

Bay Trail Plan

The Bay Trail Plan

The plan for the Bay Trail proposes development of a regional hiking and bicycling trail around the perimeter of San Francisco and San Pablo Bays. The Plan was prepared by the Association of Bay Area Governments pursuant to Senate Bill 100, which mandated that the Bay Trail:

- provide connections to existing park and recreation facilities,
- create links to existing and proposed transportation facilities, and
- be planned in such a way as to avoid adverse effects on environmentally sensitive areas.

Bay Trail Alignment

This plan proposes an alignment for what will become a 400-mile recreational “ring around the Bay.” When developed, the Bay Trail will be a trail system comprised of three components:

- The **spine** trail is the main alignment, intended as a continuous recreational corridor encircling the Bay and linking the shoreline of all **nine Bay Area counties**. In some areas, constraints force the spine trail inland.
- Where the spine trail does not follow the shoreline, **spur** trails provide access from the spine to points of natural, historic and cultural interest along the waterfront.
- **Connector** trails link the Bay Trail to inland recreation sites, residential neighborhoods and employment centers, or provide restricted access to environmentally sensitive areas. Some connector trails link the Bay Trail and the Ridge Trail, another regional trail network, which travels inland, mostly along the ridges of the Bay Area’s hills. spine trails, encircling the Bay and crating a continuous recreational corridor which links all nine Bay Area counties.

Approximately one-third of the trail already exists, either as hiking-only paths, hiking and bicycling paths or as on-street bicycle lanes.

Bay Trail Policies

The Bay Trail Plan also contains policies to guide selections of the trail route and implementation of the trail system. Policies fall into five categories:

- *Trail alignment policies* reflect the goals of the Bay Trail program—to develop a continuous trail which highlights the wide variety of recreational and interpretive experiences offered by the diverse bay environment and is situated as close as feasible to the shoreline, within the constraints defined by other policies of the plan.
- *Trail design policies* underscore the importance of creating a trail which is accessible to the widest possible range of trail users and which is designed to respect the natural or built environments through which it passes. Minimum design guidelines for trail development are recommended for application by implementing agencies.

- *Environmental protection policies* underscore the importance of the San Francisco Bay’s natural environment and define the relationship of the proposed trail to sensitive natural environments such as wetlands.
- *Transportation access policies* reflect the need for bicycle and pedestrian access on Bay Area toll bridges, in order to create a continuous trail and to permit cross-bay connections as alternative trail routes.
- *Implementation policies* define a structure for successful implementation of the Bay Trail, including mechanisms for continuing trail advocacy, oversight and management.

Overview of Issues

When completed, the Bay Trail will create connections between more than 130 parks and publicly accessible open space areas around San Francisco and San Pablo Bays. By providing access to a wide array of commercial ferries and public boat launches, the trail will establish connections to “water trails” which will enable outdoor enthusiasts to appreciate the Bay not only from the shoreline, but from the water as well.

Trail access across all seven of the Bay Area’s toll bridges is proposed, defining a series of trail “loops” which will provide a variety of excursions for hikers and bicyclists of varying abilities. To increase options for trail access from homes and worksites, the proposed alignment provides connections to local and regional transit—BART, Santa Clara County’s light rail trolley system, and Caltrain—which can themselves become extensions of the Bay Area’s recreational network. Trail connections to existing and planned local bikeway systems will encourage recreational as well as commute bicycling, as safer bicycle networks are established and expanded.

While the Trail will provide access to wetlands and other sensitive natural features along the Bay’s shoreline, Bay Trail policies were designed specifically to protect these areas. Existing bay fill (primarily in the form of levees) provides shoreline trail access in many locations, and trail design policies require that trail design, construction and use be appropriate to the surroundings.

Relationship to Other Plans and Policies

Bay Trail policies and design guidelines are intended to complement, rather than supplant the adopted regulations and guidelines of local managing agencies. Implementation of the Bay Trail will rely on the continued cooperation among shoreline property owners, the hundreds of local, regional, state and federal agencies with jurisdiction over the trail alignment, the numerous trusts and foundations which operate in the region, and the countless environmental and recreational interests whose members care deeply about the future of the Bay Area.

This extraordinary regional cooperation has already begun with the work of the Bay Trail Advisory Committee, which drafted the policies presented here, and the Association of Bay Area Governments Regional Planning Committee and Executive Board, which adopted the final plan.

Trail Alignment Policies	Discussion
1. Ensure a feasible, continuous trail around the Bay.	<i>In developing the trail alignment, attention was focused on providing a realistic route for trail development, consistent with the need to balance the constraints posed by the different natural and built environments around the Bay. Use of the spine and spur trail system provides the means to accomplish this goal.</i>

<p>2. Minimize impacts on and conflicts with sensitive environments.</p>	<p><i>Policies relating specifically to the Bay's sensitive natural environments are discussed below; however, natural areas are not the only sensitive environments around the Bay. Military facilities, sewage treatment facilities, landfills, and areas of heavy industry each have special requirements and constraints for locating public use. Security and safety are two considerations which play prominent roles in selecting trail alignments and in determining whether a separate trail facility (e.g., bike path, hiking trail) will be required.</i></p>
<p>3. Locate trail, where feasible, close to the shoreline.</p>	<p><i>A range of constraints—physical, environmental, and safety-related—will prevent the trail from being located entirely along the Bay shoreline. Where a shoreline alignment is feasible, it is the preferred Bay Trail route.</i></p>
<p>4. Provide a wide variety of views along the Bay and recognize exceptional landscapes.</p>	<p><i>The richness of the Bay is reflected in the widely divergent views from its shoreline—vast expanses of marshland, open expanses of water, the lights of an urban panorama, the bustle of a working waterfront. Each of these scenes represents a valued facet of the San</i></p>
<p>5. Investigate water trails as an enhancement to the trail system where necessary or appropriate.</p>	<p><i>The use of ferries and other forms of water transportation may be a feasible means of providing connections between shoreline areas. For example, the Bay Trail alignment shows ferry service to Angel Island trails. Additional ferry may eventually be possible in the East Bay and across the Carquinez Strait.</i></p>
<p>6. In selecting a route for the trail, incorporate local agency alignments where shoreline trail routes have been approved. Incorporate San Francisco Bay Conservation and Development Commission public access trails where they have been required.</p>	<p><i>Many agencies and jurisdictions are preparing plans for trails and other forms of public access to the shoreline. Where these plans have been adopted, the trail routes have been incorporated into the Bay Trail. In other cases, local planning is still ongoing.</i></p>
<p>7. Where feasible and consistent with other policies of this plan, new trails may be routed along existing levees.</p>	<p><i>Levees will be an important component in the Bay Trail system. Existing trails in Hayward, Sunnyvale and Mountain View in the South Bay and Lower Tubb's Island in the North Bay are examples of levees which provide shoreline access. Because levees represent existing bay fill, they are one of the few options for trails in natural areas near the shoreline.</i></p>

<p>8. Where existing trails through wetlands are well- maintained and well-managed, the Bay Trail can feasibly be routed there. In these cases, trails should be used according to current regulations. Alternate routes should be provided where necessary and additional buffering/transition areas designed to protect wetland habitats should be provided where appropriate to protect wildlife.</p>	<p><i>The Bay Trail alignment incorporates a number of existing trails through wetlands, where there is an established use pattern and where the facilities are well- maintained and well-managed. Among these are trails in the Hayward Regional Shoreline and near the Hayward Shoreline Interpretive Center. In other locations around the Bay, notably the Corte Madera Ecological Reserve, the Bay Trail has been routed inland, and marsh trails have not been incorporated in the</i></p>
<p>9. In selecting a trail alignment, use existing stream, creek, slough and river crossings where they are available. This may require bridge widenings in some locations. In selecting trail alignments, new stream, creek and slough crossings should be discouraged. Where necessary because acceptable alternatives do not exist, bridging may be considered.</p>	<p><i>The Bay shoreline is cut by a number of rivers, streams, creeks and sloughs. Use of existing fill (foot or vehicle bridges) is preferred for locating trail crossings. In some instances, existing foot and vehicle bridges can accommodate bicycle and pedestrian use. Where bridges are designed for vehicle use only, some widening or cantilevering trail sections on the existing structure may be necessary to accommodate trail users safely.</i></p>
<p>10. In order to minimize the use of existing staging areas along the shoreline and to reduce the need for additional staging areas, the choice of trail alignment should take full advantage of available transit, including rail service (e.g., Caltrain, BART), ferries and bus service.</p>	<p><i>Trail users' reliance on the automobile to reach shoreline trails can be reduced if access by alternatives means of transportation is considered while planning trail alignments. The role of public transit as an adjunct to recreational activities can be greatly enhanced if convenient access to the trail is provided along bus lines, rail lines and ferry</i></p>
<p>11. Connections to other local and regional trail and bikeway systems should be actively sought in order to provide alternatives to automobile access to the Bay Trail. In particular, opportunities should be explored for trail connections to the Bay Area Ridge Trail, which is envisioned to circle the Bay along the region's ridgelines.</p>	<p><i>Creation of a region-wide hiking and bicycling trail system can be achieved if planning for all trail facilities takes full advantage of opportunities for connections to other existing and proposed recreational systems. The proposed Bay Trail connector trails, in particular, begin to create a regional network by programming links with the Bay Area Ridge Trail.</i></p>

Trail Design Policies	Discussion
<p>12. Provide access wherever feasible to the greatest range of trail users on each segment.</p>	<p><i>It is the goal of the Bay Trail Plan that the full range of trail users be able to enjoy the trail, regardless of physical limitations due to age or disability. Separate standards have not been developed for “accessible trails”—segments of the trail which would be designed for disabled access. Accessibility guidelines have been incorporated throughout the trail design guidelines, which appear at the end of these tables. This policy also refers to the Bay Trail Plan’s goal to accommodate, as much as possible, the various modes of travel for which the trail is being designed (e.g., bicycling and hiking). Multiple use of trails will not always be possible or appropriate. In some instance, it may not be feasible to allow hikers or joggers on a specific portion of trail, due to traffic safety or environmental concerns. In other areas, use restrictions on existing trails may preclude bicycle access. The goal, however, is to have an alignment (or multiple alignments) that will meet the needs of all users.</i></p>
<p>13. Wherever possible, new trails should be physically separated from streets and roadways to ensure the safety of trail users.</p>	<p><i>The possibility of conflict between automobiles and trail users is a serious safety concern. Where creation of a class I path is feasible, this design is preferred.</i></p>
<p>14. Create a trail that is as wide as necessary to accommodate safely the intended use, with separate alignments, where feasible, to provide alternative experiences.</p>	<p><i>In some instances, competition among trail users for right-of-way may be relieved by providing a wide path. In other cases, separate facilities will be necessary. Throughways for long-distance bicycling will likely follow different routes than paths which are suitable for more leisurely bicycle activity, or for combined bicycle and pedestrian use.</i></p>
<p>15. Highlight the interpretive potential of certain trail segments, including opportunities for interpretation, education, rest and view enjoyment.</p>	<p><i>The Bay’s varied landscapes offer opportunities for environmental and historical education, as well as a great diversity of natural and urban views. Enjoyment of the trail, especially by first-time trail users, can be enhanced by effective signing and other interpretive information and programs.</i></p>

<p>16. Incorporate necessary support facilities, using existing parks, parking lots, and other staging areas wherever possible.</p>	<p><i>Support facilities, such as parking lots, restrooms, water fountains, picnic tables and benches are important components of a trail system. They also have significant land use implications if they are not properly situate and designed. The Bay Trail alignment has been proposed to take advantage of existing facilities in parks and other shoreline access areas. As the trail is developed and use patters emerge, the need for additional facilities can more accurately be evaluated and new or expanded facilities properly located and designed. Cooperative use of some existing private parking facilities may be possible by negotiating agreements between property owners and trail management agencies.</i></p>
<p>17. Design new segments of trail to meet the highest practical standards and regulations, depending on the nature and intensity of anticipate use, terrain, existing regulations, and standards on existing portions of the trail.</p>	<p><i>In designing the Trail, it will be important to ensure that new connecting segments of trail are built to a standard which not only is compatible with the terrain, but with existing trails, and which accommodate use restrictions on existing trails as well.</i></p>
<p>18. Minimum and maximum standards by use, width, surface, etc. should be developed, to ensure safe enjoyment of the trail and compatibility with surroundings and existing facilities, and to encourage use and design of surfaces for which long-term maintenance will be cost-effective.</p>	<p><i>The Advisory Committee adopted the trail design guidelines which appear at the end of these tables. These guidelines identify minimum standards which meet Caltrans standards for bikeways and incorporate standards for accessibility.</i></p>
<p>19. Design and route the trail to discourage use of undesigned trails.</p>	<p><i>Undesignated trails can be observed in areas where formal trails do not exist. These informal paths are also known as “casual,” “bandit” or “social” trails. Use of these trails frequently creates severe environmental damage and destruction of habitat values. Proper alignment and design of formal trails can divert trail users away from areas where access should be restricted.</i></p>
<p>20. A consistent signing program should be established throughout the trail system, using a Bay Trail logo which will identify trails within the Bay Trail system as distinct from other connecting trails. The choice of materials used should be the concern of the individual implementing jurisdictions and agencies.</p>	<p><i>Because the distance covered by the trail—roughly 400 miles—is so great, it will be important to maintain a consistent form of identification along the length of the trail, so that trail users can orient themselves easily. At the same time, it is important to ensure that Bay Trail signs are compatible with and complementary to trail signs used by managing agencies, and “public trail” identification signs</i></p>

<p>21. The Bay Trail signing program may include necessary cautionary and regulatory signing, including warnings of seasonal trail closings and other restrictions on trail use. Interpretive signing may be provided to help educate trail users about the surrounding environment and the importance of observing trail use restrictions and staying on designated trails.</p>	<p><i>Environmental damage caused by carelessness and lack of attention to trail regulations can be reduced by using the trail signing program to educate trail users about the reasons underlying trail regulations, in particular, the need to stay on the designated trail.</i></p>
<p>22. The trailhead signing program may include a variety of information which will enhance the Bay Trail experience. This may include a description of the length and relative difficulty of the trail as a guide for trail users with mobility limitations, available support facilities, available access to other connecting trails, and a description of the habitat resource which emphasizes interpretive information as well as the need to observe posted trail use restrictions.</p>	<p><i>Trail users with mobility limitations should be able to gauge the difficulty of trail sections before starting off down the path. Signage describing the relative difficulty of the trail (e.g., grades, trail surfaces, high winds) should be provided at staging areas.</i></p>

Environmental Protection Policies	Discussion
<p>23. The Committee is aware of the ecological value of wetlands; in many cases, they provide habitat for a variety of endangered species. In the San Francisco Bay Area, these areas serve as a vital link in the Pacific flyway for feeding, breeding, nesting and cover for migratory birds. To avoid impacts in wetlands habitats, the Bay Trail should not require fill in wetlands, and should be designed so that use of the trail avoids adverse impacts on</p>	<p><i>The environmental issues recommendations reflect the Advisory Committee's strong concern that the Bay Trail respect habitat values. While the Committee has approved of trail alignments on existing fill (e.g., levees), this policy language is clear in its intent that additional fill should not be necessary to accommodate the Bay Trail alignment.</i></p>
<p>24. Future support facilities serving the Bay Trail should be designed and constructed in such a manner that they do not impact fish and wildlife resources, especially wetlands. These facilities should be located and designed in a way that no fill of wetlands will</p>	<p><i>This policy is related to policy #23, and expands the Committee's concern to include impacts of future support facilities serving the Bay Trail.</i></p>
<p>25. The Bay Trail should not be defined as a continuous asphalt loop at the Bay's edge, but as a system of interconnecting trails, the nature of which will vary according to the locale and the nature of the terrain and resources in the vicinity of each particular trail segment.</p>	<p><i>There is some duplication between certain of the environmental protection policies and trail design policies. The policies in this section differ slightly in that they reflect the more direct connection between environmental concerns and the policy intent represented by the recommendation. This policy reiterates the need to plan trail alignments and incorporate trail designs which respect the characteristics of the environment through which the trail passes.</i></p>
<p>26. The path will not always follow the Bay shoreline; inland reaches may be more appropriate, especially for bicycle travel, in some parts of the San Francisco Bay region.</p>	<p><i>As the proposed alignment reflects, some segments of the Bay Trail divert inland to avoid sensitive environments.</i></p>
<p>27. The path should be designed to accommodate different modes of travel (such as bicycling and hiking) and differing intensities of use, possibly requiring different trail alignments for each mode of travel, in order to avoid overly intensive use of sensitive areas.</p>	<p><i>In some locations, parallel trails are proposed to accommodate hiking and bicycling activity on separate paths. One example of this is the dual trail configuration in the vicinity of the Palo Alto Baylands.</i></p>

<p>28. Where the alignment of the Bay Trail may more appropriately be located away from the shoreline in order to protect particularly sensitive habitats, access to shoreline areas may be possible by connecting the Bay Trail to existing loop trails and other interpretive facilities. These access points should be planned and designed to make clear the distinction between the continuous Bay Trail and the interpretive trail. (Features may include different trail surfaces, marked entry points to interpretive areas, expanded facilities for education and shoreline interpretation, signage, regulation and enforcement of</p>	<p><i>As the alignment maps demonstrate, the Bay Trail will provide connections to interpretive trails within the San Francisco Bay National Wildlife Refuge. As connector trails these paths will broaden the opportunities available to Bay Trail users.</i></p>
<p>29. Provision of land or funds for Bay Trail planning or construction shall not be considered mitigation for wetland losses.</p>	<p><i>This policy reiterates the very clear language in SB 100.</i></p>

Transportation Access Policies	Discussion
<p>30. Bridges and roads will be important connections in the Bay Trail system, providing not only commute routes, but enhancing the recreational use of the Trail by creating trail loops which will allow a greater number of people to enjoy the Trail.</p>	<p><i>The proposed alignment shows Bay Trail connections across all seven of the major Bay Area toll bridges. This policy stresses the importance of bridge connections for both commute and recreational use.</i></p>
<p>31. In the short term, attention should be focused on improving safe access to the bridges, possible expansion of bicycle shuttle services and public transit accommodations of bicycles to allow cross-bay access.</p>	<p><i>This policy reflects the need to look to both short- and long-term solutions for creating bicycle and pedestrian access on bridges. Unconstrained access (i.e., a path) is preferred for the flexibility that paths provide for trail users. Where this is not feasible, other alternative should be pursued to provide cross-bay access for trail users.</i></p>
<p>32. In the long term, unconstrained access on bridge structures is preferred. This can more easily be accomplished in planning future facilities, as long as public access is a requirement for new structures. Legislative action which would require bicycle and pedestrian access on new facilities should be actively sought.</p>	<p><i>Current state law requires that bicycle access be considered in connection with construction of new bridges. If Caltrans determines that bicycle access is not feasible, physically or economically, it is required to report the basis for this finding to the Legislature. This policy reflects the need for a greater commitment to the provision of bicycle and pedestrian access in conjunction with construction of new bridges, due to the tremendous difficulty and cost associated with retrofit of a bridge structure once built without provision for bicycle access. Currently Caltrans has plans for two new bridges in the Carquinez Strait—one in the vicinity of the Benicia-Martinez Bridge and one to replace the older span of the Carquinez Bridge.</i></p>
<p>33. Opportunities for cooperative funding of pedestrian and bicycle accessways should be investigated in order to make financing feasible.</p>	<p><i>In some cases, it may be appropriate to seek joint funding for pedestrian and bicycle access facilities on bridges. Use of recreational funding as well as transportation funding may make bicycle and pedestrian access more economically feasible.</i></p>
<p>34. Access to the trail by all forms of public transit should be strongly encouraged. Opportunities for reaching the trail by public transit should be highlighted on trail maps and promotional materials.</p>	<p><i>One means of encouraging trail users to take advantage of public transit is through promotional information and trail maps, which can make opportunities for transit access to the trails easier to recognize.</i></p>

Implementation Policies	Discussion
35. Domestic pets should be prohibited on new trails if the managing agency determines that their presence would conflict with habitat values or other recreational users. This prohibition is not intended to apply to service animals such as guide dogs.	<i>Uncontrolled animals on trails pose hazards to bicyclist as well as to wildlife. For this reason, the Advisory Committee recommends restrictions on domestic pets in those parts of the trail where their presence would create an environmental or safety conflict. The imposition of any such restriction would be the responsibility of each managing agency.</i>
36. An ongoing Bay Trail Project should be established to implement the Bay Trail Plan. The Project should be jointly sponsored by a wide range of organizations and agencies committed to realizing the vision of the Bay Trail.	<i>The cooperation and support of many agencies and organizations will be necessary to translate the Bay Trail Plan into reality. If commitment to the trail is widespread and responsibility for implementation is shared, the chances of success will be far greater than if one organization or agency alone assumes authority over Bay Trail implementation.</i>
37. The Bay Trail Committee, technical committee and outreach program should be established as described in Section IV of the Bay Trail Plan.	<i>Details of the structure for Bay Trail implementation are discussed fully in Section IV.</i>
38. “Friends of the Bay Trail” should be established to provide widespread opportunities for the active involvement of individuals and organizations throughout the Bay Area to promote the Bay Trail.	<i>Individuals and organizations throughout the Bay Area share the goal of creating the Bay Trail. Friends of the Bay Trail will provide a focal point for their involvement in the future of the Bay Trail project.</i>
39. ABAG’s Executive Board should continue Bay Trail Program oversight, by reviewing monitoring reports prepared by the Bay Trail Committee.	<i>SB 100 requires ongoing oversight of Bay Trail implementation.</i>
40. The Bay Trail Committee should continue to explore the establishment of a management authority to coordinate maintenance, patrolling and liability functions for portions of the Bay Trail.	<i>Long-term management of the Bay Trail will, in some regions of the Bay Area, pose a fundamental challenge to trail implementation. By exploring the creation of a management authority to assume responsibility for trail management in these “gap” areas, this hurdle can be overcome.</i>
41. Local governments and other implementing agencies should be strongly encouraged to amend relevant planning and policy documents (general plans, specific plans, zoning ordinances) to incorporate appropriate references to the Bay Trail.	<i>Incorporation of the Bay Trail into local agencies general plans and other policy documents will be necessary to ensure that the Trail will continue to be a priority for local implementation through recreation planning as well as private development.</i>
42. The Bay Trail Plan recognizes the authority of managing agencies to set policy regarding the use of trails within their jurisdiction.	<i>This policy reiterates the authority of local agencies to determine the nature of trail use within their jurisdiction. Policies regarding presence of domestic pets on trails vary widely throughout the San Francisco region, as do policies regarding shared use of trails by bicyclists and pedestrians.</i>

<p>43. Since the passage of the McAteer- Petris Act in 1965 and adoption of the San Francisco Bay Plan, significant trail access to and along San Francisco Bay has been obtained for residents of the Bay Area by the San Francisco Bay Conservation and Development Commission. The Bay Trail Plan recognizes that BCDC has accomplished this without greatly interfering with wildlife values and property rights, and strongly recommends that the Commission's public access efforts be continued.</p>	<p><i>Those segments of the Bay Trail which currently exist are due in large part to the work of the San Francisco Bay Conservation and Development Commission. Continuation of the Commission's commitment to public access to the Bay and its ability to create areas of public access while respecting wildlife values and property rights will be essential to continued progress in implementing the Bay Trail.</i></p>
<p>44. In constructing the trail and implementing signing programs, agencies should be encouraged to utilize non-profit organizations (e.g., the California Conservation Corps, the East Bay Conservation Corps, the Marin Conservation Corps, the San Jose Conservation Corps, the San Francisco Conservation Corps and the Trail Center).</p>	<p><i>Many non-profit organizations have been active in assisting in the development of recreational facilities throughout the Bay Area. Opportunities for continuing this activity in support of the Bay Trail should be recognized and promoted.</i></p>
<p>45. Local agencies should be sensitive to the natural environment not only in project planning to implement segments of the Bay Trail, but also in maintaining and managing the trail once built.</p>	<p><i>Long-term maintenance of the trail and management of trail activities should reflect the same concern for environmental values as does trail development. Restrictions on access to sensitive areas and use of herbicides and pesticides are two such issues.</i></p>
<p>46. Agencies should be encouraged to take advantage of the wide variety of available trail financing and implementation techniques identified in the Bay Trail Plan as they undertake implementation of Bay Trail segments in their jurisdictions.</p>	<p><i>No potential financing technique should be ignored in searching for means to implement the Bay Trail.</i></p>
<p>47. The Bay Trail Committee should assist local agencies in identifying and securing funding for Bay Trail implementation.</p>	<p><i>Finding funds to implement the Bay Trail will be a continuing challenge. Expertise and commitment of the Bay Trail Committee should be brought to bear in assisting local agencies in development of local Bay Trail segments.</i></p>

Bay Trail Design Guidelines					
Item	High-use facilities (separate paths)*	Multi- use paths*	Bicycle- only paths*	Hiking- only paths	Natural trails
Min. width (one way)	8-10'	10'	8'	5'	3-5' ^a
Min. width (two way)	10-12'	10-12'	10-12'	8-10'	5'
Surface	asphalt ^b	asphalt	asphalt	hardened	natural/ boardwalks ^c
Horizontal clearance (incl. shoulders)	12-16'	14-16'	10'	9-12'	7-9'
Shoulder ^d	2'	2'	2'	2'	unspecified
Vertical clearance	10'	10'	10'	10'	unspecified
Cross slope	2% max	2% max	2% max	2% max	unspecified
Maximum grades ^e	5%	5%	5%	5%	unspecified

* Standards meet Caltrans Class I bikeway standards

^a Minimum widths that are less than 5' will be required to have 5'x5' turnouts at intervals to meet accessibility standards

^b High-use pedestrian path could be hardened surface other than asphalt ^c Natural surfaces may require surface hardening to provide accessibility ^d Area specified is area on both sides of the trail

^e Percentage grade for short distances with flat rest areas at turn outs, except where site conditions require a greater slope for short distance

