

FEASIBILITY STUDY

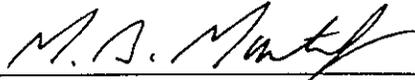
Wilson

SR 1163 (Downing Street)  
from SR 1165 (Forest Hills Drive) to US 264 (Ward Boulevard)

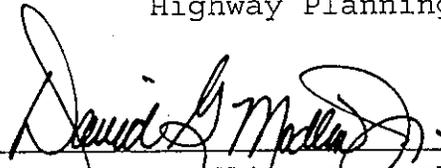
Wilson County

U-3117

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



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Date

## FEASIBILITY STUDY

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SR 1163 (Downing Street)  
from SR 1165 (Forest Hills Drive) to US 264 (Ward Boulevard)  
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### I. GENERAL DESCRIPTION

This is a feasibility study recommending the widening of SR 1163 (Downing Street) from west of SR 1165 (Forest Hills Drive) to east of US 264 (Ward Boulevard) in Wilson (see Figures 1 & 2). The section of SR 1163 recommended for improvement is identified as Section 1 in Figure 2. The total length of the recommended project is 1.4 miles (2.3 km). The recommended typical cross-section is a five-lane, 64-foot (19.5-meter) curb and gutter section. The recommended right-of-way width is 90 feet (27.4 meters), without access control. Estimated cost of the recommended improvements is \$5,000,000 (\$2,500,000 for right-of-way, and \$2,500,000 for construction).

This study is not a detailed planning/environmental investigation. A feasibility study presents recommended 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 study was requested by the City of Wilson. SR 1163 (Downing Street) is classified as an Urban Minor Arterial in the statewide functional classification system. SR 1163 is classified as a major thoroughfare in the current mutually adopted thoroughfare plan for Wilson. The improvements are needed to accommodate future growth in traffic demand at an acceptable level of service and safety.

The west terminal of the recommended improvements (Section 1) is at the east approach to Bridge #65 which carries SR 1163 over Contentnea Swamp. At this location SR 1163 consists of a two lane, 20-foot (6.1-meter) pavement with 4-foot (1.2-meter) usable shoulders. This location was

chosen to allow enough distance west of the intersection to taper the pavement back to two lanes. It should be noted that project U-2922 includes widening SR 1165 (Forest Hills Drive) to a multi-lane section. U-2922 is scheduled for right-of-way acquisition to begin in fiscal year 1994, and construction to be completed by fiscal year 1998.

The east terminal of the recommended improvements (Section 1) is at Pickett Street east of the signalized intersection with US 264 (Ward Boulevard). The location of the east terminal was chosen to allow sufficient distance east of the Ward Boulevard intersection to taper back to two lanes. East of this location, SR 1163 (Downing Street) is a two-lane, 40-foot (12.2-meter) curb and gutter section.

Section 1 of SR 1163 contains several typical cross-sections. The east leg of the SR 1165 intersection is a five-lane, 59-foot (18-meter) curb and gutter section. This section tapers down to a two-lane, 24-foot (7.3-meter) pavement, alternating with a four-lane 48-foot (14.6-meter) pavement with 4-foot (1.2-meter) shoulders. The west leg of the intersection with US 264 (Ward Boulevard) is a four-lane, 48-foot (14.6-meter) curb and gutter section. The east-bound approach consists of three lanes; a left-turn, a through, and a right-turn. Land use along Section 1 is commercial at the intersections with SR 1165 and US 264, except for Winstead Elementary School which is located in the southeast quadrant of the US 264 intersection. Between these two intersections land use is mainly residential and vacant tracts.

Right-of-way width along the studied segment of SR 1163 varies from 40 to 60 feet (12.2 to 18.3 meters) without access control. Utilities parallel both sides of the roadway, including water, overhead electric power, and buried telephone cable.

It is estimated that the average daily traffic (ADT) currently using SR 1163 varies from 2,500 vehicles per day (vpd) west of SR 1165, to 9,400 vpd just west of US 264. By the year 2014, these traffic volumes are anticipated to grow to 4,500 vpd, and 16,000 vpd respectively.

Under current conditions, and estimated traffic demand, the studied portion of SR 1163 is operating at level-of-service (LOS) D during the peak hour. With the recommended widening to five lanes, and an estimated 2014 ADT of 16,000 vpd, the roadway would operate at LOS C in the peak hour. The recommended five-lane section would reach its traffic carrying capacity during peak periods at approximately 28,000 vpd.

During the period from July, 1990, through June, 1993, a total of 63 accidents were reported on SR 1163 between SR 1165 and US 264. Of these 63 accidents, 25 accidents

involved rear-end collisions, 17 involved turning vehicles, and 8 involved angle collisions. The total accident rate for the studied roadway was 656.9 accidents per 100 million vehicle-miles, compared to a statewide accident rate for similar facilities of 304.9 accidents per 100 million vehicle-miles. The recommended improvements should lower the accident rate for the roadway.

### III. RECOMMENDATIONS

It is recommended that the 1.4 mile (2.3 km) of SR 1163 (Downing Street), from west of SR 1165 (Forest Hills Drive) to east of US 264 (Ward Boulevard), identified as Section 1 on Figure 2, be widened to a five-lane, 64-foot (19.5-meter) curb and gutter section with 8-foot (2.4-meter) berms. The widening is to be carried out symmetrically, and asymmetrically about the existing roadway to minimize adverse impacts on adjacent properties. The recommended right-of-way width is 90 feet (27.4 meters) to accommodate the curb and gutter section, without control of access.

The recommended widening is to begin at the east approach to Bridge #65 (see Figure 2). The recommended 5-lane section would be carried through to Pickett Street, east of the intersection with US 264. It is also recommended that the westbound approach of SR 1163 at SR 1165 be provided with an exclusive right-turn lane to accommodate the estimated right-turn demand at the intersection.

The estimated cost of the recommended improvements (Section 1 on the attached map) is:

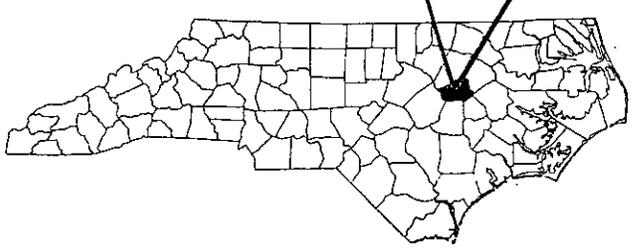
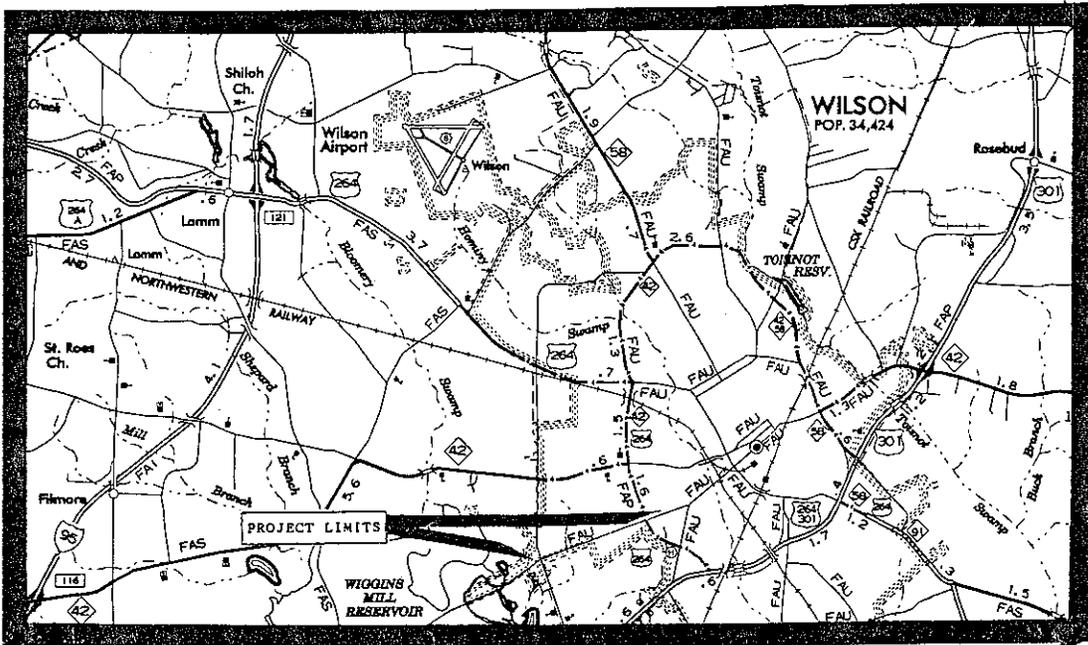
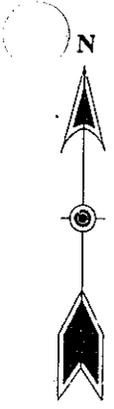
Right-of-way and Utilities	\$2,500,000
Construction	\$2,500,000
Total	\$5,000,000

### V. OTHER COMMENTS & CONCERNS

It is estimated that the recommended improvements (Section 1) would result in relocating 12 residences, and 1 business. No special permits or concerns are anticipated.

In addition to the recommended improvements (Section 1) a second Section (Section 2) was studied (see Figure 2).

Section 2 is not recommended for improvement at this time, since it is anticipated that most of the growth in traffic volumes will take place along Section 1. Section 2 (see Figure 2) is SR 1163 from the proposed project R-1023 (US 264 Bypass) to the east approach of Bridge #65. Total length of Section 2 is 1.4 miles (2.3 km). The existing roadway is a two-lane, 20-foot (6.1-meter) pavement with 4-foot (1.2-meter) usable shoulders. Land use along Section 2 is mainly woods and wetlands associated with Contentnea Creek. The studied improvements for Section 2 include widening the two-lane, 20-foot (6.1-meter) pavement to a five-lane, 64-foot (19.5-meter) curb and gutter section. Right-of-way width is to be 100 feet (30.5 meters) without access control. The estimated total cost for widening Section 2 is \$4,800,000 (\$400,000 for right-of-way, and \$4,400,000 for construction).



FEASIBILITY STUDIES UNIT	
U-3117	
WILSON	
SR 1163 (Downing Street)	
from SR 1165 to US 264	
Wilson County	
DIVISION 4	FIGURE 1

