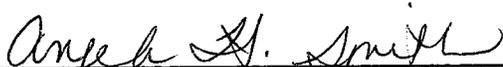


FEASIBILITY STUDY

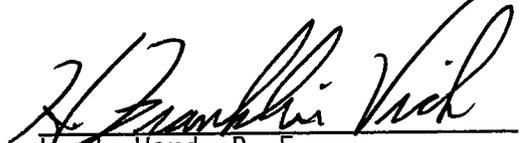
Raleigh, Edwards Mill Road (SR 3009) Extension  
From Trinity Road to Duraleigh Road  
Wake County  
U-2582

Prepared by  
Planning and Research Branch  
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Raleigh, Edwards Mill Road (SR 3009) Extension  
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I. DESCRIPTION

This report covers a preliminary study of a proposed 2.1-mile extension of Edwards Mill Road (SR 3009) from Trinity Road to Duraleigh Road in Raleigh (see Figure 1). This project is included in the 1990-1996 Transportation Improvement Program for feasibility study and/or right-of-way protection and is not currently funded.

II. PURPOSE OF PROJECT

Existing Route Characteristics

Edwards Mill Road is classified as a major thoroughfare on the adopted Greater Raleigh Thoroughfare Plan (see Figure 3) and as an urban minor arterial on the County Functional Classification Plan. In the future, this route will tie into Jones Franklin Road/Holly Springs Road to serve as a continuous north-south facility through the region.

The northern end of the project will tie into existing Edwards Mill Road at its intersection with Duraleigh Road. Edwards Mill Road and Duraleigh Road are basically 24-foot, 2-lane paved facilities. Edwards Mill Road widens at Duraleigh Road to 4 lanes to accommodate turning movements onto Duraleigh Road as well as to the Kaiser Permanente building on the west side and to the shopping center on the east side of existing Edwards Mill Road. The southern end of the project will create a tee intersection with Trinity Road, a 22-foot, 2-lane paved facility.

As shown in Figure 2, the Edwards Mill Road extension is proposed entirely on new location. The proposed project will cut through woodlands and property owned by North Carolina State University.

Traffic volumes presently on Edwards Mill Road, Duraleigh Road, parallel Blue Ridge Road (SR 1664), and Trinity Road, in the vicinity of the project are approximately 10,000, 20,000, 26,000, and 5,000 vehicles per day (vpd), respectively.

Need for Project

The project is a critical link in the development of the thoroughfare plan as shown in Figure 3. The extension will provide a more efficient north/south route, and would substantially reduce the amount of traffic on Blue Ridge Road and other adjacent facilities.

The priority of this project is weighted upon the construction of the proposed coliseum adjacent to Carter-Finley Stadium. This proposed coliseum is part of the masterplan for Centennial Campus, and the design is presently underway.

### III. RECOMMENDATIONS AND COSTS

The recommended cross section for the Edwards Mill Road extension is a 4-lane divided cross section, with two, 24-foot pavements and 12-foot shoulders (4 feet of which would be paved) and a 16-foot raised median. In the future, two additional lanes could be added with outside curbing if traffic volumes were to exceed capacity.

The volume of traffic that would utilize this route in the year 2010 is estimated at 20,800 vpd if the entire thoroughfare plan is implemented.

Right-of-way width used for cost estimate purposes is 200 feet. Also, additional right-of-way was estimated for provision of an interchange at Wade Avenue. However, right-of-way costs may be substantially reduced by the possible donation of right-of-way by North Carolina State University and area property owners.

An interchange with Wade Avenue is proposed, and all other intersections would be at-grade. The intersections with Trinity Road and Duraleigh Road are anticipated to be signalized.

The spacing of the proposed interchange from the nearest interchange to the west at the I-40/proposed Duraleigh Road connector (U-2110, scheduled for construction in 1991) is approximately 1.1 mile, and from the nearest interchange to the east at Blue Ridge Road is approximately 0.9 mile. Both spacings meet the minimum acceptable standards for interchanges in urban areas.

The Wade Avenue temporary access to Carter-Finley Stadium will have to be removed to allow for the proposed interchange to be built. However, this access removal is part of the University's plan for the proposed coliseum, which, together with the stadium, will have access to the proposed Edwards Mill Road extension.

Partial control of access is recommended throughout the project length, except at the interchange where full control of access would be required. Partial control is based on one access point per property owner, except in the case of a large road frontage where additional access may be granted.

The estimated costs of the recommended improvements, including the interchange, are as follows:

<u>Construction Cost</u>	<u>Right-of-Way Cost</u>	<u>Total Cost</u>
\$7,000,000	\$7,500,000	\$14,500,000

Cost estimates were prepared by the Preliminary Estimate Engineer and the Right-of-Way Branch.

#### IV. OTHER COMMENTS

Due to topographic features, existing properties, existing interchange spacing on Wade Avenue, and the fact the project is in accordance with the adopted thoroughfare plan, no other alternative locations were considered.

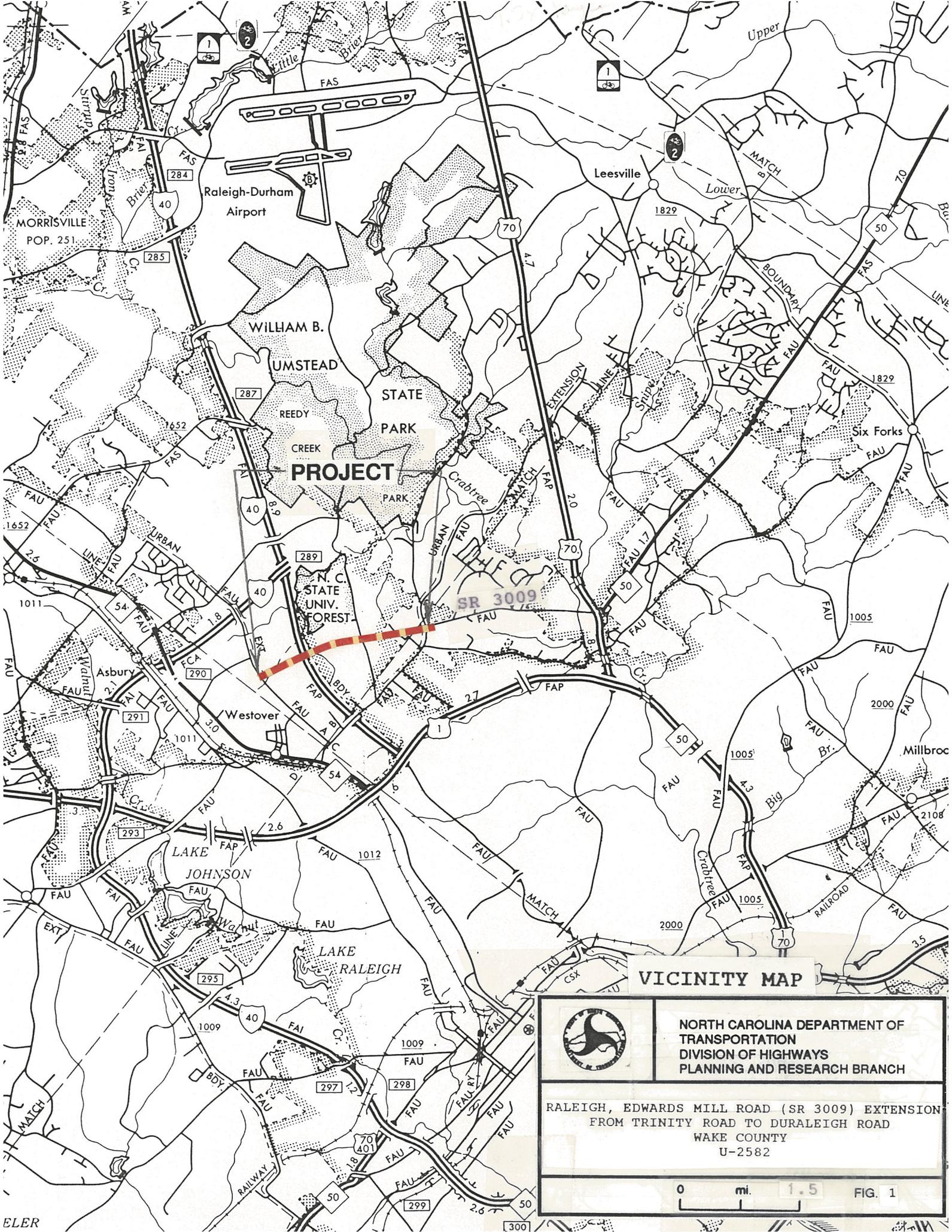
Possible negative environmental impacts of the proposed extension of Edwards Mill Road are as follows: (1) loss of wildlife habitat; (2) loss of forested land; (3) increased noise levels for nearby development; and (4) relocation of 3 residences.

During preliminary investigation, several sites were located in the region of the proposed project that have been used for storage of research materials from NCSU. It is not expected that the project will cross any of these sites. Environmental studies would have to be undertaken to verify these sites.

There was much concern expressed by local developers on the final location of the extension, and much interest in keeping the alignment as much on University property as possible. A lot of public involvement is to be expected when this project reaches the planning/environmental study stage.

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

AS/plr



**PROJECT**

SR 3009

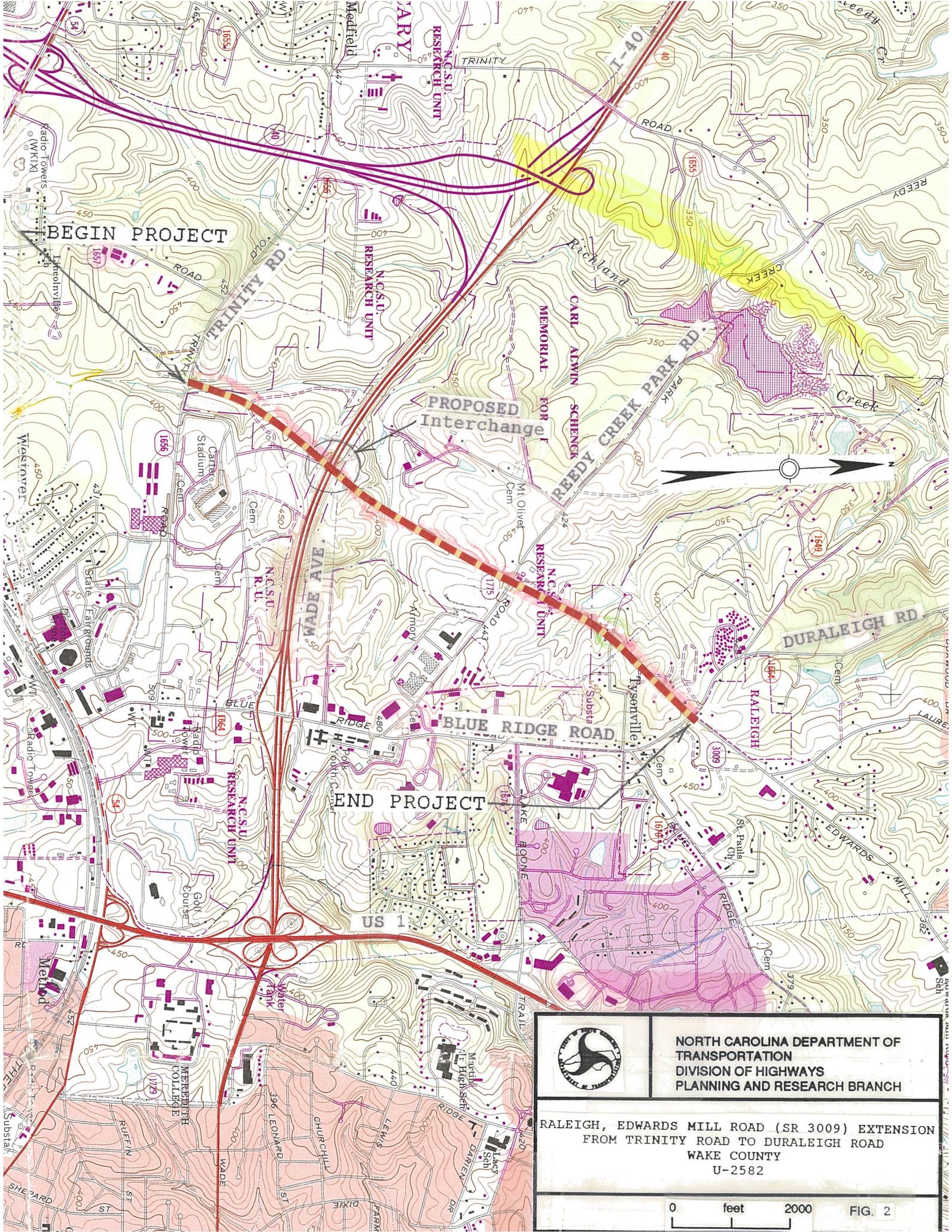
**VICINITY MAP**



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

**RALEIGH, EDWARDS MILL ROAD (SR 3009) EXTENSION  
FROM TRINITY ROAD TO DURALEIGH ROAD  
WAKE COUNTY  
U-2582**





BEGIN PROJECT

PROPOSED Interchange

END PROJECT



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

**RALEIGH, EDWARDS MILL ROAD (SR 309) EXTENSION  
FROM TRINITY ROAD TO DURALEIGH ROAD  
WAKE COUNTY  
U-2582**

0 feet 2000 FIG. 2

