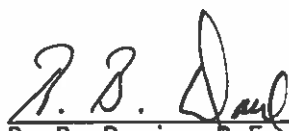


FEASIBILITY STUDY

Winston-Salem, US 311 Connector  
From I-40 to US 421 (Old I-40)  
Forsyth County, U-2577

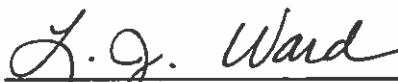
Prepared by  
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2/19/91  
Date



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Winston-Salem, US 311 Connector  
From I-40 to US 421 (Old I-40)  
Forsyth County, U-2577

I. GENERAL DESCRIPTION

This report covers a preliminary study of the proposed US 311 Connector in Winston-Salem. The project will provide a north-south connection between I-40/US 311 and US 421/US 158 on the east side of the city (see Figure 1). The project is approximately 2.8 miles long. It was included in the 1991-1997 Transportation Improvement Program (TIP) for feasibility study and/or right-of-way protection. However, it is not included in the current 1991-1997 TIP.

II. PURPOSE OF PROJECT

Route Characteristics

The proposed connector will provide a major north-south route in eastern Winston-Salem linking the two major east-west routes in the area. It will provide much needed relief to heavily travelled existing routes such as US 52 and US 311. The US 311 Connector is classified a freeway on the Winston-Salem Thoroughfare Plan which was adopted in December, 1987.

The long range function of the connector is dependent on the final location of the Northern Beltway which is under study at the present time. If the location shown on the Thoroughfare Plan is chosen for the Northern Beltway, the US 311 Connector will function as a segment of the beltway. However; if the Beltway location is shifted eastward (an alternative location presently under study) the connector would no longer be part of the beltway system.

Traffic Volumes and Capacity

The projected traffic volumes on the proposed connector are estimated to be approximately 20,000 vehicles per day (vpd) in 2010 if it is not part of the beltway system, or 25,000 vpd if it is part of the beltway system. With a four-lane facility, the connector should operate at Level of Service C or better throughout the planning period.

Need for Project

The proposed US 311 Connector is a vital element in the City of Winston-Salem's Thoroughfare Plan. It will be needed whether it is or is not part of a beltway that will encircle the city when completed. The construction of the connector is needed to provide relief for the growing problem of congestion on the existing north-south routes.

### III. RECOMMENDATIONS AND COSTS

It is recommended the US 311 Connector be built in Winston-Salem from I-40 to US 421. The proposed alignment (shown on Figure 2) is entirely on new location. The recommended cross section is a four-lane divided roadway with a 46-foot median. A 300-foot right-of-way is anticipated for the project.

The estimated costs of the project are as follows:

|              |                  |
|--------------|------------------|
| Construction | \$33,800,000     |
| Right-of Way | <u>7,600,000</u> |
| TOTAL        | \$41,400,000     |

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

### IV. ALTERNATIVES CONSIDERED

In addition to the four-lane divided alternative recommended above, a five-lane curb and gutter cross section was considered. If the easternmost alternative is chosen for the northern beltway project, the need for the connector to be constructed as a freeway would be greatly diminished. Without the beltway, the connector would be carrying lower volumes of primarily local traffic. A five-lane improvement would be appropriate in this case, would be less costly, and require less right-of-way (an estimated 100 feet plus construction easements).

The estimated costs of this alternative are:

|              |                  |
|--------------|------------------|
| Construction | \$26,100,000     |
| Right-of-Way | <u>4,500,000</u> |
| TOTAL        | \$30,600,000     |

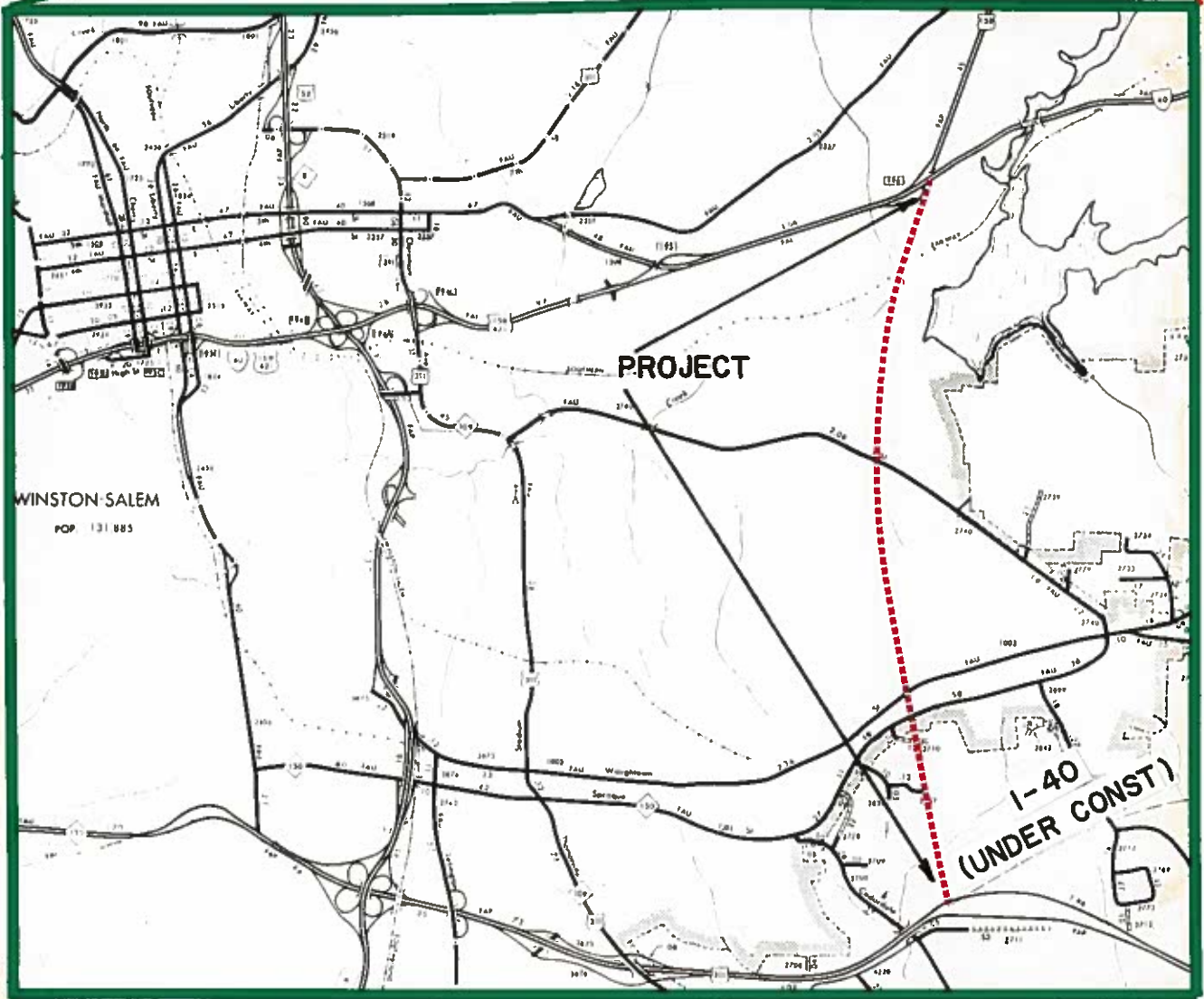
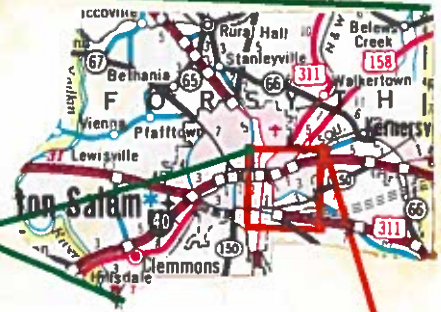
### V. ENVIRONMENTAL EFFECTS


The construction of the freeway alternative will require the relocation of 26 residences and 4 businesses, while the construction of the five-lane alternative will require the relocation of 17 residences and 4 businesses. The project will result in increased noise levels for development near the proposed roadway. Limited wetland involvement can be expected at the crossing of several small streams. Other impacts will be primarily related to the actual construction of the proposed roadway. These include minor erosion and siltation and increased noise levels from construction machinery.

## VI. 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/rfm



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|  | NORTH CAROLINA DEPARTMENT OF<br>TRANSPORTATION<br>DIVISION OF HIGHWAYS<br>PLANNING AND ENVIRONMENTAL<br>BRANCH            |
|   | <b>WINSTON-SALEM</b><br><b>US 311 CONNECTOR</b><br><b>FROM I-40 TO US 421 (OLD I-40)</b><br><b>FORSYTH COUNTY, U-2577</b> |
| FIG. 1  |   |