

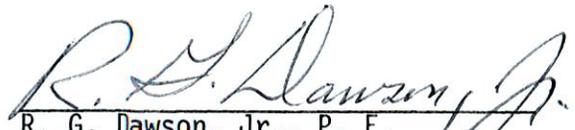
FEASIBILITY STUDY

Morganton  
SR 1922 - SR 1924  
From NC 18 to Interstate 40  
Burke County, U-2551

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



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Morganton  
SR 1922 - SR 1924  
From NC 18 to Interstate 40  
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I. GENERAL DESCRIPTION

This report covers a preliminary study of the proposed upgrading of the SR 1922 - SR 1924 in Morganton to a multi-lane facility from NC 18 to Interstate 40 (see Figures 1 & 2). The proposed project is approximately 1 mile in length. It is included in the 1990-1996 Transportation Improvement Program for feasibility study and/or right-of-way protection. It is not currently funded for design, right-of-way acquisition, or construction.

II. PURPOSE OF PROJECT

Existing Route Characteristics

SR 1922 - SR 1924 serves the southern area of Morganton and provides a major connector between Interstate 40 and NC 18. It serves as a radial route into downtown Morganton area from the south. The studied route is classified a major thoroughfare in the Morganton Thoroughfare Plan. This route is also classified as an Urban Minor Arterial in the North Carolina Functional Classification System.

The subject road is a two-lane facility with widths varying from a 22-foot shoulder section to a 35-foot curb and gutter section. At the intersection of NC 18, the roadway has been widened to add an additional turn lane. The existing right-of-way is claimed 29 feet throughout most of the project length, widening to greater widths at specific locations to accommodate the wider cross sections.

The existing horizontal and vertical alignments are good along the studied section of road. All intersections along the studied route are at grade with the exception of the I-40 interchange, and all are stop sign controlled with the exception of the signalized intersection at NC 18. The speed limit is 35 mph throughout the project length.

Development along the studied route is of moderate density and is a mixture of commercial, residential, and institutional. The Broughton Hospital complex dominates the development on the western side of the project.

Traffic Volumes, Capacity, and Accident Record

Current traffic volume is approximately 6100 vehicles per day (vpd). By the year 2010, it is estimated that this traffic volume will increase to approximately 10,900 vpd. With the current traffic volume, the roadway is approaching capacity, and it will soon be over capacity if no improvements are made. However, with the proposed improvements, SR 1922 - SR 1924 will operate at Level of Service C or better throughout the planning period.

During the period from January 1, 1986 through September 30, 1989, a total of 6 accidents were reported on SR 1922-SR 1924, resulting in an accident rate of 379.75 accidents per 100 million vehicle miles (acc/100mvm). This compares to the statewide average of 378.37 acc/100mvm over a similar period.

### Need for Project

The existing road is operating just below capacity. However, future growth is expected in the area, and improvements will be needed to provide adequate capacity for future traffic volumes. The project will also enhance safety along the road.

### III. RECOMMENDATIONS AND COSTS

It is recommended SR 1922 - SR 1924 be widened to a five-lane curb and gutter section. The recommended cross section is 59 feet from face to face of curbs. This cross section was chosen to minimize damage to the tight development along both sides of the roadway. The widening should be generally symmetrical about the existing centerline; however, it may need to be shifted at specific locations to avoid undue damage to one side. An 80-foot right-of-way, plus construction easements as needed, are anticipated for the proposed roadway. It is recommended the construction be carried through the I-40 interchange to provide adequate capacity and turning lanes. If construction was stopped north of the interchange, it would result in a construction cost savings of \$1,350,000 from the figure shown below (the cost of widening the bridge plus approach work and revisions to the ramp terminals).

The estimated costs of this project are as follows:

Construction	\$ 2,850,000
Right-of-Way	<u>1,900,000</u>
TOTAL	\$ 4,750,000

The construction cost includes engineering and contingencies and the right-of-way cost includes relocation, acquisition, and utility costs.

### IV. ENVIRONMENTAL EFFECTS

The implementation of the proposed project is not expected to result in any significant impact on the environment. The widening of the subject road will require the relocation of 6 residences and 3 businesses. During the design of the project, an effort should be made to reduce the number of relocatees by minor shifts in the alignment to one side or the other. The project does not cross any rivers or streams and does not impact any wetlands. The project will result in increased noise levels for development adjacent to the roadway. Other impacts will be primarily related to the actual construction of the proposed roadway. These include increased noise levels from construction machinery and delay and inconvenience to motorists using the subject route.

#### V. POSSIBLE EXTENSION OF PROJECT

Officials of Burke County and Morganton have requested the project be extended from I-40 southward to SR 1940, a distance of 0.65 mile. A large school, Liberty Junior High, is under construction at the intersection of SR 1922 and SR 1940. The widening of SR 1922 from I-40 to SR 1940 would be a logical extension of the project, and could be constructed in conjunction with the widening north of I-40 or as a second phase of a staged project. The recommended cross section for this extension is a 59-foot curb and gutter section.

The estimated costs of this extension are as follows:

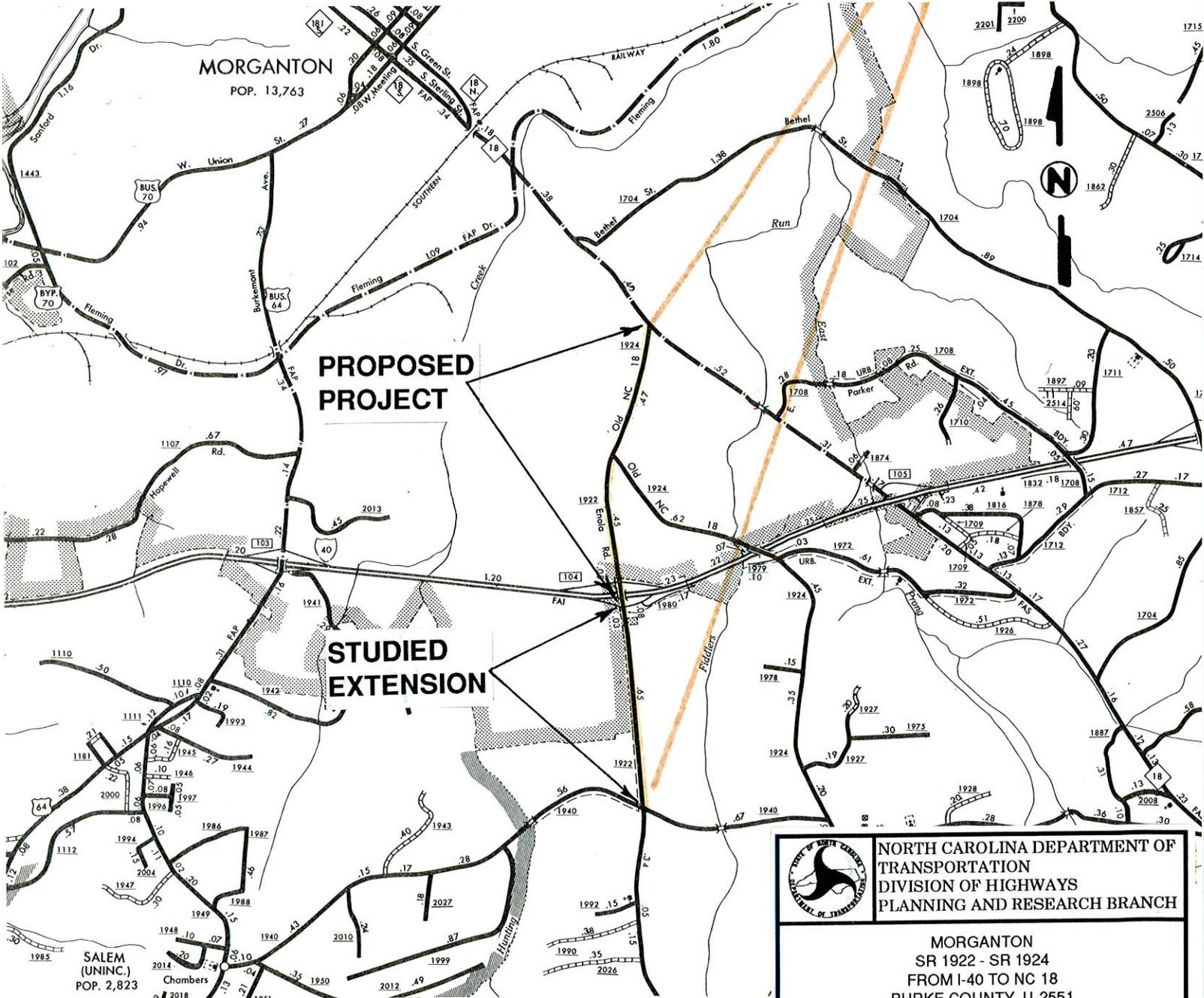
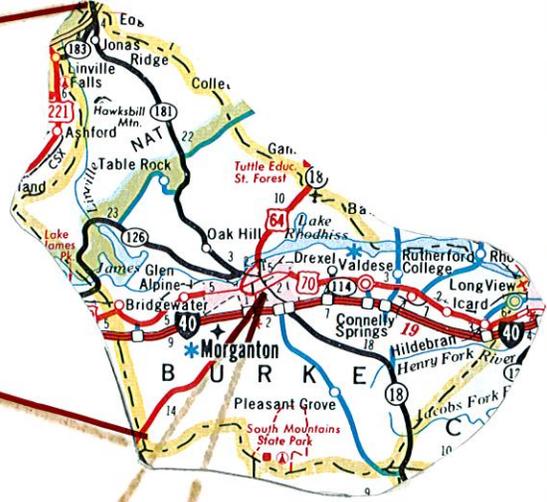
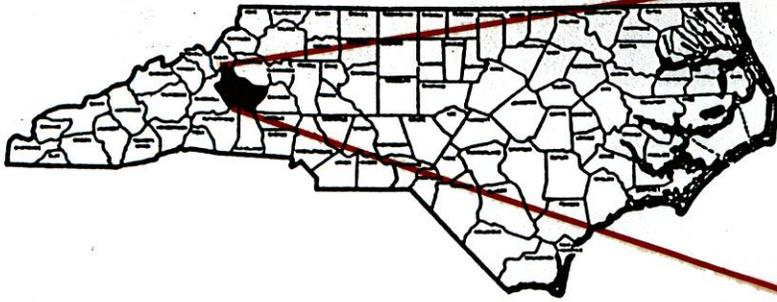
Construction	\$ 950,000
Right-of-Way	<u>1,100,000</u>
TOTAL	\$2,050,000

The construction of this extension will require the relocation of one additional residence and one additional business.

#### V. 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 a planning/environmental document prior to that time, and a decision made as to the most appropriate improvement.

RBD/plr



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

MORGANTON  
SR 222 - SR 224  
FROM I-40 TO NC 18  
BURKE COUNTY, U-2551

0 mi. 1/2 FIG. 1



LIBERTY JR. HIGH SCHOOL  
(UNDER CONSTRUCTION)

SR 1920

SR 1922 ENOLA RD.

SR 1922 ENOLA RD.

SR 1924

OLD NC 18

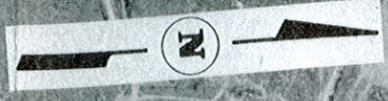
SR 1924

OLD NC 18

NC 18

BROUGHTON HOSPITAL

SAMPLE



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MORGANTON  
SR 1922 - SR 1924  
FROM I-40 TO NC 18  
BURKE COUNTY, U-2551

0 1/2 400 FT. FIG 2