Transportation in Raleigh

“Transportation is more than the movement of goods and services - it is the movement of people with a variety of mode choices. It is important to us to ensure those choices and to lay the framework for a quality system that moves people safely, efficiently, and enjoyably throughout the City.” - City of Raleigh’s Office of Transportation Planning

The City of Raleigh 2030 Comprehensive Plan, Adopted 2009

Transportation Policy 5.1 - Enhancing Bike/Pedestrian Circulation:
“Enhance pedestrian and bicycle circulation, access, and safety along corridors, downtown, in activity and employment centers, at densely developed areas and transit stations, and near schools, libraries, and parks.”

Transportation Policy 5.2 - Incorporating Bicycle and Pedestrian Improvements: “All new developments, roadway reconstruction projects, and roadway resurfacing projects in the City of Raleigh’s jurisdiction should include appropriate bicycle facilities as indicated in the Recommended Bicycle Network of the 2008 City of Raleigh Bicycle Transportation Plan.

City of Raleigh Bicycle Transportation Plan

Left: Key response from the Raleigh Bicycle Transportation Plan Comment Form (with 800+ respondents)
Below: Overall Recommended Bicycle Network (original version from adopted plan)

Overall Recommended Bicycle Network (2009)

Above: Three examples of many types of analysis done before developing the overall network.

PROJECT WEBSITE: TINYURL.COM/BIKERALEANH
RALEIGH BICYCLE PAVEMENT MARKING DESIGN PROJECT

PROJECT TIMELINE

2008: Year-long planning and public input process for the Raleigh Bicycle Transportation Plan

- 800+ Public Comment Forms: 94% of respondents say improving bicycling conditions is very important to them

- List of priority projects developed for the Bike Plan, based on safety, connectivity, public input, and other criteria

2009: Raleigh Bicycle Transportation Plan adopted

- Raleigh 2030 Comprehensive Plan adopted, further supporting implementation of the Bicycle Plan

- The all-volunteer, citizen-led Bicycle and Pedestrian Advisory Commission (BPAC) was formed and began regular monthly meetings (providing guidance on this project and other bicycle and pedestrian projects)

2011: CMAQ Grant/Project funding approved

- 2012-2013: On-site data collected and analyzed for 27 miles of potential projects

- 2013: Refined list of 22 projects, based on adopted bike plan priorities, previously adopted CIP projects, and terms of the CMAQ grant

- Began preliminary analysis for bicycle projects

2013:

- JANUARY: Four public meetings featuring the 22 bicycle projects

- FEBRUARY: Begin design for bicycle projects

- APRIL: Public input to review draft design

- JULY: Complete final design for bicycle projects

- OCTOBER: Begin construction

2014:

- 2015: Continue construction of bicycle projects

- Complete update of Raleigh’s 2009 Bicycle Transportation Plan

- Update the Raleigh Bike Map with newly built bicycle facilities

PROJECT WEBSITE: TINYURL.COM/BIKERALEY
BENEFITS of COMPLETE STREET RETROFITS

How can we provide more choices for people to travel safely on our streets?

One way to do this is a “Complete Street Retrofit”, reallocating a street’s space to better accommodate the full range of road users. As shown below, a four-lane road that primarily serves motor vehicle traffic might be retrofitted to three lanes (two through lanes and a center turn lane). The remaining space left over can be reallocated to bicycle lanes, sidewalks, and/or on-street parking to provide a greater variety of travel options.

The redesign strategies used to retrofit a street should be chosen based on the street’s context and the community’s vision for the space. In addition to lane conversion, other retrofitting strategies include narrowing vehicle lanes, adding bike lanes, improving pedestrian infrastructure, changing the configuration of on-street parking, and adding roundabouts and medians.

Room for Everyone

Under most traffic conditions, complete street retrofits have minimal effects on vehicle capacity, because left-turning vehicles are moved from through lanes into a common two-way left-turn lane (or median turn pockets). This is especially true where average daily traffic (ADT) is below approximately 20,000 vehicles. In some cases the retrofit accommodates higher ADTs as seen in the examples at right.

Location | Road | ADT: Before | ADT: After |
---|---|---|---|
San Leandro, CA | East 14th Street | 17,700 | 16,700 |
Duluth, MN | 21st Ave. East | 17,000 | 16,900 |
Ramsey County, MN | Rice Street | 16,700 | 16,600 |
Torrance, California | St. Seige Street | 15,000 | 15,000 |
Kirkland, WA | Lake Washington Blvd | 23,000 | 22,900 |
Seattle, WA | 40th Ave. N | 19,400 | 20,900 |
Covington, WA | SR 516 | 25,200 | 32,800 |
Baltimore, WA | Montana Blvd | 16,500 | 18,600 |
East Lansing, MI | Grand River Blvd | 22,500 | 23,000 |
Santa Monica, CA | Main Street | 20,000 | 18,000 |
Helena, MT | US 12 | 18,000 | 18,000 |
San Francisco, CA | Valencia Street | 22,200 | 23,000 |
Oakland, CA | High Street | 22,000 | 24,000 |
Orlando, FL | Edgewater Dr. | 20,500 | 21,000 |
Easton, WA | Medlar Blvd | 17,000 | 18,000 |
Reno, NV | South Wells Ave | 18,000 | 17,500 |
University Plateo, WA | 67th Ave | 17,000 | 15,000 |
University Place, WA | Cirque Ave | 16,000 | 14,400 |
East Lansing, MI | West Grand River Ave | 18,000 | 15,000 |
East Lansing, MI | Ashwell Road | 16,000 | 21,000 |

Sources:

What are the benefits?

Complete street retrofits improve corridors for all users, creating safer space for driving, bicycling, and walking. Designing the street as an inviting place for all travel modes can generate a number of benefits (from the reports cited at bottom-left):

- Retrofitting creates safer crossings for all road users by reducing the number of traffic lanes to cross and the speed of oncoming traffic. Pedestrian crash risk is reduced when pedestrians cross two- and three-lane roads, compared to roads with four lanes.
- Retrofitting improves speed limit compliance and decreases crash frequency and severity by reducing motor vehicle speeds and erratic driving behavior. Roadways that have been modified from four travel lanes to two travel lanes with a two-way left-turn lane experience a 29% reduction in all roadway crashes.
- Bike lanes improve bicyclist safety and create a buffer space between pedestrians and vehicles. A review of 23 studies found that bicycle facilities reduce crashes and injuries among cyclists.