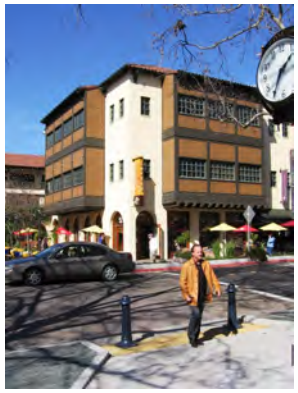
2009 Contra Costa Countywide Bicycle and Pedestrian Plan



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CONTRA COSTA
transportation
authority

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List of Acronyms

Below is a list of acronyms used most frequently in the Countywide Bicycle and Pedestrian Plan:

ADA	American with Disabilities Act
BTA	Bicycle Transportation Account
CBN	Countywide Bicycle Network
BPAC	Bicycle and Pedestrian Advisory Committee
CBPAC	Countywide Bicycle and Pedestrian Advisory Committee
CBPP	Countywide Bicycle and Pedestrian Plan
CCTA	Contra Costa Transportation Authority
CMA	Congestion Management Agency
CTP	(Countywide) Comprehensive Transportation Plan
CTPL	Comprehensive Transportation Project List
EBMUD	East Bay Municipal Utility District
EBRPD	East Bay Regional Park District
FHWA	Federal Highway Administration
GMP	Growth Management Program
MTC	Metropolitan Transportation Commission
RTPC	Regional Transportation Planning Committee
SRTS	Safe Routes to School
SR2T	Safe Routes to Transit

Executive Summary

WALKING AND BICYCLING ARE INCREASINGLY recognized as important components of the transportation system. They can reduce traffic, air pollution and energy consumption, and also improve the health and quality of life of residents and communities. In recognition of these benefits and to provide support for these transportation modes, the Contra Costa Transportation Authority adopted the first Contra Costa Countywide Bicycle and Pedestrian Plan (CBPP) in 2003. The plan assessed the needs of bicyclists and pedestrians in the county and identified a set of countywide improvements that would encourage more people to walk and bicycle.

PURPOSES OF THE UPDATED CBPP

The 2009 update to the CBPP was driven in large part by the need to address a number of important changes affecting walking and bicycling in Contra Costa that have taken place since adoption of the original CBPP. Among the significant changes are the following:

- In 2004, Contra Costa voters passed Measure J, which extends the county's half-cent sales tax for transportation improvements, including bicycle and pedestrian facilities, and continues the countywide Growth Management Program.
- Other new funding sources for pedestrian and bicycle improvements were created and some existing funding sources were modified or eliminated.
- The Metropolitan Transportation Commission (MTC), the regional transportation planning agency for the Bay Area, adopted a "routine accommodation" policy, generally requiring that new transportation projects consider the needs of bicyclists and pedestrians.
- Public support for nonmotorized transportation has continued to increase since the adoption of the 2003 CBPP.

In addition to addressing these changes, the CBPP was updated with a number of other important objectives in mind. Key objectives include:

- Refine the vision, goals and policies in the original CBPP.
- Update the existing conditions, especially the collision data and commuting statistics for pedestrians and bicyclists.

- Update the priorities for pedestrian improvements and the countywide bicycle network.
- Provide planning, design and implementation tools and other resources to local jurisdictions regarding pedestrian and bicycle facilities, access to transit, and safety, promotion and education programs.
- Update the implementation tasks and establish evaluation criteria for prioritizing recommended improvements for available funds.
- Incorporate guidelines for pedestrian-and bicycle-friendly developments.
- Assist local jurisdictions in complying with requirements of the state's Bicycle Transportation Account (BTA). The BTA is a statewide funding program for bicycle facilities administered by Caltrans. To be eligible for BTA funds, cities and counties must have adopted bicycle plans that include certain required components.

Contents of the Updated CBPP

The 2009 CBBP contains the following chapters and appendices:

Chapter 1: Introduction

This chapter describes the original CBPP briefly, the changes that prompted an update, the purposes of the updated CBPP, the update process (including public involvement), the contents of the CBPP and, lastly, how those contents meet Caltrans requirements for bicycle plans.

Chapter 2: Existing conditions

Chapter 2 discusses three important factors that shape the walking and bicycling environment in Contra Costa. The first is the physical landscape, including climate, topography and development patterns. The county's mild and generally dry climate is conducive to walking and bicycling. Its diverse natural landscape both accommodates and presents obstacles to walking and, especially, bicycling: on one hand, the county enjoys many paths and trails, both along the coast and inland; on the other, hills and water bodies make bicycling between certain destinations challenging. The county exhibits a broad range of development patterns, from a few older, compact, pedestrian-oriented districts to large swaths of low-density, automobile-oriented suburban development.

The second factor is commute statistics. According to various sources, walking accounts for 1.6–1.9 percent of work trips or of commuters, while bicycling represents 0.5–0.6 percent. This compares to approximately 70 percent for drive-alone, 12–16 percent for carpooling and 9–13 percent for transit.

The third factor is collisions involving cars and pedestrians or bicyclists. According to the California Highway Patrol, there were 59 pedestrian fatalities, 1,308 pedestrian injuries, 19 bicycle fatalities and 1,120 bicycle injuries reported for Contra Costa in 2002–2006. During this period, pedestrians and bicyclists made up almost 21 percent of

the traffic fatalities in the county. This is a considerably disproportionate share, given that walking and bicycling account for less than 2.5 percent of work trips or commuters.

Chapter 2 also includes lists of pedestrian and bicycle projects, or of projects with pedestrian and bicycle components, funded by or through the Authority in recent years. The inventory includes projects funded through the Authority's Measure C and Measure J bonds and projects recommended for funding by the Authority under two MTC funding programs.

Chapter 3: Relationship to other plans

The CBPP will build on, and need to coordinate with, a number of related planning efforts occurring not only at the countywide level but also at the city, regional, state and federal levels. Chapter 3 provides an overview of the policy framework surrounding nonmotorized transportation in Contra Costa by summarizing the key plans, programs, policies and other planning efforts that will affect and be affected by implementation of the CBPP. Key planning efforts include local general plans and bicycle and pedestrian plans, the Authority's Countywide Comprehensive Transportation Plan and Measure J Expenditure Plan, the Metropolitan Transportation Commission's (MTC) Bay Area Regional Bicycle Plan, the East Bay Regional Park District (EBRPD) Master Plan, the Bay Trail and Ridge Trail planning processes, various routine accommodation and "complete streets" policies at the federal, state and regional levels, and recent state legislation related to global warming and emissions of greenhouse gases.

Chapter 4: Goals and policies

This chapter refines the vision, goals and policies that were established in the original CBPP, particularly to stress the Authority's unique role as the countywide transportation planning, funding and coordinating agency. The five goals, each of which is supported by several more detailed policies, are:

❶ Expand, improve and maintain facilities for walking and bicycling
❷ Improve safety for pedestrians and bicyclists
❸ Encourage more people to walk and bicycle
❹ Support local efforts to improve conditions for walking and bicycling
❺ Consider and plan for the needs of pedestrians and bicyclists

Chapter 5: Pedestrian facilities

The heart of this chapter is a discussion of general locations to which the Authority will give priority under its funding sources for capital pedestrian projects. Pedestrians have a much more limited access and mobility range than other transportation users. Unlike bicyclists and drivers, who use streets and trails to travel between cities throughout the county, pedestrians do not typically travel long distances. Walking does not rely on a countywide network of facilities but instead is clustered in small, local, accessible nodes and short, direct access routes. Pedestrians, however, are able to expand their access range greatly by walking to transit. There are three types of "pedestrian-priority" locations that follow from this characterization of walking:

- Downtowns and other "pedestrian-oriented districts" (areas where walking receives relatively high priority and importance, either by practice or policy);
- Access routes to transit stations and stops; and
- Access routes to other activity centers such as significant employment and shopping areas, schools, community centers, public venues, parks and trails.

Chapter 5 also includes an overview of pedestrian facilities in Contra Costa, important considerations in the planning of such facilities, the

main types of facilities that local jurisdictions can implement and online tools and resources for local agencies on the planning and design of facilities. Types of pedestrian facilities highlighted include walkways, curb ramps, intersection improvements, traffic calming measures, over- and undercrossings, and streetscape improvements.

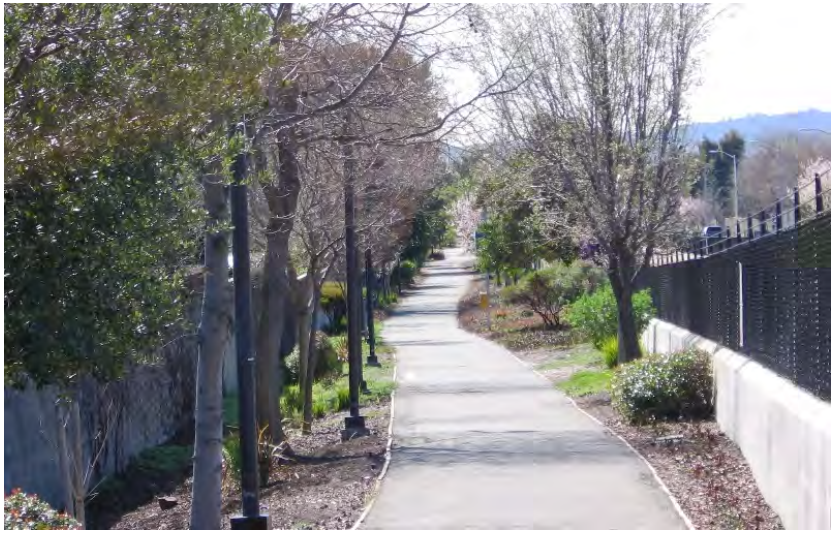
Chapter 6: Bicycle facilities

Chapter 6 describes and maps the Countywide Bikeway Network (CBN), a priority system of bikeway corridors, both on- and off-street, that provide essential connections between residential neighborhoods throughout Contra Costa and employment and shopping centers, schools, parks, transit hubs, downtowns and other key activity centers. The "building blocks" of the CBN are the Bay Trail and other regional trails; the San Pablo Avenue corridor; connections between West and Central counties and between Central and Alameda counties; the Central County–San Ramon Valley corridor; and connections within Central County and between Central and East counties. Chapter 6 also describes bicycle connections between Contra Costa and neighboring counties and includes a table of unbuilt segments of the CBN.

The chapter also discusses key considerations in planning for bicyclists, the main types of bicycle projects that local jurisdictions can implement, and online tools and resources for local agencies on the planning and design of bicycle facilities. Types of bicycle facilities highlighted include bike paths, lanes and routes, multi-use trails, traffic calming measures, bicycle boulevards, over- and undercrossings, signage and bicycle-activated loop detectors.

Chapter 7: Support programs

While critical, facilities are only part of the walking and bicycling experience. Another important aspect is the various support programs and projects that encourage people to walk and bicycle and that allow them to derive the greatest utility and pleasure from the facilities that have been built. Chapter 7 discusses the main types of support programs for nonmotorized transportation that local jurisdictions in Contra Costa could support or implement themselves: access to transit, encouragement, safety, education and enforcement.



The chapter includes a discussion of the eight transit operators that serve Contra Costa and discusses the three primary needs of pedestrians and bicyclists for accessing transit: safe routes to stops and stations; pedestrian- and bicycle-oriented amenities at stops and stations; and accessible transit vehicles. It also contains a discussion of encouragement programs and projects (including bicycle parking, showers and changing rooms, and promotions) and of safety, education and enforcement programs and projects (including safe routes to schools, education and law enforcement). The chapter includes a number of online resources on support programs for walking and bicycling.

Chapter 8: Other tools for local agencies

This chapter provides online tools, resources, references and other information for local agencies, and also for the Authority, on four additional issues identified as important for the update of the CBPP:

- Planning and design of pedestrian- and bicycle-friendly developments, to help local jurisdictions comply with the Growth Management Program condition in Measure J that each jurisdiction "incorporate policies and standards into its development approval process that support transit, bicycle and pedestrian access in new developments."
- The roles and responsibilities of local agencies and the Authority under MTC's routine accommodation policy, especially with regard to the routine accommodation checklist developed by MTC.
- How local agencies can use the CBPP to become eligible for funds from the state's Bicycle Transportation Account (BTA).
- Guidance on the application of the Americans with Disabilities Act to public rights-of-way.

Chapter 9: Implementation

While the CBPP is a document of the Authority, it can only be implemented with the collaboration of local jurisdictions and certain special agencies and district in Contra Costa. It is these agencies that have the land use responsibilities that enable the planning, design and construction of pedestrian and bicycle improvements. Chapter 9 updates lists of actions that the Authority will take to carry out the CBPP and those actions suggested for local jurisdictions and other agencies. It also describes the main funding programs under Measure J and from other sources that local jurisdictions can use to fund their nonmotorized transportation projects and programs.

The Authority's main role with respect to implementation of the CBPP is to provide funding to local jurisdictions and special districts (such as the EBRPD) to plan, design and construct pedestrian and bicycle improvements. Perhaps most importantly for this reason, Chapter 9 proposes evaluation criteria for prioritizing projects for funds available through the Authority, including under Measure J. The proposed criteria and priority types of projects are:

- **Safety:** Projects designed to address a documented or commonly recognized safety deficiency, especially conflicts with motor vehicles.
- **Range of users:** Projects that attract and meet the needs of a broad array of distinct groups of users, including school children, students, seniors, the disabled, families, commuters and recreationalists.
- **Countywide or regional significance:** This includes projects in Contra Costa located in a pedestrian priority location, on the countywide bicycle network or on the regional bicycle network designated by MTC.
- **Destinations served:** Projects near key existing and planned activity centers such as shopping areas, employment centers, transit centers, stations or stops, civic buildings, parks, schools, libraries and other community facilities.
- **Other latent demand criteria:** Projects in areas with attributes (other than destinations served) that influence the decision to walk or bicycle; these include population and employment density, mix of land uses, percentage of zero-vehicle households and relative lack of car parking, among others.
- **Connectivity:** Projects that would close a gap, remove a barrier to access, shorten the distance by foot or bike, or provide an alternative to a trail that is closed overnight.
- **Feasibility:** Feasible, ready-to-go projects, for which planning and preliminary design work have been done.

- **Integration:** Projects that appear in a local plan or integrate with other local efforts being undertaken.
- **Matching funds:** Projects that have partial funding, secured or promised, from other sources.
- **Public support:** Projects for which there is evidence of public support or that have been identified as priorities by the public and by the RTPCs and other relevant agencies.

Appendices

The updated CBPP includes four appendices:

- **Appendix A:** Explains the methodologies used to estimate information related to bicycle ridership that appears in the Existing Conditions chapter.
- **Appendix B:** Contains information gathered from the local jurisdictions in Contra Costa under three topics: (i) Does the jurisdiction have a pedestrian-oriented plan or policies adopted as part of its general plan that support walking; (ii) Has the jurisdiction identified locations where it especially wants to encourage walking and improve the safety and comfort of pedestrians; and, (iii) Has it incorporated concerns for pedestrians (and bicyclists) into its review and approval process for development projects.
- **Appendix C:** Contains data gathered from the local jurisdictions in Contra Costa on the 11 bicycle-related informational topics required by Caltrans to be included in bicycle plans for purposes of BTA eligibility.
- **Appendix D:** Contains maps of local bicycle networks in Contra Costa, including both existing facilities and facilities planned or proposed by local jurisdictions or agencies. This more detailed network, while not identical to the designated CBN, does overlap with and include most of the corridors established in that network.
- **Appendix E:** Provides summaries of the projects on the Authority's Comprehensive Transportation Project List (CTPL) that are directed at walking or bicycling, or that have a pedestrian or bicycling component. The CTPL is a database of in-progress and proposed local transportation projects throughout Contra Costa.

1 | Introduction

WALKING AND BICYCLING ARE INCREASINGLY recognized as important components of the transportation system. Not only can they reduce traffic, air pollution and energy consumption, they can improve the health and quality of life of our residents and communities. The Contra Costa Transportation Authority recognizes the contribution that walking and bicycling can make to mobility, environmental quality and community vitality. Its Countywide Comprehensive Transportation Plan (CTP) outlines strategies that support pedestrian-friendly developments and encourages a connected, coordinated network of bicycle facilities.

To help carry out these strategies, the Contra Costa Transportation Authority adopted the first Contra Costa Countywide Bicycle and Pedestrian Plan (CBPP) in 2003. The plan assessed the needs of bicyclists and pedestrians in the county and identified a set of countywide improvements that would encourage more people to walk and bicycle. Since that time, there have been a number of important changes affecting nonmotorized travel in Contra Costa. The Authority prepared this update to the CBPP to address those changes and make other important revisions to the plan. This chapter describes the original CBPP briefly; the changes that prompted an update; the purposes of the updated CBPP; the update process (including public involvement); the contents of the CBPP; and, lastly, how those contents meet requirements of the California Department of Transportation (Caltrans) for bicycle plans.

ORIGINAL CBPP (2003)

The original CBPP grew out of the Authority's 2000 update to the CTP. The 2000 CTP acknowledged the importance of nonmotorized transportation and called for the development of a countywide bicycle plan. Work on the first CBPP began in the spring of 2001 and was completed at the end of 2003. Among other things, the plan:

- Established goals and policies to improve the attractiveness of walking and bicycling in Contra Costa.
- Described existing conditions.
- Identified a countywide bikeway network and a set of priority bicycling corridors.
- Listed recommended pedestrian improvements and improvements related to access to transit, safety, promotion and education.
- Outlined implementation tasks, estimated costs to implement the recommended improvements and potential funding sources.
- Included, as appendices, planning and design guidelines for bicycle and pedestrian facilities; a list of pedestrian and bicycle projects planned by local agencies; and an "atlas" of existing and planned bikeways in Contra Costa, including but not limited to the countywide network.

▶ **2003 Contra Costa Countywide Bicycle and Pedestrian Plan:**
www.ccta.net/EN/main/bike/countywide.html

Purposes of the Updated CBPP (2009)

The update to the 2003 CBPP was driven in large part by the need to address a number of important changes affecting walking and bicycling in Contra Costa that have taken place since adoption of the original CBPP. Among the significant changes are the following:

- In 2004, Contra Costa voters passed Measure J, which extends the county's half-cent sales tax for transportation improvements, including bicycle and pedestrian facilities, and continues the countywide Growth Management Program.
- Other new funding sources for pedestrian and bicycle improvements were created and some existing funding sources were modified.
- A number of pedestrian and bicycle projects outlined in the original CBPP were completed.
- The Metropolitan Transportation Commission (MTC), the regional transportation planning agency for the Bay Area, adopted a "routine accommodation" policy generally requiring that new transportation projects consider the needs of bicyclists and pedestrians.
- Greater public support for nonmotorized transportation. People increasingly view walking and bicycling as potential solutions to traffic congestion, sprawling development, global warming, physical inactivity and other concerns.

In addition to addressing these changes, the CBPP was updated with a number of other important objectives in mind. Key objectives include:

- Refining the vision, goals and policies in the original CBPP, particularly to stress the Authority's special role within the county as a transportation planning, funding and coordinating agency.
- Updating the existing conditions, especially the collision data and commuting statistics for pedestrians and bicyclists.
- Updating the countywide bicycle network, the list of priority bicycling corridors and recommended pedestrian improvements and improvements related to access to transit, safety, promotion and education.
- Updating the implementation tasks and the estimated costs to implement recommended improvements.
- Establishing evaluation criteria for prioritizing recommended improvements for available funds.
- Updating the references to available planning and design guidelines for pedestrian and bicycle facilities and for pedestrian-and bicycle-friendly developments to assist local jurisdictions in complying with a requirement in the county's "Growth Management

Program" (GMP) that each jurisdiction "incorporate policies and standards into its development approval process that support transit, bicycle and pedestrian access in new developments." [1]

Lastly, the CBPP was updated to enable local jurisdictions to comply fully with requirements of the state's Bicycle Transportation Account (BTA) without needing to develop their own bicycle plans. The BTA is a statewide funding program for bicycle facilities administered by Caltrans. To be eligible for BTA funds, cities and counties must have adopted bicycle plans that include certain required components (these are summarized at the end of this chapter). In certifying the 2003 CBPP, Caltrans commented that the plan did not contain sufficiently detailed information at the level of individual jurisdictions to meet State requirements for BTA funding. One of the main objectives of the CBPP is to enable the County and the 19 cities and towns to use the plan—by adopting it with any refinements needed to reflect local conditions and policies—to meet the Caltrans requirements for their own purposes and projects. The plan accomplishes this by including detailed information on bicycling conditions at the local level. The BTA provides relatively little funding for bicycle projects compared to local funding sources such as Measure J; nevertheless, addressing the BTA-required components is good planning practice in the development of a bicycle plan.

UPDATE PROCESS AND PUBLIC INVOLVEMENT

Because the 2009 CBPP is an update to an existing document, the public participation process to develop it was less extensive than it was for the original plan. Nevertheless, the updated CBPP was prepared with the involvement of bicycle and pedestrian advocates, planning staff at the local jurisdictions and other public agencies, elected and appointed officials, and the broader public.

This section addresses BTA requirement (h): "A description of the extent of citizen and community involvement in development of the plan, including, but not limited to, letters of support." Appendix C contains information that Contra Costa jurisdictions can use to address BTA requirement (h) for their local bicycle plans.

The update process began with Authority staff and consultants meeting with each of the four Regional Transportation Planning Committees (RTPCs)—representing the west, central, east and southwest areas of the county and consisting of local agency staff—to introduce the project. The consultants then worked with individual members of the RTPCs and additional agency staff to obtain information on existing conditions at the local level related to walking and bicycling for each of the county's 20 jurisdictions. The compiled information was

[1] Contra Costa Transportation Authority, *Measure J: Transportation Sales Tax Expenditure Plan;* p. 24.

presented for review and comment to the Countywide Bicycle and Pedestrian Advisory Committee (CBPAC), which consists of local agency staff and members of the public.

The next task involved preparation of an "Issues and Options" paper. That report summarized the background information collected and laid out options for approaching a number of policy questions concerning the CBPP update. The "Issues and Options" paper was reviewed by the CBPAC and was the subject of three evening public workshops held in September 2008 around the county.

Based on information gathered during the previous task, the consultant team and Authority staff prepared an administrative draft version of the CBPP. Between March and May 2009, the "admin" draft CBPP was reviewed by the CBPAC at two meetings, was presented to the Authority's Technical Coordinating Committee and Planning Committee, and was approved for public release by the Authority Board. In June the public draft CBPP was presented to the four RTPC TACs and was again the subject of three evening public workshops around the county and discussions with the RTPCs.

Comments received on the admin draft CBPP were considered and incorporated into an admin final version. That version was reviewed by the CBPAC at two meetings, in August and September. The plan was then presented to, and approved by, the Authority's Technical Coordinating Committee in late September and its Planning Committee in early October. The final CBPP was adopted by the full Authority Board at its October 21, 2009, meeting.

The Authority proposes updating the 2009 CBPP in 2013 and every four years after that. We expect that the next update, much like this one, will revise the CBPP to reflect new policies, expectations, priorities and on-the-ground conditions, and any other important changes affecting walking and bicycling that take place in Contra Costa after the adoption of this document. At that time the Authority will also consider whether to continue developing a combined pedestrian and bicycle plan or to develop two separate plans, one for each mode.

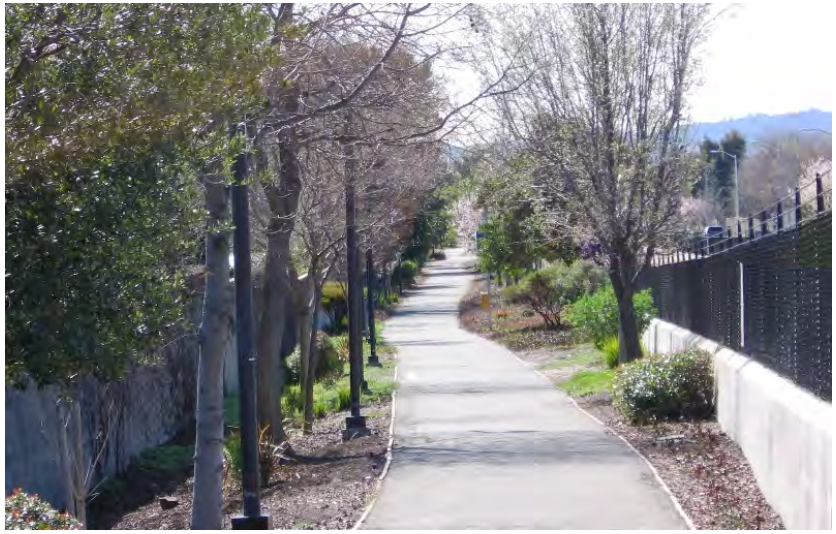
The Authority also intends to make "mid-course" technical amendments to the CBPP every two years, including as part of the quadrennial update. These amendments will be limited to minor technical changes, including updates to the map of the countywide bicycle network and the county's bikeway atlas.

Contents of the 2009 CBPP

The 2009 CBPP consists of the following sections:

- **Executive Summary**
- **Chapter 1, Introduction**
- **Chapter 2, Existing Conditions:** Discusses existing conditions in Contra Costa relevant to walking and bicycling, including updated commuting statistics and collision data for pedestrians and bicyclists, and highlights the main accomplishments made toward implementing the 2003 CBPP.
- **Chapter 3, Relationship to Other Plans:** Summarizes key plans, programs, policies and other planning efforts that will affect and be affected by implementation of the CBPP.
- **Chapter 4, Goals and Policies:** Refines the vision, goals and policies that were established in the original CBPP.
- **Chapter 5, Pedestrian Facilities:** Outlines the general types of locations to which the Authority will give priority under its funding sources for capital pedestrian projects; discusses important considerations in planning for pedestrians; highlights recommended types of bicycle facilities that local jurisdictions can implement; and provides online tools and resources for local agencies on the planning and design of pedestrian facilities.

- **Chapter 6, Bicycle Facilities:** Contains maps of local bicycle networks in Contra Costa, including both existing facilities and facilities planned or proposed by local jurisdictions or agencies. (This more detailed network, while not identical to the designated CBN, does overlap with and include most of the corridors established in that network.) It also discusses key considerations in planning for bicyclists; highlights recommended types of bicycle facilities that local jurisdictions can implement; and provides online tools and resources for local agencies on the planning and design of bicycle facilities.
- **Chapter 7, Support Programs:** Discusses efforts that complement and support walking and bicycling, including access to transit, promotion, encouragement, education, safety and enforcement, and highlights recommended types of supporting programs.
- **Chapter 8, Other Tools for Local Agencies:** Provides tools, resources, references and other information for local agencies on the planning and design of pedestrian- and bicycle-friendly developments; complying with MTC's routine accommodation policy; using the CBPP to be eligible for BTA funds; and the application of the Americans with Disabilities Act to public rights-of-way.
- **Chapter 9, Implementation:** Updates the lists of implementation actions to be undertaken by the Authority and of actions suggested for local jurisdictions; provides online tools for estimating costs of pedestrian and bicycle facilities; describes funding sources for pedestrian and bicycle projects; and, perhaps most importantly, establishes evaluation criteria for prioritizing proposed projects for available funds.
- **Appendix A:** Explains the methodologies used to estimate current and projected daily bicycle ridership and daily bicycle trips in Contra Costa, information which appears in chapter 2.
- **Appendix B:** Contains information gathered from the local jurisdictions in Contra Costa regarding local pedestrian-related planning efforts.
- **Appendix C:** Presents data gathered from the local jurisdictions in Contra Costa on the 11 bicycle-related informational topics required by Caltrans to be included in bicycle plans for purposes of BTA eligibility.
- **Appendix D:** Contains a set of maps of local bicycle networks (distinct from the Countywide Bikeway Network) in Contra Costa, including existing facilities as well as facilities planned or proposed by local jurisdictions.
- **Appendix E:** Provides summaries of the projects on the Authority's Comprehensive Transportation Project List (CTPL) that are directed at walking or bicycling, or that have a pedestrian or bicycling component.



BTA-REQUIRED ELEMENTS IN THE CBPP

As mentioned earlier, Caltrans requires that bicycle plans include certain components, or "elements." These required elements are listed in Section 891.2 of the California Streets and Highways Code. Table 1, below, summarizes the Caltrans-required elements and lists the pages

or sections in the CBPP—*in addition to Appendix C*—where these requirements are addressed. Chapter 8, "Other Tools for Local Agencies," provides guidance for local jurisdictions on adopting the CBPP and amending it as necessary to comply, for their purposes, with the Caltrans requirements.

Table 1 | **Caltrans-required components of a bicycle plan**

Requirement	*Pages or sections*
a. Number of existing and future bicycle commuters	12-15
b. Land use and settlement patterns	7-11
c. Existing and proposed bikeways	Chapter 6, Appendix D
d. Existing and proposed bicycle parking facilities	79-82, Figure 6
e. Existing and proposed access to other transportation modes	73-79, Figure 6
f. Facilities for changing and storing clothes and equipment	82-83
g. Bicycle safety, education and law enforcement programs	83-88
h. Citizen and community involvement in development of the plan	3-4
i. Coordination and consistency with other plans	Chapter 3
j. Projects proposed in the plan and their priority for implementation	Chapter 6, Figures 1-5, Chapter 9, Appendix D
k. Past expenditures for bicycle facilities and future financial needs	19-20

- **California Streets and Highways Code, Section 890-894.2:** www.leginfo.ca.gov/cgi-bin/displaycode?section=shc&group=00001-01000&file=890-894.2

2 | Existing Conditions

THIS CHAPTER LOOKS AT EXISTING CONDITIONS related to walking and bicycling in Contra Costa. The first of the four sections considers land use patterns and topography throughout the county, two factors that help explain why some areas are more favorable for walking and bicycling than others. The second and third sections update commuting statistics and data on collisions involving pedestrians and bicyclists that appeared in the original CBPP. This updated information provides insights into the commuting behavior of residents of Contra Costa, the safety needs of pedestrians and bicyclists and changes in these areas since the 2003 CBPP was adopted. The last section lists pedestrian and bicycle projects, or projects with pedestrian and bicycle components, funded by the Authority in recent years.

PHYSICAL ATTRIBUTES

Landscape and topography

With a land area of 720 square miles, Contra Costa is the sixth largest of the nine Bay Area counties. It has a Mediterranean climate, mild and generally dry. Temperatures rarely fall below freezing and snow falls only on the top of the highest peaks and only during winter. Summers are generally warm, especially as one moves farther east, with comfortable humidity. Rainfall averages around 30 inches per year but varies throughout the county.

Contra Costa's diverse natural landscape both accommodates and presents obstacles to walking and, especially, bicycling. On one hand, the county enjoys many trail segments along the coast and inland, both on flatlands and through the area's many hills. On the other, the East Bay hills and northern Diablo Range divide the county into five generally recognized geographic areas, which can make intra-county bicycle travel challenging. The hills, the San Pablo and Suisun bays to

the north and the Sacramento-San Joaquin River Delta to the northeast also make inter-county travel difficult.

Much of the East Bay hills is protected open space, with several large regional parks and reservoirs. West of the hills is the area known as West County. Hemmed in by the hills, the area stretches along the coast from Alameda County north to the Carquinez Strait. It consists, from south to north, of the cities of El Cerrito, Richmond, San Pablo, Pinole and Hercules, and the unincorporated communities of Kensington, El Sobrante, North Richmond, Rodeo and Crockett, among others (Table 2 lists the local jurisdictions in Contra Costa). West County derives much of its character from its proximity to San Francisco and San Pablo bays, immediately to the west.

On the other side of the East Bay hills, in the foothills, are the cities of Lafayette and Orinda and the town of Moraga. The area, known collectively by locals as "Lamorinda," is marked by gently rolling hills. Physically, it lies much closer to the Alameda County cities of Berkeley and Oakland, on the other side of the Caldecott Tunnel, than to West County.

East of Lamorinda lie two broad plains, framed by the Diablo Range on the west. To the south is San Ramon Valley, which contains the town of Danville, the city of San Ramon and the unincorporated areas of Alamo and Blackhawk-Camino Tassajara. These areas together with Lamorinda are considered Southwest County. The same areas together with Dublin, Livermore and Pleasanton, in Alameda County, make up the Tri-Valley.

To the north is Diablo Valley, named for Mount Diablo, which looks over the valley from the south and is the most notable natural landmark in Contra Costa. The area consists of the cities of Clayton, Con-

Table 2 | **Local jurisdictions in Contra Costa**

	Land area (square miles)	*Population (est. 2007)*	*Year of incorporation*
Antioch	27.0	99,619	1872
Brentwood	11.6	48,448	1948
Clayton	3.9	11,170	1964
Concord	31.1	120,844	1905
Danville	18.1	40,975	1982
El Cerrito	3.6	22,234	1917
Hercules	6.5	24,504	1900
Lafayette	15.2	24,765	1968
Martinez	12.3	35,093	1876
Moraga	9.3	16,290	1974
Oakley	12.4	30,409	1999
Orinda	12.6	18,271	1985
Pinole	5.2	18,691	1903
Pittsburg	15.6	62,511	1903
Pleasant Hill	7.1	32,689	1961
Richmond	30.4	101,454	1905
San Pablo	2.6	30,693	1948
San Ramon	18.0	48,929	1983
Walnut Creek	19.5	63,286	1914
Unincorporated areas	458.0	168,765	—
Total	**720.0**	**1,019,640**	

Sources: U.S. Census Bureau (land area and population); League of California Cities (year of incorporation).

cord, Martinez (the county seat), Pleasant Hill and Walnut Creek. This area is also known as Central County.

Over Willow Pass is East County, separated from the rest of Contra Costa by the steep hills of the Diablo Range. This relatively flat area sits at the western edge of the Sacramento-San Joaquin Delta and the Central Valley. East County consists of the cities of Pittsburg, Antioch, Brentwood and Oakley and the unincorporated communities of Bay Point, Bethel Island, Byron, Discovery Bay and Knightsen.

Development patterns

Contra Costa exhibits a broad range of development patterns. Most of the early European settlements were on the shoreline of San Francisco, San Pablo and Suisun bays, reflecting their origin as ports in the 19th century. These communities include Richmond, Pinole, Hercules, Martinez, Pittsburg and Antioch. The older parts of these cities feature the urban forms of that era: short blocks on a grid, small-footprint buildings and a general pedestrian orientation facilitated by nearly ubiquitous sidewalks.

> This section, along with Appendix C, addresses BTA requirement (b): "A map and description of existing and proposed land use and settlement patterns which shall include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings, and major employment centers."

The advent of the electric trolley and railroads in the late 1890s ushered in the first wave of suburbanization, as residents moved inland in greater numbers, particularly following the 1906 earthquake that devastated much of San Francisco. This wave lasted roughly until the 1940s and resulted in a set of "inner-ring" or "first-ring" suburbs. While transit-oriented, these suburbs continued to exhibit a comfortable, pedestrian-sized scale, reflecting the complementarity between walking and transit access. Areas fitting this description include large parts of El Cerrito, Richmond (shown in the image below), San Pablo and a few inland districts such as the neighborhoods around downtown Concord and Antioch.

The population of Contra Costa tripled between 1940 and 1950 and again between 1950 and 1990. Such significant growth, coupled with changing tastes in housing, nearly universal automobile ownership and creation of the national highway system, brought a new kind of suburbanization. Communities developed after World War II in Contra Costa are marked by greater segregation of land uses—with single-family homes set apart from apartments and residential neighborhoods apart from commercial districts and civic buildings—and lower-density, larger-scale development designed for access by car, such as shopping malls and business parks.

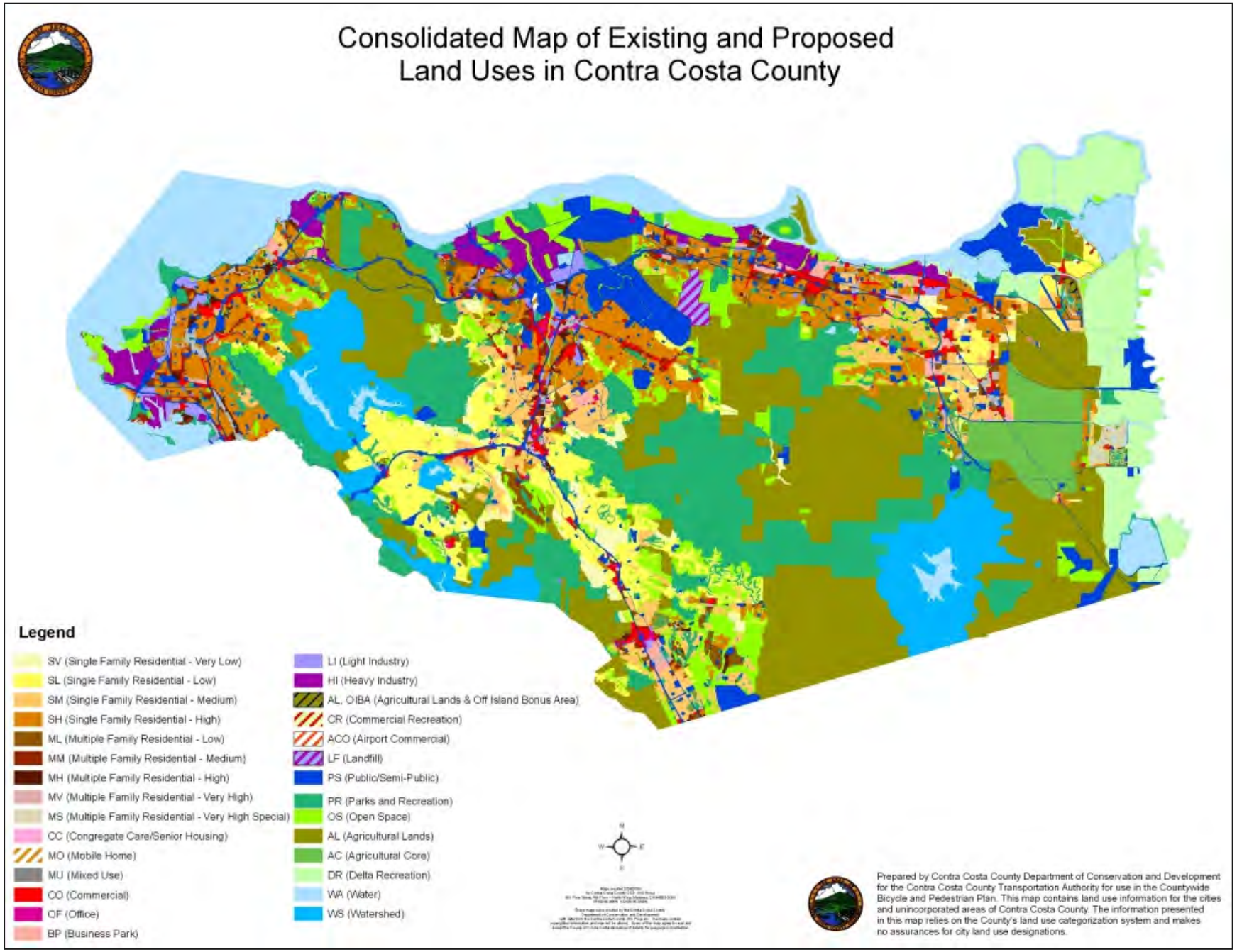
In these newer communities, many fewer people walk and bicycle, for a number of interrelated reasons. Until the past 10-15 years, arterial and collector streets were built primarily for car traffic, with little or no accommodation for pedestrians and bicyclists. Residential areas have been designed to reduce cut-through traffic using limited access points, curvilinear streets and cul-de-sacs, all of which make walking and bicycling less direct and more time-consuming. This street pattern necessitates longer blocks and wider arterials, which are less comfortable for pedestrians and bicyclists. Perhaps most importantly, the greater distances inherent in low-density developments often make walking impractical and bicycling inconvenient. Since most of the growth in Contra Costa has occurred since the 1950s, it is not surprising that these land use and development patterns are common throughout the county.

Retrofitting these post-WWII streets and neighborhoods to accommodate pedestrians and bicyclists is a daunting challenge. Some communities have been reviving older, traditional development patterns, recognizing their potential to create more attractive environments, not only for pedestrians and bicyclists. In 2001, for example, the City of Hercules adopted a development code with the long-term objective of transforming central Hercules into a compact, pedestrian-oriented district. In a built example, Pleasant Hill has, over the past decade and a half, created a new, pedestrian-oriented downtown. The city of Concord's redevelopment vision for the decommissioned Concord Naval Weapons Station includes a transit-oriented district around the North Concord BART station, a series of "clustered villages" of homes and large areas set aside as open space, all connected with a network of trails.

Land use patterns

In terms of specific land uses, the largest concentrations of jobs in Contra Costa occur along Interstate 680, from Concord in the north to San Ramon in the south. Industrial uses are located along the shoreline from Richmond east to Antioch, reflecting current and former dependence on water transport. West County and large parts of Central County and East County are characterized by medium- and high-density housing, while low- and very low-density housing predominate in Southwest County, except in the jurisdictions' downtowns.

Contra Costa also has large areas of undeveloped land. Most of the East Bay hills territory between West County and Lamorinda/Central County is agricultural land, permanently protected parkland owned and managed by the East Bay Regional Park District (EBRPD) or protected watershed land of the East Bay Municipal Utility District. The area within the crescent formed by Southwest, Central and East counties contains large agricultural tracts, several EBRPD parks, Mount Diablo state park and watershed landholdings of the Contra Costa Water District around Los Vaqueros reservoir. Lastly, between Brentwood/Oakley and San Joaquin County are large areas of agriculture and delta marshland. A map of land use designations in Contra Costa appears on the following page.


Consolidated Map of Existing and Proposed
Land Uses in Contra Costa County
Legend
SV (Single Family Residential - Very Low)
SL (Single Family Residential - Low)
SM (Single Family Residential - Medium)
SH (Single Family Residential - High)
ML (Multiple Family Residential - Low)
MM (Multiple Family Residential - Medium)
MH (Multiple Family Residential - High)
MV (Multiple Family Residential - Very High)
MS (Multiple Family Residential - Very High Special)
CC (Congregate Care/Senior Housing)
MO (Mobile Home)
MU (Mixed Use)
CO (Commercial)
OF (Office)
BP (Business Park)
LI (Light Industry)
HI (Heavy Industry)
AL, OIBA (Agricultural Lands & Off Island Bonus Area)
CR (Commercial Recreation)
ACO (Airport Commercial)
LF (Landfill)
PS (Public/Semi-Public)
PR (Parks and Recreation)
OS (Open Space)
AL (Agricultural Lands)
AC (Agricultural Core)
DR (Delta Recreation)
WA (Water)
WS (Watershed)
Prepared by Contra Costa County Department of Conservation and Development for the Contra Costa County Transportation Authority for use in the Countywide Bicycle and Pedestrian Plan. This map contains land use information for the cities and unincorporated areas of Contra Costa County. The information presented in this map relies on the County's land use categorization system and makes no assurances for city land use designations.

COMMUTE STATISTICS

Current mode split

Information on how many people walk and bicycle, and for what purposes, can help the Authority and local jurisdictions plan projects and programs and target marketing to potential new users. Table 3 shows estimated commute mode splits in Contra Costa for *home-to-work trips* from the following three sources. It should be noted that the first two sources estimate the percentage of *commuters* using each mode of transportation as their primary mode while BATS 2000 estimates the percentage of *trips* taken by each mode. The sources are:

- 2000 U.S. Census, from the U.S. Census Bureau (as reported in the 2003 CBPP; the 2000 census is the latest).
- 2006-2008 "American Community Survey" (ACS), also from the U.S. Census Bureau. ACS is an ongoing survey that replaces the "long form" of the census and collects demographic, housing and transportation information every year instead of every ten years.
- MTC's "Bay Area Travel Survey 2000" (BATS 2000; this is the latest BATS available).

According to these sources, walking accounts for 1.6–1.9 percent of work trips or commuters and bicycling represents 0.5–0.6 percent. With a share of approximately 70 percent, drive-alone is by far the predominant mode of transportation in Contra Costa, as in most of the country. Carpooling accounts for approximately 12–16 percent and transit for 9–13 percent.

Table 3 | **Home-to-work mode split in Contra Costa** (%)[1]

	2000 Census	*2006-2008 ACS*	*BATS 2000*
Drive alone	73.3	74.4	68.9
Carpool	14.1	12.3	16.1
Transit	9.4	9.5	12.5
Walk	1.6	1.9	1.5
Bicycle	0.5	0.6	0.3
Other[2]	1.1	1.2	0.6
Total	**100.0**	**100.0**	**100.0**

[1] Percentage of trips; does not include work-at-home
[2] Includes motorcycle and taxicab

The census, conducted almost a decade ago, estimated that approximately 7,000 walking trips and 2,000 bicycling trips were made to work each day in Contra Costa. These numbers represented 1.5 percent and 0.5 percent, respectively, of all such trips. To put these figures in a broader context, Table 4 compares the share of home-based work trips made on foot or by bike in the nine Bay Area counties and in the region as a whole, according to the 2000 census. As the table shows, Contra Costa has the lowest share of such trips made by walking among all counties and is tied with Solano for the lowest bicycling share.

Table 4 | **Walk and bike mode shares in the Bay Area** (%)

	Walk	*Bike*
Alameda	3.2	1.2
Contra Costa	**1.5**	**0.5**
Marin	3.0	1.0
Napa	4.1	0.8
San Francisco	9.4	2.0
San Mateo	2.1	0.8
Santa Clara	1.8	1.2
Solano	1.6	0.5
Sonoma	3.1	0.8
Bay Area	3.2	1.1

Source: 2000 U.S. Census; figures include workers working at home

Since two of the data sources cited above—BATS 2000 and the 2000 U.S. Census—are almost ten years old, it is likely that the commute shares for walking and bicycling have changed. It is also possible that the significant economic downturn that gripped the Bay Area in 2008 and 2009 has also caused a shift in the walking and bicycling rates. Predicting the effect of the recession on such rates, however, is difficult. On the one hand, recessions reduce people's spending power, which should encourage them to shift to cheaper modes of transportation, namely walking and bicycling; on the other, recessions lead to less driving and, therefore, less congestion, which likely encourages some people to drive alone more often instead of using transportation alternatives. At the same time, it is impossible to say whether the recession will have long-lasting effects on people's behavior, including their transportation habits.

National studies have shown significantly higher walking and bicycling rates in lower-income households, mainly because they tend to own fewer or no cars and are of a younger average age. This likely translates to higher relative demand for bicycle and walking improvements in lower-income areas. Higher rates of nonmotorized travel are also found in areas characterized by higher-density development, mixed land uses and a small-scale grid street pattern.

Estimated bicycle ridership

The 2003 CBPP included an order-of-magnitude estimate of the daily number of all bicyclists—commuters and others—in Contra Costa. An updated estimate, using more recent data, is shown in Table 5. (See Appendix A for an explanation of the model and estimation methodology.)

Table 5 | **Current daily bicycle ridership in Contra Costa**

Employees commuting to work	2,800
School children commuting to school	6,900
College students commuting to school	3,400
Bike-to-transit riders	600
Other riders (for shopping, social visits, etc.)	11,900
Total	**25,600**

Numbers do not add up to total due to rounding

This section, along with Appendix C, addresses BTA requirement (a): "The estimated number of existing bicycle commuters in the plan area and the estimated increase in the number of bicycle commuters resulting from implementation of the plan."

Similarly, Table 6 shows the updated estimates in the projected numbers of daily bicycle commuters, other riders and bicycle trips in Contra Costa in 2035; the estimates take into account forecast population growth and assume completion of the bicycling facilities outlined in the CBPP. The table also shows the estimated current and projected reductions in vehicle trips and vehicle-miles resulting from trips being taken by bicycle instead.

Table 6 | **Daily bicycle ridership in Contra Costa**

	Current	*Projected (2035)*	*Increase*
Bicycle commuters[1]	13,800	48,700	35,000
Other riders	11,900	42,100	30,200
Bicycle ridership[2]	25,600	90,800	65,100
Bicycle trips[2]	51,300	181,600	130,300
Reduced motor-vehicle trips	34,700	122,700	88,100
Reduced motor-vehicle miles	113,000	400,100	287,100

[1] To work, school, college and transit; numbers do not add up to total due to rounding

[2] Includes shopping, social and other non-commute trips but not recreational trips

Lastly, the current and projected number of bicycle commuters has been estimated for each jurisdiction in Contra Costa (Table 7). The totals for all the jurisdictions do not equal the countywide numbers in tables 4 and 5 because countywide estimates were based on data from the three-year 2006-2008 ACS whereas estimates for some jurisdictions were based on data from the 2000 U.S. census or the one-year 2008 ACS, depending on the availability of data.

Again, it is important to emphasize that these are order-of-magnitude estimates and are based on limited data and research. Figures from the U.S. Census Bureau likely underestimate the number of trips to work made by bicycle (and by foot), and estimates of bicycle trips for other purposes are even less well-documented. Counts of actual bicyclists are extremely limited as well.

While research is ongoing into the effect on ridership of improvements in bicycling facilities, no generally accepted method for forecasting bicycle ridership is available. (Travel demand models do forecast bicycle trips but likely underestimate them for two reasons: the starting data itself likely underestimates bicycle trips; and models use a much coarser network, which creates travel-time disadvantages for bicycle trips.) Nonetheless, the bicycle ridership projections appear reasonable if one takes into account forecast population growth and assumes implementation of the bicycle facilities and supportive programs identified in the CBPP.

Table 7 | **Daily bicycle commuters by jurisdiction**

	Current	*Projected*	*Increase*
Antioch	1,200	4,200	3,000
Brentwood	600	2,000	1,400
Clayton	100	400	200
Concord	1,600	5,600	4,000
Danville	600	2,000	1,400
El Cerrito	400	1,300	900
Hercules	300	900	600
Lafayette	300	1,200	900
Martinez	500	1,600	1,200
Moraga	300	1,100	800
Oakley	400	1,400	1,000
Orinda	200	800	600
Pinole	300	1,000	700
Pittsburg	800	2,700	1,900
Pleasant Hill	400	1,500	1,100
Richmond	1,200	4,200	3,000
San Pablo	400	1,500	1,100
San Ramon	1,000	3,500	2,500
Walnut Creek	1,000	3,300	2,300
Unincorporated areas	1,500	5,300	3,800
Total	**12,900**	**45,500**	**32,700**

Some numbers do not add up to totals due to rounding

COLLISION ANALYSIS

Overview

While motor-vehicle collisions can affect anyone in Contra Costa, they have a disproportionate impact on pedestrians and bicyclists, the most vulnerable users of the transportation system. Pedestrians and bicyclists represent a disproportionate number of the transportation-related fatalities in the county, a pattern mirrored throughout the Bay Area and the rest of the country. Data on collisions involving pedestrians and bicyclists can help planners and other decision-makers identify specific areas in which to focus improvement efforts. The data used in this section comes from the California Highway Patrol's Statewide Integrated Traffic Records System (SWITRS), a database of collisions as reported to and collected by local police departments and other law enforcement agencies in the state. Because SWITRS consists only of reports taken by officers in the field, the incidents in the database represent only a portion of all collisions. This also means that the incidents in SWITRS are more likely to be serious, since minor collisions are less likely to be reported to a police officer.

▶ **CHP's Statewide Integrated Traffic Records System (SWITRS):** www.chp.ca.gov/switrs

Pedestrian collisions

Typically, one-third of collisions involving pedestrians happen while the pedestrian is crossing a street in a crosswalk at an intersection. Another third involves pedestrians crossing a street *not at a crosswalk.* All other types of collisions make up the remainder; of these, the most common involves pedestrians walking along the road, including on the shoulder. This data emphasizes the importance of accommodating pedestrian travel in the design of roadways and intersections to improve pedestrian safety.

In the five years from 2002 to 2006—the latest for which SWITRS data is available—59 pedestrian fatalities and 1,308 pedestrian injuries were reported for Contra Costa (Table 8). The annual number of fatalities ranged from seven to 16 while the number of injuries ranged from 237 to 291. The *average* annual number of fatalities was almost 12 while the average number of injuries was nearly 262. (By comparison, during 1990-2000, there was an average of nearly 300 collisions annually in Contra Costa involving pedestrians.)

Table 8 | **Pedestrian and bicycle fatalities and injuries in Contra Costa**

	Pedestrian		*Bicycle*	
	fatalities	*injuries*	*fatalities*	*injuries*
2002	11	291	3	209
2003	14	246	2	223
2004	7	237	4	228
2005	11	274	1	247
2006	16	260	9	213
Total	**59**	**1,308**	**19**	**1,120**
Annual average	*11.8*	*261.6*	*3.8*	*224.0*

During that five-year period, four cities (three of which are in West County) had an average of more than one pedestrian fatality per year: Richmond (1.6), Pinole (1.2), Pittsburg (1.2) and San Pablo (1.0); in addition, the unincorporated areas had an annual average of two fatalities (Table 9). On the other hand, Clayton, Lafayette and Orinda saw no pedestrian fatalities during the same period. The jurisdictions with the highest average number of pedestrian injuries annually were Richmond (45.2), Concord (35.6) and the unincorporated areas (30.8); the lowest injury numbers were in Clayton (0.2) and Moraga (0.6).

When comparing data among local jurisdictions, the numbers of fatalities and injuries tell only part of the story. For a more meaningful comparison, the numbers for each jurisdiction should be adjusted by its population. When calculated per 10,000 population (using the population figures in Table 2), the jurisdictions with the highest annual number of pedestrian injuries are El Cerrito (7.47), San Pablo (5.47) and Richmond (4.46), all of which are in West County (Table 9); the lowest injury rates are in Clayton (0.18) and Moraga (0.37).

El Cerrito Pedestrian Safety Assessment

A pedestrian safety assessment was conducted for the city of El Cerrito in early 2009 by the Institute of Transportation Studies Technology Transfer Program (and sponsored by the California Office of Traffic Safety). The assessment found that during the 2003-08 period, the majority of pedestrian-vehicle collisions in the city were along San Pablo Avenue, which is not only a regional transportation route but also the primary retail and transit corridor in El Cerrito. In general, the top collision locations were those where high-volume roadways traverse the city's main pedestrian nodes.

While the population-adjusted figures are an improvement over raw numbers, even they do not allow for a truly meaningful comparison of pedestrian safety risk among jurisdictions. Ideally, the figures would be adjusted further, either for the number of pedestrian commuters or of walking trips in each jurisdiction, to account for "pedestrian exposure." Unfortunately, such information is not available. If it were, it would likely indicate that higher collision rates in places such as Richmond and San Pablo result from higher exposure rates—that

is, more pedestrians and bicyclists per unit of population. A pedestrian safety assessment conducted in Walnut Creek in 2008 and sponsored by the California Office of Traffic Safety found that, between 2006 and 2008, approximately 90 percent of collisions that involved pedestrians took place in the core of the city, where many more pedestrians are present.

Estimating pedestrian exposure

Currently, there is no reliable systematic method for estimating pedestrian exposure. To remedy that, UC Berkeley's Traffic Safety Center has undertaken a research project to develop tools for estimating pedestrian risk for injury. Such tools include definitions of exposure and risk, methods for measurement, and analytic techniques. The primary research product will be a protocol for measuring pedestrian volume at local and state levels that will allow Caltrans to monitor pedestrian safety trends across the state. A long-term goal of the project is to enable the efficient use of limited resources by targeting pedestrian safety interventions at areas with high pedestrian exposure rates.

▶ www.tsc.berkeley.edu/research/pedexposure.html

The available data supports the observation that pedestrians, along with bicyclists, suffer disproportionately from traffic collisions. In 2002–2006, pedestrians made up almost 16 percent of the traffic fatalities and 4.7 percent of the traffic injuries in the county even though walking accounts for less than 2 percent of work trips and commuters. Lastly, adjusted for population—but, again, not for pedestrian exposure—Contra Costa has a lower rate of pedestrian injuries than the state as a whole. In 2002–2006, Contra Costa had an average of 2.57 injuries annually per 10,000 population. The corresponding figure for California is 3.70.

Table 9 | **Pedestrian fatalities and injuries (annual average, 2002-2006)**

	Fatalities	*Injuries*	*Injuries per 10,000 pop*
Antioch	0.6	21.2	2.13
Brentwood	0.4	6.8	1.40
Clayton	0.0	0.2	0.18
Concord	0.8	35.6	2.95
Danville	0.2	7.4	1.81
El Cerrito	0.6	16.6	7.47
Hercules	0.2	1.8	0.73
Lafayette	0.0	2.2	0.89
Martinez	0.4	7.6	2.17
Moraga	0.2	0.6	0.37
Oakley	0.2	2.2	0.72
Orinda	0.0	2.6	1.42
Pinole	1.2	5.2	2.78
Pittsburg	1.2	15.2	2.43
Pleasant Hill	0.6	12.6	3.85
Richmond	1.6	45.2	4.46
San Pablo	1.0	16.8	5.47
San Ramon	0.4	5.2	1.06
Walnut Creek	0.2	25.8	4.08
Unincorporated areas	2.0	30.8	1.83
Total	**11.8**	**261.6**	**2.57**
California			*3.70*

Bicycle collisions

For the five years from 2002 to 2006, SWITRS reports 19 bicycle fatalities and 1,120 bicycle injuries in Contra Costa (Table 8). The annual number of fatalities ranged from one to nine while the number of injuries ranged from 209 to 247. The *average* annual number of fatalities was almost 4 while the average number of injuries was 224. (By comparison, between 1990 and 2000, an average of 329.1 collisions annually in Contra Costa involved bicyclists.)

Concord and Richmond alone represented more than half of the bicycle fatalities, averaging one fatality each per year (Table 10); twelve cities saw no bicycle fatalities. The jurisdictions with the highest average number of bicycle injuries annually were Concord (40.4), the unincorporated areas (36.6) and Richmond (22.2); the lowest injury numbers were in Hercules (0.6), Moraga (1.0), Orinda (1.8) and Clayton (2.0). Adjusted for population, however, the jurisdictions with the highest annual number of bicycle injuries per 10,000 population (Table 10) were Pleasant Hill (5.38), El Cerrito (4.50), Concord (3.34) and San Pablo (3.19); the lowest injury rates are in Hercules (0.24), Moraga (0.61) and Orinda (0.99).

Table 10 | **Bicycle fatalities and injuries (annual average, 2002-2006)**

	Fatalities	*Injuries*	*Injuries per 10,000 pop*
Antioch	0.2	16.8	1.69
Brentwood	0.0	5.0	1.03
Clayton	0.0	2.0	1.79
Concord	1.0	40.4	3.34
Danville	0.2	11.6	2.83
El Cerrito	0.0	10.0	4.50
Hercules	0.0	0.6	0.24
Lafayette	0.0	4.8	1.94
Martinez	0.2	5.8	1.65
Moraga	0.0	1.0	0.61
Oakley	0.0	3.4	1.12
Orinda	0.0	1.8	0.99
Pinole	0.0	2.4	1.28
Pittsburg	0.0	8.0	1.28
Pleasant Hill	0.0	17.6	5.38
Richmond	1.0	22.2	2.19
San Pablo	0.4	9.8	3.19
San Ramon	0.0	6.0	1.23
Walnut Creek	0.6	18.2	2.88
Unincorporated areas	0.2	36.6	2.17
Total (countywide)	**3.8**	**224.0**	**2.20**
California			*2.87*

As with the pedestrian collision data, even the population-adjusted bicycle injury rates do not allow for a truly meaningful comparison of bicycle safety risk among jurisdictions. Ideally, the figures would be adjusted further, either for the number of bicycle commuters or of bicycling trips in each jurisdiction, to account for bicyclists' exposure. The estimated numbers of bicycle commuters in each jurisdiction (Table 7) and of bicycling trips make are too conjectural to be used for such an adjustment.

Like pedestrians, bicyclists suffer disproportionately from traffic collisions in Contra Costa. Between 2002 and 2006, bicyclists represented 5.1 percent of the traffic fatalities and 4 percent of the traffic injuries in the county even though bicycling accounts for only 0.5 percent of work trips and commuters. Adjusted for population—but, again, not for bicycle exposure—Contra Costa has a lower rate of bicycle injuries than the state as a whole. Between 2002 and 2006, Contra Costa had an average of 2.20 injuries annually per 10,000 population. The corresponding figure for California is 2.87.

Perhaps contrary to popular perception, most bicycle collisions do not involve motor vehicles. Hospitalization data have shown that a majority of bicycle injuries involve falls or collisions with stationary objects, other cyclists or pedestrians. This points to the need to educate bicyclists on safe riding techniques and to implement safer design practices.

FUNDED PROJECTS

This last section highlights the main accomplishments made toward implementing the 2003 CBPP. Below are pedestrian and bicycle projects, or projects with pedestrian and bicycle components, funded by or through the Authority in recent years. This inventory includes projects funded through Measure C (Table 11) and Measure J (Table 12) as well as projects recommended for funding through two MTC funding programs: the Regional Bicycle and Pedestrian Program and Transportation for Livable Communities (Table 13). Funding amounts are given in 2004 dollars.

This section—along with the "Priorities for Funding" section in Chapter 9 and Appendix C—addresses BTA requirement (k): "A description of past expenditures for bicycle facilities and future financial needs for projects that improve safety and convenience for bicycle commuters in the plan area."

Table 11 | **Projects funded by Measure C**

Project name or description	*Amount*
Bancroft Road / Hookston Road Intersection Improvements	$648,590
Iron Horse Trail Overcrossing at Treat Boulevard	$1,273,160
Moraga Road Safety Improvements	$12,170
Bryant Way / Moraga Way Improvements	$177,180
Moraga Way Rehabilitation & Improvements	$519,120
Camino Tassajara Circulation Improvements	$296,490
Martinez Bay Trail	$199,630
Atlas Road Bridge	$455,420
Big Break Regional Trail	$318,630

Table 12 | **Projects funded by Measure J**

Project name or description	*Amount*
Interstate 80 / San Pablo Dam Road Interchange Improvements	$10,070,000
BART Parking, Access and Other Improvements – Central County • Access Improvements at Central County BART Stations • Improved Vertical Circulation: Pleasant Hill BART • Comprehensive Wayfinding Signage for Central County BART Stations • Electronic Bike Lockers at Concord, North Concord and Pleasant Hill BART Stations	$10,800,000
BART Parking, Access and Other Improvements – West County • Transit Oriented Development (TOD) and Access Developments at El Cerrito Plaza & del Norte BART Stations • Improved Vertical Circulation at El Cerrito Plaza BART Station • Electronic Bike Lockers at El Cerrito del Norte, El Cerrito Plaza, and Richmond BART Stations • Improved Vertical Circulation at El Cerrito del Norte BART Station • Comprehensive Wayfinding Signage for West Contra Costa BART Stations	$13,500,000
Marsh Creek Road Upgrade	$984,000
Pacheco Road Upgrade and Widening: Blum Road to Morello Avenue	$3,997,000
Court Street Overcrossing — Phase 1	$7,834,000
Buskirk Avenue Widening — Phase 2	$6,017,000
Geary Road Widening — Phase 3	$7,553,000

Table 13 | **Projects funded through MTC programs**

Project	*Regional (R) or County (C)*	*Amount*
REGIONAL BICYCLE AND PEDESTRIAN PLAN		
Concord Boulevard Sidewalk and Bicycle Lane Gap Closure Project, Phase 1	R	$572,000
Concord Boulevard Sidewalk and Bicycle Lane Gap Closure Project, Phase 2	C	$820,000
Central Richmond Greenway: East Segment	C	$1,020,000
Iron Horse Trail Overcrossing at Treat Boulevard	C	$1,520,000
TRANSPORTATION FOR LIVABLE COMMUNITIES		
Monument Blvd. And Meadow Lane Pedestrian Infrastructure Improvements	R	$2,200,000
San Pablo Avenue Streetscape, Pedestrian Access and Corridor Revitalization Project – Segment A	R	$1,800,000
Richmond Downtown Revitalization and Transit Village: Bike and Pedestrian Improvements	R & C	$2,306,000
Marina Vista Streetscape Project	R	$1,100,000
Bailey Road Transit Access Improvement Project	R & C	$1,875,000
San Pablo Avenue Pedestrian Crossing, Transit Stop and Streetscape Improvement Project — Phase II	C	$989,000
Iron Horse Trail Overcrossing of Treat Boulevard	C	$4,022,000
Refugio Bridge in Hercules	C	$775,000
Montalvin Manor Sidewalk and Bus Shelter Project	C	$365,000

3 | Relationship to Other Plans

This chapter, along with Appendix C, addresses BTA requirement (i): "A description of how the bicycle transportation plan has been coordinated and is consistent with other local or regional transportation, air quality, or energy conservation plans, including, but not limited to, programs that provide incentives for bicycle commuting."

THE AUTHORITY HOPES THAT THE CBPP WILL have a significantly positive impact on walking and bicycling in Contra Costa. The CBPP, however, is not the only effort aimed at improving conditions for pedestrian and bicyclists in Contra Costa nor is the Authority the only entity working toward such a goal. To make the most of these efforts, the CBPP will build on, and coordinate with, a number of related planning efforts by other parties. These efforts are occurring not only at the countywide level but also at the city, regional, state and federal levels.

This chapter provides an overview of the policy framework surrounding nonmotorized transportation in Contra Costa by summarizing the key plans, programs, policies and other planning efforts (collectively referred to in this chapter as "plans") that will affect and be affected by implementation of the CBPP.

Related plans addressed in this chapter

Local and County Plans
• General plans and local bicycle and pedestrian plans
• Contra Costa Countywide Comprehensive Transportation Plan
• Measure J
Regional Plans
• Bay Area Regional Bicycle Plan
• East Bay Regional Park District
• San Francisco Bay Trail
• Bay Area Ridge Trail
Routine Accommodation and Complete Streets
• U.S. Department of Transportation policy statement
• Caltrans Deputy Directive 64

- MTC Resolution 3765
- California Complete Streets Act (AB 1358)

Other Plans

- ADA Accessibility Guidelines
- California Global Warming Solutions Act (AB 32)
- California Senate Bill 375 (SB 375)

Local and County Plans

General Plans and Local Bicycle and Pedestrian Plans

Contra Costa consists of 20 local jurisdictions: 19 cities and towns plus the County government, which has responsibility for the unincorporated areas of the county. All 20 jurisdictions have adopted policies as part of their respective general plans in support of walking and bicycling. Most such policies appear in the circulation (or transportation) element of their general plan. Additional supportive policies often appear in the land use, open space and other elements as well as in "specific plans" prepared for particular districts or areas. These policies typically express support for making bicycling and walking safer, more convenient and more pleasant. They usually call for more or improved on- and off-street facilities, bicycle parking and urban design that is more conducive to walking.

Additionally, a number of jurisdictions in Contra Costa have developed detailed local bicycle, pedestrian or trail plans as supplements to their circulation element. These plans contain additional and more detailed policies, and usually identify priority areas and specific improvements for enhancing walking or bicycling conditions in their community. Information about local plans and policies for the 20 jurisdictions in Contra Costa is summarized in appendices B and C. Table 14 lists pedestrian, bicycle or trail plans adopted by the jurisdictions in the past ten years and indicates whether each plan primarily addresses walking ("Ped"), bicycling ("Bike") or both issues.

Table 14 | **Local bicycle, pedestrian and trail plans**

Jurisdiction	*Plan*	*Ped*	*Bike*
Antioch	East Contra Costa County Bikeway Plan (2005)		✓
Brentwood	East Contra Costa County Bikeway Plan (2005)		✓
	Parks, Trails and Recreation Master Plan (2002)	✓	✓
Concord	Trails Master Plan (2003)	✓	✓
County	East Contra Costa County Bikeway Plan (2005; for unincorporated areas in East County only)		✓
	Trail Review Study, plus Trail Design Resource Handbook (2001)	✓	✓
El Cerrito	Circulation Plan for Bicyclists and Pedestrians (2007)	✓	✓
Lafayette	Master Walkways Plan (revised in 2006)	✓	
	Bikeways Master Plan (2006)		✓
	Trails Master Plan (2006)	✓	✓
Oakley	East Contra Costa County Bikeway Plan (2005)		✓
Pittsburg	East Contra Costa County Bikeway Plan (2005)		✓
Walnut Creek	Bicycle Master Plan (in progress; scheduled for completion in 2009)		✓

Countywide Comprehensive Transportation Plan

In June 2009, the Authority adopted the updated Contra Costa Countywide Comprehensive Transportation Plan (CTP). The update re-

fines the Authority's goals for the county's transportation future and outlines strategies for improving mobility for all modes and for managing the impacts of growth. One of the four goals of the CTP is to "Provide and expand safe, convenient and affordable alternatives to the single-occupant automobile" (goal 3). In addition, the CTP outlines six strategies to support the Authority's efforts to encourage walking and bicycling:

1.3 Define and close gaps in the existing highway and arterial system
3.3 Require local jurisdictions to incorporate policies and standards that support transit, bicycle and pedestrian access in new developments
3.4 Support transit-oriented and pedestrian-friendly developments
3.5 Invest in trails, walkways, and pedestrian-oriented improvements
3.6 Promote formation of more carpools and vanpools, and greater use of transit, bicycling, and walking
3.8 Encourage local jurisdictions and other agencies to develop a connected and coordinated system of bicycle facilities through financial assistance, technical support and other aid and encouragement

Chapter 4, "The Transportation System," includes a section dedicated to bicycling and walking. This section acknowledges that "Bicycling and walking can play an important role in mobility, especially where trips are short and safe, direct and comfortable routes are available." It identifies widely separated and segregated land uses, conflicts with cars and the lack of safe, well-connected facilities as the main deterrents to nonmotorized transportation.

East Contra Costa County Bikeway Plan

TRANSPLAN, a governmental committee that coordinates the transportation interests of the communities in East Contra Costa, adopted the original *East Contra Costa County Bikeway Plan* in 2001 and updated it in 2005. In an example of multi-jurisdictional cooperation, the plan was developed for the cities of Antioch, Brentwood, Oakley and Pittsburg, and the unincorporated areas of East County, including Bay Point, Bethel Island, Byron, Discovery Bay and Knightsen.

The 2005 plan recommends an updated network of both on-road and off-road bikeways connecting residential neighborhoods to major activity centers in East County, including schools, major shopping and employment areas, and recreational destinations such as parks, waterfronts and trails. The plan reflects the existing bikeway and trails plans of the TRANSPLAN member jurisdictions and the EBRPD, along with additional recommendations for bikeways developed through meetings of local staff and bicycle advocates. The plan was designed to meet Caltrans eligibility requirements for BTA project grants.

Chapter 7 incorporates the five "Action Plans for Routes of Regional Significance" developed by the county's four RTPCs (SWAT developed plans for two separate areas). The Action Plans assess the impacts of future growth on the regional transportation system and identify actions for mitigating these impacts. Policy-type statements in the five Action Plans related to walking and bicycling include:

West County

- Increase bicycle and pedestrian mode splits to 3 percent for commute trips by 2012
- Continue planning and funding of bicycle and pedestrian routes

- Promote ridesharing, transit, bicycling, walking, staggered work hours and telecommuting with local employers
- Develop a bicycle and/or pedestrian plan for West County
- Work with CCTA and MTC to seek funding for bicycle and pedestrian improvements
- Continue compliance with the Americans with Disabilities Act for pedestrians (e.g., improvements for the visually impaired)
- Prepare a needs assessment of the sidewalk and bicycle facilities along school routes
- Work with Schools, Districts and Caltrans to seek Safe Routes to School grant funding
- Support Street Smarts, Safe Routes to School, and Safe Routes to Transit programs

Central County

- Include the needs of pedestrians and bicyclists in development projects
- Where feasible and appropriate, address the needs of pedestrians and bicyclists along regional routes
- Seek funding to provide bicycle parking infrastructure at employment sites and activity centers

East County

- Encourage walking and bicycling transportation
- Promote transit, carpooling and bicycle use at schools and colleges
- Continue to implement bicycle plans
- Continue to provide bike racks and lockers at key locations
- Encourage consideration of bicycles and pedestrians in neighborhood planning
- Maintain existing and provide new shoulders, bicycle lanes, and sidewalks on all streets
- Sponsor education programs for students and others to learn how to bicycle and walk safely

Lamorinda

- Efficiency improvements, such as signal timing and other operational improvements, especially those that help side street traffic and buses, are important, but not at the risk of compromising pedestrian and bicycle safety
- Evaluate and seek opportunities to improve walkways and bicycle facilities between the Lamorinda BART stations and adjacent uses
- Support the development of regional bicycle facilities
- Seek funding to provide bicycle parking infrastructure at employment sites and activity centers

Tri-Valley

- Consider both the need for vehicular mobility and congestion reduction, and such livability concepts as walkability, bicycle access and community character
- Maintain and actively pursue expanded transit, ridesharing and nonmotorized mode options and trip reduction programs to increase accessibility, to increase the transit share of travel in the Tri-Valley and to increase average vehicle occupancy

Lastly, one of the implementation activities given for carrying out the strategies in the 2009 CTP is to "Maintain Countywide Bicycle and Pedestrian Plan: Working with the Countywide Bicycle and Pedestrian Advisory Committee, update the CBPP at least every four years to reflect changes in facilities, policies and guidelines and new requirements."

▶ **Countywide Comprehensive Transportation Plan:**
ccta.net/EN/main/planning/countywideplan.html

Measure J

Measure J, approved by county voters in 2004, is one of the most significant changes affecting walking and bicycling since the adoption of

the original CBPP. The measure—an extension of Contra Costa's half-percent sales tax for transportation until 2034—will fund construction of several large-scale capital improvement projects for transportation, help maintain local streets and roads, bus service, transportation services for the elderly and persons with disabilities, improve access to BART stations and—of greatest relevance to the CBPP—fund bicycle and pedestrian facilities and other improvements.

It was originally expected that the measure would provide $2.0 billion in funding to the County, its cities and towns, and other public agencies for the expansion, maintenance and operation of the transportation system. The Authority recently lowered this estimate to approximately $1.55 billion reflecting the economic downturn that has affected most of the world in 2008 and 2009. (This reduction in funds from Measure J, and possibly from other sources as well, is perhaps the most significant effect of the downturn on nonmotorized transportation in Contra Costa.)

The most explicit source of funding for nonmotorized transportation facilities in Measure J is the "Pedestrian, Bicycle and Trail Facilities" program. Measure J sets aside 1.5 percent of the sales-tax revenues over the measure's 23-year life for this program, now estimated at $27 million. While this is a relatively small portion of the total funding, it represents a tripling of bicycle and pedestrian funding in Measure C, the predecessor of Measure J. In addition, Measure J explicitly encourages the County, its cities and other agencies to fund bicycle and pedestrian facilities from four other Measure J programs:

> [C]onsistent with the Bicycle Plan and the importance of bicycle and pedestrian facilities, other potential funding categories in this Plan for pedestrian/bicycle/trail facilities include: (a) Major Streets: Traffic Flow, Safety, and Capacity Improvements; (b) Safe Transportation for Children; (c) Local Streets and Road Maintenance; and (d) the Transportation for Livable Communities project grants. Moreover, where it is appropriate, routine accommodation for pedestrians and bicyclists should be incorporated in construction projects funded from these other categories.

This language acknowledges that bicycling and walking are legitimate transportation modes and deserving of funds under broader transportation funding programs, provided that the funds are used for projects consistent with the CBPP. In addition, while not mentioned explicitly above, there are other programs under Measure J that could be used to fund improvements for nonmotorized transportation. All Measure J funding programs relevant to the CBPP are summarized in Chapter 9, "Implementation."

Also, Measure J requires that local jurisdictions comply with the county's Growth Management Program (GMP) to be eligible for funding through two of the measure's programs. Among the requirements of the GMP is that each jurisdiction "incorporate policies and standards into its development approval process that support transit, bicycle and pedestrian access in new developments." To help local jurisdictions comply with this requirement, Chapter 8, "Other Tools for Local Agencies," references a number of resources for creating developments that are bicycle- and pedestrian-friendly.

- **Measure J expenditure plan:** www.ccta.net/assets/documents/Measure%20J_expenditure%20plan.pdf

Regional Plans

Bay Area Regional Bicycle Plan

In 2009, the Metropolitan Transportation Commission (MTC) updated its Regional Bicycle Plan for the San Francisco Bay Area. The new plan updates the designated regional bikeway network, one of the purposes of which is to focus MTC's spending on high-priority facilities that serve regional trips. The regional bikeway network is approximately 2,140 miles, including 319 miles in Contra Costa. A total of 181 miles, or 57 percent, have been built or are fully funded and awaiting development within Contra Costa.

The updated plan estimates the total cost to complete the bikeway network at just over $1.4 billion, about half of which ($700 million) is for toll bridges that currently lack bicycle access. The cost to complete the bikeway network through Contra Costa is $26 million. The plan also includes lists of all the built and unbuilt segments of the bikeway network in each county. Information to update the regional bikeway network and estimate completion costs was obtained from the CMAs and their countywide bicycle plans; in Contra Costa's case, these are the Authority and the 2003 CBPP.

- **Regional Bicycle Plan for the San Francisco Bay Area:** www.mtc.ca.gov/planning/bicyclespedestrians/MTC_Regional_Bicycle_Plan_Update_FINAL.pdf

East Bay Regional Park District Master Plan

The East Bay Regional Park District (EBRPD) serves as a countywide park agency for Contra Costa and Alameda counties, acquiring, developing, managing and maintaining parkland. It encompasses more than 98,000 acres, with 65 parks and over 1,100 miles of trails (most of which are unpaved). The trails are designed to connect parks and communities and use publicly owned rights-of-way in cooperation with other agencies, with the goal of developing a regional trail network that provides nonmotorized transportation and recreational opportunities. The network encompasses the San Francisco Bay Trail (see below), the proposed East Bay Greenway, the Bay Area Ridge Trail (also see below), the Iron Horse Trail and many others. To address concerns about safety on these trails after dark, EBRPD closes them from 10 pm to 5 am. EBRPD does provide passes to bicyclists for use of the trails during the curfew but the availability of these passes has not been well publicized.

EBRPD's most recent master plan was adopted in 1997. Trails-related priorities in the plan include completing the missing sections of the Bay Area Ridge Trail and the San Francisco Bay Trail (see descriptions of those two trail systems below) and completing key trail projects in the eastern part of the district "to serve newly annexed areas and anticipate urban growth." The district hopes to begin updating its master plan in 2010. In the meantime, it updated the master plan map in 2007, showing all existing and potential parklands and trails in the EBRPD system. The updated map continues potential parklands and trails from the 1997 map and includes several new ones; those in Contra Costa include vernal pools in Byron, parts of Concord Naval Weapons Station, Deer Valley (west of Brentwood) and Rancho Pinole (east of Hercules). The master plan map also depicts 84 potential or partially completed trail segments needed to round out the district's regional trail system.

▶ **EBRPD master plan map:** www.ebparks.org/files/u10/MasterPlanMap2007.jpg

San Francisco Bay Trail

The Bay Trail is a planned continuous multi-use trail that, when complete, will encircle San Francisco and San Pablo bays. Approximately 500 miles long, the trail's planned alignment connects the shoreline of all nine Bay Area counties, links 47 cities and crosses all the toll bridges in the region. The alignment includes a continuous "spine" along or near the shoreline and many short "spurs" to the waterfront itself. Planning for the Bay Trail is coordinated by the nonprofit San Francisco Bay Trail Project, a project of the Association of Bay Area Governments.

To date, approximately 290 miles of the alignment have been developed as either off-street paths or on-street bicycle lanes or routes. In Contra Costa, the Bay Trail spine alignment has a long gap from Rodeo to Martinez. Completed spine or spur segments of significant length exist in Carquinez Strait Regional Shoreline, through the city of Hercules, in San Pablo Bay Regional Shoreline, in Point Pinole Regional Shoreline, through the city of Richmond, in Miller/Knox Regional Shoreline and along Richmond Inner Harbor.

▶ **San Francisco Bay Trail Project:** www.baytrail.org

Bay Area Ridge Trail

The Bay Area Ridge Trail is a planned continuous multi-use trail connecting parks and open spaces along the ridgelines that ring San Francisco and San Pablo bays. The alignment of the Ridge Trail stretches more than 550 miles and traverses all nine Bay Area counties. Completion of the trail is promoted most actively by the nonprofit Bay Area Ridge Trail Council, an advocacy organization that works with local governments, other public agencies, land trusts and grassroots activists to open trail segments to the public.

To date, more than 300 miles of trail, mostly unpaved, have been dedicated and are now permanently protected for public use. In Contra Costa, most of the Ridge Trail alignment has been completed, especially through land owned by the East Bay Municipal Utility District east of Hercules and Pinole and also in various units of the EBRPD, including Martinez and Carquinez Strait regional shorelines, Sobrante Ridge, Kennedy Grove and Tilden, Sibley and Redwood parks. However, four significant gaps remain: from Martinez Regional Shoreline to the Benicia–Martinez Bridge; from John Muir National Historic Site to EBMUD land near Rancho Pinole; through the Franklin Canyon golf course and northeast Hercules; and from Kennedy Grove to Sobrante Ridge.

▶ **Bay Area Ridge Trail Council:** www.ridgetrail.org

ROUTINE ACCOMMODATION AND COMPLETE STREETS

"Routine accommodation" refers to the practice of considering the needs of pedestrians and bicyclists habitually in the planning, design, funding and construction of transportation projects. "Complete streets" is a related concept that describes roadways designed and operated for safe and convenient access by all users, including bicyclists, pedestrians and transit riders. In recent years, a number of routine accommodation and complete streets policies have come into

effect at the local, state and federal levels. While it is not yet clear what effect these policies have had on the planning, design and construction of new transportation facilities, they do reflect the growing attention of public agencies to the needs of pedestrians and bicyclists. Below are the main routine accommodation and complete streets policies that are applicable to Contra Costa.

U.S. Department of Transportation Policy Statement

In response to the federal Transportation Equity Act for the 21st Century, the U.S. Department of Transportation (DOT) adopted a policy statement on integrating bicycling and walking into transportation infrastructure. Entitled "Accommodating Bicycle and Pedestrian Travel: A Recommended Approach," the document encourages, but does not require, public agencies and professional associations, among others, to "[commit] themselves to integrating bicycling and walking into the transportation mainstream." The policy statement has four elements:

a. an acknowledgment of the issues associated with balancing the competing interests of motorized and nonmotorized users;
b. a recommended policy approach to accommodating bicyclists and pedestrians (including people with disabilities) that can be adopted by an agency or organizations as a statement of policy to be implemented or a target to be reached in the future;
c. a list of recommended actions that can be taken to implement the solutions and approaches described above; and
d. further information and resources on the planning, design, operation, and maintenance of facilities for bicyclists and pedestrians.

▶ **Accommodating Bicycle and Pedestrian Travel: A Recommended Approach:** www.fhwa.dot.gov/environment/bikeped/design.htm

Caltrans Deputy Directive 64

In 2001, the California Department of Transportation (Caltrans) adopted Deputy Directive 64 (DD-64), "Accommodating Nonmotorized Travel," which contained a routine accommodation policy. The directive was updated in 2008 as "Complete Streets—Integrating the Transportation System." The new policy reads in part:

> The Department views all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in California and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system.
>
> The Department develops integrated multimodal projects in balance with community goals, plans, and values. Addressing the safety and mobility needs of bicyclists, pedestrians, and transit users in all projects, regardless of funding, is implicit in these objectives. Bicycle, pedestrian and transit travel is facilitated by creating "complete streets" beginning early in system planning and continuing through project delivery and maintenance and operations....

The directive establishes Caltrans' own responsibilities under this policy. Among the responsibilities that Caltrans assigns to various staff positions under the policy are:

- Ensure bicycle, pedestrian, and transit interests are appropriately represented on interdisciplinary planning and project delivery development teams.
- Ensure bicycle, pedestrian, and transit user needs are addressed and deficiencies identified during system and corridor planning, project initiation, scoping, and programming.
- Ensure incorporation of bicycle, pedestrian, and transit travel elements in all Department transportation plans and studies.

- Promote land uses that encourage bicycle, pedestrian, and transit travel.
- Research, develop, and implement multimodal performance measures.

▶ **Deputy Directive 64:** www.calbike.org/pdfs/DD-64-R1.pdf

MTC Resolution 3765

The Metropolitan Transportation Commission (MTC)—the regional transportation planning agency for the Bay Area—adopted Resolution Number 3765 in June 2006. The resolution contains a policy that projects funded all or in part with regional funds "shall consider the accommodation of bicycle and pedestrian facilities, as described in Caltrans Deputy Directive 64" in the full project cost. The resolution also required MTC to "develop a project checklist [now completed] to be used by implementing agencies to evaluate bicycle and pedestrian facility needs" as part of the process of planning and designing their projects. Project-sponsoring agencies will be required to submit a completed checklist for each project submitted for funding to MTC that has the potential to impact bicycle or pedestrian use negatively. Chapter 8, "Other Tools for Local Agencies," summarizes the checklist-related responsibilities of local agencies, the Authority and its BPAC under MTC's adopted process for implementing its routine accommodation policy.

▶ **MTC routine accommodation policy and checklist:** www.mtc.ca.gov/planning/bicyclespedestrians/routine_accommodations.htm

California Complete Streets Act (AB 1358)

Assembly Bill 1358, the "California Complete Streets Act of 2008," requires "that the legislative body of a city or county, upon any substantive revision of the circulation element of the general plan, modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users [including] motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation…." This provision of the law goes into effect on January 1, 2011. The law also directs the Governor's Office of Planning and Research to amend its guidelines for the development of circulation elements so as to assist cities and counties in meeting the above requirement.

At the federal level, the "Complete Streets Act of 2009" (S. 584, H.R. 1443) is pending before Congress. This bill would direct state departments of transportation and metropolitan planning organizations to adopt complete streets policies within two years of enactment of the bill and to apply the policies to future federally funded transportation projects.

▶ **Text of AB 1358:** leginfo.ca.gov/pub/07-08/bill/asm/ab_1351-1400/ab_1358_bill_20080930_chaptered.html

OTHER

ADA Accessibility Guidelines

The Americans with Disabilities Act (ADA) is designed to protect the civil rights of people with disabilities. Of particular relevance to the CBPP are Title II of the law, which addresses access to state and local government services (including transit stations and vehicles) and Title III, which addresses access to places of public accommodation and commercial facilities. The U.S. Access Board develops and maintains accessibility guidelines for these and other aspects of the law. The guidelines serve as the baseline for enforceable standards maintained by other Federal agencies.

In 2002 the Access Board released draft guidelines regarding access to elements commonly found in public rights-of-way, including sidewalks, crosswalks, curb ramps, street furnishings, pedestrian signals and on-street parking. The draft guidelines were revised in 2005 in response to public comments but have not been released to this date. In the meantime, disability advocates have brought lawsuits over access to public rights-of-way. In a pioneering case, the City of Sacramento in 2003 settled a lawsuit in the *Barden v. Sacramento* case, assigning 20 percent of its transportation funds for the next 30 years to improve sidewalks, crosswalks and curb ramps. Later the same year, the U.S. Supreme Court rejected without comment an appeal by the City to overturn a lower-court ruling that sidewalks are covered by the ADA and, therefore, have to be accessible. In the absence of final guidelines from the Access Board regarding access to public rights-of-way, Chapter 8, "Other Tools for Local Agencies," includes advice to local governments from the U.S. Department of Justice, which is the main agency charged with enforcing the ADA.

- **U.S. Access Board's rulemaking on public rights-of-way:** www.access-board.gov/prowac

California Global Warming Solutions Act (AB 32)

AB 32, the "California Global Warming Solutions Act of 2006," aims to reduce the state's emissions of greenhouse gases (GHG) to 1990 levels by 2020 and to 80 percent below 1990 levels by 2050. The law requires the state's Air Resources Board (ARB) to adopt a "scoping plan" indicating how the 2020 target for emissions reductions may be achieved from significant GHG sources through regulations, market mechanisms and other actions. One of the recommended actions in ARB's scoping plan is to "develop regional greenhouse gas emissions reduction targets for passenger vehicles." The mechanism for developing these targets is established in a separate piece of legislation, Senate Bill 375 (see next item).

- **Text of AB 32:** www.arb.ca.gov/cc/docs/ab32text.pdf

California Senate Bill 375

Senate Bill (SB) 375, passed into law in 2008, is the first law in the nation that will attempt to control GHG emissions by curbing sprawl. The law requires ARB to develop regional targets for reductions in GHG emissions from passenger vehicles for 2020 and 2035. Each of the 18 metropolitan planning organizations in California—including, in the Bay Area, MTC—will need to prepare a "sustainable communities strategy" for meeting the emissions reductions target in its region through transportation and land use actions that reduce the number of vehicle-miles traveled (VMT). SB 375 clearly has the potential to promote walking and bicycling as strategies that reduce VMT. However, because the law is new and untested—the emissions reductions targets do not need to be developed until September 2010—it is unclear what effect it will have on Contra Costa's transportation and land use patterns or on the role that walking and bicycling will play in meeting the goals of the law.

- **Text of SB 375:** info.sen.ca.gov/pub/07-08/bill/sen/sb_0351-0400/sb_375_bill_20080902_enrolled.pdf

4 | Goals and Policies

THE ORIGINAL CBPP ESTABLISHED a set of goals and policies to guide the Authority's actions and decisions in implementing the plan and, more generally, in supporting walking and bicycling in Contra Costa. This chapter refines and clarifies the original goals and policies, in part to stress the Authority's special role as a countywide transportation planning, funding and coordinating agency. It also includes an overarching vision statement (at right) and new objectives for each, neither of which included in the 2003 CBPP.

The goals and policies define the roles and responsibilities of the Authority in implementing the CBPP. They serve as the basis for the more detailed implementation tasks, actions and prioritization criteria outlined in Chapter 9, "Implementation." In many cases, the Authority will need to rely on the cooperation of local agencies to pursue the goals and policies described here. Local jurisdictions, which include the County, cities and towns and special districts, are primarily responsible for implementing pedestrian and bicycling programs and for planning, designing and constructing facilities. As such, these jurisdictions will play an essential role in achieving the vision of the CBPP.

VISION STATEMENT

The vision statement is the expression of what walking and bicycling conditions will be like in Contra Costa if the Authority successfully implements the CBPP. The vision statement for the CBPP is:

> More people who live, work, shop and go to school in Contra Costa will walk and bicycle, thereby improving health, reducing emissions of greenhouse gases and making our transportation system more sustainable. To support walking and bicycling, Contra Costa will have an integrated system of safe, convenient and comfortable pedestrian and bicycle facilities that provide access to schools, jobs, transit, shopping, neighborhoods, community facilities, parks and regional trails. Agencies within Contra Costa will collaborate on creating such facilities across jurisdictions and will accommodate the needs of pedestrians and bicyclists when planning, designing, building and maintaining all development and transportation projects.

Below are the five goals of the CBPP, each followed by an objective that the Authority will use to measure progress toward achieving that goal and policies that will guide the Authority toward that goal. The goals and policies are meant to apply to the Authority while achieving the objectives will require the concerted effort of all local jurisdictions and other public agencies in Contra Costa.

Goal 1: Expand, Improve and Maintain Facilities for Walking and Bicycling

Contra Costa already possesses numerous pedestrian and bicycle facilities, including trails of regional importance, several pedestrian-oriented districts and a growing network of bicycle lanes. However, many significant gaps and major barriers remain, which inhibit mobility and access for pedestrians and cyclists. The following policies are meant to guide the development of an integrated system of facilities for nonmotorized transportation that would provide access for pedestrians and bicyclists to shopping, school, work and recreation activities, both within individual cities and throughout Contra Costa.

Objective | Increase the number of bikeway miles and pedestrian-oriented districts in Contra Costa.[2]

Policy 1.1 | Describe a countywide system of nonmotorized transportation facilities and key destinations and other attractors of pedestrians and bicyclists.

Policy 1.2 | Identify significant gaps and barriers to walking and bicycling and define funding priorities for removing these obstacles and implementing other needed pedestrian and bicycle projects and programs.

Policy 1.3 | Provide funding for the construction and maintenance of priority bicycle and pedestrian facilities to provide access to activity centers and other key destinations; connect cities within Contra Costa; and connect Contra Costa to neighboring counties.

Policy 1.4 | Include the costs to maintain pedestrian and bicycle facilities when estimating the maintenance needs of streets and roads; encourage local jurisdictions to do the same and also to maintain their pedestrian and bicycle facilities.

Policy 1.5 | Discourage jurisdictions in Contra Costa from removing, degrading or blocking access to pedestrian and bicycle facilities, or converting them to motor vehicle use, without providing an alternative that is at least equally safe and convenient.

Policy 1.6 | Work with neighboring counties to ensure that bicycle and pedestrian facilities are coordinated across county lines.

Goal 2: Improve Safety for Pedestrians and Bicyclists

Improving safety should be a central objective of every pedestrian and bicycle plan. Motorists, pedestrians and bicyclists need to understand and obey the rules of the road, as heightened consideration of and respect for other users generally leads to safer conditions. In addition to policies to expand and improve facilities for bicycling and walking, implementation of the following policies will help increase the safety of pedestrians and bicyclists.

Objective | Reduce the rate of pedestrian and bicycle fatalities and injuries per capita.

[2] Appendix B lists Contra Costa's pedestrian districts (see topic ❷ in the appendix). Pedestrian districts are defined as locations where, by policy, local jurisdictions especially want to encourage walking and improve the safety and comfort of pedestrians. Depending on how broadly the definition is applied, there are approximately 20-30 existing or planned pedestrian districts in Contra Costa.

Policy 2.1 | Give relative funding priority to projects that address safety deficiencies for pedestrians and bicyclists, especially conflicts with motor vehicles.

Policy 2.2 | Provide funding for traffic calming, intersection improvements and other projects if they improve safety for both pedestrians and bicyclists.

Policy 2.3 | Assist local jurisdictions in planning and designing safe streets by providing information, tools and other resources.

Policy 2.4 | Analyze data on traffic collisions involving pedestrians and bicyclists and share this information with local agencies to assist them in identifying and remedying problem locations.

Policy 2.5 | Support programs that educate drivers, bicyclists, and pedestrians of their rights and responsibilities, as well as pedestrian and bicycle education and safety programs for adults and youth.

Policy 2.6 | Support the development of "bike trains," "walking school buses" and "safe routes to school" programs at schools throughout Contra Costa to encourage more students of various ages to walk or bicycle to school.

Policy 2.7 | Support enforcement by local police departments of laws that aim to protect pedestrians and bicyclists from collisions with motor vehicles.

GOAL 3: ENCOURAGE MORE PEOPLE TO WALK AND BICYCLE

Beyond providing funding for safe and direct routes, the Authority (and other public agencies) can help more people make walking and bicycling everyday activities by providing information, training and encouragement. Maps can help people find appropriate routes, for example, while training on bicycling safety can give people more confidence to ride. The policies below seek to encourage more people in Contra Costa to walk or bicycle and to do so more often.

Objective | **Increase the share of all trips made by walking and bicycling in Contra Costa.**

Policy 3.1 | Work with local and regional agencies to develop and implement encouragement and promotion programs for walking and bicycling aimed at a broad range of audiences and potential users.

Policy 3.2 | Incorporate bicycle- and walking-related services into broader transportation demand management and commute alternatives programs and support events such as "bike to work" days, "walk to school" days and "National Walk at Lunch Day."

Policy 3.3 | Support wayfinding programs for pedestrians and bicyclists, such as free maps, trip-planning services, the regional 511 BikeMapper[SM] program and signage at transit stations; and

work with local agencies to develop a countywide signage scheme, including directional and destination signs for bikeways and trails and location maps in pedestrian districts.

Policy 3.4 | Provide funding for secure short- and long-term bicycle parking and encourage local jurisdictions to install bicycle lockers and racks at public facilities and on sidewalks in downtowns and to require it as part of new developments.

Policy 3.5 | Support bicycling-skills classes and other programs that help bicyclists learn how to ride safely.

Goal 4: Support Local Efforts to Improve Conditions for Walking and Bicycling

Building an integrated system of walking and bicycling facilities in Contra Costa will require the collaboration of the County, cities and towns, and other agencies with land use responsibilities. While the Authority has an essential role in funding facilities and programs, local agencies are mainly responsible for planning, designing, constructing and otherwise implementing them. Local jurisdictions can best accomplish those tasks by first developing their own pedestrian and bicycle plans to help them formulate and prioritize their actions. Below are ways in which the Authority will support and coordinate local efforts.

Objective | **Help every local jurisdiction in Contra Costa adopt a bicycle and pedestrian plan.**

Policy 4.1 | Provide a forum for local agencies and other stakeholders to identify and implement multi-jurisdictional projects and programs and to develop countywide or subregional approaches for resolving pedestrian- and bicycle-related issues of mutual concern.

Policy 4.2 | Continue to sponsor and support the multi-jurisdictional Countywide Bicycle and Pedestrian Advisory Committee (CBPAC), particularly in their efforts to select recommended projects for funding, review "routine accommodation" checklists (see page 96), and provide guidance during the next update of the CBPP.

Policy 4.3 | Inform local agencies of funding opportunities for pedestrian and bicycle projects and provide them with assistance in developing grant applications.

Policy 4.4 | Give relative funding priority to projects with countywide or multi-jurisdictional benefits.

Policy 4.5 | Maintain an updated online directory of best practices, model policies, standards and guidelines, and other resources for local agencies related to the planning, design and implementation of pedestrian and bicycle facilities and programs and pedestrian- and bicycle-friendly developments.

Goal 5: Consider and Plan for the Needs of Pedestrians and Bicyclists

Transportation improvements to facilitate automobile and truck traffic or mass transit can worsen conditions for pedestrians and bicyclists if their needs are not considered in advance. The same is true for new land use development or redevelopment projects. Retrofitting established land uses and roadways with limited right-of-way to accommodate pedestrians and bicyclists is challenging and costly, and produces unsatisfactory compromises. For this reason, all new transportation and land use projects should incorporate facilities for nonmotorized travel—including temporary ones needed during construction—from the earliest stages of development. At a minimum, new projects should not remove, degrade or cut off access to existing or planned facilities. Where demand for nonmotorized travel is low or the cost of facilities would exceed 20 percent of the cost of the larger project,[3] agencies should consider creative and alternative ways to accommodate the needs of pedestrians and bicyclists in the area.

Objective | Help every local jurisdiction in Contra Costa adopt and begin implementing effective policies and standards for pedestrian- and bicycle-friendly developments.

Policy 5.1 | Encourage local jurisdictions to consider the impacts of their development decisions on walking and bicycling and, consistent with the Authority's Growth Management Program, require the jurisdictions to adopt policies and standards that support pedestrian, bicycle and transit access in new developments.

Policy 5.2 | Monitor capital improvement projects to ensure that the needs of pedestrians and bicyclists (including children, seniors and persons with disabilities) are considered in programming, planning, design, construction, operation and maintenance activities and products; encourage local agencies to do the same.

Policy 5.3 | Comply with the "routine accommodation" requirements of the Metropolitan Transportation Commission concerning the evaluation of needs for pedestrian and bicycle facilities, and assist local implementing agencies in meeting their responsibilities.

Policy 5.4 | Require that roadway projects funded by the Authority incorporate "complete streets" principles as appropriate so that they provide safe and convenient access to bicyclists and pedestrians, among other users.

Policy 5.5 | For transportation projects funded by the Authority that result in the removal or degradation of pedestrian or bicycle facilities, provide at least equally safe and convenient alternatives.

Policy 5.6 | For transportation projects funded by the Authority, provide temporary accommodations for pedestrians and bicyclists during construction activities.

[3] The U.S. Department of Transportation's policy statement on routine accommodation (see page 30) considers "the cost of establishing bikeways or walkways [to] be excessively disproportionate to the need or probable use" if it exceeds 20 percent of the cost of the larger transportation project.

5 | Pedestrian Facilities

The number of people in Contra Costa for whom walking is the main form of transportation is currently very small. At the same time, lack of organized advocacy for pedestrians—except for and among special-need populations such as schoolchildren, seniors and the disabled—means that walking is often underappreciated. The importance of providing facilities for walking, however, should not be diminished. We are all pedestrians for at least part of all trips, whether that is walking through a parking lot or to a transit station or strolling in a downtown or in a park. This chapter begins with an overview of pedestrian facilities in Contra Costa; describes the types of pedestrian areas that the Authority will prioritize for purposes of funding; provides a primer on the planning of pedestrian facilities; discusses the main types of facilities that local jurisdictions can implement; and offers resources for local agencies on the planning and design of pedestrian facilities.

Overview of Facilities in Contra Costa

In most communities in the country, the character and extent of pedestrian facilities available in an area usually reflects the time period in which the area was developed. In Contra Costa, the oldest European settlements tend to be around the downtowns of the bay ports established in the second half of the 19th century: Richmond, Pinole, Hercules, Martinez, Pittsburg and Antioch. As mentioned in chapter 2, "Existing Conditions," these communities feature many of the critical ingredients of a pedestrian-friendly environment. Built according to the urban forms of that era, they tend to feature short blocks on a grid, higher-density development, a mix of uses and activities, visually diverse and interesting streetscapes, slower vehicle speeds, frequent crosswalks and sidewalks on almost every block. The same is true for those areas developed during the heyday of the electric trolley, up to the 1940s; these include parts of El Cerrito, Richmond, San Pablo and the downtowns in cities such as Concord and Walnut Creek.

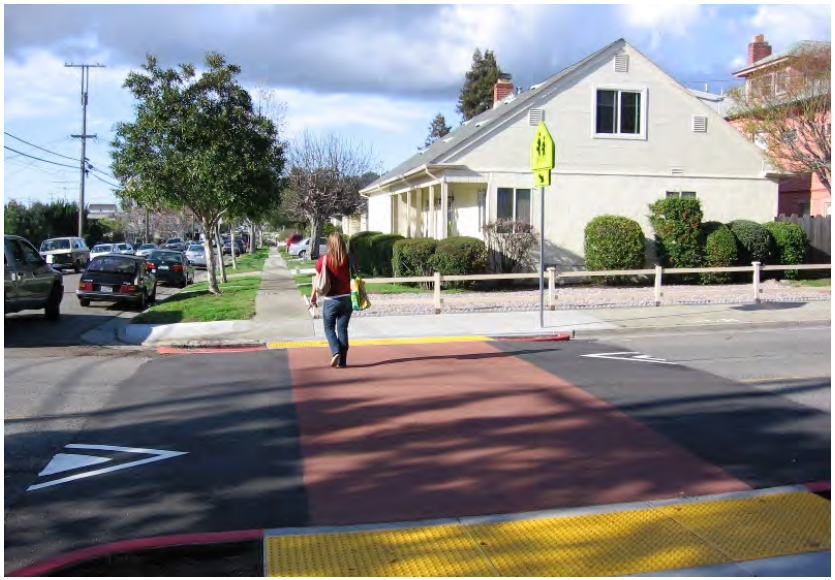
The design of areas developed after World War II increasingly assumed the private automobile as the primary method of travel and an increasingly smaller role for walking and transit. In addition, parts of some of the older districts have been "retrofitted" to facilitate car tra-

vel. These newer and retrofitted areas are marked by low-density development and segregated land uses. These characteristics are perhaps the strongest detractors to walking, as they increase greatly the distances among destinations and activities. A notable exception is downtown Walnut Creek, which with its pedestrian-oriented design, "park once and walk" design, has become a significant regional draw for shoppers and other visitors.

Residential neighborhoods in these areas feature discontinuous and circuitous street networks, good for discouraging vehicular traffic but inconvenient for walking for reasons other than exercise. Some neighborhoods were intentionally developed without sidewalks to keep costs down, maximize lot size or attempt to preserve a rural or semi-rural atmosphere. Even when they feature sidewalks, these neighborhoods tend to lack pedestrian connections to adjoining areas and are sometimes even separated by walls or fences. Instead, neighborhoods are connected to each other by wide, heavily trafficked arterial streets, which are uncomfortable for pedestrians, especially seniors, to cross. On these arterials, sidewalks are sometimes discontinuous or built immediately next to the roadway (with no separation from high-speed traffic); in some cases, there are no sidewalks or shoulders. Commercial developments along these arterials are designed more for the car than the pedestrian. They are set back far from the street and separated from each other by large parking areas.

Retrofitting post-WWII streets and neighborhoods to accommodate pedestrians is a major challenge to improving walkability in Contra Costa, as in much of the country. Nonetheless, as mentioned in chapter 2, "Existing Conditions," local jurisdictions are encouraging more traditional development patterns, recognizing their potential to create environments that are more attractive for pedestrians.

Contra Costa is also blessed with a large number of multi-use trail segments, which serve both transportation and recreation functions. The trail systems in Contra Costa are shown on the countywide bicycle network maps and described in Chapter 6, "Bicycle Improvements," but include the San Francisco Bay, Ridge, Ohlone, Iron Horse, Delta de Anza, Lafayette-Moraga, Mokelumne Aqueduct, Marsh Creek and Big Break trails.



Priority Locations

The Authority does not plan, design or build pedestrian facilities; these are roles of the local jurisdictions. Instead, the Authority's roles are to serve as a clearinghouse on information and resources, to coordinate multi-jurisdictional planning and, more importantly, to provide funding to local jurisdictions for the implementation of facilities.

Unfortunately, funding for pedestrian facilities, as for other transportation improvements, is limited and cannot satisfy more than a fraction of local needs. Most of the Authority's funding sources and grant cycles see intense competition among worthy projects, not to mention among jurisdictions. To prioritize its investments, the Authority has decided to give priority under its funding sources for capital pedestrian projects to proposed projects in three types of priority locations:

- Pedestrian-oriented districts
- Routes to transit
- Routes to other key activity centers.

These priority locations are defined in more detail below. Chapter 9, "Implementation," describes in more detail the process that the Authority will use to prioritize pedestrian and bicycle projects for funding. Pedestrian priority location should be an especially important prioritization criterion but is not the only one; other criteria will be safety concerns, expected demand, complexity, cost-effectiveness and public support.

This prioritization focus on defined areas and access to destinations reflects the fact that pedestrians have a much more limited access and mobility range than other transportation users. Unlike bicyclists and drivers, who use streets and trails to travel between cities throughout the county, pedestrians do not typically travel long distances. Walking does not rely on a countywide network of facilities but instead is clustered in small, local, accessible nodes and short, direct access routes. Pedestrians, however, are able to expand their access range greatly by walking to transit. The pedestrian priority locations follow from this definition of walking.

Pedestrian-oriented districts

Pedestrian-oriented districts are areas where walking receives relatively high priority and importance, either by practice or policy. Such areas exhibit a range of land use, urban form, development and transportation characteristics that welcome and encourage walking. Generally, pedestrian-oriented districts tend to have:

- A well-connected street network with sidewalks and slower motor-vehicle speeds
- A moderate-to-high-density mix of residential, commercial and civic uses
- Buildings close to the street and to each other, forming a continuous or nearly continuous "street wall"
- Frequent, well-marked and visible crosswalks, and traffic signals that provide adequate crossing time and frequent crossing phases for pedestrians
- Retail and other active uses occupying the ground floor of buildings, with building entrances fronting the street rather than a parking lot
- Building facades with visually interesting architectural details
- Lively and animated streetscape, with street trees, sidewalk seating, decorative street lamps and other amenities
- Few auto-oriented uses such as drive-throughs and car dealerships, and most parking provided in the form of on-street spaces, garages or surface lots in the rear of sites
- Frequent transit service and convenient transit connections
- Bicycle lanes, parking racks and other facilities for bicyclists

Hercules Waterfront District

The city of Hercules is refashioning its formerly industrial waterfront into a walkable, mixed-use, neo-traditional neighborhood to serve as the downtown for the city. At build-out, the 167-acre site could include up to 1,224 residential units, 42,000 sq. ft. of retail space, 81,000 sq. ft. of office space and 134,000 sq. ft. of flexible space, its uses dictated by market demands.

Development of the site is being guided by the *Waterfront District Master Plan*, adopted in 2000, which defines the permitted land uses, types of buildings and architectural character for each of five sub-districts. Planning efforts have focused on implementing "new urbanist" and "smart growth" principles—including a mix of land uses, narrow streets in a grid and short blocks—to create a pedestrian-oriented community. The district will include open space areas, trails, a pedestrian bridge over railroad tracks to Hercules Point and an inter-modal transit station featuring a ferry terminal, a new rail stop for Amtrak's Capitol Corridor service and a bus stop.

- www.ci.hercules.ca.us/index.aspx?page=235
- www.ci.hercules.ca.us/index.aspx?page=229

For the Authority's purpose of prioritizing funding using the pedestrian-oriented district criterion, a proposed project must be located in an area in Contra Costa defined in a general plan or specific plan as a downtown, central business district or other location where walking is explicitly promoted through meaningful supportive land use policies. Using this definition, all or almost all jurisdictions in Contra Costa have identified pedestrian-oriented districts. Appendix B summarizes the planning policies and efforts of every local jurisdiction in Contra Costa to identify priority-oriented districts within their jurisdiction.

Routes to transit

The ability to reach public transit on foot is essential for pedestrians because, by walking to buses and trains, they can travel far beyond their normal range. Improving walking access to transit can also increase transit ridership, another worthwhile objective that would reinforce the Authority's investment. For the Authority's purpose of prioritizing funding using this criterion, a proposed pedestrian facility must be oriented to facilitate access to and be located within one-half mile—the maximum distance that people are generally willing to walk—of one of the following:

- A stop in Contra Costa serving a WestCAT, Tri-Delta Transit, County Connection, AC Transit, Golden Gate Transit or school bus route.

- The Amtrak station in Antioch/Pittsburg, the Capitol Corridor station in Richmond or Martinez, or the planned Capitol Corridor station in Hercules (provided it is under development).
- The El Cerrito Plaza, El Cerrito del Norte, Richmond, Orinda, Lafayette, Walnut Creek, Pleasant Hill, Concord, North Concord/Martinez or Pittsburg/BayPoint BART station, or one of the two planned eBART stations, at Railroad Avenue in Pittsburg and east of Hillcrest Avenue in Antioch.
- One of the planned ferry terminals in Richmond, Hercules or Antioch/Martinez (provided it is under development).

Routes to other activity centers

Every community has special attractions, popular destinations and activity centers. Safe, useful, convenient and pleasant pedestrian facilities to, near and around these destinations encourages people to walk to them more often and makes them safer and more inviting places. Such facilities also benefit drivers, cyclists and transit riders once they reached the destination.

For the Authority's purpose of prioritizing funding using this criterion, a proposed pedestrian facility must be oriented to facilitate access to and be located within one-half mile of one of the activity centers listed below:

- Significant employment, shopping or commercial center
- School
- Significant public venue, including libraries, community centers, cultural centers, sports facilities, and regional, state and federal government offices serving the walk-in public
- City, countywide or regional trail system
- City, county, regional or state park

The determination of what constitutes a "significant" activity center will need to be made on a case-by-case basis by reviewers of projects submitted for funding consideration. Projects closer to the activity center would receive greater consideration.

PLANNING FOR PEDESTRIANS

While this chapter is dedicated to facilities for pedestrians, improved facilities are necessary but not sufficient for walkability. Possibly more important are land use and development patterns, since pedestrians are much more sensitive to distances and the quality of the environment through which they travel than other transportation users. The Measure J Growth Management Program recognizes this by requiring local jurisdictions to adopt policies and standards for the design of new developments that are pedestrian- and bicycle-friendly. Chapter 8, "Other Tools for Local Agencies," references resources on the planning and design of developments that support nonmotorized transportation while Appendix B summarizes policies, guidelines and standards used by the County and each of the 19 cities and towns to address walking and bicycling concerns as part of the review process for development projects. (For each jurisdiction, Appendix B also summarizes pedestrian planning efforts and any areas where local policy explicitly encourages and prioritizes walking.)

To move about safely and comfortably, pedestrians need well-designed and maintained walkways and crosswalks that provide access to jobs, homes, shopping, schools, transit stations, parks and other common destinations. Walkways should be sufficiently wide, free of obstructions and buffered from fast-moving traffic. Crosswalks should be well-marked and visible, particularly to motorists. Crossing distances should not be unduly long and the timing and phasing of traffic signals should allow adequate crossing time for pedestrians. Intersections should have curb ramps on all corners. Street-

lights might be needed in some locations to improve nighttime safety and visibility.

Wheelchair users and other persons with disabilities are particularly sensitive to conditions of the public right-of-way. This is recognized by Title II of the Americans with Disabilities Act (ADA) of 1990 and Section 504 of the Rehabilitation Act of 1973, landmark pieces of legislation that require that public facilities be accessible to persons with disabilities. Court decisions have ruled that this protection extends to walkways. As one result, cities, counties and other government agencies now routinely include curb ramps in all new sidewalk construction and have undertaken programs to retrofit existing sidewalks that do not have curb ramps.

Accommodating people with disabilities should be a primary objective of any newly planned pedestrian facility. Facilities that accommodate the disabled improve the walking experience for all. Curb ramps, for example, are helpful to parents with strollers, delivery persons pushing carts and children on bicycles. Wide walkways allow people to stroll side-by-side and to pass others. Smooth surfaces reduce the risk of people tripping, a hazard particularly for seniors. Chapter 8, "Other Tools for Local Agencies," contains a section on ADA design guidelines for public right-of-ways, including references for specific guidance resources.

Walkinginfo.org

Walkinginfo.org is a website of the Pedestrian and Bicycle Information Center (PBIC), a national clearinghouse for information about walking and bicycling. The website has an extensive section on the design, engineering, operation and maintenance of pedestrian facilities, organized into 11 subsections: roadway and pedestrian facility design, trails, street crossings, traffic calming, traffic management, on-street parking enhancements, school zone improvements, designing for special pedestrian populations, intelligent transportation system (ITS) technologies, examples and case studies, and resources and research.

- **Walkinginfo.org section on design of pedestrian facilities:** www.walkinginfo.org/engineering

FHWA manual on pedestrian planning

This wide-ranging manual from the Federal Highway Administration (FHWA) covers most aspects of pedestrian planning. Chapter 1 provides tools to identify problems with walking conditions while Chapter 2 discusses ways to build support for pedestrian improvements, including case studies from around the country. The manual outlines solutions to problems using the "four E's" (engineering, education, enforcement and encouragement) in chapter 3, and answers frequently asked questions about pedestrian planning and lists additional sources of information (chapter 4). The last section (chapter 5)

is a collection of fact sheets, checklists and other "resources sheets" on various pedestrian planning topics.

- **A Resident's Guide to Creating Safe and Walkable Communities:** safety.fhwa.dot.gov/ped_bike/ped/ped_walkguide

Sample pedestrian plans

Because of its countywide scope, the CBPP is not meant to identify specific pedestrian problem locations and improvements. For this, local agencies will need to develop their own, detailed pedestrian master plans. While pedestrian planning is a relatively young discipline, there is a growing list of pedestrian plans prepared by other jurisdictions that local agencies in Contra Costa can use as examples. The following webpage lists pedestrian plans from around the country that are generally recognized as exemplary in the profession, including a dozen prepared at the municipal level by cities of various sizes.

- **Sample pedestrian plans, from walkinginfo.org:** www.walkinginfo.org/develop/sample-plans.cfm

Template for a pedestrian plan

The North Carolina Department of Transportation has prepared an extensive template for the organization and content of a local pedestrian or bicycle plan, covering all issues that could be expected to be addressed in such a plan. The department developed the template to help municipalities meet certain state requirements. Because it is general in nature, however, it is appropriate for use by local agencies in Contra Costa.

- **Template for Bicycle and Pedestrian Plans:** www.itre.ncsu.edu/PTG/BikePed/NCDOT/documents/2007documents/07FullTemplate.pdf

Pedestrian audits

Pedestrian audits are tools, often in the form of checklists, used to examine and evaluate the quality of the walking environment. The general objectives of a pedestrian audit are to identify needs and concerns related to pedestrian safety, access, comfort and convenience and, ideally, suggest potential solutions. Audits may focus on a specific geographic area, particular route or type of facility (for example, walkways, crosswalks, intersections, bus stops or school zones). Also, they may be either formal—conducted by a multidisciplinary team of trained professionals following a standardized set of procedures—or informal. Below are references to various types of pedestrian audits.

- **PedSafe Pedestrian Audit:** www.pedbiketrans.asn.au/rframset.html

  Walkability Checklist: How Walkable is your Community?: drusilla.hsrc.unc.edu/cms/downloads/walkabilitychecklist.pdf

  Walking and Bicycling Suitability Assessment (WABSA): www.unc.edu/~jemery/WABSA/history.htm

  Path Environment Audit Tool (PEAT)" (for trails and paths): www.activelivingresearch.org/node/10652

  Analytic Audit Tool and Checklist Audit Tool for walkable and bikeable environments: www.activelivingresearch.org/node/10616

Pedestrian districts in the Bay Area

MTC commissioned the "Pedestrian Districts Study" in 2006 to encourage and improve pedestrian planning in the Bay Area. The goal of the study is to explore the use of pedestrian districts as a concept for creating better pedestrian environments in the region. Through the development of the pedestrian district typologies and real-life case studies, the study identifies the types and costs of pedestrian facilities that have the greatest impact on improving the pedestrian environment.

▶ **MTC's Pedestrian Districts Study:**
www.mtc.ca.gov/planning/bicyclespedestrians/Ped_Districts/index.htm

Tucson sidewalk inventory

The Pima Association of Governments conducted a detailed assessment of sidewalk connectivity and accessibility along the major roads in the Tucson (AZ) region. The key objectives were to identify the gaps and barriers in the sidewalk network and to determine sidewalks that do not meet ADA standards. Based on the inventory results, the Association created a GIS-based map and database of sidewalk segments, which now serve as tools for the development, prioritization and programming of sidewalk improvements within the region. While this inventory was conducted at the regional level, the approach is one that can be applied at the local level.

▶ **Tucson Region Sidewalk Inventory Project:**
www.pagnet.org/documents/Pedestrian/SidewalkInventory2005.pdf

Designing Pedestrian Facilities

Through a pedestrian planning process, local jurisdictions can identify the needs and concerns of pedestrians in their community. Some needs can be addressed through non-capital projects, namely education, encouragement and enforcement programs. These are addressed in Chapter 7, "Support Programs." Some needs, however, are best addressed through engineering solutions, by installing or improving facilities for pedestrians. The main types of pedestrian-oriented capital projects that municipalities should consider implementing are:

- **Walkways:** These are the basic element of the pedestrian network. Sidewalks, trails and other types of walkways should, at a minimum, have a clear path wide enough to accommodate the widest wheelchair or baby stroller; in busier areas, they should be wide enough to allow people to walk side by side and to pass other pedestrians and wheelchair users. Sidewalks along arterial streets should, ideally, have a landscaped strip to serve as a buffer from fast-moving traffic and to enhance the aesthetics of the corridor. Driveways across walkways should be minimized and should be made safer through the use of adequate sight distances, signage, "speed tables" where appropriate (these raise the driveway to the level of the sidewalk) and other methods; in older, pedestrian-friendly districts, new development provides opportunities to group driveways, particularly on arterials.

- **Curb ramps:** These are essential for disabled access and should be part of every new sidewalk installation at street crossings. Crossings that lack curb ramps should be retrofitted as part of a comprehensive municipal program to bring public facilities into compliance with the American with Disabilities Act (ADA).

- **Safer intersections:** The design of intersections is critical since this is where most traffic collisions involving pedestrians occur. At a minimum, intersections should feature clearly marked crosswalks that are highly visible to motorists. Intersections can also be made safer through the use of speed tables, or by reducing the crossing distance through the use pedestrian refuge islands and curb ex-

tensions. Relatively inexpensive safety interventions include signs, signals or lights to warn motorists of the presence of crossing pedestrians; removing sight obstructions, such as parked cars, signs and overgrown landscaping; longer, more frequent and automatic (rather than pedestrian-activated) traffic-signal crossing phases; and audible pedestrian countdown signals.

- **Traffic calming:** Traffic calming is meant to improve conditions for pedestrians and bicyclists, especially in residential areas, by reducing traffic speeds and volumes. There are many different types of traffic calming devices and measures, geared toward various needs and applications. Common ones include: traffic circles or roundabouts, mid-block and intersection bulb-outs or curb extensions, traffic diverters, raised crosswalks (also known as speed tables), visual street-narrowing techniques and the strategic timing of traffic lights. Traffic calming measures should be implemented district-wide rather than in isolation and—in the case of sidewalk bulb-outs, for example—should not interfere with bicycle travel.

- **Direct connections:** As mentioned earlier in this chapter, much post-World War II development segregates land uses, has limited access points and is often separated by walls, freeways and other barriers from other development. Providing direct pedestrian connections by way of cut-throughs, over- or undercrossings and other shortcuts makes walking (and bicycling) more convenient and, in some cases, even viable.

- **Streetscape improvements:** In downtowns and other areas with higher pedestrian activity, a higher level of attention should be paid to the pedestrian environment. Potential streetscape improvements include street trees and other landscaping, special paving for sidewalks and crosswalks, public art, benches, trash receptacles and bus shelters. Pedestrian-oriented streetlights are especially important, not only to provide comfort and convenience but also to increase traffic safety and pedestrians' sense of personal security with respect to real or perceived crime hazards.

The rest of this section provides references to guidelines for the design of these and other pedestrian facilities. Chapter 8, "Other Tools for Local Agencies," contains two additional design-related resources: MTC's checklist and accompanying guidance document for accommodating pedestrians and bicyclists in the planning and design of broader capital transportation projects; and a section on design guidelines for ADA-compliant public right-of-ways. The guideline resources referenced below extend beyond minimum ADA requirements to promote pedestrian facilities that are not only accessible but also safe, convenient and attractive.

PEDSAFE

In 2002, the FHWA published the "Pedestrian Facilities User Guide—Providing Safety and Mobility." It describes guidelines and estimates costs for nearly 50 engineering countermeasures or treatments to improve pedestrian safety. It also includes two matrices that related the treatments to specific performance objectives and types of collisions. PEDSAFE updates and translates this information into interactive matrices and an online "Selection Tool" that allows users to identify the most appropriate treatments for a given safety problem and site characteristics. The website also includes a page on "Recommended Guidelines/Priorities for Sidewalks and Walkways" and safety case

studies organized by geographic location and type of countermeasure.

- **PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System:** www.walkinginfo.org/pedsafe/index.cfm

- **Recommended Guidelines/Priorities for Sidewalks and Walkways:** www.walkinginfo.org/pedsafe/moreinfo_sidewalks.cfm

Portland (OR) pedestrian design guidelines

The City of Portland developed guidelines and standards for pedestrian-oriented design through a consensus-building process involving all the city programs and agencies responsible for the form and function of the public right-of-way. The manual, which begins by establishing a set of overarching principles of good pedestrian design (p 3), is divided into four main sections, covering guidelines and standards for sidewalks (section A), street corners (B), crosswalks (C) and pathways and stairs (D), plus an appendix on construction materials. The manual is extensive, with detailed numerical standards and clarifying tables and illustrations. It includes an index for easy reference.

- **Portland Pedestrian Design Guide:** www.portlandonline.com/Transportation/index.cfm?c=34955

Seattle right-of-way manual

The key chapters of Seattle's "Right-of-Way Improvements Manual" are chapter 4, which provides technical information and design criteria for specific elements of the street right-of-way, and chapter 6, which defines streetscape design guidelines. The website for the manual features an illustration with clickable text links of a typical streetscape scene which allows users to access information on design guidelines and criteria quickly.

- **City of Seattle Right-of-Way Improvement Manual:** www.seattle.gov/transportation/rowmanual/manual

Sacramento County pedestrian design guidelines

The key chapters of the county of Sacramento's "Pedestrian Design Guidelines" cover the following topics, among many others:

- Chapter 2, "Pedestrian Characteristics:" travel characteristics, characteristics at different ages and types of pedestrians by impairment.
- Chapter 3, "Street Design:" vehicle speeds, intersection design, sight distance and on-street parking restrictions, lighting, access on freeways.
- Chapter 4, "Sidewalk Location and Design:" installation policies, width, curbs, buffers, grades and cross slopes, surface treatments, meandering sidewalks and accommodations at transit stops and in rural areas.

- Chapter 5, "Intersection Design:" crossing distances, corner radii, curb extensions, crossing islands and crosswalks.
- Chapter 6, "Midblock Crossings:" decision tree for vetting candidate locations and design treatments depending on a street's traffic volumes and speeds.
- Chapter 7, "Special Intersection Crossing Situations:" dual left-turn lanes, separate right-turn lanes, roundabouts and traffic circles, driveways and grade-separated crossings.
- Chapter 8, "Pedestrian Signals and Signs:" signals, warning signs and signal phasing and timing.

▶ **Sacramento County Pedestrian Design Guidelines:** www.sacdot.com/projects/ADA%20and%20Pedestrian%20Projects/documents/Final%20Pedestrian%20Design%20Guidelines.pdf

City of Sacramento crossing guidelines

Sacramento's "Pedestrian Safety Guidelines" manual is intended to "provide residents, staff, safety advocates, developers, and consultants information on the current best practices to enhance pedestrian safety for existing areas as well as new developments." The key chapter is the second one, which is dedicated to crossings, and covers controlled approaches, uncontrolled intersections, mid-block crossings, trail crossings and "compact intersections."

▶ **City of Sacramento's Pedestrian Safety Guidelines:** www.cityofsacramento.org/dsd/development-engineering/documents/ped_safety.pdf

Guidelines for crossing treatments

In 2006, the Transit Cooperative Research Program and the National Cooperative Highway Research Program jointly published a report entitled "Improving Pedestrian Safety at Unsignalized Crossings." Appendix A, "Guidelines for Pedestrian Crossing Treatments," beginning on page 65, provides guidelines and recommendations on pedestrian crossing treatments at unsignalized intersections. It includes a flowchart, tables, calculations and worksheets for selecting the appropriate treatment(s) depending on the particulars of an intersection. Also, it includes examples and descriptions of sample treatments.

▶ **Improving Pedestrian Safety at Unsignalized Crossings:** onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_562.pdf

Stockton traffic calming guidelines

The city of Stockton's manual on traffic calming includes chapters on selecting neighborhoods for participating in the city's neighborhood traffic management program (chapter 2), identifying traffic calming devices appropriate for particular streets and neighborhoods (chapter 3) and implementing neighborhood traffic management measures as part of the review process for new developments. The manual also includes a "toolbox" describing in detail a variety of traffic calming measures (chapter 4), design considerations in the installation of traffic calming devices (chapter 5) and a list of references (chapter 6). Appendix A provides detailed design guidelines for individual traffic calming devices.

▶ **City of Stockton Traffic Calming Guidelines:** www.stocktongov.com/publicworks/publications/TrafficCalming.pdf

"Park Once and Walk" programs

Too much parking is detrimental to the formation and development of pedestrian districts yet even pedestrian districts often attract significant numbers of drivers, who all need parking. "Park Once and Walk" programs are one way to resolve this dilemma. Such programs

encourage visitors to leave their car at a lot or garage upon arrival and not use it again until they are ready to leave. Encouragement methods include strategic pricing and placement of parking, use of valet parking, free visitor shuttles and a pedestrian-friendly environment (including short distances between destinations) that encourages walking.

- **Walkinginfo.org page on "Park Once and Walk" programs:**
  www.walkinginfo.org/faqs/answer.cfm?id=3478

6 | Bicycle Facilities

WHILE BICYCLING STILL REPRESENTS a small percentage of trips made in Contra Costa, the importance of planning for bicyclists has increased greatly in recent years, reflecting a national trend. Bicycling is increasingly seen as a way to combat a number of public-policy concerns including traffic congestion, physical inactivity, air pollution and emissions of greenhouse gases. This chapter describes Contra Costa's countywide bikeway network; summarizes planning considerations for bicyclists; discusses the main types of facilities that local jurisdictions can implement; and concludes with a list of annotated online resources on the design of bicycle facilities.

Countywide Bicycle Network

Designating the network

A bikeway network, though, is a system of routes that provide a superior level of service for bicyclists than other streets and roads, in terms of safety, convenience and other aspects important to cyclists. The 2003 CBPP established a "countywide bikeway network" (CBN), consisting of existing and proposed facilities, both on- and off-street, that connect residential neighborhoods throughout the county with employment and shopping centers, schools, parks, transit hubs, downtowns and other key activity centers.

> Section 21200(a) of the California Vehicle Code (CVC) states that "Every person riding a bicycle upon a highway has all the rights and is subject to all the provisions applicable to the driver of a vehicle...." Also, by law, bicyclists in California are allowed on all streets and roads except on those freeways where Caltrans specifically prohibits bicycles. Bicyclists are prohibited from most freeway segments in Contra Costa with a few exceptions, including Highway 4 between Port Chicago Highway and Willow Pass Road, and Highway 24 between Camino Pablo and Fish Ranch Road. Also, the CVC prohibits local authorities from banning cyclists from public roads. Local authorities may, however, ban sidewalk cycling.

The CBN built on the efforts of local jurisdictions and advocates to propose, designate, plan and build bikeways within their community.

Local jurisdictions had already created a significant number of bikeways in Contra Costa and had included many more planned ones in various adopted bikeway, trail, general and specific plans. The 2003 CBPP estimated that there were approximately 246 miles of off-street bikeways and 230 miles of on-street ones in Contra Costa, with an additional 470 miles of planned or proposed bikeways.

The CBPP planning process applied eight criteria to select the segments that make up the CBN:

1. Existing bicycling patterns based on public input
2. Roadway conditions (speeds, volumes)
3. General connectivity and directness of route, including to transit
4. Number of destinations served (schools, parks, employment centers, transit stations and stops)
5. Topography and gradients
6. Integration into the regional system
7. Presence of reasonable alternatives for bicyclists of various skill levels
8. Collision and safety data

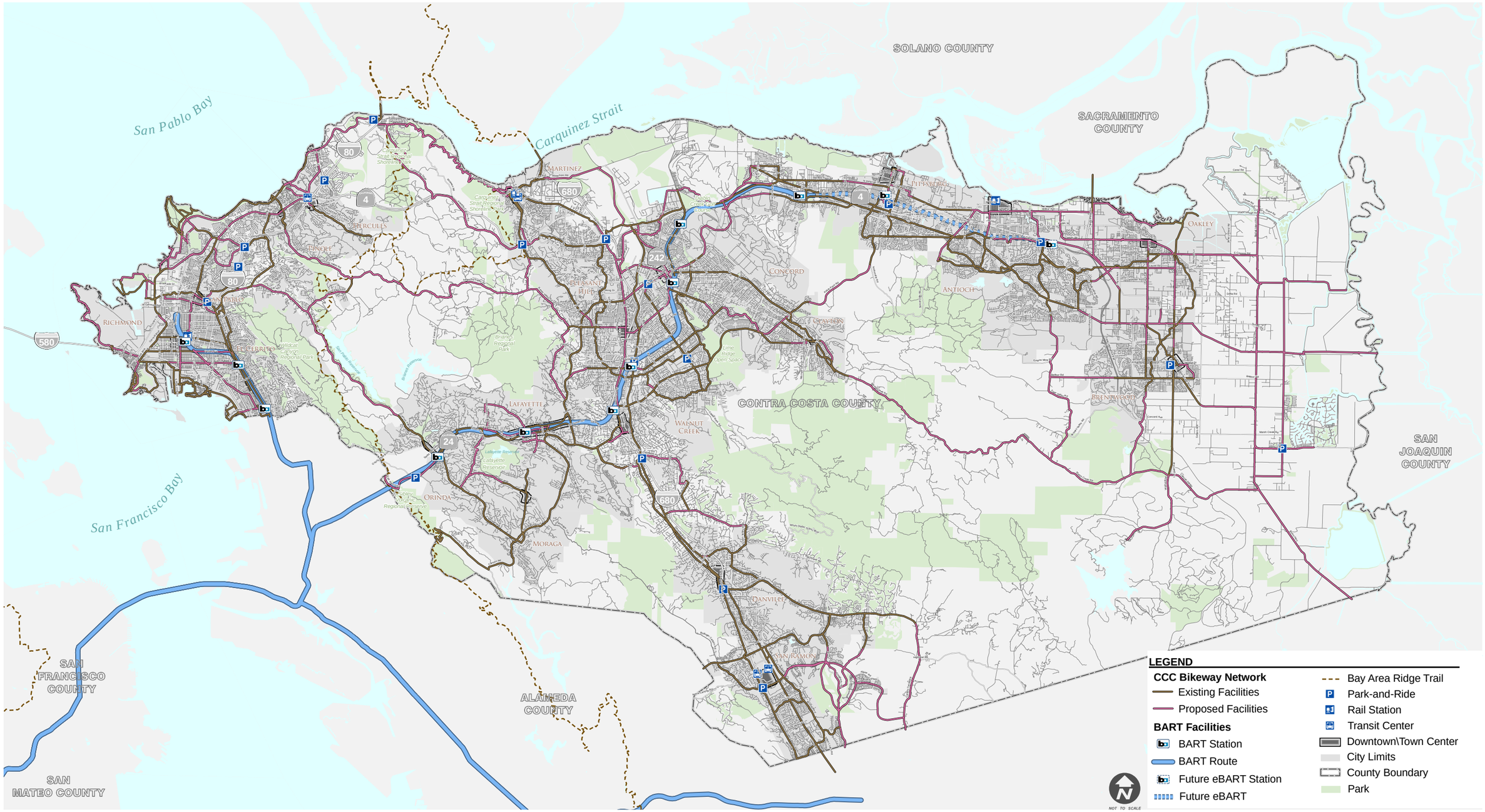
The CBN comprises the primary bikeway corridors that would connect Contra Costa cities and towns with major destinations. It is intended as the framework around which more local bikeways are integrated into a countywide system. The CBN, however, encompasses only a portion of the existing, planned or proposed bikeways in Contra Costa that the CBPP supports. Local jurisdictions and agencies have also designated other bikeways, both existing and proposed, that serve a more local travel through their own planning processes. Appendix D includes maps, by jurisdiction, of these expanded local networks.

While the CBPP gives the CBN a higher priority in the criteria for selecting projects for funding, it also recognizes that these local facilities further the purposes and goals of the CBPP. These locally designated facilities are therefore eligible for funding under Measure J and other funding sources administered by the Authority. Inclusion on the CBN is only one of the criteria that would be used to select projects for funding. A more local bikeway project could be funded instead of a project that is on the CBN if it better meets the other criteria for selection. (See Chapter 9 for these criteria.)

Network description

The maps on the following pages illustrate the proposed CBN. The network includes approximately 650 miles of bikeways, of which approximately half is existing and half is proposed. **On the maps, proposed segments do not represent specific suggested alignments,** even when they are shown on a particular street or road**. Instead, they represent corridors and general connections to link existing segments.** Many of these corridors and connections will need to overcome significant obstacles—typically, limited right-of-way on existing roads—before they can be completed. The final alignment for proposed segments will need to be determined by the local jurisdictions, working with stakeholders, and will need to be based on such factors as feasibility, complexity and cost. Final alignments may use different streets or trails than those shown on the maps. In cases where local jurisdictions consider it appropriate—for example, where trails are closed overnight—final alignments may consist of parallel facilities, with on-street facilities serving as alternatives to off-street ones and vice versa.

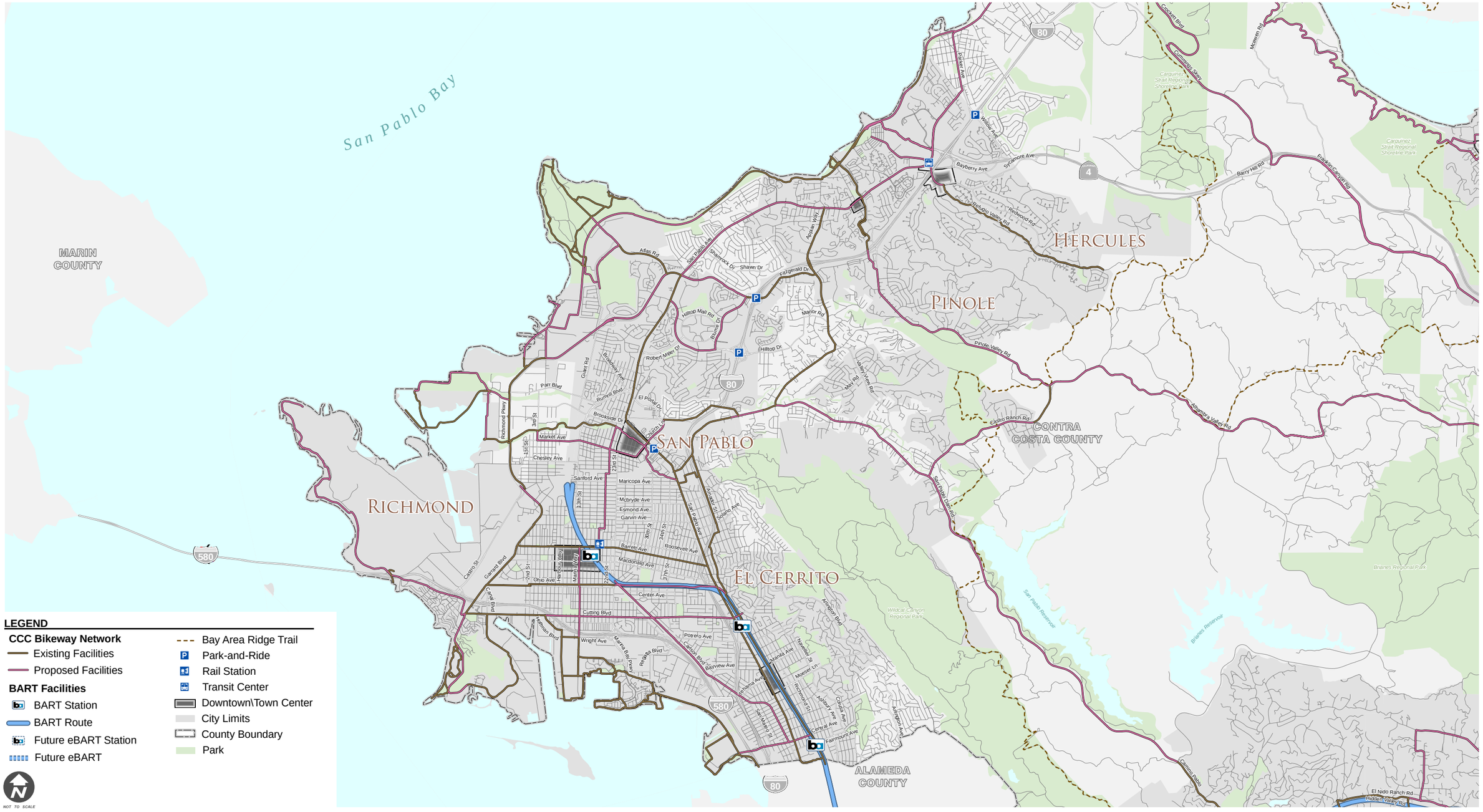
This section, along with Appendix C, addresses BTA requirement (c): "A map and description of existing and proposed bikeways."



The existing and proposed bicycle facilities on this map reflect the plans adopted by local and regional agencies within Contra Costa County.

Contra Costa Countywide Bicycle and Pedestrian Plan, 2009

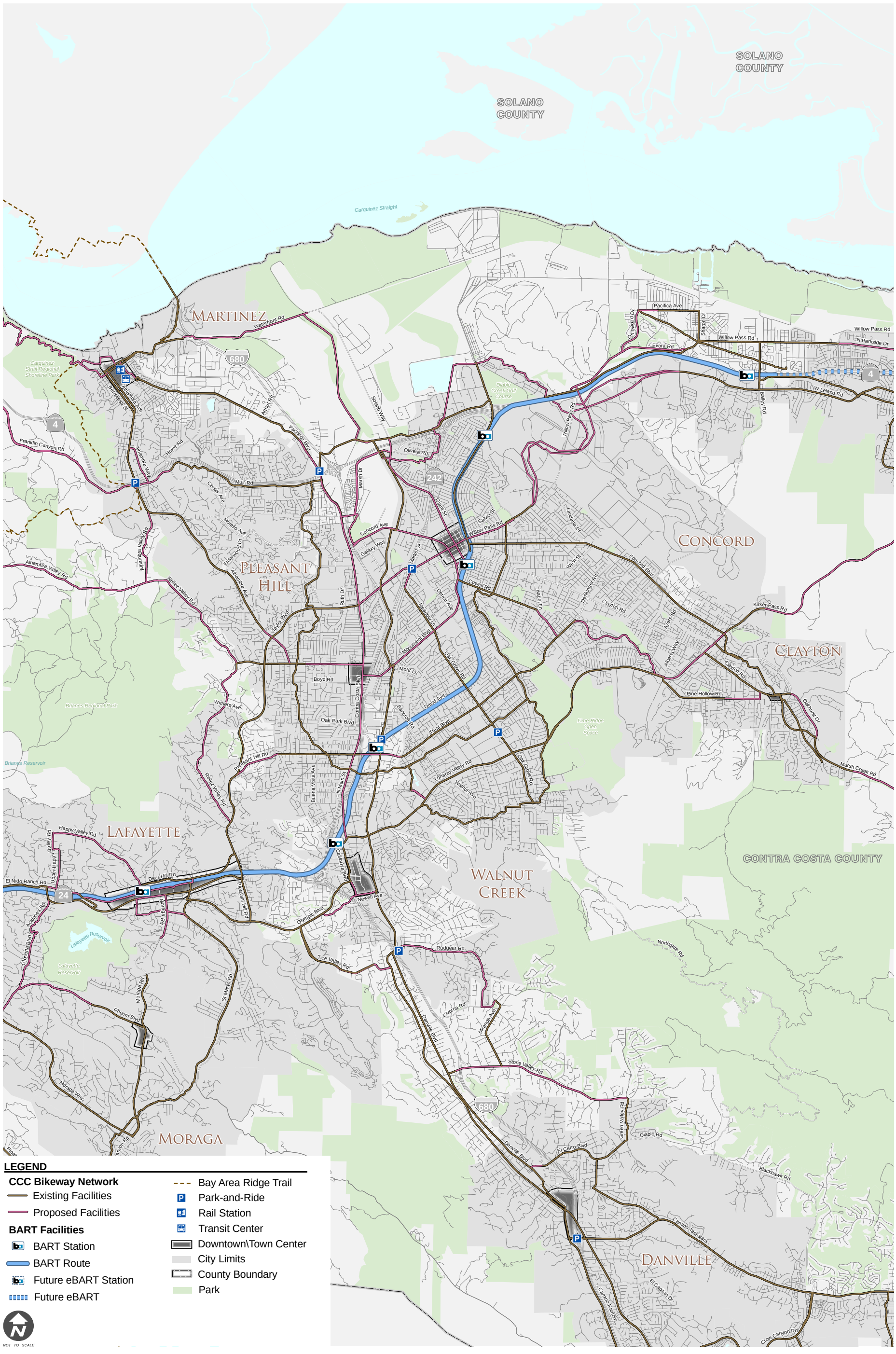
Figure 1: Countywide Bikeway Network



The existing and proposed bicycle facilities on this map reflect the plans adopted by local and regional agencies within Contra Costa County.

Contra Costa Countywide Bicycle and Pedestrian Plan, 2009

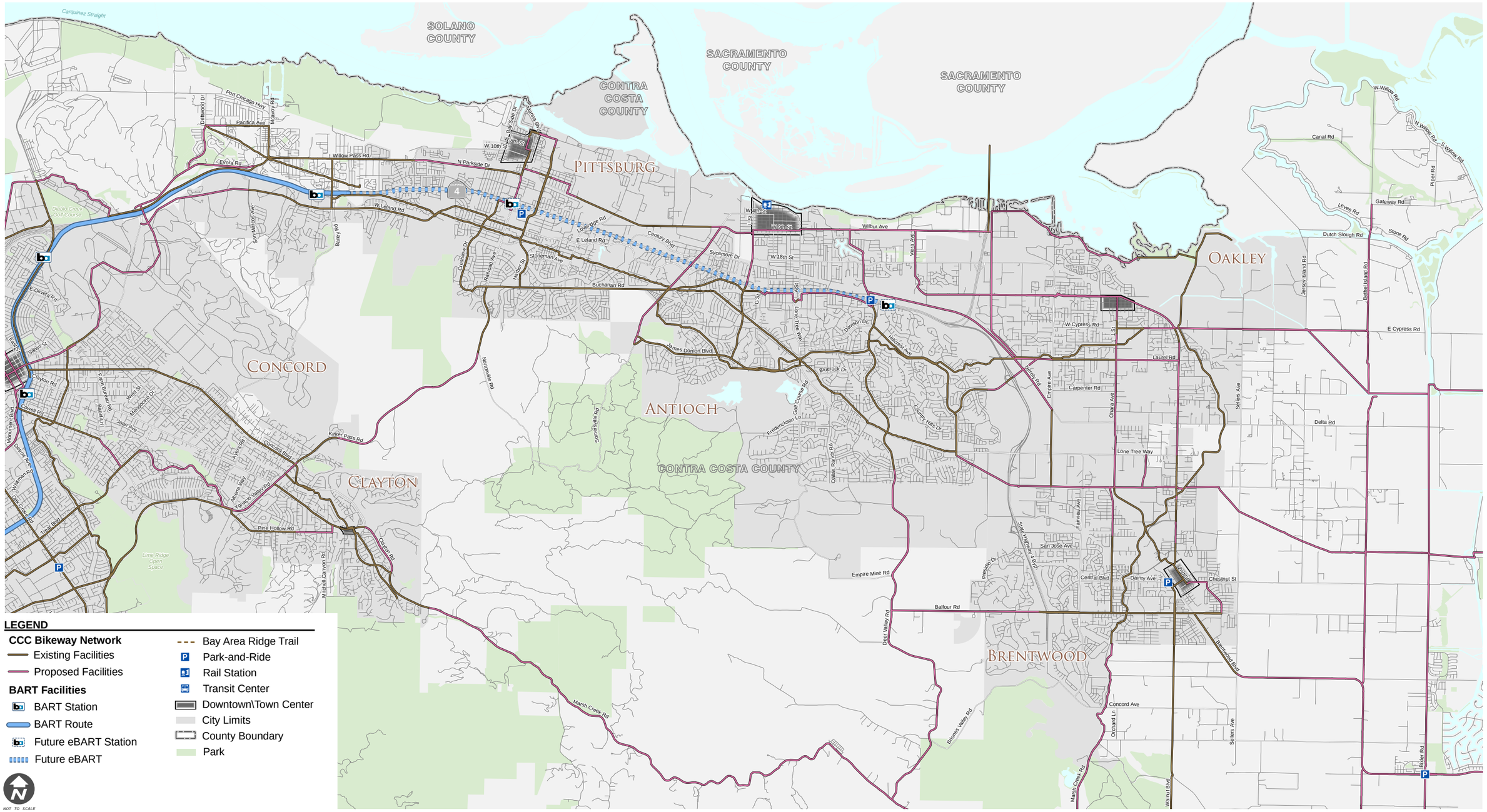
Figure 2: Countywide Bikeway Network: West County



The existing and proposed bicycle facilities on this map reflect the plans adopted by local and regional agencies within Contra Costa County.

Contra Costa Countywide Bicycle and Pedestrian Plan, 2009

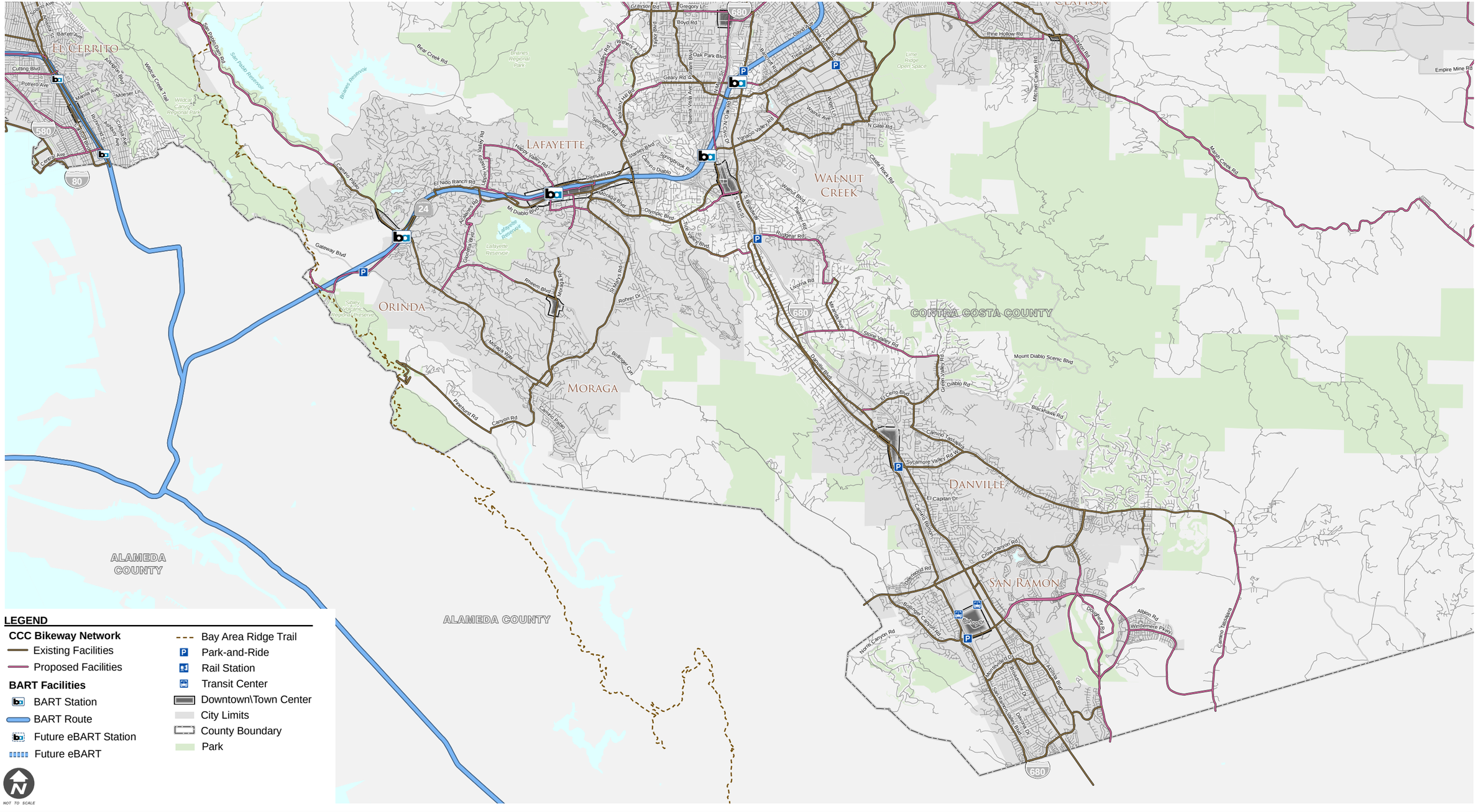
Figure 3: Countywide Bikeway Network: Central County



The existing and proposed bicycle facilities on this map reflect the plans adopted by local and regional agencies within Contra Costa County.

Contra Costa Countywide Bicycle and Pedestrian Plan, 2009

Figure 4: Countywide Bikeway Network: East County



The existing and proposed bicycle facilities on this map reflect the plans adopted by local and regional agencies within Contra Costa County.

Contra Costa Countywide Bicycle and Pedestrian Plan, 2009

Figure 5: Countywide Bikeway Network: Southwest County

The CBN consists of the following "building blocks:"

- **The Bay Trail** is a planned bicycle and pedestrian corridor connecting all nine Bay Area counties along the shoreline of San Francisco and San Pablo bays, using on- and off-street facilities. The Bay Trail alignment traverses most of the cities in West County and many of the unincorporated areas, including Richmond, San Pablo, Pinole, Hercules, Rodeo and Crockett, as well as Martinez. Some segments of the Bay Trail have already been built in Contra Costa, including around the Richmond Inner Harbor, in Point Pinole Regional Shoreline and in Carquinez Strait Regional Shoreline.

- **San Pablo Avenue corridor:** This is the only major north-south corridor connecting all the major activity centers and urbanized areas in West County (El Cerrito, Richmond, San Pablo, El Sobrante, Pinole, Hercules, Rodeo and Crockett). Significant improvements are necessary before it can become an attractive bicycling corridor. No other roadway in West County offers the same level of access and connectivity as San Pablo Avenue. However, San Pablo is a busy arterial; installing bike lanes on it would be challenging and it is of questionable suitability even as a Class III bike route. At least one jurisdiction, El Cerrito, is pursuing pedestrian and bicycle improvements on it (such as bike racks at bus stops and on each block, bike loop detectors at key intersections, maintenance of at least 4-foot shoulders at bulb outs and streetscape improvements) while improving access on parallel routes (such as Carlson Boulevard and the Ohlone Greenway).

- **West County–Central County connections:** Steep hills and narrow roads make bicycle travel between West and Central counties challenging. While cyclists may use BART and Amtrak service, and bike rack-equipped buses from County Connection and WestCAT to make this connection, the road options are unattractive to some cyclists. The CBN envisions enhancements to these corridors: Cummings Skyway/Franklin Canyon/ Highway 4, Alhambra Valley Road, San Pablo Dam Road and Carquinez Scenic Drive.

- **Central County–Alameda County connection:** On-road bicycle access from Central County and Lamorinda to Alameda County is hampered by the East Bay Hills and lack of bike access through the Caldecott Tunnel. As an alternative, cyclists may use BART—during peak times only with folding bikes—and limited "night owl" bus service to make this connection. Access between Central County and Lamorinda and within Lamorinda is reasonably good but improved facilities are needed to bridge the important gap from Lamorinda to Oakland. While bicyclists are allowed on the shoulder of Highway 24 between Camino Pablo (in Contra Costa) and Fish Ranch Road (in Alameda County), Highway 24 is a very busy, 8-lane freeway. Pinehurst Road is a popular bicycling route connecting Moraga from Skyline Blvd and Shepherd Canyon Rd (in Oakland), Canyon Rd (in Contra Costa), and Redwood Rd (in Alameda County); however, it primarily serves experienced recreational riders.

- **Central County–San Ramon Valley corridor:** The Iron Horse Trail provides off-road access through this area, connecting all the way from Alameda County to Concord. However, the very popularity of the trail encourages some bicycle commuters to use parallel streets, while many activity centers are not immediately accessible from it. To address these concerns, the CBN includes a number of on-road segments in San Ramon, Danville, Alamo, Walnut Creek, Pleasant Hill and Concord.

- **Central County connections:** Central County is the geographic heart of Contra Costa and contains its most populous city (Concord) and some of its largest employment centers. Both I-680 and State

Highway 242 carry significant volumes of vehicle traffic through this area and several major arterials carry significant vehicle traffic within it. Both I-680 and SR 242 present formidable barriers to bicycle travel across Central County and the high volumes (and high speeds) on the arterials make bicycle travel along them problematic. To improve bicycling conditions in Central County, the CBN incorporates the corridors along these major arterials including Olympic Boulevard, Mt. Diablo Boulevard, Geary Road, Main Street, Treat Boulevard, Monument Boulevard, Pleasant Hill Road, Contra Costa Boulevard, Taylor Boulevard, Ygnacio Valley Road, Concord Boulevard, Concord Avenue, Cowell Road and Turtle Creek Road, among other roadways.

- **Central–East County corridors:** Even as State Highway 4 is one of the most congested thoroughfares in Contra Costa, bicycling connections between Central and East counties remain limited. The CBN envisions improvements on Kirker Pass Road and Marsh Creek Road, among other thoroughfares, to improve east–west access.

- **Regional trails** are a key defining feature of bicycling in Contra Costa. They include both paved bicycle paths and unpaved multipurpose trails used primarily or exclusively for recreation. The paved paths make up a substantial portion of the CBN and completion of gaps in their alignment is generally a high priority for bicycling advocates and local jurisdictions. In addition to the Bay Trail (discussed above), Contra Costa boasts a number of existing trails of regional importance and several in various stages of planning:

  - The Ohlone Greenway; connects Richmond, Albany, Berkeley and Oakland, and provides access to the El Cerrito Del Norte and El Cerrito Plaza BART stations.
  - The Richmond Greenway; runs through central Richmond, parallel to Ohio Street, and is planned to connect to the Ohlone Greenway, which runs along the BART alignment from Albany to Richmond and traverses the length of El Cerrito.
  - The Iron Horse Trail; one of the premier bike trails in the country. It extends from Livermore in Alameda County to Suisun Bay, roughly paralleling I-680.
  - The Delta de Anza Trail; threads through Oakley, Antioch, Pittsburg and Bay Point, before terminating at the Iron Horse Trail in Concord.
  - The Lafayette–Moraga Regional Trail; connects these two cities and the community of Canyon.
  - The newly planned EBMUD Aqueduct multi-purpose pathway; will run through central Lafayette, parallel to the Highway 24 corridor.
  - The Contra Costa Canal Trail; links the Central County cities of Martinez, Pleasant Hill, Walnut Creek and Concord.
  - American Discovery Trail; a recreational coast-to-coast trail that runs through Antioch, to the summit of Mt. Diablo, through Walnut Creek and Briones and Tilden Parks in the East Bay Hills.
  - Marsh Creek Regional Trail; runs from Brentwood through Oakley and north to the Delta.
  - Mokelumne Aqueduct Regional Trail; planned to run through Martinez, Concord, Pittsburg, Antioch and Brentwood.
  - The planned Great California Delta Trail; will link existing and future trails around the Delta shoreline in Contra Costa to the Bay Trail and to San Joaquin, Solano, Sacramento and Yolo counties.
  - The Ridge Trail; encompasses segments of other, primarily recreational trail systems to connect the ridge tops of all nine counties in the Bay Area.

- Numerous other trail segments on property of the East Bay Regional Park District and the East Bay Municipal Utility District and administered by these agencies.

The major commute-oriented regional trails are paved, including the Iron Horse, Delta de Anza and Contra Costa Canal trails. However, some regional trail segments are unpaved and are therefore generally unsuitable for commuting. Also, some trail segments are closed late at night and early in the morning (particularly those on EBRPD and EBMUD property) or accessible only with permits.

Inter-county connections

Contra Costa bicyclists do not, of course, limit their trips within the county. Many of them bicycle to neighboring counties for work, social purposes, recreation and other reasons. To be fully functional the countywide bikeway network must connect seamlessly to bikeways in adjacent counties. Bicyclists must also have means to reach counties that are separated from Contra Costa by bodies of water. As mentioned earlier, the Bay Trail, when complete, will connect the shoreline of all nine Bay Area counties, crossing all the toll bridges in the region. Below is a description of bicycling connections between Contra Costa and its neighbors.

- **Alameda County:** There are numerous existing and proposed bikeway connections to Alameda County, including the Bay Trail and Ohlone Greenway, which link El Cerrito and Albany; EBPRD trails across the East Bay hills; the Highway 24 shoulders, from Orinda; Pinehurst Road, from Moraga; Crow Canyon Road, San Ramon Valley Boulevard and the Iron Horse Trail in the south; and Vasco Road in the east. Also, cyclists may use BART during non-peak times (or at all times with folding bikes).

- **Marin County:** Access on the Richmond–San Rafael Bridge has been a primary goal of East Bay and Marin bicycle advocates for many years and is both supported by the Bay Conservation and Development Commission and included by ABAG as a primary part of the planned Bay Trail network. This issue has been the subject of numerous petitions and discussions with Caltrans, the agency responsible for the bridge, but to this date Caltrans has not approved bicycle use of the bridge. In the meantime, bicyclists may use Golden Gate Transit's bus routes 40 and 42, which travel between San Rafael and the Richmond and El Cerrito del Norte BART stations. The bicycle racks on the buses have room for only two bikes, so access capacity between Contra Costa and Marin counties is highly constrained.

- **Sacramento County:** The Antioch Bridge crosses the San Joaquin River, linking Antioch with Sherman Island, in southwest Sacramento County. The bridge, part of State Route 160, provides access for bicyclists and pedestrians. On the Contra Costa side, access to the bridge is from Wilbur Avenue.

- **San Francisco:** Currently, bicyclists may use BART trains during non-peak times (or at any time with folding bikes) or they may use the limited number of bike racks on AC Transit's transbay bus lines (which depart variously from El Cerrito, Richmond and Kensington). Also, the east span of the Bay Bridge, connecting West Oakland to Yerba Buena Island, is being rebuilt with a bicycle and pedestrian path. If the west span is similarly retrofitted, in the future people will be able to bicycle directly into downtown San Francisco.

- **San Joaquin County:** San Joaquin County's 2002 bicycle plan does not propose bikeways extending into Contra Costa. The main reason is that the only connecting road, Highway 4, has several nar-

row bridges and no shoulders. The EBRPD, however, proposes to extend several trails to and along the county line.

- **Solano County:** Access to Solano County is across the Carquinez and Benicia–Martinez bridges. The Carquinez Bridge, which links Crockett and Vallejo, is actually two bridges. The newer span, completed in 2003, has a pedestrian and bicycle path. The Benicia–Martinez Bridge also consists of two spans. The older span is being reconfigured to include a bicycle and pedestrian path. The work is scheduled for completion in 2009.

Priorities

While the Authority does not plan, design or build bicycle facilities — these are roles of local jurisdictions and agencies — the Authority does provide funding to local jurisdictions for the constructing facilities and operating programs. In that role, the Authority intends to give priority under its funding sources for capital bicycle projects to proposed projects that fill in the general alignment of the CBN. This reflects the Authority's belief that the CBN provides countywide, rather than strictly local, benefits.

This section, along with Appendix C, addresses BTA requirement (j): "A description of the projects proposed in the plan and a listing of their priorities for implementation."

Inclusion in the CBN will be only one of several criteria for prioritizing funding. Chapter 9, "Implementation," describes in more detail the process that the Authority will use to prioritize bicycle (and pedestrian) projects for funding. Being on the CBN alignment will be an important criterion for prioritizing projects for funding but not the only one. Other criteria used to compare projects for funding will be safety concerns, expected demand, complexity, cost-effectiveness and public support. In this way, local projects addressing high-priority safety or other concerns could out-compete CBN projects for the Authority's funding.

While Contra Costa has numerous existing on- and off-street bicycle facilities, they do not yet form a cohesive, continuous network. Many segments in the proposed CBN remain unbuilt. Table 15 lists some of these gaps. For bicycle projects included in the countywide Comprehensive Transportation Project List (CTPL), the table provides their CTPL number. The CTPL is maintained by the Authority and includes transportation projects and programs being planned by all jurisdictions in the county. Table 15 also lists potential bikeway classifications—under Caltrans' classification system—for each segment.

Caltrans Bikeway Classifications

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.

Class II Bikeway (Bike Lane): Provides a striped lane for one-way bike travel on a street or highway.

Class III Bikeway (Bike Route): Provides for shared use with pedestrian or motor vehicle traffic.

Table 15 may not be comprehensive and there may be additional unbuilt segments on the CBN. Also, as mentioned earlier, the planned alignments of the CBN represent corridors and general connections to link existing segments rather than specific streets and roads. Final alignments may use different streets or trails than those shown on the

maps. They may also use different bikeway classifications than those shown on the table.

In any event, Table 15 should be considered one of only several tools for local jurisdictions planning their bikeway networks. It should also not be considered a definitive inventory of projects that the Authority intends to fund. As mentioned earlier, there are numerous bikeways that serve primarily local purposes and which are part of secondary, or local, bikeway networks designated by local jurisdictions through local planning processes (see Appendix D). While the Authority will give some priority to projects that complete the CBN, it intends to also fund these secondary facilities—both new ones as well as improvements to existing ones—provided that they are part of an adopted local or regional plan or in the adopted plan of a special agency or district.

Table 15 | **Unbuilt segments on the Countywide Bikeway Network**

Segment	*Jurisdiction(s)*	*Bikeway class*	*Length (mi.)*	*CTPL#*
West County				
San Pablo Avenue, central	Richmond, County	II / III	2.0	120
San Pablo Avenue, south	El Cerrito, Richmond	II / III	3.8	
Richmond BART connector	Richmond, San Pablo	II / III	1.7	
Richmond Greenway	Richmond	I	1.4	403
Wildcat Creek trail	Richmond, San Pablo, County, EBRPD	I	1.3	836, 613
Market / Church / El Portal	County	II/III	2.0	
Central I-80	Pinole, San Pablo, Richmond, County	II / III	3.1	248
Hilltop Mall access route	Richmond	II / III	2.0	
Alhambra-Reliez	County, Martinez	II / III	12.1	
Crockett / Martinez connector	County, Martinez	II / III	9.5	568
San Pablo Dam Road	County	II / III	7.7	208
Richmond Parkway	County, Richmond	II	3.1	404
Bay Trail, north / central	County, Hercules, Pinole, EBRPD	I	2.6	
Bay Trail, south	County, Richmond, EBRPD	I	1.4	740
West County Wastewater District Bay Trail	Richmond, EBRPD	I	0.7	
Pt. San Pablo Bay Trail	Richmond, EBRPD	I	4.8	
West Contra Costa Sanitary Landfill Bay Trail	County, Richmond, EBRPD	I	2.9	
Marina Way	Richmond	II	1.2	
Hercules Linkages	Hercules, County	II	2.2	
Parker Avenue / San Pablo Avenue - North	County	II	2.7	
Cutting Blvd.	Richmond	II	2.7	249b
Carlson Avenue	Richmond, El Cerrito	II	3.0	
Central Avenue	Richmond	II / III	1.0	

Table 15 | **Unbuilt segments on the Countywide Bikeway Network**

Segment	*Jurisdiction(s)*	*Bikeway class*	*Length (mi.)*	*CTPL#*
Central County				
Contra Costa-Main Street	Pleasant Hill, Walnut Creek	II / III	4.5	
Central Pleasant Hill	Pleasant Hill	II / III	1.6	224
Pleasant Hill BART connector	County, Pleasant Hill, Walnut Creek	II / III	1.7	
Contra Costa Canal	Concord, County, EBRPD	I/II/III	3.1	
Taylor	County, Pleasant Hill	II / III	2.5	602
Reliez Valley Road	Lafayette, County	III	3.0	
Solano-Grant	Concord	III	2.6	
Willow Pass Road	Concord	II/III	2.8	
Concord–Clayton	Clayton, Concord	II / III	4.0	
Concord–Pleasant Hill	Concord, Pleasant Hill	II / III	4.8	607
Kirker Pass Road	Concord, County	II / III	2.8	
Market–Meadow	Concord	II / III	0.4	
Iron Horse Trail, Martinez	County, Martinez, EBRPD	I	4.8	239, 295
Marsh Drive	County	II / III	2.5	
Ygnacio Valley	Concord	II / III	1.2	
Pacheco	County, Martinez	II / III	2.4	589
South Walnut Creek Linkages	Walnut Creek, County	II	3.4	
Martinez Linkages	Martinez	II	1.1	
Martinez Bay Trail	Martinez, EBRPD	I	0.8	
Delta de Anza Trail Walnut Creek Channel to Bay Point	Concord, County, EBRPD	I	6.6	564, 565
Carquinez Strait Bay Trail	County, Martinez, EBRPD	I/II/III	7.0	571

Table 15 | **Unbuilt segments on the Countywide Bikeway Network**

Segment	*Jurisdiction(s)*	*Bikeway class*	*Length (mi.)*	*CTPL#*
East County				
Antioch Hwy 4 corridor	Antioch	III	2.3	
Deer Valley	Antioch, County	II	6.5	
Balfour	Brentwood, County	II	2.4	
East Brentwood	Brentwood	II	0.9	
Brentwood–Oakley	Brentwood, Oakley	II	4.6	
East County Hwy 4	Brentwood, County	II / III	5.5	
O'Hara / Minnesota	Brentwood, Oakley	II	3.6	
Hillcrest extension	Antioch	II / III	1.1	
Mokelumne Coast-to-Crest Trail	Antioch, Brentwood, County, EBRPD, Highway 4 Bypass Authority	I	11.1	
Delta Contra Costa Canal path	County	I	7.2	
Delta de Anza Trail, Antioch–Oakley	Antioch, Oakley, EBRPD	I	0.5	
Pittsburg trunkline	Pittsburg	II / III	1.9	
Antioch trunkline	Antioch, County	II / III	4.4	
Somersville Road	Antioch	II / III	2.3	539, 540
W. Leland extension	Pittsburg	II	1.8	
Pittsburg loop	Pittsburg	II / III	1.7	11
Union Pacific Rail Trail	Brentwood, County, Antioch, Oakley, EBRPD	I	3.6	
Big Break Regional Trail	Oakley, EBRPD	I	2.6	
Marsh Creek Trail	Brentwood, County, EBRPD	I	3.2	
Byron-Bethel Island	County	II / III	10.2	
Laurel	Antioch, Oakley	II	1.9	
L Street	Antioch	II	0.8	
Evora	County	II / III	2.3	

Table 15 | **Unbuilt segments on the Countywide Bikeway Network**

Segment	*Jurisdiction(s)*	*Bikeway class*	*Length (mi.)*	*CTPL#*
Oakley trunkline	Antioch, County, Oakley	II	3.2	
Marsh Creek–Camino Diablo	County	III	13.5	
Bay Point-Pittsburg Linkages	County, Pittsburg	II	3.0	
Antioch-Oakley Linkages	Antioch, Oakley	II	5.5	
Cypress	Oakley, County	II	3.5	
Byron-Knightsen Linkages	County	I/II	23.6	
Southwest County				
Lamorinda linkages	Lafayette, Moraga, Orinda Lafayette	III	8.3	
SR 24	County, Orinda, Lafayette, WC, Caltrans	I/II/III	6.7	553
Stone Valley Road	County, Danville	II / III	2.7	551
Rudgear–Lavender	Walnut Creek	III	2.8	554
Tice Valley Road	County	I	1.0	
Carlson Avenue	Richmond, El Cerrito	II	3.0	
Dougherty Valley	County	I/II	15.7	
Camino Tassajara	County	II	3.8	
Total mileage			**317.2**	

PLANNING FOR BICYCLISTS

In some important aspects, planning considerations for bicyclists overlap with those for pedestrians. Both groups benefit from compact land use and development patterns, which reduce distances between activities and destinations and also from safe and convenient access to transit. These considerations are discussed in more detail elsewhere in the CBPP, including in Chapter 5, "Pedestrian Facilities," since such considerations are especially important for pedestrians; Chapter 8, "Other Tools for Local Agencies," which provides references for online resources on the planning and design of developments that support nonmotorized transportation; and Appendix B, which summarizes policies, guidelines and standards used by the County and each of the 19 cities and towns to address walking and bicycling concerns as part of the review process for development projects. Pedestrians and bicyclists are also the most vulnerable users of the transportation system and, unfortunately, suffer disproportionately from traffic collisions.

In other aspects, though, bicycle planning differs substantially from pedestrian planning. The travel range of bicyclists is much greater, so they are less sensitive to distance. Whereas pedestrians typically limit their walking trips to under a half-mile, most bicyclists routinely travel several miles for each trip, with some traveling more than 10 miles on a regular basis. By implication, bicyclists need facilities that extend for many miles.

Brentwood: A Bicycle-Friendly Community

The League of American Bicyclists, a national advocacy organization, sponsors a "Bicycle Friendly Communities" (BFC) program to recognize municipalities that provide safe accommodation for cycling and encourage residents to bike for transportation and recreation. The organization designates meritorious communities with platinum, gold, silver or bronze BFC status, good for four years.

In 2003 and again in 2006, the League awarded bronze-level BFC designation to the city of Brentwood. The award committee found that "From trail bridges for cyclists that include ADA-compliant slopes and are constructed with 10-foot wide concrete decks to two completed underpasses and three under construction, Brentwood has been putting bicycling first in engineering." The committee went on to note that "City training budgets include funding for Parks, Engineering, Planning and Police Department staff to take training courses to accommodate cyclists, and all Tri-Delta Transit Buses and trolleys have bike racks.... The city cleans its shoulders and bike lanes once every seven days. There are also three completed staging areas with parking, trail access, water and restroom facilities for cyclists...." Brentwood is one of only 20 communities in California to have a BFC designation and the only one in Contra Costa.

In addition to the length of bikeways, also important are the continuity, connectivity, convenience and comfort of those facilities. The usefulness of bikeways is greatly undermined by gaps, obstacles and barriers such as freeways, railroad tracks, fences, canals, narrow bridges and, most commonly, narrow roadway segments. The need to detour around these obstacles, or to put up with the dangers they present, makes bicycling much less attractive and can deter all but the

most determined riders. For this reason, the removal of barriers and closure of gaps is a high priority in most bicycle planning efforts.

Generally, paths are desirable for nonmotorized transportation in that they are physically separated from car traffic (though they can lead to conflicts between bicyclists and pedestrian or between more- and less-experienced users). However, developing new paths that connect directly to popular activity centers and destinations is challenging because in such areas land and right-of-way are almost entirely accounted for. This is why levees, canals and abandoned railroad corridors that provide convenient access are highly valued by bicycle planners.

Absent Class I facilities, bicycle lanes are a good accommodation in most cases. Bicycle lanes may be of limited use to highly experienced cyclists, who feel comfortable riding in traffic lanes, but are favored by beginner and intermediate cyclists because they provide segregated space and a demarcated path of travel that is also clearly visible to drivers. Streets may be retrofitted with bicycle lanes by narrowing existing lanes. Such retrofitting is not always feasible, however. Often, rights-of-way are insufficiently wide and removing traffic lanes to accommodate bike lanes is an option that is rarely exercised because of concerns about increased motor-vehicle congestion. Unfortunately, this is especially the case on the streets and roads that provide the most direct routes for cyclists; they generally have high traffic volumes because they tend to provide the most direct routes for drivers as well. The result is that the thoroughfares that are most convenient for bicyclists tend to also be unpleasant, intimidating and even perilous to them. Less desirable alternatives to safe, well-designed bicycle lanes are to simply use signage to mark a roadway as a bike route and to suggest that bicyclists detour to a less direct but quieter parallel route. Unfortunately, in some cases there is no acceptable parallel route.

Below are some resources on the planning of bikeway networks and facilities. Resources on the design of facilities are provided in the last section of this chapter.

Sample bicycle plans

Bicyclinginfo.org, a website of the Pedestrian and Bicycle Information Center, provides links to more than 15 sample local bicycle plans that are generally recognized as outstanding examples in the profession. The plans cover cities of various sizes and degrees of urbanization. There are also sample statewide and regional bicycle plans as well as several trail/greenway plans.

- **Sample bicycle plans webpage of bicyclinginfo.org:**
  www.bicyclinginfo.org/develop/sample-plans.cfm

Data collection

In 2005, the FHWA published "Pedestrian and Bicycle Data Collection in United States Communities," a manual for jurisdictions on methods for collecting local data on walking and bicycling. Background data helps determine, among other questions, the extent, location and quality of bicycle and pedestrian facilities; where and when pedestrian and bicycle activity and collisions take place; the effect of facilities on levels of bicycling and walking; and the demographic characteristics of nonmotorized transportation users. The manual describes a variety of methods, techniques and technologies for data collection (including the benefits, costs and limitations of each), such as bicycle and pedestrian counts, user surveys and inventories of facilities.

- **Pedestrian and Bicycle Data Collection in United States Communities** (FHWA): www.pedbikeinfo.org/pdf/casestudies/PBIC_Data_Collection_Case_Studies.pdf

Planning toolbox

The Minnesota Department of Transportation's "Bicycle and Pedestrian Toolbox" is a reference guide to assist transportation planners in developing bicycle and pedestrian networks at the community level. The manual includes chapters on identifying community values, establishing performance criteria, inventorying existing features, identifying travel corridors, selecting routes and design treatments, and evaluating the resulting system. Appendices include recommended bicycle parking standards and bikeability and walkability checklists.

- **Bicycle and Pedestrian Toolbox: Tools to develop an active transportation network:** www.dot.state.mn.us/bike/pdfs/Bicycle%20and%20Pedestrian%20Toolbox_2008_04.pdf

Best practices

The Victoria Transport Policy Institute, an advocacy and research organization on sustainable transportation, has published "Pedestrian and Bicycle Planning: A guide to best practices." The guide provides an overview of planning and design concepts; describes how to measure and predict nonmotorized travel, evaluate and prioritize projects , and implement support programs; and offers references and detailed technical appendices. The chapters in the guide make the case for planning for nonmotorized users (chapter I); give overviews of transportation planning in general (II) and nonmotorized transportation planning specifically (III); provide detailed information on planning for pedestrians (IV) and bicyclists (V); suggest safety programs (VI), encouragement and promotion programs (VII) and implementation strategies and tools (VIII); and discuss several related planning issues such as traffic management, school-trip management and planning for livable communities (IX).

- **Pedestrian and Bicycle Planning: A guide to best practices:** www.vtpi.org/nmtguide.doc

Audit tool

This "Bikeability Checklist" helps users rate the bikeability, or bicycle-friendliness, of their community by guiding them through a series of questions. The questions cover various aspects of the bicycling experience, including the existence and quality of bikeways, intersection characteristics, driver behavior, safety and ease of bicycle use. The checklist also includes near- and longer-term suggestions for improving a community's bicycling conditions.

- **Bikeability Checklist: How bikeable is your community?:** www.bicyclinginfo.org/pdf/bikabilitychecklist.pdf

Choice of bicycle facility

The Center for Transportation Studies at Portland State University sponsored a study entitled "Where Do People Bicycle?" The role of infrastructure in determining bicycling behavior." The study examines the number of miles traveled by cyclists on various types of bicycle facilities and streets, and the effect of these facilities on the behavior of bicyclists by gender and level of riding experience.

- **Where Do People Bicycle? presentation slides:** www.cts.pdx.edu/pdf/Dill%20CTS%20Friday%20Seminar%205-16-08.pdf

Level of service calculator

"Bicycle Level of Service" (BLOS) and "Bicycle Compatibility Index" (BCI) are methods to quantify the bicycle-friendliness of a street or road. The League of Illinois Bicyclists has developed an online form for calculating the BLOS and BCI of a particular roadway segment, based on inputs entered for a typical cross section. Instructions for filling out the form are also provided. BLOS and BCI evaluation may be helpful in selecting routes for a bikeway network, determining "weak links" in a network, prioritizing improvements and comparing the bike-friendliness of alternative roadways designs and treatments.

▶ **Bicycle Level of Service (BLOS) / Bicycle Compatibility Index (BCI) Calculator Form:** www.bikelib.org/roads/blos/blosform.htm

Bicycling to transit

BART's Bicycle Access and Parking Plan is a local example of a planning document examining ways to enhance the attractiveness of bicycling to access transit. The plan consists of two volumes: Volume 1 (2002) presents a system-wide approach to improving bicycle access and parking in the BART system; Volume 2, being developed in stages, will include site-specific plans for each BART station.

▶ **BART Bicycle and Access Plan (Volume I):** www.bart.gov/docs/BART_Bicycle_Access_Parking_Plan.pdf

Facility Types

Bicycle facilities are more than just bike paths and bike lanes. The toolbox of capital improvements that local jurisdictions can use to improve conditions for bicyclists is quite large—and it grows larger as jurisdictions experiment with new treatments and share best practices. Below is a list of the main types of bicycle-related capital projects that municipalities should consider implementing. Chapter 7, "Support Programs," covers bicycle parking, shower and changing facilities, and other projects and programs that fall under the categories of encouragement, education and enforcement.

- **Bike paths (Class I)** are paved facilities that are physically separated from motor-vehicle traffic. They typically provide for two-way travel. Because of the separation from traffic, paths are especially attractive to less-experienced and recreational users. Sidewalks may function as Class I routes if bicyclists are allowed to ride on them. In California local authorities may ban sidewalk bicycling and many have done so, at least in particular areas. Local authorities in Contra Costa that ban sidewalk cycling should consider allowing it on busy arterials where sidewalks are wide enough to accommodate both cyclists and pedestrians; in such cases, signs stating "Bikes May Use Sidewalk" should be placed at the beginning of the sidewalk.

- **Bike lanes (Class II)** provide a striped and stenciled lane for one-way travel on either side of a street. Bike lanes make for more predictable traffic movement by demarcating a path of travel for cyclists that is also clearly visible to drivers. While they place cyclists next to moving (and parked) cars, bike lanes have a number of advantages over bike paths: they tend to be easier and much less expensive to implement, generally provide more direct access to destinations and are not subject to curfews. Painted bicycle lanes, which delineate bicyclists' space even more clearly, are a more recent innovation.

- **Bike routes (Class III)** are on-street facilities shared by bicycles and motor vehicles that are used, generally, when bike lanes are not feasible. Bike routes offer advantages for bicyclists over other streets by virtue of having wide curb lanes, being signed, providing connectivity to other facilities and other factors. "Sharrows"

are an innovative, inexpensive and easy-to-implement way to improve bike routes that are too narrow to be shared safely by cars and bicyclists at the same time. Sharrows (from "share" and "arrows") are pavement stencils that show the proper riding placement for bicyclists and remind drivers that cyclists have a right to use the lane. They may be used on any bike route as well as on any other road on which bicycles are allowed. Also recommended for use on bike routes are "Share the Road" signs.

- **Multi-use trails:** A term with a broader meaning than bike paths, trails also typically provide for two-way traffic and are physically separated from streets and cars. However, trails may be paved or unpaved and may be designed for a variety of users besides bicyclists, including pedestrians, skaters, joggers and equestrians. Because they are physically separated from motor vehicles, trails and paths minimize conflicts and interactions with such traffic; may increase the safety of pedestrians and bicyclists (or, at least, lead to less-severe crashes when they do occur); and encourage use by novices and less-experienced users. On high-demand multi-use trails, it may be desirable to separate types of users, including pedestrians from bicyclists, as is done on the Ohlone Greenway. The next section, "Resources on Facilities Design," presents a tool for determining the appropriate width of multi-use paths and when to separate travel modes.

- **Traffic calming** is meant to improve conditions for bicyclists (and pedestrians), especially in residential areas, by reducing traffic speeds and volumes. There are many different types of traffic calming devices and measures, geared toward various needs and applications. Common ones include: traffic circles, mid-block and intersection bulb-outs, traffic diverters, raised crosswalks, visual street-narrowing techniques, and the strategic timing of traffic lights. Careful planning and design is needed to determine which devices and measures are best suited for a given situation, especially since some are more appropriate for pedestrians than for bicyclists. In particular, care should be taken so that any road narrowing does not compromise the safety of cyclists.

- **Bicycle boulevards,** sometimes also called bicycle-priority streets, are city streets that, while they allow all types of vehicles, have been reconfigured to discourage through vehicle traffic in order to prioritize bicycle safety and convenience. The reconfiguration is achieved with traffic diverters and other calming devices.

- **Direct connections:** As mentioned earlier in this chapter, gaps, obstacles and barriers such as freeways, railroad tracks, fences and canals undermine the usefulness of bicycle facilities on either side. Such obstacles can be overcome using cut-throughs, over- or undercrossings and other shortcuts that create direct connections.

- **Signage:** The effectiveness of bikeways is enhanced through signage. Most importantly, signs can direct bicyclists to suitable routes, make motorists aware of cyclists' presence and rights and plant in some non-cyclists the idea to begin bicycling. Common bicycle signs show a stylized bicycle on a white background (indicating a bike lane), a green background (bike route) or a brown background (trail). Other options are directional and distance signage; signs for numbered bike routes (the design of which is customizable by local jurisdictions); "Share the Road" signs (which should be in full view of drivers); and signs with the legend "Bikes Allowed Use of Full Lane," which remind drivers of cyclists' right

to the road. This proposed CBPP recommends that the Authority take the lead in working with local agencies to develop a coordinated way-finding and informational system for Contra Costa that builds on the system recently adopted by the City of Oakland in its "Design Guidelines for Bicycle Wayfinding Signage" (see "Resources on Facilities Design" below). Pending development of this coordinated countywide signage program, the Authority encourages and recommends that local jurisdictions design and install bicycle signage consistent with the City of Oakland's system.

- **Bicycle-activated signal detectors:** These are used at signalized intersections, especially along designated bikeways, to trigger a green light for bicyclists and provide them with sufficient time in the signal phase to clear the intersection. These devices may be in the form of in-pavement loop detectors or video detectors. They should be accompanied by pavement stencils showing bicyclists where to place themselves in order to be detected. A less desirable alternative to signal detectors are push buttons placed conveniently in the right-of-way for the use of bicyclists. Senate Bill 1581, which became law in January 2008, requires new traffic signals to detect bicycles and motorcycles. Caltrans is currently developing guidelines for local jurisdictions on signal-detection methods.

- **Maintenance:** This is not so much a type of project as a type of program. Local jurisdictions should protect their investment in bicycle facilities by maintaining and rehabilitating them properly. Common tasks associated with the maintenance of bikeways include repaving, crack sealing, filling potholes, restriping lanes and repainting stencils, tuning loop detectors and signals, sweeping and trash removal, weed abatement, and clearing plant overgrowth.

Resources on Facilities Design

Below are references to various guidelines on the design of bikeways and other bicycle facilities. Chapter 8, "Other Tools for Local Agencies," contains an additional design-related resource, MTC's checklist and accompanying guidance document for accommodating bicyclists and pedestrians in the planning and design of broader capital transportation projects.

Caltrans highway manual

Caltrans' "Highway Design Manual" establishes both mandatory and advisory standards for the design of streets, roads and highways in California. Chapter 1000, "Bikeway Planning and Design," contains guidance and standards that local agencies are required to follow in the design of bikeways. The main topic in the chapter is design criteria (topic 1003), a section which covers Class I, II and III bikeways (1003.1–1003.3 respectively), bicycles on freeways (1003.4), multipurpose trails (1003.5) and miscellaneous bikeway criteria such as bridges, surface quality, drainage grates and at-grade railroad crossings (1003.6).

▶ **Chapter 1000 of the Caltrans Highway Design Manual:**
www.dot.ca.gov/hq/oppd/hdm/pdf/chp1000.pdf

AASHTO Guide

The American Association of State Highway and Transportation Officials (AASHTO) is a quasi-governmental body that publishes specifi-

cations, guidelines and standards used in the design and construction of highways and other transportation facilities. Its "Guide for the Development of Bicycle Facilities" includes chapters on the planning, design and operation/maintenance of bikeways (chapters 1–3 respectively). The design chapter covers shared roadways, bike lanes, shared-use paths and other considerations such as railroad crossings, bicycles on freeways, bicycle facilities through interchange areas, bicycles at roundabouts, traffic signals, obstruction markings, bicycle parking facilities and additional bicycle amenities.

- **Guide for the Development of Bicycle Facilities:** www.wsdot.wa.gov/bike/pdf/bikebook.pdf

MUTCD

The FHWA's "Manual on Uniform Traffic Control Devices (for Streets and Highways)" (MUTCD) specifies the national design, installation and usage standards for traffic signs, road markings and signals. In the U.S., all official traffic control devices must generally conform to these standards. Some state agencies, including Caltrans, in California—have developed their own, supplementary set of standards in substantial conformance with the MUTCD. Part 9 of the California MUTCD is "Traffic Controls for Bicycle Facilities" and covers signs (section 9B), markings (9C) and signals (9D).

- **California MUTCD part 9:** mutcd.fhwa.dot.gov/pdfs/2003r1r2/ch9.pdf

Innovative treatments

The Institute of Transportation Engineers' (ITE) report entitled "Innovative Bicycle Treatments" describes approximately 50 treatments such as contra-flow bike lanes, shared bike/bus lanes, bicycle boulevards, raised bike lanes, colored bike lanes, one-way trails and median trails. It also includes innovative treatments for intersections, bicycle detection, bicycle signs, traffic calming and bicycle parking. The report provides information on the cost, applications, advantages and disadvantages of each treatment. The report is available for purchase only but a slide show of a 2006 web-based seminar is available online.

- **Innovative Bicycle Treatments; available for purchase at:** www.ite.org/emodules/scriptcontent/Orders/ProductDetail.cfm?pc=IR-114; **slide show:** www.ite.org/education/IBT/Innov.BikeSlides.ppt

Shared-use paths

It is a challenge for planners and designers of multi-use paths and trails to determine the appropriate width of facilities and whether and when to separate user types. The FHWA's "Shared-Use Path Level of Service Calculator" describes a method for analyzing the quality of service provided by shared-use paths of various widths that accommodate a variety of travel modes. Given a count or an estimate of the overall volume of path users in a given hour, the method can provide the level of service for path widths ranging from 8 to 20 feet. The FHWA's tool describes in detail the input data needed to use the method, offers step-by-step instructions and provides sample applications.

- **Shared-Use Path Level of Service Calculator:** www.tfhrc.gov/safety/pedbike/pubs/05138/index.htm

Bicycle boulevards

The city of Berkeley is a pioneer in the creation of bicycle boulevards. In 2000, it approved an implementation plan for them entitled "Bicycle Boulevard Design Tools and Guidelines." The plan provides an overview of bicycle boulevards (chapter 1), describes existing conditions on the streets planned as boulevards (chapter 2), summarizes

the issues that the boulevards were designed to address (chapter 3), provides design guidelines (chapter 4), reviews the impacts of traffic-calming devices (chapter 5) and outlines a preliminary implementation plan, including strategic approaches, priority recommendations, phasing plan, and maintenance and monitoring considerations (chapter 6).

- **City of Berkeley's Bicycle Boulevard Design Tools and Guidelines:** www.ci.berkeley.ca.us/ContentDisplay.aspx?id=6652

Signage

Oakland's design guidelines for bicycle signage rely on the standard signs in the Manual on Uniform Traffic Control Devices, with some modifications and additions "to provide a wayfinding system that is more robust than the direction currently provided by state and national standards." The guidelines call for three types of signs: confirmation signs, which confirm that a cyclist is on a designated bikeway and include destinations and distances; turn signs, which indicate where a bikeway turns from one street onto another street, and include directional arrows; and decision signs, which mark the junction of two or more bikeways and include destinations and directional arrows but not distances. The guidelines also describe principles for the placement, frequency and layout of signs; provide installation specifications; and include sample illustrations of the three types of bike signs and of sign layout details.

- **City of Oakland's Design Guidelines for Bicycle Wayfinding Signage:** www.oaklandpw.com/AssetFactory.aspx?did=3528

Traffic calming

Fehr & Peers, the lead consultant on the CBPP update, created and maintains a website to serve as a practical guide to traffic calming and neighborhood traffic management. The website contains a toolbox of calming devices (organized into volume-control and speed-control measures, depending on the intended effect), information on the effectiveness of various devices and an extensive list of resources, including references and municipal traffic calming programs around the country.

- **TrafficCalming.org:** www.trafficcalming.org

7 | Support Programs

THE VIABILITY OF WALKING AND BICYCLING as transportation modes depends on a multi-disciplinary approach involving engineering, education, enforcement and encouragement (also known as "the 4 E's"). Engineering concepts come into play in the form of facilities for walking and bicycling, which were the focus of the previous two chapters. While critical, however, facilities are only part of the walking and bicycling experience. This chapter addresses the remaining three E's—education, enforcement and encouragement—as well as other support programs and projects that enhance the enjoyment of walking and bicycling and serve to increase the number of pedestrians and bicyclists. The chapter discusses the main types of support programs for nonmotorized transportation that local jurisdictions in Contra Costa could support or implement themselves.

Access to Transit

Walking and bicycling on one hand and transit on the other are highly complementary modes of transportation. Transit use can increase the range of travel for pedestrians and bicyclists greatly by bridging distances; overcoming physical barriers, such as the Richmond–San Rafael bridge and hilly terrain; and compensating for other deterrents, such as poor weather and safety during nighttime travel. Improving access to transit and transit services for pedestrians and bicyclists attracts new riders and lessens demand for scarce and costly car parking spaces. Combining walking and bicycling with transit trips benefits communities by reducing air pollution, traffic congestion and energy consumption.

This section—along with the map of the countywide bicycle network (in Chapter 6) and Appendix C—addresses BTA requirement (e): "A map and description of existing and proposed bicycle transport and parking facilities for connections with and use of other transportation modes. These shall include, but not be limited to, parking facilities at transit stops, rail and transit terminals, ferry docks and landings, park and ride lots, and provisions for transporting bicyclists and bicycles on transit or rail vehicles or ferry vessels."

Ten transit agencies operate in Contra Costa. Below are brief descriptions of their service areas:

- County Connection (Central Contra Costa Transit Authority, or CCCTA) provides fixed-route and paratransit service throughout the central Contra Costa communities of Clayton, Concord, Martinez, Pleasant Hill, Walnut Creek, Danville, San Ramon, Lafayette, Orinda, Moraga and unincorporated areas in Central County.
- Tri Delta Transit (Eastern Contra Costa Transit Authority, or ECCTA) provides local service within Antioch, Brentwood, Oakley, Pittsburg and unincorporated areas of East County; it also operates commuter routes to Livermore, Dublin and Martinez.
- WestCAT (Western Contra Costa Transportation Authority) provides local, express and regional bus service to the cities of Pinole and Hercules and certain unincorporated communities in West County; it also operates commuter routes to El Cerrito, Martinez and San Francisco.
- AC Transit provides bus service to San Pablo, Richmond, El Cerrito and certain unincorporated areas of West County in addition to much of Alameda County.
- BART (Bay Area Rapid Transit) has ten rail stations in Contra Costa, along two lines: El Cerrito Plaza, El Cerrito del Norte and Richmond (Richmond line) and Orinda, Lafayette, Walnut Creek, Pleasant Hill, Concord, North Concord/Martinez and Pittsburg/Bay Point (Pittsburg/Bay Point line).
- Solano Express provides bus service to Martinez and the Walnut Creek, Pleasant Hill, El Cerrito and El Cerrito del Norte BART stations.
- Although WHEELS operates primarily in Alameda County, it provides bus service between San Ramon and Dublin/Pleasanton.
- Amtrak operates three rail routes through Contra Costa: the San Joaquin (Bakersfield–Sacramento), which stops in Richmond, Martinez and Antioch; the California Zephyr (Chicago–Emeryville), with a stop in Martinez; and the Coast Starlight (Los Angeles–Seattle), with stops in Richmond and Martinez.
- The Capitol Corridor, former Amtrak service now administered by a partnership of local transit agencies, provides intercity and commuter rail service from San José to Placer County (north of Sacramento) with stops in Contra Costa in Richmond and Martinez.
- Although Golden Gate Transit primarily operates in the North Bay, routes 40 and 42 serve the El Cerrito del Norte and Richmond BART stations from San Rafael, across the Richmond–San Rafael bridge.

Many factors contribute to the willingness or ability of pedestrians and bicyclists to use transit. Transit stations that provide parking attract large numbers of cars, especially before and after work; they frequently also serve as termini for bus routes. The potential traffic conflicts at station areas and on roads that lead to stations can discourage people from walking or bicycling to transit. Once at the station, bicyclists can become further discouraged if bicycle parking is inadequate or unavailable or if bicycle access on buses and trains is restricted or prohibited. Lack of shelter at bus stops discourages transit users during inclement weather.

Pedestrians and bicyclists have three primary needs, specific to them, for accessing transit: Safe routes to stops and stations; pedestrian- and bicycle-oriented furnishings (including bicycle parking) at stops and stations; and accessible transit vehicles. Each of these is described further below.

Safe routes to transit

Accessing transit hubs can be challenging for pedestrians and bicyclists. Some stations are isolated by freeways or busy arterials. In some cases, there are few or no safe and convenient walkways and

bikeways between residential areas and transit stops and stations. Intersections and crossings near station areas can be unsafe and unpleasant due to the large volumes of cars that are traveling to the station. Pedestrians in particular are discouraged by long distances between home and transit.

There are many improvements that local jurisdictions can undertake to improve walking and bicycling access to transit. These improvements, referred to collectively as "safe routes to transit," include:

- Curb ramps
- Closure of walkway and bikeway gaps
- Bikeway and way-finding signage
- Improved crosswalks and traffic-signal modifications at intersections
- Adequate lighting, to address personal security concerns by improving nighttime safety and visibility
- Cut-throughs to transit stops and stations from surrounding neighborhoods
- Circulation space between the station and surrounding parking lots and streets that is separated from auto traffic using pavement with special color or texture, planter boxes, striping and other techniques
- Seamless circulation within the station

The importance to pedestrians and bicyclists of access to transit is illustrated by Table 16, below, which shows the percentage of riders at each BART station in Contra Costa who walked or biked to the station from home. As can be seen from the table, those percentages are much higher than for trips overall in Contra Costa. (As mentioned in chapter 2, "Existing Conditions," walking accounts for 1.5–1.8 percent of work trips or commuters in Contra Costa and bicycling represents 0.3–0.6 percent.) The table also indicates riders' median distance to their station from home by all modes (walk, bike, transit, car, taxi and motorcycle/moped). The data clearly shows that shorter distances and higher walk and bike mode splits are correlated. The information in the table is taken from the 2008 BART Station Profile Study, which provides a much more detailed ridership profile for each station in the BART system and for the entire system.

The Bay Area has a Safe Routes to Transit (SR2T) funding program, funded by Regional Measure 2 (which increased the toll on toll bridges in the region by $1) and administered by TransForm and the East Bay Bicycle Coalition, organizations that advocate for nonmotorized transportation. To date, the program has awarded nearly $8 million to more than 20 capital and planning projects designed to improve access to transit for pedestrians and bicyclists. The latest call for projects was announced in June 2009.

▶ **Bay Area Safe Routes to Transit funding program:**
www.transformca.org/campaign/sr2t

Table 16 | **Walk or bike mode split to BART** (%) **and median distance to station** (miles)

	Walk	*Bike*	*Distance*
Concord	11	3	2.22
El Cerrito del Norte	13	3	4.02
El Cerrito Plaza	43	6	0.79
Lafayette	12	2	3.21
North Concord/Martinez	4	1	6.04
Orinda	3	2	3.51
Pittsburg/Bay Point	5	1	7.92
Pleasant Hill	19	3	2.06
Richmond	24	11	1.62
Walnut Creek	12	**2**	**2.34**
Entire BART system	**31**	**4**	**1.39**

▶ **2008 BART Station Profile Study page:**
bart.gov/about/reports/profile.aspx

Transit agencies themselves have an interest in improved access for nonmotorized transportation, since pedestrians and bicyclists form part of their core ridership base. With this in mind, several transit operators in North America have written manuals to educate and advise local jurisdictions on planning and designing communities that are conducive to transit use. AC Transit published such a manual in 2004. Entitled, "Designing with Transit: Making Transit Integral to East Bay Communities," it discusses three key areas concerning access to transit:

- Chapter 3, "Transit-Based Communities: Centering Planning on Transit," outlines transit-supportive land use strategies.
- Chapter 4, "Safe Routes to Transit: Creating Good Ways to Walk to Transit," describes how to improve the safety and convenience of walking to transit.
- Chapter 5, "Transit-Friendly Streets: Making Streets Work for Transit," addresses street designs that support bus service.

▶ **AC Transit's Designing with Transit: Making Transit Integral to East Bay Communities:**
www.actransit.org/pdf/designing_with_transit.pdf?PHPSESSID=a20051 0bd8bb7cda59e1bf771f735dfb

Calgary Transit, in Calgary, Canada, has produced a similar guide. Part 2 of the document, "Transit Design Principles," explains in detail urban design principles that are beneficial to transit. These include: "Provide appropriate community densities," "Minimize walking distances," "Provide mixed land uses" and "Create a pedestrian-friendly environment."

▶ **Calgary Transit's Transit Friendly Design Guide:**
www.calgarytransit.com/pdf/transit_friendly.pdf

Station and stop furnishings

Furnishings at transit stations and stops encourage transit usage, especially by pedestrians and bicyclists. There are many types of furnishings that transit operators can provide, sometimes in partnership with local jurisdictions. These include:

- Bicycle parking, in the form of racks, lockers and attended parking
- Lighting, benches (especially useful for long waits and for seniors and people with disabilities), trash receptacles and informational and wayfinding signage
- All-weather shelters on paved surfaces

Secure bicycle parking is an issue of special importance to those who ride to transit and is a key element of a comprehensive bicycling system. The lack of secure parking keeps many people from using their bicycles, as they are deterred by the threat of theft. As recently as 15 years ago, bicycle parking was a rarity at many transit stations. Today, however, just about every BART and Amtrak station and transit center in Contra Costa has dozens of bicycle racks and lockers, as do a number of park-and-ride lots. All park-and-ride lots still without bicycle parking should be equipped with racks and lockers, for both short- and long-term use. Transit locations with bicycle parking are shown on the map of the countywide bicycle network, in Chapter 6, "Bicycle Facilities."

BART is in the process of expanding bicycle parking options by installing electronic lockers ("eLockers") at many of its stations. The advantage of electronic lockers over ones controlled by key or padlock is that they may be rented on an hourly basis, rather than weekly or monthly. This allows each locker to be used by many people over a given period of time, increasing the locker's effective capacity. Table 17 outlines BART's planned schedule for the installation of eLockers at its stations in Contra Costa.

Table 17 | **Installation schedule for eLockers at BART stations**

Station	*Installed*	*2010*	*2012*	*Total*
Concord		16	52	68
El Cerrito del Norte		14	32	46
El Cerrito Plaza	48		20	68
Lafayette		12	33	45
North Concord/Martinez			16	16
Orinda		12	31	43
Pittsburg/Bay Point			46	46
Pleasant Hill	24		80	104
Richmond	16		24	40
Walnut Creek			56	56
Total	**88**	**54**	**390**	**532**

▶ **Bikes on BART webpage:** www.bart.gov/guide/bikes/index.aspx

Below are the number of people on waiting lists for lockers at stations in Contra Costa as of July 2009, according to BART. BART notes that the waiting lists are not a direct indicator of demand; for example, some people frustrated with a long wait do not place their name on the list.

- Concord 31
- El Cerrito del Norte 5
- Lafayette 31
- Orinda 44
- Pleasant Hill 60
- Richmond 4
- Walnut Creek 14

Accessible transit vehicles

The American with Disabilities Act requires that public transit vehicles and regular transit service be accessible to people with disabilities. Ways to make vehicles and service accessible include operating "kneeling" or low-floor buses, or buses with lifts or ramps; providing space for wheelchairs and priority seating for people with disabilities and seniors near vehicle entrances; and announcing stops, for the benefit of the visually impaired. Also, operators must provide curb-to-curb paratransit service to persons who meet one of the following eligibility categories:

- Are unable, because of a disability, to board, ride or disembark from an accessible fixed-route vehicle.
- Are capable of using an accessible vehicle, but the desired trip cannot be made because a portion of the fixed-route service is not yet accessible.
- Is unable to travel to or from a transit stop.

For bicyclists, vehicle accessibility means the ability to bring their bicycles aboard buses and trains for use at their destination. Along with providing bicycle parking at stations, allowing bicyclists to bring bicycles on board is key to encouraging cyclists to use transit. While their policies differ, transit operators in Contra Costa are generally bicycle-friendly. Table 18 summarizes the policies of transit operators' concerning on-board bicycle access.

Most buses serving Contra Costa are equipped with front-mounted racks that hold two bicycles, usable on a first-come-first-served basis. (Racks sometimes fill, however, forcing other bicyclists to wait for subsequent buses.) Folding bikes are generally always allowed inside as carry-on baggage, while non-folding bicycles are usually allowed inside buses during non-peak times, at the driver's discretion. BART allows bikes on most trains, except those during peak-commute times and directions. Some on-transit capacity constraints can be resolved through ample secure and covered bicycle parking at stations and stops.

Table 18 | **Transit on-board bicycle access**

AC Transit	All buses are equipped with front-mounted racks. On commuter coaches, two additional bikes can be stored in the luggage bays when the front rack is full.
Amtrak	Trains on the San Joaquin have space for two bicycles per car. On long-distance routes such as the Zephyr and the Coast Starlight, bicycles are not allowed on board (instead, they must be boxed and checked).
BART	Bikes are allowed in any uncrowded car of a train but the first, and on most trains, except those during peak commute times and directions.
Capitol Corridor	Trains are equipped with bicycle racks on the lower level of most coach cars. When all racks are full, conductors help bicyclists identify alternative storage places.
County Connection	Buses are equipped with front-mounted racks. Two additional bikes are allowed inside if wheelchairs are not present.
Golden Gate Transit	All buses are equipped with front-mounted or luggage-bay bike racks.
Solano Express	All buses are equipped with front-mounted racks.
Tri Delta Transit	All buses are equipped with front-mounted racks. When the rack is full, bicycles are allowed inside at the driver's discretion.
WestCAT	All buses are equipped with front-mounted racks.
WHEELS	All buses are equipped with front-mounted racks.

ENCOURAGEMENT

Bicycle parking

After on- and off-street facilities, bicycle parking is the most important element of a community's bicycling system. Parking for bikes is a low-cost yet effective way to encourage cycling and improve the functionality of a bikeway network. It reduces the threat of theft, makes bicyclists feel welcome and increases the visibility of bicycling. As they do for car parking at much greater expense, local jurisdictions in Contra Costa may install bicycle parking themselves on public property or require developers and building owners to install it on private property as part of a development or redevelopment proposal.

Local jurisdictions should incorporate bicycle parking in the development of new community facilities, especially libraries, parks, schools, community centers and administrative offices. Community facilities that lack bicycle parking can be retrofitted with bicycle racks easily and inexpensively. Bicycle parking should also be provided at all park-and-ride lots and jurisdictions should install public bicycle parking racks on sidewalks in downtowns and other busy commercial areas as can be currently found in the downtowns in Martinez, Walnut Creek, Brentwood, Lafayette and Pleasant Hill, among others.

Generally, racks should be provided for short-term (visitor) parking and lockers for long-term (employee, student or commuter) parking. Racks should be installed according to manufacturers' guidelines; be located in secure, well-lighted, highly visible and, ideally, covered areas; be located as close as possible to the main entrance and no farther from the entrance than the nearest non-handicapped car parking space; be anchored to the ground; and allow for the locking of both the frame and wheels of a bicycle. For schools and large administra-

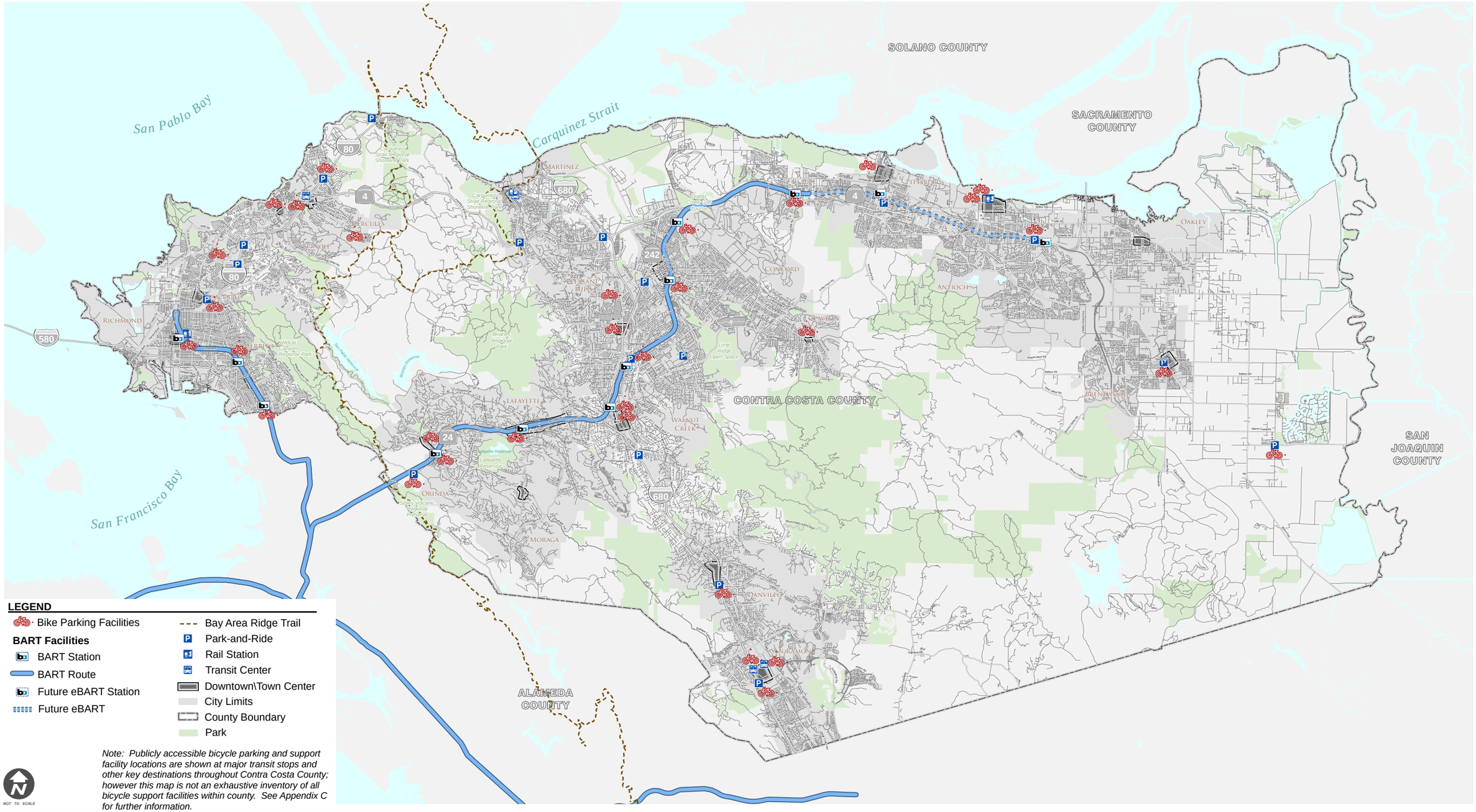
tive buildings, fenced-in "bicycle corrals"—secured by lock and opened by keys provided to users—may be appropriate.

This section—along with the map of the countywide bicycle network (in Chapter 6) and Appendix C—addresses BTA requirement (d): "A map and description of existing and proposed end-of-trip bicycle parking facilities. These shall include, but not be limited to, parking at schools, shopping centers, public buildings, and major employment centers." Figure 6, on the next page, shows the location of key bicycle parking facilities in Contra Costa.

Bicycle parking at non-public facilities is patchy. Newer shopping and employment centers are much more likely to provide racks than older developments, either in garages or near front entrances. Through the design review and permitting process, jurisdictions should require that all new commercial and institutional development and redevelopment projects meeting certain size criteria provide adequate bicycle parking racks and lockers. Jurisdictions should adopt bicycle parking ordinances formalizing this requirement; standards stipulating the required number of parking spaces (which would depend on the type and size of a proposed project); and guidelines on permitted and preferred types of racks and lockers and on installation methods. 511 Contra Costa—the transportation demand management program sponsored by all the county's local jurisdictions—provides free racks and lockers not only for public buildings but also for employment sites and retail centers.

Lastly, jurisdictions should consider requiring organizers of mass-attendance events to provide and publicize attended bicycle parking in secure, enclosed areas as a way to mitigate the transportation impacts of such events. The East Bay Bicycle Coalition provides such a service at some public events in Contra Costa.

Table 19 below lists basic parking guidelines. For more detailed information, several outstanding resources on bicycle parking are also provided below. They address all aspects of the topic, include model parking ordinances, recommended numerical requirements, design and installation guidelines and estimated costs. The website of the Massachusetts Bicycle Coalition includes a collection of bicycle parking ordinances and comparisons of nine municipal ordinances and requirements in 145 jurisdictions in North America.



Note: Publicly accessible bicycle parking and support facility locations are shown at major transit stops and other key destinations throughout Contra Costa County; however this map is not an exhaustive inventory of all bicycle support facilities within county. See Appendix C for further information.

The existing and proposed bicycle facilities on this map reflect the plans adopted by local and regional agencies within Contra Costa County.

Contra Costa Countywide Bicycle and Pedestrian Plan, 2009

Figure 6: Countywide Bicycle Parking Locations

Table 19 | **Bicycle parking guidelines**

Land use or location	*Physical location*	*Bicycle capacity*
Park	Next to restrooms, picnic areas, fields and other attractions	Eight per acre
School	Near office entrance with good visibility	Eight per 40 students
Other public facility (city hall, library, community centers)	Near main entrance with good visibility	Eight per location
Multi-family residential	Near main entrance with good visibility	One per 20 car parking spaces
Commercial, retail and industrial developments over 10,000 gross square feet	Near main entrance with good visibility	One per 15 employees or eight per 10,000 gross sq. ft. ; or one per 20 car parking spaces
Shopping centers over 10,000 gross square feet	Near main entrance with good visibility	Eight per 10,000 gross sq. ft. ; or one per 20 car parking spaces
Commercial districts	Near main entrance with good visibility; not to obstruct pedestrian movement	Two every 200 feet
Transit stations	Near platform or security guard	One per 20 riders accessing the station; include both short- and long-term parking

- **Parking webpage of the city of Oakland's bicycle program:** www.oaklandbikes.info/Page127.aspx
- **Parking webpage of the Massachusetts Bicycle Coalition:** www.massbike.org/bikelaw/parking.htm
- **Bicycle Parking Guidelines: A set of recommendations from the Association of Pedestrian and Bicycle Professionals:** www.apbp.org/resource/resmgr/publications/bicycle_parking_guidelines.pdf
- **Bicyclinginfo.org's parking webpage:** www.bicyclinginfo.org/engineering/parking.cfm
- **Bicycle Parking Manual of the Danish Cyclists Federation:** www.vextra.dk/Log/USERFILES/Bicycle_Parking_Manual_10MB.pdf
- **Bicycle Parking, Storage and Changing Facilities (Victoria Transport Policy Institute):** www.vtpi.org/tdm/tdm85.htm

Showers and changing rooms

This section, along with Appendix C, addresses BTA requirement (f): "A map and description of existing and proposed facilities for changing and storing clothes and equipment. These shall include, but not be limited to, locker, restroom, and shower facilities near bicycle parking facilities."

For commuters who dress formally, travel longer distances or bicycle during wet or hot weather, the ability to shower and change clothing can be as important as bicycle storage. Showers and changing rooms are provided for employees in Contra Costa at a number of large office parks, large office buildings and buildings with fitness centers. In addition, the city halls in Orinda, Pinole and Pittsburg provide such facilities for city employees. Local jurisdictions should incorporate

showers and changing rooms in the construction of new administrative buildings and should consider requiring developers of employment centers of more than a certain size—say, 50,000 square feet of usable space—to do the same.

Concord Mayor's 100 Mile Club Fitness Challenge

In his January 2007 state-of-the-city address, Concord Mayor Mark Peterson launched the "Mayor's 100 Mile Club," challenging all city residents and anyone working in the city to run, walk, swim or roll 100 miles during the year. The mayor was motivated to develop the program after learning about the worrying increase in adult and childhood obesity in this country. In his speech, he noted that obesity is the second leading cause of preventable death in the U.S. and that 30 percent of American adults—over 60 million people—are obese.

The city produced and distributed a brochure describing the program and including a registration form and mileage log. After logging 100 miles, participants could mail in the log sheet to receive a free, members-only program T-shirt. By the end of the program, a total of 455 people had submitted logs meeting the goal. Collectively, these participants covered 57,935 miles—almost enough to circle the world two and a half times!

Promotion

Promotion programs can help people overcome their mental, behavioral and logistical barriers to walking and bicycling. Some people, for example, might not think of walking to transit as a viable commute alternative; others might want to give bicycle commuting a try but do not know where to turn for basic information. Below are some of the promotion activities that local jurisdictions can support with financial and logistical backing—or even organize themselves, ideally in partnership with other agencies and community organizations:

511 Contra Costa

511 Contra Costa is a comprehensive transportation demand management program which promotes alternatives to the single-occupant vehicle for travel to, through and from Contra Costa. The agency helps commuters find alternatives to driving alone, such as carpooling, vanpooling, biking, transit, walking and telecommuting; it also helps employers implement commuter programs to reduce drive-alone rates among employees.

The agency's services and activities for nonmotorized transportation include Bike to Work Day promotions and energizer stations; free bicycle commuting maps; free bike lockers and racks for employment sites, retail centers, schools, colleges and other public buildings. 511 Contra Costa is sponsored by all twenty jurisdictions in Contra Costa and is funded primarily by the Bay Area Air Quality Management District, the Authority and MTC.

▶ www.511contracosta.org

- Walk- and bike-to-work days (typically held in May) and also walk- and bike-to-school days (October); these are usually combined with prizes and give-aways to encourage participation
- Commute fairs
- Financial incentives for employees who walk or bicycle to work
- Walk-to-lunch days, among employees
- Bicycle "ride-matching" service to pair novice cyclists with experienced bike commuters for advice and on-street guidance

- Maps of bicycling and walking routes (jurisdictions may wish to support the efforts of the East Bay Bicycle Coalition to update and distribute its existing maps)
- Marketing campaigns, including bumper stickers, buttons, street banners and ads on buses
- Walking and bicycling races and guided tours
- Bicycle repair and maintenance workshops for kids
- Give-aways of bicycle helmets, bells, lights and reflectors

"Discover Danville" Map

Discover Danville Association is a non-profit organization of businesses in downtown Danville dedicated to improving "the economic vibrancy, town centricity and tourism while maintaining the village atmosphere" of the town. The association seeks to "increase awareness of Danville's shopping value, pedestrian safety, recreational viability and appealing charm.... The vision is an attractive, vibrant downtown lined with flowers, benches and lighted trees, bustling with local residents...."

The association has been granted business promotion funds by the town for a variety of activities, campaigns and other efforts. One of these is development of a walking map of downtown. The map features points of interest, directions to the downtown and the location of approximately 120 businesses such as restaurants, bars, retail stores, services and other merchants. The map is being updated as of the date of this writing.

▶ www.discoverdanvilleca.com/downtown_map.php

Below are several online resources on walking and bicycling promotion. They offer ideas for promotional strategies, highlight examples and case studies, and provide links to additional resources.

Martinez Celebrates Cycling

On Saturday, April 5, 2008, downtown Martinez hosted "Martinez Celebrates Cycling," an all-day event with the dual goal of promoting bicycling and drawing people to the downtown. The event, produced by the city, included the following activities: Downtown Criterium, a competitive bike race on downtown streets closed to car traffic that attracted over 400 professional and semi-professional racers; three BMX (bicycle motocross) stunt shows; a kid's bike safety rodeo, sponsored by the Martinez Kiwanis and Rotary clubs, to teach children safe-riding skills; and a "Healthy Living" vendor fair, featuring health- and bicycle-oriented businesses.

On Friday, there was a movie night featuring "Breaking Away," an Academy Award-winning movie with a bicycle racing theme. On the day of the event, the East Bay Bicycle Coalition, a bicycle advocacy organization, provided free valet bicycle parking.

▶ www.martinezcelebratescycling.com

▶ **Promotion webpages of the Pedestrian and Bicycle Information Center:** www.walkinginfo.org/promote **and** www.bicyclinginfo.org/promote

▶ **Promotion webpage of the Bikes Belong coalition:** www.bikesbelong.org/promotion

- **California Walk to School Headquarters:** www.cawalktoschool.com/index.html

SAFETY, EDUCATION AND ENFORCEMENT

Safe routes to schools

Analogous to the "safe routes to transit" concept discussed in the previous section, "safe routes to school" (SRTS or SR2S) projects and programs seek to turn walking and bicycling to elementary and middle schools into safer and more convenient access alternatives for children. The SRTS movement has gained prominence in recent years as a way of addressing multiple concerns: traffic safety, physical inactivity and obesity among children, and traffic congestion in school areas at the start and end of the school day.

> This section, along with Appendix C, addresses BTA requirement (g): "A description of bicycle safety and education programs conducted in the area included within the plan, efforts by the law enforcement agency having primary traffic law enforcement responsibility in the area to enforce provisions of the Vehicle Code pertaining to bicycle operation, and the resulting effect on accidents involving bicyclists."

There are approximately 180 elementary and middle schools in Contra Costa that could benefit from SRTS projects and programs. These projects and programs are as varied as the problems they try to address and the communities they are designed to serve. They fall under the "four E's"—engineering, enforcement, education and encouragement—and include capital projects such as improved crosswalks, or simpler ones such as adjustments to the timing of traffic signals; law-enforcement efforts aimed at unsafe drivers; education of school children on the rules of the road; and biking and walking "buses," bike- and walk-to-school days and other SRTS encouragement activities for school children and their parents.

SRTS projects are usually developed through a collaborative planning process that includes school administrators and teachers, the local PTA, students and their parents, neighborhood groups and residents, the local police department, and staff at local public agencies such as the planning and public works departments. Local jurisdictions may choose to lead SRTS planning processes or to support efforts led by others. The involvement of local jurisdictions is especially important when the implementation of projects in the public right-of-way is desired. Steps in a planning process for a particular school typically include:

- Organizing a task force of relevant interested parties
- Identifying issues and areas of concern along popular commute routes to a particular school
- Examining in detail the access characteristics and the state of transportation facilities of these routes and of the immediate school area: walkways and bikeways, gaps and barriers, students' crossing patterns, crosswalks, intersections, traffic controls, lighting, signage, traffic speeds and collision data
- Assessing ongoing related efforts
- Identifying and prioritizing specific projects and programs to address the problems and concerns identified earlier
- For capital projects, conducting preliminary plans and designs to assess a project's complexity and cost
- Identifying costs, potential funding sources, responsible parties and implementation timeline for each improvement project and program; local jurisdictions would be typically responsible for the implementation of public works projects

Below are several useful online resources on SRTS. They provide information on conducting a planning process, offer ideas for improvement projects and programs, profile case studies and success stories, and identify potential funding sources. Additional information on safety efforts and activities is provided under the "Education" section, further below.

- **Online guide of the National Center for Safe Routes to School:** www.saferoutesinfo.org/guide
- **SRTS program of the Marin County Bicycle Coalition:** www.saferoutestoschools.org/index.shtml
- **SRTS webpage of the California Department of Public Health:** www.cdph.ca.gov/HealthInfo/injviosaf/Pages/SafeRoutestoSchool.aspx

Street Smarts Campaigns

In October 2002 the Contra Costa Safe Communities Project recommended "a regional traffic safety education campaign to include a variety of traffic safety messages aimed at motorists, pedestrians, and bicyclists." To make this recommendation a reality, several Contra Costa jurisdictions committed funds to initiate the Contra Costa Street Smarts Campaign. The campaign kicked off in 2004 to address common traffic safety problems including stop sign compliance, red light violations, pedestrian injuries, school zone safety and speeding. Campaign activities and methods have included educational presentations at schools and community events, consultation sessions, monthly newsletter inserts, posters, ads on cable TV, bus stop ads, bumper stickers on government vehicles and incentive items with Street Smarts messages. The campaign is administered by Contra Costa Health Services and partners and sponsors include the County, AC Transit, the cities of Richmond and San Pablo, Richmond's North & East Neighborhood Council, WCCTAC and West Contra Costa Unified School District.

Similarly, following the deaths in 2004 of three San Ramon Valley children in traffic-related crashes, community leaders in that area launched the San Ramon Valley Street Smarts campaign. The program is a partnership among Contra Costa County, the city of San Ramon, town of Danville, San Ramon Valley Unified School District, San Ramon Valley Council of PTAs and other community groups.

The goal of Street Smarts is to supplement ongoing engineering and enforcement efforts related to traffic safety in the San Ramon Valley through education, by addressing "traffic safety problems at their source: in the minds of drivers, pedestrians and cyclists." Since its inception, the program has been providing traffic safety education through programs such as an annual storybook poster contest for elementary school students; a video contest for students in middle school; a teen driving campaign for high school students; and numerous community events, public service announcements, news articles, newsletter ads, street and parking lot banners, and other similar efforts.

- **Contra Costa Street Smarts:** cchealth.org/services/street_smarts
- **San Ramon Valley Street Smarts:** www.streetsmarts-srv.com

Education

In addition to SRTS programs and projects, discussed earlier, local jurisdictions can support or implement various other walking and bicycling educational efforts targeted not only at children but also at adults. Appendix C summarizes some of the bicycle-related safety

and education activities that jurisdictions in Contra Costa have conducted. Educational activities include:

- Courses and booklets—including in Spanish—on safe bicycling practices and techniques
- Training rides
- Workshops on bicycle commuting and bicycle maintenance
- Curricula for children on walking and bicycling in their neighborhood and to school
- Bicycle rodeos for children
- Training courses and attendance at conferences for planning and public works staff to learn about standards and guidelines for walking and bicycling facilities and urban, site and architectural design that is supportive of walking and bicycling

▶ **How You Can Ride Better: (League of American Bicyclists):** www.bikeleague.org/resources/better/index.php

▶ **Education webpages of the Pedestrian and Bicycle Information Center:** www.walkinginfo.org/education **and** www.bicyclinginfo.org/education

▶ **Streetwise Cycling — A Guide to Safe Bicycling in North Carolina:** www.ncdot.org/transit/bicycle/safety/safety_Streetwise_cycling.html

▶ **10 Smart Routes to Bicycle Safety (National Highway Traffic Safety Administration):** www.nhtsa.dot.gov/people/injury/pedbimot/bike/10Smartroutesbicycle

Law Enforcement

While enforcing traffic laws creates a safer environment for all, this is of particular importance to pedestrians and bicyclists, who are the most vulnerable users of the transportation system. Law-enforcement programs can be used to educate and remind drivers, bicyclists and pedestrians about the rules of the road, discourage unsafe behaviors while encouraging safe ones, and reinforce educational programs and messages.

Common relevant enforcement issues are drivers speeding and turning right at red lights in front of pedestrians and bicyclists; drivers and bicyclists failing to yield to pedestrians at crossings, running red lights and not stopping fully at "stop" signs; pedestrians jaywalking and crossing where not permitted; adults bicycling on walkways where this is prohibited; children not wearing helmets when bicycling; and bicyclists riding at nighttime without lights. In Contra Costa, as elsewhere in California, traffic-law enforcement is primarily the responsibility of local police departments. (The East Bay Regional Park District has its own police force for the parks and trails under its jurisdiction; it also has volunteer trail patrols, who help enforce rules and educate hikers and bikers on trail etiquette.)

Through their police department, and in cooperation with community groups, local jurisdictions can implement enforcement programs to improve the transportation environment for pedestrians and bicyclists. Appendix C summarizes some of the bicycle-related enforcement programs and projects that have been conducted by jurisdictions in Contra Costa. The term "enforcement" is not limited to the issuance of tickets for traffic violations. It includes a variety of activities that overlap with safety and education efforts, such as:

- Bicycle rodeos (or "road-eos") to teach children the basics of safe bicycling
- "Safe driving" tickets to reinforce positive behaviors, especially among children; tickets can also reward positive behaviors when they are redeemable for prizes
- Safety education courses for offenders
- Training of police officers on the rights of pedestrians and bicyclists
- Police officers on bicycles, especially appropriate in downtowns (see www.leba.org/faq.html for information on how to start such a program)
- Before-and-after evaluation of enforcement activities to gauge their effectiveness
- Speed reader boards and movable radar speed trailers, occasionally supplemented with ticketing
- Media coverage of enforcement activities
- Media campaigns aimed at specific populations and behaviors

Below are several resources on law enforcement as it pertains to walking and bicycling.

▶ **Enforcement webpages of the Pedestrian and Bicycle Information Center:** www.walkinginfo.org/enforcement **and** www.bicyclinginfo.org/enforcement

▶ **A Law Officer's Guide to Bicycle Safety—Reference Guide:** www.massbike.org/police/ReferenceGuide.pdf

El Cerrito Police Bicycle Patrol Program

The El Cerrito Police Department (ECPD) has used bicycle patrols since 1998, particularly in areas that are more difficult to access with a patrol car, such as El Cerrito Plaza, the Ohlone Greenway and city parks. All ECPD officers are encouraged to complete bicycle patrol training and approximately 30 sworn personnel have been through the physically demanding 24-hour course. The department has two certified bicycle patrol instructors and has trained police officers from the Albany, Danville, Hercules, Piedmont, Richmond and San Ramon police departments.

The department provides bicycles and all safety gear for its personnel. All the bicycles are equipped with emergency lights and even sirens, as is required for law enforcement bicycles by the California Vehicle Code. While no officer is assigned to the bicycle patrol full-time, one or two officers ride on a given day, as staff levels and weather permit. The ECPD reports that patrol bicycles put officers in closer contact with the community, lead to increased fitness level among officers and even result in higher apprehension rates because they catch criminals, who are not accustomed to them, by surprise.

▶ www.el-cerrito.org/police/bikepatrol.html

8 | Other Tools for Local Agencies

CHAPTER 5, "PEDESTRIAN IMPROVEMENTS," provides a list of resources for local agencies on the planning and design of pedestrian facilities while Chapter 6, "Bicycling Improvements," does the same for bicycling facilities. Meanwhile, Chapter 7, "Support Programs," contains resources for the design and implementation of projects and programs that complement walking and bicycling facilities. This chapter provides tools, resources and other information for local agencies (and also for the Authority) on four additional issues identified as important for the update of the CBPP:

- Policies, standards and guidelines that support pedestrian and bicycle access in new developments and redevelopment projects.
- The roles and responsibilities of local agencies and the Authority under MTC's routine accommodation policy, especially with regard to the routine accommodation checklist.
- Use of the CBPP by local agencies to be eligible for funds from the state's Bicycle Transportation Account (BTA).
- Guidance on the application of the Americans with Disabilities Act (ADA) to public rights-of-way.

PEDESTRIAN- AND BICYCLE-FRIENDLY DEVELOPMENTS

Measure J requires that local jurisdictions comply with the Measure J Growth Management Plan (GMP) to receive funds under the Local Street Maintenance and Improvement program and to be eligible for funding under the Contra Costa Transportation for Livable Communities (TLC) program. Among the requirements of the GMP is that each jurisdiction "incorporate policies and standards into its development approval process that support transit, bicycle and pedestrian access in new developments."

One of the main objectives in updating the CBPP is to help the County and cities comply with this requirement by providing them with tools for the planning and design of pedestrian- and bicycle-friendly developments. This section describes a number of resources that could be useful in meeting this requirement. They range from general principles and policies on urban, architectural and site design to detailed development standards and guidelines formulated by other communities. Many of the available resources focus on pedestrians,

perhaps because they are the most sensitive users of the transportation system.

Pleasant Hill BART Transit Village

The former main parking lot at the Pleasant Hill BART station is being transformed into a mixed-use "transit village," where people will be able to live, work, shop and play all within steps of the station's fare gates. The first phase of the project consisted of construction of a 1,547-space parking garage, completed in 2008, to replace the surface lot. The second phase, begun in July 2008, includes over 400 rental apartments (20 percent of which will be affordable housing) and almost 36,000 square feet of local-serving retail. (Occupancy of the rental units is scheduled to begin March 2010; a subsequent phase of the residential development will include 100 condominiums.) The third phase will include a conference center and a 12-story office building with 270,000 square feet of space.

The $366 million project is a joint undertaking of BART, Contra Costa County and the county Redevelopment Agency, and is the most comprehensive transit village under development in the BART system. The 7.5-acre project area is bounded by Treat Boulevard to the south, Oak Road to the west, Las Juntas Way to the north and Jones Road to the east. Planning policies call for improved bicycle and pedestrian access between the transit village and the Iron Horse Trail, and with neighborhoods east and west of the BART station.

▶ www.ccreach.org/ccc_redevelopment/ph_finaldp.cfm

Design features

The U.S. Environmental Protection Agency's "Primer for Smart Growth" identifies a number of urban design features that can make the built environment more pedestrian- and transit-friendly. The report is organized as a checklist of essential, highly desirable and "nice additional" design features:

- "Essential": medium-to-high densities; mix of land uses; short-to-medium-length blocks; transit routes every half-mile; two- or four-lane streets; continuous walkways; safe crossings; appropriate buffering from traffic; street-oriented buildings; and comfortable and safe places to wait.
- "Highly desirable": supportive commercial uses; grid-like street networks; traffic-calming; closely spaced shade trees; little dead space or visible parking; nearby parks and other public spaces; small-scale or articulated buildings; and "classy-looking" transit facilities.
- "Nice additional": "streetwalls" (enclosures formed by the buildings fronting a street); functional street furniture; coherent, small-scale signage; special pavement; and "lovable objects," especially public art.

▶ **Pedestrian and Transit-Friendly Design: A Primer for Smart Growth:** www.epa.gov/livablecommunities/pdf/ptfd_primer.pdf

Design guidelines for compact development

"Compact Development for More Livable Communities," published by the Sacramento-based Local Government Commission, illustrates how "the way we design our buildings and the way they relate to the street are instrumental in creating livable, walkable communities." It does so by contrasting images of urban, architectural and site design features, some of which contribute to a quality built environment

while others detract from it. The publication also includes "An Elected Official's Checklist for Compact Development," with questions to ask "to insure that compact housing fits into a community and is well-designed."

- **Compact Development for More Livable Communities:**
  www.lgc.org/freepub/docs/community_design/focus/compact_development.pdf

Policies and design guidelines

The purpose of the "Pedestrian Policies and Design Guidelines" of the Maricopa Association of Governments (Phoenix, AZ) is to provide "policy and design guidance to make all pedestrian areas and facilities safe, comfortable, and a destination for people who use them." The fourth chapter (pp 29-38) identifies general planning and design principles on pedestrian connections, "pedestrian places," traffic calming, landscaping, site planning, architectural design, signage, bicycling and the "transit interface." The sixth chapter (pp 47-77) provides specific design guidelines on not only facilities but also building facades, amenities, public art, landscaping, transit stations, parking lots and streetscape "variety." The last chapter includes a number of "how-to sheets," including a "Pedestrian Zoning Review Checklist" (pp 86-88).

- **Maricopa Association of Governments' Pedestrian Policies and Design Guidelines:**
  www.mag.maricopa.gov/pdf/cms.resource/MAG_Ped_Pol_and_Guide45859.pdf

Smart growth zoning codes

Smart growth zoning codes seek to create more attractive built environments, where walking and bicycling are integral modes of transportation. This resource guide, also by the Local Government Commission, highlights language, requirements, incentives, formats and project review processes from exemplary codes from around the country. The guide is organized according to several key "strategies:" traditional neighborhood development; mixed use and live/work; transit-oriented development; and the design of streets, city blocks and parking areas.

- **Overcoming Obstacles to Smart Growth through Code Reform (executive summary):**
  www.lgc.org/freepub/docs/community_design/sg_code_exec_summary.pdf

- **Smart Growth Zoning Codes: A Resource Guide (full report) and CD available for purchase at:**
  www2.lgc.org/bookstore/detail.cfm?itemId=34

Multimodal streets

A relatively new movement called "Complete Streets" advocates for the creation and retrofitting of streets to serve users of all ages and abilities and all transportation modes. "Best Practices for Complete Streets," a report produced by the Sacramento Transportation and Air Quality Collaborative, suggests standards for new streets and developments, offers options for dealing with a constrained right-of-way and illustrates with specific examples how streets work for various user groups.

- **Best Practices for Complete Streets:** www.completestreets.org/documents/FinalReportII_BPCompleteStreets.pdf

Checklist for assessing pedestrian and bicycle on-site circulation (by Fehr & Peers)

1. Evaluate pedestrian and bicycle circulation on the project site

- ✓ How do pedestrians & bicyclists access the site?
- ✓ How do pedestrians & bicyclists travel through the site? Are pathways clearly marked? Are there conflict points with vehicles?

2. Identify recommended pedestrian paths that minimize vehicle/pedestrian conflicts and maximize pedestrian visibility

- ✓ Are there walkways from parking areas to store entrances that reduce conflict points with vehicles?
- ✓ In a subdivision, are there adequate pedestrian/bicycle connections or cut-throughs so that walking/riding distance is minimized?

3. Measure pedestrian accessibility

- ✓ Route directness: length of actual walking route divided by the length of a direct route.
- ✓ Intersection density: number of intersections per square mile.

4. Evaluate bicycle parking

- ✓ Compare project's proposed bike parking to local code requirements (if available) or to generally-accepted ratios (i.e. one bicycle space for every 20 car spaces).

5. Review site plan for ADA compliance

- ✓ Minimum 4 feet sidewalk width (5 ft "passing lane" is needed every 200 feet, so best if 5 feet is provided continuously).
- ✓ Sidewalk must be maintained without obstruction (i.e. utilities, signal cabinets, street furniture, etc.).
- ✓ Jurisdictions are required to upgrade facilities to comply with ADA if any physical improvement is made (for example, if the project was to re-stripe pavement markings, the facilities would not need to be upgraded).
- ✓ One curb ramp per crosswalk is preferred (each directing pedestrians into the appropriate crosswalk); one per corner is acceptable. Are truncated domes on ramp included, perpendicular to direction of travel?

Multimodal levels of service

Report 616 of the National Cooperative Highway Research Program, entitled "Multimodal Level of Service Analysis for Urban Streets," describes how various users of urban streets—car drivers, bus riders, pedestrians and cyclists—perceive the quality or level of service (LOS) provided by those streets. The results of that examination were used to develop four LOS models, one for each mode. Because they quantify the interactions of modes sharing the same street right-of-way, the models are ideal for evaluating the benefits of complete streets and context-sensitive street design options. The models enable users to test the tradeoffs of allocations of the street cross section among modes, and to compute the "before" and "after" LOS for each mode.

▶ **Multimodal Level of Service Analysis for Urban Streets:** onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_rpt_616.pdf

Model ordinances

This section of a broader report by the American Planning Association provides four model ordinances, each addressing a different aspect of the built environment with important implications for pedestrian access and mobility. Each sub-section includes an overview of the issue being addressed, the model ordinance and a list of references. The issues addressed by the four model ordinances are:

- Pedestrian overlay district (pp 3-12)
- On-site access, parking and circulation (pp 13-16)
- Shared parking (pp 17-28)
- Street connectivity (pp 29-34)

▶ **Four Model Ordinances to Help Create Physically Active Communities:** www.wsdot.wa.gov/ta/operations/localplanning/pdf/section48.pdf

Design standards

Chapter 4.10 of the *Land Development Code* of the City of Corvallis (OR) is "Pedestrian-Oriented Design Standards." It provides detailed design standards, with explanatory drawings, for 1- and 2-unit residential buildings and developments (pp 4.10-3 to 4.10-15), multi-unit buildings and developments (pp 4.10-15 to 4.10-25) and developments of commercial, industrial and civic uses (pp 4.10-25 to 4.10-45). The standards cover building orientation, setbacks, location of entrances, façades, design and placement of garages and parking lots, variety in architectural design, pedestrian and vehicular circulation, pedestrian amenities, service areas and design and placement of drive-through establishments.

▶ **City of Corvallis (OR) Pedestrian-Oriented Design Standards:** www.ci.corvallis.or.us/downloads/cd/Land%20Development%20Code-%20Ordinance%20Exhibit%20A/CHAPTER%204_10.pdf

Regulating code

Contra Costa's own city of Hercules has adopted a development code to guide the creation of a compact, pedestrian-oriented district. The code includes standards and guidelines for various aspects of urban and site design, including maximum block size, alleys, street trees, street lighting, street furniture, parking, drive-through, setbacks and large-footprint buildings. It also establishes approved and conditional uses and regulates such aspects of architectural design as finish materials, façade transparency, signs and projecting façade elements.

▶ **Regulating Code for the Central Hercules Plan:** www.ci.hercules.ca.us/index.aspx?page=234

Design guidelines for pedestrian-oriented business districts

In 2004, the city of Kirkland adopted design guidelines for its downtown, mixed-use developments and other pedestrian-oriented business districts. The guidelines manual addresses, among other topics:

- "Pedestrian-oriented elements," such as walkways, building facades, lighting from buildings, pedestrian-oriented plazas and pedestrian connections (pp 5-11)
- Public improvements and site features, including pedestrian paths, street trees, site features, "gateway" features and public art (pp 12-17)
- Placement and design of parking lots, including interior circulation (pp 18-20)
- Building scale (pp 21-24)

- Building material, color and detail (pp 25-27)

▶ **City of Kirkland (WA) Design guidelines for pedestrian-oriented business districts:**
www.ci.kirkland.wa.us/__shared/assets/Design_Guidelines_2004285.pdf

Guidelines and standards for a pedestrian-overlay district

The city of Greensboro, NC created a pedestrian-overlay district for its Spring Garden Street corridor and developed this accompanying design manual to "promote quality and compatible redevelopment through flexible and clear design standards" along the corridor. It provides guidelines and standards for 12 aspects of site, architectural and urban design that have a strong influence on walkability: parking, landscaping, transitions between land uses, siting and building orientation, massing and scale, fenestration, building façade, materials, signage and awnings, screening and accessory structures, site furniture and outdoor sales, and sidewalk cafes.

▶ **Spring Garden Street Pedestrian Scale Overlay Design Manual:**
www.greensboro-nc.gov/NR/rdonlyres/BD9D5EC8-893B-4CC0-BC05-9DD33855230F/0/springgardenoverlay.pdf

Checklist for pedestrian and bicycle components of traffic impact studies (by Fehr & Peers)

1. Review and cite adopted bicycle and/or pedestrian planning documents

✓ Refer to significance criteria, goals and policies in general plan; local and regional bicycle plans and pedestrian plans; and specific plans for the project area.

2. Determine/select significance criteria

✓ Consider the scale of the project: large scale (general plan, specific plan), medium scale, small scale (infill project).

✓ Consider the scope of analysis: adjacent intersections, study intersections, intersections along paths.

✓ Select the most appropriate criteria for the project.

- Review the jurisdiction's existing criteria
- Develop criteria based on above plans
- Consider other criteria

✓ Sample pedestrian criteria:

- Basic connectivity (access between project and surrounding sidewalks)
- Walking facilities along project frontage and next to project
- Connections to destinations/land uses, including transit
- ADA compliance.

✓ Sample bicycle criteria:

- Bicycle parking
- Bicycle access to destinations/land uses, including transit
- Connections to adjacent bicycle facilities

3. Document existing conditions

✓ Describe and map any nearby land uses that generate a high number of pedestrians or bicyclists—within ¼ and ½ mile of the site, depending on scale of project: schools, transit hubs, shopping centers, job centers, other.

✓ Discuss bicycle and pedestrian access to existing transit stops.

✓ Describe existing pedestrian facilities in the project vicinity, including deficiencies in the existing system:

✓ Identify pedestrian features at study intersections, adjacent intersections and intersections along paths: marked crosswalks, pedestrian push buttons, countdown signal heads, adequate crossing time, median refuge islands, audible signals.

✓ Discuss existing bicycle facilities in the project vicinity, including deficiencies in the existing system: lanes, routes, paths, other bicycle-related signage, signals, or striping.

4. Analyze collisions

✓ Consider what level of collision analysis should be conducted: none, adjacent intersections, study intersections, intersections along paths.

✓ Analyze pedestrian and bicycle collision data (this can be useful for determining deficiencies).

- Look at data for at least the past 3 years
- Get data from city or from CHP (SWITRS data)
- Look at all vehicle-pedestrian and vehicle-bicycle collisions
- Summarize by various factors: location, time of day, primary collision factor, age, helmet or not
- Tool for analyzing crash patterns and considering roadway improvements: PB-CAT (see www.walkinginfo.org/pc/pbcat.cfm)

5. Determine project impacts

✓ Compare the project to the goals and policies in the documents reviewed above.

✓ Review the city/agency's significance criteria related to pedestrians and bikes; clarify if necessary.

✓ Discuss the project's impact on bike and pedestrian facilities.

✓ Will the project degrade existing conditions for bicyclists and pedestrians?

✓ Identify the potential for the project to increase bicycle and pedestrian traffic.

✓ Identify network deficiencies that are affected by the project.

✓ Identify recommended improvements for the project (should link directly to significance criteria):

- Enhanced street crossings
- Extend pedestrian crossing time (consider potential impacts to auto traffic; do vehicle analysis with existing pedestrian intervals, then with extended pedestrian intervals, then add project)
- Pedestrian push buttons
- Bicycle facilities

✓ Discuss trade-offs between alternatives: signal or no signal, leading pedestrian interval, scramble, additional lane or not, new driveways.

✓ Identify if the project is adjacent to or would contribute to a planned pedestrian or bicycle facility; if so, recommend appropriate contribution.

✓ Identify impacts during construction; consider temporary detours.

6. Propose mitigations

✓ Will any mitigations degrade existing facilities?

- Removal of a bike lane or crosswalk
- Increased crossing distance at an intersection due to added lanes or pockets
- Increased conflicts for pedestrians on sidewalk and bikes on the street due to added driveways

MTC's Routine Accommodation Policy

Resolution Number 3765

In June 2006, MTC—the regional transportation planning agency for the Bay Area—adopted Resolution Number 3765, which establishes the agency's "routine accommodation" policy. This policy states that "projects funded all or in part with regional funds…shall consider the accommodation of bicycle and pedestrian facilities, as described in Caltrans Deputy Directive 64." The policy reflects recommendations to increase the consideration of bicycle and pedestrian facilities that emerged out of a background study conducted by MTC. The study report, entitled "Routine Accommodation of Pedestrians and Bicyclists in the Bay Area," evaluates how often nonmotorized transportation facilities are included in the design and construction of broader transportation projects in the Bay Area, and includes three case studies from around the region.

- **MTC's webpage on routine accommodation in the Bay Area:** www.mtc.ca.gov/planning/bicyclespedestrians/routine_accommodations.htm

- **Resolution Number 3765:** www.mtc.ca.gov/planning/bicyclespedestrians/res3765final.pdf

- **Routine Accommodation of Pedestrians and Bicyclists in the Bay Area:** www.mtc.ca.gov/planning/bicyclespedestrians/Routine_Accommodation_Study.pdf

Routine Accommodation / Complete Streets Checklist

Resolution Number 3765 directed MTC, working with the county congestion management agencies (CMAs) and other stakeholders, to "develop a project checklist to be used by implementing agencies to evaluate bicycle and pedestrian facility needs" whenever such agencies plan broader transportation projects. The checklist that MTC prepared is in the form of questions to project sponsors regarding the proposed project and walking and bicycling conditions in the project area. The questions cover such issues as existing facilities for nonmotorized transportation; uses, needs and access challenges for pedestrians and bicyclists; latent demand; collisions; applicable plans, policies and design standards and guidelines; public input; proposed accommodations; negative impacts on pedestrian and bicycle access; access during project construction; and future maintenance. For proposed projects that do not incorporate bicycle and pedestrian facilities or that would hinder bicycle or pedestrian travel, the checklist asks project sponsors to discuss the reasons why a project was designed as proposed. MTC also developed a question-by-question guidance document for filling out the checklist.

- **Routine Accommodation Checklist (also called the Complete Streets Checklist):** www.mtc.ca.gov/planning/bicyclespedestrians/Routine_Accommodation_checklist.pdf

- **"Routine Accommodation Guidance:** www.mtc.ca.gov/planning/bicyclespedestrians/Routine_Accommodation_guidance.pdf

Checklist procedures

Implementing agencies are required to submit a completed checklist for any project submitted for funding to MTC—either directly or indirectly, through the CMAs—that has the potential to affect bicycle or pedestrian use negatively. (This excludes projects that do not affect the public right-of-way, such as bus washers or emergency communications equipment.) MTC encourages agencies to complete the checklist "at the earliest stage of project development" so that pedestrian and bicycle considerations can be addressed and incorporated into the project most effectively. The checklist is intended to be a vehicle for the disclosure, dissemination and discussion of information regarding routine accommodation; however, answers to questions on the checklist will not affect a project's eligibility for MTC funding. MTC and Caltrans will monitor the effectiveness of their routine accommodation policies by conducting periodic detailed audits of selected projects and their checklists.

Detailed procedures for the application of the routine accommodation policy and checklist are explained in an MTC document entitled "Routine Accommodations Policies and Procedures." The document outlines the purposes and uses of the checklist, the funding programs and sources covered by the checklist requirement and, perhaps most importantly, the roles and responsibilities of project sponsors, CMAs, BPACs and MTC regarding the checklist. MTC's adopted procedures assign several key responsibilities to the Authority and local agencies with regard to the checklist:

- **Under MTC funding programs administered by the CMAs:** Local agencies complete and submit checklists to the Authority; the Authority ensures that checklists have been completed and forwards them to MTC.
- **Under MTC funding programs for which the CMAs recommend projects to MTC:** The Authority completes project checklists and submits them to MTC along with the list of recommended projects.
- **Under MTC funding programs that do not go through the CMAs:** Local agencies complete and submit checklists directly to MTC.
- In all cases, the Authority is responsible for posting completed project checklists on its website and providing a link to MTC's list of checklists organized by county.
- Again in all cases, the Authority is also responsible for providing completed checklists to the CBPAC and notifying it when checklists are available on its website. Checklists should be made available to the CBPAC as early as practicable and no later than when a project is recommended to MTC for programming. Checklists do not require approval by the CBPAC. The CBPAC, however, may still choose to review them in order to provide feedback on projects to the Authority or to the sponsoring agency.

MTC encourages the CMAs to establish their own process for managing their checklist responsibilities, provided it is consistent with MTC's procedures. The Authority's process may specify when project sponsors submit completed checklists and when checklists are made available to the CBPAC. For its part, the CBPAC is responsible for defining, in consultation with Authority staff, its process for reviewing project checklists. For any checklist, the CBPAC may choose to discuss it at one of its regular meetings; to use an expedited process in which the checklist is discussed among CBPAC members electronically (for occasions when there is little time between when a checklist is made available and when MTC makes its funding decision); or to not review it at all (since, as mentioned above, checklists do not require approval by the CBPAC).

- **Routine Accommodations Policies and Procedures:** www.mtc.ca.gov/planning/bicyclespedestrians/Routine_Accommodation_checklist_process.pdf

Eligibility for BTA Funds

The Bicycle Transportation Account (BTA) is a California statewide funding program for bicycle facilities, administered by Caltrans. One of the main reasons for updating the CBPP is to enable the Authority and local jurisdictions to remain eligible for funds under the BTA. According to chapter 21 of Caltrans' "Local Assistance Guidelines," "to be eligible for BTA funds, a local agency must have an adopted Bicycle Transportation Plan (BTP) that complies with Section 891.2 of the Streets and Highways Code." Section 891.2 of the code lists 11 components, or "elements," that bicycle plans should include. These components concern existing and proposed conditions, facilities and other aspects related to bicycling at the level of local agencies.

- **California Streets and Highways Code, Section 890-894.2:** www.leginfo.ca.gov/cgi-bin/displaycode?section=shc&group=00001-01000&file=890-894.2

The CBPP includes bicycling information at both the countywide and local levels. Table 1, in the "Introduction" chapter, contains a table that summarizes the 11 required BTA components and lists the pages where the information addressing each component is provided in the CBPP. The main body of the CBPP includes mostly information at the countywide level; most of the information at the level of individual cities and towns and the unincorporated county has been compiled into tables under Appendix C.

The information summarized in table 1, along with the local information under Appendix C, provides most, but not all, of the material needed to meet the BTA requirements as a *local* plan. A local jurisdiction—the County or any of its 19 cities and towns—that wants to use the CBPP to meet BTA requirements will need to supplement the CBPP with additional local information and adopt the amended plan through a resolution of its governing body. The supplemental information may be listed in the adopting resolution itself or as an attachment to the resolution. The supplemental information that local jurisdictions will need to include is summarized in Table 20.

Local jurisdictions should also review Appendix C to ensure that it reflects all of their available local information. Information not reflected in Appendix C should be part of the supplemental information for amending the CBPP. Local jurisdictions may also choose to create their own plan rather than adopt an amended version of the CBPP. The Authority will make available the electronic files of the CBPP to jurisdictions that wish to use it as a template. Local adoption of a plan allows the jurisdiction to apply for BTA funds in the five following state fiscal years.

Table 20 | **Supplemental local information needed to meet BTA requirements**

Requirement	*Additional information*
a. Number of existing and future bicycle commuters	None (see pages 12-15)
b. Land use and settlement patterns (map and description)	Most recent land use designation map from the general plan (for description, see Appendix C)
c. Existing and proposed bikeways (map and description)	Local pages from the countywide bikeway "atlas" (for description, see Appendix C)
d. Existing and proposed bicycle parking facilities (map and description)	Map showing additional local bicycle parking facilities, beyond those shown on the countywide bicycle maps (for description, see Appendix C)
e. Existing and proposed access to other transportation modes (map and description)	None (for map, see countywide bicycle maps; for description, see Appendix C)
f. Facilities for changing and storing clothes and equipment (map and description)	None (for map, see countywide bicycle maps; for description, see Appendix C)
g. Bicycle safety, education and law enforcement programs	None (see Appendix C)
h. Citizen and community involvement in development of the plan	Description of the extent of citizen and community involvement in local adoption of the CBPP
i. Coordination and consistency with other plans	Description of how the CBPP is consistent with local plans and programs
j. Projects proposed in the plan and their priority for implementation	List of local projects on the Countywide Transportation Project List and any other locally prioritized projects; also, discussion of how those projects were selected as priorities
k. Past expenditures for bicycle facilities and future financial needs	Estimated funding needs to implement the priority local projects (for past expenditures, see Appendix C)

Americans with Disabilities Act

The federal Americans with Disabilities Act (ADA), signed into law in July 1990, generally prohibits discrimination based on disability. Public rights-of-way and facilities are required to be accessible to persons with disabilities under Title II of the ADA and section 504 of the Rehabilitation Act of 1973. Using these laws, disability advocates have challenged public agencies on the accessibility of public rights-of-way. In the pioneering case of *Barden v. Sacramento,* a circuit court of appeals ruled that sidewalks are a "program" under the ADA and must be made accessible to persons with disabilities. The defendant in that case, the City of Sacramento, settled the lawsuit in 2003 by assigning 20 percent of its annual transportation fund for the following 30 years to improve sidewalks, crosswalks and curb ramps.

Developing guidelines to implement the ADA is the responsibility of the U.S. Access Board, an independent federal agency. The board's guidelines are not requirements; rather, they are the basis for standards issued by other federal agencies and used to enforce the law. (In this way, ADA guidelines are similar to model building codes.) Standards for most ADA-covered facilities are issued and enforced by the U.S. Department of Justice (DOJ), with the exception of certain transportation facilities, which are subject to standards issued by the Department of Transportation (DOT).

ADA guidelines for public rights-of-way

To date, there are no standards or comprehensive final guidelines on accessible public rights-of-way. In 2002 the Access Board released draft guidelines regarding disabled access to elements commonly found in public rights-of-way, including sidewalks, crosswalks, curb ramps and street furnishings. The draft guidelines were revised in 2005 in response to public comments. Chapters 2-4 are of particular relevance to the CBPP, as they address the design of pedestrian access routes, pedestrian crossings, curb ramps and "blended transitions," accessible pedestrian signals, "protruding objects," pedestrian signs, street furniture, bus stops, on-street parking and detectable warning surfaces, among other elements. The revised guidelines have not yet been released for public comment so they remain in draft form. Nevertheless, they provide valuable direction to local agencies on the design of accessible public rights-of-way. DOT's Federal Highway Administration (FHWA), the agency responsible for ensuring ADA compliance in the public right-of-way, has adopted the draft guidelines as "currently recommended best practices" and as "the state of the practice that could be followed for areas not fully addressed by the present ADA…standards."

- **U.S. Access Board's webpage on rulemaking for public rights-of-way:** www.access-board.gov/prowac

- **Revised draft guidelines for accessible public rights-of-way:** www.access-board.gov/prowac/draft.htm

Other guidance on public rights-of-way

In the absence of final guidelines from the Access Board and enforceable standards from DOT or DOJ on accessible public rights-of-way, there are numerous other informational resources that local agencies can consult for assistance. The Access Board, for example, has developed a series of documents on accessibility for various aspects of public rights-of-way to provide guidance until its guidelines are finalized. The most comprehensive of these are *Accessible Public Rights-of-Way: Planning and Design for Alterations* (2007) and the older *Accessible Rights-of-Way: A Design Guide* (1999). Also, the Access Board has produced a four-part online video addressing considerations in the design of sidewalks with regard to pedestrians with mobility and visual impairments.

- **Accessible Public Rights-of-Way: Planning and Design for Alterations:** www.access-board.gov/prowac/alterations/guide.htm

- **Accessible Rights-of-Way: A Design Guide:** www.access-board.gov/prowac/guide/PROWGuide.htm

- **Accessible Sidewalks video series:** www.access-board.gov/prowac/video/index.htm

- **Other guidance material from the U.S. Access Board on public rights-of-way:** www.access-board.gov/prowac

As the agency charged with ensuring ADA compliance in the public right-of-way, FHWA is another excellent source of information. The agency's "Questions and Answers About ADA/Section 504" describes the roles and responsibilities of public agencies in providing transportation facilities that are accessible to pedestrians with disabilities and in developing ADA "transition plans." Another especially useful resource is the two-part *Designing Sidewalks and Trails for Access* report. Part I is the "Review of Existing Guidelines and Practices" while part II is the "Best Practices Design Guide."

- **Questions and Answers About ADA/Section 504:** www.fhwa.dot.gov/civilrights/ada_qa.htm

- **Designing Sidewalks and Trails for Access; part I of II: Review of Existing Guidelines and Practices:** www.fhwa.dot.gov/environment/sidewalks/index.htm

- **Designing Sidewalks and Trails for Access; part II of II: Best Practices Design Guide:** www.fhwa.dot.gov/environment/sidewalk2/index.htm

- **Other guidance material from FHWA on pedestrian accessibility:** www.fhwa.dot.gov/environment/bikeped/guidance.htm#Access

DOJ's *ADA Best Practices Tool Kit for State and Local Governments* includes a chapter explaining the ADA requirements concerning curb ramps at pedestrian crossings (chapter 6). Another DOJ document, entitled "The ADA and City Governments: Common Problems," describes issues commonly encountered by local agencies in meeting ADA requirements, including lack of curb ramps, and provides advice on resolving these issues.

- **Curb Ramps and Pedestrian Crossings Under Title II of the ADA:** www.ada.gov/pcatoolkit/chap6toolkit.htm

- **The ADA and City Governments: Common Problems:** www.ada.gov/comprob.htm

9 | Implementation

While the CBPP is the Authority's plan, it can only be implemented with the collaboration and actions of local jurisdictions and certain special agencies and districts in Contra Costa. These partners have the power and responsibility to plan, design, construct, maintain and operate the pedestrian and bicycle improvements and programs outlined in this plan. This chapter outlines the main actions that the Authority and various other parties will need to take to implement the CBPP, discusses the Authority's funding priorities with respect to pedestrian and bicycle projects, and contains information on funding sources that local jurisdictions can use to fund their nonmotorized transportation projects and programs.

Implementation Actions

Authority

Below are the actions that the Authority intends to take toward implementing the CBPP. Following adoption of the CBPP, the Authority—with input from the CBPAC, the TCC and local and regional agencies involved in pedestrian and bicycle planning and support—will review the following actions and identify the resources needed to accomplish them. Based on this study, the Authority will develop an overall approach and scope of work for carrying them out. The Authority may decide to add, eliminate, delay or revise actions to respond to financial constraints, available staff resources or identified need. Some actions, for example, might better be carried out by other agencies and other actions may be needed to achieve the objectives of the CBPP. The Authority will consider a variety of means to implement the actions in the most cost-effective way. These means may include the use of consultant services, additional staff support, cooperative efforts with partner agencies or changes to existing staff responsibilities.

Plans and Policies

1 | **Update the CBPP regularly** to ensure that the plan reflects current conditions and priorities and helps local jurisdictions to maintain eligibility for BTA grants. Make technical amendments to the plan, including to the map of the countywide bicycle network and the county's bikeway atlas, approximately every two years and make these avail-

able to the public on the Authority's website. Conduct a full update of the plan approximately every four years both to make technical amendments and to reflect new priorities and help local jurisdictions maintain eligibility for BTA grants.

2 | **Ensure that roadway projects funded by the Authority incorporate "complete streets" principles** as appropriate to each project so that they provide safe and convenient access to all users, including bicyclists and pedestrians.

3 | **Work with local agencies to develop methods for evaluating bicycling and walking** for inclusion in the Authority's "Technical Procedures", including the impacts of projects and General Plan Amendments on walking and bicycling and the achievement of Multimodal Transportation Service Objectives that focus on bicycling and walking.

4 | **Enforce the requirement of the Growth Management Program** that local jurisdictions incorporate policies and standards into their development approval process that support pedestrian and bicycle access in new developments.

5 | **Continue to sponsor the Countywide Bicycle and Pedestrian Advisory Committee,** particularly in their efforts to select recommended projects for funding; review "routine accommodation" checklists and; identify and implement multi-jurisdictional projects and programs; and, more generally, address countywide pedestrian and bicycle transportation issues.

Support for Local Efforts

6 | **Maintain an up-to-date online "toolbox"** that provides a directory of best practices, model policies, standards and guidelines, and other resources for local agencies related to the planning, design and implementation of pedestrian and bicycle facilities and programs and pedestrian- and bicycle-friendly developments.

7 | **Support and participate in studies** to determine appropriate and cost effective solutions to pedestrian and bicycle access issues. Support can include direct funding or technical or staff support.

8 | **Improve wayfinding for pedestrians and bicyclists** in Contra Costa and the region. Work with local agencies to explore development of a countywide signage scheme, including directional and destination signs for bikeways and trails and location maps in pedestrian districts.

9 | **Support further development of the regional BikeMapper SM online tool,** including through regular mapping updates of the countywide and local bikeway networks.

10 | **Help local jurisdictions develop bicycle or pedestrian plans,** whether by adapting the CBPP, with necessary amendments, or by developing wholly new plans.

11 | **Assist local project sponsors in complying with the "routine accommodation" requirements** of the Metropolitan Transportation Commission that require consideration of the needs of bicyclists and pedestrians in the design of new transportation improvements.

Funding

12 | **Help fund pedestrian and bicycle improvements,** including both facilities and support programs, that implement the priorities in the CBPP. The Authority will also coordinate the distribution of funds under different funding sources, to the extent possible, to maximize the effectiveness of each source.

13 | **Inform local agencies of funding opportunities** for pedestrian and bicycle projects and provide them with assistance, as appropriate, in developing grant applications.

14 | **Maintain an updated online list of funding sources** for pedestrian and bicycle projects available to local jurisdictions.

15 | **Consider requests for funding for pedestrian and bicycle projects** as part of requests for earmarks and other special funds from the State or federal government, especially funding for projects to overcome important gaps or obstacles in the Countywide Bikeway Network and in designated pedestrian districts.

Monitoring

16 | **Collect and make available data** on walking and bicycling countywide, including trip-making, shares of total trips, and crashes involving pedestrians and bicyclists.

17 | **Investigate the usefulness of mapping of crash data countywide** with local agencies and the potential supportive role the Authority could play.

Local jurisdictions

The Authority encourages local jurisdictions, and the RTPCs as appropriate, to take the following actions toward implementing the CBPP:

1 | **Adopt the CBPP, with amendments as necessary, or develop local pedestrian and bicycle plans.** Plans should be consistent with the CBPP and should be detailed enough to meet requirements for eligibility under Caltrans' BTA funding program.

2 | **Implement types of projects identified as priorities in the CBPP.** Jurisdictions will need to identify specific improvements, conduct detailed planning and design, seek funding (including from the Authority) and, lastly, construct them.

3 | **Accommodate pedestrians and bicyclists in all new and rebuilt projects.** In particular, the Authority will expect this of projects built with funding from the Authority.

4 | **Increase the availability of bicycle parking.** Adopt bicycle parking ordinances applicable to both public and private developments, and install or provide bicycle racks for installation at existing buildings and sites.

5 | **Revise general and specific plans to strengthen or incorporate policies that promote pedestrian- and bicycle-friendly development patterns.** In particular, incorporate policies, tailored to the character of the community, that encourage higher densities, mixed-use development and site and architectural designs that support walking and bicycling, especially in pedestrian-priority areas.

6 | **Adopt guidelines and standards to accommodate walking and bicycling in new developments and major redevelopments.** This can be accomplished by modifying zoning and subdivision ordinances, and review and approval processes for development projects.

7 | **Continue to support** the implementation and improvement of pedestrian- and bicycle-related initiatives of 511 Contra Costa.

Other agencies

County, regional and state agencies are encouraged to take the following actions to assist in the implementation of the CBPP:

1 | **Caltrans: Approve the CBPP.** This is the responsibility of Caltrans' Bicycle Facilities Unit.

2 | **Caltrans: Enforce Deputy Directive 64** to address the safety and mobility needs of bicyclists and pedestrians in all projects, regardless of funding.

3 | **BART: Make station areas more pedestrian and bicycle friendly.** Adopt and begin implementing station-area plans that prioritize nonmotorized transportation for all stations in Contra Costa.

4 | **All transit operators: Increase the availability of bicycle parking** at all stations and stops in Contra Costa to accommodate current and projected demand; continue to accommodate bicycles on BART and buses.

5 | **EBRPD, EBMUD and Contra Costa Water District: Improve regional trails in Contra Costa.** While the Authority can make funding available, these agencies will need to identify, plan, design, construct, operate and maintain improvements.

Priorities for Funding

As mentioned earlier, the Authority's main role with respect to implementation of the CBPP is to provide funding to local jurisdictions, special districts (such as the EBRPD) and other agencies to plan, design and construct pedestrian and bicycle improvements. The CBPAC will review and recommend for funding to the Authority pedestrian, bicycle and trail projects under Measure J's "Pedestrian, Bicycle and Trail Facilities" program as well as under various other funding programs for nonmotorized transportation (see next section for a description of funding programs).

> This section — along with the "Funded Projects" section in chapter 2 and Appendix C — addresses BTA requirement (k): "A description of past expenditures for bicycle facilities and future financial needs for projects that improve safety and convenience for bicycle commuters in the plan area."

To ensure that both pedestrian and bicycle projects have a chance of being funded, the Authority will review the criteria used to select projects for funding to ensure that their weighting and interpretation do not favor one type over the other. The Authority will also consider setting maximum amounts of Measure J funds available for any single project, to prevent a large, complex project from receiving a disproportionate amount of the funds. The CBPAC will review minimum and maximum funding requests, the weighting of the criteria used and other policies for the Authority's consideration and

adoption. Lastly, funding will not be provided for projects that constitute mitigation measures required by regulatory agencies.

In reviewing applications for funding for nonmotorized transportation projects, the CBPAC will use the prioritization criteria listed below. The criteria will also be used for other funding sources and purposes as the need arises and as appropriate for each situation. The CBPAC will need to develop, for the Authority's approval, recommendations on the relative weight of each criterion to allow for the determination of project scores, ratings or rankings. This methodology could be revised prior to each funding cycles, based on the CBPAC's experience with previous cycles. Because the criteria cannot be defined in ways that capture every possible circumstance, the selection process will need to leave room for subjective decisions and judgment calls on the part of the CBPAC. In particular, the CBPAC will need to take into account whether applicants for funding considered alternatives to their proposed projects and whether a proposed project is the best and most cost-effective solution to meet its objectives. The CBPAC will also need to weigh the desire to construct new facilities, which expand the system, with the need to improve existing facilities, which sustain investments made previously.

The set of funding prioritization criteria will apply to pedestrian, bicycle and trail facilities and other infrastructure. This means that the three types of projects will compete against each other and be evaluated using the same set of general criteria. The criteria and the types of projects that would likely receive a higher score are listed below. The criteria are not listed in order of importance or priority; instead, as mentioned above, the Authority, with the CBPAC's input, will need to determine the relative weight of each criterion.

- **Safety:** Projects designed to address a documented or commonly recognized safety deficiency, especially conflicts with motor vehicles.
- **Range of users:** Projects that attract and meet the needs of a broad array of distinct groups of users, including school children, students, seniors, the disabled, families, commuters and recreationalists.
- **Countywide or regional significance:** This includes projects in Contra Costa located in a pedestrian priority location, on the countywide bicycle network or on the regional bicycle network designated by MTC, especially if they provide connections to work, school or transit.
- **Destinations served:** Projects near key existing and planned activity centers such as shopping areas, employment centers, transit centers, stations or stops, civic buildings, parks, schools, libraries and other community facilities.
- **Other latent demand criteria:** Projects in areas with attributes (other than destinations served) that influence the decision to walk or bicycle; these include population and employment density, mix of land uses, percentage of zero-vehicle households and relative lack of car parking, among others.
- **Connectivity:** Projects that close a gap, remove a barrier to access, shorten the distance by foot or bike, or provide an alternative to a trail that is closed overnight, especially if they facilitate connections to work, school or transit.
- **Feasibility:** Feasible, ready-to-go projects, for which planning and preliminary design work have been done.
- **Integration:** Projects that appear in a local plan or integrate with other local efforts being undertaken.
- **Matching funds:** Projects that have partial funding, secured or promised, from other sources.

- **Public support:** Projects for which there is evidence of public support or that have been identified as priorities by the public and by the RTPCs and other relevant agencies.

Estimating Costs of Facilities

As they consider bicycle and pedestrian improvements to propose to the Authority for funding, local jurisdictions will need to estimate the costs of those improvements. Below are two well-regarded and user-friendly tools for estimating costs, one for pedestrian facilities, the other for bicycle facilities.

Pedestrian facilities

MTC's "Pedestrian Districts Study," mentioned in Chapter 5, provides a cost-estimating tool for pedestrian improvements as a planning aid for local jurisdictions. The tool consists of an Excel spreadsheet with a menu of commonly used pedestrian infrastructure items and amenities, their approximate low- and high-end per-unit prices, and a rating of the "effectiveness" of each item on a high/medium/low scale; infrastructure items include sidewalks, crosswalks, roadway medians, traffic signals and bulb-outs, among others, while amenities include such items as benches, trees and street pole banners. To obtain a project cost estimate, users simply enter into the spreadsheet the quantities of various items needed to implement their intended pedestrian improvement.

▶ **MTC's Generic Cost Estimating Tool for pedestrian projects (chapter 4 of the Pedestrian Districts Study):** www.mtc.ca.gov/planning/bicyclespedestrians/Ped_Districts

Bicycle facilities

Report 552 of the National Cooperative Highway Research Program, entitled "Guidelines for Analysis of Investments in Bicycle Facilities," presents methodologies and tools for, (i) estimating the cost of various bicycle facilities; and, (ii) evaluating their potential value and benefits. These tools are meant to "help transportation planners make effective decisions on integrating bicycle facilities into their overall transportation plans and on a project-by-project basis." The research described in the report was used to develop "Benefit-Cost Analysis of Bicycle Facilities," a step-by-step online worksheet for estimating the costs, demand levels and quantifiable benefits of new bicycle facilities.

▶ **Guidelines for Analysis of Investments in Bicycle Facilities:** onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_rpt_552.pdf; **and "Benefit-Cost Analysis of Bicycle Facilities:"** www.bicyclinginfo.org/bikecost

Measure J Funding Sources

It is expected that the Authority, through various programs, will be one of the main source of funds for improvements to implement the CBPP. There are numerous other funding sources at the federal, state, regional and local levels that can be used to construct pedestrian and bicycle improvements. Most of these sources, however, are highly competitive and involve the preparation of extensive applications with clear documentation of the project need, costs and benefits—an effort that staff at local jurisdictions often do not have time to undertake. On the other hand, the Authority already has a ready source of funds through the programs authorized by Measure J, the local half-cent sales tax for transportation, which was approved by county voters in 2004. Below are the main Measure J programs with respect to funding for pedestrian and bicycle projects, as outlined in "Contra Costa's Transportation Sales Tax Expenditure Plan" for the measure.

▶ **Measure J expenditure plan:** www.ccta.net/assets/documents/Measure%20J_expenditure%20plan.pdf

Pedestrian, Bicycle and Trail Facilities

This will be the single most important source of funds for CBPP projects. It amounts to $23.3 million, or 1.5 percent of the total revenue authorized by Measure J, over 25 years. Two-thirds of the funds, or $15.5 million, are to "complete projects in the Countywide Bicycle and Pedestrian Plan." The remaining one-third ($7.8 million) is "to be allocated to the EBRPD for the development and rehabilitation of paved regional trails." The expenditure plan stipulates that "EBRPD is to spend its allocation equally in each subregion…."

The expenditure plan also states that "Consistent with the Bicycle Plan and the importance of bicycle and pedestrian facilities, other potential funding categories in this Plan for pedestrian/bicycle/trail facilities include: (a) Major Streets: Traffic Flow, Safety, and Capacity Improvements; (b) Safe Transportation for Children; (c) Local Streets and Road Maintenance; and (d) the Transportation for Livable Communities project grants." The sentence "Consistent with the Bicycle Plan" appears to indicate that pedestrian and bicycle projects submitted for funding consideration under those categories should fit the CBPP's priorities, namely that they complete missing segments in the countywide bicycle network or be located in a pedestrian-priority location. Below is a brief description of each of those categories.

Safe Transportation for Children

Under this category, $7.8 million will be for projects identified by TRANSPAC (representing Central County jurisdictions) "which may include the SchoolPool and Transit Incentive Programs, pedestrian and bicycle facilities, sidewalk construction and signage, and other projects and activities to provide transportation to schools."

Local Streets and Road Maintenance

From the expenditure plan: "Funds may be used for any transportation purpose eligible under the Act and to comply with the GMP requirements…. Pedestrian and bicycle facilities are an important part of the regional transportation system. Moreover, as appropriate, components for routine accommodation of bicycle and pedestrian travel shall be incorporated as part of construction projects." A total of $279.1 million will be available under this category to all local jurisdictions.

Contra Costa Transportation for Livable Communities (CC-TLC)

From the expenditure plan: "The CC-TLC Program is intended to support local efforts to achieve more compact, mixed-use development, and development that is pedestrian-friendly or linked into the overall transit system. The program will fund specific transportation projects that: (a) facilitate, support and/or catalyze developments, especially affordable housing, transit-oriented or mixed-use development, or (b) encourage the use of alternatives to the single occupant vehicle and promote walking, bicycling and/or transit usage. Typical investments include pedestrian, bicycle, and streetscape facilities, traffic calming and transit access improvements. Both planning grants and specific transportation capital projects may receive funding under this program. Jurisdictions will be eligible for projects that meet the eligibility criteria only if they are in compliance with the GMP at the time a grant is approved for funding allocation by the Authority." A total of $77.5 million will be available under this category to all local jurisdictions, and projects are to be selected by the RTPCs. More detailed information about the TLC program is included in part IV of the expenditure plan (pages 28-29).

Other Measure J programs

The other programs under Measure J that include or could realistically yield funds for pedestrian and bicycle projects are:

- **Commute Alternatives** ($15.5 million): "This program will provide and promote alternatives to commuting in single occupant vehicles, including carpools, vanpools and transit. Eligible types of projects may include but are not limited to: parking facilities, carpooling, vanpooling, transit, bicycle and pedestrian facilities (including sidewalks, lockers, racks, etc.), Guaranteed Ride Home, congestion mitigation programs, SchoolPool, and clean fuel vehicle projects."
- **Major Streets: Traffic Flow, Safety, and Capacity Improvements** ($62.3 million): Funds under this source will be available to all local jurisdictions for "Improvements to major thoroughfares including but not limited to installation of bike facilities, traffic signals, widening, traffic calming and pedestrian safety improvements, shoulders, sidewalks, curbs and gutters, bus transit facility enhancements such as bus turnouts and passenger amenities."
- **Additional Funding for Livable Communities** ($6.2 million): "This program will provide additional funding for West County to supplement the overall Transportation for Livable Communities Program, with specific projects to be identified by WCCTAC." WCCTAC represents West County jurisdictions.
- **Additional Pedestrian, Bicycle and Trail Facilities** ($0.6 million): "WCCTAC will propose programming these funds for additional trail/pedestrian/bicycle capital projects, and/or facility maintenance in West County."

Summary of eligible project types under Measure J funding sources

Pedestrian, Bicycle and Trail Facilities

- Pedestrian, bicycle and trail facilities that "complete projects in the Countywide Bicycle and Pedestrian Plan"
- Development and rehabilitation of paved EBRPD trails, to be spent equally in each subregion

Safe Transportation for Children

- Projects and activities to provide transportation to schools in Central County

Local Streets and Road Maintenance

- Generally any transportation purpose, including pedestrian and bicycle facilities

Contra Costa Transportation for Livable Communities

- Transportation projects that: (a) facilitate, support and/or catalyze developments, especially affordable housing, transit-oriented or mixed-use development, or (b) encourage the use of alternatives to the single occupant vehicle and promote walking, bicycling and/or transit usage
- Examples: pedestrian, bicycle, streetscape facilities, traffic calming and transit access improvements
- Both planning and capital projects

Commute Alternatives

- Alternatives to commuting in single occupant vehicles
- Examples: parking facilities; carpooling; vanpooling; transit, bicycle and pedestrian facilities; Guaranteed Ride Home; congestion mitigation programs; SchoolPool; and clean fuel vehicle projects

Major Streets: Traffic Flow, Safety, and Capacity Improvements

- Improvements to major thoroughfares
- Examples: traffic signals; widening; traffic calming and pedestrian safety improvements; bike facilities; shoulders; sidewalks; curbs and gutters; and bus transit facility enhancements

Additional Funding for Livable Communities

- Same as under Transportation for Livable Communities (see above), but only in West County

Additional Pedestrian, Bicycle and Trail Facilities

- Pedestrian, bicycle and trail facilities in West County
- Both capital and maintenance projects

OTHER FUNDING SOURCES

As mentioned in the previous section, there are numerous funding sources available to local jurisdictions for pedestrian and bicycle improvements besides Measure J. Below are descriptions of those that routinely fund the development of pedestrian and bicycle facilities in the Bay Area. The first five are administered by MTC while the rest are administered by various other agencies and organizations, as described below.

Regional Bikeway Network Program

MTC's "Regional Bicycle Plan for the San Francisco Bay Area" designates a regional bikeway network covering approximately 2,140 miles throughout the nine Bay Area counties. MTC has pledged $1 billion to fully fund this regional bikeway network (with the exception of links on toll bridges) and will create a funding program with the intention of completing construction of the network by 2035. This program will replace the expired Regional Bicycle and Pedestrian Program.

Transportation Enhancements

Under the Transportation Enhancements (TE) program, California receives approximately $60 million per year from the federal government to fund projects and activities that enhance the surface transportation system. The program funds projects under 12 eligible categories, including the provision of bike lanes, trails, bicycle parking and other bicycling facilities; safety-education activities for pedestrians and bicyclists; landscaping, streetscaping and other scenic beautification projects; and the preservation of abandoned railway corridors and their conversion to trails for nonmotorized transportation. In California, 75 percent of TE funding is distributed by the regional transportation planning agencies. For the Bay Area, MTC allocates the money through its Transportation for Livable Communities program (see below). The remaining 25 percent is allocated by Caltrans at the district level.

Transportation for Livable Communities

MTC created the Transportation for Livable Communities (TLC) program—not to be confused with the CC-TLC program under Measure J—in 1998. It provides technical assistance and funding to cities, counties, transit agencies and nonprofit organizations for capital projects and community-based planning that encourage multimodal travel and the revitalization of town centers and other mixed-use neighborhoods. The program funds projects that improve bicycling

and walking to transit stations, neighborhood commercial districts and other major activity centers.

- **MTC's TLC program:** www.mtc.ca.gov/planning/smart_growth/tlc_grants.htm

Transportation Development Act, Article 3

Article 3 of California's Transportation Development Act is perhaps the most readily available source of local funding for pedestrian and bicycle projects. TDA funds are derived from a statewide quarter-cent retail sales tax. This tax is returned to the county of origin and distributed to the cities and county on a population basis. Under TDA Article 3, two percent of each entity's TDA allocation is set aside for pedestrian and bicycle projects; this generates approximately $3 million in the Bay Area annually. Eligible projects include the design and construction of walkways, bike paths and bike lanes, safety education programs, and the preparation of comprehensive bicycle or pedestrian plans. According to MTC Resolution 875, these projects must be included in an adopted general plan or bicycle plan and must have been reviewed by the relevant city or county bicycle advisory committee.

- **MTC's Procedures and Project Evaluation Criteria for the TDA Article 3 program:** www.mtc.ca.gov/funding/STA-TDA/RES-0875.doc

Climate Action Program

In partnership with the Bay Area Air Quality Management District, Bay Conservation Development Commission and the Association of Bay Area Governments, MTC is sponsoring a transportation-oriented Climate Action Program, designed to reduce mobile emissions through various strategies, including a grant program. The grant program will provide funding for pedestrian and bicycle projects through new Safe Routes to School and Safe Routes to Transit programs, with total funding expected to be approximately $400 million. This funding will be in addition to the state and federal Safe Routes to School programs and MTC's existing Safe Routes to Transit program.

Bicycle Transportation Account

The Bicycle Transportation Account (BTA) is a Caltrans-administered program that provides funding to cities and counties for projects that improve the safety and convenience of bicycle commuting. Eligible projects include secure bike parking; bike-carrying facilities on transit vehicles; installation of traffic-control devices that facilitate bicycling; planning, design, construction and maintenance of bikeways that serve major transportation corridors; and elimination of hazards to bike commuters. In fiscal year 2008/09, the BTA provided $7.2 million for projects throughout the state. To be eligible for BTA funds, a city or county must prepare and adopt a bicycle transportation plan that meets the requirements outlined in Section 891.2 of the California Streets and Highways Code.

- **Bicycle Transportation Account:** www.dot.ca.gov/hq/LocalPrograms/bta/btawebPage.htm

Safe Routes to Transit

Safe Routes to Transit (SR2T) is a grant-funding program that emerged out of the Bay Area's Regional Measure 2, which instituted a $1 toll increase on the Bay Area's seven state-owned toll bridges. Through the SR2T program, up to $20 million is to be allocated through 2013 on a competitive basis to programs, planning efforts and capital projects designed to reduce congestion on toll bridges by improving bicycling and walking access to regional transit services that serve toll-bridge corridors. Funds can be used for secure bike storage at transit; safety enhancements and barrier removal for pedes-

trian or bike access to transit; and systemwide transit enhancements to accommodate bicyclists or pedestrians. Projects that improve access to car-sharing pods are also eligible. The SR2T program is administered by two nonprofit organizations, TransForm and the East Bay Bicycle Coalition, with MTC serving as the fiscal agent. The program awarded approximately $3.9 million during each of its first two cycles, in 2005 and 2007. Future funding cycles are scheduled to occur in 2009, 2011 and 2013.

- **Bay Area Safe Routes to Transit funding program:** www.transformca.org/campaign/sr2t

Safe Routes to School

California's Safe Routes to Schools program (SR2S) is a Caltrans-administered grant-funding program established in 1999 (and extended in 2007 to the year 2013). Eligible projects include bikeways, walkways, crosswalks, traffic signals, traffic-calming applications, and other infrastructure projects that improve the safety of walking and biking routes to elementary, middle and high schools, as well as "incidental" education, enforcement and encouragement activities. Planning projects, on the other hand, are not eligible. In fiscal year 2007/08, approximately $25.5 million was available in grant funding.

- **Caltrans Safe Routes to School program:** www.dot.ca.gov/hq/LocalPrograms/saferoutes/saferoutes.htm

Bay Trail grants

The San Francisco Bay Trail Project—a non-profit organization administered by the Association of Bay Area Governments—provides grants to plan, design and construct segments of the Bay Trail. The amount, and even availability, of Bay Trail grants vary from year to year, depending on whether the Bay Trail Project has identified a source of funds for the program. In recent years, grants have been made using funds from Proposition 84, the 2006 Clean Water, Parks and Coastal Protection Bond Act; however, this is a limited-term source of funds.

- **Bay Trail grants:** www.baytrail.org/grants.html

Transportation Fund for Clean Air

The Transportation Fund for Clean Air (TFCA) is a grant program administered by the Bay Area Air Quality Management District (BAAQMD). The purpose of the program, which is funded through a $4 surcharge on motor vehicles registered in the Bay Area, is to fund projects and programs that will reduce air pollution from motor vehicles. A sub-program of the TFCA is the Bicycle Facility Program (BFP), which provides funding for bicycle paths, lanes, signed routes, bicycle parking, bus racks and other bicycle-related projects. Grant awards are generally made on a first-come, first-served basis to qualified projects. Funding for bicycle projects is also available through the TFCA's County Program Manager Fund. Under that sub-program, 40 percent of TFCA revenues collected in each Bay Area county is returned to that county's congestion management agency (CMA) for allocation (the Authority, in Contra Costa's case). Applications are made directly to the CMAs, but must also be approved by the BAAQMD.

- **TFCA Bicycle Facility Program:** www.baaqmd.gov/pln/grants_and_incentives/bfp/index.htm

- **TFCA County Program Manager Fund:** www.baaqmd.gov/pln/grants_and_incentives/tfca/cpm_fund.htm

Measure WW

In 2008, Contra Costa and Alameda County voters approved EBRPD's Measure WW, the "Regional Open Space, Wildlife, Shoreline and Parks Bond." This extension of a similar 1988 bond measure allocates $33 million specifically to trail projects in the county. In addition, the measure will provide $48 million directly to cities, the county and special park and recreation districts for their park and recreation needs, including trails and other nonmotorized transportation projects.

▶ **Measure WW:** www.ebparks.org/ww

Hazard Elimination Safety

Administered in California by Caltrans, the federal Hazard Elimination Safety (HES) program provides funds to eliminate or reduce the number and severity of traffic collisions on public roads and highways. Cities and counties compete for HES funds by submitting candidate projects to Caltrans for review and analysis. Caltrans prioritizes these projects statewide and approves priority projects for funding through its annual HES program plan. Historically, only about 20 percent of applications are approved for funding. In the 2005-2006 program cycle, Caltrans awarded approximately $16 million under the HES program.

▶ **Hazard Elimination Safety program:**
www.dot.ca.gov/hq/LocalPrograms/hesp/hesp.htm

Summary of eligible project types under other funding sources

Regional Bikeway Network Program (MTC)

- Projects on the Bay Area regional bikeway network, except links on toll bridges

Transportation Enhancements (MTC, Caltrans)

- Twelve categories of projects and activities that enhance the surface transportation system
- Categories include: bike lanes, trails, bicycle parking and other bicycling facilities; safety education activities for pedestrians and bicyclists; landscaping, streetscaping and other scenic beautification projects; and the preservation of abandoned railway corridors and their conversion to trails for nonmotorized transportation

Transportation for Livable Communities (MTC)

- Capital projects and community-based planning that encourage multimodal travel and the revitalization of town centers and other mixed-use neighborhoods
- Projects that improve bicycling and walking to transit stations, neighborhood commercial districts and other major activity centers

Transportation Development Act, Article 3 (MTC, Authority)

- Pedestrian and bicycle projects in an adopted general plan or bicycle plan
- Examples: design and construction of walkways, bike paths and bike lanes; safety education programs; the preparation of comprehensive bicycle or pedestrian plans

Climate Action Program (MTC, BAAQMD, BCDC, ABAG)

- Pedestrian and bicycle projects as part of safe routes to school and safe routes to transit

Bicycle Transportation Account (Caltrans)

- Projects that improve the safety and convenience of bicycle commuting
- Examples: secure bike parking; bike-carrying facilities on transit vehicles; installation of traffic-control devices that facilitate bicycling; planning, design, construction and maintenance of bikeways that serve major transportation corridors; and elimination of hazards to bike

commuters

Safe Routes to Transit (TransForm, EBBC)

- Programs, planning efforts and capital projects that will improve bicycling and walking access to regional transit services that serve toll-bridge corridors
- Examples: secure bike storage at transit; safety enhancements and barrier removal for pedestrian or bike access to transit; systemwide transit enhancements to accommodate bicyclists or pedestrians; access improvements to car-sharing pods

Safe Routes to School (Caltrans)

- Bikeways, walkways, crosswalks, traffic signals, traffic-calming applications, and other infrastructure projects that improve the safety of walking and biking routes to elementary, middle and high schools
- "Incidental" education, enforcement and encouragement activities

Bay Trail Grants (Bay Trail Project)

- Planning, design and construction of segments of the Bay Trail

Transportation Fund for Clean Air (BAAQMD)

- Projects and programs that will reduce air pollution from motor vehicles
- Examples: Bicycle paths, lanes, signed routes, bicycle parking, bus racks and other bicycle-related projects

Measure WW (EBRPD)

- EBRPD trail projects
- Park and recreation needs of cities, the county and special park and recreation districts, including trails and other nonmotorized transportation projects

Hazard Elimination Safety (Caltrans)

- Projects that eliminate or reduce the number and severity of traffic collisions on public roads and highways

A | Bicycle Demand Forecasting

THIS APPENDIX EXPLAINS THE METHODOLOGIES used to estimate the following information that appears in chapter 2, "Existing Conditions:"

- Current and projected daily bicycle ridership in Contra Costa and in each of the local jurisdictions
- Current and projected daily bicycle trips countywide
- Current and projected motor-vehicle trips and miles reduced as a result of bicycle trips countywide

The information is order-of-magnitude estimates, based on limited available data. Figures have been rounded to the nearest hundred (except in Table A-1) and some numbers do not add up to totals due to rounding.

Current and Projected Daily Bicycle Ridership

The same methodology was used to estimate the current and projected daily bicycle ridership countywide and in each of the local jurisdictions. The estimates for the county as a whole and for most local jurisdictions were based primarily on data from the three-year 2006-2008 American Community Survey (ACS; a project of the U.S. Census Bureau). For a few jurisdictions, estimates were based on figures from the 2000 U.S. census or the one-year 2008 ACS, depending on the availability of data. The explanation below of the methodology uses the countywide estimates as its example. Table A-1 includes the data sources.

Current daily bicycle commuters and overall ridership

The estimated number of current daily bicycle *commuters* in Contra Costa is 13,800. This is the sum of the numbers of bicycle commuters to work, school and college and those who ride their bicycle to access transit. The estimated current daily bicycle *ridership* in Contra Costa is 25,600. This includes bicycle commuters as well as those who ride a bicycle for other purposes, such as shopping and social visits. It does not, however, include recreational riders. Below is a description of how each number was estimated.

Commuters to work

The estimated daily number of bicycle commuters to work countywide is 2,800. This figure is derived from the number of employed persons in Contra Costa (491,572) and the percentage of them who bicycled to work (0.57 percent).

Commuters to school

The estimated daily number of children who ride their bicycle to school countywide is 6,900. This number is derived from the school enrollment for children ages 6–14 in Contra Costa (138,396) and the percentage of them who bicycled to school (5 percent). The figure of 5 percent is based on results from the Lamorinda School Commute Study (1995) by Fehr & Peers Associates and the San Diego County School Commute Study (1990).

Commuters to college

The estimated daily number of college bicycle commuters countywide is 3,400. This number is derived from the college and graduate-school enrollment in Contra Costa (68,937) and the percentage of them who bicycled to school (5 percent, using the same percentage of children who bicycle to school, from above).

Riders to transit

The estimated daily number of people who ride their bicycle to access transit countywide is 600. This figure is derived from the average daily number of transit boardings in Contra Costa (41,820) and the percentage of boardings made by people who bicycled to transit (1.4 percent). The number of boardings is from MTC's 2009 Regional Transportation Plan. The percentage of boardings by bicyclists is based on results from a "Bike-n-Ride Survey" conducted by Denver's Regional Transportation District in December 1999.

Table A-1 | **Daily bicycle ridership in Contra Costa (excluding recreation)**

	Input	*Calc. total*
Employed persons (2006-'08 ACS)	491,572	
Share of bicycle commuters (2006-'08 ACS)	0.57%	
Work bicycle commuters (est. 2008)		2,802
School enrollment, ages 6-14 (2006-'08 ACS)	138,396	
Share of bicycle commuters[1]	5.0%	
School children bicycle commuters (est. 2008)		6,920
College population (2006-'08 ACS)	68,937	
Share of bicycle commuters[2]	5.0%	
College bicycle commuters (est. 2008)		3,447
Average daily transit/rail boardings[3]	41,820	
Share of bicycle commuters[4]	1.4%	
Transit bicycle commuters (est. 2009)		585
Ratio of bicycle trips for other purposes;[5] applied to work, college and transit trips	1.74	
Other riders		11,892
Total		**25,646**

Numbers do not add up to total due to rounding

[1] Lamorinda School Commute Study (1995; Fehr & Peers) and San Diego County School Commute Study (1990)

[2] Assumed to be the same as for school children (1)

[3] 2009 Regional Transportation Plan (MTC)

[4] "Bike-n-Ride Survey" (December 1999; Denver RTD)

[5] National Bicycling and Walking Study (1995; FHWA)

Other riders

The estimated daily number of people countywide who ride their bicycle for purposes other than work, school and transit access—but excluding recreation—is 11,900. This figure is derived from the number of work commuters, college commuters and riders to transit (2,800, 3,400 and 600 respectively, from above) and the number of bicycle trips made for other purposes as a ratio of trips made for work, school and transit-access purposes (1.74, from the FHWA's National Bicycling and Walking Study [1995]).

Projected daily bicycle ridership

The estimated projected daily bicycle ridership in Contra Costa in the year 2035 is 90,800 (48,700 commuters and 42,100 other riders, using the same ratio of commuters to other riders as currently). This projection represents an increase in daily bicycle ridership of 65,100 (34,900 commuters and 30,200 other riders) from current figures.

The projected ridership is derived from the current ridership (25,600, from above) and a multiplier factor of 3.54 that accounts for forecast population growth and an increase in ridership that is expected to occur if the facilities outlined in the CBPP are completed. The multiplier factor attempts to reflect the relationship between changes in the bicycle network and changes in ridership. Unfortunately, such information is not readily available. The most useful piece of data we have is information from the City of Portland on changes in bikeway miles and increases in bicycle ridership across bridges over the Willamette River. It is only a correlation based on the observations of increases in trips across the bridges at two different points in time may not necessarily reflect area-wide increases in ridership; nonetheless, it is a relatively broad and inclusive measure of the effect of new facilities on ridership.

As shown in the table below, a 247 percent increase in bikeway miles in Portland between 1990 and 2008 was associated with a 486 percent increase in bicycle trips across the several bridges that cross the Willamette. To compensate for the population growth that occurred during the same period, we calculated per capita ridership across the bridges. The per capita increase was 345 percent. This means that for every 100 percent increase in bikeway miles, ridership increased 140 percent (345 percent divided by 247 percent).

Portland, OR

	Bikeway miles	*Trips across bridges*	*Population*	*Trips per capita*
1990	79	2,850	437,319	.0065
2008	274	16,711	575,930	.0290
Increase	195	13,861	138,611	.0225
Percent increase	247%	486%	32%	345%

Assuming that this correlation can be applied in other situations, the proposed 130 percent increase in bikeway miles that would occur in Contra Costa with the construction of the facilities proposed in the CBPP would lead to a 181 percent per capita increase in ridership (130 percent times 140 percent, from above). Taking into account forecast population growth, this would translate to a ridership of 90,800 in 2035 (our horizon year for the completion of the bicycling facilities). The 3.54 multiplier derives from dividing 90,800 (the projected ridership) by 25,600 (the current ridership).

Contra Costa

	Bikeway miles	*Daily ridership*	*Population*	*Trips per capita*
Current	467	25,646	1,051,674	.0244
At completion	1,072	90,781	1,322,900	.0686
Increase	605	65,135	271,226	.0442
Percent increase	130%	254%	26%	181%

Current and Projected Daily Bicycle Trips

The estimated number of current daily bicycle trips in Contra Costa is 51,300. This is simply twice the countywide bicycle ridership (25,600, from above) and is based on the assumption that each bicyclist makes two trips per day—one to the destination and one returning. Similarly, the estimated number of projected trips is 181,600 (twice 90,800, from above), while the increase is 130,300.

Current and Projected Reductions in Motor-Vehicle Trips and Miles

Motor-vehicle trips

The estimated number of motor-vehicle trips currently being reduced by bicycle trips countywide is 34,700. This number assumes that, (i) each bicyclist makes two trips per day; (ii) of bicycle trips to school by children (6,900, from above, times 2, or 13,800), 53 percent (7,300) replace vehicle trips; and, (iii) of the bicycle trips made for work, college, transit-access and other purposes (2,800, 3,400, 600 and 11,900 respectively, from above, times 2, or 37,500), 73 percent (27,300) replace vehicle trips. The figures of 53 and 73 percent were the estimates developed by Alta Planning + Design for the same purpose in the 2003 CBPP, based on survey results (see Appendix C of that document for more detail).

The estimated number of vehicle trips projected to be reduced by bicycle trips is 122,700. This is the number of vehicle trips currently being reduced (34,700, from above) times the multiplier factor of 3.54 (from above) to account for forecast population growth and expected increase in bicycle ridership.

Motor-vehicle miles

The estimated number of motor-vehicle miles currently being reduced by bicycle trips countywide is 113,000. This is derived from the number of vehicle trips replaced by bicycle trips to school by children (7,300, from above) and by bicycle trips made for work, college, transit-access and other purposes (27,300, from above). It assumes that the average travel length of one-way bicycle trips by children is 0.5 mile (1 mile for a two-way trip) and of those by adults is 4 miles (8 miles for a two-way trip). The figures of 1 and 8 miles were the estimates developed by Alta Planning + Design for the same purpose in the 2003 CBPP, based on survey results (see Appendix C of that document for more detail).

The estimated number of vehicle miles projected to be reduced by bicycle trips is 400,100. This is derived from the number of vehicle miles currently being reduced (113,000, from above) times the multiplier factor of 3.54 (from above) to account for forecast population growth and expected increase in bicycle ridership.

B | Local Planning for Pedestrians

THIS APPENDIX CONTAINS INFORMATION gathered from the local jurisdictions in Contra Costa about pedestrian-oriented policies and planning efforts at the local level. Information was compiled for the 19 cities and towns in the county and the unincorporated areas under the following three pedestrian-related topics:

❶ Does the jurisdiction have a pedestrian-oriented plan (such as a pedestrian plan, a combined pedestrian and bicycle plan or a trails plan) or policies adopted as part of its General Plan that support walking?

Of the jurisdictions in Contra Costa, only El Cerrito and Lafayette have pedestrian plans, though several others have trails plans. However, all have adopted goals and policies as part of their general plan to facilitate walking. Most of these goals and policies are found in the circulation or transportation element of the general plan. Since walking is highly sensitive to land use and urban design considerations, most jurisdictions have additional pedestrian-related goals and policies in the land use or community design element. Lastly, since walking is often a recreational rather than transportation-oriented activity, many jurisdictions also incorporate pedestrian policies into the open space and recreation element.

❷ Has the jurisdiction identified locations where it especially wants to encourage walking and improve the safety and comfort of pedestrians?

All jurisdictions in Contra Costa have identified such locations. In almost all cases, jurisdictions have adopted policies to support walking in their downtown or other older, central districts. These policies are found in general plans as well as in specific plans prepared for the areas in question. A few cities have identified additional locations of priority for pedestrians such as areas around schools and transit stations.

❸ Has the jurisdiction incorporated concerns for pedestrians (and bicyclists) into its review and approval process for development projects?

The county's Growth Management Program requires that every jurisdiction in Contra Costa adopt policies and standards for the design of new developments that are pedestrian- and bicycle-friendly. None of the jurisdictions has a unified set of policies and standards for evaluating the extent to which proposed developments support nonmotorized transportation. Instead, all jurisdictions rely on policies, guidelines and standards from a variety of sources, including their general plan, specific plans, zoning and subdivision ordinances and design review guidelines.

Information for each of the jurisdictions is found starting on the following pages:

Antioch	B.3	Moraga	B.13
Brentwood	B.4	Oakley	B.13
Clayton	B.5	Orinda	B.15
Concord	B.6	Pinole	B.15
Contra Costa (uninc. areas)	B.6	Pittsburg	B.16
Danville	B.8	Pleasant Hill	B.17
El Cerrito	B.9	Richmond	B.18
Hercules	B.10	San Pablo	B.19
Lafayette	B.11	San Ramon	B.20
Martinez	B.12	Walnut Creek	B.21

ANTIOCH ❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ The goal of the Circulation Element of the General Plan (2003) is to achieve a transportation system that, among other things: "is safe for all modes of motorized and nonmotorized transportation" and "reduces dependence on single occupant automobile travel by providing a high level of pedestrian, bicycle, and public transit travel opportunities. Some of the pedestrian-related policies under "7.4.2, Nonmotorized Transportation Policies" include:

- a. Design new residential neighborhoods to provide safe pedestrian and bicycle access to schools, parks and neighborhood commercial facilities.
- e. Integrate multi-use paths into creek corridors, railroad rights-of-way, utility corridors, and park facilities.
- i. Where shopping facilities are located adjacent to residential areas, provide direct access between residential and commercial uses without requiring pedestrians and bicyclists to travel completely around the commercial development.
- k. Orient site design in non-residential areas to allow for safe and convenient pedestrian access from sidewalks, transit and bus stops, and other pedestrian facilities, in addition to access through required parking facilities.
- l. Require the construction of attractive walkways in new residential, commercial, office, and industrial developments, including provision of shading for pedestrian paths.
- n. Ensure that the site design of new developments provides for pedestrian access to existing and future transit routes and transit centers.

The Land Use (4.0) and Community Image and Design (5.0) elements also include numerous pedestrian-related policies. These include:

- 4.4.2.2.d: ...Neighborhood streets should be quiet, safe, and amenable to bicycle and pedestrian use....
- 4.4.3.2.b: Orient commercial development toward pedestrian use....
- 5.4.2.e: ...Provide an open space network linked by pedestrian and bicycle paths, which preserves and enhances Antioch's significant visual and natural resources....
- 5.4.4.b: ...Provide functional travel routes for pedestrians, and, where designated, bicyclists, hikers, and joggers that are buffered from automobile traffic.

❷ The Community Vision chapter of the General Plan states that "The design, configuration, and mix of uses in strategic locations such as Rivertown, the Hillcrest interchange, Sand Creek and East Lone Tree Focused Planning Areas, and the "A" Street interchange will provide an alternative to traditional suburban development by emphasizing a pedestrian-oriented environment, and reinforcing residents' ability to use bicycles and public transportation."

Rivertown—the city's downtown—is, according to the Community Image and Design Element, "walkable, with some one- and two-story, turn-of-the-century buildings fronting along wide sidewalks. Street traffic volumes are low; large display windows encourage browsing; and streetscape improvements include planters, street furniture, historically themed light fixtures, monument wall street signs, and underground utilities." The General Plan aims to strengthen Rivertown's pedestrian orientation through such policies as 5.4.2.i: "...Promote activity along Rivertown streets through attractive building designs with street level activity and façade windows, public art, and other landscaping elements that are pedestrian-friendly...."

❸ The Community Image and Design Element states that "As Antioch continues to grow, this Element, along with the Land Use Element, will provide guidance for more detailed design guidelines and standards contained in specific plans and planned community documents, design guideline handouts provided by the City, provisions of the sign ordinance, and other provisions of the zoning ordinance." Relevant guidelines in the Community Image and Design Element include:

- New multi-family, commercial, office, and business park developments shall emphasize pedestrian level activities by utilizing the following techniques: design projects so as to have a central plaza or main visual focus which is oriented toward pedestrians; incorporate plaza areas which can be used as informal gathering

places; install "street furniture" (benches, bus shelters, planters, bike racks, trash receptacles, newspaper racks, water fountains, and bollards) to create and enhance small plazas and similar open spaces within urban areas; and within commercial, office, business park, and industrial developments, encourage architectural styles that provide covered verandas and other similar pedestrian-oriented shade features.

- Provide, where feasible, planting strips or planters with large canopy trees between the roadway and sidewalk to buffer pedestrians from traffic, and help define the street space along commercial arterials.
- Install pedestrian amenities within the planting strip, such as street lighting, seating, bus shelters, and bicycle racks.

BRENTWOOD ❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ The Circulation Element of the General Plan (2001) includes a number of pedestrian-related policies and action programs, including:

- 1.1: Develop and maintain a balanced transportation system within the City that provides a choice of transit, bicycle, equestrian, pedestrian and private automobile modes.
- 1.1.3: Develop a safe, convenient, continuous and interconnected pedestrian circulation system throughout the City. Ensure safe pedestrian access to local schools.
- 2.1: Recognize the link between land use and transportation. Promote land use and development patterns that encourage walking, bicycling, and transit use. Emphasize well-designed high-density and mixed land use patterns that promote transit and pedestrian travel.
- 2.1.1: Emphasize transit-oriented development, high-density and mixed land use patterns that promote transit and pedestrian travel.
- 2.1.4: Encourage pedestrian-oriented land use and urban design that can have a demonstrable effect on transportation choices.
- 2.1.6: Design developments to include features that encourage walking, bicycling, and transit use. Design features shall include bus turnouts, transit shelters and benches, and pedestrian access points between subdivisions and between adjacent related land uses.
- 3.1.2: Recognize the role of streets not only as vehicle routes but also as parts of a system of public spaces, with quality landscaping, street trees, and bicycle and pedestrian paths.

The city also has a Parks, Trails and Recreation Master Plan (June 2002). One of the goals is "Provide a green space network comprising an interconnected system of park trails, connector trails, bikeways, parks, natural open space and greenbelts to ensure nonmotorized connections to key destinations around the community (parks, schools, public transportation centers, shopping, down town, job centers)."

❷ The Land Use Element states that "Brentwood also aims to preserve and revitalize its traditional Downtown core to provide a civic, commercial and transportation center for the community." The purpose of the General Plan's DT land use category, which covers the Downtown, is "to create a pedestrian-oriented, economically-viable town center. A variety of uses are allowed in this designation, including entertainment, retail, commercial, residential, civic, cultural and transit in a compact, walkable and unique setting that only the Downtown can offer. All new development occurring within the Downtown Specific Plan Area will be required to adhere to the development standards and guidelines established in the Specific Plan."

❸ The Downtown Specific Plan (2005) provides detailed development regulations and design standards for downtown Brentwood, covering site design, street and

open space, parking, architectural design, community facilities and utilities and infrastructure. It contains numerous guidelines to strengthen pedestrian orientation, including:

- Pedestrian-scale lighting shall be installed in the planter strips and at corner locations at spacing of 60 to 80 feet on center, depending on pole height and desired lighting level. Luminaires must be mounted at 11 to 15 feet in height. All street furniture and lighting selections must conform to those designated by the City of Brentwood.
- Common open space must be provided in the interior of the block, and shall be provided in the form of parks, greens, courtyards, plazas and pedestrian pathways for public use. Common open space requirements shall also be met through the provision of new streets.... Common open space shall be publicly accessible, and shall connect with public rights-of-way and adjacent public open spaces in the vicinity.
- Entrances and pedestrian "gateways" should be announced by posts or pilasters, and may be combined with trellises, special landscaping, decorative lighting, public art or other special features.
- All parking areas should be planted and landscaped. They should be designed with convenient, safe, and efficient pedestrian connections to buildings entry areas and other pedestrian routes.

CLAYTON

❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ Two of the ten goals of the General Plan (2000) are pedestrian-related: "3. To provide a comprehensive, integrated greenbelt system, which includes bicycle, equestrian, and walking paths..." and "6. To encourage a pedestrian-oriented community with areas of open space and recreational facilities for public use." Pedestrian-related policies in the Circulation Element include:

- 7a: Determine areas where greenbelt paths may need to be designed to separate equestrian, bicycle and pedestrian use.
- 7b: Identify pedestrian routes to school from different neighborhoods to make sure a safe route exists.

❷ The General Plan envisions the area along both sides of Main Street and generally extending from Oak Street east to Marsh Creek Road as a "unified, pedestrian-oriented" Town Center. The specific plan prepared for the area (1990, amended 2008) calls for "an attractive and vibrant pedestrian-friendly Town Center with a mixture of commercial, civic, recreational, and residential uses."

❸ The city has an adopted specific plan for the Town Center (1990). The purpose of the Plan is to encourage appropriate commercial development protect while enhancing the area's historic character. Relevant policies include:

- Emphasize the Town Center character as a place for pedestrian enjoyment, following the traditional building-to-street relationship of older towns and villages. Buildings are to be located at the front of properties near the sidewalk, with active, well-scaled frontages that create pedestrian interest....
- Locate driveway access points on public streets that are safe and allow smooth traffic and pedestrian flow. Minimize the number of driveway openings to public streets.
- When a front yard is used in a commercial building, it should maintain a strong pedestrian connection between the building and the street.

CONCORD

❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ One of the principles of the Transportation and Circulation Element of the General Plan (2007) is "Provide Safe and Convenient Pedestrian Circulation" (T-1.5). Policies under this principle include:

- T-1.5.1: Plan linkages to minimize walking distance and enhance the pedestrian circulation.
- T-1.5.2: Use innovative and effective walkway features to enhance the pedestrian environment.
- T-1.5.3: Facilitate pedestrian circulation near high activity centers.
- T-1.5.4: Encourage new development to provide pedestrian connections to adjacent open spaces, and trails.
- T-1.5.5: Identify critical deficiencies in the City's pedestrian circulation system and implement strategies, actions, and funding programs to address them.

The city has an adopted Trails Master Plan (2003). The purpose of the plan is to provide the framework for the future planning of trails in the city for hiking, biking and equestrians and for both recreation and transportation. The plan addresses off-road facilities only.

❷ The Land Use Element of the General Plan states that the "shopping opportunities, cultural activities, and pedestrian-oriented scale in the Downtown area ensure that [Central Concord] remains a main attraction for residents and visitors alike." The element specifies a number of pedestrian-oriented policies for the area, including "Integrate mixed uses at an urban scale" and "Promote pedestrian-oriented urban design." The element creates a "Downtown Pedestrian District" land use classification, which is intended for "mid- to high-rise commercial, residential development around Todos Santos Plaza, with restrictions in height around the Plaza to preserve sunlight access. The designation is intended to maintain the pedestrian-oriented environment in this portion of Central Concord, with a focus on ground-level commercial uses and development that encourages walkability. Pedestrian-oriented design standards and use limitations apply."

❸ The city's Community Design Guidelines (1987) contain a number of pedestrian- and bicycling-oriented guidelines, including:

- External details in building facades, entries, stairways, retaining walls, and other features provide visual interest, enrichment and textures to buildings....
- Buildings should be oriented to allow for the use of common driveways, especially along major arterial streets, where a reduction in the number of curb openings will enhance the streetscape as well as promoting traffic safety.
- As a general rule, street frontages should be composed of landscaping and building fronts, with parking located to the rear of the site.
- In commercial and industrial developments bicycle parking facilities should be easily recognizable and provide reasonable bicycle security.... In all cases the area for parking bicycles shall be on a permanent paved surface and close to the dwelling or business.

CONTRA COSTA (UNINCORPORATED AREAS)

❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ The Transportation and Circulation Element of the Contra Costa County General Plan states that "Pedestrian and Bicycle transportation are a viable mode of commuter transportation in the urban areas on either side of the Berkeley Hills and throughout eastern Contra Costa County due to favorable topography and weather. The County promotes the use of the Complete Streets philosophy to further advance the goals of this plan. ... The County supports pedestrians and bicyclists by implementing the Routine Accommodation policy statement developed by the United States Department of Transportation, the California Department

of Transportation and the Metropolitan Transportation Commission…." The element includes a number of goals and policies to promote walking (and bicycling):

- 5-L. Expand, improve and maintain facilities for walking and bicycling.
  - 5-31. Describe a system of bicycle facilities and key attractors of bicycle and pedestrian traffic so that all travelers, including people with disabilities, can travel safely and independently.
  - 5-32. Identify gaps in the bicycle network and needed improvements to pedestrian districts and key activity centers and define priorities for eliminating these gaps and making needed improvements. Facilities shall be designed to the best currently available standards and guidelines.
  - 5-33. Encourage adequate long term and routine maintenance of bikeway and walkway network facilities, including regular sweeping of bikeways and shared use pathways, utilizing private and/or local community resources when feasible.
- 5-M. Improve safety for pedestrians and bicyclists.
  - 5-35. Reduce conflicts among motorists, pedestrians and bicyclists.
  - 5-36. Provide information to improve safety for pedestrians and bicyclists.
- 5-N. Encourage more people to walk and bicycle.
  - 5-37. Work with local and regional agencies to develop useful and cost effective programs to encourage more people to walk and bicycle.
  - 5-38. Support programs such as "safe routes to school maps and "bike trains" or "walking school buses" for elementary students that would encourage more students to walk or bicycle to school.
  - 5-39. Encourage the use of bicycle and pedestrian facilities to promote healthy transportation choices.
  - 5-40. Encourage the use of wayfinding and signage to help direct pedestrians and bicyclists to desirable destinations.
- 5-O. Plan for the needs of bicyclists and pedestrians.
  - 5-41. Accommodate and encourage other agencies to accommodate the needs for mobility, accessibility and safety of bicyclists and pedestrians when planning, designing and developing transportation improvements.
  - 5-42. Support the incorporation of bicycle and pedestrian facilities into other capital improvements projects, where appropriate, to expand bicycle-pedestrian facilities, harmonize the needs of all travel modes, and achieve economies of scale.

Similarly, the Land Use Element contains a number of policy statements in support of facilities for pedestrians:

- 3-al. Refer to the Transportation and Circulation Element of this General Plan and related policy guidance of its Specific Plans, to ensure that pedestrian and bicycle facilities are routinely accommodated in land use development.
- 3-am. With the assistance of appropriate advisory bodies, periodically review and update the Open Space Element of this General Plan, to reflect the network of non-motorized pedestrian, bicycle and equestrian facilities in the County.
- 3-an. To the extent feasible, require new residential and commercial developments to provide pedestrian and bicycle facilities within the development.
- 3-ao. When appropriate residential and commercial developments should contribute to off site improvements of pedestrian and bicycle facilities to ensure safe and efficient connections from the development to major destination areas.

The Open Space Element also contains a number of supportive goals, policies and implementation measures:

- (Goal) 9-37. To develop a system of interconnected pedestrian, riding and bicycling trails and paths suitable for both active recreational use and for the purpose of transportation/circulation. (goal)
- (Policy) 9-46. Public trail facilities shall be integrated into the design of flood control facilities and other public works whenever possible.
- (Implementation measure) 9-v. Develop a comprehensive and interconnected series of pedestrian, biking and riding trails in conjunction with cities, special districts, public utilities and county service areas.

- (Implementation measure) 9-w. Form a county-wide committee to explore funding sources for recreation and open space to support regional, community and local park and trails on a county-wide basis.

❷ The south side of Willow Pass Road west of Bailey Road, in the Pittsburg/Bay Point BART station area, is designated in the General Plan as commercial mixed-use. The plan states that "The intent of this designation is to create a neighborhood commercial district as a focal point of the Bay Point community. It is further intended that the area should be a pedestrian-oriented district with adequate parking, with its placement subservient to the shopping use orientation to Willow Pass Road...."

The General Plan applies the designation of mixed-use to several additional areas. While the plan does not state so explicitly, it can be assumed that the intent for the mixed-use areas that will include residential uses to become pedestrian-oriented districts. These areas are:

- A portion of Parker Avenue in Rodeo.
- Downtown/waterfront Rodeo.
- The Pleasant Hill BART station area.
- Other parts of the Pittsburg/Bay Point BART station area.
- The Dougherty Valley Village Center (located at the confluence of the two main branches of Alamo Creek).
- The Montalvin Manor site (at the intersection of Tara Hills Drive and San Pablo Avenue).

❸ Design guidelines can be found in the county's General Plan and also in various specific plans. Examples of pedestrian-oriented design guidelines in the General Plan include:

- New development and the renovation of existing structures shall be designed with interesting facades and an orientation to adjacent streets and pedestrian ways.
- Signage shall be adequate for its purpose but shall be subservient to the creation of a strong residential and pedestrian environment.
- Driveway conflicts with pedestrian movement paths shall be minimized.

DANVILLE

❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ The town has a "Townwide Trails Master Plan," adopted in 1989, "for the purpose of creating a pedestrian, equestrian, and bicycle trail system."

Two of the five goals in the Circulation section of the General Plan (1999) address transportation alternatives. Goal 13 is "Provide convenient and efficient alternatives to the automobile" while Goal 15 is "Integrate land use and transportation planning to increase the viability of alternative transportation modes...." The section also includes numerous pedestrian-related policies including Policy 13.05, "Provide a pleasant and safe environment for pedestrian movement," and Policy 15.03, "Promote bicycle and pedestrian oriented mixed use development in appropriate locations...."

In 2006, the town adopted the "Parks, Recreation and Arts Strategic Plan," which further identifies and prioritizes local trail linkage projects, and also references

and supports the 2003 CBPP.

❷ The General Plan states that "Preservation of [Downtown Danville's] historic buildings and enhancement of the pedestrian-oriented street scene remain important goals for the coming years." It continues by saying that "The town will also promote the pedestrian-oriented character of Old Town north along Hartz Avenue between Diablo Road and Railroad Avenue." The plan also mentions that "Throughout the Old Town area, efforts to maintain and enhance a pedestrian-friendly environment should be promoted. This could include additional outdoor patio and dining places, public art, and streetscape improvements such as benches and pocket parks. This might also include additional pedestrian controls along Hartz Avenue, such as new crosswalks and additional links from Downtown to the Iron Horse Trail."

❸ The town has several documents that outline development standards and design guidelines. They take into account pedestrian and bicycle considerations to varying degrees. These documents include:

- Historic Design Guidelines
- Downtown Design Guidelines (1984)
- Hillside/Ridgeline Guidelines (1984)
- Residential Design Guidelines (1984)
- Downtown Streetscape Beautification Guidelines (1987)
- Downtown Master Plan (1986)
- Old Town Beautification Plan (1990)

EL CERRITO

❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ The city has a "Circulation Plan for Bicyclists and Pedestrians" (2007). The plan's main purpose is to "Establish short and long term priorities that will guide future investments and improvements for bicyclists, pedestrians, and disabled."

Two of the four goals of the Transportation and Circulation Element of the General Plan (1999) focus on transportation alternatives. These goals encompass several pedestrian-oriented policies, including:

- T1.4: Provide a safe, convenient, continuous and interconnected pedestrian circulation system throughout the City. Ensure safe pedestrian access to local schools.
- T2.1: ...Promote land use and development patterns that encourage walking, bicycling, and transit use. Emphasize high-density and mixed land use patterns that promote transit and pedestrian travel....
- T2.2: Projects should be designed to include features that encourage walking, bicycling, and transit use.

❷ The Circulation Plan for Bicyclists and Pedestrians describes five proposed "improvement areas" where, given that bicycle and pedestrian activity is concentrated, improvements for safety, comfort and accessibility for pedestrians and disabled individuals should be prioritized. These areas include three "activity centers"—El

Cerrito Plaza, Del Norte, and Midtown/Civic Center—and two general areas (school areas and parks). The "activity centers 'are envisioned as pedestrian friendly, mixed-use villages, with ground floor retail uses and upper floors of office and residential uses.' With the pedestrian friendly designation, the City hopes to create an environment that places an emphasis on the pedestrian, bicycle, and public transit systems...." Key principles and policies for these activity centers and also for the Macdonald Gateway area (identified through the San Pablo Avenue Specific Plan, a collaborative process with the City of Richmond) are to prioritize the pedestrian, promote walkabillity and public transportation, and balance multiple transportation modes.

❸ Appendix C of the General Plan, "Design and Development Guide," presents development concepts and design guidelines for areas of the city deemed to need special design attention. These areas include the three "activity centers" mentioned above (El Cerrito Plaza, Del Norte, and Midtown). The appendix contains numerous guidelines related to walking and bicycling. Examples of these guidelines include:

- Streetscape improvements will provide enhanced pedestrian spaces along the major commercial frontages, including decorative sidewalks, street trees, pedestrian-scaled lighting, benches and other pedestrian amenities.
- Pedestrian and bicycle connections should be provided to the surrounding neighborhoods [of El Cerrito Plaza], the BART Station, the Ohlone Greenway, and to San Pablo Avenue.
- Retail uses that provide services and goods for offices and local residents should be provided on the ground floor of new projects, opening onto wide pedestrian friendly sidewalks, public spaces, and plazas.
- Within the Del Norte BART area, pedestrian access to and from the BART station and surrounding development should be clearly marked with graphically emphatic crosswalk markings (such as zebra stripes, special textures, or paving treatments) and unobstructed sidewalks.

HERCULES

❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ The Circulation Element of the General Plan (1998) includes only one policy related to walking: "f. The City should promote the establishment of riding and hiking trails throughout the community and coordinate with other agencies planning trail systems in the area and region." The element also includes two pedestrian-related implementation actions: "4. ...encouragement and requirement of dedication of streets, paths and trails as part of the land development process" and "12. Encourage pedestrian and bicycle travel for home-to-work and home-to-local-shopping trips through the provision of pathways...."

❷ The "Plan for Central Hercules" (2000) is an ambitious proposal to redesign the central districts into a traditional mixed-use, pedestrian-oriented "Town Center." The center would encompass four districts: the waterfront, the area surrounding the intersection of San Pablo Avenue and Sycamore Avenue, the site of the PG&E tank farm and the area surrounding City Hall. Planning is most advanced in the waterfront district and construction of certain areas could begin in early 2009.

❸ The Regulating Code for the Central Hercules Plan establishes traditional neighborhood design guidelines for the future development of the Central Hercules area. The code includes a number of pedestrian-oriented guidelines, such as:

- Parallel parking and wide sidewalks on both sides of the Town Center Street create a safe inviting place for both pedestrians and motorists. 12-ft-wide sidewalks with tree wells are preferred, but 6-ft-wide sidewalks with 6-ft-wide green strips are also acceptable.
- Signs on the sides of awnings are directly in the line of sight of pedestrian customers.

- Corner curb radii shall be between 4 feet and 15 feet. These fairly tight turning radii are intended to shorten pedestrian crossings and inhibit drivers from turning corners at high speeds.

LAFAYETTE ❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ The city has a Master Walkways Plan, adopted in 1999 (which mainly addresses sidewalks), and a Trails Master Plan, adopted in 2006. The walkways plan was amended in 2006 to update the project list (Appendix A of the plan), priority list (Appendix C) and map of projects (Appendix D).

The General Plan (2002) states that one of its main underlying themes is to "Provide a network of trails and pedestrian paths…among parks, schools and cultural and commercial destinations in and around the city." Pedestrian-related goals and policies include:

- Policy C-3.1: Place a higher priority on safety, encouraging a pedestrian-oriented design and scale; and on maintaining the quality of life and identity of residential neighborhoods than on accommodating through-traffic.
- Goal C-6: Provide an attractive, well-designed system of walkways for safe and efficient pedestrian movement in Lafayette. The walkway system should connect residential areas with the local and regional trails system, public transportation, schools, parks and other community amenities, and the Downtown core Area.
- Policy C-9.1: Support improved access to public transportation and sidewalks for people with disabilities.
- Policy C-9.2: Design a pedestrian circulation system to meet the accessibility needs of all segments of the population.
- Policy P-3.2: Locate and design trail routes to the following criteria: a) Emphasis on scenic qualities; b) Use and enjoyment by neighborhoods and City residents; c) Connection with local and regional open space areas, parks, points of interest and community facilities.

❷ The General Plan mentions that "the Downtown Core is the City's primary retail center and its most pedestrian-friendly commercial district." According to the plan, "The Downtown Core should be a pedestrian-friendly and safe environment, both day and night, where residents of the downtown and the community at large can shop, eat and enjoy cultural events." The city is developing a specific plan for Downtown which will provide more detailed planning guidance for the area, including on pedestrian conditions.

In addition, the walkways plan singles out as pedestrian high-use areas most of the downtown area, some areas close to schools and the BART station. The plan mentions that "In setting the priority for the installation of walkways, the highest priority is given to those in the immediate downtown area, then to those connecting or completing a connection to the downtown and the schools."

❸ The residential design review guidelines for hillside and ridgeline areas state that "Dedication of rights-of-way along public roads for paths, sidewalks, curbs, and gutters should be considered, if applicable." Similarly, the guidelines for valley and infill areas mention that "Dedication of rights-of-way along public roads for sidewalks, curbs and gutters, and bikeways should be considered if consistent with existing adjacent development."

The Land Use Element of the General Plan contains several policies that serve as pedestrian-oriented design guidelines. Examples include Policy LU-10.3 ("Site

planning in the Downtown Core fosters a pedestrian friendly environment through zero or reduced front setbacks and access to the rear through alleyways, paseos, small plazas") and Policy LU-10.4 ("Provide a pedestrian-friendly retail environment through the exclusive use of retail on the ground floor"). Additionally, the Downtown Street Improvement Master Plan serves as the design criteria for Mt. Diablo Blvd.

MARTINEZ ❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ One of the six goals of the Transportation Element of the General Plan (1992) is "6. Encourage pedestrian travel." There is only one policy under this goal—"A. Provide and maintain sidewalks where required"—with four sub-policies:

- Require new developments to include sidewalks except in rural residential areas.
- Promote the addition of sidewalks to existing streets, except in rural residential areas.
- Install handicapped curb cuts in existing street corners.
- Monitor and repair damaged sidewalks.

A process is currently in place to develop a Community-Based Transportation Plan for downtown Martinez. The plan will identify significant transportation issues, evaluate possible solutions, and recommend a list of improvements to make it safer and more comfortable for people to walk, bike, drive, and use a bus in and out of downtown.

❷ The Downtown Specific Plan (2006) is intended to provide for "compact, pedestrian-oriented development," "denser housing within walking distance of transportation centers" and mixed land uses in Downtown Martinez. The plan includes numerous pedestrian-oriented policies and design standards and guidelines that are intended to foster a pedestrian orientation. The study area includes Downtown's commercial core, civic-use areas, shoreline and residential neighborhood and the adjacent Grandview district.

❸ Chapter 10 of the Downtown Specific Plan outlines design standards and guidelines for the plan area. Examples of relevant policies include:

- New structures shall be sited in a manner compatible with surrounding development and with the façade facing the public street designed in a manner that enhances the pedestrian environment.
- Building walls that are visible from a public street, major pedestrian corridor, or public open space should include architectural features such as windows, arcades, canopies, and trim to create visual interest.
- Retail storefronts should have large display windows oriented toward the public street or major pedestrian corridors and a simple entry door centrally located on the building façade.
- Accent lighting of architectural features is encouraged to highlight building massing and enhance the pedestrian environment. Accent lighting should not be a source of glare, reflected glare, or excessive light, especially when viewed from residences, streets, walkways, or open spaces....

MORAGA

❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ One of the "guiding principles" of the General Plan (2002) is to "facilitate bicycle and pedestrian circulation in the Town for transportation and recreational uses." Additionally, there are numerous goals, policies and "implementing programs" to encourage walking, especially in the Circulation, Community Design and Open Space and Conservation elements. The most relevant is Goal C4.1: "Provide a safe, continuous and connected system of pedestrian pathways through the Town, including sidewalks, paths, trails and appropriate crosswalks along all principal streets, to link residential neighborhoods, commercial areas, community facilities such as schools and parks, and other important destinations. Link this network as appropriate with the regional trails system."

❷ The General Plan singles out the Moraga Center and Rheem Park shopping areas as priority locations for pedestrian traffic. Both are envisioned as mixed-use environments with a strong pedestrian orientation that would "support their role as community gathering spots and activity centers." Guidelines for these areas call for "buildings sited and designed to create a pleasant pedestrian experience along public street frontages and active uses adjacent to the public sidewalk," "pedestrian places and amenities such as covered walkways, courtyards, and plazas with appropriate landscaping and lighting," "redesigned parking areas to create a stronger pedestrian orientation" and "pedestrian and bicycle linkages…between residential neighborhoods and nearby commercial services."

❸ The town's Design Guidelines (2007) addresses a variety of land uses and development aspects. The document includes a number of pedestrian- and bicycling-related guidelines, including:

- Require appropriate landscaping for both public and private developments located on designated Scenic Corridors, including pedestrian lighting and street trees within existing commercial areas.
- Create a safe, inviting and functional pedestrian environment in commercial areas, with interconnected walkways; pedestrian amenities (e.g., seating, lighting, signage, landscaping); plaza areas; and outdoor café spaces. Where pedestrian paths cross parking areas or vehicle lanes, give clear priority to pedestrians through pavement markings, differentiation in the pavement surface, and signage.
- Consider the use of flexible setbacks (for example, with new buildings at or near the public sidewalk and parking located to the side or rear) to achieve pedestrian-oriented design goals.
- Commercial centers should maintain a high level of pedestrian-oriented amenities, including: a. Sidewalks along storefronts and around the perimeter of the commercial center and between retail and office uses, ensuring a safe path for pedestrians around the center and to/from transit stops; b. Safe walkways through parking lots that use different paving materials to differentiate between parking and pedestrian areas; c. Clearly-marked crosswalks at appropriate locations in parking lots to allow pedestrian traffic to safely move through vehicle paths; d. Permanent bicycle racks, benches, recycling and trash receptacles; and e. Landscaping with flowering species and shade trees for summer months.

OAKLEY

❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ Goal 3.2 of the Circulation Element of the General Plan is "Promote and encourage walking and bicycling." Pedestrian-oriented policies and programs under that goal include:

- 3.2.1: Provide maximum opportunities for bicycle and pedestrian circulation on existing and new roadway facilities.

- 3.2.2: Enhance opportunities for bicycle and pedestrian activity in new public and private development projects.
- 3.2.3: Create a bicycle and pedestrian system that provides connections throughout Oakley and with neighboring areas, and serves both recreational and commuter users.
- 3.2.4: Design new roadway facilities to accommodate bicycle and pedestrian traffic. Include Class I, II, or III bicycle facilities as appropriate. Through the Design Review process, provide sidewalks on all roads, except in cases where very low pedestrian volumes and/or safety considerations preclude sidewalks.
- 3.2.A: During the site plan review process, encourage new development to incorporate design features that support bicycling and walking, particularly in those areas that could provide access to and between major destinations. This could include: bicycle racks, lockers, showers, and other support facilities; continuous sidewalks; an internal pedestrian circulation plan; walkways for pedestrians and bicyclist between cul-de-sacs; and at least one major entrance adjacent to a sidewalk, wherever possible.
- 3.2.B: Develop a comprehensive Bicycle and Pedestrian Master Plan....

❷ Two areas of pedestrian interest are the downtown and schools. Policy 2.8.2 of the General Plan, from the Land Use Element, is "The downtown area should be developed at a pedestrian scale, with adequate sidewalks, street crossings, and pedestrian resources." Policy 3.7.10, from the Circulation Element, is "Support and pursue Safe Routes to Schools projects to enhance pedestrian safety within Oakley."

❸ The city has separate sets of design guidelines for residential projects (2003) and for commercial and industrial projects (2005). Relevant residential design guidelines include:

- Where a neighborhood abuts a trail, park or open space, provide pedestrian and bicycle access from the neighborhood.
- Provide safe and efficient pedestrian and bicycle circulation for children traveling to and from schools.
- Emphasize home entries to reinforce pedestrian orientation and country warmth of the community. Usable front porches and wide entry stairs, which are permitted to protrude into setbacks, can personalize the streetscape....
- Create shaded, pedestrian-oriented streets with parking and sidewalk located on both sides of the street. Such streets should recall a small town ambience.

Relevant non-residential design guidelines include:

- Group buildings to encourage pedestrian travel within the site and between adjacent parcels. Cluster buildings to create "outdoor rooms" with seating, shade and protection from wind and traffic noise.
- Wherever possible, reinforce Oakley's Delta heritage by relating public and pedestrian areas to the water.
- Provide clear and convenient pedestrian connections from the public streets, sidewalks, transit stops and trails to the commercial uses. Provide clear and convenient pedestrian connections among all commercial uses on the site and between compatible uses on adjacent parcels.
- On large, multi-tenant sites, provide separated pedestrian circulation through parking areas. Where the pedestrian pathway acts as a "sidewalk" to the internal "street," separate it from traffic by means of a raised curb and landscaping or bollards.
- Provide adequate lighting for pedestrian safety. One foot-candle is the minimum light level required.

ORINDA	❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ The Circulation Element of the General Plan (1987) includes the following two pedestrian-oriented policies:
- 2.3.1.E: Expand pedestrian and bicycle paths to provide a safe alternative to auto use, particularly to provide safe paths near schools and in other locations where they are heavily used for circulation.
- 2.3.1.M: Do not make roadway improvements at the expense of established bicycle and pedestrian paths, except where in the interest of public safety.

❷ Several policies in the General Plan convey a desire to promote walking in the city's downtown:
- 2.1.3.A: Enhance the "village character" of downtown. Large, highly visible parking lots characteristic of strip shopping centers are inconsistent with village character.
- 2.1.3.E: Make downtown shopping more attractive by diverting through traffic off local streets in the business district, providing more convenient circulation for shopping traffic, managing the parking supply more efficiently, creating safe and pleasant pedestrian routes, and developing and maintaining sufficient landscaping.
- 2.1.3.K: Encourage property owners to make more intensive use of the San Pablo Creek sides of their buildings by designating a "private street" with public access parallel to the creek that would provide an alternative connection for shoppers who must now turn on and off Orinda Way and/or enhance and preserve San Pablo Creek with landscaping, pathways and other pedestrian amenities, consistent with its primary purpose as flood control.

❸ Implementing Policy 2.1.4.A of the General Plan is "Enhance architectural compatibility in each sector of downtown by establishing design districts that provide guidelines and a review process for site layouts, architectural design, alterations, landscaping, and signs. Sloping roofs are encouraged on new buildings in districts where such features are common."

PINOLE	❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ The Circulation Element of the General Plan (1995) includes among its seven goals to "Develop and maintain a comprehensive pedestrian, bicycle, hiking and equestrian circulation network and trails system which connects open space, activity areas and recreation areas, provides linkages to regional trails and open space, offers safe recreation opportunities, and provides an alternative to automobile travel." This goal encompasses several pedestrian-oriented policies, including:
- C7.10: Develop a safe, pleasant pedestrian system that provides direct and convenient pedestrian access, designed to serve all segments of the public including the young, the aged, and the handicapped. Pedestrian safety shall be made a priority in the design of intersection and other roadway improvements....
- C7.11: Continue to require as a condition of development project approval the provision of sidewalks and wheelchair ramps and the repair or replacement of damaged sidewalks. Require utility poles, signs, street lights and street landscaping on sidewalks be placed and maintained to permit wheelchair access and pedestrian use.

❷ The Land Use Element of the General Plan encourages land uses and design "that build upon the distinct function and enhance the character of Old Town, Mid San

Pablo Avenue and West San Pablo Avenue" by, among other things, enhancing "the visual continuity, attractiveness, pedestrian circulation and transition from each sub-area…through attractive public improvements and quality site planning, building and landscape design."

❸ The city's Residential Design Criteria and Guidelines (which cover mixed-use residential developments as well) briefly address pedestrian issues in the context of outdoor space. It has one approval criterion ("Public and private open space shall be provided so that it is usable for residents, visitors and other users of the site") and three design guidelines:

- 5.1: Plaza or a courtyard in a mixed-use area should reflect a traditional residential use and design while accommodating new functional requirements for an integrated mix of uses.
- 5.2: Outdoor areas should be visible from public streets and accessible from the building as well as the street or potential network.
- 5.3: Outdoor pedestrian spaces shall include appropriate outdoor furniture, such as seating, walls, trash receptacles, bike racks and other elements and incorporate high quality paving materials. Outdoor furniture should be coordinated with building design.

PITTSBURG

❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ The Transportation Element of the General Plan (2005) includes the following pedestrian-related policies:

- 7-P-37: Designate a Bicycle and Pedestrian Program Coordinator for the City of Pittsburg.
- 7-P-38: Develop a series of continuous pedestrian systems within Downtown and residential neighborhoods, connecting major activity centers and trails with city and county open space areas.
- 7-P-40: Ensure provision of sufficiently wide sidewalks and pedestrian paths in all new residential development.
- 7-P-42: Improve pedestrian crossing safety at heavily used intersections by installing crossing controls that provide adequate time for pedestrians to cross the street.

There are pedestrian-oriented policies scattered through the other elements of the General Plan. An example is Policy 4-P-85, from the Urban Design Element: "Provide safe and comfortable pedestrian routes through local neighborhoods by requiring sidewalks on both sides of residential streets, except in hillside areas, by planting street tres adjacent to the curb, and by minimizing curb cuts."

❷ Policy 2-P-56 of the Land Use Element is "Work with BART to develop a specific plan for the Railroad Ave. BART station area, featuring mixed-use business commercial activities with extensive pedestrian amenities. Provide pedestrian linkages from this mixed-use village to the Civic Center, City Park, high school and other institutional uses on the north side of HWY 4." Similarly, Policy 2-P-64 is "…Ensure that all uses with ½-mile radius of the proposed [Railroad Ave. BART] Station feature mixed-use, pedestrian-oriented design."

Policy 5-P-14 of the Downtown Element is "Develop a detailed design plan for the City's new Marine Commercial center, featuring: mixed-use village atmosphere; walkable layout, with pedestrian amenities; public access to the shoreline and views of Browns Island; and focus on visitor attractions, as well as traditional marine services." Policies in the same element call for improving streetscaping along East Tenth Street (Policy 5-P-12) and West Tenth Street (Policy 5-P-25) "with a land-

scaped median, wide sidewalks, pedestrian amenities (for example, benches and trash/recycling receptacles), and street trees."

❸ The Old Town Pittsburg Design Guidelines and Principles (2005) provides a number of guidelines to make the city's downtown more pedestrian- and bicycle-friendly. Examples of such guidelines include:

- Pedestrian paths must be planned from rear parking lots to the main street.
- Parking lots and pedestrian connections must be well lit, but it is important to NOT over light parking lots and connections or they will detract attention away from the streetscape.
- Bicycle parking is to be considered and provided for where possible.
- Storefronts are to be spaced in a repeated pattern along the sidewalk to maintain pedestrian continuity and interest.

PLEASANT HILL ❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ Among the circulation goals in the General Plan (2003) are "4. Reduce congestion and vehicle trips through non-automobile transportation," "5. Ensure that streets are safe and pedestrian-friendly" and "6. Prioritize access and mobility for persons with disabilities." Pedestrian-related policies under these goals include:

- 4A: Maintain and upgrade the City's bikeway and pedestrian system.
- 5A: Install or upgrade sidewalks, warning devices, crosswalks, and other pedestrian aids where appropriate.
- 6A: Improve sidewalks to facilitate access by persons with disabilities.

❷ The 1991 Downtown Plan called for replacing conventional commercial development with mixed-use projects on short blocks to promote a pedestrian atmosphere and provide a commercial core and central gathering place for the community, with trees, water, recreation places, streetscape amenities and public art. The General Plan continues that theme through Community Development (CD) Policy 6A, "Ensure safe and easy pedestrian travel within and between downtown, Contra Costa Boulevard, and the Contra Costa Shopping Center with amenities that are aesthetically pleasing" and Program CD6.1, "Install downtown streetscape improvements, pedestrian access elements, and public spaces north and east of downtown, and require new development in those areas to incorporate complementary features."

❸ In February 2008, the City Council adopted separate sets of city-wide design guidelines for residential and non-residential development projects. Relevant residential design guidelines include:

- Architectural elements of new residential buildings should be designed to reduce the mass of large structures and provide a pedestrian scale to the buildings.
- Facades should be varied and articulated to provide visual interest to the street and pedestrians.
- Sidewalks shall be incorporated as per Public Works Standards.
- Use alternative fixtures/luminares for illumination rather than typical street lights including pedestrian scale lighting where appropriate.

Relevant guidelines for non-residential projects include:

- The placement and design of structures should facilitate and encourage pedestrian activity and convey a visual link to the street and sidewalks.

- The ground level of a building should be developed to encourage pedestrian activity.
- Parking lots should provide pedestrian access throughout the site, including within the parking lot.
- When in close proximity to trails and other established pedestrian paths, direct access should be provided.
- Pedestrian walkways should be safe, visually attractive, and well defined by landscaping and lights. Use of decorative pavement is encouraged in hardscape areas; at a minimum it should be used to delineate crossings.

RICHMOND ❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ The city of Richmond is in the process of updating its general plan, last developed in 1994, and has released a draft of the plan. Goals in the Circulation Element of the 2009 draft general plan include "Expand the Multimodal Circulation System" (CR1) and "Promote Walkable Neighborhoods and Livable Streets" (CR2). Pedestrian-related policies include:

- CR1.6: Promote walking and bicycling as a safe and convenient mode of transportation.
- CR1.7: Develop a comprehensive network of multi-use trails including the Richmond Greenway and the San Francisco Bay Trail to enhance bicycle and pedestrian connectivity throughout the City and the region.
- CR2.2: Promote mixed-use urban streets that balance public transit, walking and bicycling with other modes of travel.
- CR2.3: Create and maintain a safe, comprehensive and integrated bicycle and pedestrian system.
- CR3.1: Enhance safety and accessibility for pedestrians, bicyclists and public transit riders.
- CR3.2: Ensure adequate maintenance of transportation facilities such as streets, trails, sidewalks and bicycle paths.
- CR3.3 Require concurrent infrastructure development for new and redevelopment projects that may have a significant impact on the existing circulation system including streets, trails, sidewalks, bicycle paths and public transit.

❷ The Circulation Element of the draft general plan addresses pedestrian districts and identifies several of them:
"Pedestrian districts experience a concentration of foot traffic at many times of the day, evenings and weekends. A successful public street environment in these districts may be characterized by wide sidewalks, landscaping, pedestrian-scaled lighting, special paving and public gathering places such as plazas. Transit provides easy access to these pedestrian districts and cars use slower traffic speeds with fewer travel lanes. Uses that support pedestrian districts may include mixed-use, commercial, recreation, entertainment, office and residential. Pedestrian districts may vary in size—some pedestrian districts are large, such as the proposed ferry terminal transit-oriented development, the Downtown, and the Hilltop Mall area, while others are smaller intersections or gateways along major mixed-use corridors." (Pedestrian districts are shown as "Pedestrian Improvement Districts" on draft map 4.1, "Pedestrian and Bicycle Improvements.")

According to the amended City Center Specific Plan (2001), "The Central District is envisioned as a 'compact center' with a concentration of offices, retail services, apartments, and amenities for pedestrians. Such development will complement the existing commercial facilities, the Federal Social Security Payment Center, and the BART rapid transit station." Within the area, Nevin Avenue between 23rd Street and the Nevin Recreation Center has been designated a pedestrian mall.

❸ Relevant policies from the City Center Specific Plan Amendments And Background Report include:

- For all zero-setbacks/build-to lines, pedestrian amenities such as building entry plazas, entry courts, retail arcades, etc. shall be required to improve the area-wide commercial environment.
- Design of the pedestrian and bicycle system should: maximize safety of pedestrians; provide convenient and safe access to and from transit stops, parks and commercial areas; provide convenient bicycle and pedestrian access between residential, commercial and recreational areas; separate major bicycle and vehicular flows where the need is established.
- The pedestrian network shall be improved with paving of adequate width, be provided with amenities such as benches and drinking fountains, and shall have appropriately scaled lighting to provide for security.

SAN PABLO ❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ The current Land Use (LU) and Circulation, Public Facilities and Services (CF) elements of the General Plan (1996) contain several pedestrian-related policies, including the following:

- LU 1.6: Incorporate pedestrian safety oriented improvements as part of the initial design process for commercial, residential and industrial projects within the community.
- LU 2.E: Revise the city standards…to ensure the development of minimum sidewalk dimensions within designated pedestrian oriented areas….
- CF 1.16: Provide a comprehensive pedestrian oriented and interconnected walking City system that ensures safe, convenient and separated walkways, sidewalks and pedestrian crossings for all age groups and persons with mobility or other handicaps.
- CF 1.Q: Consider the pedestrian needs as a priority when considering improvements within the public right of way….
- CF 1.R: The city shall incorporate within its Zoning Ordinance specific criteria for private development which advocates creating stronger transitions between the pedestrian access system and the siting of the building….

❷ The Land Use Element of the General Plan envisions several districts with a new or renewed pedestrian orientation. These districts are:

- El Portal: "a new, planned pedestrian-friendly downtown area focusing on a range of local serving commercial uses and appropriately scaled regional serving uses…."
- The Gateway District: an entertainment/regional-serving district with "pedestrian scaled architectural features such as covered walkways and paseos; architectural lighting, streetscape themes and outdoor gathering spaces/plazas."
- 23rd Street: a "pedestrian-friendly shopping environment with sidewalk fronting businesses, transparent storefronts with awnings, pedestrian-scaled streetscape elements, and landscaped District parking lots."
- Market Avenue: "a balanced mix of residential, public facilities and appropriately scaled neighborhood-serving small retail or office uses, while retaining its pedestrian-scaled character."
- Rumrill Boulevard: "Focus should be placed on pedestrian accessibility and the creation of a better street identity."
- Alvarado District: "Public and private improvements within the District shall be implemented in a manner conducive to pedestrian usage, and to create a more walkable area…."

❸ In 2007, the city adopted a specific plan for 23rd Street, one of the priority pedestrian areas mentioned above. Relevant policies from the 23rd Street Specific Plan include:

- Require active commercial ground floor uses along 23rd Street that contribute to the pedestrian environment.
- Encourage development that provides wider sidewalks, outdoor seating or displays, façade variation and other components that contribute to the pedestrian environment on 23rd Street.
- Ensure that development creates a continuous built edge along 23rd Street consisting of either a physical structure, exterior plaza or seating area that helps define the pedestrian realm.
- Shrubs should be used to provide a natural fence that shield autos from the pedestrian sidewalk.

SAN RAMON

❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ The Traffic and Circulation Element of the General Plan (2002) devotes a section to "Bicycle and Pedestrian Routes." The section states that "it is the City's goal to provide and maintain a safe and comprehensive bicycle and pedestrian system that connects all parts of the City." The guiding policy is to "Encourage bicycling and walking as alternatives to the automobile" and the section includes ten "implementing policies."

❷ The General Plan calls for "design standards for mixed use development that will result in a high quality pedestrian-scaled environment" at "retail shopping centers identified as mixed use centers on the General Plan Diagram." Envisioned for these areas are "one-to-four story buildings, side or rear parking areas, street-front windows and entries, and public and private open space." Additionally, the plan calls for the redevelopment of the Crow Canyon area "as a mixed use neighborhood integrating multi-family housing with office, retail, and service uses at a pedestrian scale."

❸ The Crow Canyon Specific Plan "provides a vision for an area of San Ramon that is currently underutilized but has the potential to develop into an active, mixed use center for the community.... The goal is to create a new pedestrian-oriented, mixed-use community that includes concentrated commercial and residential uses, while maintaining viable limited/light industrial and service commercial uses which wish to remain." Relevant guidelines include:

- Ground level uses that promote an active and public-oriented pedestrian friendly environment should be encouraged along Old Crow Canyon and Omega Roads.
- To promote the spatial definition of the street and to create an active, pedestrian-oriented district, all buildings shall be built parallel to, and within five feet of the right-of-way lines of Old Crow Canyon and Omega Roads.
- Commercial, retail, restaurant and office uses are permitted, but storage and warehousing uses that do not contribute to the destination and pedestrian appeal of the area are prohibited.
- Public-oriented uses that promote sidewalk activity and pedestrian interest are required on fronting ground level space adjacent to San Ramon Valley Boulevard. Such uses include: offices, retail establishments, showrooms, workshops, and other uses approved by the Director of Planning.

The city's Architectural Review Guidelines covers site design, architecture, and landscaping. Relevant guidelines include:

- Separate vehicular and pedestrian circulation systems should be provided.

- Provisions should be made for bicycles.
- Create circulation systems which avoid conflicts between vehicular, bicycle, and pedestrian traffic.

WALNUT CREEK ❶ Pedestrian plans | ❷ Pedestrian-priority areas | ❸ Development review process

❶ Of the 13 goals in the Transportation Element of the General Plan (2006), three are pedestrian-oriented: "2. Expand and improve regional trail facilities" (Goal 2), "Provide a safe and attractive walking environment" (Goal 6) and "Promote a pedestrian-friendly downtown" (Goal 9). Some policies under these goals include:

- 2.3: Promote the safety of bicyclists, pedestrians, and equestrians.
- 6.1: Provide safe and attractive pedestrian routes along arterials and collectors leading to schools, along arterials or collectors that carry high traffic volumes, on all downtown streets, along major streets leading to the downtown, and on all streets leading to transit facilities.
- 6.2: Require full-frontage curb and sidewalk improvements in all commercial areas.
- 9.1: Balance the needs of drivers with downtown's pedestrian scale and existing and proposed transit and bicycle access.
- 9.2: Favor pedestrian travel over vehicular travel in the Pedestrian Retail District.

The Built Environment Element also includes numerous pedestrian-related goals, policies and actions. These include:

- Policy 6.2.1: In the Pedestrian Retail District, require pedestrian-oriented uses at street level.
- Policy 6.2.2: Promote building layouts and designs that create pedestrian interest and encourage people to "park once and walk."
- Action 21.1: Encourage new shopping center development and redevelopment to incorporate pedestrian-oriented mixed-use, and to make pedestrian and bicycle connections to surrounding residential areas.
- Policy 23.1: Encourage development of region-serving employment districts that promote transit, pedestrian and bicycle travel and reduces auto trips.

❷ According to the Built Environment Element, "Small parcels and a modified grid street pattern characterize the Traditional Downtown. Buildings are primarily one and two story, built close together, and inviting to pedestrians." In addition, "The Pedestrian Retail District is the civic and retail center of downtown Walnut Creek. With its large street trees, outdoor dining opportunities, and dense but small-scale development pattern, this area is a thriving shopping, dining, and entertainment district unique in central Contra Costa County." Goal 6 of the element is "Maintain and enhance Walnut Creek's thriving Core Area [which includes the downtown], while keeping the Pedestrian Retail District lively and walkable." Similarly, Goal 9 of the Transportation Element is "Promote a pedestrian-friendly downtown."

In addition, Goal 3 of the Built Environment Element is "Encourage housing and commercial mixed-use development in selected locations that enhances pedestrian access and reduces traffic." These locations include the Walnut Creek and Pleasant Hill BART station areas, the Golden Triangle and the Mixed Use—Residential land use categories. Action 4.1.1 of the same Element is "Prepare a specific plan for the two-block Newell Ave./S. California Blvd. area that would support mixed-use development that combines residential, retail, and office uses in a pedestrian-oriented environment....

❸ The city's Design Review Guidelines include a number of pedestrian-related guidelines, including:

- Circulation systems shall be designed to avoid conflicts between vehicular, bicycle and pedestrian traffic. Pedestrian circulation shall take precedence over vehicular circulation.
- Where pedestrian circulation crosses vehicular routes, a change in grade, materials, textures or colors shall be provided to emphasize the conflict point and improve its visibility and safety.
- New development along streetfronts in the downtown Pedestrian Retail area shall provide covered pedestrian walkways/barricades during construction to protect passersby....

C | Local Bicycle Data

As described in greater detail in Chapter 8, "Other Tools for Local Agencies," the information in this appendix can be used to qualify the CBPP as a local plan by jurisdictions that wish to adopt it to meet Caltrans' requirements for funding eligibility under the state's Bicycle Transportation Account (BTA). The information has been organized into five tables, covering the cities under each of the four RTPCs in Contra Costa and the unincorporated areas. Rows a-k in the tables correspond to the 11 BTA-required informational topics, in the same order as they appear in section 891.2 of the Streets and Highways Code. The five tables are:

C-1. West County cities (El Cerrito, Hercules, Pinole, Richmond and San Pablo) C-2

C-2. Central County cities (Clayton, Concord, Martinez, Pleasant Hill and Walnut Creek) C-10

C-3. East County cities (Antioch, Brentwood, Oakley and Pittsburg) C-17

C-4. Southwest County cities (Danville, Lafayette, Moraga, Orinda and San Ramon) C-23

C-5. Unincorporated areas C-30

Table C-1 | **West County cities**

	EL CERRITO	HERCULES	PINOLE	RICHMOND	SAN PABLO
(a) Estimated number of existing and projected bike commuters	Chapter 2, "Existing Conditions," includes this information.				
	This information is also discussed in section 2.4 of the city's bicycle and pedestrian plan.	See above.	See above.	See above.	See above.
(b) Existing and proposed land use patterns	▪ By far, the predominant land uses are very low- and low-density single-family residential and open space (there are several large open-space areas in the center and eastern side of the city). Institutional uses are scattered while medium- and high-density residential and commercial uses are clustered along San Pablo Av and the BART line. In recent years, the San Pablo Av corridor has seen a number of commercial and civic redevelopment projects. ▪ Most public buildings are located in the city's Midtown section, along San Pablo Av. There are 13 schools. There are no	▪ West of I-80, the predominant land uses are low-density single-family residential and public recreational open space; there are scattered areas of other common land use types, with the civic center and a cluster of commercial uses south of John Muir Pkwy and a large school site along Refugio Valley Rd. East of I-80, no land use predominates; the historic town center is located here, as are the large New Pacific Properties mixed-use development and the Bio-Rad R&D complex. ▪ Most public buildings are located in the civic center. There are four schools. Bio-Rad is a ma-	▪ The most common land use is low-density residential. North/west of I-80 there are significant pockets of medium- and high-density residential, commercial and mixed use—especially along San Pablo Avenue—and several parks. South/east of I-80, there are large parks and open spaces and areas of suburban/rural residential and regional commercial uses. Public facilities are scattered throughout. ▪ Most public buildings are located in the city's historic downtown. There are 11 schools. There are no major employment centers and the major shopping areas include Pinole Vista shopping	▪ The predominant land uses are, in the center of the city, medium-density residential and institutional; north of San Pablo, low-density residential and the Hilltop Mall complex; and near the Sobrante Ridge, very low-density residential. There are several very large open spaces on the periphery, such as Point Pinole, Point Molate and Wildcat Canyon Regional Park. Owing to Richmond's history as a seaport, there are industrial uses on the waterfront, the most significant of which is the Chevron facility. ▪ Most public buildings are located in the civic cen-	▪ The primary land uses are low- and medium-density single-family residential. Institutional uses, in particular Contra Costa College and St Joseph's Cemetery, also make up a large portion of the city. Commercial uses are clustered along San Pablo Av and San Pablo Dam Rd. ▪ Most public buildings are found along San Pablo Av. There are 16 schools and one college (Contra Costa College). Major employers include the college and Casino San Pablo. The main shopping areas are the San Pablo Av and San Pablo Dam Rd commercial districts.

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	major employment centers and the main shopping areas are El Cerrito Plaza shopping center and the San Pablo Avenue commercial district. ■ Sections 1.2 and 2.3 of the city's bicycle and pedestrian plan discuss this topic (incl. figure 3, the land use map, and figures 8 and 9, which show location of key destinations).	jor employer. There are no major shopping centers.	center and the "big box" center on Fitzgerald Dr.	ter. There are 30 public schools and several private ones. The major shopping areas are Hilltop Mall, the Richmond Shopping Center and a "big box" district near Point Isabel. Major employment centers include the downtown (with Kaiser Permanente medical center and offices of the Social Security Administration), the seaport and the Chevron facility.	
	Chapter 2, "Background," includes a countywide map of land use designations in Contra Costa. Local jurisdictions adopting the CBPP to meet Caltrans' BTA requirements should supplement it with their zoning map or land use designation map from their general plan (these maps would show local land uses in much greater detail than does the map in the CBPP).				
(c) Existing and proposed bikeways	■ There are bike lanes on Carlson Blvd (between San Pablo Av and the city limits) and Eastshore Blvd (between Potrero Av and San Pablo Av) and a bike route, with shared-roadway markings, on Richmond St. The Ohlone Trail traverses the length of the city in a north-south direction. ■ The city's bicycle and pedestrian plan dis-	The only on-street bikeway on the countywide network is San Pablo Av. The Refugio Creek Trail bisects the city in an east-west direction and connects to the Bay Trail alignment, which remains undeveloped through the city.	The on-street bikeways—existing or proposed—on the countywide network are San Pablo Av, Appian Way, Fitzgerald Dr and Pinole Valley Rd. The Pinole Creek Trail travels from near I-80 to the shoreline, where it connects to the Bay Trail.	■ The main on-street bikeways—existing or proposed—on the countywide network are San Pablo Av, Cutting Blvd, Carlson Blvd, Central Av, Amador St, Marina Way, Richmond Pkwy, Hilltop Dr, Blume Dr and the private road that extends to Point San Pablo. There are many developed segments of the Bay Trail, from Point Isabel to	The main on-street bikeways—existing or proposed—on the countywide network are San Pablo Av, Market St, Church Ln, 21st St, San Pablo Dam Rd and Amador St. The Wildcat Creek Trail traverses the city in an east-west direction.

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	cusses existing facilities in section 2.2 and proposed facilities in sections 5.4 and 5.5 (incl. figure 14, a map of proposed bikeways).			Point Pinole. The city is developing the Richmond Greenway, parallel to MacDonald Av, and segments of the Wildcat Creek Trail. ▪ There are several additional locally designated class I, II and III bikeways, both existing and proposed.	
	Chapter 6, "Bicycle Improvements," includes maps of the countywide bikeway network. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with the local pages from the countywide bikeway "atlas" (the atlas shows many locally designated bike paths, lanes and routes that are not part of the countywide network).				
(d) Existing and proposed bike-parking facilities	▪ In 1999, the city installed 21 racks at popular retail and service businesses on San Pablo Av. Racks have also been installed at El Cerrito Plaza, the community center and at many schools and parks. The new City Hall will have four electronic bike lockers and eight racks. Also see (e), below. ▪ The city's bicycle and pedestrian plan discusses existing parking facilities in section 2.2 and proposed ones in section 5.5 (incl. figure	The public library has bike racks while the community center has lockers. There are racks also at shopping centers. Also see (e), below.	▪ City Hall has an eight-space rack. Among recreation facilities, there are existing racks at Canyon Drive Park (with an additional rack proposed), Pinole Swim Center (six spaces) and Pinole Youth Center (four spaces); racks are proposed for Pinole Valley, Louis Francis, Meadow and Pinon parks and for Pinole Valley Tennis Courts. ▪ The city requires bicycle parking for land uses requiring twenty or more auto spaces. As part of	City hall has covered bike racks. Also see (e), below.	The city has not been able to provide this information.

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	15, a map of proposed parking facilities).		improvements, Pinole Valley shopping center will be required to install five racks, each with a capacity for five bikes. Kaiser Hospital is expected to install a rack.		
	The maps of the countywide bikeway network in the CBPP show the location of bicycle parking facilities at transit stations and park-and-ride lots. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with a map showing additional local bicycle parking facilities.				
(e) Existing and proposed intermodal facilities for bike parking and transport	There are two BART stations, El Cerrito Plaza and El Cerrito del Norte. The city installed 48 on-demand lockers at the El Cerrito Plaza station; after BART's removal of the old, single-user lockers, the new lockers are now at capacity. The city and BART will be installing 14 on-demand lockers at the Del Norte station.	The transit center and the BART park-and-ride lot have e-lockers.	There are none.	There are 16 lockers and numerous racks at the BART/Amtrak station. There is no bike parking at the Richmond Parkway transit center.	The park-and-ride lot has lockers and racks.
	▪ WestCAT serves primarily Hercules and Pinole but also the remaining three jurisdictions. All WestCAT buses are equipped with front-mounted bike-carrying racks, each of which can hold two bikes. ▪ El Cerrito, Richmond and San Pablo are additionally served by AC Transit. All AC Transit buses are equipped with front-mounted bike-carrying racks, each of which can hold two bikes. There are no racks on transit vans, on Route G buses or on Transbay Express buses. ▪ The maps of the countywide bikeway network in the CBPP show the location of the above-mentioned transit stations and park-and-ride lots.				
(f) Existing and proposed facilities for	The maps of the countywide bikeway network in the CBPP show the location of publicly accessible changing and storing facilities, as required by Caltrans. Additionally, this table includes members-only fitness centers that have changing and storing facilities.				
	The city's Public Safety	The community center has	City Hall offers lockers and	There are three fitness	There is one fitness center

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changing and for storing clothes and equipment	Building, Corporation Yard and new City Hall have showers and lockers for city employees. Also, there are two fitness centers that provide lockers and showers for its members.	shower, changing and storage facilities. Also, there is one fitness center that provides lockers and showers for its members.	shower facilities to all city employees.	centers that provide lockers and showers for its members.	that provides lockers and showers for its members.
(g) Safety, education and law-enforcement programs and their effect on bike accidents	▪ The city sponsors two "Bike to Work Day" stations. Also, it includes bike-safety education in its "Environmental Workshop" series; previous courses—coordinated with the police department—were taught by a League of American Bicyclists- certified instructor. The police department has a bicycle patrol. The city has a helmet law for all cyclists and a requirement that bikes be registered; however, the registration program has been inactive because of staff limitations. ▪ Section 9.1 of the city's bicycle and pedestrian plan discusses this topic.	The city did not report any programs.	The city did not report any programs.	▪ Richmond and San Pablo are the focus of an active "Street Smarts" campaign of Contra Costa County Health Services. The program makes presentations on traffic-safety education at elementary schools; distributes helmets and "incentive" items (such as fridge magnets); produces bike rodeos (often in partnership with police departments and school districts); and conducts public-information campaigns aimed at drivers (bumper stickers, ads on bus shelters and cable TV, newsletter inserts, posters at schools and local businesses). ▪ The city has received a $400,000 "Safe Routes to School" grant from Caltrans to improve ac-	San Pablo and Richmond are the focus of an active "Street Smarts" campaign of Contra Costa County Health Services (see cell at left).

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				cess to five schools.	
	None of the jurisdictions has concrete information about the effect on bicyclists' safety of their education and safety programs.				
(h) Extent of citizen and community involvement in developing the CBPP	Chapter 1, "Introduction," describes the extent of public involvement in the development of the CBPP. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with a discussion of public involvement in the local process to adopt the CBPP.				
	Section 1.4 and Appendix B of the city's bicycle and pedestrian plan discuss public involvement in the development of that plan.	See above.	See above.	See above.	See above.
(i) Relation to other plans and programs	▪ Two of the four goals of the transportation and circulation element of the general plan address biking: "A transportation system that allows … travel by a variety of modes and promotes the use of alternatives to the single-occupant vehicle" and "A land use pattern that encourages walking, bicycling, and public transit use." ▪ In June 2007, the city adopted a *Circulation Plan for Bicyclists and Pedestrians.* The plan is designed to comply with Caltrans' BTA requirements and Appendix H of the plan references the sections that address	The circulation element of the general plan includes among its "subgoals" to "Provide a comprehensive system of riding and hiking trails." It also includes a policy to "promote the establishment of riding and hiking trails throughout the community and coordinate with other agencies planning trail systems in the area and region." Lastly, one of the implementation actions is to "encourage pedestrian and bicycle travel for home-to-work and home-to-local-shopping trips through the provision of pathways and bicycle storage."	The circulation element of the general plan includes among its seven goals to "Develop and maintain a comprehensive pedestrian, bicycle, hiking and equestrian circulation network and trails system which connects open space, activity areas and recreation areas, provides linkages to regional trails and open space, offers safe recreation opportunities, and provides an alternative to automobile travel."	The city of Richmond is in the process of updating its general plan, last developed in 1994, and has released a draft of the plan. One of the goals of the Circulation Element of the 2009 draft general plan is "Expand the Multimodal Circulation System" (CR1). Bicycling-related policies include: • "Promote walking and bicycling as a safe and convenient mode of transportation" (CR1.6) • "Develop a comprehensive network of multi-use trails including the Richmond Greenway and the San Francisco Bay Trail to enhance bicycle and pedestrian	▪ The circulation goal of the "Circulation, Public Facilities and Services" element of the general plan includes to "expand the mobility options for residents, including pedestrian enhancements, bicycle paths, bus systems, multi-modal facilities and other forms of mass transit." Specific policies include providing and maintaining a "safe and comprehensive bicycle system…" and developing a bicycle master plan. ▪ The city is developing a streetscape improvement plan for 23rd Street. The draft plan calls for removing a lane on the

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	each requirement. Also, section 1.3 and Appendix C discuss coordination and consistency of the plan with other plans and programs.			connectivity throughout the City and the region" (CR1.7) • "Promote mixed-use urban streets that balance public transit, walking and bicycling with other modes of travel" (CR2.2) • "Create and maintain a safe, comprehensive and integrated bicycle and pedestrian system" (CR2.3) • "Enhance safety and accessibility for pedestrians, bicyclists and public transit riders" (CR3.1) • "Ensure adequate maintenance of transportation facilities such as streets, trails, sidewalks and bicycle paths" (CR3.2) • "Require concurrent infrastructure development for new and redevelopment projects that may have a significant impact on the existing circulation system including streets, trails, sidewalks, bicycle paths and public transit" (CR3.3)	street and possibly installing bike lanes.

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	Chapter 3, "Relationship to Other Plans," describes the relationship of the CBPP to other countywide and regional planning efforts and to local pedestrian, bicycle and trails plans. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with a discussion of how the CBPP is consistent with other *local* plans and programs.				
(j) Proposed projects and priorities for implementation	Chapter 9, "Implementation," describes the Authority's priorities for funding pedestrian and bicycle projects. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with a list of projects within their jurisdiction from the Countywide Transportation Project List and any other locally prioritized projects, including a discussion of how those projects were selected as priorities.				
	Sections 5.4 and 10.1 of the city's bike/ped plan discuss this topic.	See above.	See above.	See above.	See above.
(k) Past expenditures and future needs for bicycle facilities	▪ The city estimates it has spent approximately $2,000,000 on both bicycling and pedestrian facilities in the past five years. It anticipates spending about that much again in the next several years. ▪ Section 10.1 of the city's bike/ped plan discusses future needs.	The city estimates that, within the past five to six years, it has spent approximately $120,000 to incorporate sidewalks and bike lanes as part of new-road construction. It also estimates, on average, annual expenditures of $10,000 for maintenance of bicycle and pedestrian facilities.	The only recent expenditure was approximately $380,000 for construction of the Prune Street bike/ped bridge, over Pinole Creek.	The city estimates spending approximately $5.5 million (much of it in grant funds) over the past five years on a variety of bicycle and pedestrian projects. These include improving the Ferry Point tunnel for cyclists and constructing or improving segments of the Richmond Greenway and the Bay Trail.	The city estimates it has spent approximately $900,000 on capital improvements for both pedestrians and cyclists in the past five years, including the striping of bike lanes and design and construction of Wildcat Creek Trail segments. The majority of the expenditures, however, have been for pedestrian facilities.
	Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with an estimate of funding needed to implement their list of priority projects.				

Table C-2 | **Central County cities**

	CLAYTON	CONCORD	MARTINEZ	PLEASANT HILL	WALNUT CREEK
(a) Estimated number of existing and projected bike commuters	Chapter 2, "Existing Conditions," includes this information.				
	See above.	The city's trails plan discusses this topic on page F-1.	See above.	See above.	See above.
(b) Existing and proposed land use patterns	▪ The predominant land use is low- and medium-density single-family residential, with large open-space areas on the city's east side. Commercial uses are clustered in the town center and in the city's northwest corner. ▪ Most public buildings are clustered in the small town center. There is one elementary and one middle school. There are no major employment centers and the main shopping area is Clayton Station shopping center.	▪ Development consists mostly of low- and medium-density single family residential. There is a significant downtown area and most other common land uses, including several large open spaces, can be found scattered throughout. The decommissioned Concord Naval Weapons Station and the campus of California State University, East Bay (CSUEB) occupy large areas of the city. ▪ There are concentrations of office and commercial buildings in and near downtown and west of Rt 242. There are more than 30 schools and one university (CSUEB).	▪ The predominant land uses are low- and medium-density single-family residential and recreational open-space, particularly in the southern and western sides. Small areas of most other major land use types are scattered throughout. The downtown occupies the northwest corner of the city. ▪ Most public buildings (both city and county, since Martinez is the county seat) are located in the downtown and near Hwy 4 at Center Av. There are ten schools. The downtown is a significant employment center.	▪ The predominant land use is low- and medium-density single-family residential, with several large recreational open-space areas. There are small areas of most other major land use types scattered throughout. Commercial uses are concentrated along Contra Costa Blvd. Diablo Valley College occupies a large area of the city in the north side. ▪ There is no clear concentration of public buildings but City Hall is located in the new downtown. There are approximately 20 schools and one college (Diablo Valley). Most shopping occurs downtown, at Pleasant Hill	▪ The predominant land uses are low- and medium density single-family residential. There is a significant downtown east of I-680, near the Hwy 24 interchange, and areas of most other major land uses surrounding the downtown. There are several large open-space areas on the periphery, primarily on the east side. ▪ There is a concentration of public buildings in the downtown. There are approximately 27 schools. Downtown and Broadway Plaza are major shopping destinations while Shadelands business park and Contra Costa Centre are major employment centers.

	CLAYTON	CONCORD	MARTINEZ	PLEASANT HILL	WALNUT CREEK
		Shopping is concentrated in the downtown and at Sunvalley, Willows and smaller, neighborhood shopping centers. There is a concentration of large office buildings between downtown and Rt 242. ▪ The maps on figures 1, 2 and 5 of the city's trails plan show the location of schools, parks, other public facilities and shopping areas.		shopping center and elsewhere along Contra Costa Blvd. There are no major employment centers.	
	Chapter 2, "Background," includes a countywide map of land use designations in Contra Costa. Local jurisdictions adopting the CBPP to meet Caltrans' BTA requirements should supplement it with their zoning map or land use designation map from their general plan (these maps would show local land uses in much greater detail than does the map in the CBPP).				
(c) Existing and proposed bikeways	▪ The on-street bikeways—existing or proposed—on the countywide network are Kirker Pass, Clayton Rd, Marsh Creek Rd, Concord Blvd and Pine Hollow Rd. The city has approximately 25 miles of trails, including Mt Diablo Creek Trail, which bisects the city, in a NW-SE direction. ▪ There are several additional, locally designated	▪ The main on-street bikeways—existing or proposed—on the countywide network are Concord Av, Monument Blvd, Willow Pass Rd, Meadow Ln, Oak Grove Rd, Treat Blvd, Cowell Rd, Industrial Way, Solano Way, Grant St, East St, Turtle Creek Rd, Ygnacio Valley Rd and Pine Hollow Rd. There are several important trails, including the Contra Costa Canal, Iron Horse	▪ The main on-street bikeways—existing or proposed—are Marina Vista, Escobar St, Alhambra Av, Berrellesa St, Pacheco Blvd and Muir Rd. A short stretch of the Contra Costa Canal Trail runs along the eastern city limit. ▪ There are several additional locally designated class I, II and III bikeways, both existing and proposed.	▪ The on-street bikeways—existing or proposed—on the countywide network are Taylor Blvd, Pleasant Hill Rd, Gregory Ln, Geary Rd and Contra Costa Blvd. The Contra Costa Canal Regional Trail bisects the city in a north-south direction and a short stretch of the Iron Horse Regional Trail runs along the eastern city limit.	▪ The main on-street bikeways—existing or proposed—on the countywide network are Ygnacio Valley Rd, N Main St, Oak Grove Rd, Newell Av, N California Blvd and Olympic Blvd. There are several important trails, including the Contra Costa Canal Regional Trail and the Iron Horse Regional Trails, which bisects the city in a north-south direction.

	CLAYTON	CONCORD	MARTINEZ	PLEASANT HILL	WALNUT CREEK
	class II bikeways. Also, the Black Diamond Mines and Donner Creek trails traverse the city.	and BART alignment trails. ▪ There are several additional locally designated class I, II and III bikeways, both existing and proposed. ▪ The city's trails plan contains more detailed information on existing and proposed bikeways on pages 2-3 to 2-10 and figures 4 and 5.	▪ Martinez is one of only two places in the Bay Area (the other being the Golden Gate Bridge) where the Bay Area Ridge Trail and the San Francisco Bay Trail converge.	▪ There are several additional locally designated class I, II and III bikeways, both existing and proposed.	▪ There are several additional locally designated class I, II and III bikeways, both existing and proposed.
	Chapter 6, "Bicycle Improvements," includes maps of the countywide bikeway network. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with the local pages from the countywide bikeway "atlas" (the atlas shows many locally designated bike paths, lanes and routes that are not part of the countywide network).				
(d) Existing and proposed bike-parking facilities	The city did not report any parking facilities.	The city did not report any parking facilities. The topic of bicycle parking is discussed, in general terms, on pages 3-1 to 3-2 of the city's trails plan.	▪ Several years ago, the city installed 20-30 bicycle racks on the sidewalk at a number of downtown location. The County Administration building has bike lockers. ▪ Also see (e), below.	The city did not provide a list of location. However, it mentioned that bicycle parking is required in all new public and semipublic uses (the number of spaces to be specified by the use permit) and in commercial uses (one space plus two percent of the number of car-parking spaces required). There are bike racks at the Diablo Valley College campus.	The city has provided a list of 120 location where racks have been installed. They include City Hall, the library, most parks and many schools and businesses. The list specific the number of racks and their type and capacity at each location, whether the racks were installed correctly and whether there are restrooms and drinking water nearby. Also see (e), below.
	The maps of the countywide bikeway network in the CBPP show the location of bicycle parking facilities at transit stations and park-and-ride lots. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with a map showing additional local bicycle parking facilities.				

	CLAYTON	CONCORD	MARTINEZ	PLEASANT HILL	WALNUT CREEK
(e) Existing and proposed intermodal facilities for bike parking and transport	There are none.	There are two BART stations: Concord (downtown) and Concord-Martinez (north Concord). Both stations have ample bike parking in the form of racks and lockers. The city's trails plan discusses this topic on page 3-2.	The city has an Amtrak station, which has 20 lockers. Amtrak has racks for two bikes in most cars. The BART park-and-ride lot has racks and lockers.	The Pleasant Hill BART station (actually located outside city limits, in the unincorporated county) has ample bike parking, in the form of both racks and lockers.	The Walnut Creek BART station has ample bike parking, in the form of both racks and lockers.
	▪ All five jurisdictions are served by County Connection. All County Connection buses are equipped with front-mounted bike-carrying racks, each of which can hold two bikes. Two bicycles are allowed inside the bus when there are no wheelchair passengers. ▪ The maps of the countywide bikeway network in the CBPP show the location of the above-mentioned transit stations and park-and-ride lots.				
(f) Existing and proposed facilities for changing and for storing clothes and equipment	The maps of the countywide bikeway network in the CBPP show the location of publicly accessible changing and storing facilities, as required by Caltrans. Additionally, this table includes members-only fitness centers that have changing and storing facilities.				
	There are three fitness centers that provide lockers and showers for its members. In addition, showers and lockers are available at City Hall for city employees.	There are six fitness centers that provide lockers and showers for its members. The city's trails plan discusses this topic on pages 3-2 to 3-3.	There are two fitness centers that provide lockers and showers for its members.	There are four fitness centers that provide lockers and showers for its members. City Hall has showers, changing areas and lockers for its employees.	There is approximately a dozen fitness centers that provide lockers and showers for its members. City Hall provides lockers and showers for all city employees. The city believes, but has not confirmed, that several new office buildings around the BART station were required to provide shower facilities when approved.
(g) Safety, education and law-enforcement programs	With the cooperation of local schools, the city has implemented a "safe routes to school" program and establishment of safe	▪ The police department occasionally performs increased traffic enforcement in areas with high collision rates; it al-	The city did not report any programs.	The city implemented (on an annual cycle) a school outreach program at every elementary school to promote walking and cycling	▪ The city coordinates traffic and bicycle safety education with the three local school districts and offers transportation-

	CLAYTON	CONCORD	MARTINEZ	PLEASANT HILL	WALNUT CREEK
and their effect on bike accidents	routes is an official policy (see [I], below). Also, the city regularly provides traffic-safety information in its semi-annual newsletter, distributed to all residents.	so conducts periodic DUI checkpoints. Two bicycle-mounted officers are assigned to patrol the downtown. The department distributes traffic-safety information through newsletters and school presentations. ▪ The Building, Engineering and Neighborhood Services (BENS) has managed several "safe routes to school" projects in recent years. ▪ The city's trails plan discusses this topic on pages 3-3 to 3-4.		to school, which includes presentations about traffic safety.	engineering services, long-range facility planning and safety-education tools. ▪ The Parks and Recreation Division offers a bicycle-safety program open to the general public and the police department administers a crossing-guard program. ▪ The city is coordinating with various agencies to implement a full Safe Routes to School program.
	None of the jurisdictions has concrete information about the effect on bicyclists' safety of their education and safety programs.				
(h) Extent of citizen and community involvement in developing the CBPP	Chapter 1, "Introduction," describes the extent of public involvement in the development of the CBPP. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with a discussion of public involvement in the local process to adopt the CBPP.				
	See above.	Pages 1-1 to 1-2 and 2-5 of the city's trails plan discuss public involvement in the development of that plan.	See above.	See above.	See above.
(i) Relation to other plans and programs	One of the ten objectives of the circulation element is to "enhance the City's system of pedestrian, equestrian and bicycling paths and trails." Policies	▪ One of the principles of the transportation element of the general plan is "Provide a safe and comprehensive bicycle network" (T-1.6). Policies	One of the six goals of the transportation element of the general plan is to "[P]romote bicycle use." The element incorporates a "bikeway plan," which	Among the six goals of the circulation element of the general plan are to "[E]stablish and maintain a safe and efficient circulation system that empha-	▪ Of the 13 goals of the transportation element of the general plan, three are bicycle-related: "[E]xpand and improve regional trail facilities,"

	CLAYTON	CONCORD	MARTINEZ	PLEASANT HILL	WALNUT CREEK
	include identifying safe routes to school, promoting the systems of greenbelt trails and safe-routes-to-school routes, and coordinating implementation of trails with other jurisdictions.	include: "Implement strategies and actions for enhanced bicycle circulation throughout the City" (T-1.6.1), "Require provision of bicycle facilities in new developments, where appropriate" (T-1.6.2), "Encourage transit operators to provide adequate bicycle accommodations" (T-1.6.3) and "Encourage new development to provide bicycle access to parks, schools, and transit stops in the design of new residential neighborhoods" (T-1.6.4). ■ The city adopted a "Trails Master Plan" in April 2003. The plan is structured to comply with Caltrans' BTA requirements and Appendix F of the plan references the sections that address each requirement. However, the plan only addresses off-street facilities.	consists of a map of the proposed bikeway network, a list of priority projects and a section on implementation.	sizes the use of existing arterial and collector roadways, paths, and bike lanes" and to "[R]educe congestion and vehicle trips through non-automobile transportation."	"[P]rovide a safe and attractive environment for bicycle travel throughout the community" and "[P]romote safe bicycling to and through downtown." The element includes a map of existing and proposed bikeways. ■ The city is in the process of developing a bicycle master plan.
	Chapter 3, "Relationship to Other Plans," describes the relationship of the CBPP to other countywide and regional planning efforts and to local pedestrian, bicycle and trails plans. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with a discussion of how the				

	CLAYTON	CONCORD	MARTINEZ	PLEASANT HILL	WALNUT CREEK
	CBPP is consistent with other *local* plans and programs.				
(j) Proposed projects and priorities for implementation	Chapter 9, "Implementation," describes the Authority's priorities for funding pedestrian and bicycle projects. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with a list of projects within their jurisdiction from the Countywide Transportation Project List and any other locally prioritized projects, including a discussion of how those projects were selected as priorities.				
	See above.	See above. Also, Chapter 4 of the city's trails plan discusses proposed projects and implementation priorities.	See above.	See above.	See above.
(k) Past expenditures and future needs for bicycle facilities	The city estimates it has spent approximately $150,000 in capital and maintenance expenditures over the past five years.	▪ The city estimates it has spent approximately $6 million on both bicycle and pedestrian facilities over the past five years, as follows: FY '02-'03: $1,868,000 FY '03-'04: $456,835 FY '04-'05: $714,315 FY '05-'06: $1,067,681 FY '06-'07: $1,984,150 ▪ Chapter 4 of the city's trails plan discusses future needs.	The city estimates it has spent approximately $600,000 over the past five years, to stripe bike lanes and complete a segment of the Bay Trail.	The city does not have this information available.	The city estimates it has spent approximately $6.26 million on both bicycle and pedestrian facilities over the past five years.
	Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with an estimate of funding needed to implement their list of priority projects.				

Table C-3 | **East County cities**

	ANTIOCH	BRENTWOOD	OAKLEY	PITTSBURG
(a) Estimated number of existing and projected bike commuters	▪ Chapter 2, "Existing Conditions," includes this information. ▪ There is a detailed discussion of this topic specific to East County in section 7 of the 2005 *East Contra Costa County Bikeway Plan* (ECCCBP).			
(b) Existing and proposed land use patterns	▪ The predominant land use is low-density residential, with small areas of higher-density residential, commercial and office uses, parks and open space and public, civic or institutional uses interspersed throughout. ▪ There is a large open-space area—Contra Loma Regional Park—in the southwest section of the city. There are large undeveloped areas along the waterfront and along the city's eastern and southern limits, which are zoned for a combination of most main land use types. ▪ Most public buildings are located in the downtown area. There are approximately 33 public and private schools. The main shopping centers are Delta Fair and Somersville Towne Center. There are no major	▪ Very-low-density residential is expected to remain the predominant land use. There are small areas of most other main land use types interspersed throughout. ▪ Most public buildings are located in the small downtown area, centered around Oak and First streets. There are seven elementary, three middle and three high schools and there is a satellite facility of Los Medanos College. There and no major employment centers. ▪ The main shopping centers are Balfour Plaza, Balfour Village, Home Depot/Kohl's, Raley's and Sand Creek. Sand Creek Business Park is one of the main employment centers. The city proposes large employment and additional retail centers along the Rt 4 Bypass.	▪ Single-family residential is expected to remain the predominant land use, with small areas of most other main land use types (including agricultural) interspersed throughout. ▪ There are large open- space areas along the Delta and the most commercial and light-industrial uses are proposed at Rt 4 and Rt 160. ▪ Most public buildings are located in the small downtown area. There are six elementary, two middle and one high schools and no major shopping or employment centers.	▪ The predominant land use is low-density residential, with small areas of most other main land uses interspersed throughout. ▪ There is a large planned-development area in the city's western side and large recreation and open-space areas in the southwest section of the city and as part of Browns Island. There is a large industrial area between the waterfront and Pittsburg Antioch Hwy. ▪ Most public buildings are located in the civic center area, at Rt 4 and Railroad Av. There are approximately 14 public and private schools and one community college (Los Medanos College). Employment is concentrated in the downtown business district and at the industrial plants. The main shopping centers are

	ANTIOCH	BRENTWOOD	OAKLEY	PITTSBURG
	employment centers.			Atlantic Plaza, Century Plaza and North Park Plaza.
	Chapter 2, "Background," includes a countywide map of land use designations in Contra Costa. Local jurisdictions adopting the CBPP to meet Caltrans' BTA requirements should supplement it with their zoning map or land use designation map from their general plan (these maps would show local land uses in much greater detail than does the map in the CBPP).			
(c) Existing and proposed bikeways	▪ The main on-street bikeways—existing or proposed—are, in a west-east direction: Pittsburg Antioch Hwy/W 10th St/Wilbur Av, Buchanan Rd/Tregallas Rd and James Donlon Blvd; in a north-south direction, they are: Auto Center Dr/Somersville Rd, L St/Contra Loma Blvd and Hillcrest Av/Deer Valley Rd. Two trails, the Delta De Anza and Mokelumne, run the east-west length of the city. A path is proposed along the UP rail line. ▪ There are several additional locally designated class I, II and III bikeways, both existing and proposed. The city's trails map shows 14 trails, totaling almost 32 miles in length; most are located south of Rt 4.	▪ There are few existing or proposed bikeways on the countywide network; the main on-street ones are on Minnesota Av, Balfour Rd and Brentwood Blvd. The Marsh Creek Trail runs through the city. Paths have been proposed along Grant St/Sunset Rd and along the UP rail line. ▪ In addition, there are a few locally designated class I, II and III bikeways, both existing and proposed.	▪ There are few existing or proposed bikeways on the countywide network; on-street ones are on Oakley Rd, Main St, O'Hara Av, Rt 4 and Cypress Rd. The Big Break Regional Trail runs along the shoreline while the Delta De Anza and Marsh Creek trains run inland. Paths are proposed along Bridgehead Rd and along the UP rail line. ▪ In addition, there are a few locally designated class I and II bikeways, both existing and proposed.	▪ The main existing or proposed on-street bikeways are on W and E Leland Rd, Loveridge Rd, N Parkside Dr, Crestview Dr, Buchanan Rd, Harbor St, Railroad Av, Central Av and Pittsburg Antioch Hwy. Also, the Delta De Anza trail runs through the city. ▪ There are several additional locally designated class I, II and III facilities, both existing and proposed.
	This information appears in sections 3 and 4 and appendices A and E of the 2005 ECCCBP.			
(d) Existing and proposed bike-parking facilities	▪ The following public elementary, middle and high schools have parking racks: Antioch High (three), Antioch Middle (six), Belshaw (four),	▪ There are racks at many location, including at all city parks, most schools, the Community Development Department, the municipal	The city was not able to provide this information. However, see (E), below.	▪ There are racks at City Hall, at city parks, at all public and most private schools, at Los Medanos College and at the Century Plaza and North Park Plaza shopping

	ANTIOCH	BRENTWOOD	OAKLEY	PITTSBURG
	Bidwell (two), Black Diamond (five), Deer Valley (seven), Fremont (three), Jack London (five), Kimball (four), Marsh (five), Mission (two), Park (five) and Turner (six). ■ In addition, there are racks at City Hall, the Antioch Unified School District building, Somersville Towne Center, Sutter Delta medical center, the Kaiser Foundation campus and Kaiser Permanente Antioch. Also see (e), below. ■ Racks are required at all new large commercial developments.	parking lot, the Marsh Creek Trail staging area, the county library, US post office, Sand Creek Business Park and the Balfour Plaza, Balfour Village, Home Depot/Kohl's, Raley's and Sand Creek shopping centers. Also see (e), below. ■ Racks are required in the parking lots of all new commercial developments and public facilities, in a number equal to five percent of the number of car parking spaces.		centers. Also see (e), below. ■ However, major new or expanded commercial and industrial uses are required to provide parking racks.
	■ The maps of the countywide bikeway network in the CBPP show the location of bicycle parking facilities at transit stations and park-and-ride lots. ■ Section 5 of the 2005 ECCCBP includes a detailed discussion of this topic specific to East County.			
(e) Existing and proposed intermodal facilities for bike parking and transport	■ There is an Amtrak station. The station does not have bike parking but Amtrak does allow bikes on its trains. ■ There are six lockers at the BART park-and-ride lot.	There are three lockers at the BART park-and-ride lot.	See below.	■ Pittsburg shares a BART station with Bay Point. The station has 24 parking racks and 20 lockers. BART allows bikes on its trains during non-commute periods. ■ There are parking racks and lockers at the BART park-and-ride lot.
	■ All five jurisdictions are served by Tri Delta Transit. All Tri Delta Transit buses are equipped with front-mounted bike-carrying racks, each of which can hold two bikes; when the rack is full, bus drivers have the discretion to allow bikes in the bus. ■ The maps of the countywide bikeway network in the CBPP show the location of the above-mentioned transit stations and park-and-ride lots.			

	ANTIOCH	BRENTWOOD	OAKLEY	PITTSBURG
(f) Existing and proposed facilities for changing and for storing clothes and equipment	The maps of the countywide bikeway network in the CBPP show the location of publicly accessible changing and storing facilities, as required by Caltrans. Additionally, this table includes members-only fitness centers that have changing and storing facilities.			
	▪ There are six fitness centers that provide lockers and showers for its members. ▪ In addition, the Maintenance Department building has showers and lockers for city employees.	There are four fitness centers that provide lockers and showers for its members.	There is one fitness center that provides lockers and showers for its members.	▪ There is one fitness center that provides lockers and showers for its members. ▪ City Hall has showers and lockers for city employees.
(g) Safety, education and law-enforcement programs and their effect on bike accidents	None.	▪ The city has implemented a pedestrian and bicycle safety program, with funding from the state's Office of Traffic Safety. As part of the program, the city has sponsored three bike rodeos for children and distributed over 1600 bike helmets within the past year. ▪ The public works department has installed six in-pavement lighted crosswalks near schools and trails. ▪ The police department has implemented a diversion program to ensure compliance with state and local helmet laws.	The city did not provide this information.	None.
	▪ None of the jurisdictions has concrete information about the effect on bicyclists' safety of their education and safety programs. ▪ Section 6 of the 2005 ECCCBP includes additional information on this topic specific to East County.			
(h) Extent of citizen and community	▪ Chapter 1, "Introduction," describes the extent of public involvement in the development of the CBPP. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with a discussion of public involvement in the local process to adopt the CBPP.			

	ANTIOCH	BRENTWOOD	OAKLEY	PITTSBURG
involvement in developing the CBPP	▪ Section 8 and appendices B and F of the 2005 ECCCBP describe the extent of public involvement in the development of the ECCCBP.			
(i) Relation to other plans and programs	In September 2005, TRANSPLAN adopted the first update to the original ECCCBP, covering the four cities and unincorporated areas of East County. Since the plan is designed to meet Caltrans' BTA requirements, it provides information on all the topics covered in this summary, sometimes at a greater level of detail. It also includes an implementation section, which establishes priority project types and provides an overview of the main funding programs for bicycling facilities. Lastly, it discusses the key barriers to bicycle transportation and describes the criteria that jurisdictions must meet in order to obtain designation as a "bicycle-friendly community" by the League of American Bicyclists. All five TRANSPLAN jurisdictions have adopted the 2005 ECCCBP.			
	One of the goals of the circulation element of the general plan is to "[reduce] dependence on single-occupant automobile travel by providing a high level of pedestrian, bicycle, and public transit travel opportunities." The element includes a discussion and list of existing and proposed bicycle facilities and a list of policies for nonmotorized transportation.	▪ The circulation element of the general plan discusses bicycle facilities and contains a bikeways map. Among the element's goals are to promote the alternatives to the single-occupant vehicle, to encourage walking, bicycling and public-transit use and to provide "safe and adequate" streets and trails. ▪ The city has an adopted "Parks, Trails and Recreation Master Plan," dated June 2002. The plan contains an inventory of trails; assesses needs and articulates goals, objectives and policies; includes trail-design guidelines; and formulates implementation actions.	One of the goals of the circulation element of the general plan is to "promote and encourage walking and bicycling." The element contains a list of bicycling-related policies and proposed programs, a description of the local bikeway network and roadway standards, which address bike lanes.	The transportation element of the general plan contains a list and map of existing and planned bikeways and a list of goals and policies regarding bicycling (and walking).
	Chapter 3, "Relationship to Other Plans," describes the relationship of the CBPP to other countywide and regional planning efforts and to local pedestrian, bicycle and trails plans. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with a discussion of how the CBPP is consistent with other *local* plans and programs.			

	ANTIOCH	BRENTWOOD	OAKLEY	PITTSBURG
(j) Proposed projects and priorities for implementation	Chapter 9, "Implementation," describes the Authority's priorities for funding pedestrian and bicycle projects. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with a list of projects within their jurisdiction from the Countywide Transportation Project List and any other locally prioritized projects, including a discussion of how those projects were selected as priorities.			
(k) Past expenditures and future needs for bicycle facilities	The city believes that it has not spent any money on bicycling facilities in at least the past five years.	Since adoption of the 2003 CBPP, approximately four years ago, the city has spent almost $160,000 on bicycling facilities: $60,000 on the striping and signing of bike lanes and $97,500 in trail maintenance.	The city did not provide this information.	Since adoption of the 2003 CBPP, the city has spent almost $340,000 on bicycling facilities: $100,000 for bike lanes on W Leland Rd, $52,000 for bike lanes on Stoneman Av, $77,500 for bike lanes/route on Polaris Dr, $52,000 for bike lanes/route on Buchanan Rd and $56,000 for bike lanes/route on Harbor St.
	▪ Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with an estimate of funding needed to implement their list of priority projects. ▪ Section 10 and Appendix D of the 2005 ECCCBP include additional information on this topic specific to East County.			

Table C-4 | **Southwest County cities**

	DANVILLE	LAFAYETTE	MORAGA	ORINDA	SAN RAMON
(a) Estimated number of existing and projected bike commuters	Chapter 2, "Existing Conditions," includes this information.				
	See above.	The city's bike plan discusses this topic on pages 4-2 to 4-7 and in Appendix B.	See above.	See above.	See above.
(b) Existing and proposed land use patterns	▪ By far, the predominant land uses are low- and medium-density single-family residential and open space, with small areas of medium-density residential, institutional and small-scale commercial and office uses, primarily just west of I-680. There are two large regional open space areas in the west side of the town. ▪ Most public buildings are located in the downtown There are six elementary, three middle and three high schools. There are no major employment centers and the main shopping areas are the downtown and the Castle Square shopping	▪ Development consists mostly of low- and medium-density single family residential, commercial, parks and open space. There are pockets of multi-family residential off Mt. Diablo Blvd, near the BART station, and in the downtown. Commercial areas are mostly located along Mt. Diablo Blvd and Moraga Rd. ▪ Primary shopping and employment centers include the downtown and the commercial areas along Mt. Diablo Blvd. and Moraga Rd. Other destinations and activity centers are the parks and schools, the reservoir, BART station, the community center	▪ By far, the predominant land uses are low- and medium-density single-family residential and open space. St Mary's College occupies a large site on the eastern edge of the town. There are small scattered areas of commercial/office and institutional use. ▪ Most public buildings are clustered near the intersection of Moraga Rd and Rheem Blvd. There are four public or private elementary schools, an intermediate school and one public high school. There are no major shopping or employment centers.	▪ By far, the predominant land use is low-density single-family residential. There are large areas of protected watershed lands in the northwest and central-west sections of the city. There is a small downtown at Hwy 24 and Camino Pablo, on both sides of the highway. ▪ Most public buildings (including the public library, a popular destination), are located in the downtown area. There are four elementary schools, one middle school and one high school. There are no major shopping or employment centers.	▪ The predominant land use is low- and medium-density single-family residential. The Bishop Ranch area is one of the major employment centers in the Bay Area. There are small areas of most other major land use types, especially in the Crow Canyon area and in southern San Ramon. A civic center is being developed at Bollinger Canyon Rd and Camino Ramon. ▪ Most public buildings are in the civic center area. There are ten elementary, three middle and two high schools. The major employment center is Bishop Ranch business park, with approximately

	DANVILLE	LAFAYETTE	MORAGA	ORINDA	SAN RAMON
	center.	on St. Mary's Rd, the Lafayette Reservoir, the Veterans Memorial Building and the Library and Learning Center. ▪ The city's bike plan discusses this topic in more detail on pages 2-1 to 2-5.			200 companies. There are several major retail centers in the Crow Canyon area.
	Chapter 2, "Background," includes a countywide map of land use designations in Contra Costa. Local jurisdictions adopting the CBPP to meet Caltrans' BTA requirements should supplement it with their zoning map or land use designation map from their general plan (these maps would show local land uses in much greater detail than does the map in the CBPP).				
(c) Existing and proposed bikeways	▪ The main on-street bikeways—existing or proposed—are Danville Blvd, Railroad Ave, San Ramon Valley Blvd, El Cerro Blvd, Diablo Rd, Camino Tassajara, Sycamore Valley Rd and Crow Canyon Rd. The Iron Horse Trail runs the entire length of the town, in a NW-SE direction. ▪ There are several additional, locally designated class I and II bikeways and the town's trails plan identifies a number of additional existing and proposed class III bikeways.	▪ The main on-street bikeways—existing or proposed—are El Nido Ranch Rd, Mt. Diablo Blvd, Moraga Blvd, Deer Hill Rd, Pleasant Hill Rd and Reliez Valley Rd. The EBMUD Aqueduct Trail runs through the city; so does the Lafayette-Moraga Trail, which combines with other bikeways in Lafayette, Moraga and Orinda to form the multi-use "Lamorinda Trail Loop." ▪ In addition, there are short stretches of locally designated bikeways. ▪ The city's bike plan contains more detailed	▪ The main on-street bikeways—existing or proposed—are Moraga Rd, Moraga Way and Rheem Blvd. The Lafayette-Moraga Trail runs through the center of the town, in a NE-SW direction, and combines with other bikeways in Moraga, Lafayette and Orinda to form the "Lamorinda Trail Loop." ▪ In addition, there are short stretches of locally designated bikeway segments and the city's trails map shows several additional existing and proposed trails.	▪ The main on-street bikeways—existing or proposed—are Camino Pablo, Moraga Way, Hwy 24, El Nido Ranch Rd, Glorietta Blvd, Acalanes Rd and Rheem Blvd. Trails include the St Stephens bicycle and pedestrian path and a path along part of Hwy 24, which combines with other bikeways in Orinda, Moraga and Lafayette to form the "Lamorinda Trail Loop." ▪ In addition, there are short stretches of locally designated bikeways.	▪ The main on-street bikeways—existing or proposed—are Crow Canyon Rd, Bollinger Canyon Rd, San Ramon Valley Blvd, Alcosta Blvd and Montevideo Dr. The Iron Horse Trail runs the entire length of the city, in a NW-SE direction; in addition, there is a path along Old Ranch Rd. ▪ There are several additional locally designated class I, II and III bikeways, both existing and proposed.

	DANVILLE	LAFAYETTE	MORAGA	ORINDA	SAN RAMON
		information on existing bikeways on pages 2-5 to 2-10, and on proposed bikeways on pages 5-5 to 5-10.			
	Chapter 6, "Bicycle Improvements," includes maps of the countywide bikeway network. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with the local pages from the countywide bikeway "atlas" (the atlas shows many locally designated bike paths, lanes and routes that are not part of the countywide network).				
(d) Existing and proposed bike-parking facilities	All major parks and schools have bicycle racks, owned and maintained by either the town or the school district. In addition, there are three location with parking facilities along the Iron Horse Trail: the trailhead at Prospect Av, the trailhead at San Ramon Valley Blvd and the Sycamore Valley Rd park-and-ride lot. Also see (e), below.	▪ There are racks at public and private schools, at various location downtown, at a number of businesses and at Lafayette Reservoir, the police station, the library and the Lafayette Community Center. The new Lafayette Library and Learning Center will provide covered parking for 20 bicycles. Some downtown businesses and office provide bicycle parking. Also see (e), below. ▪ The city's bike plan has more detailed information on existing facilities on pages 2-10 to 2-12, and on proposed facilities on pages 6-9 to 6-10.	There are racks at Saint Mary's College. Otherwise, the town mentioned that there are very few racks (and did not identify the location of any that exist).	There are racks at City Hall and at all public schools: Miramonte High, Orinda Intermediate, Del Rey Elementary, Glorietta Elementary, Sleepy Hollow and Wagner Ranch. Also see (e), below.	▪ All city parks (25) and elementary schools (ten) provide at least one rack, and some schools have bike cages. Each community center has two racks and each library has one. There are bike racks at the Diablo Valley College campus. ▪ The city's TDM program provides funding to businesses for installing bike parking; employers that have installed bike lockers include AT&T, PG&E and Chevron. Also see (e), below.
	The maps of the countywide bikeway network in the CBPP show the location of bicycle parking facilities at transit stations and park-and-ride lots.				

	DANVILLE	LAFAYETTE	MORAGA	ORINDA	SAN RAMON
	Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with a map showing additional local bicycle parking facilities.				
(e) Existing and proposed intermodal facilities for bike parking and transport	There are lockers and racks at the Sycamore Valley park-and-ride lot.	The Lafayette BART station has 15 lockers, each for two bikes, and 20 racks (there is a waiting list for the lockers). The station has elevators, which can be used by cyclists, and there are bike-tire guides on the stairs on the station's downtown side. The city's bike plan contains more detailed information on pages 2-16 to 2-17.	There are none.	The Orinda BART station has 14 lockers and several racks. It also has elevators, which can be used by cyclists.	The San Ramon Transit Center has racks and 14 lockers, each for two bikes. There are lockers and racks at the BART park-and-ride lot.
	▪ All five jurisdictions have at least limited bus service provided by County Connection. All County Connection buses are equipped with front-mounted bike-carrying racks, each of which can hold two bikes. Two bicycles are allowed inside the bus when there are no wheelchair passengers. ▪ The maps of the countywide bikeway network in the CBPP show the location of the above-mentioned transit stations and park-and-ride lots. Not all park-and-ride lots have frequent enough bus service for the needs of commuters.				
(f) Existing and proposed facilities for changing and for storing clothes and equipment	The maps of the countywide bikeway network in the CBPP show the location of publicly accessible changing and storing facilities, as required by Caltrans. Additionally, this table includes members-only fitness centers that have changing and storing facilities.				
	There are three fitness centers that provide lockers and showers for its members.	There are two fitness centers that provide lockers and showers for its members. The city's bike plan contains more detailed information on bicycling-support facilities on pages 2-12 to 2-13.	There are two fitness centers that provide lockers and showers for its members.	There are two fitness centers that provide lockers and showers for its members. Orinda Country Club does the same for its members. City Hall has showers and lockers for city employees.	There are four fitness centers that provide lockers and showers for its members. AT&T and Chevron provide on-site fitness centers with showers and lockers for employees.
(g) Safety, education and law-	▪ The San Ramon valley-wide "Street Smarts" program, started in	▪ The city sponsors a "bicycle energizer" station each bike-to-	▪ The police department and school district offer classes to children on	City staff has conducted bike rodeos at middle schools.	▪ The San Ramon valley-wide "Street Smarts" program, started in

	DANVILLE	LAFAYETTE	MORAGA	ORINDA	SAN RAMON
enforcement programs and their effect on bike accidents	2004, educates K- 12 students on bicycle and pedestrian safety. ▪ The town sponsors and hosts two "bicycle energizer" stations for the annual Bike To Work Day event. ▪ The police department, with assistance from the Street Smarts program, hosts bike rodeos and traffic awareness events at the local schools.	work day and its website provides bicycle-safety tips. ▪ The city's BPAC staffs the "bicycle energizer" station and also informational tables at fairs, has sponsored several bike rodeos and developed and distributed a safety brochure for school children. Burton Valley elementary school has a "biking school bus." ▪ The city's bike plan contains more detailed information on pages 2-15 to 2-16 and 6-13 to 6-17.	bicycle and pedestrian etiquette and safety while the police department educates motorists on the rights of pedestrians and bicyclist and the need to share the road. ▪ The "Bicyclist Access Program" sponsors bike-to-work day activities, provides potential bike commuters with a list of experienced bicyclists whom they may contact for advice and distributes biking maps.		2004, educates students in grades K- 12 on bicycle and pedestrian safety. ▪ The city's "Safe Routes to School" (SRTS) program, in place since 1989, improves walking and biking routes for school-age children. ▪ Bike-to-school day is held annually; each year, one elementary school hosts before- and after-school activities focused on bike safety. ▪ The police department and transportation division hold bike rodeos for kids and make traffic-safety presentations at school assemblies. Police will warn or cite students, but also motorists, violating the law.
	None of the jurisdictions has concrete information about the effect on bicyclists' safety of their education and safety programs.				
(h) Extent of citizen and community involvement in developing	Chapter 1, "Introduction," describes the extent of public involvement in the development of the CBPP. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with a discussion of public involvement in the local process to adopt the CBPP.				
	See above.	Pages 4-13 to 4-14 of the city's bike plan discuss public involvement in the	See above.	See above.	See above.

	DANVILLE	LAFAYETTE	MORAGA	ORINDA	SAN RAMON
the CBPP		development of that plan.			
(i) Relation to other plans and programs	▪ The circulation element of the city's general plan addresses bicycle facilities and includes a map of bikeways. Two of the element's five goals are to "[P]rovide convenient and efficient alternatives to the automobile" and to "[I]ntegrate land use and transportation planning to increase the viability of alternative transportation modes…." ▪ The town has an adopted "Townwide Trails Master Plan," which is composed of a trail plan and a bicycle plan. The former addresses trails while the latter addresses on-street bikeways (bike lanes and routes). The master plan includes an inventory and maps of both types of facilities.	▪ The city adopted a Bikeways Master Plan in September 2006. The plan is structured to comply with Caltrans' BTA requirements and Table 1-1 of the plan (p. 1-4) references the pages that address each requirement. ▪ One of the seven main themes of the city's general plan is to maintain a network of bicycle and pedestrian paths between schools, commercial centers, parks and cultural centers. The circulation element recommends providing effective alternatives to the private automobile, including bikeway facilities. ▪ Pages 3-1 to 3-5 of the city's bike plan discuss coordination and consistency of that plan with other plans and programs.	One of the four goals of the circulation element of the town's general plan is to "[E]ncourage Moragans to walk, bike, take transit or rideshare as a means of reducing traffic trips, improving environmental quality, and maintaining a healthy lifestyle."	One of the nine guiding policies in the circulation element of the city's general plan is to "[E]xpand pedestrian and bicycle paths to provide a safe alternative to auto use, particularly to provide safe paths near schools and in other location where they are heavily used for circulation."	The "Traffic and Circulation" element of the city's general plan addresses bicycle (and pedestrian) issues. It states that it is the city's goal "to provide and maintain a safe and comprehensive bicycle and pedestrian system that connects all parts of the City" and provides, as a guiding policy, to "[E]ncourage bicycling and walking as alternatives to the automobile." There is a list and map of existing and planned bike routes.
	Chapter 3, "Relationship to Other Plans," describes the relationship of the CBPP to other countywide and regional planning efforts and to local				

	DANVILLE	LAFAYETTE	MORAGA	ORINDA	SAN RAMON
	pedestrian, bicycle and trails plans. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with a discussion of how the CBPP is consistent with other *local* plans and programs.				
(j) Proposed projects and priorities for implementation	Chapter 9, "Implementation," describes the Authority's priorities for funding pedestrian and bicycle projects. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with a list of projects within their jurisdiction from the Countywide Transportation Project List and any other locally prioritized projects, including a discussion of how those projects were selected as priorities.				
	See above.	See pages 5-11 to 5-18 of the city's bike plan.	See above.	See above.	See above.
(k) Past expenditures and future needs for bicycle facilities	The town estimates that in the past four years it has spent approximately $1 million on capital bike and pedestrian projects and that it spends an additional $70,000 annually on maintenance of bike facilities.	▪ The city's bicycle-related expenditures totaled approximately $740,000 between 2000 and 2005; total expenditures, including non-city funds, were approximately $3,700,000. ▪ The city's bike plan contains more detailed information on past expenditures on page 2-14, and on future needs on pages 7-3 to 7-9.	The town estimates that it has spent approximately $350,000 on bike projects in the past five years.	The city estimates that in the past five years it has spent approximately $750,000 on bike projects.	The city does not have this information available.
	Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with an estimate of funding needed to implement their list of priority projects.				

Table C-5 | **Unincorporated areas**

(a) Estimated number of existing and projected bike commuters	▪ Chapter 2, "Existing Conditions," includes this information. ▪ Section 7 of the 2005 *East Contra Costa County Bikeway Plan* (ECCCBP) includes a detailed discussion of this topic for unincorporated areas in East County.
(b) Existing and proposed land use patterns	▪ The vast majority of the unincorporated county is undeveloped, in use as open space (much of it accessible to the public for recreation) or for small-scale agriculture or ranching. ▪ There are a few communities scattered throughout. Medium-size communities include: Kensington, El Sobrante, Rodeo and Crockett (in West County); Pacheco (in Central County); Alamo and Blackhawk (in Southwest County); and Bay Point, Bethel Island, Byron and Discovery Bay (in East County). ▪ There are no concentrations of public buildings or major shopping or employment centers. ▪ Chapter 2, "Background," includes a countywide map of land use designations in Contra Costa. Local jurisdictions adopting the CBPP to meet Caltrans' BTA requirements should supplement it with their zoning map or land use designation map from their general plan (these maps would show local land uses in much greater detail than does the map in the CBPP).
(c) Existing and proposed bikeways	▪ Through unincorporated areas, the countywide bikeway network is designed to connect the main population centers and to provide access to publicly accessible open space. The main on-street bikeways—existing or proposed—are on San Pablo Dam Rd, San Pablo Av, Rt 4, Alhambra Valley Rd, Crockett Blvd/Cummings Skwy, Kirker Pass Rd, Marsh Creek Rd, Deer Valley Rd, Camino Diablo, Walnut Blvd, Byron Hwy, Bixler Rd and Camino Tassajara. The network also includes a number of trails, primarily along the San Pablo Bay and Carquinez Strait waterfronts. ▪ There are several additional locally designated class I, II and III facilities, both existing and proposed. ▪ Sections 3 and 4 and appendices A and E of the 2005 ECCCBP include information on this topic for unincorporated areas in East County.
(d) Existing and proposed bike-parking facilities	▪ Alamo Elementary (Alamo) has 30 racks, Rancho Romero Elementary (Alamo) has 109 racks, Stone Valley Middle School (Alamo) has 363 racks and Ambrose Park Community Center (Bay Point) has 5 racks. ▪ The maps of the countywide bikeway network in the CBPP show the location of bicycle parking facilities at transit stations and park-and-ride lots. ▪ Section 5 of the 2005 ECCCBP includes a detailed discussion of this topic for unincorporated areas in East County.
(e) Existing and proposed intermodal facilities for bike parking and transport	▪ Bay Point shares a BART station with Pittsburg (see cell to the left). ▪ The BART park-and-ride lot in Discovery Bay has three parking lockers.

	▪ All five jurisdictions are served by Tri Delta Transit. All Tri Delta Transit buses are equipped with front-mounted bike-carrying racks, each of which can hold two bikes; when the rack is full, bus drivers have the discretion to allow bikes in the bus. ▪ The maps of the countywide bikeway network in the CBPP show the location of the above-mentioned transit stations and park-and-ride lots.
(f) Existing and proposed facilities for changing and for storing clothes and equipment	▪ The maps of the countywide bikeway network in the CBPP show the location of publicly accessible changing and storing facilities, as required by Caltrans. Additionally, this table includes members-only fitness centers that have changing and storing facilities. ▪ There are five fitness centers that provide lockers and showers for its members.
(g) Safety, education and law-enforcement programs and their effect on bike accidents	▪ There has been bicycle-safety education and helmet distribution at elementary schools in Bay Point (2003-present). ▪ None of the jurisdictions has concrete information about the effect on bicyclists' safety of their education and safety programs. ▪ Section 6 of the 2005 ECCCBP includes additional information on this topic for unincorporated areas in East County.
(h) Extent of citizen and community involvement in developing the CBPP	▪ Chapter 1, "Introduction," describes the extent of public involvement in the development of the CBPP. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with a discussion of public involvement in the local process to adopt the CBPP. ▪ Section 8 and appendices B and F of the 2005 ECCCBP describe the extent of public involvement in the development of the ECCCBP, which covers unincorporated areas in East County, among other jurisdictions.
(i) Relation to other plans and programs	▪ In September 2005, TRANSPLAN adopted the first update to the original ECCCBP, covering the four cities and unincorporated areas of East County. Since the plan is designed to meet Caltrans' BTA requirements, it provides information on all the topics covered in this summary, sometimes at a greater level of detail. It also includes an implementation section, which establishes priority project types and provides an overview of the main funding programs for bicycling facilities. Lastly, it discusses the key barriers to bicycle transportation and describes the criteria that jurisdictions must meet in order to obtain designation as a "bicycle-friendly community" by the League of American Bicyclists. All five TRANSPLAN jurisdictions have adopted the 2005 ECCCBP. ▪ The Transportation and Circulation Element of the Contra Costa County General Plan states that "Pedestrian and Bicycle transportation are a viable mode of commuter transportation in the urban areas on either side of the Berkeley Hills and throughout eastern Contra Costa County due to favorable topography and weather. The County promotes the use of the Complete Streets philosophy to further advance the goals of this plan. … The County supports pedestrians and bicyclists by implementing the Routine Accommodation policy statement developed by the United States Department of Transportation, the California Department of Transportation and the Metropolitan Transportation Commission…." The element includes a number of goals and policies to promote bicycling (and walking): • 5-L. Expand, improve and maintain facilities for walking and bicycling.

	• 5-31. Describe a system of bicycle facilities and key attractors of bicycle and pedestrian traffic so that all travelers, including people with disabilities, can travel safely and independently. • 5-32. Identify gaps in the bicycle network and needed improvements to pedestrian districts and key activity centers and define priorities for eliminating these gaps and making needed improvements. Facilities shall be designed to the best currently available standards and guidelines. • 5-33. Encourage adequate long term and routine maintenance of bikeway and walkway network facilities, including regular sweeping of bikeways and shared use pathways, utilizing private and/or local community resources when feasible. • 5-M. Improve safety for pedestrians and bicyclists. • 5-35. Reduce conflicts among motorists, pedestrians and bicyclists. • 5-36. Provide information to improve safety for pedestrians and bicyclists. • 5-N. Encourage more people to walk and bicycle. • 5-37. Work with local and regional agencies to develop useful and cost effective programs to encourage more people to walk and bicycle. • 5-38. Support programs such as "safe routes to school maps and "bike trains" or "walking school buses" for elementary students that would encourage more students to walk or bicycle to school. • 5-39. Encourage the use of bicycle and pedestrian facilities to promote healthy transportation choices. • 5-40. Encourage the use of wayfinding and signage to help direct pedestrians and bicyclists to desirable destinations. • 5-O. Plan for the needs of bicyclists and pedestrians. • 5-41. Accommodate and encourage other agencies to accommodate the needs for mobility, accessibility and safety of bicyclists and pedestrians when planning, designing and developing transportation improvements. • 5-42. Support the incorporation of bicycle and pedestrian facilities into other capital improvements projects, where appropriate, to expand bicycle-pedestrian facilities, harmonize the needs of all travel modes, and achieve economies of scale. Similarly, the Land Use Element contains a number of policy statements in support of facilities for bicyclists: • 3-al. Refer to the Transportation and Circulation Element of this General Plan and related policy guidance of its Specific Plans, to ensure that pedestrian and bicycle facilities are routinely accommodated in land use development. • 3-am. With the assistance of appropriate advisory bodies, periodically review and update the Open Space Element of this General Plan, to reflect the network of non-motorized pedestrian, bicycle and equestrian facilities in the County. • 3-an. To the extent feasible, require new residential and commercial developments to provide pedestrian and bicycle facilities within the development. • 3-ao. When appropriate residential and commercial developments should contribute to off site improvements of pedestrian and bicycle facilities to ensure safe and efficient connections from the development to major destination areas. The Open Space Element also contains a number of supportive goals, policies and implementation measures: • (Goal) 9-37. To develop a system of interconnected pedestrian, riding and bicycling trails and paths suitable for both active recreational use and for the purpose of transportation/circulation. (goal) • (Policy) 9-46. Public trail facilities shall be integrated into the design of flood control facilities and other public works whenever possible.

	• (Implementation measure) 9-v. Develop a comprehensive and interconnected series of pedestrian, biking and riding trails in conjunction with cities, special districts, public utilities and county service areas. • (Implementation measure) 9-w. Form a county-wide committee to explore funding sources for recreation and open space to support regional, community and local park and trails on a county-wide basis. ▪ The county is working on a "Comprehensive Trail Network Plan for East County," which it hopes to expand to the other parts of the county next year. ▪ Chapter 3, "Relationship to Other Plans," describes the relationship of the CBPP to other countywide and regional planning efforts and to local pedestrian, bicycle and trails plans. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with a discussion of how the CBPP is consistent with other local plans and programs.
(j) Proposed projects and priorities for implementation	▪ Chapter 9, "Implementation," describes the Authority's priorities for funding pedestrian and bicycle projects. Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with a list of projects within their jurisdiction from the Countywide Transportation Project List and any other locally prioritized projects, including a discussion of how those projects were selected as priorities. ▪ The county estimates that, over the past years, it has spent approximately $1,500,000 on bicycle projects. ▪ Local jurisdictions adopting the CBPP to meet BTA requirements should supplement it with an estimate of funding needed to implement their list of priority projects. ▪ Section 10 and Appendix D of the 2005 ECCCBP include additional information on this topic for unincorporated areas in East County.

D | Local Bicycle Networks

As explained in Chapter 6, the Countywide Bicycle Network (CBN) is meant to be the primary, countywide, system of bicycling corridors that connect all the major destinations in Contra Costa. It is intended to be a planning and prioritization tool for directing efforts where they will provide the greatest benefit to the county's bicyclists.

However, the CBN encompasses only a portion of the existing, planned or proposed bikeways in the county. There are numerous additional bikeways which serve primarily local purposes and which are part of secondary, or local, networks designated by local jurisdictions through their planning processes. As mentioned in Chapter 6, "Bicycle Facilities," the CBN includes approximately 650 miles of bikeways, of which 310 miles is existing. By contrast, the local networks encompass approximately 1,067 miles, of which almost 470 miles is existing.

These local bikeway networks are shown on the maps on the following pages. As can be seen from the maps, these networks fill in the CBN with a denser set of connecting routes to work, school, shopping, transit and other destinations. The Authority is committed to updating these maps (as well as of the CBN) at least every two years, based on new information provided by local jurisdictions, other agencies and project sponsors. The Authority is also committed to making the maps available to the public on its website.

Since they provide essential connections for bicyclists, the local facilities shown on the maps in this appendix are consistent with the purposes and goals of the CBPP. They are therefore eligible for funding under Measure J and other funding sources administered by the Authority, provided that they are part of an adopted local or regional plan or in the adopted plan of a special agency or district.

NOTE: Maps of existing and planned local bikeways are available for download on the Authority's website: www.ccta.net.

Figure D-1 | **Antioch**

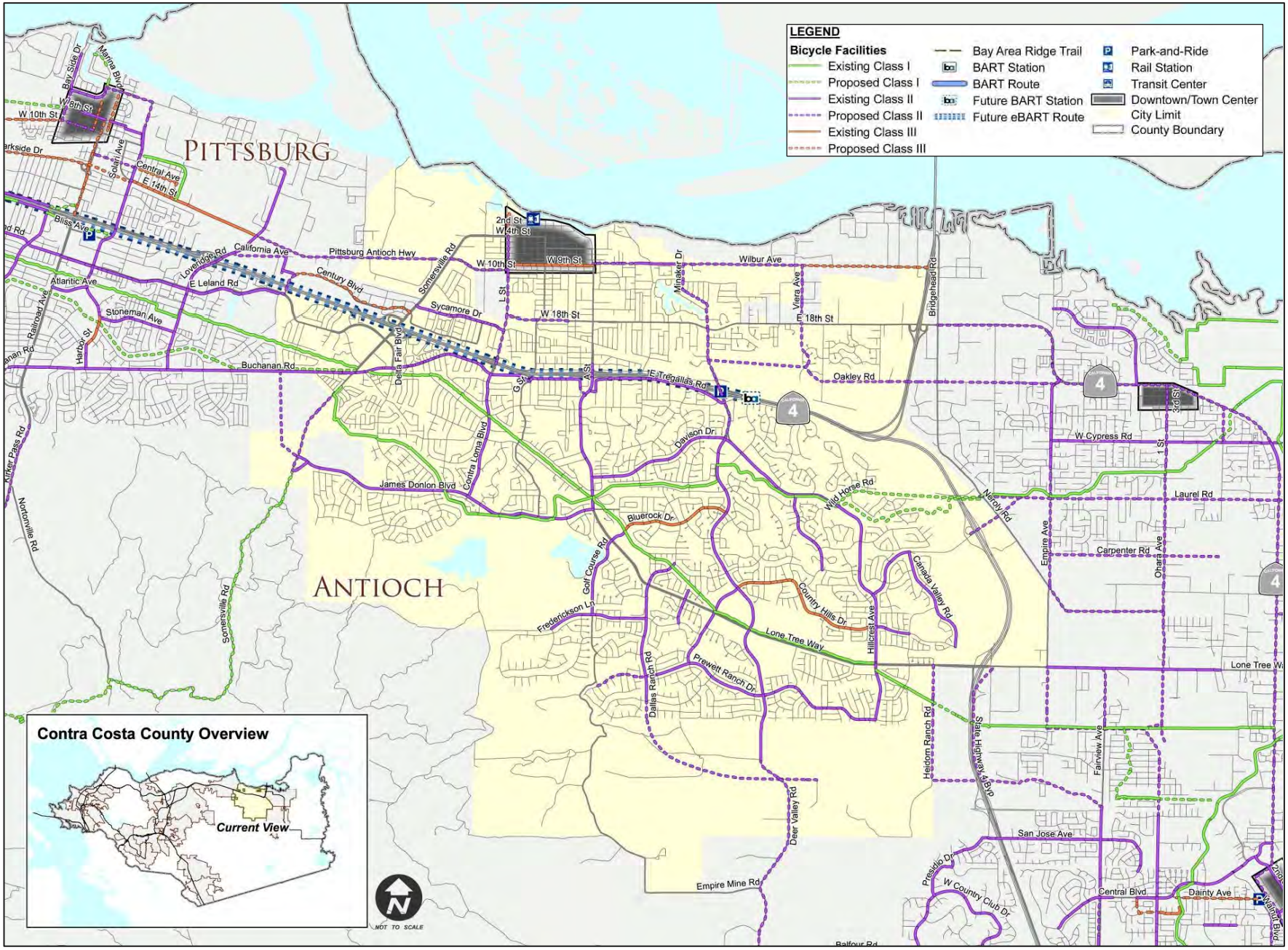


Figure D-2 | **Brentwood**

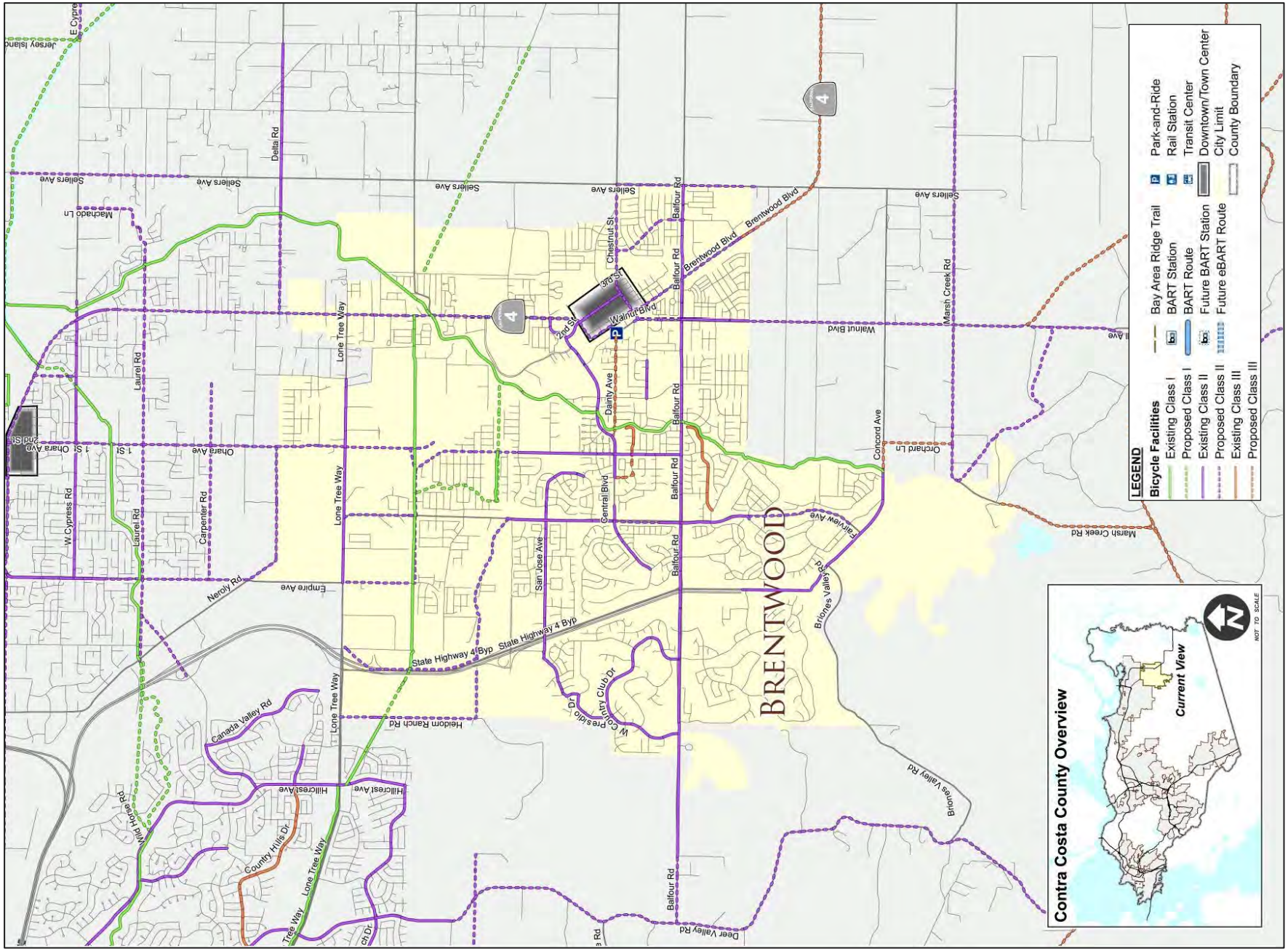


Figure D-3 | **Clayton**

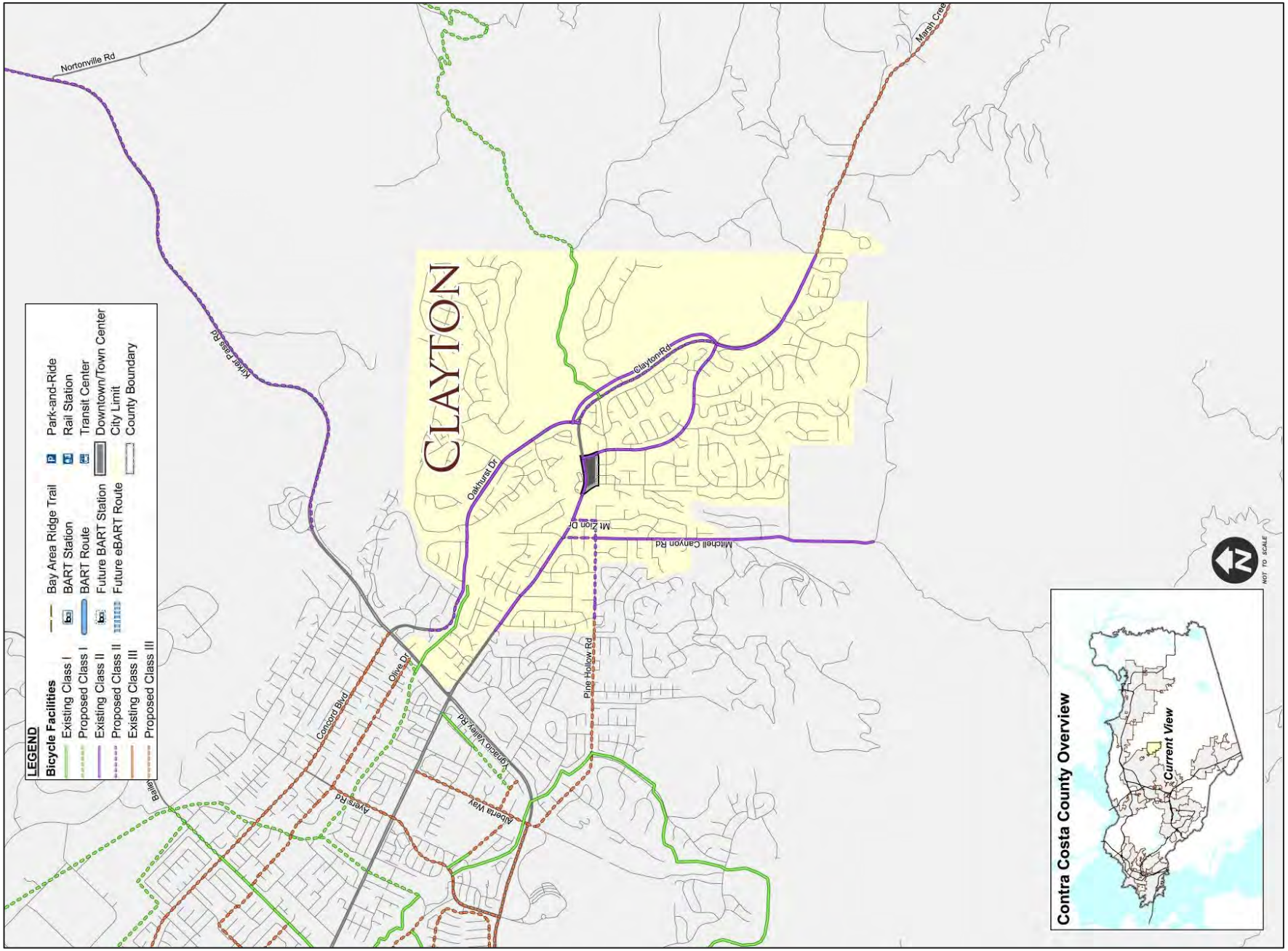


Figure D-4 | **Concord**

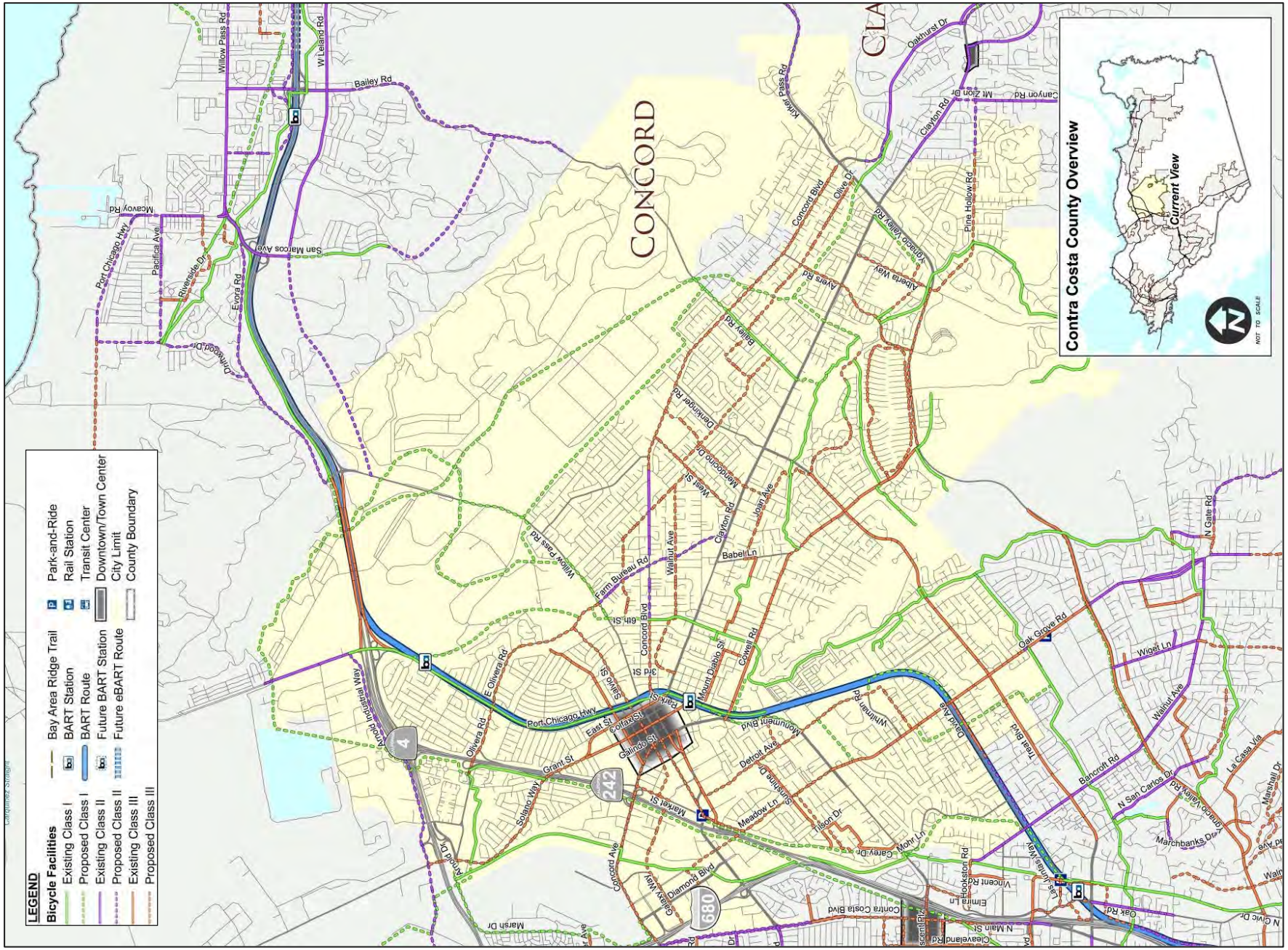


Figure D-5 | **Danville**

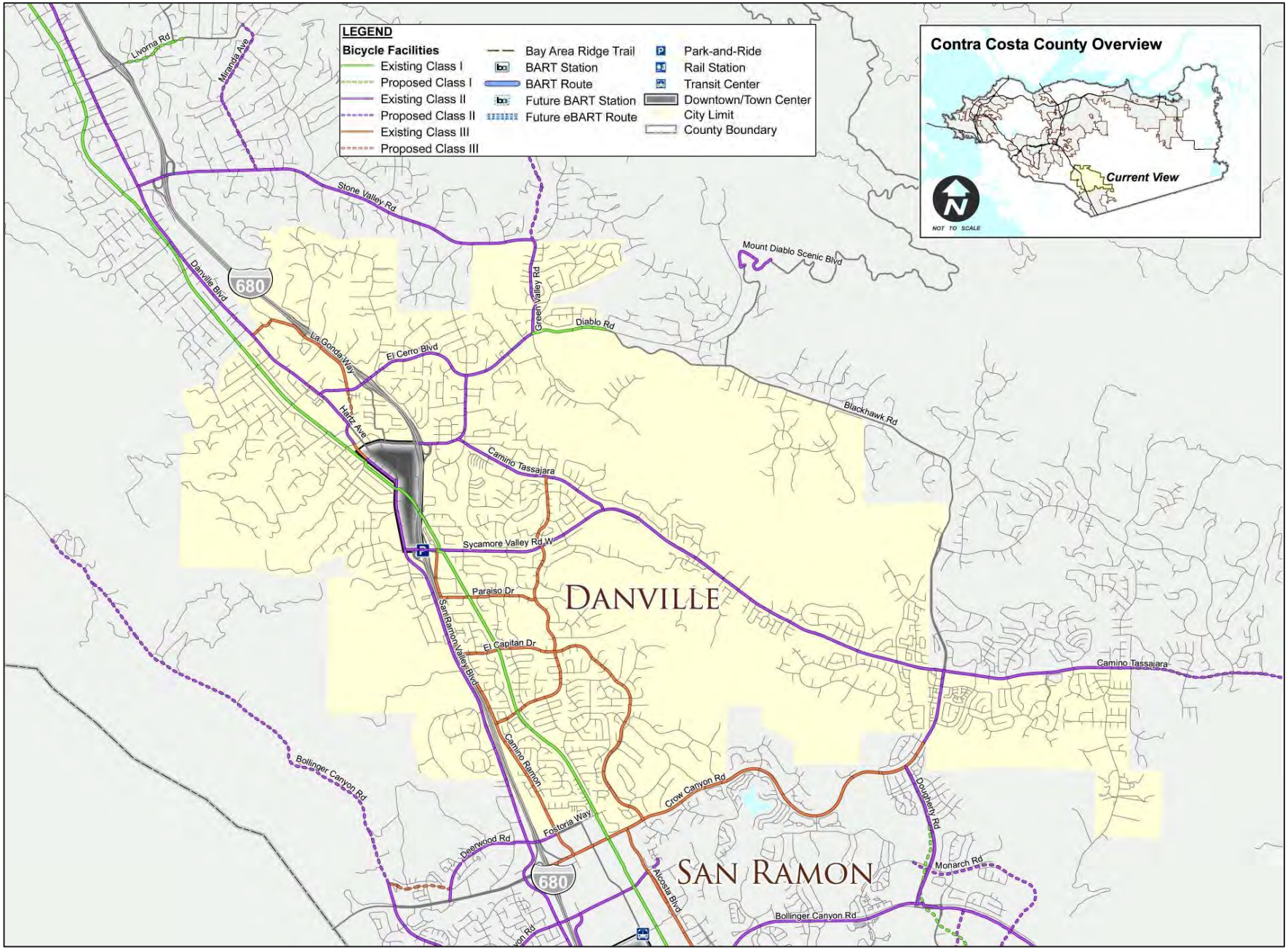


Figure D-6 | **El Cerrito**

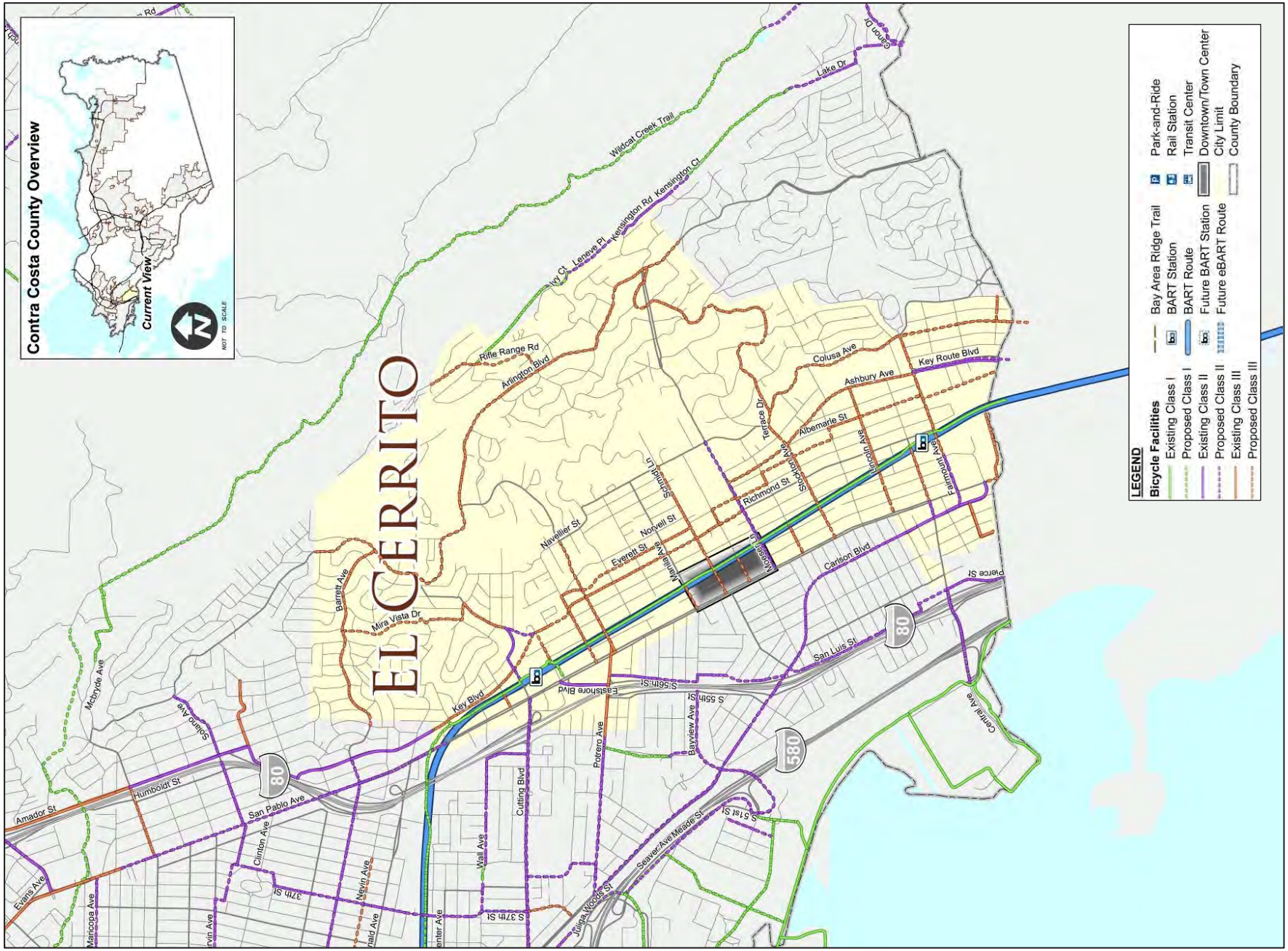


Figure D-7 | **Hercules**

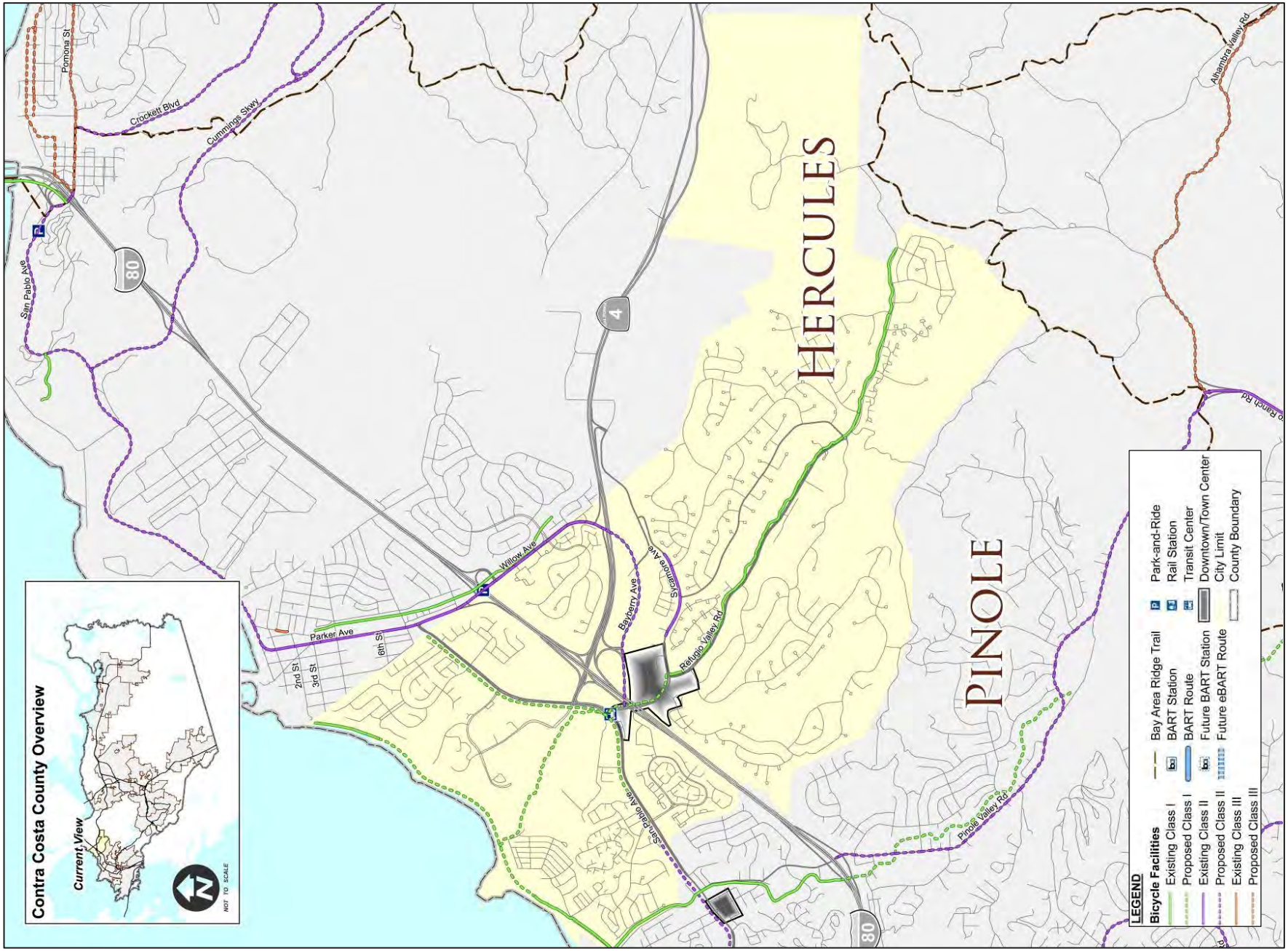


Figure D-8 | **Lafayette**

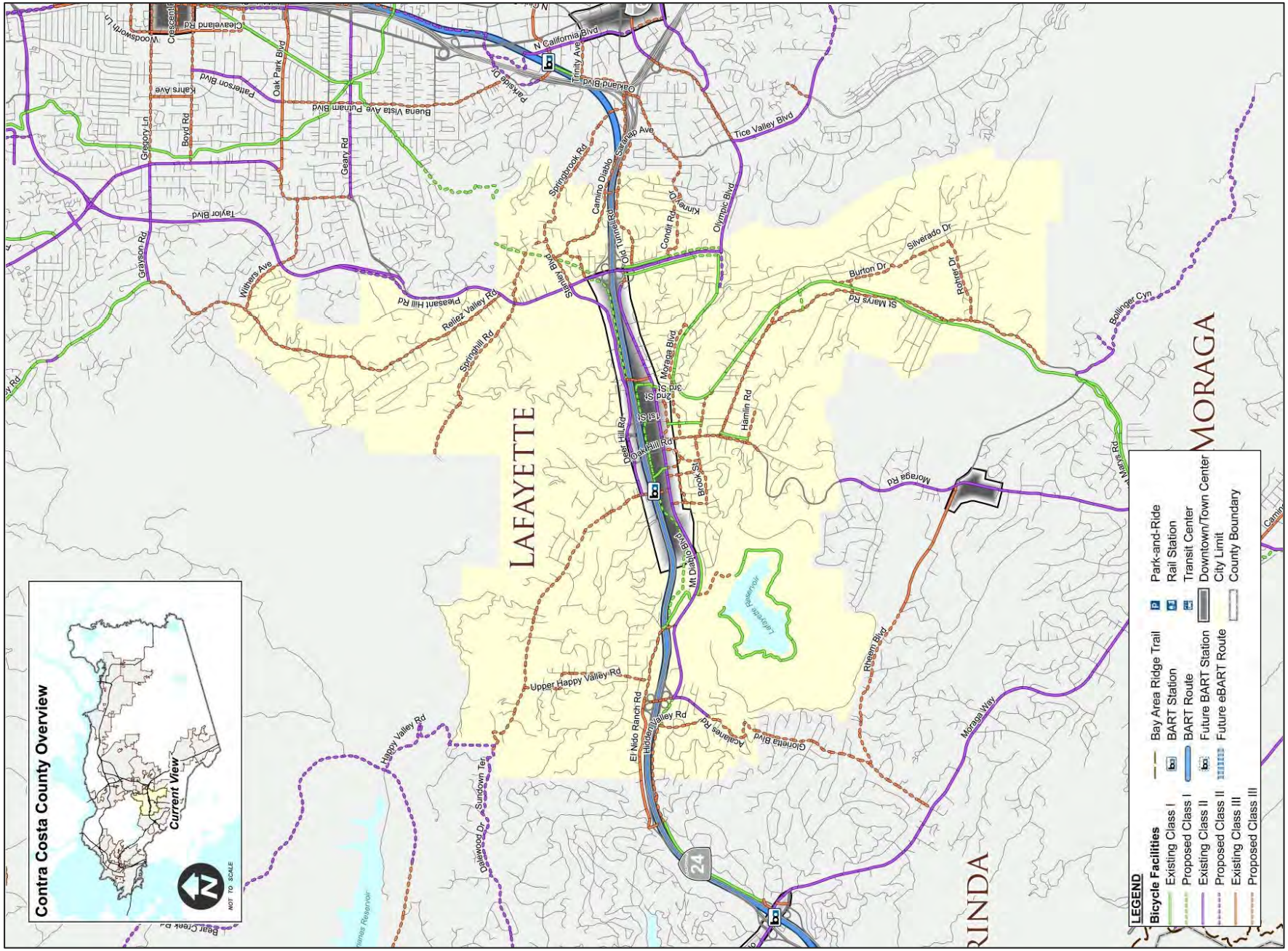


Figure D-9 | **Martinez**

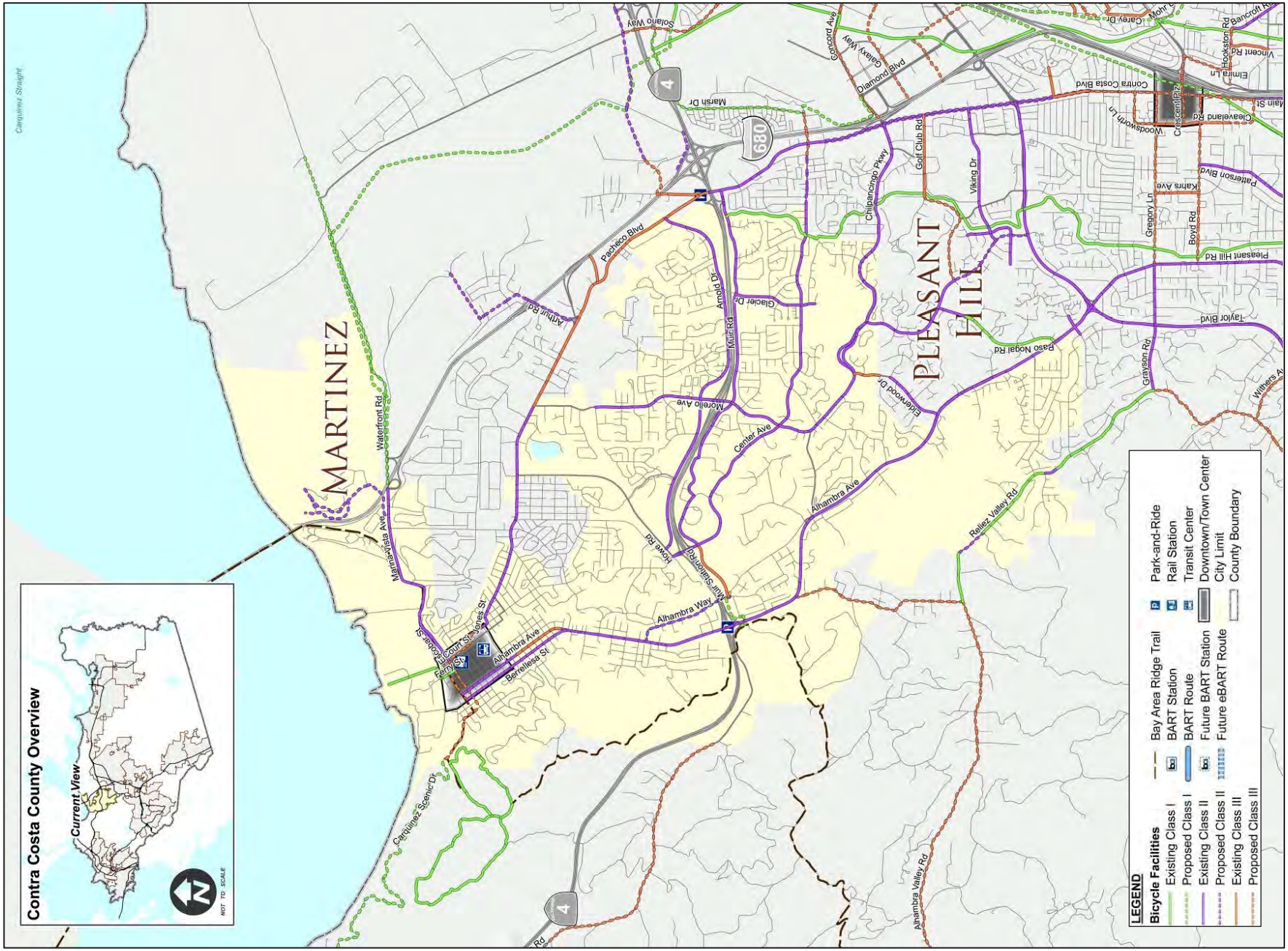


Figure D-10 | **Moraga**

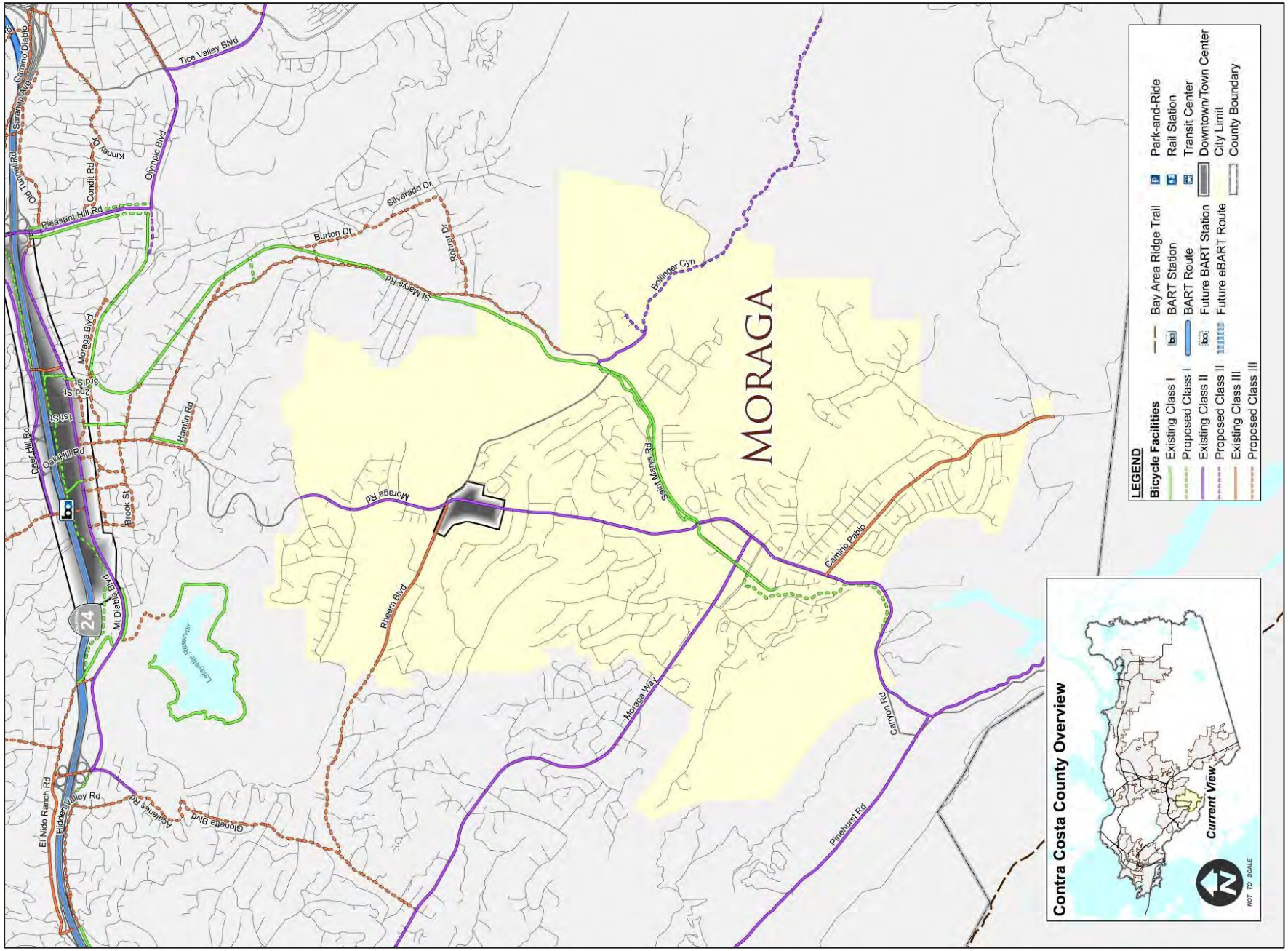


Figure D-11 | **Oakley**

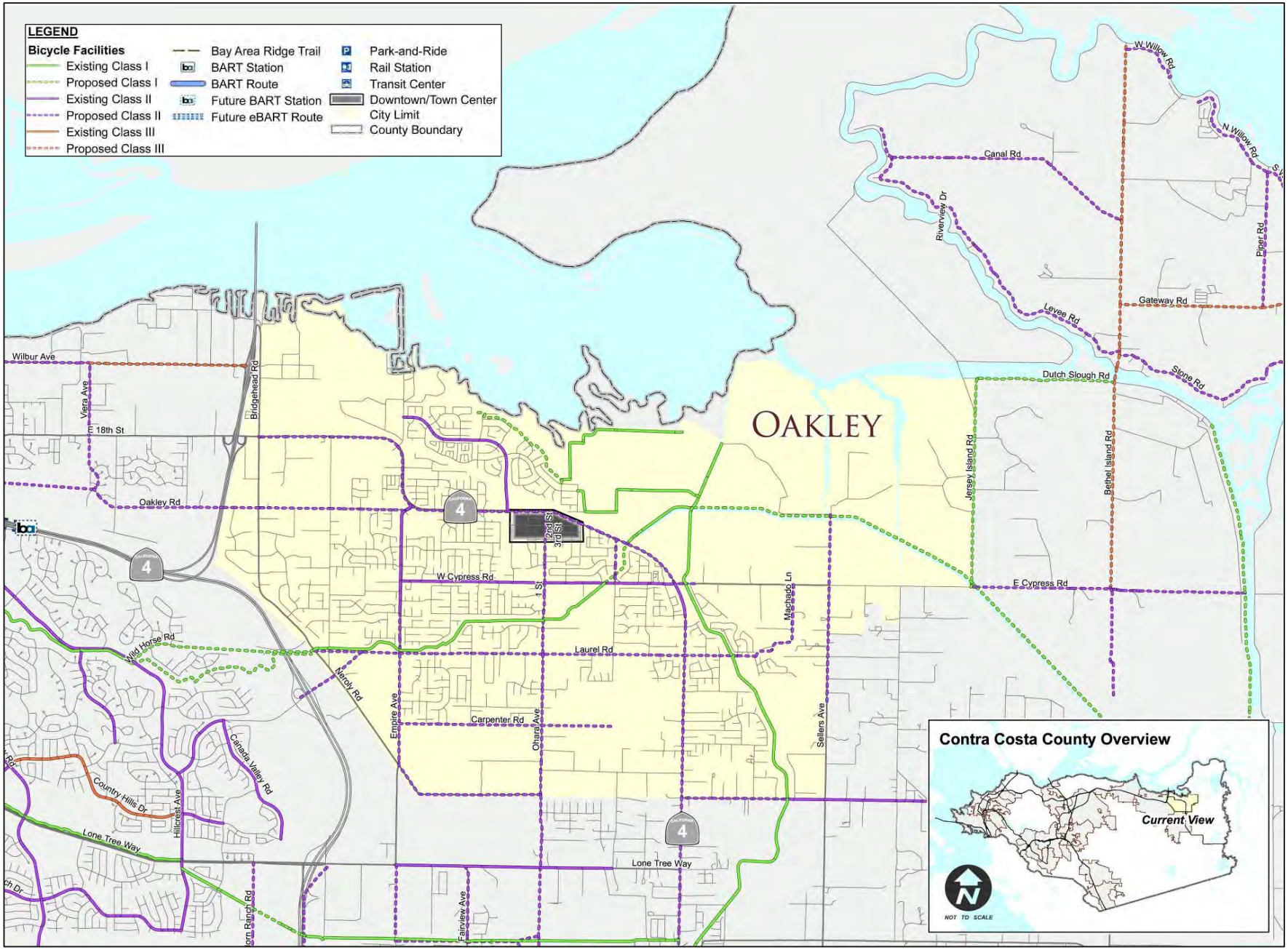


Figure D-12 | **Orinda**

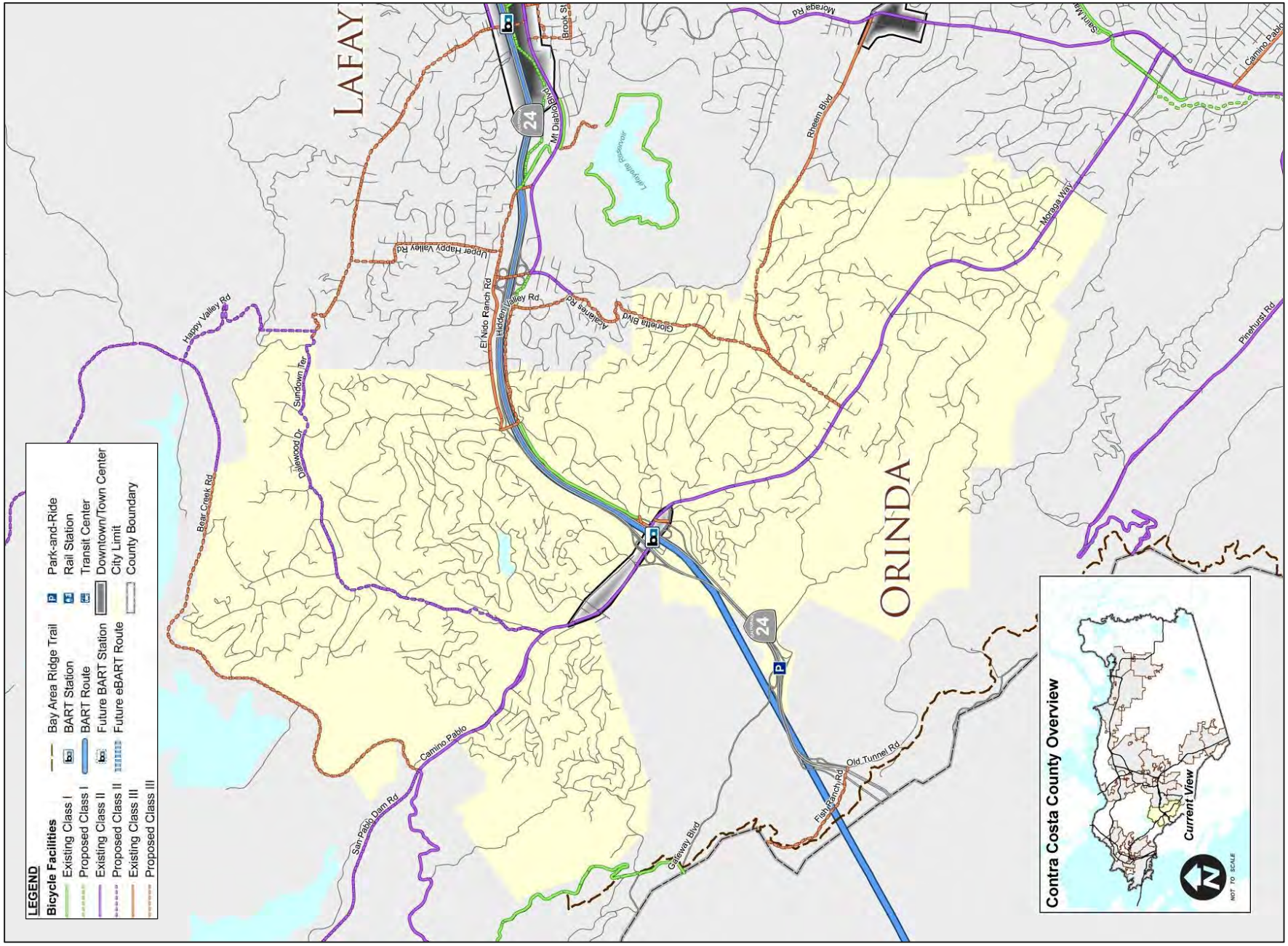


Figure D-13 | **Pinole**

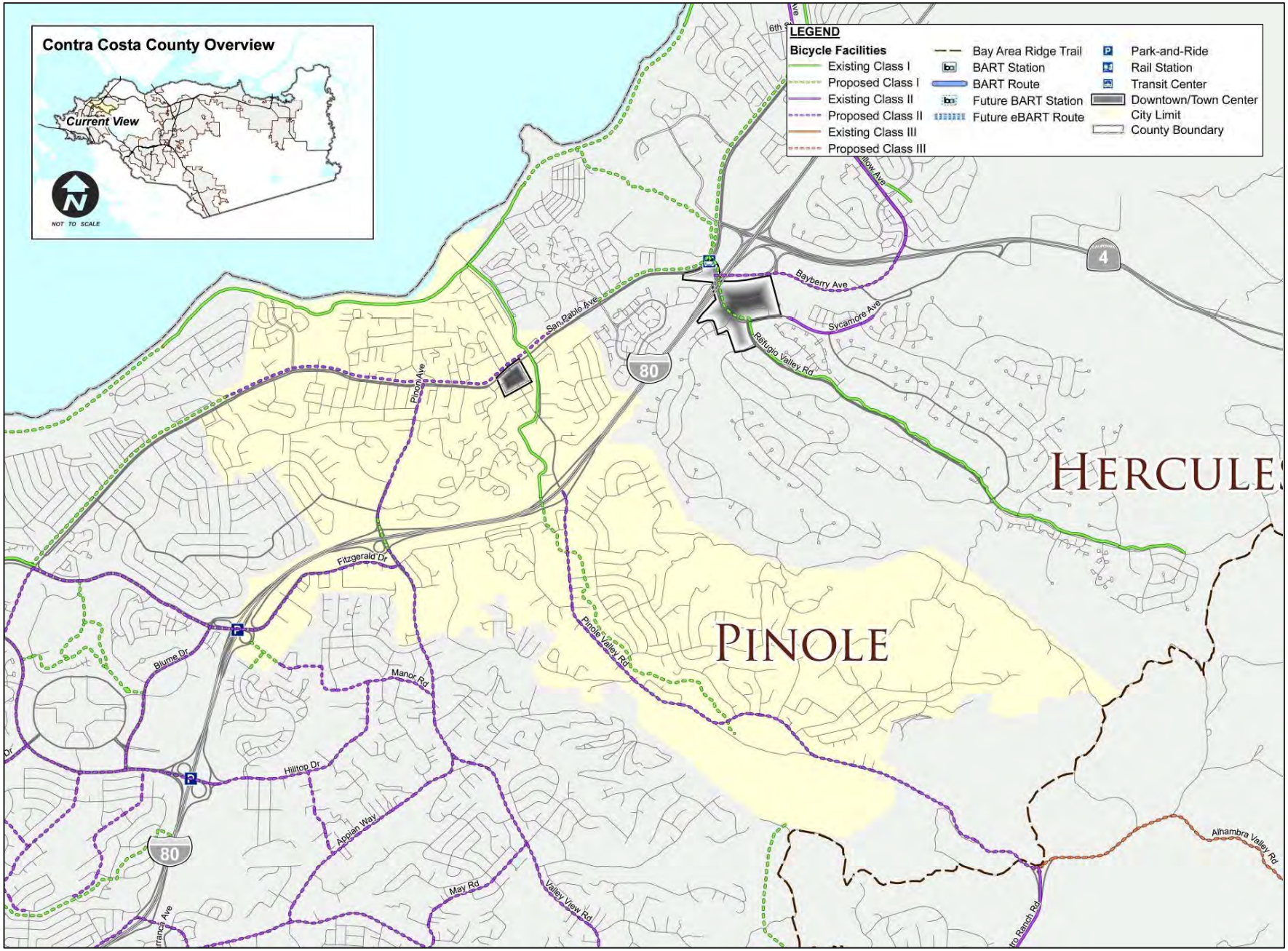


Figure D-14 | **Pittsburg**

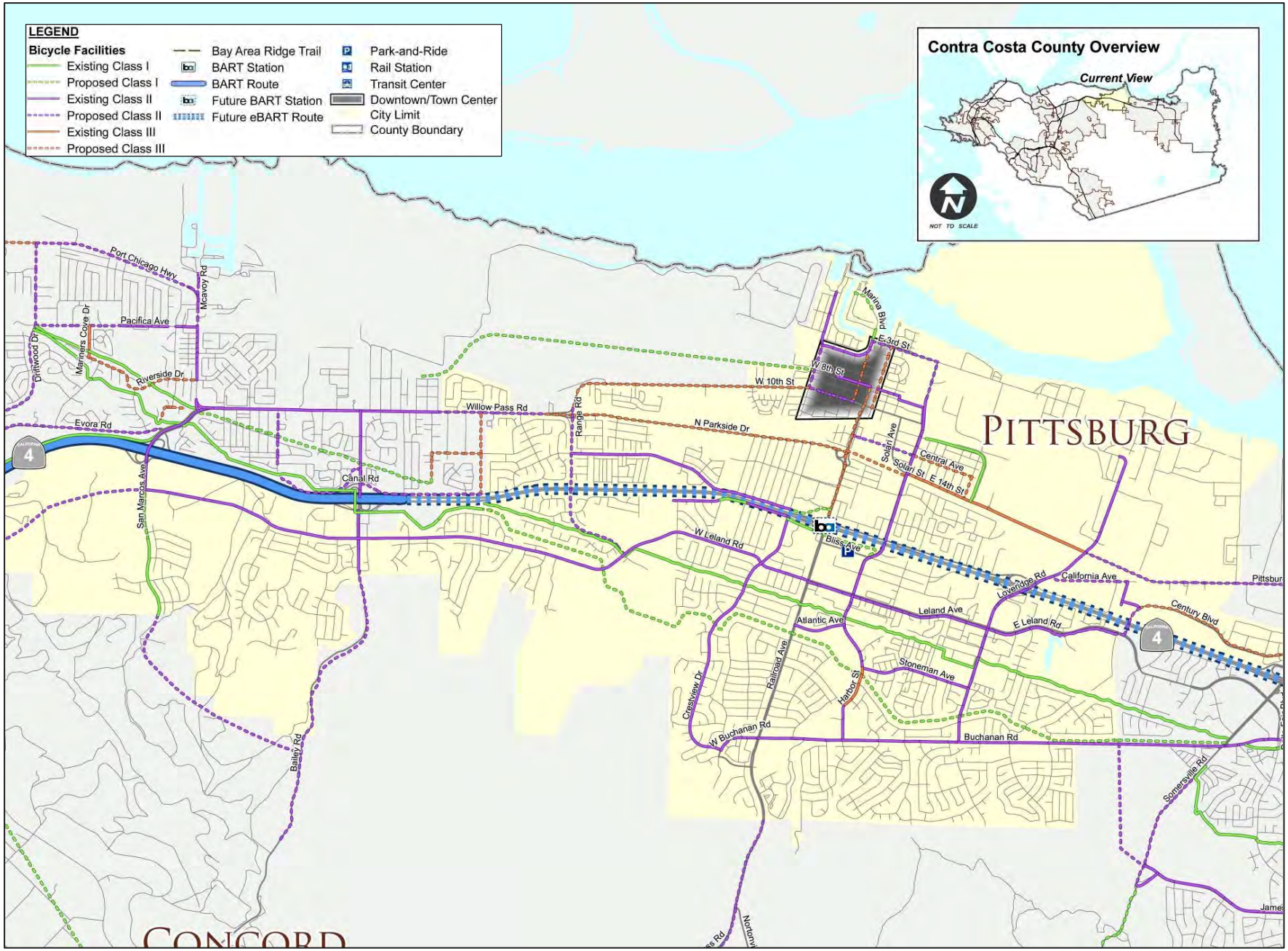


Figure D-15 | **Pleasant Hill**

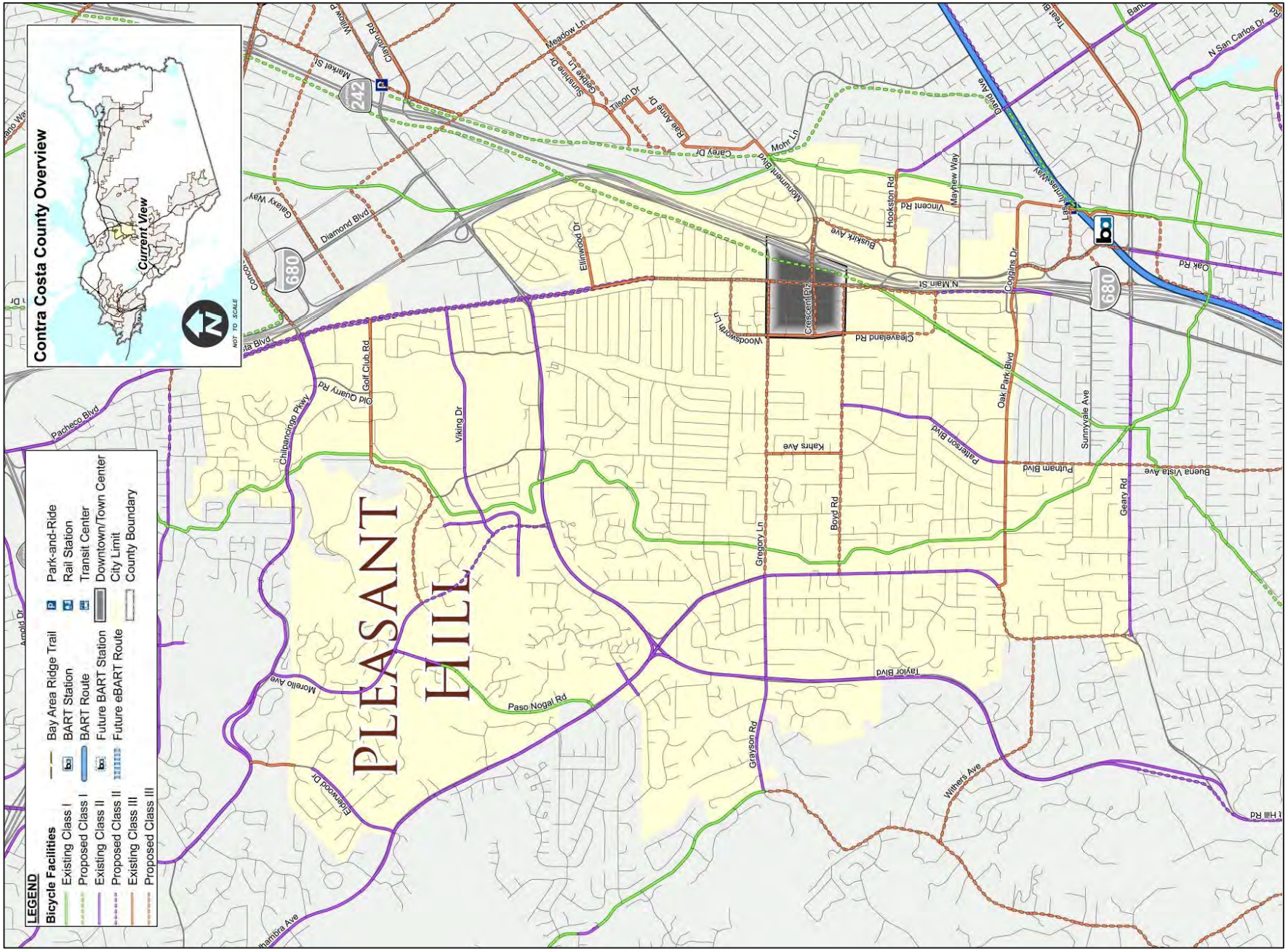


Figure D-16 | **Richmond**

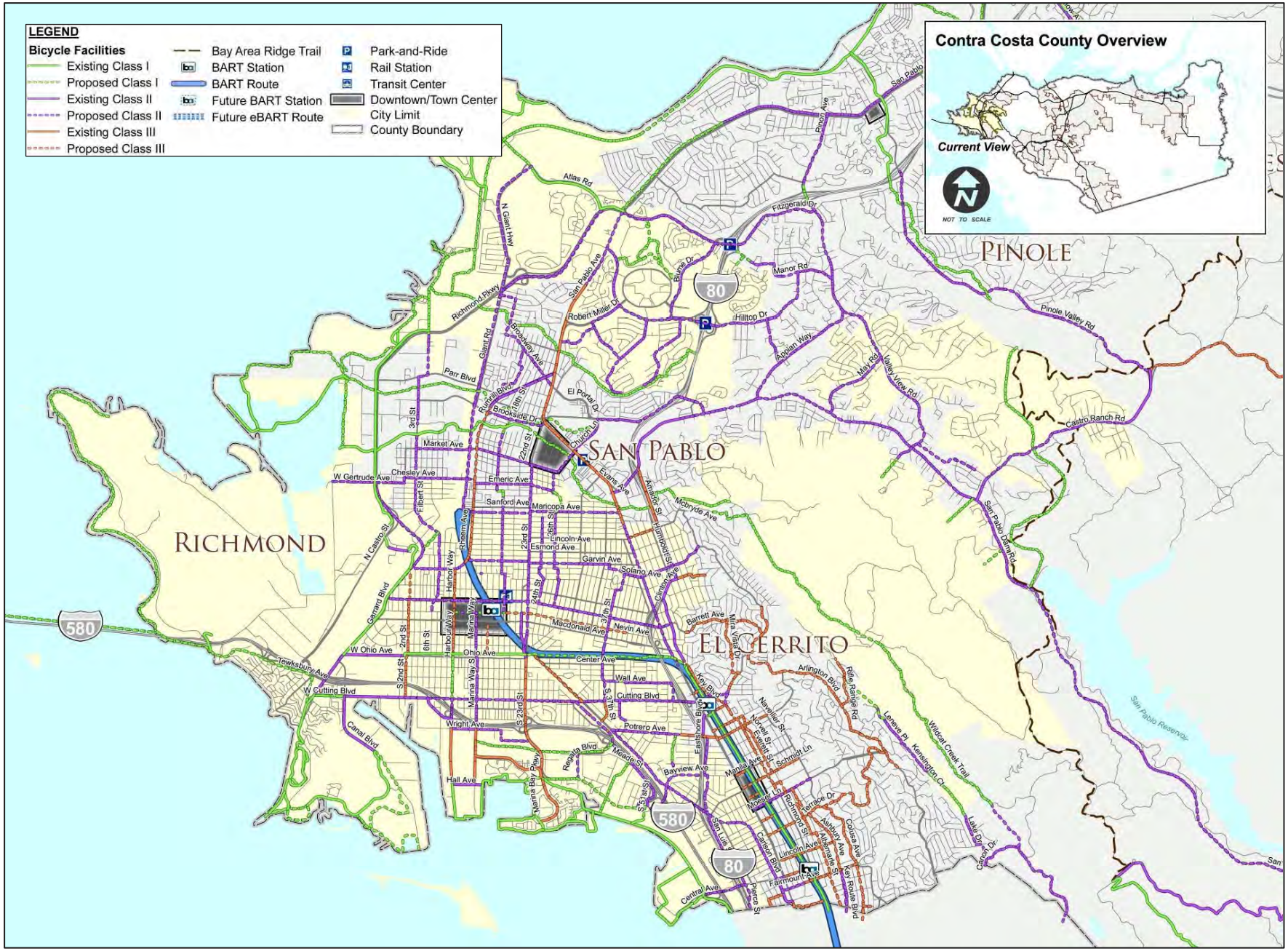


Figure D-17 | **San Pablo**

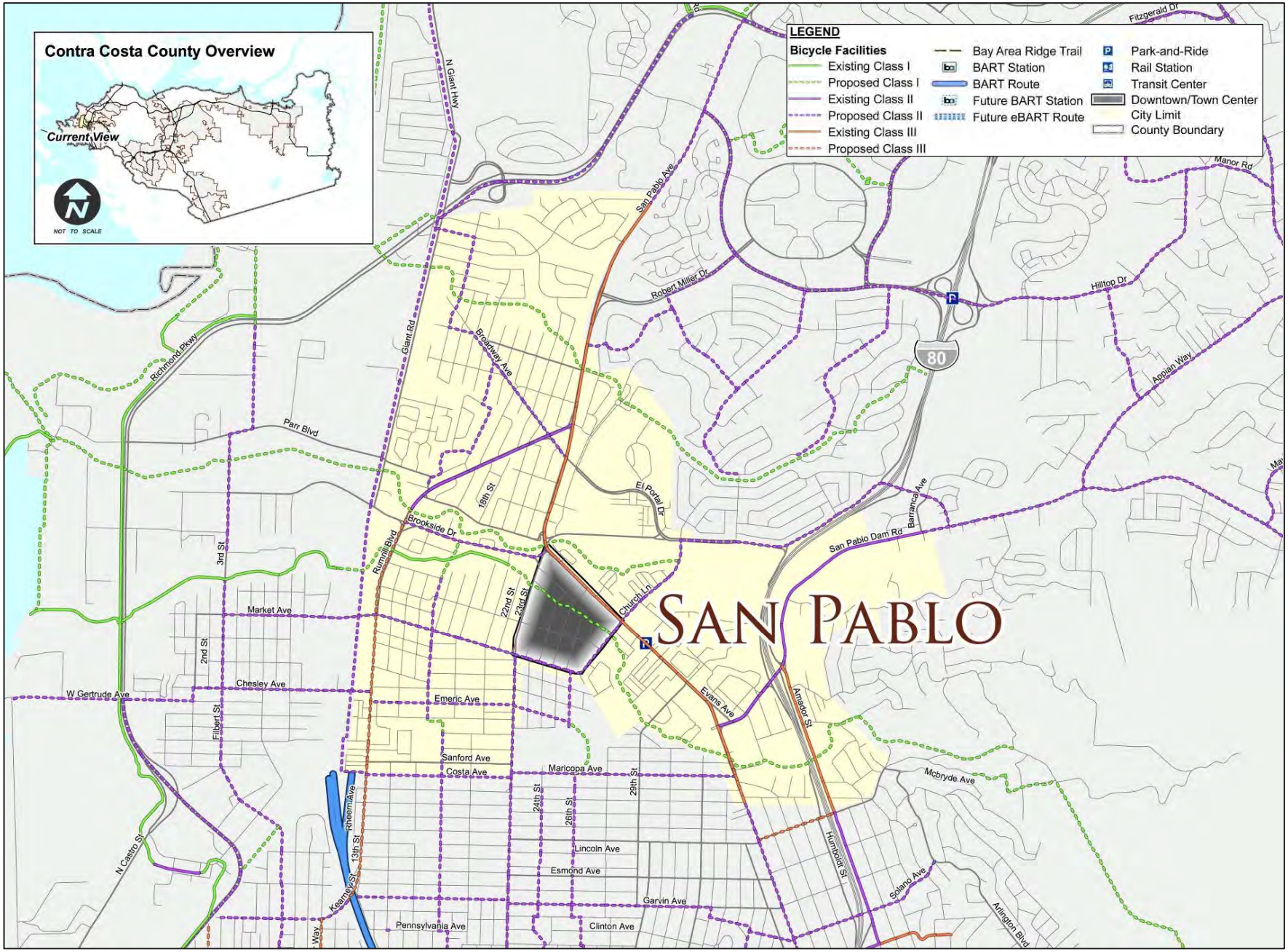


Figure D-18 | **San Ramon**

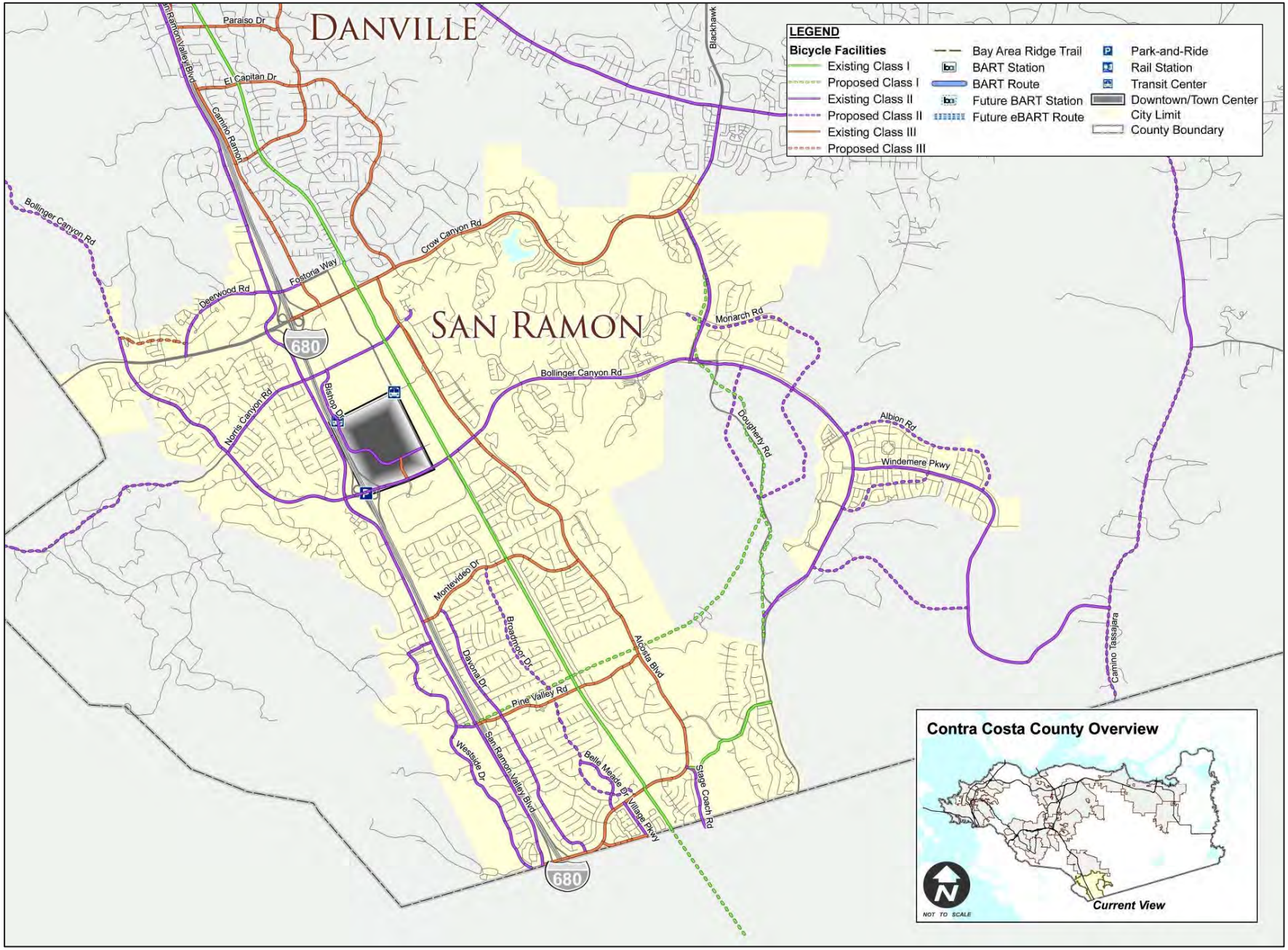
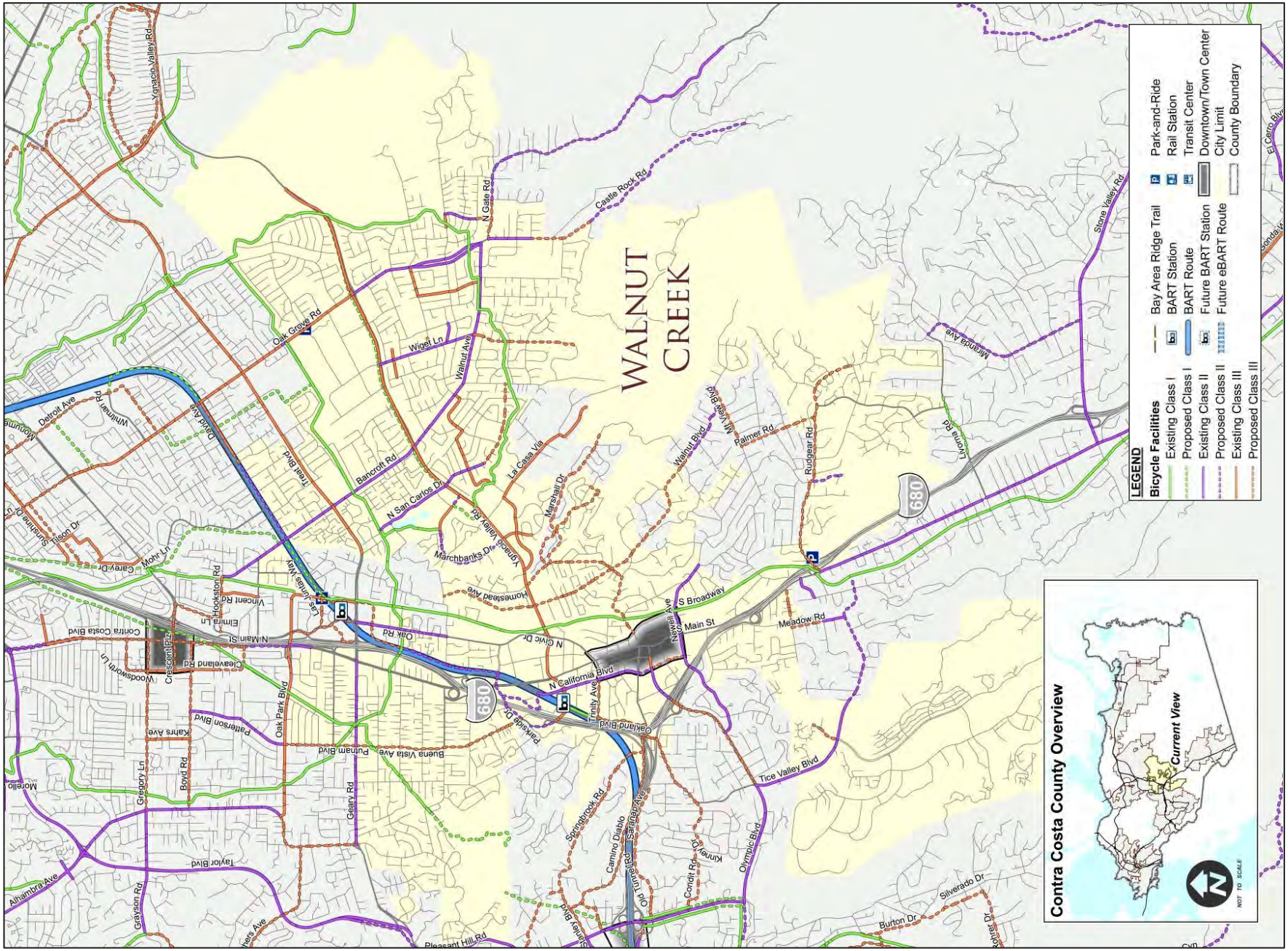


Figure D-19 | **Walnut Creek**



E | Local Bicycle and Pedestrian Projects

To help inform its various programming and planning efforts, the Authority maintains a database, known as the Comprehensive Transportation Project List (CTPL), of in-progress and proposed local transportation projects throughout Contra Costa. The projects in this database are submitted by the County, cities and various other sponsoring agencies in the county. All project sponsors have access to the database and the Authority encourages and relies on them to enter, edit and update projects. The CTPL is meant to be a "living document" that is updated as new information becomes available.

- **CCTA's Comprehensive Transportation Project List:**
  http://www.ctplupdate.com/index.asp

This appendix provides information on the bicycle and pedestrian projects in the CTPL as of January 2010 and also on the broader transportation projects on the list which have a bicycle or pedestrian component. Project information includes name, area limits, status, co-sponsors, cost and funding sources, as available. The projects submitted by each of the sponsoring agencies begin on the following pages:

Antioch	E.2	Moraga	E.37
BART	E.3	Orinda	E.37
Brentwood	E.4	Pinole	E.39
Clayton	E.8	Pittsburg	E.39
Concord	E.9	Pleasant Hill	E.43
Contra Costa County	E.10	Richmond	E.46
Danville	E.21	San Pablo	E.48
East Bay Reg'l Park Dist.	E.21	San Ramon	E.50
EBMUD	E.25	SR4 Bypass Authority	E.51
El Cerrito	E.25	SWAT	E.51
Hercules	E.28	TRANSPAC	E.52
Lafayette	E.28	Walnut Creek	E.53
Martinez	E.34	WCCTAC	E.55

Antioch

Bicycle/Pedestrian

0537 EBMUD Bicycle Pathway/Mokelumne Coast-to-Crest Trail: Construct

EBMUD Bicycle pathway from Hillcrest Road to Heidorn Ranch Road

Limits: Hillcrest Road to Heidorn Ranch Road

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $450,000

Funding:	Source:	Type:

1025 Hillcrest Ave. Bike Lanes, E 18th to UPRR

Construct a new southbound bicycle lane on Hillcrest Ave. from E 18th Street to the Union Pacific Railroad right-of-way. Reconstruct the existing northbound bike lane.

Limits: E 18th Street to UPRR ROW

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $124,000

Funding:	Source:	Type:

1124 Mokelumne Trail Access and Grading Improvements

Improve bicycle and pedestrian access at intersections of the Mokelumne Trail with Contra Loma Blvd., Putnam St., Rio Grande Dr. and Mission Dr.; and flatten excessive grades and eliminate conflicts with open water storm water flows.

Limits: Between Buchanan Road and Contra Loma Blvd.

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $470,000

Funding:	Source:	Type:

0539 Somersville Road Walkway: Construct Under SR 4

Somersville Rd. Walkway: construct a walkway and bike lane under SR 4

Limits: Under SR 4

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $200,000

Funding:	Source:	Type:

Other

0766 Somersville Road Replacement

Replace Somersville Road between Contra Costa Canal to James Donlon Blvd with 4-lane divided arterial with bicycle lanes.

Limits: Contra Costa Canal to James Donlon Blvd

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $3,000,000

Funding:	Source:	Type:
$3,000,000		Fees/Exactions

0301a Standard Oil Avenue: Construct New Roadway, Buchanan Rd to Delta Fair

New two-lane arterial from Buchanan Road. to Delta Fair Blvd. and widening the Century Blvd. and Delta Fair Blvd. intersection. Construct a connection to Los Medanos College access road. Provide bicycle lanes and sidewalks.

Limits: Buchanan Rd. to Century Blvd. at Highway-4

Project Status: Not Begun

Other Sponsors: City of Pittsburg and Los Medanos College

Total Project Cost: $6,000,000

Funding:	Source:	Type:

BART

Bicycle/Pedestrian

1506 BART Station Community Wayfinding Project

Provide street-level information kiosks at BART stations within West and East County. The kiosks will be strategically positioned both on station property and in the community to orient the user with pertinent information about local transportation options, connections to bicycle paths and pedestrian facilities, and to neighboring destinations within the community. This project is part of a larger set of actions to provide wayfinding and travel information at BART stations in Contra Costa.

Limits: At and adjoining BART stations

Project Status: Not Begun

Other Sponsors:

Total Project Cost:

Funding:	Source:	Type:

0574 Lafayette BART Station: Pedestrian/Wheelchair Access to South Entrance

Construct pedestrian and wheelchair access to south entrance of Lafayette BART Station. May include a new elevator.

Limits: NA

Project Status: Not Begun

Other Sponsors: City of Lafayette

Total Project Cost: $3,000,000

Funding:	Source:	Type:

0838 Richmond, Walnut Creek & Pleasant Hill BART Station Bicycle Pavilions

Develop a program design for a Bicycle Pavilion (a designated area for bike storage in lockers, racks and a bicycle station with amenities such as seating, lighting and landscaping) and complete construction of the format at the Walnut Creek BART station. The program design will be used as the basis for initiating Bicycle Pavilions at the Pleasant Hill and Richmond BART stations.

Limits: At BART stations

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $600,000

Funding:	Source:	Type:
$300,000	Measure J	Unidentified

Other

0282a BART Station Access Improvements

Construct projects that facilitate access to BART stations, including new or expanded intermodal facilities, bicycle facilities, pedestrian facilities, accessibility/ADA facilities, wayfinding signage, and the expansion of parking.

Limits: Countywide

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $400,000,000

Funding:	Source:	Type:

Brentwood

Bicycle/Pedestrian

1148 Sellers Avenue Detention Basin Improvements

Construct 10' wide landscaped trail for approximately 2,350 lf

Limits: West side of Sellers Avenue between Chestnut Street and Balfour Road

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $262,000

Funding:	Source:	Type:
$275,000	Developer contribution	Fees/exactions

Other

0653 Anderson Lane Widening

Widen existing Anderson Lane to a 2-lane collector with 16' landscaped median, 8' bike lanes and sidewalk.

Limits: Anderson Lane from Lone Tree Way to Neroly Road

Project Status: Under Construction

Other Sponsors:

Total Project Cost: $1,708,756

Funding:	Source:	Type:
$1,708,756	Developer contributions	Fees/exactions

0654 Armstrong Road Extension

Extend Armstrong Way residential collector. Includes bike lane, sidewalk, landscaping each side.

Limits: Carnegio Lane to Mills Drive

Project Status: Under Construction

Other Sponsors:

Total Project Cost: $3,041,929

Funding:	Source:	Type:
$3,041,929	Developer contributions	Fees/exactions

0657 Balfour Road Improvements – Phase II

Widen existing Balfour Road to 4 lanes. Includes curb, gutter, sidewalk, bike lanes, landscaping, sewer and water lines.

Limits: West of City limits toward Deer Valley Rd.

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $13,184,388

Funding:	Source:	Type:
$2,104,090		Other
$11,080,298	Facility Fees/Developer Contributions	Fees/exactions

0919 Brentwood Boulevard Widening – South I

Widen Brentwood Boulevard to four lanes with bike lanes, curbs, gutters, medians, sidewalks, street lights and landscaping.

Limits: Brentwood Boulevard from Chestnut Street to Fir Street

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $3,830,702

Funding:	Source:	Type:
$316,622	Facility Fees	Fees/Exactions
$3,514,080	Redevelopment Agency	Other

0918 Brentwood Boulevard Widening (North)

Widen Brentwood Boulevard with two lanes in each direction with two bike lanes, curbs, gutters, 16-foot medians, sidewalks, street lights and landscaping on each side of the roadway.

Limits: Marsh Creek to northern city limits

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $16,259,802

Funding:	Source:	Type:
$150,000	Facility Fees	Fees/Exactions
$1,676,764	Developer Contributions	Fees/Exactions
$1,250,000	Redevelopment Agency	Other

0661 Central Boulevard Bridge and Road Widening

Widen existing roadway and bridge at Marsh Creek to four lanes. Includes bike lane, sidewalk and landscaping.

Limits: Dainty Avenue to Griffith Lane

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $3,435,000

Funding:	Source:	Type:
$3,735,156	Facility Fees	Fees/Exactions

0671 Empire Avenue Extension North – Phase 2

Widen east side of Empire Avenue to an arterial street, 140-foot ROW, for 3,500 feet, consisting of curbs, gutters, sidewalks, bike lanes, landscaping, median and two lanes in northbound direction.

Limits: Neroly Road to Lone Tree Way

Project Status: Under Construction

Other Sponsors:

Total Project Cost: $1,706,534

Funding:	Source:	Type:
$1,281,855	City of Antioch	Local
$1,435,000	Developer Contributions/Facility Fees	Fees/exactions

0931 Empire Avenue Extension South III

Improve Empire Avenue south as a 4-lane roadway with curb, median, sidewalks, bike lanes and landscaping.

Limits: Empire Avenue from Shady Willow Lane to Jeffrey Way Extension

Project Status: Under Construction

Other Sponsors:

Total Project Cost: $1,406,529

Funding:	Source:	Type:
$1,129,659	Developer Contributions	Fees/exactions
$276,870	Facility Fees	Fees/exactions

0933 Fairview Avenue Extension

Extend Fairview Avenue to Marsh Creek Road consisting of travel lanes, bike lanes, 16' median, traffic signals at Fairview & Concord Avenues, Fairview Avenue & John Muir Parkway, Fairview Avenue & Marsh Creek Road, water & sewer lines and landscaping.

Limits: Fairview Avenue from Concord Avenue to Marsh Creek Road

Project Status: Under Construction

Other Sponsors:

Total Project Cost: $15,978,349

Funding:	Source:	Type:
$15,978,349	Developer Contributions	Fees/Exactions

0679 Garin Parkway Improvements II to Sunset

Extend Garin Parkway 2-lane residential collector. Includes bike lane, sidewalk, landscaping and utilities.

Limits: Sycamore Avenue Extension to Sunset Avenue

Project Status: Under Construction

Other Sponsors:

Total Project Cost: $4,884,766

Funding:	Source:	Type:
$5,102,329	Developer Contributions/Facility Fees	Fees/Exactions

0936 Heidorn Ranch Road – Phase II

Roadway improvements consisting of four lane arterial street section consisting of 12 foot lanes with median, water line bike lane and meandering sidewalk with landscape on both sides of the roadway.

Limits: Heidorn Ranch Road from EBMUD Channel to Old Sand Creek Road

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $6,520,117

Funding:	Source:	Type:
$4,172,876	Facility Fees	Fees/Exactions
$1,304,023	Developer contributions	Fees/Exactions

0937 John Muir Parkway Extension

Extend 4,350 linear feet of John Muir Parkway to a collector street consisting of travel lane, bike lane, sidewalk, median, traffic signal at John Muir Parkway and Concord Avenue, landscape on each side, water, sanitary sewer and non-potable water lines.

Limits: John Muir Parkway from Foothill Drive to Fairview Avenue

Project Status: Under Construction

Other Sponsors:

Total Project Cost: $4,152,800

Funding:	Source:	Type:
$2,076,400	Highway 4 Bypass Authority	Fees/exactions
$2,076,400	Developer Contributions	Fees/exactions

0688 Lone Tree Way Widening CIP# 336-3131

Widen existing Lone Tree Way to 4 lanes. Includes median, curb, gutter, sidewalk, landscaping and bike lanes, drainage and utility relocations.

Limits: Lone Tree Way, from 400 feet west of O'Hara Avenue to Brentwood Boulevard

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $22,848,000

Funding:	Source:	Type:
$186,000	Facility Fees	Fees/Exactions
$1,002,593	Development Contributions	Fees/Exactions
$8,211,407	Unidentified Local	Local

1144 Lone Tree Widening – UPRR / O'Hara Avenue

Widen Lone Tree Way to 3 lanes each direction for approximately 2,700 lf. Project includes bike lanes, 16' median, 30' wide landscape on both sides and the modification of the traffic signal at O'Hara.

Limits: Union Pacific Railroad to O'Hara Avenue

Project Status: **Other Sponsors:**

Total Project Cost:

Funding:	Source:	Type:
$1,045,000	Development Contributions	Fees/Exactions

0938 Minnesota Avenue Widening

Widen 950 linear feet of street, install curb, gutter, sidewalk, bike lane and landscape on the west side of Minnesota Avenue.

Limits: Minnesota Avenue from Balfour Road to Woodside Drive

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $652,498

Funding:	Source:	Type:
$739,493	Developer Contributions	Fees/Exactions

0693 San Jose Avenue Extension II to Sand Creek

Extend San Jose Avenue 2-lane residential collector. Includes bike lanes, sidewalk, landscaping, sewer and water lines.

Limits: West end of San Jose northwest to Sand Creek Road

Project Status: **Other Sponsors:**

Design and ROW

Total Project Cost: $2,314,365

Funding:	Source:	Type:
$2,967,358	Developer Contributions	Fees/Exactions

0695 Sand Creek Road (To Sellers Avenue)

Extend Sand Creek Road as a 2-lane collector with bike lanes, curb, gutter, sidewalk, landscaping, sewer, potable and non-potable water lines.

Limits: Sand Creek Road from Brentwood Boulevard to Sellers Avenue

Project Status: **Other Sponsors:**

Under Construction

Total Project Cost: $7,104,889

Funding:	Source:	Type:
$3,279,501	Developer Contributions	Fees/exactions
$4,347,245	Facility Fees	Fees/exactions

1146 Sand Creek Road Extension – West of Bypass

Construct (1) 4-lane arterial with 140' right of way, approximately 1,520' from the westerly edge of existing Highway 4 Bypass right of way (2) a 3-lane collector street w/ 96' right of way for approximately 845' within existing Highway 4 Bypass right of way for the future on/off ramp (3) two 12' travel lanes with 8' bike lanes and 30' landscape each side, 16' landscaped median (4) traffic signal at Sand Creek Road and San Jose Avenue and (5) pedestrian bridge over Sand Creek Road along easterly edge of Sand Creek.

Limits: West end of Sand Creek Road northwest to Sand Creek

Project Status: **Other Sponsors:**

Design and ROW

Total Project Cost: $4,960,673

Funding:	Source:	Type:
$2,277,600	Developer Contributions	Fees/exactions
$2,783,735	Facility Fees	Fees/exactions

0697 Sand Creek Road Widening II to Highway 4 Bypass

Widen existing Sand Creek Road to 4-lane arterial with median, bike lanes, sidewalk and landscaping.

Limits: Fairview Avenue to Hwy 4 Bypass

Project Status: **Other Sponsors:**

Design and ROW

Total Project Cost: $5,548,200

Funding:	Source:	Type:
$1,315,000	Facility Fees	Fees/exactions
$4,161,150	Developer Contributions	Fees/exactions

0925 Shady Willow Lane Extension – Phase I

Extend and widen 2,800 linear feet of Shady Willow Lane to a 4-lane arterial street consisting of curbs, gutters, sidewalks, bike lanes, landscaping

Limits: Shady Willow Lane from Grant Street to Lone Tree Way

Project Status: **Other Sponsors:**

Under Construction

Total Project Cost: $2,400,000

Funding:	Source:	Type:
$1,254,380	Facility Fees	Fees/Exactions

Clayton

Bicycle/Pedestrian

0950 Concord–Clayton Bikeway

Construction of missing segments of on-and off-street bike lanes along the Concord-Clayton Bikeway. Missing segments include Mitchell Canyon Road and Pine Hollow Road in Clayton. The full bike lanes will increase safety for students using the bike lanes to access Mt. Diablo Elementary School, one block off the bike route.

Limits: Clayton Town Center to Treat Boulevard in Concord

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $362,000

Funding:	Source:	Type:

Other

0948 Marsh Creek Road Upgrade

Development activity between Pine Lane to Russelmann Park Road will trigger the need to improve this segment of Marsh Creek Road in accordance with the Marsh Creek Road Specific Plan (i.e., 2 full-width lanes with bike lanes, shoulders, and walking path). Developer fees will contribute toward this project.

Limits: Marsh Creek Road between Pine Lane and Russelmann Park Road

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $1,000,000

Funding:	Source:	Type:

Concord

Bicycle/Pedestrian

1136 Housing Incentive Program Grant Improvements

Improve sidewalks and crosswalks linking housing to nearby community facilities (school, park) and/or streetscape improvements that support increased pedestrian, bicycle, and transit activities and safety.

Limits: Area bounded by Concord Avenue on the north, Pt. Chicago Highway on the east, Clayton Road and Cowell Road on the south, and I-680 on the west.

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $2,236,000

Funding:	Source:	Type:

1364 Monument Blvd & Meadow Lane Pedestrian Improvements

Construct pedestrian improvements at intersections along Monument Blvd. at Victory Lane, Reganti Drive, Mi Casa Court and Meadow Lane/Oak Grove intersections. The project will add roadway with pedestrian-level lighting along Monument Blvd. between Victory Lane and Oak Grove Road; redesign or enhance transportation stops, add or enhance landscaping in sidewalk areas. Meadow Lane north of Monument Blvd. will have expanded sidewalks and related amenities. Class II Bike Lanes will be installed on Meadow Lane. A traffic signal and pedestrian bulb-out will be constructed at Meadow Lane/Robin Lane.

Limits: Victory Lane to Oak Grove on Monument and north of Monument on Meadow Lane

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $2,940,000

Funding:	Source:	Type:
$740,000	Local match	Local
$1,200,000	CMAQ	Federal
$1,000,000	TE	Federal

1505 Monument Corridor Pedestrian and Bikeway Network Improvements

Construct a 1.1-mile long Class I shared-use trail and sign 3 miles of Class III bike route with "sharrow" markings within the Monument Corridor and surrounding community. The Class I bikeway will consist of a 12-foot wide asphalt concrete path with 2-foot decomposed granite shoulders. This bikeway will start at the Monument Boulevard/Mohr Lane intersection and continues to Victory Lane at Linden Drive. The trail continues across Victory Lane until it ends at Mayette Avenue. The project also includes "sharrows" along a network of streets (Linden Drive, Sunshine Drive, Meadow Lane, Detroit Avenue, and Walters Way).

Limits:

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $1,270,000

Funding:	Source:	Type:
$944,000	Transportation Enhancement	Federal
$330,000	Local funds	Local

Contra Costa County

Bicycle/Pedestrian

1035 Alves Lane Gap Closure

Create a Class 3 bike route on Alves Lane from Willow Pass Road to Winterbrook Drive, to fill a gap in bike routes along Alves Lane.

Limits: Willow Pass Road to Winterbrook Drive

Project Status: Not Begun

Other Sponsors:

Total Project Cost:

Funding:	Source:	Type:

1488 Bailey Rd Pedestrian & Bicycle Improvements -Canal Rd to Willow Pass Rd

Improve sidewalks and bike lanes in the segment of Bailey Rd between Canal Road and Willow Pass Rd.

Limits: From Canal Road to Willow Pass Road

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $12,000,000

Funding:	Source:	Type:
$5,500,000	Navy Mitigation Funds	Other
$6,500,000	Unidentified	Unidentified

0999 Bailey Road Bike Lane

Create a Class 2 bike lane on Bailey Road through the unincorporated area, from the Concord City Limit on the west to the Pittsburg City Limit on the east.

Limits: Concord City Limit to Pittsburg City Limit

Project Status: Not Begun

Other Sponsors:

Total Project Cost:

Funding:	Source:	Type:

1273 Bailey Road Transit Access Improvement

Pedestrian crossing improvements to BART station including sidewalk widening and security lighting.

Limits: In Pittsburg on Bailey Road/BART/Mayland Road area

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $2,197,506

Funding:	Source:	Type:
$1,208,506		Local
$989,000	TE	Federal

0571 Bay Trail: Complete Gaps on Carquinez Scenic Trail section

Bay Trail: repair three landslides and construct a 14-foot wide bicycle, pedestrian and equestrian path along the Carquinez Scenic Trail between Port Costa and Ozol.

Limits: Crockett to Martinez

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $1,759,000

Funding:	Source:	Type:
$201,757	Local	Local

1234 Camino Tassajara Bikeway Shoulder

San Ramon: On Tassajara from Blackhawk Drive to County line; Construct paved shoulders for bicycle commuting.

Limits: San Ramon: On Tassajara from Blackhawk Drive to County line

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $1,733,000

Funding:	Source:	Type:
$324,000	RIP-TE	Federal
$1,409,000	Local	Local

1212 Carquinez Scenic Trail

Design and construct Class I trail along closed Carquinez Scenic Drive between Port Costa and Martin

Limits: Carquinez Scenic Drive between Port Costa and Martin

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $3,800,000

Funding:	Source:	Type:
$1,000,000	SAFETEA-LU	Federal

1207 Castro Ranch Road AC Path

Build Sidewalk on Castro Ranch Road from San Pablo Dam Road to Hillside Drive (east side)

Limits: Castro Ranch Road from San Pablo Dam Road to Hillside Drive (east side)

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $242,000

Funding:	Source:	Type:

1491 Chesley Ave Railroad Pedestrian Crossing

Railroad crossing pedestrian facilities, 5 foot wide sidewalk, curb gutter, railroad warning devices.

Limits: Union Pacific Railroad Crossing to City of Richmond limit

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $140,000

Funding:	Source:	Type:
$140,000	CPUC	Other

1492 Clyde Pedestrian Trail

2700 foot pedestrian trail to Clyde Park on Sussex St.

Limits:

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $1,134,700

Funding:	Source:	Type:
$1,109,700	Navy Mitigation Funds	Other
$25,000	Prop 1B	Local

1201 Crockett Downtown Upgrade Project

Upgrade the pedestrian facilities along Pomona Avenue between 2nd Avenue and 1st Avenue in the downtown Crockett Area.

Limits: Pomona Avenue between 2nd Avenue and 1st Avenue

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $351,000

Funding:	Source:	Type:
$62,000	Gas Tax	Unidentified
$289,000	UnoCal/Tosco Return to Source Fund	Other

1382 Delta DeAnza Trail Gap Closure–Bay Point

Install a 12-foot wide asphalt concrete bike trail along the east side of Willow Pass Road at the location stated above. Stripe a bike lane on the west side of the road opposite the AC path. Install bike lane signage and a pedestrian barricade.

Limits: Willow Pass Road from the intersection of Evora Road

Project Status: Under Construction

Other Sponsors:

Total Project Cost: $100,973

Funding:	Source:	Type:
$7,000	Navy Mitigation Funds	Fees/Exactions
$93,000	TDA	State

1237 Delta Road Sidewalk and Bike Lanes

Construct sidewalk and bike lanes on Delta Road

Limits: Knightsen Avenue to Knightsen Elementary School.

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $580,000

Funding:	Source:	Type:

0557 Delta Road: Add Bicycle Lane

Delta Road: add class 2 bike lane.

Limits: Eden Plains Rd./Sellers Avenue to Bethel Island Road, and SR 4 to Marsh Creek/Sellers Avenue

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $530,000

Funding:	Source:	Type:

0564 Delta–De Anza Trail, Evora Road to Port Chicago Hwy

Delta-De Anza Trail: construct Class I bikeway from Evora Road to Port Chicago Hwy

Limits: Evora Road to Port Chicago Highway

Project Status: Not Begun

Other Sponsors: East Bay Regional Park District

Total Project Cost: $500,000

Funding:	Source:	Type:

0565 Delta–De Anza Trail, Port Chicago Hwy to Iron Horse Trail

Delta-De Anza Trail: construct Class I bikeway from Port Chicago Hwy to Iron Horse Trail

Limits: Port Chicago Hwy to Iron Horse Trail

Project Status: Not Begun

Other Sponsors: East Bay Regional Park District

Total Project Cost: $1,500,000

Funding:	Source:	Type:

1493 Driftwood Drive Bike Lanes

Install 4,300-foot long 5-foot bike lanes in each direction of traffic, and improve drainage inlet grates.

Limits: Evora Road to Pacifica Avenue

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $50,000

Funding:	Source:	Type:

0568 Franklin Canyon Undercrossing, Sobrante Ridge to Carquinez Strait Trail

Sobrante Ridge to Carquinez Strait Trail: construct Franklin Canyon undercrossing for regional trail access

Limits: Sobrante Ridge to Carquinez Strait Trail

Project Status: Not Begun

Other Sponsors: East Bay Regional Park District

Total Project Cost: $300,000

Funding:	Source:	Type:

0554 I-680 Bikeway Signage

I-680 Bikeway Signage: install signage for bicyclists in unincorporated portions of the I-680 Bikeway: Rudgear Road to Danville Town Limits

Limits: Rudgear Road to Danville Town Limits

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $20,000

Funding:	Source:	Type:

1227 Improve Terminus of Delta DeAnza Trail at Willow Pass Road

Improve the terminus of the Delta DeAnza trail near the intersection of Willow Pass Road on the Concord side. The trail currently ends at a gravel path just before it reaches Willow Pass Road near its intersection with Evora Road. The project will improve connection between the trail and Willow Pass Road and address signage and potential conflicts with auto traffic at the Evora-Willow Pass intersection.

Limits: At intersection of Delta DeAnza Trail with Willow Pass Road

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $107,000

Funding:	Source:	Type:

0228 Iron Horse Trail Overcrossing at Treat Blvd. in Walnut Creek

Construct bicycle/pedestrian bridge along the Iron Horse Trail, crossing Treat Boulevard in the vicinity of Jones Road to improve travel and access to the Pleasant Hill BART station for bicyclists and pedestrians.

Limits: At Jones and Treat in Walnut Creek

Project Status: Under Construction

Other Sponsors:

Total Project Cost: $6,640,377

Funding:	Source:	Type:
$1,287,000	Measure C	Measure C
$500,000	CMAQ	Federal
$640,377	TLC CMAQ funds	Federal
$6,771,000	Redevelopment funds	Local

0555 Iron Horse Trail Signage

Iron Horse Trail Signage: install signage for bicyclists and pedestrians along the entire length of the Iron Horse Trail that is within the County-owned former railroad right-of-way.

Limits: Entire length

Project Status: Not Begun

Other Sponsors: East Bay Regional Park District

Total Project Cost:

Funding:	Source:	Type:

1374 Iron Horse Trial Flashers

Install in-pavement flashers

Limits: Iron Horse Trail at Stone Valley Road

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $40,000

Funding:	Source:	Type:
$40,000	Gas Tax	Local

1208 Knightsen Pedestrian Project

The purpose of this project is to replace the sidewalk on Knightsen Avenue from the intersection with A Street to approximately 200' southeast along Knightsen Avenue. This project will construct approximately 220 linear feet of 8' wide sidewalk on Knightsen Avenue and A Street.

Limits: Intersection with A Street to approximately 200' south-east along Knightsen Avenue.

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $570,000

Funding:	Source:	Type:
$480,000	SR2S	State

1495 Market Avenue Railroad Pedestrian Crossing

Improves the pedestrian facilities along the north side of Market Avenue between 7th Street and Soto Street, west of the Union Pacific Railroad crossing

Limits: 7th and Soto St.

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $227,000

Funding:	Source:	Type:
$227,000	CPUC	Other

1496 Market Avenue Sidewalk Improvements

Improve the pedestrian facilities along the north side of Market Avenue by constructing 6.5-foot wide concrete sidewalk, curb, gutter, and curb ramps between 7th Street and Soto Street, west of the Union Pacific Railroad crossing.

Limits: 7th Street and Soto Street

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $280,000

Funding:	Source:	Type:
$150,000	TDA	Federal/State
$130,000	Redevelopment	Local

1485 Montalvin Manor Sidewalk and Transit Access Improvements

Install 3,000 ft of sidewalk, drainage, installation/improvements, installation of two new bus shelters, and installation of ADA accessible curb ramps along San Pablo Avenue and Kay Road.

Limits: Along San Pablo Avenue and Kay Road

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $1,810,000

Funding:	Source:	Type:
$1,435,000	Redevelopment	Other
$365,000	STIP	Federal/State

1213 North Richmond Bikeway Project

Construct a class 2 bicycle lane on 3rd Street between Grove Ave and a class 1 on Wildcat Trail and a class 3 bicycle route on Market Ave. between 3rd St and the County limits.

Limits: 3rd Street between Wildcat Creek Trial and Grove Avenue; Market Avenue between 3rd Street and County limit lines to the east

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $73,000

Funding:	Source:	Type:
$8,000		Local
$65,000	TFCA	Regional

0407 North Richmond Improvements -Market Avenue Pedestrian Over-crossing of Railroad Tracks

Improve the pedestrian and bicycle crossing of the UP railroad tracks along Market Avenue in North Richmond.

Limits: Market Avenue at the Union Pacific tracks in North Richmond

Project Status: Not Begun

Other Sponsors: Richmond, San Pablo

Total Project Cost: $2,980,000

Funding:	Source:	Type:

0713 Olinda Road Sidewalk Gap Closures

Fill in sidewalk gaps along Olinda Road including the installation of pedestrian bridge over a creek.

Limits: Beginning at Valley View Road and extending southernly about 850 feet

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $522,000

Funding:	Source:	Type:
$19,000	Gas Tax Funds	Local

1211 Pacheco Blvd. Sidewalk Gap Closure

Close the gap in the sidewalk between Camino Del Sol and WIndhover Way on Pacheco Boulevard to improve the safety of pedestrians and encourage walking as well as biking. This project will construct PCC sidewalk between Camino del Sol and Windhover Way, widen the AC pavement between the Sidewalk and the existing edge of pavement and install a bike lane.

Limits: Camino de Sol to Windover Way

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $361,000

Funding:	Source:	Type:
$311,000	SR2S	State

1057 Pacifica Avenue Phase II: Improvements

Widen both sides of roadway between Driftwood Drive and Rio Vista Elementary School and install bike lane striping, driveway conforms, concrete curbs, and minor drainage. Construct sidewalk both sides and drainage facilities.

Limits: Driftwood Drive to Rio Vista Elementary School

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $675,000

Funding:	Source:	Type:
$192,000	SR2S	Unidentified
$188,000	BTA	Unidentified
$42,000	Gas Tax Funds	Local
$253,000	TDA	Unidentified

1194 Pleasant Hill BART Shortcut Pedestrian Path

Plan, Design, and Construct a shortcut path at the Pleasant Hill BART Station.

Limits:

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $2,800,000

Funding:	Source:	Type:
$25,000	TLC Planning Grant	Federal
$300,000	Safe Routes to Transit	Regional
$100,000	Contra Costa Redevelopment Funds	Local
$500,000	Contra Costa Redevelopment Funds	Local

0190 Pleasant Hill BART Station Bicycle and Pedestrian Access

Improve access for pedestrian and bicyclists

Limits: Vicinity of Pleasant Hill BART station

Project Status: Design and ROW

Other Sponsors: BART

Total Project Cost: $2,444,000

Funding:	Source:	Type:

1036 Pleasant Hill BART Station Non-motorized Access Improvements–West

Non-motorized access improvements along Treat Blvd. facilitating movement across the 680 overcrossing, Buskirk Ave and other areas.

Limits: Treat Blvd. corridor, west from the PH BART station into Walnut Creek

Project Status: Not Begun

Other Sponsors: Walnut Creek

Total Project Cost:

Funding:	Source:	Type:

1218 Port Costa–Martinez Bike/Ped Trail

Repair and reconstruct trail into a Class I multi-use bicycle/pedestrian trail.

Limits: On Carquinez Scenic Dr from Port Costa to Martinez

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $1,179,000

Funding:	Source:	Type:
$236,000	Local Funds	Local
$943,000	Earmark	Federal

1206 San Pablo Ave/Parker Ave Sidewalk Project

The purpose of this project is to provide pedestrian facilities along the north side of San Pablo Avenue from Victoria Crescent to Parker Avenue and continued along the west side of Parker Avenue to 7th Street.

Limits: 7th Street to Victoria Crescent

Project Status:

Other Sponsors:

Total Project Cost:

Funding:	Source:	Type:
$363,400	SR2S	State

1236 San Pablo Avenue / Parker Avenue Sidewalk

Connecting a gap in the sidewalk. Project in conjunction with City of Hercules.

Limits: San Pablo Avenue / Parker Avenue

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $397,000

Funding:	Source:	Type:

1228 San Pablo Creek Pedestrian/Bicycle Bridge

Bridge for pedestrians and bicycles over San Pablo Creek, from Via Verde into downtown El Sobrante. Will connect to walkway along San Pablo Creek

Limits: Via Verde (in Richmond) across San Pablo Creek into unincorporated downtown area

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $350,000

Funding:	Source:	Type:

1046 San Pablo Dam Road Pedestrian Improvements

Install curb and sidewalk, and widen the road in the areas where the frontage improvements have not been installed.

Limits: Tri Lane to Appian Way

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $2,809,000

Funding:	Source:	Type:
$18,000	Gas Tax Funds	Local

0208 San Pablo Dam Road: Pedestrian and Bicycle Improvements

Add pedestrian and bicycle improvements consist with plans including the Downtown El Sobrante General Plan Amendment being conducted by Contra Costa County (completion expected late 2005 or early 2006), the San Pablo Dam Road/Camino Pablo Action Plan, and West County Action Plan. Goals of project are better and safer access for local walking and bicycling along and across San Pablo Dam Road, including both the downtown portion and the areas east of downtown from Appian Way east to Tri Lane.

Limits: No specific limits identified, where appropriate.

Project Status: Not Begun

Other Sponsors:

Total Project Cost:

Funding:	Source:	Type:

0553 SR 24 Bikeway

SR 24 Bikeway: Unincorporated portions of bikeway from Camino Pablo to Walnut Creek: Install destination, warning and traffic control signage; new bike lanes on Olympic Blvd.

Limits: Fish Ranch Road to Walnut Creek

Project Status:

Other Sponsors: Lafayette

Total Project Cost: $128,000

Funding:	Source:	Type:

0569 SR 4 West Bikeway: Construct

SR 4 West Bikeway: Construct bikeway parallel to SR 4 west

Limits: I-80 (or San Pablo Avenue) to Martinez

Project Status: Not Begun

Other Sponsors: East Bay Regional Park District, Martinez, Hercules

Total Project Cost: $200,000

Funding:	Source:	Type:

0744 Stone Valley West Sidewalks at Iron Horse Trail

Extend bike and pedestrian trail including other improvements and amenities.

Limits: Intersection of Stone Valley Road West and the Iron Horse Trail

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $35,000

Funding:	Source:	Type:
$35,000	STIP	Federal

1120 Third Street Pedestrian Project, Phase 2

Widen sidewalks, calm traffic and add streetlights and street trees to Third Street between Grove Avenue and Wildcat Creek in North Richmond.

Limits: Between Grove Avenue and Wildcat Creek in North Richmond

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $2,300,000

Funding:	Source:	Type:

1497 Viera Avenue Bike Lanes Project

Widen Viera Avenue between East Eighteenth Street and Wilbur Avenue to a 32 foot road width. This will provide 12 foot travel lanes and 4 foot shoulders for Class II bike lanes.

Limits: East Eighteenth Street and Wilbur Avenue

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $746,000

Funding:	Source:	Type:
$511,000	BTA	Federal/State
$80,000	TDA	Federal/State
$155,167	Prop 1B	Local

Other

1191 Alhambra Valley Road Shoulder Widening. East of Castro Ranch

Shoulder widening along Alhambra Valley Road. This project improves a section of Alhambra Valley Road, beginning from approximately 4,700 feet east of Castro Ranch Road, going east 1,650 feet. This project consists of; road widening for shoulders, slope cutting and retaining wall construction on the north side of the road to accommodate the road widening, place guardrail, striping, relocate / remove / add new signage, etc. The proposed shoulder widening will also serve as a Class III bicycle facility.

Limits: 4,700 to 6,350 feet east of Castro Ranch Road

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $2,000,000

Funding:	Source:	Type:
$1,055,000	Prop 1B	State
$900,000	HRS	State
$45,000	Briones AOB	Other

0057b Camino Tassajara Road Widening: Windermere to County Line

Widen to 4 lanes including 8-foot paved shoulders and Class II bike lanes in both directions.

Limits: Windermere Parkway to County Line

Project Status: Not Begun

Other Sponsors: San Ramon

Total Project Cost: $11,332,000

Funding:	Source:	Type:
$1,600,000	SCC Sub-Regional JEPA Fee	Fees/Exactions
$103,000	Camino Tassajara Area of Benefit Fee	Fees/Exactions
$3,829,000	SCC Dougherty Valley JEPA Fee	Fees/Exactions

1180 Camino Tassajara Shoulder Widening

Provide Standard Paved Shoulders that will serve as a class 2 bike lane along this portion of Camino Tassajara. Widen Camino Tassajara to include 4-foot wide paved shoulders and 2-foot wide shoulder backing shoulders.

Limits: 550′ to 3800′ south of Highland Rd.

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $2,748,000

Funding:	Source:	Type:
$1,278,000	Prop 1B	Federal/State
$1,470,000	South County AOB	Developer/Fees

1373 Deer Valley Road Shoulder Widening and Bicycle Facility Improvements

Widen sections of Deer Valley Road from two 10′ wide lanes to two 12′ wide lanes, 6′ wide paved shoulders and 2′ wide shoulder backing shoulders. The shoulders will be striped as bike lanes

Limits: Marsh Creek Road intersection to 600′ north of that intersection and between 2300′ and 3200′ north of the Marsh Creek Road intersection

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $998,000

Funding:	Source:	Type:
$900,000	HR3 Grant	Federal
$47,000	Prop 1B	State
$51,000	Measure C/J	Measure C

0084 Kirker Pass Truck Northbound Climbing Lane

Add a dedicated northbound 12-foot wide truck climbing lane and a Class II bike lane within an 8-foot paved shoulder from Clearbrook Drive in Concord to a point 1000 feet beyond the crest of the Kirker Pass Rd.

Limits: From Clearbrook Dr to a point 1,000 feet beyond the crest of Kirker Pass Road

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $8,471,000

Funding:	Source:	Type:
$3,000,000	Prop 1B	State

0028 Pacheco Boulevard, Widen from Blum to Martinez City Limit

Widen Pacheco Boulevard from Blum Road to Morello Avenue, construct railroad overcrossing, and allow for bicycle lanes, sidewalks, median, turn lanes and landscaping, where appropriate.

Limits: Between Blum Road and Martinez City Limit

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $35,200,000

Funding:	Source:	Type:
$3,000,000	Measure C	Measure C
$3,600,000	TOSCO/Solano Fund	Other
$4,900,000	Measure J	Measure J
$1,500,000	Martinez Area of Benefit	Other

0093 San Pablo Dam Road Access Improvements

Provide circulation and access improvements for local traffic including motorists, bus riders, pedestrians and bicycles subject to a pending General Plan Amendment by Contra Costa County. Specific project components include a new local circulation street parallel to San Pablo Dam Road between Hillcrest and Pitt, parking changes and traffic-calming on San Pablo Dam Road, and a better, safer environment for pedestrian and bicycle travel along and across San Pablo Dam Road in the El Sobrante business district through measures such as bulbouts, wider sidewalks and additional crosswalks. Improvements are to be consistent with the Downtown El Sobrante Transportation and Land Use Plan, and the General Plan Amendment based on that plan. Completion of GPA expected in late 2005 or early 2006.

Limits: El Portal Drive to Appian Way

Project Status: Not Begun

Other Sponsors:

Total Project Cost:

Funding:	Source:	Type:

0332 San Pablo Dam Road in El Sobrante: Improve

Add transit stop access and amenities, sidewalks and other improvements to pedestrian and bicycle facilities, turn lanes.

Limits: Appian Way to Tri Lane

Project Status: Design and ROW

Other Sponsors: City of Richmond

Total Project Cost:

Funding:	Source:	Type:

1009 Stone Valley Road Improvements: Roundhill Road to Glenwood Court

Widen the roadway to provide two 12-foot travel lanes and two 5-foot Class II bike lanes.

Limits: Roundhill Road to Glenwood Court

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $1,023,000

Funding:	Source:	Type:
$1,023,000	Alamo Area of Benefit	Fees/Exactions

0646 Widen Cummings Skyway Interchange at I-80

Widen Cummings Skyway overcrossing to provide turn and bicycle lanes

Limits: I-80/Cummings Skyway Interchange

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $10,000,000

Funding:	Source:	Type:

Danville

Bicycle/Pedestrian

0719 Diablo Road Improvements – Green Valley Road to Diablo Scenic

Phase II – Construct a bike/walkway path from Green Valley Rd to Diablo Scenic. Project deferred until ROW can be dedicated.

Limits: Green Valley Road to Mt. Diablo Scenic Boulevard

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $1,404,204

Funding:	Source:	Type:
$1,404,204	NERIAD	Fees/Exactions

Other

1308 Camino Tassajara/Crow Canyon SAFETEA-LU Improvements

Street repair and resurfacing, signal, drainage, sidewalk, curb and gutter, and bicycle/pedestrian facility improvements.

Limits: Sycamore Valley Road to eastern Town Limit, and Camino Tassajara to southern Town Limit.

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $5,920,988

Funding:	Source:	Type:
$1,055,328	SCC Danville Mitigation	Fees/Exactions
$4,865,660	SAFETEA-LU Grant	Federal

1309 Sycamore Valley Road Improvements East of Camino Ramon

Relocate existing northern curb to provide additional westbound travel lane and 5-foot bike lane from the bus bay immediately west of the Sycamore Valley Road/Brookside Drive intersection to the Sycamore Valley/Camino Ramon intersection.

Limits: Camino Ramon to Brookside Drive

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $715,311

Funding:	Source:	Type:
$715,311	Measure C	Measure C

East Bay Regional Park District

Bicycle/Pedestrian

0599 Bay Trail Connection, Bayfront Park to Sunnyview Drive

Bay Trail connection across railroad ROW

Limits: Bayfront Park west to Sunnyview Drive

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $4,000,000

Funding:	Source:	Type:
$500,000	Railroad	Other
$600,000	Redevelopment Agency	Local
$600,000	EBRPD	Local

0804 Big Break Shoreline Trail

Develop extension of Class I Trail from current terminus west to Antioch-Oakley Shoreline Bridge.

Limits: Jordan Lane west to Antioch-Oakley Shoreline Bridge

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $1,500,000

Funding:	Source:	Type:

1331 California Delta Trail

California Delta Trail is new 22-mile multi-use trail project proposed for east-west trail in the communities of Antioch, Pittsburg, and Oakley under the Delta Protection Commission. EBRPD lead agency for East Contra Costa County.

Limits: East Contra Costa County–Antioch to Oakley

Project Status:

Other Sponsors: Contra Costa County

Total Project Cost:

Funding:	Source:	Type:

0818 Delta De Anza Trail - Walnut Creek Channel to Bay Point

This multi-use trail will start at the terminus of the Iron Horse Trail on Marsh Dr. in Concord and pass through Hillcrest Community Park, under Highway 4 along the EBMUD ROW north, continue east and connect with the Delta De Anza Trailhead on Willow Pass Rd. in Concord.

Limits: Grant St., Concord to Willow Pass Rd. @ Hwy 4 in Contra Costa County

Project Status: Not Begun

Other Sponsors:

Total Project Cost:

Funding:	Source:	Type:

0204 Delta-de Anza Bikeway Project

Complete the Delta-De Anza Regional Trail bikeway gap from Ridgeline Dr. in Antioch to Neroly Rd., Oakley.

Limits: Ridgeline Drive to Neroly Road

Project Status:

Other Sponsors: Antioch and Oakley

Total Project Cost:

Funding:	Source:	Type:

0711 Delta-De Anza Trail Gap Closure

Build Class 1 path on Bailey Road between EBMUD Aqueduct and SR4 WB on-ramp, install pedestrian lights along trail leading to Ambrose Park This project also consists of pavement restriping to accommodate 5-foot bike lanes, constructing a new 12-foot sidewalk section, and constructing a new pedestrian actuated traffic signal at the northern trail crossing.

Limits: On Bailey Road between EBMUD Aqueduct and SR4 WB on-ramp

Project Status: Under Construction

Other Sponsors:

Total Project Cost: $372,000

Funding:	Source:	Type:
$61,000	Gas Tax	Local
$311,000	STIP	Federal

0295 Extend Iron Horse Trail to Benicia-Martinez Bridge along Walnut Creek Channel

Construct approx. 6 mile extension of Iron Horse Regional Trail (Class 1 bike facility) along the Walnut Creek Channel from Marsh Drive in Concord to Benicia-Martinez Bridge

Limits: Marsh Drive, Concord to Benicia Bridge

Project Status:

Other Sponsors: TRANSPAC

Total Project Cost: $2,800,000

Funding:	Source:	Type:
$1,000,000	Tesoro (formerly Tosco) mitigation	Fees/Exactions

1332 Mokelumne Coast to Crest Trail

Proposed seven mile multi-use trail on EBMUD Mokelumne Aqueduct right of way in Antioch, Brentwood, and Contra Costa County

Limits: Antioch to East Contra Costa County Delta Access

Project Status:

Other Sponsors: Antioch, Brentwood, and Contra Costa County

Total Project Cost:

Funding:	Source:	Type:

1111 Pinole Waterfront Bay Trail Gap Closure

Complete gap in San Francisco Bay Trail within Pinole. The project includes eastward extension of the trail from its current terminus near Woy Drive for 1,300 feet and then construction of a bridge over the Union Pacific railroad right-of-way and continuing eastward to the existing trail at Tennent Avenue.

Limits: From existing terminus near Woy Drive to Tennent Drive

Project Status:

Other Sponsors:

Total Project Cost: $3,300,000

Funding:	Source:	Type:
$3,300,000	Pinole Redevelopment Funds	Local

1123 S.F. Bay Trail–Pt. Pinole to Carquinez Strait

Construct 0.53-mile segment of multi-use S.F. Bay Trail between Victoria by the Bay Homes and Waterfront development Bay Trail segments in Hercules.

Limits: Adjacent to Bio-Rad campus in Hercules

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $2,500,000

Funding:	Source:	Type:
$700,000	EBRPD AA	Other

1323 SF Bay Trail–Richmond Parkway to Pt. Pinole Regional Shoreline

SF Bay Trail segments from Goodrick Ave. to southern boundary of former Bruener property and from northern boundary of former Bruener property to Bay View Trail at Pt. Pinole Regional Shoreline.

Limits: Goodrick Ave., Richmond Parkway to Pt. Pinole Regional Shoreline

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $2,500,000

Funding:	Source:	Type:

1324 SF Bay Trail, Pt. Pinole to Pt. Wilson

Extend the Bay Trail from the Pt. Pinole Regional Park to Pt. Wilson in the San Pablo Bay Regional Park. EBRPD completed a feasibility and preliminary engineering study on SF Trail between Pt. Pinole Shoreline and Pt. Wilson adjacent to the Railroad tracks in 2005.

Limits: Pt. Pinole Regional Shoreline to Pt. Wilson

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $2,500,000

Funding:	Source:	Type:

0836 Wildcat Creek Regional Trail: Construct Bridge over Railroads

Construct a bridge for the Wildcat Creek Regional Trail across the South Pacific and Atchison Topeka and Santa Fe railroad tracks.

Limits: At SPRR and AT&SF Railroads

Project Status: Not Begun

Other Sponsors:

Total Project Cost:

Funding:	Source:	Type:
$631,500	Measure AA	Local
$556,900	Measure C	Measure C
$1,326,000		Federal
$250,000		Federal

1325 Wildcat Creek Trail Crossing of Richmond Parkway

Project will entail a safe multi-use crossing of Wildcat Creek Trail at Richmond Parkway

Limits: Wildcat Creek Trail on east side of RIchmond Parkway to Wildcat Creek Trail and Staging

Project Status:

Other Sponsors: Contra Costa County Flood Control and Water Conservation District, Contra Costa County Redevelopment Agency, City of Richmond

Total Project Cost:

Funding:	Source:	Type:

Other

1125 Atlas Road Bridge

Construct a new bridge on Atlas Road across the Union Pacific railroad right-of-way to provide access to the Point Pinole Regional Shoreline. The bridge will provide both vehicular and a separated pedestrian-bicycle trail connection to the shoreline.

Limits: Atlas Road at Union Pacific ROW

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $1,929,700

Funding:	Source:	Type:
$1,400,000	City of Richmond	Local
$479,700	Measure C	Measure C
$50,000	Measure AA bond revenues	Local

0806 Regional Trail Maintenance

Repave and overlay pavement on Contra Costa Canal, Lafayette-Moraga, Iron Horse, Delta-de Anza, and Marsh Creek Trails

Limits: Contra Costa

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $6,000,000

Funding:	Source:	Type:

EBMUD

Bicycle/Pedestrian

0205 EBMUD Trail: Complete

Completion of EBMUD trail linking Los Medanos College and Brentwood

Limits: Linking Los Medanos College and Brentwood

Project Status: Unknown

Other Sponsors:

Total Project Cost: $450,000

Funding:	Source:	Type:

El Cerrito

Bicycle/Pedestrian

0873 Cerrito Creek Bay Trail Connector Master Plan / Cerrito Creek Greenway Project

Construct a bicycle and pedestrian facility to connect the Ohlone Greenway to the San Francisco Bay Trail. The project would start at the Ohlone Greenway at El Cerrito Creek and continue west along El Cerrito Creek as a Class III bike trail (pedestrians would use sidewalks and crosswalks) through El Cerrito Plaza. The trail would continue north along San Pablo Avenue as a shared bike/ped pathway and would cross San Pablo at Carlson. Pedestrians would continue on Carlson and go south on Adams to connect to the trail in Creekside Park; bicyclists would use Class II bike lanes on Carlson and a marked Class III bike route on Lassen and Belmont to connect to the Class I trail in Creekside Park. That trail would connect to Pierce via a new Class I trail at the edge of the Pacific Plaza mall. The Greenway would continue south along Pierce in Albany and west under I-80 through the future Pierce Street Park to connect to the Bay Trail.

Limits: Ohlone Greenway to SF Bay Trail

Project Status: Design and ROW

Other Sponsors: Richmond and Albany

Total Project Cost: $2,700,000

Funding:	Source:	Type:
$220,062	ABAG – Bay Trails	Other
$84,561	City of El Cerrito	Local

1320 El Cerrito Citywide On-street Bikeways

Install class 2 and 3 bikeways on various city streets as shown in adopted El Cerrito Circulation Plan for Bicycles and Pedestrians. Streets include San Pablo Avenue, Richmond, Ashbury, Carlson, Key, Hill, Central, and Fairmount. Work will include pavement striping, wayfinding signage, detection loops for bicycles.

Limits: Citywide in El Cerrito

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $1,250,000

Funding:	Source:	Type:
$10,000	Street Improvement	Local
$17,000	BTA	State

1501 El Cerrito Del Norte TOD Transportation Improvements

Improvements for bicycle, pedestrian and transit access and safety including signing, lighting, pedestrian crossings, bikeways on San Pablo Ave, Knott Ave, Cutting Blvd, Eastshore Blvd, Hill St, Key Blvd and Ohlone Greenway.

Limits: Del Norte BART Area

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $5,000,000

Funding:	Source:	Type:

1319 Ohlone–Richmond Greenway Gap Closure

Construction final segment of Greenway System crossing San Pablo Avenue, Baxter Creek, I-80, and BART.

Limits: Greenway from San Pablo Avenue to approximately So. 45th Street

Project Status: Design and ROW

Other Sponsors: Richmond

Total Project Cost: $1,000,000

Funding:	Source:	Type:

1499 Ohlone Greenway Arterial Crossing Safety Improvements

Installation of in-pavement flashing lights with automatic detection on Ohlone Greenway and next to BART Stations on several arterials plus purchase of citywide collision analysis software. Nine (9) uncontrolled marked crosswalks on the Ohlone Greenway, a pedestrian-bicycle path underneath the BART tracks, and next to BART Stations on seven arterial streets as follows: Fairmount Ave, Central Ave, Stockton Ave, Moeser Ln, Potrero Ave, Hill St, and Cutting Blvd.

Limits: Fairmount Avenue to Cutting Boulevard

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $588,100

Funding:	Source:	Type:
$529,290	HSIP	Federal
$58,810	Measure C	Measure C

1321 Ohlone Greenway Improvements

Construct major upgrades, realignments, intersections, lighting, surveillance, amenities, and landscaping along Ohlone Greenway in wake of BART seismic retrofit project.

Limits: North city limits to South city limits

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $5,000,000

Funding:	Source:	Type:
$603,292	BART	Other
$4,000,000	SR2T (RM-2)	Regional
$250,000	Developers - Park-in-lieu Fund	Local

1511 Pedestrian and Bicycle Corridor Improvements, Ashbury and Moeser in El Cerrito

Construct pedestrian, bicycle and traffic calming improvements on Moeser Lane and Ashbury Avenue in El Cerrito. The project will include a new four-foot wide sidewalk on the west side of Ashbury between Waldo and Moeser and a new five-foot wide sidewalk on both sides of Moeser from just west of Seaview Drive to Arlington Boulevard. Bicycle lanes will be added on Moeser between San Pablo Avenue and Navellier Street and on Ashbury from Fairmount south to the Albany city limits; the portion of Ashbury north of Fairmount will be signed as a Class III bike route. A variety of pedestrian safety and traffic calming improvements will be made on Ashbury including 1) curb bulbouts and raised crosswalks at C Street and Lynn Avenue, 2) a new raised crosswalk on the south leg of the intersection at Lincoln Street, 3) a new crosswalk, reconstructed median and reduced curb radius at Eureka Avenue, 4) new traffic circles at Eureka and Hotchkiss Avenues, 5) install crosswalk markings and curb ramps at Stockton Avenue, 6) add a raised crosswalk at Waldo, and 7) adding a pedestrian refuge and raised crosswalk at Moeser.

Limits: Moeser Lane from San Pablo to Arlington and Ashbury from Moeser to Albany

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $1,105,000

Funding:	Source:	Type:
$977,000	Transportation Enhancement	Federal
$128,000	City of El Cerrito	Local

1368 San Pablo Avenue Streetscape

Develop pedestrian, transit stop, and streetscape improvements. The project includes: 1) Pedestrian access improvements, including: new landscaped medians, pedestrian countdown signals, pedestrian refuge islands, bulb outs, in pavement flashing crosswalks and pedestrian scale furnishings; 2) Improved Rapid bus stops, including special crosswalks, pedestrian lighting and improved regular bus stops; 3) Improved overall aesthetics along the Avenue, including landscaping and site furnishings.

Limits: From the southern to northern City limit

Project Status: Under Construction

Other Sponsors:

Total Project Cost: $4,506,000

Funding:	Source:	Type:
$2,306,000	CMAQ	Federal
$2,200,000	Local funds	Local

Hercules

Bicycle/Pedestrian

1512 Hercules Creekside Trail and Boardwalk

Construct two bicycle and pedestrian facilities within the Hercules Waterfront District. The Creekside Trail will construct a Class I bike path from the San Francisco Bay Trail along the east side of Refugio Creek to the current terminus of the John Muir Parkway. The trail project will include the construction of an additional 100 linear feet of the Parkway including a 56-foot wide roadway section with 12-foot wide sidewalks on both sides. The Boardwalk will add a new 10-foot wide pedestrian facility on the west side of San Pablo Avenue connecting existing sidewalks on John Muir Parkway and Sycamore Avenue.

Limits: Creekside Trail from Bay Trail to John Muir Pkwy and San Pablo Avenue from John Muir to Sycamore

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $1,370,000

Funding: **Source:** **Type:**

0251 SR 4 Expressway: Construct Bikeway

Bikeway

Limits: Along SR 4 Expressway

Project Status: Unknown

Other Sponsors: Caltrans

Total Project Cost:

Funding: **Source:** **Type:**

Other

0123 San Pablo Avenue Reconstruction

Reconstruct San Pablo Avenue and extend bicycle lanes

Limits: In City of Hercules

Project Status: Not Begun

Other Sponsors: Caltrans, Contra Costa County

Total Project Cost:

Funding: **Source:** **Type:**

Lafayette

Bicycle/Pedestrian

1353 Bickerstaff Road Walkway

Construct walkway on both sides of the street where missing.

Limits: Dewing Ave. to Crescent Dr.

Project Status: Not Begun

Other Sponsors:

Total Project Cost:

Funding: **Source:** **Type:**

1342 Bicycle Boulevard Improvements along Mt. Diablo Bypass Route

Study the feasibility of establishing the following streets as Bicycle Boulevards: Mountain View Dr. from Mt. Diablo Blvd. to Bickerstaff Road; along Bickerstaff Road to Dewing Ave.; along Dewing Ave. to Brook St.; along Brook St. to Moraga Rd. Also consider the entire lengths of Lafayette Circle, Hough Ave., Golden Gateway and School Street.

Limits: Mt. Diablo at Mountain View Dr. to Mt. Diablo at First St.

Project Status: **Other Sponsors:**

Total Project Cost: $538,000

Funding:	Source:	Type:

1347 Brook Street Walkway

Construct walkway on both sides of the street and complete missing links.

Limits: Moraga Rd. to Dewing Ave.

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost:

Funding:	Source:	Type:

0583 Burton Ridge Regional Trail, Olympic Blvd. to Michael Lane

Burton Ridge Regional Trail: Olympic Blvd. to Michael Lane

Limits: Olympic Blvd. to Michael Lane

Project Status: **Other Sponsors:**

Design and ROW East Bay Regional Park District

Total Project Cost:

Funding:	Source:	Type:

1170 Camino Diablo Walkways

Construct walkway on both sides of the street from Stanley Blvd. to Camino Ct. Construct walkway on the south side from Camino Ct. to city limits.

Limits: Stanley Blvd. to City limits

Project Status: **Other Sponsors:**

Total Project Cost:

Funding:	Source:	Type:

1168 Carol Lane Walkways

Install walkway on both sides of Carol Lane from Mt. Diablo Blvd. to Marlene Dr. Install on one side from Marlene Dr. to Moraga Blvd.

Limits: Mt. Diablo Blvd. to Moraga Blvd.

Project Status: **Other Sponsors:**

Total Project Cost:

Funding:	Source:	Type:

1340 Citywide Striping, Stenciling & Designation & Directional Signing of Planned High Priority Bikeways

Designate by signing, striping and stenciling, the high priority bikeways identified in the City of Lafayette Bikeways Master Plan.

Limits: Citywide

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $2,053,000

Funding:	Source:	Type:
$46,000	TDA Article 3	State
$3,000	City General Fund	Local

1164 Crosswalk Safety Enhancements

Install crosswalk safety enhancements at various pedestrian crossing locations to improve pedestrian safety and mobility.

Limits: Citywide

Project Status: **Other Sponsors:**

Total Project Cost:

Funding: **Source:** **Type:**

1169 Deer Hill Rd. Walkway Gap Closure

Construct walkway on the north side.

Limits: Sierra Vista Way to Brown Ave.

Project Status: **Other Sponsors:**

Total Project Cost:

Funding: **Source:** **Type:**

0861 Deer Hill Road Walkway, Brown to Pleasant Hill Road

New pedestrian walkway to connect the Class I facility on the EBMUD aqueduct (project 418) to Pleasant Hill Road.

Limits: Brown Avenue to Pleasant Hill Road

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost:

Funding: **Source:** **Type:**

1348 Dewing Avenue Walkway

Construct missing links of walkway on west side.

Limits: Mt. Diablo Blvd. to Brook St.

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost:

Funding: **Source:** **Type:**

1161 Downtown Walkways

Install walkways on downtown streets consistent with the City of Lafayette's Master Walkways Plan.

Limits: Downtown streets as designated in Lafayette's Master Walkway Plan

Project Status: **Other Sponsors:**

Total Project Cost:

Funding: **Source:** **Type:**

1354 First St. Walkway

Construct walkway on the west side between Mt. Diablo Blvd. and Golden Gate Way. Construct missing link of walkway on west side of First St. south of Golden Gate Way.

Limits: Mt. Diablo Blvd. to Moraga Blvd.

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost:

Funding: **Source:** **Type:**

1279 Happy Valley Road Walkway Access to BART

Install a continuous walkway on the west side of Happy Valley Road and pedestrian crossing improvements at Deer Hill Road and the southern BART parking lot driveway.

Limits: West side of Happy Valley Road between Mt. Diablo Blvd. and Deer Hill Rd.

Project Status: **Other Sponsors:**

Total Project Cost: $367,700

Funding: **Source:** **Type:**

1344 Lafayette Bikeways Master Plan Implementation

Install various bikeways improvements and implement programs as identified in the Lafayette Bikeways Master Plan.

Limits: Citywide

Project Status: **Other Sponsors:**

Total Project Cost: $12,656,000

Funding: **Source:** **Type:**

1349 Lafayette Circle Walkway

Construct missing links of walkway on both sides of the street.

Limits: Mt. Diablo Blvd. to Mt. Diablo Blvd.

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost:

Funding: **Source:** **Type:**

0419 Lafayette-Moraga trail safety improvements

Various pedestrian crossing protection improvements at crossings: Bicycle-pedestrian protection at crossings (such as raised crosswalks and intersection re-alignments)

Limits: Along Lafayette Moraga trail in cities of Lafayette and Moraga

Project Status: **Other Sponsors:**

Not Begun Moraga

Total Project Cost:

Funding: **Source:** **Type:**

1350 Monroe Avenue Walkway

Construct walkway on west side and reconstruct walkway on east side.

Limits: Moraga Blvd. to First St.

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost:

Funding: **Source:** **Type:**

0814 Moraga Road Safety Improvements

A series of small projects which will focus on specific safety improvements on Moraga Road in Lafayette, including safety lights, crosswalk warning system, designation of new bike routes, and a "safe route to school" plan.

Limits: St. Mary's Rd to Mt. Diablo Blvd

Project Status: **Other Sponsors:**

Under Construction

Total Project Cost: $11,500

Funding:	Source:	Type:
$11,500		Measure C

1351 Mt. Diablo Blvd. (north side) Walkway Village Center to El Nido Linkage

Install walkway on the north side of Mt. Diablo Blvd. from Village Center to El Nido Ranch Rd.

Limits: Village Center to El Nido Rd.

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost:

Funding: **Source:** **Type:**

0579 Mt. Diablo Blvd. Pedestrian Path gap closure, Mt. View Dr. to Lafayette Reservoir

Mt. Diablo Blvd. Pedestrian Path gap closure: South side of Mt. Diablo Blvd. from Mt. View Dr. to Lafayette Reservoir

Limits: Mt. View Dr. to Lafayette Reservoir

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $186,000

Funding: **Source:** **Type:**

1167 Mt. Diablo Blvd. Walkway

Install walkway on the north side, where missing, to connect Veterans Hall and Lafayette Reservoir with BART.

Limits: Risa Rd. to Dolores Dr.

Project Status: **Other Sponsors:**

Total Project Cost:

Funding: **Source:** **Type:**

0414 Mt. Diablo East End Corridor Improvements

Non-motorized, transit and vehicle safety

Limits: Pleasant Hill Road to Carol Lane

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $2,000,000

Funding: **Source:** **Type:**

1352 Mtn. View Drive Walkway

Construct walkway on the west side from Mt. Diablo Blvd. to the creek and complete missing link on east side near the creek.

Limits: Mt. Diablo Blvd. to Brook St.

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost:

Funding: **Source:** **Type:**

0584 Old Tunnel Road Pedestrian Path, Pleasant Hill Rd. to El Curtola Blvd.

Old Tunnel Road pedestrian path: Pleasant Hill Rd. to El Curtola Blvd.

Limits: Pleasant Hill Road to El Curtola Boulevard

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $200,000

Funding: **Source:** **Type:**

0845 Pleasant Hill Road South End Pedestrian and Bicycle Improvement Project, Phases 3 and 4

Modify Pleasant Hill Road to provide 2 10-foot wide multi-purpose pathways; tree-lined landscaping strips; 2 6-foot bike lanes; and narrowed travel lanes (from 2 12-foot to 2 10-foot lanes). The project also includes intersection improvements at Old Tunnel road and Mt. Diablo Blvd. and installing a traffic signal at Condit Road. Phases 3 and 4 include completion of facilities on the east side of Pleasant Hill Road between Condit Road and Olympic Boulevard and on the west side from Reliez Station Road to Olympic Boulevard.

Limits: Condit Road to Olympic Blvd.

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $1,464,000

Funding:	Source:	Type:
$1,258,000	Transportation Enhancement	Federal
$206,000	City of Lafayette	Local

0418 Regional bicycle-pedestrian trail on EBMUD aqueduct/Caltrans ROW

Construct regional Class I bicycle-pedestrian trail on EBMUD aqueduct: Walter Costa Trail to Brown Avenue. May require two grade separations (First Street and Oak Hill Road). Construct regional Class 1 trail on Aqueduct and Caltrans ROW from Brown Avenue to Briones Regional Trail in Walnut Creek.

Limits: Walter Costa Trail to Brown Avenue to Pleasant Hill Road to Briones Regional Trail

Project Status: Not Begun

Other Sponsors: EBMUD

Total Project Cost: $2,700,000

Funding:	Source:	Type:

1355 Second Street Walkway

Construct walkway on both sides where missing.

Limits: Moraga Blvd. to Orchard Hill (north of Mt. Diablo Blvd.)

Project Status: Not Begun

Other Sponsors:

Total Project Cost:

Funding:	Source:	Type:

1163 Springhill Rd. Walkway

Provide walkway on the south side to Spring Hill School.

Limits: Pleasant Hill Rd. to Goyak Dr.

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $297,000

Funding:	Source:	Type:
$297,000	State Safe Routes to School Program	Federal

1162 Stanley Blvd. Walkways Near Acalanes High School

Install walkways on both sides of the street near Acalanes High School.

Limits: Pleasant Hill Rd. to Camino Diablo

Project Status: Not Begun

Other Sponsors:

Total Project Cost:

Funding:	Source:	Type:

1343 Stanley–Springbrook Bicycle Boulevard Improvements

To improve access to Acalanes High School, Springhill Elementary School and Stanley Middle School

Limits: Pleasant Hill Rd. to eastern City Limits

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $165,000

Funding: **Source:** **Type:**

1338 Stanley–Springbrook Walkway

Construct a sidewalk to improve pedestrian safety and facilitate safe access to school.

Limits: Camino Diablo to Bacon Way

Project Status: Under Construction

Other Sponsors:

Total Project Cost: $680,000

Funding: **Source:** **Type:**

1165 Withers Ave. Walkway

Install walkway on the south side to connect Reliez Valley Walkway to Brookwood Park.

Limits: Taylor Blvd. to Reliez Valley Rd.

Project Status:

Other Sponsors:

Total Project Cost:

Funding: **Source:** **Type:**

Other

1341 EBMUD Aqueduct ROW Multi-Purpose Path Feasibility Study

Study the feasibility (opportunities and constrains) of constructing a Class 1 multi-purpose path along the EBMUD Aqueduct between the Walter Costa Trail (near Lafayette Reservoir) and Brown Ave. This study may identify particular section which may be more beneficial and practical to implement. The study should also identify opportunities and constraints to providing connections to the facility from adjoining developments and nearby streets as well as needed improvements to trail crossings at streets.

Limits: Walter Costa Trail to Brown Ave.

Project Status: Not Begun

Other Sponsors: EBMUD

Total Project Cost: $135,000

Funding: **Source:** **Type:**

Martinez

Bicycle/Pedestrian

0233c Bay Trail in Martinez: Close gap, Phase 3

Construct new bicycle and pedestrian bridge over the UPRR tracks at North Court Street from the existing trail in the Martinez Regional Shoreline Park to the Escobar-Court Street intersection in downtown Martinez

Limits:

Project Status: Not Begun

Other Sponsors: East Bay Regional Park District

Total Project Cost: $3,000,000

Funding: **Source:** **Type:**

0233a Bay Trail in Martinez: Close gaps, Phase 1

Close gaps on the Bay Trail in the City of Martinez: construct trail from existing staging area east along the south edge of the Martinez Regional Shoreline to existing Shoreline Trail near Ferry Street. Relocate and repave parking lot.

Limits: In City of Martinez

Project Status: Under Construction

Other Sponsors: East Bay Regional Park District

Total Project Cost: $460,000

Funding:	Source:	Type:
$50,000,000	Local contributions	Other
$325,000	Coastal Conservancy	State

0233b Bay Trail in Martinez: Close gaps, Phase 2

Close gaps on the Bay Trail in the City of Martinez: Construct trail from Nejedly staging area on the Carquinez Scenic Drive to Berrellesa Street along south side of UPRR ROW and improve existing trail along Berrellesa Street to Granger's Wharf parking lot and existing section of Bay Trail.

Limits: Nejedly Staging Area to UPRR ROW

Project Status: Not Begun

Other Sponsors: East Bay Regional Park District

Total Project Cost: $712,500

Funding:	Source:	Type:
$300,000	Measure C AB 3090 advance	Measure C
$87,500	TFCA Program Managers	TFCA
$325,000	Coastal Conservancy	State

0234 Contra Costa Canal Trail: Extend, Muir Rd. to Martinez Reservoir

Extension of Contra Costa Canal Trail: extend the existing trail from Concord, Willow Pass Road near 6th Street to Evora Road

Limits: Muir Road south of SR 4 to Martinez Reservoir

Project Status: Unknown

Other Sponsors:

Total Project Cost: $500,000

Funding:	Source:	Type:

0592 Howe Street Bicycle Lanes

Howe Street bicycle lanes: Add bicycle lanes and pavement overlay

Limits: Pacheco to Pine Street

Project Status:

Other Sponsors:

Total Project Cost:

Funding:	Source:	Type:

0235 Marina Vista Bike Lanes: Extend

Extend bicycle lanes eastward from current terminus at SB I-680 off-and on-ramps under I-680 along Waterfront Road to Point Edith Wildlife Area.

Limits: West of I-680 to Point Edith Wildlife Area

Project Status:

Other Sponsors: EBRPD

Total Project Cost: $500,000

Funding:	Source:	Type:

1367 Martinez -Marina Vista Streetscape

On Marina Vista Ave; Add bicycle lane, pedestrian crossings, bulbouts, brick sidewalks, pedestrian scale streetlights and street trees

Limits:

Project Status: **Other Sponsors:**

Design and ROW

Total Project Cost: $3,259,000

Funding:	Source:	Type:
$1,384,000	Local funds	Local
$275,000	TE	Federal
$1,600,000	CMAQ	Federal

0591 North Court Street Bicycle Lanes

North Court Street bicycle lanes: connect the Martinez Intermodal Facility to the Martinez Shoreline Park and future ferry terminal

Limits: Bay Trail to Martinez Shoreline Park

Project Status: **Other Sponsors:**

Unknown

Total Project Cost: $195,000

Funding:	Source:	Type:

0589 Pacheco Blvd. Bike Lanes, Arnold Dr. to Muir Rd.

Pacheco Blvd. Bike Lanes between Arnold Dr. and Muir Rd.

Limits: Arnold Dr. to Muir Rd.

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $75,000

Funding:	Source:	Type:
$250,000		Local
$1,930,000		Federal

0865 Vine Hill Walkway

Construct a separated pedestrian/bicycle path on a street currently without pedestrian or bicycle improvements, improving safety and providing better access to schools, parks, and other destinations on connecting streets. The project will provide a separated 5' wide asphalt concrete path approximately 2200' in length along the north side of Vine Hill Way. The path will connect to a 600' section of path being built by a developer extending east from Alhambra Avenue and an existing 600' section of path extending west from Morello Avenue.

Limits: Morello Avenue to Alhambra Avenue

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $385,000

Funding:	Source:	Type:

0843 Vine Hill Way Walkway, Morello Ave. to Alhambra Ave.

Provide a separated 5-foot wide asphalt concrete path approximately 2,200 feet in length along the north side of Vine Hill Way, connecting a path being built east from Alhambra Avenue and an existing path ended to the west of Morello. The existing roadway will be widened by 6 feet to provide a total of 28-to 30-feet of pavement to provide 2 11-12-foot travel lanes and a 6-foot shoulder. A 6-inch asphalt concrete berm will be placed between the shoulder and adjoining travel lane.

Limits: Morello Ave. to Alhambra Ave.

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $322,000

Funding:	Source:	Type:
$122,500	City of Martinez	Local

Other

0086b Alhambra Avenue Improvements: Phases 2 and 3, SR 4 to MacAlvey

Phases II and III: Widen Alhambra Avenue from 2 to 4 lanes, with medians, turn lanes, bicycle lanes, bus turnouts, sidewalks, retaining walls, landscaping and soundwalls; SR-4 to McAlvey Drive

Limits: SR-4 to McAlvey Drive

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $14,600,000

Funding:	Source:	Type:

0173c Martinez Intermodal Project: Phase 3 (final segments)

Acquire any remaining site area, construct ped. bridge over railroad tracks and vehicle bridge over creek, construct remaining parking spaces (440 spaces total) and complete connections along Bay Trail.

Limits: Downtown Martinez

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $12,000,000

Funding:	Source:	Type:
$2,000,000	STIP	Federal
$400,000	Measure C	Measure C

Moraga

Bicycle/Pedestrian

0846 Moraga Road–Rheem Boulevard Signalized Pedestrian Crossing

Install pedestrian sidewalk along east side of Moraga Road at the signalized intersection with Rheem Boulevard and install pedestrian ramps at the south leg of the intersection. Upgrade signal operation and signal equipment, including audible pedestrian signals.

Limits: At intersection

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $350,000

Funding:	Source:	Type:

Orinda

Bicycle/Pedestrian

0828 Crossroads Area Streetscape Improvements

Streetscape improvements which may include roadway modifications, enhanced pedestrian improvements, and soundwall.

Limits: Crossroads area south of Hwy 24

Project Status: Not Begun

Other Sponsors: LPMC

Total Project Cost: $175,000

Funding:	Source:	Type:

0827 Miner Road Pathway

Construct pathway along Miner Road from the Sleepy Hollow Gate to Camino Pablo.

Limits: Miner Road from Camino Pablo east to Sleepy Hollow Gate

Project Status: **Other Sponsors:**

Design and ROW

Total Project Cost: $811,000

Funding: **Source:** **Type:**

0829 Miner Road Pedestrian Bridge

Provide pedestrian bridge over San Pablo Creek on Miner Road at Camino Pablo.

Limits: Pedestrian Bridge at Miner Road and Camino Pablo to link Miner Road Path

Project Status: **Other Sponsors:**

Design and ROW

Total Project Cost:

Funding: **Source:** **Type:**

0824 Orinda Way Pedestrian Bridge

Upgrade pedestrian bridge over San Pablo Creek on Orinda Way at Camino Pablo.

Limits: Bridge traversing San Pablo Creek at the north terminus of Orinda Way

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost:

Funding: **Source:** **Type:**

0823 Pedestrian Gap Closure, Orinda Village to Orinda Crossroads

Pedestrian linkage from Orinda Village to Orinda Crossroads.

Limits: Orinda Way at Hwy 24 south past BART to Moraga Way

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost:

Funding: **Source:** **Type:**

0822 San Pablo Creek Pedestrian Way

Provide improved pedestrian access to the section of San Pablo Creek running parallel to Camino Pablo from Orinda Way to Camino Sobrante. Will include paths and trails along the creek.

Limits: Orinda Way westerly to San Pablo Creek

Project Status: **Other Sponsors:**

Design and ROW

Total Project Cost: $739,000

Funding: **Source:** **Type:**

Other

1128 Bryant Way–Moraga Way Improvements

Improve Bryant Way and Moraga Way in downtown Orinda: add crosswalks, bulb-outs, and other pedestrian amenities; modify the traffic circle at Bryant and Moraga; install pavement markings and signage for bicyclists; add signage from and to BART and St. Stephens Trail; add a sidewalk on Bryant from Davis to the BART pedestrian bridge; and reconfigure the intersection of Bryant and Davis to improve pedestrian and bicycle safety.

Limits: Bryant west of Davis Rd. and Moraga Way north of Brookwood Rd.

Project Status: Under Construction

Other Sponsors:

Total Project Cost: $274,700

Funding:	Source:	Type:
$203,000	Measure C	Measure C
$31,700	Orinda	Local
$40,000	TFCA	TFCA

Pinole

Bicycle/Pedestrian

1322 San Pablo Avenue Pedestrian Gap Closure

This project would close a bicycle / pedestrian gap in San Pablo Avenue over the Santa Fe Railroad right of way, by modifying the existing bridge or by constructing a new free standing bridge.

Limits: San Pablo Avenue at the Santa Fe Railroad Crossing

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $500,000

Funding:	Source:	Type:

Pittsburg

Bicycle/Pedestrian

1440 Bicycle Improvements on Bailey Road

Widen Bailey Road for bike lanes, sidewalk, and improvements, from Leland Rd to SR 4

Limits: Leland Rd to SR 4

Project Status: Not Begun

Other Sponsors:

Total Project Cost:

Funding:	Source:	Type:

1459 Central Avenue Bicycle Facilities (Class II & III)

Limits:

Project Status: Not Begun

Other Sponsors:

Total Project Cost:

Funding:	Source:	Type:

1460 Century Blvd Class III Bicycle Facility

Limits:

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $60,000

Funding:	Source:	Type:

1466 Heights Elementary School Pedestrian / Bike Improvements

Limits:

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $215,000

Funding:	Source:	Type:

1116 Herb White Way Class II Bicycle Facility

Widen a 550-foot long section of Herb White Way from West Tenth Street to West Eighth Street to a 46-foot paved width plus 5-foot wide sidewalks. (The roadway currently has a 30-foot paved width and 4-foot sidewalks.) The project will add Class II bike lanes and on-street parking.

Limits: From West Tenth Street to West Eighth Street

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $353,000

Funding:	Source:	Type:
$40,500	Local match	Local

1117 North Parkside Drive Class III Bicycle Facility

Widen N. Parkside Dr. to provide a Class III bicycle facility Railroad Ave. to Range Rd./Willow Pass Rd.. The widening will include constructing 8-foot shoulders in both east-and westbound directions, striping a right-edge line, and posting "Bicycle Route" signs.

Limits: From Railroad Avenue to Range Rd./Willow Pass Rd.

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $500,000

Funding:	Source:	Type:

1513 North Parkside Drive/Willow Pass Road Pedestrian-Bicycle Project

Construct 1.7 miles of Class II bike lanes, including two small segments of Class III bike routes, and a closing of a gap in the six-foot wide sidewalk on North Parkside Drive. A half-mile of Class II bike lanes would be constructed on Willow Pass Road from Range Road to Season Drive. North Parkside Drive will require widening in some locations to accommodate the Class II facility and the six-foot wide sidewalk. On North Parkside, a Class III facility would be constructed over the Range Road overcrossing and through a short segment of North Parkside in front of the PG&E parcel.

Limits: Loftus Road to Railroad Avenue

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $1,060,500

Funding:	Source:	Type:

0203 Pittsburg/Bay Point BART Station Development

Develop the Pittsburg/Bay Point BART station and surrounding area, including development of housing, retail and office.

Limits: At the Pittsburg Bay Point Station

Project Status: Unknown

Other Sponsors: BART

Total Project Cost:

Funding: **Source:** **Type:**

1464 Power Avenue Pedestrian Improvements

Limits:

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $71,200

Funding: **Source:** **Type:**

1458 Railroad Avenue Bicycle Facilities (Class II & III)

Limits:

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $50,000

Funding: **Source:** **Type:**

1463 School Area Pedestrian Countdown Signals

Limits:

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $100,000

Funding: **Source:** **Type:**

1465 Stoneman Avenue In-ground Crosswalk Lights

Limits:

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $55,880

Funding: **Source:** **Type:**

1118 Willow Pass Road Class III Bicycle Facility and Pedestrian Gap Closure

Widen Willow Pass Road to provide 8-foot paved shoulders on the north and sides and close the gap in pedestrian access on the south side of Willow Pass Rd. from the Harbor Lights subdivision to West Tenth St.

Limits: From West Tenth Street to the UPRR crossing in Pittsburg

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $915,000

Funding: **Source:** **Type:**

Other

1489 Bailey Road Pedestrian & Bicycle Improvements -State Route 4 Interchange Zone

Improve sidewalks and bike lanes in the area

Limits: State Route 4 Interchange Zone

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $11,500,000

Funding:	Source:	Type:
$6,000,000	Unidentified	Unidentified
$5,500,000	Mitigation Navy Funds	Local

0914 Bailey/Leland Intersection Improvements

Widen intersection to provide: 1.) westbound right-turn lane, and raised median, 2.) southbound right-turn lane, eastbound left-turn lane(s) and raised median. Also widen Bailey Road to accomodate Class 2 bike lanes, south of W. Leland Rd.

Limits: Bailey Rd./W. Leland Rd. intersection

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $1,050,000

Funding:	Source:	Type:

1357 Railroad Avenue Specific Plan

A specific plan for transit oriented development centered around the Railroad Avenue State Route 4 interchange. Includes possible e-BART station, Tri Delta Bus intermodal station/hub, along with bicycle and pedestrian friendly facilities.

Limits: Within a 1/4 mile radius from the Railroad Ave./SR 4 interchange

Project Status:

Other Sponsors:

Total Project Cost:

Funding:	Source:	Type:

1363 Railroad Avenue Transit Oriented Development Specific Plan

Multimodal bicycle/pedestrian/transit oriented development plan with a possible e-BART station at this interchange and increase in bus routes with shorter headways.

Limits: Approximately 1/4 mile from Railroad Avenue/State Route 4 Interchange

Project Status:

Other Sponsors: Transplan

Total Project Cost:

Funding:	Source:	Type:

0034a Range Road Overcrossing (no interchange) at State Route 4

Construction of a 2 -lane, Highway 4 overcrossing with no freeway access. Design to include sidewalks and bicycle lanes.

Limits: 500 feet in both directions from State Route 4--West of Railroad

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $22,050,000

Funding:	Source:	Type:
$5,100,000	City's Traffic Mitigation Fee	Fees/Exactions

0033 Willow Pass Road Widening and Bridge Reconstruction

Widen existing 2-lane arterial to 4 lanes, including bicycle lanes and parking. North side of SR 4. Reconstruct roadway grade separation at Willow Pass Rd./North Parkside Dr./Range Rd. interchange.

Limits: Loftus Rd. to Range Rd./N. Parkside Dr.

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $4,200,000

Funding:	Source:	Type:
$2,600,000	City's Traffic Mitigation Fee	Fees/Exactions

Pleasant Hill

Bicycle/Pedestrian

0898 Bicycle Route Program

Rehabilitate and enhance bicycle route network. repair existing trails, add striping and signage. Gap closures

Limits: Citywide

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $170,000

Funding:	Source:	Type:

1275 Boyd Road Bicycle and Pedestrian Improvement Project

Widen roadway to accommodate 5-foot bike lane and 5 foot concrete sidewalk along both sides of Boyd Road.

Limits: Boyd Road (between Pleasant Hill Road and Cleveland Road)

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $500,000

Funding:	Source:	Type:

1119 City of Pleasant Hill Sidewalk Installation Program

Install sidewalks in three locations adjacent to schools where gaps in existing sidewalks require students to walk in the street. These locations are: 1) Rose Lane from Gladys Drive to Maureen Lane to serve the Strandwood Elementary School; 2) Lucille Lane from Kathleen Drive to Maureen Lane to serve Valley View Middle School, College Park High School, and Diablo Valley College; and 3) Pleasant Valley Drive from Oak Park Blvd. to Astrid Dr. to serve Pleasant Hill Middle School. All sidewalks would be 4.5-feet in width with necessary ADA-compatible features.

Limits: Various locations within Pleasant Hill

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $913,215

Funding:	Source:	Type:

1509 Contra Costa Boulevard Improvement Project, Taylor to Beth

Installation of a four-foot wide concrete sidewalk along the west side of Contra Costa Boulevard between Ellinwood and Beth Drives and ADA curb ramps, construction of bike lanes, and modifications to the intersection at Ellinwood Drive to accommodate new bike lanes as well as traffic signal relocation, streetlight modification, pavement repair, and landscape enhancement.

Limits: Taylor Boulevard to Beth Drive

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $1,492,000

Funding:	Source:	Type:
$483,000	Pleasant Hill	Local
$1,009,000	2010 STIP Transp'n Enhancement	Federal

1274 Contra Costa Canal Trail Crossing Safety Enhancement

Install pedestrian beacon or in-pavement flasher system at major trail crossings at the various city collectors and arterials.

Limits: Along Contra Costa Canal Trail, at every collector or arterial trail crossing

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $200,000

Funding:	Source:	Type:

1307 Contra Costa Canal Trail Gap Closure–Golf Club Road

Install 8-foot wide concrete sidewalk along the north side of Golf Club Road, between the Contra Costa Canal Trail head and the STOP sign at the western most DVC driveway. New pedestrian barricades and trail signs will be installed.

Limits: Contra Costa Canal Trail crossing at Golf Club Road

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $110,000

Funding:	Source:	Type:

0897 Contra Costa Canal Trail realignment at Taylor Blvd.

Gap closure of trail at Taylor Blvd. (between Morello and trail)

Limits: Contra Costa Canal Trail to Morello Avenue

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $105,000

Funding:	Source:	Type:

1276 Lisa Lane Sidewalk Project

Install 5-foot wide concrete sidewalk along both sides of Lisa Lane, as well as striping 5-foot wide bicycle lane along both sides of Lisa Lane. Project also include the necessary drainage system to facilitate proper drainage for the sidewalk.

Limits: Marcia Drive to Fair Oaks Elementary School

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $600,000

Funding:	Source:	Type:

0608 Morello Avenue Bike Lanes

Morello Avenue Bike Lanes

Limits: Taylor Boulevard to Paso Nogal/Netherby

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $102,000

Funding:	Source:	Type:
$93,000		Local

0605 Pleasant Hill Road Pedestrian Bridge

Pleasant Hill Road Pedestrian Bridge

Limits: Diablo View Road to Barnett Terrace

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $200,000

Funding:	Source:	Type:

0224 Pleasant Hill Road Pedestrian Improvements

Resurface roadway, repair pedestrian bridges, add bike lanes and sidewalks

Limits: Boyd Road to Geary Road

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $1,100,000

Funding:	Source:	Type:

0609 Taylor/Morello Pedestrian Improvements

Taylor/Morello Pedestrian Improvements

Limits: At Taylor Boulevard

Project Status: Unknown

Other Sponsors:

Total Project Cost: $18,000

Funding:	Source:	Type:

Other

0177 Contra Costa Blvd. Improvement Project

Construct additional right and left turn lanes on Contra Costa Boulevard between 2nd Ave and Monument Blvd at various intersections, modify intersection lane alignments, add new class II bike lane, improve traffic operations throughout corridor.

Limits: 2nd Avenue (Pacheco) to Monument Blvd. (Pleasant Hill)

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $10,000,000

Funding:	Source:	Type:
$540,000	STP	Federal
$1,000,000	Local	Local

0896 Grayson Road/Gregory Lane Bike Route

Add bike lanes

Limits: Reliez Valley Road and Contra Costa Canal Trail

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $375,000

Funding:	Source:	Type:

0890 Pleasant Hill Road Improvement Project – Phases III, IV, V

Project includes gateway improvements, pedestrian bridge replacement, bicycle improvements, parking and roadway repairs

Limits: Boyd Road to Gregory, Diablo View Rd. to Lucinda Lane

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $1,800,000

Funding:	Source:	Type:

Richmond

Bicycle/Pedestrian

1112 Central Richmond Greenway East Segment

Construct a Class I bicycle-pedestrian trail from Carlson Blvd. to I-80 along abandoned railroad right-of-way. With completion of west segment, Richmond Greenway will provide a path from I-80 to the Bay Trail and improved access to the Richmond and El Cerrito del Norte BART stations.

Limits: Carlson Blvd. to I-80

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $2,260,000

Funding:	Source:	Type:

0400 Harbour Way: Widen to Add Class 1 Bikeway

Reconstruct roadway to include Class 1 Bikeway

Limits: From Cutting Blvd. to Hall Avenue

Project Status: **Other Sponsors:**

Design and ROW

Total Project Cost:

Funding:	Source:	Type:

0296 Richmond Bike Trail

Construction of a 1 mile Class 1 bikeway

Limits: In Richmond at Miller-Knox Regional Park

Project Status: **Other Sponsors:**

Design and ROW

Total Project Cost: $1,355,000

Funding:	Source:	Type:

1366 Richmond Downtown Bike & Ped Improvements

Construct pedestrian count-down signals at four locations, sidewalk improvements, bike lanes on Nevin Avenue, a mid-block lighted crossing on Barrett Avenue, street trees, and landscaping at the Richmond Downtown area nearby transit services and the Richmond Transit Village neighborhood. Three streets are focus of project: Barrett, Nevin and Marina Way.

Limits: Near Richmond BART Station

Project Status: **Other Sponsors:**

Design and ROW

Total Project Cost: $2,805,000

Funding:	Source:	Type:
$1,100,000	CMAQ	Federal
$1,685,000	Local match	Local

0403 Richmond Greenway Project

Link Ohlone Greenway and Bay Trail in the City of Richmond. Constructs a trail and greenway on 2.5 miles of abandoned Santa Fe Railroad right-of-way.

Limits: Garrard Blvd. to I-80 (City of Richmond)

Project Status: Design and ROW

Other Sponsors: Rails-to-Trails Conservancy, Community Youth Council for Leadership and Education

Total Project Cost: $1,900,000

Funding:	Source:	Type:
$1,900,000	TLC	Federal

0847 Richmond Parkway Bicycle Lanes Gap Closure

Completion of a half-mile gap from Pennsylvania Ave to Castro Street.

Limits: Pennsylvania Avenue to Gertrude Avenue

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $387,000

Funding:	Source:	Type:

0404 Richmond Parkway Bike Lanes

Add bike lanes

Limits: Along Richmond Parkway

Project Status: Design and ROW

Other Sponsors: WCCTAC

Total Project Cost:

Funding:	Source:	Type:

0369 Richmond Transit Village Access Improvements

Richmond Transit Village: Nevin Walkway and Plaza: construct new pedestrian plaza including reconstruction of walkway entering station on west side of Richmond BART and Amtrak station.

Limits: At Richmond BART Station

Project Status: Under Construction

Other Sponsors:

Total Project Cost: $836,000

Funding:	Source:	Type:
$750,000		Federal
$86,000		Local

Other

0740 Carlson Boulevard Improvements

Reduce superelevation and add features to improve livability of adjoining neighborhood. (Could include bicycle lanes, median with

Limits: El Dorado to I-80

Project Status: Design and ROW

Other Sponsors:

Total Project Cost: $4,000,000

Funding:	Source:	Type:

San Pablo

Bicycle/Pedestrian

1293 ADA Traffic Signal and Crosswalk Modifications

Traffic signal upgrades, crosswalk modifications and curb ramps to enhance mobility

Limits: Citywide

Project Status: Under Construction

Other Sponsors:

Total Project Cost: $300,000

Funding:	Source:	Type:
$15,000	City of San Pablo/Measure C	Measure C

1133 Amador-San Pablo Dam Road gap closure

Construct sidewalk, curb and gutter to connect to existing walkways

Limits: Alpine Rd. to San Pablo Dam Road

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $75,000

Funding:	Source:	Type:
$33,000	TDA Grant	State

1016 Church Lane Bridge: Widening at San Pablo Creek

Widen bridge to allow for sidewalk and bike lane.

Limits: At San Pablo Creek south of El Portal Drive

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $500,000

Funding:	Source:	Type:

1294 Citywide Sidewalk Repair Project

Repairs to eliminate tripping hazards

Limits: Citywide

Project Status: Under Construction

Other Sponsors:

Total Project Cost: $3,000,000

Funding:	Source:	Type:
$25,000	Redevelopment Bond Proceeds	Local
$295,000	City of San Pablo Measure C	Measure C

1132 Elevate sidewalk at San Pablo Ave Bridge at San Pablo Creek

Elevate walkway (on west side) to roadway level for safety and improved access

Limits:

Project Status: Not Begun

Other Sponsors:

Total Project Cost: $400,000

Funding:	Source:	Type:

1017 San Pablo Avenue Sidewalk Construction

Complete gaps in sidewalks on San Pablo Avenue between Rivers Street and Lancaster Street

Limits: Rivers Street to Lancaster Street

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $195,000

Funding:	Source:	Type:

0729 San Pablo Dam Road Sidewalk-Pedestrian Path, Amador Street to Morrow Drive

Pedestrian path on south side of San Pablo Dam Road, to close the gap between existing sidewalks. Project includes new street light to provide lighting for the path.

Limits: Amador Street to Morrow Drive

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $665,000

Funding:	Source:	Type:
$35,000	Measure C	Local
$10,000	City of San Pablo	Local

1287 School Zone Traffic Safety Improvements

Traffic calming measures, sidewalk repairs, curb ramp installations, crosswalk lights, enhanced signage, etc.

Limits: Various locations surrounding the seven K-12 schools in the City of San Pablo

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $700,000

Funding:	Source:	Type:

0840 Wildcat Creek Trail, Davis Park to 23rd Street

Construct a paved trail along Wildcat Creek for pedestrians and bicyclists. This segment will complete the trail connection between Rumrill Boulevard and 23rd Street in the city of San Pablo. The Wildcat Creek Trail will connect the Bay and Ridge Trails in the future.

Limits: Davis Park to 23rd Street

Project Status: **Other Sponsors:**

Design and ROW

Total Project Cost: $515,000

Funding:	Source:	Type:
$10,000	City in-kind services	Local
$137,000	Bay Trail Grant	Local
$34,400	Habitat Conservation Fund	Other
$71,300	City of San Pablo	Local

1018 Wildcat Creek Trail: 23rd Street to Eastern San Pablo City Limit

Construct segment of Wildcat Creek Trail, to help the Bay Trail and Ridge Trail, between 23rd Street and the eastern limit of the City of San Pablo.

Limits: From 23rd Street to eastern San Pablo city limit

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost:

Funding:	Source:	Type:

Other

1291 Citywide Street Light Retrofit

Retrofit and upgrade street lights to improve pedestrian, bicycle and traffic safety

Limits: Various locations citywide

Project Status: **Other Sponsors:**

Total Project Cost:

Funding:	Source:	Type:

1014 El Portal Gateway

Utility undergrounding, construct roadway safety improvements, streetscape and bicycle/pedestrian path.

Limits: Church Lane to I-80

Project Status: **Other Sponsors:**

Design and ROW

Total Project Cost: $3,935,000

Funding:	Source:	Type:
$178,000	Measure C	Local
$3,757,000	City of San Pablo	Local

1292 San Pablo Bicycle Plan

Develop a Bicycle Plan and implement the various elements

Limits: Citywide

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost:

Funding:	Source:	Type:

San Ramon

Bicycle/Pedestrian

1510 Bollinger Canyon Road Pedestrian Improvements and Intersection Modifications

Construct pedestrian improvements along Bollinger Canyon Road in the Windermere development. Improvements include shortening crosswalks and providing median refuges, retiming and rephasing signals, adding pedestrian signal heads and push buttons, increasing signal head visibility, upgrading communications links to traffic signals, and installing flashing beacons to match other school zones in the area. Improvements would be made at eight intersections along Bollinger Canyon Road: Canyon Lakes Drive, Chanterella Drive, Gale Ridge Road, Dougherty Road, Wedgwood Drive, Stone Leaf/Briar Oak Drive, Monarch Drive, and Main Branch Road/Blueheart Way.

Limits: Canyon Lakes Drive to Main Branch Road

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $1,160,000

Funding:	Source:	Type:

0614 Cross Valley Bicycle Trail

Cross Valley Bicycle Trail

Limits:

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $35,000

Funding:	Source:	Type:
$35,000		Federal

0238 Iron Horse Trail Overcrossing at Bollinger Canyon Rd.

Overcrossing at Bollinger Canyon Rd.

Limits: Iron Horse Trail at Bollinger Canyon Rd.

Project Status:	**Other Sponsors:**
Design and ROW	Multi-Agency partnership including City of San Ramon, Town of Danville, Contra Costa County and CCTA.

Total Project Cost: $2,500,000

Funding:	**Source:**	**Type:**

0616 Old Ranch Road Bicycle Trail

Construct bicycle trail from Old Ranch Park to Stage Coach Road

Limits: Old Ranch Park to Stage Coach Road

Project Status:	**Other Sponsors:**
Not Begun	

Total Project Cost: $683,000

Funding:	**Source:**	**Type:**
$60,000		Federal

State Route 4 Bypass Authority

Bicycle/Pedestrian

1122 Mokelumne Coast-to-Coast Trail Overcrossing at SR 4 Bypass

Construct bicycle-pedestrian overcrossing of the ultimate SR 4 Bypass right-of-way (8 lanes with room from transit in the median).

Limits: Mokelumne Trail at SR 4 Bypass

Project Status:	**Other Sponsors:**
Not Begun	Brentwood

Total Project Cost: $5,000,000

Funding:	**Source:**	**Type:**

SWAT

Bicycle/Pedestrian

0560 Danville: Bus Shelter and Bicycle Rack Project

Bus Shelter and Bicycle Rack Project

Limits: Town-wide

Project Status:	**Other Sponsors:**
Not Begun	

Total Project Cost: $23,000

Funding:	**Source:**	**Type:**
$23,000		Federal

0586 St. Mary's College Bicycle Improvement Project

St. Mary's College Bicycle Improvement Project

Limits:

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $12,000

Funding:	Source:	Type:
$12,000		Federal

0551 Stone Valley Road Bicycle Lanes

Stone Valley Road Bicycle Lanes

Limits:

Project Status: **Other Sponsors:**

Unknown

Total Project Cost: $13,000

Funding:	Source:	Type:
$13,000		Federal

TRANSPAC

Bicycle/Pedestrian

0837 Olympic Boulevard Pedestrian Improvements

Construct pedestrian improvements along Olympic Boulevard, including lighting, to provide link between Bridgefield Rd. and Boulevard Way.

Limits: Bridgefield Rd. to Boulevard Way

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost:

Funding:	Source:	Type:

Other

0945 Community/School Improvements

Including but not limited to: school/community bicycle-pedestrian circulation improvements/facilities, school carpool and transit incentives, local bus facilities. To be administered by TRANSPAC and its Commute Alternatives Program. Funds may be combined with local arterial, 511 Contra Costa and Bicycle and Pedestrian funds.

Limits: Various locations in TRANSPAC area

Project Status: **Other Sponsors:**

Unknown

Total Project Cost:

Funding:	Source:	Type:

Walnut Creek

Bicycle/Pedestrian

1257 ADA Upgrades

Install ADA upgrades at various high pedestrian locations

Limits:

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $5,000,000

Funding: **Source:** **Type:**

1252 Buena Vista/First St. Pedestrian/Bike Improvements

Relocate trail crossing towards intersection. Improve intersection to reduce speeds on Buena Vista. Widen Sidewalks to accommodate pedestrian and bike traffic.

Limits:

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $800,000

Funding: **Source:** **Type:**

1254 Civic/Carlback Neckdown

Install neckdown at intersection of Civic Dr. and Carlback.

Limits:

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $325,000

Funding: **Source:** **Type:**

1250 Mt. Diablo/Iron Horse Trail Crossing

Narrow street to improve visibility for pedestrians and bikes.

Limits:

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $250,000

Funding: **Source:** **Type:**

1256 Newell Ave Crosswalk

Install neckdown at midblock crosswalk.

Limits: Between Main and California

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $250,000

Funding: **Source:** **Type:**

0756 Parkside Drive Sidewalk Gap Closure

The project will complete the sidewalks along Parkside Drive

Limits: Hillside to San Juan

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $200,000

Funding: **Source:** **Type:**

1240 Ped/Bike Overcrossing of Ygnacio Valley Road at Walnut Creek BART

The overcrossing would link the Walnut Creek BART station and its transit-oriented development to the office/ housing south of Ygnacio Valley Road

Limits: I-680 NB off ramp to California Boulevard

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $10,000,000

Funding: **Source:** **Type:**

1249 Pedestrian Traffic Signal on S. Broadway at Broadway Plaza Entrance

Install pedestrian actuated traffic signal at this midblock crossing. Includes neck-down on Broadway.

Limits: At intersection

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $500,000

Funding: **Source:** **Type:**

1251 Rudgear/Palmer Pedestrian Improvements

Create a neckdown on Rudgear Rd. at Palmer to create a shorter pedestrian crossing.

Limits:

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $300,000

Funding: **Source:** **Type:**

1253 Walnut Blvd./Pedestrian Pathway

Enclose drainage ditches and add pedestrian pathway to provide safe route to schools.

Limits: Sierra Dr. to Homestead Ave

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $7,200,000

Funding: **Source:** **Type:**

1508 Ygnacio Valley Road Sidewalk Gap Closure and Bicycle Improvements

Construct bicycle and pedestrian improvements along Ygnacio Valley Road/Hillside Avenue including: 1) a new or improved sidewalk on the southern side of Hillside/Ygnacio Valley, 2) a new pedestrian path connecting Barkley Avenue to Hillside, 3) adding new pedestrian phases and pedestrian push buttons and new ADA ramps at the I-680 on-ramp, 4) installing new "Share the Road" signs on Hillside and Parkside, and 5) improving the signage and striping at the SR 24 on-ramp.

Limits: Parkside Drive to Oakland Blvd.

Project Status: **Other Sponsors:**

Not Begun

Total Project Cost: $984,731

Funding: **Source:** **Type:**

Other

0357 Geary Road Widening Phase 3

Geary Road Widening Phase 3: Widen to one through lanes in each direction with a two way left turn lane, bike lanes, parking and/or landscaping, and sidewalks

Limits: Pleasant Hill Road to Buena Vista Ave/Putnam Blvd

Project Status:	**Other Sponsors:**
Not Begun	Pleasant Hill

Total Project Cost: $6,854,000

Funding:	**Source:**	**Type:**

WCCTAC

Bicycle/Pedestrian

0612 Richmond Pkwy Transit Center: Bike Lockers/Racks

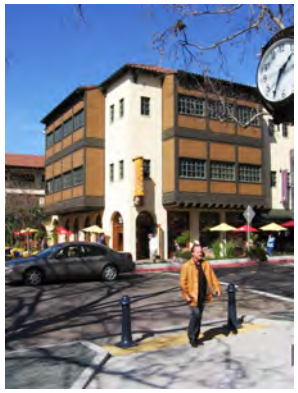
Bike Lockers/Racks at Richmond Pkwy Transit Center

Limits: At Richmond Parkway Transit Center

Project Status:	**Other Sponsors:**
Not Begun	

Total Project Cost: $62,000

Funding:	**Source:**	**Type:**
$36,000		Federal



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