

## **INTRODUCTION**

This chapter describes the capital improvements, cost estimates and funding availability to implement the high priority projects on the Countywide Bicycle Network, including Transit-priority Zones and Rehabilitation of the Existing On-Street Countywide Bicycle System projects. It also describes the process for making minor amendments to the Countywide Bicycle Plan between updates and identifies outstanding issues and next steps. The chapter shows the potential overlapping priority projects between the Countywide Bicycle Plan being developed by the ACCMA (Alameda County Congestion Management Agency) and the Countywide Strategic Pedestrian Plan being developed by the Alameda County Transportation Improvement Authority (ACTIA) and includes a comparison of revenue estimates for the two Plans.

The types of capital improvements that are needed to implement the 337 mile proposed countywide network are described along with the cost assumptions for the capital projects and transit-priority zone and rehabilitation projects. The total cost of each element of the bicycle plan is then presented as well as the potential available funding for the 25 year planning horizon. Finally, the list of the high priority bicycle projects and the process for selecting them are described. It is anticipated that jurisdictions will submit these high priority bicycle projects when the CMA issues a “Call for Projects” for bicycle projects in the future.

The Countywide Bicycle network has three levels of investment as described in Chapter 3: 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.

When completed, the proposed Vision capital network of the countywide bikeway network will total 549 miles; about 212 of these miles are existing facilities, and 337 miles are new or improved facilities. In addition, there will be 17 new traffic signals, improvements to 27 freeway interchanges, 12 new bike/pedestrian bridges, undercrossings, overcrossings and other needed improvements.

The estimated cost of implementing the 337 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 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 as described in Chapter 3 from which a list of high priority capital, transit-priority zone and rehabilitation projects was selected. The 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 projects identified in Transit-priority Zone and bicycle rehabilitation projects for a total of about \$41 million in high priority projects.

Although this plan identifies a system of bicycle improvements, these projects are on local streets, roads and trails and a limited number of state highways. The projects identified in the plan, including bike lanes, routes, multi-use bikeway facilities, and bridges are in the purview of the local jurisdictions which would be the lead agency responsible for implementing the capital projects, including securing funding.

This section describes the recommended bikeway projects for the capital network, including a description of the bikeway improvements and related spot improvements, as well as the transit-priority zone and rehabilitation projects.

## **CAPITAL PROJECTS**

### **Bikeway Improvements**

Table 5-1 presents a summary of the types of improvements and the total lengths of each bikeway type by corridor and jurisdiction to implement the proposed 337-mile countywide network. The capital improvements fall into two general categories: bikeways and spot improvements, as described in Chapter 3 and shown in Appendix C-3. All capital improvements needed to implement the countywide corridors were aggregated into 60 projects.

The projects are defined in such a way that individual segments will stand alone and be eligible for funding. Due to the special implementation issues associated with multi-use bikeway facilities and bridges, each pedestrian/bicycle bridge and each parallel multi-use bikeway facility is a separate project.

### **Spot Improvements**

Spot and intersection improvements include a range of projects that would significantly improve the safety, convenience, travel time, ambiance and/or overall utility of a bicycle route. These are generally limited to a specific location or intersection, as opposed to the bikeway type described previously, which is applied to the entire segment. Recommended spot improvements for the Alameda Countywide Bicycle Corridors include:

- Building pedestrian/bicycle bridges over freeways, creeks, sloughs or other barriers.
- Installing traffic signals to help bicyclists cross major arterials. (In the future, it could be determined that a strategy other than a traffic signal is preferred to solve the arterial crossing. Cost estimates assume a traffic signal. Specific traffic signal locations listed are subject to review and represent the vicinity in which arterial crossing assistance is needed).

- Eliminating obstacles, such as upgrading at-grade railroad track crossings or replacement of unsafe drainage grates.
- Improving difficult freeway interchanges. The design of freeway ramps can be extremely intimidating to the average cyclist. Ameliorating these conditions would improve the utility of an arterial to the commuting cyclist. The exact improvements will vary by site, but can include such measures as rechannelization, restriping or widening at right-turn lanes, modification of curb radii, additional signing, signal phases, etc.
- Improving arterials for bicyclists. All arterials, whether they have existing bike facilities or not, may have bicycle unfriendly features. The needed improvements will vary street by street but include such issues as signal timing improvements, bicycle detection improvements, smoothing longitudinal joints, fixing potholes, or other repaving of sections with rough pavement. Similar to all transportation improvements, consideration must be given to balancing the needs of bicycles, autos, transit and pedestrian users.

**Table 5-1—Summary of Proposed Bikeway Improvements by Jurisdiction and Cross-County Bicycle Corridor (in miles)**

Jurisdiction	Bike Path	Bike Lanes	Bike Routes
<b>Corridor 5–Bay Trail</b>			
Albany	1.4		
Emeryville	0.1		0.1
Oakland	2.1	0.7	
San Leandro	0.6		
Hayward	8.5		
Newark	2.3		2.1
Fremont	3.3		1.9
<b>Corridor 10–Fruitvale/Broadway</b>			
Alameda		0.5	
Oakland		3.3	1.0
<b>Corridor 15–Alameda/Doolittle/Lewelling</b>			
Alameda	0.3		4.3*
Oakland		2.1	
San Leandro		1.5	0.5
Unincorporated County		1.7	
<b>Corridor 20–73<sup>rd</sup>/Hegenberger</b>			
Oakland	1.7	2.5	
<b>Corridor 25–I-880 Corridor</b>			
Albany	0.1	0.8	0.5
Berkeley	0.3		0.1
Emeryville	0.1		0.1
Oakland	4.3	11.3	2.2

Jurisdiction	Bike Path	Bike Lanes	Bike Routes
San Leandro		1.8	
Unincorporated County	3.2		
Hayward			0.3
Union City		2.5	
Newark		4.2	0.3
Fremont		6.3	
<b>Corridor 30–Davis/Estudillo/Crow Canyon Road</b>			
San Leandro		0.4	2.0
Castro Valley		2.1	7.2
Unincorporated County		0.4	1.8
<b>Corridor 35–I-580 Corridor/Foothills</b>			
Berkeley		0.6	0.3
Oakland	0.8	7.0	2.0
Piedmont			1.0
San Leandro		0.3	
Cherryland		0.5	
Castro Valley		1.7	
San Lorenzo		1.2	
Hayward	0.2		0.8
Union City		1.7	
Fremont		4.4	0.5
<b>Corridor 40–Highway 92 Corridor</b>			
Hayward		3.2	2.3
Castro Valley		1.8	
Unincorporated County	2.3	0.8	9.8
Pleasanton		1.7	
Dublin		5.5	
Livermore	5.4	2.2	
<b>Corridor 45–Highway 13 Corridor</b>			
Berkeley		0.2	0.5
Emeryville	0.3	0.2	
Oakland		4.1	4.9
<b>Corridor 50–Stoneridge/Las Positas</b>			
Pleasanton		2.1	0.5
Unincorporated County		0.6	
Livermore	2.4	1.6	
<b>Corridor 55–Skyline/Palomares</b>			
Berkeley			6.3
Oakland			0.1
Unincorporated County			19.1
Castro Valley		0.5	3.8

Jurisdiction	Bike Path	Bike Lanes	Bike Routes
<b>Corridor 60–Stanley/East Avenue</b>			
Pleasanton	2.0	1.9	
Unincorporated County	3.0	3.8	
Livermore			0.3
<b>Corridor 65–San Ramon/Foothill/I-680 Corridor</b>			
Dublin		1.7	
Pleasanton	8.7	3.5	3.9
Unincorporated County	5.2		
<b>Corridor 70–Vineyard/Concannon</b>			
Pleasanton	3.3		
Livermore	5.3		
Unincorporated County	7.3	0.4	
<b>Corridor 75–Dougherty/Hopyard</b>			
Dublin		2.0	
Pleasanton	4.4	2.6	
Unincorporated County	10.9		
Livermore	6.4		
<b>Corridor 80–SR-84/Niles Canyon</b>			
Newark		0.8	
Fremont		1.5	7.5
Unincorporated County			5.8
Livermore	2.4	0.9	
<b>Corridor 85–Tassajara</b>			
Dublin		2.4	0.5
Pleasanton		3.0	1.1
<b>Corridor 95–Vasco Road</b>			
Dublin	1.6		
Unincorporated County		5.2	
Livermore	12.8	0.4	
<b>Corridor 100–Buchanan/Marin</b>			
Albany	0.7		
Berkeley		0.3	
<b>Corridor 105–Central Alameda</b>			
Alameda		1.9	
<b>Corridor 110–Industrial Parkway</b>			
Hayward	0.2		
<b>Corridor 120–Central/Peralta/Mowry</b>			
Newark			1.4
Fremont		4.0	

*Note:* Existing bikeways not included in this summary.

\* The type of bikeway for these facilities has not yet been determined. All bicycle facilities within Alameda are to be consistent with Surface Transportation Board authorized rail operations and nothing herein is to be viewed as inconsistent with joint-rail trail use.

## **TRANSIT-PRIORITY ZONE AND REHABILITATION PROJECTS**

Because the amount of revenue identified for transit-priority zone and rehabilitation bicycle projects is limited at this time and it is likely that the categories will be oversubscribed, criteria are defined in Chapter 3 that would allow eligible projects to be funded in the categories rather than defining the Vision and Financially Constrained networks for these types of projects. Therefore, descriptions of specific projects are not included in the Bicycle Plan, but will be defined in future updates.

## **COST ESTIMATES**

The project cost estimates in the 2001 Countywide Bicycle Plan were based on detailed unit cost data provided by the Alameda County Public Works Agency and data compiled from other studies. They represent straight construction costs in Year 2000 dollars plus 30 percent to cover contingencies and design and administration. Although a comparison of the 2001 Countywide Bicycle Plan cost estimates to other recent plans (i.e., City of Fremont's 2006 Bicycle Master Plan, Contra Costa County's 2003 Bicycle and Pedestrian Plan) showed that the planning level estimates used in the 2001 Alameda Countywide Bicycle Plan were equal to or higher as well as more detailed than other bicycle plans, the California Highway Construction Cost Index and the Consumer Price Index data since 2000 were also reviewed to determine if the cost estimates used in the 2001 Countywide Bicycle Plan should be increased for the update.

Based on this review, the 2006 project cost estimates were developed by applying an escalation factor of four percent per year each project segment. The 2006 project cost estimates were escalated for a five year period, or by 20 percent. The four percent factor was based on the California Highway Construction Cost Index and the Consumer Price Index data since 2000 and estimating an average that is on the conservative side. The unit cost estimates by improvement type shown in Table 5-2 have been escalated by 20 percent and represent straight construction costs. Another 30 percent for contingencies, design and administrative costs, right-of-way acquisition, and inflation factors are included in the project costs shown in Appendix C-3.

The EBRPD estimates trail bed construction at \$570,000 per mile, but the actual costs experienced by local agencies can be and have been much higher. This is because the cost to construct trails can vary significantly due to such factors as right-of-way acquisition, landscaping, lighting, culvert crossings, drainage design, and amenities such as benches and water fountains. This study assumes \$600,000 per mile for new trail construction.

The total cost of constructing the proposed 337-mile capital network is about \$219 million, including the contingency and design and administration costs, but not including implementing Transit-priority Zone

and Rehabilitation of the Existing On-street Countywide Bicycle System projects or the programs identified in Chapter 4. The total cost for capital network, transit-priority and rehabilitation projects and programs is estimated to be \$249 million.

**Table 5-2—Cost Construction Cost Assumptions for Bikeway Improvements**

Capital Project	Unit	Cost
Class 1: Construct multi-use bikeway facility	Mile	\$600,000
Class 1: Improve existing multi-use bikeway facility	Mile	\$120,000
Class 2: Bike Lanes	Mile	
▪ Bike Lane treatment only: stripe bike lanes, add signs and pavement legends.		\$24,000
▪ Restripe lanes and bike lane treatment.		\$48,000
▪ Remove lane and bike lane treatment (for cost estimating purposes assume two-way left-turn lane).		\$90,000
Class 3: Wide Curb Lane	Mile	\$60,000-120,000
Class 3: Wide Shoulder	Mile	\$216,000
Class 3: Residential Street, Local Street, or Bicycle Boulevard	Mile	\$120,000
Arterial Improvements (see Chapter 6)	Mile	\$240,000
Traffic Signal	Each	\$186,000
Construct Pedestrian/Bicycle Overpass	Sq.Ft.	\$240
Improve freeway interchange to accommodate bicycles	Each	\$360,000

*Note:* Unit costs are straight construction costs and do not include contingencies, design and administrative costs, right-of-way acquisition, or inflation factors. Cost can vary depending on terrain, drainage needs, right-of-way and design of the facility. Costs presented in Appendix C-3 are increased an additional 30 percent to account for these other factors.

## FUNDING AVAILABILITY

In *Transportation 2030*, the MTC identified about \$1.31 billion in available revenues for Alameda County Tier 1 projects for the 25 year period 2005 to 2030. Of this, \$664.4 is committed to meeting transit capital shortfalls and Metropolitan Transportation System (MTS) pavement maintenance obligations, leaving \$645.6 for other projects and programs. Tier 1 is based on what the CMA reasonably expects to receive from Surface Transportation Program/Congestion Mitigation and Air Quality/State Transportation Improvement Program (STP/CMAQ/STIP) funding for the 25 year period. In addition to money programmed through *Transportation 2030*, the county also expects to receive funding from Measure B, Regional Measure 2, Transportation Development Act (TDA) Bicycle and Pedestrian Funds,

TCRP funds, State Interregional Transportation Improvement Program (STIP) funds and a share of New Starts funding.

The primary sources of future funds for countywide bicycle facilities are state and federal sources in the form of Regional Bicycle and Pedestrian Program and CMAQ funds, as well as Measure B countywide and local funds managed by ACTIA, Transportation Funds for Clear Air (TFCA) managed by the Bay Area Air Quality District and the Alameda County Congestion Management Agency, and Transportation Development Act (TDA) funds managed by the County. In addition, the jurisdictions may be successful at securing some competitive grants such as Transportation for Livable Communities (TLC), Safe Routes to Transit (SR2T), or Bicycle Transportation Account (BTA). A summary of funding sources and the estimated funds available are described below and are presented in Table 5-3.

The approximate amount available to fund the countywide bicycle program over the next 25 years is between \$77-99 million, including capital projects, Transit-priority Zone projects, and Maintenance and Rehabilitation of the On-Street Existing System projects. Fifteen million dollars over the next 25 years is applied to Transit-priority Zone projects and \$15 million to Rehabilitation of the On-Street Existing Countywide Bicycle System projects. This leaves up to \$69 million for capital projects.

## **FUNDING SOURCES**

### **State and Federal Sources**

State and Federal funding sources include CMAQ funds through the Regional Bicycle and Pedestrian Program (RBPP) to fund the construction of the Regional Bicycle Network and regionally significant pedestrian projects. This fund source consists of two parts: the county share and the regional competitive share. Transportation 2030 assumes \$200 million is available regionwide in this program. For estimating purposes, it is assumed that half of that is available for bicycle projects (\$100 million) and that Alameda County could expect to receive its share based on population share or \$21 million (\$15,750,000 from the county share and \$5,250,000 for the regional competitive share).



**Table 5-3—Available Funding Sources**

Source	Agency	Estimate for Alameda County (\$)	Estimate for Projects on Countywide Network (\$)	Notes/Assumptions
<b>Dedicated Funds</b>				
1 RBPP, County share (75%)	CMA	15,750,000	6,300,000	\$150 million available for the region of which Alameda Co. would get about 21% or \$31,500,000. 50% available for bicycle projects on countywide network and only 40% of that is available due to a credit for county sales tax funds.
2 RBPP, Regional competitive (25%)	MTC	5,250,000	5,250,000	\$50 million available, of which Alameda Co. would get about 21% or \$10,500,000, of which half is for projects on the countywide network.
3 Measure B*, bike/pedestrian, local pass-through (75%)	ACTIA	40,500,000	10,000,000	\$81 million of which half would be for bicycle projects in Alameda Co. Historically local jurisdictions have completed projects on the countywide bicycle network using these funds. 25% assumed for countywide bicycle projects.
4 Measure B*, bike/pedestrian countywide discretionary (25%)	ACTIA	13,500,000	10,800,000	\$27 million of which half would be for Alameda Co. bicycle projects. An additional 20% is taken off to account for other programs that come off the top of the countywide discretionary source.
5 TDA, Article 3	Alameda County	14,125,000	5,000,000-7,500,000	\$28,250,000 is available in Alameda Co. for bicycle and pedestrian projects. Half for bicycle projects and 35-50% of that is assumed for bicycle projects on the countywide network.

\* Measure B funds expire in 2022 and not 2030. For purposes of calculating an annual estimate for the Bicycle Plan, 25 years was used. This estimate could be higher if joint pedestrian/ bicycle projects are promoted or if Measure B were extended.

**Table 5-3—Available Funding Sources (continued)**

Source	Agency	Estimate for Alameda County (\$)	Estimate for Projects on Countywide Network (\$)	Notes	
<b>Competitive Funds</b>					
6	TFCA, County Fund (40%)	CMA	37,500,000	2,000,000-5,500,000	\$1.5 million per year for 25 years, of which 5-15% could be used for projects on the countywide network.
7	TFCA, Regional Fund (60%)	BAAQMD	50,000,000	5,000,000	Of the \$10 million per year available regionwide, or \$250 million, Alameda Co. could compete for \$2 million/year or \$50 million over the 25 year period. In the '04/05 program, Alameda Co. accounted for \$5 million in projects, of which about 7 percent were directly related to bicycles. For estimating revenues, countywide bicycle projects could account for 10 percent of the funds over 25 years.
8	TLC, Regional capital program	MTC	94,500,000	14,000,000	\$450 million available, in the region of which Alameda County is assumed to receive 21% or \$94,500,000. Of this, it is assumed 15% would be available for bicycle projects on the countywide network.
9	TLC, County capital program	MTC/CMA	56,000,000	3,000,000-8,500,000	\$56 million available in Alameda Co. based on continuation of current 3-year program of \$7 million or an equivalent and that 5-15% would be available for bicycle projects on the countywide network. These funds can only be used for bicycle projects in TOD zones.

Source	Agency	Estimate for Alameda County (\$)	Estimate for Projects on Countywide Network (\$)	Notes
10 Safe Routes to Transit (SR2T)	TALC and EBBC on behalf of MTC	19,000,000	9,500,000	Assumes \$50 million is available of which Alameda County would compete for 38% or \$19 million and bicycle projects on the countywide network around transit stations would receive half.
17 Bicycle Trans. Account	Caltrans	4,500,000	4,500,000	Table 5.2, Regional Bicycle Plan
18 STP/Local Streets and Roads	CMA	108,000,000	2,000,000	Of the Local Streets and Roads funds available, 2% of the projects would include construction of new countywide bicycle facilities. A more accurate estimate may be available for the next update when it is seen how many local streets and roads projects include new bicycle facilities. Estimate is based on the current 2-year cycle of \$9 million continuing for 12 cycles and that 2% (\$2 million) will include new bicycle projects.
19 Misc.		10,000,000	10,000,000	Because it is unknown how much would be available for bicycle projects from other competitive sources (expected to be small), up to \$10 million may be available from other competitive sources such as Safe Routes to School, Bay Trail Grant Program, Office of Traffic Safety, Recreational Trails Program, impact fees and private sources.
<b>Total</b>		<b>257,000,000</b>	<b>77,350,000-98,850,000</b>	

## **Measure B Reauthorization**

The 2004 Alameda Countywide Transportation Plan and MTC's Transportation 2030 identify \$100 million in Measure B funds over the next 25 years for bicycle and pedestrian projects in Alameda County. However, based on revenues collected by ACTIA and updated projection, \$108 million is now estimated to be available. Half of that, or \$54 million, is assumed to be available for bicycle projects on countywide and citywide bicycle networks. Of this \$54 million, it is assumed that approximately \$21 million would be available for bicycle projects on the countywide network over the next 25 years based on the following assumptions:

- \$10.8 million from the 25 percent countywide discretionary funds.
- \$10 million from 75 percent local Measure B funds (12.5%). This estimate acknowledges that historically the jurisdictions have used a portion of their local Measure B funds for projects on the Countywide network.

Measure B funds can be used for capital projects, programs, and planning projects. Capital projects include maintenance of both multi-use bikeway facilities and bicycle facilities on and at transit stations (such as bike lockers and racks). It should be noted that Measure B funds expire in 2022 and not 2030. For purposes of calculating an annual estimate the available Measure B funds were spread over the 25-year life of the Bicycle Plan. This estimate could be higher if joint pedestrian/bicycle projects are constructed or Measure B is extended.

## **Transportation Development Act Funds**

Alameda County administers the TDA Article 3 Funds. It is assumed that \$28,250,000 is available for bicycle and pedestrian projects in Alameda County with half of the total being available for bicycle projects. Of this, 35 to 50 percent is assumed to be available for bicycle projects on the countywide network for a total of \$5 to 7.5 million.

## **Transportation Funds for Clean Air**

TFCA, a program of the Bay Area Air Quality Management District, consists of two parts: Program Manager Funds, which guarantee a certain share to each county, and Regional Funds, which are allocated on the basis of regional competition. In the past, Alameda County has received \$1.5 million per year in Program Manager Funds of which five to 15 percent might be used on countywide bicycle projects for a total of \$2.0 to \$5.5 million over 25 years. For Regional TFCA Funds, Alameda County could expect to compete for up to \$2 million per year, of which 10 percent could be applied to projects on the countywide bicycle network for a total of \$5.0 million over 25 years.

## **Competitive and Miscellaneous Funds**

Alameda County can also compete for regionwide or statewide funds, including the following:

- Bicycle Transportation Account
- Recreational Trails Program

- Safe Routes to Transit
- Transportation for Livable Communities
- Office of Traffic Safety Grants
- ABAG Bay Trail Project. As funds become available, the Bay Trail Project periodically administers grant programs to fund planning and construction of the Bay Trail in the nine county Bay Area. Eligible projects must be segments of the Bay Trail Alignment. Planning projects can include alignment feasibility studies, design, and other technical studies necessary to overcome long-standing obstacles to Bay trail implementation. Construction projects can include new trail construction ranging from separated pathways, bike lane striping, sidewalk construction and improvements to roadway bicycle routes. Funds may also be used for trail amenities such as signage, staging areas, landscaping and other costs directly related to trail construction
- Recreational Trails Programs
- Impact fees or private donation

Alameda County jurisdictions have been successful in the past in obtaining grants from these programs. The remainder of the revenue estimate assumes that Alameda County jurisdictions will continue to successfully compete for competitive or miscellaneous fund sources.

## **COMPARISON OF REVENUE ESTIMATES**

### **(Countywide Bicycle Plan And Countywide Pedestrian Plan)**

ACTIA has been developing the first Countywide Pedestrian Plan concurrently with the update of the Countywide Bicycle Plan being developed by the CMA. The revenue estimates were also developed concurrently and are based on consistent methodologies. A comparison of the revenue estimate from both Plans is shown in Table 5-4. The table shows the two revenue estimates and explains why they are different. In some cases there are no differences, such as for RBPP and Measure B countywide discretionary funds. But in other cases, the revenue estimates vary widely. This is usually a result of one mode competing better for a particular fund source. Over the next 25 years, the Countywide Bicycle Plan is projected to receive up to \$99 million in revenues while the Countywide Pedestrian Plan is projected to receive \$173 million.

## **PRIORITIZATION OF COUNTYWIDE BICYCLE PROJECTS**

Because the total cost to implement the Countywide Bicycle network is \$249 million and only \$77-99 million is estimated to be available over the next 25 years, a financially constrained network was developed from which high priority projects were selected for capital projects and a revenue category established for transit-priority and rehabilitation projects. As described in Chapter 3, the 2006 Bicycle Plan Update has three levels of investment, similar to the Countywide Transportation Plan. These levels of investment are the:

- Vision network;
- Financially Constrained network; and
- High Priority Project network.

The Vision, Financially Constrained and High Priority components include capital projects as well as transit-priority and rehabilitation projects. Because projects on the capital network are more defined than the transit-priority and rehabilitation projects, specific high priority capital network projects are identified. For the Transit-priority Zone and rehabilitation projects, revenues are set aside and high priority projects will be identified by applying eligibility criteria.

**Table 5-4—Comparison of Revenue Estimates**

Source	Agency	Ped. Plan Revenue for areas of Countywide Significance (\$)	Bicycle Plan Revenue for Vision Network (\$)	Explanation of Differences	
<b>Dedicated Funds</b>					
1	County share (75%)	CMA	6,300,000	6,300,000	No difference.
2	RBPP, Regional competitive (25%)	MTC	5,250,000	5,250,000	No difference.
3	Measure B*, bike/pedestrian, local pass-through (75%)	ACTIA	20,250,000	10,000,000	Pedestrian Plan Areas of Countywide Significance encompass a higher percentage of jurisdictional streets than the Countywide Bicycle Plan Vision network. Thus more local pass-through dollars are likely to be spent on the Pedestrian Areas of Significance than on the smaller Bicycle Plan Vision network.
4	Measure B*, bike/pedestrian countywide discretionary (25%)	ACTIA	10,800,000	10,800,000	No difference.

Source	Agency	Ped. Plan Revenue for areas of Countywide Significance (\$)	Bicycle Plan Revenue for Vision Network (\$)	Explanation of Differences	
5	TDA, Article 3	Alameda County	7,063,000	5,000,000-7,500,000	Amounts for both plans are basically equal. Based on how this source was allocated in the past, a range was assumed for bicycle projects on the countywide bicycle network. In the Pedestrian Plan, 1/2 the total available was assumed for pedestrian projects and 1/2 was assumed for areas of countywide significance.
<b>Competitive Funds</b>					
6	TFCA, County Fund (40%)	CMA	588,000	2,500,000-5,500,000	Based on how this source was allocated in the past, bicycle projects are expected to receive a higher % of funding than pedestrian projects.
7	TFCA, Regional Fund (60%)	BAAQMD	1,050,000	5,000,000	Based on how this source was allocated in the past, bicycle projects are expected to receive a higher % of funding than pedestrian projects.
8	TLC, Regional capital program	MTC	56,700,000	14,000,000	Based on how this source is allocated and defined, pedestrian projects are likely to receive 60% of funding while bicycle projects may receive 15%.
9	TLC, County capital program	MTC/ CMA	28,350,000	3,000,000-8,500,000	Based on how this fund source is allocated and defined, pedestrian projects are likely to receive 60% of funding while bicycle projects may receive 5-15%.
10	Safe Routes to Transit	TALC and EBBC on behalf of MTC	9,500,000	9,500,000	No difference.

Source	Agency	Ped. Plan Revenue for areas of Countywide Significance (\$)	Bicycle Plan Revenue for Vision Network (\$)	Explanation of Differences
11 Safe Routes to School	Cal. OTS	11,340,000		See 19, Miscellaneous
12 Lifeline Transportation	MTC/ACCMA	8,220,000		See 19, Miscellaneous
13 Bay Trail Grant Program	ABAG/ Bay Trail Project	4,203,000		See 19, Miscellaneous
14 Office of Traffic Safety	California OTS	996,000		See 19, Miscellaneous
15 Recreational Trails Program, non-motorized program	FHWA	2,080,000		See 19, Miscellaneous
16 Environmental Justice	Caltrans	1,256,000		See 19, Miscellaneous
17 Bicycle Trans. Account	Caltrans	0	4,500,000	Fund source for bicycles only.
18 STP/Local Streets and Roads	CMA	0	2,000,000	Funds are typically spent on roadways; thus funding will benefit bicycles, but not pedestrians.



Source	Agency	Ped. Plan Revenue for areas of Countywide Significance (\$)	Bicycle Plan Revenue for Vision Network (\$)	Explanation of Differences
19 Misc.		0	10,000,000	Because it is not known how much would be available for bicycle projects from other competitive sources and because that amount is expected to be small, up to \$10 million was estimated in the Bicycle Plan to be available from other competitive sources such as Safe Routes to School, Bay Trail Grant Program, impact fees and private sources. For the Pedestrian Plan, estimates for the competitive sources shown in lines 11-16 total about \$28 million and are based on a combination of historical data and assumptions about the amounts that will be allocated to pedestrian projects. For SR2S and Lifeline Transportation, pedestrian projects are expected to receive a higher % of funding than bicycle projects. For the remaining fund sources, the amounts are assumed to be more equal.
<b>Total</b>		<b>173,946,000</b>	<b>77,350,000- 98,850,000</b>	

The Financially Constrained network assumes that of the \$77-99 million in available funding estimated for the next 25 years:

- Up to \$69 million is available for capital projects on the 201 mile Financially Constrained network. The Financially Constrained network is described in Chapter 3 and shown in Figure 3-1 and Appendix C-3.
- \$15 million is available for Transit-priority Zone projects of which about \$2.4 million would be available over the next four years when the Countywide Plan will be updated again. This estimate is not intended to be a cap, but a guideline. The countywide amount and total need has not been identified and will not be addressed as part of this update. It will be defined further in future updates. Between now and the next update, the types of projects completed under this category will be monitored and used as input into the next update process. It appears, however, that this category is most likely to have projects that serve both bicycle and pedestrian needs, so every opportunity should be taken to combine projects and leverage funding if applicable. Eligibility criteria for these projects are found in Chapter 3.
- \$15 million is available for Rehabilitation of the On-Street Existing Countywide Bicycle System of which about \$2.4 million would be available over the next four years when the Countywide Plan will be updated again. The available revenue estimate is not intended to be a cap, but a guideline. The countywide amount and total need has not been identified and will not be addressed as part of this update. It will be defined further in future updates. Between now and the next update, the types of projects completed under this category will be monitored and used as input into the next update process. Eligibility criteria for these projects are found in Chapter 3.

### **Description of High Priority Capital Projects**

For the 2006 Update, each jurisdiction, including ABAG and the EBRPD, was asked to submit their highest priority capital project from the Financially Constrained Network. If the Financially Constrained network was completed or funded in the jurisdictions, then a substitute project from the Vision network was permitted. Fifteen high priority capital projects were identified and are shown in Table 5-5 and illustrated in Figure 5-1. A brief description of each high priority project is included in Appendix E-1. In addition, each jurisdiction was requested to submit their second highest priority project in the event that the highest priority project is completed or does not move forward. The list of second highest priority projects is found in Appendix E-2.

The cost to implement the 15 high priority capital projects is estimated to be \$36.3 million, including construction, design, administration and contingencies. With the addition of \$2.4 million for each of the Transit-priority Zone and Rehabilitation of the Existing On-street Countywide Bicycle System projects, the total implementation cost would be about \$41 million. This includes:

- Two new pedestrian-bicycle overcrossings or bridges;
- Portions of the Iron Horse, Isabel Avenue and Alamo Canal Trails in the Tri-Valley;
- Portions of the Bay Trail in Northern and Southern Alameda County; and
- Numerous on-road segments of bikeways and arterial improvements.

In total, the implementation of the high priority capital projects would result in:

- Over 16 miles of Class 1 facilities
- Over 10 miles of Class 2 facilities
- Under 1 mile of Class 3 facility
- One overpass and one underpass
- One bicycle/pedestrian bridge

It is anticipated that jurisdictions will use discretionary funding over which the CMA has control to fund the high priority projects shown on Table 5-5 and Figure 5-1. This would mean that for the next and future calls for projects, these projects will be the ones that are submitted for funding by the jurisdictions. It should be noted that the cost for the 15 high priority capital projects is much higher than projected available countywide funds and that it is not expected that all of these projects will be able to be implemented between now and the next update of the Countywide Bicycle Plan without supplemental funding sources.

Because of this, for countywide funds that the CMA administers, the high priority capital projects will be evaluated individually at the time the funding application is submitted to determine which projects to implement first, depending on the specifics of the funding availability, project cost and project readiness. Project cost will be ranked high, medium or low after considering other committed funds, if any, and the potential for special funding partnering opportunities. Project readiness includes such issues as whether or not it is included on other plans, has demonstrated public support, has completed design plans, has completed environmental documentation or is in an environmentally sensitive area, and has commitments for full funding. For Measure B funds, ACTIA uses these and other criteria to evaluate projects.

## **AREAS OF OVERLAP**

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 5-2.

**Table 5-5—High Priority Projects**

#	Project	Segment	Corridor	City	Roadway	From	To	Miles	Status	Type	Cost (\$)
59	Buchanan-Marin	A	C	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 Boulevard	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

#	Project	Segment	Corridor	City	Roadway	From	To	Miles	Status	Type	Cost (\$)
2	S. Alameda County, I-880 Corridor	BJ	5	East Bay Parks/UC-Hayward	Bay Trail	Eden Landing	Alameda Creek Bridge	3.0	P	Class 1 Bike Trail	1,900,000
58	Fremont-Santa Clara	A	B	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	Pleasanton 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	2.6	P	Class 1/ Class 2	3,600,000
								<b>27.9</b>			<b>36,343,176</b>

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

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

Status: P=Proposed; E=Existing

## AMENDING THE COUNTYWIDE BICYCLE PLAN BETWEEN UPDATES

The Alameda Countywide Bicycle Plan is updated approximately every four years in tandem with the Countywide Transportation Plan. A number of jurisdictions have requested that the update of the Bicycle Plan include a process for accommodating minor amendments and modifications between major plan updates. Minor amendments and modifications will be accommodated through the Annual Performance Report that is done by the CMA in the Fall of each year. In past reports, the CMA has used the Performance Report process to request jurisdictions to identify which segments of the countywide bicycle network have been completed since the previous year. This process will be expanded to include requests for minor alignment modifications and status of implementation of the high priority project identified in Table 5-5.

If the high priority project has been completed or it can be demonstrated that it can no longer be constructed, the jurisdiction may request that their next highest priority project identified in Appendix E-2 be replaces as the high priority project. If this next highest priority project is no longer feasible, then a project must be selected from the Financially Constrained network unless the jurisdiction can demonstrate that the Financially Constrained network is completed or funded in their jurisdiction, then a substitute project from the Vision network would be permitted. Table 5-6 summarizes the steps and schedule for amending the Countywide Bicycle Plan between updates through the Performance Report.

**Table 5-6—Process for Amending the Countywide Bicycle Plan between Updates**

Step	Responsibility	Schedule
Request to jurisdictions for completed countywide segments, minor alignment modifications, and status of implementation of their high priority project.	CMA	August
Jurisdictions submit completed segments and requests for updates.	Jurisdictions	September
Request are evaluated, responded to, and incorporated into the Performance Report as appropriate.	CMA	October
Modifications, status of implementation and completed segments are reviewed and approved by ACTAC/Board.	ACTAC/Board	November
Changes are incorporated into the countywide bicycle maps and posted on the web.	CMA	December

## ROUTINE ACCOMMODATION OF BICYCLES IN TRANSPORTATION PROJECTS

MTC has adopted Resolution 3765, which is a policy for Routine Accommodation of Pedestrians and Bicyclists in the Bay Area. The policy includes recommendations for project planning and design, funding and review, and training. The policy was developed in conjunction with the CMAs, the Local Streets and Roads Committee and the bicycle and pedestrian communities. This policy is found in Appendix E-3 and is incorporated into the Countywide Bicycle Plan.

## **ACCOMPLISHMENTS, NEXT STEPS AND ISSUES TO BE RESOLVED**

While this document represents the final product of updated Countywide Bicycle Plan, the 2006 Countywide Bicycle Plan Update is not the end—it is the beginning of providing improved conditions for bicyclists in Alameda County. The numerous capital and other projects recommended in this plan will take many years to implement even considering the funding scenario outlined in this chapter. The future will entail implementing the specific recommendations of this plan and also addressing other issues to help bicycling to reach its full potential as a transportation mode.

This section identifies issues that have been addressed since the 2001 Alameda Countywide Bicycle Plan was adopted, other issues that need to be addressed in the future and recommends actions and next steps that will help in plan implementation and coordination. The Countywide Bicycle Plan is dynamic will be updated on the same schedule as the Countywide Transportation Plan (every four years) in the event that project status changes or new projects need to be added. Interim updates of completed segments and minor modifications to the 2006 Bicycle Plan will be made in conjunction with the CMA's Annual Performance Report done every year in the Fall.

### **Accomplishments Since the 2001 Update**

Two outstanding issues identified in the 2001 Alameda Countywide Bicycle Plan have been completed. The first was the establishment of a Countywide Bicycle and Pedestrian Coordinator in January 2003. The Coordinator resides with ACTIA and is funded through 2000 Measure B funds. The second was the establishment of a Countywide Bicycle and Pedestrian Advisory Committee (BPAC). The BPAC was created by the ACTIA Board in 2003 and is staffed by ACTIA. The Committee is composed of 11 members, each appointed by an ACTIA Board member. Their role is to advise the Board on the Measure B Bicycle/Pedestrian Countywide Discretionary Funds and to provide input on other plans and projects of countywide significance upon request.

### **Next Steps/Issues to Be Resolved**

#### **Responsible Agencies—Capital Projects**

The projects in the 2006 Bicycle Plan will require a local agency to be the lead agency in designing and constructing the recommended improvements. Some of these projects may require further study, more public input, and/or the local City Council or Board of Supervisors approval before being constructed. As further evaluations are made of the projects in this Plan, the recommendations outlined in the plan may need to be modified.

#### **Responsible Agency—Programs**

**Signing.** The CMA has recently responded to a request for information from ACTIA and CMA to develop a consistent countywide bicycle route signage program in Alameda County that would allow bicyclists to arrive at countywide destinations without a route map. The signage plan would achieve consensus with Alameda County jurisdictions on types of signs to be used, sign design, route name and

numbering, definition of major destination points, and appropriate locations and intervals for sign installation. The signage plan would cost about \$180,000 to develop and would probably involve the retention of a consultant specializing in sign design.

**Bicycle Parking.** The Bicycle Parking program involves providing funds to member agencies to use for their own bicycle parking projects. It could also be managed by the Countywide Bicycle and Pedestrian Coordinator. Some bicycle parking projects may now compete for funds through the Transit-priority Zone component added to the Countywide Bicycle Plan, but bicycle parking needs still needs to be further defined.

**Maintenance.** The maintenance program is similar to the parking program, but is oriented toward maintaining the countywide bicycle network, including roadways and multi-use bikeway facilities, that traverse through the local jurisdictions. While roadway maintenance for bicycle facilities is provided through gas taxes and Measure B local streets and roads program, trail resurfacing is not usually included in a city’s road resurfacing program. Measure B funds can be used for trail maintenance as well as to maintain bike facilities at transit stations/stops and on transit, but other funding sources are still needed to maintain the existing countywide bicycle system. Maintenance needs for the countywide bicycle network should be defined in future updates along with the addressing following maintenance needs:

- Non-road facility maintenance, such as bike lockers, racks, etc.;
- Bicycle station operations funds; and
- Trail maintenance and rehabilitation.

**Education.** The Education Program is more involved and may require the acquisition of grant funding to hire a specific staff person to run the program, as was done in Contra Costa and San Francisco Counties. Programs are more fully described in Chapter 4.

### Transit-Priority Zones

Transit-priority Zones projects were defined in Chapter 3 and are intended to improve access to transit from the countywide bicycle network and provide connections between bicycles and transit. For the next update, the total need for Transit-priority zone projects should be identified. Between 2006 and the next update, the types of projects completed under this category should be monitored and used as input into the next update process. It appears, however, that this category is most likely to have projects that serve both bicycle and pedestrian needs, so every opportunity should be taken to combine projects and leverage funding if applicable. If funding can be found, local jurisdictions should develop transit access plans for their transit stations and identify ways of providing access routes to transit for bikes. The results of these planning efforts can be incorporated into future updates.

### Rehabilitation of the On-Street Existing Countywide Bicycle System

Rehabilitation of the On-Street Existing Countywide Bicycle System was described in Chapter 3. Existing on-street countywide bicycle facilities should be rehabilitated concurrently with roadway rehabilitation projects, but in instances where there are not enough funds to rehabilitate the bike facility at the same



time, this component would supplement roadway rehabilitation funds for bicycle projects that meet the criteria. Rehabilitation would include curb to curb resurfacing to accommodate bicyclists. It differs from maintenance of the countywide system, which includes replacing signs, sweeping bike lanes and multi-use bikeway facilities, and maintaining trail surfaces. For the next update, the countywide amount and total need for this component should be identified. Between now and the next update, the types of projects completed under this category will be monitored and used as input into the next update process.

## Other Bicycle Issues

Several issues were identified during the course of this study that need to be addressed to help to bicycling reach its full potential as a transportation mode. These issues include:

- Transportation studies vary considerably in considering bicycling and developments' impacts on bicycling conditions; a regionwide or countywide guideline for addressing such impacts could be developed.
- Bicycle counts on roadways and paths could be conducted on a regular basis to monitor bicycle conditions.
- Surveys of bicyclists should be conducted to determine characteristics regarding bicycle use, e.g., accurate mode split data is only available from census data every ten years; and Regional Rideshare Program annual surveys could be augmented to address the walk and bike split.
- Bicycle and pedestrian collision data is inconsistent from city to city in terms of reporting non-injury collisions, determining cause of collision and determining party-at-fault.
- Oftentimes bike access to transit is inhibited because BART or other transit providers restrict access or the system is at or near capacity.
- It is acknowledged that there is divided opinion among bicyclists on the merits of share the road and other types of signs, and on the roads chosen to use them. There is also no consensus on the design of the signs themselves. This is an outstanding issue and should be addressed as part of the Countywide Signing Program.

