

FEASIBILITY STUDY

Greenville  
Southwest Loop  
From US 264  
to NC 11-903  
Pitt County  
R-2250

Prepared by  
Planning and Research Branch  
Division of Highways  
N. C. Department of Transportation

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The subject project is being studied to determine what improvements may be needed and for possible right-of-way protection. This report provides a brief, initial analysis of possible improvements. The project is not currently funded.

I. GENERAL DESCRIPTION

The Southwest Loop extends from US 264 west of Greenville (which is presently under construction) to NC 11-903 south of Greenville (see Figures 1 and 2). The project is 5.1 miles in length and the studied cross section is a four lane divided roadway with a 46-foot median.

II. EXISTING CONDITION

Since the Southwest Loop is proposed to be constructed entirely on new location, there is no existing roadway to study.

The routes that are currently carrying the traffic that will be using the Loop are SR 1203, US 264 Bypass and NC 11-903. The construction of the Southwest Loop will relieve traffic on these routes when it is built.

Land use in the path of the proposed project is primarily agricultural and woodland. There is also scattered residential development where the proposed Southwest Loop crosses other roads. Pitt Community College is located in the northwest quadrant of the intersection of the loop and NC 11-903.

III. PURPOSE OF PROJECT

The Southwest Loop is designated a major thoroughfare in the Greenville Thoroughfare Plan, functioning as a circumferential route around the southwest part of Greenville. The current traffic demand for the Southwest Loop ranges from 6,000 vehicles per day vpd on the southern end to 6500 vpd on the northern end. These volumes are anticipated to increase to 10,800 vpd and 11,700 vpd respectively by the year 2007.

This project has strong local support.

#### IV. RECOMMENDED IMPROVEMENTS

It is recommended that a four lane divided facility with full control of access be constructed around the southwest portion of Greenville. The recommend alignment for this new highway should be as shown on Figure 2 of this report, tying into US 264 (relocation) at its interchange with NC 11 West of Greenville and tying into NC 11-903 at its intersection with SR 1708 south of Greenville.

The recommended cross section is two 12-foot lanes in each direction separated by a 46-foot depressed median. The roadway should have 10-foot usable shoulders with 2 feet paved. The proposed right-of-way for this roadway is 250 to 300 feet wide throughout the project length, flaring out at the US 13-264 crossing to provide for an interchange at this location.

Right-of-way plans for the cloverleaf interchange of US 264 and the northwest portion of the loop (NC 11) west of Greenville are currently being prepared. However only two ramps, two loops and one of the dual bridges will be constructed initially under project R-1022. The currently studied project would include the construction of the remaining ramps and the other bridge.

Preliminary drainage studies indicate that a single 7-foot by 7-foot reinforced concrete box culvert will be required to carry Swift Creek under the proposed project. A second stream, which is atributary to Swift Creek, will require a 66-inch pipe.

The proposed project includes grade separations at SR 1200, and the Norfolk and Southern Railway and an interchange at US 13-264. It is proposed to connect to the other crossing roadways at grade initially with the possibility of providing grade separations at a later date. These at grade intersections would be at SR 1134, SR 1131, and the southern terminal of the project at NC 11.

The estimated cost of the Southwest Loop as recommended in this report is \$20,700,000, including \$14,500,000 for construction and \$6,200,000 for right-of-way. The construction cost estimate includes engineering and contingencies and the right-of-way estimate includes relocation, acquisition, and utility adjustment costs.

The construction cost estimates, furnished by the Roadway Design Unit, were based on aerial photography and contour maps. Right-of-way estimates were furnished by the Right-of-Way Branch following a field reievew.

#### V. ALTERNATIVES

The proposed location for the Southwest Loop shown on Figure 2 was developed to provide the best alignment for the project with a minimum of disruption to the natural or man-made environment. No other alternative alignments for the loop were studied.

The four lane divided roadway with a 46-foot median and full access control is the same cross section proposed for the NC 11 (the northwest portion of the loop around Greenville). This will provide continuity of cross sections on the loop and no other cross sections were studied.

A staging alternative for the interchange at US 13-264 was studied. With this alternative, right-of-way would be bought for a diamond interchange, but the initial construction would provide only an at-grade intersection. This alternative would cost \$2,700,000 less to build initially. The construction of the interchange with the initial project is the recommended treatment, but if the total project cost is deemed to be prohibitive this staged construction could be used to reduce the initial cost of the Southwest Loop.

The Southwest Loop could also be upgraded with the addition of grade separations at SR 1134 and SR 1131 and an interchange with NC 11-903. These additions would be highly desirable, providing a fully controlled access bypass around the west side of Greenville for NC 11. Cost estimates were not prepared for these possibilities.

All of these alternatives should be fully explored and evaluated during the planning phase of the project.

#### VI. POSSIBLE ENVIRONMENTAL EFFECTS

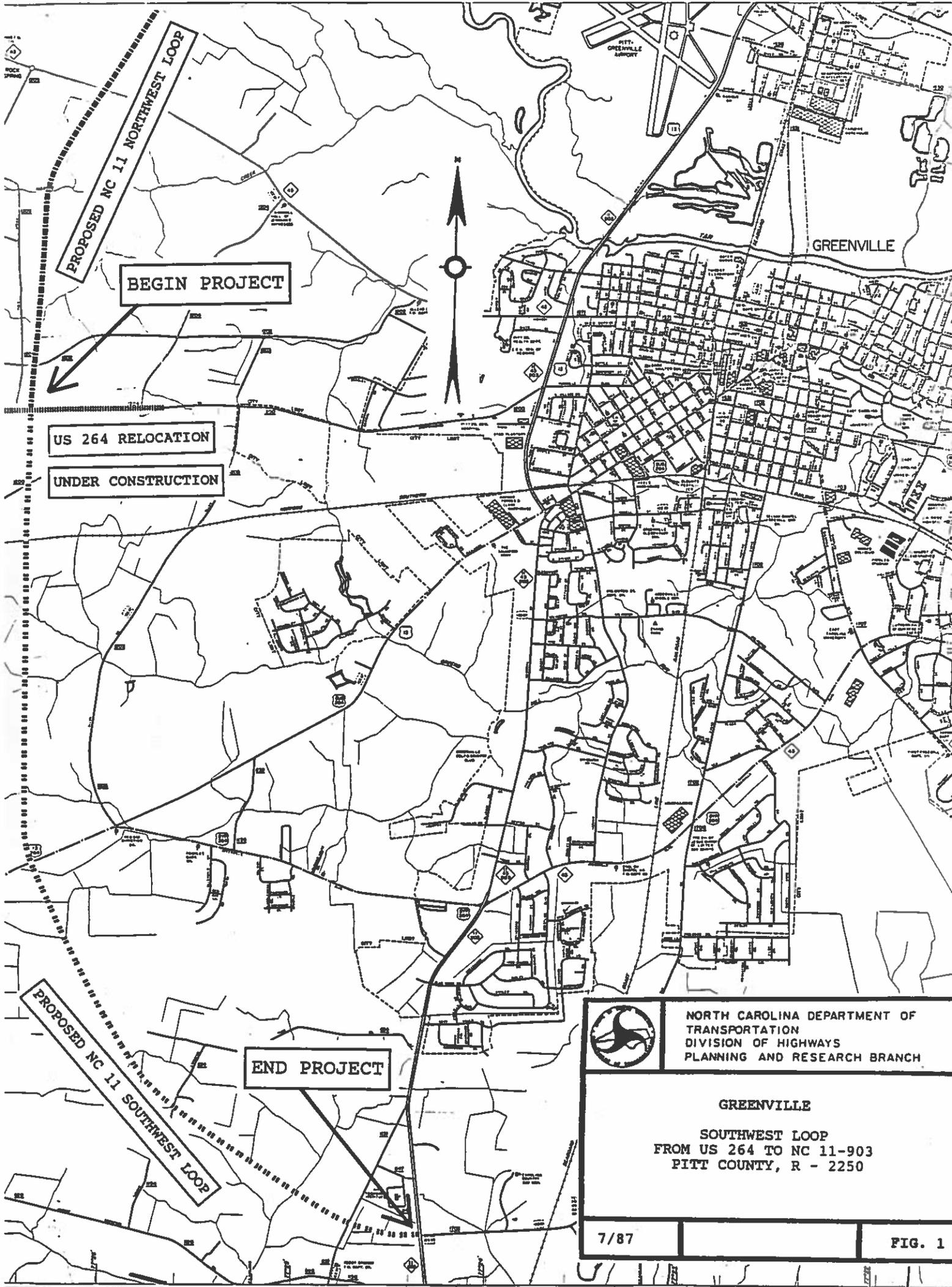
The most significant effects of the proposed project would be the relocation of 8 residences and the use of 150 to 200 acres of farmland for right-of-way.

A section 404 permit from the U. S. Army Corps of Engineers might be required for the construction of the culvert on Swift Creek.

#### VII. FUTURE ACTIVITIES

If the project is to be implemented at a future date, all feasible alternatives and their associated impacts will need to be evaluated in the planning/environmental document prior to that time, and a final decision made as to the most appropriate improvement.

RBD/rm



NORTH CAROLINA DEPARTMENT OF  
 TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 PLANNING AND RESEARCH BRANCH

**GREENVILLE**

**SOUTHWEST LOOP  
 FROM US 264 TO NC 11-903  
 PITT COUNTY, R - 2250**

7/87

FIG. 1






 NORTH CAROLINA DEP  
 TRANSPORTATION  
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 PLANNING AND RESEA

GREENVILLE  
 SOUTH WEST LOC  
 FROM US 264 TO NC  
 PITT COUNTY R-2

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