

Separated Bike Lane with Lateral Shift

A lateral shift moves cyclists to the left of the motor vehicle right turn lane before vehicles can move right. This places the responsibility for yielding clearly on drivers turning right, and brings bicyclists into a highly visible position. In the lateral shift configuration, like the mixing zone (see page 107), potential conflicts between right-turning vehicles and through bicyclists occur *before* the intersection. A lateral shift treatment is effective for intersections where a separate bicycle signal and signal phasing is not feasible, because bicyclists can proceed in the same signal phase as through and right-turning vehicles.

Separated Bike Lane with Mixing Zone

A mixing zone is an area where bicyclists and right-turning automobiles merge into one travel lane approaching an intersection. Mixing zones provide a design option in which the potential conflict between right-turning vehicles and through bicyclists occurs before the intersection, similar to the lateral shift. Mixing zones may provide the best option in locations without on-street parking and/or with a constrained right-of-way where the roadway width will not accommodate both a bicycle lane and a right-turn lane at the intersection.

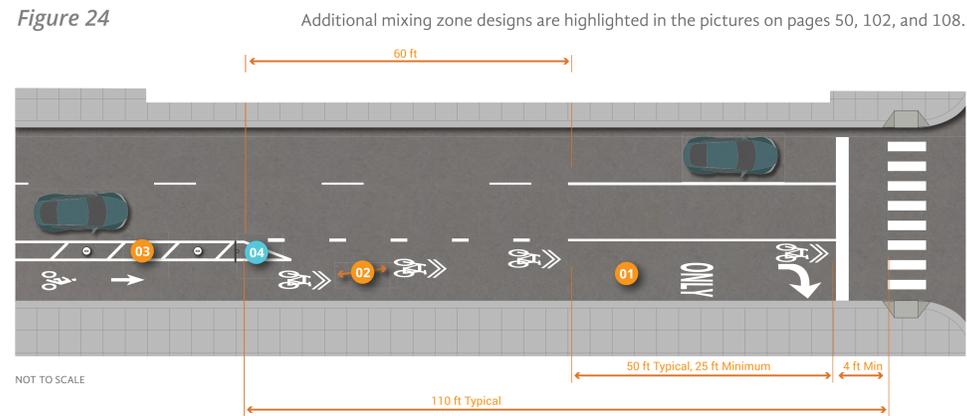
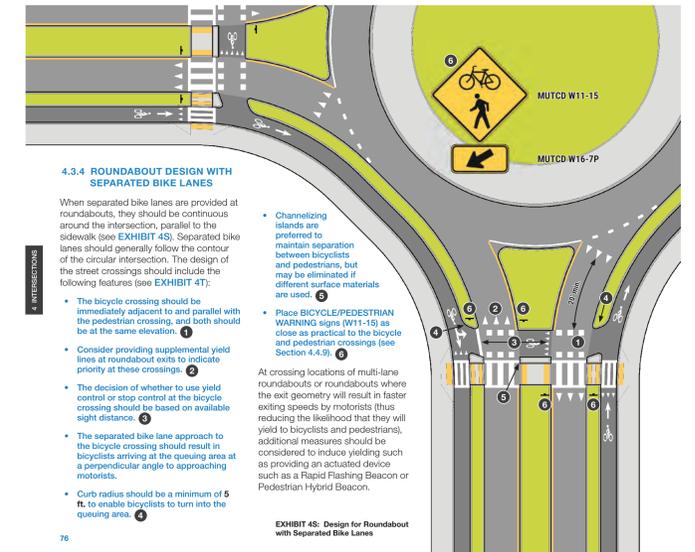


Figure 24

Additional mixing zone designs are highlighted in the pictures on pages 50, 102, and 108.

Roundabout Design with Separated Bike Lanes



4.3.4 ROUNDABOUT DESIGN WITH SEPARATED BIKE LANES

When separated bike lanes are provided at roundabouts, they should be continuous around the intersection, parallel to the sidewalk (see EXHIBIT 4S). Separated bike lanes should generally follow the contour of the circular intersection. The design of the street crossings should include the following features (see EXHIBIT 4T):

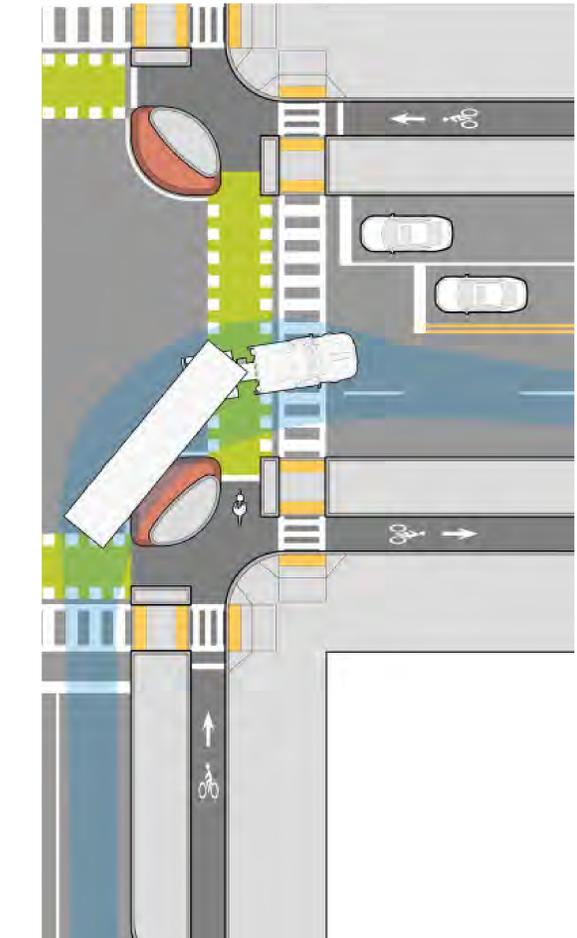
- The bicycle crossing should be immediately adjacent to and parallel with the pedestrian crossing, and both should be at the same elevation.
- Consider providing supplemental yield lines at roundabout exits to indicate priority at these crossings.
- The decision of whether to use yield control or stop control at the bicycle crossing should be based on available sight distance.
- The separated bike lane approach to the bicycle crossing should result in bicyclists arriving at the queuing area at a perpendicular angle to approaching motorists.
- Curb radius should be a minimum of 5 ft. to enable bicyclists to turn into the queuing area.

- Channelizing islands are preferred to maintain separation between bicyclists and pedestrians, but may be eliminated if different surface materials are used.
- Place BICYCLE/PEDESTRIAN WARNING signs (W11-15) as close as practical to the bicycle and pedestrian crossings (see Section 4.4.9).

At crossing locations of multi-lane roundabouts or roundabouts where the exit geometry will result in faster exiting speeds by motorists thus reducing the likelihood that they will yield to bicyclists and pedestrians, additional measures should be considered to induce yielding such as providing an actuated device such as a Rapid Flashing Beacon or Pedestrian Hybrid Beacon.

EXHIBIT 4S: Design for Roundabout with Separated Bike Lanes

Recessed Stop Line



Signalization

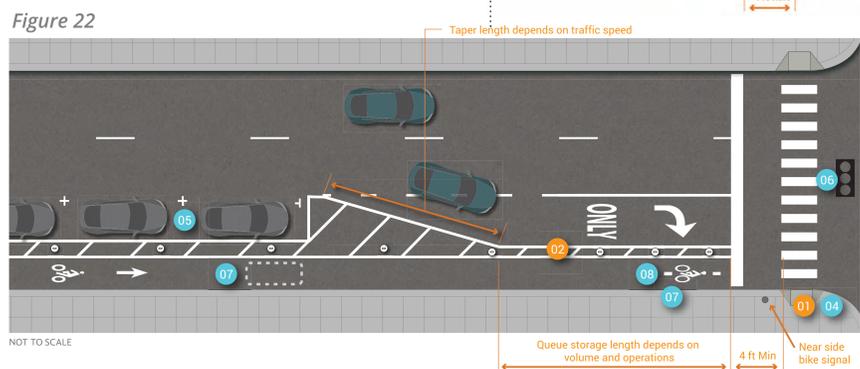
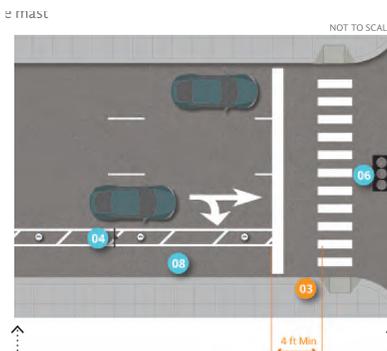


Figure 22

HAWK Signal at Roundabout

