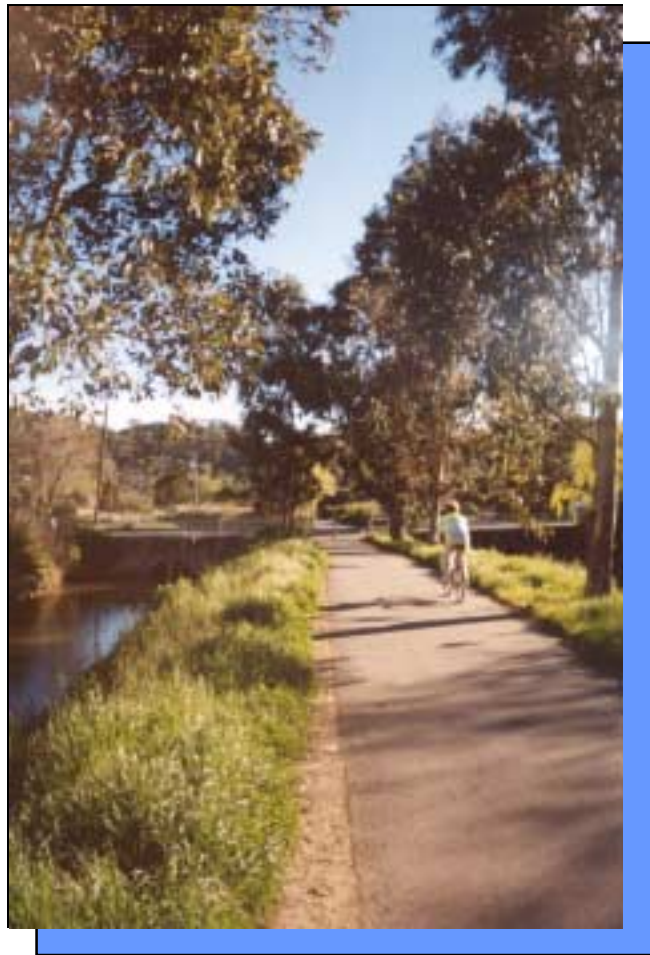




TOWN OF CORTE MADERA

BICYCLE TRANSPORTATION PLAN



Prepared for:
The Town of Corte Madera

Prepared by:
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TABLE OF CONTENTS

Introduction	1
Land Use	2
Commuters	4
Other Local Plans	5
Existing Bikeways	7
Parking Facilities	10
Multi-Modal Connections	12
Proposed Projects	13
Funding	16
Safety & Education	20
Community Involvement	22

Tables

Table 1 – Existing Bikeway Facilities in Corte Madera	8
Table 2 – Planned Bikeway Work	13
Table 3 - Corte Madera Bicycle Projects	13
Table 4 – Proposed Bikeway Facilities in Corte Madera	15

Figures

Figure 1 – Corte Madera Land Use Map	3
Figure 2 – Corte Madera Bikeway Plan	9

INTRODUCTION

This Plan is intended to provide a blueprint towards making bicycling an integral part of transportation and daily life in Corte Madera. Successful implementation and continued interest in accommodating bicyclists' needs can improve the quality of life in Corte Madera.

Why is it important for Corte Madera to encourage bicycling? Naturally, bicycling can be part of a healthy lifestyle – an asset that becomes even more valued in our hectic daily lives. The entire Town benefits from lessened traffic congestion, lower vehicle exhaust emissions, decreased noise levels, and less land dedicated towards automobiles and parking. Also, a community seems friendlier and more inviting when residents are not confined to an automobile and can easily socialize with those they meet.



Becoming a bicycle-friendly community requires several elements. **Safety** is a number one concern of citizens, whether they are avid or casual recreational bicyclists or bicycle commuters. In most cases, bicyclists must share narrow, high-traffic roadways and cross busy intersections. This is often cited as the primary reason why many people elect not to use their bicycles more often. Second, **access improvements** are important to help enhance the ability to make utilitarian trips to destinations like shops, work, and school. Currently, Corte Madera lacks a continuous and connected bikeway network to access these activity centers and must lessen the barrier effect caused by U.S. 101. Finally, **effective implementation** is vital for the success of this plan. Successful educational programs, enforcement, and funding are necessary to promote bicycle use and ensure that the needs of bicyclists are met.



The Corte Madera Bicycle Master Plan is primarily a coordinating and resource document for the Town, which will evolve over time to reflect the changing priorities of the community. Once adopted and certified, the Bicycle Master Plan will enable the Town to qualify for State and Federal funding sources specific for bicycle improvements.

LAND USE

Corte Madera is a relatively small town of 9,100 residents (2000) within 4.5 square miles located on Highway 101 – the primary route to San Francisco from the North Bay region. Situated between the San Francisco Bay and the Blithedale Ridge, a good portion of the Town enjoys a relatively flat terrain – ideal for the novice cyclist – yet close to more challenging environments. Corte Madera’s location within Marin County also lends itself to easy access to major activity centers. However, according to Corte Madera’s 1989 General Plan, bicycle circulation was limited and considered difficult – a situation that has been improved but still requires additional effort. A number of projects proposed in the 1989 General Plan have been completed, including additional bike paths on the former Northwestern Pacific Railroad right-of-way.

Of particular concern both then and now continues to be movement between east and west Corte Madera. Access across U.S. 101 is limited to Tamalpais Drive, the Nellen Avenue overcrossing, and the class I path on the south side of Wornum Way. As shown on the following map, a majority of the Town’s commercial development is situated on either side of the



Nellen Avenue Overcrossing

freeway while residential areas lie primarily on the western and southeastern portions of Town. Certain significant destinations in the community, namely Neil Cummins Elementary School and Town Park, are located west of the freeway. Obviously, inconvenient crossings present problems of safety and access especially for eastside residents without automobiles. Children are most affected by this constraint. The Neil Cummins Elementary School PTA has noted that many children living on the east side of the highway would gladly bicycle to school but current conditions are a serious safety issue with the novice cyclists. The bus stops at the Tamalpais Interchange are another area of concern. Bus riders must cross the busy on- and off-ramps of the freeway to reach the bus stops.

COMMUTERS

According to an April 1991 Lou Harris Poll, it was reported that "...nearly three million adults - about one in 60 - already commute by bike. Projections indicated that the number could rise to 35 million if more bicycle friendly transportation systems existed." In short, there is a large reservoir of potential bicyclists who do not ride (or ride less often) simply because they do not feel comfortable using the existing street system and/or do not have appropriate bicycle facilities at their destination. According to the 1990 Census, 0.6% of commuting residents in Corte Madera rode their bicycles to work.



Commuter bicyclists range from employees who ride to work to a child who rides to school to people riding to shops. Bicycling requires short commutes, typically less than three miles, which runs counter to most land use and transportation policies that encourage people to live farther and farther from where they work. Access to transit helps extend the commute range of cyclists, but transit systems also face an increasingly dispersed live-work pattern that is difficult to serve. Despite these facts, Corte Madera has a great potential to increase the number of people who ride to work or school because of (a) the small size of the community, (b) the proximity of its' residential neighborhoods to the employment centers of Central Marin County, (c) a favorable climate where commuters could potentially commute over 250 days a year rain free, and (d) a high percentage of work trips that are less than 15 minutes (29.2% in 1990) by car.

It is estimated that potential improvements to the existing bicycle network and supporting facilities could double the current number of commuter bicyclists to 55 by the year 2010. However, these projections do not account for the potential increase in school commuters that could arise from further development of safe school commute routes.

The High Canal Pathway is a popular route for schoolchildren to access Neil Cummins Elementary School.



OTHER LOCAL PLANS

This Bicycle Master Plan is intended to coordinate and guide the provision of all bicycle-related plans, programs, and projects in the Town. It is intended to assist the Town in the implementation of its priorities but does not mandate any particular action on its part. The following studies and planning efforts involve bicycle facility planning in Corte Madera and elements have been incorporated into this Bicycle Master Plan.

Marin County Bicycle Plan (1975)

In 1975, Marin County's Board of Supervisors adopted a document entitled "A Bikeway Policy for Marin County," which emphasized the need for safe accommodation for bicycling on all public streets and roads. The policies called for the County to design new road construction and repair projects to safely accommodate bicycles, integrate bicycle planning into transportation planning and construction, provide recreational bikeways, develop uniform standards for bikeway design, support bicycle safety education, and rules.

Marin County North-South Bikeway Feasibility Study (1994)

The purpose of the Marin County North-South Bikeway Feasibility Study was to identify and develop a safe and efficient north-south bikeway from the Golden Gate Bridge to the Sonoma County line, generally following the old Northwestern Pacific Railroad right-of-way, for commuters. Recognizing the difficulties associated with the development of this right-of-way, a short-term alignment primarily following existing streets and paths was also recommended. In Corte Madera, this alignment followed Meadowsweet Drive and Tamal Vista Boulevard. This document was never officially adopted.

The Bay Trail Plan (1989)

The Bay Trail Plan proposes the development of a regional hiking and bicycling trail around the perimeter of San Francisco and San Pablo Bays. Approximately one-half of the trail already exists, either as hiking-only paths, hiking and bicycling paths, or as on-street bicycle lanes or routes. The Bay Trail designated a 'spine' for a continuous through-route around the Bay and 'spurs' for shorter routes to Bay resources. The goals of the Plan include providing connections to existing park and recreation facilities, creating links to existing and proposed transportation facilities, and preserving the ecological integrity of the Bays and their



wetlands. Paradise Drive, the pathways along San Clemente Drive and Redwood Highway, and the Highway 101 (Nellen Avenue) overcrossing are part of the Bay Trail 'spine' alignment.

Corte Madera General Plan (1989)

The Town's most recent General Plan highlights bicycle issues pertaining to poor accessibility and inadequate facilities, its role in mitigating the negative effects caused by increasing automobile use, and its value towards improving the quality of life that residents expect of Corte Madera. The 2001 Corte Madera Bicycle Master Plan will support Guiding Policy 5.4.c.: "Promote programs and measures that will create a safe and comprehensive pedestrian and bicycle circulation system in Corte Madera."

Bay Area 1997 Clean Air Plan and Triennial Assessment (1997)

In accordance with the California Clean Air Act (CCAA) of 1988, this revision to the *Bay Area 1994 Clean Air Plan* (CAP) plan was developed to promote measures to reduce air pollutant emissions. Proposed control measures that cities were encouraged to implement include improving and expanding the bicycle lane system, establishing and maintaining a bicycle advisory committee, developing and implementing comprehensive bicycle plans, and providing bicycle safety education.

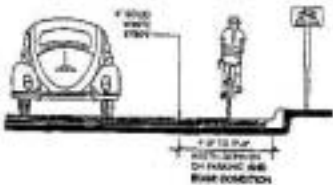
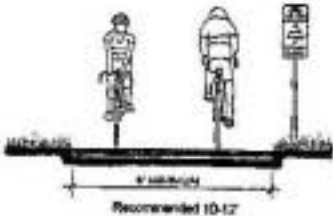
Marin County Unincorporated Area Bicycle and Pedestrian Master Plan (2001)

A bicycle and pedestrian master plan, under the auspices of the Marin County Public Works Department was approved by the Board of Supervisors in June 2001. Although this plan was only involved with the unincorporated areas of Marin County, incorporated jurisdictions should use this document to coordinate their community's projects with the goals of the County. Key recommendations of this plan included a North-South Bikeway, an East-West Bikeway, potential use of abandoned railroad tunnels and rights-of-way, and locating vital infrastructure improvements to promote and encourage increased bicycle and pedestrian activity. The Marin County Congestion Management Agency (CMA) had commissioned countywide bicycle and pedestrian master plan in 1999. Although this plan was not adopted, it laid the groundwork for this unincorporated area plan.

EXISTING BIKEWAYS

Bikeways can be classified into three primary types:

- Class I Bikeway – Typically called a bike path, this provides for bicycle and pedestrian travel on a paved right-of-way completely separated from any street or highway. (These are particularly popular with novice cyclists and avoided by experienced cyclists because they can become overly popular and crowded.) The Caltrans design criteria require a minimum width of 2.4 meters (8 feet) for a two-way path.
- Class II Bikeway – These are often referred to as a bike lane. It provides a striped and stenciled lane for one-way travel on a street or highway. When properly designed, bike lanes help improve the motorists' awareness of cyclists. The minimum width of a lane is 1.2 meters (4 feet), 1.5 meters (5 feet) if parking is permitted.
- Class III Bikeway – Generally referred to as a bike route, it provides for shared use with pedestrians (on sidewalks) or motor vehicle traffic and is identified only by signing. These are recommended to connect discontinuous segments of the bikeway or when through routes are not served by Class I or Class II bikeways.



Class I pathway along Redwood Highway

Table 1 EXISTING BIKEWAY FACILITIES IN CORTE MADERA		
Segment	Type	Length (miles)
Alto Hill Trail (Lomita Drive in Mill Valley to Casa Buena Drive)	Path*	.3
High Canal Path(Town Park [Tamalpais] to Lucky Drive)	Path*	.9
Madera Boulevard (Madera Blvd to Tamalpais)	Lane	.3
Northwestern Pacific ROW (High Canal to Tamal Vista)	Path*	.1
Northwestern Pacific ROW (Tamalpais Drive to Town limit)	Path*	.8
Paradise Drive – south side (Prince Royal to Westward)	Path*	.3
Paradise Drive – south side (Prince Royal to El Camino)	Lane*	.1
Paradise Drive – south side (San Clemente to Madera del Presidio)	Lane*	.1
Redwood Highway (Tamalpais to Town limit)	Path*	.7
San Clemente Drive (Tamalpais to Paradise Drive)	Path*	.5
Tamalpais Drive (to San Clemente [in linear park])	Path*	.2
Town Park (West and North periphery)	Path*	.4
Wornum Drive (Redwood Highway to Tamal Vista Blvd)	Path*	.2
Total Bikeways		4.9

*Many of the facilities do not meet Caltrans standards.

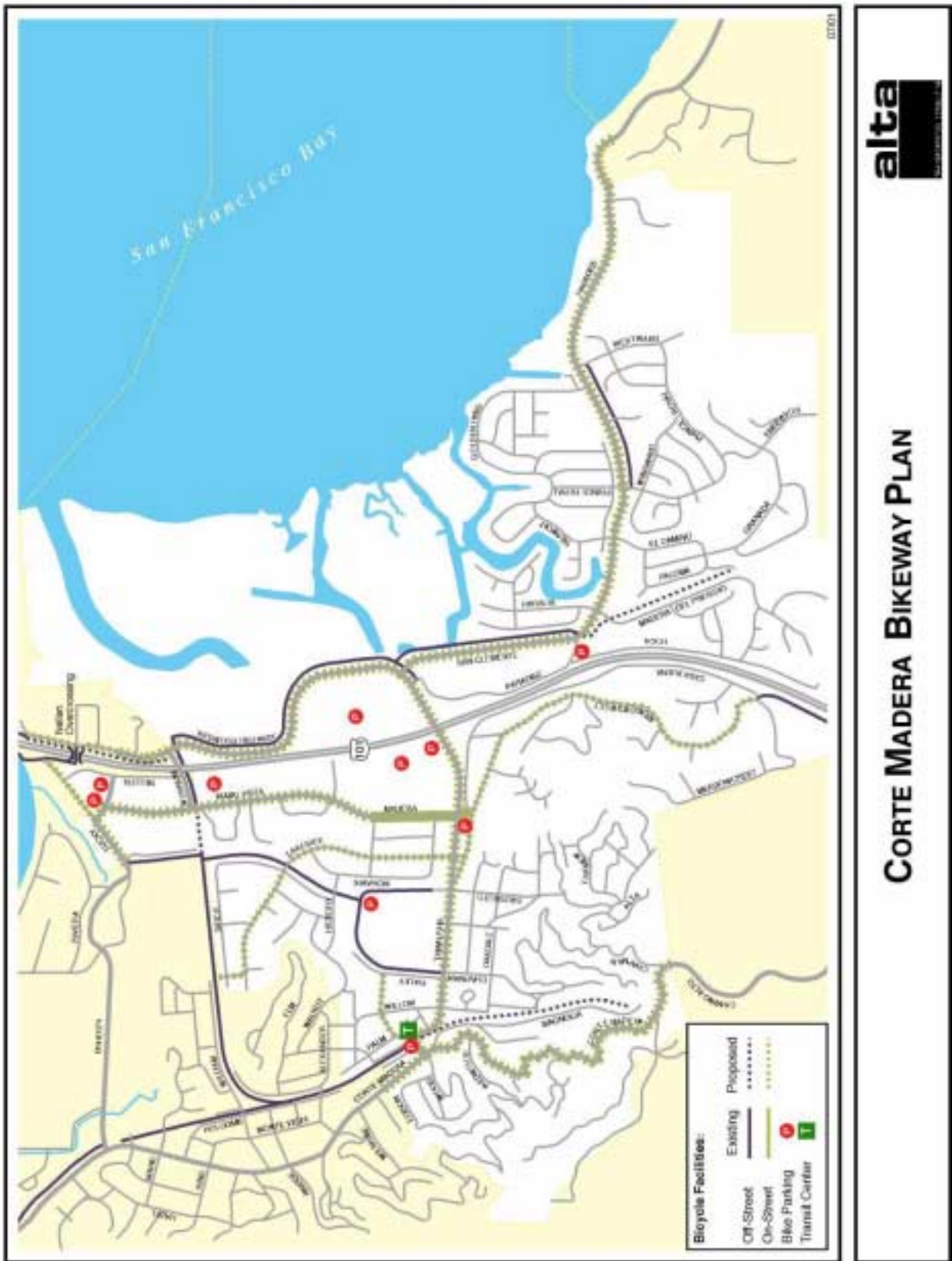


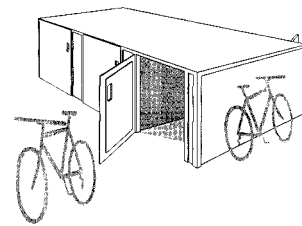
Figure 2

PARKING FACILITIES

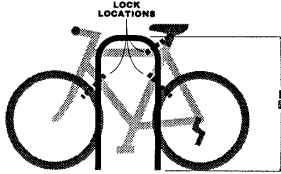
Parking must not be overlooked when planning bicycle facilities and encouraging widespread use. Bicycles are one of the top stolen items in all communities, with components being stolen even when a bicycle is securely locked. Because today's bicycles often cost between \$350 to over \$2,000, parking issues should be considered.

Parking facilities can be classified as follows:

Class I bicycle parking facilities accommodate employees, students, residents, commuters, and others expected to park more than two hours. This parking is to be provided in a secure, weather-protected manner and location. Class I bicycle parking will be either a bicycle locker or a secure area like a 'bike corral' that may be accessed only by bicyclists.



Class II bicycle parking facilities are best used to accommodate visitors, customers, messengers, and others expected to depart within two hours. Bicycle racks provide support for the bicycle but do not have locking mechanisms. Racks are relatively low-cost devices that typically hold between two and eight bicycles, allow bicyclists to securely lock their frames and wheels, are secured to the ground, and are located in highly visible areas. They are usually located at schools, commercial locations, and activity centers such as parks, libraries, retail locations, and civic centers.



Golden Gate Transit provides Class II parking at a number of bus stops throughout the Town. These locations include Tamalpais Drive at Casa Buena, southbound U.S. 101 ramp at Tamalpais Drive, and southbound U.S. 101 ramp at Lucky Drive.

Bike racks are located at a limited number of destinations around town including:

- Neil Cummins School
- Corte Madera Town Center Mall
- The Village at Corte Madera
- The Marketplace

- Gold's Gym (10 Fifer Avenue)
- Paradise Point Executive Center (5725 Paradise Drive)

Figure 2 on page 9 also identifies where these parking facilities are situated in the Town.

Bicycle commuters traveling longer distances appreciate additional amenities to make commuting more viable and enjoyable. Showers, changing rooms, and bicycle and clothing storage areas are welcomed. The concept of a full-service "bicycle commuting center" offering these conveniences and other services such as cafes, bike shops, and bicycle rentals, has spurred considerable interest in the country. Cities in California that have built "bikestations" include Palo Alto, Long Beach, and Berkeley.

No official shower or locker facility for bicycle commuters is known to exist in Corte Madera. It is likely that some employers provide these facilities, and that some bicycle commuters use facilities in local health clubs.



Paradise Point Executive Center

MULTI-MODAL CONNECTIONS

Improving the bicycle-transit link is an important part of making bicycling a part of daily life in Corte Madera. Linking bicycles with public transportation (bus and ferry) overcomes such barriers as lengthy trips, personal security concerns, and riding at night, in poor weather, or up hills. Additionally, bicycling to transit instead of driving benefits communities by reducing air pollution, demand for park and ride land, energy consumption, and traffic congestion with relatively low cost investments.

There are four main components of bicycle-transit integration:

- Allowing bicycles on transit
- Offering bicycle parking at transit locations
- Improving bikeways to transit

Eleven percent of commuters in Corte Madera use public transit according to the 1990 Census. Although the Town does not provide public transit services, Golden Gate Transit (GGT) does offer bus service and the necessary support services such as transit shelters and bicycle racks at some stops. The Town also maintains bus shelters. Bicycle racks have been installed on all 40-foot buses in the fleet. The racks hold two bicycles and are free to all passengers. State law forbids bike racks on buses measuring 45 feet in length, approximately 12 percent of the fleet. Bicycles are also allowed on ferries on a first-come, first-serve basis. Three of the four Larkspur ferries can accommodate 25 bicycles and 15 bicycles are permitted on the fourth, the Larkspur catamaran.



For those cyclists who may chose to leave their bicycles at their bus stop or if the bus racks are full, Class II bicycle parking can be found at some GGT stops in the Town. Page 8 lists these sites and Figure 2 shows their location. Parking for up to 40 bicycles is also available at the Larkspur Ferry Terminal for commuters.

Buses in Corte Madera follow Tamalpais Drive (#15,18,20), Tamal Vista Blvd (#13), Paradise south of Tamalpais (#13), San Clemente (#13) and make intermittent stops along these routes. A Park and Ride lot is located at Redwood Avenue at Montecito Drive that also provides bicycle parking.

PROPOSED PROJECTS

The Town currently spends approximately \$50,000 each year on bikeway improvements, on average. Table 2 shows the bicycle projects that the Town will complete in FY 2001.

Table 2 PLANNED BIKEWAY WORK			
Project Location	Completion Date	Cost Estimate	Description
High Canal Bridge	July 2001	\$180,000	Gap closure
Paradise Drive near Verona Place	June 2001	\$140,000	Straightening existing Class I path
Bayside Trail Park	June 2001	\$115,000	Landscaping
Town Park Pathway	June 2001	\$28,000	Resurfacing/maintenance of existing paths

The County of Marin had solicited project recommendations from the county's municipalities while preparing the 2000 Countywide Bicycle and Pedestrian Master Plan. The following list submitted to the County was established by the Bicycle and Pedestrian Advisory Committee and adopted by the Town Council. It should be noted, however, that this document does not in any way commit the Town of Corte Madera or the Corte Madera Town Council to proceed with any of the projects contained or referenced herein.

Table 3 CORTE MADERA BICYCLE PROJECTS		
Priority	Description	Cost Estimate
<i>Small Projects</i>		
1	High Canal Bridge and Class I Path (Tamal Vista to High Canal)	\$180,000
2*	Paradise Drive Bicycle Facilities <ul style="list-style-type: none"> a. Tiburon city limits to Prince Royal b. Prince Royal to El Camino c. El Camino Drive to Madera del Presidio d. San Clemente/Redwood Highway (Madera del Presidio to Larkspur city limits) 	\$600,000 \$50,000 \$500,000 \$500,000
3	Hart Street <ul style="list-style-type: none"> a. Class I path to Branch Avenue b. Hart Street extension, phase II 	\$125,000 \$50,000
4	Meadowsweet/Tamal Vista/Lucky – sign & stripe bicycle route	\$25,000

Table 3 CORTE MADERA BICYCLE PROJECTS		
<i>Large Projects</i>		
1	Bicycle/Pedestrian Highway Overpass (south of Tamalpais)	\$2,000,000
2	Mill Valley-Corte Madera / North-South Bikeway gap closure, Multi-jurisdictional project	TBD
3	Corte Madera Avenue Class II Path (entire length with street widening & retaining walls)	\$1,000,000
4	North-South Bikeway, Multi-jurisdictional project, Corte Madera Creek Crossing	TBD

* Project priority will be determined at a later date.

The High Canal Bridge, which will be completed during Summer 2001, has long been on the wish list of area cyclists. It lies on a former Northern Pacific Railroad right-of-way that serves as a vital east-west link. Approximately \$50,000 was allotted to a paved class I path leading from the bridge to Tamal Vista to complete the link to the east side of the freeway via the Wornum Way class I path.

Paradise Drive is part of the Bay Trail alignment and is the only arterial access to residential developments in southeastern Corte Madera. The physical constraints that exist along most portions of Paradise Drive have resulted in discontinuous bike lanes and paths along the corridor. Residents have especially expressed support at public meetings for completion of the gap between Madera del Presidio and El Camino. With the implementation of a continuous bicycle corridor along Paradise Drive, in addition to on-street bike lanes along the Redwood Highway/San Clemente Drive corridor, a continuous bikeway between the city limits of Larkspur and Tiburon would be created.

To address these issues, the following projects have been proposed:

- The Town Council has approved an application for an ABAG/Bay Trail Project planning grant to study the feasibility of continuous bicycle facilities along the entire length of Paradise Drive.
- Straightening the existing Class I pathway along Paradise Drive near Verona Place is scheduled during FY 2001.
- The Bicycle and Pedestrian Advisory Committee had recommended Class II bike lanes along Paradise Drive between Prince Royal and Robin Drive.

The class I path from Hart Street to Branch Avenue is a project that will lead from the class I facility on the former Northern Pacific Railroad right-of-way to the adjacent neighborhoods. This is a popular path with students attending Neil Cummins School.

Bicycle signage and striping are proposed along the Meadowsweet Drive/Tamal Vista Boulevard/Lucky Drive corridor to provide a continuous north-south route on the west side of Town. Madera Boulevard, which lies between Meadowsweet Drive and Tamal Vista Boulevard, currently has class II facilities.

A bicycle/pedestrian U.S. 101 overpass has been recommended south of Tamalpais Drive. This facility would be especially advantageous for novice cyclists, namely elementary school children, to safely cross the freeway rather than using the high volume Tamalpais Drive crossing.

The most direct access between Mill Valley and Corte Madera involves steep routes that may deter all but the experienced and fit bicyclists. A number of alternatives have been developed to make the trip more appealing to amateur cyclists. Cooperation between the city of Mill Valley, Corte Madera, and Marin County will be necessary to plan, fund, and implement a preferred route.

Corte Madera Avenue is a narrow, winding, steep roadway serving as the primary link between Corte Madera and Mill Valley. Widening the roadway and installing retaining walls will provide a more comfortable riding environment.

A Corte Madera Creek crossing, in addition to an alternative route between Mill Valley and Corte Madera, are principal elements of a North-South bikeway through Marin County. Construction of a creek crossing will also involve the cooperation of a number of governmental bodies with the Town of Corte Madera.

The proposed new bikeway facilities listed in Table 4 are based upon the unfinished facilities identified in the 1989 General Plan.

Table 4 PROPOSED BIKEWAY FACILITIES IN CORTE MADERA		
Segment	Type	Length (miles)
Chapman Drive (Willow to Tamalpais)	Route	.3
Northwestern Pacific right-of-way (Alto Tunnel to Town limit)	Path	.5
Northwestern Pacific right-of-way (Paradise Drive to Skunk Hollow Mini Park)	Path	.3
Paradise Drive (Koch Service to Prince Royal)	Lane	.5
Total Bikeways		1.6

Figure 2 on page 9 illustrates all proposed bicycle facility improvements.

FUNDING

There are a variety of potential funding sources including local, state, regional, and federal funding programs that can be used to construct the proposed bicycle improvements. Most Federal, state, and regional programs are competitive and involve the completion of extensive applications with clear documentation of the project need, costs, and benefits. Local funding for bicycle projects typically comes from Transportation Development Act (TDA) funding, which is prorated to each County based on return of gasoline taxes. Funding for many of the programs would need to be funded either with TDA, general fund (staff time), and regional, State, and Federal sources. The primary Federal funding source, TEA-21 is described below. This program will end in 2003, to be replaced by a new program.



TEA-21 funding is administered through the state (Caltrans or Resources Agency) and regional governments (Marin County Congestion Management Agency). Most, but not all, of the funding programs are transportation versus recreational oriented, with an emphasis on (a) reducing auto trips and (b) providing an inter-modal connection. Funding criteria often include completion and adoption of a bicycle/pedestrian master plan, quantification of the costs and benefits of the system (such as saved vehicle trips and reduced air pollution), proof of public involvement and support, CEQA compliance, and commitment of some local resources. In most cases, TEA-21 provides matching grants of 80 to 90 percent--but prefers to leverage other moneys at a lower rate.

STATE FUNDING SOURCES

TDA Article III (SB 821)

Transportation Development Act (TDA) Article III funds are state block grants awarded annually to local jurisdictions for bicycle projects in California. These funds originate from the state gasoline tax and are distributed to local jurisdictions based on population. These funds should be used as leveraging moneys for competitive State and Federal sources.

AB 434

AB 434 funds are available for clean air transportation projects, including bicycle projects, in California.

Bicycle Transportation Account

The State Bicycle Transportation Account (BTA) is an annual statewide discretionary program that is available through the Caltrans Bicycle Facilities Unit for funding bicycle projects. Available as grants to local jurisdictions, the emphasis is on projects that benefit bicycling for commuting purposes. Due to the passage of AB1772 in the year 2000, the BTA has \$7.2 million available each year for the next five years. Following the year 2005, the fund will drop to \$5 million per year unless new legislation is authored. The local match must be a minimum of 10% of the total project cost.

Transportation Funds for Clean Air Program (TFCA)

Clean Air Funds are generated by a surcharge on automobile registration in the nine counties that make up Bay Area Air Quality Management District (BAAQMD). Approximately \$20 million is collected annually, it funds two programs Clean Air Funds, a regional competitive fund appropriated by the BAAQMD, and the Program Manager Fund, also known as the 40% Fund, which is returned to each county to be appropriated by its' CMA or Transportation Authority.

The 40% funds are considered local funds; they are competitive and 100% discretionary. Projects must be consistent with BAAQMD's Clean Air Plan and recipient projects are required to document air quality benefits. These local funds can be used as a match for state or federal programs. Applicants for new projects must demonstrate that they applied for regional competitive TFCA funds and were denied, or that the project would not have been competitive for regional TFCA funds. Projects will be scored according to six criteria (cost effectiveness, project effectiveness, local matching funds, new programs, projects of county-wide significance, and mode shift), and reviewed by a scoring panel. The panel may recommend that some projects compete in the 60% category.

Safe Routes to School (AB 1475)

The Safe Routes to School program is a newly created state program using funds from the Hazard Elimination Safety program from TEA-21. This new program for 2000 is meant to improve school commute routes by eliminating barriers to bicycle and pedestrian travel through rehabilitation, new projects, and traffic calming. A local match of 11.5% is required for this competitive program, which will allocate \$18 million annually. Planning grants are not available through this program.



Transportation for Livable Communities (TLC)

MTC offers two kinds of assistance through the TLC program: capital improvement and planning. TLC grants are competitive funds meant to fund small-scale transportation improvements that are designed to make a big difference in a community's vitality. Eligible projects include streetscape improvements, transit, pedestrian, and bicycle oriented developments. Projects should be designed to "bring new vibrancy" to downtown areas, commercial cores and neighborhoods, enhancing their amenities and ambience and making them places where people want to live and visit.

Mello-Roos Community Facilities Act

Bike paths and bike lanes can be funded as part of a local assessment or benefit district. Defining the boundaries of the benefit district may be difficult unless the facility is part of a larger parks and recreation or public infrastructure program with broad community benefits and support.

LOCAL FUNDING SOURCES

Bay Trail – Regional Development Program

The Bay Trail Project offers funding for planning and construction of Bay Trail segments through a competitive grant program. In 2000, the State legislature approved an appropriation of \$7.5 million to the State Coastal Conservancy for development of the Bay Trail. Eligible projects under the Regional Development Program include construction of trail segments and completion of feasibility studies to overcome long-standing obstacles. The Bay Trail alignment in Corte Madera along Paradise Drive, San Clemente, and Redwood Highway is eligible for this funding.

New Construction

Future road widening and construction projects are one means of providing bike lanes. To ensure that roadway construction projects provide bike lanes where needed, appropriate, and feasible, it is important that an effective review process be in place so that new roads meet the standards and guidelines presented in this master plan, as feasible.

Impact Fees

Another 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 reduce the number of trips (and hence impacts and cost) by paying for on- and off-site bikeway improvements that will encourage residents

to bicycle rather than drive. In-lieu parking fees may be used to help construct new or improved bicycle parking. Establishing a clear nexus or connection between the impact fee and the project's impacts is important.

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

SAFETY & EDUCATION

Many potential bicyclists cite the fear of traffic as their main objection to riding a bicycle on urban streets. The Town can help alleviate this fear by providing good bikeway facilities, particularly at intersections, where most bicycle-motor vehicle crashes occur.

However, many concerns about cycling's level of danger are based on the misconception that most bicycle crashes involve an automobile. In fact, the vast majority of bicycle crashes do not involve a motor vehicle; rather, studies of hospital data have shown that bicycle accidents primarily involve falls or collisions with stationary objects, other cyclists, or pedestrians. This points to the need for education of cyclists and motorists, enforcement of existing laws, and encouragement of safe cycling techniques.

According to the 1998 and 1999 annual traffic reports of the Twin Cities Police Authority, enforcing hazardous bicycle violations was a high priority goal for the following years. As a result, the number of bicycle accidents in Corte Madera has been declining in recent years. In 1998 there were 12 accidents involving bicycles, eight accidents in 1999, and seven recorded in 2000.



Education is an important element in promoting bicycle use while also improving safety. People often assume that as cycling becomes more popular, the number of crashes will increase. This need not be the case as has been demonstrated in other communities. Perhaps the most effective way to improve the safety of cycling is simply to improve the quality of Corte Madera's bikeway facilities. However, bikeways cannot do it alone; it must be combined with proper education of both youth and adult cyclists and motorists.

The Twin Cities Police Department sponsors periodic bicycle safety courses for children ages 5-13 and has also conducted bike safety classes at Neil Cummins School. The Bicycle Trails Council of Marin (BTCM) and Trips for Kids offer skill and other education programs for adults and youth.

In coordination with the Safe Routes to Schools Program, the Neil Cummins School PTA has been sponsoring Bike/Walk/Scooter-to-School days on the second Wednesday of every month. On a typical day, approximately 22 bicycles are parked in the school's bike cage. On their inaugural event in November 2000, 110 bicycles were counted in the bicycle cage. The event has

proven to be so successful that the PTA has expanded the program to every Wednesday.

The Town was recently rewarded a \$29,000 grant from the Office of Traffic Safety (OTS) for the Town's Bicycle and Pedestrian Safety Program (BPSP). This program was developed as a result of growing concern citizens had for the safety of pedestrians and bicyclists on public streets. The BPSP involves many components to achieve its goal of improving safety on public streets, including a Traffic Safety Week, production and distribution of pamphlets, newspaper and newsletter articles, additional bicycle and pedestrian signage – especially near schools and critical intersections, and periodic presence of police officers at schools during morning and afternoon peak periods. BPSP implementation will involve the Town Council, the Traffic, Bicycle and Pedestrian Advisory Committee (TPAC), and the Twin Cities Police Department to work with the Larkspur School District, private schools, and homeowner associations to educate and inform the public.

The Corte Madera Town Council may wish to consider adding signage such as "Share the Road" and directional signs to further educate both drivers and bicyclists. Share the Road signs improve bicycle safety by serving as reminders to motorists that bicycles may be on the roadway. Several of these signs have already been installed in Marin County. Directional signage assists both area bicyclists and visitors in reaching the town's activity centers and neighboring communities.

COMMUNITY INVOLVEMENT

Opportunities for public comment on bicycle issues in Corte Madera developed nearly two years prior to this plan. The County of Marin began work on a countywide bicycle and pedestrian master plan in 1999. A Bicycle and Pedestrian Advisory Committee (BPAC) was formed in the fall of 1999. The BPAC held a number of public meetings and prepared a prioritized list of projects that was approved by the Town Council and submitted to the county to be included in the countywide bicycle and pedestrian master plan and this bicycle master plan (see Table 3). Bicycle concerns are now addressed as part of the recently formed Traffic, Bicycle, and Pedestrian Advisory Committee.

During the countywide process, many public meetings were held to solicit citizen insight into ways to make bicycling in Marin County a more viable form of transportation. Surveys were also distributed through local bike shops and public meetings to gain additional input. It should be noted that these surveys were not statistically significant but did provide another avenue for citizens to offer their opinion of bicycling conditions in the County. Although only seven residents from Corte Madera completed these surveys, many other respondents in the county echoed their comments. One survey question asked what major constraints existed for bicyclists. The following concerns were noted:

- Need a connector from Corte Madera to Mill Valley
- Poor access between east and west Corte Madera
- Need a North-South route
- Poor access to Larkspur ferry from Corte Madera
- Lack of bicycle maps
- Secure parking
- Tension between traffic and bicycles

A second question on the survey asked to identify the top projects that they would like to see built. Responses concerning Corte Madera included:

- Alto Tunnel
- High Canal Bridge
- North-South Bike Freeway
- Better signage
- Widen Corte Madera Avenue

To the Town's credit, the much-needed High Canal Bridge will be completed during summer 2001. The U.S. 101 overpass, widening Corte Madera Avenue, and re-opening the Alto Tunnel are all projects for future consideration.