

5. Costs and Revenue

CHAPTER GUIDE

TOPIC: Analysis of estimated cost to deliver pedestrian projects, programs and plans of countywide significance and the revenue expected to be available in Alameda County for these efforts over the life of the Pedestrian Plan and beyond.

AUDIENCE: Potential sponsors of projects, programs and plans of countywide significance; countywide transportation planners; and public officials.

USES: To develop prioritization criteria with which to evaluate projects, programs and plans competing for countywide pedestrian funding; to strategize which anticipated funding sources are best suited for which proposed improvements; and to identify where funding gaps are expected to occur in order to pursue additional funding.

INTRODUCTION

The *Countywide Priorities* chapter laid out Alameda County capital projects and programmatic and planning efforts that are of countywide significance. The subject of this chapter is the estimation and analysis of the cost of these priority investments and the revenue expected to be available in Alameda County for these efforts over the life of the Pedestrian Plan and beyond. This analysis provides a countywide order-of-magnitude estimate, in 2006 dollars, of costs and revenue that Alameda County can expect over the next 25 years.

BACKGROUND

The methodology and assumptions used to estimate the cost and revenue projections presented in this chapter are detailed in Tables 9 and 10, and in Appendices G and H.

It is important to understand what conclusions can and cannot be drawn from the data contained in this chapter.

Estimated costs

Because few local cost estimates have been developed for the improvements envisioned in the *Pedestrian Plan*, the countywide level capital cost estimates outlined in this chapter were calculated using the Metropolitan Transportation Commission's *Pedestrian District Cost Estimating Template*, developed in 2005, coupled with assumptions regarding the type and intensity of improvements for each of the countywide priorities. The cost to maintain these facilities is not included in these estimates, although adequate maintenance of pedestrian facilities is a critical ingredient in any walkable community. The estimated cost for the programs and local pedestrian master plans of countywide significance described in the *Countywide Priorities* chapter is based on historic costs to develop similar programs and plans.



This cost information is valuable as a sketch planning tool for comparing the relative cost of improvements in one topic area of countywide significance versus another. The figures that make up this analysis should not be relied on to make decisions about whether or not to proceed with a particular project; such decisions require an engineer's cost estimate that takes into consideration factors that the broad-brush, countywide analysis did not

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consider, such as drainage, utilities, right-of-way, and existing conditions. (Note: many of these factors were considered in the cost estimates presented in this chapter, but local conditions can result in widely different results.)

The cost estimates summarized in this chapter may not, in all cases, take into account existing local pedestrian conditions in Alameda County due to the dearth of inventories or information regarding on-the-ground pedestrian conditions. Therefore, in some cases, projected costs may exaggerate current need. However, it is likely that there are many more cases where such needs may have been understated. In balance, given the broad nature of this analysis, the information contained in this chapter, if used as intended, serves well as an order-of-magnitude guide to expected costs.

Given the broad nature of this analysis, the information contained in this chapter, if used as intended, serves well as an order-of-magnitude guide to expected costs.

Beyond capital projects, the cost to deliver programmatic and planning efforts to encourage walking are also presented in this chapter. As with the cost estimates for specific categories of capital projects, actual programmatic costs may also diverge from estimates, primarily due to actual levels of effort differing from those that were assumed.

Finally, as stated in the *Countywide Priorities* chapter, whether or not a project, program or plan is explicitly called out in this section does not influence its eligibility for future pedestrian funding. Rather, the types of investments called out in this section were used to estimate the cost to develop a “culture of walking” in Alameda County. Specific eligibility questions will be addressed in the prioritization processes of the Measure B, Regional Bicycle and Pedestrian Program, and other countywide sources of pedestrian funding.

Projected revenue

The level of funding that will be available for Alameda County pedestrian efforts is unknown. Revenue forecasts were made for the 25-year life of the Plan, and were based on the historic levels at which Alameda County pedestrian projects, programs and planning efforts have been funded by dedicated funding sources in the past, as

well as other sources that can fund pedestrian projects. The revenue projections provided in this chapter are useful to begin to match sources with investments, in order to identify obvious funding gaps and to develop strategies for filling them. However, since the estimated funding levels anticipated in this chapter are a best guess, they should not be relied on for planning or other purposes aside from those mentioned above.

Coordination with Countywide Bicycle Plan

The cost and revenue information presented in this chapter has been coordinated with that in the 2006 *Alameda Countywide Bicycle Plan Update*. The primary area of cost overlap is on trails. Due to this partial overlap, the total cost of the countywide bicycle and pedestrian networks described in the two plans cannot simply be added together to calculate the cost of future non-motorized transportation costs. Base assumptions for all revenue sources that fund bicycle and pedestrian projects and programs are the same in both plans, although in many cases, the proportion of funding that is projected to be allocated to bicycles is different than for pedestrians, based on historic distributions and funding source criteria. Appendix I contains a comparison of the plans’ revenue estimates, a map of the intersection between high priority bicycle projects and pedestrian areas of countywide significance, and a description of the relationship between the two plans.

COST AND REVENUE SUMMARY

Based on the methodologies and assumptions described in this chapter, the cost to deliver pedestrian capital projects of countywide significance is estimated to be on the order of \$892 million, not including local pedestrian needs or maintenance expenses. In addition, training, local match funds, programs to encourage walking, and pedestrian master plans will cost approximately \$11 million. The total projected cost is, therefore, \$903 million. In the next 25 years, Alameda County jurisdictions and agencies can expect on the order of just under \$174 million to fund these countywide efforts. Therefore, it is expected that there will be approximately 19 percent the level of revenue needed to deliver all desired projects, programs and plans of countywide significance. The assumptions and methodologies used to develop these cost and revenue estimates are the subject of the following sections.

TABLE 9: COST CALCULATIONS (2006 dollars in \$1,000s)

AREAS OF COUNTYWIDE SIGNIFICANCE	CATEGORY COST	COMPONENT COST	% TOTAL COST
CAPITAL PROJECTS			
Bus Corridors	\$ 544,184		60%
• Total Corridor Cost		\$ 211,792	
• Total Off-Corridor Cost		\$ 332,392	
Rail & Ferry Station Areas	\$ 181,038		20%
• BART		\$ 161,750	
• ACE		\$ 13,982	
• Capitol Corridor		\$ 3,516	
• Alameda/Oakland Ferries		\$ 1,790	
Activity Centers*	\$ 86,604		10%
• Downtowns		\$ 60,000	
• Commercial Districts		\$ 14,689	
• All other activity centers		\$ 11,915	
Inter-jurisdictional trails	\$ 80,181		9%
• San Francisco Bay Trail		\$ 43,844	
• Iron Horse Trail		\$ 17,229	
• Other trails		\$ 19,108	
TOTAL CAPITAL PROJECTS COST	\$ 892,006		99%
TOTAL PROGRAM COST	\$ 8,280		1%
TOTAL PLAN COST	\$ 2,625		0%
TOTAL PROJECTED COSTS	\$ 902,911		100%
TOTAL PROJECTED REVENUE**	\$ 173,946		
PERCENT COST COVERED BY EXPECTED REVENUE	19%		

* Portions of the improvement costs for some activity centers are included in the rail and ferry station areas costs. See Appendix G for details.

** Total projected revenue are those funds expected to be available to fund projects, programs and plans of countywide significance. See Appendix H for detailed revenue assumptions.

Note: Detailed cost calculations are included in Appendix G.

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As discussed in the *Existing Conditions* chapter of this Plan, a very conservative estimate of the cost to deliver local pedestrian projects, based on information provided by each jurisdiction, is upwards of \$940 million. As detailed in Table 10, however, less than a quarter of this amount—just \$216 million—is projected for pedestrian projects in Alameda County.

Some portion of the local cost figure may duplicate some of the countywide amounts summarized above; however the extent of that duplication will not be known until all Alameda County jurisdictions have developed pedestrian master plans. This local cost figure includes available data from all but one jurisdiction, and includes new and repaired sidewalks, new and upgraded curb ramps, pedestrian signal improvements, and trail and pathway improvements. This figure does not take into consideration pedestrian access improvements to many local bus corridors or schools, or the development of local trails and pathways. It is very important to note that the agencies that provided information each used different methodologies to calculate local costs. See Appendix C for a breakdown of the local data provided.

DETAILED ESTIMATED COSTS

The *Countywide Priorities* chapter identifies three categories of areas of countywide significance for capital projects: transit, activity centers, and trails. (Please see Appendix E for a complete list of specific areas of countywide significance, and Table 9 and Appendix G for detailed cost projection calculations.)

Transit

Transit projects considered to be of countywide significance include selected bus corridors and rail station and ferry terminal station areas. The cost to improve pedestrian access to all bus stops along and within one-half mile of corridors of countywide significance is estimated to be on the order of \$544 million (60 percent of the total project, program, and plan cost), while access improvements to rail stations and ferry terminals is estimated to be about \$181 million (another 20 percent of total costs), for a total of approximately \$725 million, as detailed below. The cost of way-finding is included in all cost estimates.

The cost to improve pedestrian access to all bus stops along and within one half-mile of corridors of countywide significance is estimated to be approximately \$544 million, while access improvements to rail stations and ferry terminals is estimated to be about \$181 million.

BUS CORRIDORS

Sixteen bus corridors—operated by AC Transit, Union City Transit, WHEELS and Dumbarton Express—are considered to be of countywide significance. These corridors represent 187 miles of service throughout the County, and collectively carry nearly two-thirds of the bus systems' Alameda County riders each day. Since access to all bus transit routes is primarily on foot, pedestrian improvements within one-half mile of stops (walking, rather than straight-line, distance) along these corridors are of countywide significance, and were calculated in two parts: corridor improvements and off-corridor improvements.

Corridor improvements are focused on elements that will improve pedestrian safety, access, and convenience for riders walking to the bus stop, such as traffic signal improvements, including countdown signals, and audible signals; crosswalk improvements, such as ramps, signs, bulbouts, zebra striping, refuge islands, and lighting; and general streetscape improvements, including pedestrian-level lighting, trees (in areas with high summertime temperatures), and sidewalk repair. Pedestrian amenities, such as benches, trash receptacles, and decorative lighting, were not included in cost calculations.

Each of the improvements were assumed to be implemented at particular frequencies, primarily based on bus stop spacing on each corridor and a general understanding of the current quality of the pedestrian environment along each corridor. Corridor improvements for all bus operators were estimated to average just over one million dollars per mile, including design fees, mobilization and contingency fees, and construction for a total of approximately \$212 million. This cost does not include bus stop shelters, transit schedules or other improvements that one would expect to accompany Bus Rapid Transit or Rapid Bus services. The focus of the improvements that were included is on

safe and convenient pedestrian access to bus stops, not amenities at the stops themselves.

Off-corridor improvements are those that are within one-half-mile of each bus stop on corridors of countywide significance, but are not on the bus corridor itself. These improvements were assumed to be limited to curb cuts, pedestrian signal heads, and widened sidewalks in some locations. Off-corridor improvements, therefore, were estimated to cost just ten percent of the cost to improve the corridors themselves, or just over \$100,000 per mile on average for all bus operators. The total for off-corridor improvements will cost approximately \$332 million for all operators. Further details for these costs are included in Appendix G.



To put these numbers in perspective, the combined corridor and off-corridor cost of improving pedestrian access to bus corridors of countywide significance is estimated to be on the order of \$544 million or, on average, approximately \$672,000 per pair of bus stops.

RAIL STATION AND FERRY TERMINAL AREAS

In addition to improvements to selected bus corridors, investments in rail and ferry access were also calculated. Pedestrian access to BART was calculated for three station categories: unimproved; recent or fully funded improvements; and partially funded improvements. (See Appendix G for a link to the station categorization key.)

Costs to improve pedestrian access on streets closest to BART’s 19 Alameda County stations—estimated to be on the order of \$6 million per roadway mile—are based on figures the City of Oakland has recently developed for streetscape improvements around the MacArthur BART station. These costs include bulbouts, new traffic signals, and crosswalk improvements at each intersection, pedestrian-level lighting, and a new BART plaza. The per-mile differential between this figure and the \$1 million figure for bus corridors is likely due to at least three factors. First, the streetscape improvements at MacArthur station will be from scratch, which will entail new drainage and utilities, two of the most costly components of wholesale streetscape projects. Second, the BART station area project includes bulbouts and new traffic signals at every intersection; although the bus estimates include these components as well, they are assumed to occur much less frequently. Finally, the BART station area costs include the cost of improving the BART plaza area, an important pedestrian gathering and access point.

It is estimated that improving pedestrian access within one-half mile of BART’s 19 stations, therefore, will cost on the order of \$162 million, or about 20 percent of the cost to improve pedestrian access on and around all Alameda County transit corridors and lines of countywide significance.

Improvements to ACE’s four Alameda County stations were calculated in different ways based on planned densities at each station. Given the City of Fremont’s pedestrian-oriented plans for the Centerville district, improvements to the Fremont ACE station were assumed to be at the same level as BART’s, as described above. However, given the lower average density of development that surrounds ACE’s Pleasanton and two Livermore stations, and therefore fewer opportunities for passengers to access stations on foot, improvements were assumed to be along the lines of WHEELS’ costs. ACE total pedestrian access improvement costs are estimated to be approximately \$14 million.

Of the six Capitol Corridor stations in Alameda County, pedestrian improvements within approximately 1/8 mile of four stations—Berkeley, Emeryville, Jack London and Hayward—have already been made. For these stations, improvements have therefore been assumed for only the remaining area beyond the immediate station areas, at the average AC Transit off-corridor rate. The Coliseum

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station is jointly operated with BART, so these improvements were included in calculations for BART's stations. Similarly, the Centerville station was calculated under the Fremont ACE station. The estimated cost to improve pedestrian access to Capitol Corridor stations is estimated to be approximately \$3.5 million.

Cost estimates for pedestrian improvements in the vicinity of the County's three ferry terminals are based on the Water Transit Authority's plans for the South San Francisco ferry terminal. The terminal area, where pedestrian improvements are estimated to cost about \$250,000, will cover about 1/8 of a mile. The cost estimate for improving the remaining area within the half-mile walk-shed, at the average AC Transit off-corridor rate, is about \$330,000 per station, for a total ferry terminal area cost estimate of about \$1.8 million.

Activity centers

Activity centers of countywide significance include existing and future downtowns, commercial areas and other major destinations, including shopping centers, post-secondary educational institutions, hospitals and medical centers, major public venues, government buildings, and regional parks. Downtowns and commercial centers are the most difficult pedestrian areas of countywide significance for which to estimate costs for several reasons: in most cases, there are no established boundaries; whether or not an area serves people from throughout Alameda County is a subjective determination; and there is limited information available about the current condition of the pedestrian environment in each area.

Given these challenges, the consultant team and staff jointly developed the methodology detailed below to estimate costs to improve pedestrian access to and within areas of countywide significance, estimated to be approximately \$87 million, or ten percent of the total cost of all pedestrian capital projects of countywide significance.

DOWNTOWNS

Eight Alameda County cities—Berkeley, Alameda, Oakland, San Leandro, Hayward, Fremont (being planned), Pleasanton and Livermore—have downtown districts. Of these, four—Berkeley, Oakland, San Leandro and Hayward—include one or more BART stations within or near the downtown. Therefore, some or all of the costs in the vicinity of transit in these downtowns

have already been covered in the transit calculations described above. For downtowns that extend beyond one-half mile from the BART station, additional improvements, at the level estimated near BART stations, were included. (Note: The bus improvements described in the Bus Corridor section, above, assumed a much lower level of improvements than are envisioned for typical downtowns. Therefore, cost estimates for pedestrian improvements in downtown areas have not been reduced along bus corridors of countywide significance, as they have been in the vicinity of BART stations.)

Eight Alameda County cities—Berkeley, Alameda, Oakland, San Leandro, Hayward, Fremont (being planned), Pleasanton and Livermore—have downtown districts.

Pedestrian improvements within the remaining four downtowns—Alameda, Fremont, Pleasanton and Livermore—were calculated based on the approximate area of each, assuming the same per-mile improvement cost as for BART station areas, i.e., \$6 million/mile. (See Appendix G.)

COMMERCIAL AREAS

It is estimated that there are 12 major commercial districts and 12 shopping centers of countywide significance (i.e., they are routinely frequented by people from other parts of Alameda County). See Appendix E for a list of these locations. To calculate the cost of improving pedestrian access within the commercial districts, each district's roadway mileage was multiplied by the local bus operator's average corridor cost, as detailed above. The cost to improve walk access to each shopping center from the nearest bus stop (assumed to be, on average, 1/8 mile away) was calculated using the local bus operator's corridor cost. Using this methodology, improvements to the 24 major commercial districts and shopping centers were calculated to total approximately \$15 million.

OTHER ACTIVITY CENTERS

Beyond downtowns and commercial districts, five other types of activity centers are of countywide significance: post-secondary educational institutions, hospitals and medical centers, major public venues, government buildings, and regional parks, for a total of 91 locations. To estimate the cost to provide pedestrian access to these

locations, it was assumed that access constitutes the route from the nearest transit stop, assumed to be on average 1/8 mile away. Pedestrian improvements were assumed at the average bus corridor rate, approximately \$1 million per mile. This rate was multiplied by the total number of eligible activity centers (91) at 1/8 mile each, to yield an estimated cost of almost \$12 million.

Trails

The Bay Trail, the Iron Horse Trail and other inter-jurisdictional trails that link populated areas are considered to be of countywide significance. As detailed below, wherever possible these costs are consistent with those found in the *Countywide Bicycle Plan Update*. Together, it is estimated that the trails described in this chapter will cost on the order of \$80 million to construct, or about nine percent of the total cost to deliver all capital projects of countywide significance.



SAN FRANCISCO BAY TRAIL

All spine and connector segments of the Bay Trail are considered to be of countywide significance, although the spine will be given priority in funding decisions. The spine is the primary Bay Trail alignment. Connectors link the spine to inland recreation sites, residential neighborhoods, employment centers, and public transit facilities. In September 2005, the Bay Trail Project published the *San Francisco Bay Trail Project Gap Analysis Study*, which details the design, permitting, and construction costs to complete the yet undeveloped segments of the Bay Trail. Since the *Gap Analysis* provides costs for spurs but not for connectors, Bay Trail Project staff provided the estimate for developing the connectors. Together, the uncompleted spine and connector segments in Alameda County are estimated to

cost a total of almost \$44 million, not including segments that are expected to be funded by private developments and nearby transportation projects.

While the Countywide Bicycle Plan includes most of the Bay Trail spine and selected spurs and connectors in its “Vision” bicycle network, the Pedestrian Plan includes all spine and connector segments. Therefore, the Bay Trail mileage and costs do not match in the two plans.

IRON HORSE TRAIL

All uncompleted segments of the Iron Horse Trail are considered to be of countywide significance, with the exception of the segments east of the eastern Livermore city limits. The *Countywide Bicycle Plan* estimates the cost for these sections at about \$17 million, which is the amount used in this Plan.

OTHER INTER-JURISDICTIONAL TRAILS THAT LINK POPULATED AREAS

In addition to the Bay Trail and the Iron Horse Trail, there are other existing and planned inter-jurisdictional trails that link populated areas in Alameda County. Since this is an open-ended category, the cost of constructing the East Bay Regional Park District’s regional trails that fit the above criteria, plus the Jack London/Arroyo Mocho Trail in Livermore/Pleasanton, was calculated using the *Countywide Bicycle Plan* trail cost estimates. These trails are estimated to cost about \$19 million to construct. Additional existing and future inter-jurisdictional trails that link populated areas that were not assumed in these calculations will be eligible for pedestrian funding allocated in Alameda County.

Programs and Plans

In addition to the capital projects discussed above, the cost to deliver pedestrian programs and plans of countywide significance was also estimated. Programs fall into three categories: set-asides (which would fund technical support, local match for grants which focus pedestrian improvements in the vicinity of schools and in low-income neighborhoods, and demonstration programs), promotion and education programs, and pedestrian master plans. The cost to deliver the programs described below is estimated to be approximately \$8 million, or one percent of the countywide total capital, programmatic, and planning cost.

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SET-ASIDES

Technical support could take the form of on-call or small grants for technical assistance for resolving small-scale, regionally-significant bicycle and pedestrian safety, access, and convenience issues; generic staff training; or the development of technical tools. Given that the cost to provide this support is directly proportional to the scale at which it is provided, no specific cost estimates have been made.

Local match for Safe Routes to School, Environmental Justice or Lifeline Transportation grants to support pedestrian improvements in the vicinity of schools and in low-income neighborhoods. By looking at how much these three programs have funded pedestrian projects and programs in Alameda County in the past, and the required local match for each funding source, it is estimated that providing matching funds would cost approximately \$3 million over 25 years.

Demonstration programs could allow some of the programs described below to be funded, in the event that a “call for projects” is not successful in attracting applicants for these program types. The funding level would depend on the programs that are chosen to be funded.

PROMOTION AND EDUCATION PROGRAMS

The promotion and pedestrian education programs described below are based on those that:

- provide a model that is transferable throughout Alameda County;
- attempt to change long-term walking habits as opposed to one-time events;
- include a focus on walking as a transportation option with the potential to replace vehicular trips; and
- have been shown to be effective at encouraging walking and/or improving pedestrian safety.

Given the assumptions outlined below, these programs are estimated to cost approximately \$5.5 million.

Individualized marketing offers residents of targeted neighborhoods information about alternatives to the single-occupant vehicle, including walking. Based on the Transportation and Land Use Coalition’s TravelChoice program, fully funding the pedestrian portion of three 50,000 household projects in each of the four planning areas over the life of the Plan, is estimated to cost approximately \$3.6 million.

Travel training offers personalized orientation for new users of public transit in a particular geographic area. ACTIA has investigated funding a travel training program aimed at senior citizens for two years at a cost of approximately \$140,000. Operating this program for 25 years would cost on the order of \$1.7 million.

Walking maps show walking routes through neighborhoods, around physical barriers, and to historic districts, parks, greenways and bodies of water. The City of Oakland has developed a walking map that includes Piedmont, Emeryville and most of Alameda. The City of Berkeley has updated their walking map, which includes Albany and Emeryville. This leaves eight jurisdictions without maps. Assuming three maps (i.e., Hayward/San Leandro, Fremont/Newark/Union City, and Dublin/Pleasanton/Livermore), each at the cost of Oakland’s map (\$45,000), yields a cost of approximately \$135,000.

Walkability audits are one-day, professionally-led workshop/walking tour combinations aimed at broadly assessing pedestrian facilities in a focused area and identifying specific improvements that would make the area safer, more attractive, and more useful to pedestrians. Workshops cost approximately \$2,000 each, including the walkability expert fee and the cost to host. Assuming three neighborhoods per Alameda County jurisdiction would cost approximately \$90,000.

PEDESTRIAN MASTER PLANS

One of the Countywide Pedestrian Plan goals is to “ensure that all Alameda County jurisdictions have adopted a current pedestrian plan by 2012.” Eight jurisdictions have adopted, or are currently developing, stand-alone pedestrian plans or pedestrian/bicycle plans, while seven have neither. (See Table 8 in *Countywide Priorities* chapter.) Over the life of this Plan, plans in all jurisdictions will require on average two updates. The cost to develop these plans and updates is estimated to be approximately \$2.6 million.

REVENUE PROJECTIONS

In the next 25 years, Alameda County jurisdictions and agencies can expect approximately \$216 million in pedestrian funding, in 2006 dollars. Because fund applicants are typically local jurisdictions, they will sometimes use funds for local projects such as sidewalk

repair, curb ramps, safe routes to schools and others that are not considered in the estimates of projects of countywide significance. For this reason, a separate estimate was made—\$174 million—for the funds that could be expected to be used for the projects, plans and programs of countywide significance that are included in this Plan. (Please see Table 10 and Appendix H.)

This funding will come from the countywide, regional, state and federal sources listed below. “Tier 1” funds are funds that are dedicated to bicycle and pedestrian projects, programs and plans in Alameda County. “Tier 2” funds can be used for County pedestrian efforts, but may also be used for other purposes or in other counties. This estimate considers neither local funds (such as general funds, traffic impact fees, redevelopment tax increment, and developer contributions) nor federal earmarks, since they are impossible to anticipate. Non-traditional sources, such as public health funding are also not included in this analysis due to the lack of pedestrian funding history on which to base estimates. Finally, the revenue estimates in this Plan are focused on sources that primarily fund capital projects and planning. Therefore, although programmatic costs are included in the cost analysis, few dollars in the 25-year revenue estimate will be available for pedestrian programs. The assumptions for each funding source are detailed in Appendix H. In general, future revenue totals are assumed to be consistent with historic levels for each source. Similarly, the amount of each fund that is projected to flow to pedestrian projects and to Alameda County is based on historic allocations.

It is critical to note that, with the exception of Measure B, the Regional Bicycle and Pedestrian Program and TDA Article 3, there is absolutely no guarantee that funding will support pedestrian projects nor that it will flow to Alameda County. These projections are a best guess of what the future holds; the actual outcome will depend on numerous factors, such as federal surface transportation policy, the State budget and the quality of Alameda County project applications compared to those submitted from elsewhere.

Many Tier 2 sources originate in federal programs that are reconfigured at the regional level. For instance, depending on the year, Transportation for Livable Communities (TLC) program funds can originate from Surface Transportation Program (STP), Transportation Enhancement Activities (TEA), and/or Congestion

Mitigation and Air Quality (CMAQ) funds. The annual State budget funds the State Safe Routes to School (SR2S) program, but SAFETEA-LU—the federal surface transportation bill passed in 2005—includes a similar program that may be merged with the State program. The Lifeline Transportation program, which funds projects that improve mobility for low income Bay Area residents, is a blend of CMAQ, SAFETEA-LU, and State Transit Assistance programs.

PEDESTRIAN-RELATED FUNDING SOURCES*

TIER 1 FUNDS

- Measure B Bicycle/Pedestrian Safety Funds
 - Local pass-through (75%)
 - Countywide discretionary (25%)
- Regional Bicycle and Pedestrian Program (RBPP)
 - County-share (75%)
 - Regional competitive (25%)
- Transportation Development Act (TDA) Article 3

TIER 2 FUNDS

- Transportation Fund for Clean Air (TFCA)
 - County Program Manager Fund (40%)
 - Regional Fund (60%)
- Transportation for Livable Communities (TLC)
 - Regional capital program
 - County capital program
- Safe Routes to School (SR2S)
- Safe Routes to Transit (SR2T)
- Lifeline Transportation
- Bay Trail Grant Program
- Office of Traffic Safety
- Recreational Trails Program (RTP) – non-motorized program
- Environmental Justice

*See Table 10 for revenue estimates of each source.

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TABLE 10: REVENUE CALCULATIONS (2006 dollars in \$1,000s; continues on next page)

SOURCE / AGENCY	TOTAL AMOUNT AVAILABLE (2005-2030)	TOTAL FOR PEDESTRIANS (2005-2030)	TOTAL FOR PEDS IN ALAMEDA (2005-2030)	TOTAL FOR PEDS—AREAS OF C' WIDE SIGNIFICANCE (2005-2030)	PURPOSE
Tier 1: Dedicated Funds*					
Measure B bike/ped - local pass-through (75%) / ACTIA	\$ 81,000	\$ 40,500	\$ 40,500	\$ 20,250	Countywide bike/ped improvements through 2022 Measure B authorization period
Measure B bike/ped - countywide discretionary (25%) / ACTIA	\$ 27,000	\$ 13,500	\$ 13,500	\$ 10,800	
Regional Bicycle and Pedestrian Program (RBPP) - county share (75%) / ACCMA	\$ 150,000	\$ 75,000	\$ 6,300	\$ 6,300	Regionally significant pedestrian projects and bike/ped projects serving schools or transit
Regional Bicycle and Pedestrian Program (RBPP) - regional competitive (25%) / MTC	\$ 50,000	\$ 25,000	\$ 5,250	\$ 5,250	
Transportation Development Act (TDA), Article 3 / ACCMA	\$ 28,250	\$ 14,125	\$ 14,125	\$ 7,063	Ped/bike facilities, safety programs and planning
Tier 2: Competitive Funds**					
Transportation Fund for Clean Air (TFCA) - County Program Manager Fund (40%) / ACCMA	\$ 140,000	\$ 2,800	\$ 588	\$ 588	Development project improvements and/or traffic calming, that reduce motor vehicle emissions
Transportation Fund for Clean Air (TFCA) - Regional Fund (60%) / BAAQMD	\$ 250,000	\$ 5,000	\$ 1,050	\$ 1,050	
Transportation for Livable Communities (TLC) - Regional capital program / MTC	\$ 450,000	\$ 270,000	\$ 56,700	\$ 56,700	Transportation projects that bring new vibrancy to downtown areas, commercial cores, neighborhoods, and transit corridors
Transportation for Livable Communities (TLC) - County capital program / MTC, ACCMA	\$ 225,000	\$ 135,000	\$ 28,350	\$ 28,350	

TABLE 10: REVENUE CALCULATIONS (2006 dollars in \$1,000s; continued from previous page)

SOURCE / AGENCY	TOTAL AMOUNT AVAILABLE (2005-2030)	TOTAL FOR PEDESTRIANS (2005-2030)	TOTAL FOR PEDS IN ALAMEDA (2005-2030)	TOTAL FOR PEDS—AREAS OF C'WIDE SIGNIFICANCE (2005-2030)	PURPOSE
Safe Routes to School (SR2S) / Caltrans	\$ 560,000	\$ 504,000	\$ 22,680	\$ 11,340	Reduce injuries and fatalities to school children and encourage increased walking and bicycling among students
Safe Routes to Transit (SR2T) / Transportation & Land Use Coalition (TALC) and East Bay Bicycle Coalition (EBBC) on behalf of MTC	\$ 50,000	\$ 25,000	\$ 9,500	\$ 9,500	Improve safety and convenience of bicycling and walking to regional transit. Projects must be shown to reduce congestion on one or more Bay Area toll bridges
Lifeline Transportation / MTC and ACCMA	\$ 150,000	\$ 30,000	\$ 8,220	\$ 8,220	Improve mobility for low income Bay Area residents
Bay Trail Grant Program / ABAG and Bay Trail Project	\$ 30,020	\$ 30,020	\$ 4,203	\$ 4,203	Planning and construction to complete gaps
Office of Traffic Safety / California OTS	\$ 93,450	\$ 46,725	\$ 1,992	\$ 996	Reduce the number of traffic collision victims
Recreational Trails Program (RTP) - non-motorized program / FHWA	\$ 104,000	\$ 104,000	\$ 2,080	\$ 2,080	Construct and maintain trails-related projects
Environmental Justice / Caltrans	\$ 37,500	\$ 18,750	\$ 1,256	\$ 1,256	Public participation to improve conditions for low-income and minority communities
TOTAL			\$ 216,294	\$ 173,946	

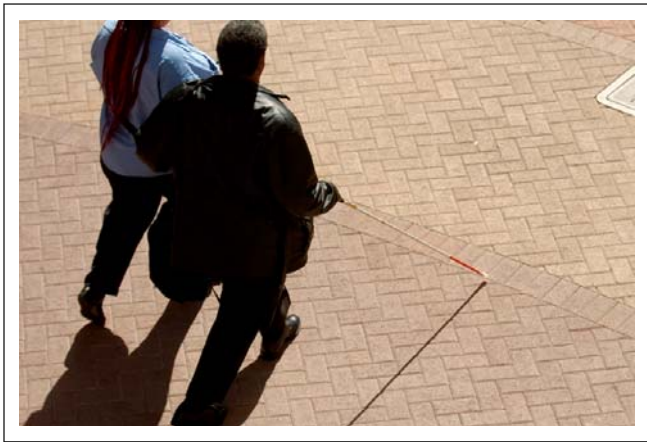
* All or a portion of "Dedicated Funds" are for funding pedestrian projects and/or programs in Alameda County.

** Pedestrian projects and/or programs in Alameda County are eligible, but must compete for "Competitive Funds."

Note: Detailed revenue assumptions are available in Appendix H.

ANALYSIS

The cost to deliver pedestrian projects, programs and plans of countywide significance is estimated to be on the order of \$903 million, while about \$174 million is expected to flow to such projects over the next 25 years, leaving a funding gap of almost \$730 million. Put another way, expected funding is estimated to cover the cost of about 19 percent of desired projects. Changing any of the assumptions that form the basis of the cost and revenue calculations will change the funding picture somewhat. However, it is clear that the cost to deliver pedestrian projects, programs and plans of countywide significance exceeds expected revenue, so only the magnitude of the estimated funding gap will change.



To balance these costs and revenue, the capital and programmatic/planning prioritization process will need to rank potential projects and project types so that the most critical are funded first. One way to accomplish this could be to give preference to projects that fall into more than one eligibility category. Examples of multi-category projects are a streetscape project on an eligible transit corridor within a downtown or a trail project that serves a commercial district. Pedestrian capital projects of countywide significance that coincide with projects on the updated Countywide Bicycle Network could also be prioritized.

A second conclusion that can be drawn from the projected costs and revenue discussed in this chapter is the value of funding local pedestrian master plans. If such a plan were funded in every Alameda County jurisdiction that does not currently have one, and if every jurisdiction's plan were updated twice over the life of the Countywide Plan, the total cost is estimated to be just \$2.6 million, or 0.3 percent of total countywide capital,

program and plan costs. Such plans are critical tools to help local governments prioritize capital projects within their boundaries, thus ensuring that projects that are needed most are funded first.

In addition to looking at ways to prioritize, plan and identify the highest priority capital pedestrian projects for funding, it is equally important for local and countywide agencies to seek additional funding sources. Examples include developer contributions, traffic impact fees, tax increment in redevelopment project areas, and public health-related grants from foundations such as the Robert Wood Johnson Foundation and the California Endowment. Other potential resources are funds that have historically supported pedestrian projects in Alameda County, but at low levels. Examples include both Transportation for Clean Air funds and the State Office of Traffic Safety.

The cost to deliver pedestrian projects, programs and plans of countywide significance is estimated to be \$903 million, while about \$174 million is expected to be available for such projects over the next 25 years, leaving a funding gap of almost \$730 million.

Finally, with the advent of State “routine accommodation” policies, which require Caltrans to consider pedestrians and bicyclists in the design, construction, operation, and maintenance of transportation facilities, local jurisdictions can begin to expect that some portion of the costs calculated in the process of developing this Plan will be covered in project construction budgets. (See *Institutional Obstacles* chapter and companion *Toolkit* for a discussion of routine accommodation.) As local and countywide agencies consider routine accommodation, pedestrian facility costs will more frequently be included in other transportation projects as well, such as local roadway construction, new BART stations and Bus Rapid Transit stops.