

# CIRCULATION

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# CIRCULATION

## VISION STATEMENT

Pinole will maintain and improve a well-planned, multimodal circulation system. The City will promote accessible, economically viable and environmentally sound transportation options that meet the needs of residents, employers, employees and visitors for safe, convenient and efficient travel by a variety of methods.

## INTRODUCTION

This element of the General Plan describes the existing transportation conditions in the City of Pinole. It describes the various modes in the existing transportation system, the existing traffic volumes on area roadways, and current levels of service. Relevant planning documents and policies and planned roadway improvements for the area are also described.

A Circulation Element has been required as part of local general plans since 1955. Guidelines adopted by the California Office of Planning and Research emphasize the need to develop a “balanced, multimodal transportation system.” Cost efficiency and protection of

environmental quality, including air quality, require attention to non-auto transportation facilities and careful coordination with the Land Use and Economic Development Element (Chapter 5). Section 65302(b) of the Government Code summarizes state law requirements:

*A circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities all correlated with the land use element of the plan.*

## PURPOSE

Traffic congestion and other circulation constraints are major considerations in determining appropriate land uses and responding to future conditions that will affect the quality of life in Pinole. The Circulation Element provides data concerning existing and future conditions as a factual basis for community goals, policies and implementing actions for existing and proposed roadway improvements and other transportation needs.

Pinole’s Circulation Element addresses such issues as regional traffic congestion, traffic impacts on neighborhoods, public transit, trails and parking. More than other elements, the Circulation and Land Use elements act in concert to help achieve a vision of sustainability for the city. This element expresses a vision for the future where sustainable options of transportation, in conjunction with thoughtful development, provide for the needs of existing residents and businesses while preserving choices for future generations.

## RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS

- Chapter 4: The Growth Management Element encourages future growth to locate along the primary travel corridors through the community and in areas that are or can easily be served by transit.
- Chapter 5: The Land Use and Economic Development Element establishes land use designations that guide future Pinole growth and demands on the circulation system.

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- Chapter 8: The Community Services and Facilities Element sets policies for the future maintenance of the road network in Pinole.
- Chapter 10: The Natural Resources and Open Space element addresses pedestrian trails and linkages for Pinole.
- Chapter 11: The Sustainability Element encourages transit options for Pinole and guides future growth to Pinole's transit corridors. This element also addresses greenhouse gas (GHG) reductions that may be realized by reducing automobile trips.

## ISSUES AND OBJECTIVES

### LOCAL AND REGIONAL REQUIREMENTS

A number of agencies and pieces of legislation govern the growth and maintenance of regional and local transportation systems. The Metropolitan Transportation Commission (MTC) is the regional organization responsible for prioritizing transportation projects.

In November 2004, voters approved Measure J, extending the Contra Costa County Transportation Improvement and Growth Management Program (Measure C, 1988) by 25 years. Measure C is enacted by the Contra Costa Transit Authority (CCTA). Full details of pertinent Measure J requirements can be found in the Growth Management Element. Below are highlights of Measure J that relate to the Circulation Element.

Measure J continues a 0.5 percent countywide sales tax through the year 2034 that will be used to address existing major regional transportation problems. To qualify for its share of the sales tax, the City of Pinole will:

1. Adopt a development mitigation program (adopted by Resolution 2008-92 on June 17, 2008);
2. Provide diverse housing options for people who live and work in Pinole (refer to Chapter 6 – Housing Element);
3. Participate in cooperative multi-jurisdictional planning (Pinole continues to be an active participant on the West Contra Costa Transportation Advisory Committee);
4. Maintain the adopted Urban Limit Line (ULL) (adopted by Resolution 2007-12 on February 6, 2007);
5. Implement a five-year capital improvement program (the 5-year CIP is updated annually); and
6. Adopt a Transportation Systems Management Ordinance (adopted by Ordinance 2006-06 on June 20, 2006).

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Pinole has an adopted Growth Management Element as part of its General Plan, as required by Measure J. In addition, Measure J requires that tax revenues be dedicated to transportation projects in Contra Costa County and to the implementation of a Growth Management Program by all the cities and the County. Specifically, Measure J provides funding for three categories of transportation projects:

1. Transportation projects identified in Measure J;
2. Paratransit programs;
3. Transportation projects funded by Local Street Maintenance and Improvement or "Return-to-Source" funds.

Pinole has met and will continue to meet all Measure J requirements.

The West Contra Costa Transportation Advisory Committee (WCCTAC) is one of four Regional Transportation Planning Committees in Contra Costa County, and the committee of which Pinole is a member. The Regional Transportation Planning Committees were created to manage the 1988 Measure C 1/2 cent transportation sales tax projects and programs, as well as its extension, Measure J, approved by Contra Costa voters in 2004. In addition to managing revenues from Measures C and J, WCCTAC also administers the subregional transportation mitigation fee program (STMP) and participates in defining and implementing policies, programs and projects to improve local and regional transportation and air quality.

## **PINOLE'S EXISTING CIRCULATION SYSTEM**

The roadway network in Pinole is made up of Interstate 80 (I-80), operated by the California Department of Transportation, arterials, collectors, and local streets. Roadways in Pinole also support pedestrian and bicycle facilities, though there are some deficiencies in those areas that are discussed below. Two railroad lines run along the San Pablo Bay shoreline and support both passenger (Amtrak) and freight rail service (Union Pacific and Burlington Northern Santa Fe). This circulation network connects to neighboring jurisdictions which offer access to ferry service, passenger rail service, and the Bay Area Regional Transit (BART) system. Routes of regional significance in Pinole are I-80, San Pablo Avenue, and Appian Way. The Background Report contains more details of Pinole's transportation services and facilities.

## **Transit Systems**

Transit systems provide a motorized alternative to private vehicles. As discussed in the Sustainability Element (Chapter 11), local governments are taking on responsibility for combating climate change. This is done primarily through reducing greenhouse gas (GHG) emissions, a large portion of which are caused by automobile transportation. By reducing vehicle miles traveled and single-occupancy vehicle use, and encouraging the use of other transit options, Pinole can meet GHG reduction targets, meet state government requirements for reducing GHG emissions, contribute to efforts to combat climate change and become more sustainable.

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## Bus Service

Bus service in Pinole is provided by the West Contra Costa Transit Authority (WestCAT) and the Alameda Contra Costa Transit Authority (AC Transit). Bus service facilities run primarily along Pinole's main transportation corridors: San Pablo Avenue, Pinole Valley Road and Appian Way.

## Passenger Rail Service

The San Francisco Bay Area Rapid Transit District (BART) provides regional transit service to Alameda, San Francisco, Contra Costa and San Mateo counties. There is currently no BART service in Pinole. However, WestCAT operates the J bus route, which connects to the BART station at El Cerrito del Norte. In addition, the Orinda BART station is approximately 12 miles from the city and the Richmond BART station is approximately 6 miles from the city.

Amtrak operates passenger rail service for three routes that traverse western Contra Costa County. While there is no station in Pinole, the closest stations are an Amtrak station at the Richmond BART station (approximately 6 miles) and the Martinez station (approximately 9 miles), and there are plans to build a ferry and Amtrak station in neighboring Hercules. Two of Amtrak's routes that stop in Richmond are intrastate services, the Capitol Corridor serving Sacramento/San Jose and the San Joaquin serving Oakland/Bakersfield. The other route is the California Zephyr, an interstate service serving Emeryville/Chicago. The Coast Starlight route, which serves Los Angeles and Seattle, also shares the existing track.

## Freight Rail Service

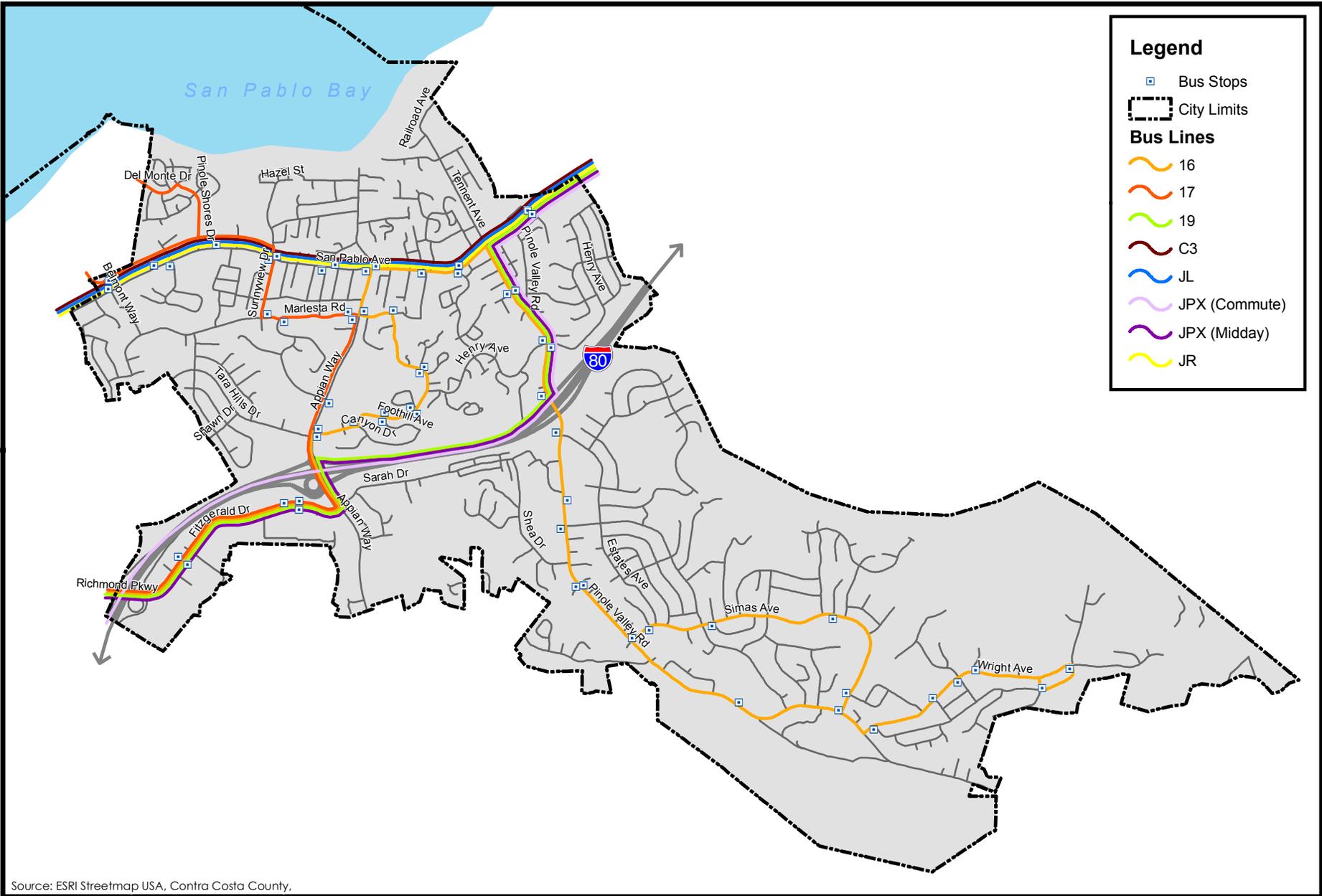
The Union Pacific and Burlington Northern Santa Fe railroads operate freight services that pass through Pinole. The Union Pacific tracks are located along the San Pablo Bay shoreline, which limits possible public access to the shoreline. Amtrak passenger trains share these tracks with the freight trains.

## **BICYCLING FACILITIES AND PROGRAMS**

Pinole currently has few designated bicycle facilities. Reasons for this include disconnection, lack of signage, lack of roadway crossing aids, topography, and lack of bicycle lanes, and road width issues make it difficult to encourage the use of bicycles as a more sustainable transportation alternative.

Bicyclists need parking facilities to access various places and services. Bicycle rack parking is located at City Hall and Fernandez Park. According to the Contra Costa Countywide Bicycle and Pedestrian Plan, Pinole requires adequate bike parking facilities at transportation centers, public parks and buildings, recreational facilities, commercial centers, and large multi-family residential projects. Other facilities that may enhance the bicycle system include directional signage indicating points of interest and mileage, water fountains, bicycle loops and bicycle showers at private facilities, and bike boxes at intersections to facilitate high-volume left turns.

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Source: ESRI Streetmap USA, Contra Costa County.



**Figure 7.1**  
WestCAT and AC Transit Bus Service



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## PEDESTRIAN SYSTEMS

Due to the age of existing infrastructure, many sidewalks in Pinole are too narrow to meet the Americans with Disabilities Act (ADA) standards and have utility poles and other obstructions in the pedestrian pathway. Certain sidewalks in Pinole also are too narrow to facilitate convenient pedestrian travel. Most signalized intersections have marked crosswalks on all roads and pedestrian-activated signals. Intersections close to I-80 prohibit pedestrian crossing across some road segments, though some pedestrians cross in spite of these prohibitions. Only one intersection has audible crossing signals (San Pablo Avenue at Sunnyview Drive) and none have audible actuation. Marked crosswalks are also generally found at unsignalized intersections on some legs. Pedestrian curb ramps are located at most intersections except at some T-intersections; however, many ramps are steep and are not optimally positioned to lead into the crosswalk. Additionally, many existing pedestrian ramps lack high-contrast textured markings that optimally delineate the pedestrian and vehicle areas of the intersection.

The city's multi-use paths along Pinole Creek and in Bayfront Park at the Bay Trail provide recreational and transportation opportunities to walkers. The Pinole Creek Trail provides connections to several activity centers, but the Bay Trail must still be completed along the Bay shoreline as discussed in the Community Services and Facilities Element (Chapter 8) and Natural Resources and Open Space Element (Chapter 10). Disconnection, inadequate signage and width issues for bicyclists are equally problematic for pedestrians. Additionally, pathway connections from Tennent Avenue and Railroad Avenue to the Bay Trail are unpaved and unsigned. Neighborhood access to the Pinole Creek Trail is provided at Prune Street but discouraged at Plum Street. The Old Town area also includes convenient transit stops along portions of San Pablo Avenue and Tennent Avenue that are easily accessible to pedestrians.

## OTHER TRANSPORTATION SYSTEMS

### AIRPORTS

The closest airports to Pinole are Oakland International Airport, which is 27 miles away, and San Francisco International Airport, which is 34 miles away. Buchanan Field is a local airport that does not currently support commercial airline service and is located in Concord, approximately 15 miles east of Pinole.

### PARKING

Parking in Pinole is generally readily available except in Old Town, though off-street parking lots and metered on-street parking have not been used as a method to manage parking demand.

## EXISTING TRANSPORTATION PROGRAMS

### TRAFFIC CALMING PROGRAM

Neighborhoods wishing to install or remove speed humps on local or collector streets within residential areas may submit an application to the Public Works Department. According to the adopted residential traffic calming policy approved by the City Council on April 21, 2009, the

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installation or removal of speed humps requires approval from 65 percent of the property owners within a defined area determined by the Public Works Department

## **TRANSPORTATION DEMAND MANAGEMENT PROGRAM**

Developed because of the growth management requirement of Measure C, a transportation demand management program, 511 Contra Costa, was created to promote alternatives to the single-occupant vehicle, such as carpooling, vanpooling, telecommuting, biking, transit and walking in Contra Costa County. The program has three offices in the county. Pinole is represented by the office located in San Pablo.

## **EAST BAY SMART CORRIDOR PROGRAM**

The City of Pinole is a partner of the East Bay SMART Corridors program, the goals of which are to “better manage congestion and incidents along regional routes, improve transportation mobility, efficiency and safety, and to provide timely, multi-modal transportation information to agency transportation managers and to the public”<sup>1</sup> along three major arterial corridors including the San Pablo Avenue corridor, which runs through Pinole.

## **I-80 INTEGRATED CORRIDOR MOBILITY PROJECT**

The I-80 Integrated Corridor Mobility (I-80 ICM) project is sponsored by the Alameda County Congestion Management Agency, WCCTAC, CCTA, California Department of Transportation (Caltrans), MTC, local agencies including the City of Pinole and local transit agencies in Alameda and Contra Costa counties. The I-80 ICM project’s goal is to enhance the current transportation network along I-80 and its parallel arterials, such as San Pablo Avenue, by building an integrated system that would improve the safety and mobility of all users.

## **FOCUS**

FOCUS, short for the Focusing Our Vision initiative, is a regional planning initiative undertaken by the Association of Bay Area Governments (ABAG) and the MTC in coordination with the Bay Area Air Quality Management District (BAAQMD) and the Bay Conservation and Development Commission (BCDC) to support regional development patterns that are compact and transit-oriented.

As part of the FOCUS program, all three of Pinole’s major corridors have been designated as potential or planned Priority Development Areas (PDA). PDAs are eligible for capital infrastructure funds, planning grants and technical assistance.

Designation of PDAs in Pinole expresses the City’s priorities for managed growth and sustainability. This is one way the City is continuing to work with regional agencies to accommodate growth and plan future development in a more sustainable manner.

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<sup>1</sup> East Bay Smart Corridor Program, 2007. <http://www.smartcorridors.net/about.php>

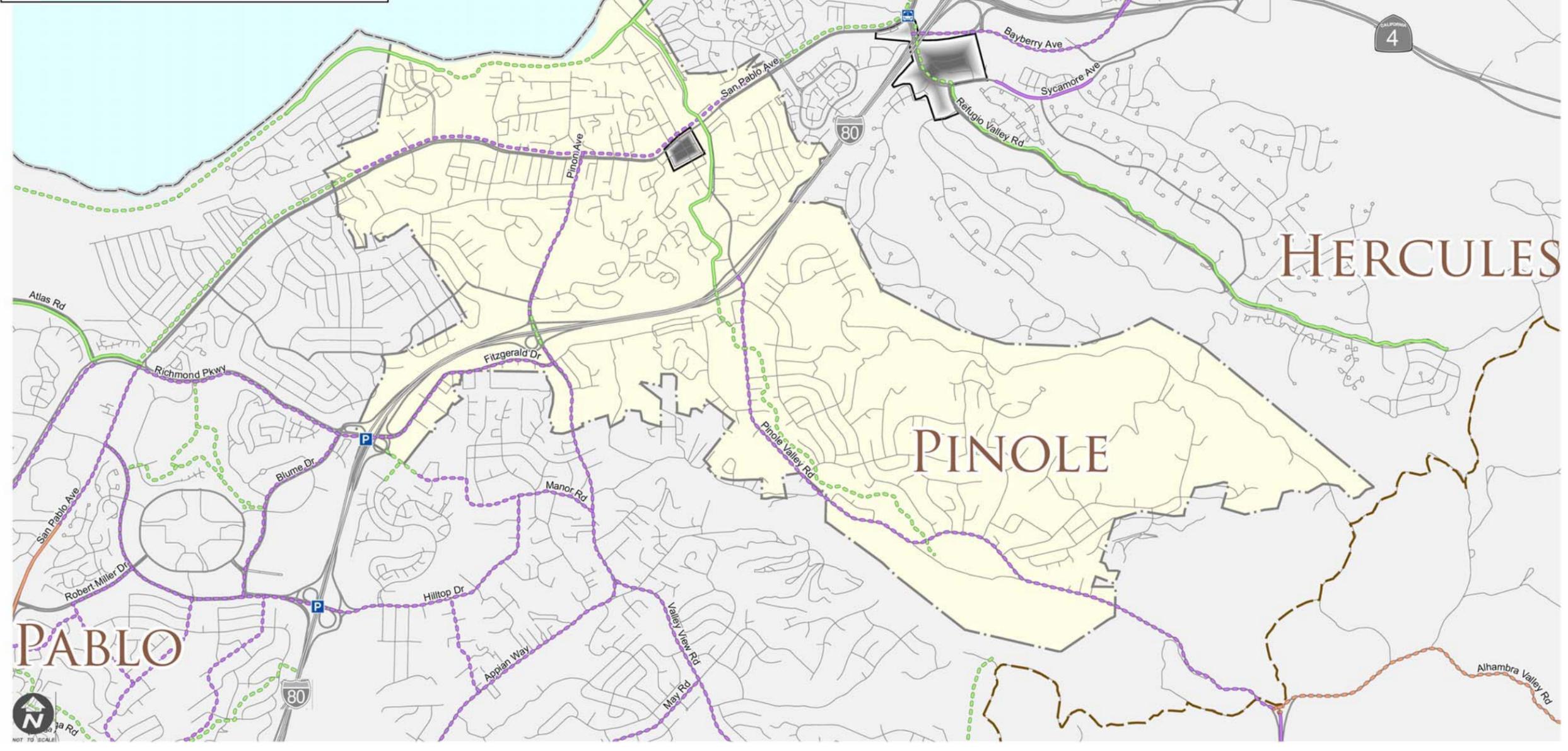


**LEGEND**

**Bicycle Facilities**

- Existing Class I
- - - Proposed Class I
- Existing Class II
- - - Proposed Class II
- Existing Class III
- - - Proposed Class III

- Park-and-Ride
- Rail Station
- Transit Center
- Downtown/Town Center
- City Limit
- County Boundary



Source: Contra Costa County Countywide Bicycle and Pedestrian Plan 2009

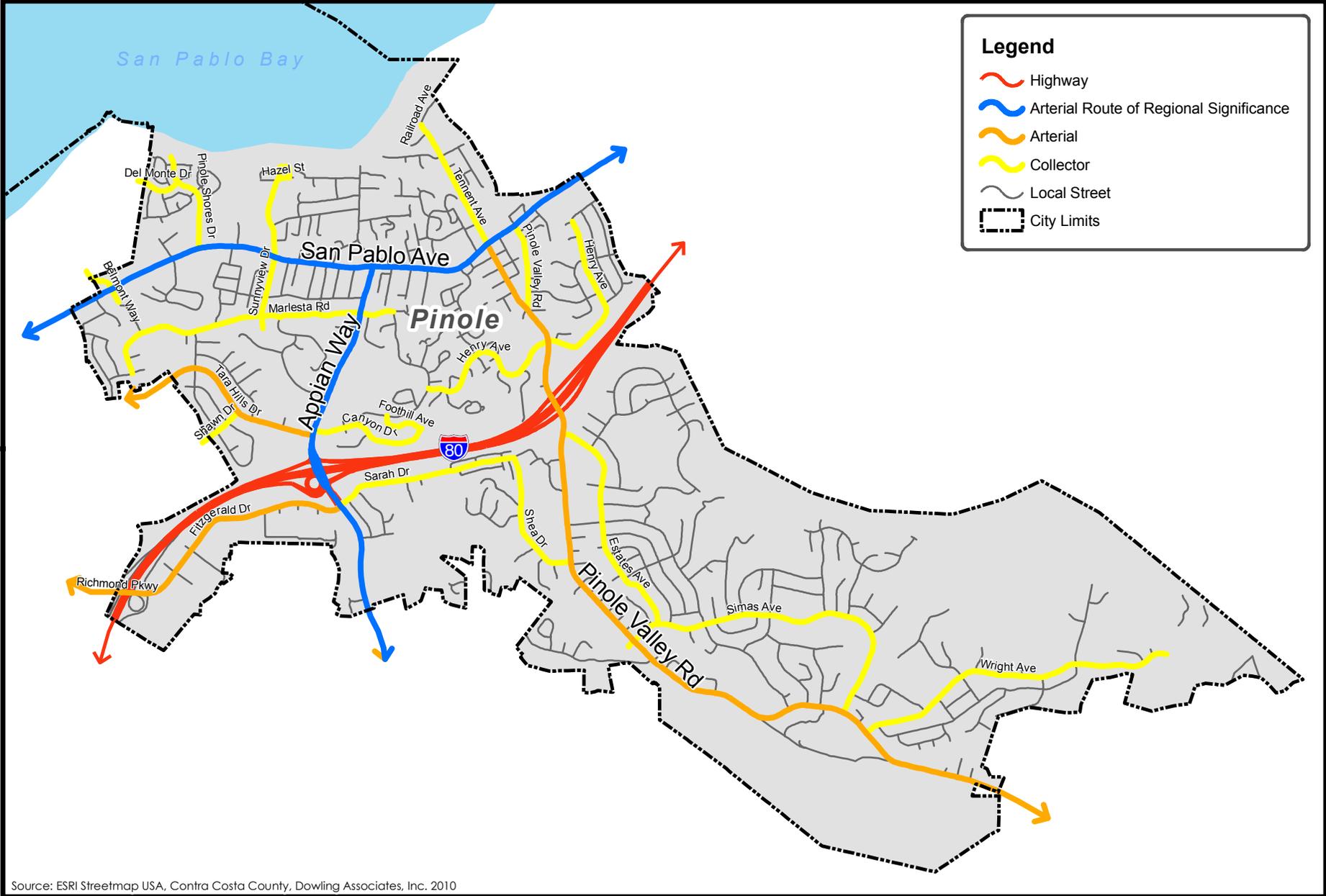
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**Figure 7.2**  
Bicyclists Lanes and Roadways  
**PMC**



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Source: ESRI Streetmap USA, Contra Costa County, Dowling Associates, Inc. 2010



**Figure 7.3**  
Major Roadways  
**PMC**<sup>®</sup>



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Regional agencies are working with cities to provide technical assistance and grants and to facilitate development within PDAs. Future funding opportunities are anticipated in partnership with state agencies and other sources to focus regional development within PDAs as part of a long-term strategy to accommodate future growth in a more sustainable manner.

## PINOLE'S FUTURE CIRCULATION CONDITIONS

Future traffic conditions for Pinole are projected using the CCTA Travel Demand Model. Level of service (LOS) is a measure of effectiveness by which traffic engineers measure auto and truck service on existing or planned roadways. The definitions of the LOS measures are:

- A. Traffic flowing freely
- B. Generally unimpeded traffic flow
- C. Slower but stable flow with minor delays
- D. Reduced speeds and increased delays
- E. Slow speeds and significant delays
- F. Stop-and-go traffic, high level of delay

According to projected volumes, the future auto traffic conditions in Pinole will generally function at acceptable LOS, with only two intersections and four road segments that will eventually function at LOS E or LOS F. Please see **Figure 7.4**. While most of Pinole's roadway system will continue to function within acceptable levels, increases in daily volumes in segments along San Pablo Avenue, Appian Way and Pinole Valley Road will slowly begin to exceed the capacity of the roadway. Since increase in daily volumes is minimally due to growth in Pinole, the increase in daily volumes can mostly be attributed to growth adjacent areas, such as Hercules, San Pablo and the unincorporated county, as well as the lack of alternate transportation options. Another cause of the degradation in operations can be attributed to the diversion of through traffic from the congested I-80 onto local streets. The anticipated growth in both the San Francisco Bay Area and the Sacramento region is expected to result in increased demand on the I-80 corridor.

Traffic improvements that would widen San Pablo Avenue in Old Town in order to avoid LOS F, or support vehicular circulation at the expense of pedestrian circulation, have the distinct potential to change the historic character of Old Town Pinole, damage the economic vitality of the area, and potentially decrease public safety and enjoyment. The viability of the City being able to purchase additional public right-of-way in that area is not feasible.

For these reasons, and with the overarching theme of sustainability in mind, the City has chosen to adopt policies to enhance bicycle, pedestrian and public transit options.

As part of the ongoing effort to encourage future development along the three main transportation corridors in Pinole (San Pablo Avenue, Pinole Valley Road and Appian Way), the

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City will adopt the Three Corridors Specific Plan. This Specific Plan provides new land use designations, design standards and transit opportunities for the three corridors. One of the development projects that the Specific Plan encourages is the narrowing of San Pablo Avenue through Old Town Pinole. The road would be narrowed down to two lanes, a bike lane added, and pedestrian facilities enhanced, which would slow down traffic, discourage the use of San Pablo Avenue as a bypass for I-80, and encourage economic activity in the Old Town area.

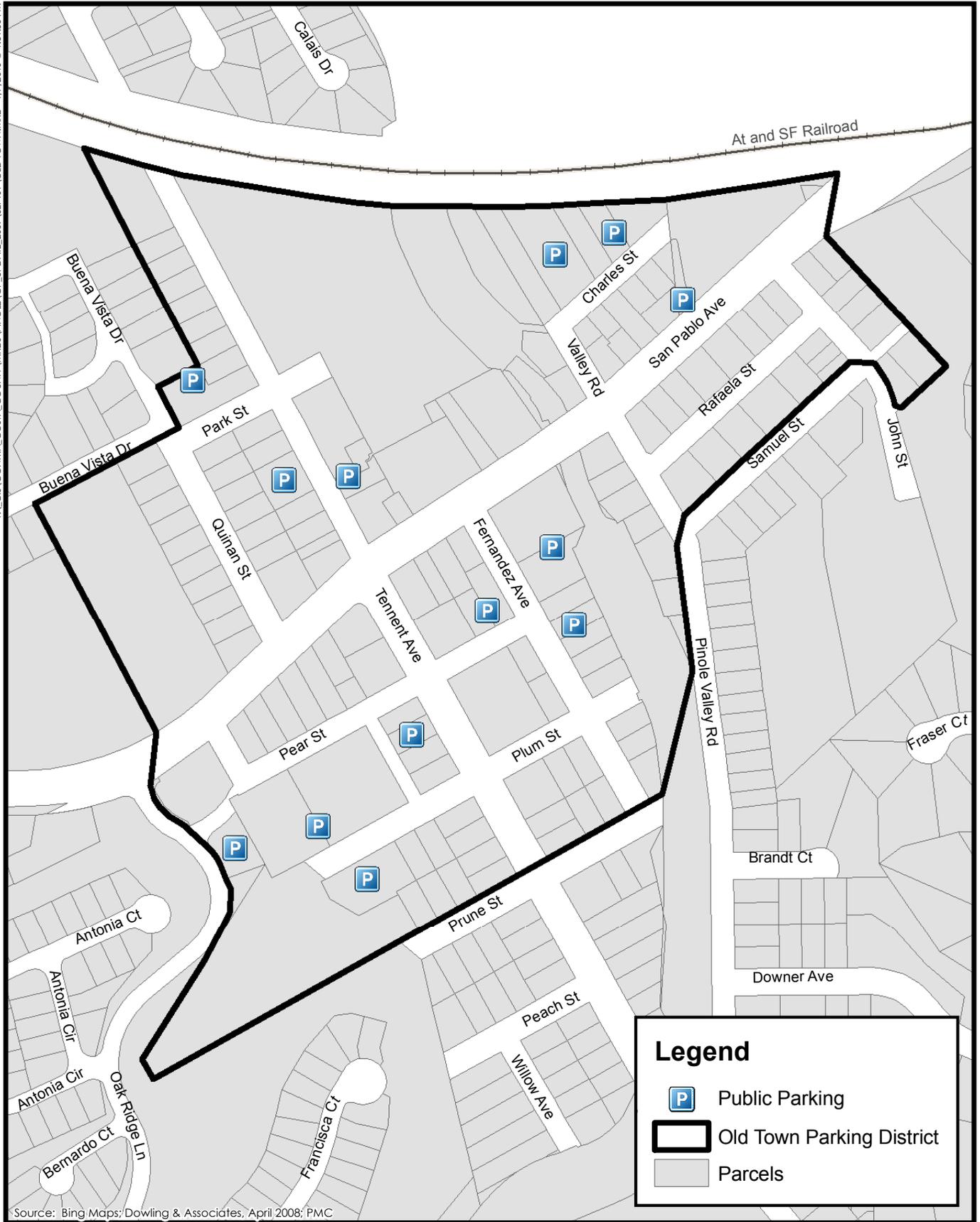
The City will encourage economic development in Old Town that supports this area as a destination and the vibrant cultural heart of the community and discourage the use of San Pablo Avenue in Old Town as a bypass for I-80. Old Town will continue to be served by shared parking facilities and on-street parking as specified in the Zoning Code in order to preserve the character of Old Town. Please see **Figure 7.5** for a map of the Old Town Parking District. In addition, the City will encourage road improvements that increase pedestrian safety, especially in areas such as Old Town where there are destinations easily accessed by pedestrians. To this end, the City will support vehicle LOS F as the traffic circulation threshold for the Old Town section of San Pablo Avenue.

It should be noted that several planning efforts are under way to address regional traffic issues that may improve the LOS in Old Town. They include (1) the I-80 Corridor Study by the Sacramento Area Council of Governments, ABAG, the MTC, and the Solano Transportation Authority; and (2) the I-80 Integrated Corridor Mobility Project. Further, the WCCTAC (West Contra Costa Transportation Advisory Committee) Action Plan includes objectives to help alleviate congestion along the I-80 corridor and could reduce the traffic impacts on the local streets in Pinole. The City will continue to work with regional agencies toward improving transportation conditions in Pinole.

## ISSUES THIS ELEMENT ADDRESSES

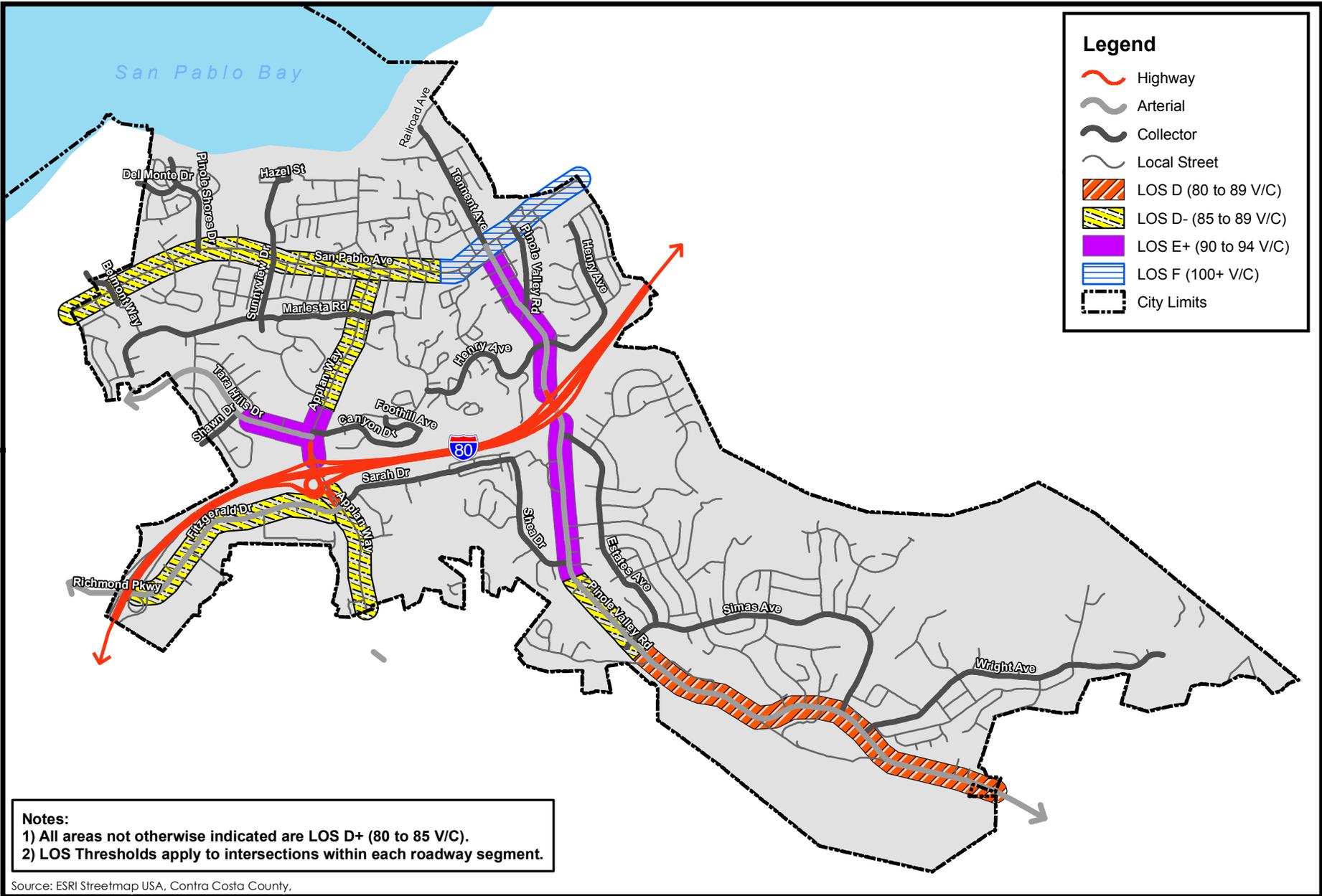
This element provides goals, policies and actions that address the following issues, many of which were raised at public meetings for the Three Corridors Specific Plan, as well as during research to prepare for the update of the General Plan. Some areas of Pinole's circulation system that are addressed in the goals, policies and actions are:

- Expanding and enhancing the pedestrian trail system in Pinole.
- Concentration of future development and circulation improvements around Pinole's three primary transportation corridors: San Pablo Avenue, Pinole Valley Road and Appian Way (also see the Land Use and Economic Development Element (Chapter 5) and the Sustainability Element (Chapter 11)).
- Improvements to Pinole's bicycle facilities.
- More walkable streets with wider sidewalks, pedestrian buffers, and more signalized crossings with higher visibility and actuation.
- Maintain level of service (LOS) standards for traffic operations, except in Old Town, where the City will work with CCTA to reduce the threshold to LOS F.



**Figure 7.5**  
Old Town Parking District





**Figure 7.4**  
LOS Thresholds  
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- Plan for future growth and meet Measure J requirements (see Background Report and the Growth Management Element (Chapter 4)).
- Keep Pinole accessible for all members of the community.

## GOALS, POLICIES AND ACTIONS

The goals of this element are as follows and are listed subsequently with corresponding policies and actions.

- Goal CE.1: Reduce vehicle miles traveled and encourage the use of public transit.
- Goal CE.2: Achieve a coordinated regional and local transportation system that minimizes traffic congestion and efficiently serves users.
- Goal CE.3: Provide timely input and effective means (as appropriate) of programming street and highway improvements to maintain the objective peak hour level of service without detrimentally impacting community character or commercial activity.
- Goal CE.4: Establish programs to support sidewalk, trail and street enhancements, where feasible.
- Goal CE.5: Provide adequate parking and loading facilities while encouraging alternative means of transportation.
- Goal CE.6: Reduce the amount of peak hour automobile congestion on city streets, as appropriate.
- Goal CE.7: Support bicycle use as a mode of transportation by enhancing infrastructure to accommodate bicycles and riders.
- Goal CE.8: Provide a safe network of well-maintained pedestrian walkways throughout Pinole that encourages walking as a form of non-motorized transportation.

**GOAL CE.1** Reduce vehicle miles traveled and encourage the use of public transit.



**POLICY CE.1.1** Encourage strategic growth that concentrates future development along Pinole's three primary transit corridors (San Pablo Avenue, Appian Way and Pinole Valley Road).

**Action CE.1.1.1** Adopt and implement the Three Corridors Specific Plan.

**Action CE.1.1.2** Adopt a Resolution of Support for the designation of Appian Way, San Pablo Avenue and Pinole Valley Road as Preferred Development Areas (PDAs).

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**Action CE.1.1.3** Apply for grants and other funding, as appropriate to implement the PDAs.

 **POLICY CE.1.2** Coordinate development of the circulation system with sustainable land use planning.

**Action CE.1.2.1** Give priority to projects that will contribute to a reduction in vehicle miles traveled per capita, while maintaining economic vitality and sustainability.

**Action CE.1.2.2** Require development to provide bus, bicycle, pedestrian and alternative fuel vehicle facilities, as appropriate.

**Action CE.1.2.3** Provide safe and convenient access for pedestrians and bicyclists, wherever feasible.

 **Policy CE.1.3** Encourage development that is sensitive to both local and regional transit measures and that promotes the use of alternative modes of transportation.

**Action CE.1.3.1** Consult with transit providers during review of development proposals.

**Action CE.1.3.2** Include facilities that support alternative modes of transportation (pedestrian, bicycles, public transit, electric vehicles, etc.) where feasible.

 **POLICY CE.1.4** Encourage maximum utilization of the existing public transit system and alternate modes of transportation in Pinole.

**Action CE.1.4.1** Study the feasibility of increasing public transit frequency in areas currently served, and continue evaluating the possibility of expanding service to areas currently without service.

**Action CE.1.4.2** Include links to public transit resources, bike trails maps, pedestrian trails maps and carpool/van pool information on the City's website.

**Action CE.1.4.3** Pursue extension of rapid bus service to Pinole and enhance transit facilities that serve Pinole users.

**Action CE.1.4.4** Support provision of wayfinding signage and markers for transit stops and multi-use trails.

 **POLICY CE.1.5** Encourage transit facilities that will provide good access to major public facilities and employment centers in the city.

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- Action CE.1.5.1** Enhance existing and provide additional bus shelters and other amenities that support transit use, where feasible and appropriate.
- POLICY CE.1.6** Encourage transit services between major employment centers in each area of the city and surrounding communities.
- Action CE.1.6.1** The City shall continue to work cooperatively with local and regional transit with transportation agencies and other jurisdictions such as BART, WCCTAC, Transit Providers, West County Jurisdictions, CCTA, Railroads, to maximize connectivity to existing or proposed transit stations within the GPU Planning Area.
- Action CE.1.6.2** Work with WestCAT, AC Transit and other transit providers to support expanded transit lines and increased frequency of service on major transit arterials.
- GOAL CE.2** Achieve a coordinated regional and local transportation system that minimizes traffic congestion and efficiently serves users.
- POLICY CE.2.1** Local circulation system improvements should be consistent with the goals and objectives stated in the Metropolitan Transportation Commission (MTC) Regional Transportation Plan.
- Action CE.2.1.1** Work with local and regional jurisdictions in the preparation of regional and State-mandated regional plans.
- Action CE.2.1.2** Work with WCCTAC to develop and update the Action Plan for Routes of Regional Significance, to establish Multimodal Transportation Service Objectives (MTSOs), and to coordinate planning for projects and programs of regional importance.
- Action CE.2.1.3** Work with emergency service providers to ensure the transportation system facilitates efficient service delivery and protects public safety.
- POLICY CE.2.2** Identify needed improvements to the highway/interstate facilities in the city and in order to aid Caltrans in implementing necessary programs on the state highway system and its interchanges/intersections with local roadways.
- Action CE.2.2.1** Work with Caltrans and adjacent jurisdictions to improve the operational performance of I-80 and local transit corridors designated Priority Development Areas (San Pablo Avenue, Appian Way and Pinole Valley Road).

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**Action CE.2.2.2** Work with Caltrans in analyzing the performance of freeway interchanges located in the General Plan area and seek appropriate improvements.

**Action CE.2.2.3** Improve the principal arterial gateways to Pinole to facilitate the movement of traffic flowing into and out of the city.

**GOAL CE.3** Provide timely input and effective means (as appropriate) of programming street and highway improvements to maintain the objective peak hour level of service without detrimentally impacting community character or commercial activity.

**POLICY CE.3.1** Apply the traffic service objectives indicated on Figure 7.4 [of the Circulation Element] for the identified roadways. LOS (level of service) and volume to capacity (V/C) thresholds are defined as follows:

**Level of Service A (50 to 59 V/C):** Indicates a relatively free flow of traffic, with little or no limitation on vehicle movement or speed.

**Level of Service B (60 to 69 V/C):** Describes a steady flow of traffic, with only slight delays in vehicle movement and speed. All queues clear in a single signal cycle.

**Level of Service C (70 to 79 V/C):** Denotes a reasonably steady, high-volume flow of traffic, with some limitations on movement and speed, and occasional backups on critical approaches. LOS C+ = 70 to 75 V/C. LOS C- = 75 to 79 V/C.

**Level of Service D (80 to 89 V/C):** Denotes the level where traffic nears an unstable flow. Intersections still function, but short queues develop and cars may have to wait through one cycle during short peaks. LOS D+ = 80 to 85 V/C. LOS D- = 85 to 89 V/C.

**Level of Service E (90 to 99 V/C):** Describes traffic characterized by slow movement and frequent (although momentary) stoppages. This type of congestion is considered severe, but is not uncommon at peak traffic hours, with frequent stopping, long-standing queues, and blocked intersections. LOS E+ = 90 to 94 V/C.

**Level of Service F (100+ V/C):** Describes stop-and-go traffic characterized by traffic jams and stoppages of long duration. Vehicles at signalized intersections usually have to wait through one or more signal changes, and “upstream” intersections may be blocked by the long queues.

**Action CE.3.1.1** Work with WCCTAC and CCTA to revise the Action Plan level of service standard for San Pablo Avenue within Old Town to LOS F to create a

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more pedestrian-friendly environment and facilitate pedestrian and bicycle access and circulation.

**Action CE.3.1.2** Project applicants shall provide a traffic study forecasting traffic impacts, identifying deficient roadways and intersections, and providing an implementation plan for needed improvements to the satisfaction of the Public Works Director/City Engineer.

**Action CE.3.1.3** The City shall develop a Roadway/Trail Master Plan to improve the sidewalk, bike trail, pedestrian trail and roadway system, as necessary for buildout of the General Plan.

**POLICY CE.3.2** Maintain roadway network at or above established LOS thresholds.

**POLICY CE.3.3** All projects shall pay their fair share of the cost for project impacts on the circulation network in order to ensure that established levels of service are met.

**Action CE.3.3.1** Establish a mechanism for collecting appropriate fees from development projects that will offset negative impacts on LOS thresholds.

**Action CE.3.3.2** Adopt traffic impact fees that are based upon peak hour trip generation.

 **POLICY CE.3.4** Reduce traffic congestion at key intersections throughout the city, as appropriate and in line with the overall sustainability goals of the City.

**Action CE.3.4.1** Construct necessary improvements to intersections to ensure that the applicable levels of service mentioned in Policy CE.3.1 are achieved.

**GOAL CE.4** Establish programs to support sidewalk, trail and street enhancements, where feasible.

**POLICY CE.4.1** Pinole will coordinate local transportation plans and programs with the CCTA to ensure eligibility for state and federal funding.

**POLICY CE.4.2** Pinole will coordinate local funding with the Regional Transportation Plan (RTP) to ensure eligibility for maximum available funding under the Regional Transportation Improvement Plan (RTIP).

**POLICY CE.4.3** The City will assess transit and multimodal impact fees on new developments to fund public transportation infrastructure, bicycle infrastructure, pedestrian infrastructure and other multimodal accommodations, as appropriate.

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- Action CE.4.3.1** Study multimodal impact fees to determine an appropriate amount and means of assessing them.
- POLICY CE.4.4** Prioritize transportation funding to support public transit and other non-auto modes of transportation.
- Action CE.4.4.1** Before funding transportation improvements that increase roadway capacity and vehicle miles traveled, the City will evaluate the feasibility and effectiveness of funding projects that support alternative modes of transportation and reduced vehicle miles traveled, including transit and bicycle and pedestrian access.
- Action CE.4.4.2** Roadways experiencing or forecast to experience worse than applicable level of service conditions (unstable or forced traffic flows) shall be improved, unless economic conditions, community character issues or public health, safety or welfare factors are such that needed improvements would be detrimental to other City goals and objectives.
- POLICY CE.4.5** Inventory sidewalk conditions to identify opportunities for enhancements to the circulation system and to help prioritize repair and maintenance activities as funding becomes available.
- GOAL CE.5** Provide adequate parking and loading facilities while encouraging alternative means of transportation.
-  **POLICY CE.5.1** Provide off-street parking to employees; however preferential parking at several locations in the city shall be made available to vanpools, carpools, alternative fuel vehicles and other transit users, where feasible and appropriate.
- Action CE.5.1.1** Continue to encourage shared parking facilities for both private businesses and public agencies.
- Action CE.5.1.2** Continue to maintain the Old Town parking district as described in **Figure 7.5**.
- POLICY CE.5.2** Reserve on-street parking in commercial areas for short-term users.
- Action CE.5.2.1** Consider as needed the use of timed/metered parking to discourage long-term parking in Old Town, provided resources are available for enforcement.

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**POLICY CE.5.3** Work with various government agencies to provide secure parking at park-and-ride lots and transit stations.

 **POLICY CE.5.4** Establish parking policies and requirements that support alternative modes of transportation.

**Action CE.5.4.1** Allow reduction of minimum on-site parking requirements for development that includes exceptional features that support multiple modes of transportation.

**Action CE.5.4.2** Encourage shared parking programs in mixed-use and transit-oriented development areas.

**GOAL CE.6** Reduce the amount of peak hour automobile congestion on city streets, as appropriate.

**POLICY CE.6.1** Encourage the use of carpooling and vanpooling to maintain an acceptable LOS on city streets and I-80.

**Action CE.6.1.1** Designate a certain percentage of parking spaces for ride-sharing vehicles.

**Action CE.6.1.2** Require the development of Transportation Management Associations (TMA) for large employers and commercial/industrial complexes. These TMAs would develop plans to encourage their employees to use some form of collective transportation to commute to and from work. These plans should not only include information regarding rideshare lists and available transit, but may also include provision of transit passes, preferential parking and other incentives to participating employees.

**POLICY CE.6.2** Implement transportation demand management strategies in conjunction with land uses in order to prevent future traffic congestion in the city.

**Action CE.6.2.1** Coordinate with ride-sharing programs to provide up-to-date lists of potential riders and to educate the public on commuting options.

**Action CE.6.2.2** Encourage the development of employer-funded vanpool and shuttle bus services to new employment centers.

**Action CE.6.2.3** Encourage employer provision of information on alternative modes of transit.

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- Action CE.6.2.4** Encourage employers to offer flextime arrangements to their employees in order to reduce the percentage of trips made during peak hours.
- Action CE.6.2.5** Work with schools to encourage carpooling and a flexible class schedule in order to reduce the percentage of trips made during peak hours.
- Action CE.6.2.6** Establish and apply minimum carpool requirements for all nonresidential developments.
- POLICY CE.6.3** Strive to achieve a 30 percent reduction in the total number of peak period employee trips.
- Action CE.6.3.1** Encourage and utilize shuttles to serve neighborhoods, employment centers and major destinations.
- Action CE.6.3.2** Work with existing shuttle service providers to coordinate their services with other forms of transit, special events and work centers.
- Action CE.6.3.3** Encourage home offices, live/work sites and satellite work centers in appropriate locations.
- Action CE.6.3.4** Encourage telecommuting options through public outreach and with new and existing employers, as appropriate.
- Action CE.6.3.5** Explore the potential for creation of a transportation assessment district to help fund transportation improvements and repairs throughout the city.
- Action CE.6.3.6** Explore the creation of a network of park-and-ride facilities to support and encourage the use of regional transit.
- Action CE.6.3.7** Identify and correct gaps in the pedestrian travel network, whenever feasible.
- GOAL CE.7** Support bicycle use as a mode of transportation by enhancing infrastructure to accommodate bicycles and riders.
-  **POLICY CE.7.1** Enhance the city's bikeway network through the use of Class I, II and III bikeways.
- Action CE.7.1.1** Develop street design and bikeway design standards to address all street users, autos, public transit, bicycles and pedestrians of all ages and abilities.

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**Action CE.7.1.2** Prepare and regularly update a Pinole bikeways map and make it available on the City's website.

**Action CE.7.1.3** Provide safe access to public transportation and other non-motorized uses through construction of dedicated bicycle paths.

 **POLICY CE.7.2** Establish standards for new development and redevelopment projects to support bicycle use.

**Action CE.7.2.1** Establish engineering standards for pedestrian and bicycle facilities.

**Action CE.7.2.2** Require provision of adequate, convenient and secure bike parking in conjunction with private development.

**Action CE.7.2.3** Provide public bike parking as funding is available.

**Action CE.7.2.4** Require projects to include bicycle facilities, as appropriate.

 **POLICY CE.7.3** Establish a network of multi-use paths to facilitate safe and direct off-street bicycle and pedestrian travel.

**Action CE.7.3.1** Where feasible, provide bike racks along these trails at safe, lighted locations.

**Action CE.7.3.2** Pursue enhanced funding for bicycle and pedestrian facilities and access projects.

**Action CE.7.3.3** Adopt bicycle parking standards that encourage and facilitate bicycle travel.

**Action CE.7.3.4** Minimize bicycle/pedestrian/motor vehicle conflicts by providing proper trail, street and intersection design and separation.

**POLICY CE.7.4** Establish bicycle safety as a priority through ongoing public education.

**Action CE.7.4.1** Assist in the development and dissemination of public education programs to promote bicycle safety.

**GOAL CE.8** Provide a safe network of well-maintained pedestrian walkways throughout Pinole that encourages walking as a form of non-motorized transportation.

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-  **POLICY CE.8.1** Require development to provide pedestrian walkways that are safe, interconnected and accessible by all members of the community
  - Action CE.8.1.1** As feasible, ensure that all intersections in areas with pedestrian usage are signalized with curb ramps, bulbouts, high-contrast crosswalks and pedestrian actuation, and other safety measures.
  - Action CE.8.1.2** Where feasible, use landscaping or physical barriers on high-capacity arterials to separate vehicles and pedestrians.
-  **POLICY CE.8.2** Encourage the community to take advantage of Pinole's pedestrian facilities and recreational opportunities and increase non-motorized modes of transportation.
- POLICY CE.8.3** Design access ways to school facilities that will ensure public safety.
  - Action CE.8.3.1** In conjunction with the public school system and other appropriate public facilities and programs, assist in developing public education programs to promote pedestrian safety.
  - Action CE.8.3.2** Ensure that all intersections near schools are signalized with curb ramps, high-contrast crosswalks and pedestrian actuation, where feasible.
  - Action CE.8.3.3** Actively support the Safe Routes to Schools program, including making use of available funding and technical assistance.
-  **POLICY CE.8.4** Encourage the location of basic shopping and services within walkable distances to residential areas.
  - Action CE.8.4.1** Use strategic planning to establish land use patterns that encourage mixed-use, walkable development.