

FEASIBILITY STUDY

**Charlotte
New Route
from SR 2113 (Vance Rd.) / SR 2110 (Reames Rd.)
to SR 2004 (Mt. Holly-Huntersville Rd.)
Mecklenburg County
U-3410**



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

A handwritten signature in black ink, appearing to read "Eric J. Lamb", written over a horizontal line.

Eric J. Lamb
Feasibility Studies Engineer

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Head of Feasibility Studies

2/28/96
Date

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I. General Description

This feasibility study describes constructing a new roadway facility from SR 2113 (Vance Rd.) / SR 2110 (Reames Rd.) to SR 2004 (Mt. Holly-Huntersville Rd.), a distance of 1.8 miles (2.9 km). The project location is shown on Figure 1. The proposed cross-section is a five-lane curb and gutter section, 64 feet (19.5 m) wide from face-to-face with 8-foot (2.4-m) berms, on 100 feet (30.5 m) of right-of-way with partial access control. It is also proposed to build a grade separation at the intersection with the Charlotte Outer Loop. It is anticipated that there will be four residences and no businesses relocated due to this project. The total cost of the project, including construction and right-of-way, is estimated to be \$23,600,000.

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 to identify potential problems that may require consideration in the planning and design phases.

II. Need for Project

The purpose of this project is to create a logical link between SR 2110 (Reames Rd.) and SR 2004 (Mt. Holly-Huntersville Rd.). This roadway will also accommodate anticipated development in this area, which may include office and retail space, as well as a large shopping mall.

SR 2110 and SR 2004 are designated as minor thoroughfares in the Charlotte-Mecklenburg Thoroughfare Plan. SR 2110 is classified as a major rural collector and SR 2004 is classified as a minor rural arterial in the North Carolina Statewide Functional Classification System.

At the southern terminus of the project, SR 2110 is a two-lane roadway with soil shoulders. There is also an additional left-turn lane at the intersection with SR 2113 (Vance Rd.). SR 2004 is also a two-lane roadway with soil shoulders that intersects with SR 2116 (Alexanderana Rd.) at the northern end

of the project. There is very little development in this area. There are several single-family residences in the immediate vicinity of the project.

The Charlotte Outer Loop (TIP Project R-2248D) will construct an eight-lane, controlled-access facility on new location through this area. No access to the Outer Loop is proposed as a part of this project. Access to this area will be provided by interchanges at SR 2113 (Vance Rd.) and at I-77.

There is an underground petroleum pipeline owned by Colonial in this area. The size of this pipeline is unknown, but Colonial currently maintains 80 feet (24.4 m) of dedicated right-of-way for this pipeline.

If this project is constructed, the projected 1996 Average Daily Traffic (ADT) along the project is 3,600 vehicles per day (vpd). For the design year 2020, the estimated traffic volume along the project will be 31,300 vpd. Truck traffic is estimated to make up 3% of daily traffic.

If this facility is constructed as a five-lane or a four-lane divided curb and gutter section, it will operate at Level of Service (LOS) A in the current year and at LOS C in the design year 2020.

III. Description of Project

It is proposed to construct a new roadway facility from SR 2113 (Vance Rd.) / SR 2110 (Reames Rd.) to SR 2004 (Mt. Holly-Huntersville Rd.), a distance of 1.8 miles (2.9 km). The project location is shown on Figure 1. The proposed cross-section is a five-lane curb and gutter section, 64 feet (19.5 m) wide from face-to-face with 8-foot (2.4-m) berms, on 100 feet (30.5 m) of right-of-way with partial access control. It is proposed to realign the intersection of SR 2004 and SR 2116 (Alexanderana Rd.) to accommodate this new route. It is also proposed to realign the intersection of SR 2113 and SR 2110.

Construction of a grade separation at is proposed at the intersection with the proposed Charlotte Outer Loop. A new culvert will also be needed in order to cross Dixon Branch. It is proposed to install signals at the intersection with SR 2113 (Vance Rd.) and at the intersection with SR 2004 (Mt. Holly-Huntersville Rd.)

It is anticipated that four residences and no businesses will be relocated due to the project.

The total cost is as follows:

Construction.....	\$ 8,100,000
Right-of-way.....	\$ 15,500,000
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Total Cost	\$ 23,600,000

IV. Other Comments

Officials from the City of Charlotte requested that a four-lane divided curb and gutter section be examined as a part of this project. This cross-section would consist of 12-foot (3.7-m) travel lanes, a 22-foot (6.7-m) grassy median and 8-foot (2.4-m) berms on 100 feet (30.5 m) of right-of-way. The total cost of this option is as follows:

Construction.....	\$ 8,200,000
Right-of-way.....	\$ 15,500,000
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Total Cost	\$ 23,700,000

An environmental screening was not conducted for this study. However, based on maps at the Department of Environment, Health & Natural Resources - Natural Heritage Section, no threatened or endangered species were identified in the project corridor.

There is a historical property on SR 2116 (Alexanderana Rd.) located adjacent to the intersection of SR 2004 (Mt. Holly-Huntersville Rd.). The McAuley Farm is listed on the National Register of Historical Places (#1598). The property boundary begins 950 feet (289.6 m) from the intersection and no conflicts are anticipated as a part of this project.

Impacts to wetlands are expected and a Corps of Engineers Section 404 Permit is anticipated.

No special accommodation for bicycles is recommended on this project.

