

**NCDOT STIP PROJECT NO. R-2603****WILKES COUNTY****PROJECT OVERVIEW**

The North Carolina Department of Transportation (NCDOT) proposes to widen NC 268 (Elkin Highway) in Wilkes County from its existing multi-lane section east of NC 18 to SR 1966 (Airport Road), a total of 2.9 miles. A portion of the proposed project is located within North Wilkesboro town limits. The project vicinity is shown in Figure 1. The proposed project is included in the NCDOT *2009-2015 State Transportation Improvement Program* as Project Number R-2603. The current schedule includes right of way acquisition in 2013 and construction in 2015.

NCDOT proposes to upgrade the existing multi-lane section, from NC 18 to the vicinity of Shaver Street, a total of 0.7 miles. Upgrades would include improvements to the existing roadway, such as resurfacing, replacement of drainage structures, and replacement of curb and gutter.

North Wilkesboro and Wilkesboro have a combined Thoroughfare Plan that was adopted in 1993. In the Plan, NC 268 is classified as an Existing Major Thoroughfare. The Plan recommends that NC 268 be widened to four lanes from east of NC 18 to SR 1966. The Wilkes County 2001 Growth Management Plan includes R-2603 in their transportation recommendations as a means to help meet their infrastructure objectives.

**PURPOSE AND NEED SUMMARY****Project Purpose**

- Improve traffic flow and level of service, and reduce conflicts between through and local traffic on NC 268 in the project area; and
- Provide infrastructure upgrades to the existing multi-lane section of NC 268 between NC 18 and Shaver Street.

**Need for the Proposed Action**

Improvements to NC 268 are needed to provide adequate capacity for existing and future traffic. The 2007 average annual daily traffic on NC 268 between NC 18 and Airport Road varies between 7,700 vehicles per day (vpd) and 18,200 vpd. By the year 2035, traffic along this section of NC 268 is expected to increase to between 11,100 vpd and 26,400 vpd. Level of service (LOS) analysis for NC 268 shows that the two-lane section (from Shaver Street to Airport Road) is expected to operate at either LOS E or LOS F in 2035.

By 2035, nearly all of the signalized and unsignalized intersections in the project area are expected to operate worse than LOS D in either the AM peak, PM peak, or both AM and PM peak conditions. LOS for existing (2007) AM and PM peak conditions at both signalized and unsignalized intersections show that 13 out of 27 intersections studied operate below LOS D. In 2035, the number of intersections operating below a LOS D in either the AM peak, PM peak, or both AM and PM peak conditions increases to 23, with all but one of those intersections operating at LOS F at one or more approaches in AM or PM peak conditions.

Due to the land uses in the project area, which include manufacturing, retail, and residential, the area is traveled by both passenger vehicles and large trucks. Expansion of the Wilkes County Industrial Park near the eastern end of the project area is expected to increase traffic along NC 268. Widening the existing two-lane section of NC 268 in the project area would improve access into North Wilkesboro from the northeast and improve travel conditions for local and through traffic.

The highest percentage of vehicle collisions in the project area over a recent three-year period were rear-end collisions, which is often indicative of congested traffic conditions. Widening NC 268 will not only improve traffic flow, but should also reduce the risk of rear-end collisions, as a secondary benefit.

NCDOT estimates the existing multi-lane section on NC 268 was constructed approximately 40 years ago. A large majority of the existing curb and gutter shows substantial distress (spalling, total deterioration), with the eastbound roadway edge being in the worst overall condition. A majority of the catch basins inspected have loose brick and non-standard or obsolete grates/frames. All existing pipe under the curb and gutter seems to be corrugated metal, near the end of its service life and requires replacement. The existing roadway requires milling & resurfacing over the entire section length. Milling is required due to previous overlay being extended into the curb and gutter section. Existing traffic islands may also require replacement based on the current condition of the concrete.

### **DETAILED STUDY ALTERNATIVE - BEST-FIT WIDENING ALTERNATIVE**

The Best-Fit Widening Alternative widens NC 268 to both sides of the existing roadway (see Figures 2a through 2c). The proposed alignment varies between symmetrical widening and widening north or south of the existing roadway as needed to minimize impacts to land use and important environmental features. Factors considered during the development of the Best-Fit Widening Alternative include minimizing impacts to resources, providing a roadway that is constructible, providing cross roads, streams, and utility easements at reasonable angles, and consideration of local officials' desires for pedestrian and bicycle facilities. Design criteria used for the Best-Fit Widening Alternative include rolling terrain, variable proposed right of way, and classification of NC 268 as a Major Collector. Other design criteria vary according to the typical section option, as described below.

### **TYPICAL SECTIONS**

Four roadway typical sections and a bridge typical section for NC 268 are summarized below and shown in Figures 3 through 5.

#### ***TYPICAL SECTION 1***

The existing five-lane curb and gutter section from NC 18 to Shaver Street was evaluated for needed upgrades. Upgrades would include improvements to the existing roadway, such as resurfacing, replacement of drainage structures, and replacement of curb and gutter.

#### ***TYPICAL SECTION 2 – FIVE-LANE WITH CURB AND GUTTER***

From the end of the existing five-lane section at Shaver Street, widening of the existing two-lane shoulder section would begin with a center turn lane and transitioning to a four-lane divided roadway past Legion Road, in the vicinity of Fairplains Road. Typical Section 2 includes a design speed of 40 mph and a posted speed of 35 mph with no control of access. This section of roadway is comprised of 12-foot inside lanes and 14-foot outside lanes to accommodate bicycles, a variable-width center turn-lane/median, 2.5-foot curb and gutter, and ten-foot berms with five-foot sidewalks on both sides of the road.

#### ***TYPICAL SECTION 3 – FOUR-LANE DIVIDED WITH CURB AND GUTTER***

Typical Section 3 is proposed to begin in the vicinity of Fairplains Road and extend to the Town of North Wilkesboro limits near Aaron Call Road. The existing typical section between Fairplains Road and Aaron Call Road is a two-lane shoulder facility comprised of 14-foot outside lanes (to accommodate bicycles) and 12-foot inside lanes, a 23-foot raised grass median containing 1.5-foot curb and gutter, ten-foot berm with sidewalks on both sides, and 2.5-foot curb and gutter. Typical Section 3 includes a design speed of 50 mph and a posted speed of 45 mph with partial control of access.

#### ***TYPICAL SECTION 4 – FOUR-LANE DIVIDED WITH SHOULDERS***

Typical Section 4 would begin outside of the Town of North Wilkesboro limits near Aaron Call Road and extend to Airport Road (SR 1966), with the exception of the crossing over Mulberry Creek. Typical Section 4 is comprised of two 12-foot lanes with eight-foot shoulders (four-foot paved) in each direction, and a 23-foot raised grass median containing 1.5-foot curb and gutter. The existing typical section between Aaron Call Road and Airport Road is a two-lane shoulder facility. Typical Section 4 includes a design speed of 50 mph and a posted speed of 45 mph with partial control of access.

#### ***TYPICAL SECTION 4A – BRIDGE OVER MULBERRY CREEK***

Typical Section 4A is the proposed typical section for a new bridge crossing over Mulberry Creek. The proposed bridge includes two 12-foot travel lanes, a three-foot inside shoulder and an eight-foot outside shoulder for a total of 35-foot clear roadway width. Bicycle-safe rail is proposed. The hydraulic recommendation for dimensions on the proposed structure is 150 feet, with a three-span arrangement matching the existing bridge. The existing bridge, built in 2006, would serve westbound traffic and the new structure, which is proposed south of the existing bridge, would serve eastbound traffic.

Typical Section 4A matches the typical section of the existing bridge over Mulberry Creek with the exception of the outside shoulder, which has a width of eight feet.

#### **LOCAL COORDINATION AND PUBLIC INVOLVEMENT**

Early coordination meetings were held with local planners to discuss the proposed project. Town officials indicated that the public would be supportive of widening improvements to NC 268 due to the peak hour congestion currently experienced along the route.

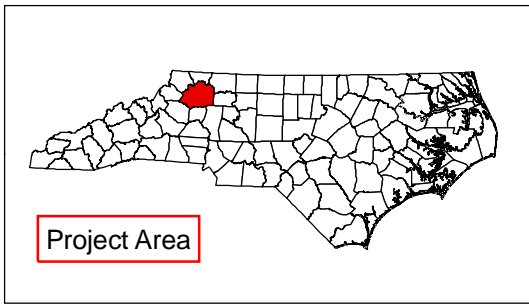
Much of the project corridor is located within the planning jurisdiction of the Town of North Wilkesboro. In an August 2007 letter (attached) and an October 2008 phone conversation, the Town indicates their support of the project and expresses a desire to have bike and pedestrian accommodations included as part of the project. An August 2007 letter (attached) from the High Country Rural Planning Organization (RPO) supports the proposed project and reiterates the Town's desire for pedestrian facilities and streetscape improvements.

A Local Officials Meeting and a Citizens Informational Workshop were held for the proposed project on April 14, 2008 at the North Wilkesboro Elementary School Cafeteria. The purpose of the meetings was to present the project to the community and receive input during the alternatives development process. Twenty-eight citizens and six local officials attended the meetings.

NCDOT will conduct a public hearing for R-2603 to review the recommended design and Environmental Assessment with the public, and receive their comments. The Environmental Assessment is scheduled to be completed in December 2010.

#### Attachments:

1. Vicinity map
2. Aerial photograph with project information overlaid
3. Typical sections
4. Town of North Wilkesboro letter, August 2007
5. High Country Rural Planning Organization letter, August 2007

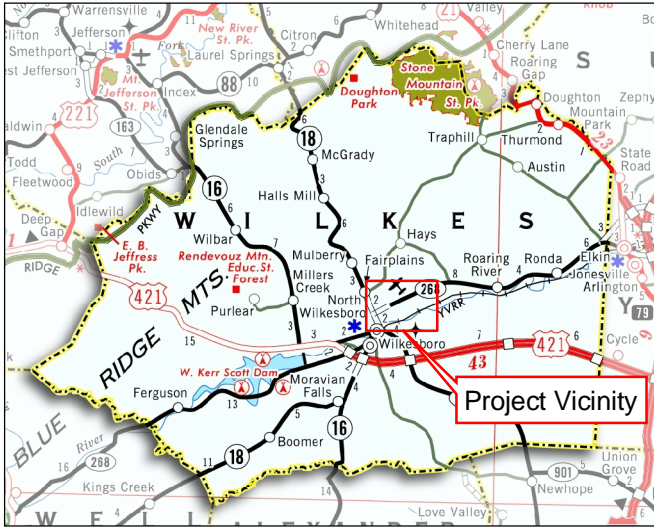


**Figure 1**

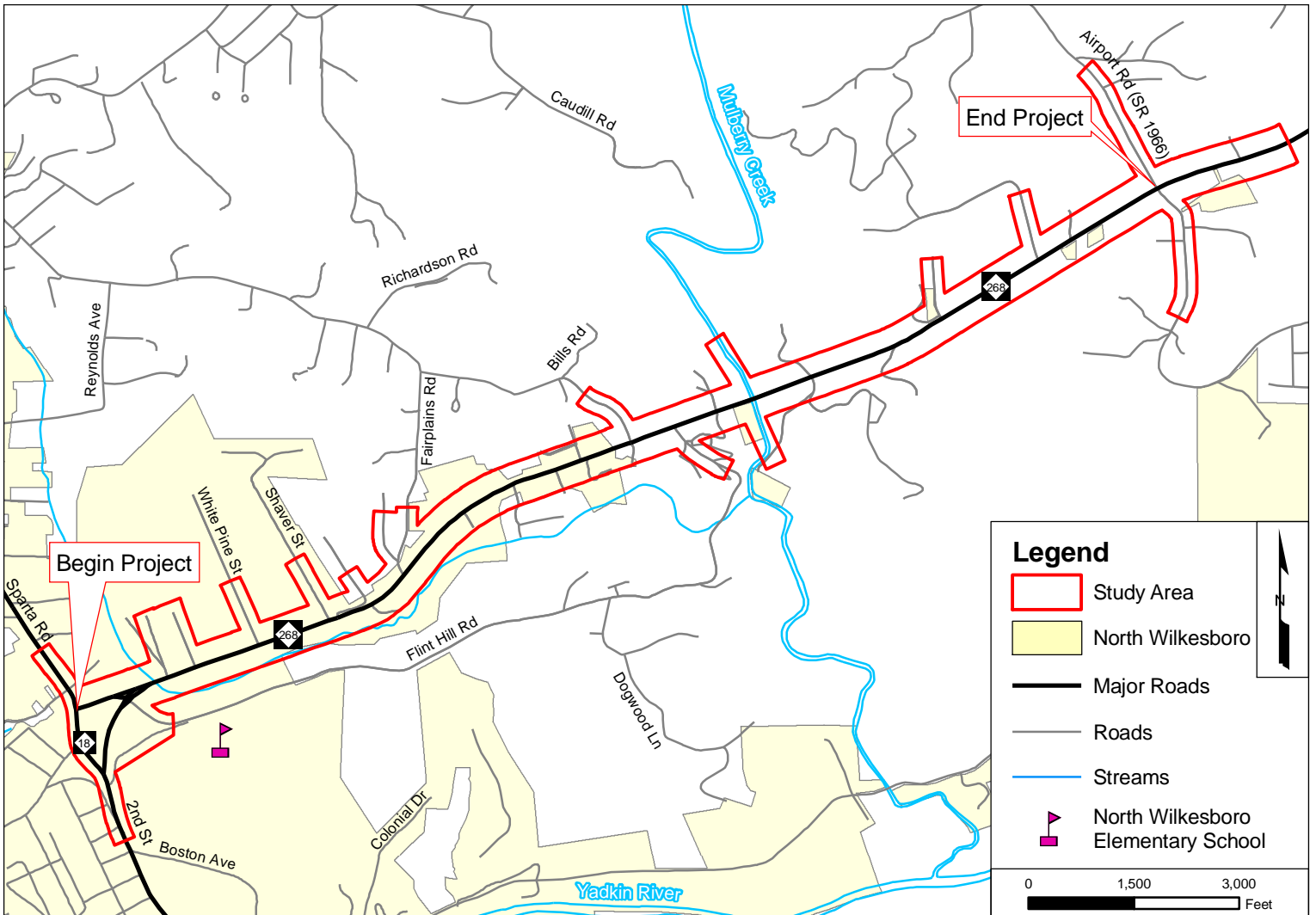
**Project Vicinity**

R-2603

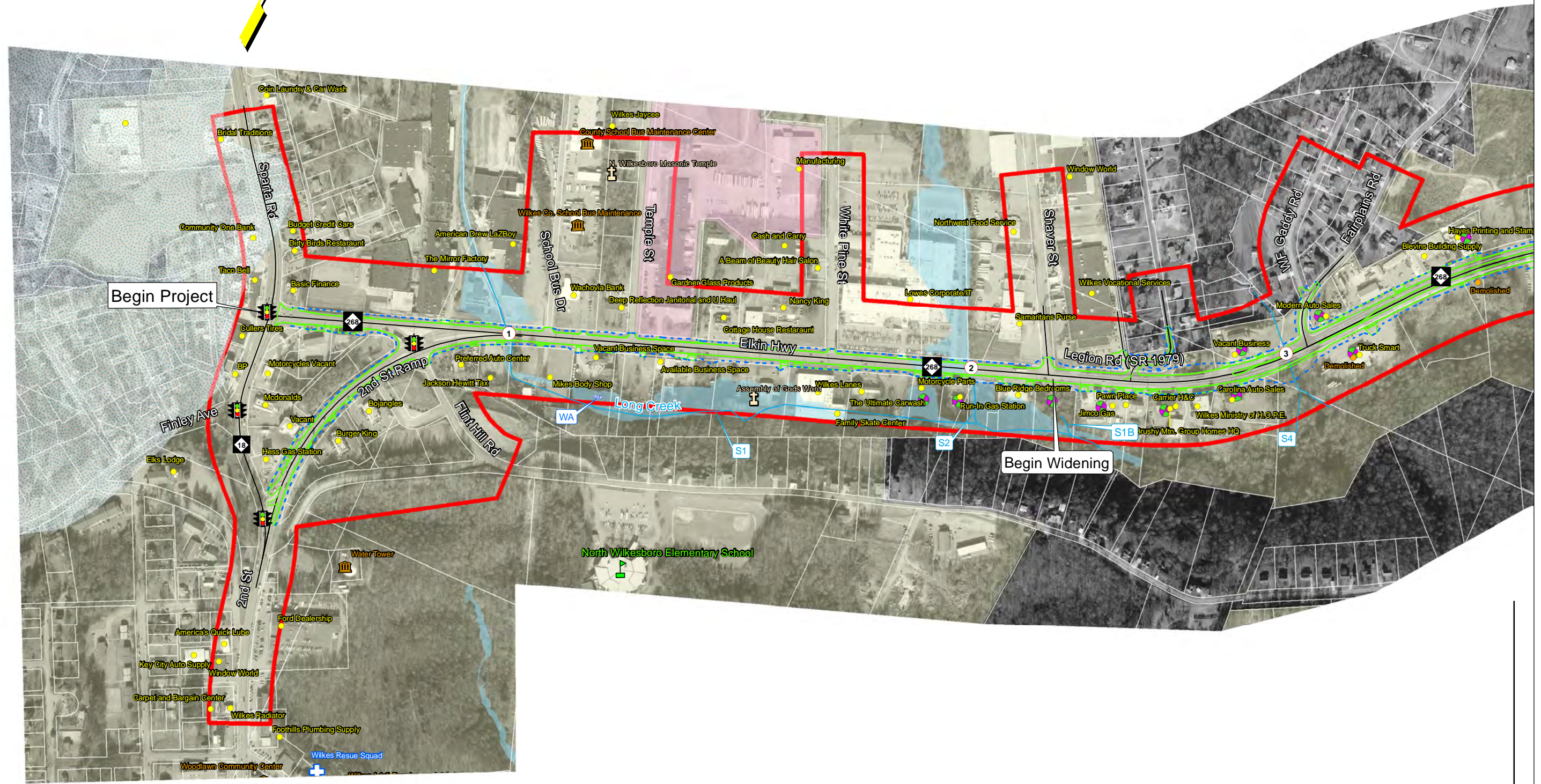
NC 268 (Elkin Highway) Widening and Improvements  
from NC 18 to SR 1966 (Airport Road)  
Wilkes County, North Carolina



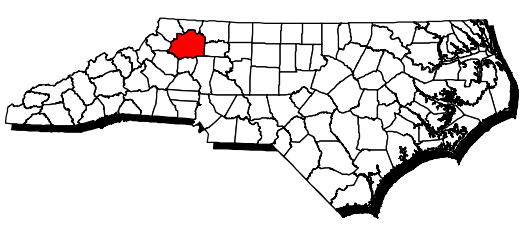
North Carolina  
Department of Transportation



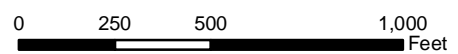




Match to Figure 2B



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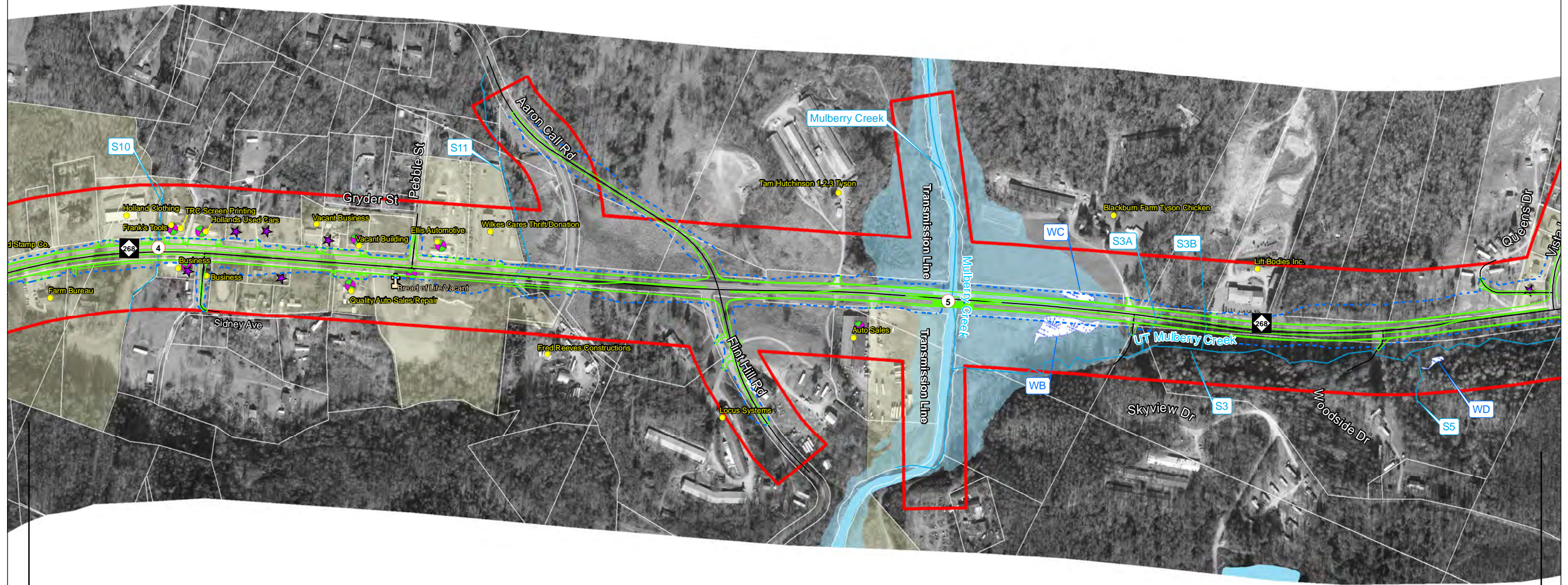


**NC 268 Widening and Improvements**  
**Notable Features**  
 NCDOT TIP Project No. R-2603  
 NC 18 to SR 1966 (Airport Road)  
 Wilkes County, North Carolina  
 Map Date: 5/10/10  
 Orthophotography: NCDOT, 2008

Legend	
	Study Area
	North Wilkesboro
	Parcels
	Waterbody
	Wetlands
	Reddies River WS-II
	Superfund (Archived)
	Edge of Pavement
	Centerline
	Slope Stakes
	Significant Natural Heritage Area
	100 Year Floodplain
	Streams
	Hazmat/Underground Storage Tanks
	Hydraulic Sites
	Natural Heritage Program Sites
	Schools
	Government Facilities
	Emergency Facilities
	Churches
	Businesses
	Impacted Noise Receptors

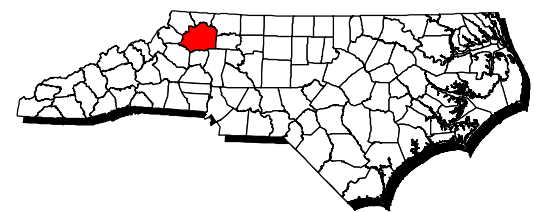
Figure  
2A



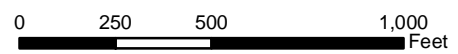


Match to Figure 2A

Match to Figure 2C



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**NC 268 Widening and Improvements**  
**Notable Features**  
 NCDOT TIP Project No. R-2603  
 NC 18 to SR 1966 (Airport Road)  
 Wilkes County, North Carolina  
 Map Date: 5/10/10  
 Orthophotography: NCDOT, 2008

**Legend**

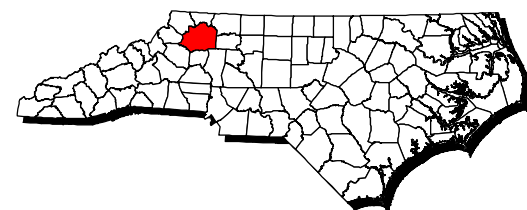
- Study Area
- North Wilkesboro
- Parcels
- Waterbody
- Wetlands
- Reddies River WS-II
- Superfund (Archived)
- Edge of Pavement
- Centerline
- Slope Stakes
- Significant Natural Heritage Area
- 100 Year Floodplain
- Streams
- Hazmat/Underground Storage Tanks
- Hydraulic Sites
- Natural Heritage Program Sites
- Schools
- Government Facilities
- Emergency Facilities
- Churches
- Businesses
- ★ Impacted Noise Receptors

**Figure**  
**2B**

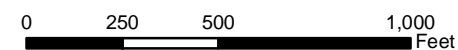




Match to Figure 2B



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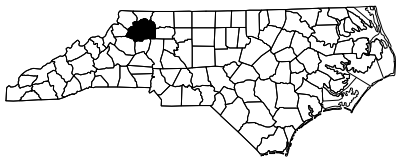
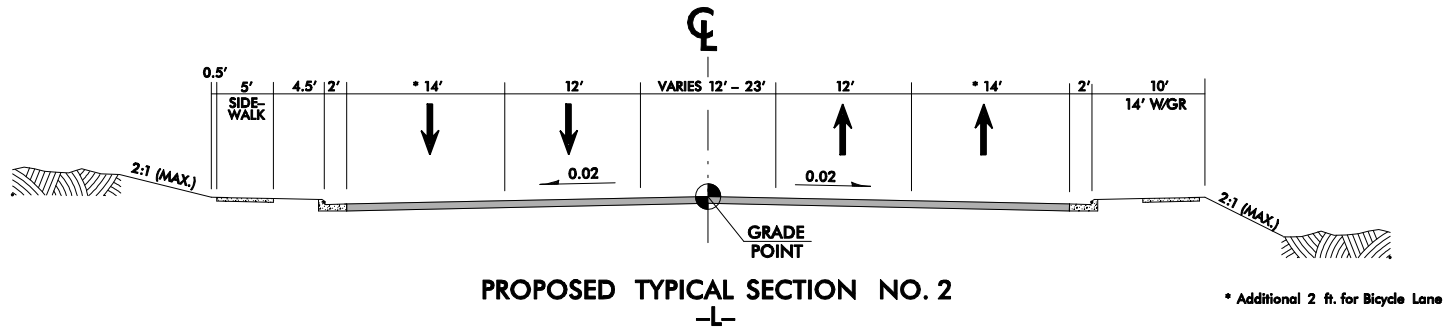
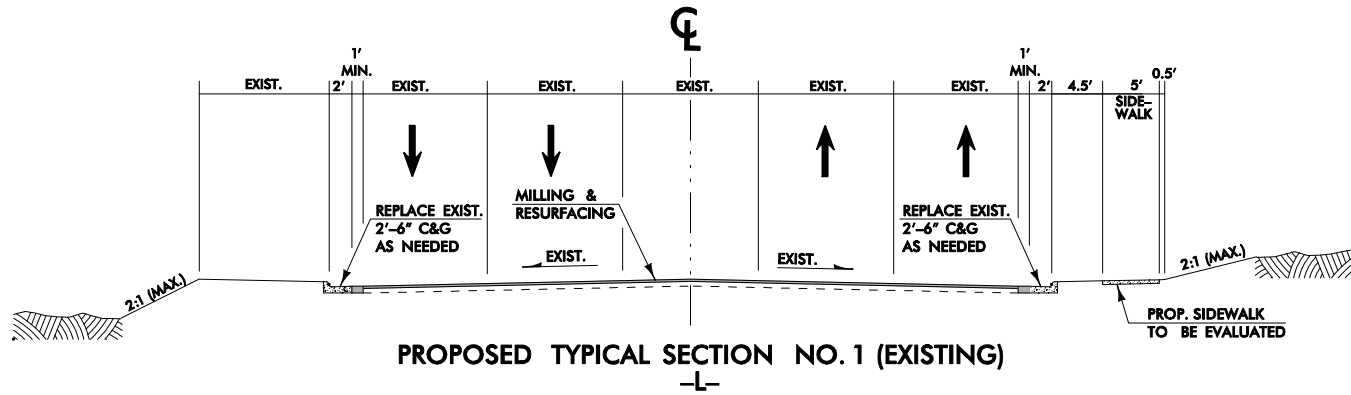
**NC 268 Widening and Improvements**  
**Notable Features**  
 NCDOT TIP Project No. R-2603  
 NC 18 to SR 1966 (Airport Road)  
 Wilkes County, North Carolina  
 Map Date: 5/10/10  
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**Legend**

- Study Area
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Figure  
2C





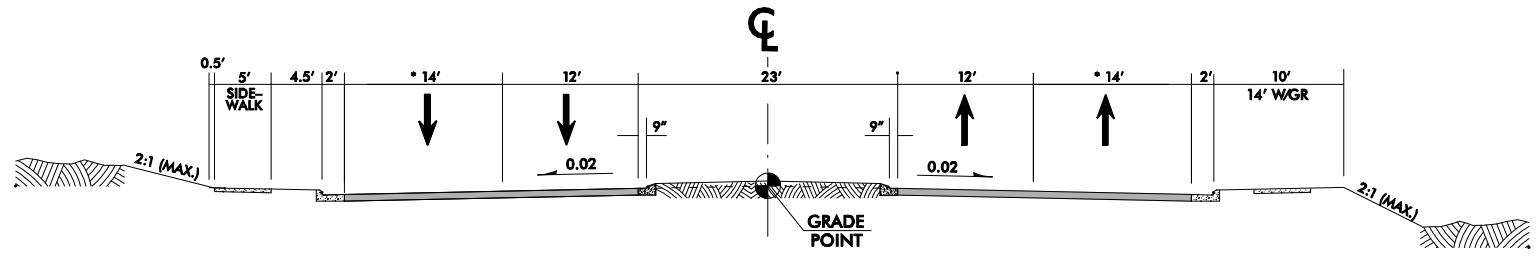
Typical Sections  
R-2603  
Proposed Transportation Improvement to NC 268 (Elkin Highway)  
From East of NC 18 to West of SR 1966 (Airport Road)  
Wilkes County, North Carolina

Prepared For:  
North Carolina Department of Transportation

Figure

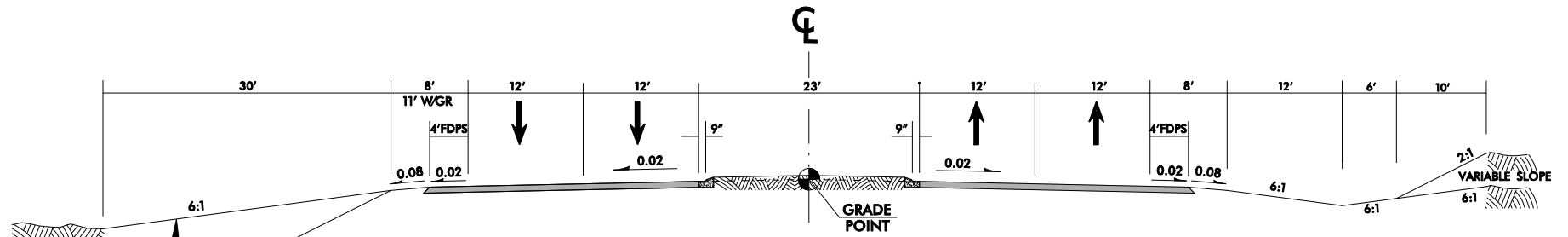
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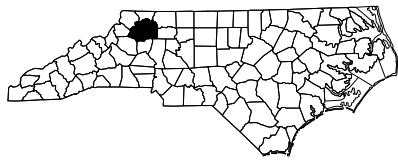


PROPOSED TYPICAL SECTION NO. 3

\* Additional 2 ft. for Bicycle Lane



PROPOSED TYPICAL SECTION NO. 4



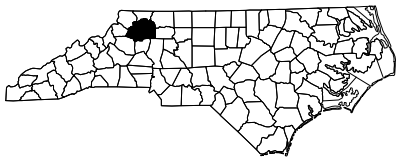
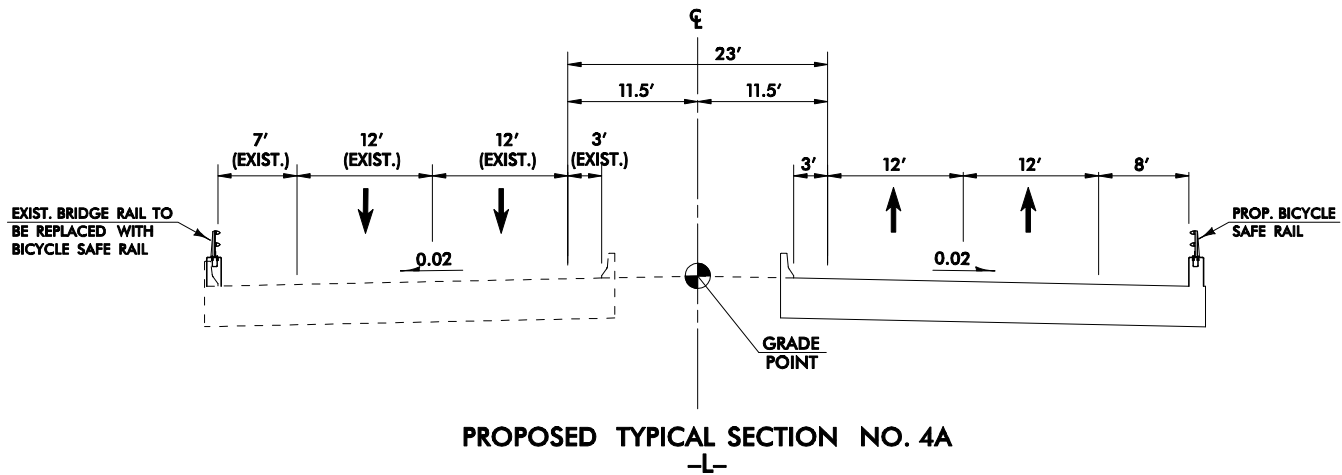
Typical Sections

R-2603  
 Proposed Transportation Improvement to NC 268 (Elkin Highway)  
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 Wilkes County, North Carolina

Prepared For:  
 North Carolina Department of Transportation

Figure

4



Typical Sections  
 R-2603  
 Proposed Transportation Improvement to NC 268 (Elkin Highway)  
 From East of NC 18 to West of SR 1966 (Airport Road)  
 Wilkes County, North Carolina

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 North Carolina Department of Transportation

Figure

5





## High Country Rural Planning Organization (RPO)

Municipalities and Counties of

Alleghany, Ashe, Avery, Mitchell, Watauga, Wilkes, and Yancey

*"Serving North Carolina's High Country with Continuing, Cooperative, and Comprehensive Transportation Planning"*



Warren Taylor, RTAC Chair

Craig Hughes, LPA Transportation Planner

Don Adams, RTCC Chair

August 16, 2007

Ahmad Al-Sharawneh  
NCDOT – Project Development and Environmental Analysis Branch  
1548 Mail Service Center  
Raleigh, NC 27699-1548

Subject: TIP # R-2603

Mr. Al-Sharawneh,

The High Country RPO supports the decision of NCDOT to improve and widen NC 268 from NC 18 to Airport Road in North Wilkesboro. Currently, the project is ranked #20 on our 2009-2015 Priority Needs List. The RPO believes this project will enhance the transportation network in the region as well as in North Wilkesboro. As discussed at the scoping meeting on August 15, 2007, I have met with the Town of North Wilkesboro and they have requested that I emphasize the Town's desire to have sidewalks, bike lanes and streetcaping improvements included with this project.

Currently, the Town of North Wilkesboro is in the process of preparing a Pedestrian Plan. The plan should be complete within the next year and a half. Town officials have expressed a desire for the plan to recommend sidewalks for this facility. In addition, officials have indicated that their Comprehensive Plan that was approved in December 2006 describes a need for pedestrian facilities and for enhanced design standards in this area.

The Town realizes that sidewalk construction will add to the cost of the project, and is willing to participate with a required 20% match for towns of this size as stated in the NCDOT Policy and Procedure Manual. The Town is anxious to discuss this opportunity with NCDOT and looks forward to seeing these improvements in place.

In addition to the sidewalks, the Town of North Wilkesboro has indicated that they would like to see streetscape improvements included as part of this project. NC 268 is a vital entryway into the Town of North Wilkesboro and because of this, the Town would like to include streetscape type improvements in the project in the form of street trees, landscaping and lighting.

If you have any questions or would like additional information, please feel free to contact me.

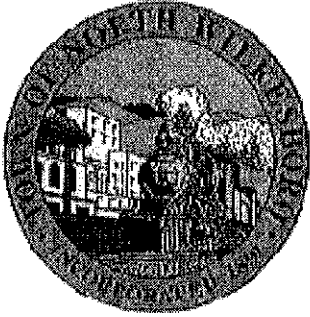
Sincerely,

Craig Hughes, AICP  
Transportation Planner

RECEIVED  
Division of Highways

AUG 27 2007

Preconstruction  
Project Development and  
Environmental Analysis Branch



## TOWN OF NORTH WILKESBORO

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August 22, 2007

Ahmad Al-Sharawneh  
NCDOT – Project Development and Environmental Analysis Branch  
1548 Mail Service Center  
Raleigh, NC 27699-1548

Subject: TIP # R-2603

Mr. Al-Sharawneh,

The Town of North Wilkesboro supports the decision of NCDOT to improve and widen NC 268 from NC 18 to Airport Road in North Wilkesboro. The Town believes this project will enhance our transportation network. Our Town would like to take this opportunity to express our desire to have sidewalks on both sides of NC 268, pedestrian crosswalks, a landscaped median, bike lanes, street lighting, and streetcaping improvements.

Currently, the Town of North Wilkesboro is in the process of preparing a Pedestrian Plan. The plan should be complete within the next year and a half. This section of road will be identified in the plan for sidewalk improvements. The Town realizes that sidewalk construction will add to the cost of the project, and is willing to participate with the required 20% match for towns of this size as stated in the NCDOT Policy and Procedure Manual. This participation would be contingent on project scope and anticipated budget for these improvements once these estimates are known.

This area is already designated in our Comprehensive Plan as an "overlay district" that will have special design standards. The plan also specifies that that Town would like to "continue to plan, implement, and encourage projects that enhance the appearance of major corridors". NC 268 is a vital entryway into the Town of North Wilkesboro and the Town would like to see improvements that enhance our town and its future development. We would appreciate NCDOT's assistance in making this possible.

The Town is anxious to discuss this opportunity with NCDOT and looks forward to seeing these improvements in place.

If you have any questions or would like additional information, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Rawls Howard".

Rawls Howard, AICP  
Planning Director  
Town of North Wilkesboro