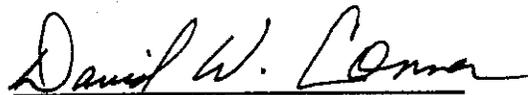


FEASIBILITY STUDY

**Waynesville
Dellwood Road From Brown Avenue to Russ Avenue
Haywood County**

U-3466

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



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2/28/96
Date

Waynesville
Dellwood Road From Brown Avenue to Russ Avenue
Haywood County

U-3466

I. General Description

This feasibility study describes construction of a new roadway from Brown Avenue to Russ Avenue, in Waynesville. The total project length is 1.6 miles (2.6 km). The location of the new facility is shown on Figure 1.

The studied alignment includes construction on new location from Brown Avenue to Mill Street, construction along and immediately west of Mill Street to Dellwood Road, and construction along Dellwood Road to Russ Avenue.

The studied cross section from Brown Avenue to Smathers/Miller Street is a 2-lane, 28-foot (8.5-m) wide (face-to-face), curb-and-gutter section with 8-foot (2.4-m) wide berms. The required right-of-way width is 100 feet (30.5 m).

The studied cross section from Smathers/Miller Street to Russ Avenue is 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 required right-of-way width is 100 feet (30.5 m).

The estimated cost of right-of-way and construction is \$14,735,000 as follows:

Right-of-Way	\$ 6,185,000
Construction	<u>8,550,000</u>
Total Cost	\$14,735,000

It is anticipated that 20 businesses and 26 residences will be relocated as a result of this project.

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 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

This project was requested by the Town of Waynesville through the 1994 Transportation Improvement Program (TIP) hearing process. The project, as studied, is included on Waynesville Thoroughfare Plan as a major thoroughfare.

The purpose of this project is to move local and through traffic from the US 19-23 area and to provide access to the west part of Waynesville and a middle school on Brown Avenue.

At the south project terminal, Brown Avenue is a 2-lane, 28-foot (8.5-m) wide (face-to-face) curb-and-gutter section.

Within the project limits, Dellwood Road extends from Depot Street to Russ Avenue. It is a 2-lane, 28-foot (8.5-m) wide (face-to-face) curb-and-gutter section. The roadway segment has sidewalks on the west side from Russ Avenue for a distance of approximately 0.4 miles (0.6 km) toward Depot Street. The sidewalk then alternates to the east side for a similar distance to Depot Street.

At Russ Avenue, Dellwood Road is heavily developed commercially. Heavy, mixed residential and commercial development extend south on the west side of the roadway for a distance of approximately 0.4 miles (0.6 km). On the east side of the roadway, development is a heavy mix of residential and commercial from Russ Avenue to Depot Street.

Right-of-way along Dellwood Road is narrow and most of the development is set back from the curb-line approximately 30 feet (9.1 m) to 40 feet (12.2 m).

At the north project terminal Russ Avenue/Dellwood Road is a 5-lane, curb-and-gutter section.

Immediately east of the proposed Dellwood Road extension, between Smathers/Miller Street and Depot Street, there is an existing creek (Richland Creek) and heavy commercial/industrial development including a power substation, propane storage facilities, and a chemical plant. This development necessitates locating the proposed roadway along the route of Mill Street which is a northbound, one-way, one-lane, shoulder section.

The proposed Dellwood Road extension, between Brown Avenue and Smathers/Miller Street, will cross the Norfolk Southern Railroad and Richland Creek. This railroad carries four low speed trains per day. This area of the proposed project is lightly developed with residences and businesses.

Within the project terminals, it is estimated that traffic volumes on Dellwood Road are approaching 14,000 vehicles per day (vpd) and the roadway is currently operating at a Level of Service D.

It is estimated that, in the design year (2020), traffic volumes will reach approximately 7,600 vpd between Brown Avenue and Smathers/Miller Street and approximately 21,000 vpd between Smathers/Miller Street and Russ Avenue. Construction of the improvements as studied should allow the segment from Brown Avenue to Smathers/Miller Street to operate at a Level of Service C and the segment from Smathers/Miller Street to Russ Avenue to operate at a Level B.

III. Detailed Description

This feasibility study describes construction of a new roadway from Brown Avenue to Russ Avenue, in Waynesville. The total project length is 1.6 miles (2.6 km). The location of the new facility is shown on Figure 1.

The studied alignment includes construction on new location from Brown Avenue to Mill Street, construction along and immediately west of Mill Street to Dellwood Road, and construction along Dellwood Road from Mill Street to Russ Avenue.

The studied cross section from Brown Avenue to Smathers Street is a 2-lane, 28-foot (8.5-m) wide (face-to-face), curb-and-gutter section with 8-foot (2.4-m) wide berms, on new location. The required right-of-way width is 100 feet (30.5 m).

A grade separation over the Norfolk Southern Railroad and Killian Street and a new bridge over Richland Creek should be constructed.

Boyd Street should be realigned on the east side of the new roadway to create a 90 degree intersection and should be extended on the west side to intersect the new roadway.

The studied cross section from Smathers Street to Russ Avenue is 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 required right-of-way width is 100 feet (30.5 m).

A retaining wall will be required between the new roadway and Norris Street and a new connector should be constructed from Norris Street to Chestnut Park Drive.

Chestnut Park Drive should be realigned to form a 90 degree intersection with the new roadway.

A new traffic signal should be installed at Smathers Street and the existing traffic signal at Russ Avenue should be upgraded.

At Smathers Street, the southbound approach of the new roadway should include a right-turn lane onto Smathers Street, a through lane, a left-turn lane onto Smathers Street/Miller Street and two lanes northbound.

At Russ Avenue, the northbound approach should include a right-turn lane, a combination right-turn/through/left-turn lane, a left-turn lane, and two southbound lanes exiting the intersection.

The estimated cost of right-of-way and construction is \$14,735,000 as follows:

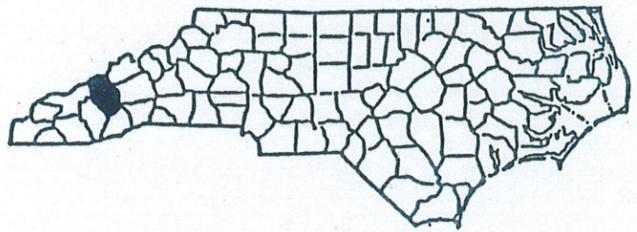
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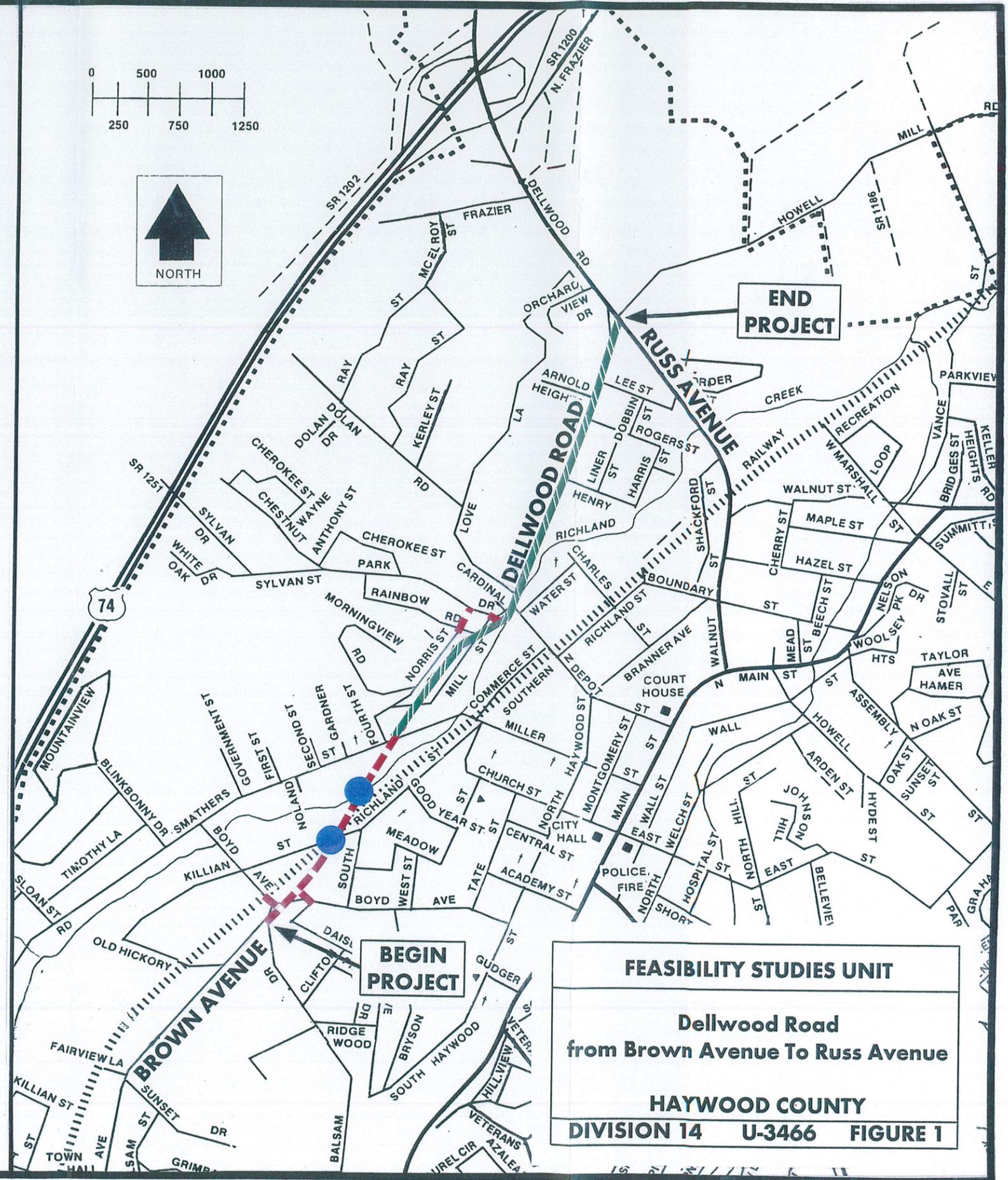
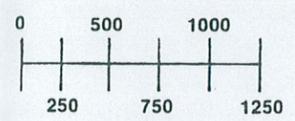
IV. Other Comments

Corps of Engineers Permits and wetlands mitigation will probably be required due to the potential for construction in wetland areas. The costs included in this report do not include any costs for wetlands mitigation.

No environmental screenings were done as a part of this study.



LEGEND	
	5-LANE CURB AND GUTTER
	2-LANE CURB AND GUTTER
	BRIDGE



FEASIBILITY STUDIES UNIT

**Dellwood Road
from Brown Avenue To Russ Avenue**

HAYWOOD COUNTY

DIVISION 14 U-3466 FIGURE 1