

DRAFT Alameda Active Transportation Plan

Appendix F: Pedestrian and Bicycle Facility Types



Pedestrian Facilities



These pedestrian facilities and improvements are used by people who walk, skate, or use wheelchairs or other mobility devices.



ADA-COMPLIANT SIDEWALK

- Provides a continuous clear path that is a recommended width of 6 feet (minimum 4 feet wide)
- A firm, stable, and slip-resistant surface, typically concrete



HIGH-VISIBILITY CROSSWALK/CURB RAMPS

- Improves visibility of crossing with bold, reflective striping which can increase yielding rates at intersection and midblock
- ADA-accessible curb ramps provide access and detectable warning for the physically impaired, and are useful to people pushing strollers or baskets



CURB EXTENSION

- Reduces pedestrian crossing distances at intersections or midblock crossings
- Slows motor vehicle turning speeds
- Visually narrows the roadway which helps to reduce vehicle speeds
- Can be built with concrete or paint and posts



IN-STREET PEDESTRIAN CROSSING SIGN (PADDLE SIGN)

- Placed in advance of marked crossings, typically in the centerline
- Warns drivers to watch for pedestrians so that they can yield appropriately
- Can reduce motor vehicle speeds if multiple signs are placed at one crossing



RAISED CROSSING

- Reduces vehicle speeds at intersection or mid-block
- Increases visibility of pedestrians by elevating them
- Typically used on residential/low-volume streets



MEDIAN REFUGE ISLAND

- Allows pedestrians to cross a street in two stages
- Visually narrows the roadway which helps to reduce vehicle speeds
- Used on multi-lane roadways or roadways with high traffic volume



RECTANGULAR RAPID FLASHING BEACON (RRFB)

- RRFBs combine a crossing warning sign with a bright flashing beacon that is activated only when a pedestrian is present
- Increases motorists' yielding compliance and pedestrian visibility



PEDESTRIAN HYBRID BEACON

- Traffic signal for major street activated on demand by bicyclists or pedestrians
- Often at midblock crossings on higher speed, multi-lane roadways



SIGNALS

- **Pedestrian Signal Timing** - Signal head displays "Walk", countdown, and "Don't Walk"; crossing time accommodates a normal walking pace
- **Accessible Pedestrian Signals** - Communicates information audibly to accommodate the visually impaired
- **Leading Pedestrian Interval** - Walk phase begins 3-7 seconds before motor vehicles are given the green light, which increases visibility and reduces conflicts



Pedestrian Facilities



CROSSWALK VISIBILITY ENHANCEMENTS

- The following treatments may be used to make pedestrians easier to see and show motorists where to stop when pedestrians are crossing: advance yield markings, “yield here to pedestrians” signs, curb extensions, and high-visibility crosswalks
- Can reduce crashes where traffic in one lane stops for a pedestrian or bicyclist crossing but traffic in other lanes cannot see the pedestrian or bicyclist



TRUCK APRON ON BULB OUT

- Functions similar to a curb extension by increasing the visibility of pedestrians and improving pedestrian safety
- Forces vehicles to slow down while making turns or traveling straight by narrowing the roadway
- A tapered increase in grade allows trucks to turn more easily



VERTICAL TRAFFIC CALMING

- Typically used on residential/low-volume streets in mid-block locations
- More effective at reducing vehicle speeds than horizontal traffic calming
- Provides a gentle rise on the roadway to slow motor vehicle speeds
- Designed for motor vehicles to cross them comfortably when traveling at or below the speed limit
- Can be designed to accommodate emergency vehicles (e.g., speed cushions)



HORIZONTAL TRAFFIC CALMING

- Reduces vehicle speeds by narrowing the lane and requiring drivers to horizontally alter their position
- Includes chicanes, curb extensions, mini-traffic circles, and other, similar treatments
- Typically used on residential/low-volume streets at intersection or mid-block locations



MINI TRAFFIC CIRCLE

- Circular islands installed in the center of local street intersections
- Reduces traffic speeds
- Commonly landscaped with bushes, flowers, or grass



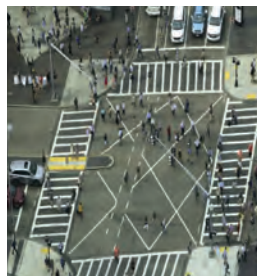
PARKING PROHIBITION NEAR INTERSECTION

- Increases visibility of pedestrians at intersections
- Also called “daylighting”
- Typically extends 20 feet from the intersection



STREETSCAPE IMPROVEMENTS

- Streetscape improvements can include many things, such as green infrastructure (e.g., bioswales), benches, street art, lighting, bus shelters, and planters



PEDESTRIAN SCRAMBLE

- Eliminates conflicts between pedestrians and vehicles by completely separating pedestrian crossing movements from all vehicle movements
- Typically used at intersections in downtowns or other locations with high volumes of pedestrians and high volumes of turning vehicles



Bicycling Facilities

These bicycle facilities and improvements used by people who ride bicycles, electric bicycles, scooters, or other similar wheeled devices provided through programs like bikeshare.



SHARED-USE PATH

- Physically separated from motor vehicle traffic
- Comfortable for a wide range of users
- Provides connectivity to on-street bicycle network
- May not serve all destinations directly
- May have separate paths designated for walking and bicycling



SEPARATED BIKE LANE

- Provides bike-only facility physically separated from automobile travel lane and distinct from sidewalk
- Separated from traffic by curb, bollards, planters, parked cars and/or other vertical elements
- Appropriate on medium- and high-volume streets



BUFFERED BIKE LANE

- Increases riding space and comfort by adding a painted buffer to a standard bike lane
- Buffer located either between the bike lane and automobile travel lane, or between bike lane and parking
- Appropriate on medium- to high-volume streets



BIKE LANE

- Provides dedicated space for bicyclists on the street with pavement markings
- Appropriate on medium- or low-volume streets



NEIGHBORHOOD GREENWAY

- Prioritizes bicycle movement and minimizes bicycle stops along low volume streets
- Pavement markings are often paired with traffic calming measures (e.g., traffic circles, speed tables...etc.)
- Appropriate on low-volume streets, usually in residential areas



BIKE BOX

- Dedicated space between the crosswalk and vehicle stop line where bicyclists can wait during the red light at signalized intersections
- Improve visibility and motorists' awareness of bicyclists at intersections



TWO-STAGE LEFT TURN BOX

- Designates an area without vehicle conflicts for bicyclists to wait for traffic to clear before proceeding in a different direction of travel
- Provides a way for bicyclists to make turns without having to merge across multiple lanes of traffic
- Appropriate at multi-lane intersections where bicyclists frequently turn left from a facility on the right side of the roadway, or at locations with separated bike lanes or shared-used paths where it is not possible for bicyclists to merge into motor vehicle lanes in advance of the intersection



PAINTED CONFLICT MARKINGS

- Improves visibility of bike lanes through intersections and alerts all roadway users of expected behaviors
- Reduces conflicts with turning vehicles
- Recommended for select conflict locations



BIKE DETECTION/PUSH BUTTON

- Bicycle push buttons are located on signal poles within reach of a bicyclist waiting in the roadway; the buttons trigger a green light for bicyclists once pushed (similar to pedestrian push buttons)
- Bicycle detectors are located in the street at intersections and trigger a green light for bicyclists who wait above the detector marking



WAYFINDING SIGNAGE

- Helps bicyclists identify the best routes to destinations and directs bicyclists to connecting routes
- Usually includes signage and pavement markings
- Signs may indicate distances or travel times to destinations

