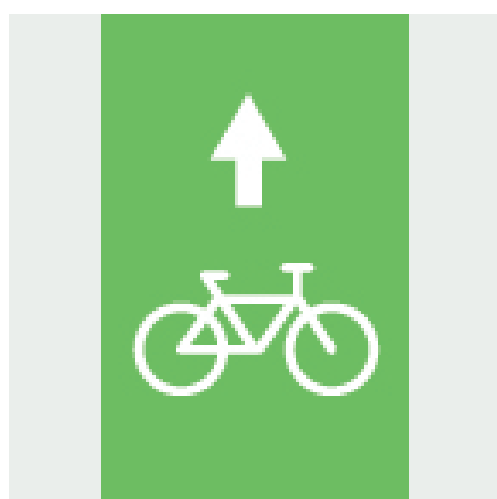


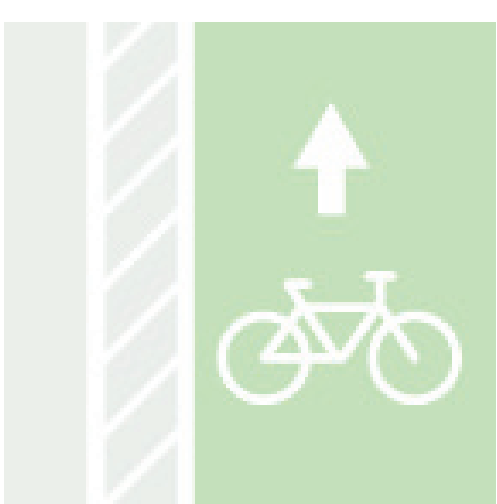
# SOLUTIONS TOOLBOX - BICYCLISTS

## Bicycle Facilities \$\$



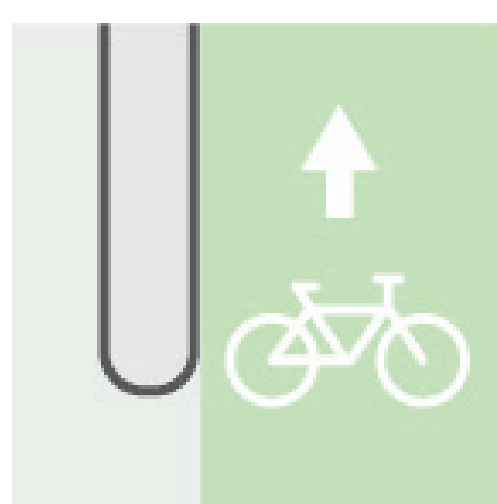
Bicycle facilities can be installed in a corridor to provide spaces specifically designed for the movement of cycles. Examples include bike lanes, buffered bike lanes, and separated bike lanes. Bike lanes and buffered bike lanes provided dedicated space for bicyclists but do not have a physical barrier separating the bicyclists from vehicular traffic. Separated bike lanes contain a physical barrier to further improve bicyclists safety.

## Marked Buffers \$\$



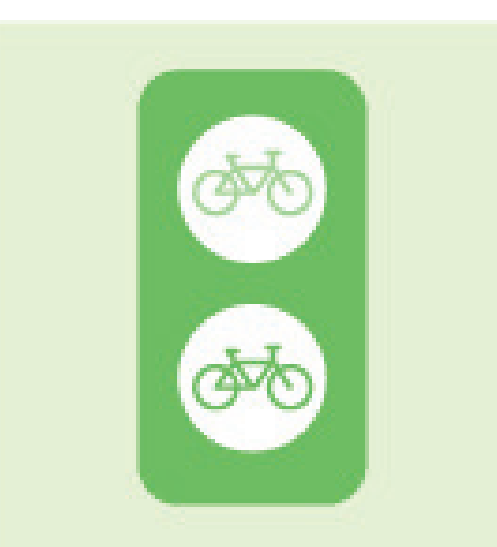
At-grade, marked buffers are installed as painted spaces parallel to bike lanes that separate them from adjacent motor vehicle traffic. Buffers should be 3 feet wide and can be used next to parking lanes to prevent bicyclists from being hit by opening car doors. They improve comfort and safety for bicyclists while discouraging motorists from entering the bike lane.

## Vertical Separation \$\$\$



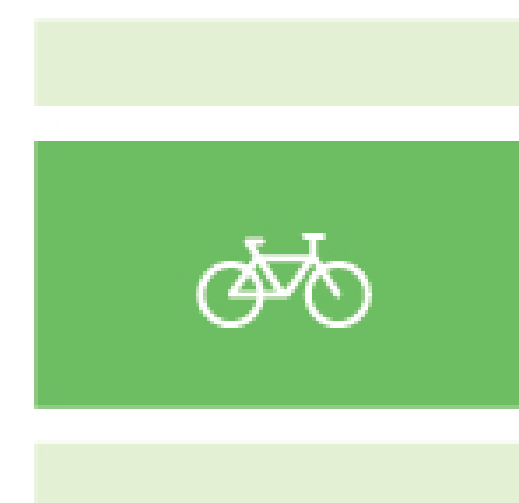
Vertical separation treatments include buffers and segmented concrete dividers. Constructed buffers are barriers built into the roadbed that provide a physical separation to a bike lane, improving safety and preventing intrusion by vehicles. Segmented concrete dividers create physical separation of a bike lane to prevent intrusion of cars and trucks while allowing bicyclists to exit the bike lane.

## Bicycle Signals \$\$



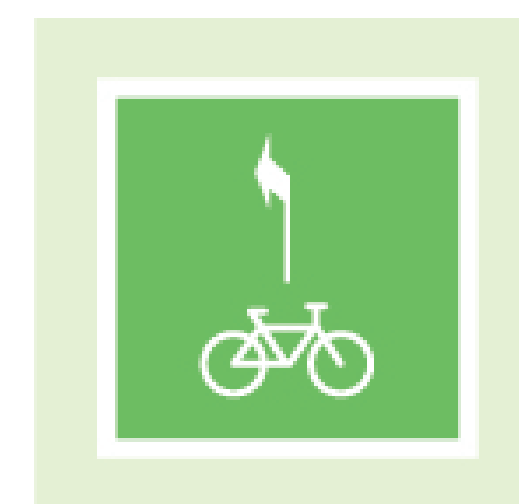
Bicycle signals are traffic signals designed specifically for bicyclists installed at intersections with bike facilities, especially on high volume streets. Signals associated with protected facilities should be part of the normal signal cycle. They improve safety and confidence for bicyclists at locations with heavy volumes of vehicular traffic or conflicts.

## Advanced Stop Bars \$



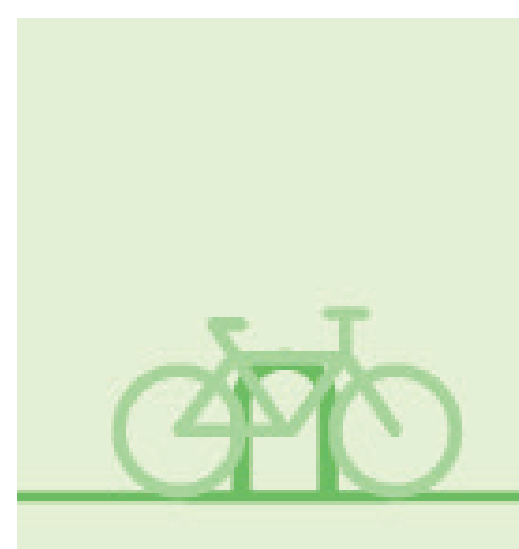
Advanced Stop Bars (ASB) provide designated areas ahead of stop lines for vehicles at signalized intersections. They allow bicyclists to get ahead of queued vehicles during a red light and help bicyclists make turns across traffic and avoid being hit by vehicles turning across the bike lane. ASB should be at least 10 feet deep, allowing bicyclists to maneuver into them and face forward.

## Two-Stage Turn Queue Boxes \$



Two-stage turn queue boxes are painted as waiting spaces at intersections that allow bicyclists to safely make a turn across oncoming traffic using two signal phases. They are designed to move bicyclists out of the travel path for the first stage of the turn, usually in line with a parking lane, a buffer, or in front of the opposing traffic lane. Once the light changes, the bicyclists using the turn queue box can continue in the second direction.

## Bicycle Parking \$



Bicycle parking, including bike racks and bike corrals, allow bicyclists to securely park their vehicles. While there are many designs, they are generally made of metal tubing and are bolted to a concrete surface. "U" racks are the preferred DDOT design. They are most useful when placed near major destinations or in commercial areas.

## Wayfinding & Signage \$



Wayfinding, signage, and markings identify bicycle routes that reach major destinations or connect to bicycle facilities. Types include signs with directions, specially designed street signs, and markings on the road. Clear signage increases bicyclists' confidence and signals to drivers that they are on a bicycle route.