Project Background and Setting

Blue Ridge Road is a four- and five-lane roadway serving a mix of commercial, institutional, and light industrial land uses in west Raleigh. It intersects Hillsborough Street, an important arterial leading to North Carolina State University and downtown Raleigh.

Blue Ridge Road (running top to bottom in the photo, right) serves several major destinations, including Rex Hospital, the North Carolina Museum of Art, NCSU’s Carter-Finley Stadium, and the PNC Arena. The North Carolina State Fairgrounds and the NCSU School of Veterinary Medicine are located in the northern quadrants of the Blue Ridge and Hillsborough intersection. Access to these destinations is almost entirely limited to automobiles, with few pedestrian or bike facilities and limited transit service.

Raleigh’s recently completed Blue Ridge Road District Study calls for a high-intensity mix of land uses and a transportation concept that enhances connections between the area’s destinations through a finer-grained network of walking paths, complete streets, and improved transit service. (http://www.raleighnc.gov/business/content/PlanUrbanDesign/Articles/BlueRidgeRoadDistrictStudy.html)

Planning is underway for regional light rail service, utilizing the 200’ wide North Carolina Railroad corridor (NCRR). The railroad intersects Blue Ridge Road immediately south of the roadway’s intersection with Hillsborough Street at the State Fairgrounds. A light rail station is planned at this location, which is expected to generate transit-oriented development around Blue Ridge Road.

The Transportation Problem

The Blue Ridge Road project began as a typical intersection improvement project, needed due to congestion at Blue Ridge Road’s intersection with Hillsborough Street, the hazardous NCRR crossing, and an intersection with Beryl Drive, all within 250 feet. The intersection functions poorly now, but will perform at Level of Service F in the 2030 design year. Frequent signal pre-emption due to 22+ daily trains further degrades the intersection.

A pedestrian problem also exists. The annual State Fair attracts one million visitors each year. Parking is dispersed and many fair-goers walk from remote sites, although few sidewalks exist. A 2009 pedestrian count revealed that over 15,000 people cross the Hillsborough / Blue Ridge intersection daily during the Fair. Though pedestrian activity peaks during the Fair, the Fairgrounds host over 600 events annually, generating substantial pedestrian activity. In addition, many sports fans attending games at NCSU’s Carter-Finley Stadium and PNC Arena walk to the venues from remote parking areas.

Public Involvement

Unlike most transportation projects, Raleigh’s citizens showed little interest in the Blue Ridge Road intersection improvement project, likely because there are no residences in the immediate project vicinity. However, stakeholders in the project area were keenly aware of the project’s implications for their facilities and visitors. A Citizens and Stakeholders Action Committee was formed and met five times during the planning process. Numerous additional meetings were held with individual stakeholders or smaller sub-committees with common interests. City planning staff actively participated.
Alternatives, Alternatives, Alternatives

Due to the constrained location, it became apparent early in project planning that the best solution was a grade-separation. It was assumed that Blue Ridge Road would go over Hillsborough Street, the railroad, and Beryl Drive. To accommodate high turning volumes, a new connector road was planned in the intersection’s northeast quadrant. A historic Fairgrounds building is located in the intersection’s northwest quadrant; therefore, impact minimization was a guiding design criteria. Another constraint was presented by NCSU’s development plans at the Vet School, including new buildings adjacent to Blue Ridge Road at the intersection.

Functional designs for several grade-separation options were created and presented to the CSAC for review. Most stakeholders strongly objected to the “over the railroad” designs, such as Alternative 6 shown in the rendering to the right. Their concerns centered on the visual impacts to the historic Fairgrounds and Vet School, its inaccessibility to pedestrians, and inconsistency with plans for transit-oriented, pedestrian-scaled development.

Alternative 12: A Complete Street

NCDOT went back to the drawing board and created several new options, including the consensus favorite, Alternative 12 (rendering below), which carries Blue Ridge Road under Hillsborough Street, the railroad, and Beryl Drive. Wide sidewalks (10’ to 14’) are provided on Hillsborough Street and Blue Ridge Road, while 5’ wide sidewalks are provided elsewhere, including the connector road. Bike lanes are included on Blue Ridge Road. To minimize property impacts, lanes widths are reduced from 12’ to 11’ and retaining walls are proposed along Blue Ridge Road. The retaining wall next to the Fairgrounds is quite tall, so the adjacent sidewalk was bifurcated from the roadway, providing a more human scale and preventing walkers from crossing at an unsafe location. Stairs and a nearby ramp leading to the Fairgrounds from Blue Ridge Road are provided.

NCDOT also coordinated with Triangle Transit to ensure the future light rail station is accommodated in the Blue Ridge Road plans. The abutments supporting the bridges over Blue Ridge Road will include “breaks” on each side to provide pedestrian access to the light rail platforms from Blue Ridge Road.

Public Art

Stakeholders suggested that public art on the retaining walls would distinguish the area and enhance the pedestrian environment. NCDOT agreed, and is working with the Raleigh Arts Commission and Urban Design Center, the Fairgrounds, NCSU, the North Carolina Museum of Art and others to develop a public art program for the walls and bridges. In addition to improving the pedestrian’s experience when walking along the retaining wall, this public art feature is expected to be a catalyst in the city’s effort to revitalize and rebrand Blue Ridge Road as an entertainment district. The sketch to the right is just one representation of how the art could reflect its setting between the Fairgrounds and the Vet School.

The project is currently scheduled for right of way acquisition in 2015 and construction in 2018. For project information, contact Leza Wright Mundt, NCDOT, lwmundt@ncdot.gov or 919.707.6032. Information on NCDOT’s Complete Streets policy can be found at http://www.ncdot.gov/bikeped/lawspolicies/policies/.