

FEASIBILITY STUDY

Smithfield
SR 1923 (Booker Dairy Road) Extension
from US 70 Business west of Smithfield
to SR 1003 (Buffaloe Road)

Johnston County

U-3334

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


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Date

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I. GENERAL DESCRIPTION

This preliminary study describes the proposed extension of SR 1923 (Booker Dairy Road) from SR 1003 (Buffaloe Road) to US 70 Business west of Smithfield, a distance of approximately 1.9 miles (3.1 km). See Figure 1 for the project location. The recommended cross section is a two-lane, 24 feet (7.3 m) roadway with 8-foot (2.4 m) shoulders including 4-foot (1.2-m) paved shoulders, on 100 feet (30.5 m) of right of way with no control of access. A major structure across the Neuse River is proposed to be approximately 1300 feet (400 m) long and have a 40-foot (12.2-m) clear deck width.

The total estimated cost for the project is \$ 6,600,000 (\$ 5,700,000 for construction and \$ 900,000 for right of way). It is estimated that there will be 3 residences and no businesses relocated due to this project.

This study is the initial step in the planning and design process for this project and is not the product of exhaustive environmental or design investigations. The purpose of this study is to describe the problem, recommend a treatment including costs, and identify potential problem areas that require special consideration in the planning and design phases.

II. NEED FOR PROJECT

The extension of Booker Dairy Road as proposed in this study will provide alternate, improved traffic circulation to the portion of Smithfield along the SR 1913 (Wilson Mill/Smithfield Road) corridor and will enhance access to Smithfield-Selma High School, Smithfield Middle School, and planned recreation areas in the immediate area. The project is identified on the Smithfield-Selma-Pine Level Thoroughfare Plan and is endorsed by the area Chamber of Commerce, Smithfield Town Council and Smithfield Planning Board.

The extension of SR 1923 (Booker Dairy Road) to US 70 Business is designated as a minor thoroughfare on the Smithfield-Selma-Pine Level Thoroughfare Plan. Development in the study corridor is very limited.

The proposed project will cross the Neuse River-Swift Creek Floodway. The proposed bridge length of approximately 1300 feet (400 m) avoids additional impacts to the floodway. The studied length of the proposed structure has been coordinated with the Hydrographics Unit. There appears to be extensive unavoidable impacts to wetlands on the west side of the Neuse River.

The 1994 estimated traffic that would use the extended Booker Dairy Road ranges from 5700 to 6500 vehicles per day (vpd). The estimated 2020 design year traffic ranges from 10,700 to 13,000 vpd. The expected level of service (LOS) ranges from LOS B with 1994 traffic estimates to LOS D in the design year 2020.

III. RECOMMENDATIONS

This preliminary study describes the proposed extension of SR 1923 (Booker Dairy Road) from SR 1003 (Buffaloe Road) to US 70 Business west of Smithfield, a distance of approximately 1.9 miles (3.1 km). The recommended cross section is a two-lane, 24 feet (7.3 m) roadway with 8-foot (2.4 m) shoulders including 4-foot (1.2-m) paved shoulders, on 100 feet (30.5 m) of right of way with no control of access. The studied structure across the Neuse River has a 40-foot (12.2-m) clear roadway width with an estimated length of 1300 feet (400 m).

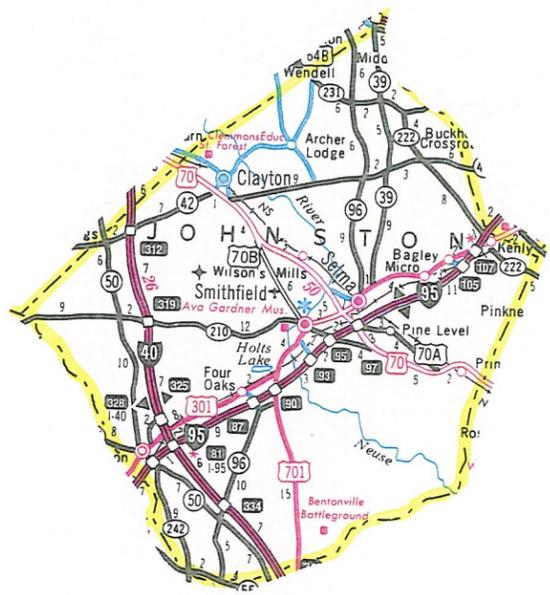
The total estimated cost for the project is as follows:

Construction	\$ 5,700,000
Right of Way	900,000
Total	<u>\$ 6,600,000</u>

It is estimated that there will be 3 residences and no businesses relocated due to this project. An amount to mitigate approximately 12 acres of wetlands has been included in the estimated cost.

IV. OTHER COMMENTS

An environmental screening was not conducted for this study. Based on available mapping at the Department of Environment, Health and Natural Resources - Natural Heritage Section, no threatened and/or endangered species were identified in the study corridor. Impacts to wetlands are expected and a Corps of Engineers Section 404 permit is anticipated. The section of the Neuse River within the project corridor is classified WS-IV, NSW CA and is a portion of the Neuse River-Swift Creek Floodway.



FEASIBILITY STUDIES UNIT

U-3334

SR 1923 (BOOKER DAIRY ROAD) EXTENSION
FROM US 70 BUSINESS
TO SR 1003 (BUFFALOE ROAD)

JOHNSTON COUNTY

SCALE 1" = .25 MI

FIGURE 1

