

FEASIBILITY STUDY

Elizabeth City  
Halstead Boulevard Extension  
Connector on New Location  
From Proposed US 17 Bypass  
To Hughes Boulevard  
FS# 69-95-009

U-3449

Prepared by  
Program Development Branch  
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Date

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I. GENERAL DESCRIPTION

This preliminary study describes a proposed connector from the proposed US 17 Bypass, to Hughes Boulevard, in Elizabeth City. The proposed cross-section is a two-lane rural section on right-of-way 150 feet (45.7 m) wide. The proposed connector will be built entirely on new location. Two alternate alignments, as shown on Figure 1, were studied.

Project Alternate 1 is the recommended alignment alternate, as shown on Figure 1. The total connector length will be approximately 3.6 miles (5.8 km), and the total estimated cost including construction and right-of-way will be \$9,400,000.

The above cost includes \$3,500,000 for an interchange where the connector intersects the proposed US 17 Bypass. An interchange will be compatible with the control of access planned for the Bypass.

Nine residential and no business relocatees are anticipated due to this project.

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 provide efficient access between the Central Business District (CBD) of Elizabeth City and the proposed US 17 Bypass planned for the west side of Elizabeth City. The project will also provide access between the bypass and areas south of the CBD including Elizabeth City State University. The project was requested by, and is strongly supported by, Elizabeth City.

Existing Halstead Boulevard is designated a Major Thoroughfare on the Elizabeth City Thoroughfare Plan, and is

classified as a minor urban arterial in the North Carolina Statewide Functional Classification System. The proposed extension of Halstead Boulevard is scheduled for inclusion in the forthcoming update of the thoroughfare plan.

The only development along the proposed corridor, other than farming, lies within a half-mile of the eastern project terminal. In this eastern section the project will cross a subdivision of single family homes, pass near a telephone company facility, and cross the Pasquotank County Fair Grounds. Also in this section, the project will cross, at grade, the single track of the Chesapeake and Albemarle Railroad. Traffic on the railroad is estimated to be two train movements per week.

Existing Halstead Boulevard is a two-way, five-lane road with curb and gutter.

Traffic volume projections for Halstead Boulevard Extension for the years 1996 and 2016 are 2500 vehicles per day (vpd) and 8000 vpd respectively. With the recommended extension and cross-section, the Level of Service (LOS) is estimated to be level B in 1996 and level D in 2016.

### III. RECOMMENDATIONS

It is recommended to construct a connector from the proposed US 17 Bypass, to Hughes Boulevard, in Elizabeth City. The recommended cross-section is a two-lane rural section on right-of-way 150 feet (45.7 m) wide. The total pavement width will be 32 feet (9.8 m) including two, 12-foot (3.6-m) wide travel lanes and two, 4-foot (1.2-m) wide paved shoulders. The total shoulder width on each side will be 12 feet (3.6 m). The connector will be built entirely on new location. Project Alternate 1, as shown on Figure 1 is the recommended alignment alternate.

The total connector length will be approximately 3.6 miles (5.8 km), and the total estimated cost including construction and right-of-way will be \$9,400,000 as follows:

Construction.....	\$7,700,000
Right-of-Way.....	1,700,000
Total .....	\$9,400,000

The above construction cost includes \$3,500,000 for an interchange where the connector intersects the proposed US 17 Bypass. An interchange will be compatible with the control of access planned for the Bypass.

Nine residential and no business relocatees are anticipated due to this project.

#### IV. ALTERNATIVES CONSIDERED

Three alternative project cross-sections were considered as follows: a) a 2-lane rural section on 150-foot (45.7-m) wide right-of-way; b) a 4-lane median divided rural section on a 150-foot (45.7-m) wide right-of-way; c) a 5-lane curb-and-gutter section on a 100-foot (30.5-m) wide right-of-way.

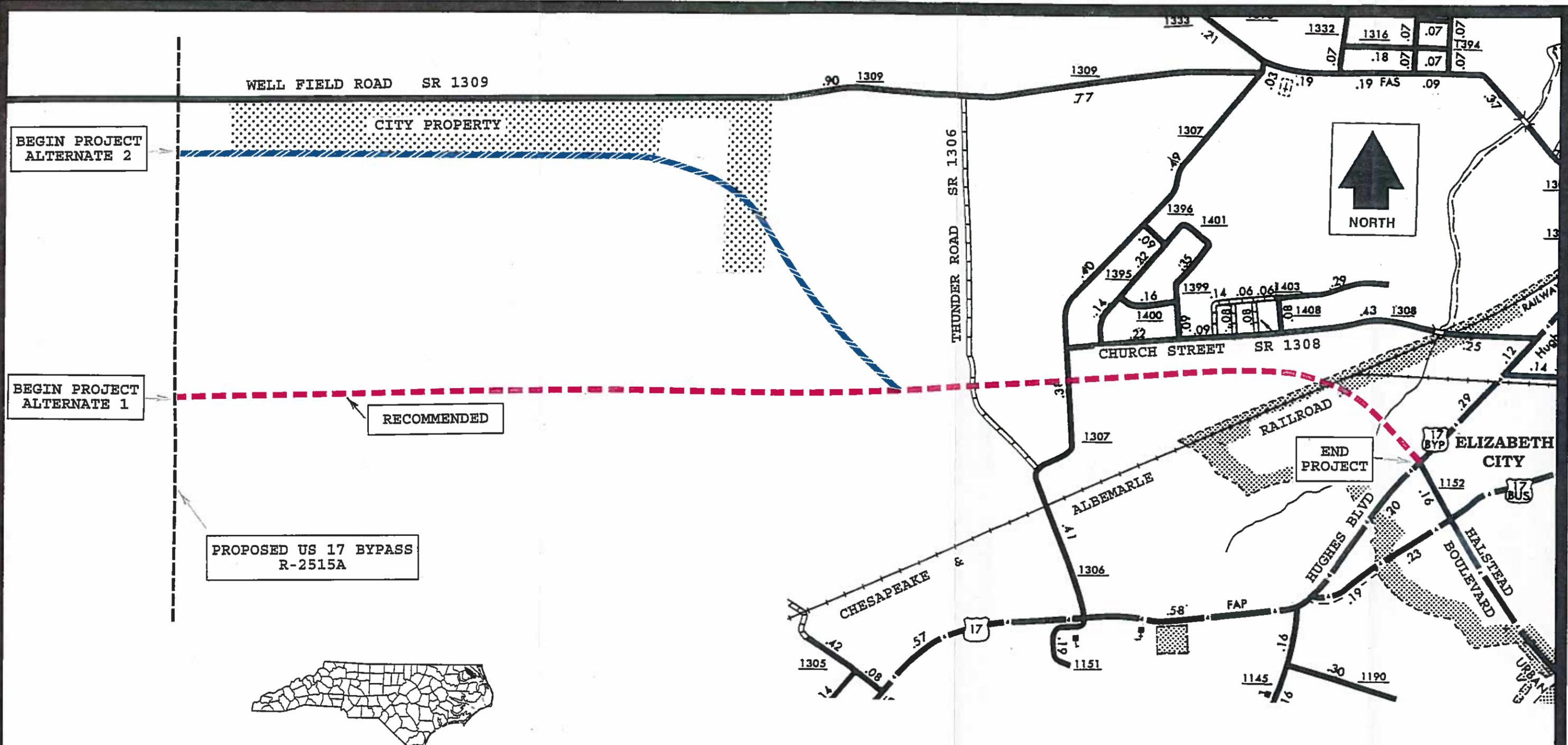
Two alternative project alignments were considered, as shown on Figure 1. Alignment Alternative 2 was studied at the request of the City, and crosses the City's well field property. The City has expressed a willingness to consider donating this property, if necessary to advance the project.

Table 1 shows the estimated costs, by cross-section type and by project location alternative.

The recommended cross-section and project alignment were selected because they provide the least expensive initial cost, at an acceptable level of service, while providing adequate right-of-way for widening the roadway in the future, if necessary.

#### V. OTHER COMMENTS

An environmental screening was not conducted for this study. This project will cross some wetlands.



PROPOSED US 17 BYPASS  
R-2515A

BEGIN PROJECT  
ALTERNATE 2

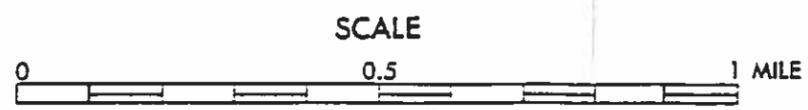
BEGIN PROJECT  
ALTERNATE 1

RECOMMENDED

END  
PROJECT



LEGEND	
PROJECT ALTERNATE LOCATIONS	
	ALTERNATE 1
	ALTERNATE 2



FEASIBILITY STUDIES UNIT	
FIGURE 1. PROJECT LOCATION	
HALSTEAD BOULEVARD EXTENSION FROM PROPOSED US 17 BYPASS TO HUGHES BOULEVARD	
ELIZABETH CITY	PASQUOTANK COUNTY
DIV. 1	FS # 69-95-009
	FIGURE 1.

<b>TABLE 1. PROJECT ALTERNATIVE COSTS PROPOSED HALSTEAD BOULEVARD EXTENSION ELIZABETH CITY</b>		
<b>CROSS-SECTION</b>	<b>PROJ. ALT. 1</b>	<b>PROJ. ALT.2</b>
<i>2 Lane Rural 150 ft. R/W</i>	<i>Recommended</i>	
Construction Cost	7,700,000	8,200,000
Right-of-Way Cost	1,700,000	2,000,000 <sup>1</sup>
Total Cost	9,400,000	10,200,000
<i>4 Lane Rural Div. 150 ft. R/W</i>		
Construction Cost	11,000,000	11,700,000
Right-of-Way Cost	1,700,000	2,000,000 <sup>1</sup>
Total Cost	12,700,000	13,700,000
<i>5 Lane Rural C&amp;G 100 ft. R/W</i>		
Construction Cost	11,000,000	11,400,000
Right-of-Way Cost	1,400,000	1,600,000 <sup>2</sup>
Total Cost	12,400,000	13,000,000

1. Includes City property valued at \$145,000.

2. Includes City property valued at \$110,000.