

APPROVED

By Planning Board

Date 8-29-83

PROJECT PLANNING REPORT

US 221, McDowell County
From NC 226 to the Rutherford County Line
State Project 8.1870401, R-932
Federal-Aid Project FR-21-2(4)

SUBMITTED TO

PLANNING BOARD

BY

PLANNING AND RESEARCH BRANCH

DIVISION OF HIGHWAYS

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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August, 1983

US 221, McDowell County
From NC 226 to the Rutherford County Line
R-932

Project Description

The proposed project consists of resurfacing, guardrail construction, and drainage improvements along a 10.5-mile section of US 221 extending from NC 226 near Marion southward to the Rutherford County line. Location of the project is shown on the attached map. Because of limited impacts on the environment, this project is considered a categorical exclusion.

Existing Conditions

US 221 is a major arterial in the state highway system. The subject section of road has a 24-foot pavement with 8 to 9-foot shoulders constructed on good alignment for the most part. Two bridges exist along the project-at Second Broad River and at I-40. Both bridges have clear roadway widths of 28 feet and lengths of 116 and 343 feet, respectively.

Current daily traffic volumes range from 2500 vehicles per day (vpd) at the county line to approximately 4500 vpd at I-40. Projected 20-year volumes are 6000 and 9000 vpd, respectively. Truck traffic comprises approximately 5 percent of the daily traffic volume.

A total of 207 accidents occurred along the studied section during a five-year period ending December, 1982. This yielded an approximate accident rate of 2.8 accidents per million vehicle miles (acc/mvm), slightly higher than the statewide average rate of 2.2 acc/mvm for two-lane US routes in 1982. No unusual traffic accident pattern is evident. Speed limit is 55 MPH, decreasing to 45 MPH as US 221 approaches NC 226.

Proposed Improvements

Proposed improvements to the subject facility are as follows:

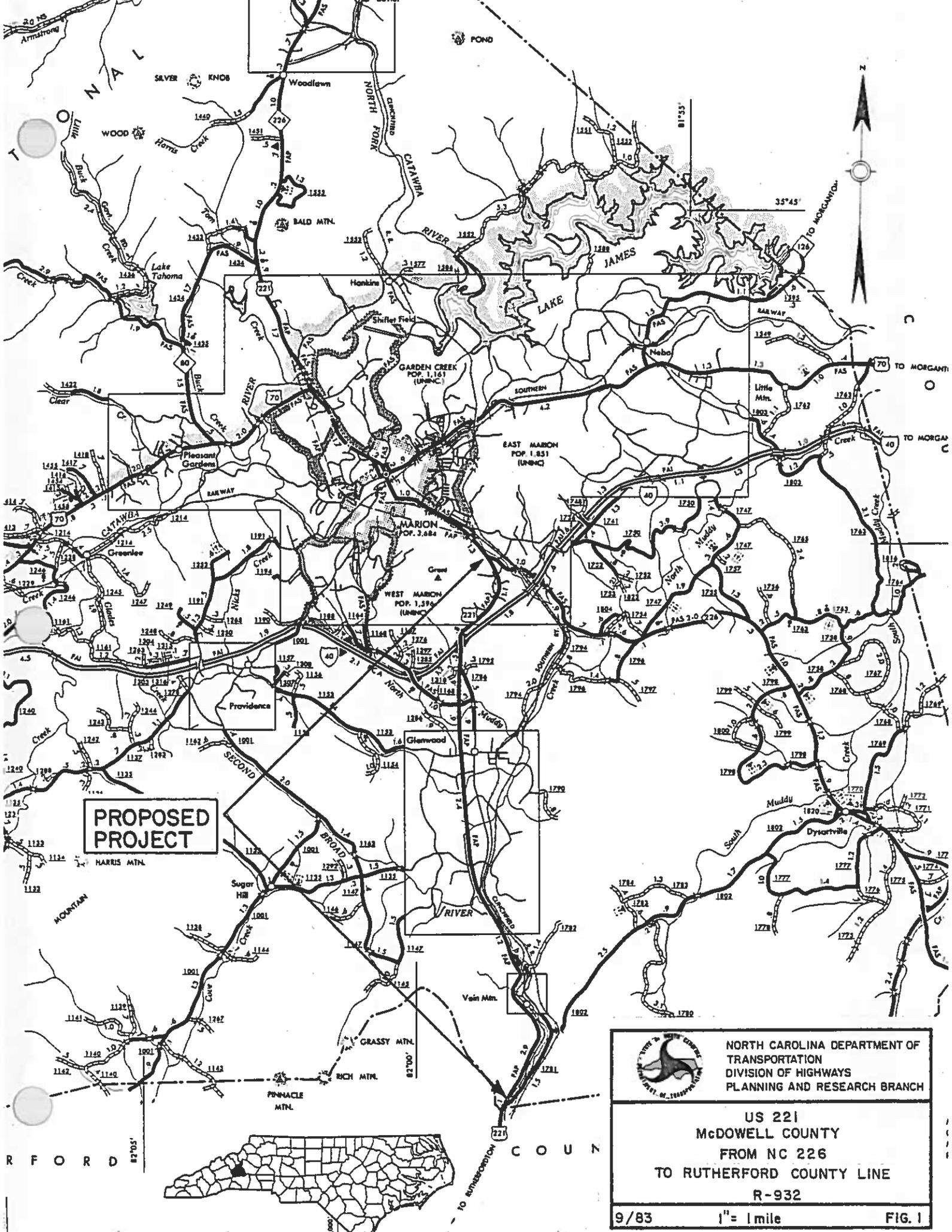
- (1) Resurfacing along entire studied length
- (2) Installation and reconstruction of approximately 4000 feet of guardrail at two locations
- (3) Replacement of end walls on eleven culverts with grated inlets

(4) Conversion of two catch basins into drop inlets

In addition, earth shoulders would be reconstructed to the existing limits, providing finished shoulder widths of generally 8-9 feet which are in conformance with design standards for 3R projects.

The total estimated construction cost of the project is \$500,000.

RGD/dc



PROPOSED PROJECT



NORTH CAROLINA DEPARTMENT OF
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PLANNING AND RESEARCH BRANCH

US 221
McDOWELL COUNTY
FROM NC 226
TO RUTHERFORD COUNTY LINE
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9/83 1" = 1 mile FIG. 1