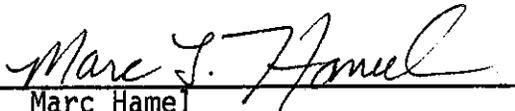


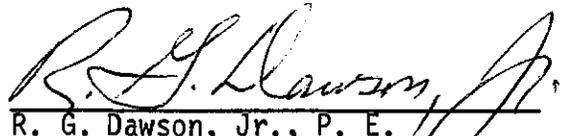
FEASIBILITY STUDY

FILE COPY  
DO NOT REMOVE  
FROM FILE

Statesville, SR 2333 (East Side Drive),  
From Monroe Street to East Broad Street,  
Iredell County,  
U-2568

Prepared by  
Planning and Environmental Branch  
Division of Highways  
N. C. Department of Transportation

  
\_\_\_\_\_  
Marc Hamel  
Project Planning Engineer

  
\_\_\_\_\_  
R. G. Dawson, Jr., P. E.  
Head of Feasibility & Special  
Studies Unit

6/29/90  
Date for   
\_\_\_\_\_  
L. J. Ward, P. E., Manager  
Planning and Environmental Branch

Statesville, SR 2333 (East Side Drive),  
From Monroe Street to East Broad Street,  
Iredell County,  
U-2568

## I. DESCRIPTION

This report covers a preliminary study of the proposed upgrading of the subject road to a multi-lane facility. As shown on the attached map (Figure 1), this study extends from Barkley Road (SR 2352) south of Monroe Street (US 70) to East Broad Street (SR 2321) in Statesville, and is approximately 2.1 miles in length. The project appears in the 1990-1996 Transportation Improvement Program (T.I.P.) for feasibility study and/or right-of-way protection and is not currently funded.

## II. PURPOSE OF PROJECT

### Existing Route Characteristics

SR 2333 (East Side Drive) appears as a major thoroughfare on the Statesville Thoroughfare Plan (Figure 3), and as an Urban Collector (north of SR 2320) and an Urban Principal Arterial (south of SR 2320) on the County Functional Classification Plan. This route provides an essential north/south route relieving demands on the parallel I-77 in eastern Statesville.

The studied section of SR 2333 has a 24-foot curb and gutter section from US 70 to SR 2320, and a similar 22-foot curb and gutter section to the north. Near SR 2321 (E. Broad St.) the pavement widens to accommodate movements for a new shopping center (in the southwest quadrant) with curb and gutter offset 22 feet west from the pavement centerline.

At their intersections with East Side Drive, US 70 and SR 2321 have 44 and 48-foot, 4-lane respective cross sections. To the north of SR 2321, SR 2422 has a 3-lane, 36-foot curb and gutter section. To the south of US 70, SR 2352 has a 24-foot, two-lane shoulder section.

There is one bridge on the project carrying the Southern Railway over East Side Drive. It is 50 years old. Underneath the bridge, lateral clearance is 30.7 feet, and vertical clearance is 14.1 feet.

There are 3 signals on the studied route. They are located at US 70, SR 2321, and Salisbury Road (also US 70).

Development along SR 2333 is primarily large industrial near US 70, with small residential and sparse commercial along the remainder except near SR 2321 where large commercial development exists.

The route is constructed through rolling terrain and has good alignment except in the area near SR 2320. Speed limit throughout the project is 35 mph. Existing right-of-way is variable 24 to 60 feet.

## Traffic Volumes, Capacity, and Accident Data

Current traffic volumes on SR 2333 range from approximately 5600 vehicles per day (vpd) near East Broad Street to 9500 vpd near US 70. These volumes are anticipated to increase to approximately 11,800 and 18,500 vpd, respectively, by the year 2010.

Accident data for a recent three-year period indicates a total of 36 accidents on the project length, yielding a total accident rate of 1,071.4 accidents per hundred million vehicle miles (ACC/100MVM). This is much greater than the statewide average of 378.6 for similar urban, 2-lane, secondary roads. Predominant accident types were rear-end and left turn collisions (22% each), with right turn, angle, and running off the road accidents each comprising 11%.

Present capacity along the two-lane facility operating under urban conditions is approximately 9,000 vpd.

### Need for Project

The studied two-lane section of SR 2333 will have capacity deficiencies in the near future. Provision of a multi-lane width will make SR 2333 an attractive alternative to I-77, providing relief for this interstate route, and also potentially reduce the number of accidents.

## III. RECOMMENDATIONS AND COSTS

Recommendations for the studied portion of East Side Drive consist of upgrading the existing two-lane pavement to a multi-lane section throughout the project. As shown on Figure 2, the upgrades should include the entire length from SR 2321 to US 70, and additionally include an extension across US 70 to tie into SR 2352 for thoroughfare plan continuity.

The recommendations for upgrades are as follows:

Barkley Dr. (SR 2352) to US 70 (0.6 mile)- New location, 24-foot shoulder section extension to Barkley Drive for thoroughfare plan continuity. A 3-lane, 36-foot section should be provided at US 70 to accommodate left turns. Right-of-way width used for cost estimating purposes is 150 feet to accommodate a future multi-lane upgrading of this link through heavily rolling terrain.

US 70 to SR 2335 (0.5 mile) - Relocation on new alignment with 64-foot, 5-lane curb and gutter section. Minor realignment of intersecting roads would be required on this section.

The Southern Railway bridge would require replacement with an adequate facility in this section. It is anticipated that a temporary detour south of the existing bridge would be constructed to maintain train traffic while the existing bridge is removed and replaced (see Figure 2). Right-of-way width used for cost estimating purposes on this section is 100 feet.

SR 2335 to SR 2332 (0.8 mile)- The recommended upgrade for this section is a 4-lane, 48-foot curb and gutter cross section. The reduction in width in this area is due to the constraints imposed by existing dense residential development. The right-of-way used for cost estimating purposes for this section is generally 80 feet, with a 0.25-mile section south of SR 2414 estimated at 100 feet to provide left turn lanes for the future Bell Street Extension (as shown on Figure 2 and 3).

SR 2332 to SR 2321 (East Broad Street) (0.2 mile)- Cross section for this segment should be a 5-lane, 64-foot curb and gutter section to accommodate left turn movements at the SR 2321 intersection. This section would be on new location to eliminate the existing dogleg intersection as indicated on Figure 2. A 100-foot right-of-way width was used for cost estimates.

The total estimated cost of the recommended improvements is \$6,500,000, including \$ 4,400,000 for roadway construction (including the railroad temporary detour), and \$2,100,000 for right-of-way. Cost estimates were prepared by the Preliminary Estimate Engineer and the Right-of-Way Branch.

#### IV. ALTERNATIVES

The alternative of a 5-lane section throughout the project was considered, but is not recommended due to extensive right-of-way damages that would be incurred.

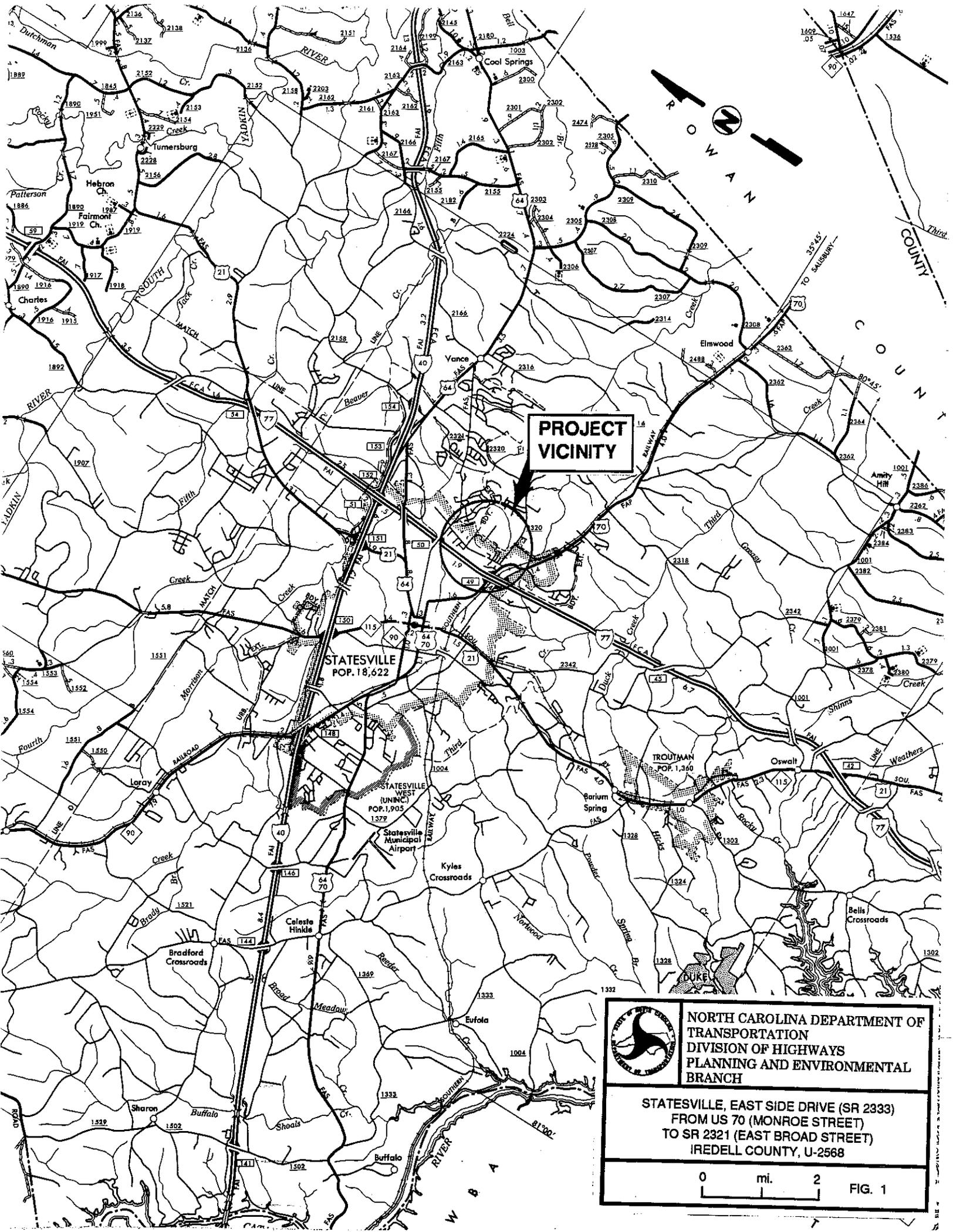
If staging of the project is desired, all sections on new location (realignments) should be constructed as 2-lane roads initially, with the second phase consisting of multi-laning the entire length.

#### V. OTHER COMMENTS

Negative environmental impacts of the project are: (1) relocation of 12 residences and 4 businesses; (2) increased noise levels for the remaining development; and (3) loss of a small amount of woodlands south of US 70.

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

MH/plr



**PROJECT  
VICINITY**

**STATESVILLE**  
POP. 18,622

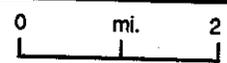
**STATESVILLE WEST**  
(UNINC.)  
POP. 1,905

**TROUTMAN**  
POP. 1,360

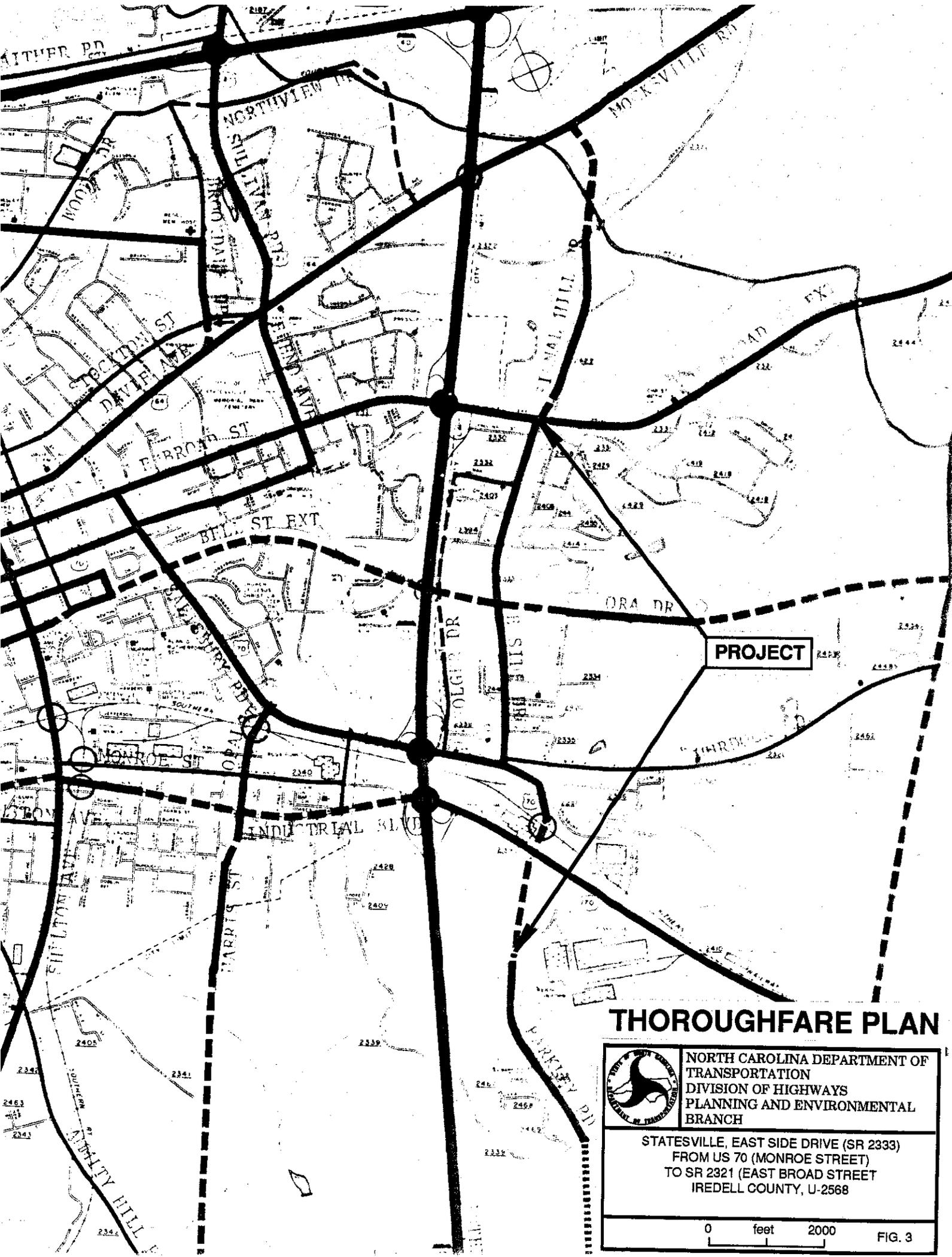


**NORTH CAROLINA DEPARTMENT OF  
TRANSPORTATION  
DIVISION OF HIGHWAYS  
PLANNING AND ENVIRONMENTAL  
BRANCH**

**STATESVILLE, EAST SIDE DRIVE (SR 2333)  
FROM US 70 (MONROE STREET)  
TO SR 2321 (EAST BROAD STREET)  
IREDELL COUNTY, U-2568**



**FIG. 1**



**PROJECT**

# THOROUGHFARE PLAN

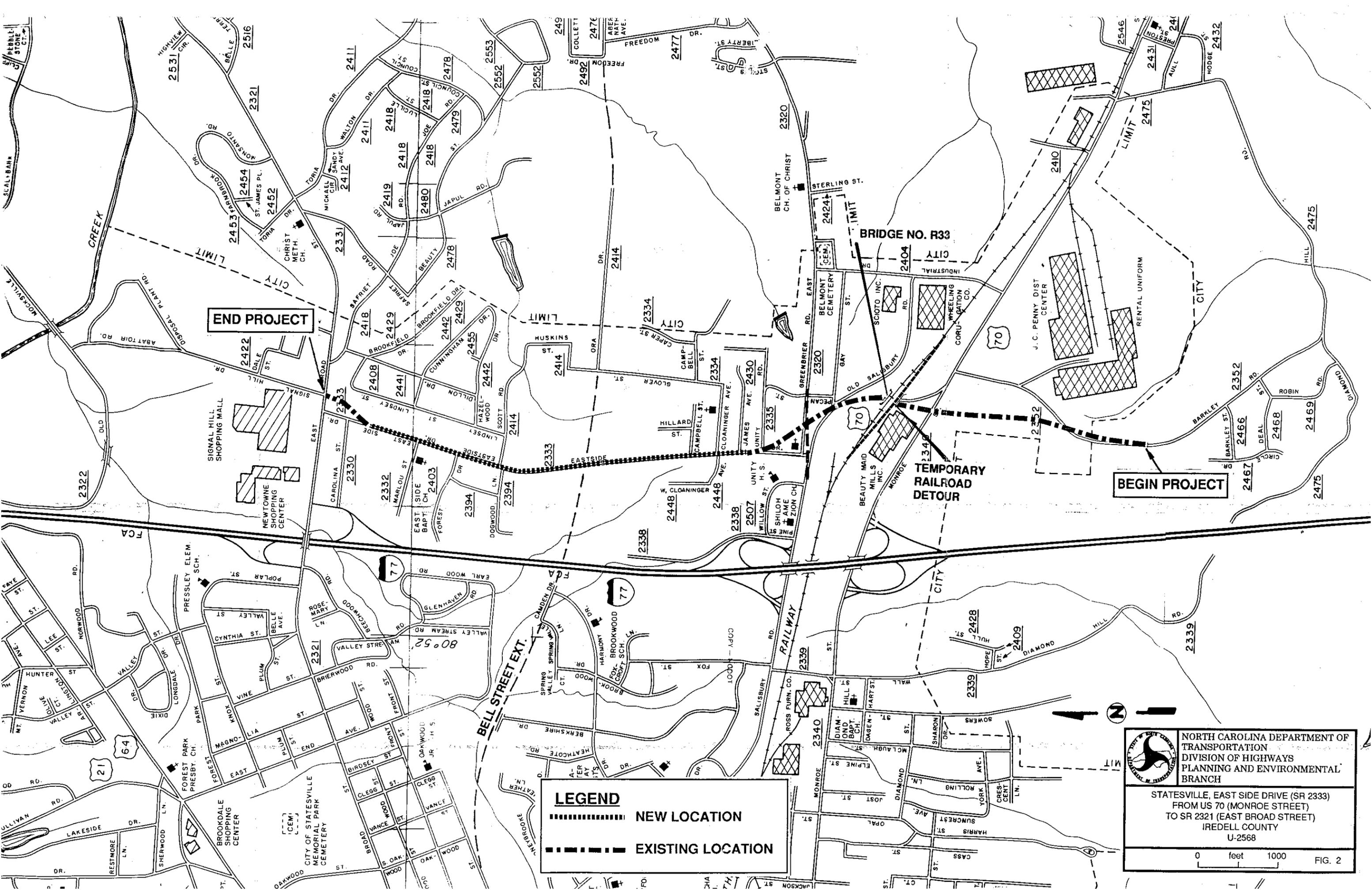


NORTH CAROLINA DEPARTMENT OF  
TRANSPORTATION  
DIVISION OF HIGHWAYS  
PLANNING AND ENVIRONMENTAL  
BRANCH

STATESVILLE, EAST SIDE DRIVE (SR 2333)  
FROM US 70 (MONROE STREET)  
TO SR 2321 (EAST BROAD STREET)  
IREDELL COUNTY, U-2568

0 feet 2000

FIG. 3



**END PROJECT**

**BEGIN PROJECT**

**LEGEND**

----- NEW LOCATION

..... EXISTING LOCATION

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

STATESVILLE, EAST SIDE DRIVE (SR 2333)  
FROM US 70 (MONROE STREET)  
TO SR 2321 (EAST BROAD STREET)  
IREDELL COUNTY  
U-2568

0 feet 1000

FIG. 2