FEASIBILITY STUDY

US 268 Bypass of Elkin
From US 21 Bypass
To NC 268 in West Elkin
Surry and Wilkes Counties, R-2604

Prepared by
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Date

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I. GENERAL DESCRIPTION

This report covers a preliminary study of the proposed US 268 Bypass of Elkin. The project extends from US 21 Bypass to NC 268 in West Elkin and is approximately 3.2 miles in length (see Figures 1 & 2). It is included in the 1990-1996 Transportation Improvement Program for feasibility study and/or right-of-way protection. It is not currently funded for design, right-of-way acquisition, or construction.

II. PURPOSE OF PROJECT

Existing Route Characteristics

NC 268 is a major east-west route through the northwestern part of North Carolina. In the project area, NC 268 serves the multiple functions of being a radial route into Elkin, a local cross-town route, and a through route for east-west travel in the area. It is classified a major thoroughfare on the Elkin Thoroughfare Plan which was adopted in July, 1984. The proposed bypass is also included in the thoroughfare plan as a major thoroughfare.

The dual function of existing NC 268, providing local access as well as a route through town, results in conflicts between these two diverse uses. The routing of trucks through town is also a concern to local citizens. There are reportedly a large number of logging trucks from Wilkes County travelling through Elkin to the Weyerhaeuser plant east of town. The provision of a bypass will eliminate the need for trucks to travel through town on existing NC 268, and provide better separation between local and through traffic.

Traffic Volumes, Capacity, and Accident Record

The current traffic volumes on existing NC 268 range from a low of 3500 vehicles per day (vpd) on the eastern end of NC 268 in Elkin to a high of 8,100 vpd near the SR 1150 intersection. The projected traffic volumes on the proposed bypass range from 10,000 to 15,000 vpd in 2010. With the current traffic volumes, NC 268 is operating at an acceptable level of service. However; without improvements to the highway or relief provided by a bypass, the level of traffic service will soon deteriorate to an unacceptable level as traffic volumes continue to grow. With the proposed bypass, the traffic will be divided so that both the bypass and the existing road should operate at Level of Service C or better throughout the planning period.

The proposed NC 268 bypass should reduce the potential for accidents in Elkin by separating the through traffic from the local traffic. The provision of control of access on the bypass along with left-turn lanes at all median openings will enhance safety on the new route.

Need for Project

A NC 268 Bypass of Elkin is needed to provide a route for through cars and trucks around town, and to relieve the growing problem of congestion on the existing route. However; the project as proposed will not provide a full NC 268 bypass of Elkin since it does not tie back into NC 268 on the east side of town (see Figure 3). In order for the project to function as a bypass for NC 268, either SR 1138 or a combination of SR 1138 and SR 1139 would need to be designated NC 268 Bypass between US 21 Bypass and existing NC 268 east of town, or a new route would need to be constructed for the eastward extension of the NC 268 Bypass. Without either of these, the project will still relieve the heavy move from US 21 to NC 268 west of Elkin. The project will also enhance safety for motorists in Elkin.

III. RECOMMENDATIONS AND COSTS

It is recommended a NC 268 bypass of Elkin be provided along the alignment shown in Figure 2. The recommended alignment generally follows the proposed location shown on the thoroughfare plan adopted in 1984. The proposed improvement should be a four-lane, divided roadway with a 46- foot median. Full control of access is recommended with at grade intersections at SR 1144 (relocated), US 21 Business, SR 1152, and SR 1150 (relocated) in Surry County, and at SR 2026 in Wilkes County. Left-turn lanes with tapers should be provided at all intersections. Other than at intersections, no median openings are proposed. A 300-foot right-of-way is anticipated for the proposed bypass, and an 80-foot right-of-way is anticipated for each of the secondary road relocations. These improvements will provide the much needed increase in capacity on this heavily travelled portion of NC 268 and enhance safety. It is anticipated a signal will be needed at the junction with the proposed bypass and US 21 Business.

The estimated costs of this project are as follows:

Construction	$ 10,700,000
Right-of-Way	6,600,000
TOTAL	$ 17,300,000

The construction cost includes engineering and contingencies and the right-of-way cost includes relocation, acquisition, and utility costs.

IV. ENVIRONMENTAL EFFECTS

The project will require the relocation of an estimated 52 residences and 6 businesses. The project will also result in increased noise levels for development near the proposed roadway. Wetland involvement can

be expected where the project crosses the Elkin Creek, Dutchman Creek and other small streams. Other impacts will be primarily related to the actual construction of the proposed roadway. These include minor erosion and siltation and increased noise levels from construction machinery.

V. STAGING

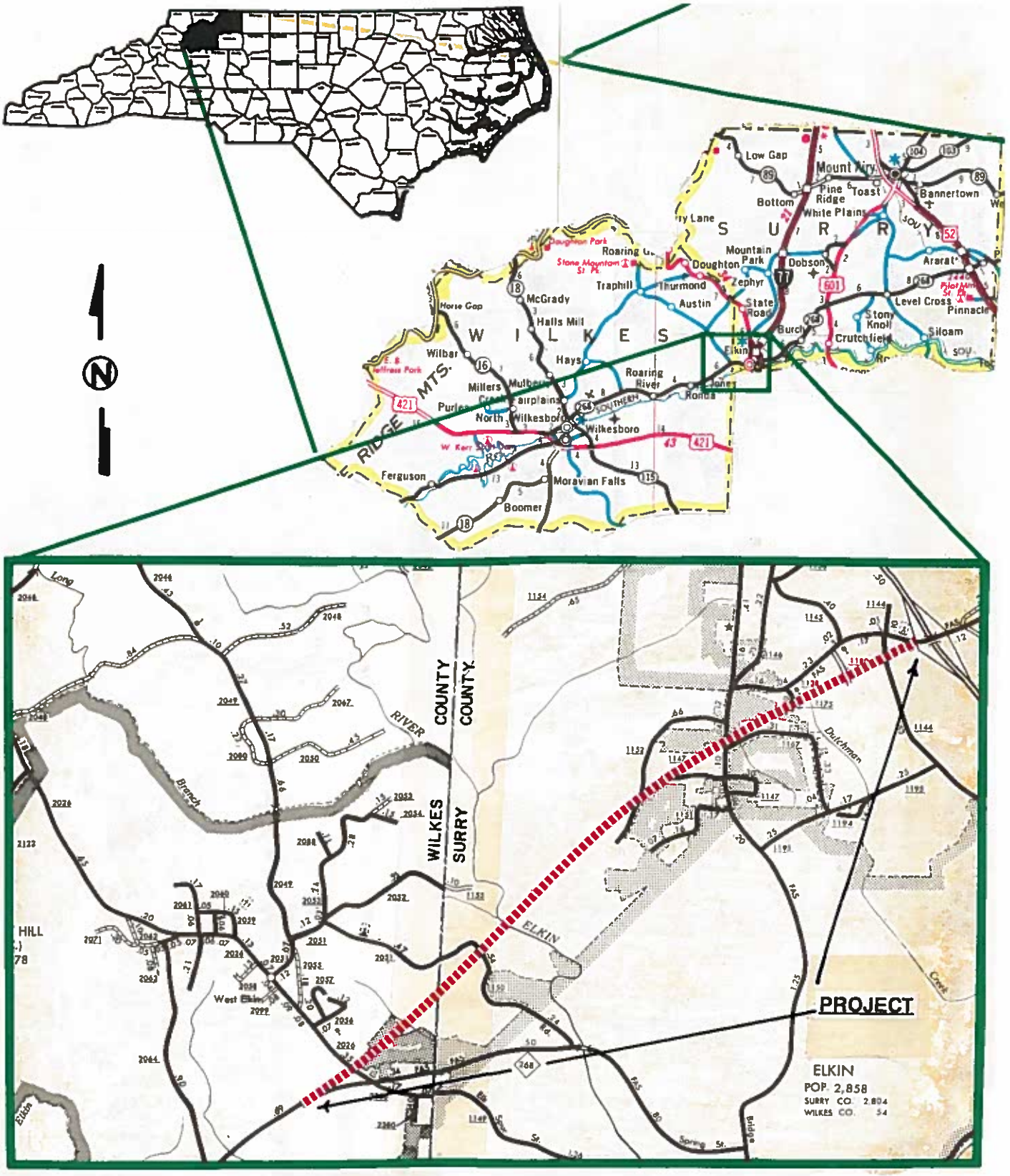
It would be desirable to construct the proposed NC 268 Bypass as a four-lane divided facility. However; if funding is not available to construct the entire project initially, it could be staged as a two-lane facility on a four-lane right-of-way. Utilizing the staging alternative would result in an initial savings of $ 4,000,000 in construction costs. The right-of-way costs would remain the same, since the full width would be acquired initially.

VI. FUTURE ACTIVITIES

If the project is to be implemented at a future date, all feasible alternatives and their associated impacts will need to be evaluated in a planning/environmental document prior to that time, and a decision made as to the most appropriate improvement.

Since the proposed bypass does not tie into existing NC 268 at the eastern project terminal, it is recommended the feasibility of redesignating existing secondary roads to serve as NC 268 Bypass when the proposed project is opened to traffic be investigated. This study should determine the adequacy of the existing roads to handle the bypass traffic, and make recommendations for any needed improvements. It should also consider the alternative of providing a bypass on new location.

RBD/plr



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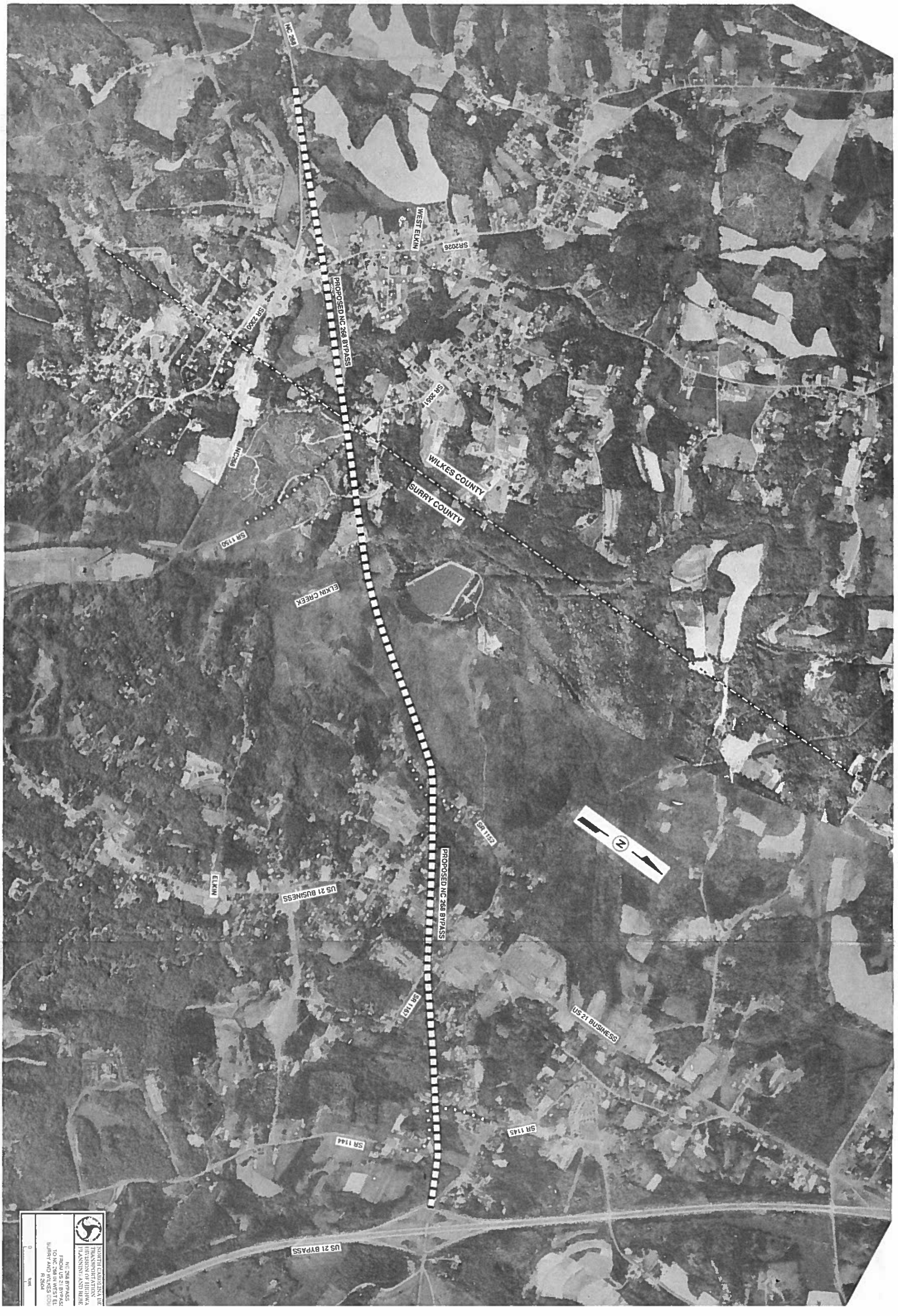
DIVISION OF HIGHWAYS
PLANNING AND RESEARCH BRANCH

NC 268 BYPASS
FROM US 21 BYPASS
TO NC 268 IN WEST ELKIN
SURRY AND WILKES COUNTIES, R-2604

0 mile 1/2

FIG. 1


NC 268
WEST ELKIN
SR2026
PROPOSED NC 268 BYPASS
SR 2307
SR 2051
NC268
WILKES COUNTY
SURRY COUNTY
SR 1150
ELKIN CREEK
SR 1152
ELKIN
US 21 BUSINESS
SR 1147
US 21 BUSINESS
SR 1145
SR 1144
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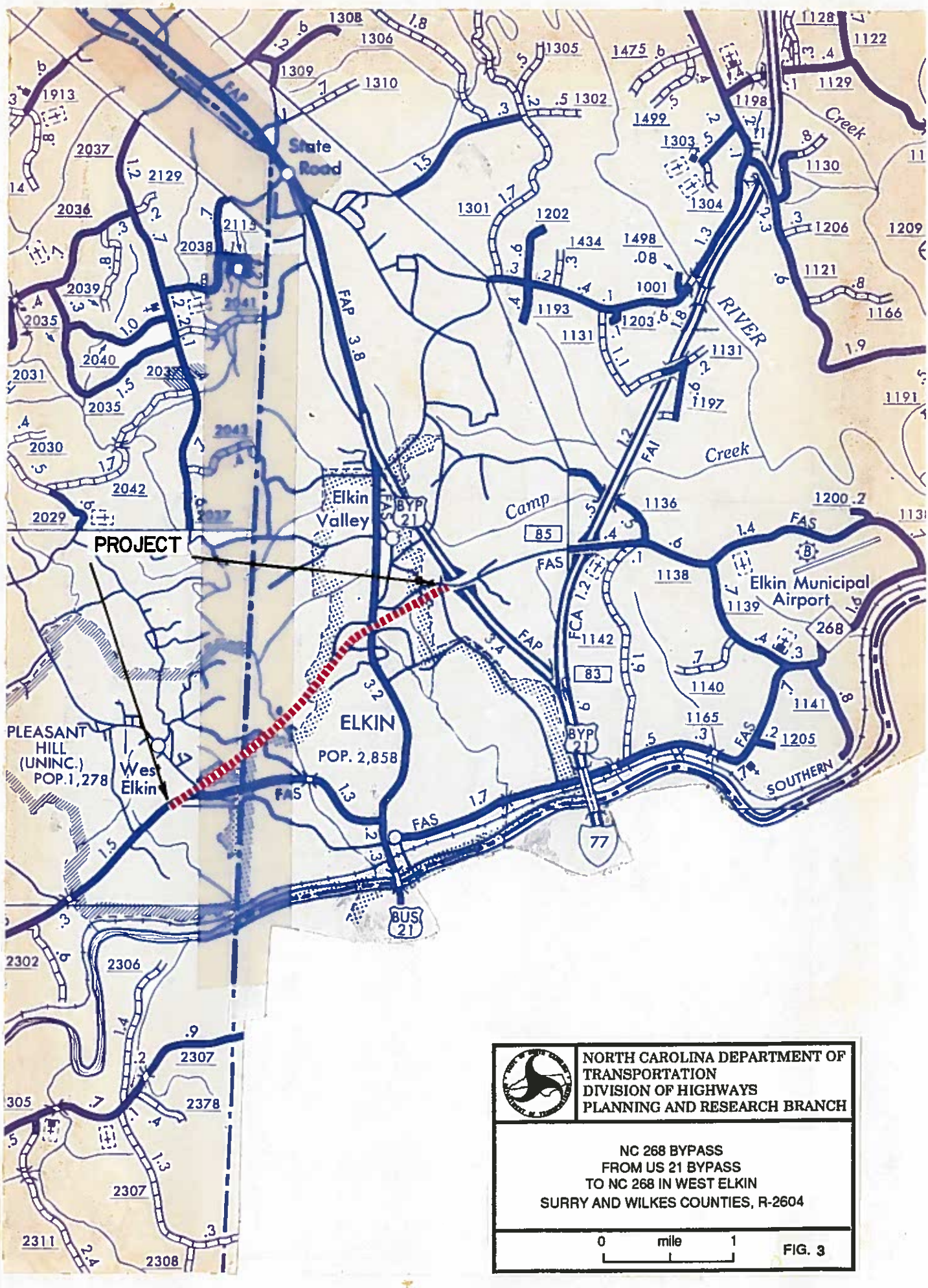

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0 mile 1

FIG. 3