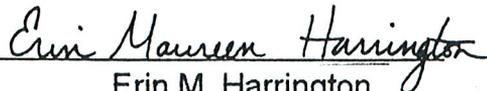


FEASIBILITY STUDY

Concord
New Route from US 29-601
to NC 136 (Branchview Drive)
Cabarrus County

U-3416

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



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Date

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I. General Description

This feasibility study describes construction of a new multi-lane connector from US 29-601 to NC 136 (Branchview Drive), in Concord. Two alternate routes were evaluated for this project with the cross-section for both alternates being a 5-lane, 64-foot (19.5-m) wide (face-to-face), curb-and-gutter section, with 8-foot (2.4-m) wide berms.

The studied alignment of Alternate 1 is along existing Mall Road from US 29-601 to approximately 0.4 miles (0.6 km) east of US 29-601 and then on new location to NC 136 at Copperfield Road.

The total project length of Alternate 1 is 0.6 miles (1.0 km) and the required right-of-way width is 100-feet (30.5-m). The location of Alternate 1 is shown on Figure 1.

The studied alignment of Alternate 2 is along existing Country Club Drive from US 29-601 to approximately 0.3 miles (0.5 km) east of US 29-601 and then on new location to NC 136 at Copperfield Road.

The total project length of Alternate 2 is 0.6 miles (1.0 km) and the required right-of-way width is 100-feet (30.5-m). The location of Alternate 2 is shown on Figure 2.

Alternate 1 is the preferred alternate of the City of Concord and the North Carolina Department of Transportation, Division 10 office.

The estimated cost of right-of-way and construction for Alternate 1 is \$4,400,000 as follows:

Right-of-Way.....	\$ 2,200,000
Construction.....	<u>\$ 2,200,000</u>
Total Cost.....	\$ 4,400,000

It is anticipated that 1 business and no residences will be relocated as a result of Alternate 1.

This study is the initial step in the planning and design process for this project and is not considered the product of exhaustive environmental or design investigations. The purpose of this study is to describe the alternative treatments including costs, and identify potential problem areas that deserve consideration in the planning and design phases.

II. Existing Conditions

The purpose of this project is to provide an alternate route from US 29-601 to NC 136.

At the southwestern terminal, US 29-601 is generally a four-lane median divided roadway with 12-foot (3.6-m) wide travel lanes. At the intersection of US 29-601 and Mall Road, US 29-601 has been widened to five lanes to facilitate turning movements. This intersection is currently signalized.

At the northeastern project terminal, NC 136 (Branchview Drive), SR 2081 (Lake Concord Road), and Copperfield Road form a 4-leg intersection. NC 136 is generally a two-lane roadway with 26-foot (7.9-m) wide pavement and 8-foot (2.4-m) wide soil shoulders. SR 2081 is generally a two-lane, 35-foot (10.7-m) wide (face-to-face) curb-and-gutter facility. The roadways have been widened to three lanes at the intersection to accommodate turning movements. Copperfield Road is a recently constructed, non-system street. It has a 5-lane, 64-foot (19.5-m) wide (face-to-face), curb-and-gutter section.

There is an existing non-system connector, Mall Road, between US 29-601 and NC 136, in the area of the studied project. This connector consists of a roadway between Cabarrus Memorial Hospital and Carolina Mall. The road is the result of striping lanes across the mall parking lot.

The studied corridor is heavily developed commercially and institutionally. Located along the route is the above named hospital and mall, and numerous medical office facilities.

It is estimated that if this project were in place at this time, it would have traffic volumes ranging between 9,000 and 10,700 vehicles per day (vpd). In the design year (2020), volumes are estimated in excess of 12,000 vpd.

Based on current traffic projections, it is estimated that the proposed roadway will initially operate at a Level of Service A which will prevail through the design year (2020).

III. Detailed Description

This feasibility study describes construction of a new multi-lane connector from US 29-601 to NC 136 (Branchview Drive), in Concord. Two alternate routes were evaluated for this project with the cross-section for both alternates being a 5-lane, 64-foot (19.5-m) wide (face-to-face), curb-and-gutter section, with 8-foot (2.4-m) wide berms.

The studied alignment of Alternate 1 is along existing Mall Road from US 29-601 to approximately 0.4 miles (0.6 km) east of US 29-601 and then on new location to NC 136 at Copperfield Road.

The total project length of Alternate 1 is 0.6 miles (1.0 km) and the required right-of-way width is 100-feet (30.5-m). The location of Alternate 1 is shown on Figure 1.

The studied alignment of Alternate 2 is along existing Country Club Drive from US 29-601 to approximately 0.3 miles (0.5 km) east of US 29-601 and then on new location to NC 136 at Copperfield Road.

The total project length of Alternate 2 is 0.6 miles (1.0 km) and the required right-of-way width is 100-feet (30.5-m). The location of Alternate 2 is shown on Figure 2.

Alternate 1 is the preferred alternate of the City of Concord and the North Carolina Department of Transportation, Division 10 office and is more fully described as:

1. Widen existing Mall Road from US 29-601 to approximately 0.4 miles (0.6 km) east of US 29-601,
2. Construct a new segment of roadway on new location from Mall Road at approximately 0.4 miles (0.6 km) east of US 29-601 on Mall Road to NC 136 at Copperfield Road,
3. Realignment of the NC 136-Copperfield Road intersection,
4. Traffic signal upgrades at US 29-601 and at NC 136, and
5. Construct a new connector from SR 2081 to the new roadway.

The estimated cost of right-of-way and construction for Alternate 1 is \$4,400,000 as follows:

Right-of-Way.....	\$ 2,200,000
Construction.....	\$ <u>2,200,000</u>
Total Cost.....	\$ 4,400,000

It is anticipated that 1 business and no residences will be relocated as a result of Alternate 1.

IV. Other Comments

The second alternate evaluated, Alternate 2, is more fully described as:

1. Widening existing Country Club Road from US 29-601 to approximately 0.3 miles (0.5 km) east of US 29-601,
2. Construction on new location from Country Club Drive at approximately 0.3 miles (0.5 km) east of US 29-601 to NC 136 at Copperfield Road,
3. Construction of new connectors to Lake Concord Road and Country Club Drive, and
4. Traffic signal upgrades at US 29-601 and at NC 136.

The estimated cost of right-of-way and construction for Alternate 2 is \$3,450,000 as follows:

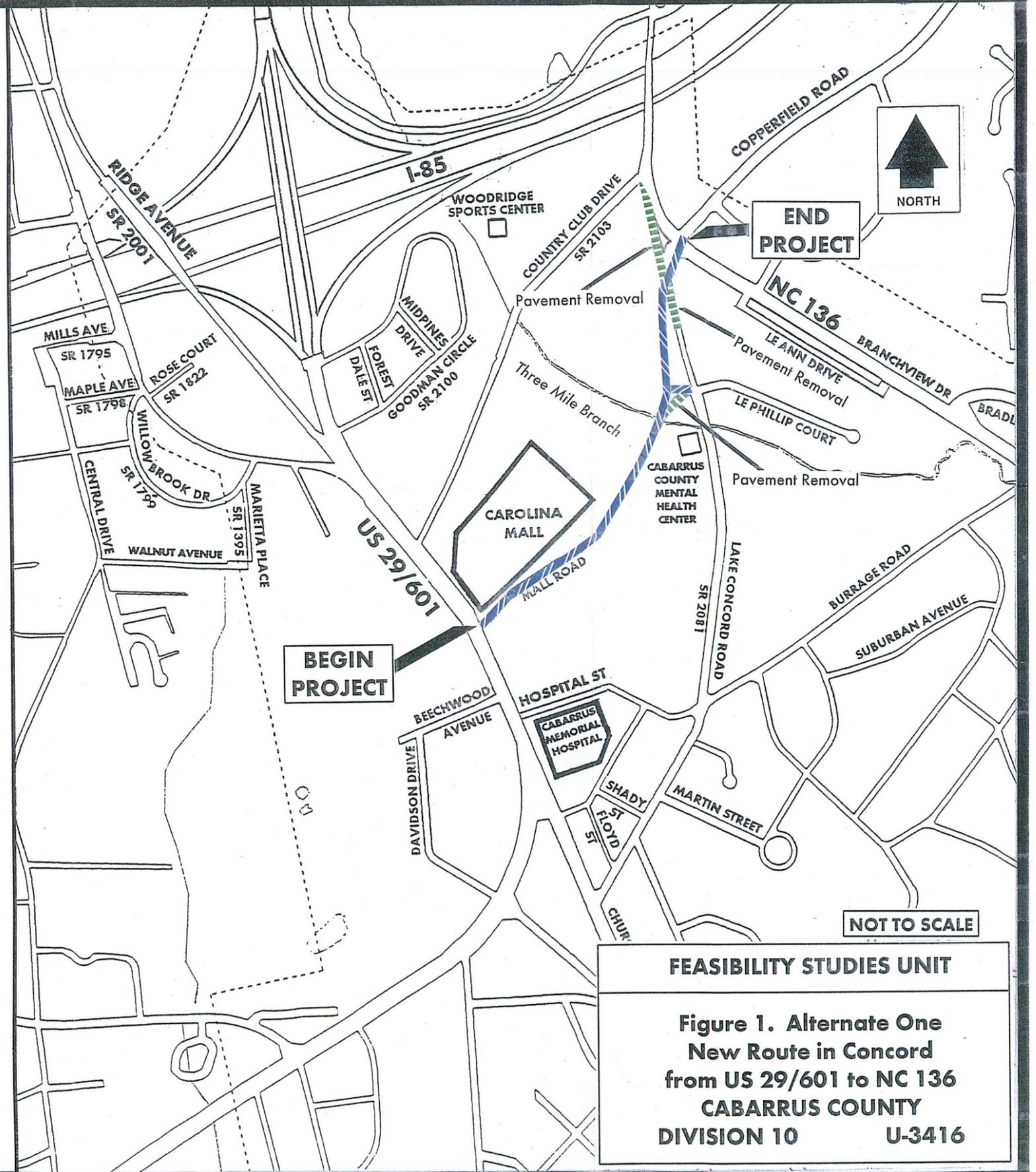
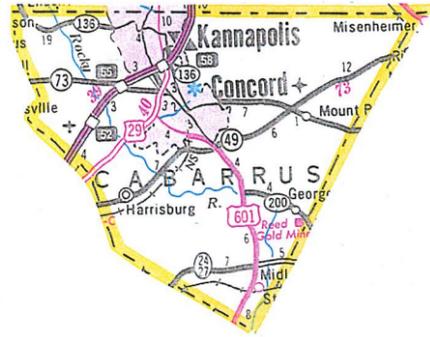
Right-of-Way.....	\$ 1,300,000
Construction.....	<u>\$ 2,150,000</u>
Total Cost.....	\$ 3,450,000

It is anticipated that no businesses or residences will be relocated as a result of Alternate 2.

Although Alternate 2 is less costly than Alternate 1, Alternate 1 is the preferred and recommended alternate because it offers a more direct route to Cabarrus Memorial Hospital and could significantly reduce arrival time with emergency vehicles not having to negotiate the intersection at Country Club Road and US 29-601.

An environmental screening was not conducted for this study.

Special accommodations for bicycles were not considered.



NOT TO SCALE

FEASIBILITY STUDIES UNIT

**Figure 1. Alternate One
New Route in Concord
from US 29/601 to NC 136
CABARRUS COUNTY
DIVISION 10 U-3416**

