

Most crashes between people bicycling and motorized traffic occurs at intersections.



INTRODUCTION

Most crashes between people bicycling and motorized traffic occurs at intersections. Focusing design strategies on the intersection to minimize exposure and risk from vehicles is key to improving safety and comfort for bicyclists.



Bike lane adjacent to Dedicated Turn Lanes

INTERSECTION TREATMENT PRIORITIZATION

The intersections treatments that best support safety and comfort will vary depending on the bikeway design and roadway cross section, adjacent land uses, and expected movements through the intersection. Even with a single bicycle facility type, intersection design best practices will vary depending on whether the intersection is a major intersection with high traffic volumes, or a minor intersection with low volumes. See Figure 3.7E.1 for guidance on what intersection treatments to pursue at major and minor intersections depending on bicycle facility type.

Figure 3.7E.1: Bike lane intersection design implementation matrix

Bicycle Facility Type	Recommended Intersection Treatment	
	Major Signalized Intersections ^a	Minor Unsignalized Intersections ^b
Sidewalk-Level Protected Bike Lanes (One-way)	Protected Intersection Only	Raised Crossing
Sidewalk-Level Protected Bike Lanes (Two-way)	Protected Intersection Only	Raised Crossing
In-Street Protected Bike Lanes (One-way)	Protected Intersection Preferred, Mixing Zones Allowed	Mixing Zones Allowed
In-Street Protected Bike Lanes (Two-way)	Protected Intersection Only	Physical bikeway delineation to the intersection, Mixing Zones NOT allowed
Neighborhood Greenway (Full Greenway)	Protected Intersection, Targeted Crossing Enhancements ^c	Raised Crossing, Access Control
Neighborhood Greenway (Bicycle Boulevard)	Targeted Crossing Enhancements ^c	Traffic Circles, Curb Extensions, Access Control
Shared Use Path	Targeted Crossing Enhancements ^c	Raised Crossing, Access Control
Trail	Protected Intersection, Targeted Crossing Enhancements ^c	Raised Crossing, Access Control
Unprotected Bike Lanes (All types)	Mixing Zones Allowed	Mixing Zones Allowed

a Typically across Downtown Core, Mixed Use Regional Connector, Mixed Use Commercial Connector, Mixed Use Community Connector, and some Production and Processing Streets.

b Typically across Urban Neighborhood, Urban Neighborhood Connector, Parkway, and some Production and Processing streets.

c Includes a variety of crossing enhancements such as medians, access control, curb extensions, leading bicycle signal intervals, and bicycle-specific signal phasing.