

FEASIBILITY STUDY

DRAFT 4

7-29-94

NC 58

From Kinston to Wilson  
Lenoir, Greene, and Wilson Counties

R-3102

Prepared by  
Program Development Branch  
Division of Highways  
N. C. Department of Transportation

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Date

## FEASIBILITY STUDY

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### I. GENERAL DESCRIPTION

This is a feasibility study for the improvement of NC 58 from SR 1578 in Kinston to the proposed US 264 Bypass south of Wilson (see Figure 1). The studied improvements include bypasses of Stantonsburg and Snow Hill on new locations. The studied typical cross-section is two 24-foot (7.3-meter) pavements with 8-foot (2.4-meter) usable outside shoulders including 4-foot (1.2-meter) paved shoulders, separated by a 46-foot (14.0-meter) median including 2-foot (0.6-meter) inside paved shoulders. The widening would retain and utilize the existing alignment to the extent possible. Estimated length of the proposed project is 34 miles (54.4 km).

The studied right-of-way width is 200 feet (61.0 meters) with partial control of access (one or more access points per parcel) along the existing alignment. Access along the Stantonsburg and Snow Hill bypasses would be fully controlled. Estimated total project cost is \$145,200,000 (\$50,000,000 for right-of-way, and \$95,200,000 for construction).

This study is not a detailed planning/environmental investigation. A feasibility study presents typical cross sections, general alignments, and estimated cost of the improvement. The study also attempts to provide an early identification of potential environmental, permitting, or other issues which deserve consideration in the planning and construction stages.

### II. EXISTING CONDITIONS & NEED FOR PROJECT

This project was requested by the City of Wilson and the Eastern North Carolina Chamber of Commerce. NC 58 is an important highway in eastern North Carolina, linking numerous rural communities to major highways and population centers. The importance of NC 58 is increasing with the development of

the Global Transpark in Kinston as it provides a northern link to Wilson, the proposed US 264 Bypass, and I-95.

NC 58 is classified as a rural Minor Arterial in the statewide functional classification system. The studied portion of NC 58 is a two-lane, 22 to 24-foot (6.7 to 7.3-meter) pavement with 8 to 10-foot (2.4 to 3.0-meter) usable shoulders. Claimed right-of-way width is estimated at 60 feet (18.3 meters). Access is not controlled on this portion of NC 58.

The southern terminal of this study is at SR 1578 in Kinston (see Figure 2-A). At this location the two lane NC 58 widens to a five-lane, 64-foot (19.5-meter) curb and gutter section.

The northern terminal of this study is at the proposed US 264 Bypass of Wilson (Project R-1023) interchange with the existing US 264 and NC 58 (see Figure . At this location NC 58 is a two-lane, 22-foot (6.7-meter) roadway with 10-foot (3.0-meter) usable shoulders.

Detailed traffic and turning-movement estimates were not available for this study. However, based on earlier traffic counts, it is estimated that the average daily traffic (ADT) in 1994 for this portion of NC 58 varies from 3,500 vehicles per day (vpd) near Kinston, to 4,500 vpd near Wilson. These traffic volumes are estimated to grow to 11,000 vpd, and 10,000 vpd, respectively, by 2014. These estimates take into account the anticipated increase in traffic demand due to the continuing development and growth of the Global Transpark in Kinston.

Under existing conditions, it is estimated that the subject roadway is offering a level-of-service (LOS) B, and is expected to reach LOS D by the year 2014. With the studied widening, the roadway would offer LOS A throughout the 20-year design period.

During the period beginning in August, 1990, through July, 1993, a total of 412 accidents, including five fatal accidents were reported on the studied portion of NC 58. The resulting total accident rate was 225.6 accidents per 100 million vehicle-miles, compared to a statewide average of 198.5 accidents per 100 million vehicle-miles on similar routes. These accidents included 151 involving vehicles that ran off the road, 86 involving rear-end collisions, 66 involving turning vehicles, and 45 involving angle collisions. Of the 151 accidents involving vehicles that ran off the road, 22 occurred within a 1.4-mile (2.2-km) section of NC 58 between SR 1627 and SR 1626 north Stantonsburg. The studied improvements include bypassing this section of NC 58.

### III. STUDIED IMPROVEMENTS

This study identifies a potential improvement of NC 58 between Kinston and Wilson. The studied improvements do not appear to merit a high priority based solely on current traffic volumes and estimated cost. However, the continuing development of the Global Transpark at Kinston will impose increasing traffic demand on NC 58 which would be met by the studied improvements.

The studied improvements include widening the existing NC 58 to a four-lane, median-divided highway. The widening would begin at SR 1578 in Kinston (see Figure 2-A), where the existing five-lane curb and gutter section on NC 58 tapers to a two-lane section. The studied improvements include extending the five-lane, 64-foot (19.5-meter) curb and gutter section for 2.5 miles (4.0 km), crossing the proposed Crescent Road (R-2719) corridor, then tapering to the studied typical cross-section. The studied typical cross-section is two 24-foot (7.3-meter) pavements with 8-foot (2.4-meter) usable outside shoulders including 4-foot (1.2-meter) paved shoulders, separated by a 46-foot (14.0-meter) median including 2-foot (0.6-meter) inside paved shoulders. The existing pavement and alignment are to be retained and utilized to the extent possible. The widening is to be accomplished by constructing the median, and the new pavement adjacent to the existing roadway, which would be widened and resurfaced. The side of the roadway on which the new lanes are to be constructed will be identified at the planning and preliminary design phase. All intersections are to be at grade.

The studied improvements also include NC 58 bypasses of Snow Hill and Stantonsburg with full access control on new locations. The Snow Hill bypass (see Figure 2-B) would begin near SR 1101 south of Snow Hill and bypass the town to the west. The studied bypass corridor would intersect US 258 and NC 903 approximately 1.5 miles (2.4 km) west of the existing NC 58, and US 13 approximately 1 mile (1.6 km) west of the existing NC 58. The bypass would rejoin the existing NC 58 to the northwest of Snow Hill, near SR 1202. The following is a list of potential locations for new structures associated with the Snow Hill bypass that were included in the cost estimate:

<u>Interchanges</u>	<u>Grade Separations</u>
- Existing NC 58 south of NC 123	- NC 123
- US 258	- SR 1101 (Greene Co.)
- US 13	- SR 1104 (Greene Co.)
	- NC 903

The Stantonsburg bypass (see Figure 2-C) would begin near SR 1540 south of Stantonsburg and bypass the town to the east. The studied bypass corridor is roughly parallel to, and 0.5 mile (0.8 km) to the east of the existing NC 58. The bypass would rejoin the existing NC 58 near SR 1542 south of Wilson. The studied typical cross-section for the bypasses is the same median-divided section studied for the remainder of the project. The following is a list of potential locations for new structures associated with the Stantonsburg bypass that were included in the cost estimate:

<u>Interchanges</u>	<u>Grade Separations</u>
- Existing NC 58 south of Stantonsburg	- Carolina & Northwestern Railroad (Wilson Co.)
- Existing NC 58 south of SR 1542 (Wilson Co.)	- SR 1539 (Wilson Co.)
	- NC 222

Minimum right-of-way width needed to accommodate the widened roadway, and bypasses is 200 feet. Therefore, along the existing alignment, right-of-way would be acquired asymmetrically about the centerline of the existing roadway.

Partial control of access (one or more access points per parcel) would be acquired along the existing alignment portion of the project. Full control of access would be acquired along the bypasses of Snow Hill and Stantonsburg to preserve the utility of the bypasses to through traffic.

Estimated costs of the studied improvements:

Right-of-Way & Utilities	\$ 50,000,000
Construction	\$ 95,200,000
Total	\$145,200,000

## V. OTHER COMMENTS & CONCERNS

It is anticipated that the studied improvements would impact a substantial acreage of wetlands and require the relocation of approximately 63 residences and 6 businesses.

The studied corridor for the Stantonsburg bypass crosses the Colonial Pipeline, a main east coast natural gas pipeline, on two locations. The cost of these crossings is included in the right-of-way and utilities cost estimate.

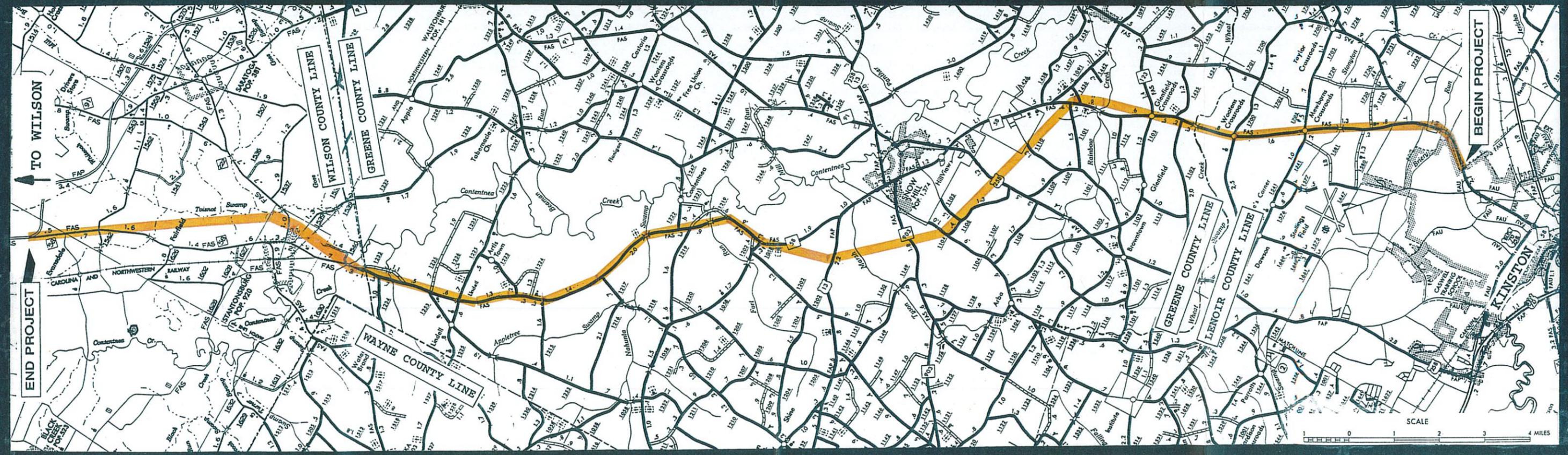
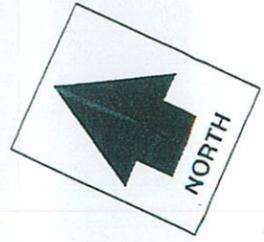
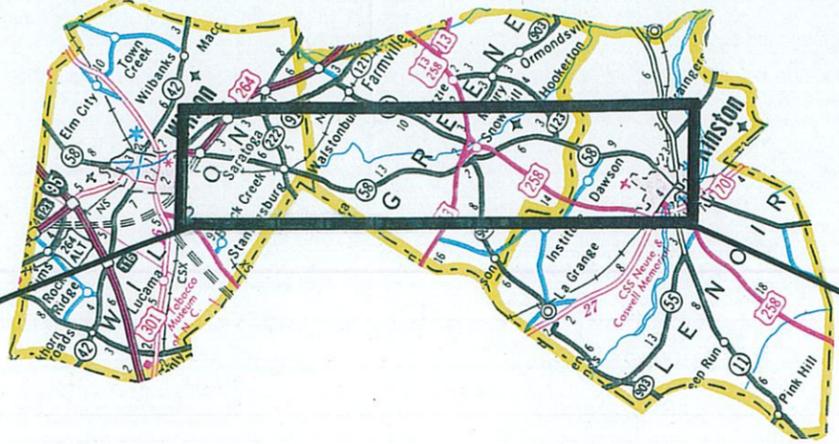
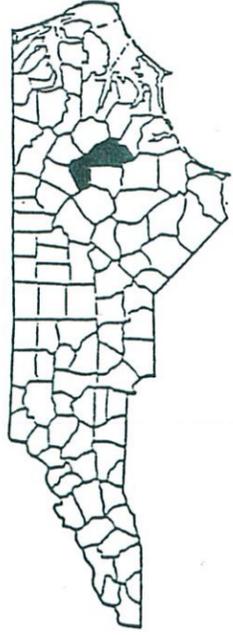
During the planning/preliminary design stage of the project, the following historic properties will be taken into consideration in determining the alignment for the Stantonsburg bypass:

The W. H. Applewhite House, located on the west side of NC 58, approximately 0.4 mile (0.6 km) north of SR 1627 (north of Stantonsburg). This property is included in the National Register of Historic Places (NR # 1104).

The Edmondson-Woodard House, located on the northeast quadrant of the intersection of NC 58 and SR 1542, north of Stantonsburg. This property is included in the National Register of Historic Places (NR # 1108).

The Neuse River and Contentnea Creek within this study area are classified as anadromous fish runs. Therefore, construction activities that may affect anadromous fish would be scheduled to minimize their impacts on water quality during fish migrations.

The permitting requirements, and compliance with Section 4(f) of DOT Act, Section 106 of the National Historic Preservation Act, or GS 121-12(a) would depend on the assessed impacts of the final design and type of funding for the project.



FEASIBILITY STUDY UNIT

R-3102

NC 58

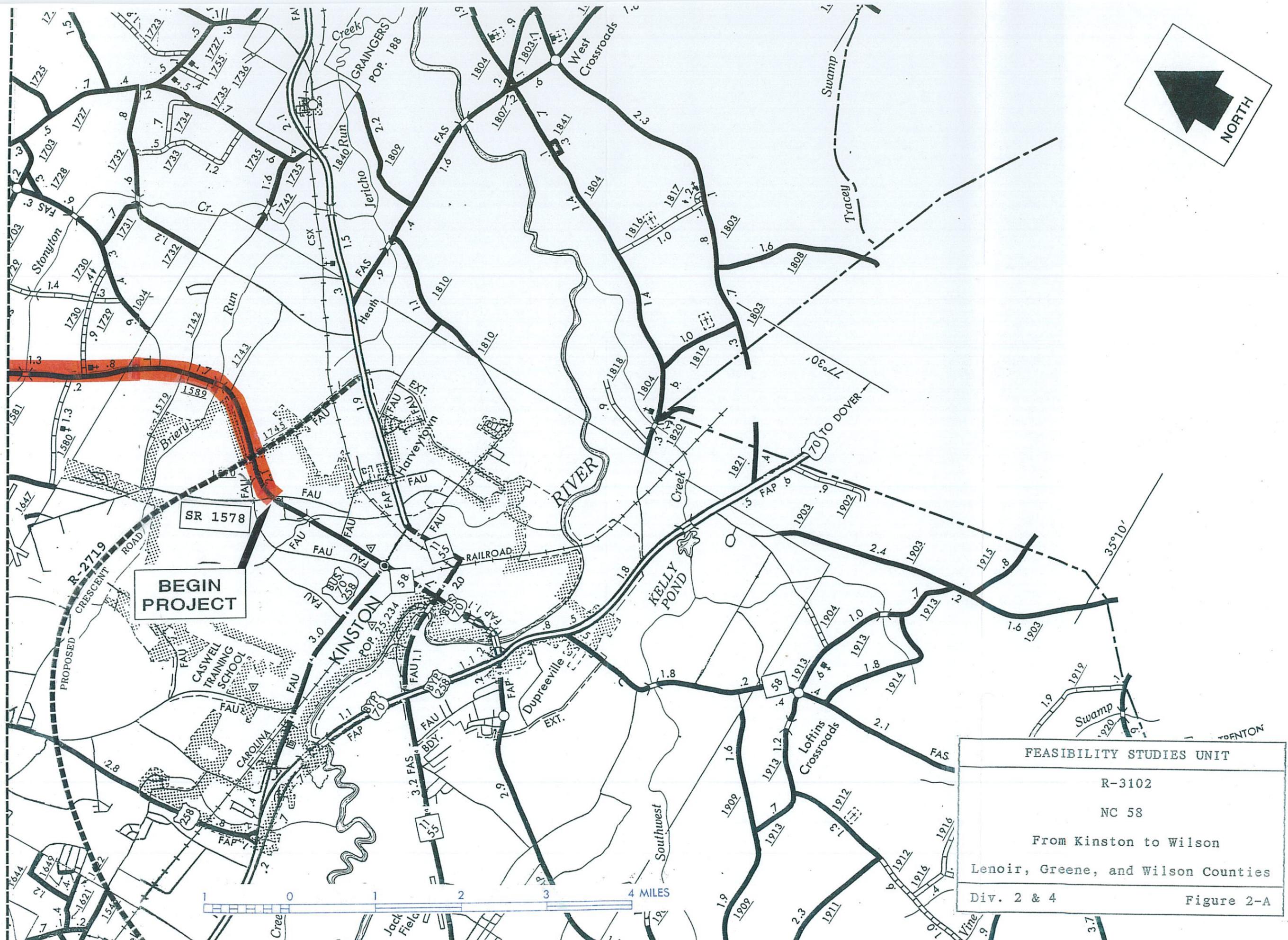
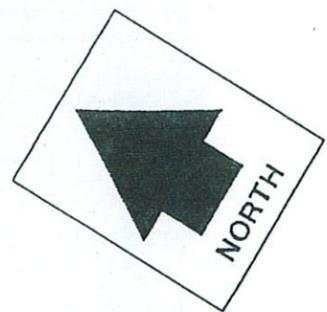
from Kinston to Wilson

Lenoir, Greene, and Wilson Counties

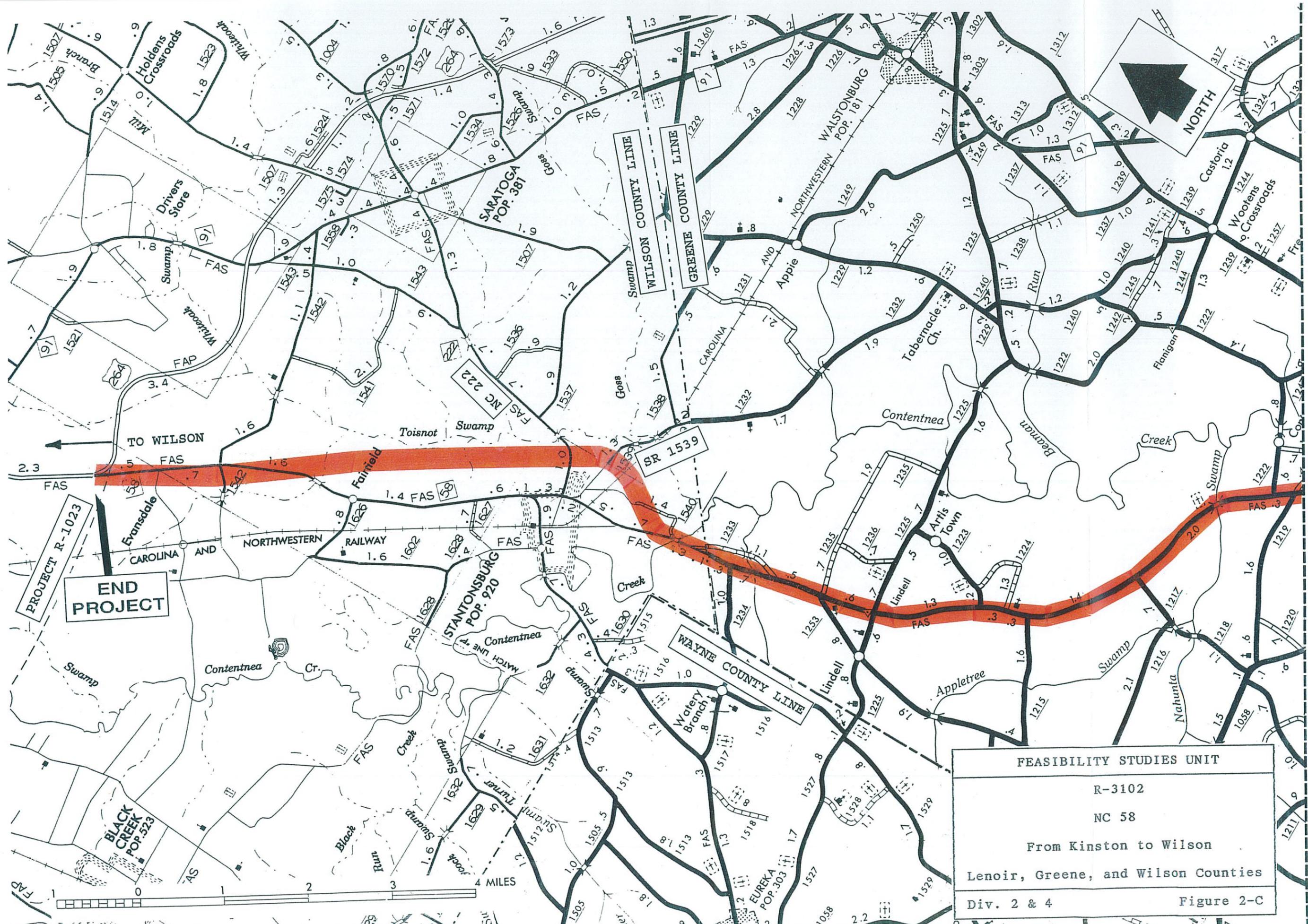
DIV. 2 & 4

FIGURE 1

MATCH LINE SEE FIGURE 2B.







MATCH LINE SEE FIGURE 2B.

FEASIBILITY STUDIES UNIT	
R-3102	
NC 58	
From Kinston to Wilson	
Lenoir, Greene, and Wilson Counties	
Div. 2 & 4	Figure 2-C

END PROJECT

PROJECT R-1023

TO WILSON

