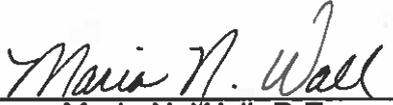


FEASIBILITY STUDY

Newton-Conover Loop
from US 321 to SR 1880
Catawba County
F.S. 17-95-008

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



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3/14/95
Date



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I. GENERAL DESCRIPTION

This is a feasibility study for the Newton-Conover Loop, from US 321 to SR 1880, in Newton. Two alternates were studied, Alternate A and Alternate B (See Figures 1 and 2). The recommended typical section for each alternate is a two-lane, 24-foot (7.3-meter) wide roadway with 8-foot (2.4-meter) shoulders, including 4-foot (1.2-meter) paved shoulders, on a 100-foot (30.5-meter) wide right-of-way with no access control. The estimated cost of each alternate is as follows:

	<u>Alternate A</u>	<u>Alternate B</u>
Construction Cost	\$ 3,100,000	\$ 2,900,000
<u>Right-of-Way Cost</u>	<u>\$ 400,000</u>	<u>\$ 800,000</u>
Total Project Cost	\$ 3,500,000	\$ 3,700,000

This study is not a detailed planning/environmental investigation. A feasibility study presents studied cross sections for improvements, general alignments of improvements, and estimated cost of construction and right-of-way. This study attempts to identify any potential environmental, permitting, or other observed issues which deserve consideration in the planning and construction stages.

II. NEED FOR PROJECT

This project was requested by the Cities of Newton and Conover. The Newton-Conover Loop is classified as a major thoroughfare on the Hickory-Newton-Conover Thoroughfare Plan. The 1986 Hickory-Newton-Conover Thoroughfare Plan, shows the Newton-Conover Loop in its entirety (See Figure 1). TIP Project U-2404, proposes to construct the Newton-Conover Loop, from NC 16, south of Newton, to NC 16, north of Conover. From NC 16, north of Conover, to SR 1880, SR 2103 was constructed on new location as part of the Newton-Conover Loop. SR 2103 is a two-lane, 24-foot (7.3-meter) wide roadway with 8-foot (2.4-meter) shoulders, including 4-foot (1.2-meter) paved shoulders. F.S. 17-95-008, studies the continuation of the loop, from SR 1880 to US 321. The remainder of the Newton-Conover Loop will be studied in the future.

Structure Number 279 carries SR 1927 over Town Creek, approximately 500 feet (152.4 meters) east of US 321 (See Figure 2). This bridge has a

sufficiency rating of 79.7 out of 100. The bridge is 48 feet (14.6 meters) long with a deck width of 23.4 feet (7.1 meters).

Based on information from the North Carolina Department of Environment, Health, and Natural Resources-Division of Solid Waste Management, two Superfund sites have been identified in the project corridor. The sites are R.R. Donnelley Printing Company (Meredith Burda, Inc.), located on SR 1880 (St. James Church Road), and Technibilt/Division of Whittar, located on East P. Street. No environmental problems are anticipated to affect the construction of the Newton-Conover Loop. These sites are listed on the Superfund list because they are registered with the US EPA as hazardous material generators, storage, transport, and disposal facilities.

The Carolina and Northwestern Railway crosses the project corridor. This rail line carries two trains per day at an average speed of 10 miles per hour (14.7 kilometers per hour). The exposure index, a product of the number of trains per day and the design year traffic volume, is 16,580 at this location.

The average daily traffic (ADT) on the new route is estimated to be 3,700 vehicles per day (vpd) in 1994 and 8,290 vpd in the design year 2020. This route would operate at a level of service (LOS) B in 1994 and a LOS D in the year 2020. Land use is mainly industrial along the study corridor.

III. ALTERNATES STUDIED

Two alternates were studied, Alternate A and Alternate B. A two-lane, 24-foot (7.3-meter) wide roadway with 8-foot (2.4-meter) shoulders, including 4-foot (1.2-meter) paved shoulders, on a 100-foot (30.5-meter) wide right-of-way with no access control is the recommended typical section for both alternates.

Alternate A is approximately 1.4 miles (2.3 kilometers) in length (See Figure 2). This alternate begins at US 321 with the reconstruction of SR 1927, then it curves off to the north side of the Technibilt plant, across the railroad tracks, and between the R.R. Donnelley and Sardstedt plants. It intersects SR 1880 approximately 300 feet (91.5 meters) south of its existing intersection with SR 2103. Approximately 0.2 miles (0.3 kilometers) of SR 2103 would be realigned. It is estimated that this alternate would not require the relocation of any residences or business. The estimated cost for Alternate A is \$3,500,000 (\$3,100,000 for construction and \$400,000 for right-of-way).

Alternate B is approximately 1.3 miles (2.1 kilometers) in length (See Figure 2). This alternate begins at US 321 with the reconstruction of SR 1927, then it curves to the east side of the Technibilt plant, across the railroad tracks, between the R.R. Donnelley and Sardstedt plants, and intersects the existing junction of SR 1880 and SR 2103. A metal building would have to be relocated. This alternate is shown on the Hickory-Newton-Conover Thoroughfare Plan. The estimated cost for Alternate B is \$3,700,000 (\$2,900,000 for construction and \$800,000 for right-of-way).

A grade separation is recommended to carry the Southern Railway over the new route, for both alternates (See Figure 2). The exposure index of 16,580 exceeds the 15,000 threshold warranting a grade separation.

Structure Number 279, which carries SR 1927 over Town Creek, would be replaced in both alternates.

Moderate utility conflicts are expected with both alternates.

IV. OTHER COMMENTS AND CONCERNS

No historical or architecturally significant sites are known to be in the vicinity of the proposed project.

