ROAD DIETS AND LANE WIDTH REDUCTIONS

Purpose

Reduce the speed of traffic, reduce crossing distances and/or provide additional space for other elements of the roadway.

Description

Reduce the number of lanes (road diets), the width of lanes (lane width reductions), or both.

Estimated Cost

$ **$$** $$$ $$$$

Applicable Locations

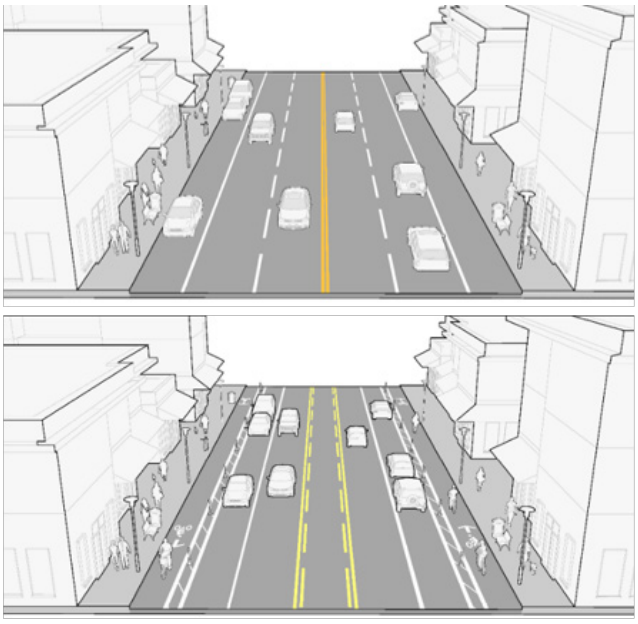
- Multi-lane roads are eligible for lane reconfiguration.
- Emphasis should be placed on roads with priority pedestrian and bicyclist routes.
- Lane reconfiguration can be done in urban, suburban, and rural areas.

Applicable Street Types

All street types.

Safety Benefits

- Increase available space for additional safety infrastructure for pedestrians or bicyclists.
- May reduce the number of potential conflict points.
- May slow motor vehicle operating speeds.
- May reduce crossing distances by eliminating a lane or through provision of a pedestrian median island.



Example of a four to three lane conversion with separated bike lanes.

Expected Crash Reduction

47 percent for all crashes in suburban areas.[50]

29 percent for all crashes in urban areas.[51]

Design Guidance

- Eliminating a travel through lane can make room for a bicycle lane, turn lanes, wider sidewalks, median island, curb extensions, on-street parking, transit lane, landscaping, or other uses.
- Road diets are often considered on roadways with up to 24,000 daily vehicles.
- In urban areas, certain lane widths are mandated by Montgomery County Bill 33-13. For all other lane widths, see the Complete Streets Design Guide.
- Lane width of outside travel lanes may be slightly wider to accommodate curbside uses. See Complete Street Design Guide for travel lane widths per street type.

Considerations

- Eliminating a travel through lane may increase congestion and vehicle queuing and blocking during peak travel hours.
- Evaluate impact of a road diet on all road users, not just vehicles.
- Consider implementing a road diet in conjunction with pavement overlay.
- The FHWA recommends considering factors including:
    - Volume thresholds, such as average daily traffic
    - Vehicle speed
    - Trip generation estimates
    - Level of Service
    - Quality of Service
    - Pedestrian and bicyclist volumes
    - Transit and freight operations
    - Peak hour and peak direction traffic flow

Systemic Safety Potential

Spot treatment. Context is important to analyze need.

Additional Information

- Evaluation of Lane Reduction "Road Diet" Measures on Crashes
- PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System
- Road Diet Informational Guide
- FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations
- FHWA Achieving Multimodal Networks

Road before four to three lane conversion

Road after four to three lane conversion