FEASIBILITY STUDY

Kernersville
SR 2601 (Macy Grove Road)
from Industrial Park Drive to US 421
Forsyth County

U-2800

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

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Date

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I. GENERAL DESCRIPTION

This is a feasibility study for the widening and extension of SR 2601 (Macy Grove Rd.) from Industrial Park Drive to US 421. The recommended improvements also include the conversion of the SR 2601 bridge (Bridge #370) over I-40 to an interchange (see the attached location map). Estimated length of the project is 0.4 mile. This project is estimated to cost $6,600,000 ($3,000,000 for right-of-way, and $3,600,000 for construction). The recommended typical cross section is a five-lane, 64-foot curb and gutter section with 8-foot berms. Recommended right-of-way width is 100 feet, without control of access.

This study is not a detailed planning/environmental investigation. A feasibility study presents recommended typical cross sections, general alignments, and estimated cost of the improvement. The study also attempts to provide an early identification of potential environmental, permitting, or other issues which deserve consideration in the planning and construction stages.

II. NEED FOR PROJECT

This project was requested by the Town of Kernersville, and is included in the mutually adopted Winston-Salem/Forsyth County Thoroughfare Plan. Therefore, this project would further the implementation of the thoroughfare plan, and provide a segment of a future Kernersville loop. The project will provide improved access to an industrial district, and increase development potential in the area.

The Town of Kernersville has acquired several parcels of land to protect a corridor for a future loop. A portion of the right-of-way required for this project has been acquired by the Town.

SR 2601 (Macy Grove Road) consists of a 20-foot pavement and 3 to 6-foot usable shoulders. Claimed right-of-way width is estimated to be 60 feet, without access control. The posted speed limit is 45

mph. Development along the studied portion of SR 2601 is industrial/business. The south terminal of this study is at Industrial Park Drive, a private non-system roadway that serves Macy Grove Industrial Park. It should be noted that Feasibility Study U-2541 proposed the extension of Industrial Park Drive from SR 2601 to NC 66 as a future 5-lane curb and gutter section. Currently, the Town of Kernersville is extending Industrial Park Drive from its west terminal to NC 66. The new roadway is to be a three-lane, 40-foot curb and gutter section, on an 80-foot wide right-of-way. The project is scheduled for completion in November of 1992.

SR 2601 is carried over I-40 on Bridge #370 to its current terminal at SR 2042 (Old Greensboro Road). SR 2042 is designated as a bicycle route by the City/County Planning Board. Bridge #370 is 183 feet in length, with a clear roadway width of 26 feet, and a sufficiency rating of 40.8.

The north terminal of the project is at US 421 (East Mountain Street). At this location, US 421 consists of a 22-foot pavement with 6-foot usable shoulders. Land use along US 421 is industrial/commercial mixed with residential development. A Southern Railroad railway track is located between US 421 and SR 2042, on 90 feet of right-of-way. The track is located approximately 550 feet south of US 421, and 430 feet north of SR 2042. Currently, these tracks carry four trains per day.

Detailed estimates of traffic along SR 2601, and projections of future traffic on the recommended extension were not available at the time of preparation of this report. However, it is estimated that the widened roadway would carry approximately 12,000 vehicles per day at the design year (2015). This would result in a level of service (LOS) C along the improved roadway.

III. RECOMMENDATIONS

It is recommended that SR 2601 (Macy Grove Road) be widened from Industrial Park Drive to SR 2042 (Old Greensboro Road), and extended on a new location from SR 2042 to US 421. The recommended typical cross-section is a 5-lane, 64-foot curb and gutter section, with 8-foot berms. Right-of-way width is to be 100 feet, without control of access.

It is also recommended that Bridge #370 grade separation at I-40 be converted to a diamond interchange. This would allow SR 2601 direct access to I-40 and US 421. This recommendation is based on the adopted thoroughfare plan, and will provide direct access between I-40 and SR 2601. As stated earlier, SR 2601 will form the east segment of the future Kernersville loop, and the proposed

interchange is vital for the future loop, and industrial development in the vicinity.

Bridge #370 is to be replaced by a new bridge with a 64-foot clear roadway width, and an estimated length of 210 feet. During construction, traffic would be maintained by an onsite temporary detour. The proposed interchange is to be in the form of a standard diamond, with a one-way ramp per quadrant.

Project U-900 which is scheduled for completion in 1993, will route I-40 on a new location south of Kernersville. As a result, the existing I-40 freeway in this vicinity would no longer be classified as an interstate route. Consequently, factors such as interchange spacing, and access control would depend on the future classification of the freeway.

The recommended improvements also include installation of a traffic signal at the SR 2601/SR 2042 intersection. The SR 2601 extension is to cross the Southern Railroad tracks at grade, and is to be provided with a railroad crossing signal with gates. The exposure index for the proposed railroad crossing is 48,000. However, a grade separation is not feasible due to the proximity of US 421, SR 2042, and the elevation of the railroad tracks.

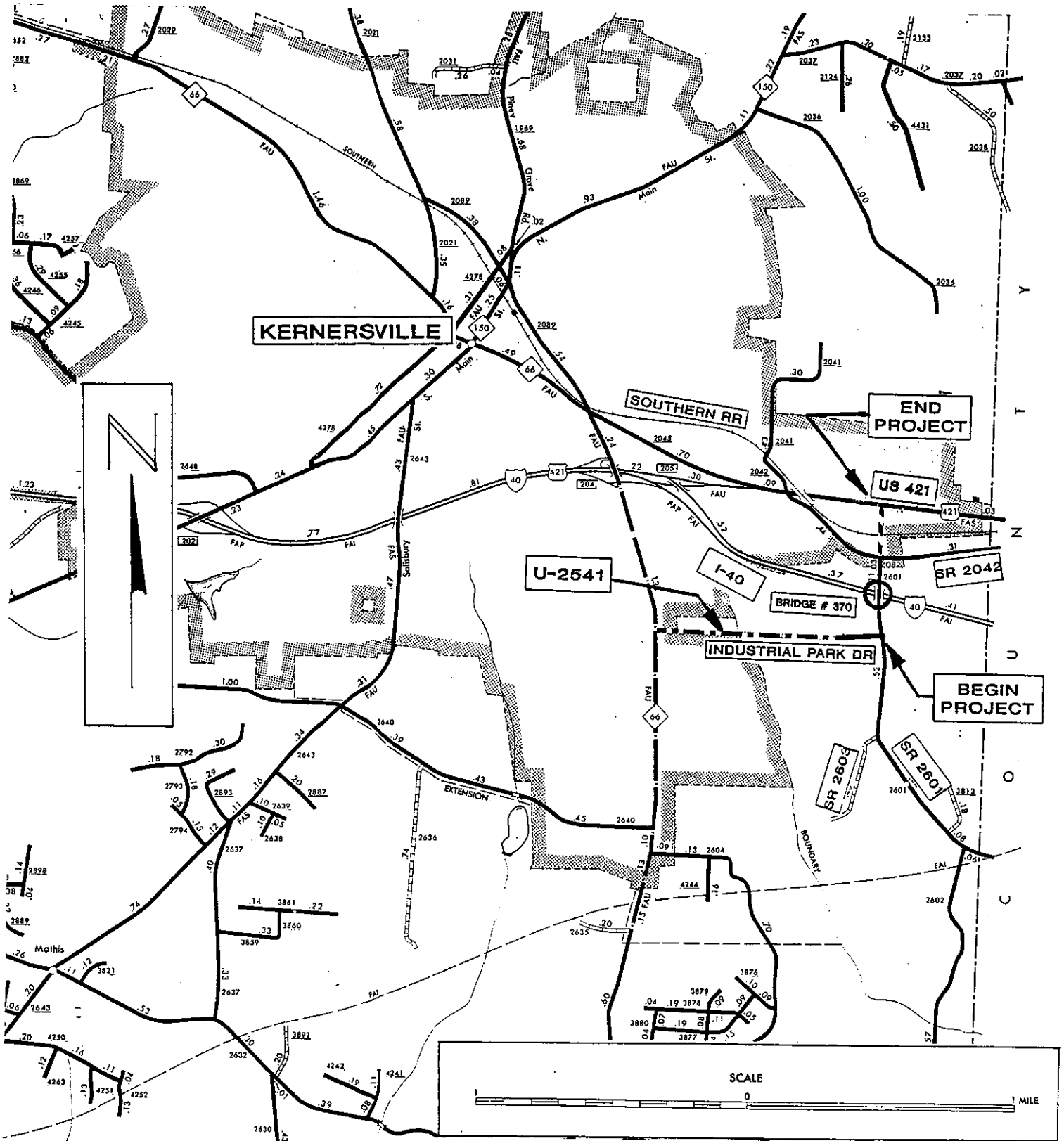
Project cost is estimated as follows:

Right-of-Way	$3,000,000
Construction	$3,600,000
Total Project Cost	$6,600,000

Except for the required railroad crossing, low utility conflicts are anticipated.

IV. OTHER COMMENTS AND CONCERNS

It is estimated that this project would require the relocation of 2 residences, and 2 businesses. An environmental screening was not conducted for this study. However, the project is not expected to result in major impacts on the environment.



KERNERSVILLE

SR 2601 (MACY GROVE RD) FROM INDUSTRIAL PARK DR TO US 421 FORSYTH COUNTY U-2800

DATE: FEB 1992 | FIGURE 1