

Town of Fairfax

PEDESTRIAN AND BICYCLE MASTER PLAN

February 2008 Update



Prepared by

Alta Planning + Design

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1. INTRODUCTION

The 2008 Fairfax Bicycle and Pedestrian Master Plan update provides for a town-wide network of bicycle paths, lanes and routes, along with bicycle-related programs and support facilities, intended to ensure bicycling becomes a viable transportation option for people who live, work and recreate in Fairfax. Current bikeway network information was gathered from meetings with the Fairfax Bicycle/Pedestrian Advisory Committee (BPAC) and Town staff, combined with information on proposed routes from the previously adopted Town of Fairfax Bicycle and Pedestrian Master Plan (2001). Relevant bikeway information was also gathered from the Marin County Unincorporated Area Bicycle and Pedestrian Master Plan (2001).

The purpose of this Bicycle and Pedestrian Master Plan is to improve bicycle and pedestrian transportation in Fairfax, in part by meeting the requirements of the California Bicycle-Transportation Act, which requirements are contained in Section 890 of the California Streets and Highways Code.

1.1. COMMUNITY PARTICIATION

In the Spring of 1999, the Town Council of Fairfax created the first official Fairfax Bicycle and Pedestrian Advisory Committee (BPAC). In 2007 the BPAC was revived for the purpose of updating the Bicycle and Pedestrian Master Plan. The BPAC met four times from June to December of 2007 to discuss and complete updates to the 2001 Fairfax Bicycle and Pedestrian Master Plan. Meetings were noticed by Town Staff through distribution to the interested parties list of the Fairfax Bicycle/Pedestrian Advisory Committee. The meetings were agendized and properly noticed in accordance with the Brown Act and are open to the public. In addition, public input was received at three countywide public meetings, the Central Marin Countywide Bicycle and Pedestrian Master Plan Update Public Workshop (held Monday, November 13, 2006 at the San Rafael Community Center, San Rafael) and two Nonmotorized Transportation Pilot Program Public Workshops (held Thursday November 29, 2006 at the Embassy Suites Hotel, San Rafael and Monday March 12, 2007 at the San Rafael Community Center, San Rafael).

2. BICYCLE AND PEDESTRIAN MASTER PLAN GOALS & POLICIES

2.1. GOALS, OBJECTIVES, AND POLICY ACTIONS

GOALS

Goals provide the context for the specific objectives and policy actions discussed in the Bicycle and Pedestrian Master Plan. The goals provide the long-term vision and serve as the foundation of the

plan. Goals are broad statements of purpose that do not provide specific descriptions of the goal, while policy actions provide a bridge between general policies and actual implementation guidelines, which are provided in Section 5.

GOAL 1 INCREASED BICYCLE AND PEDESTRIAN ACCESS

Expand bicycle and pedestrian facilities and access in and between neighborhood areas, employment centers, shopping areas, schools, and recreational sites.

GOAL 2 BICYCLE TRANSPORTATION

Make the bicycle an integral part of daily life in Fairfax by implementing and maintaining a bikeway network, providing end-of-trip facilities, improving bicycle/transit integration, encouraging bicycle use, and making bicycling safer and more convenient.

GOAL 3 PEDESTRIAN TRANSPORTATION

Encourage walking as a daily form of transportation in Fairfax by completing a pedestrian network that services short trips and transit, improving the quality of the pedestrian environment, improving the health of all citizens, and increasing safety, convenience and access opportunities for all users.

OBJECTIVES

OBJECTIVE A

Implement the Bicycle and Pedestrian Master Plan, which identifies existing and future needs, and provides specific recommendations for facilities and programs.

Objective A Policy Actions

1. Update the Plan every five (5) years as required by Caltrans to reflect new policies and/or requirements for bicycle and pedestrian funding.
2. All Safe Routes to Schools travel plans should be reviewed by the Fairfax BPAC for consistency with the Fairfax Bicycle and Pedestrian Master Plan, with the authority to refer concerns to staff and council as necessary. Individual SR2S travel plans (or smaller plans packaged together) which involve a bid higher than \$5,000 will be reviewed by the Town Council per current policy.
3. The Town of Fairfax will retain its BPAC to monitor implementation of this Bicycle and Pedestrian Master Plan, review roadway projects for bicycle and pedestrian needs, advise the town on the design of funded projects, ensure consistency with the update of the General Plan, and to assist with education and encouragement programs. The BPAC will also work with the Town on the next revision of the Bicycle and Pedestrian Master Plan which would take place by 2013.
4. Maximize coordination between government agencies, schools, and community organizations to address bicycle and pedestrian issues of mutual concern.
5. Seek funding for bikeway and pedestrian projects through current local, regional, state, and federal funding programs and encourage multi-jurisdictional funding applications.

OBJECTIVE B

Complete a continuous network of bikeways that are feasible, fundable, and that serve bicyclists' needs, especially for travel to employment centers, schools, commercial districts, transit stations, and institutions.

Objective B Policy Actions

1. Implement high priority projects, such as the Center Boulevard Bicycle Lanes and Safe Routes to Schools improvements.
2. Prioritize closing gaps in the east-west bikeway, such as the Broadway Avenue to Sir Francis Drake Boulevard connection, and others.
3. Require construction of relevant planned bikeways as an integral part of any transportation facility maintenance or construction project.
4. Construct a network that encourages bicycling to and for recreational purposes.
5. Work with adjacent government agencies and local community groups to ensure a complete and continuous network across jurisdictional boundaries.
6. At a minimum, construct all bikeways according to Caltrans Chapter 1000 Design Guidelines.

OBJECTIVE C

Complete a network of walkways that serves pedestrian needs, especially for short trips to employment centers, schools, commercial districts, transit stations, and institutions.

Objective C Policy Actions

1. Complete missing connections to make direct routes for walking, especially connections between residential neighborhoods and the downtown area.
2. Work to build walkways along existing and potential pedestrian rights-of-way.
3. Identify and mitigate impediments and obstacles to walking to school.
4. For new development or redevelopment projects, require construction of planned pedestrian facilities.
5. Work with transit authorities to ensure that pedestrian concerns are addressed in the design of transit stops.
6. Provide opportunities for walking for recreational purposes.

OBJECTIVE D

Maintain and improve the quality, operation, and integrity of bikeway and walkway network facilities.

Objective D Policy Actions:

1. Undertake routine maintenance of bikeway and walkway network facilities, such as sweeping bicycle lanes and sidewalks and removing vegetation which impinges on bicycle or pedestrian rights-of-way and forces them into the vehicle lanes of the roadway.

2. Undertake regular periodic maintenance of bicycle and pedestrian facilities such as striping, signing and surface condition to avoid safety issues for users including integrating into the existing Public Works maintenance process a regular inspection of the road, pathway or sidewalk for cracks and potholes that might affect cyclists and pedestrians.
3. Ensure that repair or construction of any transportation facility minimizes disruption to the cycling and walking environment and that safe, direct alternate routes clear of vegetation, debris or other safety hazards are signed for bicycling and walking through or around construction zones for the duration of the project. The alternate route should be clearly signed and communicated prior to start of construction, with signs notifying motorists of the presence of bicycles and/or pedestrians in the area. All projects by outside agencies should be coordinated with the Town to ensure compliance with this policy.
4. Ensure that repair or construction of any transportation facility does not result in the permanent removal of an existing bicycle or pedestrian facility.
5. Ensure that the pedestrian walkway network is accessible to, and usable by, persons with disabilities as technically feasible, in compliance with ADA requirements.
6. Enforce existing Town ordinances to ensure pedestrian walkways are unobstructed by illegally parked cars.

OBJECTIVE E

Provide short- and long-term bicycle parking and end-of-trip facilities in employment and commercial areas, in multifamily housing, at schools, and at transit facilities.

Objective E Policy Actions:

1. Require bicycle parking spaces as part of new development or redevelopment projects.
2. Encourage the installation of short- and long-term bicycle parking in the public right-of-way in the Downtown area.
3. Work with local elementary, middle, and high schools to promote bicycle commuting and to assist in purchasing and siting long- and short-term bicycle parking.
4. Require the provision of bicycle parking at all Town-permitted large events to help ease traffic and parking.
5. Pursue the development of a “bicycle station” for use by recreational and transportation riders with showers, lockers and secure storage, to encourage visitors to remain in town and patronize local businesses.

OBJECTIVE F

Develop and implement safety, education and encouragement plans aimed at youth, adult cyclists, pedestrians, and motorists.

Objective F Policy Actions

1. Develop and expand adult and youth bicycle and pedestrian education, encouragement and safety programs, particularly Share the Road programs aimed at reducing cyclist-motorist conflicts (see Section Five).
2. Promote the health and environmental benefits of walking and bicycling.

2.2. PLANNING CONTEXT

The following section provides context for this plan update in terms of past and ongoing planning efforts related to bicycling and walking. Infrastructure projects mentioned here are addressed in more detail in Sections 5 and 6 of this plan.

COMPLIANCE WITH LOCAL PLANS

The 2007 Fairfax Bicycle and Pedestrian Master Plan is consistent with the 1989 Fairfax General Plan – Circulation Element, the 2001 Marin County Unincorporated Bicycle and Pedestrian Master Plan, and the Metropolitan Transportation Commission's (MTC) 2001 Regional Bicycle and Pedestrian Plan for the San Francisco Bay Area.

SAFE ROUTES TO SCHOOLS INFRASTRUCTURE PLANS

The Town of Fairfax, in partnership with TAM's SR2S Program, the Ross Valley SR2S Task force and local volunteers have secured Measure A Safe Pathways funding and Office of Traffic Safety funds for several school access projects:

- Glen Drive/Mitchell Drive at Sir Francis Drake Crosswalk Improvements: This project proposes to install high visibility crosswalk and additional school warning lights on Sir Francis Drake Boulevard and provide signage and striping on Glen Drive at Mitchell Drive.
- Manor Drive Sidewalk: This project will install 125 feet of sidewalk along the east side of Oak Manor Drive beginning at Sir Francis Drake Boulevard, providing a connection to the school campus.
- Oak Tree Lane Crosswalk and Enhancements: This project proposes to install a new crosswalk on Sir Francis Drake Boulevard at Oak Tree Lane, connecting to the new Manor Bridge. Originally planned to include in-pavement flashing crosswalk lighted, the crosswalk was redesigned to potentially include an actuated overhead flashing signal beacon similar to the crosswalk at St. Rita's School.

NONMOTORTORIZED TRANSPORTATION PILOT PROGRAM

Marin County is one of four communities nationally that has been selected by Congress to participate in a Nonmotorized Transportation Pilot Program and receive \$25 million for improvements for walking and bicycling to demonstrate the impact that walking and bicycling can have on transportation mode share. Several Fairfax projects have been funded by this program, including:

- Parkade Improvements Study (\$25,000): This study proposes to examine the area surrounding the downtown Parkade area in Fairfax in terms of improving bicycle and pedestrian safety and circulation. The Fairfax BPAC has identified the segment of Sir Francis Drake Boulevard between Klaus and Pacheco as an important area for improvements for bicycling and walking.
- San Rafael-Fairfax Corridor Study (\$150,000): This study proposes to examine the corridor between Fairfax and San Rafael, with the goal of identifying improvements for bicycling and walking between the communities of Fairfax, San Anselmo and San Rafael. As a part of the

bicycle plan update process, all updated plans along the corridor are being coordinated to “set the stage” for this study. The current Fairfax bicycle plan update contains a number of preliminary options for the connection to San Anselmo which would need to be examined in more detail through this process.

- Pastori Avenue Sidewalk Construction (\$50,000): This project proposes to build new sidewalk and crosswalk improvements along the segment of Pastori Avenue between Center Boulevard and Sir Francis Drake to provide connections to the bus stop on Sir Francis Drake Boulevard.
- Sir Francis Drake Sidewalk Construction (\$80,000): This project proposes to build new sidewalk along the south side of Sir Francis Drake Boulevard between Claus Drive and Olema Road, connecting to existing sidewalks west of Olema Road recently constructed as part of a Safe Routes to Schools project.

STEPS, LANES AND PATHS

Steps, Lanes and Paths is a project that a number of Marin communities have undertaken in order to address the need for pedestrian connections in areas that are not easily served by conventional sidewalk networks. Challenges such as limited right of way, steep grades and narrow roads have made it difficult to connect residential neighborhoods to the downtown areas in many Marin cities and towns. Fairfax Volunteers have begun a project to address this challenge by documenting unused existing and potential historic pedestrian rights-of-way in the town.

This important project would help the Town achieve one of its pedestrian objectives to connect neighborhoods more directly to the downtown area, but faces significant challenges. Many of the potential rights-of-way were established decades ago at the time of laying out the parcel property lines and were never officially adopted or maintained by the Town. The exact condition and legal status of some of the rights-of-way is not known and many of these rights-of-way may currently be in use by adjacent property owners who are not aware of their history or status. Adoption of these rights-of-way by the Town could constitute a significant maintenance burden and the issue of ADA access would have to be resolved. The Town, in partnership with local volunteers, would need to address these challenges as the project moves forward. Currently, as these rights-of-way connection both to the downtown area as well as to open space, they are being treated as recreational trails and not as transportation facilities. The Town hopes to resolve both ADA and liability issues through this recreational trail classification. Please see Appendix D for an inventory of these rights-of-way.

CENTER BOULEVARD PROJECT

The Town of Fairfax has received funding to rehabilitate the segment of Center Boulevard between Pastori Avenue and Pacheco Avenue. The project proposes a number of bicycle and pedestrian improvements such as new and wider sidewalks, curb extensions, new and improved crosswalks, driveway consolidation, repaving the roadway surface, bicycle lanes, intersection treatments for bicycle safety such as carrying the bicycle lane through the intersection and improved lighting.

2.3. BTA COMPLIANCE CHECKLIST

In order to meet the California Bicycle-Transportation Act requirements, the 2007 Fairfax Bicycle and Pedestrian Master Plan must include the following provisions:

**Table 2-1
Fairfax BTA Compliance Checklist**

BTA 891.2	Required Plan Elements	Location Within the Plan
(a)	The estimated number of existing bicycle commuters in the plan area and the estimated increase in the number of bicycle commuters resulting from implementation of the plan.	Table 4-1; page 22. Table 4-2; page 23.
(b)	A map and description of existing and proposed land use and settlement patterns which shall include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings, and major employment centers.	Figure 4-1; page 21.
(c)	A map and description of existing and proposed bikeways.	Figure 3-1; page 9. Figure 5-1; page 33. Tables 3-1 through 3-4 pages 11 and 12. Tables 5-1, through 5-4; pages 25-28. Text, pages 7-13, 29 and 30.
(d)	A map and description of existing and proposed end-of-trip bicycle parking facilities. These shall include, but not be limited to, parking at schools, shopping centers, public buildings, and major employment centers.	Figure 3-1, page 9. Figure 5-1, page 33. Table 6-4, page 53. Text, pages 13 and 29 and 30.
(e)	A map and description of existing and proposed bicycle transport and parking facilities for connections with and use of other transportation modes. These shall include, but not be limited to, parking facilities at transit stops, rail and transit terminals.	Figure 3-1, page 9. Figure 5-1, page 33. Table 6-4, page 53. Text, pages 13 and 29.
(f)	A map and description of existing and proposed facilities for changing and storing clothes and equipment. These shall include, but not be limited to, locker, restroom, and shower facilities near bicycle parking facilities.	Figure 3-1, page 9. Figure 5-1, page 33. Text, pages 13, and 30.
(g)	A description of bicycle safety and education programs conducted in the area included within the plan, efforts by the law enforcement agency having primary traffic law enforcement responsibility in the area to enforce provisions of the Vehicle Code.	Text, pages 16-18.
(h)	A description of the extent of citizen and community involvement in development of the plan.	Text, page 1.
(i)	A description of how the bicycle transportation plan has been coordinated and is consistent with other local or regional transportation, air quality, or energy conservation plans.	Text, pages 4-7.
(j)	A description of the projects proposed in the plan and a listing of their priorities for implementation.	Text, pages 25-53.
(k)	A description of past expenditures for bicycle facilities and future financial needs for projects that improve safety and convenience for bicycle commuters in the plan area.	Table 3-5, page 15. Tables 6-1 through 6-5, pages 51-53.

3. EXISTING CONDITIONS

In the years since the adoption of the 2001 Fairfax Bicycle and Pedestrian Master Plan, significant progress has been made in improving conditions for bicycling and walking. This section of the plan describes the existing conditions in Fairfax in terms of bikeways, bicycle parking and pedestrian facilities as well as education, encouragement and enforcement activities.

The bicycle map which accompanies this Plan designates Fairfax’s bicycle facilities and those in adjacent unincorporated areas by Class I, II, or III in accordance with Chapter 1000 of the

California Department of Transportation, Highway Design Manual – Bikeway Planning and Design. Class I Bikeways serve the exclusive use of bicycles and pedestrians. Class II Bikeways serve as a designated space for bicycles to operate on established lanes on paved streets. Class III Bikeways serve bicycles on streets which serve as routes connecting Class I or Class II bikeways or where bicycle lanes or paths are not feasible.

3.1. EXISTING CONDITIONS FOR BICYCLING

DEFINITION OF BIKEWAYS

The three types of bikeways identified by Caltrans in Chapter 1000 of the Highway Design Manual are as follows.

Class I Bikeway. Typically called a “bike path,” a Class I bikeway provides bicycle travel on a paved right-of-way completely separated from any street or highway.

Class II Bikeway. Often referred to as a “bike lane,” a Class II bikeway provides a striped and stenciled lane for one-way travel on a street or highway.

Class III Bikeway. Generally referred to as a “bike route,” a Class III bikeway provides for shared use with motor vehicle traffic and is identified only by signing. Optional Shared Roadway Bicycle Marking pavement stencils are also available for use on Class III bikeways.

It is important to note that bicycles are permitted on *all* roads in the State of California and in Fairfax (with the exception of access-controlled freeways). As such, Fairfax’s entire street network is effectively the Town’s bicycle network, regardless of whether or not a bikeway stripe, stencil, or sign is present on a given street. The designation of certain roads as Class II or III bicycle facilities is not intended to imply that these are the only roadways intended for bicycle use. Rather, the designation of a network of Class II and III on-street bikeways recognizes that certain roadways are optimal bicycle routes, for reasons such as directness or access to significant destinations, and allows the Town of Fairfax to then focus resources on building out this primary network. Fairfax’s existing network of designated bikeways is shown in **Figure 3-1**. Specific facility segments are discussed in more detail below.

EXISTING BIKEWAY FACILITIES

The town’s existing bikeway system is composed of approximately 3.5 miles of Class I Multi-use Pathways, Class II Bicycle Lanes and Class III Bicycle Routes. The primary bicycling corridor serves the east-west route from the border with San Anselmo through downtown to the unincorporated area at the base of White’s Hill. **Table 3-1** provides a summary of existing bikeways.

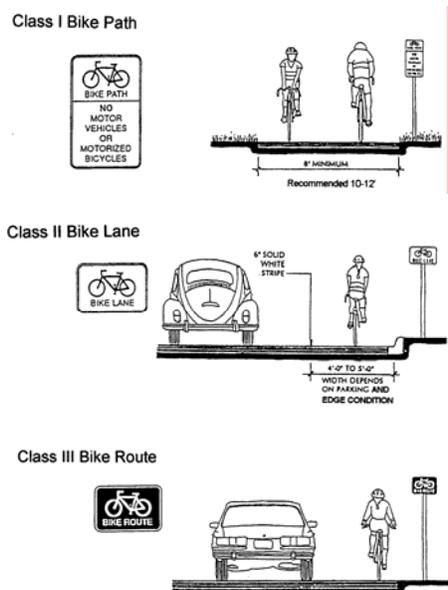


Table 3-1
Existing Bikeway Mileage by Type

Fairfax Existing Bicycle Facilities - 2007		
Class	Bikeway Type	Total Mileage
I	Multi-Use Path	0.18
II	Striped Bicycle Lanes	1.38
III	Signed Bicycle Routes	1.90
All Bikeways		3.42

There are three existing segments of Class I Pathway. A short segment of pathway traverses the Manor Bridge connecting Sir Francis Drake Boulevard to Bothin Road. Another short pathway serves as a cut-through connection between Mono Lane and Napa Avenue in downtown. The longest pathway connects Olema Road to Broadway Boulevard parallel to Sir Francis Drake Boulevard in front of the Fairfax Library.

Table 3-2
Existing Pathways Inventory

Existing Class 1 Bikeways - Multi-Use Paths (Off-Street)				
Segment Name	Begin	End	Class	Length
Fairfax Library Pathway	Olema Rd.	Broadway Blvd.	I	0.13
Manor Bridge	Bothin Rd.	Sir Francis Drake Blvd.	I	0.03
Mono-Dominga Connector	Mono Ln.	Napa Ave.	I	0.02
				0.18

The only existing Class II bicycle lanes are on Sir Francis Drake Boulevard between Claus Drive and Shadow Creek Court, with a short gap in the eastbound direction between Olema Road and Claus Drive. The relatively small number of streets with Class II bicycle lanes is explained by narrow roadway widths with a lack of opportunity for widening combined with overall heavy use of on-street parking.

Table 3-3
Existing Bicycle Lanes Inventory

Existing Class 2 Bikeways - Striped Bicycle Lanes (On-Street)				
Segment Name	Begin	End	Class	Length
Sir Francis Drake Blvd.*	Claus Dr.	Shadow Creek Ct.	II	1.38
				1.38

*Westbound only from Claus to Manor.

The majority of the Town's bikeways are signed Class III Bicycle Routes, which take advantage of direct routes along busier arterial or collector roadways. These routes were signed as a part of the County of Marin's Bicycle Route Guide Signage project to mark the countywide east-west route. Most local routes such as Bolinas Road and neighborhood streets which serve as de facto "feeders" into this countywide east-west route are currently unmarked. West of Claus Drive an alternate route

composed of signed Class III Bike Routes on residential streets was signed by the Town. This alternate route is commonly used by school children bicycling to school and recreational cyclists traveling through Fairfax to West Marin in addition to using existing Class II lanes on Sir Francis Drake Boulevard. Further, a commonly used route exists immediately outside the Fairfax town limit, connecting Kent Avenue to San Anselmo Schools along Butterfield via Sir Frances Drake and other neighborhood routes north of SFD.

**Table 3-4
Existing Bicycle Routes Inventory**

Existing Class 3 Bikeways - Signed Bicycle Routes (On-Street)				
Segment Name	Begin	End	Class	Length
Azalea Ave.	Scenic Rd.	Broadway Blvd.	III	0.02
Broadway Blvd.	Sir Francis Drake Blvd.	Pacheco Ave.	III	0.40
Center Blvd.	Pastori Ave.	Pacheco Ave.	III	0.26
Lansdale Ave.	Fairfax Town Limit	Center Boulevard	III	0.16
Manor Rd.	Olema Rd.	Scenic Rd.	III	0.13
Olema Rd.	Sir Francis Drake Blvd.	Sir Francis Drake Blvd.	III	0.72
Scenic Rd.	Manor Rd.	Azalea Ave.	III	0.20
				1.90

BIKEWAY SIGNAGE

The County of Marin received \$189,000 in grant funding to design and implement a Countywide Bicycle Route Guide Signage project in partnership with local jurisdictions. The goal of the project is to encourage commuting by bicycle through Marin and make recreational biking more attractive to the public. The signage provides cyclists with directions and destinations at key intersections, so that residents and visitors will be able to navigate more easily. The Marin Public Works Directors Association selected a uniform sign for the County which has a logo of Mount Tamalpais in the background. The guide signage is intended to complement the County's Share the Road signage program.

The Town is committed to developing a link in the east-west bikeway route through Marin County, connecting Fairfax to San Anselmo and countywide destinations such as West Marin, Ross and San Rafael. Signs have been installed throughout the town along the primary countywide east-west route and overlay the local Class II and Class III facilities described above. These signs augment the existing system of green and white Caltrans D11-1 Bicycle Route signs already found along Broadway Avenue, Scenic Road, Manor Road and Olema Road.

BICYCLE SUPPORT FACILITIES

Bicycle support facilities include bicycle parking racks, lockers and changing facilities. Any facility that assists commuting or recreational cyclists to complete their journey is also considered a support facility.

Within the Town of Fairfax bicycle parking is located throughout the downtown area along Broadway Avenue and at specific locations along Bolinas Road such as Town Hall and the Mono Parking Lot. Of the four schools located in town, both Manor Elementary and White Hill Middle School are known to have bicycle parking. See Figure 3-1 for bike parking locations.

“On-street” bicycle parking has been tested on Bolinas Road in front of the Book Beat Café for the weekends of May 19 and May 26, 2007 in place of existing on-street automobile parking. The trial was carried out on weekends and received favorable responses from residents and no known complaints to the Town. Temporary bicycle parking has been in use at the Wednesday Fairfax Farmers’ Market during the market season, using a moveable rack transported by volunteers. The Marin County Bicycle Coalition has loaned the town a temporary bicycle parking rack, used for both of these efforts.

Currently there are no publicly accessible change or shower facilities, although such facilities may exist in private buildings.

BICYCLE ACCESS TO TRANSIT

Providing bicycle access to transit allows bicyclists to extend the distance they are able to travel, enabling cycling as a regional mode of travel. Fairfax residents have access to two transit services, Golden Gate Transit, serving San Francisco, Sonoma County, Southern, Central and Northern Marin (as well as Marin County Ferry Terminals) and the West Marin Stage which operates limited service to most West Marin communities and the San Anselmo hub and the San Rafael Transit Center. All local transit service in Marin County is operated under contract with the Marin County Transit District (MCTD).

Most bus stops within the Town of Fairfax do not have bicycle racks located at the stops. The Parkade bus stop has bicycle racks with capacity for approximately 6 bicycles. In addition, up to two bicycles can fit on racks mounted to the front of all Golden Gate Transit buses less than 60 ft. long. GGBHTD has received funding to install new 3-bike capacity racks on the front of their buses. “MCI” type buses longer than 60 ft. were recently outfitted with luggage bay racks that allow two bicycles to ride in the underfloor luggage area. In addition, the MTCDD has included an element in their long-range transit plan to upgrade all bus-mounted front bicycle racks from two to three capacity fixtures.

BICYCLE LOOP DETECTORS

Bicycle Loop Detectors (BLD) involve the installation or calibration of in-pavement induction loops so that they are sensitive to bicycles. BLDs use a unique Caltrans standard stencil to identify the best location for cyclists to position themselves to actuate a traffic signal. The Town of Fairfax has not installed bicycle loop detectors at any signalized intersections within the town. State legislation was passed in 2007 that will require the town to install such loop detectors if any new signals are installed or existing signals are improved.

SHARE THE ROAD SIGNS

The Town of Fairfax has yellow “Share the Road” bicycle warning signs posted at several locations throughout town, including on Bolinas Road at the start of the climb up to Pine Mountain and Center Boulevard at the eastern town limit. These signs are intended to increase motorist and cyclist awareness of the need to share narrow roadways with limited sightlines or potential safety concerns.

3.2. EXISTING CONDITIONS FOR WALKING

DEFINITION OF PEDESTRIAN FACILITIES

Generally, there are two types of pedestrian facilities, those intended for exclusive use by pedestrians, such as sidewalks, and those shared with other users (i.e. Class I Multi-use Pathways). In addition, in California sidewalks can be legally used by cyclists under the age of 12 unless otherwise signed or locally regulated. Pedestrian facilities at intersections can include crosswalks, pedestrian crosswalk signals, warning signage, curb ramps and other treatments to promote safety and accessibility for disabled users.

The California Vehicle Code Section 275 defines a crosswalk as either:

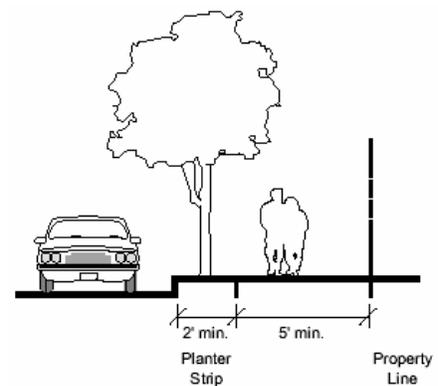
- That portion of a roadway included within the prolongation or connection of the boundary lines of sidewalks at intersections where the intersecting roadways meet at approximately right angles, except the prolongation of such lines from an alley across a street.
- Any portion of a roadway distinctly indicated for pedestrian crossing by lines or other markings on the surface.

At intersections, a crosswalk is effectively a legal extension of the sidewalk across the roadway. Crosswalks are present at all intersections, whether marked or unmarked, unless the pedestrian crossing is specifically prohibited by the local jurisdiction. At mid-block locations, crosswalks only exist if they are marked.

Traffic control devices must follow the procedures set forth in the California version of the Manual of Uniform Traffic Control Devices (CAMUTCD), while elements such as sidewalks and curb cuts must comply with guidelines for implementing the federal Americans with Disabilities Act (ADA).

EXISTING WALKWAYS

Sidewalks are found on at least one side of the street throughout the downtown business district and on many adjacent residential streets. With the exception of most sidewalks within the Downtown area, many of these walkways do not meet ADA requirements for width, obstructions, tripping hazards or curb ramps. Sidewalks are generally lacking in the hillside neighborhood areas and along some of the smaller residential streets in the neighborhoods surrounding downtown. In addition, the Bicycle and Pedestrian Advisory Committee has identified a lack of direct pedestrian connections between residential neighborhood streets along potential property line rights-of-way that would allow more direct walking routes.



The Town recently constructed new sidewalks along Sir Francis Drake Boulevard between Manor Road and Olema Road as part of a Safe Routes to Schools (SR2S) project.

Two multi-use path segments serve pedestrians near the downtown area. The Mono-Dominga connector is a short “cut-through” that allows pedestrians to travel from downtown businesses along Broadway Avenue directly to Dominga Avenue residential area. The Library Pathway connects

the sidewalk along the south side of Sir Francis Drake Boulevard at Olema to existing sidewalks along Broadway Avenue and the crossing of Drake at St. Rita School.

EXISTING CROSSWALK AND OTHER FACILITIES

Pedestrian exposure at intersections directly affects safety, especially for older persons and children who may not be able to cross streets quickly or discern (or be seen by) on-coming traffic. Generally intersections in and around the downtown area have all crosswalks marked with either high-visibility “ladder” style crosswalks or traditional parallel stripes augmented by colored pavement treatments. In addition, a number of mid-block crossings are similarly marked along Broadway Avenue and Sir Francis Drake Boulevard. In-roadway pedestrian warning “paddle” signs are found at mid-block crossings of Broadway Avenue and one crossing on Bolinas Road.

In addition to intersection conditions in the downtown area, a number of “spot improvements” have been implemented with the goal of improving pedestrian safety. The Manor Bridge SR2S project was installed as an alternate to the existing narrow bridge to provide a dedicated pedestrian connection to Sir Francis Drake Boulevard and the new sidewalk. At several locations throughout the residential areas curbs at intersections have been painted red to improve visibility through these corners.

3.3. DESCRIPTION OF PAST EXPENDITURES

The following is a summary of bicycle and pedestrian facility projects constructed since the 2001 Bicycle and Pedestrian Master Plan.

**Table 3-5
Fairfax Past Expenditures 2001-2007**

Facility	Description	Cost
Manor Circle Bridge and Sir Francis Drake Sidewalk (Manor Circle to Olema Road)	Installation of a pedestrian and bicycle bridge and sidewalks on south side of Sir Francis Drake Boulevard between new bridge and Olema Road.	\$637,537
Sir Francis Drake Boulevard Sidewalk Improvements (Oak Manor to June Court)	This project was designed to install new sidewalks on Sir Francis Drake Boulevard (SFDB) from Oak Manor to June Court to eliminate gaps in the sidewalk network along SFDB.	\$198,685
Sir Francis Drake Library/St. Rita Crosswalk	1998 Installation of high-visibility crosswalk and pushbutton-actuated, audible overhead flashing pedestrian crossing beacons	\$43,333
Sir Francis Drake at Oak Manor Drive Crosswalk	1998 Installation of high-visibility crosswalk and pushbutton-actuated, audible overhead flashing pedestrian crossing beacons	\$43,333
Sir Francis Drake at Robin Hood Apartments Crosswalk	1998 Installation of high-visibility crosswalk and pushbutton-actuated, audible overhead flashing pedestrian crossing beacons	\$43,333
In-roadway Pedestrian “Paddle” Signs	Installation of pedestrian crosswalk warning signs in center of roadway at marked crosswalk locations	\$800
Downtown Bicycle Racks – Phase I fed. grant; Phase II local Supervisorial grant	Installation of inverted U style bicycle racks at specific locations along Broadway Avenue, Bolinas Road and in the Fairfax Parkade	\$10,000 \$ 2,000

Share the Road Signage	Installation of safety warning signs on Bolinas Road and Manor Road	\$800
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3.4. SAFETY, EDUCATION AND ENCOURAGEMENT PROGRAMS

FAIRFAX POLICE DEPARTMENT

The Fairfax Police Department conducts regular enforcement of bicycle violations of the vehicle code, particularly along the designated bike route on Broadway Boulevard and Lansdale Avenue. Since 2005 the Fairfax Police Department has partnered with the Marin County Bicycle Coalition to conduct Share the Road Checkpoints on an annual basis at selected locations in Fairfax. More information on the Share the Road program is below.

SAFE ROUTES TO SCHOOLS

The original Safe Routes to Schools program began in Fairfax as a pilot program in 2000 as an effort to reduce congestion and encourage healthy exercise and transportation habits among school aged children in Marin County. The program has since expanded to its current level, with 45 schools and over 18,470 students participating countywide. Since then, this program has been expanded to the national level. Each year, the program has successfully decreased the percentage of drive-alone students at participating schools through innovative classroom activities, contests and events, and initiation of engineering improvements.

The program consists of five key components – education, engineering, encouragement, enforcement, and evaluation – which are described below.

- Education - Classroom lessons teach children the skills necessary to navigate through busy streets and show them how to be active participants in the program. Table 3-5 shows education programs completed in Fairfax Schools.
- Engineering - The Program’s licensed traffic engineer works with schools and the Town in developing a plan to provide a safer environment for children to walk and bike to school. The focus is on creating physical improvements to the infrastructure surrounding the school, reducing speeds and establishing improved crosswalks and pathways.
- Encouragement - Events, contests and promotional materials are incentives that encourage children and parents to try walking and biking. Table 3-5 shows encouragement programs completed in Fairfax Schools.
- Enforcement – Police officers, crossing guards and law enforcement officials participate throughout the Safe Routes process to encourage safer travel through the community. Targeted enforcement of speed limits and other traffic laws around schools make the trip to school more predictable for students. This plan also includes enforcement enhancements and outreach to drivers through driver safety campaigns.
- Evaluation – Program participation is regularly monitored to determine the growth in student and parent participation.

As detailed in **Table 3-6** Manor Elementary, White Hill Middle and St. Rita Schools have participated in the program. A Safe Routes to Schools Task Force has been formed for the Ross Valley School District to create Safe Routes to Schools Travel Plans which include engineering

recommendations, enforcement, driver education programs and encouragement programs. Chapter 5 includes proposals for growing participation in the Safe Routes to Schools Program in Fairfax.

SR2S infrastructure projects completed in Fairfax include the Manor Bridge and sidewalks on the south side of Sir Francis Drake Boulevard as well as the crossing of Sir Francis Drake Boulevard at St. Rita's School. Funded SR2S infrastructure plans include pedestrian and bicycle improvements at Sir Francis Drake Boulevard and Glen Drive near White Hill School and new sidewalk on the east side of Oak Manor Drive accessing Manor School. Funded improvements at Oak Tree Lane include a new crosswalk and the installation of an actuated overhead flashing beacon in early 2008. Other unfunded SR2S infrastructure plans include a proposal to build a multi-use pathway along the former railroad right-of-way west of White Hill School.

Table 3-6 provides details about specific schools participation in Education and Encouragement components of the TAM SR2S program.

OTHER SAFETY PROGRAMS

The Fairfax Police Department participates in the Marin County Bicycle Coalition's Share the Road Campaign. The campaign includes three components: checkpoints, basic street skills classes, and public presentations.

At checkpoints, uniformed police, highway patrol officers and volunteers from the bicycle coalition stop vehicles, cyclists and pedestrians and provide them with share the road flyers. Flyers contain California Vehicle Code information, codes of conduct for bicyclists and motorists, and additional safety tips to prevent road rage. Fairfax hosted checkpoints in 2005 and 2006.

Basic Street Skills Classes are provided free of charge by the Marin County Bicycle Coalition. Classes provide information on how to avoid collisions and citations, how to ride safely, improve visibility and the legal rights of cyclists. Cyclists who have received a bicycle violation may attend this class to reduce their fine to \$50.

The Marin County Bicycle Coalition also provides a Share the Road presentation for the public. The presentation is available by request, and includes information on the rights and responsibilities of cyclists and drivers and focuses on ways each group can behave courteously to avoid collisions.

OTHER PROMOTIONAL AND ENCOURAGEMENT EFFORTS

Residents of the Town of Fairfax have undertaken a variety of past promotion and encouragement efforts. Velo Club Fairfax and the Fairfax Chamber of Commerce have created "Biketoberfest" at the Fair Anselm Plaza, with the assistance of the Marin County Bicycle Coalition (MCBC) and Safe Routes to Schools. This event has been superseded by the Fairfax Fat Tire Festival in Peri Park, followed by a mountain bike race at Camp Tamarancho the next day. This event takes place in May. Film Night in the Park has held two shows in conjunction with the old location of the Fairfax Fat Tire Fest at the Fairfax ball field. The MCBC provided its first valet bike parking at the Fairfax Brewfest (held annually in March) and currently serves the Fairfax Festival for its two days in June. MCBC has supported the effort to bring bicycle parking to the Fairfax Farmers Market by providing a temporary rack for use in the park at this event. The White Hill Parent Club has hosted the "Lion of Fairfax" Cyclocross at White Hill School in September and a group of parents have plans to create a bicycle facility, including a BMX track, at the school. As of this writing, the Fairfax Documentary Film Festival currently has plans to show the film "Klunkers" about the pioneers of mountain biking who staged the first race called

“Repack” in Fairfax, the cradle of mountain biking. Fairfax hosted the start and finish of a road race as well as a downtown criterium in past years, called the Tour of Marin, which could be resurrected with sufficient funding and sponsorship. Saturday mornings at 9 am see the Java Hut riders leave town for rides to West Marin as well as a variety of formal and informal cycling clubs and teams host road and mountain bike rides departing from various locations in Fairfax, also primarily on weekend days.

**Table 3-5
Fairfax Safe Routes to School Education and Encouragement Programs**

Participants	Grades	Enroll.	Education										Encouragement								
			CT SL& L	FT WB	CT HS	CT JEO P	FT Rode o	FT OTB	TM Clubs	CT S.Art	CT Yikes	CT Earth	CT Fam M	EV IWA LK	TM W2S D	SP	CN W&B A	CN FRM	WK WA	TF	
Ross Valley																					
Manor	K-5	315	X	X	X	X	X				X	X			X	X			X	X	X
White Hill	8-Jun	625							X				X		X						X
Private																					
St. Rita	K-8	245	X	X	X	X	X												X		X

Key:

X - Completed This Month

X- Previously Completed

Education:

SL&L - Stop Look and Listen; WB - Walk Around the Block; HS - Helmet Safety; Jeop - Jeopardy; Rodeo - Bicycle Rodeo; OTB - On the Bike (Middle School), Clubs - EcoVelocity Clubs; S. Art - Safety Art; Yikes - Assembly; W2SD - Parade Prep; Earth - Earth Day Classes; Fam M - Family Management; NR - Neighborhood Rides

Encouragement:

Iwalk - International Walk to School Day, W2SD - Ongoing Walk to School Days; SP - SchoolPool; W&BA - Walk and Bike Across America; FRM - Frequent Rider Miles Contest

Notes:

On the bike can only be offered to 2-3 schools this year. Family Maintenance Clinics and Neighborhood Rides are new, so it is difficult to gauge who will use them this year.

4. NEEDS ANALYSIS

4.1. LAND USE AND DEMAND FOR BICYCLING

The “demand” for bicycle facilities can be difficult to predict. Unlike automobile use, where historical trip generation studies and traffic counts allow one to estimate future “demand” for travel, bicycle trip generation methods are less advanced and standardized. Land use patterns can help predict demand and are important to bikeways planning because changes in land use (and particularly employment areas) will affect average commute distance, which in turn affects the attractiveness of bicycling as a commute mode. **Figure 4-1**, the land use map from the Fairfax General Plan, is included on the next page.

The Fairfax bikeways network will connect the neighborhoods where people live to the places they work, shop, engage in recreation, or go to school. An emphasis will be placed on regional bikeways and transit connections centered on the major activity centers in Fairfax, including:

- Downtown commercial district
- Civic buildings such as the Town Hall and Library
- Schools
- The Parkade bus stops
- Neighborhood parks and regional recreational areas
- Shopping centers
- Employment centers
- Regional recreation areas (e.g. Mt. Tamalpais, Camp Tamarancho)

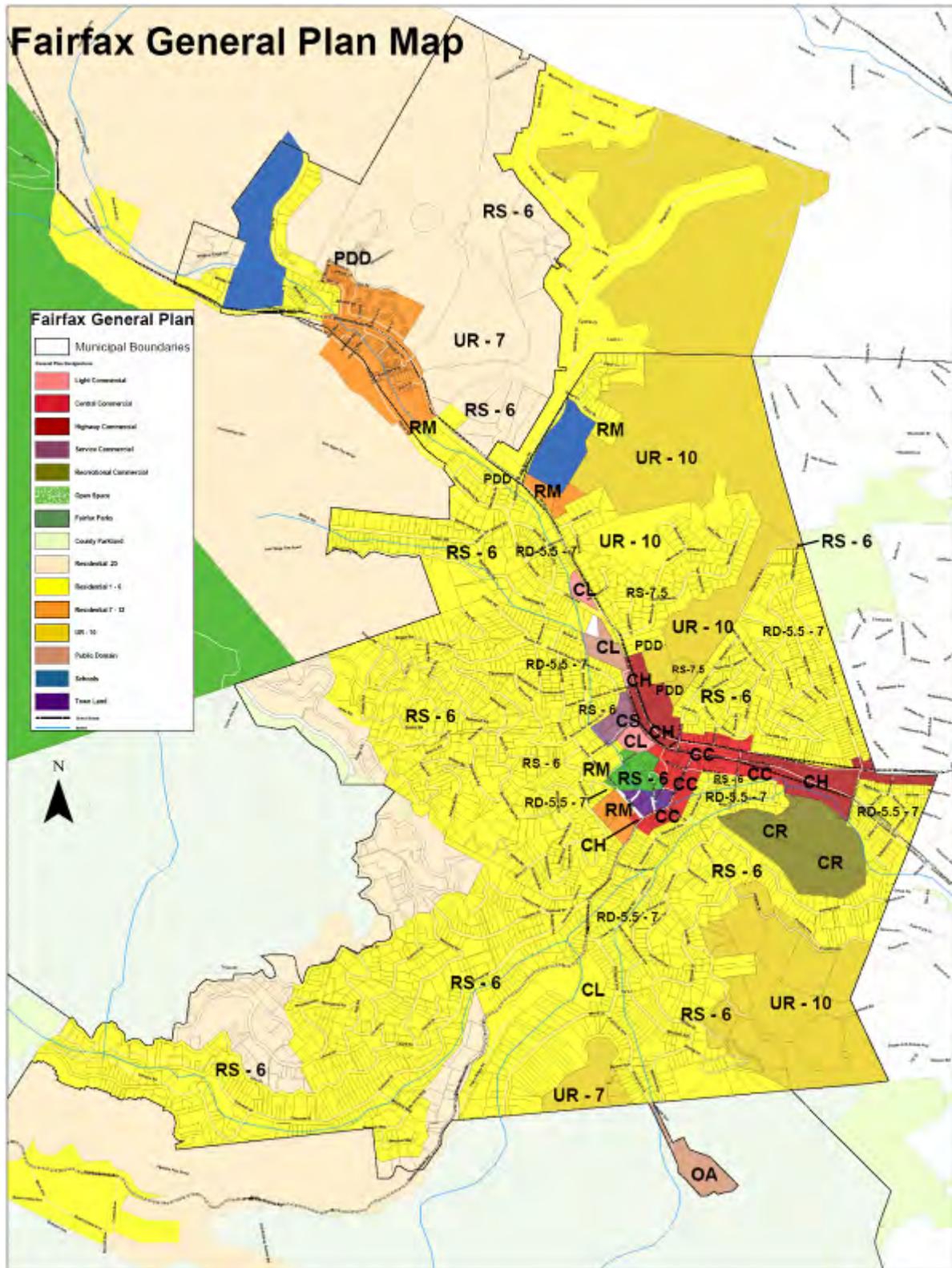
4.2. SETTLEMENT PATTERNS AND DESTINATIONS

Fairfax’s development has been determined in large part by the history of rail transport in the Ross Valley. The Northwestern Pacific Railway lines which formerly connected the Hub in San Anselmo to downtown Fairfax and West Marin encouraged neighborhoods within walking distance of the former train station in downtown.

When the train tracks were removed in the 1940’s, new roads were placed on the train beds, creating the existing arterial road system including Center Boulevard. After WWII with the expansion of the private automobile, Fairfax grew away from its original dense settlement pattern around the downtown area, creating a variety of neighborhoods in the hilly areas of town which were less accessible by walking or bicycling.

The people of Fairfax commute to three major employment centers: San Francisco, San Rafael and businesses within Fairfax. Most get to their Marin County jobs by car and some by bus or bicycle. Fairfax area and Ross Valley school destinations include Oak Manor, Whites Hill, St. Rita, the College of Marin in nearby Kentfield, and Dominican University in San Rafael.

Figure 4-1 – DRAFT Fairfax General Plan Land Use Map



4.3. COMMUTE PATTERNS

A central focus of presenting commute information is to identify the current “mode split” of people that travel in Fairfax. Mode split refers to the choice of transportation a person selects to reach their destinations, be it walking, bicycling, taking a bus, or driving. One major objective of any bicycle facility improvement is to increase the percentage of people who choose to bike rather than drive or be driven. Every saved vehicle trip or vehicle mile represents quantifiable reductions in air pollution and can help in lessening automobile traffic congestion.

Journey to work and travel time to work data were obtained from the 2000 US Census for Fairfax, Marin County, California, and the United States. Primary mode of journey to work data is shown in **Table 4-1**.

**Table 4-1
Fairfax Commute Mode Split Compared to the State and Nation**

Mode	Nationwide	Statewide	Marin County	Fairfax
Bicycle	0.4%	0.9%	1.1%	2.6%
Walk	3.0%	3.0%	3.3%	1.5%
Public Transit	4.9%	5.3%	11.1%	9.6%
Drove Alone	78.2%	74.7%	71.8%	73.9%
Carpool	12.6%	15.1%	11.8%	11.9%
Other	0.5%	1.1%	0.6%	0.4%
Data from US Census 2000				

As shown, about 2.6% of all employed Fairfax residents commute primarily by bicycle. Census data do not include the number of people who bicycle for recreation or for utilitarian purposes, students who bicycle to school, and bicycle commuters who travel from outside Fairfax, and are therefore likely to undercount true cycling rates. Recreational cycling is especially popular in Fairfax, with its easy access to popular recreational routes in West Marin and other areas.

Comparatively, Fairfax’s rate of commute cycling is high—over twice that of Marin County as a whole—and there are many possibilities for improving it. Statistics from the recent County Pilot Program counts indicate that the growth in bicycling in Fairfax was one of the highest in all of Marin County. Broadway Avenue at Bolinas Road showed a 298% increase in weekend day peak hour bicycling between 1999 and 2007 (from 42 to 167 bicyclists), possibly due to the increasing popularity of mountain biking in the area. Fairfax was one of the top places in Marin County with the highest volume of combined bicycle and pedestrian activity (Broadway/Bolinas, 700 people).

Fairfax has a very high percentage of commuters who take public transit to work—9.6%, compared with 5.3% for the state. Systemwide, two percent of Golden Gate Transit riders arrive at bus stops by bicycle.¹ If bicycle connections to Golden Gate Transit stops are improved, and especially if these connections are coupled with improved bicycle storage and expanded service, it would be possible to shift some vehicle trips to the bus stops into bicycle trips.

¹ Marin County Transit District. “Marin County Transit Short Range Transit Plan”. March 2006.

POTENTIAL FUTURE AIR QUALITY IMPROVEMENTS

Fairfax lies within the San Francisco Bay Area Basin, which is regulated by the Bay Area Air Quality Management District (BAAQMD). According to the California Air Resources Board, as of July 2005, the air quality in the San Francisco Bay Area Basin did not meet the minimum State health-based standards for one-hour concentrations ground-level ozone and the State standards for Particulate Matter (PM10) and Fine Particulate Matter (PM2.5).² Currently, the Basin is classified as marginal non-attainment area for the Federal 8-hour ozone standard.

According to the BAAQMD, motor vehicles are responsible for approximately 75 percent of the smog in the Bay Area. Reducing vehicle miles traveled (VMTs) is a key goal of the BAAQMD, and fully implementing Fairfax's bicycle network may help achieve this goal by providing residents improved options for getting to work, school, or shopping without relying on motor vehicles. Based on data from the 2000 Census and estimates of bicycle mode share for students, the current number of daily bicycle commuters (adjusted to include travel to work, to school and to transit trips) in Fairfax is estimated to be 258 riders, making 516 daily trips and saving an estimated 1,114 VMTs per weekday.

Table 4-2 quantifies the estimated reduction in VMTs in Fairfax following an increase in the adjusted bicycle mode share to 5.2%, and the estimated reduction in air pollutants based on the best available local and national data. It is conservatively estimated that the total number of work and school commuters could increase from the current estimate of 258 to 268. This would result in an estimated decrease of 5 kg/day of HC, 38 kg/day of CO, 3 kg/day of NOX and 198,070 kg/day of CO2.

This improvement in air quality could be greater if improving conditions for bicyclists attracts bicyclists to the Town whose trips originate outside of Fairfax. Fairfax's mild climate and rising fuel costs will also encourage additional cycling as more attractive routes and gap closures are accomplished.

**Table 4-2
Bicycle Commute and Air Quality Projections**

Current Commuting Statistics	Source	
Fairfax Population	7,157	2000 US Census
Number of Commuters	3,846	2000 US Census (<i>Employed persons minus those working at home</i>)
Number of Bicycle-to-Work Commuters	99	2000 US Census
Bicycle-to-Work Mode Share	2.57%	<i>Mode share percentage of Bicycle to Work Commuters</i>
School Children Grades K-8	678	2000 US Census, <i>population ages 5-14</i>
Estimated School Bicycle Commuters	100	<i>Ross Valley SR2S Task Force school bicycle commuter counts at White Hill and Manor Schools.</i>
Number of College Students	443	2000 US Census
Estimated College Bicycle Commuters	22	<i>National Cycling & Walking Study, FHWA, Case Study No. 1, 1995. Review of bicycle commute share in seven university communities (5%)</i>

² BAAQMD. Ambient Air Quality Standards & Bay Area Attainment Status. Last updated July 15, 2005. <www.baaqmd.gov/pln/air_quality/ambient_air_quality.htm>

Average Weekday Golden Gate Ridership	1,845	<i>Average of weekday system wide Golden Gate Transit boardings on Bus Routes serving Fairfax (Routes:)Marin Transit Data Request</i>
Estimated Number of Daily Bike-Golden Gate Transit Users	37	<i>GGT Existing Conditions System Levels Analysis Report 2005, Page 4-24</i>
Estimated Total Number of Bicycle Commuters and Utilitarian Riders	258	<i>Total of bike-to-work, transit, school, college and utilitarian bicycle commuters Does not include recreation.</i>
Estimated Adjusted Mode Share	5.2%	<i>Estimated Bicycle Commuters divided by work and school travelers</i>
Estimated Current Bicycle Trips		
Total Daily Bicycle Trips	516	<i>Total bicycle commuters × 2 (for round trips) plus total number of utilitarian bicycle trips</i>
Reduced Vehicle Trips per Weekday	337	<i>Assumes 73% of bicycle trips replace vehicle trips for adults/ college students and 53% for school children</i>
Reduced Vehicle Miles per Weekday	1,114	<i>Assumes average one-way trip travel length of 4.6 miles for adults/ college students and 0.5 mile for schoolchildren</i>
Potential Future Bicycle Commuters		
Number of workers with commutes nine minutes or less	256	<i>US Census 2000</i>
Number of workers who already bicycle or walk to work	158	<i>US Census 2000</i>
Number of potential bicycle commuters	98	<i>Calculated by subtracting number of workers who already bicycle or walk from the number of workers who have commutes 9 minutes or less</i>
Future number of new bicycle commuters	10	<i>Based on capture rate goal of 10% of potential bicycle riders</i>
Total Future Daily Bicycle Commuters	268	<i>Current daily bicycle commuters plus future bicycle commuters</i>
Future Total Daily Bicycle Trips	536	<i>Total bicycle commuters × 2 (for round trips)</i>
Future Reduced Vehicle Trips per Weekday	391	<i>Assumes 73% of bicycle trips replace vehicle trips</i>
Future Reduced Vehicle Miles per Weekday	1,799	<i>Assumes average one-way trip travel length of 4.6 miles for adults. Assumes 12 mph average bicycle speed; 23 minute average travel time. Travel time data from NHTS 2001 Trends, Table 26.</i>
Future Reduced Vehicle Miles per Year	476,703	<i>256 weekdays per year</i>
Future Air Quality Benefits		
Reduced HC (kg/weekday)	5	<i>(0.0028 kg/ mile)</i>
Reduced CO (kg/weekday)	38	<i>(0.0209 kg/ mile)</i>
Reduced NOX (kg/weekday)	3	<i>(0.00139 kg/ mile)</i>
Reduced CO2 (kg/weekday)	198,070	<i>(.4155 kg/ mile)</i>
Reduced HC (metric tons/year)	1	<i>1000 kg per metric ton; 256 weekdays/year</i>
Reduced CO (metric tons/year)	10	<i>1000 kg per metric ton; 256 weekdays/year</i>
Reduced NOX (metric tons/year)	1	<i>1000 kg per metric ton; 256 weekdays/year</i>
Reduced CO2 (metric tons/year)	50,706	<i>1000 kg per metric ton; 256 weekdays/year</i>

Emissions rates from EPA report 420-F-00-013 "Emission Facts: Average Annual Emissions and Fuel Consumption for Passenger Cars and Light Trucks." 2000.

5. PROPOSED IMPROVEMENTS

This section provides information about the proposed improvements for bicycling and walking in the Town of Fairfax including both physical improvements (bike paths, lanes, routes, bike parking, walkways, crossing improvements) and education, enforcement and encouragement programs (e.g. Safe Routes to Schools). As shown in the preceding Existing Conditions chapter, Fairfax’s current walkway and bikeway system provides opportunities for nonmotorized travel through a network of sidewalks and on-street Class II bicycle lanes and III bicycle routes.

However, significant gaps remain in the bikeway system which are critical to providing good connectivity for cyclists riding both within the Town of Fairfax and attempting to travel to neighboring communities. The connections from residential areas to schools and from the town to West Marin and San Anselmo still present significant obstacles to cyclists. Improvements in pedestrian circulation are also needed to increase access from neighborhood areas to downtown and schools as well as encourage safe walking throughout the town.

As described in the 2001 Bicycle and Pedestrian Master Plan, the vision for Fairfax is the construction of bikeways and walkways suitable for all users, connecting to commercial, residential, recreational and school destinations. The short-term vision for bicycling includes completing and improving existing bicycle routes and lanes, signing and stenciling proposed routes, installing parking and implementing programs. For pedestrians, the short-term vision is to maintain and improve existing walkways and crosswalks. The long-term vision for bicycling and walking in the town calls for completing the east-west bikeway and implementing a series of traffic-calmed neighborhood streets which will prioritize safety for all roadway users and improve conditions for both pedestrians and bicyclists. Detailed priorities for implementation are listed in Chapter 6.

**Table 5-1
Summary of Proposed Bikeways**

Fairfax Proposed Bicycle Facilities - 2008		
Class	Bikeway Type	Total Mileage
I	Multi-Use Path	0.18
II	Striped Bicycle Lanes	0.89
III	Signed Bicycle Routes	6.17
All Bikeways		7.24

5.1. BICYCLE FACILITY IMPROVEMENTS

PROPOSED CLASS I - MULTI-USE PATHWAY

As noted in the Existing Conditions, Fairfax’s current bikeway system is composed primarily of Class II and III bicycle routes. The current update proposes one new Class I Pathway at the east end of town, parallel to Center Boulevard. This path segment is proposed as a part of a long-term option for connecting San Anselmo and Fairfax which was originally part of the 2001 San Anselmo Bicycle

Master Plan. Due to significant construction challenges, this pathway is included in the plan primarily as an option for further study as a part of the San Rafael-Fairfax Corridor study.

In addition to this pathway, a bicycle and pedestrian bridge is proposed connecting Hawthorne Court and Sir Francis Drake Boulevard to provide a connection to Manor School. This bridge would be similar in design to the recently installed Manor Circle Bridge.

The small number of proposed pathways should be understood in terms of the lack of public right-of-way for such projects. Segment details can be found in **Table 5-2**.

**Table 5-2
Proposed Class I Facilities**

Class I Facilities - Multi-Use Paths (Off-Street)				
Segment Name		End	Class	Length
Center Blvd. Sidepath	Pastori Ave.	Fairfax Town Limit	I	0.16
Hawthorne Ct. Bridge	Hawthorne Ct.	Sir Francis Drake Blvd.	I (bridge)	0.02
				0.18

PROPOSED CLASS II - STRIPED BICYCLE LANES

Proposed bicycle lanes in Fairfax are intended primarily to complete gaps in the east-west bikeway as well as improving local access to businesses and promoting shop-by-bike and access to transit at the Parkade.

- Center Boulevard (Town limit to Pastori): This bicycle lane segment is proposed as a part of a long-term option for connecting San Anselmo and Fairfax which was originally part of the 2001 San Anselmo Bicycle Master Plan. Due to significant construction challenges, this bike lane is included in the plan primarily as an option for further study as a part of the San Rafael-Fairfax Corridor study.
- Center Boulevard (Pastori to Pacheco): Bicycle lanes proposed as a part of the current Center Boulevard Reconstruction Project, including bicycle lane treatments through intersections at Center/Pastori and Center/Pacheco.
- Broadway Avenue (Pacheco to Claus): Bicycle lanes are proposed to close the gap through the main downtown area. On-street parking can be retained, although two travel lanes will need to be reduced to 11' in width. It is recommended that the westbound curb lane be maintained at 12' to accommodate bus traffic.
- Sir Francis Drake Boulevard (eastbound only, Claus to Olema): This challenging segment proposes to complete the Sir Francis Drake Bicycle Lanes in both directions west of Claus Drive. Due to the narrow roadway in this area, road widening and additional paved shoulders will be necessary. The needs of bicycles and pedestrians will need to be balanced in this area as the Town has already received Nonmotorized Transportation Pilot Program funding for a sidewalk parallel to this segment.

As with Class I Pathways, the small number of proposed bicycle lanes throughout the Town should be understood in terms of the lack of public right-of-way for road widening and the challenge of removing on-street parking in heavily used areas. Segment details can be found in **Table 5-3**.

**Table 5-3
Proposed Class II Facilities**

Class II Facilities - Striped Bicycle Lanes (On Street)					
Segment Name		End	Class	Length	
Center Blvd.	Fairfax Town Limit	Pastori Ave.	II	0.17	
Center Blvd.		Pastori Ave.	Pacheco Ave.	II	0.26
Broadway Ave.		Pacheco Ave.	Claus Dr.	II	0.13
Sir Francis Drake Blvd. (eastbound)	Olema Rd.	Claus Dr.	II	0.33	
				0.89	

PROPOSED CLASS III - SIGNED BICYCLE ROUTES

Proposed bicycle routes in Fairfax are intended to expand the existing east-west bikeway system, creating direct connections to and through neighborhoods and to schools, parks and other destinations, providing alternate routes to busier streets and adding alternate connections to neighboring communities. The minimum treatment for these routes would be standard Bicycle Route signage.

Segment details for Class III Signed Bicycle Routes can be found in **Table 5-4**.

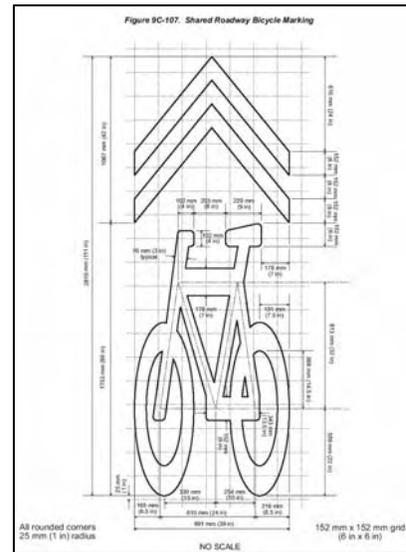
NEIGHBORHOOD AND SCHOOL ACCESS ROUTES

In other Bay Area communities the idea of Bicycle Boulevards has been advanced as a way to designate certain routes as priority streets for bicycling. The viability of bicycle boulevards depends on a number of factors. One key factor is the availability of multiple duplicative parallel routes which in most cases allow drivers to reach their destinations while avoiding the Bicycle Boulevard.

Due to its lack of a multiple parallel streets on a grid system, Fairfax is not really a candidate for a conventional Bicycle Boulevard treatment. However, the Town does have an excellent system of connected collector and neighborhood streets surrounding the downtown area that provide access to commercial and school destinations, serve as a “downtown detour” and in some cases parallel the main arterial routes.

It is recommended that some of these neighborhood and school access routes be designated for additional safety improvements that would give priority to bicycle and pedestrian users. For all segments, existing bicycle route signage would be retained. Potential improvements for these segments include:

- Shared Roadway Bicycle Markings
- Curb Extensions or Bulbouts
- Share the Road signs
- Other safety signage
- Stop sign removal
- Speed humps
- Additional traffic controls



In addition to changes to the roadway geometry traffic control strategies, such as restricting turns are a potential strategy for improving pedestrian and bicycle safety during peak hours. The BPAC has identified a “no right turn” restriction between 7 a.m. and 9 a.m. Monday-Friday from Sir Francis Drake Boulevard onto both Azalea Avenue and Broadway Avenue as an example of this treatment.

Table 5-4 provides more information about which specific segments are recommended for additional treatments. Further study of all segments would be necessary before deciding on specific traffic calming devices. Additional design guidance for traffic calmed streets is provided in Appendices A and B. A prioritized, phased approach to these improvements is detailed in Section 6.

**Table 5-4
Proposed Class III Facilities**

Class III Facilities - Signed Bicycle Routes (On-Street)				
Segment Name	Begin	End	Class	Length
Belmont Ave.	Kent Ave.	Pastori Ave.	III	0.06
Blackberry Ln.	Creek Rd.	Forrest Ave.	III	0.04
Bolinas Rd.	Broadway Blvd.	Porteous Ave.	III - Sharrows	0.48
Cascade Dr.	Bolinas Rd.	Canyon Rd.	III - Shar/TrafCalm	0.94
Cascade Dr.	Canyon Rd.	Cascade Fire Road	III - Sharrows	0.50
Claus Dr.	Sir Francis Drake Blvd.	Broadway Blvd.	III - Sharrows	0.02
Creek Rd.	Porteous Ave.	Dominga Ave.	III - Shar/TrafCalm	0.20
Dominga Ave.	Creek Rd.	Napa Ave.	III - Shar/TrafCalm	0.25
Forrest Ave.	Meernaa Ave.	Fairfax Town Limit	III	0.80
Glen Dr.	Sir Francis Drake Blvd.	Fairfax Town Limit	III	0.46
Hill Ave.	Ramona Ave.	Kent Ave.	III	0.11
Kent Ave.	Belmont Ave.	Sir Francis Drake Blvd..	III	0.09
Lansdale Ave.	Center Blvd.	Fairfax Town Limit	III - Shar/TrafCalm	0.16
Manor Rd.	Olema Rd.	Olema Rd.	III - Shar/TrafCalm	0.19
Manor Rd.*	Olema Rd.	Scenic Rd.	III - Shar/TrafCalm	0.13
Napa Ave.	Dominga Ave.	Pacheco Ave.	III - Shar/TrafCalm	0.06
Oak Manor Dr.	Sir Francis Drake Blvd.	Manor Elem. Sch.	III	0.19
Pacheco Ave.	Napa Ave.	Center Blvd.	III - Shar/TrafCalm	0.05
Park Rd.	Spruce Rd.	Bolinas Rd.	III - Shar/TrafCalm	0.23
Pastori Ave.	Sir Francis Drake Blvd.	Center Blvd.	III	0.05
Porteous Ave.	Bolinas Rd.	Meernaa Ave.	III - Shar/TrafCalm	0.41
Rockridge Rd.	Iron Springs Rd.	Manor Rd.	III	0.13
Scenic Rd.*	Manor Rd.	Azalea Ave.	III - Shar/TrafCalm	0.20
Sequoia Rd.	Scenic Rd.	Spruce Rd.	III - Shar/TrafCalm	0.19
Sherman St.	Bolinas Rd.	Dominga Ave.	III	0.05
Spruce Ave.	Sequoia Rd.	Azalea Ave.	III – Shar/TrafCalm	0.17
				6.17

*Existing Class III signed bicycle route

BICYCLE PARKING AND END-OF-TRIP FACILITIES

Bicycle parking includes standard bike racks, weather-protected bicycle parking, enclosed lockers, and secure “corrals”. In addition, due to lack of sidewalk space for bicycle rack placement the BPAC has recommended a trial installation of “on-street” bicycle parking areas which would take the place of unused red curb zone areas in the downtown area. Other end-of-trip facilities include showers and changing facilities.

RECOMMENDATIONS

Increase Public Bicycle Parking Facilities and Encourage Provision of Shower and Changing Facilities

The Town should seek to continue to provide bike racks at public destinations, including major bus stops, community centers, libraries, parks, schools and commercial areas. All bicycle parking should be in a secure area, if possible. Employers should be encouraged to provide secure indoor parking, covered bicycle parking, or bicycle lockers.

The following are potential new or improved locations for inverted-u or equivalent secure bicycle parking racks as determined through the BPAC process:

- North side of Sir Francis Drake Boulevard Businesses:
 - Café Lotus
 - Quality Liquors
 - Peri’s Deli
 - Barefoot Cafe
 - Fairfax Cyclery/IGA (locate on sidewalk between tree planters)
- Fairfax Theater
- Bev’s Hair Design
- Fairfax Lumber
- 4 additional racks at other locations along Broadway Avenue

In addition to the locations proposed above, the BPAC also requested racks on the sidewalk of the Fair-Anselm Shopping Plaza. However, because this location is on private property, it has been deferred pending discussion with the property owner.

The following are proposed trial locations for inverted-u bicycle parking racks as determined through the BPAC process. Locations would use a free-standing rack with approximately a 12-bike capacity and would be separated from the adjacent parking spaces and travel lane by flexible plastic bollards mounted to the pavement.

- Grilly’s (rack in red curb zone on Bolinas Road)
- Fairfax Scoop (rack adjacent to curb in unused area near diagonal parking)

In addition to these two locations, the BPAC requested on-street parking in the red zone in front of Szechuan Chef and in the yellow loading zone in front of Ghiringhelli’s Pizza. The former location was considered but noted that the red zone may exist to facilitate turns into Mono Lane from

Bolinas Road, which has narrow travel lanes. The latter location is actively used by evening pizza delivery drivers.

Additional bike parking is recommended along Bolinas Avenue but because redesign of this section of downtown is currently being undertaken as a part of the General Plan Update specific recommendations are not given in this document.

Provide Valet Bike Parking at Public Events

As described in the policy recommendations in Chapter 2, a formal program to provide closed-in secure bicycle corrals at all large public permitted events to encourage residents and visitors to bicycle rather than drive should be instituted. In the past valet parking has been provided by the Marin County Bicycle Coalition and others at special events held in downtown such as the Fairfax Festival. Volunteers are critical to the success of such a program as they are typically used to staff the corral during the events. Examples of events which could benefit from such a program include the weekly Farmer's Market, where temporary bicycle parking is desired as an alternative to permanent racks which would require paving a large concrete pad in the park in order to be able to accommodate the larger number of weekly riders.

Create a "Bike Center"

Fairfax is an ideal staging point for some of the best recreational road cycling and mountain biking in Marin County and the Bay Area region. In addition, Fairfax has the highest level bike commuters to work and school. The many riders who visit Fairfax constitute an underutilized resource for local businesses which could benefit from their patronage. For this reason the Town, in partnership with the Chamber of Commerce, should pursue development of a "Bicycle Center", potentially with the involvement of an existing gym or bicycle shop, which would allow cyclists to store their bikes and change and shower before dining, seeing a movie or meeting up with friends at a local café or bar. The Center could offer optional services such as bike maintenance, cleaning and laundry. The facility could be funded through a combination of these optional services, sales of energy bars and sport drinks, memberships, and/or per-use fees.

Improve and Increase Bicycle Parking Facilities at Fairfax Schools

Currently both of the public schools, Manor and White Hill, have bicycle parking, as does Cascade Canyon, a private elementary. All indications are that bicycle parking needs will increase, given the increasing numbers of school bicycle commuters and ongoing promotion, education and encouragement efforts of the Ross Valley SR2S Task Force. At this time SR2S parents and Town staff have identified a need for more bicycle racks.

- Manor Elementary School – currently has capacity to accommodate 120 bikes on the field area, in addition to small racks for 4 bikes in front of the office. There is need for one more rack with space for 7-10 bikes to place at the kindergarten area.
- White Hill Middle School – currently has a bike "corral" adjacent to the exiting curb of the parking lot. The corral is approximately 25' x 55', and has wire fencing and wooden posts with a locking gate. There are racks to accommodate 70 bikes. The "floor" of the corral is uneven dirt and crushed gravel. Ingress and egress is problematic as cyclists have to either cross the paths of pedestrians or exiting cars. The corral also lacks any cover from inclement weather. An additional 30 spaces would accommodate future capacity needs. This parking

area should be redesigned and relocated to address circulation safety issues with accessing the parking area, improve the cage, paving the parking area, add sheltered parking and improve and reorganize the racks within the cage.

- Cascade Canyon Elementary School – has a rack with capacity for 12 bikes that is by the office and meets the needs of the school's bicycling community at this time.

BICYCLE SIGNAL DETECTION

As described in Chapter 3, the Town of Fairfax has no official policy regarding bicycle signal detection. The following recommendations are intended to expand the town's existing signal detection efforts to include bicycles along all designated lanes/routes and at key intersections.

RECOMMENDATIONS

Calibrate Loop Detectors and Video Detection Devices

While detector loops and video detection facilitate faster and more convenient motorist trips, if they aren't calibrated properly or stop functioning, they can frustrate cyclists waiting for signals to change, unaware that their bicycle is not being detected. Where appropriate, the Town should ensure that all existing loops and video detection devices are calibrated and operable for bicycle users.

Develop Policy of Installing Bicycle-Calibrated Loop Detectors or Video Detection with Bicycle Zones at Signalized Intersections

The Town should develop a policy of installing bicycle-calibrated loop detectors at intersections along designated bike routes as they are repaved. For new installations it is recommended that the Town use Type D for lead loops in all regular travel lanes shared with bicycles. Within bike lanes it is recommended that the Town install Bicycle Loop Detectors (BLDs) using narrow Type C loops.

Where video detection is currently or planned to be in use, it is recommended that the Town continue and expand its practice of incorporating additional detection zones for bicycles, especially for intersections with sidepath, wide curb lane or Class II bicycle lane facilities. Video image detection should sense bicycles in all approach lanes and also on the left side of right-turn channelization islands. Some video systems can estimate approach speed, and this capability could be used to extend the green time for slow objects assumed to be bicycles.

Apply Pavement Stenciling to Indicate Detection Areas

Since most cyclists, as well as motorists, do not know how loop detectors or video detection work, all detector loops and video detection areas expected to be used by cyclists should be marked by a pavement stencil such as the Caltrans Standard Plan A24C bicycle detection marking that shows cyclists where to stop to activate the loop or video detection. Educational materials distributed by the Town should describe how to activate bicycle detectors. Stencils should be repainted as needed along with other roadway markings.

Potential Locations for Bicycle Detection

The following signalized intersections are potential locations for improved bicycle detection, subject to further feasibility analysis and traffic studies:

- Sir Francis Drake Boulevard and:

- Oak Manor Drive
- Claus Drive
- Pastori Avenue
- Kent Avenue
- Any future traffic signal locations

SHARE THE ROAD SIGNS

As described in Chapter 3, the Town of Fairfax has yellow “Share the Road” bicycle warning signs posted at several locations throughout town, intended to increase motorist and cyclist awareness of the need to share narrow roadways with limited sightlines or other potential safety issues.

RECOMMENDATION

The Fairfax BPAC should make recommendations for where future “Share the Road” signs should be installed, keeping in mind the goal of minimizing “sign pollution.” “Share the Road” signs are intended for installation on Class III bike routes and in other locations where there may be fast moving traffic and narrow right-of-way, limited sightlines or other potential safety concerns. The Share the Road signs are intended to compliment that County Bicycle Route Guide Sign System.

5.2. PEDESTRIAN FACILITY IMPROVEMENTS

This section discusses capital project recommendations for Fairfax's pedestrian network. These infrastructure improvements are intended to enhance pedestrian access and circulation as well as help pedestrians feel more comfortable when walking in Fairfax.

A number of recommendations are made for infrastructure projects that should be implemented on a broad Townwide basis. These projects were divided into several categories of improvements: Sidewalk Gaps, Curb Ramps, Signalized Intersections, Signal Timing, Unsignalized Intersections. Following the Townwide project recommendations, a number of example project recommendations are identified. These projects seek to improve specific intersections, corridors, or other locations that were identified through the existing conditions and public input process as needed improvement areas.

More details about specific improvement types are provided in the Design Guidelines appendix.

INFILL OF WALKWAY GAPS

Walk gaps are areas in Fairfax where there is no walkway, or the walkway ends abruptly, resulting in a discontinuous network. Areas without walkways may force pedestrians to walk along the edge of the roadway, or may cause pedestrians to cross at undesignated crossing locations. Where feasible, providing a continuous pedestrian sidewalk along both sides of all of Fairfax's roadways is recommended.

RECOMMENDATION: A complete Townwide inventory of walkway gaps was not within the scope of this plan update. The Town should conduct additional a comprehensive sidewalk and pathway inventory in order to develop a detailed electronic inventory of sidewalk gaps needing to be installed and develop a process for prioritizing and filling these gaps. In addition, the town should continue to work to establish walkways along the existing and proposed pedestrian rights-of-way identified by the Fairfax Volunteers, as feasible.

REDUCTION OF CURB RADII

Historically roadway design standards called for wide curb radii at intersections to promote intersection capacity for motor vehicles. As a result, many of Fairfax's intersections have corners that force pedestrians to walk further to cross the street than at intersections with small or medium turning radii. This design also allows vehicles to make right-turns at relatively high speeds compared to smaller intersections. This should be studied on a case-by-case basis.

RECOMMENDATION: As a Townwide policy, Fairfax should reduce corner curb radii when repaving streets and installing curb ramps where it increases safety of bikes and pedestrians. Fairfax should also consider, where necessary, retrofitting curb radii at all arterial and collector intersections in the downtown area.

CURB RAMP IMPROVEMENTS

CURB RAMPS

An inventory of curb ramps was not conducted for the Plan update. As a part of a curb ramp inventory, data on the slope, side slope, landing dimensions, and other attributes of the curb ramp

are measured in the field. An analysis of this data considers compliance with current ADA regulations for slope, lip height and presence of tactile warnings (“truncated domes”). Retrofitting the cities non-compliant curb ramps is generally something the Town will accomplish as part of roadway re-paving projects (ADA requires that curb ramps be installed or brought up to compliance during street overlays).

RECOMMENDATION: Fairfax should install curb ramps at all locations in the downtown and surrounding neighborhood areas where they currently do not exist. Fairfax should conduct a detailed curb ramp inventory throughout the Town to determine other locations that lack curb ramps. Priority locations for additional inventory would include schools, neighborhood parks, and community centers. As part of normal street re-paving projects, the Town should continue to install curb ramps if none currently exist, and to upgrade existing ramps to current standards.



A curb ramp with truncated domes

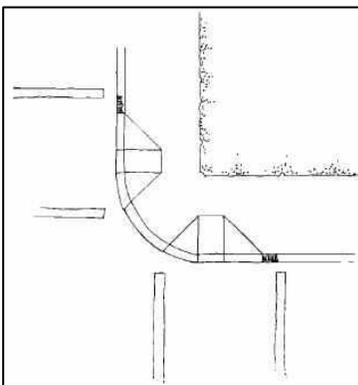
TRUNCATED DOMES

Truncated domes provide a cue to visually-impaired pedestrians that they are entering a street or intersection. Since 2002, ADA Guidelines have called for truncated domes on curb ramps.

Although it is not required for Fairfax to install truncated domes at existing curb ramps that were built prior to 2002, it is recommended that the Town continue installing these devices at high priority pedestrian locations and when re-paving and upgrading existing curb ramps to meet ADA guidelines.

Truncated domes are a very visible improvement, and they are relatively inexpensive to install.

RECOMMENDATION: Fairfax should install truncated domes at all arterial and collector intersections in the downtown and along streets that provide access to the commercial areas. Fairfax should also install truncated domes when re-paving streets and improving existing curb ramps and elsewhere to be in compliance with ADA requirements.



PERPENDICULAR CURB RAMPS

Perpendicular curb ramps are designed so two ramps are included at intersection corners. Perpendicular ramps allow pedestrians and people in wheelchairs to access the sidewalk perpendicular to stopped traffic, and to enter into the crosswalk directly in their line of travel. Perpendicular ramps are not required by ADA or any other standard. However, perpendicular ramps are the preferred curb ramp style from a pedestrian standpoint since they provide the most direct access into the crosswalk. Perpendicular ramps do require more space to install than a single diagonal ramp, are more costly, and sometimes cannot be accommodated due to utilities or

other obstructions at the corner. However, especially at major intersections in high pedestrian zones, it is recommended that they be installed where feasible.

RECOMMENDATION: Fairfax should install perpendicular curb ramps in the downtown area and on adjacent streets and throughout the town as needed.

SIGNALIZED INTERSECTION IMPROVEMENTS

There are a variety of engineering improvements that can improve pedestrians' walking experience when crossing signalized intersections. All of these improvements are discussed in detail in Appendix A - Design Guidelines. An improvement that is recommended for some of Fairfax's signalized intersections is signal retiming. This improvement is described below.

SIGNAL TIMING

Signal timing is the amount of time each phase of a signal is allotted for vehicles to pass through or pedestrians to cross the street. Per the MUTCD, standard traffic engineering design assumes that pedestrians travel at 4.0-feet per second, which is used to determine the amount of time to assign to the pedestrian clearance interval. For slower pedestrians, such as the elderly and children, this assumed walking speed may result in them not being able to fully cross the street before the light changes. By adjusting the signal timing to a slower walking rate, slower pedestrian will have more time to cross the street.

RECOMMENDATION: Fairfax should consider adjusting signal timing at the three signals within the Town to allow for a pedestrian pace of 2.8-feet per second. This slower walking speed is consistent with MUTCD recommendations for walking rates for slower pedestrians. Consideration of signal operation and signal coordination by the County of Marin is necessary for this recommendation, since all three signals are along Sir Francis Drake Boulevard.

AUDIBLE SIGNALS

Audible signals provide a cue to visually-impaired pedestrians that there is a 'Walk' signal. Audible signals are usually chirping sounds and can also be the name of the street to cross. Sounds are activated by the pedestrian push-button. The MUTCD states that installation of audible signals should be based on an engineering study that considers:

- "Potential demand for accessible pedestrian signals
- A request for accessible pedestrian signals
- Traffic volumes during times when pedestrians might be present; including periods of low traffic volumes or high turn-on-red volumes.
- The complexity of traffic signal phasing.
- The complexity of intersection geometry."

RECOMMENDATION: Fairfax should consider installing audible signals at signalized intersections.

UNCONTROLLED CROSSWALK IMPROVEMENTS

Infrastructure improvements at uncontrolled crosswalk locations can help increase the visibility of pedestrians to motorists and improve the pedestrians' walking experience. These improvements are for both unmarked and marked crosswalks at intersections.

HIGH-VISIBILITY CROSSWALK MARKINGS

There are a variety of different striping styles for crosswalks. The Town of Fairfax utilizes two different marking styles for pedestrian crosswalks: the standard “transverse” style, consisting of two parallel lines; and the “ladder” style consisting of the two parallel lines with perpendicular ladder bars striped across the width of the crosswalk. Ladder style crosswalks are used in locations where heightened pedestrian visibility is important, such as around school areas. However, the Town does not currently have a consistent policy to guide the application of ladder crosswalks.

RECOMMENDATION: As a Townwide policy, Fairfax should install ladder crosswalk markings at all uncontrolled crosswalk locations where there are existing tranverse style markings. The Town should also continue its policy of installing high-visibility ladder crosswalk markings at uncontrolled crosswalks on local streets adjacent to schools and at other locations, on a case-by-case basis.

RAISED CROSSWALKS

As described in the MUTCD, raised crosswalks are a combination of speed hump or speed table and crosswalk, which raises a conventional crosswalk, with the goal of increasing visibility of the crosswalk and encouraging frequent users to get in the habit of slowing for the pedestrian crossing.

RECOMMENDATION: Fairfax should consider the use of raised crosswalks at uncontrolled crosswalk locations where there is an existing marked crosswalk and a history of poor motorist awareness of and yielding at the existing crosswalk. Raised crosswalks are appropriate for roadways with lower traffic volumes and are not typically used on high-volume arterial streets. As a form of traffic calming, raised crosswalks should be installed in consultation with police and fire to ensure prompt access for emergency vehicles.

IN-STREET YIELD TO PEDESTRIAN SIGNS

In-Street Yield to Pedestrian Signs are flexible plastic “paddle” signs installed in the center of a roadway to enhance a crosswalk at uncontrolled crossing locations. Currently these signs are in use throughout the downtown area on Broadway Avenue and Bolinas Road and at selected school crosswalk locations such as Oak Manor Drive.

RECOMMENDATION: Fairfax should continue the use of “paddle” crosswalk signs along downtown commercial streets and at selected school locations by installing new signs as needed and maintaining existing sign locations.

IN-PAVEMENT CROSSWALK LIGHTS

This push-button activated device is designed to improve pedestrian safety by increasing motorist awareness of pedestrians at midblock crosswalk locations. When pedestrians push the button, lights imbedded in the pavement on either side of the crosswalk illuminate in a flashing pattern. In-pavement lights have been used at the Marin County Civic Center where they have been successfully at improving motorist yielding to pedestrians in the crosswalk.

It has been the policy of the Fairfax members of the Safe Routes to Schools Task Force to not recommend these for use in the crosswalks on Sir Francis Drake Boulevard, because of lessened visibility for drivers other than those immediately adjacent to the crosswalk. In addition, The Town of San Anselmo has experienced some unexpected maintenance cost where they have been used along Drake. Since there are several overhead mast type crossing signals already along Drake within Fairfax, this policy was adopted for consistency as well as the above safety and maintenance reasons.

The exception to this policy is that mid block crosswalks in downtown may be good locations for in pavement lights, especially where overhead masts would conflict with trees, utilities and the character of downtown streets.

RECOMMENDATION: Fairfax should consider installation of in-pavement flashing lights at mid-block crosswalk locations such as those along Broadway Avenue, Center Boulevard and Sir Francis Drake Boulevard (east of Claus Drive in the downtown area).

CURB EXTENSIONS

Curb extensions, also called “bulbouts” to describe their shape, are engineering improvements intended to reduce pedestrian crossing distance and increase visibility. In addition to shortening the crosswalk distance, curb extensions serve to increase pedestrian visibility by allowing pedestrians to safely step out to the edge of the parking lane where they can see into the street, also making them more visible to oncoming drivers. Curb extensions can also improve safety by visually narrowing the roadway, cueing drivers to reduce their speed. Despite their advantages, curb extensions can require major re-engineering of the street, can be extremely costly, and are not appropriate for all situations.

RECOMMENDATION: Fairfax should consider the feasibility of installing curb extensions at crosswalk locations where appropriate.

EXAMPLE PEDESTRIAN PROJECTS

The following list of pedestrian projects was developed based on past public input and the input from Staff and the BPAC. A number of these projects are already developed and funded. Note that all new crosswalk locations assume installation of curb ramps to meet ADA requirements.

- Oak Manor Sidewalk project – funded SR2S project which proposes to close a sidewalk gap. As suggested by the BPAC, future projects for this area could include traffic calming.
- Center Boulevard Project – funded street rehabilitation project which proposes to install new and improved sidewalk segments as well as new crosswalks, curb extensions and lighting. If not already included, project should include use of crosswalk “paddle” signs, similar to existing practice on Broadway Avenue and Bolinas Road.
- Pastori Sidewalk Project – funded NTPP project which proposes to install new sidewalks and crosswalks. If not already included, project should include use of crosswalk “paddle” signs, similar to existing practice on Broadway Avenue and Bolinas Road.
- Glen Drive Improvements – funded SR2S project which proposes new sidewalks and improved crosswalks on Glen Drive and Sir Francis Drake Boulevard near White Hill School. If not already included in the current project, future improvements could include use of crosswalk “paddle” signs, similar to existing practice on Oak Manor Drive at Manor School and speed humps or other traffic calming devices.
- Sir Frances Drake Sidewalk Project – funded NTPP project which proposes to install sidewalks on the west side of SFD between Olema Road and Claus Drive.

- Cascade Drive Improvements – ongoing project currently being studied, which includes potential improvements as appropriate for various segments, such as:
 - Walkway on at least one side of the street. Volunteer Joe Breeze has developed a proposal for a walkway with a pervious surface along Cascade Drive that takes advantage of existing public right-of-way. The project would require retaining walls in several areas and may need to be studied further for ADA compliance
 - Crosswalks at intersection locations as needed
 - Pedestrian safety signage including “paddle” signs
 - Traffic Calming such as curb extensions
- Porteous Road Project – conceptual project which includes the following potential improvements, to be developed through a process in partnership with local residents:
 - Walkway with context-sensitive surface such as crushed granite has been proposed by residents, compliant with Town goals of maintaining water pervious surfaces especially in creek areas.
 - Crosswalks at intersection locations as needed
 - Traffic calming such as curb extensions at identified problem locations such as the intersection of Porteous and Creek
 - Speed limit reduction to create “Neighborhood Zone” or “Village Speed Limit”
- Downtown pedestrian improvements (Broadway and Bolinas) – conceptual improvement project to improve conditions for pedestrians in the downtown business district, including the following potential improvements:
 - Sidewalk surface maintenance
 - Improved crosswalks at intersection and mid-block locations as needed
 - Curb extensions/traffic calming at intersection and mid-block locations as needed
 - Maintenance and reinstallation of existing “paddle” crosswalk sign locations
 - New crosswalk of Sherman at Bolinas Road
 - New crosswalk of Bolinas Road at Mono Way
 - New crosswalk of Broadway Avenue near School Street; would require high visibility treatment and advance warning signs/beacons due to line of sight topography issues; thorough study recommended before implementing a new crosswalk in this area
 - Potential speed limit reduction if warranted by traffic study
- Sir Frances Drake crossing improvements – conceptual project that proposes improved crosswalks at intersection and mid-block locations, including the following potential improvements:
 - High-visibility crosswalks
 - Improved warning signage
 - In-pavement flashing crosswalk lights
 - Overhead flashing beacons
- Elsie/Mono/Bank sidewalk and streetscape project – this conceptual project has been discussed by both the General Plan Advisory Committee as well as the BPAC. The project is proposed for an area with an undeveloped streetscape. The project includes the following potential improvements:

- Continuous sidewalks on both sides of the street
 - Addition of curb and gutter, landscaping and traffic calming
 - Potential or partial closure of Mono
 - Crosswalks at intersection and mid-block locations as needed
- Pacheco/Dominga/Creek – this corridor has been identified as a key pedestrian connection to and from the downtown warranting the following potential improvements:
 - Filling sidewalk gaps
 - Improving crosswalks at intersection locations
 - Traffic calming such as curb extensions at intersections
 - Speed limit reduction to create “Neighborhood Zone” or “Village Speed Limit”
- Park/Sequoia/Spruce/Scenic/Manor – this corridor has been identified by both the BPAC and the SR2S task force as a key pedestrian connection to and from the downtown and to schools, warranting the following potential improvements:
 - Filling sidewalk gaps
 - Improving crosswalks at intersection locations
 - Installing new crosswalks as needed
 - Traffic calming such as curb extensions and speed humps
 - Speed limit reduction to create “Neighborhood Zone” or “Village Speed Limit”
- Hawthorne Bike/Ped Bridge – similar to the new Manor Bridge, a bridge at this location would connect Hawthorne Court to the intersection of Sir Francis Drake Boulevard and Oak Manor Drive, creating a direct pedestrian route from the neighborhood to Oak Manor School.
- Lansdale Walkway – this conceptual project would add a walkway alongside Lansdale Avenue to fill a pedestrian connection gap in an area where there is currently no separated walkway leading to existing sidewalks in San Anselmo. This project is likely to be extremely challenging due to the need to remove either parking or vegetation and do significant grading and construction of retaining walls. This project would be an option instead of the long-term alternative for the connection between Fairfax and San Anselmo. A third option for this area would involve creation of a low-speed traffic-calmed “Living Street” where cars would travel at the same speed at bicycles and pedestrians and all users would share the same right of way. This design is not typical in the United States but has been implemented in many areas of Europe.

5.3. RECOMMENDED POLICIES AND PROGRAMS

Support policies programs are an important component of a bicycle and pedestrian transportation system. Bikeway and walkway facilities alone are not sufficient to increase cycling. Programs such as bikeway and sidewalk management and maintenance, and promotional and educational programs may contribute to improved convenience and safety for pedestrians and cyclists, and help create the cultural shift that is necessary to increase walking and bicycling as a mode of transportation. The following section includes both general and specific recommendations for programs.

DEVELOPMENT AND CAPITAL PROJECTS

One of the critical challenges of providing pedestrian and bikeway improvements is funding their construction. Private projects such as new or redevelopment and public projects such as planning Capital Improvements Projects (CIP) provide excellent opportunities for cost-effective implementation of bikeways.

RECOMMENDATION - DEVELOPMENT AND REDEVELOPMENT

A policy should be developed requiring bikeway and pedestrian improvements as a condition of private redevelopment or new construction. Based on specific criteria, construction of bikeways and walkways as a part of such projects could be required for development permits. Bicycle and pedestrian facilities can also be incorporated into the town's traffic mitigation strategies as an option for developers. Bikeways and walkways to be constructed should be from the adopted Town of Fairfax Bicycle and Pedestrian Master Plan and be reviewed by staff with the involvement of the BPAC. End of trip facilities such as secure, indoor bicycle parking, showers and lockers should be integrated according to national best practices, as needed.

RECOMMENDATION - TRANSPORTATION CAPITAL PROJECTS

A policy should be developed to integrate bikeway and pedestrian facility construction into the Town's Capital Improvements Projects program and other larger roadway projects. To achieve cost-savings projects such as striping bicycle lanes and high visibility crosswalks can be added to roadway construction, reconstruction and resurfacing at much lower cost proportionally to a stand-alone bikeway or pedestrian project.

MAINTENANCE

Maintenance is often identified as one of the chief obstacles in the implementation of local bike and pedestrian plans in Marin County. Fairfax's bikeways and walkways should be well-maintained. Some tasks, such as repairing damaged and potholed roadway surfaces, clearing plant overgrowth and regular sweeping are associated with routine roadway maintenance. Additional care and attention should be taken to ensure bikeways are included in the maintenance. For example, street sweeping activities should include the bike lane and not transfer debris out of the roadway and into the bicycle lane. Other maintenance activities are bikeway specific, and could include restriping lanes, repainting stencils and replacing signs. Clearing storm debris, repairing cracks in the sidewalk and fixing trip-and-fall hazards are all typical routine sidewalk maintenance to ensure continued ADA accessibility. Roadway and other capital improvement construction projects present unique challenges for maintaining bikeways and pedestrian facilities.

RECOMMENDATION - ROUTINE MAINTENANCE

Bikeways and walkways are an integral part of Fairfax's transportation network, and maintenance of the bikeway network should be part of the ongoing maintenance program for all Town transportation facilities.

RECOMMENDATION - ROADWAY AND CONSTRUCTION PROJECTS

Bikeways and walkways should be maintained and preserved during roadway and construction projects that impact their use. Bikeways and sidewalks should be kept free of construction debris. In

the case that bicycle or pedestrian facilities must be obstructed for the purposes of construction an appropriate, clearly-signed route should be signed through or around the construction area that does not increase users' exposure to safety hazards.

RECOMMENDATION - "SPOT IMPROVEMENT" MAINTENANCE

The Town should ensure that a mechanism exists to alleviate potential hazards for bicyclists and pedestrians at specific locations. Training should be provided if necessary to ensure that public works maintenance employees recognize recurring bicycle and pedestrian issues such as:

- Improperly designed or placed drainage grates
- Cracks or seams in the pavement or sidewalk
- Overhanging tree limbs or encroaching vegetation located along bikeways and walkways
- Areas where debris accumulates in bike lanes and on sidewalks and pathways

RECOMMENDATION - INTEGRATE MAINTENANCE INTO DPW PROCESS

All printed and online bicycle education materials and maps should include the Department of Public Works maintenance request website and phone number.

PROTECT NONMOTORIZED FACILITIES FROM REMOVAL

RECOMMENDATION

The Town should implement a practice that existing bikeway and pedestrian facilities will not be removed. For example, Class II bike lane facilities should not be removed at a future date to increase motor vehicle capacity without a thorough study analyzing the alternatives and unless the bicycle accommodation is replaced by another facility of equal or greater utility to cyclists.

MULTI-MODAL CONNECTIONS

RECOMMENDATION

The Town of Fairfax should work with the Marin County Transit District and Golden Gate Transit to continue to expand bicycle access to buses. Bicycle travel to transit stops and stations should be enhanced in order to make the transfer between bicycle and transit travel as convenient as possible. Key components to enhancing transit-bike connections include: providing bicycle parking at transit stops, including bike racks at key bus stops and transfer points; providing educational materials regarding transit and bikes-on-transit, including maps to and from stations and stops. Improvements to bicycle rack capacity on buses will benefit Fairfax cyclists who take buses to the wide variety of destinations.

TRAFFIC CALMING

Traffic calming programs are beneficial for all roadway users, especially if programs succeed in reducing the speed differential between automobile and cyclist travel speeds. However, if not appropriately designed, some physical traffic calming devices can present hazards for cyclists. For

example, “chokers” or traffic islands can narrow the space between bicycles and cars and, depending the context, may compromise a cyclist’s safety if not properly designed.

RECOMMENDATION

All physical traffic calming solutions should take into account cyclists’ needs; incorporate design features and signage that ensure that cyclists and motorists have enough room to share the lane; and clearly establish right-of-way priorities. In cases where cyclists’ operating space is reduced, care should be taken to clearly indicate cyclists’ proper roadway positioning using stencils and/or signage as well as other means to increase visibility of cyclists to motorists.

EDUCATION AND ENFORCEMENT PROGRAMS

Statewide trends show that the lack of education for bicyclists, especially younger students, continues to be a leading cause of accidents and traffic violations by cyclists. For example, the most common type of bicycle accident reported in California involves a younger person (between 8 and 16 years of age) riding on the wrong side of the road in the evening hours. Studies of accident locations around California consistently show the greatest concentration of accidents is directly adjacent to elementary, middle, and high schools.

Most education and enforcement programs and activities will likely be cooperative efforts between the Town of Fairfax, the Fairfax Police Department, the Marin County Sheriff’s office, the County of Marin, the Transportation Authority of Marin, SR2S and local bicycle groups such as the Marin County Bicycle Coalition.

RECOMMENDATIONS

Continue and Expand Existing Education and Enforcement Programs

Existing school education programs should be continued. With the passage of Measure A funding for Safe Routes to Schools, the program will continue to be available to Fairfax schools and can be expanded to include non-participating schools. Measure A funding also provides Safe Pathways funding, which provides an incentive for Safe Routes programs to develop infrastructure improvement concepts. More information is found under the separate Safe Routes to Schools section below.

For adult education, the Town should work with law enforcement and the Marin County Bicycle Coalition to publicize local adult bicycle education and safety programs, including Share the Road and Street Skills classes. Fairfax should continue to offer “bicycle traffic school” in the form of Street Skills classes in lieu of fines and should sponsor adult “cycling skills” classes to prevent future traffic violations and unsafe behavior.

In terms of enforcement, the Fairfax Police Department should continue its enforcement efforts of cycling traffic violations and officers should provide Share the Road literature with every citation made of a cyclist. The Police Department should also begin “bicycle sting” and “pedestrian sting” operations in which motorists are cited for failing to yield the right of way to other road users. Additionally, police should begin enforcing the ordinance for no parking on the sidewalks that creates potentially dangerous conditions for pedestrians when cars block the public right of way.

The Town should continue and expand Share the Road Checkpoints with advocacy groups and offer Share the Road safety presentations to community groups and at events. Outreach

opportunities such as a “Bike-In Film Night” at the baseball field with a Share the Road presentation prior to presentation of bicycle-themed movies could reach a large number of cyclists and non-cyclists alike.

ENCOURAGEMENT PROGRAMS

Encouragement programs are vital to the success of the Bicycle and Pedestrian Plan. Encouragement programs work to get more people out of their cars and onto bicycles or walking, which will help to reduce traffic congestion and air pollution, as well as improve the quality of life in Fairfax. In addition to government efforts, involvement by the private sector in raising awareness of the benefits of bicycling and walking is important and can range from small incremental activities by local citizens, to larger coordinated efforts by established non-profit groups. Specific programs are described below.

RECOMMENDATIONS

Facilitate the Development of Employer Incentive Programs

Facilitate the development of employer incentive programs to encourage employees to try bicycling or walking to work, or to transit as a part of their commute. The Town may offer incentives to employers to institute these improvements through lowered auto parking requirements, reduced traffic mitigation fees, or other means. Other efforts could include:

- Developing, promoting and publicizing bicycle commuter services, such as bike shops selling commute gear, bike-on-transit policies, and regular escorted commute rides.
- Creating an annual commuter challenge for area businesses, including both walking and biking.

Utilitarian and Recreational Trip Incentive Programs

The Town may develop and implement encouragement programs for utilitarian and recreational purposes. Local businesses such as movie theaters and cafes should be involved to encourage customers to use a bicycle or walk for their trips. Such efforts may include:

- Creating events such as “Shop by Bike” days, when cyclists get vouchers for, or coupons off items in the store, or “bicycle to the movies” days, when cyclists receive free popcorn or a discount on a movie or refreshments.
- Holding a community event to encourage residents to replace one car trip a week with a bicycle or walking trip.
- Supporting the planning and implementation of an annual bicycle ride in Fairfax to attract new riders, showcase the town, and demonstrate the benefits of bicycling.
- Develop and implement a public education campaign to encourage bicycling and walking.

Bike Fairs and Races

Hosting bike fairs and races in Fairfax can raise the profile of bicycling in the area and provide entertainment for all ages at the same time. Bike fairs and races, similar to bike-to-work day events and bike rodeos currently hosted in the Town provide an opportunity to educate and encourage current and potential bicyclists. These events can also bring visitors to Fairfax that may contribute to the local economy.

Walking Tours and Events

Walking tours and events are an excellent way to publicize walking for recreation and transportation. Tours can showcase the Town's history and geography and take advantage of the many scenic walks in the area as well as raising awareness of the need for pedestrian improvements.

Fairfax Bicycle Route Map and Kiosks

Providing a bicycle route map is the primary tool for showing bicyclists all the designated bikeways in Fairfax and is a high priority for the BPAC. Such a map could be displayed at bike shops and kiosks. A Bicycle Route Map of Fairfax should clearly show the type of facility (path, lane, or route) as well as include basic safety information, significant destinations, the location of bicycle parking facilities, public bathrooms, water fountains, transit stops and bicycle facilities in the neighboring communities. The map should clearly communicate traffic laws relevant to bicycles and the fact that Fairfax takes enforcement of those laws seriously. Posting points for the map include: Town Hall, the library, the community center, local schools, bike shops and existing and proposed kiosks located:

- Sir Francis Drake Boulevard/Olema Road (existing)
- The Parkade (proposed)
- The Java Hut parking lot (proposed)
- Lansdale Avenue/Center Boulevard (existing)

Bike-to-Work and Bike-to-School/Walk-to-Work and Walk-to-School Days

The Town of Fairfax should continue to participate in the annual Bike-to-Work day in May, in conjunction with the California and Marin County bike-to-work week activities. Town staff should be present at “energizer” stations along the route. The Town should also encourage continued participation by local schools in Walk and Bike to School Day and may also consider implementing Walk-to-Work or Walk-to-Transit days.

SAFE ROUTES TO SCHOOLS

Identifying and improving routes for children to walk or bicycle to school is an effective means of reducing morning traffic congestion and addressing potential safety concerns around schools. Most effective school commute programs are joint efforts of the school district and Town or County, with parent organizations adding an important element. The traffic calming, route maps and infrastructure improvements that result from an extensive Safe Routes to School plan benefit not only students walking and biking to school, but also other cyclists and pedestrians that are using routes near schools. As the Safe Routes to School's Task Force develops capital recommendations, they should be presented to the BPAC for review. Consistent with the policies in Section 2, when appropriate, SR2S capital projects should be forwarded to the Town Council for approval through the existing capital projects bid process.

RECOMMENDATIONS

The Town of Fairfax should continue its support of the Safe Routes to Schools program within the Ross Valley School District and private schools. Safe Routes infrastructure improvements at local schools should be coordinated with town-wide bicycle infrastructure improvements to create a seamless network by which school-aged children can travel by bicycle and on foot.

The following five recommendations are incorporated from the Transportation Authority of Marin's SR2S Program Evaluation for 2005-2006:

- Expand to Other Schools
- Utilize the Measure A Safe Pathways Capital Funding Program
- Sustain and Increase Participation, Enthusiasm, and Continuity
- Continue to Remove Barriers to Alternative Modes
- Increase Transit Availability

More details are available on the TAM website: www.tam.ca.gov

6. PLAN IMPLEMENTATION

This chapter identifies steps towards implementation of the proposed facilities and programs of this plan, the estimated costs for the proposed improvements and maintenance, and strategies on funding and financing.

6.1. IMPLEMENTATION PROCESS

The steps between the network improvements and concepts identified in this Plan and the final completion of the improvements will vary from project to project, but typically include:

1. Adoption of the 2008 Fairfax Bicycle and Pedestrian Master Plan Update by the Fairfax Town Council.
2. Preparation of a Feasibility Study involving a conceptual design (with consideration of possible alternatives and environmental issues) and cost estimate for individual projects as needed.
3. Secure, as necessary, outside funding and any applicable environmental approvals.
4. Consider the parking needs of businesses and residents in the development of new bicycle lanes through a thorough community engagement process
5. Approval of the project by the Town Council, including the commitment by the latter to provide for any unfunded portions of project costs.
6. Completion of final plans, specifications and estimates, advertising for bids, receipt of bids and award of contract(s).
7. Construction of Project.

6.2. INFRASTRUCTURE PROJECT PRIORITIZATION

Once a bikeway system has been identified, the greatest challenge is to identify the top priority projects that will offer the greatest benefit to bicyclists if implemented. The project prioritization in the following section was developed through a qualitative analysis based on stated priorities of the

BPAC and Town staff, priorities communicated by the public in public meetings and workshops, priorities from the 2001 *Fairfax Bicycle and Pedestrian Master Plan* and the criteria detailed below.

- Continuity – Does the project provide new or significantly improved connectivity on established corridors or between major activity areas that does not currently exist or is not currently usable by the general public?
- Gap Closure – Does the project provide a new connection between major activity centers or on a major corridor that currently either does not exist or has convenience/safety issues?
- Demand Patterns – Does the project serve a significant existing or potential demand, as evidenced by (a) counts or observed activity, (b) comments from the public, (c) connectivity and proximity to major generators, and/or (d) projections from an acceptable demand model?
- Safety – Does the project address a significant safety concern in a community as evidenced by collision data, field observations, and/or public perception and comments?
- Project Readiness – Are the key feasibility issues of the project (right-of-way, environmental impacts, engineering issues, cost issues, neighborhood support) understood and not expected to negatively affect or delay the project? Has any formal feasibility study, engineering or design been conducted?
- Multi-Modal Integration – Does the project provide enhanced connectivity to existing transit services?
- Cost/Benefit analysis – Will the project provide the greatest benefit to cyclists for the amount invested to build it?

It is important to remember that the lists of bikeway projects and programs are flexible concepts that serve as guidelines to those responsible for implementation. The project priorities, and perhaps even the overall system and segments themselves, may change over time as a result of changing bicycling patterns and implementation constraints and opportunities. Project prioritization is not meant as an absolute value, rather as an indication of projects' relative importance only. These priorities should be considered a "living document". The Fairfax BPAC and Town staff should review the project priorities on an annual basis to ensure that it reflects the most current priorities, needs, and opportunities for implementing the bikeway network in a logical and efficient manner, and that in particular the list takes advantage of all available funding opportunities and grant cycles. As projects are implemented and taken off the list, new projects should be moved up in status.

BICYCLE PROJECT PRIORITIZATION AND PHASING:

Prioritization and phasing is presented as a guideline for the Town, and additional circumstances including available funding and implementation of roadway and transit capital projects, or development projects, could result in changes to the priorities to maximize opportunities.

NEAR-TERM:

- Downtown and school bicycle parking
- Center Boulevard Class II Bicycle Lanes/Intersection Treatments (Pastori Avenue to Pacheco Avenue)

- Bolinas Road Class III Signage and Shared Roadway Bicycle Markings (Sharrows)
- Pacheco/Napa/Dominga/Creek/Porteous Class III Signage and Sharrows
- Park/Sequoia/Spruce/Scenic/Manor Class III Signage and Sharrows
- Cascade Drive Class III Signage and Sharrows (Bolinas Road to Canyon Road)
- Rock Ridge Road, Forrest Avenue, Cascade Drive (Canyon Road to Elliot Nature Preserve Open Space) “Recreational Access” Class III signage only
- Cascade Drive Class III and Traffic Calming (Bolinas Road to Canyon Road, as feasible)
- All remaining Class III signage
- Maintain all existing signs, striping and stencils

MID-TERM:

- Broadway Class II Bicycle Lanes (Center Boulevard to Claus Drive)
- Pacheco/Napa/Dominga/Creek/Porteous Traffic Calming
- Park/Sequoia/Spruce/Scenic/Manor Traffic Calming
- Cascade Class III Sharrows and Traffic Calming (Canyon Road to Open Space, as feasible)
- Sir Frances Drake Class II (eastbound)

LONG-TERM:

- Hawthorne Bike/Ped Bridge
- Implementation of recommendations from San Rafael-Fairfax Corridor Study for connection to San Anselmo:
 - Class I Pathway between Center Boulevard and Lansdale
 - Class II Bicycle Lanes on Center Boulevard (Pastori to Town Limits)
 - Class III Bicycle Route with Sharrows and Traffic Calming

PEDESTRIAN PROJECT PRIORITIZATION AND PHASING:

NEAR-TERM:

- Oak Manor Sidewalk project
- Center Boulevard Project
- Pastori Sidewalk Project
- Glen Drive Improvements
- Oak Manor Drive/Sir Francis Drake Boulevard Crosswalk and Pedestrian Beacon
- Cascade Drive Improvements:
 - Crosswalks at intersection locations as needed for existing sidewalks
 - Pedestrian safety signage including “paddle” signs
 - Traffic Calming such as curb extensions for existing sidewalk areas
 - Pedestrian rights-of-way improvements at 200 block below Laurel at curve
- Downtown pedestrian improvements (Broadway and Bolinas):
 - Sidewalk surface maintenance
 - Improved crosswalks at intersection and mid-block locations as needed
 - Maintenance and reinstallation of existing “paddle” crosswalk sign locations
 - New crosswalk of Bolinas Road at Mono Way
 - New crosswalk of Bolinas Road at Sherman Avenue
 - New crosswalk of Broadway Avenue at School Street (pending safety study)
- Sir Frances Drake crossing improvements:
 - High-visibility crosswalks

- Improved warning signage
- Pacheco/Napa/Dominga/Creek:
 - Improving existing crosswalks at intersection locations
 - Installing new crosswalks as needed
 - Potential speed limit reduction
- Park/Sequoia/Spruce/Manor:
 - Improving existing crosswalks at intersection locations
 - Installing new crosswalks as needed
 - Potential speed limit reduction

MID-TERM:

- Sir Frances Drake Sidewalk Project
- Downtown pedestrian improvements (Broadway and Bolinas):
 - Curb extensions/traffic calming at intersection and mid-block locations as needed
- Sir Frances Drake crossing improvements:
 - In-pavement flashing crosswalk lights (east of Claus Drive)
- Pacheco/Napa/Dominga/Creek:
 - Filling sidewalk gaps
 - Traffic calming such as curb extensions at intersections
- Park/Sequoia/Spruce/Manor:
 - Filling sidewalk gaps
 - Traffic calming such as curb extensions and speed humps
- Cascade Drive Improvements:
 - Walkway on at least one side of the street (Bollinas Road to Canyon Road)
 - Traffic Calming such as curb extensions (Bollinas Road to Canyon Road)

LONG-TERM:

- Porteous Road Project:
 - Walkway with context-sensitive surface such as soft-surface with pine resin binder, colored asphalt pathway, and/or crushed granite
 - Crosswalks at intersection locations as needed
 - Traffic calming such as curb extensions at identified problem locations such as the intersection of Porteous and Creek
- Elsie/Mono/Bank sidewalk and streetscape project:
 - Continuous sidewalks on both sides of the street
 - Addition of curb and gutter, landscaping and traffic calming
 - Potential or partial closure of Mono or Elsie
 - Crosswalks at intersection and mid-block locations as needed
- Hawthorne Bike/Ped Bridge
- Lansdale Sidewalk

6.3. COST ESTIMATES

A breakdown of conceptual cost estimates for the recommended bicycle and pedestrian network detailed in this plan is presented in **Tables 6-1** through **6-6** below. The final construction cost the bicycle and pedestrian network may be less than the sum of these options, since in some cases one option will be chosen above another. It is important to note the three following assumptions about the cost estimates. First, all cost estimates are highly conceptual, since there is no feasibility or preliminary design completed, and second, the design and administration costs included in these

estimates may not be sufficient to fund environmental clearance studies. In particular, pedestrian project cost estimates provided here would need to be further refined through project development because in most cases specific existing conditions (e.g. exact length of sidewalk gaps, presence or absence of curb ramps) are not known as of this writing. Due to their complexity, costs for the Class I Pathways proposed here would need to be reexamined as a part of future planning and design studies, and are presented as a rough starting point only. Finally, cost estimates are a moving target over time as construction costs escalate quickly.

All the projects are recommended to be implemented on near-term, mid-term or long-term timelines, or as funding is available. The more expensive and complex projects may take longer to implement. In addition, many funding sources are highly competitive, and therefore impossible to determine exactly which projects will be funded by which funding sources. Timing of projects is also something difficult to pinpoint exactly, due to the dependence on competitive funding sources, timing of roadway and development, and the overall economy.

The projects listed may be funded through various sources and some have already secured full or partial funding as noted in Chapter 5. The funding section in this chapter outlines some of the local, regional, State and federal funding methods and resources for non-motorized transportation projects.

**Table 6-1
Bikeway System Cost Estimates**

Class I Facilities - Multi-Use Paths (Off-Street)							
Segment Name	Begin	End	Class	Length	Near-term	Mid-term	Long-term
Center Blvd. Sidepath	Pastori Ave.	Fairfax Town Limit	I	0.16	\$0	\$0	\$225,000
Hawthorne Ct. Bridge	Hawthorne Ct.	Sir Francis Drake Blvd.	I (bridge)	0.02	\$0	\$0	\$450,000
				0.18	\$0	\$0	\$675,000
Total Class I Bicycle Pathways						\$675,000	
Base cost for installation of a typical Class I Shared Use Pathway is \$641,400/mi; additional costs are based on the need for excavation, retaining walls and undergrounding drainage.							
Class II Facilities - Striped Bicycle Lanes (On-Street)							
Segment Name	Begin	End	Class	Length	Near-term	Mid-term	Long-term
Center Blvd.	Fairfax Town Limit	Pastori Ave.	II	0.17	\$0	\$0	\$29,400
Sir Francis Drake Blvd. (eastbound)	Olema Rd.	Claus Dr.	II	0.33	\$0	\$0	\$28,600
Center Blvd.	Pastori Ave.	Pacheco Ave.	II	0.26	\$4,600	\$0	\$0
Broadway Ave.	Pacheco Ave.	Claus Dr.	II	0.13	\$0	\$5,900	
				0.89	\$4,600	\$5,900	\$58,000
Total Class II Bicycle Lanes						\$68,500	
Base cost for installation of a typical Class II Bicycle Lane is \$17,600/mi; additional costs based on roadway widening and grading.							
Class III Facilities - Signed Bicycle Routes (On-Street)							
Segment Name	Begin	End	Class	Length	Near-term	Mid-term	Long-term
Belmont Ave.	Kent Ave.	Pastori Ave.	III	0.06	\$100	\$0	\$0
Blackberry Ln.	Creek Rd.	Forrest Ave.	III	0.04	\$100	\$0	\$0
Bolinas Rd.	Broadway Blvd.	Porteous Ave.	III - Sharrows	0.48	\$2,400	\$0	\$0

Segment Name	Begin	End	Class	Length	Near-term	Mid-term	Long-term
Cascade Dr.	Bolinas Rd.	Canyon Rd.	III - Shar/ TrafCalm	0.94	\$2,800	\$169,200	\$0
Cascade Dr.	Canyon Rd.	Cascade Fire Road	III - Shar/ TrafCalm	0.50	\$1,000	\$0	\$91,500
Claus Dr.	Sir Francis Drake Blvd.	Broadway Blvd.	III - Sharrows	0.02	\$400	\$0	\$0
Creek Rd.	Porteous Ave.	Dominga Ave.	III - Shar/ TrafCalm	0.20	\$1,000	\$36,500	\$0
Dominga Ave.	Creek Rd.	Napa Ave.	III - Shar/ TrafCalm	0.25	\$1,200	\$44,900	\$0
Forrest Ave.	Meernaa Ave.	Fairfax Town Limit	III	0.80	\$1,600	\$0	\$0
Glen Dr.	Sir Francis Drake Blvd.	Fairfax Town Limit	III	0.46	\$900	\$0	\$0
Hill Ave.	Ramona Ave.	Kent Ave.	III	0.11	\$200	\$0	\$0
Segment Name	Begin	End	Class	Length	Near-term	Mid-term	Long-term
Kent Ave.	Belmont Ave.	Sir Francis Drake Blvd.	III	0.09	\$200	\$0	\$0
Lansdale Ave.	Center Blvd.	Fairfax Town Limit	III - Shar/ TrafCalm	0.16	\$500	\$0	\$28,800
Manor Rd.	Olema Rd.	Olema Rd.	III - Shar/ TrafCalm	0.19	\$1,000	\$34,200	\$0
Manor Rd.*	Olema Rd.	Scenic Rd.	III - Shar/ TrafCalm	0.13	\$400	\$23,600	\$0
Napa Ave.	Dominga Ave.	Pacheco Ave.	III - Shar/ TrafCalm	0.06	\$300	\$11,000	\$0
Oak Manor Dr.	Sir Francis Drake Blvd.	Manor Elem. Sch.	III	0.19	\$400	\$0	\$0
Pacheco Ave.	Napa Ave.	Center Blvd.	III - Shar/ TrafCalm	0.05	\$200	\$8,500	\$0
Park Rd.	Spruce Rd.	Bolinas Rd.	III - Shar/ TrafCalm	0.23	\$1,200	\$41,600	\$0
Pastori Ave.	Sir Francis Drake Blvd.	Center Blvd.	III	0.05	\$100	\$0	\$0
Porteous Ave.	Bolinas Rd.	Meernaa Ave.	III - Shar/ TrafCalm	0.41	\$2,100	\$74,300	\$0
Rockridge Rd.	Iron Springs Rd.	Manor Rd.	III	0.13	\$300	\$0	\$0
Scenic Rd.*	Manor Rd.	Azalea Ave.	III - Shar/ TrafCalm	0.20	\$600	\$36,400	\$0
Sequoia Rd.	Scenic Rd.	Spruce Rd.	III - Shar/ TrafCalm	0.19	\$1,000	\$34,700	\$0
Sherman St.	Bolinas Rd.	Dominga Ave.	III	0.05	\$100	\$0	\$0
Spruce Ave.	Sequoia Rd.	Azalea Ave.	III - Shar/ TrafCalm	0.17	\$900	\$30,600	\$0
				6.17	\$21,000	\$545,500	\$120,300
Total Class III Bicycle Routes						\$686,800	
Base cost for installation of a typical Class III Signed Bicycle Route is \$2,000/mi; additional costs based on shared lane and school bike route stencils and traffic calming.							
Total cost of improvements by phase (Near/Mid/Long-Term)					\$25,500	\$551,400	\$853,300
Total cost of bikeway network (complete buildout)					\$1,430,200		

Table 6-2 Bicycle Detection Estimated Costs*

Item	Approximate Cost Per Leg of Intersection
Calibrate existing loops	\$300
Calibrate or re-zone existing video detection	\$150
Install new detection loops	\$3,000
Install new zoned video detection	\$5,000
Install stencils	\$100

* Costs based on US DOT information available as of April 2007.

Table 6-3 Bicycle Detection Locations

Intersections	Number of Legs of Intersection
SFD at Oak Manor Dr	3
SFD at Claus Dr	4
SFD at Pastori Ave	4
SFD at Kent Ave	4
Total number locations	15

Exact cost estimates cannot be provided for these projects because existing conditions at the candidate intersections were not known as of this writing. However, based on 4 candidate on-street bikeway signalized intersections with a total of 15 potential locations for bicycle detection and assuming that 50% of the locations have functional loop detectors that can be recalibrated to detect bicycles, the total cost estimate for this project is approximately \$24,900. It should be noted that this cost estimate is speculative at best. Real costs cannot be identified until a further survey of existing conditions is completed and bicycle detection improvements may also be implemented as part of other intersection improvements.

Table 6-4 Bicycle Parking Locations

Location	Recommended Number Additional Racks	Cost Per Location
On Sidewalk*		
Fairfax Theater	2	\$500
Bev's Hair Design	1	\$250
Fairfax Lumber	1	\$250
IGA/Fairfax Cyclery	2	\$500
Peri's Deli	1	\$250
Lotus Café	1	\$250
Quality Liquors	1	\$250
Barefoot Cafe	1	\$250
On-Street**		
Grilly's	1	\$1,600
Fairfax Scoop	1	\$1,600
School Locations***		

Location	Recommended Number Additional Racks	Cost Per Location
White Hill School	5	\$1250
Manor School	15	\$14,000***
Total		\$21,000

*Costs are based on inverted-U style racks with two-bike capacity; costs may be higher if alternate rack design is used

**Costs are based on free-standing multiple-element rack with 12-bike capacity and flexible plastic posts.

***Cost includes adding 15 new inverted-U style racks, paving entire existing parking area and weather-protecting shelter for 50% of racks (assuming fewer riders in inclement weather)

Table 6-5 Informational Kiosk Locations

Location	Notes	Cost Per Location
Java Hut Parking Lot	New	\$1,200
Parkade at Transit Stop	New	\$1,200
Sir Francis Drake Boulevard/Lansdale Avenue	Replace/relocate	\$1,200
Sir Francis Drake Boulevard/Olema Road	Replace/relocate	\$1,200
Totals		\$4,800

Table 6-6 Example Pedestrian Improvements Cost Estimates by Segment*

Segment Name	Begin	End	Length	Near-term	Mid-term	Long-term
Bolinas Rd.	Broadway Blvd.	Porteous Ave.	0.48	\$2,200	\$40,000	\$0
Broadway Ave.	Pacheco Ave.	Claus Dr.	0.13	\$2,200	\$60,000	\$0
Cascade Dr.	Bolinas Rd.	Canyon Rd.	0.94	\$13,800	\$40,000	\$525,000
Cascade Dr.	Canyon Rd.	Cascade Fire Road	0.50	\$0	\$0	\$0
Center Blvd.	Pastori Ave.	Pacheco Ave.	0.26	\$1,085,350	\$0	\$0
Creek Rd.	Porteous Ave.	Dominga Ave.	0.20	\$0	\$53,500	\$0
Dominga Ave.	Creek Rd.	Napa Ave.	0.25	\$11,000	\$0	\$0
Elsie/Mono/Bank Project	Broadway Ave.	Bolinas Rd.	0.11	\$0	\$0	\$175,000
Glen Dr.	Sir Francis Drake Blvd.	Fairfax Town Limit	0.46	\$48,000	\$0	\$0
Lansdale Ave.	Center Blvd.	Fairfax Town Limit	0.16	\$0	\$0	\$120,000
Manor Rd.	Olema Rd.	Olema Rd.	0.32	\$10,400	\$0	\$0
Napa Ave.	Dominga Ave.	Pacheco Ave.	0.06	\$9,200	\$0	\$0
Oak Manor Dr. Sidewalk	Sir Francis Drake Blvd.	Manor Elem. Sch.	0.19	\$54,500	\$0	\$0
Oak Manor Drive/Sir Francis Drake Boulevard Crosswalk and Pedestrian Beacon	Oak Manor Drive/Sir Francis Drake Boulevard	Oak Manor Drive/Sir Francis Drake Boulevard	0.00	\$147,000	\$0	\$0
Pacheco Ave.	Napa Ave.	Center Blvd.	0.05	\$11,000	\$0	\$0
Park Rd.	Spruce Rd.	Bolinas Rd.	0.23	\$9,200	\$0	\$0
Pastori Ave.	Sir Francis Drake Blvd.	Center Blvd.	0.05	\$50,000	\$0	\$0
Porteous Ave.	Bolinas Rd.	Meernaa Ave.	0.41	\$0	\$0	\$138,000

Segment Name	Begin	End	Length	Near-term	Mid-term	Long-term
Scenic Rd.	Manor Rd.	Azalea Ave.	0.20	\$9,200	\$0	\$0
Sequoia Rd.	Scenic Rd.	Spruce Rd.	0.19	\$9,200	\$0	\$0
Sir Francis Drake Blvd. Crosswalk Improvements	Pacheco Ave.	Claus Dr.	0.13	\$2,200	\$294,000	\$0
Sir Francis Drake Blvd. Sidewalk Project	Olema Rd.	Claus Dr.	0.33	\$0	\$80,000	\$0
Spruce Ave.	Sequoia Rd.	Azalea Ave.	0.17	\$9,200	\$44,900	\$0
			5.83	\$1,483,650	\$612,400	\$958,000
Total Pedestrian Improvements					\$3,054,050	

*Costs such as traffic calming and the Hawthorne Ct. Bridge included in the bicycle facilities estimates are not duplicated here; concept-level cost estimates for curb ramps are included for segments outside the downtown area; an ADA compliance field review is needed to refine these cost estimates.

6.4. MAINTENANCE

Additional maintenance costs for the bikeway and pedestrian network should be relatively low due to the limited number of new Class I pathway and sidewalk facilities. The recommended bikeway network is predominately made up of on-street bike lanes and routes that will be treated as part of the normal roadway maintenance program. As part of routine maintenance, extra emphasis should be put on keeping the bike lanes and roadway shoulders clear of debris and keeping vegetation overgrowth from blocking visibility, creeping into the roadway or obstructing sidewalks.

6.5. MARKETING THE BICYCLE AND PEDESTRIAN MASTER PLAN

The success of the Fairfax Bicycle and Pedestrian Master Plan depends largely on the community's acceptance and promotion of the Plan's contents. Town departments and commissions should incorporate the policies, objectives and spirit of the Bicycle and Pedestrian Master Plan into their respective projects and responsibilities. The following steps will help ensure the plan becomes a living document, helping shape Fairfax's future.

- Distribute copies of the Plan to members of the Planning Commission
- Distribute copies of the Plan to Town of Fairfax's Engineering, Parks and Recreation, Planning, Police, and Public Works Departments.
- Provide copies of the Town of Fairfax bicycle facilities map to local schools, bicycle and recreational groups, transit agencies, bicycle shops and major employers.
- Post the plan on the Town's website.
- Publish a press release about the creation of the plan.
- Provide a copy of Fairfax Bicycle and Pedestrian Master Plan to the public library.

6.6. FUNDING OPPORTUNITIES

FEDERAL FUNDING SOURCES

The primary federal source of surface transportation funding—including bicycle and pedestrian facilities—is SAFETEA-LU, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users. SAFETEA-LU is the fourth iteration of the transportation vision established by Congress in 1991 with the Intermodal Surface Transportation Efficiency Act (ISTEA) and renewed in 1998 and 2003 through the Transportation Equity Act for the 21st Century (TEA-21) and the Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2003 (SAFETEA). Also known as the federal transportation bill, the \$286.5 billion SAFETEA-LU bill was passed in 2005 and authorizes Federal surface transportation programs for the five-year period between 2005 and 2009.

SAFETEA-LU funding is administered through the State (Caltrans and the State Resources Agency) and regional planning agencies. Most, but not all, of these funding programs are oriented toward transportation versus recreation, with an emphasis on reducing auto trips and providing inter-modal connections. SAFETEA-LU programs require a local match of 11.47%. SAFETEA-LU funding is intended for capital improvements and safety and education programs and projects must relate to the surface transportation system.

Specific funding programs under SAFETEA-LU include:

- Congestion Mitigation and Air Quality (CMAQ) – Funds projects that are likely to contribute to the attainment of national ambient air quality standards
- Recreational Trails Program—\$370 million nationally through 2009 for non-motorized trail projects
- Safe Routes to School Program—\$612 million nationally through 2009
- Transportation, Community and System Preservation Program—\$270 million nationally over five years
- Federal Lands Highway Funds—Approximately \$1 billion dollars are available nationally through 2009

FEDERAL LANDS HIGHWAY FUNDS

Federal Lands Highway Funds may be used to build bicycle and pedestrian facilities in conjunction with roads and parkways at the discretion of the department charged with administration of the funds. The projects must be transportation-related and tied to a plan adopted by the State and MPO. Federal Lands Highway Funds may be used for planning and construction.

TRANSPORTATION, COMMUNITY AND SYSTEM PRESERVATION PROGRAM

The Transportation, Community and System Preservation (TCSP)

FUNDING GLOSSARY

CTC California Transportation Commission

FHWA Federal Highway Administration

MPO Metropolitan Planning Organization

RTIP Regional Transportation Improvement Program

RTP Regional Transportation Plan

RTPA Regional Transportation Planning Agency

SAFETEA-LU Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

STIP State Transportation Improvement Program

Program provides federal funding for transit oriented development, traffic calming and other projects that improve the efficiency of the transportation system, reduce the impact on the environment, and provide efficient access to jobs, services and trade centers. The program is intended to provide communities with the resources to explore the integration of their transportation system with community preservation and environmental activities. TCSP Program funds require a 20% match.

REGIONAL SURFACE TRANSPORTATION PROGRAM

The Regional Surface Transportation Program (RSTP) is a block grant program which provides funding for bicycle and pedestrian projects, among many other transportation projects. Under the RSTP, Metropolitan Planning Organizations, such as MTC, prioritize and approve projects which will receive RSTP funds. TAMC distributes the RSTP funds to local jurisdictions. Metropolitan planning organizations can transfer funding from other federal transportation sources to the RSTP program in order to gain more flexibility in the way the monies are allocated. In California, 62.5% of RSTP funds are allocated according to population. The remaining 37.5% is available statewide.

REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM

The Regional Transportation Improvement Program (RTIP) is a derivative of the STIP program and identifies projects which are needed to improve regional transportation. Such projects may include bicycle and pedestrian facilities, safety projects and grade separation, among many others. RTIP project planning, programming and monitoring may be funded up to .5% of total RTIP funds in urbanized regions and 2% of total RTIP funds in non-urbanized regions. Each RTPA prepares a RTIP, consisting of projects to be funded through STIP. The RTPA's Regional Transportation Plan helps prioritize projects for the RTIP. RTIPs must be approved by the CTC. Projects to be funded by RTIP funds must be identified in the current or next Regional Transportation Plan.

RECREATIONAL TRAILS PROGRAM

The Recreational Trails Program of SAFETEA-LU provides funds to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, and other non-motorized as well as motorized uses. In California, the funds are administered by the California Department of Parks and Recreation. RTP projects must be ADA compliant. Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails;
- Purchase and lease of trail construction and maintenance equipment;
- Construction of new trails; including unpaved trails;
- Acquisition of easements or property for trails;
- State administrative costs related to this program (limited to seven percent of a State's funds); and
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a State's funds).

LAND AND WATER CONSERVATION FUND

Land and Water Conservation Fund is a federally funded program that provides grants for planning and acquiring outdoor recreation areas and facilities, including trails. The Fund is administered by the National Parks Service and the California Department of Parks and Recreation and has been reauthorized until 2015.

Cities, counties and districts authorized to acquire, develop, operate and maintain park and recreation facilities are eligible to apply. Applicants must fund the entire project, and will be reimbursed for 50% of costs. Property acquired or developed under the program must be retained in perpetuity for public recreational use. The grant process for local agencies is competitive, and 40% of grants are reserved for Northern California.

In 2006, approximately \$480,000 was available for projects in Northern California.

RIVERS, TRAILS AND CONSERVATION ASSISTANCE PROGRAM

The Rivers, Trails and Conservation Assistance Program (RTCA) is a National Parks Service program which provides technical assistance via direct staff involvement, to establish and restore greenways, rivers, trails, watersheds and open space. The RTCA program provides only for planning assistance—there are no implementation monies available. Projects are prioritized for assistance based upon criteria which include conserving significant community resources, fostering cooperation between agencies, serving a large number of users, encouraging public involvement in planning and implementation and focusing on lasting accomplishments.

STATEWIDE FUNDING SOURCES

The State of California uses both federal sources and its own budget to fund the following bicycle and pedestrian projects and programs.

BICYCLE TRANSPORTATION ACCOUNT

The Bicycle Transportation Account (BTA) provides state funding for local projects that improve the safety and convenience of bicycling for transportation. Because of its focus on transportation, BTA projects, including trail, must provide a transportation link. Funds are available for both planning and construction. BTA funding is administered by Caltrans and cities and counties must have an adopted Bicycle Transportation Plan in order to be eligible. Town Bicycle Transportation Plans must be approved by the local MPO prior to Caltrans approval. Out of \$5 million available statewide, the maximum amount available for individual projects is \$1.2 million.

WILDLIFE CONSERVATION BOARD PUBLIC ACCESS PROGRAM

Funding for the acquisition of lands or improvements that preserve wildlife habitat or provide recreational access for hunting, fishing or other wildlife-oriented activities. Up to \$250,000 dollars available per project, applications accepted quarterly. Projects eligible for funding include interpretive trails, river access, and trailhead parking areas. The State of California must have a proprietary interest in the project. Local agencies are generally responsible for the planning and engineering phases of each project.

CALIFORNIA CONSERVATION CORPS

The California Conservation Corps (CCC) is a public service program which occasionally provides assistance on construction projects. The CCC may be written into grant applications as a project

partner. In order to utilize CCC labor, project sites must be public land or be publicly accessible. CCC labor cannot be used to perform regular maintenance, however, they will perform annual maintenance, such as the opening of trails in the spring.

SAFE ROUTES TO SCHOOL (SR2S)

In September 2004, with the passage of SB 1087 (Soto), the State extended Safe Routes to School legislation for three additional years. The bill is scheduled to sunset on January 1, 2008. This program is meant to improve the safety of walking and cycling to school and encourage students to walk and bicycle to school through identification of existing and new routes to school and construction of pedestrian and bicycle safety and traffic calming projects. Caltrans is currently evaluating California's SR2S funding, in light of the new federal SR2S Program. Recent SAFETEA-LU legislation which requires each state's Department of Transportation to designate a SR2S Coordinator, also contains a SR2S program, but as of this writing, whether or not these programs will be combined in California or will remain autonomous has not yet been determined.

ENVIRONMENTAL JUSTICE: CONTEXT SENSITIVE PLANNING GRANTS

The Caltrans-administered Environmental Justice: Context Sensitive Planning Grants promotes context sensitive planning in diverse communities and funds planning activities that assist low-income, minority and Native American communities to become active participants in transportation planning and project development. Grants are available to transit districts, cities, counties and tribal governments. This grant is funded by the State Highway Account at \$1.5 million annually state-wide. Grants are capped at \$250,000.

OFFICE OF TRAFFIC SAFETY (OTS) GRANTS

The California Office of Traffic Safety distributes federal funding apportioned to California under the National Highway Safety Act and SAFETEA-LU. Grants are used to establish new traffic safety programs, expand ongoing programs or address deficiencies in current programs. Bicycle and pedestrian safety are included in the list of traffic safety priority areas. Eligible grantees are: governmental agencies, state colleges, and state universities, local Town and County government agencies, school districts, fire departments and public emergency services providers. Grant funding cannot replace existing program expenditures, nor can traffic safety funds be used for program maintenance, research, rehabilitation or construction. Grants are awarded on a competitive basis, and priority is given to agencies with the greatest need. Evaluation criteria to assess need include: potential traffic safety impact, collision statistics and rankings, seriousness of problems, and performance on previous OTS grants. OTS expects to have \$56 million in funding available statewide for FY 2006/07.

COMMUNITY BASED TRANSPORTATION PLANNING DEMONSTRATION GRANT PROGRAM

This fund, administered by Caltrans, provides funding for projects that exemplify livable community concepts including bicycle and pedestrian improvement projects. Eligible applicants include local governments, MPO's and RPTA's. A 20% local match is required and projects must demonstrate a transportation component or objective. There are \$3 million dollars available annually statewide.

COASTAL CONSERVANCY NON-PROFIT GRANTS PROGRAM

The Coastal Conservancy provides grants to non-profit organizations for projects which provide access to the California coast and preserve coastal lands, including the construction of trails, public piers, urban waterfronts, and other public access facilities.

REGIONAL FUNDING SOURCES

Regional bicycle and pedestrian grant programs come from a variety of sources, including SAFETEA-LU, the State budget and vehicle registration fees.

AB 2766 MOTOR VEHICLE EMISSION REDUCTION GRANT PROGRAM

The Bay Area Air Quality Management District provides a grant program in accordance with Assembly Bill 2766 which authorized air districts in California to impose a two to four dollar motor vehicle registration fee to be used for the purpose of reducing motor vehicle emissions in order for air districts to meet their responsibilities under the California Clean Air Act. Projects include bicycle facility improvements, safety and enforcement. Proposals must demonstrate the relationship between reduced motor vehicle emissions and improved air quality.

TRANSPORTATION FOR LIVABLE COMMUNITIES PROGRAM

The Transportation for Livable Communities Program (TLC) provides grant monies to public agencies to encourage land use decisions that support compact, pedestrian and bicycle friendly development near transit hubs. MTC administers the TLC program with funds from the Regional Surface Transportation Project. TLC grants are capped at \$400,000 and are competitive.

TRANSPORTATION ENHANCEMENT PROGRAM

The Transportation Enhancement Program provides funds for the construction of projects, beyond the scope of typical transportation projects, which enhance the transportation system. Transportation Enhancement Projects may include landscaping, bicycle facilities and streetscape improvements. Transportation Enhancement projects are programmed as part of the STIP. Annual apportionment averages around \$800,000.

TRANSPORTATION FUND FOR CLEAN AIR PROGRAM (TFCA)

TFCA funds are generated by a four dollar surcharge on automobile registration fees in the nine-county Bay Area. Approximately \$20 million is collected annually which funds two programs: 60 percent of the TFCA monies go to the Regional Fund and 40 percent go to the County Program Manager Fund.

The Regional Fund is administered by the Bay Area Air Quality Management District (BAAQMD). Pedestrian infrastructure improvements are eligible for TFCA funds through the Smart Growth funding category.

BAAQMD, TFCA Program: www.baaqmd.gov/pln/grants_and_incentives/tfca/

REGIONAL BICYCLE AND PEDESTRIAN PROGRAM (RBPP)

The RBPP was created in 2003 as part of the long range Transportation 2030 Plan developed by the Bay Area Metropolitan Transportation Commission. The program—currently funded with Congestion Mitigation and Air Quality funds—funds regionally significant pedestrian and bicycle projects, and bicycle and pedestrian projects serving schools or transit. \$200 million dollars are committed to this program over the 25-year period. Seventy five percent of the total funds are allocated to the county congestion management agencies based on population. The remaining 25 percent of funds are regionally competitive, with the county CMAAs recommending the projects to be submitted to MTC for funding consideration.

Metropolitan Transportation Commission, RBPP Program

www.mtc.ca.gov/planning/bicyclespedestrians/regional.htm#bikepedprog

SAFE ROUTES TO TRANSIT (SR2T)

Regional Measure 2 (RM2), approved in March 2004, raised the toll on seven state-owned Bay Area bridges by one dollar for 20 years. This fee increase funds various operational improvements and capital projects which reduce congestion or improve travel in the toll bridge corridors.

Twenty million dollars of RM2 funding is allocated to the Safe Routes to Transit Program, which provides competitive grant funding for capital and planning projects that improve bicycle and pedestrian access to transit facilities. Eligible projects must be shown to reduce congestion on one or more of the Bay Area's toll bridges. The competitive grant process is administered by the Transportation and Land Use Coalition and the East Bay Bicycle Coalition. Competitive funding is awarded in five \$4 million grant cycles. The first round of funding was awarded in December 2005. Future funding cycles will be in 2007, 2009, 2011 and 2013.

Transportation and Land Use Coalition, SR2T Program:

www.transcoalition.org/c/bikeped/bikeped_saferoutes.html

THE BAY TRAIL PROJECT

The Bay Trail Grant program offers competitive grants to local governments, special districts and qualified nonprofit groups to build or design new Bay Trail segments. The program is structured to: speed Bay Trail construction by targeting high-priority, ready to build sections and closing critical gaps; leverage state dollars with significant matching funds and in-kind contributions; foster partnership by encouraging cooperative partnerships and creative design solutions; and employ the California Conservation Corps for construction, landscaping and maintenance where possible. The amount of available funding varies, depending on State bonds and grants to the Bay Trail Project. Beginning Fall 2007 the Bay Trail has a new funding program that will distribute \$2.5 million in Proposition 84 funds for the planning and construction of Bay Trail spine segments in the 9-county area. Another \$2.5 million grant program is anticipated in 2009.

Bay Trail Project Grant Program: http://baytrail.abag.ca.gov/grants_2003.htm

LOCAL FUNDING SOURCES

TDA ARTICLE 3

Transportation Development Act (TDA) Article 3 funds are state block grants awarded annually to local jurisdictions for transit, bicycle and pedestrian projects in California. Funds for pedestrian projects originate from the Local Transportation Fund (LTF), which is derived from a ¼ cent of the general state sales tax. LTF funds are returned to each county based on sales tax revenues. Eligible pedestrian and bicycle projects include: construction and engineering for capital projects; maintenance of bikeways; bicycle safety education programs (up to 5% of funds); and development of comprehensive bicycle or pedestrian facilities plans. A Town or county is allowed to apply for funding for bicycle or pedestrian plans not more than once every five years. These funds may be used to meet local match requirements for federal funding sources. 2% of the total TDA apportionment is available for bicycle and pedestrian funding.

MEASURE A - LOCAL ROADS

The funds (approximately \$43.9 M) will be distributed on an annual basis to each city, town, and Marin County based on a combination of miles of roads to be maintained and population. Each project will be required to consider the needs of all roadway users. Where feasible, locally defined bicycle and pedestrian projects may be implemented at the time a roadway is improved, or can be implemented as a stand-alone project. Improvements could include striping and signing for bicycle lanes and bikeways, sidewalk improvements, curb ramps, and other accessibility and safety improvements.

MEASURE A - SAFE PATHWAYS FUNDING

Safe Pathways to School is the capital improvement element of the Transportation Authority of Marin's Safe Routes to Schools program. Where the Safe Routes program identifies circulation improvements needed for safe access to schools, the Safe Pathways program will provide funding for the engineering, environmental clearance, and construction of pathway and sidewalk improvements in all Marin County communities, including safety improvements at street crossings.

Safe Pathway projects are expected to attract matching funds from other sources and may be used in combination with road funds to accelerate pathway improvements in school areas.

Safe Pathways Projects are selected based on performance criteria that focus on improving safety throughout the County. All projects will come from approved Safe Routes plans, supported by parents, school officials, and the local jurisdiction.

- Relieves an identified safety or congestion problem along a major school route
- Completes a "gap" in the bicycle and pedestrian system along a major school route
- Maximizes daily uses by students and others
- Attracts matching funds
- Respects geographic equity

MARIN NONMOTORIZED TRANSPORTATION PILOT PROGRAM

Marin County is one of four communities nationally that has been selected by Congress to participate in a Nonmotorized Transportation Pilot Program under Section 1807 of the 2005 federal transportation bill, SAFETEA-LU. Section 1807 provides for \$20 million to each of the four communities for fiscal years 2006 through 2009. The legislation states that "The Secretary shall establish and carry out nonmotorized transportation pilot program to construct, in the following four communities selected by the Secretary, a network of nonmotorized transportation infrastructure facilities, including sidewalks, bicycle lanes, and pedestrian and bicycle trails, that connect directly with transit stations, schools, residences, businesses, recreation areas, and other community activity centers:

1. Columbia, Missouri
2. Marin County, California
3. Minneapolis-St. Paul, Minnesota
4. Sheboygan County, Wisconsin

The purpose of the program shall be to demonstrate the extent to which bicycling and walking can carry a significant part of the transportation load, and represent a major portion of the transportation solution, within selected communities."

As of this writing Marin County is determining the process by which funding will be distributed and local agencies will apply or submit projects for consideration.

FAIRFAX MEASURE F

Measure F is a dwelling unit parcel tax created as "self-help" funding intended to provide \$425,000 per year for each of five years to fund police, fire and other essential Town services. The funding can be used for Public Works projects such as bicycle, pedestrian and Safe Routes to Schools as well as for matching funds to leverage regional, state and federal funding sources.

NON-TRADITIONAL FUNDING SOURCES

AMERICAN GREENWAYS PROGRAM

Administered by The Conservation Fund, the American Greenways Program provides funding for the planning and design of greenways. Applications for funds can be made by local regional or state-wide non-profit organizations and public agencies. The maximum award is \$2,500, but most range from \$500 to \$1,500. American Greenways Program monies may be used to fund unpaved trail development.

CALIFORNIA CENTER FOR PHYSICAL ACTIVITY GRANT PROGRAM

The California Center for Physical Activity runs several programs related to walking and offers small grants to public health departments. Grants are in the amount of \$4,999 dollars or less and are offered intermittently.

REQUIREMENTS FOR NEW DEVELOPMENTS

With the increasing support for "routine accommodation" and "complete streets," requirements for new development, road widening and new commercial development provide opportunities to efficiently construct pedestrian facilities.

IMPACT FEES

One potential local source of funding is developer impact fees, typically tied to trip generation rates and traffic impacts produced by a proposed project. A developer may attempt to reduce the number of trips (and hence impacts and cost) by paying for on- and off-site pedestrian improvements designed to encourage residents, employees and visitors to the new development to walk rather than drive. Establishing a clear nexus or connection between the impact fee and the project's impacts is critical to ensure legal soundness.

MELLO-ROOS COMMUNITY FACILITIES ACT

The Mello-Roos Community Facilities Act was passed by the Legislature in 1982 in response to reduced funding opportunities brought about by the passage of Proposition 13. The Mello-Roos Act allows any county, Town, special district, school district or joint powers of authority to establish a Community Facility Districts (CFD) for the purpose of selling tax-exempt bonds to fund public improvements within that district. CFDs must be approved by a two-thirds margin of qualified

voters in the district. Property owners within the district are responsible for paying back the bonds. Pedestrian facilities are eligible for funding under CFD bonds.

VOLUNTEER AND PUBLIC-PRIVATE PARTNERSHIPS

Volunteer programs may substantially reduce the cost of implementing some of the proposed pathways. Use of groups such as the California Conservation Corp (who offers low cost assistance) will be effective at reducing project costs. Local schools or community groups may use the bikeway or pedestrian project as a project for the year, possibly working with a local designer or engineer. Work parties may be formed to help clear the right of way where needed. A local construction company may donate or discount services. A challenge grant program with local businesses may be a good source of local funding, where corporations ‘adopt’ a bikeway and help construct and maintain the facility.

Other opportunities for implementation will appear over time that may be used to implement the system.