

FEASIBILITY STUDY

Wilson
SR 1165 (Forest Hills Road)
from SR 1166 to US 264
Wilson County

U-2922

Prepared by
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I. GENERAL DESCRIPTION

This is a feasibility study for the widening of SR 1165 (Forest Hills Road) from SR 1166 (Forest Hills Loop Road) to US 264 (Raleigh Road) in Wilson, a distance of 3.3 miles (See Figure 1). The recommended typical section is a five-lane, 64-foot, face-to-face, curb and gutter section with 8-foot berms, on 100-foot wide right-of-way, without access control. Estimated cost of the project is \$6,300,000 (\$2,400,000 for right-of-way and \$3,900,000 for construction).

This study is not a detailed planning/environmental investigation. A feasibility study presents recommended cross sections for improvements, general alignments of improvements, and estimated cost of construction and right-of-way. This study attempts to identify any potential environmental, permitting, or other observed issues which deserve consideration in the planning and construction stages.

II. NEED FOR PROJECT

This project was requested by the City of Wilson. SR 1165 is classified as an Urban Minor Arterial on the Statewide Functional Classification System. The recommended improvements are needed to relieve traffic congestion and improve safety on SR 1165.

SR 1165 is located along the western City limits of Wilson, with a generally north-south alignment (See Figure 2) Existing SR 1165, from SR 1166 to the south City limits of Wilson consists of a two-lane, 24-foot pavement with 4 to 6-foot unpaved shoulders on 60-feet of right-of-way with no access control. Within the Wilson city limits, SR 1165 consists of a three-lane, 34-foot pavement, alternating between curb and gutters, and 4 to 6-foot unpaved shoulders on 80-foot wide right-of-way, with no control of access. From the northern city limit to US 264, SR 1165 consists of a two-lane, 24-foot pavement with 6 to 8-foot unpaved shoulders on 80-foot wide right-of-way with no control of access. Land use is predominantly commercial within the city limits, and rural residential, or agricultural outside the city limits.

The south terminal is located at the signalized intersection of SR 1165 and SR 1166 (See Figure 2). SR 1165 (Forest Hills Road) consists of a five-lane, 64-foot, face-to-face, curb and gutter section with 8-foot berms, south of this intersection. Land use around the intersection is commercial and rural residential.

The north terminal is located at the signalized intersection of SR 1165 and US 264 (See Figure 2). North of this intersection, SR 1165 consists of a five-lane, 64-foot, face-to-face, curb and gutter section with 8-foot berms. Land use around this intersection is commercial.

The City of Wilson Water Treatment Plant is located on the west side of SR 1165, approximately 0.2 miles north of the intersection of SR 1165 and SR 1166. The City of Wilson Electric Substation #5 is located on the west side of SR 1165, approximately 0.2 miles north of the intersection of SR 1165 and NC 42. The recommended improvements are not anticipated to adversely impact either site.

Carolina and Northwestern Railway crosses SR 1165 approximately 0.1 miles south of the intersection of SR 1165 and US 264. Four trains traveling at approximately 30 miles per hour cross this location daily. The exposure index, a product of the number of trains per day and the design year traffic volume, is 96,800 at this location.

Estimated 1993 Average Daily Traffic (ADT) on SR 1165 is 12,700 vehicles per day (vpd). By the year of 2013, anticipated traffic is estimated at 24,200 vpd. With the existing facility, traffic currently experiences a level of service (LOS) D, and is expected to experience a LOS E before 2012. With the recommended improvement, current traffic on SR 1165 will experience LOS A, and is projected to experience a LOS B in the year 2013.

During the period from June 1989 through May 1992, a total of 112 accidents were reported along the studied section of SR 1165. This resulted in an accident rate of 244.1 accidents per 100 million vehicle miles (acc/100mvm), compared to a statewide average of 340.3 acc/100mvm. Rear end accidents accounted for 46% of the accidents. The proposed improvements will reduce the accident rate.

III. RECOMMENDATIONS

It is recommended that SR 1165 (Forest Hills Road) be widened from SR 1166 to US 264. The recommended typical cross-section is a five-lane, 64-foot, face-to-face, curb and gutter section with 8-foot berms, on 100-foot wide right-of-way.

The recommended improvements will provide west Wilson with a continuous multi-lane link between US 301 and US 264 (See Figure 2). The recommended five-lane section would match the existing five-lane section on the 0.1-mile portion of SR 1165 between US 301 and SR 1166. It would also accommodate through, and turning traffic onto adjacent land development. Several segments of SR 1165 have been provided with curb and gutters on either side of the roadway, in anticipation of the recommended improvements. Therefore, the widening would be carried out on either side to utilize the existing pavement to the extent possible, and to minimize impacts.

The Carolina and Northwestern Railway at-grade crossing is located near the north terminal of this study (See Figure 2). Although the 96,800 exposure index exceeds the 30,000 threshold warranting a grade separation, a grade separation is not feasible at this location. This is due to the approximately 450-foot distance separating US 264 and the railroad, which is insufficient for an acceptable grade for SR 1165 over the railroad. Also, extensive commercial development surrounds this area. Therefore, it is recommended that the crossing be provided with gates and signals, and remain at grade.

Total project cost is estimated at:

Right-of-way	\$ 2,400,000
Construction	\$ 3,900,000
Project Cost	\$ 6,300,000

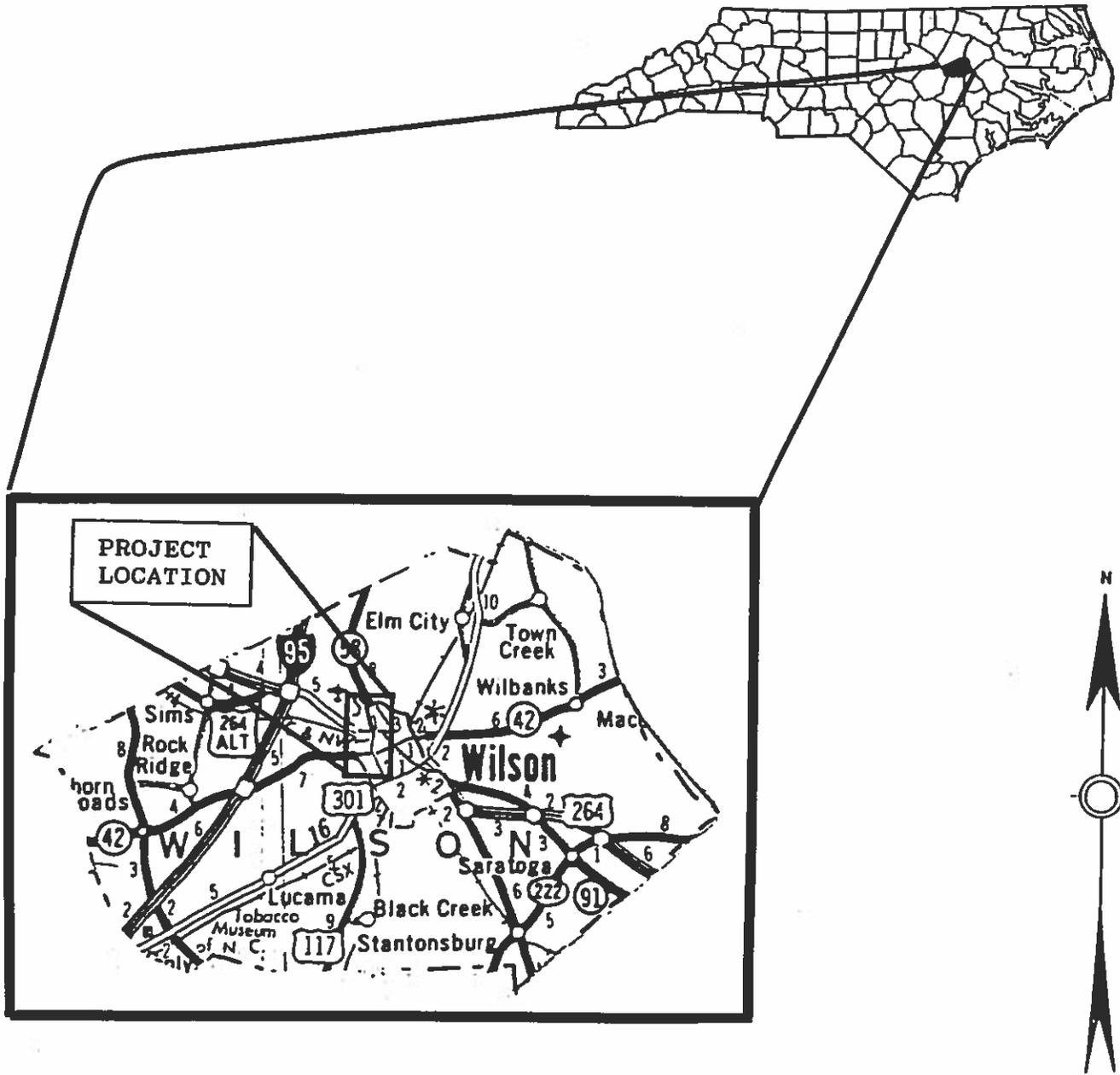
High utility conflicts are expected.

IV. OTHER COMMENTS AND CONCERNS

It is estimated that this project will require the relocation of 11 residences and 2 businesses.

A portion of this project is located in a water supply watershed and a water supply critical area, WS-1. From approximately 0.1 mile north of the intersection of SR 1166 to approximately 0.3 miles north of the intersection of SR 1165 and SR 1163, SR 1165 is within a regulated floodway. Some wetlands will be impacted. The placing of fill on this project will require a Corps of Engineers, Section 404 Permit. No historical or architectural sites are known to be impacted. No public parks are affected.

FIGURE 1



FEASIBILITY STUDY UNIT	
WILSON SR 1165 (FOREST HILLS ROAD) from US 301 to US 264 Wilson County	
U-2922	DIVISION 4

