



**Exclusive facilities for biking and micromobility that incorporate separation from motorized traffic, parking lanes, and adjacent walking facilities.**

## INTRODUCTION

Protected bike lanes are exclusive facilities for biking and micromobility that incorporate physical, vertical separation from motorized traffic, parking lanes, and adjacent walking facilities. The methods used to provide physical separation vary and include plastic flexible delineators or “bollards,” rail-mounted bollards, planters, in-street concrete curbs, and curb-protected sidewalk-level bike facilities. Parked cars can sometimes buffer protected bike lanes from motorized traffic but should be implemented along with other vertical delineation to eliminate encroachment into the bikeway. Protected bike lanes may operate as one or two-way facilities and may be designed to operate on one or both sides of a roadway.

By incorporating physical separation from motorized traffic and adjacent facilities, protected bike lanes provide enhanced safety and comfort for people of all ages and biking abilities. Protected bike lanes are All Ages and Abilities bikeways, and are the preferred treatment for any street reconstruction project on the AAA network where a trail, shared use path, or neighborhood greenway is unfeasible or not preferred.

## ONE-WAY AND TWO-WAY PROTECTED BIKE LANES

Protected bike lanes may be designed for one-way or two-way operation. One-way protected bike lanes are typically preferred on streets with two-way traffic as they usually present fewer modal conflict points, require fewer intersection treatments, and better integrate with existing roadway operations. Contextual design factors may favor two-way operations in some contexts, for example, streets with few points where there would be left turns across the bikeway or streets where one-way protected bikeways are not feasible because of constrained right of way. Two-way bikeways have fewer conflicts on streets with one-way vehicle traffic. Please consider the criteria in Figure 3.4B.1 when deciding between one and two-way protected bikeways.

# 3.3J Sidewalk cafes

**Figure 3.4B.1:**

One-way and two-way bike lane considerations

		Protected Bikeway Type		
		One-way, one side of the street	One-way, two sides of the street	Two-Way, one side of the street
Street Configuration	 One-way Street	<ul style="list-style-type: none"> <li>+ More consistent with existing roadway operations and driver expectations</li> <li>+ May require fewer modifications to signalized intersections</li> <li>- Does not accommodate two-way bicycle travel and may encourage contra-flow travel in bike lane</li> </ul>	<p><b>Not recommended. If there is space for bidirectional bike traffic install a two-way bikeway on one side of the street.</b></p>	<ul style="list-style-type: none"> <li>+ Provides two-way bicycle access</li> <li>+ May improve bikeway network connectivity</li> <li>- Drivers may not expect contra-flow bicycle traffic</li> <li>- Only provides direct bicycle access to one side of the street</li> <li>- May require changes to signal heads, signal timing, and turn phasing</li> </ul>
	 Two-Way Street	<p><b>Not recommended but a single contraflow lane may be installed in space-constrained corridors where there are few alternate routes that provide similarly convenient travel for people biking, and on streets where existing contra-flow riding is regularly observed.</b></p>	<ul style="list-style-type: none"> <li>+ More consistent with existing roadway operations and driver expectations</li> <li>+ May require fewer modifications to signalized intersections</li> <li>+ Provides direct bicycle access to both sides of the street</li> <li>- Requires more space than two-way bikeways on one side of the street</li> <li>- May be challenging to accommodate space requirements in constrained ROWs</li> <li>- May require more maintenance resources than two-way bike facilities on one side of the street</li> </ul>	<ul style="list-style-type: none"> <li>+ Provides two-way bicycle access</li> <li>+ Often require less space than one-way bikeways in each direction</li> <li>- May require changes to signal heads, signal timing, and turn phasing</li> <li>- Only provides direct bicycle access to one side of the street</li> <li>- May require more complex transitions when connecting to one-way bicycle facilities</li> </ul>