# BICYCLE LANES


This photo illustrates ideal conditions for striped bike lanes: two –lane residential/collector street; low posted speed limit; 6-foot wide bike lanes placed beside 12-foot wide travel lanes; and an absence of complicated intersections.

## DEFINITION

A bicycle lane is a portion of the roadway that has been designated by striping, signing, and pavement markings for the preferential and exclusive use of bicyclists.

## WHEN TO CONSIDER THIS TYPE OF FACILITY

Bicycle lanes may be considered when it is desirable to delineate road space for preferential use by cyclists. Streets striped with bicycle lanes should be part of a connected bikeway system rather than being an isolated feature. Bicycle lanes function most effectively in mid-block situations by separating bicyclists from overtaking motor vehicles. Integrating bicyclists into complicated intersection traffic patterns can sometimes be problematic. Strip development areas, or roadways with a high number of commercial driveways, tend to be less suitable for bicycle lanes due to frequent and unpredictable motorist turning movements across the path of straight-through cyclists. Striped bike lanes can be effective as a safety treatment, especially for less-experienced bicyclists, under the following conditions:

- Two-lane residential/collector streets with lower traffic volume, low-posted speed limit, adequate roadway width for both bike lanes and motor vehicle travel lanes, and an absence of complicated intersections.
- A median-divided multi-lane roadway with lower traffic volumes and a low volume of right and left turning traffic would be a more appropriate location for bicycle lanes than a high traffic volume undivided multi-lane roadway with a continuous center turn lane.
- Most bicyclists will choose a route that combines direct access with lower traffic volumes. An origin and destination of less than 4 miles is desirable to generate usage on a facility.

PRINCIPAL PLANNING CONCERNS WITH BICYCLE LANES

- High traffic volume, strip-developed areas that generate a high number of motor vehicle turning conflicts with straight-through cyclists riding in bicycle lanes are to be avoided.
- Most bicycle/motor vehicle crashes occur at intersections and driveways. Roadways with numerous complicated intersections and interchanges increase the potential for crashes.
- Inadequate lane width or use of the concrete gutter pan as the bike lane area is not desirable.
- Abrupt termination of bike lanes at hazard or constraint locations creates a situation that may force bicyclists to make awkward movements in traffic.
- Bike lanes striped on roadways with numerous complicated intersections, including freeway interchanges, may give some less-experienced bicyclists a false sense of security.

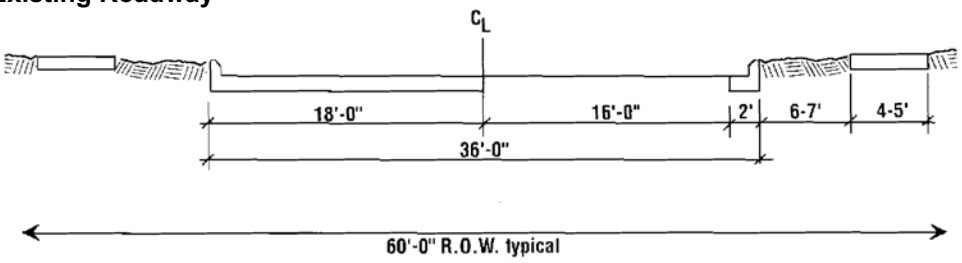

This photo illustrates an abrupt end of the bicycle facility. This is a hazard for the cyclist and motorist, because it forces the cyclist to merge abruptly into dense traffic.

## PLANNING AND DESIGN CONSIDERATIONS

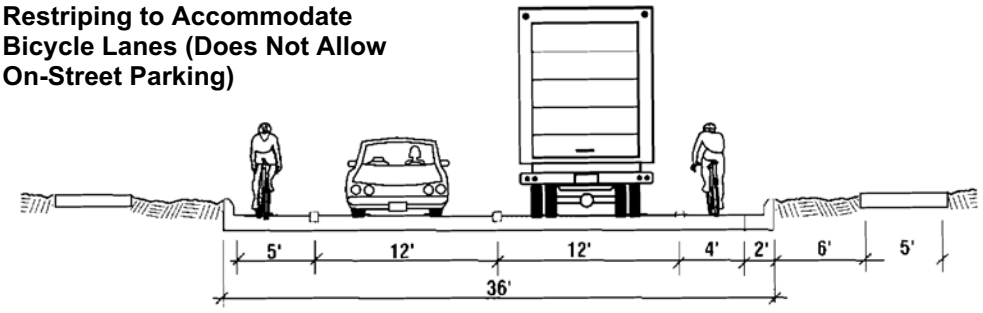
- Under ideal conditions, the minimum bicycle lane width is 1.2m (4 ft.), not including the concrete gutter pan.
- Roadways striped with bicycle lanes should be connected to a system of bikeways (other roads with striped bicycle lanes, signed bike routes, or off-road bicycle paths) to be effective.
- Bicycle lanes should be one way facilities and should carry traffic in the same direction as adjacent motor vehicle traffic.
- Two-way bicycle lanes on one side of the road are not recommended because they promote riding against the flow of motor vehicle traffic. Wrong-way riding is a significant cause of car/bike crashes.
- On one-way streets, bicycle lanes should be on the right side of the road, unless it would decrease conflicts, such as at bus stops, if placed on the left.

# BICYCLE LANES ON COLLECTOR STREETS

**Existing Roadway**




**Restriping to Accommodate Bicycle Lanes (Does Not Allow On-Street Parking)**




This illustration shows two alternatives for restriping a road on a standard 60' right of way to accommodate bicycle lanes. The left side of the illustration shows a conversion from an 18' travel lane without a 2'gutter pan to a 12' travel lane with a 5' striped bike lane. The right side shows a conversion from a 16' travel lane with a 2' gutter pan to a 12' travel lane, a 4' striped bike lane and a 2' gutter pan.