

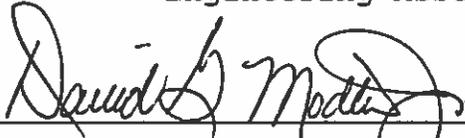
FEASIBILITY STUDY

Rocky Mount
US 301 Bypass (N. Wesleyan Blvd.)
From SR 1836 (May Dr.) to
NC 43/48 (Benvenue Rd.)
Nash County
U-3330

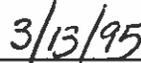
Prepared by
Program Development Branch
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I. GENERAL DESCRIPTION

This preliminary study describes proposed improvements to US 301 Bypass (N. Wesleyan Boulevard) in Rocky Mount. It is proposed to widen US 301 Bypass from SR 1836 (May Drive) to NC 43/48, a distance of approximately 2.29 miles (3.69 km) by adding one travel lane in each direction (See Figure 1). The resulting cross section is six-lane divided roadway, with a 30-foot (9.2-m) median with 10-foot (3.0-m) shoulders, 4-foot (1.2-m) paved, on 200-foot (61.0-m) of existing partially controlled right of way. The proposed widening is on the outside and all affected, existing turn lanes are to be replaced. The impact of this project on existing interchange ramps has been discussed with Roadway Design and the existing ramp geometry appears adequate. The bridges carrying US 64 Business (Bridge Nos. 196 and 198), and the bridge carrying SR 1544 (Bridge No. 181) are recommended to be replaced. Other existing structures can either be widened or have sufficient clearance to accommodate the proposed improvements to US 301.

The total estimated cost for the project including construction and right of way is \$7,800,000 (\$7,600,000 for construction and \$200,000 for right of way). It is estimated that there will be no relocations due to this project.

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

II. NEED FOR PROJECT

The purpose of this project is to improve the traffic carrying capacity and accident experience of US 301 Bypass in Rocky Mount. The project was requested by the City of Rocky Mount.

US 301 Bypass is designated a major thoroughfare on the Rocky Mount Urban Thoroughfare Plan. Within the study limits it is classified as a principal arterial in the North

Carolina Statewide Functional Classification System.
Development on US 301 Bypass is dense commercial.

The existing US 301 Bypass cross-section is a four-lane divided roadway with 30-foot (9.2-m) median and variable width shoulders, including 4-foot (1.2-m) paved outside shoulders on 200 feet (61.0 m) of partially-controlled access. The pavement widths are 24 feet (7.3 m) wide with additional turn lanes at the intersections with SR 1836 (May Drive), left and right, both approaches; Stone-Rose Avenue, left and right, both approaches; US 64 Bypass ramp terminals, left and right, both approaches; Sutters Creek Boulevard, double left and single right, both approaches; and SR 1598 (Independence Drive), northbound double left and southbound left and right. These intersections are controlled with traffic signals. Continuous frontage roads as such do not exist within the study corridor.

The following structures exist within the project corridor:

NC 43/48 Interchange	No. 101	S. R.	79.0
Goose Branch	No. 301	S. R.	82.0
SR 1544	No. 181	S. R.	45.1
US 64 Byp Interchange	No. 214	S. R.	94.0
	No. 215	S. R.	96.0
Stoney Creek	No. 173	S. R.	58.9
	No. 175	S. R.	73.7
US 64 Bus Interchange	No. 196	S. R.	48.9
	No. 198	S. R.	67.7

The Average Daily Traffic (ADT) on US 301 Bypass from May Drive to NC 43/48 is estimated at 25,000 vehicles per day (vpd). The ADT for 2020 is projected to be 43,000 vpd.

US 301 currently operates at a Level of Service (LOS) D based on the 1994 traffic. With the proposed improvements, a LOS C will be attained based on the 1994 traffic and a LOS D will prevail through the 2020 design year.

During the period from April 1, 1991, through March 31, 1994, there were 240 accidents reported on US 301 Bypass. This resulted in an accident rate of 871 accidents per 100 million vehicle miles (Acc/100 mvm), compared to a statewide average of 252 Acc/100 mvm for all US routes during 1994. There were no fatal accidents and 117 accidents resulted in non-fatal injuries. The most prevalent accident types were rear-end (54%), angle (16%), and left-turn (9%). The wider cross-section proposed for US 301 Bypass will reduce the potential for these type accidents.

III. RECOMMENDATIONS

It is proposed to widen US 301 Bypass from SR 1836 (May Drive) to NC 43/48, a distance of approximately 2.29 miles (3.69 km) by adding one travel lane in each direction. The resulting cross section is six-lane divided roadway, with a 30-foot (9.2-m) median with 10-foot (3.0-m) shoulders, 4-foot (1.2-m) paved, on 200-foot (61.0-m) of existing partially controlled right of way. The proposed widening is on the outside and all affected, existing turn lanes are to be replaced. The impact of this project on existing interchange ramps has been discussed with Roadway Design and the existing ramp geometry appears adequate.

US 301 Bypass passes under several bridges from May Drive to NC 43/48. To widen US 301 Bypass, it is recommended that Bridges 196 and 198, at existing US 64 Business interchange, and Bridge 181, at SR 1544, be replaced. Structures 196 and 198 carry US 64 Business over US 301 Bypass and have sufficiency ratings of 67.7 and 48.9 respectively. They each have a clear deck width of 31.4 feet (9.6 m) and a length of 196 feet (60 m). Structure 181 carries SR 1544 over US 301 Bypass and has a sufficiency rating of 45.1. It has a clear deck width of 26.5 feet (8.1 m) and a length of 195 feet (59.5 m). Structures 173 and 175, sufficiency ratings 58.9 and 73.7 respectively, over Stoney Creek can be widened one lane and therefore retained. There is sufficient clearance to widen under US 64 Bypass Structures 214 and 215, sufficiency ratings 94.0 and 96.0 respectively, adding a 12-foot (3.7-m) lane, a 10-foot (3.0-m) shoulder with an 8-foot (2.4-m) retaining wall in each direction. There is also sufficient clearance to widen under the NC 43/48 Structure 101, sufficiency rating 79.0, adding a 12-foot (3.7-m) lane, a 10-foot (3.0-m) shoulder with an 8-foot (2.4-m) retaining wall in each direction. The retaining walls have been coordinated with Roadway Design.

It is estimated there will be no relocations due to this project. The total estimated cost of this project is as follows:

Construction	\$ 7,600,000
Right of Way	\$ 200,000
Total Cost	\$ 7,800,000

IV. OTHER COMMENTS

An environmental screening was not conducted for this study, however, no historic properties or wetlands are anticipated.

