

# Complete Streets

Complete Streets accommodate all users—from drivers to transit riders, bicyclists, and pedestrians. Complete Streets can also improve safety, stimulate business, improve access, and beautify a corridor.

Complete Street projects range from one-block segments in smaller cities and towns, to six lane arterials in larger cities, to freeway interchanges, to new cycle tracks or bike boulevard treatments, to integrated light rail transit-bicycle-pedestrian design.

Alta's engineers, urban designers, landscape architects, and planners work to create a holistic solution to a transportation corridor, which may include landscaping, public art, plazas, new mixes of land use, changes in setbacks and density, and changes to parking.

Our integrated services include:

- » Transportation planning
- » Urban design
- » Public outreach
- » Traffic engineering
- » Safety, parking, and land use analysis
- » ADA accessible design
- » Bicycle and pedestrian facilities
- » Transit

**Bicycle Facilities Visual Glossary**

**Neighborhood Greenways**  
Neighborhood Greenways use signs, pavement markings, and traffic calming measures to create safe, convenient bicycle facilities.



**Neighborhood Greenway**  
Neighborhood Greenways are streets with low motorized traffic volumes and speeds, designated and designed to give bicycle and pedestrian travel priority. Neighborhood Greenways use signs, pavement markings, and traffic calming measures to discourage through trips by motor vehicles and create safe, convenient bicycle and pedestrian crossings of busy arterial streets.



**Traffic Calming**  
Traffic calming is critical to creating safe and effective neighborhood greenways. Traffic Calming measures for Neighborhood Greenways bring motor vehicle speeds closer to those of bicyclists. Reducing speeds along the neighborhood greenway improves the bicycling and walking environment by reducing overtaking events, enhancing drivers' ability to see and react, and diminishing the severity of crashes if they occur. Common traffic calming techniques include speed humps, neighborhood traffic circles, chicanes, stop signs and pinch points.



**Cycle Tracks**  
Of all on-street bicycle facilities, cycle tracks offer the most protection and separation from adjacent motor vehicle traffic.  
Cycle tracks may be One-Way or Two-Way, and may be at Street Level, or Raised to the sidewalk or an intermediate level.



**One-Way Cycle Track**  
One-way cycle tracks are physically separated from motor vehicle traffic and distinct from the sidewalk. In situations where on-street parking is allowed, cycle tracks are located to the curb-side of the parking (in contrast to bicycle lanes).



The Seattle Bicycle Master Plan Update addresses fast-evolving best practices and new thinking towards bicycle facilities, which are geared to serve a broader range of people who ride bicycles.



Alta integrates Complete Streets methodology into our plans, helping clients to develop policies of their own. This photosimulation was prepared for Shell Road in Pismo Beach, California to show improvements for bicycles and pedestrians.

# Complete Streets

Alta Planning + Design has been working to make our streets and roads ‘Complete’ since it was founded in 1996. We have been at the forefront of every new type of service, from multi-modal corridor plans to streetscape projects, Main Streets, and Complete Streets. Some of these projects include:

- Almond Complete Street, Syracuse, NY
- Bloomington Complete Streets Project, IN
- Charlotte Streetcar Design, NC
- Commonwealth Avenue Streetscape, Boston, MA
- Covina Shoppers Lane Streetscape, CA
- Division Street/Green Street, Portland, OR
- Emerald Parkway Complete Streets, OH
- Euclid Avenue Streetscape, St. Louis, MO
- Fountain Inn Multi-Modal Corridor, NC
- Guangzhou BRT/Bikeway Design, China
- Highway 7/Davis Drive Multi-modal Corridor, Canada
- Holcomb Boulevard Complete Street, Portland, OR
- K Street Multi-Modal Corridor, Sacramento, CA
- Las Vegas Main/Commerce Multi-Modal Couplet
- Mountain View Multi-Modal Corridor, UT
- NACTO Urban Bikeway Design Guide
- NCDOT Complete Streets Program
- Ninth Street Multi-modal Corridor, Berkeley, CA
- North 7th Avenue Complete Street, Bozeman, MT
- Northeast Corridor Multi-modal Corridor, Charlotte, NC
- Pacific Avenue Streetscape, Tacoma, WA
- San Carlos Holly Street Interchange Redesign, CA
- Seattle Streetcar Project, WA
- Tacoma Complete Streets, WA
- West Fremont Ave Multi-Modal Corridor Design, CA



Alta integrates Complete Streets methodology into our plans, helping clients to develop Complete Streets policies of their own.



As part of the Humboldt County Coastal Trail, Alta rendered a Complete Streets conceptual plan in Arcata, California.

## Marked/Unsignalized Crossings

### Guidance

Maximum traffic volumes

- ≤9,000-12,000 Average Daily Traffic (ADT) volumes
- Up to 15,000 ADT on two-lane roads, preferably with a median
- Up to 12,000 ADT on four-lane roads with median

Maximum travel speed

- 35 MPH

Minimum line of sight

- 25 MPH zone: 155 feet
- 35 MPH zone: 250 feet
- 45 MPH zone: 360 feet



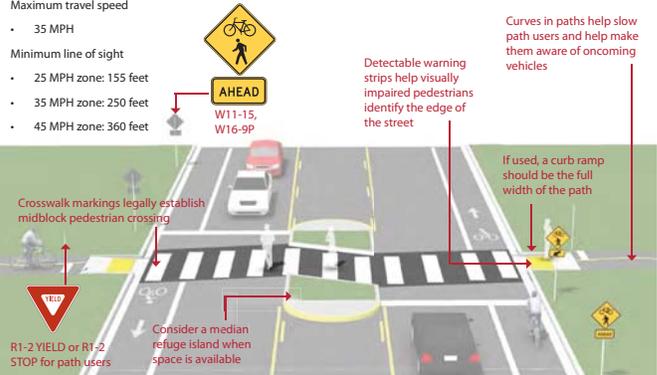
AHEAD

W11-15,  
W16-9P

### Description

A marked/unsignalized crossing typically consists of a marked crossing area, signage, and other markings to slow or stop traffic. The approach to designing crossings at mid-block locations depends on an evaluation of vehicular traffic, line of sight, pathway traffic, use patterns, vehicle speed, road type and width, and other safety issues such as proximity to major attractions.

When space is available, using a median refuge islands can help improve safety by providing a crossing refuge, allowing pedestrians and cyclists to gauge safe crossing of one side of the street at a time.



### Discussion

Crossings of multi-lane arterials over 15,000 ADT may be unsignalized with features such as: excellent sight distance, sufficient crossing gaps (more than 60 per hour), median refuges, and/or active warning devices like rectangular rapid flash beacons or in-pavement flashers. See **Enhanced Marked Crossings** for a discussion of active warning beacons.

On roadways with low to moderate traffic volumes (<12,000 ADT) and a need to control traffic speeds, a raised crosswalk may be the most appropriate crossing design to improve pedestrian visibility and safety.

### Additional References and Guidelines

AASHTO. (1999). Guide for the Development of Bicycle Facilities.  
FHWA. (2009). Manual of Uniform Traffic Control Devices.

### Materials and Maintenance

Locate markings out of wheel tread when possible to minimize wear and maintenance costs.

Alta’s Complete Street design guidelines provide guidance for including cyclists, pedestrians, and other roadway users into street design.

# Complete Streets

## Public Input

Alta's professionals are experts at listening to the public, conveying technical issues in a clear manner, offering distinct choices and options to the public, and explaining trade-offs. Our outreach process is inclusive, interactive, and productive. We use a variety of innovative techniques, including online surveys, photo-simulations for showing how options will look, videotaped interviews, field reviews, GIS mapping, and interactive public workshops.

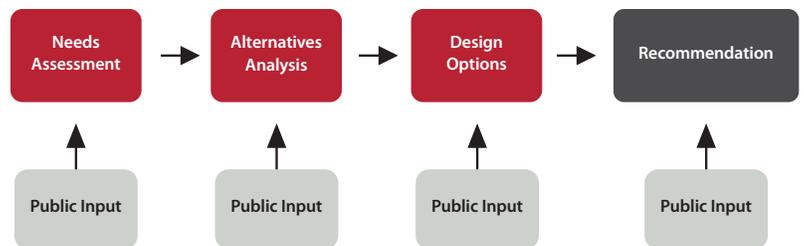
Alta's corridor projects are as unique and distinctive as each community, reflecting the local history, culture, environment, and economy.



Public meetings play an integral role in Alta's Complete Street design process.



A community bicycling or walking tour provides close-up, firsthand knowledge of project issues, enabling the group to provide valuable input to the project team.



Alta uses public input to inform the recommendation design process.