

# ROAD DIET



Safety | Livability | Low Cost

## Systemically Identifying Candidate Road Diet Locations

A Road Diet is generally described as removing or narrowing vehicle lanes from a roadway and reallocating the extra space for other uses or travel modes, such as parking, sidewalks, bicycle lanes, transit use, turn lanes, medians, or pedestrian refuge islands. Road Diets are a highly effective and relatively inexpensive safety countermeasure that has the potential to calm traffic, provide operational benefits that can improve user access and traffic flow (e.g., dedicated turn lanes, bus pull outs, dedicated bicycle lanes), and improve the quality of life for all road users.

Whether interested in implementing Road Diets on a large scale or identifying potential locations that yield one or two ideal sites, agencies can employ several methods to systemically identify candidate locations.

*“Whenever you’re trying something new, make sure the first one is great.”*

Tom Welch  
Former State Safety Engineer, Iowa DOT

### Method #1: Citing Road Diets as a Strategy or Approved Countermeasure in Safety Plans

Most transportation agencies develop and update safety plans to track improvements, goals, and outcomes. The plans cite strategies, countermeasures, and actions that can help the jurisdiction reach its safety goals. Including Road Diets in an agency’s Strategic Highway Safety Plan (SHSP), Highway Safety Improvement Program (HSIP), or bicycle and pedestrian plan can lead to systemic identification and low-cost implementation of this high-return countermeasure.

**Rhode Island’s** 2012 SHSP mentioned Road Diets as one of the DOT’s safety accomplishments and promoted the countermeasure’s crash reduction benefits.<sup>1</sup> That same year, the Rhode Island General Assembly passed a Complete Streets law, citing Road Diets as a solution that integrates all travel mode options and provides safe access to all road users.<sup>2</sup>

In 2013, the Rhode Island DOT (RIDOT) named Road Diets within their policy directive as a proven crash countermeasure that addresses SHSP emphasis areas. By directly correlating Road Diets and the State’s Toward Zero Deaths goal, RIDOT ensured that Road Diet projects received priority ranking and could be funded through the State’s HSIP and Transportation Improvement Program (TIP). RIDOT also established guidance for using Road Diets within its Complete Streets Action Plan and Road Diet Program.

These activities and advancements encourage systemic selection of Road Diet locations and stimulate the countermeasure’s prevalent use.

*“Complete Street design shall include, but not be limited to: sidewalks, paved shoulders suitable for use by bicyclists... road diets...and traffic calming measures.”*

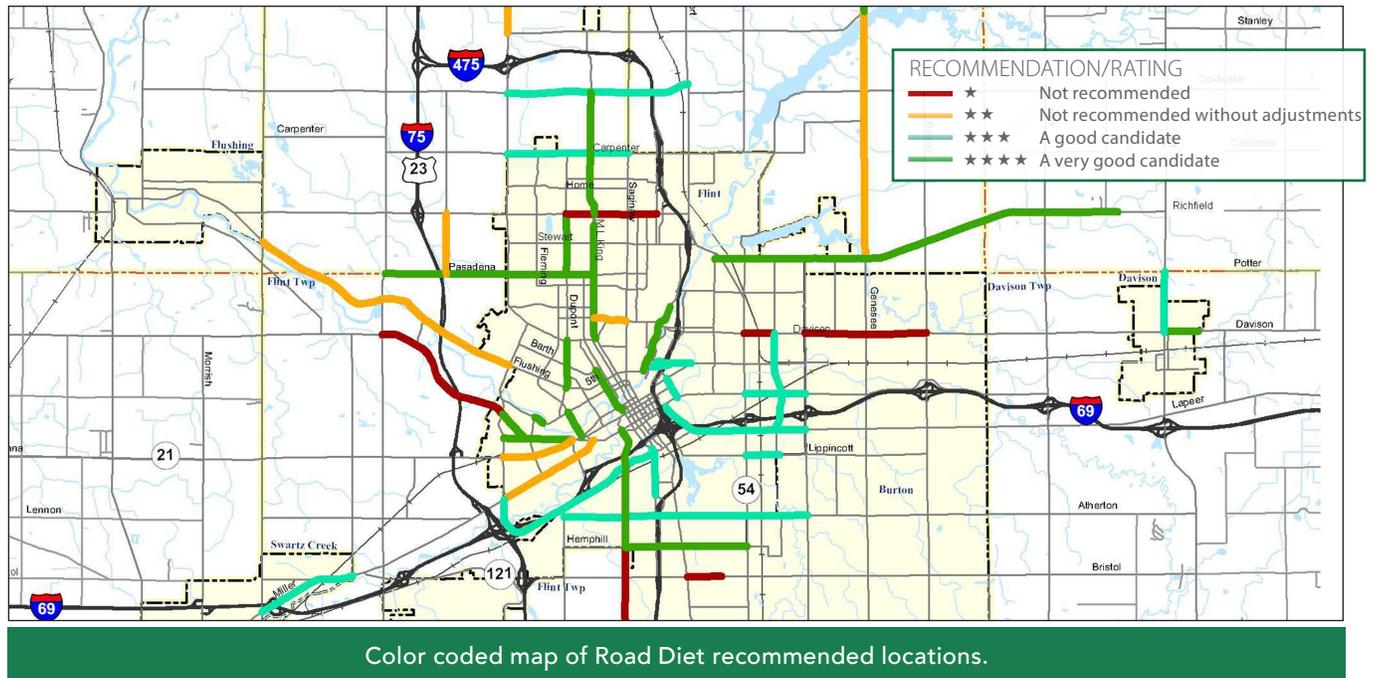
Rhode Island Complete Streets  
General Law 24, Chapter 16

1 Rhode Island DOT, *Rhode Island Strategic Highway Safety Plan – Federal Fiscal Year 2016* (July 2015). Available at: [http://www.dot.ri.gov/documents/community/safety/Strategic\\_Highway\\_Safety\\_Plan.pdf](http://www.dot.ri.gov/documents/community/safety/Strategic_Highway_Safety_Plan.pdf).

2 Rhode Island DOT, *Rhode Island Complete Streets Action Plan* (February 2015). Available at: [http://www.dot.ri.gov/documents/community/safety/Complete\\_Streets.pdf](http://www.dot.ri.gov/documents/community/safety/Complete_Streets.pdf).

## Method #2: Evaluating All Four-Lane Undivided Roads

Four-lane undivided roads historically experience increased crashes as traffic volumes rise due to motorists weaving in and out of traffic to avoid vehicles slowing to turn. Additionally, as non-motorized and multimodal transportation increases, communities desire street designs that include pedestrian and bicycle facilities, transit options, and more livable spaces, known as Complete Streets.



**Michigan’s Genesee County Metropolitan Planning Commission (GCMPC)** adopted this Complete Streets vision and has used Road Diets as a low-cost measure to help reach its overall goals. To begin, staff assessed all existing four-lane road segments for potential Road Diet candidates, removing roads that were currently congested or in areas that were anticipated to see increased vehicle traffic volumes due to land use and development trends.

With the revised list, they began collecting additional data and completing field investigations to assess Road Diet suitability. GCMPC considered:

- Crash data
- Lane width
- Speed limits
- Surface type
- Average daily traffic count
- Number of traffic signals
- Land use

Staff used this information to rank each road segment for Road Diet suitability based on a four-point scale. Locations ranked at the top of the scale, i.e., “a very good candidate,” received top priority and funding.

In the beginning, routes with lower volumes (6,000 to 8,000 vehicles per day) that had been identified as “a very good candidate” were targeted to allow for easier conversion. After several successful conversions with positive outcomes, GCMPC began selecting implementation sites with higher volumes – up to 20,000 vehicles per day – and expanded conversion to those also identified as “a good candidate.”

### Method #3: Identifying Roads in Need of Multimodal Expansion or Connectivity

Bicycling is growing in popularity as an affordable and healthy alternative mode of transportation and is becoming an integral part of many cities' transportation systems. Many cities are choosing candidate Road Diet projects as a way to accomplish their goals of building safer and more connected bicycle networks.

#### Did You Know...

A study of urban attitudes toward biking in Portland, Oregon found that not feeling safe while sharing the road with motorists was the number one reason why people chose not to ride their bicycles. Road Diets can improve bicycle safety by provide a designated bicycling lane.<sup>3</sup>

The **Chicago Department of Transportation's (CDOT)** Streetscape and Sustainable Design Program calls for the application of a variety of techniques, including Road Diets, to revitalize the city's neighborhood commercial areas and river walks. In 2012, CDOT held a series of neighborhood meetings with a citizen advisory group to determine how to make Chicago the most bicycle-friendly community in the country. These meetings helped CDOT establish where existing infrastructure did not meet cyclists' needs, identify cycling routes being used, and determine corridors where bicyclists would like to travel if they felt more safe doing so. This effort resulted in the *Chicago Streets for Cycling Plan 2020*.

The plan identifies a potential 645-mile network of on-street bikeways, using Road Diets as one of its tools to expand and connect bicycle facilities throughout the city.

A project resulting from this plan involved implementing barrier- and buffer-protected bike lanes on a 9.5-mile segment of a heavily traveled commuter route in the spring of 2012. After installation, bicycle ridership

increased by 49 percent in the morning and 62.5 percent in the afternoon peak periods, respectively.<sup>4</sup>

The 25 miles of Road Diet corridors implemented in Chicago have resulted in 24 miles of new bike lanes.

Commuter bicycle ridership increased by **49%** in the morning and **62.5%** in the afternoon after installation of a barrier and protected bike lane



Road Diets can facilitate safe transportation for all modes.

Source: PeopleForBikes

<sup>3</sup> Roger Geller, Bicycle Coordinator, Portland Office of Transportation, Four Types of Cyclists, available at: <https://www.portlandoregon.gov/transportation/article/158497>.

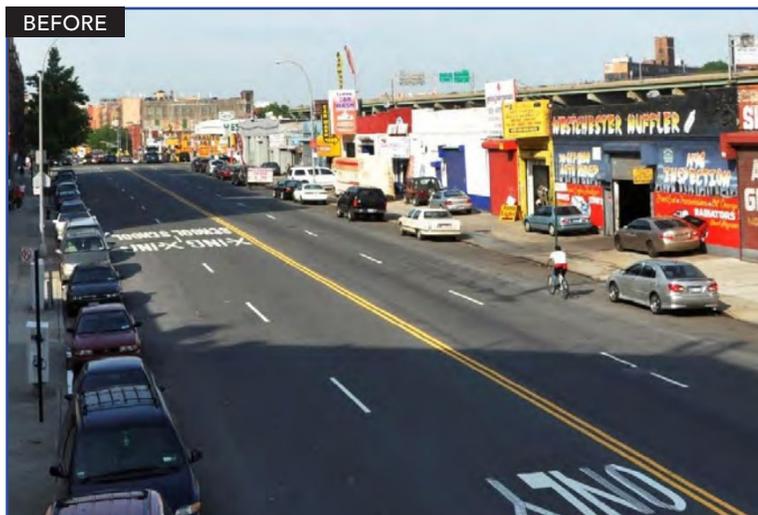
<sup>4</sup> Chicago Department of Transportation, *Chicago Streets for Cycling Plan 2020*, available at: <http://www.chicagocompletestreets.org/wp-content/uploads/2016/02/Streets%20for%20Cycling%20Plan%202020.pdf>.

## Method #4: Screening All Upcoming Resurfacing Projects

Incorporating Road Diets into resurfacing efforts can nearly eliminate costs associated with the treatment. When a Road Diet includes shifting pavement markings within the existing right-of-way during a resurfacing project, internal planning and design costs are the only expenses incurred. Consequently, many State and local agencies have incorporated a Road Diet feasibility assessment into their routine review of all roads scheduled for repaving.

The **City of Oakland, California**, established an efficient method to help identify candidate Road Diet projects. In coordination with its Complete Streets and paving program, the city requires a checklist be completed for each roadway segment proposed for resurfacing.<sup>5</sup> The checklist documents the scope and context for integrating improvements into an upcoming paving project, including assessing the feasibility for implementing a Road Diet on multilane streets. Staff choose candidate locations in part based on proposed bicycle corridors in the city’s bicycle master plan, presence of pedestrian safety or speeding issues, and availability of traffic volume data.

Over the next three years, the City has five additional Road Diets planned in conjunction with its 5 year paving plan.



Before and after Road Diet on Southern Blvd., Bronx, NY.

Source: NYCDOT

### For Additional Information

For more detailed information on selecting candidate Road Diet locations, check out FHWA’s Road Diet Informational Guide. Chapter 3 covers Road Diet feasibility determination, and Appendix B contains a comprehensive list of feasibility determination factors, characteristics, and sample evaluation questions for agencies to consider.

<sup>5</sup> City of Oakland, City of Oakland Checklist for Complete Streets / Paving Project Coordination (unpublished). Available at: [http://safety.fhwa.dot.gov/road\\_diets/guidance/docs/oakland\\_chklist.pdf](http://safety.fhwa.dot.gov/road_diets/guidance/docs/oakland_chklist.pdf).