



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JAMES B. HUNT JR.
GOVERNOR

DIVISION OF HIGHWAYS
P.O. BOX 25201, RALEIGH, N.C. 27611-5201

GARLAND B. GARRETT JR.
SECRETARY

March 17, 1997

MEMORANDUM TO: Mr. Henson Barnes, Member, Board of Transportation
Mr. D. R. Dupree, Division Engineer, Division 4
Mr. C. W. Leggett, P.E.
Mr. W. H. Webb, P.E.
Mr. J. M. Lynch, P.E. (6) Attention: Roberto Canales, P.E.
Congestion Management Engineer
Mr. J. B. Williamson
Mr. H. F. Vick, P.E. (2)
Mr. D. R. Morton, P.E.
Mr. G. T. Shearin, P.E.
Mr. M. R. Poole, P.E.
Mr. A. L. Avant (2)
Mr. J. D. Lane
Mr. T. A. Peoples, P.E.
Mr. L. K. Barger, P.E.

FROM:

David G. Modlin, Ph.D., P.E.
Head of Feasibility Studies

A handwritten signature in cursive script that reads "David Modlin".

SUBJECT:

Feasibility Study # U-3609, Goldsboro, US 13 (Berkeley Boulevard) from SR 1003 (New Hope Road) to the Proposed US 70 Bypass, Wayne County.

Our staff has completed a feasibility study for the subject proposed project. This brief analysis suggests improvements that would be logical if the project were to be funded. A copy of our report is attached for your information.

DGM/joa

Attachment

cc: Dr. L. R. Goode, P.E.
Mr. B. G. Jenkins, P.E.
Mr. William J. Watson, P.E.



Feasibility Study

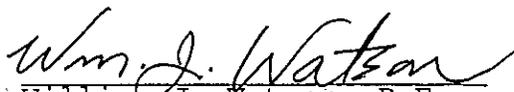
Goldsboro

US 13 (Berkeley Boulevard)
From SR 1003 (New Hope Road)
To the Proposed US 70 Bypass
Wayne County

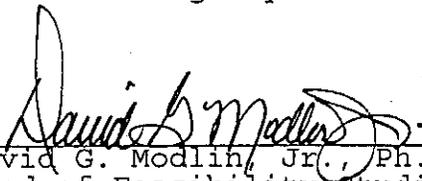
Division 4

U-3609

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



William J. Watson, P.E.
Highway Planning Engineer



David G. Modlin, Jr., Ph.D., P.E.
Head of Feasibility Studies

2/21/97
Date

Goldsboro
US 13 (Berkeley Boulevard)
From SR 1003 (New Hope Road)
To the Proposed US 70 Bypass
Wayne County

I. GENERAL DESCRIPTION

This preliminary study describes the proposed widening of US 13 (Berkeley Boulevard) from SR 1003 (New Hope Road) to the proposed US 70 Bypass in Goldsboro, Wayne County. The project location is shown on Figure 1. The proposed cross-section is a 5-lane, curb-and-gutter section, 64 feet (19.5m) wide from face-to-face of curbs, with 10-foot (3.0-m) berms for the entire project length of 2.3 miles (3.7 km). The required right-of-way width is 100 feet (30.5 m).

Also, at the US 13 / SR 1571 intersection, it is proposed to widen both approaches on SR 1571 by 24 feet (7.3 m), for a distance of approximately 800 feet (244 m), in order to provide an exclusive left-turn lane, an exclusive thru lane, and an exclusive right-turn lane on both approaches. Further, the SR 1571 / SR 1709 intersection should be revised as shown on Figure 1, in order to favor anticipated increased traffic from SR 1709 to US 13. SR 1705 should be slightly relocated in order to make a more suitable intersection with US 13.

This project will likely require one business relocation and 17 residential relocations. The total cost including construction and right-of-way is estimated to be \$ 9,700,000.

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 needs, recommend a treatment including costs, and identify potential problem areas that require consideration in the planning and design phases.

II. NEED FOR PROJECT

The purpose of this project is to increase the traffic carrying capacity and safety of US 13 in Goldsboro. The project was requested by the City of Goldsboro and the Wayne County Board of Commissioners. This project is in an area of rapid growth. This growth will likely be accelerated by the proposed US 70 Bypass (R-2554) which is shown on Figure 1.

US 13 is classified as a Other Principal Arterial in the North Carolina Statewide Functional Classification System, and is a Major Thoroughfare on the Goldsboro Thoroughfare Plan. Land use along the project corridor, south of

SR 1571, is mainly a mixture of single-family and multi-family residential uses. North of SR 1571, the character of development is distinctly more rural with mostly large cultivated farm tracts and related single family dwellings.

Existing US 13, south of Old Mill Branch, is a 3-lane road with paved shoulders 2 feet (0.6 m) wide and grass shoulders approximately 6 feet (1.8 m) wide. The existing right-of-way width on US 13 south of Old Mill Branch appears to be approximately 90 feet (27.4 m) wide.

Existing US 13, north of Old Mill Branch is a 2-lane road with paved shoulders 2 feet (0.6 m) wide and grass shoulders approximately 6 feet (1.8 m) wide. The existing right-of-way width on US 13 north of Old Mill Branch appears to be approximately 60 feet (18.3 m) wide.

Traffic volume estimates for US 13 for the years 1996 and 2020 are 11,000 vehicles per day (vpd) and 22,300 vpd respectively. The Level of Service (LOS) without the proposed improvements is estimated to be LOS D in 1996 and Level E in 2020. With the estimated improvements the LOS is estimated to be Level A in 1996 and Level B in 2020.

During the three year period beginning March 1, 1993, and ending February 29, 1996, there were 72 accidents reported on US 13 within the project limits. This resulted in a total accident rate of 364 accidents per 100 million vehicle miles (ACC/100MVM). This compares with the statewide average of 269 ACC/100MVM for all urban United States routes, in North Carolina, for 1994.

There were no fatal accidents reported, and 29 accidents resulted in 50 injured persons. The most prevalent type accidents were Rearend (34.7 %), Left-Turn (23.7 %), and Angle (23.6 %). The proposed wider cross-section with a center turn lane will reduce the potential for these type accidents.

III. RECOMMENDATIONS

It is proposed to widen US 13 (Berkeley Boulevard) from SR 1003 (New Hope Road) to the proposed US 70 Bypass in Goldsboro, Wayne County. The project location is shown on Figure 1. The proposed cross-section is a 5-lane, curb-and-gutter section, 64 feet (19.5 m) wide from face-to-face of curbs, with 10-foot (3.0-m) berms for the entire project length of 2.3 miles (3.7 km). The required right-of-way width is 100 feet (30.5 m).

Also, at the US 13 / SR 1571 intersection, it is proposed to widen both approaches on SR 1571 by 24 feet

(7.3 m), for a distance of approximately 800 feet (244 m), in order to provide an exclusive left-turn lane, an exclusive thru lane, and an exclusive right-turn lane on both approaches. Further, the SR 1571 / SR 1709 intersection should be revised as shown on Figure 1, in order to favor anticipated increased traffic flow from SR 1709 to US 13. SR 1705 should be slightly relocated in order to make a more suitable intersection with US 13.

At the south project terminus, the proposed cross-section will be compatible with the existing 5-lane section on US 13 south of SR 1003. The traffic signal at this intersection will require minor revisions.

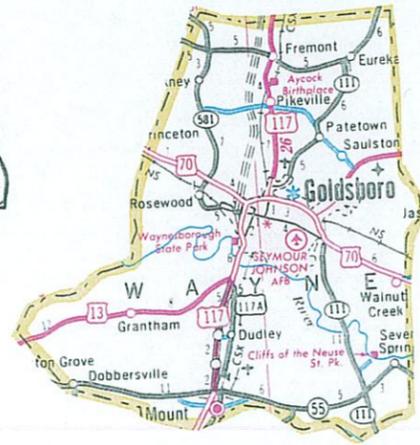
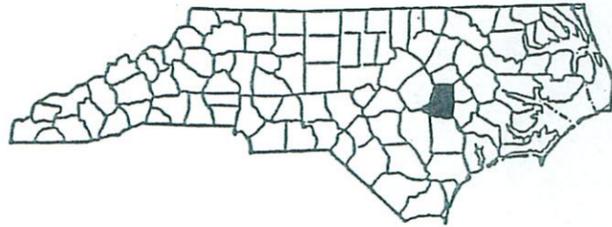
At the north project terminus, the proposed cross-section will be compatible with the 5-lane section proposed as a Y-line improvement under project R-2554 (US 70 Bypass).

This project will likely require one business relocation and 17 residential relocations. The total cost including construction and right-of-way is estimated to be \$ 9,700,000 as follows:

Right-of-Way	\$ 4,000,000
Construction	<u>5,700,000</u>
Total Cost	\$ 9,700,000

IV. OTHER COMMENTS

An environmental screening was not conducted for this study. Minor wetland involvement is anticipated at the several stream crossings along the project. If Nationwide Permits do not prove applicable, Corps of Engineers Section 404 Permits may be required. No historic properties, or endangered species are anticipated.



END PROJECT

PROPOSED US 70 BYPASS
TIP # R-2554

PAVEMENT REMOVAL

BEGIN PROJECT

US 13
BERKELEY BOULEVARD

NEW HOPE ROAD

0 1000 2000 FEET

North Carolina Department of Transportation
Program Development Branch
U-3609
Figure 1. Project Location
US 13 (Berkeley Boulevard)
from SR 1003 (New Hope Road)
to Proposed US 70 Bypass
Goldsboro, Wayne County
DIVISION 4 FIGURE 1

