

FEASIBILITY STUDY

Siler City  
Airport Access Improvements  
From Siler City Municipal Airport  
To US 421  
Chatham County  
R-3325

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



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I. GENERAL DESCRIPTION

This preliminary study describes proposed roadway improvements and connectors on new alignment to create a corridor linking the Municipal Airport in Siler City with US 421 north of Siler City. The proposed corridor location is shown on Figure 1. It is proposed to improve existing SR 1100 between the airport and SR 1107, and improve existing SR 1362 between SR 1006 and US 421. The remainder of the project will be built on new location between SR 1107 and SR 1006. The total project length is approximately 4.9 miles (7.8 km). The proposed cross-section is a 2-lane rural section with a total pavement width of 24 feet (7.3 m) and turf shoulders 8 feet (2.4 m) wide. Two residential and no business relocations will be required by this alignment. The required right-of-way width is 100 feet (30.5 m). The total cost including construction and right-of-way is estimated to be \$7,000,000.

This study is the initial step in the planning and design process for this project and is not the product of exhaustive environmental or design investigations. The purpose of this study is to describe the needs, recommend a treatment including costs, and identify potential problem areas that require consideration in the planning and design phases.

II. NEED FOR PROJECT

The purpose of this project is to improve access to the Siler City Municipal Airport. The project was requested by the Chatham County Commissioners and the Town of Pittsboro. Local officials are working toward industrial development in the area of the airport and in southwest Siler City. The proposed project will connect this development to Greensboro via the US 421 Freeway which is scheduled for completion as a multilane freeway in FY 1997 under project R-68. The R-3325 project corridor is shown on the Siler City Thoroughfare Plan as a Major Thoroughfare.

Land along the project corridor is a mixture of undeveloped land and single family residential properties where the alignment follows existing roads, and is primarily undeveloped where the project is to be built on new location.

SR 1100 between the airport entrance and SR 1107 is a 2-lane road with a pavement approximately 19 feet (5.8 m) wide and turf shoulders that vary in width from approximately 1 to 3 feet (0.3 to 0.9 m). There are two short sections on this road that have poor horizontal and/or vertical alignment. The existing right-of-way appears to be approximately 60 feet (18.3 m) wide. This segment of road is approximately 1.6 miles (2.6 km) long.

SR 1362 between SR 1006 and US 421 is a 2-lane road with a pavement approximately 22 feet (6.7 m) wide and soil shoulders that vary in width from approximately 2 to 4 feet (0.6 to 1.2 m). The existing right-of-way appears to be approximately 60 feet (18.3 m) wide. This segment of road is approximately 1.1 miles (1.8 km) long.

Traffic volume estimates for the proposed connector for the year 1994 vary from 800 vehicles per day (vpd) to 2,000 vpd, and for the year 2015 they vary from 3,000 vpd between the airport and US 64, to 5,000 vpd between SR 1006 and US 421. The Level of Service (LOS) is estimated to be Level B in 1994 and Level C in 2015.

Where the proposed alignment crosses the Norfolk and Southern Railroad, there are 2 train movements per day. The Exposure Index at the crossing is 7,000. An "at-grade" crossing, with warning bells and beacons, is proposed.

Traffic signal control is proposed where the project intersects SR 1107, US 64, SR 1108, and SR 1006.

### III. STAGE CONSTRUCTION

The project has broken down into 4 segments, showing related project length and costs, so that stage construction may be considered.

- A. Improve SR 1100, from airport entrance to SR 1107
  - Length: 1.6 miles (2.6 km)
  - Relocations: 2 residential, no business
  - Construction Cost..... \$1,200,000
  - Right-of-Way Cost..... 600,000
  - Total Cost..... \$1,800,000
  
- B. On new location, from SR 1107 to US 64
  - Length: 0.9 miles (1.4 km)
  - Relocations: none
  - Construction Cost..... \$1,400,000
  - Right-of-Way Cost..... 200,000
  - Total Cost..... \$1,600,000

- C. On new location, from US 64 to SR 1006  
 Length: 1.3 miles (2.1 km)  
 Relocations: none  
 Construction Cost..... \$2,000,000  
 Right-of-Way Cost..... 200,000  
 Total Cost..... \$2,200,000
  
- D. Improve SR 1362, from SR 1006 to US 421  
 Length: 1.1 miles (2.1 km)  
 Relocations: none  
 Construction Cost..... \$ 700,000  
 Right-of-Way Cost..... 700,000  
 Total Cost..... \$1,400,000

IV. OTHER COMMENTS

An environmental screening was not conducted for this study. There were no endangered or threatened species, or historic properties identified in the study corridor. There will be some wetlands involved and a Corps of Engineers 404 Permit may be required.

## RECOMMENDATIONS

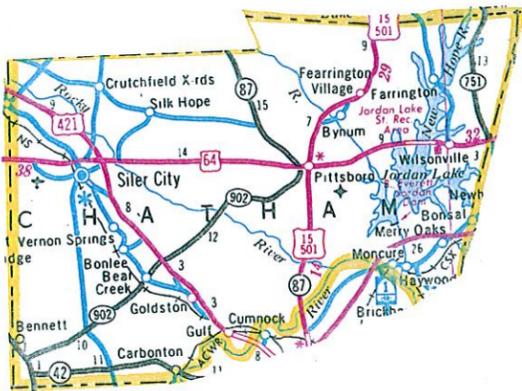
It is recommended to widen two existing secondary roads and build a new connector to create a corridor linking the Municipal Airport in Siler City with US 421 north of Siler City. The proposed corridor location is shown on Figure 1. It is recommended to widen, and improve the vertical and horizontal alignment of existing SR 1100 between the airport and SR 1107; and widen existing SR 1362 between SR 1006 and US 421. The remainder of the project will be built on new location between SR 1107 and SR 1006. The total project length is approximately 4.9 miles (7.8 km). The proposed cross-section is a 2-lane rural section with a total pavement width of 24 feet (7.3 m) and turf shoulders 8 feet (2.4 m) wide. Two residential and no business relocations will be required by this alignment. The required right-of-way width is 100 feet (30.5 m).

An "at-grade" crossing, with warning bells and beacons, is recommended where the proposed alignment crosses the Norfolk and Southern Railroad.

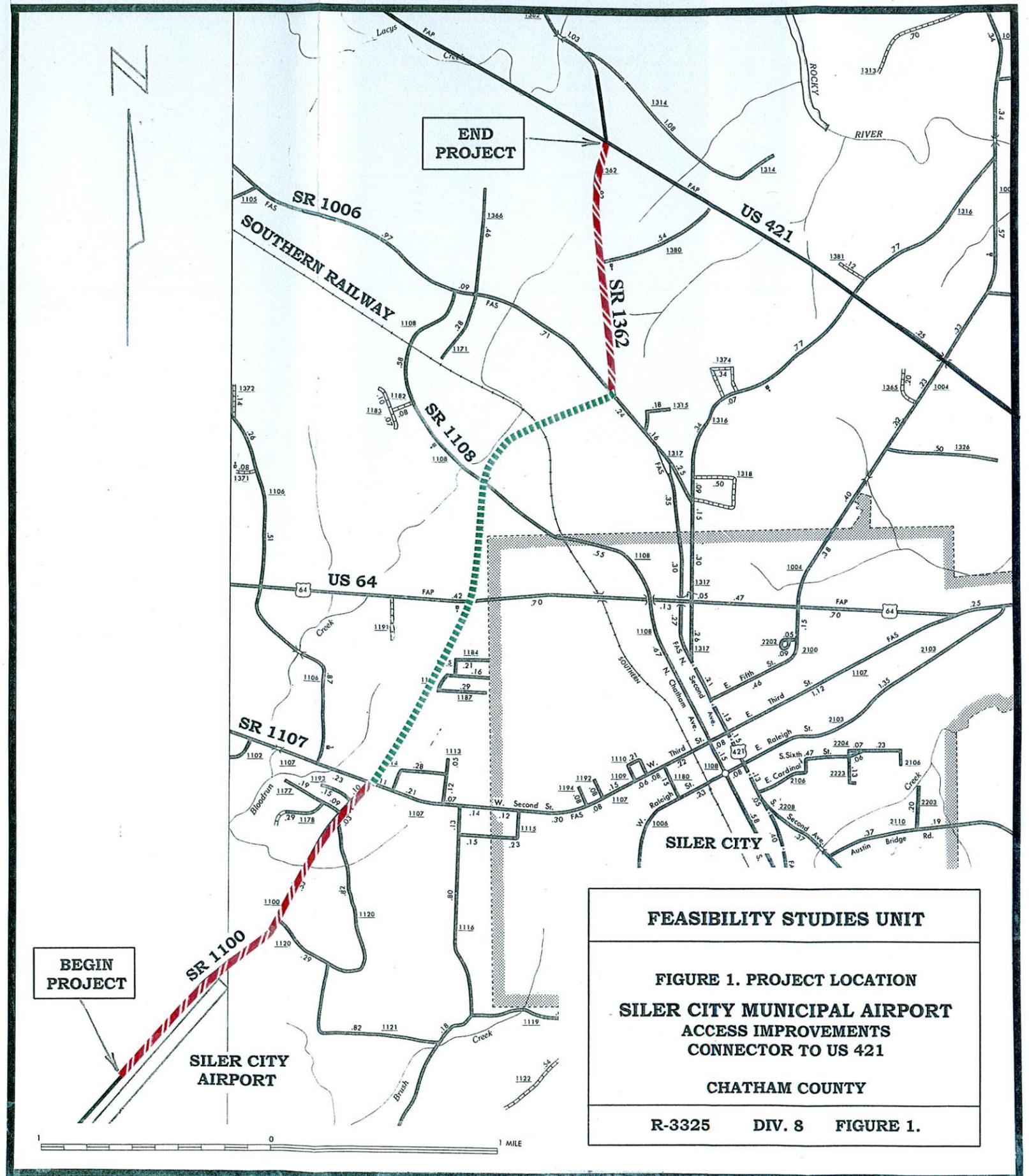
Traffic signal control is recommended where the project intersects SR 1107, US 64, SR 1108, and SR 1006.

The total cost including construction and right-of-way is estimated to be \$7,000,000 as follows.

Construction.....	\$5,300,000
Right-of-Way.....	1,700,000
Total Cost .....	\$7,000,000



LEGEND	
	EXISTING ROAD
	NEW LOCATION



**FEASIBILITY STUDIES UNIT**

**FIGURE 1. PROJECT LOCATION**

**SILER CITY MUNICIPAL AIRPORT**  
**ACCESS IMPROVEMENTS**  
**CONNECTOR TO US 421**

**CHATHAM COUNTY**

**R-3325 DIV. 8 FIGURE 1.**