

US 311 from I-40 to Guilford County Line
Project ~~U2713~~
R2713

The subject project is included in the 1990-1997 Transportation Improvement Program but without accompanying schedules. This report provides a brief analysis of possible improvements. The project is not currently funded.

I. Location, Type of Facility and Scope of Study

The section of US 311 covered in this study begins at I-40 Project and terminates at the Guilford County Line in Forsyth County (See Figure 1)

The Feasibility Study investigated one project on US 311 for Pavement Rehabilitation, Guardrail, and Slope Improvements. The project is as follows:

Project U2713: Forsyth County from I-40 to Guilford County Line. The length of the project is approximately 8.22 miles.

The subject section of US 311 consist primarily of 4 lane divided highway with 2 lanes north and 2 lanes south, with 24 feet of pavement, 2 foot shoulders on right and left lanes and a median that is 186 feet at I-40 to 63.5 feet. The existing pavement, shoulder widths, guardrail, and slopes were constructed in 1983. Due to the rutting of the pavement a leveling course of rulumac was applied to the right lanes and a surface course of rulumac applied to the right and left lanes. The ramps also were surfaced in 11-90.

II. Summary of Needed Improvements.

A) Pavement Rehabilitation

The results of this study reveal that it would be feasible and desirable to mill 100% of the right lanes and 50% of the left lanes north and southbound. In areas that are milled to replace with B.C.B.C., Type H to existing pavement elevation and resurface both lanes with I. There are 6 Overhead Bridges (Structure Numbers 394, 392, 401, 400, 398 and 19). Existing pavement elevations should be maintained beneath these. There are two bridges over SR 2699 (Structure Numbers C396S and 395N) that should not be resurfaced. Pavement on left and right lanes should be mulled to tie to existing bridge pavement grade. The pavement markings will be thermoplastic with surface mount markers.

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B) Guardrail and Slope Improvements

The results of this study reveal that there is a total of approximately 17,903 feet of guardrail in 22 areas. Twenty of these areas have the approach ends buried and clips were used to hold guardrail in place. It would be feasible and desirable to replace the buried approach ends with B.C.T-1 Terminal End Sections.

In ten of these areas there are places where washes have developed. It would be feasible and desirable to remove guardrail and pave the 14 foot shoulder with a base of 5" A.B.C. and 1" of I-1. In area on the low side of the super or where there is a long fill section, it would also be feasible to use some method to control the flow of water to down slope pipes in areas of severe washing.

It may also be feasible and desirable for the Geo-technical Unit to make a study for the best method to stabilize the effected slopes.

The estimated cost for the above improvements is \$1,506,000.00.

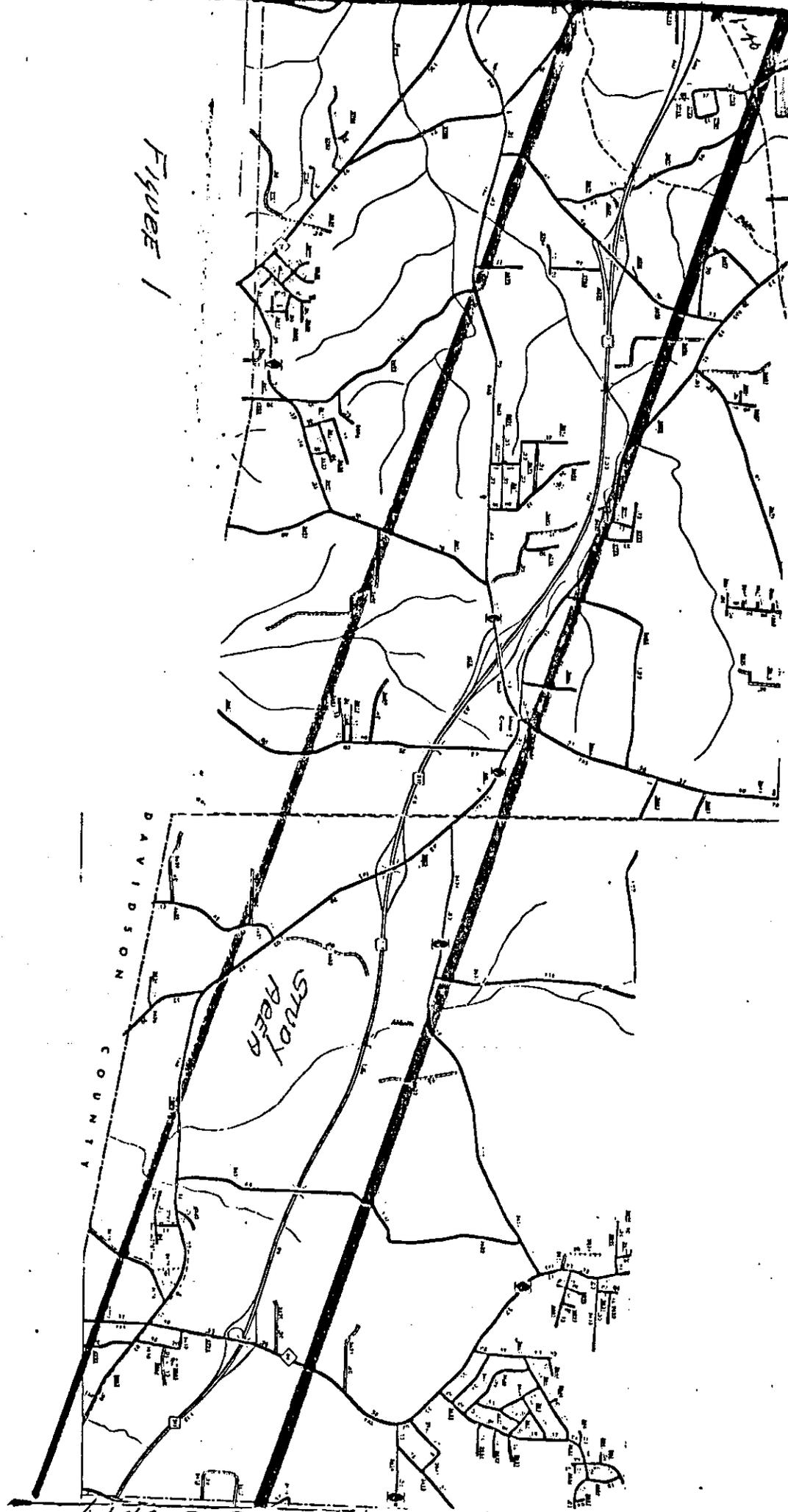


Figure 1

GUILFORD COUNTY

DAVIDSON COUNTY

STUY PLEN