

NC 87 Elizabethtown Bypass  
Bladen County  
Federal Aid Project No. F-120-1(1)  
State Project No. 8.1420501  
TIP No. R-522

ADMINISTRATIVE ACTION  
DRAFT REEVALUATION OF FINDING OF NO SIGNIFICANT IMPACT

U. S. Department of Transportation  
Federal Highway Administration  
and  
N. C. Department of Transportation  
Division of Highways

9-2-93

Date

for

Lulu V. Prevatt  
L. J. Ward, P. E., Manager  
Planning and Environmental Branch

9/2/93

Date

for

Nicholas L. Graf  
Nicholas L. Graf, P. E.  
Division Administrator, FHWA

NC 87 Elizabethtown Bypass  
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Federal Aid Project No. F-120-1(1)  
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DRAFT REEVALUATION OF FINDING OF NO SIGNIFICANT IMPACT

September, 1993

Documentation Prepared in Planning and Environmental Branch By:

9/1/93  
Date

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Project Planning Engineer

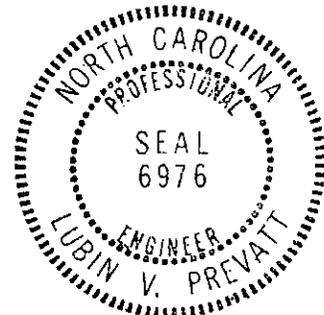


9-2-93  
Date

J. Wilson Stroud  
J. Wilson Stroud  
Project Planning Unit Head

9-2-93  
Date

Lubin V. Prevatt  
Lubin V. Prevatt, P. E., Assistant Manager  
Planning and Environmental Branch



Reevaluation  
NC 87 Elizabethtown Bypass  
Bladen County  
Federal Aid Project No. F-120-1(1)  
State Project No. 8.1420501  
TIP No. R-522

1. Type of Action

This is a Federal Highway Administration Action, Reevaluation of the Finding of No Significant Impact.

2. Project Status

The North Carolina Department of Transportation proposes to construct the NC 87 bypass of Elizabethtown, a four-lane divided facility on new location south of Elizabethtown from SR 1336-SR 1155 to SR 1704. The project area and the recommended improvement, Alternative 7, are shown in Figure R-1.

The 1994-2000 NCDOT Transportation Improvement Program (TIP) calls for constructing a four-lane highway on new location. The required right of way for Alternative 7 has been purchased. Construction is scheduled for Fiscal Year 1993. The TIP includes a cost estimate of \$11,100,000 for construction. The actual updated cost estimate is \$13,230,000, including \$2,230,000 for right of way and \$11,000,000 for construction.

NCDOT has applied for a Section 404 Individual Permit from the U.S. Army Corps of Engineers and a 401 Water Quality Certification from the N.C. Department of Environment, Health, and Natural Resources, Division of Environmental Management for this project. The need for this Reevaluation arose during the agency coordination of the above permits.

3. Need for Project

The need for a bypass was first addressed in the 1981 Environmental Assessment: traffic congestion has resulted from requiring existing NC 87 which passes through the central business district of Elizabethtown and varies from two to three lanes in width, to function as a major through highway while also serving local traffic. This problem has intensified as the traffic has increased since the Environmental Assessment was completed. A bypass would alleviate the congestion problem by diverting the NC 87 through traffic away from downtown Elizabethtown. The bypass would have full control of access except at intersections; this access restriction will provide improved operating conditions and safety for the traveling public.

4. Historical Resume

- 01-26-1981 - Environmental Assessment approved by FHWA
- 07-11-1981 - Corridor Public Hearing held
- 11-05-1982 - Finding of No Significant Impact approved by FHWA
- 10-07-1986 - Design Public Hearing held
- 12-12-1986 - Reevaluation of FONSI approved by FHWA
- 03-15-1989 - Corridor Location Meeting held
- 06-10-1991 - Construction Consultation approved by FHWA

This Reevaluation has been prepared to evaluate changes in the recommended improvements, changes in the affected environment, and changes in the anticipated impacts that have occurred since the first Reevaluation and Construction Consultation were approved.

## 5. Alternatives Considered

Seven alternatives were considered in the Environmental Assessment (see Figure R-2). They were:

- Alternative 1 - No Build
- Alternative 2 - Improvements to existing NC 87
- Alternative 3 - Bypass along existing Swanzy Street
- Alternative 4 - Minimum length bypass on new location
- Alternative 5 - Complete bypass on new location
- Alternative 6 - Bypass (combination of Alternative 4-west and Alternative 5-east)
- Alternative 7 - Bypass (combination of Alternative 5-west and Alternative 4-east)

Based on a comparison of the alternatives in the Environmental Assessment (environmental impacts, traffic service, and costs), Alternative 7 was recommended for construction in the FONSI. The Elizabethtown Board of Commissioners voted unanimously to support Alternative 7 as the preferred alternative on October 4, 1982.

Since the FONSI was approved, the purpose and need for the project have expanded. NC 87 is now part of the North Carolina Intrastate System; in accordance with the intrastate guidelines, this section of highway is to be upgraded to a multilane facility with control of access. Alternatives 1, 2, and 3 do not allow for control of access along the project and would produce a low level of traffic service. Therefore, these three alternatives do not meet the purpose and need of the project and have been dropped from consideration.

For an equivalent comparison of impacts and cost, the limits of the bypass alternatives still under consideration, Alternatives 4, 6, and 7, have been extended to form common terminals with Alternative 5. In addition, a curve has been introduced to Alternatives 4 and 6 on the western end of the project, replacing the "tee" intersection near the Veeder-Root Plant on NC 87 proposed in the EA and FONSI. This intersection treatment will favor through traffic on NC 87. The revised limits of Alternatives 4, 5, 6 and 7 are shown in Figure R-3.

## 6. Recommended Improvements

The recommended improvements (Alternative 7) consist of constructing a highway on new location south of the Town of Elizabethtown. It is proposed that the new bypass extend from existing NC 87 near the intersection of SR 1335-SR 1155 northwest of Elizabethtown to NC 87 near the intersection of SR 1704 southeast of Elizabethtown (see Figure R-1). Originally, the bypass was to be a 2-lane facility on 4-lane right of way, as discussed in the EA and FONSI. A 4-lane divided expressway with a 60-foot grassed median is now proposed. Two 28-foot pavement sections (two 12-foot lanes with 2-foot paved

shoulders) are recommended. Full access control is recommended, except for at-grade intersections at the terminals of the bypass, the intersections with SR 1155, SR 1150, SR 1700 and US 701, and one access drive to the industrial park adjacent to the Elizabethtown Airport.

The proposed four-lane facility will be contained within a 250-foot wide right of way, which has already been acquired. The right of way width increases at US 701, where an interchange is proposed as a separate project in the future.

## 7. Cost Comparison

As discussed in Section 5, the project limits of Alternatives 4, 6, and 7 were extended to form common terminals with Alternative 5. This will allow an equivalent comparison of impacts and cost. Figure R-5 shows a comparison of construction and right of way costs associated with each revised alignment. In this comparison, Alternative 7 would be the least expensive to construct.

It should be noted that the actual cost estimate for the proposed improvement, Alternative 7, is \$13,230,000, including \$2,230,000 for right of way and \$11,000,000 for construction. This cost reflects the actual limits of the project, not the revised limits that were established for an equivalent comparison of the four alternatives.

In addition, the right of way required for Alternative 7 has already been purchased. Therefore, the other bypass alignments would be considerably more expensive than Alternative 7, since additional right of way would be required.

## 8. Traffic Analysis

The current (1993) traffic volumes on NC 87 range from 5600 vehicles per day (VPD) east of town to 14,200 VPD in downtown Elizabethtown. The traffic is expected to increase to more than 25,000 VPD in Elizabethtown without a bypass by the year 2013. Currently, existing NC 87 is operating at Level of Service D to E; the LOS is expected to reduce to F by the year 2013 without improvements to NC 87.

The proposed bypass is expected to carry approximately 6400 VPD upon completion and will operate at LOS B. This traffic is expected to increase to approximately 11,800 VPD by the year 2013 and is anticipated to operate at LOS C. The level of service of existing NC 87 through downtown Elizabethtown will improve to LOS B to D once the bypass is completed and will operate at LOS D to E in the year 2013 based on traffic projections.

## 9. Probable Social, Economic, and Environmental Impacts

The affected environment has not substantially changed since the EA and FONSI were approved. A field review conducted on November 3, 1992 indicated that the description of the environmental context of the project area is, in general, still valid.

a. Land Use Impacts

The current thoroughfare plan was adopted by the City of Elizabethtown on February 6, 1989. The recommended improvement (Alternative 7) better conforms to the bypass alignment shown in the thoroughfare plan than the other alternatives considered in the Environmental Assessment. The terminal points of Alternative 7 best match with the thoroughfare plan bypass alignment.

A consideration in recommending Alternative 7 was the bypass's proximity to the Elizabethtown Airport. Alternatives 4 and 7 pass north of the airport and best allows for future expansion of the airport to the south; Alternatives 5 and 6 pass south of the airport and would prohibit any southern expansion. In addition, an industrial park is currently under construction adjacent to the airport; the recommended alignment would provide better and more direct access to the industrial park than Alternatives 5 and 6.

b. Socioeconomic Impacts

The proposed west terminal of Alternative 7 near the intersection of SR 1336-SR 1155 and NC 87 will avoid impacting the commercially developed area along NC 87 that includes Accent Dye, Westpoint Pepperell, and Veeder-Root, as well as the residential area along Glenwood Drive (see Figure R-5).

The revised Alternatives 4 and 6 would adversely impact an established neighborhood, Glenwood Drive, by bisecting it with the new roadway. It is anticipated that approximately 4 residences in this neighborhood would be relocated under Alternative 4 and 6.

c. Relocates

Eight residences and one business were relocated when the right of way for Alternative 7 was purchased. Since no additional right of way would be needed for this project if Alternative 7 were selected, no additional relocatees would be impacted by this alternative. Figure R-5 shows the current status of residential and business impacts for each alternative, taking into account the relocatees previously removed under prior acquisitions. Alternative 6 would now impact the most properties, with 13 relocatees, followed by Alternatives 4 and 5, with 11 and 2 relocatees, respectively (see Figure R-5).

d. Farmland

The project has been coordinated with the Soil Conservation Service as required by the Farmland Protection Policy Act. The recommended Alternative 7 takes an estimated 38.6 acres of prime farmland and an estimated 100 acres of state/local important farmland.

The EA addressed prime farmland for all of the alternatives. Each of the bypass alternatives on new location had approximately the same acres of impacted prime farmland: Alternative 4 (38.6 ac), Alternative 5 (37.9 ac), Alternative 6 (37.9 ac), and Alternative 7 (38.6 ac) (see Figure R-5).

e. Soils

The U.S. Department of Agriculture, Soil Conservation Service, has published a Technical Guide on the soils of Bladen County. Both hydric soils and soils with inclusions of hydric soils were identified along the four alignments. The hydric soils were used only as an indication of potential wetlands in the area. Figure R-5 shows the totals of both types of soils.

f. Wetlands

The FONSI estimated the wetland impacts to be approximately 1.3 acres in 1982 for Alternative 7. Since that time, new federal standards for wetland identification have been adopted. Actual wetland impacts associated with Alternative 7 were identified based upon a field survey conducted August 19, 1992. This survey revealed that 27.58 acres will be impacted. Wetland impacts of the Alternatives 4, 5, and 6 have not been field measured.

An in house assessment of anticipated wetland impacts was conducted to compare all four alternative alignments using the National Wetland Inventory (NWI) Maps. The results of this assessment are summarized in Table R-1.

Table R-1: Anticipated Wetland Impacts (NWI Maps)

| <u>Alternative</u> | <u>Description</u>            | <u>Wetlands Filled (acres)</u> |
|--------------------|-------------------------------|--------------------------------|
| 4                  | Minimum length, new location  | 7.9                            |
| 5                  | Complete bypass, new location | 13.9                           |
| 6                  | Combination (4-west, 5-east)  | 8.3                            |
| 7 (recommended)    | Combination (5-west, 4-east)  | 13.4                           |

Based upon this assessment, the longest alignment, Alternative 5, has the greatest anticipated impact. The recommended improvement, Alternative 7, will impact approximately 13.4 acres, according to the NWI maps.

The NWI results may be used only for comparing alternatives since the degree of accuracy is questionable. The NWI mapping wetland acreage for Alternative 7 (13.4 acres) was approximately one-half the acreage determined from field surveys (27.58 acres). Actual wetland impacts of the other alternatives can be expected to also be approximately twice the NWI map acreages.

g. Protected Species

Information received from the U.S. Fish and Wildlife Service reports several federally-protected species are known to occur in Bladen County. These species are listed in Table R-2 (all are listed as endangered).

Table R-2: Federally-Protected Species in Bladen County

| SCIENTIFIC NAME                  | COMMON NAME              | STATUS |
|----------------------------------|--------------------------|--------|
| * <i>Picoides borealis</i>       | Red-cockaded woodpecker  | E      |
| <i>Lysimachia asperulaefolia</i> | Rough-leaved loosestrife | E      |
| <i>Lindera melissifolia</i>      | Pondberry                | E      |
| * <i>Schwalbea americana</i>     | American chaffseed       | E      |

\*Note: no specimen has been reported in this county in at least 20 years.

A brief description including habitat requirements for all four species is summarized below.

*Lysimachia asperulaefolia* (Rough-leaved loosestrife) E

This slender, erect plant is endemic to the Carolina Coastal Plain. Its preferred habitat is pocosins and long leaf pine savanna ecotone, where the soils are seasonally wet. A yellow raceme of flowers occur from May through June, with fruits present from July through October. Whorls of three to four blue-green leaves encircle the stem.

*Lindera melissifolia* (Pondberry) E

This deciduous shrub is a member of the aromatic laurel family. Its leaves have a distinct sassafras odor when crushed. Mature leaf blades are oblong-elliptic, oval or lance-ovate, and are pubescent on both sides. Yellow flowers in umbel-like clusters appear in early spring, before the leaves. Bright red drupes mature in the fall.

Pondberry is found in a variety of wetland habitats, including boggy margins of cypress-gum ponds, open bogs, sandy sinks, and swamps.  
*Picoides borealis* (Red-cockaded woodpecker) E

*Picoides borealis* (Red-cockaded woodpecker)

The red-cockaded woodpecker is found in mature pine forests throughout the southeastern U. S. It has a specific nesting and foraging habitat requirements. Nesting habitat consists of pine or pine-hardwood (50 percent or more pine) stands over 60 years of age. Available foraging habitat is defined as pine and pine-hardwood stands (50 percent or more pine) over 30 years of age contiguous to and within 0.5 mile of the colony centroid.

*Schwalbea americana* (American chaffseed) E

This species is known historically from Alabama, Connecticut, Delaware, Kentucky, Maryland, Massachusetts, New York, Tennessee, and Virginia in which it has been extirpated. The only confirmed North Carolina population is on the Fort Bragg military base in Hoke County.

The American chaffseed is an erect herb whose stems branch only at the base (if at all) and grow to a height of 3-8 dm. The entire plant is pubescent, with upwardly curving hairs. The narrow leaves are alternate, lance-shaped to elliptic, stalkless, and has a width of 2 to 5 centimeters that progressively grow smaller towards the top. It bears solitary flowers in the axils of the uppermost leaves. The purplish-yellow flowers are arranged into racemes. The fruits are a long narrow capsule, enclosed in a loose-fitting sack-like structure.

This species occurs in open, moist pine flatwoods, fire maintained savannas, and ectonal areas between peaty wetlands and open grass-sedge systems. Soils are generally sandy, acidic, and seasonally moist to dry. Fire is important in the maintenance of open habitat for the American chaffseed.

A survey was completed in May, 1991 for the rough-leaved loosestrife and the pondberry within the Alternative 7 corridor. A foraging and nesting habitat survey for the red-cockaded woodpecker was completed in March, 1991 along the same alignment. Although suitable habitat for all three species was identified within the Alternative 7 corridor, these species do not occur in the area and will not be impacted by proposed action.

The American chaffseed was added to the Bladen County list of federally-protected species after the May, 1991 surveys. Availability of suitable habitat for this species in the project area was determined based upon an in-house review of taxonomic literature, aerial photograph interpretation and an earlier site visit.

A survey was completed in May, 1993 for American chaffseed along the Alternative 7 corridor. Although suitable habitat this species was identified, no individual specimens were found. This species will not be impacted by proposed action.

#### h. Historic Architecture

This project is subject to compliance with Section 106 of the National Historic Preservation Act, as amended, and the guidelines issued by the Advisory Council on Historic Preservation (CFR 800). The revised Area of Potential Effect (APE) was reviewed in the field by the NCDOT architectural historian staff. The revised APE was based upon the extension of Alternatives 4, 6, and 7 at either end of the project in order to provide common terminals and upon the revised alignment for Alternatives 4 and 6. Three properties over 50 years of age that are potentially eligible for the National Register under Criterion C - architecture are located within the revised APE. They are the W. H. White House, the Porter-Allen House, and the Thomas McDowell House. See Figure R-4 for the location of these properties.

It has been determined that the four alternatives would have no effect on the W. H. White House and the Porter-Allen House. Alternatives 5 and 7 would have no effect on the Thomas McDowell House; Alternative 4 and 6 would have no adverse effect on the McDowell House. The SHPO has concurred with these determinations of effect.

i. Archaeology

This project is subject to compliance with Section 106 of the National Historic Preservation Act, as amended, and the guidelines issued by the Advisory Council on Historic Preservation (CFR 800). A archaeological reconnaissance survey of the alternative corridors was conducted in May, 1980. A supplemental study was completed in May, 1993. The second study included the revised limits of the four alternatives. As concluded in the original survey, the 1993 survey revealed that no significant archaeological sites will be impacted by this project. This compliance with Section 106 is being coordinated with the SHPO.

j. 4(f) Properties

Section 4(f) of the U.S. Department of Transportation Act of 1966 specifies that publicly owned land from a public park, recreation area, historic site, or wildlife and waterfowl refuge of national, state or local significance may be used for Federal Aid Projects only if:

1. There is no feasible and prudent alternative to the use of such land and
2. Such highway program or project includes all possible planning to minimize harm to 4(f) lands resulting from such use.

The revised alignment of Alternatives 4 and 6 would require the purchase of approximately 2.5 acres from the 60 acre Thomas McDowell property. Because the Thomas McDowell House has been determined to be eligible for nomination to the National Register of Historic Places, Section 4(f) applies to this property.

Alternatives 5 and 7 will not impact any 4(f) properties.

10. Drainage Structures

Concerns were also raised over the type of hydraulic structures proposed in the permit application for the recommended improvement, Alternative 7. By a letter dated October 12, 1992, the N. C. Wildlife Resources Commission recommended that bridges be constructed at three stream crossings instead of the proposed box culverts to minimize wetland impacts. The proposed drainage structures at those three sites are described below:

1. Site V, tributary to Brown's Creek: NCDOT currently proposes to construct a 2-barrel 8' x 7' reinforced concrete box culvert at an estimated cost of \$134,000. This design impacts 1.3 acres of wetlands. To span the wetlands at this crossing would require dual bridges 256 feet long at a cost of \$737,280. A total of 0.2 acre of wetlands would be filled (1.1 acres of wetlands would be saved).
2. Site VIII, Brown's Creek: NCDOT currently proposes to construct a 3-barrel 11' x 8' reinforced concrete box culvert at an estimated cost of \$277,000. This will require filling 3.2 acres of wetlands. Spanning the entire floodplain would require dual bridges 540 feet long at a cost

of \$1,555,200. Approximately 0.5 acre of wetlands would be filled (2.7 acres of wetlands would be saved). To span only 200 feet of the floodplain would require bridges 290 feet long at a cost of \$835,200 with a loss of 2.1 acres of wetlands (1.1 acres of wetlands would be saved).

3. Site VI, tributary to Brown's Creek: NCDOT currently proposes to use a 30-inch reinforced concrete pipe at this crossing at an estimated cost of \$8,000. This will require filling 1.1 acres of wetlands. To span all the wetlands at this site would require dual 600-foot bridges at a cost of \$1,728,000. To span 260 feet of the floodplain would require 320-foot bridges at a cost of \$921,600, with 0.4 acre of wetlands filled (0.7 acres of wetlands would be saved). The analysis is summarized in Table R-3.

Table R-3: Hydraulic Structure Alternatives

| Site           | Culvert                           |                           | Bridge       |                         |
|----------------|-----------------------------------|---------------------------|--------------|-------------------------|
|                | Cost                              | Wetland Impacts (acres)   | Cost         | Wetland Impacts (acres) |
| V (R-522A)     | \$134,000                         | 1.3                       | \$737,280    | 0.2                     |
| VIII (R-522A)  | \$277,000                         | 3.2                       | \$1,555,200  | 0.5                     |
| VIII* (R-522A) | N/A                               | N/A                       | * \$ 835,200 | 2.1                     |
| VI (R-522B)    | \$ 8,000                          | 1.1                       | \$1,728,000  | 0.0                     |
| VI* (R-522B)   | N/A                               | N/A                       | * \$ 921,600 | 0.4                     |
| Totals:        | Culverts - \$ 419,000             | 5.6 Ac. wetlands impacted |              |                         |
|                | Shortened bridges - \$2,494,080   | 2.7 Ac. wetlands impacted |              |                         |
|                | Full length bridges - \$4,020,480 | 0.7 Ac. wetlands impacted |              |                         |

Note: \*Shortened bridges.

Spanning these sites would still require the filling of wetlands in most cases no matter what type of structure is utilized. Spanning the wetland sites with structures would add \$3,601,480 to the construction cost and save only 4.9 acres of wetlands. This breaks down to about \$735,000 per acre of wetlands avoided. Shortening the spanning structures would reduce wetlands impacts by only 2.9 acres and increase the cost by \$2,075,080 (\$715,500 per acre avoided). It is the opinion of the NCDOT that such increased costs are not justified by the limited anticipated benefits of spanning these creeks.

## 11. Minimization of Impacts

To minimize impacts on the natural environment (including wetlands), the proposed grades of the roadway for Alternative 7 have been modified extensively to minimize cuts and fills in biologically sensitive areas. Cross-drainage has been utilized to allow for continuous flow of streams where possible. The right of way has been reduced from 300 feet (as proposed in the original EA and FONSI) to 250 feet in most places.

Federal and State wetland regulations require that NCDOT provide compensatory mitigation for unavoidable wetland impacts. A suitable mitigation plan is currently being developed. This plan will include creation, enhancement, or restoration of wetlands, with restoration having first priority. Success criteria and monitoring guidelines will be established in coordination with environmental review agencies and will be further modified to suit the mitigation site(s) ultimately accepted.

## 12. Conclusion

The current proposed action (Alternative 7) is essentially the same as the original proposed action discussed in the FONSI. The original proposal was for 2 lanes on a 4-lane right of way 300 feet in width. The current proposal is to construct a four-lane divided facility within a 250-foot right of way width.

Based upon review of the EA and FONSI and a field investigation of the recommended alignment, it is the conclusion of the NCDOT & FHWA that the original recommendation of Alternative 7 is still the preferred alternative, considering traffic service, environmental impacts, and costs. Although Alternative 7 is expected to result in greater wetland impacts than the other studied alternatives (with the exception of Alternative 5), the other alternatives would have greater negative impacts on residences and businesses, historic structures, and on the general livelihood of the citizens of Elizabethtown. In addition, project costs would increase and project construction would be delayed, resulting in further deterioration of traffic service on NC 87 in Elizabethtown.

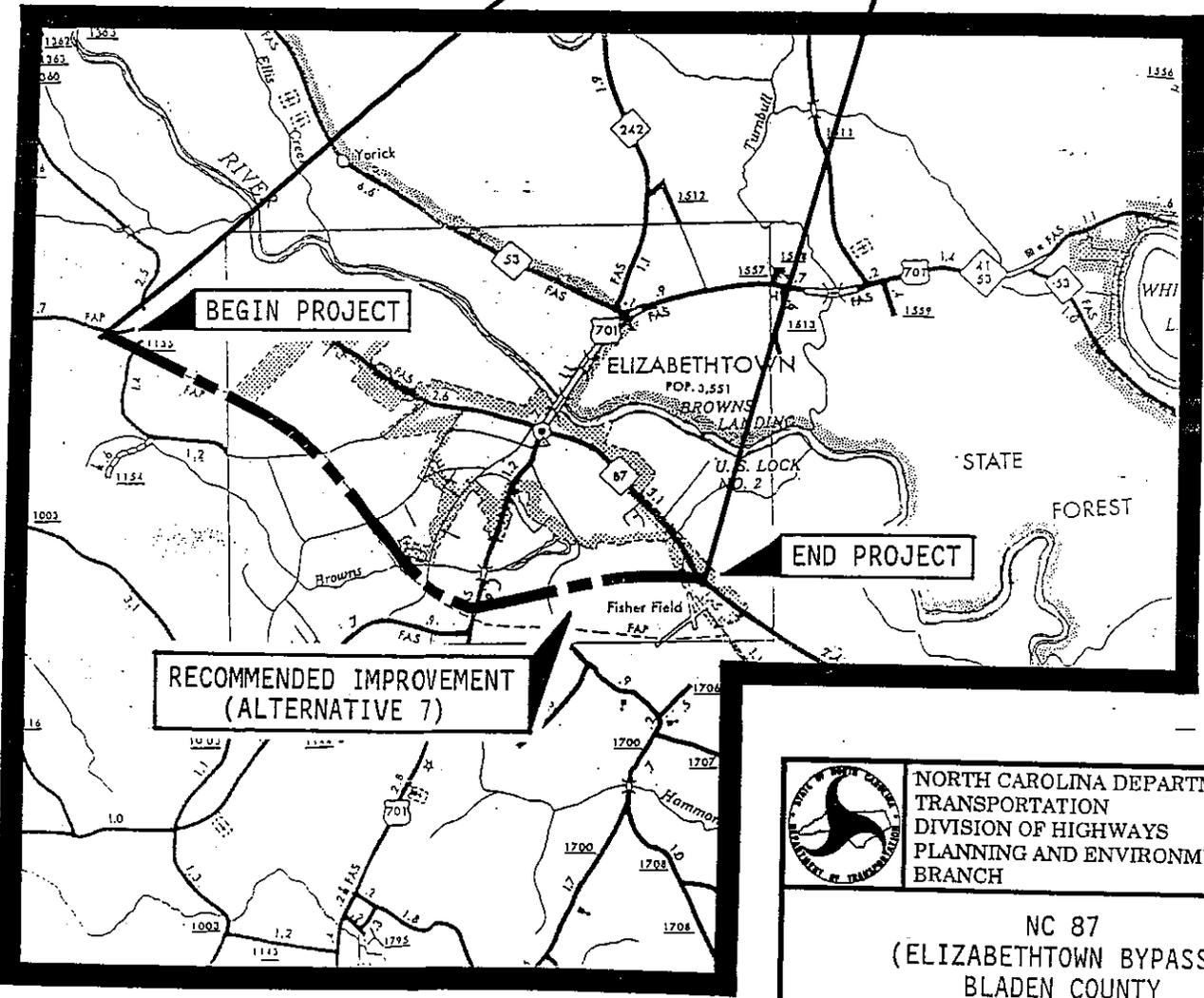
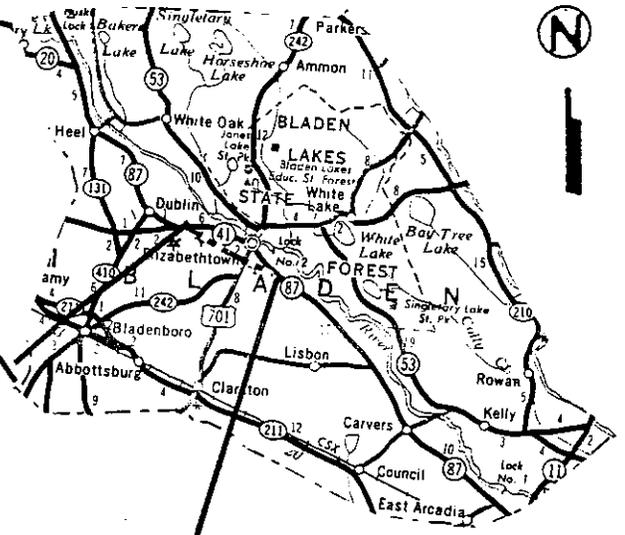
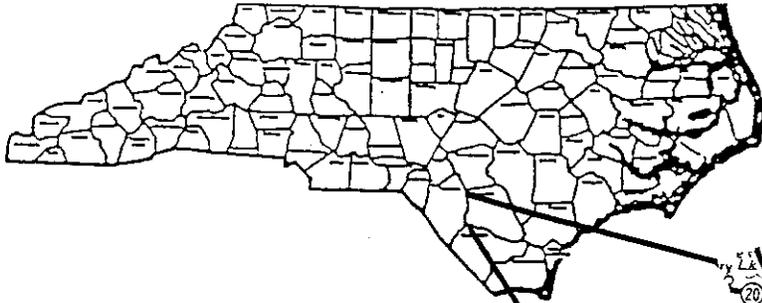
It is the conclusion that the approved FONSI for the subject project is still valid according to the criteria set forth in 23 CFR Part 771.129.

CRC/wp

***T.I.P. PROJECT R-522***

***FIGURES***

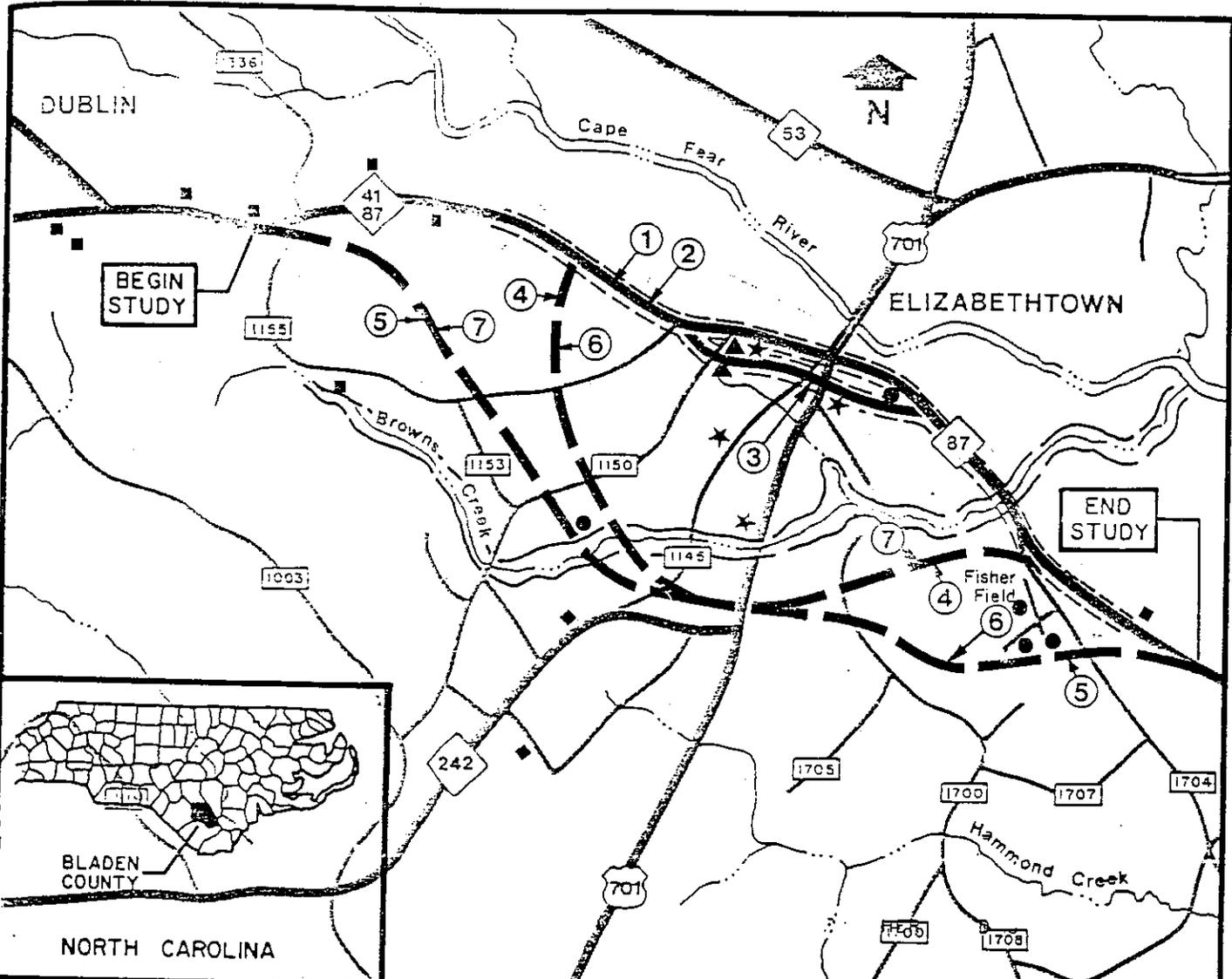
NORTH CAROLINA



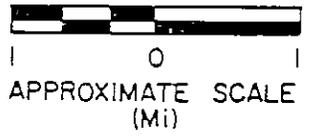
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TRANSPORTATION  
DIVISION OF HIGHWAYS  
PLANNING AND ENVIRONMENTAL  
BRANCH

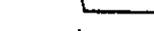
NC 87  
(ELIZABETHTOWN BYPASS)  
BLADEN COUNTY  
T.I.P. NO. R-522

FIG. R-1



-  ALTERNATIVE ① No-Build
-  ALTERNATIVE ② Improvements To Existing NC 87
-  ALTERNATIVE ③ Bypass Along Swanzy St.
-  ALTERNATIVE ④ Minimum Length Bypass - New Location
-  ALTERNATIVE ⑤ Complete Bypass In New Location
-  ALTERNATIVE ⑥ Combination - West Portion Of Alt. 4 & East Portion Of Alt. 5
-  ALTERNATIVE ⑦ Combination - West Portion Of Alt. 5 & East Portion Of Alt. 4

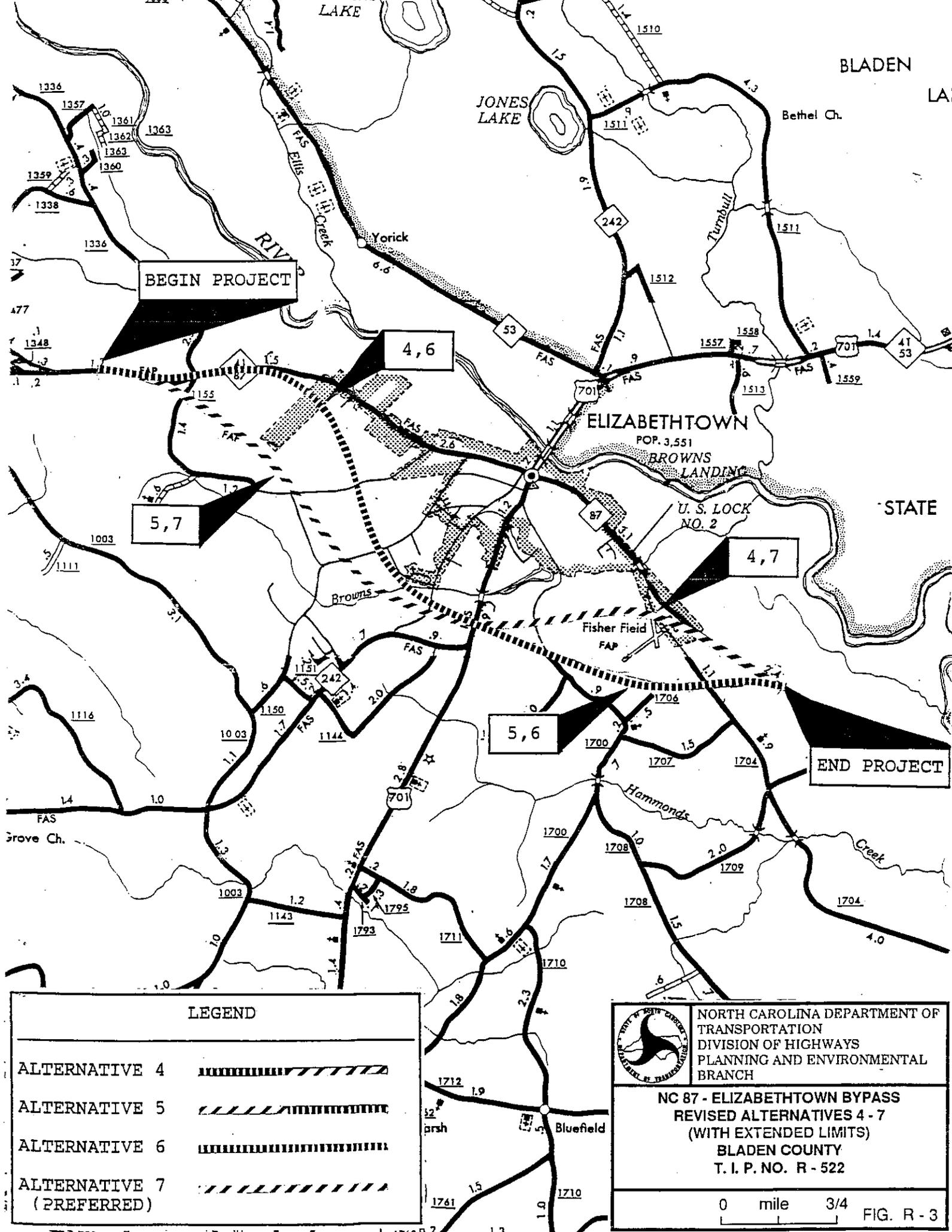


-  STREAM AND 100 YEAR FLOODPLAIN
-  WETLANDS SHOWN ON FIGURES 2-7
-  PRIME FARMLAND, SEE FIGURES 2-7
-  CEMETERY
-  HISTORICAL SITE
-  PARK, PLAYGROUND
-  SCHOOL
-  TOWN LIMIT

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

**NC 87 ELIZABETHTOWN BYPASS  
ALTERNATIVES ADDRESSED IN EA/FONSI  
BLADEN COUNTY  
T. I. P. NO. R - 522**





BEGIN PROJECT

5, 7

4, 6

4, 7

5, 6

END PROJECT

LEGEND

- ALTERNATIVE 4
- ALTERNATIVE 5
- ALTERNATIVE 6
- ALTERNATIVE 7 (PREFERRED)

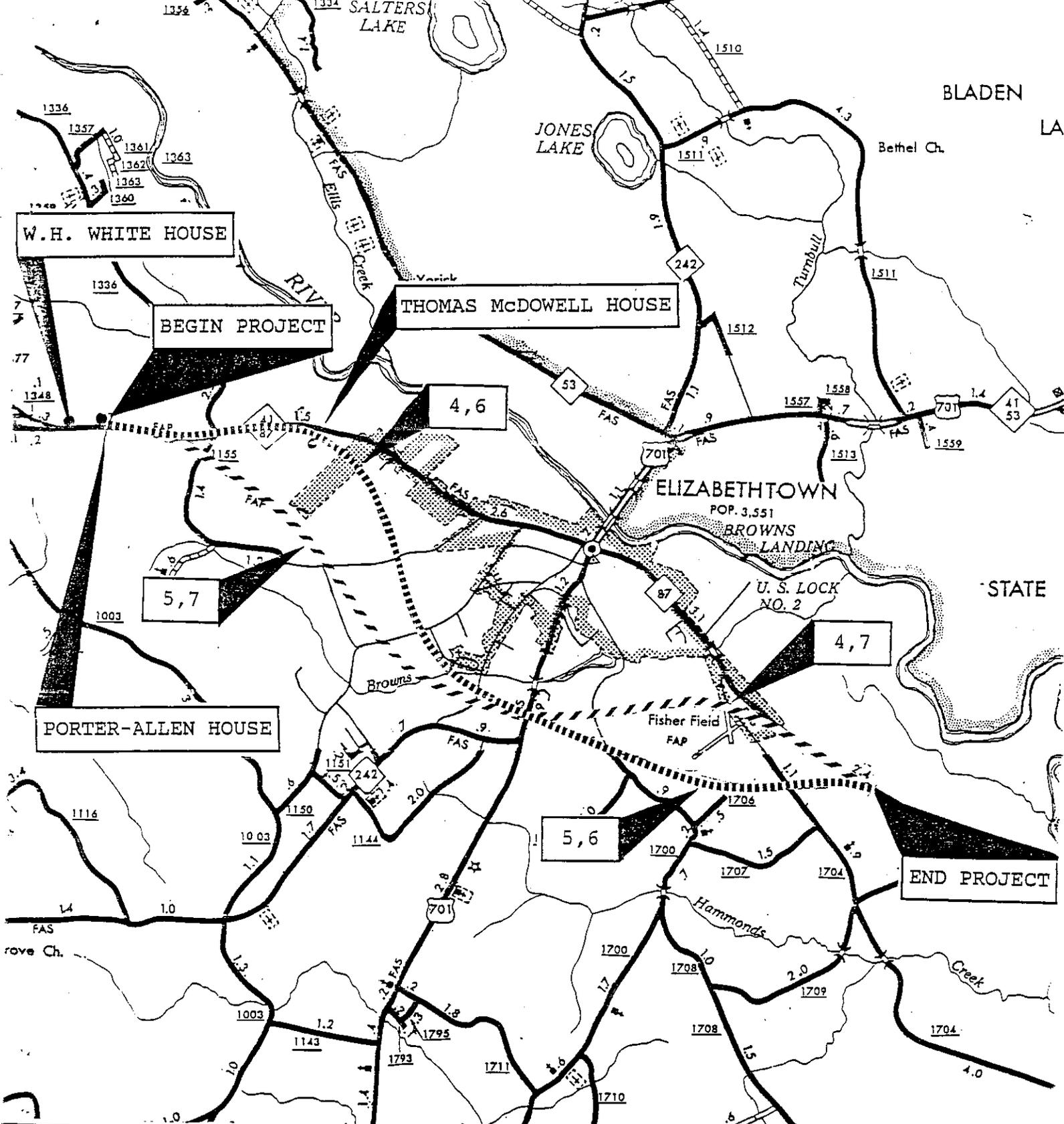
NORTH CAROLINA DEPARTMENT OF  
TRANSPORTATION  
DIVISION OF HIGHWAYS  
PLANNING AND ENVIRONMENTAL  
BRANCH

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**NC 87 - ELIZABETHTOWN BYPASS**  
REVISED ALTERNATIVES 4 - 7  
(WITH EXTENDED LIMITS)  
BLADEN COUNTY  
T. I. P. NO. R - 522

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0    mile    3/4    FIG. R - 3



W.H. WHITE HOUSE

BEGIN PROJECT

THOMAS McDOWELL HOUSE

4, 6

5, 7

PORTER-ALLEN HOUSE

ELIZABETHTOWN

POP. 3,551

BROWNS LANDING

U. S. LOCK NO. 2

4, 7

Fisher Field

5, 6

END PROJECT

LEGEND

- ALTERNATIVE 4
- ALTERNATIVE 5
- ALTERNATIVE 6
- ALTERNATIVE 7 (PREFERRED)



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

NC 87 ELIZABETHTOWN BYPASS  
HISTORIC PROPERTIES  
BLADEN COUNTY  
T. I. P. NO. R - 522

0 miles 3/4 FIG. R-4

***T.I.P. PROJECT R-522***

***APPENDIX***

CC: Prewatt



North Carolina Department of Cultural Resources

James B. Hunt, Jr., Governor  
Betty Ray McCain, Secretary

Division of Archives and History  
William S. ... Director

June 7, 1993

Nicholas L. Graf  
Division Administrator  
Federal Highway Administration  
Department of Transportation  
310 New Bern Avenue  
Raleigh, N.C. 27601-1442



Re: NC 87, Elizabethtown Bypass, Bladen County, R-522, 8.1420501, ER 93-8871

Dear Mr. Graf:

Thank you for your letter of May 17, 1993, concerning the above project.

We understand that the area of potential effect for the project has been revised since project alternatives Nos. 4, 5, 6, and 7 are currently being reevaluated by the Federal Highway Administration. We have reviewed the information provided by the North Carolina Department of Transportation (NCDOT) for the four properties over fifty years of age in the revised area of potential effect and offer our comments.

**M. W. White House.** This property was placed on our state study list in July 1991. Based upon the information in our survey site file, we concur with NCDOT's determination that the W. H. White House is eligible for listing in the National Register of Historic Places under Criterion C for architecture.

**Thomas McDowell House.** Based upon the one photograph showing the front facade of the house, our initial feeling is the house could be eligible for the National Register under Criterion C for architecture. However, we need to know if the property retains its integrity before making a final determination. Have any additions or alterations been made to the house? Does the interior remain intact? Also, please provide a description (or photographs) of the interior, if possible.

**Porter-Allen House.** We believe this property may be eligible for the National Register under Criterion C for architecture. Comparing our 1981 photograph of the house with the one submitted, the house appears to have deteriorated very little over the past ten years. Based upon our survey site file photographs, the house appears to retain enough of its integrity to be rehabilitated. A description of the interior and exterior of the house and/or additional photographs illustrating its current condition would be helpful in making a final determination.

**Ruse McDonald House.** We concur that the property is not eligible for the National Register since it has undergone numerous character-altering changes.



The above comments are made pursuant to Section 106 of the National Historic Preservation Act of 1966 and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106, codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763.

Sincerely,

*Renee Gledhill-Earley*

*for* David Brook  
Deputy State Historic Preservation Officer

DB:slw

cc: ✓ L. J. Ward  
B. Church



## North Carolina Department of Cultural Resources

James B. Hunt, Jr., Governor  
Betty Ray McCain, Secretary

Division of Archives and History  
William S. Price, Jr., Director

June 29, 1993

Nicholas L. Graf  
Division Administrator  
Federal Highway Administration  
Department of Transportation  
310 New Bern Avenue  
Raleigh, N.C. 27601-1442

Re: NC 87 Bypass of Elizabethtown, NC 42-87 to US  
701, R-522, Bladen County, ER 93-8998

Dear Mr. Graf:

Thank you for your letter of June 7, 1993, transmitting the archaeological survey report by Gerold F. Glover concerning the above project.

During the course of the survey no archaeological sites were located within the project area. Mr. Glover has recommended that no further archaeological investigation be conducted in connection with this project. We concur with this recommendation since this project will not involve significant archaeological resources.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act of 1966 and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106, codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763.

Sincerely,

David Brook  
Deputy State Historic Preservation Officer

DB:slw

cc: T. Padgett

bc: File  
Claggett/Lawrence  
County  
RF.





## North Carolina Department of Cultural Resources

James B. Hunt, Jr., Governor  
Betty Ray McCain, Secretary

Division of Archives and History  
William S. Price, Jr., Director

July 29, 1993

Nicholas L. Graf  
Division Administrator  
Federal Highway Administration  
Department of Transportation  
310 New Bern Avenue  
Raleigh, N.C. 27601-1442

Re: NC 87, Elizabethtown Bypass, Bladen County, R-  
522, 8.1420501, ER 94-7070

Dear Mr. Graf:

Thank you for your letter of July 13, 1993, concerning the above project.

We have reviewed the additional information provided to us regarding the Porter-Allen House and the Thomas McDowell House which are located in the area of potential effect for the project. Based upon the information, we concur with the Federal Highway Administration's determination that the Porter-Allen House and the Thomas McDowell House are both eligible for listing in the National Register of Historic Places under Criterion C for architecture.

We look forward to meeting with Federal Highway Administration and the North Carolina Department of Transportation on August 4, 1993, to review the boundaries and effects upon the three National Register-eligible properties in the area of potential effect--the W. H. White House, the Porter-Allen House, and the Thomas McDowell House.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act of 1966 and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106, codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763.

Sincerely,

David Brook  
Deputy State Historic Preservation Officer

DB:slw

cc: ✓ L. J. Ward  
B. Church



FIGURE R-5: TIP PROJECT R-522, NC 87-ELIZABETHTOWN BYPASS  
COMPARISON OF REVISED ALTERNATIVES  
SEPTEMBER, 1993

NOTE: (Alternatives 4, 6, and 7 have extended limits to form common terminals with Alternative 5 (to establish an equivalent comparison of impacts/cost))

|  | ALTERNATIVE 4  |                       | ALTERNATIVE 5                                     |                       | ALTERNATIVE 6   |                       | ALTERNATIVE 7   |                       |
|--|--|-----------------------|---|-----------------------|---|-----------------------|---|-----------------------|
| COST ESTIMATE<br>(Construction and<br>Right of Way)        | \$12,650,000<br>(Constr.)  | \$ 3,602,000<br>(R/W) | \$12,500,000<br>(Constr.)                         | \$ 2,764,000<br>(R/W) | \$13,100,000<br>(Constr.)   | \$ 3,385,000<br>(R/W) | \$12,050,000<br>(Constr.)   | \$ 2,981,000<br>(R/W) |
|  | TOTAL: \$16,252,000  |                       | TOTAL: \$15,264,000                               |                       | TOTAL: \$16,485,000   |                       | TOTAL: \$15,031,00*   |                       |
| TOTAL RELOCATEES<br>(Prior to any R/W<br>Acquisition)      | 11 Res.  | 3 Bus.                | 7 Res.  | 1 Bus.                | 10 Res.   | 3 Bus.                | 8 Res.  | 1 Bus.                |
|  | TOTAL: 14  |                       | TOTAL: 8  |                       | TOTAL: 13   |                       | TOTAL: 9  |                       |
| RELOCATEES (1993)<br>(Current stage of<br>R/W Acquisition) | 8 Res.   | 3 Bus.                | 2 Res.  | 0 Bus.                | 10 Res.   | 3 Bus.                | 0 Res.  | 0 Bus.                |
|  | TOTAL: 11  |                       | TOTAL: 2  |                       | TOTAL: 13   |                       | TOTAL: 0  |                       |
| LAND USE/<br>SOCIOECONOMIC<br>CONSIDERATIONS               | Bisects Established Residential Neighborhood On Glenwood Drive; Allows Airport Expansion   |                       | Restricts Airport Expansion                       |                       | Bisects Established Residential Neighborhood On Glenwood Drive; Restricts Airport Expansion   |                       | Conforms Best to Existing Thoroughfare Plan; Allows Airport Expansion; Provides Access to Industrial Park |                       |
| HISTORIC AND<br>ARCHITECTURAL<br>IMPACTS                   | Porter-Allen, W.H. White House (No Effect), McDowell House (No Adverse Effect) Will Require Purchase of a Portion of McDowell Property (Section 4(f) Property) |                       | Porter-Allen House, W.H. White House, (no effect) |                       | Porter-Allen, W.H. White House (No Effect), Thomas McDowell House (No Adverse Effect) Will Require Purchase of a Portion of McDowell Property (Section 4(f) Property) |                       | Porter-Allen House, W.H. White House (No Effect)  |                       |
| ARCHAEOLOGICAL IMPACTS                                     | None   |                       | None  |                       | None  |                       | None  |                       |
| PRIME FARMLAND IMPACTS<br>(Acres)                          | 38.6 Ac.   |                       | 37.9 Ac.  |                       | 37.9 Ac.  |                       | 38.6 Ac.  |                       |
| WETLAND IMPACTS (NWI)<br>(Acres) **                        | 7.9 Ac. **   |                       | 13.9 Ac. **                                       |                       | 8.3 Ac. **  |                       | 13.4 Ac. **   |                       |
| WETLAND IMPACTS (ACTUAL)<br>(Acres) ***                    | Not Delineated   |                       | Not Delineated                                    |                       | Not Delineated  |                       | 27.58 Ac. ***   |                       |
| SOIL SURVEY<br>(Hydric/Inclusion)<br>(Acres)               | 50.28 Ac.  | 60.26 Ac.             | 54.52 Ac.   | 63.71 Ac.             | 53.15 Ac.   | 42.36 Ac.             | 51.65 Ac.   | 81.61 Ac.             |
|  | TOTAL: 110.54 Ac.  |                       | TOTAL: 118.23 Ac.                                 |                       | TOTAL: 95.51 Ac.  |                       | TOTAL: 133.26 Ac.   |                       |

\* The actual total cost for Alternative 7 is \$13,230,000, which includes actual construction limits, not the extended comparison limits  
\*\* Based on National Wetland Inventory (NWI) Maps  
\*\*\* Based on field delineation of wetlands