# Roadway Reconfiguration in Durham

*"Road Diets can be seen as one of the transportation safety field's greatest success stories."*[1]
-Libby Thomas, Senior Associate, UNC Highway Safety Research Center

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*What is Roadway Reconfiguration?*

According to the Federal Highway Administration, a traditional *Roadway Reconfiguration*, also known as a *Road Diet,* requires the removal of travel lanes from a roadway and utilizing the space for other uses and travel modes.

Durham-Chapel Hill Boulevard (US 15-501 Business) between Chapel Hill Road and University Drive is currently a five-lane cross section. This alignment allows large traffic volumes, but can lead to increased speeding, crashes, property damage, and injuries. From 2009 to 2014, there were 157 recorded crashes on this one-mile section of Durham-Chapel Hill Boulevard. The accidents resulted in 54 injuries and an estimated $750,000 in damages.

The proposed lane configuration for this section will have one center turn lane, one travel lane in each direction, one bicycle lane in each direction and on-street parking accommodations in some areas. The proposed configuration will accommodate existing and projected traffic flow volumes through 2040. The proposed configuration was designed to address run-off-road incidents on the west end of the Boulevard near the Chapel Hill Road overpass and mitigate rear-end accidents in the eastbound direction at Nation Avenue. The proposed design may also reduce crashes that result from traffic turning left off the Boulevard onto a side street or driveway, since these turns will be made across one lane of opposing traffic rather than two. Speeds will be metered by the slowest moving vehicle in each direction, resulting in a lower average speed along the roadway segment.

For decades, Roadway Reconfigurations have been implemented in cities and towns across the United States with positive results, such as increased safety, decreased instances of car crashes and excessive speeding, and improved transportation options for businesses and residents. Overall, research has concluded that decreasing the number of lanes has minimal effect on traffic flow but can decrease collisions by an average of 6% and a maximum of 25%.[2]

*What are the benefits?*

- Safety: Roadway Reconfiguration makes streets safer by reducing excessive speeding, limiting merging/weaving movements, decreasing traffic collisions, and improving safety for pedestrians, bicyclists and transit riders.
- Transportation Options: Roadway Reconfiguration results in more choices for getting around Durham. The extra space from removing one through-lane is used for dedicated bicycle lanes, giving you the ability to safely choose healthy transportation. For people who do not ride bicycles, an increased number of bicycle commuters results in fewer vehicles traveling on the road and competing for parking. The decreased number of traffic lanes also provides greater ease of crossing, allowing neighborhoods to be connected for those traveling on foot.
- Cost: Because Roadway Reconfiguration projects are combined with routine resurfacing and restriping projects, there is minimal additional cost to taxpayers. Roadway Reconfiguration is one of the most cost-efficient ways to improve safety and transportation.
- Efficiency: The reconfigured dedicated turning lane will oppose a single lane of traffic. This mitigates a conflict point and improves sight distance for oncoming traffic. As a result, there are fewer collisions and resultant delays, and with the addition of lanes for people who bike, streets with Roadway Reconfiguration maintain their previous efficiency.

*Commonly asked questions…*

- Why a Roadway Reconfiguration on my street? In Durham, streets are carefully selected for Roadway Reconfiguration projects based upon research, computer traffic modeling, engineering survey, and crash data. Durham-Chapel Hill Boulevard has been selected because of correctable accident types, available excess roadway capacity as well as a traffic pattern that research shows would be improved by Roadway Reconfiguration.
- Will Roadway Reconfiguration require lengthy, expensive construction? No. Durham-Chapel Hill Boulevard is scheduled for repaving and restriping by the N. C. Department of Transportation. The construction cost and time will occur whether or not a Roadway Reconfiguration project exists. This is a cost-effective opportunity to improve safety, transportation options, and efficiency at the same time.
- Is Roadway Reconfiguration going to change my commute? For the average daily driver, no. The road will still have more than sufficient capacity to providethe same level of efficiency. With that said, we expect fewer crashes, decreased instances of weaving and excessive speeding, and more choices for getting around your neighborhood!

*For More Information…*

Want to do more of your own research about Roadway Reconfiguration? The following sources can provide more information about methods, research, and results of Roadway Reconfiguration projects:

- *Road Diet Informational Guide* by The Federal Highway Administration: http://safety.fhwa.dot.gov/road_diets/info_guide/rdig.pdf
- *Road Diet Conversion: A Synthesis of Safety Research* by Libby Thomas, UNC HSRC: http://katana.hsrc.unc.edu/cms/downloads/WhitePaper_RoadDiets_PBIC.pdf
- *Road Diets: Fixing the Big Roads* by Walkable Communities, Inc.: http://nacto.org/docs/usdg/road_diets_fixing_big_roads_burden.pdf

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[1] Thomas, Libby. "Road Diet Conversions: A Synthesis of Safety Research." *Pedestrian and Bicycle Information Center: White Paper Series*, no. DTFH61-11-H-00024 (2013). http://katana.hsrc.unc.edu/cms/downloads/WhitePaper_RoadDiets_PBIC.pdf.

[2] "Summary Report: Evaluation of Lane Reduction 'Road Diet' Measures on Crashes." *Highway Safety Information System* FHWA-HRT-10-053 (2010). http://www.fhwa.dot.gov/publications/research/safety/10053/