

APPROVED
By Management Review Group
Date MAY 18 1987

N.C. 194
Avery County
Banner Elk to Elk Park
State Project No. 6.721004
R-2229

ADMINISTRATIVE ACTION

State Environmental Assessment/Finding of No Significant
Impact

N. C. Department of Transportation

Division of Highways

In Compliance with the North Carolina Environmental Policy Act

For further information contact:

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5/18/87
Date


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PROJECT DESCRIPTION

The subject project is included in the 1987-1995 Transportation Improvement Program as a feasibility study. A feasibility study was completed and findings reported in a memorandum dated March 25, 1987. The proposed action presented herein is consistent with the findings of the feasibility study and was approved by the State Highway Administrator on April 2, 1987. A proposed construction schedule for the project for fiscal year 1988 is pending the update of the TIP. The recommended scope of the work basically consists of widening the existing 18-foot pavement to 20 feet where feasible. The proposed improvements will require no additional right of way. The project is not expected to have any significant adverse environmental impacts upon the existing environment.

A field review was held on February 26, 1987 with representatives from the Division Office, Roadway Design and Planning and Research. The consensus of those attending the field review was that any substantial widening of the highway, even though desirable, would elevate the cost well beyond the anticipated scope of funds. In addition to cost, a major improvement would require extensive planning, design, and environmental studies. This would result in a major upscoping and a considerably extended timetable for any construction to begin.

EXISTING CONDITIONS

The proposed project length is 6.1 miles. The termini are the intersection of US 19E near Elk Park and the west corporate limits of Banner Elk. The existing highway has an 18-foot BST pavement with 2-foot shoulders. The pavement is in poor condition with an undesirable riding surface. The highway was originally constructed in 1920 as a 16-foot graded county road. It was widened in 1931 and paved to the present 18-foot BST pavement. A 60-foot right of way width is claimed; however, it appears that the actual width is that which is maintained or basically from "from ditch to ditch". The terrain is mountainous and both the horizontal and vertical alignments are judged poor which is substantiated by the numerous 5-8 per cent grades and sharp curves. The existing highway offers little opportunity to safely pass a slower moving vehicle.

The highway typically follows the Elk River and Cranberry Creek. There exists a steep rock face on one side of the highway and fill down to the streams on the other side. The highway crosses the river and creek and structures are located at: 1) Cranberry Creek, 19 feet wide and 35 feet long; and 2) Elk River, 20 feet wide and 82 feet long. Both of these structures are scheduled in the TIP as bridge replacements designated B-1042 and B-1043. Their schedule for construction is fiscal year 1989.

The land use along the highway is primarily pasture land, woodland and rural residences. The highway also parallels the Beech Mountain Airport for approximately a mile at the east end.

The subject section of NC 194 is classified as a major rural collector route in the statewide functional classification system and is part of the federal aid secondary system.

The current average annual daily traffic volumes along this section has a high of 3100 vehicles per day (VPD). Truck traffic composes 9 per cent of the overall traffic volumes. The estimated 1997 traffic along this section is estimated to be approximately 3900 VPD.

An accident investigation for the period from January 1, 1984 through January 31, 1987 was prepared by the Accident Investigation Section of the Traffic Engineering Branch. Thirty four accidents were reported along the subject section of NC 194. The resulting total accident rate was 173 accidents per 100 million vehicle miles (acc/100 mvm) which is below the statewide average rate of 201 acc/100 mvm.

ENVIRONMENTAL CONCERNS

The project will not significantly increase traffic volumes; therefore, its impact on noise levels and air quality will be insignificant. Noise levels could increase during construction, but this will be temporary. If vegetation is disposed of by burning, all burning shall be done in accordance with applicable local laws and regulations of the North Carolina Implementation Plan for air quality in compliance with 15 NAC I.D. 0520.

The proposed project closely follows sections of the Elk River and Cranberry Creek. The proposed action will be constructed such as to avoid impacting the fishery resources and water quality of these streams.

PROPOSED IMPROVEMENTS

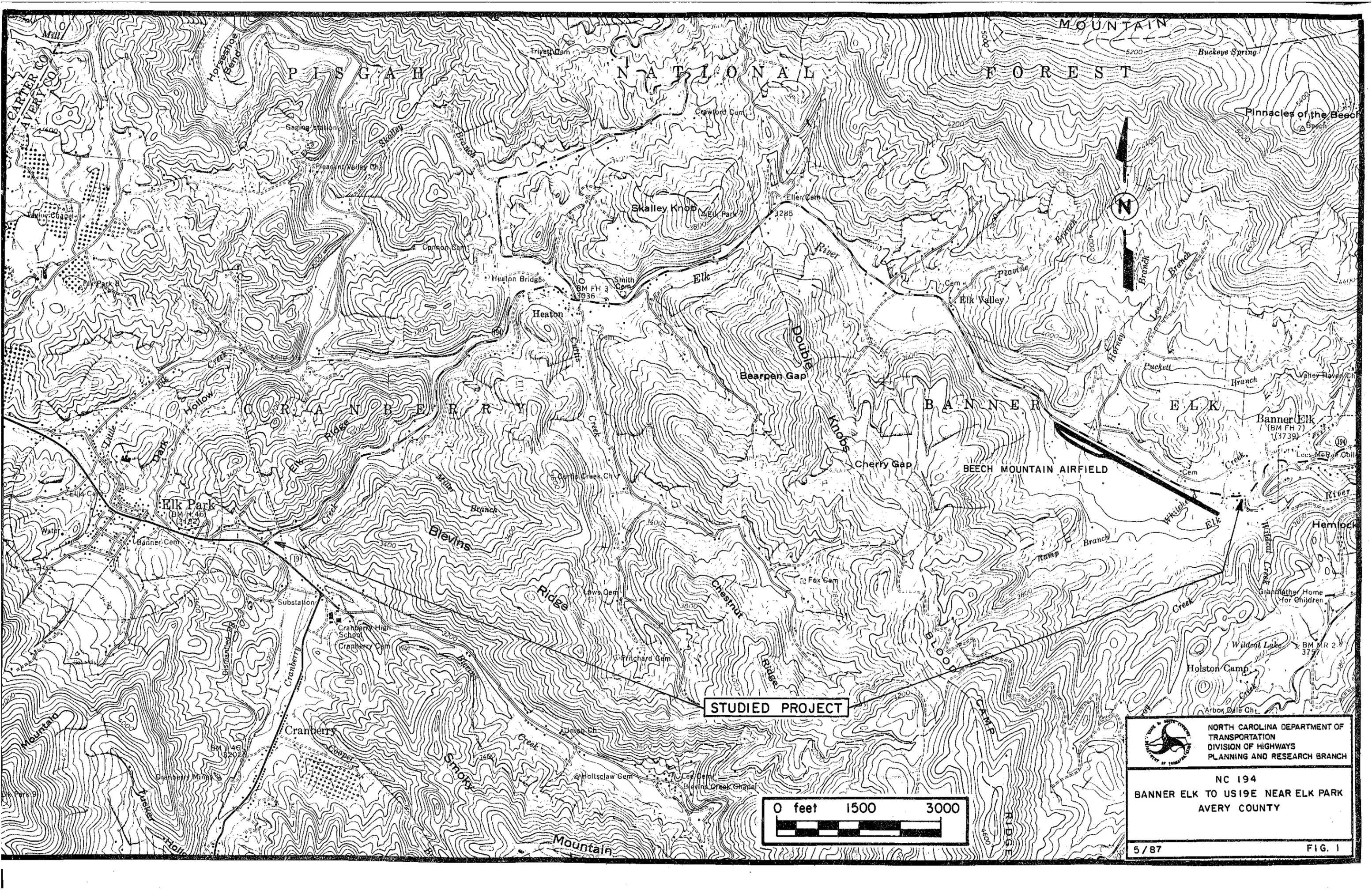
The following recommendations were developed as a result of the February 26 meeting and subsequent studies;

- 1) widen the existing 18-foot pavement to 20 feet where feasible,
- 2) widen the existing shoulder where feasible with construction to be maintained within the existing right of way and avoid any major rock cuts or fills in proximity to streams,
- 3) resurfacing will include a leveling course to improve rideability,
- 4) resurfacing will be with 1 1/2 inches type I-1 asphalt plant mix,
- 5) milling of the existing pavement should be included if possible to reduce raising the grade,

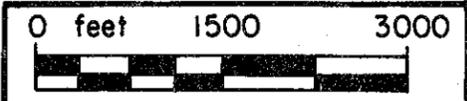
- 6) install an estimated 4000 feet of guardrail at locations where needed and where adequate shoulder area is available,
- 7) adjustments as necessary are recommended for the above improvements for compatibility with bridge replacements B-1042 and B-1043 to be constructed in FY 1989.

The estimated construction cost for R-2229 is \$1,200,000.

NBB/plr



STUDIED PROJECT



 NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION
DIVISION OF HIGHWAYS
PLANNING AND RESEARCH BRANCH

NC 194
BANNER ELK TO US19E NEAR ELK PARK
AVERY COUNTY