CIRCULATION

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CIRCULATION

5.1 OVERVIEW

Mobility is essential to support the vision and goals for the planning area. This chapter presents improvement opportunities for the Appian Way, Pinole Valley Road, and the San Pablo Avenue Corridor thoroughfares. In addition to suggested improvements along the three corridors, the Specific Plan will examine improvement opportunities in Old Town Pinole and elsewhere to address truck traffic issues, traffic calming, bicycle facilities, parking, and transit issues and opportunities.

The Specific Plan strive to create an environment that is functional and comfortable for all forms of transportation including, pedestrians, bicyclists, vehicles, and transit riders. Furthermore, the Specific Plan will independently address Old Town Pinole to create a pedestrian-friendly destination, to cultivate a lively downtown environment with an engaged, active, human oriented streetscape where the automobile is not the primary emphasis for people who live, work and shop in Old Town Pinole.

5.2 CIRCULATION GOALS AND POLICIES

The specific plan for City of Pinole –San Pablo Avenue, Pinole Valley Road and Appian Way Corridors, seeks to accomplish the following objectives relating to circulation:

- To facilitate the transition of the San Pablo, Pinole Valley Road and Appian Way corridors so that they complement the land uses and development pattern planned for the corridors through implementation of this specific plan;
- To maintain and improve vehicular traffic circulation within the Specific Plan Areas to safely and efficiently move both local and through traffic to its destination;
- Accommodate future demand for circulation by all modes of transportation;
- To implement traffic calming techniques in specific areas to improve traffic and pedestrian safety; and,
- To create attractive urban streetscapes with design and amenities that are visually compatible with and enhance planned private development pursuant to this specific plan, and that support pedestrian use and outdoor activities.

CIRCULATION

To accomplish these objectives, the Specific Plan is proposing following policies:

CIRCULATION POLICY 1 The City will implement a comprehensive plan for a coordinated street circulation system that will provide for the safe and efficient movement of people and goods within and through the Specific Plan Areas.

CIRCULATION POLICY 2 All future roadway and intersection improvements will consider pedestrian and traffic safety first and foremost. Modifications to the standards, regulations, and/or guidelines contained herein are permitted in those instances where safety is at issue.

CIRCULATION POLICY 3 The City will implement traffic calming measures, as designated in this Specific Plan, to facilitate the creation of a pedestrian friendly environment throughout the Specific Plan Area in general, and in specified pedestrian-oriented retail, mixed-use and residential development areas along San Pablo Avenue.

CIRCULATION POLICY 4 The City will continue to oversee circulation system improvements within the Specific Plan Areas that is capable of adequately accommodating a reasonable increase in future traffic demands.

CIRCULATION POLICY 5 The City will discourage through traffic and truck traffic for those roadway segments that are not designed to handle such traffic.

CIRCULATION POLICY 6 The City will employ measures that will discourage through traffic on local streets.

CIRCULATION POLICY 7 The City will ensure that there are clear rights-of-way for safe passage of pedestrians and bicyclists using San Pablo Avenue, Pinole Valley Road and Appian Way.

CIRCULATION POLICY 8 The City will provide access for people who are disabled or impaired at all pedestrian crosswalks, and will include audible pedestrian crossing signal devices, and other appropriate safety measures at signalized pedestrian crosswalks where the City Engineer deems them appropriate.

CIRCULATION POLICY 9 Any future roadway and intersection improvements undertaken by the City shall be in conformance to, and consistent with, this specific plan.

CIRCULATION POLICY 10 The City will continue to analyze traffic congestion and evaluate strategies to improve the efficiency of the local transportation and circulation system.

5.3 VEHICULAR CIRCULATION

San Pablo Avenue is the main arterial roadway in the City of Pinole and serves as a thoroughfare for the entire East Bay running from downtown Oakland north through the City of Pinole and terminating in the unincorporated community of Crockett. Within the City limits of Pinole, San Pablo Avenue is a four lane arterial running east-west along the northern portion of Pinole providing a primary circulation route that provides linkages between the City and the regional circulation system. San Pablo Avenue runs though industrial, commercial and residential areas and directly through the heart of Pinole in the Old Town District.

The Pinole Valley Road Corridor is bound by San Pablo Avenue on the north and Simas Avenue to the south. Pinole Valley Road is a 4 lane arterial with on-street parking permitted on some segments of the roadway.

The Appian Way Corridor is bounded by San Pablo Avenue on the north and Dalessai Drive on the south. Appian Way is a 4-lane arterial with on street parking permitted on some roadway segments. Over the years Appian Way has become a major local shopping hub, a destination for medical services, and is site of Pinole Middle School.

EXISTING TRAFFIC CONDITIONS

Level of Service Standards

The operating conditions experienced by motorists are described as "levels of service" (LOS). LOS provides a qualitative measure of circulation efficiency that is influenced by a number of factors, including speed and travel time, traffic interruptions, freedom to maneuver, driving comfort, and convenience. Levels of service are designated "A" through "F" from best to worst, which cover the entire range of traffic operations that might occur. Levels of service "A" through "E" generally represent traffic volumes at less than roadway capacity, while LOS "F" represents over capacity and/or forced flow conditions.

Level of Service	Description
A	Level of service A represents free flow. Excellent level of comfort, convenience and freedom to maneuver.
B	Level of service B is in the range of stable flow, but the presence of other road users in the traffic stream causes noticeable reductions of comfort, convenience, and maneuvering freedom.
C	Level of service C is in the range of stable flow, but the operation of individual users is significantly affected by others in the traffic stream.
D	Level of service D represents high-density, but stable flow. Users experience severe restriction in speed and freedom to maneuver, with poor levels of comfort and convenience.
E	Level of service E represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Freedom to maneuver is difficult, with users experiencing frustration and poor comfort and convenience. Unstable operations are frequent, where small increases or minor perturbations to the traffic flow can cause breakdown conditions.
F	Level of Service F is used to define forced or breakdown conditions. This condition exists wherever the amount of traffic approaching a point exceeds the amount that can traverse a point. Roadways store long queues behind such locations, with traffic advancing in stop-and-go "waves".

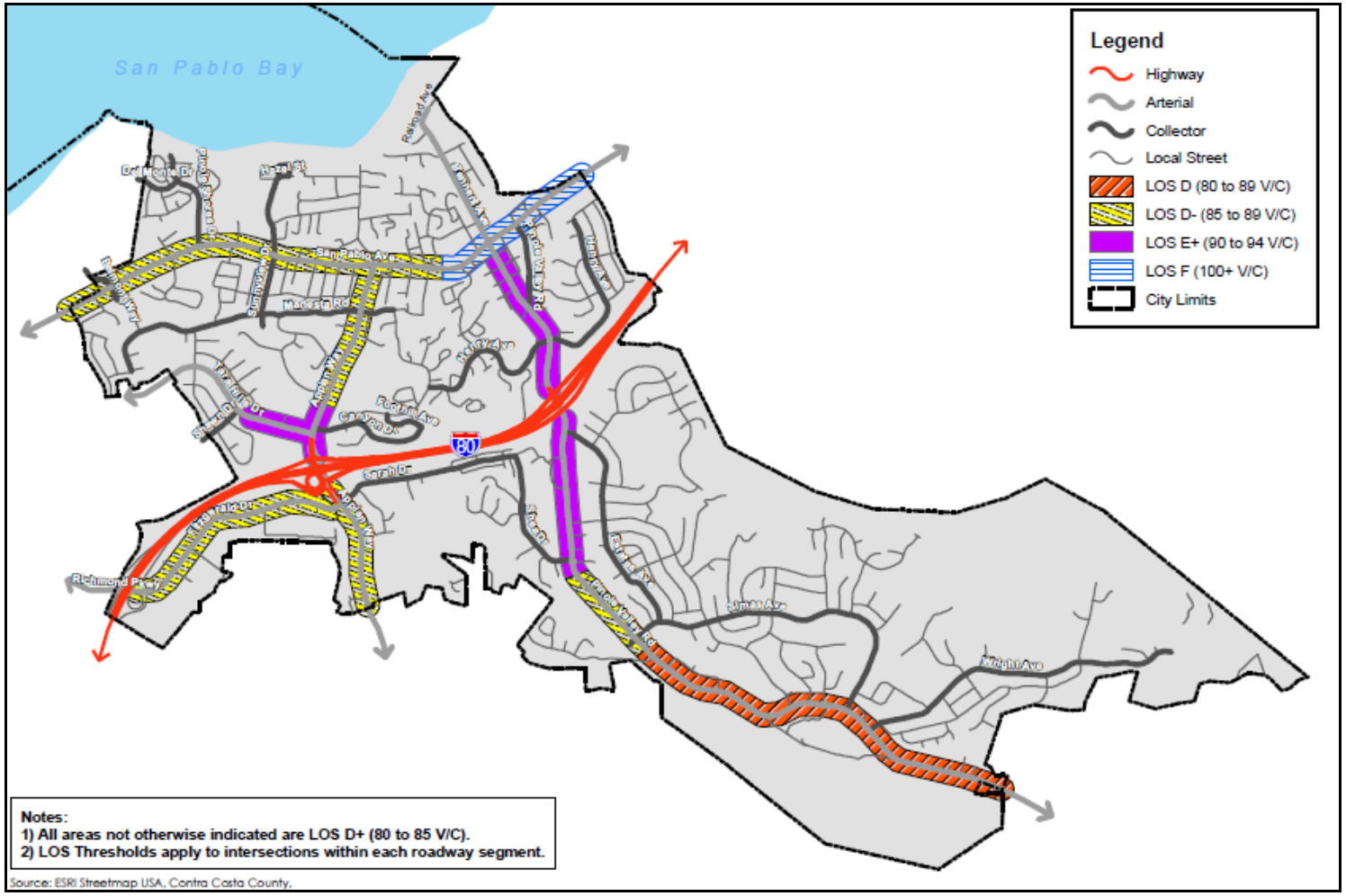
Volume to Capacity Ratios

Another measure of circulation efficiency is Volume to Capacity Ratios. This is a quantitative standard that compares the number of vehicles that pass through an intersection or road segment to the capacity of roadway improvements.

City Thresholds

To encourage balanced transportation, the City of Pinole has LOS and Volume to Capacity Ratios (V/C Ratios) as the minimum acceptable standards along its local, collector, and arterial roadways.

Figure 5.1
Level of Service



Roadway Segments

Roadway levels of service were evaluated at 11 key roadway segments. The corresponding levels of service are shown in Table 5.1 below. Under existing conditions, all roadways are operating within City standards, with the exception of Appian Way south of Tara Hills Drive. At this location, the daily volumes result in LOS E conditions.

Table 5.1
Roadway Level of Service – Existing Conditions

Street Name	Location	Existing Conditions		
		LOS	V/C	Daily Volume
Regional Arterials				
San Pablo Ave	West of Del Monte Dr/Belmont Wy	C	0.50	17,100
San Pablo Ave	West of Appian Wy	C	0.60	20,600
San Pablo Ave	East of Pinole Valley Rd	D	0.85	20,900
Appian Way	South of Tara Hills Dr/Canyon Dr	E	0.99	34,300
Appian Way	South of Michael Dr	D	0.84	27,500
Arterials				
Pinole Valley Rd	North of Henry Ave	D	0.91	14,100
Pinole Valley Rd	South of Estate Ave	C	0.58	19,000
Pinole Valley Rd	South of Wright Ave	C	0.21	3,200
Henry Ave	East of Ridgecrest Rd	C	0.13	1,700
Fitzgerald Dr	West of Appian Wy	C	0.52	18,100
Shea Dr	West of Pinole Valley Rd	C	0.27	3,500

Source: Dowling Associates, Inc. 2009

Intersections

Intersection levels of service were evaluated at 20 key intersections in the Specific Plan planning areas for the AM and PM peak hours. The corresponding levels of service at the intersections are shown in Table 5.2.

Under the existing conditions, all study intersections operate at LOS C or better during the AM and PM peak hours. The capacities of these key intersections are more than adequate to meet the current peak hour traffic demands.

Interchanges

Operations at the I-80 interchanges of Appian Way and Pinole Valley Road were observed for 15-minute periods during a weekday morning commute time. There was one observed instance at southbound Appian Way where the queue from the traffic signal caused vehicle backups for right-turning vehicles from Tara Hills Drive. No spillovers onto city roadways were observed.

Table 5.2
Existing Intersection Level of Service

#	Intersection	Time Period	LOS	V/C Ratio
1	Del Monte Drive at San Pablo Avenue	AM	A	0.498
		PM	A	0.404
2	Pinole Shores Drive at San Pablo Avenue	AM	A	0.441
		PM	A	0.340
3	Sunnyview Drive at San Pablo Avenue	AM	A	0.388
		PM	A	0.385
4	Appian Way at San Pablo Avenue	AM	A	0.433
		PM	A	0.593
5	Tennent Avenue at San Pablo Avenue	AM	A	0.551
		PM	A	0.427
6	Pinole Valley Road at San Pablo Avenue	AM	A	0.569
		PM	A	0.552
7	Pinole Valley Road at Tennent Avenue	AM	A	0.416
		PM	A	0.324
8	Pinole Valley Road at Henry Avenue	AM	A	0.407
		PM	A	0.390
9	Pinole Valley Road at I-80 westbound ramps	AM	A	0.543
		PM	A	0.515
10	Pinole Valley Road at I-80 eastbound ramps	AM	B	0.687
		PM	C	0.709
11	Pinole Valley Road at Estates Avenue	AM	A	0.482
		PM	A	0.452
12	Pinole Valley Road at Ramona Street	AM	A	0.303
		PM	A	0.241

#	Intersection	Time Period	LOS	V/C Ratio
13	Appian Way at Mann Drive	AM	A	0.512
		PM	A	0.498
14	Appian Way at Tara Hills Drive-Canyon Drive	AM	B	0.673
		PM	A	0.555
15	Appian Way at I-80 westbound ramps	AM	B	0.667
		PM	A	0.598
16	Appian Way at I-80 eastbound ramps	AM	A	0.394
		PM	B	0.696
17	Appian Way at Fitzgerald Drive-Sara Drive	AM	A	0.500
		PM	A	0.541
18	Oak Ridge Lane at San Pablo Avenue	AM	A	0.414
		PM	A	0.351
19	Fernandez Avenue at San Pablo Avenue	AM	A	0.412
		PM	A	0.336
20	John Street at San Pablo Avenue	AM	A	0.437
		PM	A	0.376

Source: Dowling Associates, Inc. 2009

ROADWAY IMPROVEMENTS

The circulation system roadways typology for San Pablo Avenue, Pinole Valley Road and Appian Way is described below. Figure 5.1 shows the overall circulation system and Figures 5.2 through 5.7 show the proposed roadway designs for San Pablo Avenue, Pinole Valley Road and Appian Way. The enlarged sections that follow illustrate the details of each cross section.

Major and Minor Arterials

Major and minor arterial streets within the Specific Plan serve as the backbone for transportation and connect users to major destinations within the Specific Plan Area.

Major Arterial

Major Arterials are intended to serve medium to high speeds of traffic. Major arterials are divided thoroughfares in urban and suburban environments designed to carry primarily medium to high speed traffic (30 – 45 mph), long distance traffic and serve large tracts of separated land uses. Major Arterials may be high ridership transit corridors. Major Arterials are primary goods movement

and emergency response routes. Major Arterials include San Pablo Avenue, Fitzgerald Drive, Tara Hills Drive, Appian Way, and Pinole Valley Road.

Minor Arterial

Minor Arterials are intended be walkable medium speed thoroughfares (35 mph or less) in urban and suburban environments designed to carry both through traffic and local traffic, pedestrians and bicyclists. Tennent Avenue between San Pablo Avenue and Pinole Valley Road is considered a Minor Arterial.

- San Pablo Avenue is a 4-lane, mostly divided arterial running east-west along the northern portion of Pinole and providing connections to the unincorporated community of Tara Hills to the south and City of Hercules to the north. San Pablo Avenue generally runs north-south from the City of Oakland to the unincorporated community of Crockett. On-street parking is generally allowed along the segment in Pinole.

- Fitzgerald Drive is a 4-lane, east-west, divided arterial connecting Richmond Parkway and Appian Way on the southern side of I-80. On-street parking is prohibited.

- Tara Hills Drive is a circuitous arterial connecting Appian Way to unincorporated communities on both sides of San Pablo Avenue. It's a 4-lane roadway from Appian Way to Flannery Road, where it narrows to 2-lanes to its terminus in the unincorporated community of Bayview-Montalvin. On-street parking is generally allowed on the 4-lane section and prohibited on the 2-lane section.

- Appian Way is a 4-lane, north-south arterial beginning at San Pablo Avenue and running through the unincorporated community of El Sobrante. On-street parking is allowed on some segments of the roadway.

- Pinole Valley Road is a 4-lane, north-south arterial from Henry Avenue through Pinole that becomes Alhambra Valley Road at the city limits. From San Pablo Avenue to Henry Avenue, Pinole Valley Road is a 2-lane collector. On-street parking is allowed on some segments of the roadway.

- Tennent Avenue is a 2-lane, north-south arterial from its southern terminus at Pinole Valley Road to San Pablo Avenue. From San Pablo Avenue to its northern terminus at Pinole Bayfront Park, Tennent Avenue serves as a collector. On-street parking is generally allowed.

Arterials consists of either two or four travel lanes, bike lanes in some locations, landscaped center median islands where appropriate, and sidewalks separated by a parkway strip or adjacent to the back of curb, consistent with the character of the street and adjacent development. Arterials may also include on-street parking at the discretion of the Public Works Director.

Improvements along San Pablo Avenue

The rationale in the transformation of San Pablo Avenue from four lanes to two lanes is to return this Old Town section of San Pablo Avenue into a robust, vital and economically sound environment. Currently this section of San Pablo Avenue features four traffic lanes. These four-lane roadways significantly discourage mobility and access of pedestrians, bicyclists, and transit users who are discouraged by the lengthily crossing distances of these wide street and the accompanying higher traffic speeds.

As a two lane roadway, San Pablo Avenue would aid in resolving a number of conflicts now found in this Old Town roadway section. Currently traffic speeds through Old Town can average anywhere from 35 – 45 mph creating a deterrent for non-motorized mobility. In addition these high traffic speeds also limit the visibility of Old Town to passing motorist and detract from a sound and vibrant Old Town environment. This conversion will seek to slow traffic while keeping traffic flow adequate. By keeping the full number of lanes at intersection (buy using turn pockets), four-lane to two-lane conversions often keep the capacity of the original four lane roadway.

Collectors

Collectors consist of either two or four travel lanes, in some cases bike lanes, and in some cases landscaped center median islands, and sidewalks in some cases buffered by on-street parking. Collectors are generally shorter in length than arterials, providing access to abutting land. Collectors serve as primary pedestrian and bicycle routes and may serve local transit routes. Collectors do not exceed 4 lanes and access to land is a primary function. Good movement is typically limited to local routes and deliveries.

The following roadways with the Specific Plan planning area are identified as Collectors:

- Allview Avenue
- Canyon Drive
- Pinole Shores Drive
- Pinole Valley Road (between Tennent and San Pablo Avenue)

- Del Monte Drive
- Estates Avenue
- Galbreth Road
- Henry Avenue
- Manor Road
- Marlesta Road
- Sarah Drive
- Shamrock Drive
- Shea Drive
- Simas Avenue
- Sunnyview Drive

Collectors consist of either two or four travel lanes, bike lanes, landscaped center median islands, and sidewalks buffered from travel lanes by on-street parking.

Local Streets

All other roadways in Pinole are classified as Local Streets. Local streets are intended to be low to medium speed thoroughfares primarily serving abutting property. Local streets are intended to connect residential neighborhoods with each other, connect neighborhood with commercial and other districts, and to connect local streets to collector and arterials. All local streets should be constructed in combination with future revitalization efforts.

Local streets will consist of both two or four travel lanes and on-street parking. Adjacent land uses will dictate the type of sidewalk, whether attached or detached.

Emergency Service Considerations

In areas in Pinole where Topography, Geography or Right-of-Way limitations adversely affect public safety response times, medians maybe modified to ensure proper methods to reduce emergency response times. These methods include but are not limited to, utilizing/ implementing rolled curbs on medians, utilizing turf block on medians and sidewalks where City Staff, including the Pinole Fire Department, deem appropriate. The recommended right - of - way improvements contained within this chapter may be modified to incorporate emergency services as recommended by the Pinole Fire Department. Traffic safety pre-emption devices and/or signage include OptiCom Systems, “Keep Clear” signage or other methods deemed appropriate by City Staff including the Pinole Fire Department.

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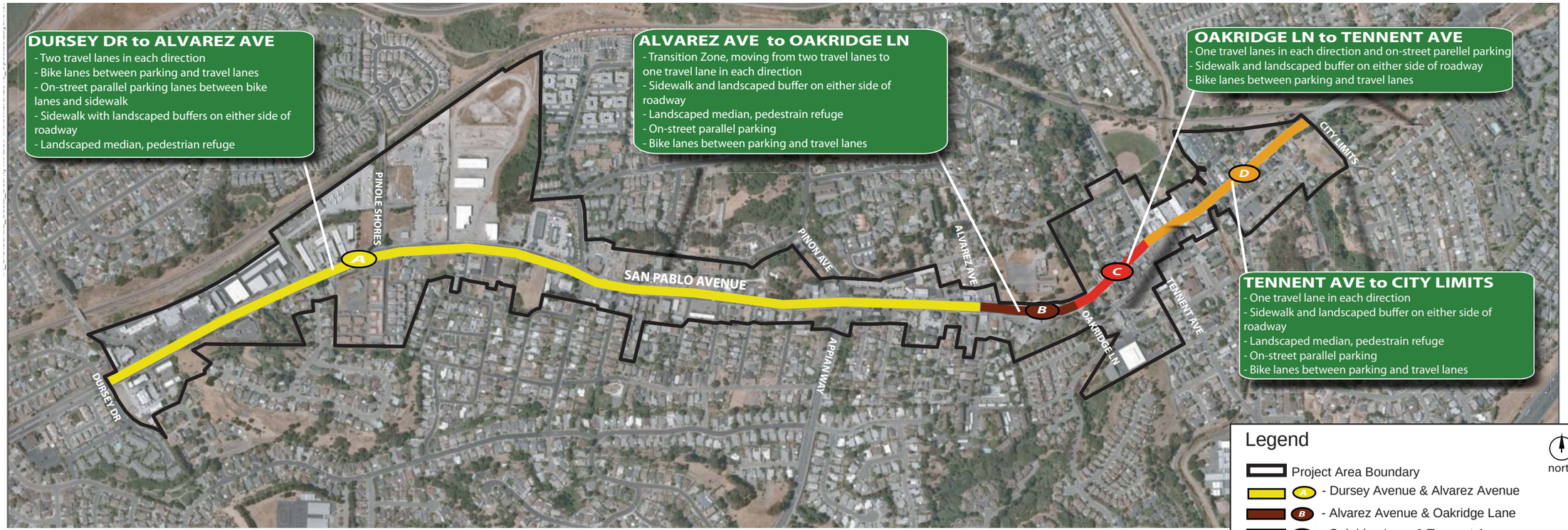
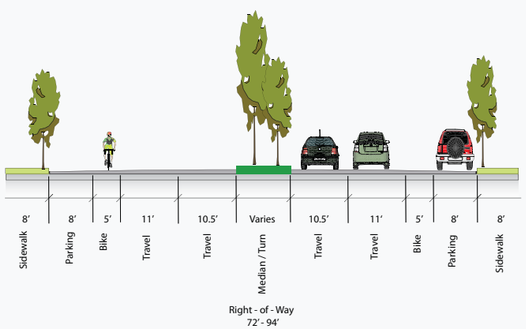
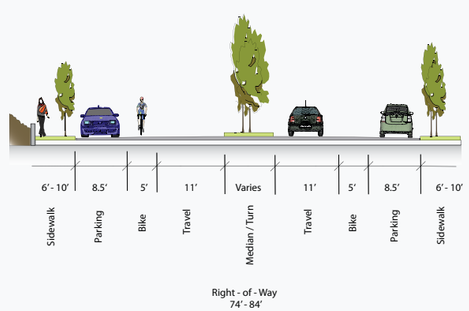


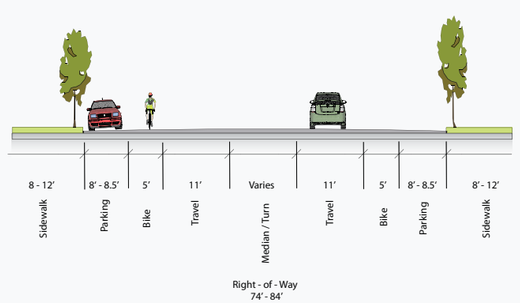
A - *Dursey Drive to Alvarez Avenue*
(see Figures 5.3 and 5.8)



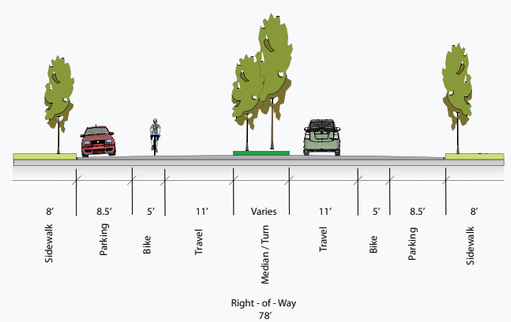
B - *Alvarez Avenue to Oakridge Lane*
(see Figures 5.3 and 5.9)



C - *Oakridge Lane to Tennent Avenue*
(see Figures 5.3, 5.4 and 5.10)



D - *Tennant Avenue to Pinole City Limits*
(see Figures 5.4, 5.5 and 5.11)



PINOLE *California*

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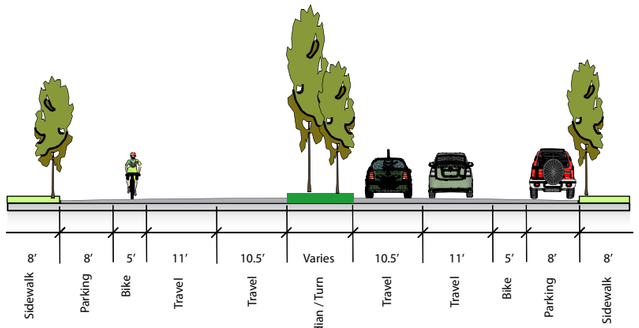
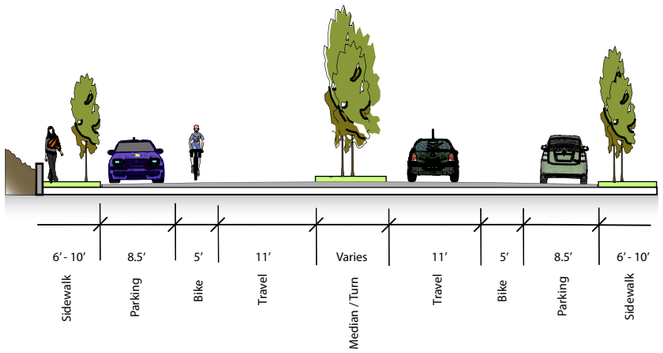
San Pablo Avenue Right-of-Way Design: Figure 5.2

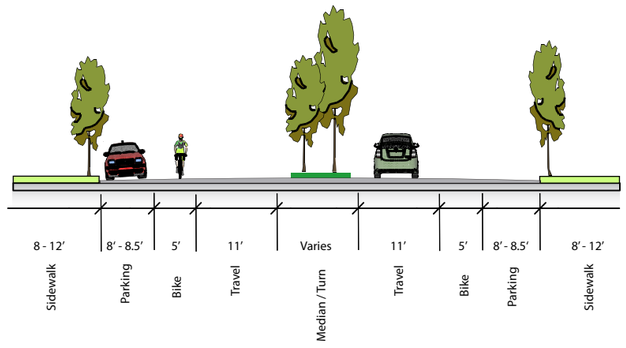
A Dursey Dr. - Alvarez Ave.



Right - of - Way
72′ - 94′

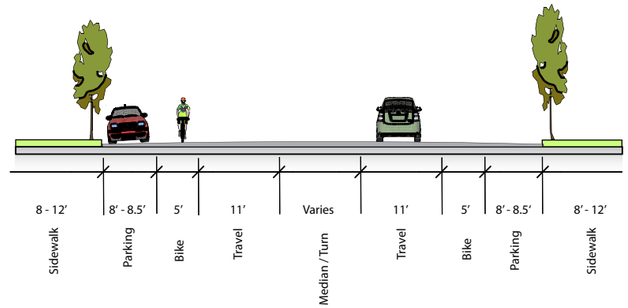
B TRANSITION ZONE
Alvarez Ave. - Oakridge Ln.





Right - of - Way
74′ - 84′

C Oakridge Ln. - Tennent Ave.



Right - of - Way
74′ - 84′

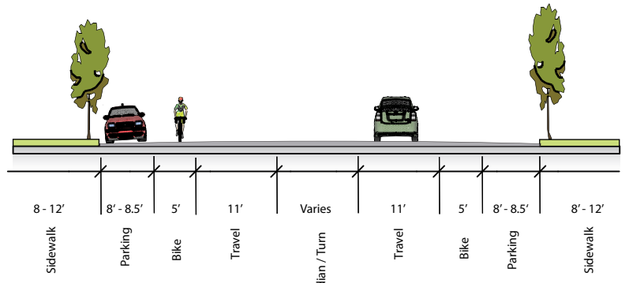
Laurel Ave.
Fern St.
Jones Ave.
Alvarez Ave.
Oak Ridge Ln.
WestCAT Bus Stop
WestCAT Bus Stop
north
Not to Scale

PINOLE
California

PMC

SAN PABLO AVENUE - RIGHT-OF-WAY TRANSITION: FIGURE 5.3

C — Oakridge Ln. - Tennent Ave.

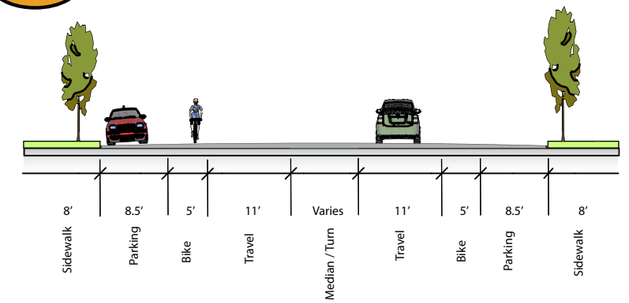


Right - of - Way
74′ - 84′

Tennent Ave.

Pinole Valley Rd.

D — Tennent Ave. - John St



Right - of - Way
78′

north

Not to Scale

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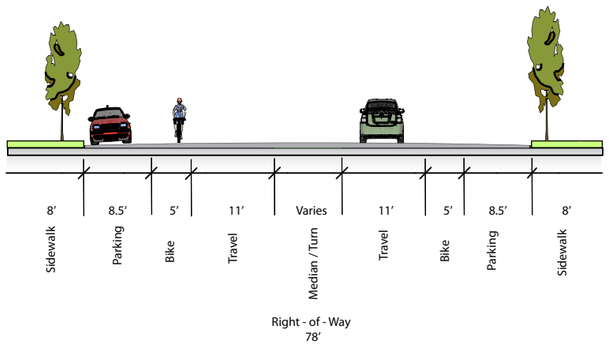
SAN PABLO AVENUE AT OLD TOWN- RIGHT-OF-WAY TRANSITION: FIGURE 5.4

D

Tennent Ave. - John St



City of Hercules
City of Pinole

City of Hercules
City of Pinole

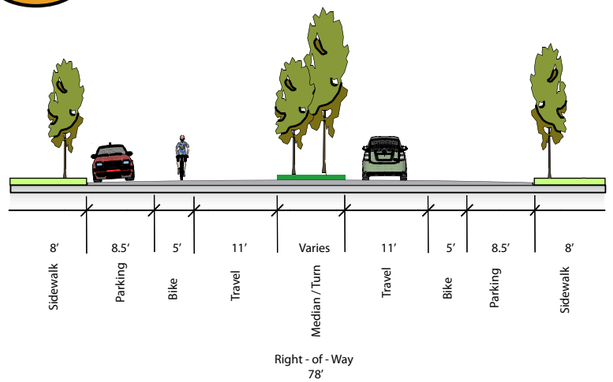
WestCAT Bus Stop

WestCAT Bus Stop

John St.

D

John St. - Pinole City Limits



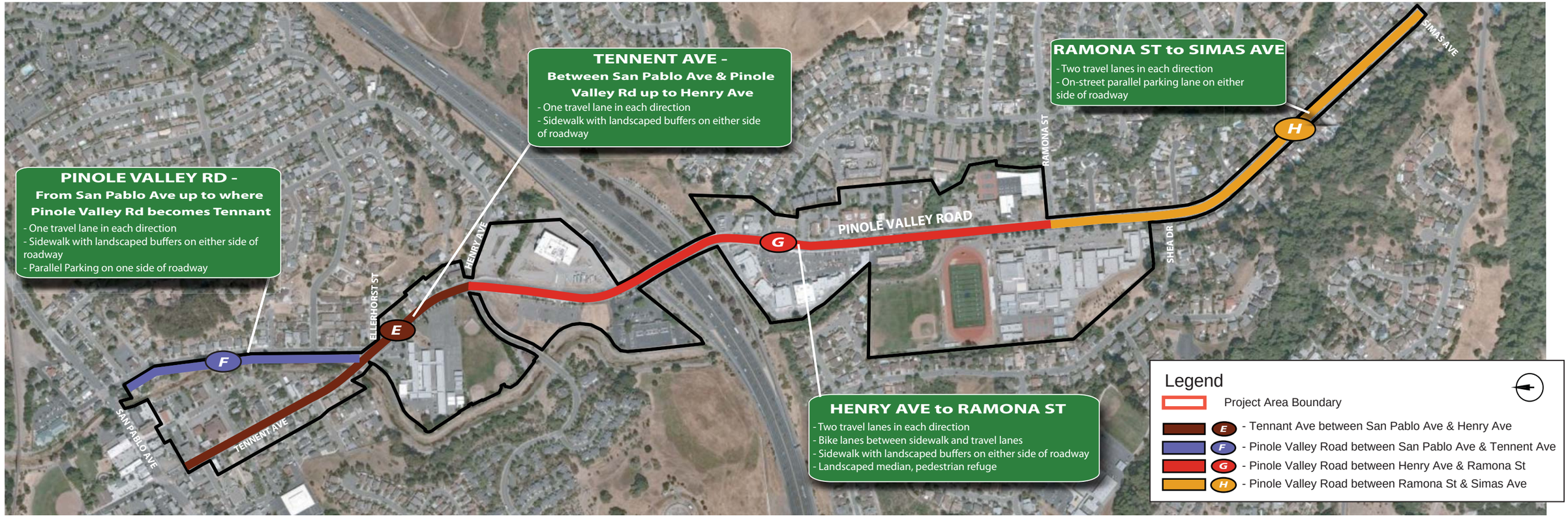
north

Not to Scale

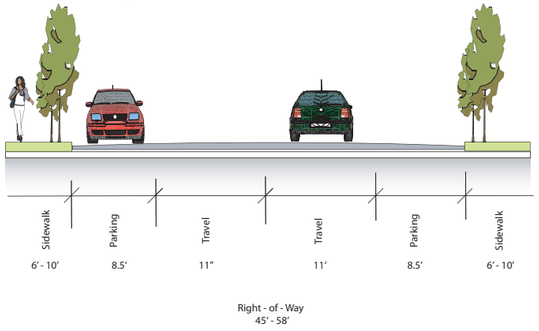
PINOLE
California

PMC

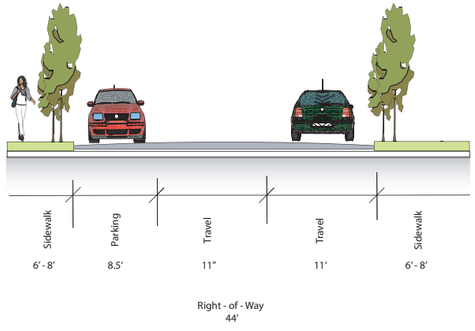
SAN PABLO AVENUE - RIGHT-OF-WAY TRANSITION: FIGURE 5.5



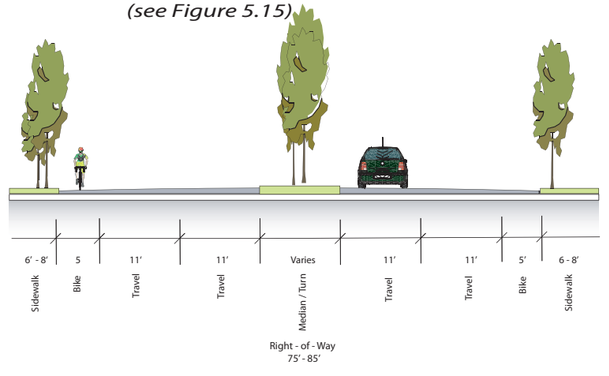
E - *Tennent Avenue between San Pablo Avenue & Henry Avenue*
(see Figure 5.13)



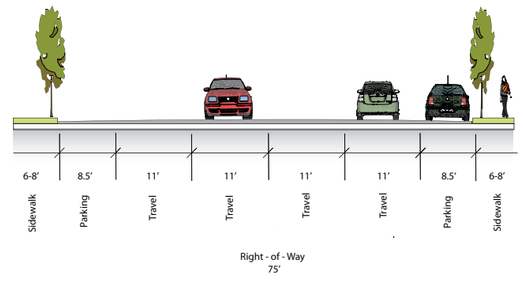
F - *San Pablo Avenue to Tennent Avenue*
(see Figure 5.14)



G - *Henry Avenue to Ramona Street*
(see Figure 5.15)



H - *Ramona Street to Simas Avenue*
(see Figure 5.16)



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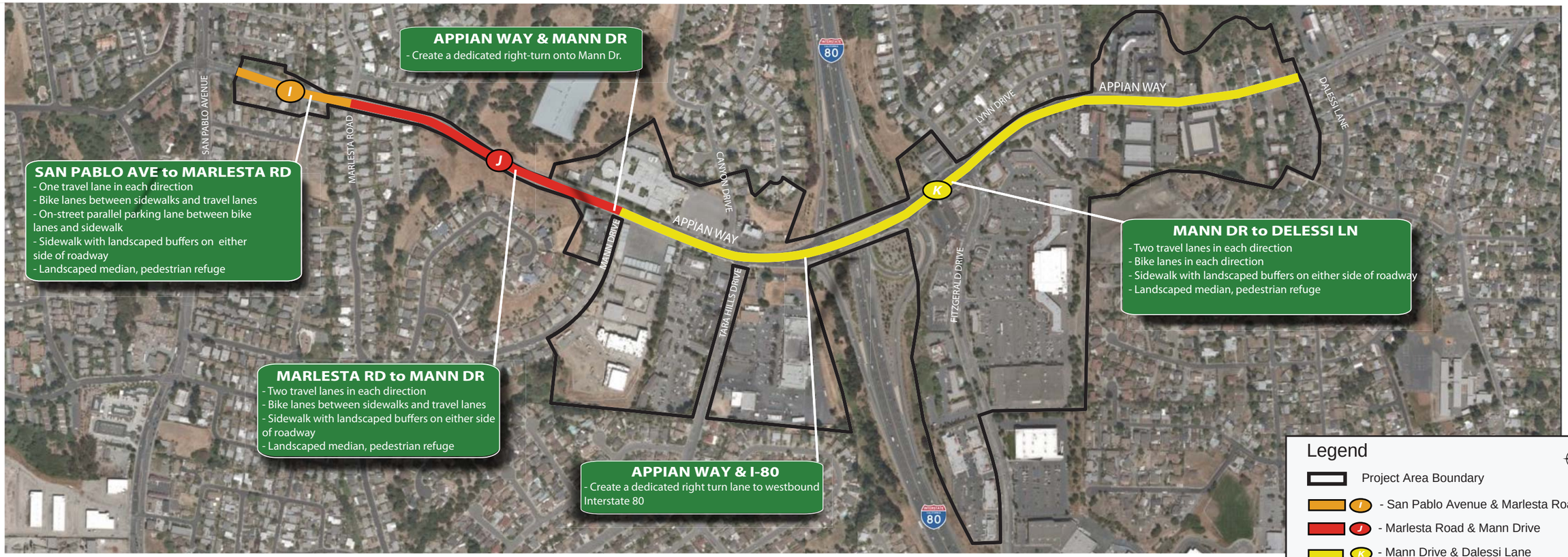
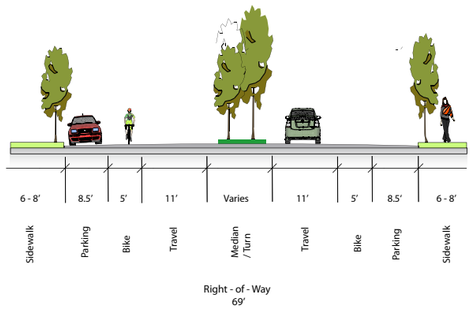
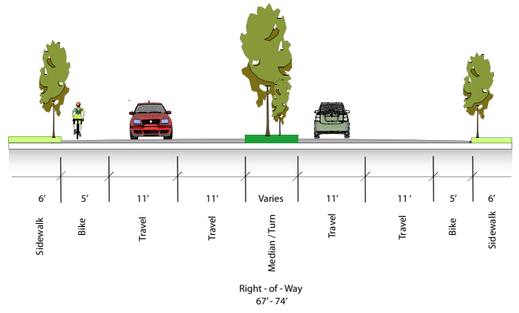
Pinole Valley Road Right-of-Way Design: Figure 5.6



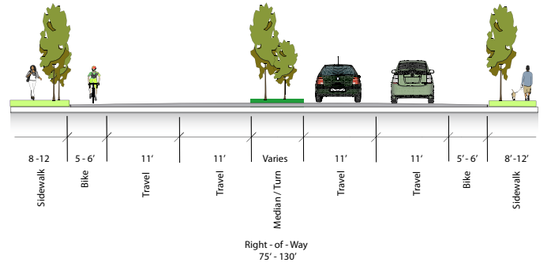
I - *San Pablo Avenue to Marlesta Road*
(see Figure 5.17)



J - *Marlesta Road to Mann Drive*
(see Figure 5.18)



K - *Mann Drive to Dalessi Lane*
(see Figure 5.19)



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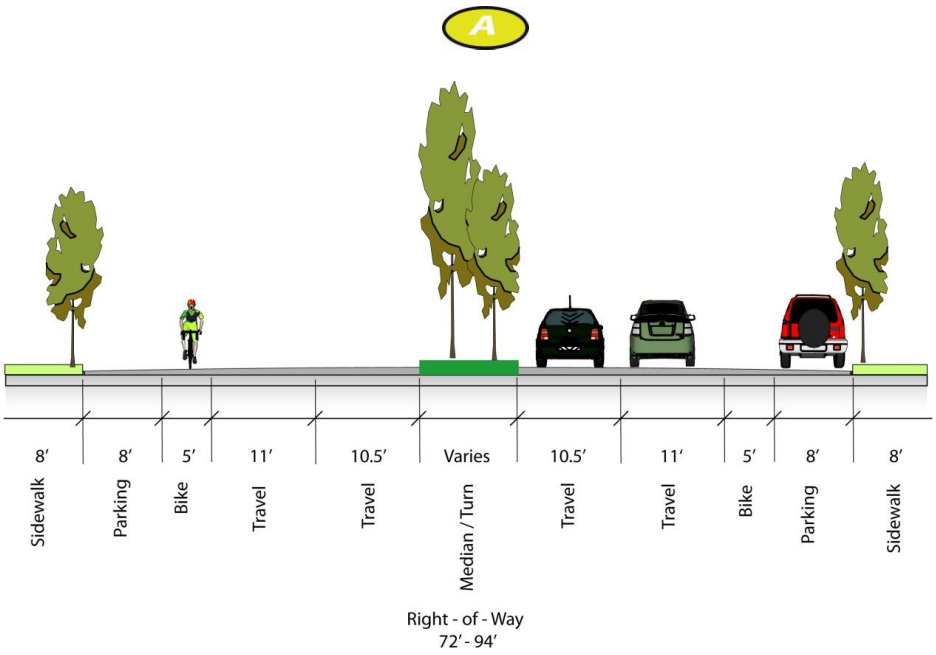
Appian Way Right-of-Way Design Figure 5.7

Figure 5.8
San Pablo Avenue - between Dursey Drive and Alvarez Avenue

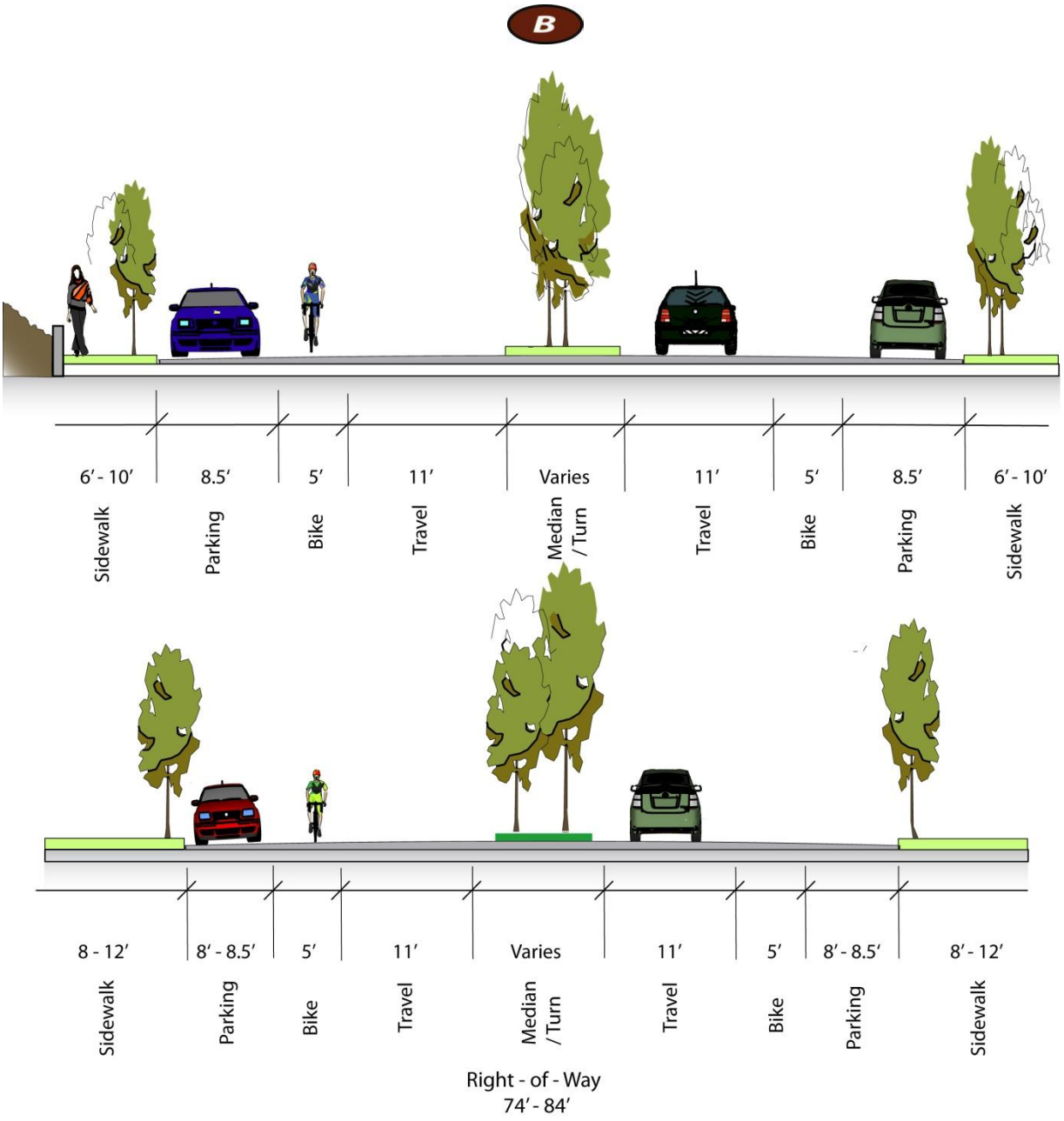


Proposed Street Statistics

Traffic Flow	Two Ways
Lane Width	10.5’ (inner travel lanes) 11’ (outer travel lanes)
Number of Lanes	2 Each Direction, with additional turn lanes
Median/ Turn	Yes
Median Width	Varies
Parking	Yes
Parking Width	8'
Sidewalk Width	8'
Bike Lane Width	5'

This section of San Pablo Road is one of the most traveled sections of roadway in Pinole. The improvements are designed to allow safe and efficient passage of all forms of transportation. A large median is meant to beautify the corridor and calm traffic. Bike lanes and on-street parking are permitted. Sidewalks are to be adequately landscaped in order to help buffer pedestrians from vehicular traffic.

Figure 5.9
San Pablo Avenue - between Alvarez Avenue and Oakridge Lane

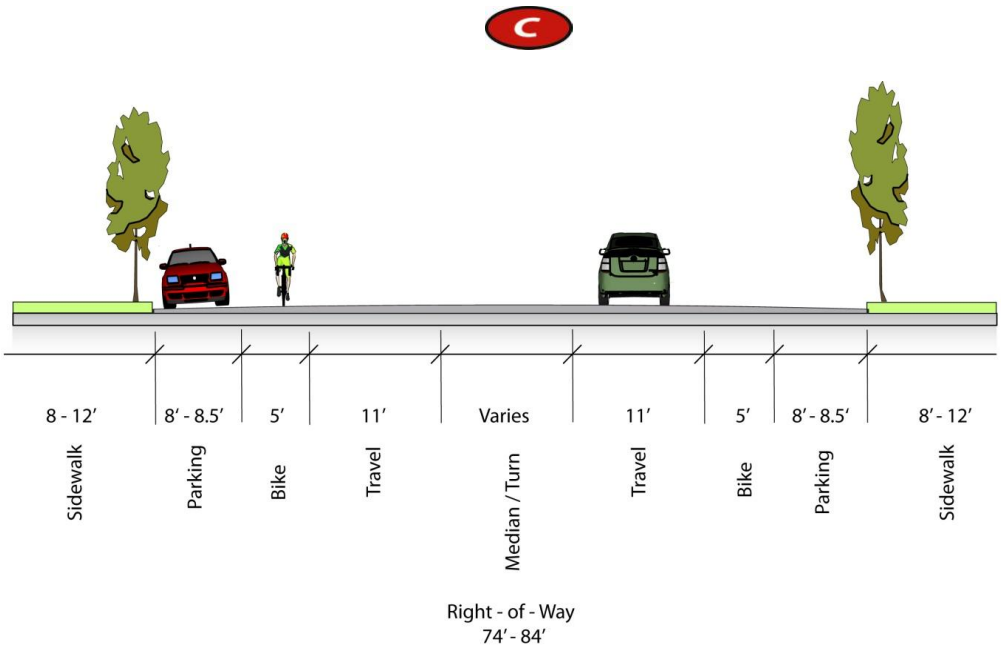


Proposed Street Statistics

Traffic Flow	Two Ways
Lane Width	11’
Number of Lanes	1 Each Direction
Median/ Turn	Yes
Median Width	Varies
Parking	Yes
Parking Width	8’ - 8.5’
Sidewalk Width	6' – 10’ & 8’ – 12’
Bike Lane Width	5’

This section of San Pablo Avenue is a transition point from Old Town to a more freely flowing San Pablo Avenue. On-Street Parking is permitted. Sidewalks are to be adequately landscaped in order to help buffer pedestrians from vehicular traffic.

Figure 5.10
San Pablo Avenue – between Oakridge Lane and Tennent Avenue

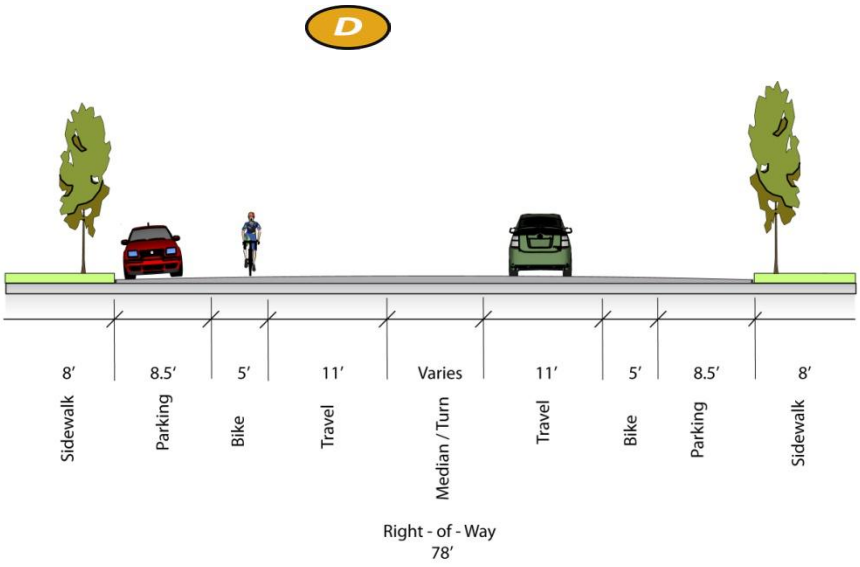


Proposed Street Statistics

Traffic Flow	Two Ways
Lane Width	11’
Number of Lanes	1 Each Direction
Median/ Turn	Yes
Median Width	Varies
Parking	Yes
Parking Width	8’ – 8.5’
Sidewalk Width	8 – 12''
Bike Lane Width	5’

The character of this section of San Pablo Avenue is meant to preserve the historic character of Old Town and provide on-street parking for business patrons. This segment will include “choke points” to slow traffic and accommodate parallel parking that is permitted on both side of the roadway in this section of San Pablo Avenue.

Figure 5.11
San Pablo Avenue - between Tennent Avenue and John Street

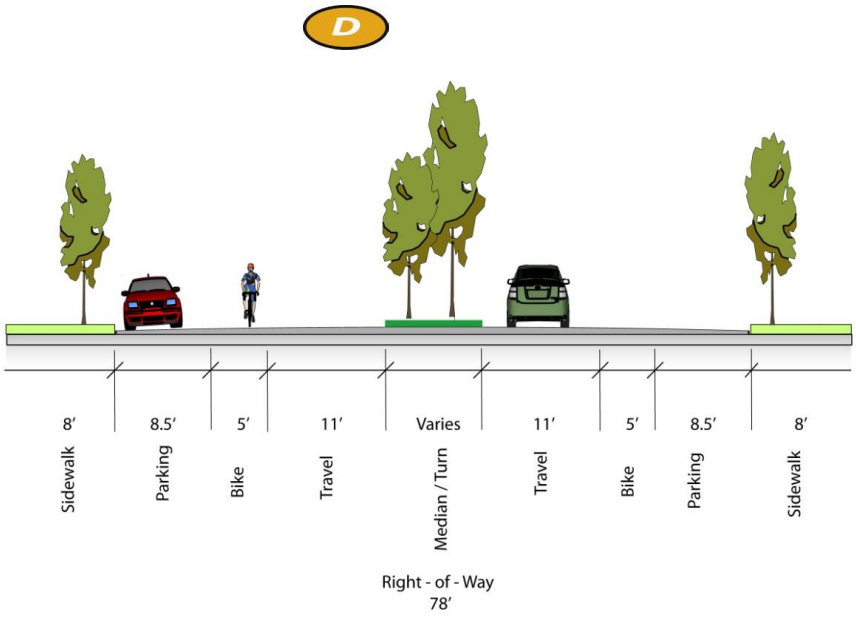


Proposed Street Statistics

Traffic Flow	Two Ways
Lane Width	11'
Number of Lanes	1 Each Direction
Median/ Turn	Yes
Median Width	Varies
Parking	Yes
Parking Width	8.5'
Sidewalk Width	8'
Bike Lane Width	5'

The character of this section of San Pablo Avenue is meant to preserve the historic character of Old Town. Parallel parking is permitted on both sides of the roadway in this section of San Pablo Avenue.

Figure 5.12
San Pablo Avenue - between John Street and Pinole City Limits

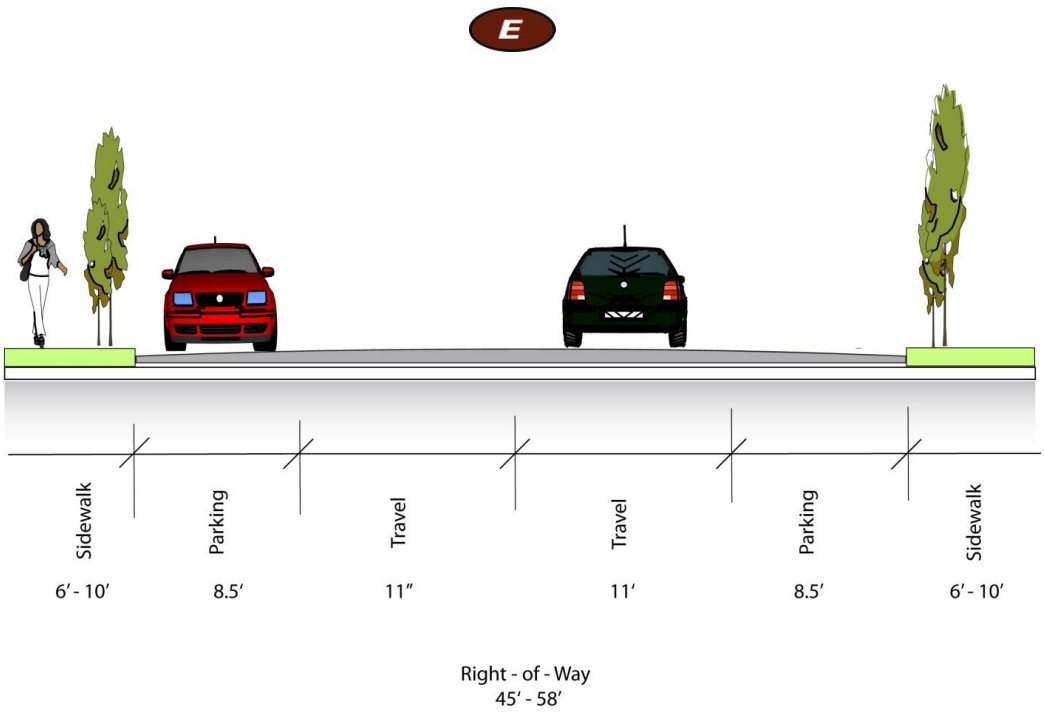


Proposed Street Statistics

Traffic Flow	Two Ways
Lane Width	11'
Number of Lanes	1 Each Direction
Median/ Turn	Yes
Median Width	Varies
Parking	Yes
Parking Width	8.5'
Sidewalk Width	8'
Bike Lane Width	5'

The character of this section of San Pablo Avenue includes a landscaped median to create an entry statement for visitors to Old Town. Parallel parking that is permitted on both side of the roadway in this section of San Pablo Avenue.

Figure 5.13
Tennent Avenue - between San Pablo Avenue and Henry Avenue

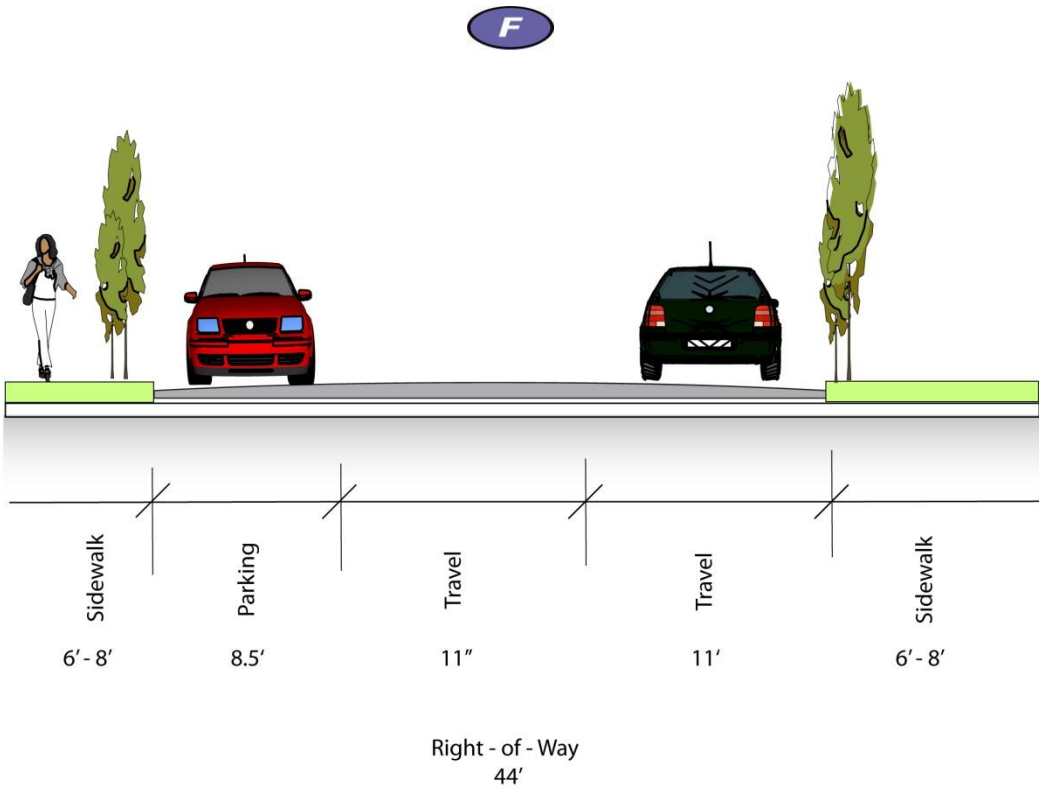


Proposed Street Statistics

Traffic Flow	Two Ways
Lane Width	11’
Number of Lanes	1 Each Direction
Median	No
Median Width	NA
Parking	Yes
Parking Width	8.5’
Sidewalk Width	6’ – 10’
Bike Lane Width	NA

This section of Tennent Avenue is designed to preserve the historic character of Old Town. Here the street widths narrow to slow traffic and accommodate the narrow right-of-way. Parallel parking is permitted on both sides of the roadway where feasible in this section of Tennent Avenue. Where Tennent Avenue narrows, parallel parking shall continue on the west side of the roadway.

Figure 5.14
Pinole Valley Road - between San Pablo Avenue and Tennent Avenue

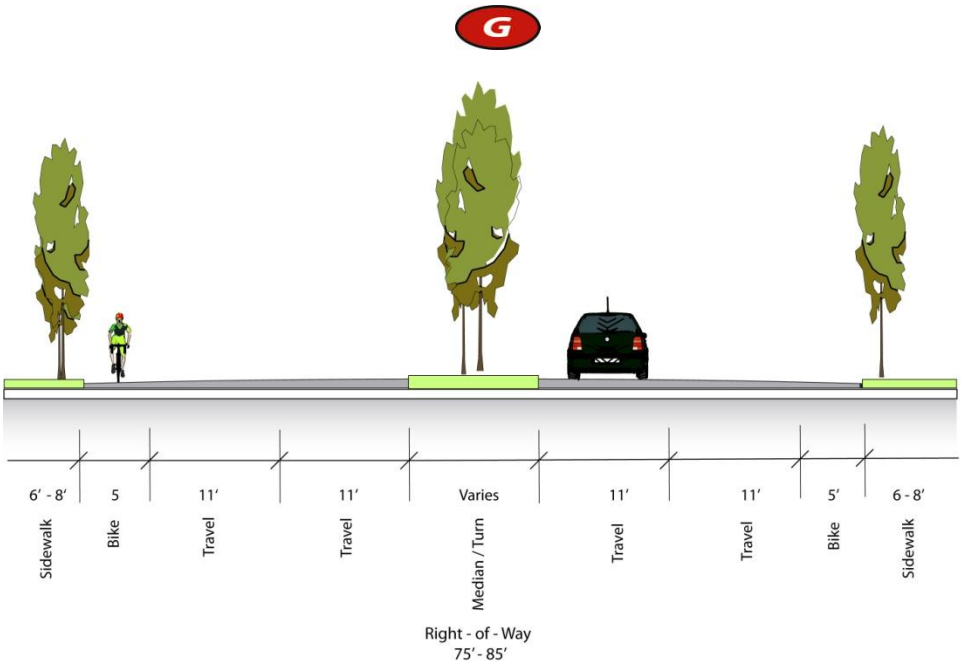


Proposed Street Statistics

Traffic Flow	Two Ways
Lane Width	11’
Number of Lanes	1 Each Direction
Median	No
Median Width	NA
Parking	Yes, on east side of roadway
Parking Width	8.5'
Sidewalk Width	6’ – 8’
Bike Lane Width	NA

This section of Pinole Valley Road runs through the heart of Old Town Pinole and will maintain the smaller quaint streets that are currently present here. The continued on-street parking here will separate the pedestrian environment from vehicular traffic.

Figure 5.15
Pinole Valley Road - between Henry Avenue and Ramona Street

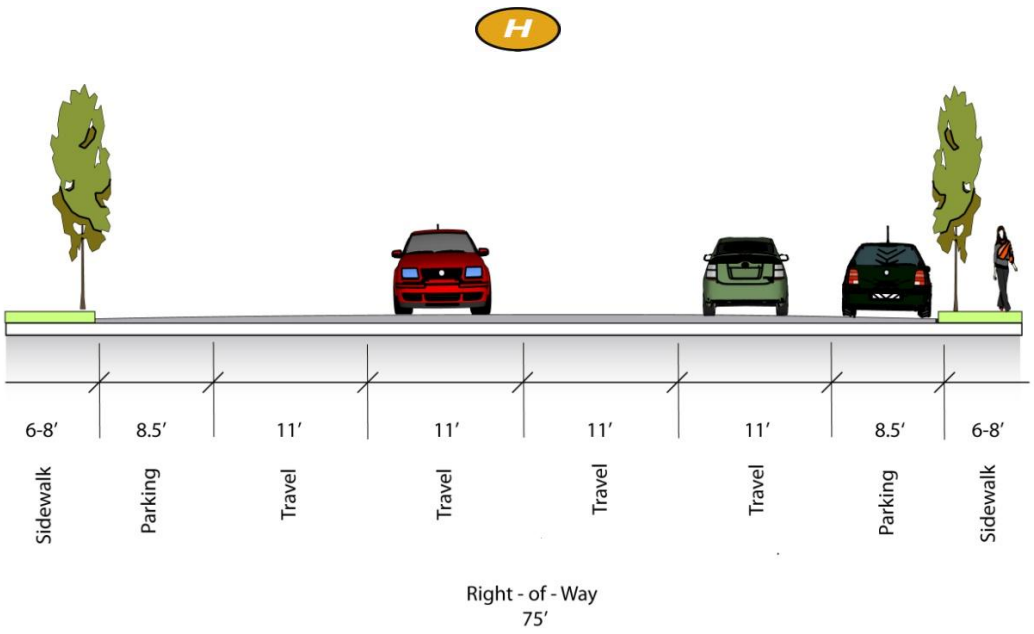


Proposed Street Statistics

Traffic Flow	Two Ways
Lane Width	11'
Number of Lanes	2 Each Direction
Median / Turn	Yes
Median Width	Varies
Parking	No
Parking Width	NA
Sidewalk Width	6 – 8''
Bike Lane Width	5'

This section of Pinole Valley Road exemplifies a more institutional character of Pinole. Street parking is not permitted in this section of Pinole Valley Road and turn lanes become more prevalent. Bicycle lanes are located in both directions and the sidewalks are to be landscaped in order to buffer the pedestrian from vehicular traffic.

Figure 5.16
Pinole Valley Road - between Ramona Street and Simas Avenue

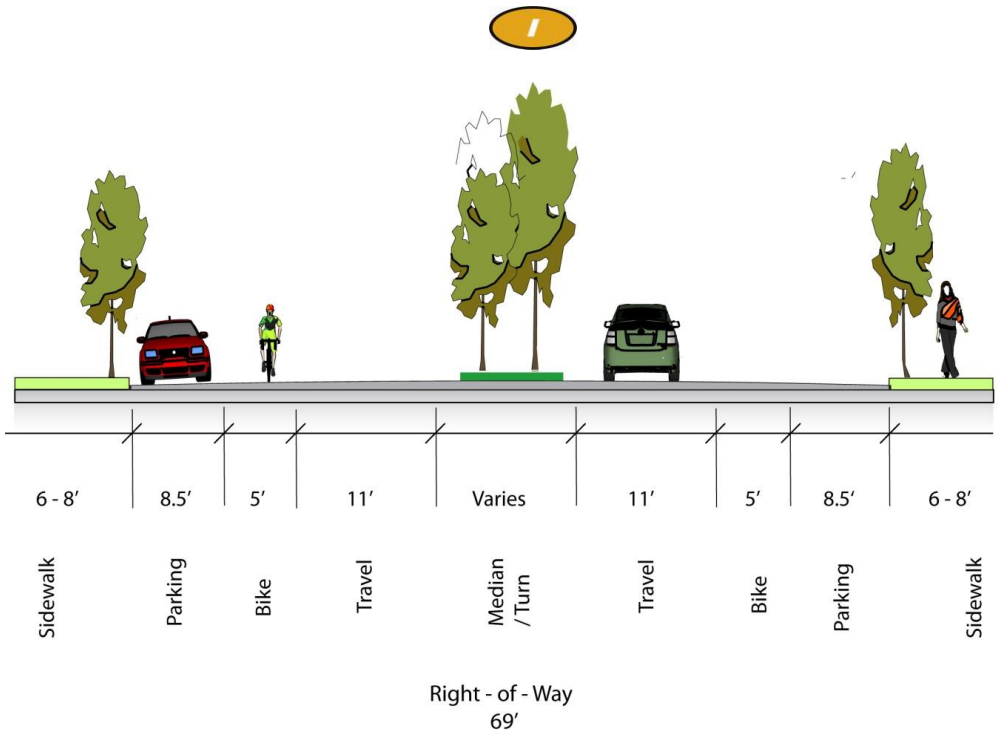


Proposed Street Statistics

Traffic Flow	Two Ways
Lane Width	11'
Number of Lanes	2 Each Direction
Median	No
Median Width	NA
Parking	Yes
Parking Width	8.5'
Sidewalk Width	6'
Bike Lane Width	NA

This section of Pinole Valley Road exemplifies a residential character and provides a transition between the rural lands at the southern edge of the City and the more developed community core. Bicycles will begin sharing the road with automobiles, and parallel parking is allowed on both sides of the roadway for this segment of Pinole Valley Road. The sidewalks here are adequately landscaped in order to make pedestrians' feel buffered from vehicular traffic.

Figure 5.17
Appian Way - between San Pablo Avenue and Marlesta Road

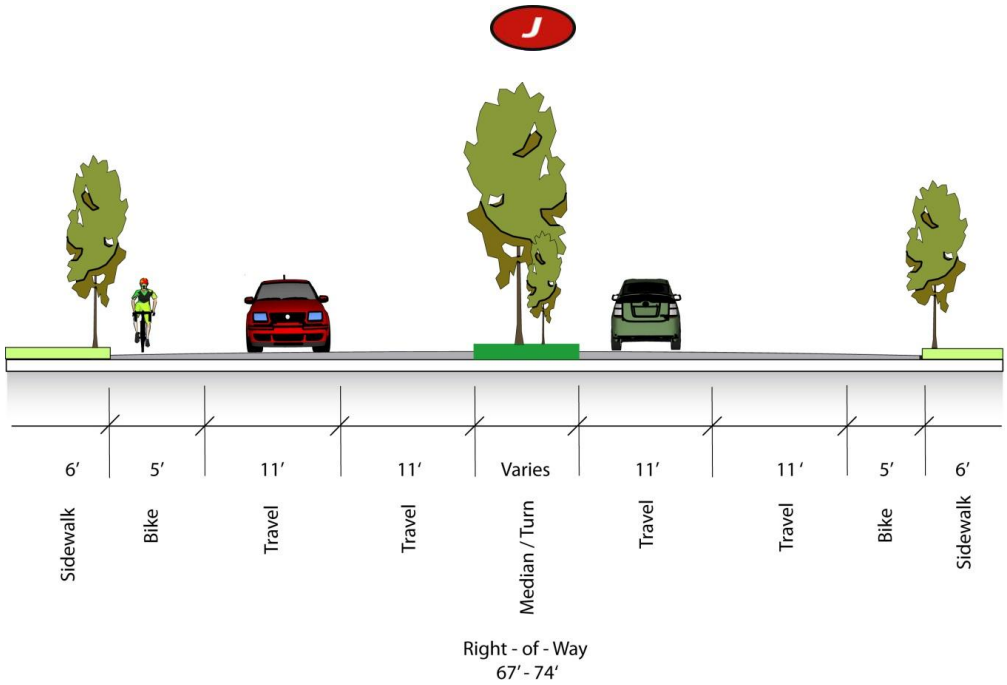


Proposed Street Statistics

Traffic Flow	Two Ways
Lane Width	11'
Number of Lanes	1 Each Direction with additional turn lanes
Median/ Turn	Yes
Median Width	Varies
Parking	Yes
Parking Width	8.5’
Sidewalk Width	6' – 8’
Bike Lane Width	5’’

This section of Appian Way narrows to intersect with San Pablo Avenue. Bicycle and pedestrian access is accommodated on both sides of the roadway, as is on-street parking.

Figure 5.18
Appian Way - between Marlesta Road and Mann Drive

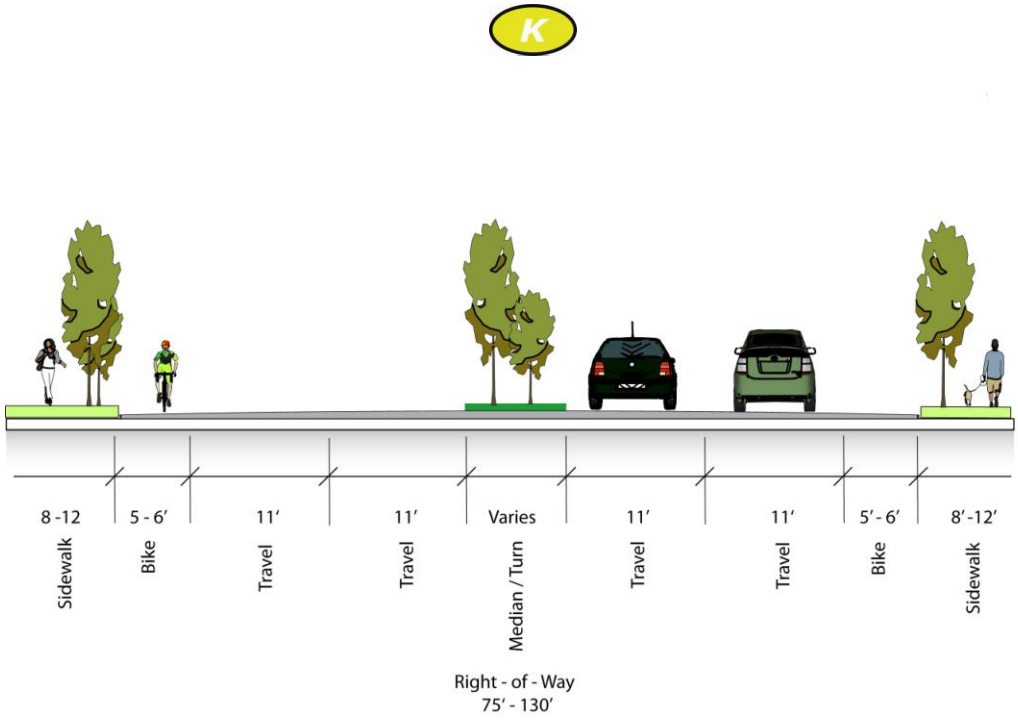


Proposed Street Statistics

Traffic Flow	Two Ways
Lane Width	11'
Number of Lanes	2 Each Direction with additional turn lanes
Median/ Turn	Yes
Median Width	Varies
Parking	No
Parking Width	NA
Sidewalk Width	6'
Bike Lane Width	5'

This section of Appian Way is a transition point that seeks to slow higher speed traffic as it approaches San Pablo Avenue. Sidewalks narrow to accommodate the narrowing Right-of-Way. No on-street parking is permitted.

Figure 5.19
Appian Way - between Mann Drive and Dalessi Lane Intersection



Proposed Street Statistics

Traffic Flow	Two Ways
Lane Width	11'
Number of Lanes	2 Each Direction
Median/ Turn	Yes
Median Width	Varies
Parking	No
Parking Width	NA
Sidewalk Width	8' -12'
Bike Lane	5' - 6'

As a main thorough fare in Pinole, improvements for this section of Appian Way strive to maintain vehicular traffic movement while beautifying this section with a tree lined median. Bike Lanes are proposed to allow additional modes of transportation on both sides of Appian Way. The sidewalk area is to be landscaped in order to help buffer pedestrians from vehicular movement.

5.4 PARKING

Generally, parking demands within the Specific Plan Areas will be accommodated primarily by off-street parking and to a lesser degree on-street. On-street parking also functions to buffer pedestrian zones and acts as a natural traffic-calming feature.

The Old Town sub-district of the Specific Plan differs from all other Specific Plan Areas. Currently Old Town Parking standards are governed by the Old Town Parking Overlay District. The overlay allows for shared parking between public and private projects, making it more feasible to redevelop existing buildings into a mix of uses. Old Town Overlay District standards will be sufficient for some time into the future in creating adequate parking for patrons to reach their destination within 1 – 2 blocks.

It is envisioned however, that Old Town will become a shopping and entertainment destination with a lively street and a mix of land uses. The Specific Plan is suggesting an intensification of development in the Old Town area, creating an increased demand for off-street parking. There are opportunities within the Old Town Sub-District to provide a parking structure and it is suggested in the implementation section of this plan that the City studies the possibility of building a public parking structure within Old Town Pinole to accommodate more intense development and business activity in this area.

5.5 PUBLIC TRANSPORTATION

Transit systems provide a motorized alternative to private vehicles. They serve citizens who cannot drive or chose not to drive, including senior citizens, residents with limited mobility, people under the age of 16, residents with no driver's licenses or suspended driving licenses, people who cannot afford a vehicle, and citizens opting to live a less car-dependent lifestyle. Currently transit service in Pinole is limited to bus service with a limited number of lines and infrequent service outside of peak commute periods. Citizens of Pinole are forced to rely too heavily on the private automobile, thereby limiting circulation options for youths and others who don't drive, and contributing to traffic congestion, and greenhouse gas emissions.

BUS SERVICE

Pinole is served by two bus transit agencies, the Western Contra Costa Transit Authority (WestCAT) and the Alameda Contra Costa Transit Authority (AC Transit).

CIRCULATION

WestCAT operates seven fixed-route services that serve Pinole. Additionally, WestCAT operates an express bus service, the JPX, to El Cerrito BART and an express bus service, the Lynx, to San Francisco from the Hercules Transit Center. WestCAT also operates a dial-a-ride paratransit service for seniors and the disabled. All fixed route busses are equipped with front-loading racks that can hold up to two bicycles. WestCAT's portable route map contains information on bus stop locations, routes, and fixed route bus schedules.

AC Transit operates 2 fixed-route services in southern Pinole, Route 70 (Appian) and Route 376 (North Richmond Night). AC Transit also operates dial-a-ride paratransit services for seniors and the disabled in southern Pinole. Busses are equipped with front-loading racks that can hold up to two bicycles.

PASSENGER RAIL SERVICE

The San Francisco Bay Area Rapid Transit District (BART) provides heavy-rail, 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. BART's direct service from this station includes the Richmond/Fremont line, with trains every 15 minutes during the weekday until 7:00 PM and every 20 minutes during evening weekday times and the weekend. This train line runs until midnight everyday, with weekday, Saturday, and Sunday service beginning at 4:15 AM, 6:00 AM, and 8:00 AM, respectively. The Richmond/San Francisco line also runs with trains every 15 minutes during the weekday until 7:00 PM and every 20 minutes on Saturday until 6:00 PM. Connections to the Fremont/San Francisco line, Pittsburgh/Daly City line, and the Dublin-Pleasanton/Millbrae line can be made at various points throughout the system.

Amtrak operates passenger rail service for three routes that traverse western Contra Costa County. While there is no station in Pinole, the closest station is an unmanned Amtrak station at the Richmond BART station 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 Zephyr, an interstate service serving Emeryville/ Chicago.

FERRY SERVICE

There is currently no ferry service offered in western Contra Costa County. Ferry service to San Francisco is provided by Baylink from Vallejo and by East Bay Ferry from Oakland. Weekday service is provided from about 6:00 AM into the evening hours at 30- to 100-minute intervals and weekend service is provided from 10:00 AM to 6:30 PM at 60- to 120-minute intervals. There are plans to build a ferry station in Richmond and a multi-modal ferry and Amtrak station in neighboring Hercules.

TRANSIT IMPROVEMENTS

The City of Pinole should continue to coordinate transit operations with Regional Transit Agencies and the West Contra Costa County Transit Authority to enhance the existing transit service. The following recommendations would enhance the existing transit service within the Specific Plan Area:

- Develop neighborhood bus service connectivity within the Specific Plan Areas
- Identify new transit stops near pulse point destinations
- Develop services that connect residents to local employment centers
- Upgrade amenities at transit stops
- Sheltered structures
- Wayfinding signage
- Real-time boarding schedules
- Pedestrian and bicycle accessible

5.6 BICYCLE FACILITIES

Bicycles are an important component to any mobility plan. Bicycle facilities create recreational opportunities that contribute to the quality of life in Pinole, and provide a viable, cost effective, and environmentally sensitive form of transportation. In the event that there is not physical room to provide bicycle lanes in segments of the corridor, other improvements and facilities can still be installed to support bicycle use.

CIRCULATION

The concept of 'Shared Lanes' has increased in popularity recently with the new approaches to traffic controls. 'Sharrows,' or 'Shared Lane Bicycle Stencils' have been developed and used in California to allow 13 to 15 foot outside lanes to function as both bikeways and vehicle travel lanes. These markings can reduce vehicle speeds along the roadway and reinforce proper lane positioning for both vehicles and bicycles, thus increasing overall safety.

Off-street facilities for bicycles (bicycle parking) are also integral to cyclists for accessibility and encouragement. Convenient bicycle parking shall be provided at all major destinations, in Old Town, and at public parks. Bicycle racks shall be placed along the street where appropriate and provided in parking lots at 5 percent of the number of vehicle stalls. Racks in off-street locations shall be visible and well lit to discourage theft or vandalism and be placed to be convenient to the cyclist.

New streets within the Specific Plan Areas should feature Class II bike lanes on roadways that provide direct connection to other major destinations. The bicycling experience can be enhanced through the use of the following treatments:

- Develop a bicycle wayfinding system – provides direction to bicyclists in finding connecting Class I or II facilities and key destinations of interest.
- Advance bike loop detectors – can actuate traffic signals in situations where a side street has a rest on red phase.
- Colored bicycle lanes – increase the visibility of cyclists in areas of high potential conflict between motorists and cyclists.
- Bicycle shared use arrow – reducing wrong-way riding, riding on the sidewalk, and places the bicyclist outside the door zone.

5.7 PEDESTRIAN CIRCULATION

Emphasis should be placed on creating pedestrians facilities that are not only safe and functional, but that create a sense of place within the Specific Plan Areas. Pedestrian amenities should be compatible with adjacent land uses and provide opportunities for public interaction. Pedestrian facilities should be buffered from the adjacent travel lanes by use of parkway strips and street trees.

The following pedestrian treatments are recommended to enhance pedestrian facilities within the Specific Plan Areas.

INTERSECTION TREATMENTS

The following intersection treatments are recommended where intersection crossing distances are greater than 60 feet:

- Center median pedestrian refuge – Create a two stage crossing for pedestrians by only having to cross one-half of the roadway at a time. Center median pedestrian refuges should be a minimum of four feet wide but preferably six to eight feet wide.

- Reduce intersection corner radii – Minimize the intersection corner radii to 25 feet where heavy vehicle turning movements are infrequent. For a larger corner radius designs necessary to accommodate high heavy vehicle turning movements, right-turn pedestrian refuge islands should be considered.

- Eliminate “free” right turn lanes at all intersections.

- Right-turn pedestrian refuge island – Provide a multi-stage crossing for pedestrians and create a shorter walking distance where large corner radii are necessary. The schematic to the right illustrates a right-turn pedestrian refuge island.

MID-BLOCK CROSSINGS

Mid-block pedestrian crossings should be considered where block lengths are greater than 800 feet. Midblock crosswalks should be located where sufficient demand exists to justify the installation of a crosswalk, and must be designed to ensure safe access.

The decision to install mid-block crossings will be made by the Public Works Director based on a location specific engineering study. Candidate crossing locations should:

- meet applicable sight distance requirements
- be located an appropriate distance from the nearest crossing
- channelize potential jaywalkers
- incorporate appropriate safety measures in locations that experience high traffic volumes or speeds.

The following treatments are recommended to enhance the visibility of mid-block crossings:

- High visibility crosswalks – Use unique striping designs to draw motorists' attention to the crossing location.
- Split pedestrian crossover – Provide pedestrian refuge areas that channel pedestrians across a roadway in two stages by first crossing one half of the street, entering a center island at one end, walking towards the flow of traffic, and exiting at the other end to cross the second half of the street.
- Pedestrian activated signals – Provide a controlled mid-block pedestrian crossing.

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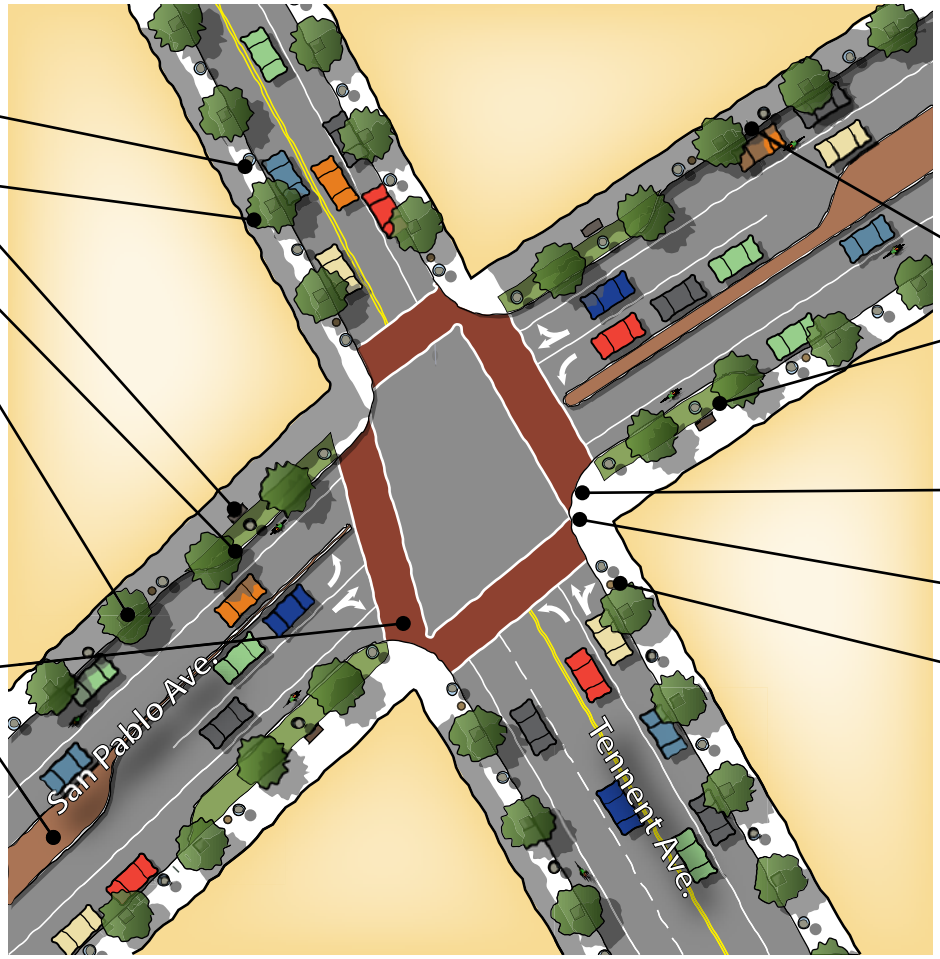

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Intersection Improvements
San Pablo Avenue and Tennent Avenue: Figure: 5.20

TRAFFIC CALMING MEASURES

The potential configurations described below attempt to balance the need to effectively moderate vehicle speeds and improve the pedestrian environment. They also seek to maintain acceptable multi-modal circulation for bicyclists, pedestrians, vehicles, and mass transit.

These traffic calming tools include narrowing of traffic lanes, adding median refuge islands where appropriate, adding Public Realm Design Guidelines corner curb extensions or "bulbouts", adding accent paving at crosswalks, and improving pedestrian crosswalk signals. Chapter VII - Public Realm Design Guidelines of this Specific Plan offers guidelines for implementing these traffic calming tools.

Narrowed Travel Lanes

Narrowing travel lanes is an effective tool to regulate vehicle speeds. Drivers have been found to travel more slowly on streets with lane widths of 10 to 11 feet versus more typical 12-foot lane widths. The effect is largely psychological. Narrower travel lanes require more attention from drivers and are often used in environments where calmer traffic speeds are desired. In addition even narrower streets are effective in downtown environments with a higher degree of potential conflicts, such as pedestrians, frequent movements to and from side streets, and vehicles making parking maneuvers.

Narrower lanes also have the benefit of reducing pedestrian crossing distances and freeing up space for other uses such as parking, bike lanes, medians, and widened sidewalks and the pedestrian environment. Many portions of the three Specific Plan sub-areas would benefit from a decrease in lane size.

Refuge Islands

Medians can be used to create pedestrian "refuge islands" that reduce the number of lanes a pedestrian must cross at one time. Refuge islands are extensions of the median that create a protected crosswalk area in the middle of the street. There are many areas throughout the Specific Plan Areas that could be improved for pedestrians by in building these pedestrian friendly spaces.

Bulbouts

The use of curb extensions or "bulbouts" is suggested at selected intersections Old Town Pinole and other appropriate sections of the Specific Plan Areas. Bulbouts extend the curbs to widen the

sidewalk area at crosswalk locations. This reduces the distance that pedestrian must cross. Drainage issues with bulbouts are an important concern, particularly in topographically undesirable potions of Pinole where there is the potential for excessive storm water build up. So where gutter flow cannot be accommodated around the perimeter of the bulbout, it may be necessary to incorporate features such as removable grates or parkway drains to facilitate water flow.

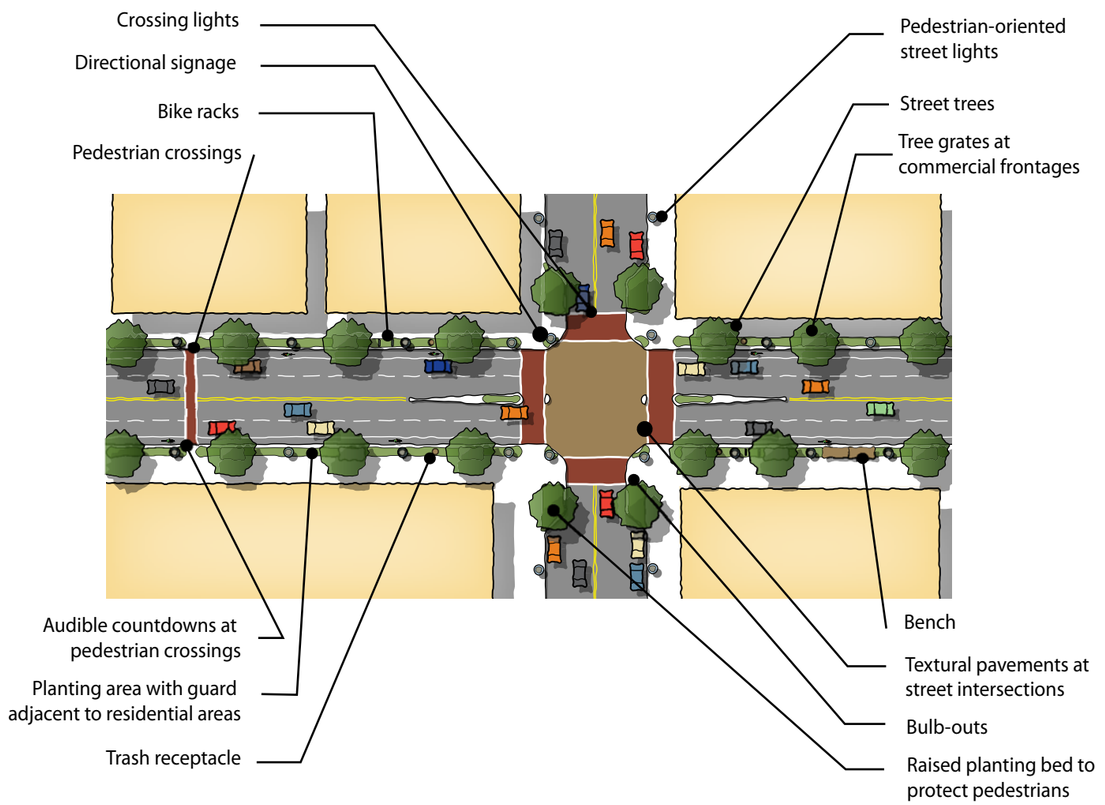
Street Trees

Street trees are a necessary component of great cities throughout the nation and offer an aesthetic alternative to the wide-open speedway feeling of a treeless arterial. Street trees planted at the sidewalk edge, or in medians, have a traffic calming effect as they create a visually enclosed and perceptually narrower street scene while simultaneously creating a pedestrian environment. Additionally they have the added benefit of reducing the effects of urban heat islands.

Pedestrian Crosswalk Signals

Improvements to crosswalk signals such as audible pedestrian crosswalk signals, and manually-triggered crosswalks can increase safety at pedestrian crossings. In-street crossing lights give motorists a visual heightened awareness of pedestrians, which in turn, can slow traffic; audible pedestrian crosswalk signals can improve safety for the visually impaired; and manually-triggered crosswalks can improve pedestrian and vehicular traffic flow. See public realm (Chapter 6) for additional information on pedestrian crossings.

In preparing street improvement opportunities, focus was given to creating a street environment that encourages lower speeds, thereby creating a safer and more enjoyable environment for pedestrians in the Specific Plan Area. However, this is a challenging task given the high traffic volumes in some of the Specific Plan Areas. Where traffic volumes are high and streets maybe to wide to navigate safely, crosswalk signals should be limits to traffic lights.



Streetscape Elements Palette:

Paving Materials

Sidewalks - Patterned Concrete

Crosswalks - Brick/Paver on Concrete

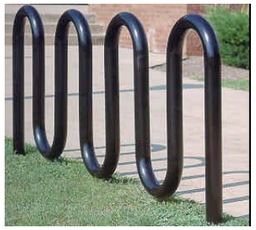
Intersections - Brick/Paver on Concrete

Medians - Level Stamped Asphalt

Street Furniture

Streetlights - Ornamental

Benches



Bike Racks

Trash Cans

Landscaping

Tree Grates

Median Landscaping

Signage

Wayfinding Sign

Banner Sign

Gateway Treatments