

Alameda County Congestion Management Agency
Adopted October 26, 2006

Countywide Bicycle Plan

ALAMEDA COUNTY CONGESTION MANAGEMENT AGENCY

The Update of the Alameda Countywide Bicycle Plan was funded through Alameda County Transportation Improvement Authority Measure B and Transportation Development Act Article 3 funds

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Executive Summary

INTRODUCTION

In July 2001, the Alameda County Congestion Management Agency (ACCMA) Board of Directors adopted the first Alameda Countywide Bicycle Plan. The 2001 Plan was developed by an appointed Bicycle Task Force in conjunction with the ACCMA and Alameda County Public Works Department. Cross county corridors and alignments were determined by assembling information from discussions with city staff, reviewing locally adopted bicycle plans and route maps, and collecting data in the field and from other sources.

In 2005, the ACCMA began a focused update of the 2001 Alameda Countywide Bicycle Plan that was funded by Alameda County Transportation Improvement Authority (ACTIA) Measure B and Transportation Development Act (TDA) funds. The update was led by Alameda County Technical Advisory Committee (ACTAC) with input from ACTIA's Bicycle and Pedestrian Advisory Committee (BPAC) and Association of Bay Area Governments (ABAG), East Bay Regional Park District (EBRPD), the San Francisco Bay Area Rapid Transit District (BART), AC Transit, Port of Oakland, Union City Transit, Livermore Amador Valley Transit Authority (LAVTA), the Metropolitan Transportation Commission (MTC), Caltrans, the East Bay Bicycle Coalition and other members of the bicycling community.

Key components of the focused update were to:

- Identify facilities that have been completed since the Plan was adopted.
- Revise maps and appendices to add new projects, remove completed or deleted projects, and modify alignments on the Countywide Bicycle network.
- Develop a fiscally constrained list of High Priority Projects.
- Update graphics to improve readability for the general public and local agencies and make it easier to incorporate network changes. Develop graphics that are compatible with GIS.
- Develop an amendment process for including minor changes to the Plan and allowing for substitute projects between updates as well as developing a mechanism to track future changes.
- Update project costs and revise funding section to reflect new or modified sources of funding.
- Improve ability to tabulate facilities by category (e.g., city, planning area, county).
- Clarify issues related to the Bay Trail and Transit Hubs.
- Show the relationship between the Countywide Bicycle Plan High Priority projects and the Regional Bicycle Plan and the Countywide Pedestrian Plan High Priority projects, as appropriate.
- Produce an updated Alameda Countywide Bicycle Plan document, specifically Chapters 3 and 5 and related Appendices.
- Update remaining chapters to make information and statistics current.

Vision Statement

"To establish and maintain bicycling as a viable mode of transportation and integrate it with other modes of transportation; to assure that bicycling is safe for bicyclists of all abilities; and to encourage multi-jurisdictional coordination to plan, fund, design and construct bicycle projects."

The Countywide Bicycle Plan incorporates the above vision statement to guide the development of this Plan and Alameda County's bicycle program. The goal is to increase the potential for bicycle transportation by integrating bicycling into the Alameda County transportation system, providing connections to countywide destinations and adjacent counties, maximizing existing bicycle facilities, and planning for new or upgraded facilities.

Purpose of the Bicycle Plan

This Plan framework provides the background, direction and tools to improve Alameda County's bicycling environment. The purpose of this Plan is to develop a strategy to encourage more bicycling for transportation in Alameda County. It is a comprehensive plan addressing policies, standards, education and intermodal linkages. This Plan includes recommended projects and programs to improve bicycle transportation and safety across city boundaries as well as connections to the neighboring counties of Contra Costa, Santa Clara, San Mateo, San Francisco and San Joaquin.

This Countywide Bicycle Plan focuses on facilities that provide direct, convenient connections to desired destinations such as workplaces, shops, parks, schools, libraries and greenways and to transit. It also identifies off-road trails that can be used for transportation and for recreation purposes. The Plan will help with interjurisdictional coordination in the planning of bike facilities that cross boundaries and affect more than one city or one planning agency. Without such a guide, opportunities for improvements could be missed or efforts could be uncoordinated. Finally, this Plan will serve as a tool to obtain bicycle project funding and program acquired funds. This Countywide Bicycle Plan will be incorporated into the *Countywide Transportation Plan*, which is updated every five years.

Goals and Objectives

The Countywide Bicycle Plan has established the following goals:

- Create and maintain an inter-county and intra-county bicycle network that is safe, convenient and continuous.
- Integrate bicycle travel in transportation planning activities and in transportation improvement projects.
- Encourage policies and actions that foster bicycling as a mode of travel.
- · Improve bicycle safety through facilities, education and enforcement.
- Maximize the use of public and private resources in establishing the bikeway network.

Plan Organization

The Plan is organized into five chapters:

- Chapter 1: Overview of the Countywide Bicycle Plan
- Chapter 2: Bicycling Conditions in Alameda County
- Chapter 3: Countywide Network and Proposed Improvements
- Chapter 4: Proposed Programs
- Chapter 5: Prioritized Projects and the Implementation Plan

SUMMARY OF EXISTING CONDITIONS

- According to the 2000 Census, 1,2 percent of Alameda County residents commute to work on bicycle.
- Forty-four percent of existing bicycle trips take 15 minutes or less.
- A lack of systematic data collection on bicycle trips and discontinuous routes in Alameda County point to the need for more cooperation between planning entities.
- Most general plans for the jurisdictions in Alameda County encourage the use of non-motorized transit.
- Ten of 15 jurisdictions in Alameda County have recently adopted bicycle plans or are in the process of updating their Plans and the East Bay Regional Park District has an adopted plan.
- Intercounty connections exist in the eastern part of the County through the EBRPD multiuse trail network, such as the Iron Horse Trail, and existing roadways, in Northern Alameda County via the Ohlone and Bay Trails and existing roadways and in Southern Alameda County via the bike path on the Dumbarton bridge and bike lanes on Warm Springs Boulevard.
- Bicycling parking and facilities such as showers and lockers are essential components of bike transportation, though few ordinances exist to encourage these "support facilities."
- Bicycle facilities and access enhance air quality and congestion mitigation benefits of transit,
- Most transit providers in the county offer bicycle parking facilities, though supply is often at or near capacity.
- During peak commute hours, bicycles have limited access to BART and are especially limited on runs going to San Francisco.
- All BART stations in Alameda County have bicycle storage facilities. The first Bike Station in Alameda County was installed at the downtown Berkeley BART in 1999 and the second at the Fruitvale BART station in 2004.

SUMMARY OF CAPITAL PROJECTS AND PROGRAMS

The Alameda Countywide Bicycle Plan has three levels of investment as described in Chapters 3 and 5: the Vision network, the Financially Constrained network and the list of high priority projects. Included in these levels of investment are three implementation components - the capital network, transit priority zone projects and rehabilitation of the on-street bicycle network projects and four programs – Signage, Maintenance, Parking and Education/Promotion. The four programs are described in Chapter 4. Table E-1 summarizes the costs to implement the capital, Transit-priority Zone and Rehabilitation projects and the four programs in the Countywide Bicycle Plan.

Table ES-1—	-Summary	of Costs for	r Capital Pi	rojects and	Programs

	Annual Cost	Total Costs (\$)
	(\$)	25 Year Cycle
Cross County Corridor Capital,		
Transit-Priority Zone, and		249,000,000
Rehabilitation Projects*		
Signage Development**	One Time	180,000
Maintenance	800,000	20,000,000
Parking	120,000	3,000,000
Education/Promotion	120,000	3,000,000
Total		275,000,000

^{*} See Chapters 3 and 5 and Appendix C-3 for more detailed cost information.

Countywide Bicycle Network

The countywide bicycle network is composed of 22 corridors that are divided into 60 projects. Each project is further divided into separate segments that can be implemented by the jurisdictions. The system includes trails of regional transportation significance, as well as spur routes to regional attractors. The recommended Vision and Financially Constrained cross-county corridors of the Alameda Countywide Bicycle Plan are presented in Chapter 3 and briefly described below. Up-to-date maps of the Vision and Financially Constrained networks can also be found on he ACCMA's website www.accma.ca.gov. The High Priority Projects are presented in Chapter 5 and described below.

The Vision

The Vision includes the entire 549-mile Countywide Bicycle network and two additional components that are not necessarily capital related: Rehabilitation of the Existing On-Street Countywide Bicycle System and Transit-priority Zone projects. When completed, the proposed 2006 countywide Vision Network will total 549 miles; about 212 of these miles are existing facilities and 337 miles are new or improved

^{**} Does not include cost of signs which is included with the capital costs for each project segment shown in Appendix C-3.

facilities. In addition, there will be 17 new traffic signals, improvements to 27 freeway interchanges, 12 new bicycle/pedestrian bridges, underpasses and overcrossings and other needed improvements. This compares to 500 miles in the 2001 Countywide Bicycle Plan with 120 miles of existing facilities, 22 new traffic signals, improvements to 29 freeway interchanges, and nine new bicycle/pedestrian bridges, underpasses and overcrossings and other needed improvements. The estimated cost of implementing the 330 mile proposed capital network is about \$219 million. An additional \$30 million is needed to implement Transit-priority Zone and Rehabilitation of the Existing On-Street Countywide Bicycle System projects for a total of \$249 million. In addition, \$26 million for the programs described in Chapter 4 is needed for a total of \$275 million to implement the Countywide Bicycle Plan projects and programs.

The Financially Constrained Network

The estimated available funding for the 25 year horizon is \$77-99 million. Because this is less than the \$249 million needed to construct the proposed network and implement the Transit-priority Zone and Rehabilitation projects, a Financially Constrained network was developed.

These are the capital projects, rehabilitation projects, and Transit-priority Zone projects from the Vision that can be implemented within 25 year planning period and are within the estimated revenues available over that period. While the purpose of the Bicycle Plan is to encourage all bicycling in Alameda County and the Vision network was developed to do this, guidelines were established with which to narrow down the Vision bicycle network to what could be built in the next 25 years. The Financially Constrained network is a 201-mile skeletal network that emphasizes connections, as much as, possible to adjacent counties, to transit, and between cities and the unincorporated areas of Alameda County; that focuses on commute trips for bicycles; and that fits within the revenue estimates described in Chapter 5. Of the 201 miles, 102 miles exist and 99 miles are proposed. The two added components, Rehabilitation of the Existing On-Street Countywide Bicycle System and Transit-priority Zones, are financially constrained, but not defined in this update. Because the amount of funding is small for these components and they are likely to be oversubscribed, criteria are defined to allow eligible projects to be funded rather than establishing a list of high priority projects.

The High Priority Projects

The High Priority Projects are selected by the jurisdictions from the Financially Constrained Network. These High Priority Projects are the focus for funding and implementation over the next 4 to 5 years when the next update to the Countywide Bicycle Plan is anticipated. The 15 high priority capital projects, totaling \$36.3 million and resulting in nearly 28 miles of network, will be the focus of funding and implementation efforts until the next update of the Plan in approximately four years. An additional, \$4.8 million will be needed to implement high priority projects identified in Transit-priority Zone and bicycle rehabilitation projects for a total of \$41 million in high priority projects. Table ES-2 and Figure ES-1 present the High Priority Projects.

Table ES-2—High Priority Projects by Jurisdiction

#	Project	Segment	Corridor	City	Roadway	From	То	Miles	Status	Туре	Cost (\$)
59	Buchanan-Marin	A	С	Albany	Buchanan Street	Buchanan overcrossing	San Pablo Avenue	0.6	P	Class 1 Bike Path	1,100,000
11	N. Alameda County, I-580/ Foothills*	AC	35	Berkeley	Virginia	Acton/Ohlone Trail	Milvia	0.7	E	Class 3 Res. Street	356,318
11	N. Alameda County, I-580/ Foothills*	AB	35	Berkeley	Ohlone Greenway	Albany/Berkeley city limits	Virginia	0.7	E	Class 1 Bike Trail	356,318
56	Emeryville bike/ped. bridge	AA	5	Emeryville	New overcrossing	Shellmound	Horton	0.3	P	Class 1 new overpass	7,800,000
7	Oakland I-880 Corridor	BB-BC	25	Oakland	12th Street	Oak/Lakeside	Fruitvale	2.7	P	Class 2 Bike Lane	1,290,000
4	Alameda/ Doolittle/Lewelling	A-D	15	Alameda	Atlantic/Appezzato	Ferry Point	Tilden Way	3.6	P	To Be Determined	3,605,000
1	N. Alameda County, Bay Trail	BI	5	San Leandro	Bay Trail	Marina Bouelvard	Fairway Drive	0.4	P	Class 1 Bike Trail	1,200,000
42	San Leandro Slough Bridge	BF	5	ABAG	Bike/Ped. Bridge	Slough, north	Slough, south	0.1	P	New Bike/Ped Bridge	3,100,000
4	Alameda/ Doolittle/Lewelling	Z1-Z2	15	County	Lewelling	Hesperian	East 14th	1.4	P	Class 2 Bike Lane	1,787,500
13	Central County, I-580/Foothills	JC2	35	Hayward	Industrial/Mission	SPRR/BART tracks	Woodland	0.3	P	Class 1 Bike Trail	500,000
2	S. Alameda County, I-880 Corridor	ВЈ	5	East Bay Parks/UC- Hayward	Bay Trail	Eden Landing	Alameda Creek Bridge	3.0	P	Class 1 Bike Trail	1,900,000

#	Project	Segment	Corridor	City	Roadway	From	То	Miles	Status	Туре	Cost (\$)
58	Fremont-Santa Clara	A	В	Fremont	Fremont Boulevard	South Grimmer	SCC limits	3.8	P	Class 2 Bike Lane	850,000
55	Alamo Canal, I-580/I-680 Connector	AA	65	Dublin	Alamo Canal Trail	San Ramon Creek Trail	Alamo Canal Trail	0.2	P	Class 1 Bike Trail	2,500,000
34	Iron Horse Trail	TB	75	Pleasanton	Iron Horse Trail	I-580	Plesanton city limit	4.5	P	Class 1 Bike Trail	3,098,040
37	Isabel Avenue Trail and Bike Lanes	TB2- TB9	80	Livermore	Isabel Avenue	Jack London Boulevard	Portola	3.0	P	Class 1/ Class 2	3,300,000
9	S. Alameda County, I-880 Corridor	JE-JH	25	Union City	Union City Boulevard	Horner	Alameda Creek Bridge	2.5	P	Class 1/ Class 2	3,600,000
								27.9			36,343,176

^{*}This is a continuous project with 11-AB (below). It is listed separately because the bikeway types differ.

Status: P=Proposed; E=Existing

^{*}This a continuous project with 11-AC (above). It is listed separately because the bikeway types differ.

Countywide Bicycle Programs

Four programs are recommended to complement and enhance bicycle transportation in Alameda County: Signage, Maintenance, Parking and Education / Promotion.

Signage

A bicycle route signage program is critical to the successful implementation of the Alameda countywide bicycle route network. A countywide signage system will be most effective if it is consistent throughout all jurisdictions in the county, the destination signs to the major attractors are well designed, and the signs are appropriately situated and placed at appropriate intervals. The route sign should include, at minimum, the identifying system logo, route name or number (if appropriate) and a directional arrow. Signing over 500 miles of bikeways will be a challenging task. In order to effectively and efficiently sign the entire the countywide route system, a signage program and process is identified in Chapter 4. The cost for the developing the design portion of the signage plan is estimated to be \$180,000, and the cost for installing the signs on the entire network (labor and materials) is estimated to be \$2000/mile (this averages approximately five signs per mile per direction). The cost for signing the network is included in the capital costs for each bikeway segment.

Maintenance

Maintenance is necessary to keep the bikeway network effective and in usable condition. It is recommended that there be a maintenance program as part of the Countywide Bicycle Plan to help member agencies fund the maintenance of the countywide bikeway network. This would include such issues as:

- Signal detector adjustments
- Replacement of bike route signs
- Repaint bike lane stripes and legends
- Trimming of shrubbery encroaching on bike lanes or trails
- Roadway and trail sweeping

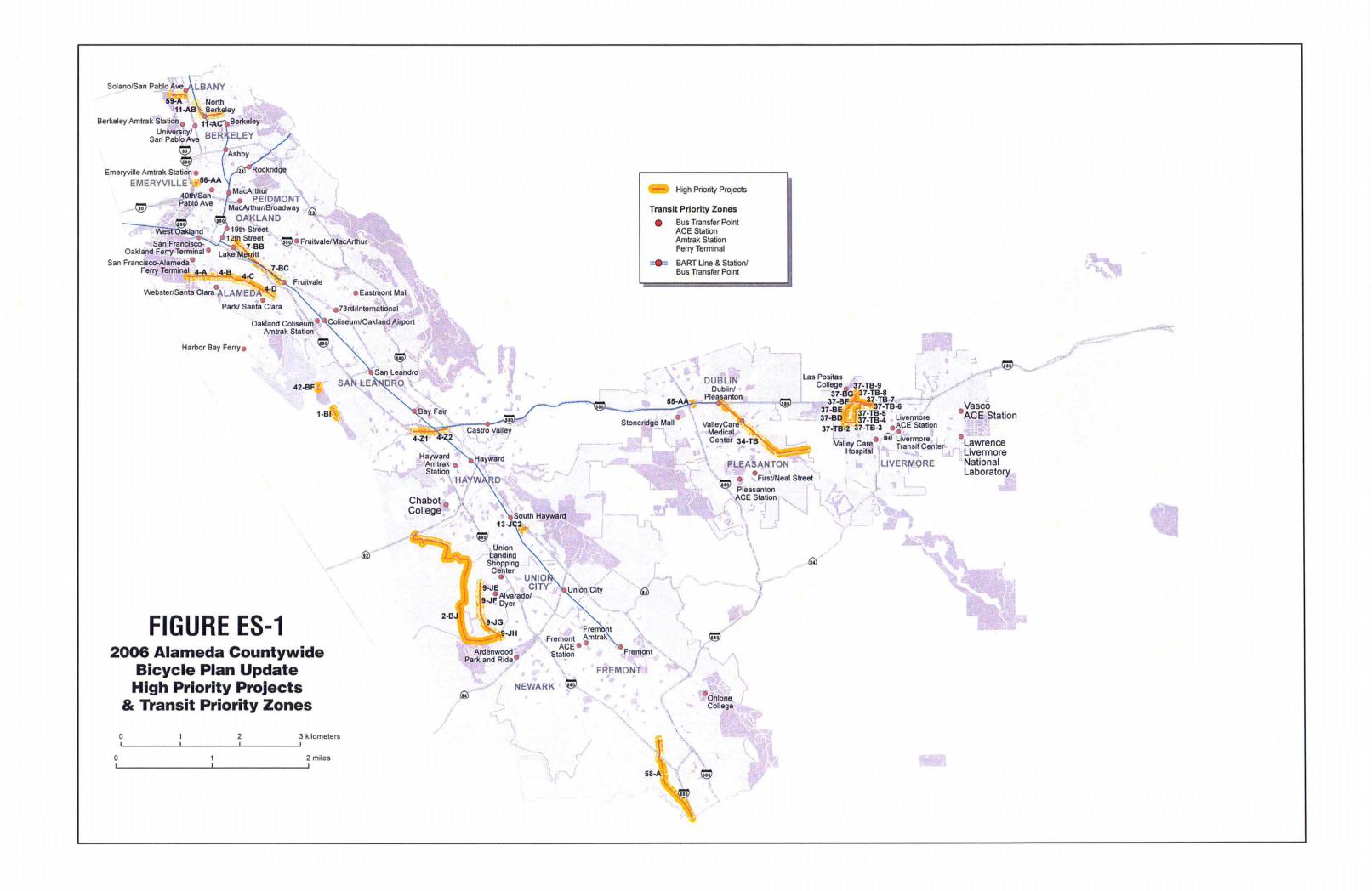
This program is estimated to cost \$800,000 annually and \$20 million for twenty-five year planning period.

Parking

A bicycle parking program would help local agencies fund parking facilities. A total of \$3 million is recommended, which would be \$120,000 per year for twenty-five years. The parking funded under this program should conform to the guidelines in Appendix C-4.

Education and Promotion

Education is an important component to make a bicycle-friendly community. Adult bicyclists, child bicyclists, motorists and police officers need education about bicyclists' rights and responsibilities, bicyclists need tips on safe bicycling techniques, and motorists need to know defensive driving techniques to avoid collision with bicyclists and pedestrians. The recommendations for bicycle safety education and



promotion presented in Chapter 4 are limited to those that are appropriate at the county level. Other excellent options are available for city-level or school district programs, but are more appropriate for city bicycle plans. A bicycle education and promotion program is estimated to cost \$120,000 per year, mostly in staff time and printed materials.

Areas of Overlap between Countywide Bicycle and Countywide Pedestrian Plan

ACTIA is developing the first Alameda Countywide Strategic Pedestrian Plan concurrent with the update to the Alameda Countywide Bicycle Plan being developed by the ACCMA. Wherever possible, efforts were made to coordinate the two plans, including revenue projections, mapping and efforts to show how countywide bicycle projects coincide with areas of significance in the Countywide Pedestrian Plan. Both plans recognize the need to design facilities that consider both bicyclists and pedestrians and that also avoid potential conflict between the two modes (e.g., the design of one facility type should not preclude the other). Recommendations for reducing bicycle and pedestrian conflicts on shared facilities and opportunities for designing for both modes are summarized in Chapter 3. For specific bicycle and pedestrian best practices, refer to Appendix C-4 of the Countywide Bicycle Plan and the Toolkit for Improving Walkability in Alameda County, a companion document to the Alameda Countywide Strategic Pedestrian Plan and available from ACTIA.

The high priority bicycle projects and Transit-priority Zones identified in the Countywide Bicycle Plan were combined with the Countywide Strategic Pedestrian Plan's Areas of Countywide Significance to determine potential overlap in projects between the two Plans. Given limited availability of funds, it is prudent to leverage bicycle and pedestrian projects whenever possible. There are several capital projects as well as transit priority zones consisting of BART, ACE, and Amtrak stations, ferry terminals and major bus stops along trunklines where opportunities to promote projects that benefit both bicyclists and pedestrian exists. These are shown in Figure ES-2.

ALAME	DA	COUNTY CONGESTION MANAGEMENT AGENCY
ES-10	[Countywide Bicycle Plan

Figure ES-2

Countywide Bicycle and Pedestrian Plans: Areas of Overlap between Bicycle High Priority Projects and Pedestrian Areas of Countywide Significance



