementation

#### **IMPLEMENTATION FLOW CHART**



Several steps are required to get from a concept plan to a built project. The first is to gather feedback on the concept plan design. Next is to negotiate through the environmental review process. Then land ownership and easement acquisitions as well as grant applications for funding must take place. Finally, the design will be further refined and local agencies will shepherd the plan through their permitting process.

#### **Concept Plan Review and Feedback**

This concept plan is a working document with our preliminary findings and recommendations for the Greenway design. The next phase is to receive feedback on the concept plan from all the agencies involved and the communities along the route. Their comments and concerns will be incorporated into the next phase of design development.

#### **Environmental Review**

An environmental impact report (EIR) is a detailed report describing and analyzing the significant environmental effects of a proposed project, identifying alternatives, and discussing ways to reduce or avoid possible environmental damage. A lead agency (a public government agency) guides the project through the environmental review process, assuring that the Greenway is consistent with the California Environmental Quality Act (CEQA). We anticipate that the Greenway will require a Mitigated Negative Declaration and a similar review under the federal National Environmental Policy Act (NEPA). The East Bay Greenway Concept Plan provides an adequate level of design in order to initiate an environmental impact assessment, and we recommend undertaking the environmental assessment as the next step in the implementation process.

The Alameda County Transportation Improvement Authority (ACTIA) has taken on the responsibility for the environmental review. As the "lead agency," they will comply with the California Environmental Quality Act and most likely the National Environmental Policy Act. ACTIA and Urban Ecology expect that this process to be completed in early 2009. Only after the East Bay Greenway is certified as complying with these laws, can funding be obtained to build the Greenway.

#### Land Ownership and Easement Acquisition

Land for the proposed Greenway is owned and maintained by a variety of agencies: BART, the Union Pacific Railroad (UPRR), and city and county governments. The Greenway is envisioned as a short-term, implementable plan that focuses on creating a transportation link between BART stations. The alignment was chosen in order to minimize the amount of negotiations required with UPRR.

#### **UPRR** Land

Some of the land underneath the BART tracks is owned by the UPRR, and BART has a joint-use easement with the railroad for that land. The Greenway's preferred alignment uses this joint-use easement land for the pathway only from 98<sup>th</sup> Avenue to 105<sup>th</sup> Avenue in Oakland (Segment 7). However, the pathway would be more attractive if landscaping and drainage improvements were allowed on joint-use land on all segments of the Greenway. The next step would be to research the conditions of the joint-use agreement to see if this proposed use would be permitted under the existing agreement.

In Segments 8 and 11 (105<sup>th</sup> Avenue to Park Street in Oakland and San Leandro and Hudson Lane to 147<sup>th</sup> Avenue in San Leandro), the preferred route uses UPRR land. The path alignment in these two segments is not on current BART-UPRR joint-use easements, and use of this land would require a new easement negotiation with UPRR. As these segments are more than



Map of property ownership for the preferred route of the Greenway

15 feet from the track centerline, and we propose placing a fence between the trail and railroad track, there is no conflict in having a "rails with trails" where the trail can coexist with the existing railroad and existing use of the rail line. This use would also be consistent with the *MTC's Regional Rail Plan* recommendations for preserving the rail line for future use.

#### **BART Land**

Research needs to be conducted to confirm whether the proposed use of the Greenway is consistent with the BART property's land use agreements. If not, trail use easements would also be required for use of BART land. Segments 4, 5, 7, 12, and 13 use BART land for the pathway and would require BART permission for the Greenway. Additionally (if the area underneath the BART tracks from 39<sup>th</sup> Avenue to 47<sup>th</sup> Avenue in Oakland is to be converted into community open space) BART's permission will be required.

#### **Private Land**

In Segment 3 from 42<sup>nd</sup> Avenue to 47<sup>th</sup> Avenue in Oakland, it is recommended that the San Leandro Street right of way be extended to allow for Class II bike lanes. This would require an easement or purchase of 8 to 15 feet of private property from the adjacent land owners.

Implementation of Class II bike lanes on Lewelling Boulevard (Segment 14) in Ashland will also require right-of-way acquisition. Alameda County has already started a feasibility study for Lewelling Boulevard improvements.

#### **City and County Land**

The Greenway will have to go through the permit process required by each jurisdiction before it can be constructed on public land. Although each jurisdiction has a different permitting process, a general description is provided here under Plan Review and Permitting.

#### Liability

Although liability is an on-going stewardship concern, it needs to be addressed up front when negotiating use easements with the various agencies. In general, liability from accidents along public trails would be handled by California state law. Cities tend to self-insure with risk manager review. Liability issues depend somewhat on the organizational structure of the Greenway. For example, a joint-powers authority, as described in the Construction section of this chapter, may get liability insurance for the Greenway in its entirety.

#### **The UPRR Corridor**

In the long term, utilizing more of the UPRR-owned land for the Greenway will make the facility more attractive, allow for more community amenities, and provide space for storm water management and recreation.

It would expand the width of the corridor from an average of 30 feet to 45 to 80 feet. Alameda County Public Works Agency is conducting a Union Pacific (Oakland Subdivision) Railway Corridor Improvement Plan to examine alternative uses of the railroad line and the feasibility of acquiring the land for public use.

#### Railbanking

One possible way to implement this long-term vision is through railbanking. In 1983 Congress amended the National Trails System Act to create a program called "railbanking," which allows rail corridors proposed for abandonment to be preserved intact or put in a "bank" for future transportation use; in the meantime the corridors can be used as trails. Because railbanked lines are not considered abandoned under federal or state law, easements are not extinguished and the corridors are not fragmented. Any qualified private organization or public agency can file for railbanking. Railbanking is voluntary from the railroad's perspective. Note that a railbanked corridor is subject to future possible restoration of rail use.

#### **Design Development**

After the project undergoes environmental review and fund-raising has started, engineering and construction documents (including grading, landscaping, construction details, and striping plans) will be developed. Through this process a more detailed evaluation of sightlines and stopping distances, and horizontal and vertical alignment will be conducted. At specific phases in the design, the construction documents will be submitted for review by jurisdictional agencies.

#### **Plan Review and Permitting**

The Greenway must go through each local jurisdiction's review and permitting process prior to construction. In additional, several federal, state, and regional agencies will review the project. Some of these agencies potentially include the U.S. Army Corps of Engineers, the California Department of Fish and Game, the California Public Utilities Commission, the San Francisco Bay Regional Water Quality Control Board, Caltrans, the Alameda County flood Control and Water Conservation District, the Union Pacific Railroad, BART, and private utilities. Typical jurisdictional reviews include zoning compliance, traffic-impact analysis, engineering review, and encroachment and building permits.

#### Zoning and Land Use

Preliminary research will verify whether the proposed Greenway is compliant with the existing land use regulations, or whether a zoning change or variance will be needed.

#### **Traffic-Impact Analysis**

Typically, lane conversions (i.e., removing a traffic lane) require a city traffic impact analysis; however, signing and striping changes without lane conversions do not. A preliminary traffic analysis of proposed striping changes along the greenway showed little to no negative impacts. The only proposed lane conversions for the preferred Greenway route are in Segment 1: E 12<sup>th</sup> Street from 18<sup>th</sup> Avenue to Fruitvale Avenue in Oakland. These lane conversions are already being studied by the City of Oakland in order to implement Class II bike lanes.

In the City of Oakland, removal of parking also requires a study and approval by the City Council. Parking removal is proposed in Segments 3, 4, 7, and 14.

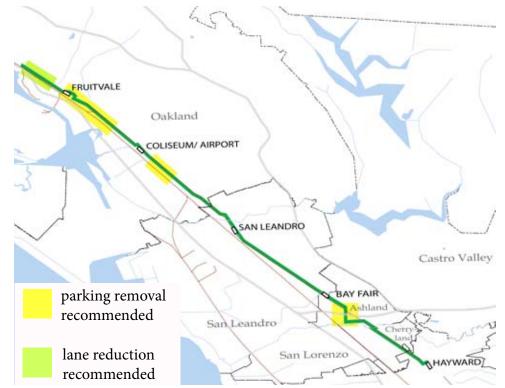
#### Engineering review, encroachment, and building permits

Once the engineering and construction documents are completed, they will be reviewed and approved by the involved jurisdictions and agencies.

Encroachment and building permits allow work or an activity to be performed within city easements or rights-of-way. The City Engineer or a Planning Division Review Services Plan Checker approves the permit application, depending on the type of project or activity involved. Some of the activities involved in the construction of the Greenway that may require an encroachments or building permits include:

- Public utility installations

#### **Traffic Impacts of the Preferred Greenway Route**



- Street improvements (pavement, curb, gutter, sidewalk)
- Storm drain installations or connections
- Sanitary sewer installations or connections
- Water main installations, aqueduct encroachments

#### **Construction Fund Development**

Raising funds for the construction of the Greenway should precede further design development and continue concurrently with the permitting process. Although the costs of the Greenway are high, many potential funding sources exist for its construction.

#### **Opinion of Probable Construction Costs**

The cost of constructing the Greenway will vary greatly from mile to mile depending on previously existing conditions, final adopted plans, and structural organization. At this beginning stage of planning, it is difficult to project total construction costs. However, knowing roughly how much construction will cost is necessary to plan for fundraising.

Our preliminary opinion of probable construction costs for the East Bay Greenway is approximately \$32 million. We have no control over costs, the price of labor, equipment or materials, market conditions, or over the contractor's method of pricing and can make no warranty, expressed or implied, as to the accuracy of such estimates, as compared to bid or actual construction costs.

This preliminary estimate covers the design, engineering, and construction of the preferred alignment of the Greenway including signage, path crossings, fencing, landscaping, and site amenities (benches, bike racks, public art) directly adjacent to the Greenway. It does not include land/easement acquisition costs or maintenance costs for the route. Nor does it cover the community connections suggested in the design sections, such as improved intersection crossings to get to the Greenway, open space opportunities, and links to community destinations. A detailed cost breakdown for each segment is included in the appendix.

#### East Bay Greenway Estimate of Probable Construction Costs

Segment	Description	Approx. Length (in miles)	Segmer	
1	E12th St.: 18th Ave. to Fruitvale Ave, Oakland	1.07	\$1,99	
2	Fruitvale Station, Oakland	0.52	\$57	
3	39th Ave. to 50th Ave., Oakland	0.86	\$1,26	
4	50th Ave. to Seminary Ave., Oakland	0.52	\$2,13	
5	Seminary Ave. to 69th Ave., Oakland	0.53	\$1,73	
6	Coliseum Station, Oakland	0.35	\$34	
7	75th Ave. to 105th Ave., Oakland	1.58	\$5,03	
8	105th Ave. to Davis St., Oakland and San Leandro	1.08	\$2,17	
9	San Leandro Station, San Leandro	0.35	\$12	
10	Thornton St. to Hudson St., San Leandro	0.54	\$3,07	
11	Hudson to 147th Ave., San Leandro	0.92	\$2,80	
12	147th to Hesperian Ave., San Leandro	0.62	\$2,02	
13	Bay Fair Station, San Leandro and Ashland	0.35	\$60	
14	Elgin St. to Hampton St., Ashland	1.53	\$2,47	
15	Hampton to A Street, Cherryland and Hayward	1.36	\$5,38	
16	Hayward Station	0.16	\$18	
Grand Total		12.34	\$31,933	
Add. Alts.	Rubberized Asphalt		\$36	
	Imprinted Asphalt Crossings		\$62	



ent Total
94,996.25
576,412.20
.64,012.43
33,304.88
32,920.77
45,166.38
32,629.36
75,543.63
22,885.10
79,398.78
806,798.09
22,885.86
508,217.85
70,667.73
82,874.58
.84,801.50
33,515.38
60,780.00

#### **Potential Funding Sources for Construction**

(adapted from the City of Fremont Union Pacific Corridor Trail Feasibility Study)

The East Bay Greenway can be funded by a variety of sources. The Draft *Fremont Pedestrian Plan* and the Draft *Union Pacific Railroad Corridor Trail Feasibility Study* outline a number of programs available to fund trail implementation. The following list of funding sources comes from those studies.

#### federal funding programs

The primary federal source of surface transportation funding is the Safe, Accountable, Flexible, Efficient Transportation Equity Act (SAFETEA-LU), which authorizes federal surface transportation (including bicycle and pedestrian facilities) programs until 2009. Funding is administered through the state (The California Transportation Commission) and regional governments such as the Metropolitan Transportation Commission. A total of \$5 million was allocated to California in 2006, with annual program allocations growing steadily over the past five years.

In the past, most funding programs emphasized transportation rather than recreation, with priority for reducing auto trips and creating intermodal connections. Funding criteria usually includes adoption of a bicycle master plan, identification of the costs and benefits of the system (including saved vehicle trips, reduced air pollution), support by the local agency and community, CEQA/NEPA compliance, right-of-way access, and commitment of local resources. SAFETEA-LU program funds can be used for both land acquisition and trail design and construction.

Two programs included in the SAFETA-LU legislation are the STP (Surface Transportation Program) and CMAQ (Congestion Management and Air Quality Improvements). Other programs include the National Recreational Trails Fund, Section 402 (Safety) funds, Scenic Byways funds, and Federal Lands Highway funds. A match is required of non-federal transportation funds of 11.5%. These are federal funds and therefore federal rules must be followed in the environmental document preparation, the project design process, right-of-way acquisition procedures, and bid-package preparation and bidding for construction.

A specific funding program under SAFETEA-LU that may apply to a UPRR trail is Category 8 funding (part of bicycle and pedestrian planning) for

preservation of abandoned railway corridors (including their conversion or use for pedestrian or bicycle trails). Federal funds also supply the stateadministered Recreational Trails Program (\$370 million nationally through 2009 for non-motorized trail projects) and Caltrans's administered Safe Routes to School Program (\$612 million nationally through 2009).

#### Other potentially applicable federal programs include:

#### **Rivers, Trails and Conservation Assistance Program**

The National Park Service's Rivers, Trails and Conservation Assistance program (RTCA) provides planning and technical support for local recreation and conservation planning. The program does not provide grant funding, but it can provide facilitation and planning assistance.

#### **Community Development Block Grants**

Administered by the Department of Housing and Urban Development, the CDBG program provides communities with resources to address a wide range of unique community-development needs. The state also administers CDBG, with funds available for acquisition of property for public purposes, construction or reconstruction of streets, recreation facilities, and other public works; demolition; and other public benefit projects.

#### **Environmental Education Grants (EPA)**

These grants are intended for environmental education projects that enhance the public's ability to make informed decisions that affect environmental quality. Most grants are for less than \$15,000, out of an average annual funding of \$2 to \$3 million.

#### funding programs administered by the State of California

State funding programs include disbursement of federal allocations (such as the Recreational Trails Program), or funds authorized by the state Legislature to fund trails. Trails can be implemented as stand-alone projects, or combined with other projects to increase grant success, such as creek restoration, habitat and water-quality improvement, or environmental education. With most state-administered funding, documentation of environmental review is typically required as part of the grant application.

#### **Recreational Trails Program**

The Recreational Trails Program is administered by the California Department of Parks and Recreation, which receives federal funding to develop and maintain recreational trails and trail-related facilities, such as hiking, equestrian, bicycling, skating, and other uses. Funds may be used for maintenance of existing trails, trail restoration, links, trail maintenance equipment, environmental education programs, and easement acquisition. The program requires a 12% local agency match.

#### Land and Water Conservation Fund Program (LWCF)

The LWCF Program provides matching grants for acquisition, development, operation, and maintenance of lands and facilities that provide for public outdoor recreation. Local units of government, including cities, counties, and districts that are authorized to acquire, develop, operate and maintain park and recreation areas, are eligible to apply. In 2006, approximately \$480,000 was available for projects in Northern California.

#### **Non-Motorized Trails Grant Program**

This program is also administered by State Parks. This competitive grant program funds the development, improvement, rehabilitation, restoration, and enhancement of non-motorized trails and associated interpretive facilities for the purpose of increasing public access to, and enjoyment of, public areas for increased recreational opportunities. Eligible applicants include cities, counties, eligible districts, and eligible local agencies (park districts) formed for park purposes, and federally recognized California Indian tribes.

#### **Caltrans Programs**

Caltrans Office of Local Programs administers federal programs that can be used for trails-related projects. This includes:

- 1. Bicycle Transportation-Account, which provides grant funding to local jurisdictions for bicycle related projects, with an emphasis on bicycling for commuting. The local match must be a minimum of 10% of the total project cost.
- 2. State Transportation Improvement Fund (STIP), a multi-year capital improvement program of transportation projects funded with revenues from the State Highway Account and other sources. STIP programming generally occurs every two years. Caltrans and the regional planning agencies prepare transportation improvement plans for fund allocations.

- **3. Safe Routes to School** (extended to 2009), which provides funding for projects that construct facilities to enhance the safety for pedestrians and bicyclists. Enhancing the safety of the pathways, trails, sidewalks, and crossings increases the likelihood of attracting and encouraging additional students to walk and bike. Funding could be utilized for trail improvements near Vallejo Mill and Grimmer Schools.
- **4. Partnership, Statewide, and Transit Planning**, which provides grants for improvements to the state or regional transportation system. This could conceivably be used for trail segments and connections to BART facilities or planned regional rail improvements.
- **5. Environmental Justice Planning Grants**, which are available to fund planning activities in low-income and minority communities, and could be considered for some segments of the trail.
- 6. Community-Based Transportation Planning grants, which focus on integrated land use and transportation planning, including alternative transportation methods. Pedestrian and bicycle trails to link neighborhoods and transit centers would be applicable, such as trail segments in the Irvington area that could link to the planned BART station.

#### **Recent Bond Acts**

Proposition 84, the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 was approved in November 2006. This Safe Drinking Water Bond will provide approximately \$400 million for parks and trails. The application and selection procedure is still being formalized. A key component of project funding will be community involvement.

#### **Local Grant Programs**

The State Department of Parks and Recreation funds local programs from miscellaneous sources, such as the General Fund, Environmental License Plate Fund, and River Protection. Some trail funding could be considered from this source.

#### Non-Motorized Trails Grant Program

This program is also administered by State Parks. This competitive grant program funds the development, improvement, rehabilitation, restoration, and enhancement of non-motorized trails and associated interpretive facilities for the purpose of increasing public access to, and enjoyment of, public areas for increased recreational opportunities. Eligible applicants include cities, counties, eligible districts, and eligible



local agencies (park districts) formed for park purposes, and federally recognized California Indian tribes.

#### **State Coastal Conservancy**

The San Francisco Bay Area Conservancy Program (Bay Program), administered by the Coastal Conservancy, was established to address the natural resource and recreational goals of the Bay Area. The Conservancy has generously funded the East Bay Greenway Concept Plan. The Conservancy may award grants to help achieve the following Bay Program goals:

- 1. Protect, restore, and enhance natural habitats and other open-space resources of regional significance throughout the nine-county area.
- 2. Improve public access and related facilities to and around the Bay, its surrounding hills, and the coast, through completion of bay, coast, and ridge trails that are part of a regional trail system.
- 3. Promote projects that provide open space that is accessible to urban populations for recreational and educational purposes.

The Environmental Enhancement and Mitigation Program (EEMP) was established by the Legislature in 1989. It generally offers a total of \$10 million each year for grants to local, state, and federal governmental agencies and to non-profit organizations for projects to mitigate the environmental impacts caused by new or modified state transportation facilities. State gasoline tax monies fund the EEMP. Grants are awarded in three categories:

- 1. Highway Landscape and Urban Forestry. Projects designed to improve air quality through the planting of trees and other suitable plants.
- 2. Resource Lands. Projects for the acquisition, restoration, or enhancement of watersheds, wildlife habitat, wetlands, forests, or other natural areas.
- 3. Roadside Recreational. Projects for the acquisition and/or development of roadside recreational opportunities.

It is conceivable that some funding could be available associated with state highway projects in this area.

#### **Metropolitan Transportation Commission**

MTC established the Transportation for Livable Cities program in 1998 to provide incentives for pedestrian- and transit-oriented developments,

streetscape improvements, and other projects that strengthen the link between transportation, land use, and community goals.

#### Transportation Funds for Clean Air Program (TFCA)\_

The Bay Area Air Quality Management Districts (BAAQMD) provides funding for projects consistent with BAAQMD's Clean Air Plan. Projects must demonstrate that they result in air-quality benefits. Funds are generated by automobile registration fees, with approximately \$20 million collected annually. These funds are distributed to either a regional competitive fund (60%) or to a Program Manager Fund (40%).

#### California Center for Physical Activity Grant Program

The California Center for Physical Activity offers small grants of less than \$5,000 to public health departments for projects related to walking.

#### **Regional Bicycle and Pedestrian Program (RBPP)**

The RBPP program has committed \$200 million dollars towards funding significant bicycle and pedestrian projects, particularly those that serve schools or transit, and is managed through the Alameda County Congestion Management Agency (CMA).

#### Habitat Conservation Fund

Administered by the California Department of Parks and Recreation, this grant funds habitat acquisition projects, enhancement projects, and programs that provide for the interpretation of the state's park and wildlife resources or programs that bring urban residents into park and wildlife areas or provide opportunities for urban residents to use park and wildlife areas, or programs that include nature interpretation programs designed to increase the peoples' awareness of and appreciation for park and wildlife resources. This fund could be utilized for trails, parks, and restoration enhancement of the central park area or enhancement and restoration of flood-control channels in cooperation with ACFCWCD.

#### California Conservation Corps (CCC)

Local, state, and federal agencies as well as non-profit organizations may contract with the CCC. The CCC does not provide funding, but it is a low-cost source of labor. Some grants require the inclusion of CCC labor as a project component.

#### local and regional funding programs

Local funding for trail projects may include a commitment of funds from local capital improvement programs (CIPs). These are funds set aside by a local city or county to support specific earmarked projects. CIPs are sometimes used to meet the local share or match requirement of larger competitive grants and can be combined in partnerships with local non-profits, and with developer fees and other funding. Due to budgetary constraints, capital-improvement funding is often committed to major infrastructure and deferred-maintenance needs.

#### Measure B Bicycle and Pedestrian Funding (ACTIA)

Measure B was an Alameda County (and incorporated cities) proposition on the November 2000 ballot that was devoted to transportationimprovement funding, including expanding BART, the Altamont Commuter Express, and local and feeder bus service in Alameda County. It also would fund improvement programs for pedestrian and bicycle safety. The measure passed with 81.4% voting yes. Measure B devotes \$80 million over a 20-year period to bicycle and pedestrian improvements, largely collected through a half-cent sales tax devoted to transportation projects and programs. This funding is distributed through two systems: 1) a "pass through" funding system, by which 75% of Measure B funding is distributed to Alameda County cities and county unincorporated areas, and 2) competitive grants, by which the remaining 25% is available for capital projects, programs, and plans of countywide significance.

#### Proposed Measure "AA" for East Bay Regional Park District

On the ballot in November 2008 will be the renewal of East Bay Regional Park District's "AA" bond funding. If it passes by a majority of the electorate in most of Alameda and Contra Costa Counties, \$400,000 will be allocated to begin implementation of the East Bay Greenway.

#### TDA Article III (SB 821)

Transportation Development Act (TDA) Article III funds are state block grants that are awarded annually to local jurisdictions for construction and engineering of bicycle and pedestrian projects in California. Based on local population, these funds are generated from the state sales tax and are distributed through the Alameda County Congestion Management Agency. In 2006/07, \$1.4 million of TDA Article III funds were allocated to Alameda County.

#### **Developer Fees**

The Quimby Act (Section 66477 California Planning, Development and Zoning Laws) allows a city to collect fees from developers as part of residential project development in lieu of development of park lands or recreational facilities. Impact fees can also be assessed as part of a development project, but establishing a nexus for trail implementation may be difficult.

#### **Mello-Roos Community Facilities Act**

Bike paths and bike lanes can be funded as part of a local assessment or benefit district, but defining the boundaries of the benefit area may be problematic.

#### Bay Area Ridge and Bay Trails

The Bay Area Ridge Trail Council was formed in 1987 to preserve open space by creating managed public access to a trail along the ridge tops around the Bay Area, envisioning a 500-mile connected trail. The Bay Trail is half completed around the San Francisco Bay and is administered by a non-profit housed in the Association of Bay Area Governments. These groups receive funding and award monies in partnership with the California Coastal Conservancy and other funding sources. It is possible that funding for local trail connections between the Greenway and the Ridge and Bay Trails could be funded from these programs.

#### **Bikes Belong Coalition, Ltd. Grants Program**

This private organization gives grants of up to \$10,000 for projects in two categories: facilities and advocacy. For the facility category, Bikes Belong will accept applications from public agencies and departments at the national, state, regional, and local levels. For the advocacy category, Bikes Belong will fund organizations whose mission is expressly related to bicycle advocacy. Trail funding from this source might be possible if a local constituency partnered with the city for advocacy (e.g., a newly formed "Friends of the East Bay Greenway").

#### **Redevelopment Funding**

Under California Redevelopment law and regulations, the Greenway is eligible for funding through tax-increment financing because it is located in several redevelopment areas. Streetscape improvements are often part of larger redevelopment projects.



#### **Construction Organization Structure**

The last implementation step, after completing the construction documents and raising the construction funds, is building the pathway. But in order to get to this final step, an organizational structure is required to move the project forward through environmental review, land use negotiations, fundraising, and construction permits. The following is an evaluation of some of the more common alternatives.

#### Memorandum of Understanding (MOU)

An MOU is a common multi-party legal agreement that expresses a convergence of will between the parties and indicates an intended common line of action. Given the number of jurisdictions and agencies involved in the Greenway project, this would be a necessary step regardless of any specific governance or implementation structure.

#### **City-by-City Governance and Implementation**

In the first section of this plan we introduced the Ohlone Greenway as the genesis for the East Bay Greenway; in that model, each city through which the Ohlone Greenway runs (Berkeley, Albany, and El Cerrito) is responsible for its portion of the trail. This decentralized approach gives flexibility to individual cities, allowing for easier adherence to city-specific priorities. This format may also allow for some agility in decision-making processes, reducing the potential difficulties of regularly coordinating several agencies.

The potential limitation of this approach is that it could lead to gaps in the construction or maintenance of the Greenway, as cities' abilities to allocate funds and overall priorities for the Greenway may vary.

#### **Joint Powers Authority**

An organization that is formed with the purpose of pooling resources and sharing authority, a Joint Powers Authority (JPA) can enter into contracts; employ people; acquire, construct, and maintain buildings, improvements, and public works; and issue revenue bonds. Member agencies can also agree to exchange services. (See text box for details)

California Government Code Section 6500, et seq., provides that two or more public agencies may, by agreement, exercise any power common to the contracting parties. California Government Code Sections 990 and 990.4 provide that a local entity may self-insure, purchase insurance through an authorized insurer, purchase insurance through a surplus line broker, or any combination thereof. California Government Code Section 990.8 provides that two or more local public entities, by a joint powers agreement, may provide insurance for any authorized purpose by any one or more of the methods specified in Section 990.4.

A Joint Powers Authority could be created to do the environmental review of the Greenway, or one of the jurisdictions could serve as lead agency with the other jurisdictions acting as responsible agencies. The JPA could be created solely for the environmental review, it could remain intact for the construction, or it could even continue as the main organizing body for the maintenance of the project.

#### A Regional Agency: The Preferred Route

Regional agencies such as the Alameda Congestion Management Agency (ACMA), Alameda County, BART, East Bay Regional Parks, and the Alameda County Transportation Improvement Authority (ACTIA) work with local agencies to implement inter-jurisdictional projects that have a regional impact. Each of these agencies has a different purpose and objective, but the East Bay Greenway, as a transit and recreation facility, fits into many of their missions. Because these agencies were created to work regionally and the East Bay Greenway is a project with regional impact, the simplest organizational structure would be for a regional agency to lead the Greenway project, at least through the initial construction phases. This avoids creating a new legal authority like the JPA and ensures that the Greenway will be implemented evenly across all jurisdictions.

#### San Francisco Transbay Terminal:

Board (Caltrain).

#### **Gilman Street Sports Fields:**

A new regional sports field complex who located just south of Golden Gate Fields race track and west of I/80 and West Frontage Road in Berkeley. The project is being developed through a Joint Powers Agreement (JPA) involving the cities of Berkeley, Albany, El Cerrito, Emeryville, and Richmond. The City of Berkeley is the lead agency for developing the project and city staff has been working with stakeholder groups including representatives from each of the JPA cities, as well as the East Bay Regional Parks District, the California Department of Parks and Recreation, the Association of Sports Field Users (ASFU), Citizens for Eastshore State Park (CESP), the Sierra Club, and the Audubon Society.

#### Local Examples of Joint Powers Authorities

The Transbay Joint Powers Authority is composed of five directors representing the Mayor's Office, the San Francisco Board of Supervisors, AC Transit, MUNI, and the Peninsula Joint Powers Designing and constructing the Greenway will be a significant challenge, but what happens next is perhaps an even greater challenge: ensuring that the Greenway remains a safe and attractive place. Community residents are all too familiar with improvement projects that open with ceremony but slide into disrepair and disuse through lack of proper care. In community meetings the question came up time and time again: How can we keep the Greenway a safe and beautiful place?

The answer is two-fold: good initial design in combination with effective maintenance, programming, and stewardship. Before anything gets built, there must be an approved maintenance plan and a funding structure for on-going maintenance costs.

# stewardship





#### **Maintenance Planning**

A thorough Greenway maintenance plan is crucial to determining an accurate cost estimate, understanding the long-term commitment associated with its construction, and guaranteeing its ongoing safety and success. Maintenance planning includes considerations for routine maintenance, remedial maintenance, human resource management, and safety. The following list, adapted from the American Trails *Maintenance Checklist for Greenways and Urban Trails*, is a useful starting point for creating a maintenance plan.

#### Typical Greenway Maintenance Tasks

Routine Maintenance	Remedial Maintenance	Human
<ul> <li>The day-to-day regimen of litter and weed removal, sign replacement, other regularly scheduled activities such as fixing cracks and potholes</li> <li><b>1. Trails inspection</b> <ul> <li>Occurs on a regularly scheduled basis.</li> <li>All trail inspections are to be documented.</li> </ul> </li> <li><b>2. Trail sweeping</b> <ul> <li>Ensures trail user safety.</li> <li>Performed on a regular schedule by machine or hand.</li> </ul> </li> <li><b>3. Trash removal</b> <ul> <li>Includes removing ground debris and emptying trash containers.</li> <li>Takes place on a regularly scheduled basis.</li> </ul> </li> <li><b>4. Tree and shrub pruning</b> <ul> <li>For the safety of trail users.</li> <li>On a scheduled and as-needed basis, the frequency of which will be fairly low.</li> </ul> </li> <li><b>5. Mowing of vegetation</b> <ul> <li>Only where mowing is not performed by other agencies or park districts.</li> </ul> </li> <li><b>6. Scheduling maintenance tasks</b> <ul> <li>Inspections, maintenance, and repair of trail-related concerns will be regularly scheduled.</li> </ul> </li> </ul>	<ul> <li>The correcting of significant defects from minor repairs such as repainting (5-to-10-year cycle) to major repairs such as repaving the trail surface (20+year cycle)</li> <li><b>1. Trail repair</b> Repair of asphalt or concrete trails will be closely tied to the inspectionschedule. Prioritization of repairs is part of the process. </li> <li><b>2. Trail replacement 3. Weed control</b> Weed control along trails will be limited to areas in which certain weeds create a hazard to users. Environmentally safe weed removal methods should be used, especially along waterways. <b>4. Trail edging</b> Maintains trail width, and improves drainage. Problem areas include trail edges where berms tend to build up, and where uphill slopes erode onto the trails. Removal of this material will allow proper draining of the trail surface, allow the flowing action of the water to clean the trail, and limit standing water on trail surfaces. <b>5. Revegetation</b> Areas adjacent to trails that have been disturbed for any reason should be revegetated to minimize erosion. <b>6. Habitat enhancement and control</b> Achieved by planting vegetation along trails, mainly trees and shrubs. Improves the aesthetics of the trail, helps prevent erosion, and provides for wildlife habitat. Habitat control involves mitigation of damage caused by wildlife. <b>7. Graffiti control</b> The key to graffiti control is prompt observation and removal. During scheduled trail inspections any graffit should be noted and the graffiti removal crew promptly notified. <b>8. Mapping</b> Several well-designed and attractive maps are available for trail users at numerous locations. From a maintenance standpoint, an accurate, detailed map of the trail system is important for internal park use.</li></ul>	<ol> <li>Coor A cla need miss</li> <li>Gree A da mair</li> <li>Volui The awai of la chur cour impo work the f func</li> <li>Law diffe of us are t easii</li> <li>Prop All r unde aspe work alwa Emp publ</li> <li>Reco Accu activ need surv Gree prior</li> </ol>

#### n Resources and Planning Maintenance

#### ordination with other agencies

clear understanding of maintenance responsibilities eeds to be established to avoid duplicating efforts or issing maintenance on sections of the Greenway.

#### eenway program budget development

detailed budget should be created for Greenway aintenance and revised on an annual basis.

#### lunteer coordination

he use of volunteers can help increase public vareness of the Greenway, and provide a good source labor. Sources of volunteers include school groups, hurch groups, service organizations, trail users, or burt workers. Understanding volunteers' concerns is aportant, as are possible incentives or recognition of ork performed. The adopt-a-mile recommendation in e funding section could serve volunteer coordination nctions.

#### w enforcement

aw enforcement agencies should be aware of the fferent Greenway segments and the types and levels use they receive. Sections of Greenway corridors that e used by transients is an ongoing problem that is not asily solved.

#### oper training of employees

I new employees should be thoroughly trained to inderstand and be aware of all of the above-mentioned spects of Greenway maintenance. Safety, a good ork ethic, and proper care of equipment and tools will ways be the backbone of a good training program. mployees must also be aware of the need for positive ublic contact.

#### cords

ccurate logs should be kept on items such as daily ctivities, hazards found and action taken, maintenance eeded and performed, etc. Records can also include urveys of the types and frequency of use of certain reenway sections. This information can be used to ioritize Greenway management needs.

#### safety planning

Ensuring the safety of Greenway users is probably the most important stewardship concern. The Greenway design itself is crucial to the safety and well-being of Greenway users, but equally important is long-term planning for the regular safety practices and procedures.

Following are some safety measures to establish prior to opening the Greenway to public use:

#### 1. Regular Safety Inspections

Includes the scheduling and documentation of inspections; the condition of railings, bridges, and trail surfaces; proper and adequate signage; removal of debris; and coordination with other agencies associated with trail maintenance.

Should implement a safety program that includes systematic risk management assessment.

#### 2. Emergency Response Protocol

Implement an emergency response protocol with law enforcement, EMS agencies, and fire and rescue department that includes mapping of trail and open space access points, design of trails and access roads (to accommodate up to 6.5 tons), an "address/location positioning system" such as mile markers to identify locations and, where appropriate, 911 emergency phones in remote areas.

Implement a data base management system with law enforcement and fire/rescue to track specific locations and circumstances of all accidents, reported incidents, and crime, and create a safety followup task force to address any problems that develop.

#### 3. Safety Awareness on the Greenway

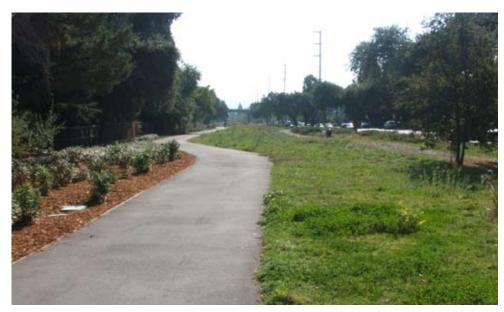
Promote user courtesy and trail protocol, and post and enforce safe user behavior and bicycle speed limits.

#### 4. Safety Hotline

Have a user feedback plan and problem hotline. Develop a procedure for timely and effective response.

#### 5. Patrolling

Assure adequate police (voluntary and paid surveillance of the Greenway.



*Iron Horse Trail, between the cities of Concord and Dublin, follows the old Southern Pacific Railrod right-of-way* 

#### **Stewardship Organization Structure**

"Who will maintain the Greenway?" was a common question voiced in community meetings. The options for maintenance responsibility are similar to the options for construction of the Greenway, which was explained in the Implementation section. Maintenance could be provided by a regional agency, like the East Bay Regional Park District. However most regional agencies do not include trail maintenance in their typical responsibilities. A Joint Powers Agency could be formed to oversee the maintenance, or maintenance responsibilities could be assigned to each city. Again, having each city maintain its portion of the Greenway could result in uneven distribution of resources and gaps in service.

A fourth option is to have a non-profit Greenway organization that can raise funding, coordinate volunteer efforts, and conduct outreach for the Greenway. Although this option is attractive, it is unlikely that sufficient private funds can be raised on an on-going basis to fund a non-profit dedicated solely to the Greenway.

Our "preferred route" for on-going maintenance and stewardship would be to form a JPA to oversee the entire route. This would ensure adequate and equitable maintenance for the entire length of the Greenway.



#### **Maintenance Funding**

#### **Estimates for Maintenance Costs**

Funding for maintenance is one of most crucial aspects of planning a successful greenway. Maintenance cost estimates for the East Bay Greenway vary widely depending on how maintenance is approached. Whether the Greenway is maintained by paid park employees, contractors, volunteers, or a combination of these efforts will greatly influence payroll costs. Access to maintenance equipment is another cost factor. The overall maintenance plan will be determined only after an organizational structure for the stewardship of the Greenway is determined.

#### **Maintenance Cost Estimates for Similar Greenways**

City of Albany Parks and Recreation Department: Ohlone Greenway Estimated maintenance costs: One (1) full-time personnel year per trail mile.

#### **City of Oakland**

Urban trail systems estimate on a per-mile/per year basis: Overall average cost/mile/year: \$8,000

#### **East Bay Regional Parks Department**

Greenway trails estimate on a per-mile/per year basis: Overall average cost/mile/year: \$25,000

The Regional Plan Association of New York, New Jersey, and Connecticut Urban parks estimate on a per acre/per year basis:

- Non-recurring maintenance costs: Major repairs and replacement of items with extended lifetimes (benches, drinking fountains, lighting, pavement, and railings). Average cost/acre/year: \$15,000
- Recurring maintenance costs: Upkeep repair and replacement of noncapital items and everyday operations (cleaning, landscaping, horticulture, non-managerial operations, utilities, and insurance). Average cost/acre/ year: \$55,000
- Administrative costs: Expenditures applied to management and administration of the parks (salaries of park managers, and associated administrative supplies).
- Average cost/acre/year: \$34,000
- Security costs: Protection of the park and its users. Range from "free" services of the city police to specially assigned parks police to paid private security officers. Average cost/acre/year: \$18,000

#### **Funding Sources for Maintenance**

As stated above, a clear plan for on-going funding for maintenance is essential to the success of the Greenway. Many of the following opportunities can be used for construction and/or maintenance of the Greenway, and some could be used in combination with one another.

#### Special Assessments

A Special Assessment or Special Benefit Assessment is a financial charge levied on parcels of land or businesses, based on the special benefit received from the service or capital improvement. Many of these have already been used or are being discussed in California. They are created by a simple majority vote of property owners, and the assessment is involuntary.

- Area.

#### **Special Taxes**

A Special Tax is a financial charge that is calculated via a specific formula and is levied annually on property for a defined period of years. A specific benefit criteria is not required, but it must be ratified by a two-thirds vote, and the tax is involuntary.

Communities Facilities or Mello-Roos Districts can fund certain public services on an annual basis as well as large infrastructure capital needs on a long-term basis. Services that may be funded include police protection services; fire protection and suppression services; park, parkways, and open space maintenance; flood and storm protection services; and park or

• Landscape and Lighting Districts: Can fund the installation and annual maintenance of landscaping, public lighting, sidewalks, curbs, and gutters; and park or recreational improvements.

• Benefit Assessment Districts: Can fund the maintenance and operation costs of drainage, flood control, street lighting, and street maintenance. Open Space Maintenance Districts: Can fund the costs of improving and maintaining open space areas, including improving and protecting open spaces; planting and maintaining trees and vegetation; removal of aggressive and noxious plants; regulation as necessary for prevention.

Property and Business Improvement or Community Benefit Districts: Can fund improvement items, including parking facilities; benches, kiosks, shelters, and signs; public restrooms, decorations, parks, and fountains; and street, sidewalk, and plaza improvements. Additionally, activities such as the following may be funded: promotion of public events and tourism; furnishing of music; security; graffiti removal and other cleaning services; and other services that benefit businesses and real property. This mechanism has been used in many places in the Bay

recreational improvements. Capital projects with a useful life of at least five years that may be funded include park, recreation, and open space facilities; school facilities; libraries; child-care facilities; and infrastructure needs. This mechanism has been used widely in California.

#### Percent for the Greenway or Percent for Parks

The creation of the Greenway could coincide with a Percent for Greenway or Percent for Parks program, building on similar successful models such as Percent for Arts programs that allocate a percentage of municipal capital costs for commissioning public artwork.

- Twenty-seven states have Percent for Art legislation, which guides the inclusion of works of art in new public construction. In addition to statewide programs, more than 130 active public art programs are managed by counties, cities, boroughs, transportation authorities, redevelopment authorities, and private non-profit agencies.
- In 1989 the City of Oakland adopted a Public Art Ordinance and an Oakland Redevelopment Agency resolution for a Percent for Art Ordinance plan authorizing the allocation of 1.5% of municipal capital improvement project costs for commissioning public artwork. Eligible capital improvement projects include those for the City of Oakland, the Oakland Redevelopment Agency, and eligible grant revenue. These monies are set aside in the Public Art Program Fund. At a minimum, funding from Oakland's Percent for Art Program could fund public art projects on its portion of the Greenway.

#### Funds Tied to New Development

A mechanism providing for dedicated revenue from new commercial buildings or large residential units could aid not only in the initial construction phase of the Greenway, but also in ensuring long-term budgeting for maintenance. The Brooklyn Waterfront Greenway Project in New York intends to incorporate greenway development into other capital projects along the route. Using this transfer of project costs mechanism for the East Bay Greenway would mean that the cost of developing each section of the Greenway would be covered by these other projects. A similar solution is described in the Chapel Hill Greenways Master Plan in North Carolina where the town has required developers to provide trails within some large planned developments. Construction costs would therefore be covered by the private developers.

#### **Adopt-a-Mile Programs**

An Adopt-a-Mile program is a way for businesses, community groups, and individuals to provide financial and/or volunteer support for the development and maintenance of the Greenway. Adopt-a-M ile programs can take different forms, depending on their goals. See side box for two examples of adoption programs.

New York City's Adopt-a-Park Program allows participants to provide financial support for the park of their choice. Pricing varies depending on the type of adoption:

- Park Bench: \$2,500 to \$7,000
- Basketball Court: \$10,000 and above annually
- Playground: \$15,000 and above annually

Minneapolis's Midtown Greenway Coalition takes a slightly different approach:

- Adopters each adopt one four-block-long segment of the Greenway.
- This four-block-long segment is also adopted by three other organizations, so four adopting organizations are responsible for the same area, which makes everyone's task easier, may create some teamwork and new alliances, and minimizes the number of recognition signs needed in the corridor.
- Responsibilities include helping keep the corridor free of litter, accomplished by three clean-up events per year, and then a menu of optional additional tasks such as enhancing the corridor with plantings and/or public art (approved on a case-by-case basis by the County as owner of the corridor) or conducting special events like an annual meeting or picnic in the corridor.
- Participation fees covering a two-year adoption period are \$25 for nonprofit organizations, \$50 for small businesses, and a minimum of \$500 for major corporations.



# programming

**D**rogramming active and positive use of the Greenway is key to its security and continued use. More people using the **C** Greenway will make the path appear friendlier and more welcoming and will discourage misuse.

Ultimately, the Greenway should serve the people who live along the 12-mile corridor, and many groups and organizations could become involved with the programming of the Greenway. Working with these organizations through the design and programming can help ensure that the Greenway serves a true community need. Site-specific recommendations are included in Chapter 4. The Alameda Countywide Strategic Pedestrian Plan contains a comprehensive list of Programs and Advocacy to Encourage Walking (pp. 40-43) that should be consulted when further developing the programming for the Greenway.

#### Potential Partner Organizations for Greenway Programming

#### East Bay Bike Coalition and Cycles for Change

One of the prime stakeholders for the Greenway are bicyclists, and it would be natural to partner with the East Bay's lead bicycle advocacy groups to program the Greenway, especially because of the level of programming and organization that they already oversee. We envision that trainings, workshops, races, bike-repair, information kiosks, signage, bike racks, and other partnered projects would play a major role in Greenway programming, and these projects would also activate many different places along the Greenway at different times of day.

#### **Farmers' Markets**

Farmers' Markets are a positive, activating use of public space, and access to fresh and healthy food is extremely limited in the areas along the Greenway route. See Appendix E for a list of farmers' markets along the Greenway.

Public Art Competitions, Installations, Artists Cooperatives, and Cultural Centers Many opportunities and spaces for public art exist along the Greenway. Competitions or installations should include the artist groups with studios along the corridor.

#### **Community Gardens**

Gardening could also be a great use of neglected space on the Greenway. Existing community cultural groups or neighborhood groups could be involved in the creation of these gardens.

#### **Schools**

Several elementary, middle, and high school campuses are within walking distance of the Greenway, and creating safe paths and recreation opportunities for these schools and their students is a natural Greenway opportunity. There are also opportunities to incorporate art, science, and recreational projects for school children into the Greenway. Informal jogging as well as track practice could become an important Greenway activity.

#### **Senior Centers/Residences**

There are a number of resources for senior citizens, as well as several naturally occurring retirement communities along the Greenway route. Creating scheduled group walks for seniors could be a fun way to promote the Greenway, health, and sociability.

#### **Houses of Worship**

In many sections of the Greenway route, houses of worship play a key community role and can be partners in creating regular Greenway programming for the congregations.

#### **Community-Based and Youth Organizations**

Urban Ecology has worked with community-based organizations, including East Bay Asian Youth Coalition (EBAYC) and the Unity Council, on projects and programs involving youth. Strong local community-based organizations could provide assistance and programming for the site.

#### Neighborhood Associations and Neighborhood Crime Prevention Councils (NCPCs)

Much of the community workshop process was accomplished by partnering with existing neighborhood and safety groups that have a vested interested in stewardship and positive programming along the Greenway. They should continue to be consulted on the effectiveness of crime-prevention techniques on the Greenway.

#### **Environmental and Creek Restoration Groups, and Local Garden Clubs**

The Greenway crosses a number of creeks that are associated with existing restoration groups and other organizations that would be good partners for increasing environmental awareness on different parts of the Greenway.

#### Public Health, Hospitals Systems, and Health Clinics

We would like to work with large hospital groups that serve Alameda County, including Kaiser, Sutter Health, and Children's Hospital, as well community health services and the Alameda County Public Health Department, to create recreational and exercise programming.

#### **Greenway-wide Programming**

Themed tour maps, guided tours, and special events along the Greenway could help promote the use of the pathway. Connecting the Greenway to the festivals already happening along the corridor, such as San Leandro's Cherry Festival and Fruitvale's Dia de los Muertos, is another potential for programming. See the appendix for a list of festivals in the communities along the Greenway.

#### A Greenway Rangers Program

Regular patrolling is essential to ensure the safety of the Greenway as well as create a sense of security for its users. It is expected that city police will play a role in patrolling the Greenway, and BART police may also be of assistance near stations. However, in the absence of a continuous police presence, creating a Greenway-specific program that furthers safety is essential.

The challenges of on-going maintenance and safety along the Greenway can be addressed by an innovative program, the Greenway Rangers. The Greenway Rangers would be a para-professional group that could be tied to community job training, workforce development, and youth-employment programs.

Greenway Rangers could act as the eyes and ears of the Greenway. Similar programs have been successful in the parks and recreation departments of New York City, Houston, and Baltimore. In such programs, the rangers monitor the greenway or park on foot and by bicycle, and work closely with the appropriate city police department to monitor park security, deter vandalism, and ensure overall park security.

Rangers can also serve as uniformed goodwill ambassadors to the Greenway and encourage its appreciation and proper use. Some rangers may have special training in fields such as biology and archeology. As an on-going presence, rangers would cultivate a human relationship between the community and the Greenway and thus would act as liaisons between the community and the Greenway administration. Rangers would receive neighborhood orientations as part of their training to gain a better understanding of the surrounding communities.

In Urban Ecology's vision, Greenway Rangers would be the human face of the Greenway. Formally trained, they would professionally and creatively combine many duties, including monitoring the Greenway on daily patrols, coordinating recreational programs, and leading educational tours. As members of the community and familiar faces on the Greenway, they would be the first port of call for user queries and suggestions. They would be local experts with knowledge of the amenities, the history, and the ecology of their area and would serve as a valuable source of information for Greenway users. They would be prepared to discourage improper use of the Greenway and respond to damage. In the case of criminal activity, their role would be to report the issue to the authorities and to monitor the response. Rangers are already used in parks and greenways across America.

In addition, a Greenway-wide Ranger program could provide structure and connection between the different local groups involved in programming along the route of the Greenway.

#### how the greenway rangers program would work

The program could be managed by a regional agency, by a JPA, by a nonprofit, or through individual city park and recreation programs. Because the Greenway crosses many jurisdiction boundary lines, a Greenway-wide program managed regionally would be the most effective and best-funded approach.

The potential for the program to be a community-oriented employment training opportunity could have far-reaching benefits for local residents and youth. Funding could come from job-training, crime-prevention, and community-development grants as well as from local government sources.

Rangers could work as teams, or individual rangers could be responsible for a particular community or stretch of the Greenway.

#### **Potential Ranger Responsibilities:**

- Monitoring and daily maintenance (tending vegetation, keeping trails clear, checking signage, picking up litter)
- Reporting damage and vandalism
- Patrolling
- Deterring negative useWorking with the police
  - Conducting educational programs to help people get the most out of the Greenway, i.e., pedestriansafety and bicycle-safety courses, active recreation instruction, nature walks, history walks, and children's activities
- Being there (conducting visible patrols, being a visible presence, answering questions, and assisting Greenway users)

#### Comparison o

#### TYPICAL URBAN PARK RAN PROGRAMS

#### DEFINITION OF D

Typically refers to nature ambassadors (programming and conservation or police-like force (patrols and response)

#### R

May or may nor recruit from with the communities they serve

#### ASSOCIATION

May be directly or indirectly associated with law enforcement

of Da	rk Pangor Programs						
IGER	rk Ranger Programs EAST BAY GREENWAY RANGERS						
UTIES	AND RESPONSIBILITIES						
1	<ul> <li>Ranger's duties would be broad</li> <li>Rangers would not specifically police the Greenway</li> <li>Educational and recreational programming would not be limited to nature conservation but would also include safety, history, culture, arts, and physical exercise</li> </ul>						
RECRI	JITMENT						
thin	Would deliberate recruit, train, and otherwise involve local people						
WITH	WITH LAW ENFORCEMENT						
t	Would be a community-based program, staffed by community members, working with, not for, the police						

# conclusion

As a working document, this East Bay Greenway Concept Plan, and all of the research, community engagement, and design that went into it, is only as good as the implementation recommendations that will help push it to construction and completion. We have attempted to outline all of the possibilities and focus on the options that are strongest, individually and in combination, as of the printing of this plan. Even at this point, many variables and different combinations of structure or funding could work in different configurations. Moving forward in this process will bring new opportunities and new challenges that will require new strategies. Urban Ecology is committed to making this Greenway a reality, and to forging the relationships and discussions and on-going work that will make that possible.We hope all interested readers will join us in this effort by providing comments and letters of support to Urban Ecology.



582 Market Street, Ste. 1020 San Francisco, CA 94104

phone: 415-617-0161 fax: 415-617-0016 www.urbanecology.org

# appendix



#### **Appendix A: Bibliography**

#### chapter 1

AC Transit. 2004. Designing with Transit: Making Transit Integral to East Bay Communities. Alameda County, California.

http://www.actransit.org/pdf/designing\_with\_transit.pdf

BART. 2002. Bicycle Access and Parking Plan. Oakland, California.

http://www.bart.gov/docs/BART\_Bicycle\_Access\_Parking\_Plan.pdf

BART. 2003. Strategic Plan. Oakland, California.

http://www.bart.gov/docs/strategicPlan.pdf

- BART. 2006. "Draft Natural Environment Study" Environmental Impact Report.
- Calhoun J. 2002. New Partners for Smart Growth: Building Safe, Healthy, and Livable Communities. National Crime Prevention Council.
- California Department of Education. 2006. "Fitness Test Report" Alameda, California.

http://data1.cde.ca.gov/dataquest/PhysFitness/PFTest\_Co\_2006.asp?cSelec t=01,ALAMEDA&cYear=2005-06&cChoice=PFTest2&RptNumber=0&Pag eno=1

California Department of Transportation. 2007. Statewide Transit-Oriented Development Study: Factors for Success in California.

http://transitorienteddevelopment.dot.ca.gov.

- Casteel C, Peek-Asa C. 2000. Effectiveness of crime prevention through environmental design in reducing robberies. Am J Prev Med 18:99-115.
- Center for Disease Control (CDC). 2007. "Weight and Obesity."

http://www.cdc.gov/nccdphp/dnpa/obesity/

East Bay Regional Parks District. 2007. Master Plan. Oakland, California.

http://www.ebparks.org/files/RPM\_Plan97.pdf

- Kuo FE. 2001. "Coping with poverty impacts of environment and attention in the inner city" Environment and Behavior 33(1):5-34.
- Heller, Jonathan and Rajiv Bhatia. 2007. Human Impact Partners Health Impact Assessment of the Proposed East Bay Greenway. (Unpublished report contracted for Urban Ecology)

Metropolitan Transportation Commission. 2007. Regional Rail Plan.

Sullivan WC, Kuo FE, DePooter Sf. 2004. "The Fruit of Urban Nature: Vital Neighborhood Spaces" Environment and Behavior 36(5):678-700.

Taylor RB. 2001. The Incivilities of 'Broken Windows' Thesis. Department of Criminal Justice. Temple University. Philadelphia, PA.

#### chapter 3

BART. 2006. Parking, Access and Occupancy Summary Survey.

Highway Design Manual, Chapter 1000.

The City of Berkeley. 2000. Bicycle Boulevard Design Tools and Guidelines. Planning and Development Department.

covertoc.pdf

Federal Highway Administration. 2008. Manual on Uniform Traffic Control Devices for Streets and Highways.

http://mutcd.fhwa.dot.gov/

Natural Resources Conservation Service. 2007. Web Soil Survey. United States Department of Agriculture.

http://websoilsurvey.nrcs.usda.gov/app/

Zelinka and Brennan. 2001. Safescape: Creating Safer, More Livable Communities Through Planning & Design. Chicago: APA Planners Press.

#### chapter 5

AmericanTrails.org.

html

City of Fremont. Union Pacific Railroad Corridor Trail Feasability Study. 2007.

http://www.ci.fremont.ca.us/Community/Traffic/ BicycleAndPedestrianProgram.htm

California Department of Transportation. 2006. Bikeway Planning and Design.

http://www.dot.ca.gov/hq/oppd/hdm/pdf/chp1000.pdf

http://www.ci.berkeley.ca.us/transportation/bicycling/bb/Guidelines/pdf's/

Wagner, Jed. 1999. Maintenance Checklist for Greenways and Urban Trails.

http://www.americantrails.org/resources/ManageMaintain/MaintCheck.

#### Appendix B: Current Plans & Projects Related to the East Bay Greenway

#### bicycle and pedestrian plans

Alameda County Unincorperated Bicycle Master Plan. 2006. Alameda County Public Works Agency. www.acgov.org/pwa/Bicycle%20Master%20Plan-Draft%20Chapter%201%20-%203.pdf

Alameda County Unincorperated Pedestrian Master Plan. 2006. Alameda County Public Works Agency. www.acgov.org/pwa/PMP%20NOI.pdf

Alameda Countywide Bicycle Plan. 2006. Alameda County Congestion Management Agency. http://www.accma.ca.gov/pages/HomeBicyclePlan.aspx

Alameda Countywide Strategic Pedestrian Plan. 2006. Alameda County Transit Improvement Authority. www.acta2002.com/ped-toolkit/Full\_Ped\_Plan.pdf

City of Oakland Bicycle Master Plan. 2007. City of Oakland. http://www.oaklandpw.com/Page123.aspx#plan

City of Oakland Pedestrian Master Plan. 2002. City of Oakland. www.oaklandnet.com/government/Pedestrian/Intro\_Ch%201.pdf

City of Hayward Bicycle Master Plan. 2007. City of Hayward.www.haywardca.gov/citygov/meetings/pca/pc/2007/pc071207-03%20Attachment%20A. pdf

City of San Leandro Bicycle and Pedestrian Master Plan. 2004. City of San Leandro. http://www.ci.san-leandro.ca.us/england/BikePedMastePlan.pdf

#### **BART station area plans**

Bicycle Access and Parking Plan Vols. 1 and 2. 2002/2003. BART. www.bart.gov/docs/BART\_Bicycle\_Access\_Parking\_Plan.pdf

Coliseum Area Concept Plan. 2003. BART. www.oaklandnet.com/government/ceda/revised/planningzoning/ Commission/ZS03-040-A.pdf

Fruitvale Station Access Plan. 2002. BART. http://www.bart.gov/docs/planning/Fruitvale\_Access\_Plan.pdf

Oakland Airport Connector. 2006. BART/Oakland International Airport. http://www.bart.gov/about/projects/oac/index.aspx

San Leandro Station Access Plan. 2002. BART. http://www.bart.gov/docs/planning/San\_Leandro\_Access\_Plan.pdf

#### transit-oriented development plans

Bay Fair BART TOD and Access Plan. 2007. BART. http://www.bart.gov/docs/planning/bayfair/FinalBayFairBARTTODAccess. pdf

Downtown San Leandro TOD Strategy. 2007. City of San Leandro. http://www.ci.san-leandro.ca.us/develop/TODStrategyFINAL.pdf

#### neighborhood plans

Eden Area Strategic Vision Plan. 2007. Alameda County. http://www.acgov.org/edenareavision/

#### housing and redevelopment plans

Arcadia Park. Pulte Homes. http://www.pulte.com/communities/ca/oakland/villages-at-arcadia-park/ index.aspx

Coliseum Area Redevelopment Plan. 2007. City of Oakland. http://www.business2oakland.com/main/documents/ ColiseumPlanAmended8.2007.pdf

Fruitvale Transit Village Phase II. The Unity Council. http://www.unitycouncil.org/fruitvale/index.htm

Lion Creek Crossings. East Bay Asian Local Development Corporation. http://www.ebaldc.org/pg/7/real-estate-development





#### bicycle and streetscape improvement projects

- BART to Bay Trail: Coliseum Station to Martin Luther King Shoreline. Alameda County Public Works Agency. http://www.bart.gov/docs/planning/COLISEUM.pdf
- *Coliseum Transit Hub Streetscape Improvements*. City of Oakland CEDA. http://www.business2oakland.com/main/coliseum. htm#currentStreetscapes
- *E 12th Street Bike Lanes Feasibility Study.* City of Oakland.
- *Edes Avenue Streetscape Project.* 2008. City of Oakland. http://www.business2oakland.com/main/coliseum.htm
- *Lake Merritt 12th Street Reconstruction Project.* 2004. City of Oakland. http://www.oaklandpw.com/Asset603.aspx
- *Lewelling Boulevard Improvements*. Alameda County Public Works Agency. http://www.acgov.org/pwa/measureb.shtml
- San Lorenzo Creek Park Trail Designs. 2004. The Planning Collaborative, Inc. http://www.slzcreekwatershed.org/docManager/1000000211/San%20Loren zo%20Creek%20Park%20\_Trail%20Designs.pdf%20.pdf

#### **Appendix C: Community Survey**

#### THE EAST BAY GREENWAY: WE NEED YOUR INPUT

#### I. BART (check all that apply or describe 'other')

1. I take BART to: □ work □ school □ family visits □ the doctor □ services □ outings □ \_\_\_\_ I don't use BART

- 2. I use the 
  Fruitvale
  Coliseum
  San Leandro
  Bay Fair
  Hayward BART station(s).
- 3. I get to BART by: 
  walking 
  bike 
  car 
  AC Transit 
  shuttle 
  car service 
  ParaTransit 
  carpool
- 4. It can be hard to reach BART because of: 
  traffic curbs steps underpasses railroad tracks closed off areas □ uneven surfaces □ debris □ lack of parking □ lack of connections to BART □ \_

#### II. YOUR COMMUNITY (check all that apply or describe 'other')

- 5. The most important issues in my community are: □ Housing □ Safety □ Jobs □ Health □ Open Space □ Shopping/Services □ Schools □
- 6. The most important issues in my community's existing parks, streets, and public spaces are: □ Children's Safety □ Pedestrian Safety □ ADA Accessibility □ Maintenance □ Crime □
- 7. My community needs more public space for: □ children's play □ sports/activities □ rest/quiet/relaxation □ greenery □ senior activities □ \_

#### III. THE GREENWAY (check all that apply or describe 'other')

- 8. I would most like to see the Greenway incorporate: 
  □ Seating 
  □ Lighting 
  □ Planted Areas 
  □ Public Art 
  □ Play areas □ Sports Areas □ Safety Cameras □ Community/History Signage □ Dog Areas □ Food Vendors □ Callboxes Exercise Areas Community Gardens Grassy Areas Tables Direction/Info Signs
- 9. The specific area of the Greenway that you should concentrate on in my community is (cross streets and/or description):
- 10. I would use the Greenway for: 
  a walking 
  bigging 
  biking 
  c active recreation 
  biking 
  bi □ picnicking □ school activities □ exercise □ neighborhood gatherings □ gardening □ \_ 🗆 I won't
- 11. I would use the Greenway in the \_ morning \_ lunchtime \_ daytime \_ evening \_ weekday \_ weekend / \_ daily \_ rarely \_ never

If you would like us to keep you updated on workshops and news, or if you might want to be more involved: Urban Ecology will never share your information with any other party or use it for any other purpose.

Name:	
Address:	
Email:	Phone Number:

□ I would like to receive news and updates. I would like to know about workshops and events. □ I am interested in becoming more involved in Greenway community planning and outreach.

#### THANK YOU FOR HELPING TO PLAN A BETTER GREENWAY FOR YOUR COMMUNITY

Return to: Urban Ecology, 582 Market Street #1020, San Francisco CA 94104 / Fax: (415) 617-0016 / Phone: (415) 617-0161 / urbanecology.org

### EAST BAY GREENWAY: NECESITAMOS SU OPINIÓN

#### I. BART (marque todas las que correspondan o describa en "otros")

- 2. Utilizo la estación(es) del BART de 
  Fruitvale 
  Coliseum 
  San Leandro 
  Bay Fair 
  Hayward.
- 3. Llego hasta el BART: 

  caminando 
  en bicicleta 
  auto 
  AC Transit 
  transporte público 
  taxi 
  ParaTransit 
  auto 
  compartidos
- 4. Puede ser difícil llegar hasta el BART a causa de: 🗆 tráfico 🗆 bordillos 🗆 escalones 🗆 pasos subterráneos 🗆 líneas de tren 🗅 áreas clausura 🗆 superficies desniveladas 🗆 escombros 🗆 falta de estacionamiento 🗆 falta de conexiones con BART 🗆 \_\_\_\_

#### II. SU COMUNIDAD (marque todas las que correspondan o describa en "otros")

- Los temas más importantes en mi comunidad son:
  - □ Vivienda □ Seguridad □ Empleo □ Salud □ Espacios abiertos □ Servicios/Comercios □ Escuelas □
- 6. Los temas más importantes relacionados con los parques, calles y áreas públicas actuales dentro de mi comunidad son: □ Seguridad de los niños □ Seguridad de los peatones □ Accesibilidad ADA □ Mantenimiento □ Delincuencia □
- Mi comunidad necesita más espacios públicos para:
- 🗆 el juego de niños 🗆 deportes/actividades 🗆 descanso/tranquilidad/relajación 🗆 espacios verdes 🗆 actividades para ancianos 🗆

#### III. LA VÍA VERDE (GREENWAY) (margue todas las que correspondan o describa en "otros")

- Quisiera que la vía verde incorporara: 🗆 Asientos 🗆 Iluminación 🗆 Áreas con plantas 🗅 Arte público 🗆 Áreas de juego 🗆 Áreas deportivas Cámaras de seguridad 
   Señalización comunitaria o histórica 
   Áreas para perros 
   Vendedores de comida 
   Teléfonos de emergencia Areas para ejercitarse 🗆 Jardines comunitarios 🗆 Espacios con césped 🗆 Mesas 🗆 Señalización con información y direcciones
- 9. El área específica de la vía verde en la que deben concentrarse dentro de mi comunidad es (intersección de calles y/o descripción):
- 10. Usaría la vía verde para: 🗆 caminar 🗆 trotar 🗆 pasear en bicicleta 🗆 recreación activa 🗆 parques infantiles 🗆 descansar 🗆 comer al aire libr □ actividades escolares □ hacer ejercicio □ reuniones comunitarias □ jardinería □ \_
- 11. Usaría la vía verde durante 🗆 la mañana 🗆 el almuerzo 🗆 el día 🗆 la tarde 🗆 entre semana 🗆 los fines de semana 🗆 □ diariamente □ pocas veces □ nunca □

#### Si desea que le mantengamos al día respecto a las noticias y talleres, o si desea tener una participación mayor: Urban Ecology no compartirá su información con ningún tercero ni la usará para otro propósito.

Nombre:	
Dirección:	
Correo electrónico:	Número de teléfono:

Deseo recibir noticias y actualizaciones. Deseo conocer más sobre talleres y eventos. □ Me interesa participar más activamente en la planificación y la extensión de la vía verde (Greenway).

#### GRACIAS POR AYUDAR A PLANIFICAR UNA VÍA VERDE MEJOR PARA SU COMUNIDAD

Contactar: Urban Ecology, 582 Market Street #1020, San Francisco CA 94104 / Fax: (415) 617-0016 / Tel: (415) 617-0161 / urbanecology.org

lo uso el BART	
]	
radas	
	7

re	
No lo usaría	
y/o	



163

#### **Appendix C: Survey Results**

#### SURVEY RESULTS

Total Number of Respondents, 83 Surveys Results from 2/15/07 to 11/01/07

#### I. BART

- 1. <u>I take BART to</u>: 21 work / 1 school / 15 family visits / 14 the doctor / 13 services / 57 outings / 9 other / 13 I don't use BART
- 2. <u>I use the</u>: 19 Fruitvale / 14 Coliseum / 34 San Leandro / 22 Bay Fair / 10 Hayward BART stations.
- 3. Iget to BART by: 39 walking / 10 bike / 54 car / 10 AC Transit / 2 shuttle / 0 car service / 3 ParaTransit / 3 carpool / 1 other
- 4. <u>It can be hard to reach BART because of</u>: 19 traffic / 1 curbs / 4 steps / 2 underpasses / 9 railroad tracks / 5 closed off areas 11 uneven surfaces / 10 debris / 21 lack of parking / 7 lack of connections to BART / 5 other

#### **II. COMMUNITY**

- 5. <u>The most important issues in my community are:</u> 22 Housing / 61 Safety / 14 Jobs / 15 Health / 39 Open Space / 26 Shopping/Services / 30 Schools / 9 other
- 6. <u>The most important issues in my community's existing parks, streets, and public spaces are:</u> 47 Children's Safety / 41 Pedestrian Safety / 10 ADA Accessibility / 41 Maintenance / 58 Crime / 9 other
- 7. <u>My community needs more public space for:</u> 49 children's play / 33 sports/activities / 46 rest/quiet/relaxation / 57 greenery / 36 senior activities / 2 other

#### **III. THE GREENWAY**

- I would most like to see the Greenway incorporate: 53 Seating / 67 Lighting / 60 Planted Areas / 31 Public Art / 27 Play areas 25 Sports Areas / 52 Safety Cameras / 23 Community/History Signage / 22 Dog Areas / 6 Food Vendors / 43 Callboxes 50 Exercise Areas / 38 Community Gardens / 43 Grassy Areas / 24 Tables / 29 Direction/Info Signs / 4 oither
- 9. The specific area of the Greenway that you should concentrate on in my community is (cross streets and/or description): 105 St. (3 votes)
- 10. <u>I would use the Greenway for</u>: 78 walking / 17 jogging / 42 biking / 12 active recreation / 11 playgrounds / 32 quiet rest 14 picnicking / 9 school activities / 35 exercise / 13 neighborhood gatherings / 11 gardening / 3 other / 2 I won't
- 11. <u>I would use the Greenway in the</u>: 36 morning / 9 lunchtime / 36 daytime / 26 evening / 38 weekday / 48 weekend / 7 rarely / 1 never

#### HELPING TO PLAN A BETTER GREENWAY FOR THE COMMUNITY

Urban Ecology, 582 Market Street #1020, San Francisco CA 94104 / Fax: (415) 617-0016 / Phone: (415) 617-0161 / urbanecology.org

## Appendix D: Suggested Plant List

Scientific Name	E/D	Cal Nav.	Common Name	Picture
		Trees 15-30	)'	
Cercis occidentalis * D	D	Y	Western Redbud	
Crataegus phaenopyrum D	D	N	Washington hawthorn	
Prunus serrulata ' Kwanzan' D	D	N	Kwanzan Cherry	
Olea europea 'Swan Hill'	E	N	Swan Hill Oliver	
Callistemon viminalis	E	N	Weeping bottlebrush	
Leptospermum laevigatum	E	Ν	Coastal Tea Tree	
Pyrus kawakamii	D	Ν	Evergreen Pear	TE STATE
Quercus agrifolia	E	Y	Coast Live Oak	-
Salix	D	Y	Arroyo Willow	
Heteromeles arbuitfolia	E	Y	Toyon	
Prunus ilicifolia	E	Y	Hollyleaf cherry	

Scientific Name	E/D		Common Name	Picture
		<u>Shrubs</u>		
Verbena lilacina De la mina	E	Y	Lilac verbena	
Rhamnus californica	E	Y	Seaview Coffeeberry	
Baccharis pilularis pilularis Pigeon Point	E	Y	Dwarf Coyote Brush	
Grevillea lanigera 'Coastal Gem'	E	N	Woolly Grevillea	
Berberis thunbergii 'Crimson Pygmy'	D	N	Japanese barberry	
Rosa 'Flower Carpet'	D	N	Rose, Flower Carpet	
Phacelia californica	D	Y	Phacelia	
Artemisa californica	E	Y	California Sagebrush	
Artemisa pycnocephala	E	Y	Beach Sagebrush	
Mimulus Auranticus	D	Y	Sticky Monkey Flower	

appendix P

Scientific Name	E/D	Cal Nav.	Common Name	Picture		
	Sh	rubs- Contin	ued			
Achillea millefolium	E	Y	Yarrow			
Eriogonum latifolium	E	Y	Coast Buckwheat			
Erigeron glaucus	E	Y	Seaside Daisy			
Aquilegia formosa	D	Y	Colombine			
Ribes sanguineum	D	Y	Wild currant			
Scrophularia californica	D	Y	Bee plant			
Iris douglassi	D	Y	Iris			
Symphoricarpos	D	Y	Snoberry			
Anaphalis margaiitacea	E	Ν	Pearly Everlasting			
Perennials						
Achillea millefolium	E	Y	Common Yarrow			

Scientific Name	E/D	Cal Nav.	Common Name	Picture		
Grasses/Sedges						
Carex divulsa (Tumicola )	E	Y	Berkeley Sedge	A SURVEY		
Festuca idahoensis	E	Y	Idaho Fescue			
Festuca rubra	E	Y	Red Fescue	AN		
Juncus patens ' Occidental Blue'	E	Ν	Occidental Blue Rush			
Helictotrichon sempervirens	E	Ν	Blue oat grass	A.S.		
Deschampsia caespitposa	E	Ν	Tufted Hairgrass			
Festuca californica	Е	Y	California Fescue			
Nasella pulchra	E	Y	Purple Needle Grass			
Koeleria marcrantha	E	Y	Junegrass			

Scientific Name	E/D	Cal Nav.	Common Name	Picture		
Ground Cover						
Arctostaphylos uva-ursi	E	Y	Manzanita			
Ceanothus gloriosus 'Anchor Bay'	E	Y	Calif. Lilac			
Ceanothus ' centenial'	E	Y	Calif. Lilac			
Thymus spp.	E	Ν	Thyme			
Fragraria chiloensis	E	Y	Sand Strawberry			
Fragraria vesca	E	Ν	Mountain Strawberry			
Saturejia douglassi	E	Y	Yerba Buena			
Dicentra fromosa	D	Y	Pacific Bleeding Hearts			

Scientific Name	E/D	Cal Nav.	Common Name	Pictur
		Vines		
Vitus californica 'Roger's Red'	D	Y	California Grape	
Distictis buccinatoria	E	N	Blood-red trumpet vine	
Distictis Rivers	E	N	Royal Trumpet Vine	
Hardenbergia violacea	E	N	Happy Wanderer	
Passiflora "Coral Seas"	E	N	Passion Vine	and the second
Clytostoma callistegioides	E	N	Violet Trumpet Vine	
Clematis lasiantha	D	Y	Pipestem Clematis	
Clematis ligusticifolia	D	Y	Western White Clematis	
Calystegia purpurata	D	Y	Morning-glory	





Scientific Name	E/D	Cal Nav.	Common Name	Picture		
Decorative/ Accent Plants						
Iris douglasiana	E	Y	Douglas iris			
Eschscholzia californica		Y	California poppy			
Hemerocallis ' Soleil d' Or'		N	Daylily			
Gaura lindheimeri		N	White gaura			
Collinsia heterophylla		Y	Chinese Houses			
Eriogonum crocatum		Y	Saffron buckwheat			
Linanthus parviflorus		Y	Stardust			
Garrya elliptica		Y	Silktassel	<b>H</b>		
Brugmansia 'Charles Grimaldi'		N	Angel's Trumpet	No.		

Scientific Name	E/D	Cal Nav.	Common Name	Picture		
Decorative/ Accent Plants - Continued						
Hydrangea macrophylla	D	Ν	French Hydrangea			
Wisteria Floribunda	D	N	Japanese wisteria			
Ribes sanguineum glutinosum	D	Y	Pink-Flowered Currant			
Ferns						
Polystichum mumitum	E	Y	Western Sword Fern			
Polypodium scouleri	E	Y	Leather leaf fern			
Arthyrium felix-femina	E	Ν	Lady fern			
Annual Wildflowers						
Clarkia rubicunda	E	Y	Farewell to Spring			
Claytonia perfoliata	E	Y	Miner's Lettuce			
Escholzia california	D	Y	California Poppy			

#### Appendix E: Farmers' Markets and Fairs along the Greenway Corridor

#### farmers' markets

**OAKLAND:** Old Oakland Farmers' Market 9th St. between Broadway & Clay Fridays 8AM - 2PM

Oakland Artisan Marketplace Frank Ogawa Plaza Fridays 9:30AM - 5:30PM Saturdays 11 - 4PM

Grand Lake Farmers' Market Grand Avenue & MacArthur Boulevard Saturdays 9AM - 2PM

Millsmont Farmers' Market Seminary & MacArthur Boulevard Saturdays 10AM - 2PM Farmers Market Jack London Square Wednesday & Sundays 10AM - 2PM

Fruitvale Farmers' Market Fruitvale Village 35th Avenue & East 12th Street Sundays 10AM - 3PM

HAYWARD: Farmers' Market Main St. between A & B Streets Saturdays 9AM-1PM

#### fairs and festivals

**OAKLAND:** April 1, 1PM - 4PM Family Explorations! Eggstravaganza Oakland Museum of California

April 18, 10AM-2PM Earth Expo 2007 Frank H. Ogawa Plaza

April 21, 9AM-12PM Earth Day 2007

May 18-20, 10AM - 11PM Oakland Greek Festival Greek Orthodox Church 4700 Lincoln Avenue

June 9, 12PM - 6PM Temescal Street Fair Telegraph Avenue, 48th and 51st streets

July 4, 9PM 4th of July Celebration Jack London Square

July 14-15 , 11:30AM - 7PM Black Expo 2007 Oakland Marriott City Center

August 18, 9AM - 12PM Keep The Faith - Walk For A Cure Middle Harbor Shoreline Park

August 25-26, 10AM - 6PM Chinatown Streetfest Oakland Chinatown

September 1-3, 11AM - 6PM Art & Soul Festival Downtown Oakland

September 16, 11AM - 6PM Montclair Jazz & Wine Festival La Salle Ave. & Mountain Blvd.

September 20, 11:30AM - 1PM 2007 East Bay Heart Walk Snow Park in Downtown Oakland at Harrison and 20th Streets

#### **SAN LEANDRO:**

April 28, 12-4PM Watershed Festival Root Park E 14th & Hays Streets

May 4, 6-7PM Cinco de Mayo Celebration City Hall, Civic Center 835 E 14th Streets

June 9 Cherry Festival Downtown at West Estudillo

**FRUITVALE:** May 5, 10AM - 6PM Cinco de Mayo Festival and Parade International Blvd, 47th to 33rd Aves.

July/August 10AM-4PM Health Fair La Clinica de la Raza

September 25 St. Elizabeth Multi-Cultural Festival St. Elizabeth Elementary Playground November 5 Dia de los Muertos Festival International Blvd. and Fruitvale Ave.

#### HAYWARD:

Monday January 3rd MLK Jr. Birthday Celebration

Sat. before May 5 Cinco De Mayo Celebration Contact La Alianza de Hayward

Sat. before Memorial Day weekend Community Festival & Clean-Up Day Contact Vera Dahle-Lacaze

June – September, 3rd Thursdays Downtown Street Parties Contact Chamber of Commerce

July 4 Fourth of July Celebration Weekes Park

Sat. & Sun. after July 4 weekend Hayward/Russell City Blues Festival City.manager@hayward-ca.gov

August 3rd weekend Zucchini Festival

September 30, 11AM-3PM Annual Cultures in Harmony Contact Melesha Johnny

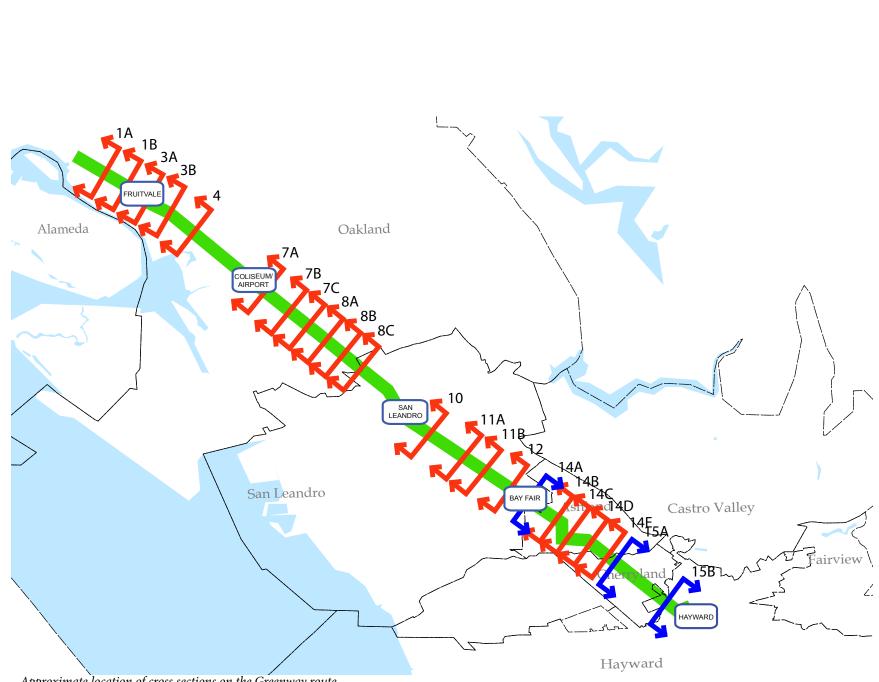
November 11 (every 5th year) Alameda County Veterans' Day Parade

December, Thurs. after Thanksgiving Light Up the Season City.manager@hayward-ca.gov

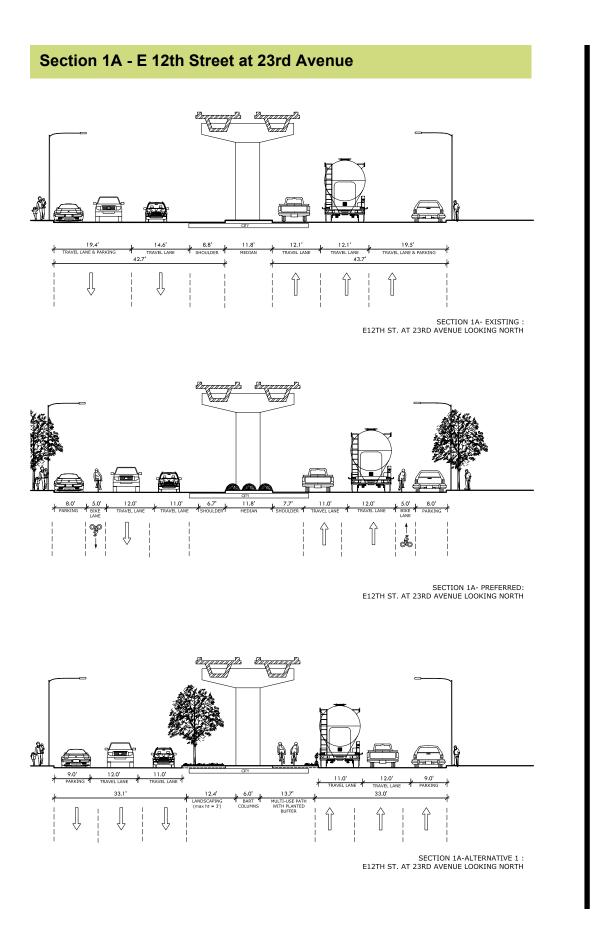


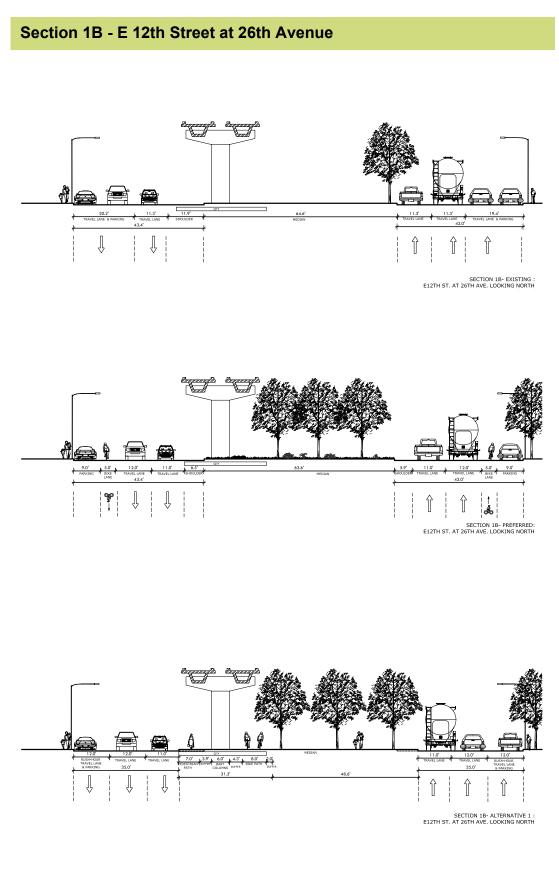


## Appendix F: Cross Sections of Preferred and Alternative Greenway Routes



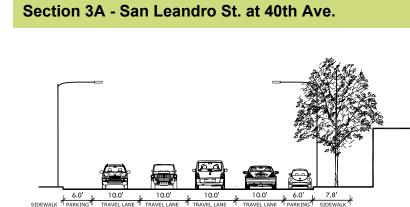












TRAVEL LANE

 $\hat{\mathbf{A}}$ 

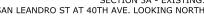
Δ

59.8'

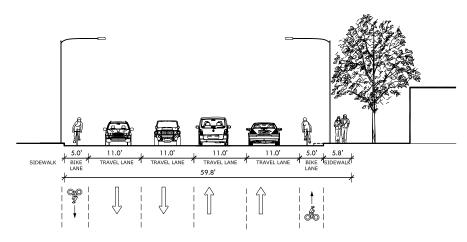
Υ.

Ϋ́

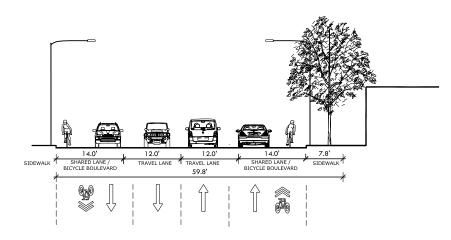




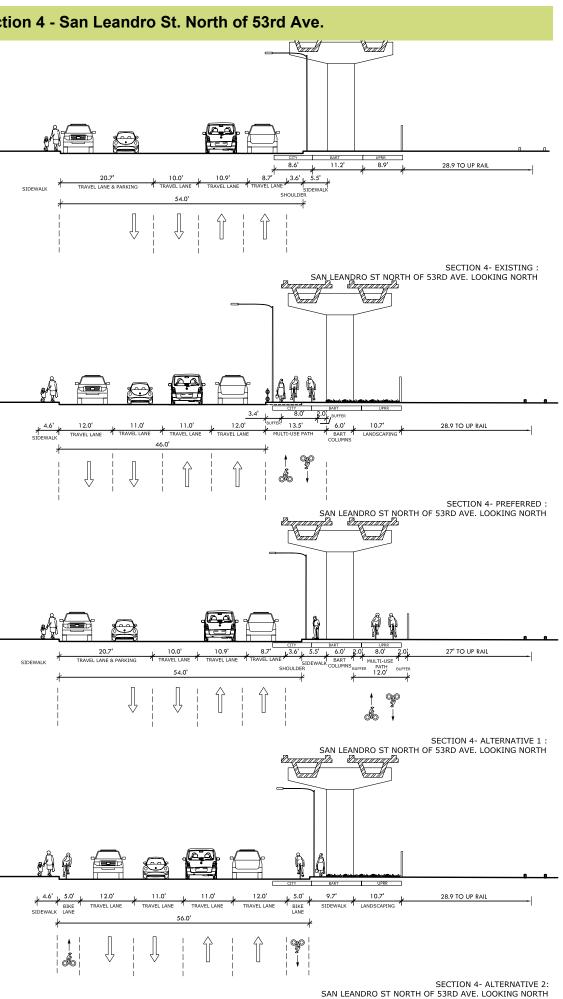
SIDEWALK

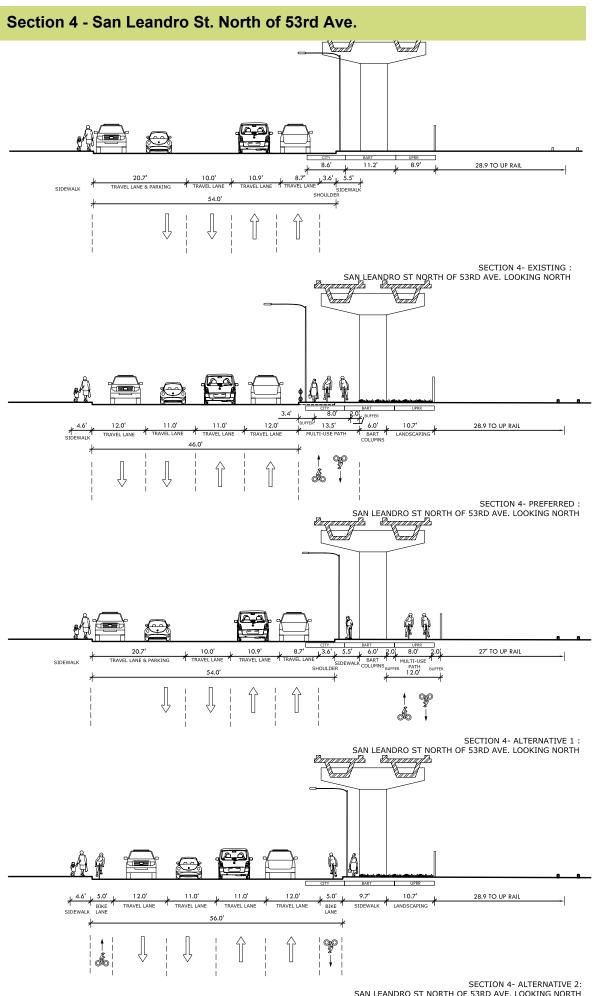


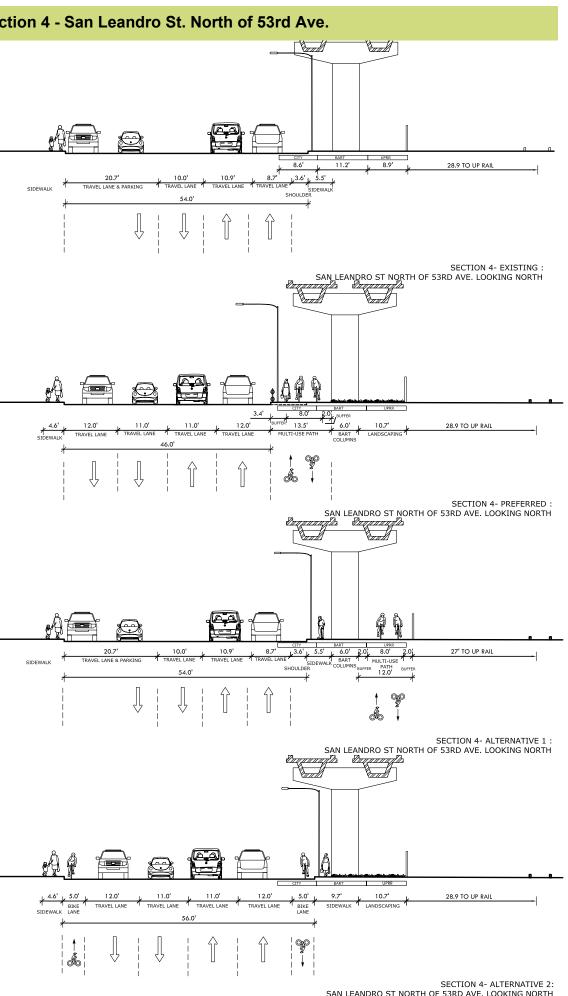
SECTION 3A - PREFERRED: SAN LEANDRO ST AT 40TH AVE. LOOKING NORTH

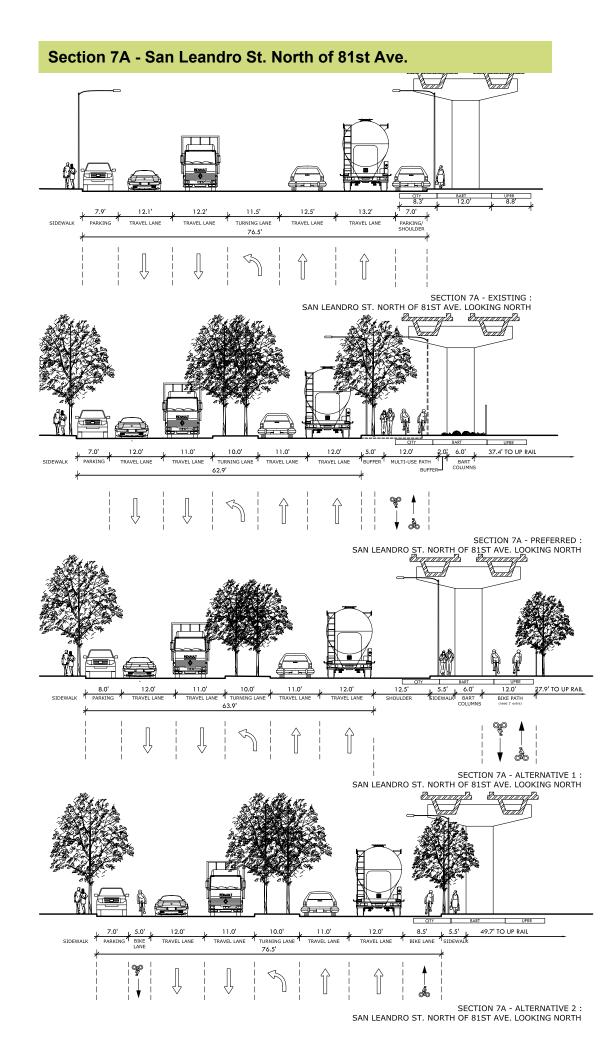


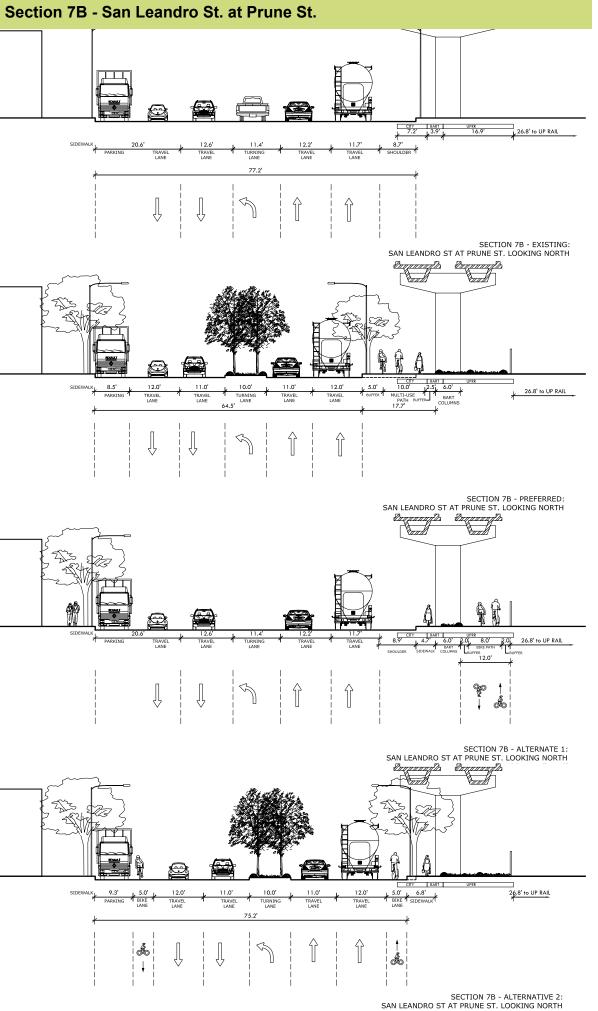
SECTION 3A - ALTERNATIVE 1: SAN LEANDRO ST AT 40TH AVE. LOOKING NORTH











appendix

173

đ

상

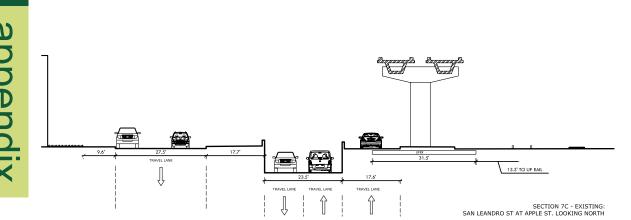
#### 6 è 13.3' TO UP RAIL ٦ľ ĵ Î SECTION 7C - EXISTING: SAN LEANDRO ST AT APPLE ST. LOOKING NORTH 99 <del>/ 9.6</del> 9.8' 8.0 MULTI-USE PATH Ŷ 13.3' TO UP RAIL TRAVEL LANE Ţ Î Ŷ SECTION 7C - PREFERRED: SAN LEANDRO ST AT APPLE ST. LOOKING NORTH Ð 184 Þ 13.3' TO UP RAIL

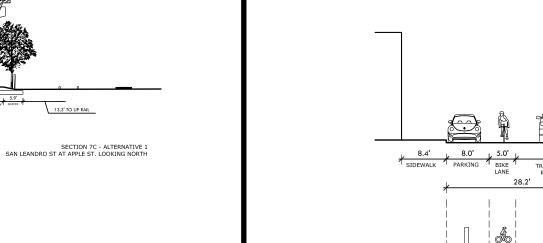
Ŷ

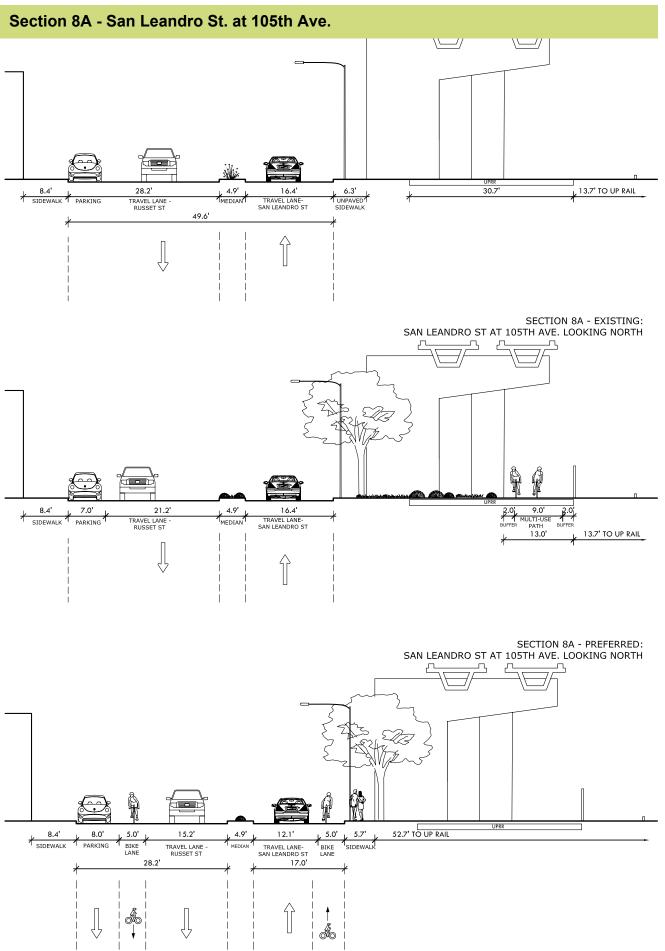
Î

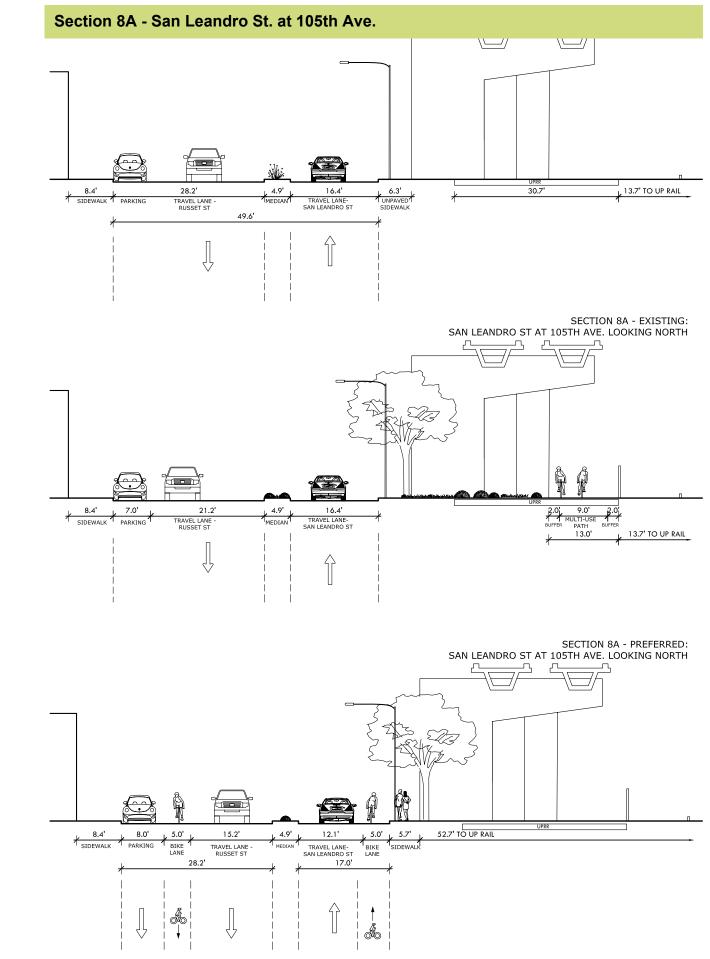
#### Section 7C - San Leandro St. at Apple St.

f appendix

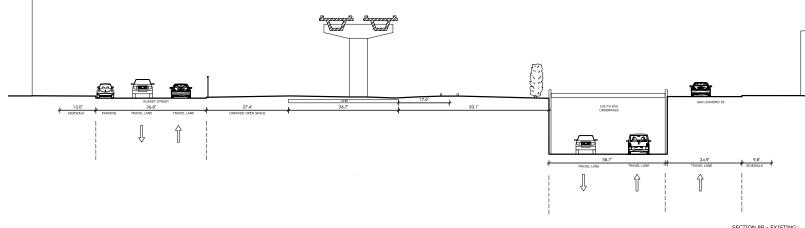




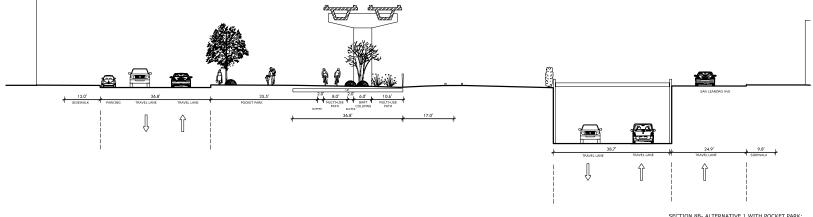




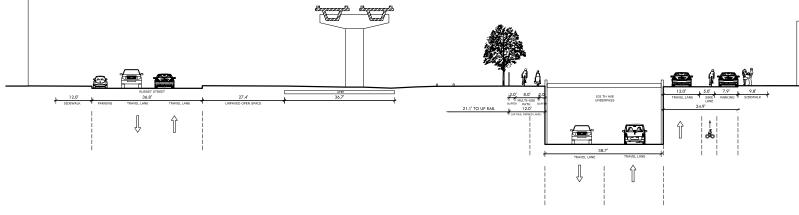










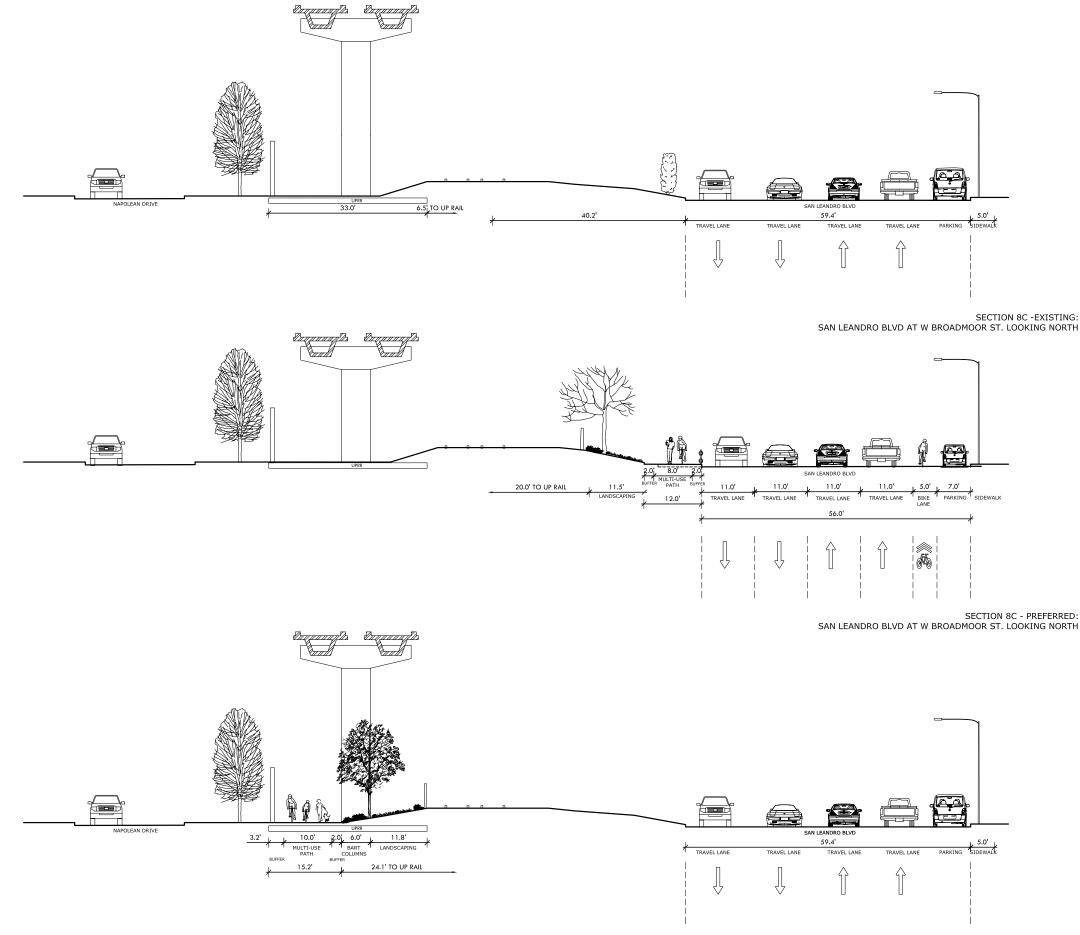


SECTION 8B - PREFERRED SAN LEANDRO ST AT 107TH ST. LOOKING NORTH

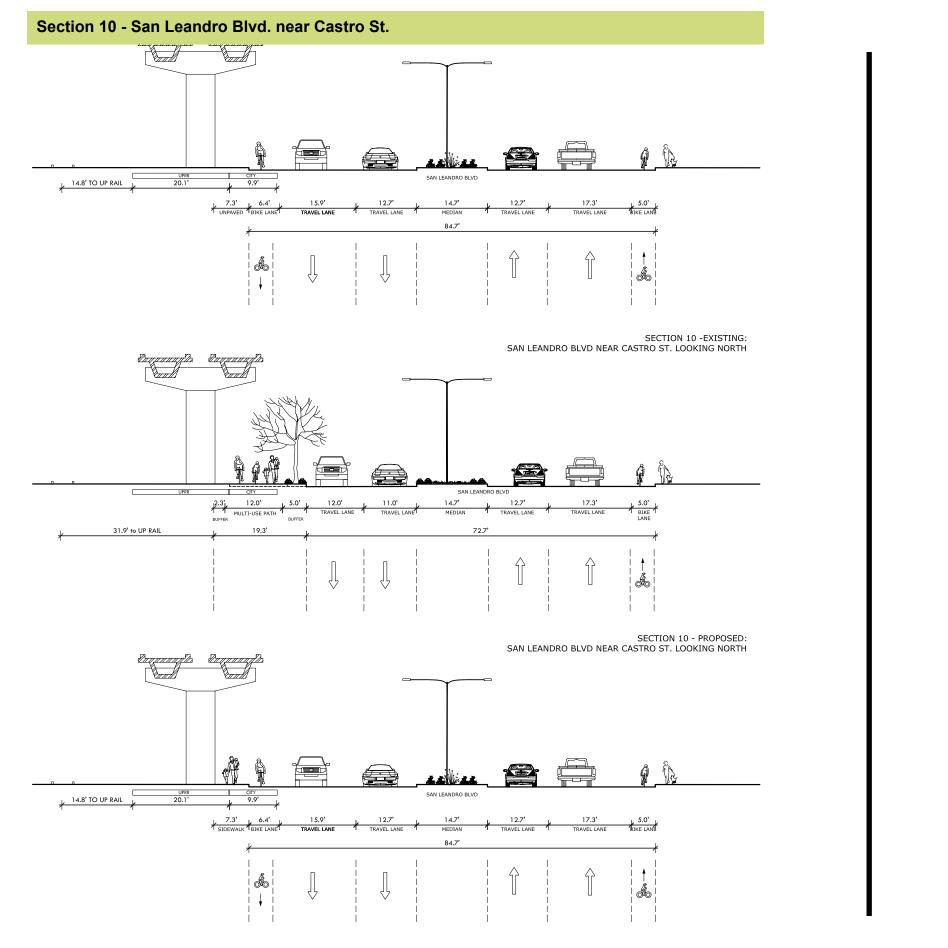


Section 8C - San Leandro Blvd. at W. Broadmoor St.





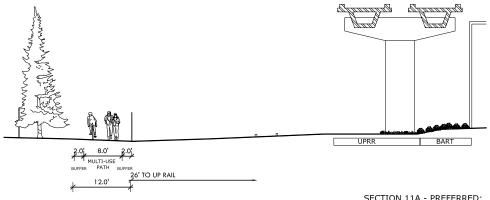
SECTION 8C -EXISTING: SAN LEANDRO BLVD AT W BROADMOOR ST. LOOKING NORTH



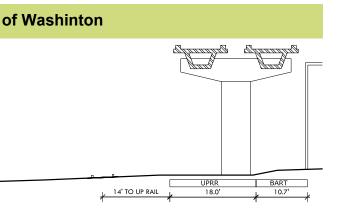
SECTION 10 -ALTERNATIVE 3: SAN LEANDRO BLVD NEAR CASTRO ST. LOOKING NORTH

#### Section 11A - North of Washinton



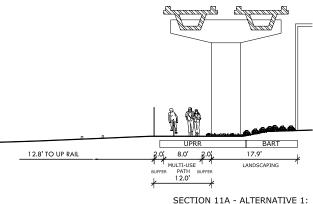


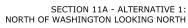




SECTION 11A - EXISTING: NORTH OF WASHINGTON LOOKING NORTH

SECTION 11A - PREFERRED: NORTH OF WASHINGTON LOOKING NORTH

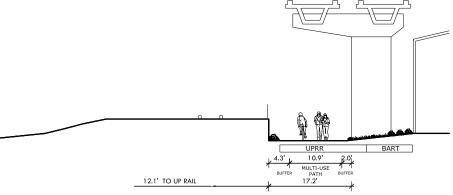




appendix

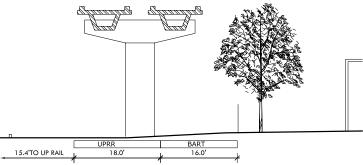
# BART MULTI-USE PATH 17.2' 12.1' TO UP RAIL SECTION 11B - EXISTING SOUTH OF 143RD AVE LOOKING NORTH 12.0 2.0 MULTI-USE 1 1 PATH BUFFER 18.3 BART UPRR BUFFER 17.5' TO UP RAIL SECTION 11B - PREFERRED SOUTH OF 143RD AVE LOOKING NORTH

Section 11B - South of 143rd Ave.

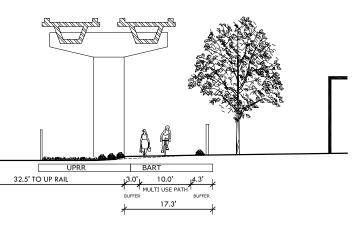


SECTION 11B - ALTERNATIVE 1: SOUTH OF 143RD AVE LOOKING NORTH

#### Section 12- North of Halcyon Dr.

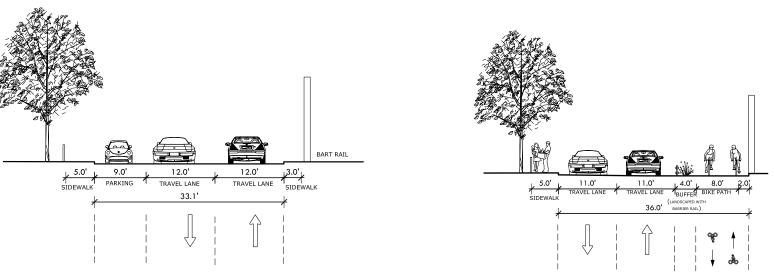


SECTION 12 - EXISTING: NORTH OF HALCYON DR. LOOKING NORTH



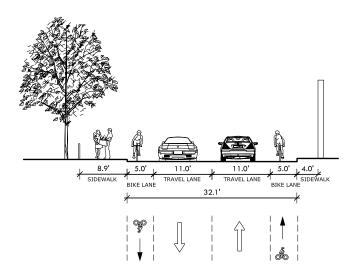
SECTION 12- PROPOSED: NORTH OF HALCYON DR. LOOKING NORTH

#### Section 14A - Elgin St. North of Delano Ave.

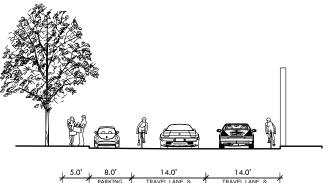


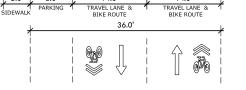
SECTION 14A - ALTERNATIVE 1 : ELGIN ST. NORTH OF DELANO AVE. LOOKING SOUTH



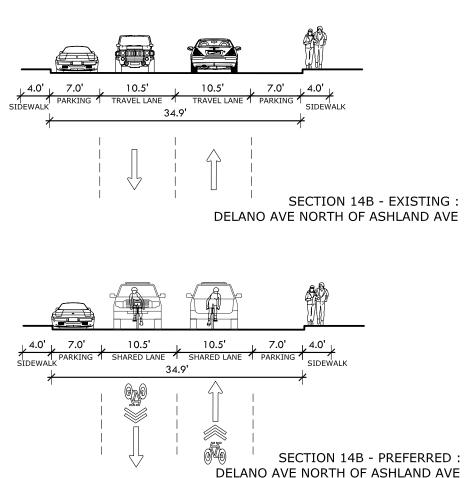


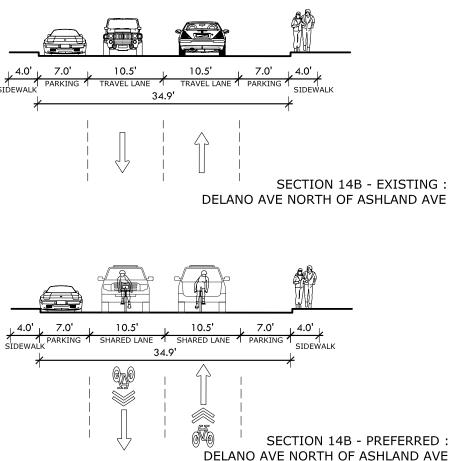
SECTION 14A - ALTERNATIVE 2 : ELGIN ST. NORTH OF DELANO AVE. LOOKING SOUTH

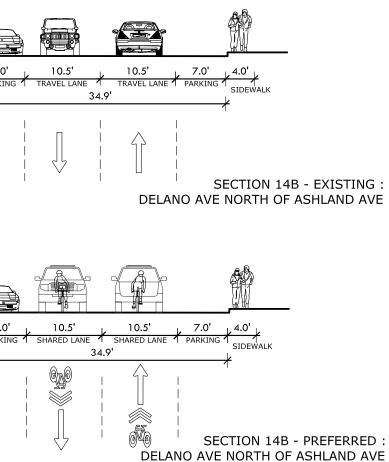


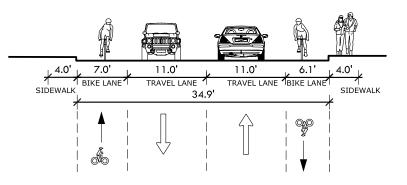


SECTION 14A - PREFERRED : ELGIN ST. NORTH OF DELANO AVE. LOOKING SOUTH



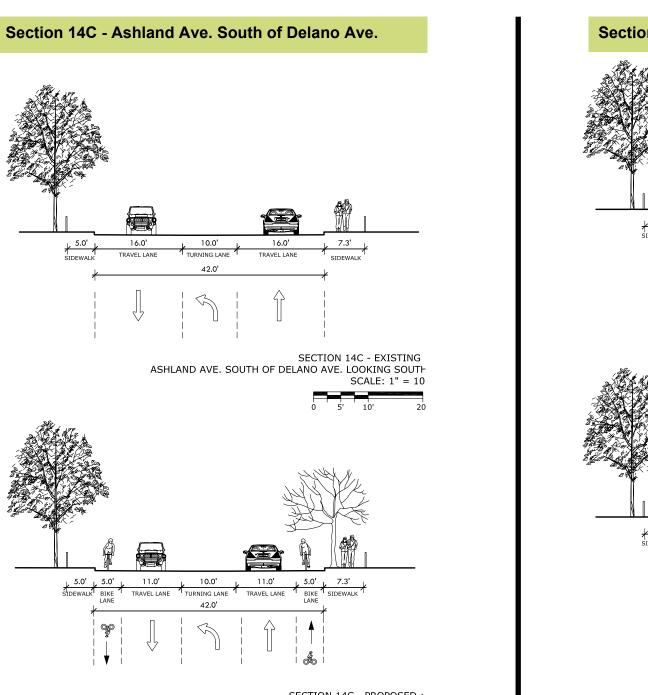






#### Section 14B - Delano Ave. North of Ashland Ave.

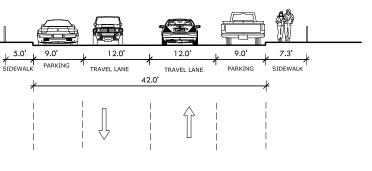
SECTION 14B- ALTERNATIVE 1: DELANO AVE NORTH OF ASHLAND AVE

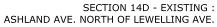


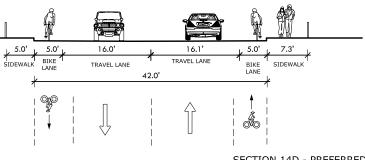
SECTION 14C - PROPOSED : ASHLAND AVE. SOUTH OF DELANO AVE. LOOKING SOUTH

#### Section 14D - Ashland Ave. North of Lewelling Ave.

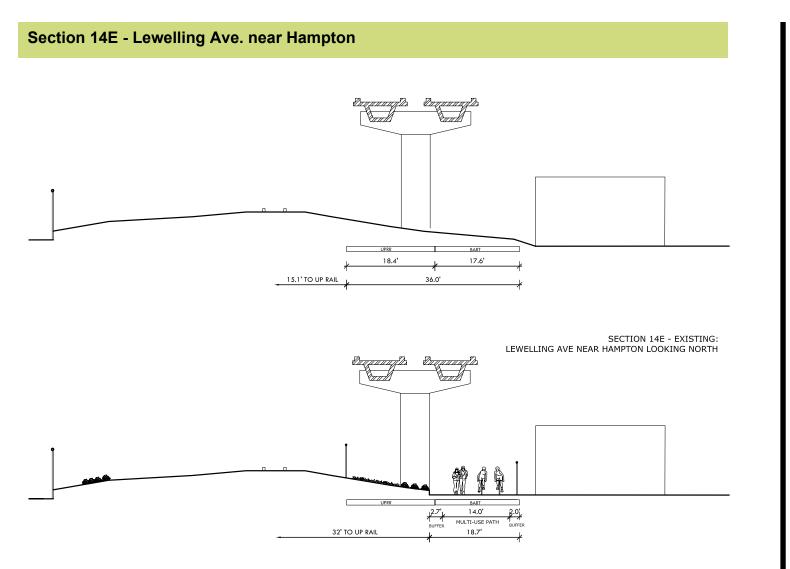






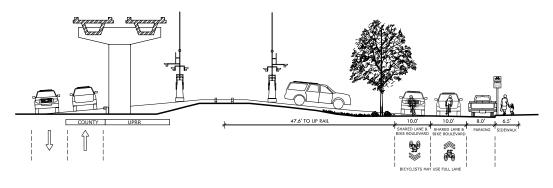


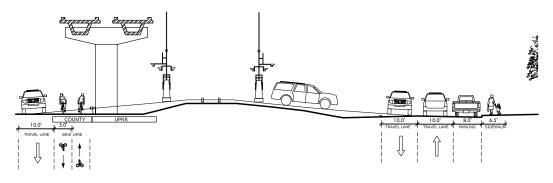
SECTION 14D - PREFERRED : ASHLAND AVE. NORTH OF LEWELLING AVE. SHOWING REMOVAL OF PARKING

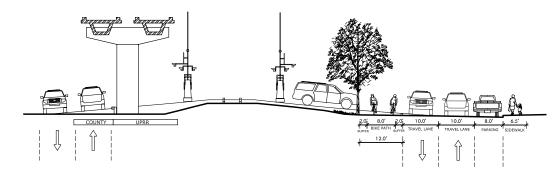


SECTION 14E - PROPOSED: LEWELLING AVE NEAR HAMPTON LOOKING NORTH

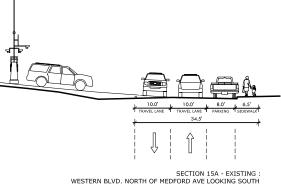
# Dection 13A - Western Bivd. Non







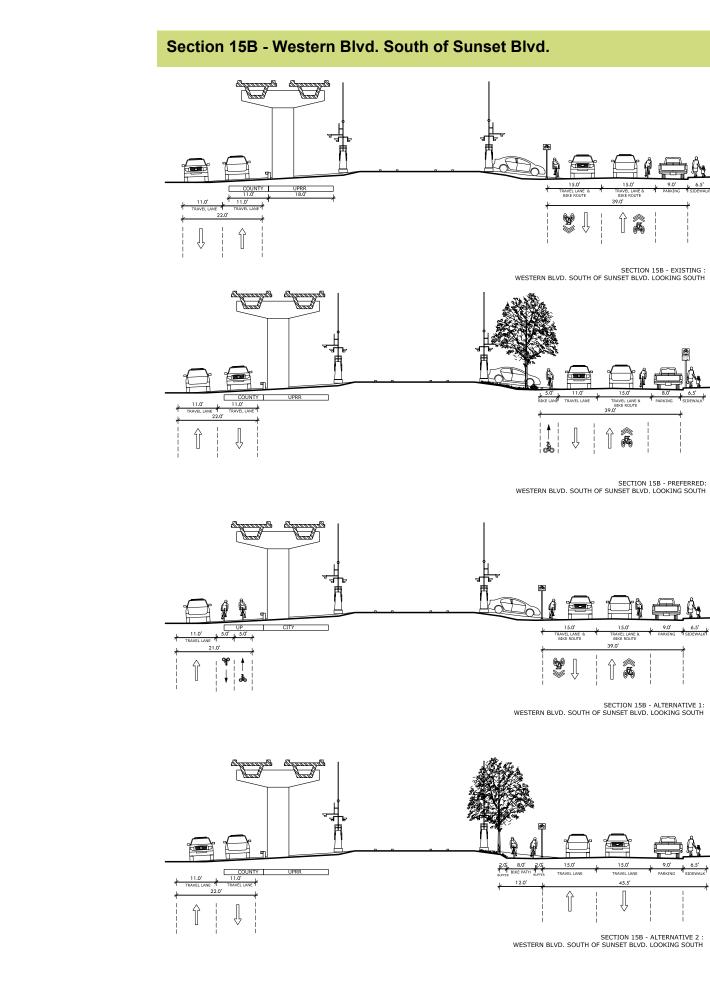
#### Section 15A - Western Blvd. North of Medford Ave.



SECTION 15A - PROPOSED: WESTERN BLVD. NORTH OF MEDFORD AVE LOOKING SOUTH

SECTION 15A - ALTERNATIVE 1: WESTERN BLVD. NORTH OF MEDFORD AVE LOOKING SOUTH

SECTION 15A - ALTERNATIVE 2: WESTERN BLVD. NORTH OF MEDFORD AVE LOOKING SOUTH





Urban Ecology has a 33 year record of utilizing community-based design to create healthy and sustainable environments. These urgently needed and diverse projects include: neighborhood action plans, schoolyard and park designs, streetscape and transportation access design, and community facility development. Most of these projects are in the Bay Area's most marginalized communities, and a number have been in the East Bay communities the Greenway will traverse.

Our staff of landscape architects, architects, planners, and project managers partner with communities and organizations to identify the problem or need, develop the process and plan, and seek resources to implement the design. We appreciate the generous funding provided by the State Coastal Conservancy, the California Endowment, and the Walker and Evelyn Haas, Jr. Fund. Without their support, this plan would not exist.



# URBAN ECOLOGY 582 MARKET STREET, STE. 1020 SAN FRANCISCO, CA 94104 Рн: 415-617-0161 FAX: 415-617-0016 WWW.URBANECOLOGY.ORG