

R-4064

FEASIBILITY STUDY

Sawmills

**Proposed Intersection Realignment
SR 1108 (Mission Road) and SR 1130 (Cajah Mountain Road)
At US 321A**

Caldwell County

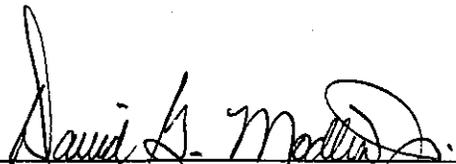
Division 11

FS-9911E

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 evaluates the potential for the realignment of the intersections of SR 1108 (Mission Road) and SR 1130 (Cajah Mountain Road) with US 321A (Main Street) in Sawmills, Caldwell County (see Figure 1). The studied improvements involve shifting both approaches to provide a common intersection on US 321A.

It is estimated that the recommended improvements would require the relocation of 30-50 graves, but no relocation of residences or businesses is anticipated. The estimated cost for this project is \$2,000,000 (\$600,000 for right-of-way and \$1,400,000 for construction).

II. NEED FOR PROJECT

This project was requested by the Caldwell County Chamber of Commerce and the Town of Sawmills.

On the Statewide Functional Classification System, SR 1130 is classified as a Minor Collector and SR 1108 is classified as a local street. On the Caldwell County Thoroughfare Plan, SR 1130 is classified as a Major Thoroughfare and SR 1108, a Minor Thoroughfare.

The intersections along US 321A at SR 1108 and SR 1130 are 600 feet (183 m) apart (see Figure 1). Traffic going from SR 1108 to SR 1130 and vice versa has to make two turning movements. The studied realignment is needed to provide a through movement for traffic traveling from SR 1108 to SR 1130 and vice versa. By eliminating one intersection, the realignment would also enhance the flow of through traffic on US 321A in the project vicinity and thus improve safety.

SR 1130 and SR 1108 within the project study area are 2-lane shoulder sections with a left-turn lane at the intersections. The streets are 22-foot (6.7-m) wide with 4-foot (1.2-m) wide shoulders. The intersection on US 321A at

SR 1108 is signalized, whereas the intersection at SR 1130 is unsignalized.

During the period from April, 1995, through March, 1998, there were 13 accidents reported at these intersections. Collisions involving left-turning traffic accounted for the majority of the accidents (46%). The recommended improvements are expected to reduce the accident rate.

The Caldwell County Railroad has 1 track crossing SR 1130 within the study area. The track carries fewer than an average of 1 train per day at a speed of 10 miles per hour (16 kmh). Currently the railroad crossing is equipped with signals and gates.

III. STUDIED IMPROVEMENTS

Approximately 900 feet (274.5 m) of SR 1130 and SR 1108 respectively would be shifted to form a new signalized intersection at a point halfway between their existing intersections with US 321A (see Figure 1). The realigned cross section is recommended to be 24 feet (7.3 m) wide with 8-foot (2.4-m) wide shoulders on a 100-foot (30.5-m) wide right of way.

Kendell Place would be extended to intersect the new alignment of SR 1130. In order to eliminate the skewed intersection at SR 1130 and SR 1119, it is recommended that approximately 900 feet (274.5 m) of SR 1119 (Helena St) south of the intersection be realigned to the proposed intersection of SR 1130 and Kendell Place (see Figure 1). It is also recommended that a section of SR 1119 north of the skewed intersection be shifted westward to intersect SR 1130 perpendicularly at SR 1120. In order to maintain access from SR 1108 to the docking station at Arconian Leather, a two-lane road approximately 180 feet (54.9 m) long is proposed (see Figure 1).

In view of the low train traffic volume and the low train speed in the project study area, it is recommended that flashers be installed at the new railroad crossing on SR 1130.

It is estimated that the recommended improvements would require the relocation of 30-50 graves, but no relocation of residences or businesses is anticipated.

The estimated cost for this project is as follows:

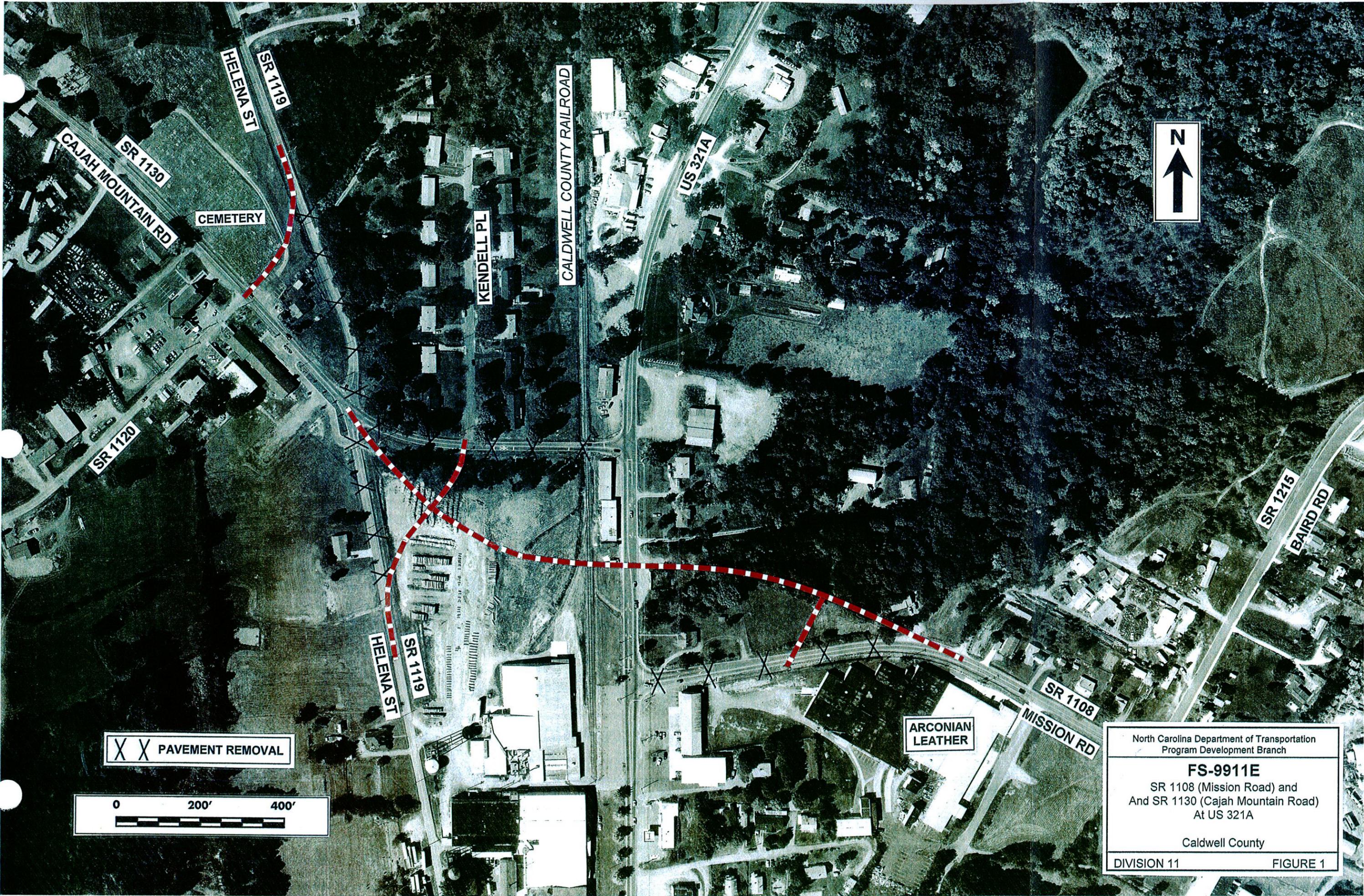
Right-of-Way	\$ 600,000
Construction	<u>\$ 1,400,000</u>
Total Cost	\$ 2,000,000

A transportation benefit analysis was not completed for this project because the proposed improvements are beyond the capabilities of the benefit analysis package developed by the Statewide Planning Branch. One major benefit of the project is that traffic going from SR 1108 to SR 1130 and vice versa would not need to make two turning movements. Also, by eliminating one intersection, the realignment would enhance the flow of the through traffic on US 321A in the project vicinity and thus improve safety.

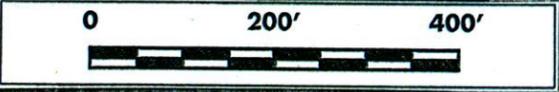
IV. OTHER COMMENTS AND CONCERNS

No historical or architecturally significant sites have been identified within the project study area. It is not anticipated that this project will require any environmental permits.

Based on maps available at the Department of Environment, Health, and Natural Resources - Natural Heritage Section, no threatened or endangered species were identified in the project corridor.



X X PAVEMENT REMOVAL



North Carolina Department of Transportation
Program Development Branch
FS-9911E
SR 1108 (Mission Road) and
And SR 1130 (Cajah Mountain Road)
At US 321A
Caldwell County
DIVISION 11 FIGURE 1