

FEASIBILITY STUDY

Mount Airy  
US 601  
From Proposed US 52/I-77 Connector  
To SR 1366  
Surry County  
R-2917

Prepared by  
Program Development Branch  
Division of Highways  
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## I. GENERAL DESCRIPTION

This preliminary study describes proposed improvements to US 601 in Surry County. The project location is shown on Figure 1. It is proposed to widen US 601 from the proposed US 52/I-77 Connector to SR 1366 (Edgewood Drive), a distance of approximately 1.3 miles. Also, Bridge #81 over Stewarts Creek will be widened.

From the southern project terminal to Stewarts Creek, a distance of approximately 0.4 mile, US 601 will be widened to a 4-lane divided facility with a 46 foot wide median. Bridge # 81 will be widened 20 feet to provide a clear deck width of 64 feet. From Stewarts Creek to SR 1366, a distance of approximately 0.9 miles, US 601 will be widened to a 5-lane curb and gutter cross-section. The new cross-section will be 64 feet wide from face to face of curbs and will have berms 8 feet wide. The existing right of way width, south of Stewarts Creek, is generally 260 feet, and north of Stewarts Creek it is generally 100 feet. No new right of way will be required for these improvements, however, some utility adjustments will be necessary.

It is proposed that the improvements be implemented in two chronological stages. Stage I includes the improvements from the US 52/I-77 Connector to SR 1456, a distance of approximately 0.7 miles. Stage II includes the improvements from SR 1456 to SR 1366 (Edgewood Drive), a distance of approximately 0.6 mile.

The estimated cost for Stage I including construction and utility adjustments is \$2,100,000; for Stage II is \$ 1,200,000 and the total project cost is estimated to be \$ 3,300,000.

This study is the initial step in the planning and design process for this project and is not to be considered the product of exhaustive environmental or design investigations. The purpose of the study is to describe the problem, recommend a treatment including costs, and identify potential problems that may require consideration in the planning and design phases.

## II. NEED FOR PROJECT

The purpose of this project is to improve the traffic carrying capacity of US 601, a major north-south route in Surry County. Construction of the proposed US 52/I-77 Connector will likely cause traffic volumes on US 601 to increase.

This project will extend the multilane cross-section that exists on US 601 north of SR 1366 south to the proposed US 52/I-77 Connector. US 601 is a Major Thoroughfare on the Mount Airy Thoroughfare Plan. South of Stewarts Creek, US 601 is classified a Rural Minor Arterial; north of Stewarts Creek it is classified an Urban Principal Arterial in the North Carolina Statewide Functional Classification System.

South of Stewarts Creek, US 601 is a two-lane, two-way, roadway 24 feet wide with grassed shoulders 10 feet wide. Bridge #81 over Stewarts Creek is 181 feet long, has a clear deck width of 44 feet, and a sufficiency rating of 97.5. North of Stewarts Creek, the pavement width on US 601 remains 24 feet for approximately 300 feet, then transitions to approximately 48 feet at SR 1456. This 48 foot width is carried to SR 1484 (Ridgewood Drive). Between Stewarts Creek and SR 1484 (Ridgewood Drive) there are also grass shoulders 10 feet wide.

Between SR 1484 (Ridgewood Drive) and the northern project terminal (SR 1366), US 601 is a curb and gutter section approximately 51 feet wide between curb faces. North of SR 1366, US 601 is a 5-lane curb and gutter section approximately 64 feet wide from face to face of curbs. All intersections within the project limits are at-grade and only the SR 1366 intersection is controlled with a traffic signal. The existing right of way width, south of Stewarts Creek, is generally 260 feet, and north of Stewarts Creek it is generally 100 feet.

Immediately south of this project US 601 will be widened to a 4-lane median divided facility under project R-98, the US 52/I-77 Connector.

Development on US 601, south of Stewarts Creek, is generally light density rural residential and agricultural development. Between Stewarts Creek and SR 1484, US 601 is generally undeveloped. Between SR 1484 and SR 1366 the west side of US 601 is generally developed commercially, and the east side is generally undeveloped.

The 1993 Average Daily Traffic (ADT) on US 601 is estimated to be 19,000 vehicles per day (vpd) and the ADT for the year 2013 is estimated to be 35,000 vpd. Based on these traffic estimates the Level Of Service (LOS) provided by existing US 601 in 1993 is level F. With the proposed improvements the 1993 (LOS) and 2013 (LOS) are estimated to be level B and level C respectively.

During the period between June 1, 1989 and May 31, 1992 there were 33 accidents reported on this section of US 601. This resulted in an accident rate of 158 accidents per 100 million vehicle miles (Acc/100MVM), compared to a statewide average of 144 Acc/100 MVM for all rural US routes during 1992. There were no fatalities reported during the period, however, 15 accidents resulted in non fatal injuries. The most prevalent accident types were Rear-end (46 %), Left-turn (24 %), and Angle (12%).

The wider cross section proposed for US 601 will reduce the potential for these types of accidents.

### III. RECOMMENDATIONS

It is proposed to widen US 601, in Surry County, from the proposed US 52/I-77 Connector to SR 1366 (Edgewood Drive) south of Mount Airy, a distance of approximately 1.3 miles. Also, Bridge #81 over Stewarts Creek will be widened. The project location is shown on Figure 1.

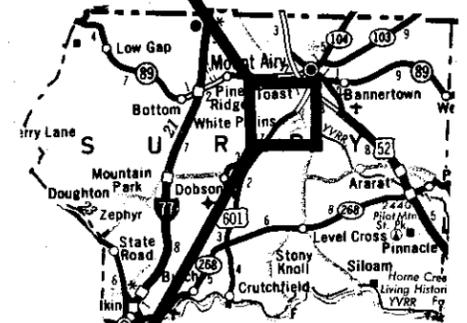
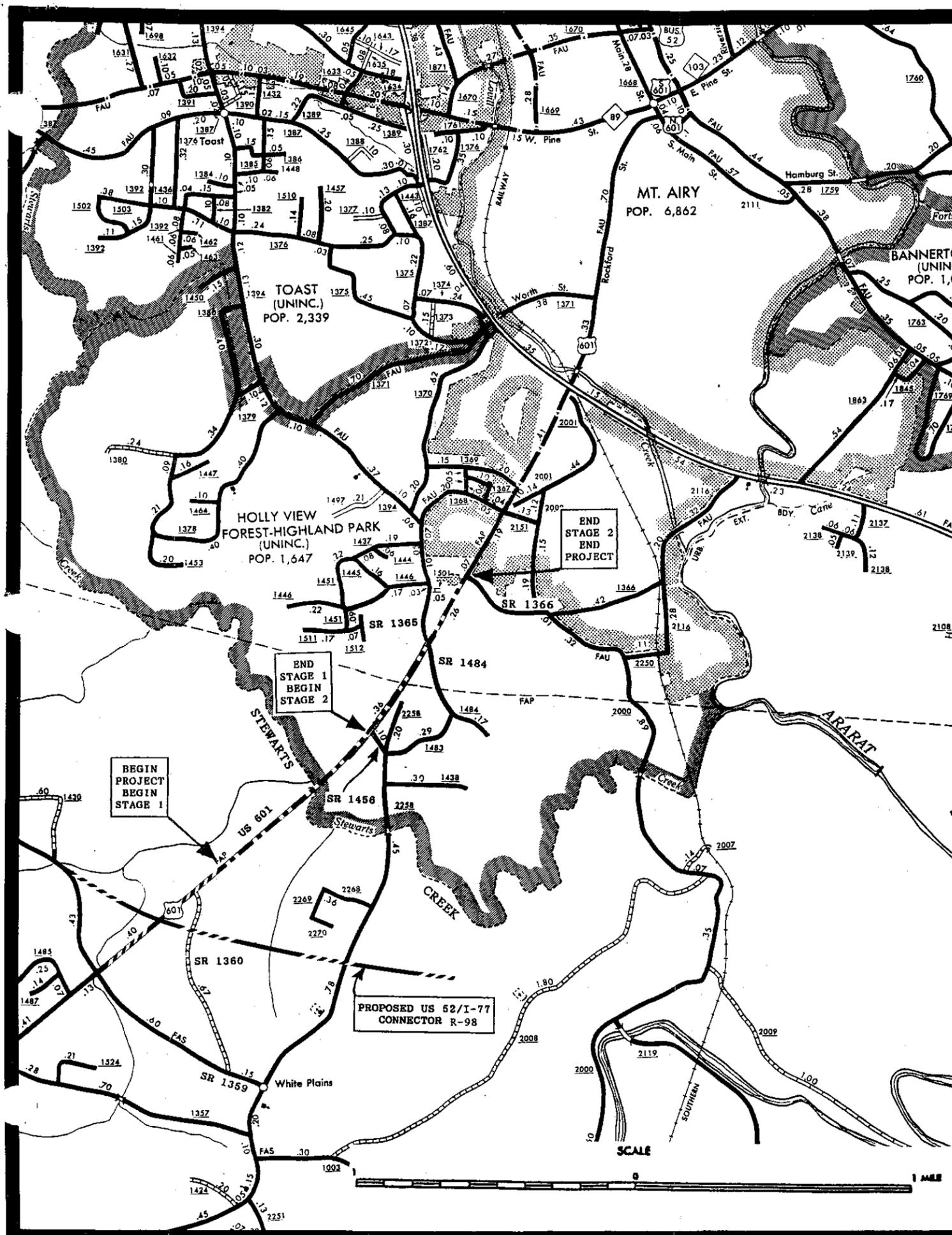
From the southern project terminal to Stewarts Creek, a distance of approximately 0.4 mile, US 601 will be widened to a 4-lane divided facility with a 46 foot wide median. Bridge # 81 will be widened 20 feet to provide a clear deck width of 64 feet. From Stewarts Creek to SR 1366, a distance of approximately 0.9 miles, US 601 will be widened to a 5-lane curb and gutter cross-section. The new cross-section will be 64 feet wide from face to face of curbs and will have berms 8 feet wide. No new right of way will be required for these improvements, however, some utility adjustments will be necessary.

It is recommended that the improvements be implemented in two chronological stages. Stage I includes the improvements from the US 52/I-77 Connector to SR 1456, a distance of approximately 0.7 miles. Stage II includes the improvements from SR 1456 to SR 1366 (Edgewood Drive), a distance of approximately 0.6 mile.

The total project cost is estimated to be \$3,300,000 as follows:

Stage I Construction.....	\$ 2,000,000
Stage I Utility Adjustments.....	100,000
Stage I Total Cost.....	2,100,000
Stage II Construction.....	1,100,000
Stage II Utility Adjustments.....	100,000
Stage II Total Cost.....	1,200,000
Total Project Cost.....	\$ 3,300,000

An environmental screening was not conducted for this study, however, there are no significant environmental problems known to be associated with this project.



FEASIBILITY STUDIES UNIT		
FIGURE 1. PROJECT LOCATION		
US 601 FROM US 52/I-77 CONNECTOR TO SR 1366		
SURRY COUNTY		
R-2917	DIV. 11	FIGURE 1