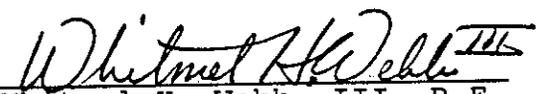


FEASIBILITY STUDY

Asheville  
Sweeten Creek Road (US 25A)  
From Hendersonville Road (US 25) to SR 3229  
Buncombe County  
FS 10-91-001

Prepared by  
Program Development Branch  
Division of Highways  
N. C. Department of Transportation

  
\_\_\_\_\_  
W. J. Watson, P. E.  
Highway Planning Engineer

  
\_\_\_\_\_  
Whitmel H. Webb, III, P.E.  
Head of Feasibility Studies

10/14/91  
Date

Asheville  
Sweeten Creek Road (US 25A)  
From Hendersonville Road (US 25) to SR 3229  
Buncombe County  
FS 10-91-001

I. GENERAL DESCRIPTION

This preliminary study describes proposed improvements to Sweeten Creek Road (US 25A) in Asheville. A location map of the project is shown as Figure 1. It is proposed to widen Sweeten Creek Road to a 5 lane curb and gutter section from Hendersonville Road (US 25) to SR 3229, a distance of 7.3 miles. The proposed right of way width is 90 feet.

It is recommended that the proposed improvements be implemented in two chronological stages. Figure 2 and Figure 3 show the limits of the proposed Stage I and Stage II improvements, respectively.

Stage I is a 1.9 mile segment between Rock Hill Road (SR 3081) and SR 3229. In addition to the above mentioned widening, proposed improvements in Stage I include constructing a new railroad bridge over Sweeten Creek Road and revising the traffic signals at both Rock Hill Road and Crayton Road (a city street). The recommended right of way width is 90 feet. For Stage I, the total cost for right of way and construction is estimated to be \$10,500,000. Stage II extends from Hendersonville Road to Rock Hill Road and is 5.4 miles long. Signal revisions at the intersections of Mills Gap Road (SR 3116), and Gerber Road (SR 3199) will be required in Stage II in addition to the widening. For Stage II, the total cost for right of way and construction, is estimated to be \$17,000,000. The total project cost is estimated to be \$27,500,000.

This study is the initial step in the planning and design process for this project and is not the product of an exhaustive environmental investigation or design effort. The purpose of this study is to describe the problem and an attainable solution; and provide cost estimates for the right of way and construction required to realize the solution.

II. NEED FOR PROJECT

This project is an essential step in the implementation of Project I-100, a proposed interchange on I-40 at Sweeten Creek Road. Project I-100 is programmed for post year construction. The Federal Highway Administration (FHWA) requires improvements to Sweeten Creek Road as a condition to granting approval for the interchange under project I-100. The FHWA approved a Finding of No Significant Impact for I-

100 (then I-40AJ) on September 10, 1984. Existing and future capacity deficiencies on Sweeten Creek Road will be relieved by the proposed improvements.

This project is supported by both the City of Asheville and the Town of Biltmore Forest and is consistent with the Asheville Thoroughfare Plan. Sweeten Creek Road is designated a Major Thoroughfare on the Asheville Thoroughfare Plan and is classified an Urban Principal Arterial in the North Carolina Statewide Functional Classification System.

Sweeten Creek Road has an existing pavement width that varies from 20 to 36 feet and grass shoulders that vary in width from 3 to 6 feet. Where Sweeten Creek Road runs beneath the Southern Railroad, the total lateral clearance between bridge piers is 30.8 feet. The following intersections on Sweeten Creek Road are currently controlled by traffic signals: Hendersonville Road, Mills Gap Road, Gerber Road, Rock Hill Road, and Crayton Road. The posted speed limit on Sweeten Creek Road is 45mph. The project location is shown as Figure 1.

Sweeten Creek Road serves extensive industrial and commercial development surrounded by a wide expanse of residential development. The existing right of way width is 60 feet.

The estimated Average Daily Traffic (ADT) on Sweeten Creek Road between Hendersonville Road and SR 3229 for the years 1991 and 2011 (the design year) are 13,800 vehicles per day (vpd) and 27,400 vpd respectively. Sweeten Creek Road is currently operating at level of service D during daily peak hour periods, but is approaching level of service E. With the recommended improvements it is estimated that Sweeten Creek Road will operate at level of service C through the year 2011.

During the period from June 1, 1988 through May 31, 1991 there were 133 accidents reported on Sweeten Creek Road between Hendersonville Road and SR 3229. This resulted in an accident rate of 130 accidents per 100 million vehicle miles (Acc/100 MVM), compared to a statewide average rate of 290 Acc/100 MVM for urban US routes during a comparable period.

### III RECOMMENDATIONS

It is recommended that the proposed improvements be implemented in two stages. In Stage I it is recommended to widen Sweeten Creek Road to a 64 foot wide face-to-face, five lane roadway with curb and gutter. The new widened section is to extend north from Rock Hill Road to SR 3229, a distance of 1.9 miles (see Fig. 2). Immediately south of Rock Hill Road the widened section should tie into Sweeten Creek Road

with tapers of appropriate length and immediately north of SR 3229 the widened section should tie into existing Sweeten Creek Road with tapers of appropriate length. The existing railroad structure over Sweeten Creek Road will be replaced with a new structure. A railroad detour structure will be required. The existing traffic signals at Crayton Road and Rock Hill Road will require revising due to the additional lanes on Sweeten Creek Road. A right of way width of 90 feet is proposed. No change in control of access is proposed. Approximately twenty-three residences and four businesses will likely be relocated. Stage I construction and right of way is estimated to cost \$10,500,000.

In Stage II it is recommended to widen Sweeten Creek Road to a 64 foot wide face-to-face, five lane roadway with curb and gutter. The new widened section is to extend north from Hendersonville Road to Rock Hill Road, a distance of 5.4 miles (see Fig. 3). At the southern project terminal the proposed 5 lane section will tie into the 5 lane section on Sweeten Creek Road to be built under project B-1063. The existing traffic signal at Hendersonville Road is not expected to require revisions although the traffic signals at Mills Gap Road and Gerber Road will require revisions due to the additional lanes on Sweeten Creek Road. A right of way width of 90 feet is proposed. No change in control of access is proposed. Approximately 20 residences and 14 businesses will likely be relocated. For Stage II, the total cost for right of way and construction, is estimated to be \$17,000,000.

The total estimated cost for Stage I and Stage II combined is \$27,500,000 as shown below:

**Stage I**

Right of Way .....	\$ 5,900,000
Construction.....	4,600,000
	-----
Total Estimated Cost.....	\$10,500,000

**Stage II**

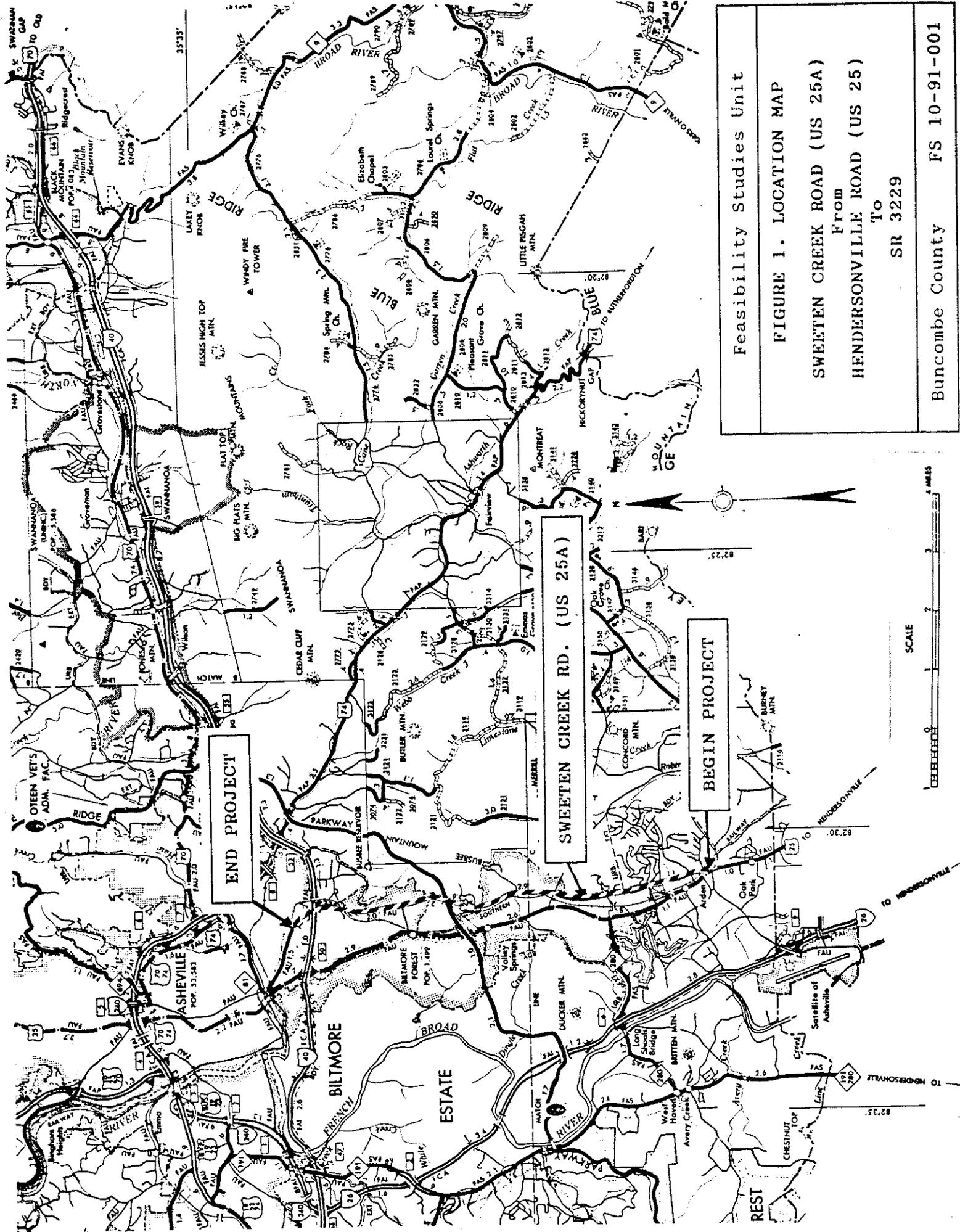
Right of Way .....	\$ 7,200,000
Construction.....	9,800,000
	-----
Total Estimated Cost.....	\$17,000,000

**Total Stage I & II .....** \$27,500,000

#### IV. ADDITIONAL COMMENTS

No significant environmental issues were identified during this study. A full environmental screening was not conducted.

A reconnaissance survey conducted by NCDOT'S Architectural Historian revealed no properties listed in or eligible for the National Register that will be impacted by this project. However, there is a Multiple Resource district, listed in the National Register of Historic Places, in and around Biltmore Village, approximately one mile north of this project. Extension of this project to connect with Hendersonville Road to the north would likely impact this district. Such an extension is not proposed under this project.



**END PROJECT**

**SWEETEN CREEK RD. (US 25A)**

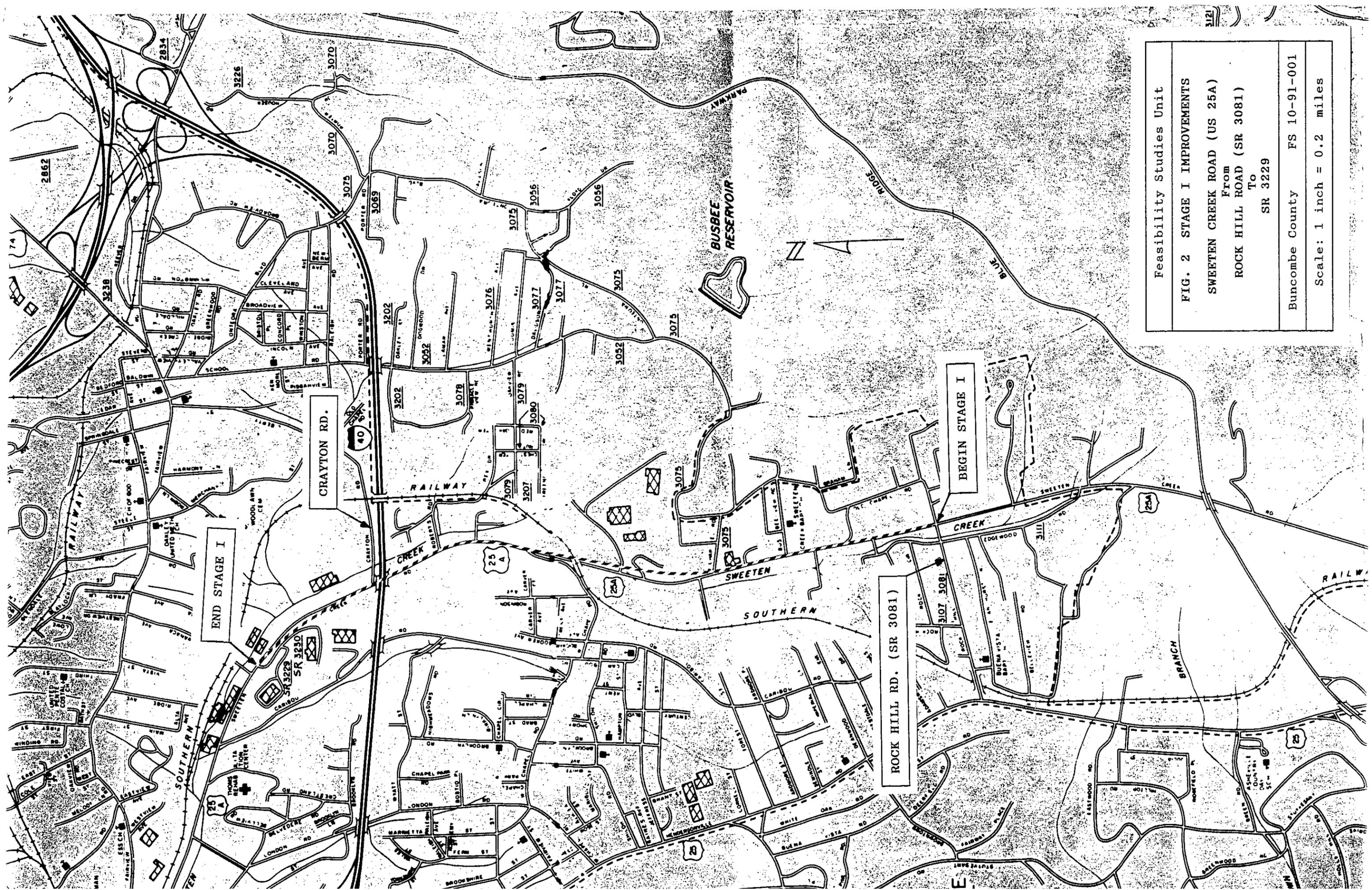
**BEGIN PROJECT**

Feasibility Studies Unit

**FIGURE 1. LOCATION MAP**

**SWEETEN CREEK ROAD (US 25A)**  
 FROM  
**HENDERSONVILLE ROAD (US 25)**  
 TO  
 SR 3229

Buncombe County FS 10-91-001



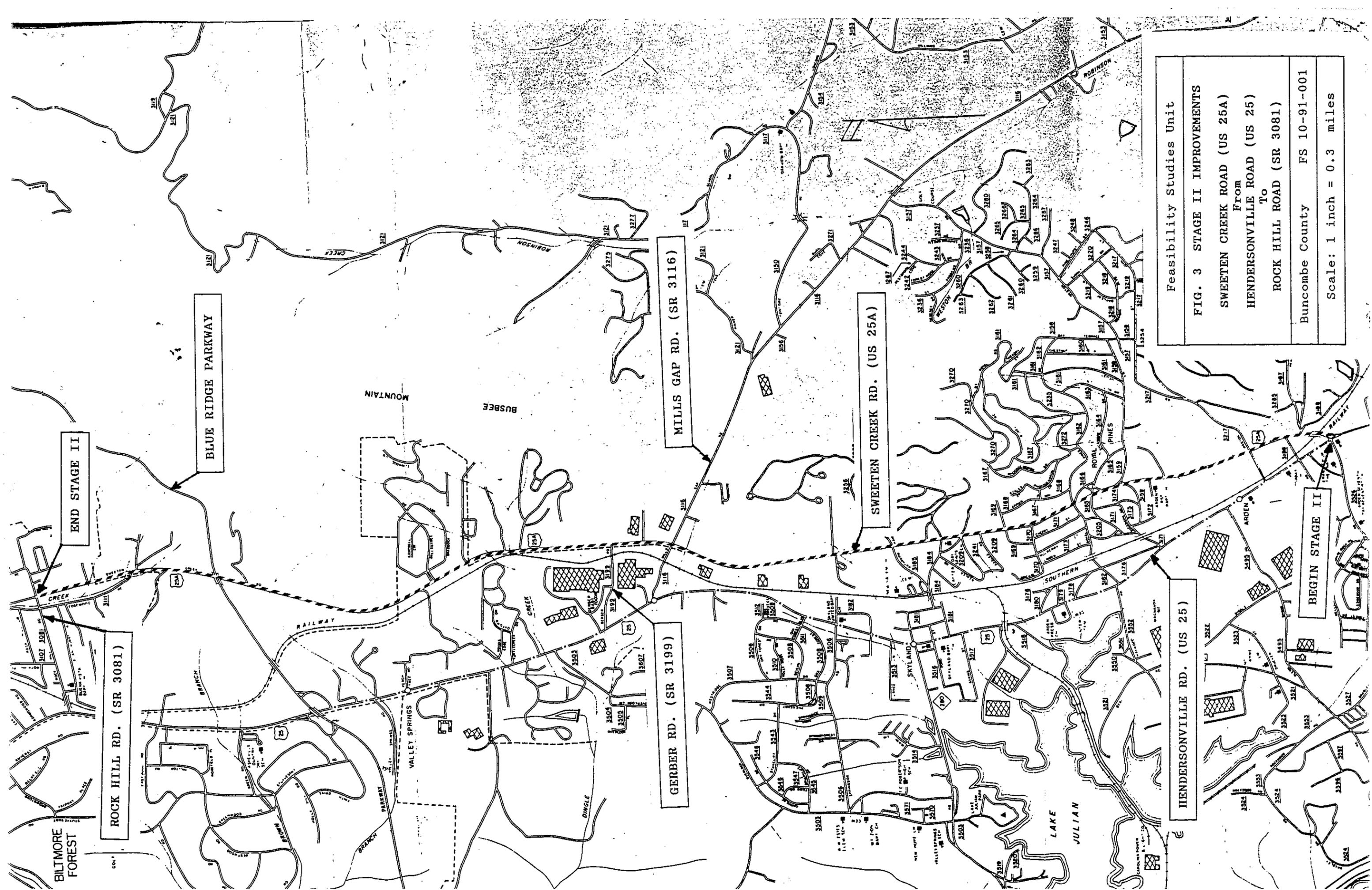
Feasibility Studies Unit

**FIG. 2 STAGE I IMPROVEMENTS**

SWEETEN CREEK ROAD (US 25A)  
 From  
 ROCK HILL ROAD (SR 3081)  
 To  
 SR 3229

Buncombe County FS 10-91-001

Scale: 1 inch = 0.2 miles



END STAGE II

BLUE RIDGE PARKWAY

ROCK HILL RD. (SR 3081)

GERBER RD. (SR 3199)

MILLS GAP RD. (SR 3116)

SWEETEN CREEK RD. (US 25A)

HENDERSONVILLE RD. (US 25)

BEGIN STAGE II

Feasibility Studies Unit  
 FIG. 3 STAGE II IMPROVEMENTS  
 SWEETEN CREEK ROAD (US 25A)  
 FROM  
 HENDERSONVILLE ROAD (US 25)  
 TO  
 ROCK HILL ROAD (SR 3081)  
 Buncombe County FS 10-91-001  
 Scale: 1 inch = 0.3 miles