3.1 SIDEWALK & WALKWAY INSTALLATION - LOCATIONS & GUIDELINES

Sidewalks and walkways should provide a continuous system of safe, accessible pathways for pedestrian travel throughout the City of Placerville. A lack of pedestrian activity in a location with discontinuous sidewalks is not necessarily an indication of a lack of pedestrian demand. People tend to walk in locations where continuous connections are provided. However, within the City of Placerville, pedestrians are often forced to walk routes without pedestrian facilities because there is no other option.

For the purposes of this discussion, sidewalks will be defined as any pathway that is paved with either concrete or asphalt, and separated by a curb from a roadway. Conversely, walkways are defined as any pathway that is not paved, and not necessarily separated by a curb.

TABLE 3-1

Sidewalk Specifications by Roadway Type and Location

Location	Sidewalk Width	Buffer**	Details
Schools: Elementary, Middle, High, Colleges	5 foot width with buffer, 6 foot width without	6 foot buffer, trees, lighting	Both sides of the street near schools
Low Volume Roadways, ADT < 150 (1/2 acre or more lot size, cul de sac, 10-15 homes)	No sidewalk OR AC Dike and 3' Asphalt sidewalk, or decomposed granite walkway	No buffer	One side or both sides of street
Highly Constrained Areas*	3-4' decomposed granite walkway, separated by AC Dike whenever possible	Whenever feasible	One side only
High Volume Roadways, ADT >2500, Collectors, Arterials	5 foot width with buffer, 6 foot width without	6 foot buffer, trees, lighting	Both sides of street
Commercial Areas	5 foot width with buffer, 6 foot width without	6 foot buffer, trees, lighting	Both sides of street
Industrial Areas	6 foot width	No buffer	Along perimeter boundaries

* Due to the many space constraints within the City of Placerville caused by narrow roadways and topography, the City will pursue opportunities for installation of walkways improved with decomposed granite. In some cases, topography constraints allow only for installation of an improved walkway. A good example of this situation is on a segment of State Route 49/Coloma Street. Along this roadway a decomposed granite pathway could provide a workable temporary solution until such time when more permanent improvements are made.

**Almost every location in the City of Placerville has space constraints; therefore, it is recognized that the possibility to provide buffers is very limited.

3.2 SIDEWALK WIDTH/SURFACE

The recommended width for sidewalks with a buffer is five feet. Four-foot wide sidewalks are no longer recommended because they do not accommodate two people walking side by side. Five-foot wide sidewalks allow people to pass each other without having to step off the sidewalk. Five feet is also the minimum needed for two wheelchairs to pass, and allows at least four feet of width at pinch points where obstructions such as utility poles or signposts exist.

If there is no sidewalk buffer sidewalks are recommended to be six feet wide, exclusive of the curb. In areas with heavier pedestrian volumes, six-foot sidewalks may be insufficient. A pedestrian capacity analysis (per the Highway Capacity Manual, 2000) should be done to determine the appropriate width in certain locations. Landscape buffers with shade trees are important on arterial and collector roadways and are preferred for all sidewalks (see Section 3.4).

Sidewalk surfaces should have a firm, stable and non-slip surface. Concrete is preferred, however asphalt may be appropriate in some locations. It is important to maintain proper drainage on sidewalks to prevent puddles.

3.3 WALKWAY WIDTH/SURFACE

Walkways can be pursued throughout the City of Placerville where topographic and space constraints are insurmountable due to various causes. Walkways will be graded smooth, three-four feet wide with a base of decomposed granite. Walkways will serve as an interim (and in some areas permanent), solution in cases where there is a need to make a pedestrian connection but development of a sidewalk is unplanned or infeasible due to terrain constraints.

3.4 SIDEWALK BUFFERS

A pedestrian's safety and comfort level in the roadway environment is largely dependent on the width and quality of the buffer between the sidewalk and the roadway. Physical barriers such as trees, landscaping, bike lanes and parked cars between the roadway and the sidewalk increase pedestrian safety and comfort and encourage walking. The recommended width for a landscaped buffer is six feet, with five feet being the minimum width for minor residential streets in new developments (widths are measured from face of curb to nearest edge of sidewalk). Landscaped buffers should include trees for added protection and shaded comfort for pedestrians. Routine maintenance of landscaped buffers (i.e. mowing) will be the responsibility of the adjacent property owner or a landscape district formed by the development. However, it is recognized that due to space limitations in existing developments combined with the terrain of the City of Placerville, the ability to provide buffers is limited.

Sidewalk with buffer landscaped with grass. Photo by Jerry Barton

3.5 CURB TYPES

Rolled curbs reduce pedestrian's feeling of safety and separation from adjacent traffic. They also make it easier for drivers to park vehicles on the sidewalk. As such, they are not recommended. They are however an acceptable substitute on residential streets. In all other locations, including collector and arterial streets with or without landscape buffers, vertical curbs should be used.

3.6 ELEVATED SIDEWALKS – RAILING OR FENCING

Several segments of sidewalk in the City of Placerville are elevated 2-4 feet above the roadway surface. Many elevated sidewalks lack railing or fencing to prevent falls. It is recommended that the city select a consistent railing type to install on these elevated sidewalk segments. One potential railing type is that which was selected as a component of the Highway 50 Operational Improvements Project. Below is a photo simulation of the Bedford Avenue pedestrian overcrossing to be constructed as a component of the Highway 50 Operational Improvements Project.

Caltrans photo simulation of Bedford Pedestrian Overcrossing to be constructed as a component of the Highway 50 Operational Improvements project.

3.7 TRANSIT STOPS AND SHELTERS

At transit stops, sidewalks should be constructed from the embarkation point (where people enter/exit the bus) to the nearest intersection or to the nearest section of existing sidewalk. It may be necessary to wrap a sidewalk around a corner to join an existing sidewalk on a side street. Care should be taken to place the bus stop in areas that maximize pedestrian safety and convenience. Streets within .25 miles of transit stops should have continuous sidewalks, high visibility crosswalks and other enhanced crossing measures (see Section 2.10).

Transit stop and Shelter in El Dorado Hills. Photo by Mike Higgins

3.8 MEANDERING SIDEWALKS

While providing a continuous landscape buffer between the sidewalk and the edge of the street is encouraged, meandering sidewalks (sidewalks that weave back and forth within the right-of-way) are not recommended. While they are often preferred for aesthetic aspects, they are annoying to pedestrians who desire a non-circuitous route. More importantly, they cause navigational difficulties for people with visual impairments. There are circumstances when it is desirable to curve the sidewalk away from the road to achieve a greater degree of separation between the sidewalk and the road. It may also be desirable for a sidewalk to gently curve to meet a pedestrian destination, such as a plaza, or to align with driveway crossings and crosswalks, or to avoid wetlands or significant trees. In short, curves should be used to create a more direct connection as opposed to enhancing aesthetic appearance.

3.9 PEDESTRIAN ACCOMMODATIONS IN RURAL AREAS

Many of the outlying areas of the City of Placerville are considered rural. Rural areas tend to lack nearby destinations and urban services and are often sparsely developed. This pedestrian plan does not include proposals for formal concrete sidewalks in the rural areas of Placerville, but it is recognized that people who live in these areas may take walks along the roadways for (primarily) recreation. In rural areas, walkways as (defined in section 2.3) could be installed adjacent to the roadway or as a separated path with a natural buffer.

3.10 CROSSING TREATMENTS – GENERAL

Crosswalks are an essential element of a connected pedestrian system. An intersection crossing is essentially an extension of the sidewalk across an intersection. Midblock crossing locations can also be marked with crosswalks. While every attempt should be made to cross pedestrians at intersections, pedestrians tend to walk in a path that represents the shortest distance between two points, therefore midblock crossings are necessary in some locations. Provisions for midblock crossings should be carefully considered, because a poorly designed midblock crossing can violate driver expectations and cause safety problems for pedestrians.

Pedestrian roadway crossings should be as short as possible to reduce pedestrian exposure time and to decrease motor vehicle delay. Pedestrian refuge islands should be used whenever crossing distances exceed 60 feet, to allow a refuge for slower pedestrians who may not be able to complete the crossing in one signal phase.

3.11 CROSSWALK DESIGN AND PLACEMENT

Marked crosswalks should be placed at all signalized intersections and on all legs of the intersection, except in those rare cases where a pedestrian crossing is prohibited. Marked crosswalks are also recommended at stop-controlled intersections where pedestrian traffic commonly occurs, particularly near parks, schools, transit stops and other similar areas.


Ladder style crosswalk with crossing island.
Photo by Jerry Barton

Marked crosswalks are most effective when used in combination with other pedestrian crossing measures at intersections i.e. crossing islands, adequate night lighting, traffic calming, etc.

The standard crossing treatment for low-volume pedestrian crossing locations is two parallel lines.

High visibility ladder style crosswalks are recommended in the following locations:

- Near all schools and in locations where a school crossing guard is usually stationed
- Near transit stops and adjacent to bus stops
- At all mid-block crossing locations
- In locations that experience frequent pedestrian crossings

3.12 CROSSING ISLANDS/PEDESTRIAN REFUGE

Islands serve three primary purposes: 1) to control and direct traffic movement, usually turning; 2) to divide opposing or same direction traffic streams; and 3) to increase the safety and comfort of pedestrians crossing at intersections and midblock locations. When islands are designed for this latter purpose, they are often termed “pedestrian crossing islands” or “pedestrian refuges.”

Pedestrian crossing islands provide a waiting area for those who cannot safely finish crossing a roadway, either because they began crossing late, travel slowly, or in the case of a midblock crossing, because it is safer to cross one leg of a roadway at a time.

Crossing islands should be a minimum width of six feet to accommodate the typical length of a bicycle; however, ten feet is advisable. Detectable warning surfaces should be provided per Americans with Disabilities Act (ADA) standards and, wherever possible, a raised approach nose should be included to reduce encroachment of turning vehicles into the pedestrian waiting area.

3.13 HANDICAPPED ACCESSIBILITY AND ADA COMPLIANCE

The Americans with Disabilities Act (ADA) imposes certain requirements upon states and local jurisdictions to make sure that new facilities utilized by the public meet certain criteria to provide access to citizens with disabilities. These requirements apply to major rehabilitation projects on existing facilities as well.

The construction of any pedestrian facilities within the City of Placerville pursuant to the implementation of this pedestrian plan, whether new construction or a major rehabilitation, will be ADA compliant. ADA compliance in this instance typically consists of the inclusion of ADA compliant ramps, and other features at intersection and crosswalk locations. In addition, minimum horizontal clearances must be maintained to obstructions such as fire hydrants and utility poles, which in some instances may impact sidewalk location.