

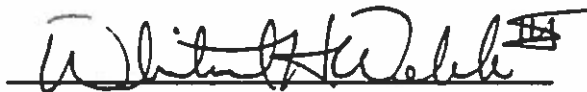
FEASIBILITY STUDY

NC 11
From US 64 Relocation north of Bethel
to NC 903
Pitt, Edgecombe, and Martin Counties
R-2700

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 is a Feasibility Study for the widening of NC 11 from the programmed relocation of US 64 north of Bethel (project R-2111) in Pitt County, to NC 903 in Martin County (see the attached location map). The recommended typical cross-section is a four-lane highway (two 28-foot pavements) divided by a 46-foot median. The widening would retain, and utilize the existing alignment to the extent possible, except for a bypass of Oak City on a new location.

A right-of-way width of 200 feet is recommended. It is also recommended that partial control of access (one, or more access points per parcel) be acquired along the existing alignment, and that the Oak City bypass access be fully controlled.

Total project length is approximately 14.7 miles. Estimated total project cost is \$ 25,330,000 (\$ 5,130,000 for right-of-way, and \$ 20,200,000 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 project was requested by the Hertford County Industrial Development Commission, the Town of Ahoskie, and the Ahoskie Chamber of Commerce, the Town of Murfreesboro, and the Murfreesboro Chamber of Commerce. This project does not merit a high priority at the present, based on estimates of current and future traffic volumes. However, NC 11 is an important highway in eastern North Carolina, linking numerous rural communities to major highways and population centers. The north-south corridor served by NC 11 is generally midway between US 17 to the east, and I-95 and I-40 to the west. This project represents an extension of programmed improvements to NC 11 south of US 64, and would enhance the utility of this route.

Therefore, this project should be programed in sequence with currently programed NC 11 improvements, to preserve their continuity and effectiveness.

NC 11 is classified as a rural Major Collector in the statewide functional classification system, and it is a part of the federal-aid secondary system. The studied portion of NC 11 is a two-lane, 24-foot pavement with 8 to 10-foot shoulders, except for a 1 mile portion through Oak City, which consists of a 44-foot curb and gutter section. Claimed right-of-way is estimated at 60 feet from the southern terminal of the study to NC 142. From NC 142 to the end of the project, claimed right-of-way is estimated to vary from 100 to 130 feet. Access is not controlled on this portion of NC 11. The speed limit is 55 mph, except within Oak City limits where it is 45 mph.

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 1991 for this portion of NC 11 is 3400 vehicles per day (vpd). Traffic volume is estimated to grow to 7000 vpd by 2011.

Under existing conditions, it is estimated that the subject roadway is offering a level-of-service (LOS) B, and is expected to offer LOS C by the year 2011. With the recommended widening, the roadway would offer LOS A throughout the 20-year design period.

During the period from January 1988 to December 1990, a total of 66 accidents, including one that resulted in a fatality were reported on the studied portion of NC 11-42. The resultant total accident rate was 248.03 accidents per 100 million vehicle-miles, compared to a statewide average of 287.9 accidents per 100 million vehicle-miles on similar routes. These accidents included 29 involving vehicles that ran off the road, 12 involving angle collisions, 8 involving turning vehicles, and 6 involving striking an animal. Of the 29 accidents involving vehicles that ran off the road, 10 occurred within a one-mile portion of NC 11-42 immediately north of SR 1304; and 8 occurred in the vicinity of the NC 142 intersection. Both locations contain curved horizontal alignments.

The southern terminal of this study is at the planned future interchange with project R-2111 north of Bethel. Project R-2111 includes the construction of US 64 as a freeway on new location from Tarboro to Robersonville. Construction of R-2111 is scheduled to begin in FY 94. It should be noted that this future interchange is also the north terminal of project R-218, which includes the widening of NC 11 to a four-lane median-divided highway from Greenville to north of Bethel. Construction of project R-218 is scheduled to begin in FY 97.

III. RECOMMENDATIONS

It is recommended that NC 11 from the US 64 relocation (project R-2111, as shown on the attached location map) north of Bethel in Pitt County, to NC 903 north of Oak City be widened to a four-lane, median-divided highway. The recommended typical cross-section consists of two 28-foot pavements with 8-foot usable outside shoulders, separated by a 46-foot median. The existing pavement and alignment are to be retained and utilized to the extent possible. However, a minor improvement to the horizontal alignment of the roadway immediately to the north of SR 1304, and in the vicinity of NC 142 may reduce accidents in these two locations. The widening is to be accomplished by constructing the median, and the new pavement adjacent to the existing roadway, which would be widened to 28 feet and resurfaced. The side of roadway on which the new lanes are to be constructed, will be identified at the planning/preliminary design phase (see section IV regarding historic properties). All intersections are to be at grade.

It is also recommended that a 2.4 mile NC 11 bypass of Oak City be constructed on a new location. The bypass is to begin at NC 11-42 approximately 0.5 mile southwest of Oak City, and bypass the town to the north. The recommended alignment would intersect NC 125 just south of the Oak City corporate limits. The bypass would rejoin the existing NC 11-42 to the northeast of Oak City, near SR 1347. The recommended typical cross-section for the bypass is the same as that recommended for the remainder of the project. It is recommended that the intersection with NC 125 be at grade, since traffic volumes are not anticipated to justify an interchange at this location during the 20-year design period.

Right-of-way width needed to accommodate the widened roadway, and bypass 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 point per parcel) is recommended along the existing alignment portion of the project. Full control of access is recommended along the bypass of Oak City, this is necessary to preserve the utility of the bypass to through traffic.

IV. COST ESTIMATES

Estimated cost of the recommended improvements:

	Roadway Widening	Oak City Bypass
Right-of-way & Utilities	\$ 4,620,000	\$ 510,000
Construction	\$ 14,500,000	\$ 5,700,000
Total	\$ 19,120,000	\$ 6,210,000

Total project cost \$ 25,330,000

V. OTHER COMMENTS & CONCERNS

It is anticipated that the project would impact a substantial acreage of wetlands, and require the relocation of approximately 39 residences and 4 businesses.

During the planning/preliminary design stage of the project, the following historic properties will be taken into consideration in determining the side of the road where widening is to take place:

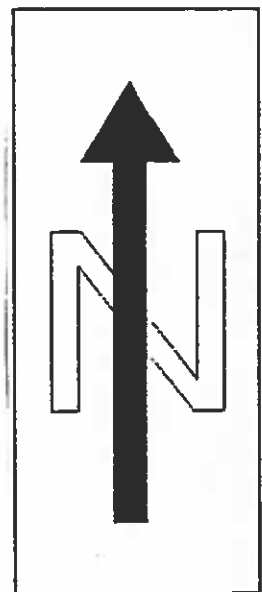
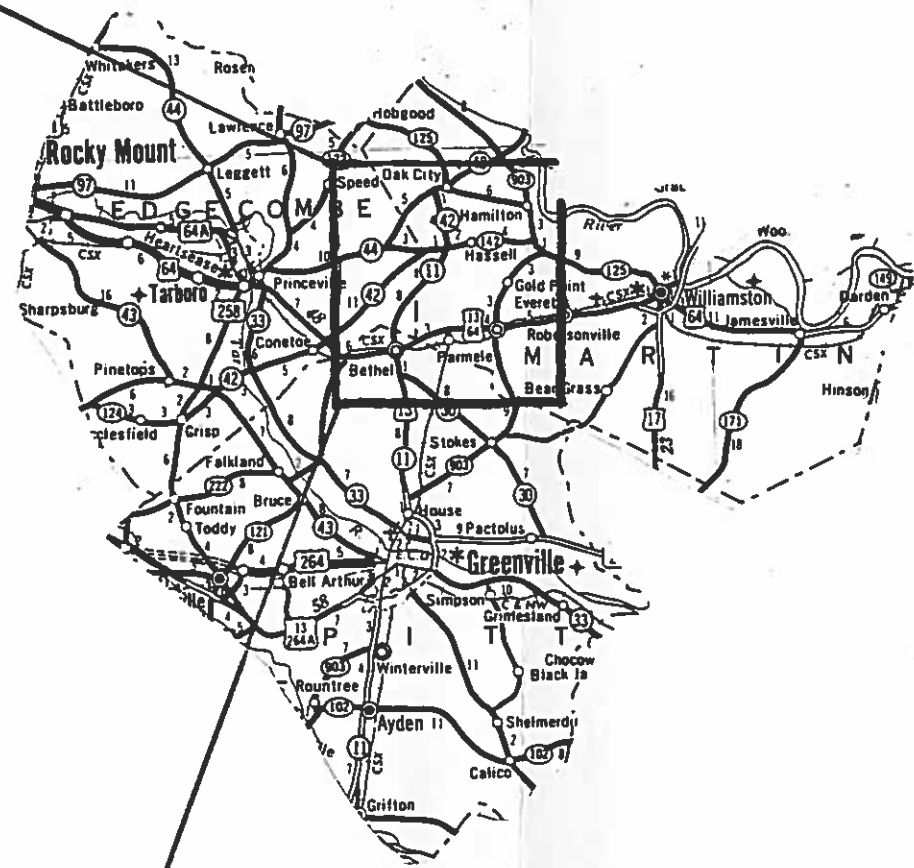
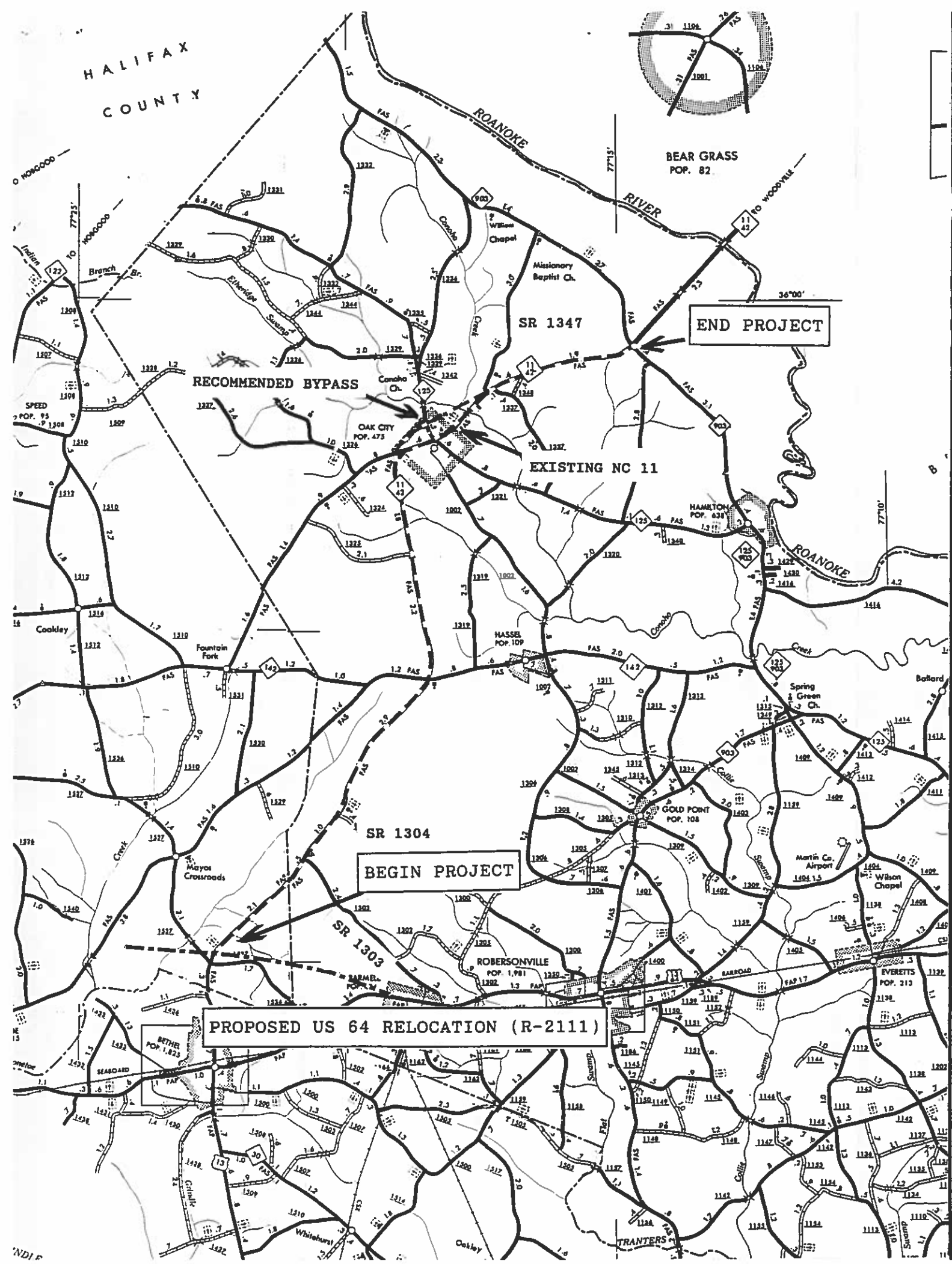
The J. Best House, located on the east side of NC 11 between SR 1303 and NC 142. This property appears eligible for listing in the National Register of Historic Places.

The Purvis House, located on the east side of NC 11 between SR 1303 and NC 142. This property appears eligible for listing in the National Register of Historic Places.

Two plantation houses eligible for the National Register, located on NC 142, approximately 0.8 mile one to the east of, the other to the west of NC 11.

Additionally, other properties located on both sides of NC 11 south of SR 1303 may be eligible for the National Register. Eligibility will be determined at the planning stage of the project.

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.



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SCALE: 1" = 2 MILES | DATE: MAR 1991