

NC-EIS-92-01-D

Eastern/Northern Urban Loop from
I-85 east of Greensboro to Lawndale Drive
north of Greensboro, approximately 13 miles
in Guilford County, North Carolina

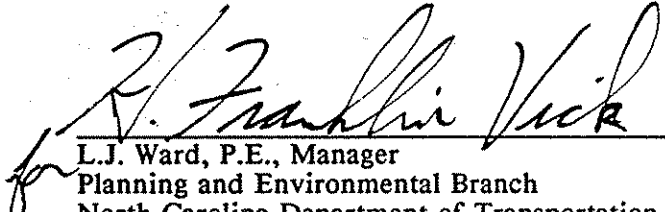
State Project No. 6.498003T
Guilford County
TIP No. U-2525

ADMINISTRATIVE ACTION
DRAFT ENVIRONMENTAL IMPACT STATEMENT

Submitted Pursuant to the North Carolina Environmental Policy Act
G.S. 113A-1 through 113A-10

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

8/19/92
Date


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additional information concerning this document:

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This statement documents the need for transportation improvements east and north of Greensboro and also the planning process leading to the selection of viable alternative corridor locations. Existing and projected conditions in the study area are described and alternatives are evaluated in terms of environmental consequences, social-economic impacts, compatibility with local planning goals, and public opinion.


Comments on this draft EIS are due by NOV 13 1992 and should be sent to Mr. L.J. Ward at the above address.

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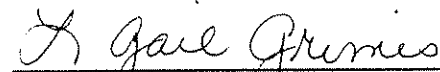
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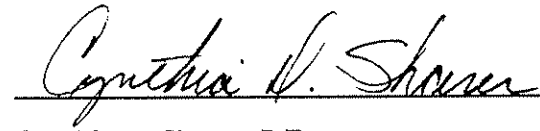
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SUMMARY

1. NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

Administrative Action Environmental Statement:

(x) Draft () Final

2. CONTACTS

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3. BRIEF DESCRIPTION OF THE PROPOSED ACTION

The proposed action is the construction of the Greensboro Eastern/Northern Urban Loop, a multi-lane freeway on new location in Guilford County. The project extends from a proposed interchange with I-85 and the proposed I-85 Bypass, east of the City of Greensboro, to Lawndale Drive (SR 2303) between Regents Park Lane and Cottage Place in northern Greensboro at the northern terminus of the proposed Greensboro Western Urban Loop.

4. ACTION PROPOSED BY OTHERS

An interchange with existing I-85 is included in the proposed I-85 Bypass around the southern portion of Greensboro. This interchange would be the southern terminus for the Greensboro Eastern/Northern Urban Loop. The location of the interchange will be determined from planning and environmental studies for the proposed I-85 Bypass currently being performed. In addition, an environmental study is underway for the Western Urban Loop. Several major projects related to this project have been listed in the North Carolina Department of Transportation's Transportation Improvement Program (TIP) for 1993 to 1999. In addition to the previously mentioned freeway projects, the widening of I-40/I-85 to eight lanes is proposed. The rehabilitation of the concrete pavement of US 29 is also planned.

An extension of North Elm Street is being constructed from Pisgah Church Road to Lake Jeanette Road. This street is proposed to interchange with the Greensboro Eastern/Northern Urban Loop.

5. SUMMARY OF MAJOR ALTERNATIVES

This report documents the numerous alignments within the study area which were investigated and refined and the three reasonable and feasible "build" alternatives and two crossovers as transitions between the alternatives. In addition to the "build" alternatives, this study also examined the feasibility of the No-Build Alternative, the Transportation System Management (TSM) Alternative, and Multi-Modal System Alternatives.

The three "build" alternatives are shown in Figure II-2A and described below. In addition to addressing the environmental impacts of each alternative, this report also addresses the potential for mitigating the adverse impacts associated with the construction of the Greensboro Eastern/Northern Urban Loop.

- **Eastern Alternative**

The Eastern Alternative begins at I-85, approximately 3,000 feet east of the I-85/McConnell Road interchange. It proceeds north, first crossing Mount Hope Church Road and then US 70, approximately 1,200 feet east of the US 70/Mount Hope Church Road intersections. After crossing McLeansville Road, Southern Railway, and South Buffalo creek, the alternative heads north-northwest to a crossing with Huffine Mill Road just west of Harvest Road. From Huffine Mill Road, it proceeds in a more northern direction, crossing Camp Burton Road, North Buffalo Creek, and Creekview Road approximately 3,500 feet east of Hines Chapel Road. The corridor then turns to the west-northwest, crossing Hines Chapel Road and Rankin Mill Road before connecting with the Middle Alternative approximately 2,000 feet east of McKnight Mill Road. From there, the corridor proceeds west-northwest, crossing McKnight Mill Road at the intersection of Briarmeade Road, US 29 north of the Oakwood Forest Mobile Home Park, Summit Avenue north of Brightwood School Road, Lee's Chapel Road north of the Rankin Fire Station, and the Southern Railway at Hillcroft Road. This alternative then follows a west-southwest path, crossing both Yanceyville Road and Church Street 2,000-3,000 feet north of Lee's Chapel Road before connecting with the Western Alternative in the vicinity of the proposed Elm Street Extension. From here the corridor turns more westerly, crossing Lake Jeanette Road north of Cottage Place and continuing for a distance of approximately 4,800 feet to its terminus with Lawndale Drive, south of Richland Creek.

Interchanges are included at the crossings of I-85, US 70, Huffine Mill Road, US 29, Yanceyville Road, proposed Elm Street Extension, and Lawndale Drive. All other crossings would be by grade separation, relocation, or termination of the cross streets. The Eastern Alternative is 13.0 miles in length.

- **Middle Alternative**

The Middle Alternative begins at the same I-85 interchange as the Eastern Alternative. This alternative proceeds to the north-northwest, crossing Clapp Farms Road approximately 4,800 feet west of Mount Hope Church Road. It then crosses South Buffalo Creek, US 70 and Southern Railway just east of the railroad underpass before crossing Fourmile Loop east of Willowlake Road. From here, the corridor turns more north to a crossing of Huffine Mill Road approximately 1,500 feet west of Harvest Road. The Middle Alternative then turns to the northwest, crossing Camp Burton Road just to the west of the prison. Heading northwest, it crosses North Buffalo Creek, Rankin Mill Road, and Hines Chapel Road west of Rankin Mill Road before connecting with the Eastern Alternative approximately 2,000 feet to the east of McKnight Mill Road. The alternative continues along the same route as the Eastern Alternative to the interchange with Lawndale Drive. Interchanges are included at the crossings of I-85, Fourmile Loop, Huffine Mill Road, US 29, Yanceyville Road, proposed Elm Street Extension, and Lawndale Drive. All other crossings would be by grade separation, relocation, or termination of the cross streets. The Middle Alternative is 12.5 miles in length.

- **Western Alternative**

The Western Alternative begins at I-85 approximately 4,800 feet west of the I-85/McConnell Road interchange. From here, the alternative proceeds in a generally northerly direction crossing McConnell Road east of Youngs Mill Road, South Buffalo Creek, the Southern Railway, and US 70 in the vicinity of Maxfield Road. The alignment then follows a more northwesterly direction to a crossing of Huffine Mill Road just south of Rankin Mill Road. The alternative continues in the same general direction, crossing White Avenue and North Buffalo Creek. Between White Avenue and North Buffalo Creek, the route of the Western Alternative is contained within a narrow right-of-way bounded on its east and west sides by the Greensboro City landfill property. The alignment then proceeds in a northwesterly direction where it crosses McKnight Mill Road at Hines Chapel Road and US 29 north of Lakeview Memorial Park Cemetery. This alternative continues in the same northwesterly direction crossing Pineneedle Road at Brightwood School Road and Summit Avenue approximately 1,500 feet south of Brightwood School Road.

Approximately 1,600 feet to the northwest of Summit Avenue, the alignment turns to the west, crossing Lee's Chapel Road south of Brightwood School Road, the Southern Railway, and Yanceyville Road about 1,800 feet north of Lee's Chapel Road. The Western Alternative proceeds west, crossing Church Street approximately 1,600 feet north of Lee's Chapel Road before connecting with the Eastern and Middle Alternatives in the vicinity of the proposed Elm Street Extension and continuing to its intersection with Lawndale Drive. Interchanges are proposed at the Western Alternative's crossings of I-85, US 70, Rankin Mill Road/Huffine Mill Road, US 29, Yanceyville Road, proposed Elm Street Extension, and Lawndale Drive. All other crossings would be by grade separation, relocation, or termination of the cross streets. The Western Alternative is 11.0 miles in length.

Two crossovers between the alternatives are also included in this study. Crossover 2 would allow the Middle Alternative to intersect with the Western Alternative north of

US 70 while Crossover 1 allows the Western Alternative to interchange with I-85 between McConnell Road and Mount Hope Church Road.

6. ELIMINATION OF WESTERN ALTERNATIVE

After the review and analysis of impacts on the City of Greensboro's White Street Landfill, as well as on residential displacements and wetlands, it was decided that the Western Alternative should be eliminated from further consideration in this study. Consequently, the Western Alternative, as described in this Draft Environmental Impact Statement, will not be presented for review and consideration at the Public Hearing. The decision to eliminate the Western Alternative was made in conjunction with the Greensboro Eastern/Northern Urban Loop Steering Committee and the North Carolina Department of Transportation.

It is believed that the acquisition of approximately 8.4 acres of permitted landfill property for the Western Alternative would present serious legal, environmental, and operational constraints that would be difficult to overcome and would result in costly and time consuming remediation to mitigate adverse effects. Correspondence from the Public Works Department of the City of Greensboro is contained in Appendix A. In addition to the encroachment on the White Street Landfill, the Western Alternative would also impact the greatest amount of wetlands (34 acres) and would require 364 residential displacements, a total that is second only to the Crossover 1 Alternative of the five alignments studied. The major problem with the Western Alternative, however, is with its involvement with the White Street Landfill.

7. ELIMINATION OF CROSSOVERS 1 AND 2

The recent identification of the preferred alternative for the I-85 Bypass (TIP No. I-2402), which would utilize the easternmost interchange with I-85, has eliminated the need for Crossover 2. Crossover 1 existed to provide a possible transition for the Western Alternative. Since the Western Alternative was eliminated after detailed study, then Crossover 1 is also eliminated. The retained alternatives are shown on Figure II - 2B.

8. SUMMARY OF BENEFICIAL AND ADVERSE ENVIRONMENTAL EFFECTS:

The primary benefits of the proposed action are improved transportation accessibility and mobility within and around Greensboro and the economic gains resulting from the improvement in highway transportation. Construction of the proposed freeway will help meet traffic needs and fulfill the goals of the 1989 Greensboro Urban Area Thoroughfare Plan. The Thoroughfare Plan, which includes this project, received considerable public review before its adoption by the City of Greensboro, Guilford County, and the North Carolina Board of Transportation. The Eastern/Northern Urban Loop will connect existing and planned thoroughfares, and will connect to other portions of the planned urban loop. Safety benefits will be realized by the road users transferring from more congested and hazardous highways. By improving the flow of traffic within Guilford County and the City of Greensboro, the highway will reduce travel time, fuel consumption, and vehicle operating costs, and will improve air quality. Because of these factors, the proposed action will improve the overall quality of life in Greensboro. The Middle and Eastern Alternatives provide improved traffic service in comparison with the No-Build Alternative.

Adverse impacts include the displacement of 307 to 311 residences and nine to 10 businesses. An increase in the noise levels is anticipated for some areas adjacent to the project. An estimated 12 to 15 acres of wetlands and six to 16 acres of floodplain will be impacted by the proposed project. In addition, an estimated 262 to 317 acres of prime farmland will be taken for highway right-of-way. Temporary adverse impacts during construction will consist of potential erosion and siltation, construction noise, and public inconvenience.

Tables S-1 and S-2 summarize the environmental impacts and the engineering comparisons, respectively, of the retained alternatives.

TABLE S-1
ENVIRONMENTAL COMPARISON OF RETAINED ALTERNATIVES

	ALTERNATIVE	
	Eastern	Middle
Length (miles)	13.0	12.5
Displacements		
Residences (minority)	311(55)	307(55)
Businesses	10(0)	9(0)
Other	0	0
Acreage Required		
Field (inc. Agriculture)	78.4	63.1
Forest	293.1	288.3
Urban (man-dominated)	<u>223.2</u>	<u>206.4</u>
Total	594.7	557.8
Acres of Prime Farmland	317.0	262.0
Acres of Wetland (includes open water)	11.7	15.0
Acres of Floodplain	6.2	16.5
Number of Stream Crossings	23	22
Number of Receptors Exceeding Noise Abatement Criteria or with Substantial Increase	168	119
National Register Historic Sites	0	0
National Register Archaeological Sites	0	0
Potential Hazardous Material Sites In or Near Corridors	1	1

TABLE S-2
ENGINEERING COMPARISON OF RETAINED ALTERNATIVES

	ALTERNATIVE	
	Eastern	Middle
Length (miles)	13.0	12.5
Interchanges (number)	7	7
Other Structures		
Railroad	2	2
Drainage	16	16
Grade Separation	19	17
Traffic (high/low) (vehicles per day)	33,400/ 18,400	33,400/ 18,400
Level-of-Service	C-B	C-B
Construction Cost (millions)	\$81.0	\$82.6
Right-of-Way Cost (millions)	\$39.5	\$41.5
Total Cost (millions)	\$120.5	\$124.1

9. AREAS OF CONTROVERSY

The alternatives have been presented to the public and to other public agencies and officials during the study process. No major areas of controversy have surfaced other than concern regarding the impacts on the City of Greensboro Landfill and individual concerns by persons living within the study corridors.

10. ACTIONS REQUIRED BY OTHER AGENCIES

A permit from the U.S. Army Corps of Engineers will be required for this project under the provisions of Section 404 of the Federal Water Pollution Control Act Amendments of 1972. Section 404 requires the application for and approval of a permit before wetlands or other waters of the United States can be dredged or filled. The Clean Water Act requires public notice and review of Section 404 permits as well as U.S. Fish and Wildlife Service review. Stream relocations also will be coordinated with the U.S. Fish and Wildlife Service. Encroachment into floodways will be coordinated with the Federal Emergency Management Agency (FEMA).

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CHAPTER I PURPOSE AND NEED FOR ACTION

A. GENERAL

This chapter documents the need for construction of the approximate 13-mile eastern/northern portion of the Greensboro Urban Loop from I-85 east of Greensboro to Lawndale Drive in northern Greensboro (see Figures I-1 and I-2). The current and projected traffic is evaluated in relation to the existing and proposed transportation system surrounding Greensboro. Alternatives are developed to respond to the social, economic, and environmental consequences anticipated in introducing a major freeway corridor through the study area. The impacts of each alternative are identified and discussed. To respond adequately to these environmental, engineering, and planning issues associated with the Greensboro Eastern/Northern Urban Loop, this draft environmental impact statement was prepared.

B. PROJECT SETTING

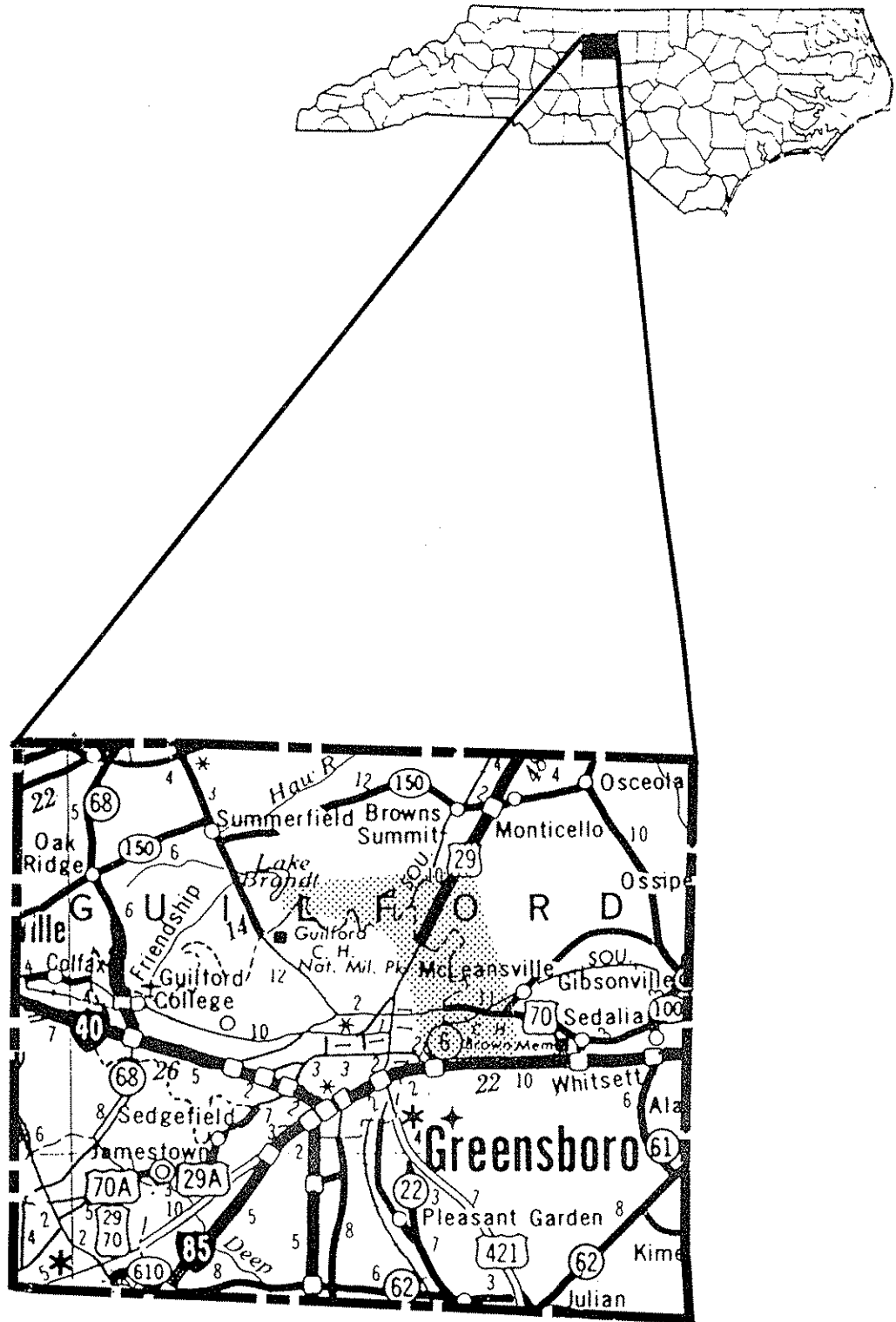
The project is located in Guilford County in north-central North Carolina. As shown in Figure I-2, parts of the northern and western limits of the study area lie within the City of Greensboro, which comprises the largest municipality in the Piedmont Triad area. The Piedmont Triad, consisting of Greensboro, High Point, and Winston-Salem, is linked by Interstate 85 and Interstate 40.

The Greensboro Eastern/Northern Urban Loop study area is located within the Piedmont Province and is characterized by a moderately rolling upland surface with nearly level broad ridges and moderately steep side slopes adjacent to the stream valleys. Relief across the study area is in the order of 180 feet. North Buffalo Creek and South Buffalo Creek are the largest streams in the study area.

The study area includes a mix of forested rural, agricultural, and residential land uses interspersed with scattered commercial and industrial development along the major traffic arteries. The primary employment centers are located along the Interstate 85 corridor, the US 29 corridor, and the western boundary of the study area. The relocation of high-tech firms and major warehouse and distribution facilities to the area has partly offset the decline of traditional markets for tobacco, textiles, apparel, and furniture. Chapter III presents a more detailed review of the area's affected environment.

C. PROJECT STATUS

The Greensboro Eastern/Northern Urban Loop is designated in the North Carolina Department of Transportation 1993-1999 Transportation Improvement Program (TIP) as U-2525. Right-of-way acquisition for U-2525 is scheduled to begin in Fiscal Year 1993. Construction is scheduled to begin in Fiscal Year 1994.



NOT TO SCALE

Map Source: NCDOT

**GREENSBORO EASTERN/NORTHERN
URBAN LOOP**

VICINITY MAP

**FIGURE
I-1**

