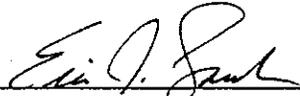


FEASIBILITY STUDY

**Rocky Mount
Country Club Road (SR 1616)
From US 64 Business to Jeffreys Road (SR 1541)
Nash County
U-3331**

Prepared by
Program Development Branch
Division of Highways
N. C. Department of Transportation



Eric J. Lamb

Transportation Engineer Associate



David G. Modlin, Ph.D., P.E.
Head of Feasibility Studies

3/13/95
Date

Rocky Mount
Country Club Road (SR 1616)
From US 64 Business to Jeffreys Road (SR 1541)
Nash County
U-3331

I. General Description

This feasibility study describes widening Country Club Road (SR 1616) in Rocky Mount, Nash County. It is recommended to widen Country Club Road between US 64 Business and Jeffreys Road (SR 1541), a distance of 1.4 miles (2.3 km). The recommended cross-section is a five-lane curb-and-gutter section 64 feet (19.5 m) wide from face to face of curbs with 8-foot (2.4-m) berms. The existing bridge over Stoney Creek will be replaced with a new bridge with a clear deck width of 68 feet (20.7 m). A right-of-way of 100 feet (30.5 m) is recommended. The project location is shown on Figure 1. It is anticipated that there will be one business relocated due to this project. The total cost of the project including construction and right-of-way is estimated to be \$ 8,700,000.

This study is the initial step in the planning and design process for this project and is not the product of exhaustive environmental or design investigations. The purpose of this study is to describe the proposed project 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 Country Club Road. This project was requested by the Rocky Mount Transportation Advisory Committee.

Country Club Road is designated as an urban collector on the North Carolina Statewide Functional Classification System and as a minor thoroughfare in the Rocky Mount Urban Area Thoroughfare Plan.

Development along the project is of mixed use within the project limits. There are several small businesses located near the intersection with US 64 Business. From the Stoney Creek bridge to Hunter Hill Road, development is primarily single family residential along both sides of the roadway. There are several businesses and a shopping center located in the vicinity of the intersection with Hunter Hill Road. There are two businesses and a new

subdivision at the intersection with Jeffreys Road. Rocky Mount Community Hospital is located adjacent to this intersection on Jeffreys Road.

From US 64 Business to Jeffreys Road, Country Club Road is a two-lane, two-way roadway 20 feet (6.1 m) wide with 6-foot (1.8-m) wide soil shoulders. The existing right-of-way is 60 feet (18.3 m) wide.

There is a bridge carrying Country Club Road over Stoney Creek. Bridge Number 112 is located 0.3 miles (0.5 km) north of US 64 Business. It is 160 feet (48.8 m) long and has a clear deck width of 28.1 (8.6 m) feet. This bridge has a sufficiency rating of 78.6.

The 1994 Average Daily Traffic (ADT) on Country Club Road varies between 12,000 and 13,400 vehicles per day (vpd). For the design year 2020, the estimated traffic volumes on Country Club Road will range between 30,000 and 32,600 vpd. Truck traffic is estimated to make up 6% of daily traffic.

Country Club Road is currently operating at Level of Service (LOS) C. If no improvements are made, this roadway will reach LOS F by the design year 2020. Widening Country Club Road to a five-lane curb-and-gutter section would improve design year LOS to D.

During the three-year period from April 1, 1991, to March 31, 1994, there were 98 accidents reported on Country Club Road within the project limits. These accidents produced a total of 46 injuries. The accident rate along the project is 732.98 accidents per 100 million vehicle miles (ACC/100MVM). This compares with the 1993 statewide rate of 260.3 ACC/100MVM for two-lane urban primary routes.

III. Recommendations

It is recommended to widen Country Club Road from US 64 Business to Jeffreys Road (SR 1541), a distance of 1.4 miles. The recommended cross-section is a five-lane curb-and-gutter section 64 feet (19.5 m) wide from face to face of curbs with 8-foot (2.4-m) berms. The existing bridge over Stoney Creek will be replaced with a new bridge with a clear deck width of 68 feet (20.7 m). A right-of-way of 100 feet (30.5 m) is recommended.

Traffic forecasts from Statewide Planning project a significant increase in right turns from northbound Country Club Road onto Jeffreys Road. Two solutions were considered to deal with this projected increase. The first alternate involves utilizing dual right turn lanes from Country Club Road onto Jeffreys

Road. This configuration adequately allows traffic to pass through the intersection. This configuration is shown in Figure 2.

The recommended alternate proposes to realign the roadways so that Country Club and Jeffreys Road become a continuous through movement, as shown in Figure 3. This alternate creates a less difficult traffic movement through the intersection, as well as a more efficient signal phasing. This intersection configuration operates at a higher level of service than the first alternate.

Due to the nature of right-of-way constrictions, short retaining walls may be considered in the vicinity of the Hunter Hill Road intersection. This may reduce the potential impact on adjacent businesses. Also, it will be necessary to reduce the cross-section of Country Club Road to four lanes in the vicinity of the US 64 Bypass overpass. This will minimize any potential impact to the bridge substructure.

It is anticipated that one business will be relocated due to this project.

The total cost of the project is as follows:

Construction.....	\$ 4,500,000
Right-of-way.....	<u>\$ 4,200,000</u>
Total Cost	\$ 8,700,000

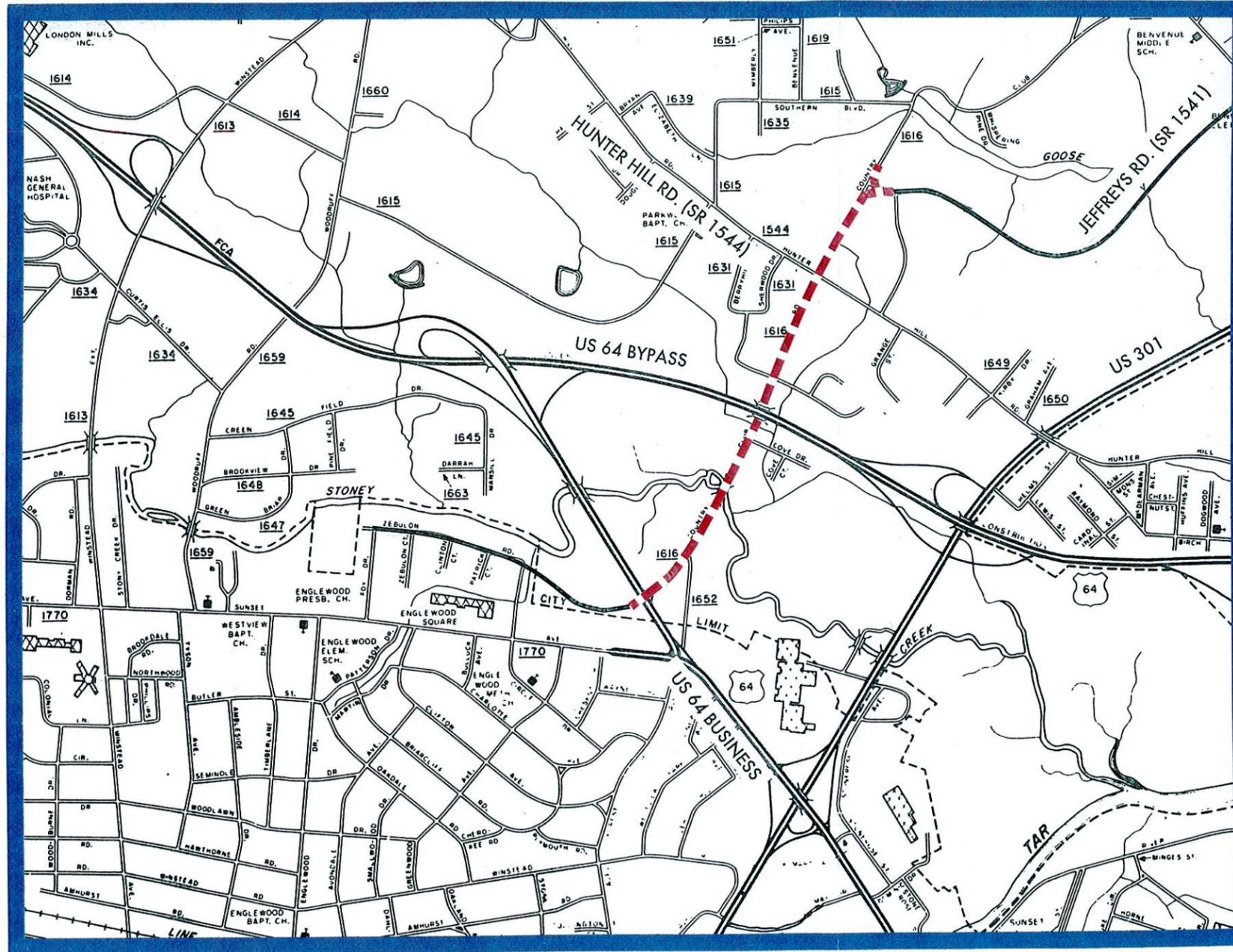
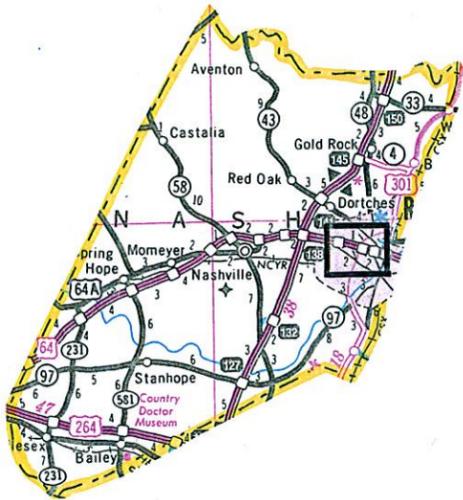
IV. Other Comments

The total cost for constructing the project without any alignment changes is as follows:

Construction.....	\$ 4,300,000
Right-of-way.....	<u>\$ 3,300,000</u>
Total Cost	\$ 7,600,000

An environmental screening was not conducted for this study.

No special accommodation for bicycles is recommended on this project.



LEGEND

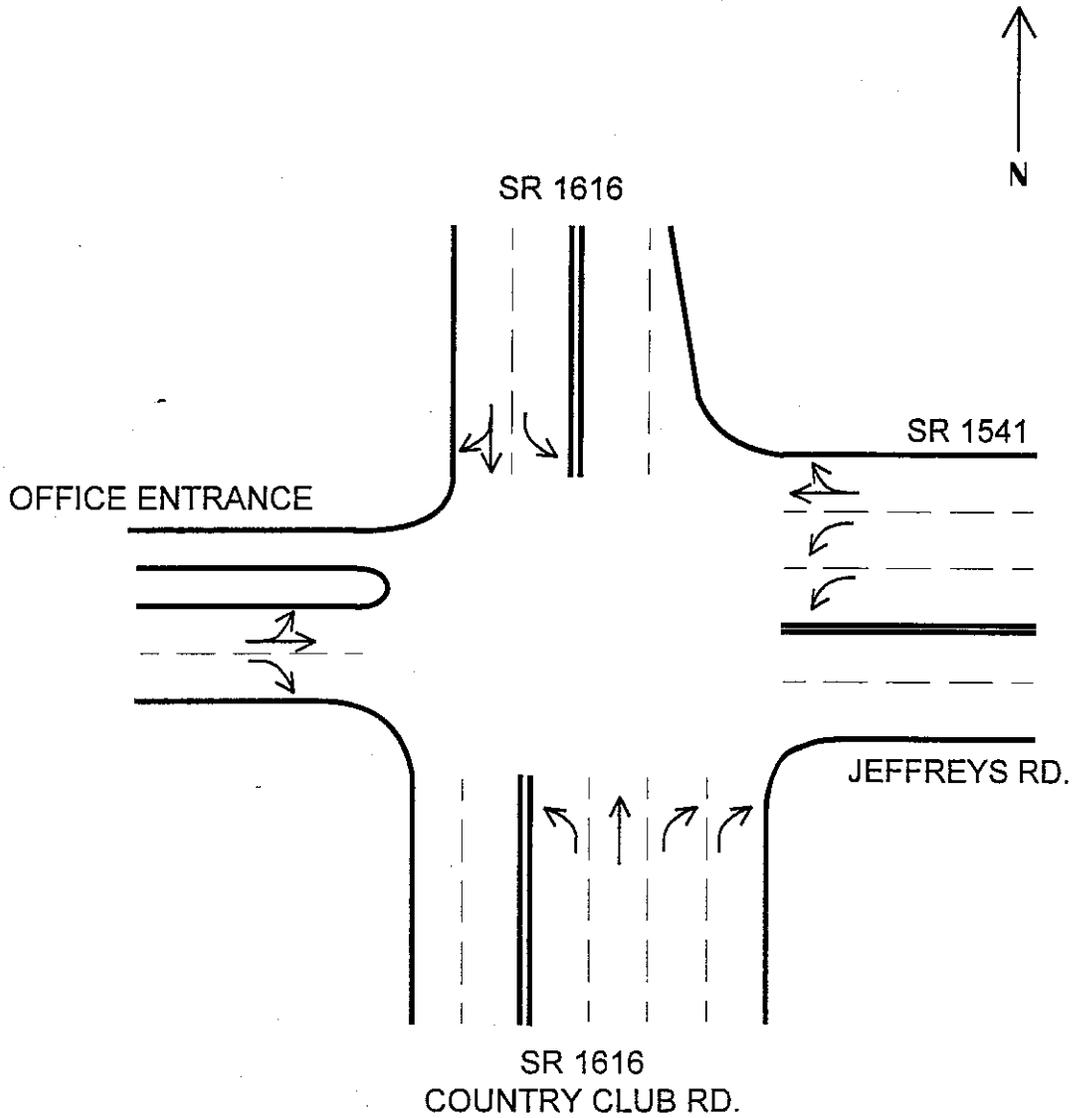
— — — — — PROPOSED ROADWAY

FEASIBILITY STUDIES UNIT

U-3331
COUNTRY CLUB RD. (SR 1616)
FROM US 64 BUS. TO JEFFREYS RD. (SR 1541)
ROCKY MOUNT

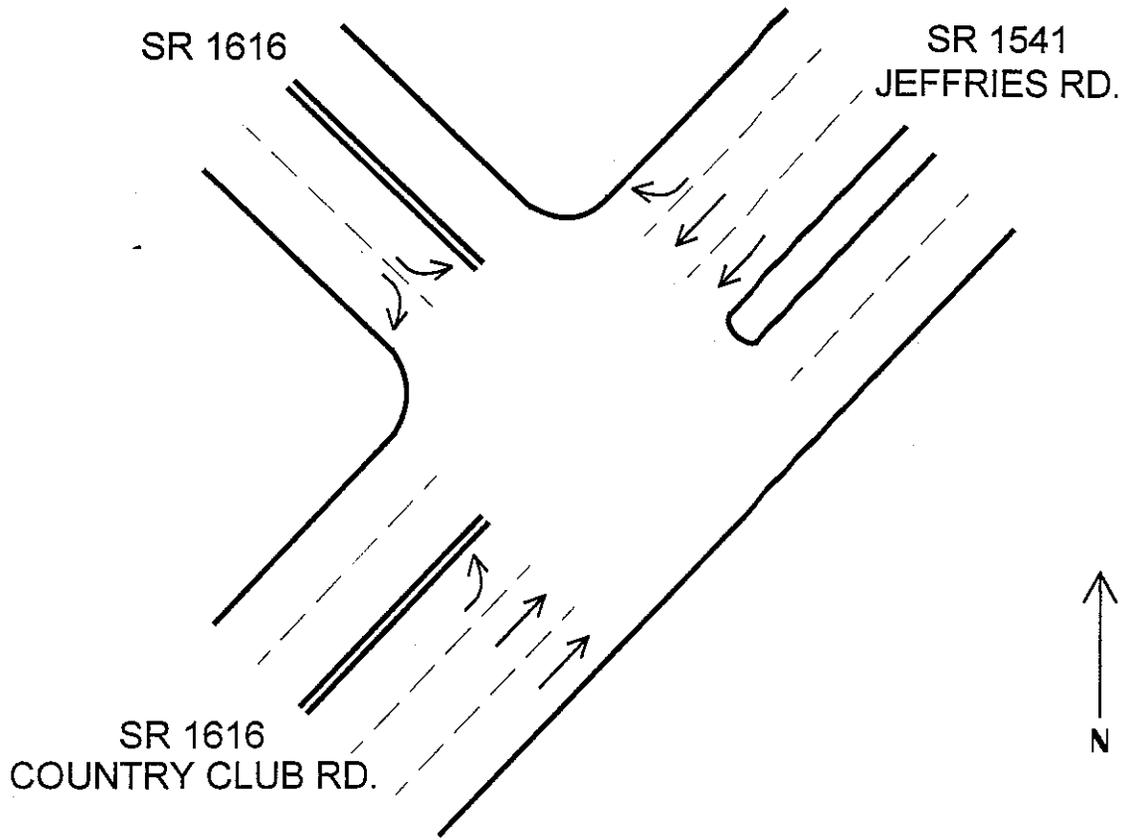
DIVISION 4 | NASH COUNTY | FIGURE 1

**PROPOSED INTERSECTION CONFIGURATION
ALTERNATE 1**



FEASIBILITY STUDIES UNIT		
<p>PROPOSED INTERSECTION CONFIGURATION ALTERNATE 1 COUNTRY CLUB RD. AT JEFFREYS RD. NASH COUNTY U-3331</p>		
DIVISION 4	Not to scale	FIGURE 2

**PROPOSED INTERSECTION CONFIGURATION
ALTERNATE 2**



FEASIBILITY STUDIES UNIT		
PROPOSED INTERSECTION CONFIGURATION ALTERNATE 2 COUNTRY CLUB RD. AT JEFFREYS RD. NASH COUNTY U-3331		
DIVISION 4	Not to scale	FIGURE 3