

FEASIBILITY STUDY

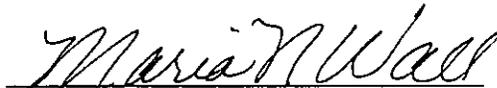
SR 1001

from the Burke County Line to
SR 1933 (Southwest Boulevard) in Lenoir

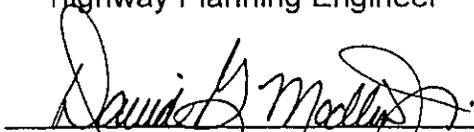
Caldwell County

R-3430

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



Maria N. Wall, P.E.
Highway Planning Engineer



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

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Date

FEASIBILITY STUDY

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from the Burke County Line to
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R-3430

I. GENERAL DESCRIPTION

This is a feasibility study for the widening of SR 1001, from the Burke County Line to SR 1933 (Southwest Boulevard) in Lenoir, in Caldwell County (See Figure 1). The project is approximately 7.1 miles (11.5 km) in length. The recommended typical section is a five-lane, 64-foot (19.5-m) face-to-face, curb and gutter section with 8-foot (2.4-m) berms on a 100-foot (30.5-m) wide right-of-way with no access control. It is recommended that this project be constructed in phases. Section 3 would have highest priority, followed by Section 2, then Section 1. The estimated costs are as follows:

	Section 1	Section 2	Section 3	Total
Construction	\$2,700,000	\$11,000,000	\$3,700,000	\$17,400,000
Right-of-Way	\$200,000	\$2,500,000	\$2,000,000	\$4,700,000
Total	\$2,900,000	\$13,500,000	\$5,700,000	\$22,100,000

II. NEED FOR PROJECT

The studied improvements are needed to improve the level of service and reduce the accident rate on SR 1001. SR 1001 is classified as a major collector on the Statewide Functional Classification System, and a major thoroughfare on the Caldwell County Thoroughfare Plan.

The existing SR 1001 is mainly a two-lane, 22-foot (6.7-m) wide roadway with 2 to 6-foot (0.6 to 1.8-m) wide shoulders. Land use along SR 1001 is mixed; residential, institutional, and commercial.

The south terminal is located north of the county line at the north end of Bridge Number 10. The north terminal is located at the intersection with SR 1933 in Lenoir. TIP Project Number U-2211, proposes to widen SR 1001, from SR 1933 to SR 1178, utilizing a five-lane, 64-foot (19.5-m) face-to-face, curb and gutter section with 8-foot (2.4-m) berms on a 100-foot (30.5-m) wide right-of-way with no access control.

There are several churches and cemeteries, a school, and a fire station located along the study corridor. Asymmetrical widening may be used to minimize impacts to these properties.

A traffic analysis was performed for each section of the studied project. The results are shown in the table below:

	ADT (vpd)		LOS - Existing		LOS - Recommended	
	1995	2015	1995	2015	1995	2015
Section 1	10,300	19,000	E	F	A	B
Section 2	11,400	21,300	E	F	A	C
Section 3	13,300	24,700	E	F	B	C

Note: ADT (vpd) = Estimated Average Daily Traffic in vehicles per day
 LOS = Level of Service

During the period from May, 1992, through April, 1995, there were 237 accidents reported along the studied section of SR 1001 (Section 1 = 13 accidents, Section 2 = 161 accidents, Section 3 = 63 accidents). This resulted in an accident rate of 249.9 accidents per 100 million vehicle miles (acc/100mvm) compared to a statewide average of 189.5 acc/100mvm for this type of facility. Rear-end collisions accounted for 47% of the accidents. Two fatalities were reported. The recommended improvements are expected to reduce the accident rate.

III. RECOMMENDATIONS

Based on field observations, traffic volumes, and accident rates, it is recommended that this project be constructed in phases. Section 3 is the highest priority; because the traffic volume is highest in this section. Section 1 is the lowest priority. Bridge Number 10, over the Catawba River, is a two-lane bridge and south of the bridge the road continues as a two-lane road. Section 1 widening should be coordinated with any future projects to widen Bridge Number 10 and the roadway south of the bridge.

The recommended typical section is a five-lane, 64-foot (19.5-m) face-to-face, curb and gutter section with 8-foot (2.4-m) berms on a 100-foot (30.5-m) wide right-of-way with no access control. Retaining walls may be needed in some locations to minimize relocations.

The recommended improvements would decrease traffic congestion and improve safety.

Moderate utility conflicts are expected.

Total project cost is estimated as follows:

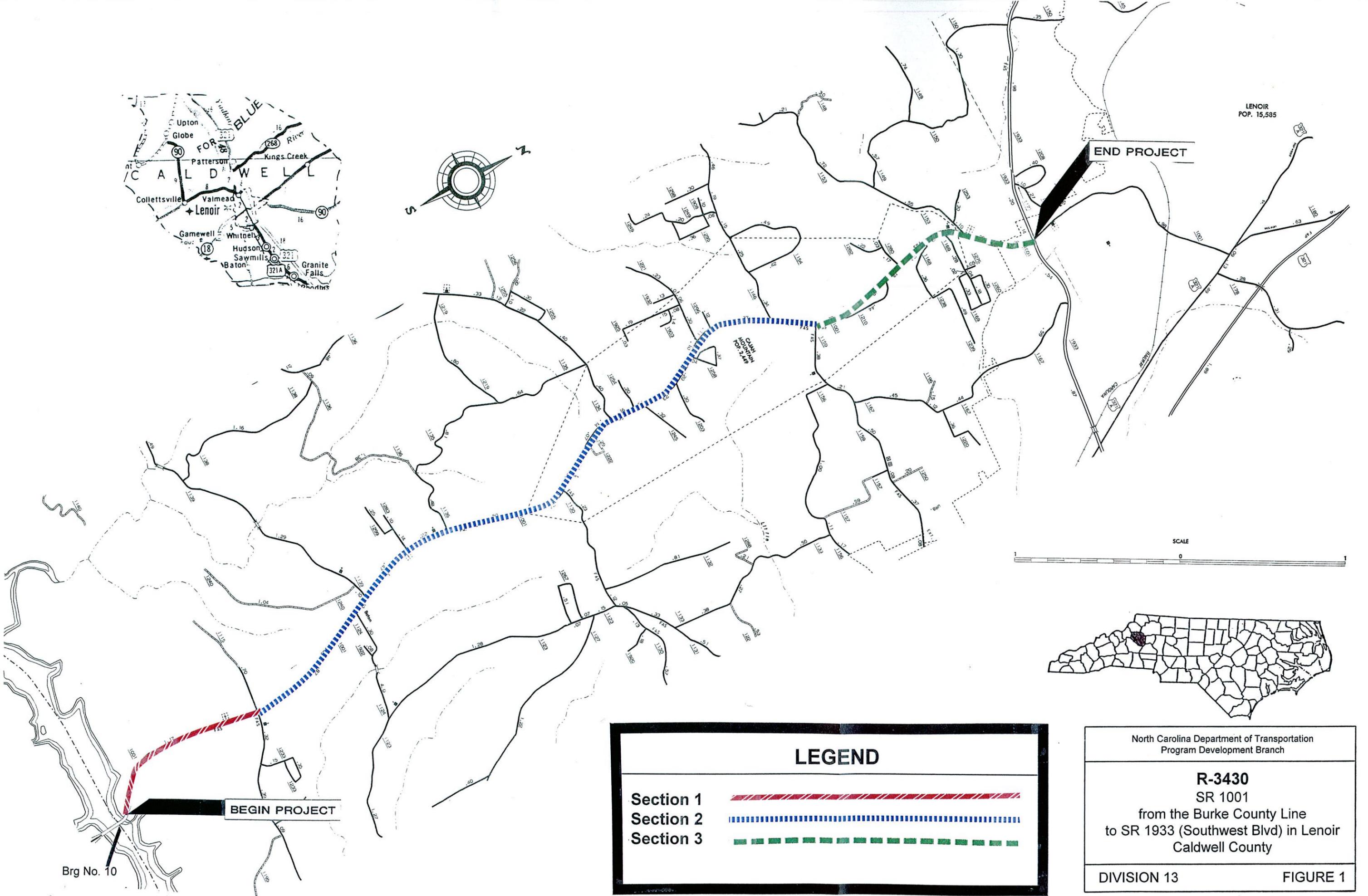
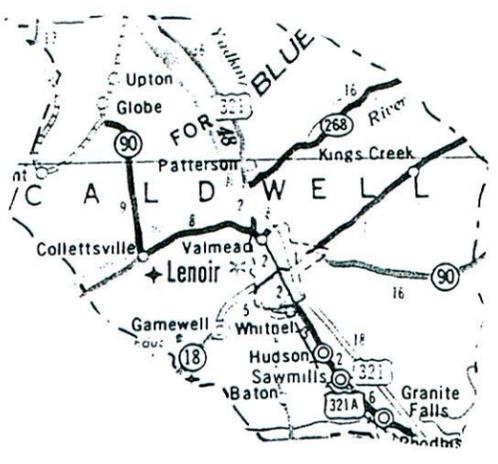
Right-of-way	\$17,400,000
Construction	\$ 4,700,000
<u>Total</u>	<u>\$22,100,000</u>

IV. OTHER COMMENTS AND CONCERNS

It is estimated that this project would require the relocation of 21 residences and one business.

This study is not a detailed planning/environmental investigation. A feasibility study presents studied cross-sections for improvements, general corridors of improvements, and estimated costs of construction and right-of-way. This study attempts to identify any potential environmental, permitting, or other observed issues that deserve consideration in the planning and construction stages.

No historical or architecturally significant sites are known to be impacted. SR 1001 bisects a protected and critical watershed south of Cahah Mountain. A 401 Water Quality Certification may be required.

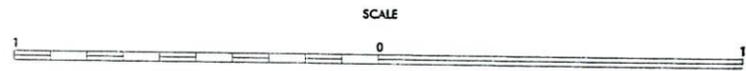


LENOIR
POP. 15,585

END PROJECT

BEGIN PROJECT

Brg No. 10



LEGEND	
Section 1	
Section 2	
Section 3	

North Carolina Department of Transportation Program Development Branch	
R-3430 SR 1001 from the Burke County Line to SR 1933 (Southwest Blvd) in Lenoir Caldwell County	
DIVISION 13	FIGURE 1