



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

October 18, 2006

U. S. Army Corps of Engineers  
Regulatory Field Office  
Post Office Box 1000  
Washington, NC 27889-1000

ATTENTION: Mr. William Wescott  
NCDOT Coordinator

Dear Sir:

Subject: **Nationwide 23 Application and Neuse Riparian Buffer Authorization Request** for the Replacement of Bridge No. 43 over Rainbow Creek on SR 1438; Greene County; TIP Project B-4127; Federal Aid Project No. BRZ-1438(5); State Project No.8.2180401; WBS 33480.1.1.

Please find enclosed the Preconstruction Notification (PCN), permit drawings, half-size plans, and the Categorical Exclusion (CE) for the above-mentioned project. The North Carolina Department of Transportation proposes to replace existing Bridge No. 43 over Rainbow Creek on SR 1438 in Greene County. The project involves replacement of the existing bridge and related approaches with a new bridge and new approaches. The new bridge will feature two 12-foot lanes with 4-foot bike lanes and a 7-foot, 6-inch offset to the north. The project schedule calls for a May 15, 2007 let with a review date of March 27, 2007. Proposed permanent impacts include 0.256 acre of wetland impacts and temporary impacts for hand clearing are 0.018 acre.

#### Impacts to Water of the United States

General Description: Rainbow Creek is located in the 03020203 CU of the Neuse River Basin. The Division of Water Quality (DWQ) has assigned Rainbow Creek a Stream Index Number of 27-86-21. DWQ has assigned a best usage classification of **C Sw NSW**.

Rainbow Creek is not designated as a North Carolina Natural or Scenic River, or as a National Wild and Scenic River, nor is it listed as a 303(d) stream. No designated Outstanding Resource Waters (ORW), High Quality Waters (HQW), Water Supply I (WS-I), or Water Supply II (WS-II) waters occur within 1.0 miles of the project study area.

Permanent Impacts: As stated above, permanent impacts total 0.256 acre of wetland impacts. The impacts are as follows: 0.065 acre for fill and 0.191 acre for mechanized clearing.

MAILING ADDRESS:  
NC DEPARTMENT OF TRANSPORTATION  
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS  
1548 MAIL SERVICE CENTER  
RALEIGH NC 27699-1548

TELEPHONE: 919-733-3141  
FAX: 919-733-9794

WEBSITE: [WWW.NCDOT.ORG](http://WWW.NCDOT.ORG)

LOCATION:  
TRANSPORTATION BUILDING  
1 SOUTH WILMINGTON STREET  
RALEIGH NC

Utility Impacts: There will be 0.18 acre of impacts due to hand-clearing of jurisdictional wetlands for the relocation of three power poles.

Neuse Buffer Rules: This project lies within the Neuse River Basin; therefore, the regulations pertaining to the Neuse River Buffer Rules will apply. There are 9,707 square feet of impacts to Zone 1 and 3,153 square feet of impacts to Zone 2. Of these impacts, 7,054 square feet are considered allowable and 5,835 square feet are allowable with mitigation.

**Bridge Demolition**

The superstructure for Bridge No. 43 will allow removal without dropping components into the water. Best Management Practices for Bridge Demolition and Removal will be implemented. Any component of the bridge dropped into the water shall be immediately removed.

**Avoidance and Minimization**

Avoidance examines all appropriate and practicable possibilities of averting impacts to "Waters of the United States". Due to the presence of surface waters and wetlands within the project study area, avoidance of all impacts is not possible. The NCDOT is committed to incorporating all reasonable and practicable design features to avoid and minimize jurisdictional impacts. Minimization measures were incorporated as part of the project design these included:

- NCDOT is replacing Bridge No. 43 in place and utilizing an off-site detour.
- The bridge will be built using top-down construction.
- NCDOT is utilizing longer spans with fewer bents than the existing bridge.
- The green sheet in the attached CE has a moratorium of February 1 to September 30 of any given year requested by the North Carolina Division of Marine Fisheries (NCDMF). Per Sean Mckenna of NCDMF, he deferred the moratorium call to the North Carolina Wildlife Resources Commission (WRC). WRC did not request a moratorium for this project. Therefore, NCDOT will not adhere to the moratorium.

**Mitigation**

NCDOT proposes to use the North Carolina Ecosystem Enhancement Program (EEP) to mitigate for permanent impacts associated with this project. The EEP acceptance letter was received on September 16, 2006. A copy of this letter is included with this application. Compensatory mitigation is not proposed for riparian buffer impacts because the threshold has not been exceeded, such that mitigation would be required.

**Federally Protected Species**

As of April 27, 2006, the US Fish and Wildlife Service (USFWS) lists one federally protected species for Greene County. The following table lists this species.

Common Name	Scientific Name	Status	Habitat	Conclusion
Red-cockaded Woodpecker	<i>Picoides borealis</i>	E	No	No Effect

Note: E – endangered

## Regulatory Approvals

Section 404 Permit: This project is being processed by the Federal Highway Administration as a “Categorical Exclusion” in accordance with 23 CFR 771.115(b). Therefore, we do not anticipate requesting an individual permit but propose to proceed under a Nationwide 23 as authorized by Nationwide Permits 23 (67 FR 2020; January 15, 2002).

Section 401 Permit: We anticipate 401 General Certification number 3403 will apply to this project. In accordance with 15A NCAC 2H, Section .0500(a) we are providing five copies of this application to the North Carolina Department of Environmental and Natural Resources, Division of Water Quality, for their review.

Neuse River Basin Buffer Authorization: NCDOT requests that the NC Division of Water Quality review this application and issue a written approval for a Neuse River Riparian Buffer Authorization.

A copy of this permit application will be posted on the NCDOT website at: <http://www.ncdot.org/doh/preconstruct/pe/neu/permit.html>.

If you have any questions or need additional information, please contact Chris Underwood at (919) 715-1451.

Sincerely,



for

Gregory J. Thorpe, Ph.D., Environmental Management Director  
Project Development and Environmental Analysis

### W/attachment:

- Mr. John Hennessy, NCDWQ (5 copies)
- Mr. Travis Wilson, NCWRC
- Mr. Gary Jordan, USFWS
- Mr. Ron Sechler, NMFS
- Mr. Michael Street, NCDMF
- Dr. David Chang, P.E., Hydraulics
- Mr. Greg Perfetti, P.E., Structure Design
- Mr. Mark Staley, Roadside Environmental
- Mr. C. E. Lassiter, PE, Division 2 Engineer
- Mr. Jay Johnson, Division 2 Environmental Officer

### W/o attachment

- Mr. Scott McLendon, USACE, Wilmington
- Mr. Jay Bennett, P.E., Roadway Design
- Mr. Majed Alghandour, P. E., Programming and TIP
- Mr. Art McMillan, P.E., Highway Design
- Ms. Beth Harmon, EEP
- Mr. Todd Jones, NCDOT External Audit Branch
- Mr. John Williams, P.E., Planning Engineer

USACE Action ID No. \_\_\_\_\_ DWQ No. \_\_\_\_\_

(If any particular item is not applicable to this project, please enter "Not Applicable" or "N/A".)

**I. Processing**

- 1. Check all of the approval(s) requested for this project:
 

<input checked="" type="checkbox"/> Section 404 Permit	<input checked="" type="checkbox"/> Riparian or Watershed Buffer Rules
<input type="checkbox"/> Section 10 Permit	<input type="checkbox"/> Isolated Wetland Permit from DWQ
<input checked="" type="checkbox"/> 401 Water Quality Certification	<input type="checkbox"/> Express 401 Water Quality Certification
  
- 2. Nationwide, Regional or General Permit Number(s) Requested: NW 23
  
- 3. If this notification is solely a courtesy copy because written approval for the 401 Certification is not required, check here:
  
- 4. If payment into the North Carolina Ecosystem Enhancement Program (NCEEP) is proposed for mitigation of impacts, attach the acceptance letter from NCEEP, complete section VIII, and check here:
  
- 5. If your project is located in any of North Carolina's twenty coastal counties (listed on page 4), and the project is within a North Carolina Division of Coastal Management Area of Environmental Concern (see the top of page 2 for further details), check here:

**II. Applicant Information**

- 1. Owner/Applicant Information
 

Name: Gregory J. Thorpe, Ph.D., Environmental Management Director

Mailing Address: 1598 Mail Service Center

\_\_\_\_\_

\_\_\_\_\_

Telephone Number: (919) 733-3141 Fax Number: (919) 733-9794

E-mail Address: \_\_\_\_\_
  
- 2. Agent/Consultant Information (A signed and dated copy of the Agent Authorization letter must be attached if the Agent has signatory authority for the owner/applicant.)
 

Name: \_\_\_\_\_

Company Affiliation: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

### III. Project Information

Attach a **vicinity map** clearly showing the location of the property with respect to local landmarks such as towns, rivers, and roads. Also provide a detailed **site plan** showing property boundaries and development plans in relation to surrounding properties. Both the vicinity map and site plan must include a scale and north arrow. The specific footprints of all buildings, impervious surfaces, or other facilities must be included. If possible, the maps and plans should include the appropriate USGS Topographic Quad Map and NRCS Soil Survey with the property boundaries outlined. Plan drawings, or other maps may be included at the applicant's discretion, so long as the property is clearly defined. For administrative and distribution purposes, the USACE requires information to be submitted on sheets no larger than 11 by 17-inch format; however, DWQ may accept paperwork of any size. DWQ prefers full-size construction drawings rather than a sequential sheet version of the full-size plans. If full-size plans are reduced to a small scale such that the final version is illegible, the applicant will be informed that the project has been placed on hold until decipherable maps are provided.

1. Name of project: Replacement of Bridge No. 43 on SR 1438 over Rainbow Creek
2. T.I.P. Project Number or State Project Number (NCDOT Only): B-4127
3. Property Identification Number (Tax PIN): N/A
4. Location  
County: Greene Nearest Town: Hookerton  
Subdivision name (include phase/lot number): N/A  
Directions to site (include road numbers/names, landmarks, etc.): Take US 64 east to US 264; take US 258 to NC 123 to SR 1438 in Hookerton
5. Site coordinates (For linear projects, such as a road or utility line, attach a sheet that separately lists the coordinates for each crossing of a distinct waterbody.)  
Decimal Degrees (6 digits minimum): 35.4244 °N 77.5935 °W
6. Property size (acres): N/A
7. Name of nearest receiving body of water: Contentnea Creek
8. River Basin: Neuse  
(Note – this must be one of North Carolina's seventeen designated major river basins. The River Basin map is available at <http://h2o.enr.state.nc.us/admin/maps/>.)
9. Describe the existing conditions on the site and general land use in the vicinity of the project at the time of this application: Residential
10. Describe the overall project in detail, including the type of equipment to be used: Replacing a structurally deficient bridge using top-down construction. Standard road building equipment will be used.

11. Explain the purpose of the proposed work: To replace a structurally deficient bridge.

**IV. Prior Project History**

If jurisdictional determinations and/or permits have been requested and/or obtained for this project (including all prior phases of the same subdivision) in the past, please explain. Include the USACE Action ID Number, DWQ Project Number, application date, and date permits and certifications were issued or withdrawn. Provide photocopies of previously issued permits, certifications or other useful information. Describe previously approved wetland, stream and buffer impacts, along with associated mitigation (where applicable). If this is a NCDOT project, list and describe permits issued for prior segments of the same T.I.P. project, along with construction schedules. N/A

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**V. Future Project Plans**

Are any future permit requests anticipated for this project? If so, describe the anticipated work, and provide justification for the exclusion of this work from the current application.

No.

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**VI. Proposed Impacts to Waters of the United States/Waters of the State**

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to wetlands, open water, and stream channels associated with the project. Each impact must be listed separately in the tables below (e.g., culvert installation should be listed separately from riprap dissipater pads). Be sure to indicate if an impact is temporary. All proposed impacts, permanent and temporary, must be listed, and must be labeled and clearly identifiable on an accompanying site plan. All wetlands and waters, and all streams (intermittent and perennial) should be shown on a delineation map, whether or not impacts are proposed to these systems. Wetland and stream evaluation and delineation forms should be included as appropriate. Photographs may be included at the applicant's discretion. If this proposed impact is strictly for wetland or stream mitigation, list and describe the impact in Section VIII below. If additional space is needed for listing or description, please attach a separate sheet.

1. Provide a written description of the proposed impacts: 0.256 acre of wetland impacts.
2. Individually list wetland impacts. Types of impacts include, but are not limited to mechanized clearing, grading, fill, excavation, flooding, ditching/drainage, etc. For dams, separately list impacts due to both structure and flooding.

Wetland Impact Site Number (indicate on map)	Type of Impact	Type of Wetland (e.g., forested, marsh, herbaceous, bog, etc.)	Located within 100-year Floodplain (yes/no)	Distance to Nearest Stream (linear feet)	Area of Impact (acres)
Bridge	Fill	Riverine	Yes	0	0.065
Bridge	Mechanized Clearing	Riverine	Yes	0	0.191
Total Wetland Impact (acres)					0.256

3. List the total acreage (estimated) of all existing wetlands on the property: ~1

4. Individually list all intermittent and perennial stream impacts. Be sure to identify temporary impacts. Stream impacts include, but are not limited to placement of fill or culverts, dam construction, flooding, relocation, stabilization activities (e.g., cement walls, rip-rap, crib walls, gabions, etc.), excavation, ditching/straightening, etc. If stream relocation is proposed, plans and profiles showing the linear footprint for both the original and relocated streams must be included. To calculate acreage, multiply length X width, then divide by 43,560.

Stream Impact Number (indicate on map)	Stream Name	Type of Impact	Perennial or Intermittent?	Average Stream Width Before Impact	Impact Length (linear feet)	Area of Impact (acres)
N/A						
Total Stream Impact (by length and acreage)						

5. Individually list all open water impacts (including lakes, ponds, estuaries, sounds, Atlantic Ocean and any other water of the U.S.). Open water impacts include, but are not limited to fill, excavation, dredging, flooding, drainage, bulkheads, etc.

Open Water Impact Site Number (indicate on map)	Name of Waterbody (if applicable)	Type of Impact	Type of Waterbody (lake, pond, estuary, sound, bay, ocean, etc.)	Area of Impact (acres)
Total Open Water Impact (acres)				

6. List the cumulative impact to all Waters of the U.S. resulting from the project:

Stream Impact (acres):	
Wetland Impact (acres):	0.256
Open Water Impact (acres):	
Total Impact to Waters of the U.S. (acres)	0.256
Total Stream Impact (linear feet):	

7. Isolated Waters

Do any isolated waters exist on the property?  Yes  No

Describe all impacts to isolated waters, and include the type of water (wetland or stream) and the size of the proposed impact (acres or linear feet). Please note that this section only applies to waters that have specifically been determined to be isolated by the USACE.

N/A

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8. Pond Creation

If construction of a pond is proposed, associated wetland and stream impacts should be included above in the wetland and stream impact sections. Also, the proposed pond should be described here and illustrated on any maps included with this application.

Pond to be created in (check all that apply):  uplands  stream  wetlands

Describe the method of construction (e.g., dam/embankment, excavation, installation of draw-down valve or spillway, etc.): N/A

Proposed use or purpose of pond (e.g., livestock watering, irrigation, aesthetic, trout pond, local stormwater requirement, etc.): N/A

Current land use in the vicinity of the pond: N/A

Size of watershed draining to pond: \_\_\_\_\_ Expected pond surface area: \_\_\_\_\_

**VII. Impact Justification (Avoidance and Minimization)**

Specifically describe measures taken to avoid the proposed impacts. It may be useful to provide information related to site constraints such as topography, building ordinances, accessibility, and financial viability of the project. The applicant may attach drawings of alternative, lower-impact site layouts, and explain why these design options were not feasible. Also discuss how impacts were minimized once the desired site plan was developed. If applicable, discuss construction techniques to be followed during construction to reduce impacts. Top-down construction, bridge was lengthened, and minimum widths were used for structures and approaches.

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**VIII. Mitigation**

DWQ - In accordance with 15A NCAC 2H .0500, mitigation may be required by the NC Division of Water Quality for projects involving greater than or equal to one acre of impacts to freshwater wetlands or greater than or equal to 150 linear feet of total impacts to perennial streams.

USACE – In accordance with the Final Notice of Issuance and Modification of Nationwide Permits, published in the Federal Register on January 15, 2002, mitigation will be required when necessary to ensure that adverse effects to the aquatic environment are minimal. Factors including size and type of proposed impact and function and relative value of the impacted aquatic resource will be considered in determining acceptability of appropriate and practicable mitigation as proposed. Examples of mitigation that may be appropriate and practicable include, but are not limited to: reducing the size of the project; establishing and maintaining wetland and/or upland vegetated buffers to protect open waters such as streams; and replacing losses of aquatic resource functions and values by creating, restoring, enhancing, or preserving similar functions and values, preferable in the same watershed.

If mitigation is required for this project, a copy of the mitigation plan must be attached in order for USACE or DWQ to consider the application complete for processing. Any application lacking a required mitigation plan or NCEEP concurrence shall be placed on hold as incomplete. An applicant may also choose to review the current guidelines for stream restoration in DWQ's Draft Technical Guide for Stream Work in North Carolina, available at <http://h2o.enr.state.nc.us/ncwetlands/strmgide.html>.

1. Provide a brief description of the proposed mitigation plan. The description should provide as much information as possible, including, but not limited to: site location (attach directions and/or map, if offsite), affected stream and river basin, type and amount (acreage/linear feet) of mitigation proposed (restoration, enhancement, creation, or preservation), a plan view, preservation mechanism (e.g., deed restrictions, conservation easement, etc.), and a description of the current site conditions and proposed method of construction. Please attach a separate sheet if more space is needed.

NCDOT proposes to use the EEP for mitigation.

2. Mitigation may also be made by payment into the North Carolina Ecosystem Enhancement Program (NCEEP). Please note it is the applicant's responsibility to contact the NCEEP at (919) 715-0476 to determine availability, and written approval from the NCEEP indicating that they are will to accept payment for the mitigation must be attached to this form. For additional information regarding the application process for the NCEEP, check the NCEEP website at <http://h2o.enr.state.nc.us/wrp/index.htm>. If use of the NCEEP is proposed, please check the appropriate box on page five and provide the following information:

Amount of stream mitigation requested (linear feet): N/A

Amount of buffer mitigation requested (square feet): N/A

Amount of Riparian wetland mitigation requested (acres): 0.256 acre

Amount of Non-riparian wetland mitigation requested (acres): N/A

Amount of Coastal wetland mitigation requested (acres): N/A

## **IX. Environmental Documentation (required by DWQ)**

1. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land? Yes  No
2. If yes, does the project require preparation of an environmental document pursuant to the requirements of the National or North Carolina Environmental Policy Act (NEPA/SEPA)? Note: If you are not sure whether a NEPA/SEPA document is required, call the SEPA coordinator at (919) 733-5083 to review current thresholds for environmental documentation. Yes  No
3. If yes, has the document review been finalized by the State Clearinghouse? If so, please attach a copy of the NEPA or SEPA final approval letter. Yes  No

**X. Proposed Impacts on Riparian and Watershed Buffers (required by DWQ)**

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to required state and local buffers associated with the project. The applicant must also provide justification for these impacts in Section VII above. All proposed impacts must be listed herein, and must be clearly identifiable on the accompanying site plan. All buffers must be shown on a map, whether or not impacts are proposed to the buffers. Correspondence from the DWQ Regional Office may be included as appropriate. Photographs may also be included at the applicant's discretion.

1. Will the project impact protected riparian buffers identified within 15A NCAC 2B .0233 (Neuse), 15A NCAC 2B .0259 (Tar-Pamlico), 15A NCAC 02B .0243 (Catawba) 15A NCAC 2B .0250 (Randleman Rules and Water Supply Buffer Requirements), or other (please identify \_\_\_\_\_)? Yes  No
2. If "yes", identify the square feet and acreage of impact to each zone of the riparian buffers. If buffer mitigation is required calculate the required amount of mitigation by applying the buffer multipliers.

Zone*	Impact (square feet)	Multiplier	Required Mitigation
1	9,583.2	3 (2 for Catawba)	None
2	3,484.8	1.5	None
Total	13,068.0		None

\* Zone 1 extends out 30 feet perpendicular from the top of the near bank of channel; Zone 2 extends an additional 20 feet from the edge of Zone 1.

3. If buffer mitigation is required, please discuss what type of mitigation is proposed (i.e., Donation of Property, Riparian Buffer Restoration / Enhancement, or Payment into the Riparian Buffer Restoration Fund). Please attach all appropriate information as identified within 15A NCAC 2B .0242 or .0244, or .0260. Buffer mitigation is not required for these allowable impacts.

**XI. Stormwater (required by DWQ)**

Describe impervious acreage (existing and proposed) versus total acreage on the site. Discuss stormwater controls proposed in order to protect surface waters and wetlands downstream from the property. If percent impervious surface exceeds 20%, please provide calculations demonstrating total proposed impervious level. Impervious acreage will not appreciably increase as a result of the bridge construction.

**XII. Sewage Disposal (required by DWQ)**

Clearly detail the ultimate treatment methods and disposition (non-discharge or discharge) of wastewater generated from the proposed project, or available capacity of the subject facility.  
No wastewater will be generated from the implementation of the proposed project.

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**XIII. Violations (required by DWQ)**

Is this site in violation of DWQ Wetland Rules (15A NCAC 2H .0500) or any Buffer Rules?  
Yes  No

Is this an after-the-fact permit application? Yes  No

**XIV. Cumulative Impacts (required by DWQ)**

Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality? Yes  No   
If yes, please submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent North Carolina Division of Water Quality policy posted on our website at <http://h2o.enr.state.nc.us/newetlands>. If no, please provide a short narrative description: \_\_\_\_\_

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**XV. Other Circumstances (Optional):**

It is the applicant's responsibility to submit the application sufficiently in advance of desired construction dates to allow processing time for these permits. However, an applicant may choose to list constraints associated with construction or sequencing that may impose limits on work schedules (e.g., draw-down schedules for lakes, dates associated with Endangered and Threatened Species, accessibility problems, or other issues outside of the applicant's control).

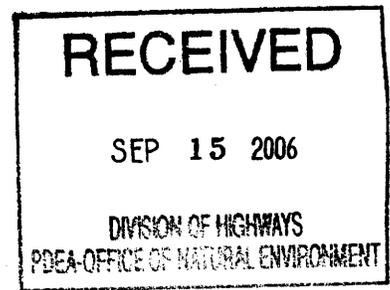
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*E.L. Luck*

10.18.06

**Applicant/Agent's Signature** **Date**  
(Agent's signature is valid only if an authorization letter from the applicant is provided.)



September 11, 2006

Mr. Gregory J. Thorpe, Ph.D.  
Environmental Management Director  
Project Development and Environmental Analysis Branch  
North Carolina Department of Transportation  
1548 Mail Service Center  
Raleigh, North Carolina 27699-1548

Dear Dr. Thorpe:

Subject: EEP Mitigation Acceptance Letter:

**B-4127**, Replace Bridge Number 43 over Rainbow Creek on SR 1438,  
Greene County

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) will provide the compensatory riparian wetland mitigation for the subject project. Based on the information supplied by you in a letter dated September 1, 2006, the impacts are located in CU 03020203 of the Neuse River Basin in the Northern Inner Coastal Plain (NICP) Eco-Region, and are as follows:

Riparian Wetlands: 0.256 acre

Mitigation for this project will be provided in accordance with the Memorandum of Agreement between the N. C. Department of Environment and Natural Resources, the N. C. Department of Transportation, and the U. S. Army Corps of Engineers signed on July 22, 2003. EEP will commit to implementing sufficient compensatory riparian wetland mitigation to offset the impacts associated with this project by the end of the MOA year in which this project is permitted. If the above referenced impacts amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from EEP.

If you have any questions or need additional information, please contact Ms. Beth Harmon at 919-715-1929.

Sincerely,

A handwritten signature in black ink that reads "James B. Stanfield Sr".

William D. Gilmore, P.E.  
EEP Director

cc: Mr. Bill Biddlecome, USACE-Washington  
Mr. John Hennessy, Division of Water Quality, Wetlands/401 Unit  
File: B-4127

*Restoring... Enhancing... Protecting Our State*





September 11, 2006

Mr. Bill Biddlecome  
U. S. Army Corps of Engineers  
Washington Regulatory Field Office  
Post Office Box 1000  
Washington, North Carolina 27889-1000

Dear Mr. Biddlecome:

Subject: EEP Mitigation Acceptance Letter:

**B-4127, Replace Bridge Number 43 over Rainbow Creek on SR 1438,  
Greene County; Neuse River Basin (Cataloging Unit 03020203);  
Northern Inner Coastal Plain (NICP) Eco-Region**

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) will provide the compensatory riparian wetland mitigation for the unavoidable impact associated with the above referenced project. As indicated in the NCDOT's mitigation request letter dated September 1, 2006, compensatory riparian wetland mitigation from EEP is required for approximately 0.256 of riparian wetland impacts.

Mitigation for this project will be provided in accordance with Section X of the Memorandum of Agreement between the N. C. Department of Environment and Natural Resources, the N. C. Department of Transportation, and the U. S. Army Corps of Engineers signed on July 22, 2003. EEP commits to implement sufficient compensatory riparian wetland mitigation up to a 2:1 ratio to offset the impacts associated with this project by the end of the MOA year in which this project is permitted. If the impacts change from the above listed amount, then this mitigation strategy letter will no longer be valid and a new mitigation strategy letter will be required from EEP.

If you have any questions or need additional information, please contact Ms. Beth Harmon at 919-715-1929.

Sincerely,

A handwritten signature in black ink that reads "James B. Gilmore, Jr." in a cursive script.

William D. Gilmore, P.E.  
EEP Director

cc: Mr. Gregory J. Thorpe, Ph.D., NCDOT-PDEA  
Mr. John Hennessy, Division of Water Quality, Wetlands/401 Unit  
File: B-4127

*Restoring... Enhancing... Protecting Our State*







**WETLAND PERMIT IMPACT SUMMARY**

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS				SURFACE WATER IMPACTS					
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW Impacts (ac)	Temp. SW Impacts (ac)	Existing Channel Impacts (ft)	Natural Stream Design (ft)	
1	-L- 13+72.5	BRIDGE, 4 SPAN (2@47.5' & 2@42.5') 21' CORED SLAB	0.065			0.191						
<b>TOTALS:</b>			0.065			0.191						

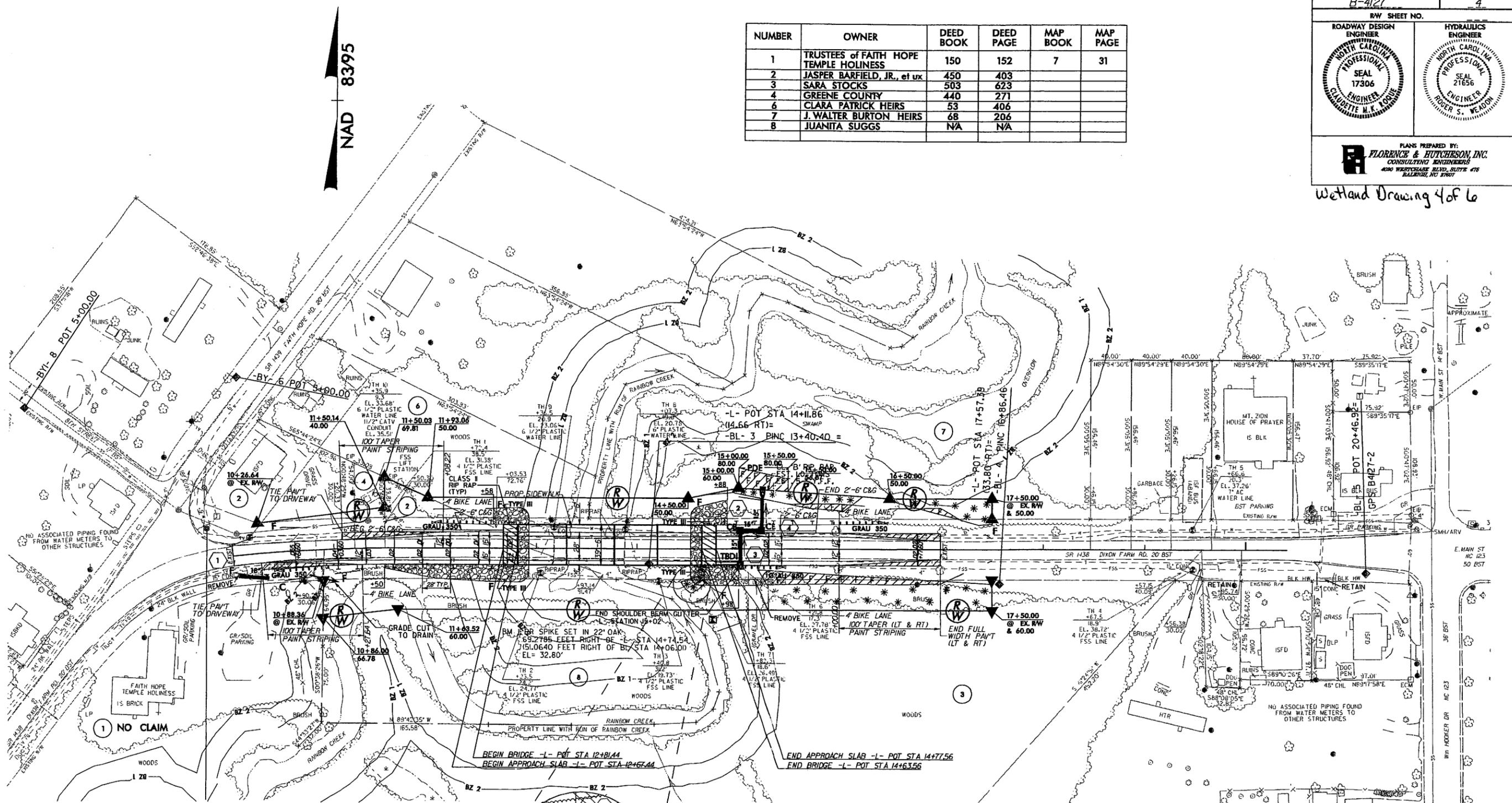
JMD Revised 2/03/05

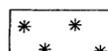
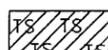
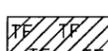
NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
  
 GREENE COUNTY  
 WBS - 33480.1.1 (B-4127)  
 BRIDGE NO. 43 OVER RAINBOW CREEK  
 SHEET 8/8/2006

*Wetland Drawing 3 of 6*

NUMBER	OWNER	DEED BOOK	DEED PAGE	MAP BOOK	MAP PAGE
1	TRUSTEES of FAITH HOPE TEMPLE HOLINESS	150	152	7	31
2	JASPER BARFIELD, JR., et ux	450	403		
3	SARA STOCKS	503	623		
4	GREENE COUNTY	440	271		
6	CLARA PATRICK HEIRS	53	406		
7	J. WALTER BURTON HEIRS	68	206		
8	JUANITA SUGGS	N/A	N/A		

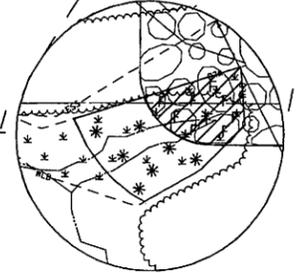
Wetland Drawing 4 of 6



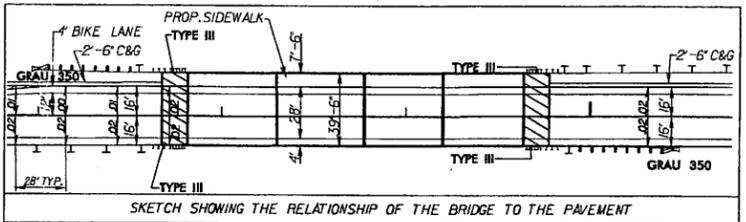
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-  PERMANENT SURFACE WATER IMPACT
-  MECHANIZED CLEARING
-  TEMPORARY SURFACE WATER IMPACT
-  TEMPORARY FILL IN WETLAND

**DESIGN DATA**  
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 ADT 2026 = 3300  
 DHV = 10 %  
 D = 60 %  
 T = 4 %  
 V = 40 MPH  
 FLNC CLASS = LOCAL  
 \* T1ST 2% ± DUAL 2%

BLOWUP VIEW 1



WETLAND PERMIT



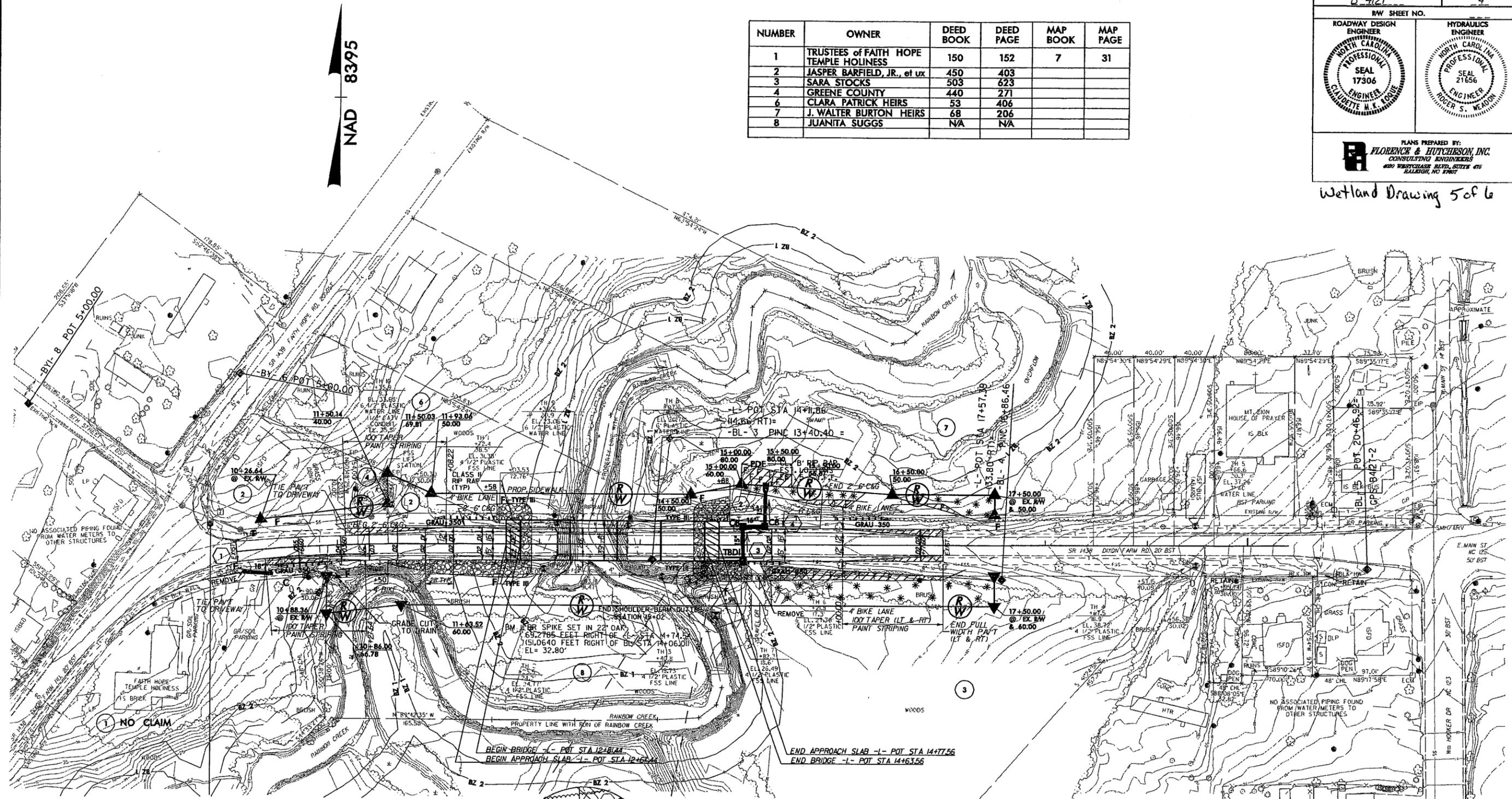
N. C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 GREENE COUNTY  
 PROJECT NO. 33480.11 (B-4127)  
 BRIDGE NO. 43 OVER  
 RAINBOW CREEK  
 ON SR 1438  
 SHEET OF 8/10/2006

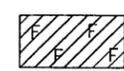
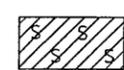
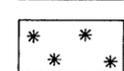
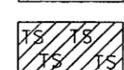
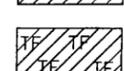
SEE SHEET 5 FOR -L- PROFILE  
 SEE SHEETS S-1 thru S- FOR STRUCTURE PLANS

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1	TRUSTEES of FAITH HOPE TEMPLE HOLINESS	150	152	7	31
2	JASPER BARFIELD, JR., et ux	450	403		
3	SARA STOCKS	503	623		
4	GREENE COUNTY	440	271		
6	CLARA PATRICK HEIRS	53	406		
7	J. WALTER BURTON HEIRS	68	206		
8	JUANITA SUGGS	N/A	N/A		

PLANS PREPARED BY:  
**FLORENCE & HUTCHINSON, INC.**  
 CONSULTING ENGINEERS  
 400 WESTCHASE BLVD, SUITE 410  
 RALEIGH, NC 27607

Wetland Drawing 5 of 6

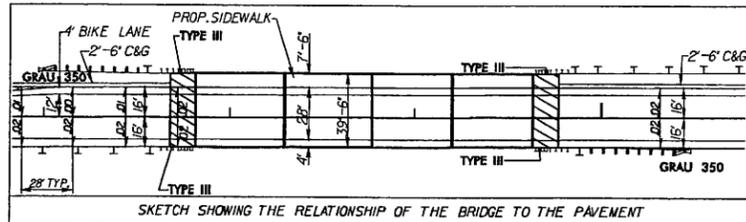


-  FILL IN WETLAND
-  PERMANENT SURFACE WATER IMPACT
-  MECHANIZED CLEARING
-  TEMPORARY SURFACE WATER IMPACT
-  TEMPORARY FILL IN WETLAND

**DESIGN DATA**  
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 ADT 2024 = 3300  
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 T = 4 %  
 Y = 40 MPH  
 FUNC CLASS-LOCAL  
 \* TST 2% ± DUAL 2%



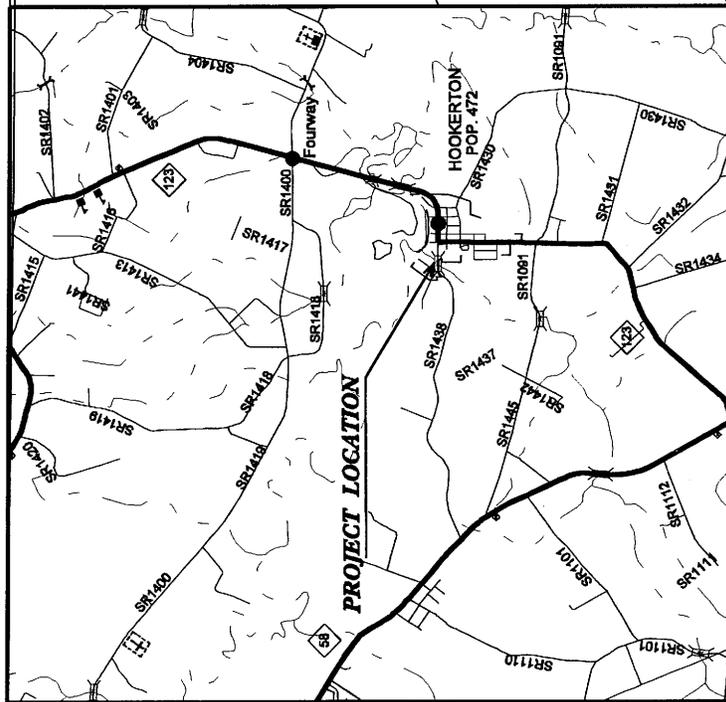
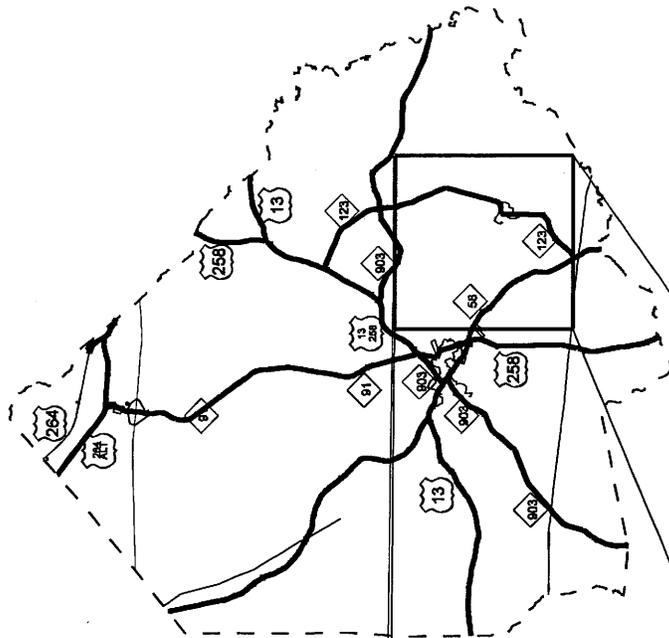
WETLAND PERMIT



N. C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 GREENE COUNTY  
 PROJECT NO. 33480.11 (B-4127)  
 BRIDGE NO. 43 OVER  
 RAINBOW CREEK  
 ON SR 1438  
 SHEET OF 8 / 10 / 2006

SEE SHEET 5 FOR -L- PROFILE  
 SEE SHEETS S-1 thru S- FOR STRUCTURE PLANS





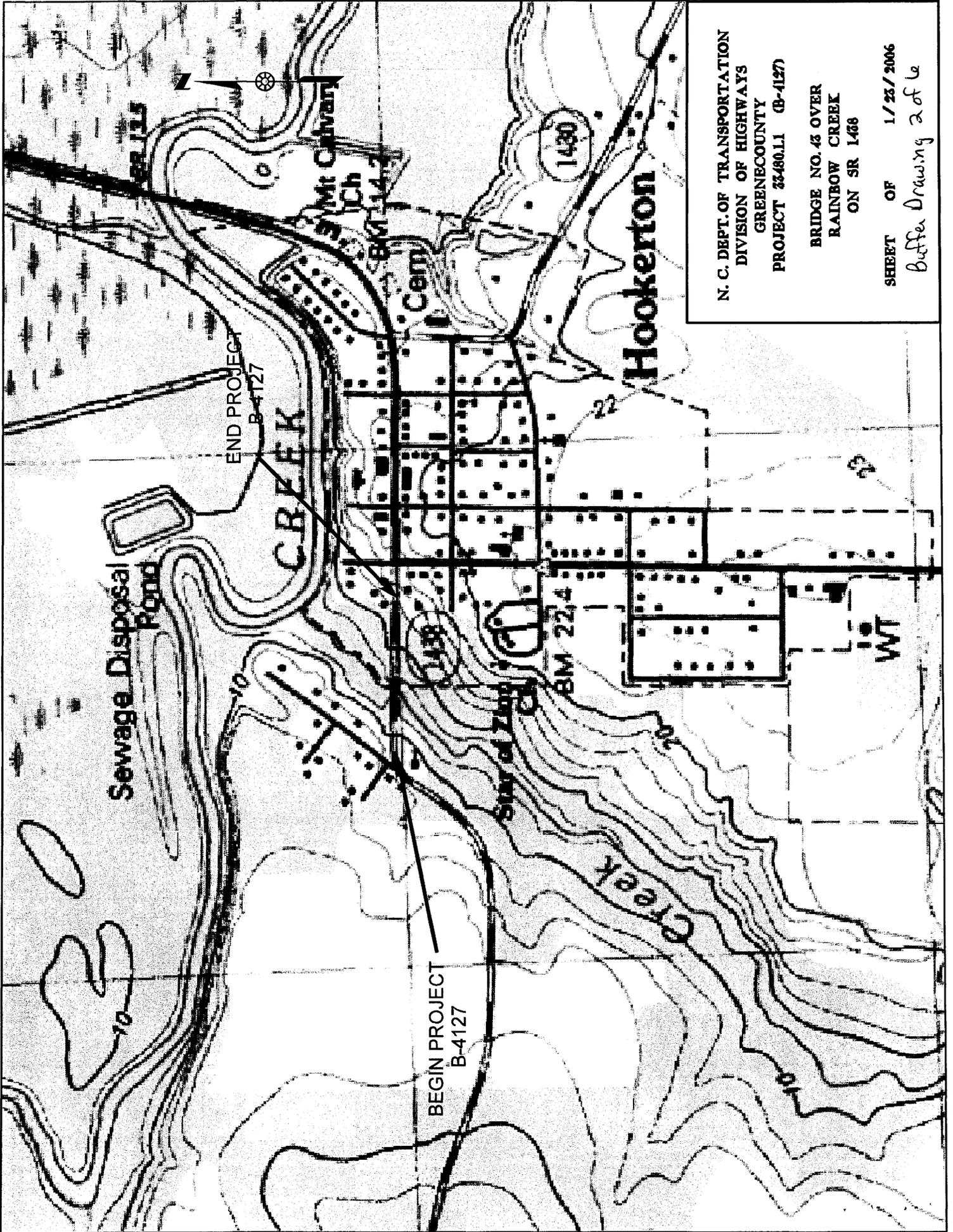
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DIVISION OF HIGHWAYS  
GREENECOUNTY  
PROJECT 33480.1.1 (B-4127)

BRIDGE NO. 43 OVER  
RAINBOW CREEK  
ON SR 1438

SHEET OF 1/25/2006

Buffer Drawing 1 of 6

*Buffer Permit*



N. C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
GREENECOUNTY  
PROJECT 33460.11 (B-4127)

BRIDGE NO. 43 OVER  
RAINBOW CREEK  
ON SR 1468

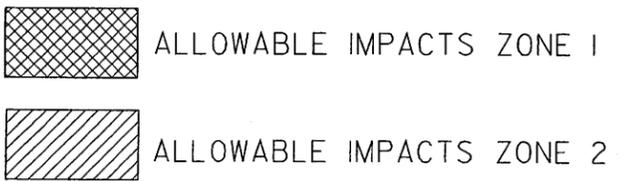
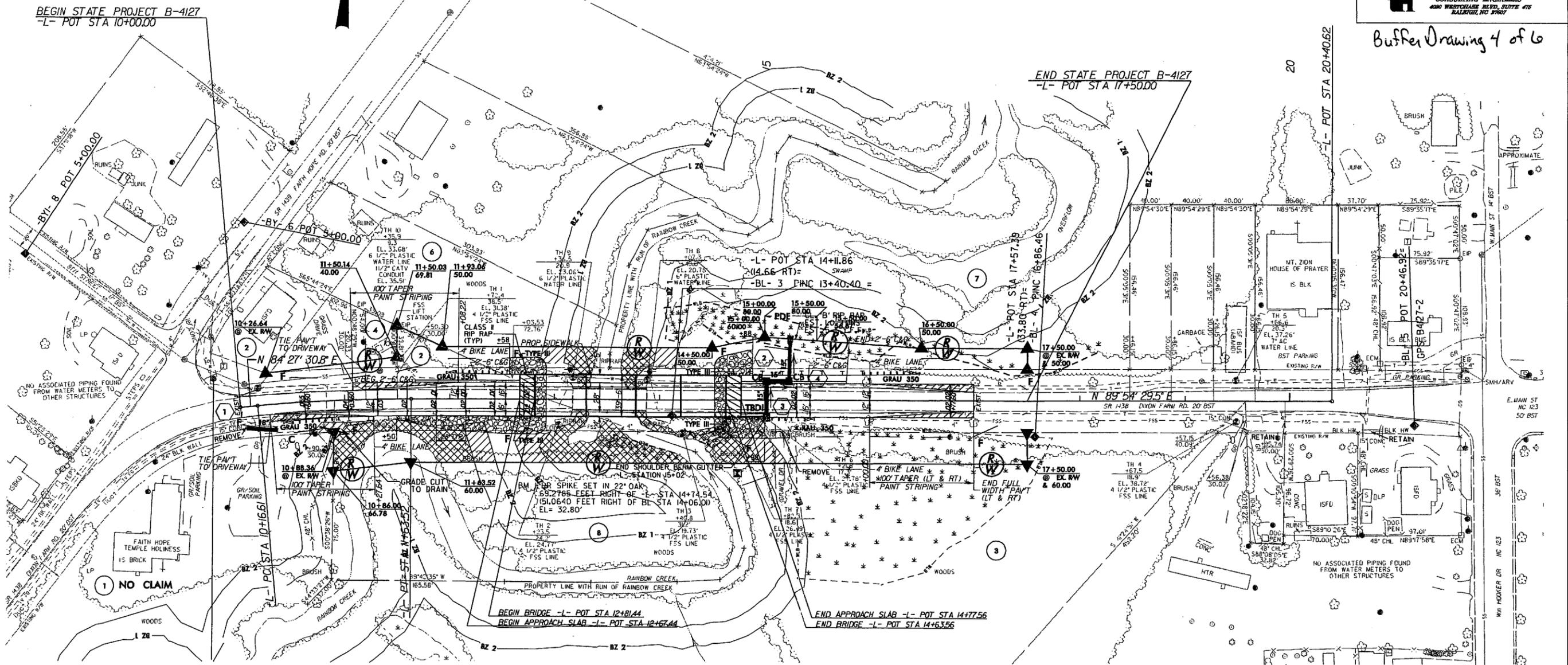
SHEET OF 1/25/2006  
*Buffer Drawing 2 of 6*



PLANS PREPARED BY:  
**FLORENCE & HUTCHESON, INC.**  
CONSULTING ENGINEERS  
4200 WESTBOROUGH BLVD, SUITE 415  
RALEIGH, NC 27607

Buffer Drawing 4 of 6

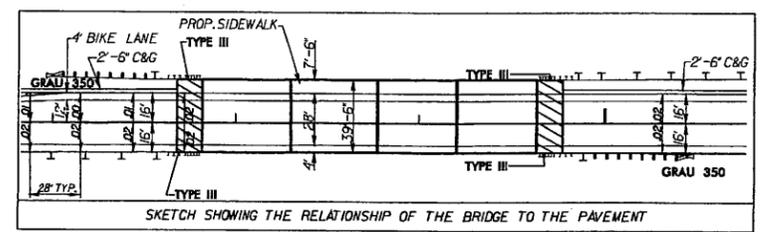
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1	TRUSTEES of FAITH HOPE TEMPLE HOLINESS	150	152	7	31
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 ADT 2026 = 3300  
 DHV = 10 %  
 D = 60 %  
 T = 4 %  
 V = 40 MPH  
 FUNC CLASS = LOCAL  
 \* TST 2% ± DUAL 2%

**-L-**  
 PI Sta 10+90.12  
 $\Delta = 5' 26'' 58.7''$  (RT)  
 $D = 3' 42'' 34.0''$   
 $L = 146.91'$   
 $T = 73.51'$   
 $R = 1,544.59'$

*BUFFER PERMIT*



N. C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 GREENE COUNTY  
 PROJECT NO. 33480.1.1 (B-4127)  
 BRIDGE NO. 43 OVER  
 RAINBOW CREEK  
 ON SR 1438  
 SHEET OF 8 / 10 / 2006

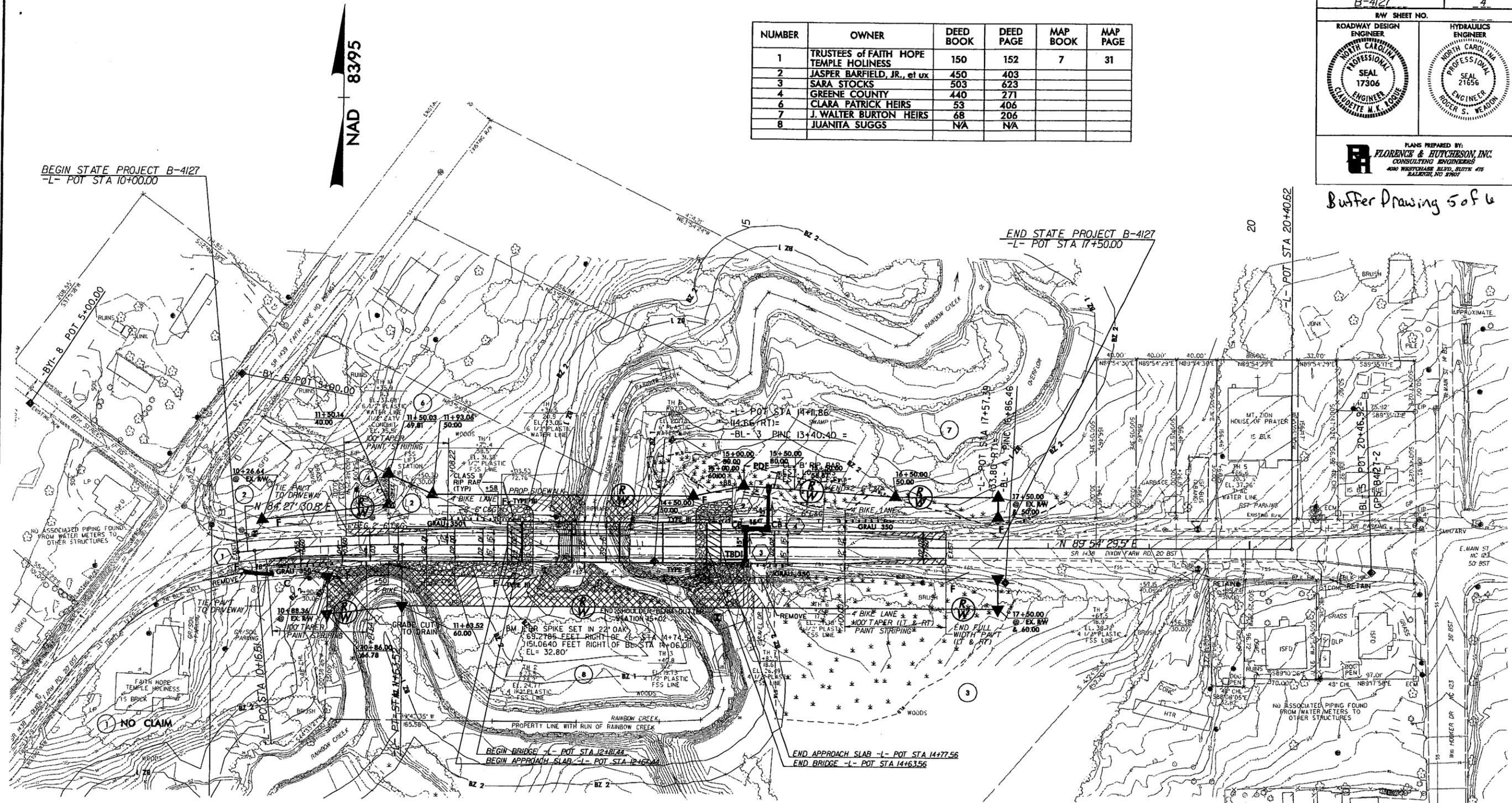
SEE SHEET 5 FOR -L- PROFILE  
 SEE SHEETS S-1 thru S- FOR STRUCTURE PLANS

PROJECT REFERENCE NO. B-4127	SHEET NO. 4
RWY SHEET NO.	
ROADWAY DESIGN ENGINEER FLORENCE & HUTCHERSON, INC. SEAL 17306 CLAUDETTE M.K. LOUIE	HYDRAULICS ENGINEER FLORENCE & HUTCHERSON, INC. SEAL 21656 ROGER S. WEAVER

PLANS PREPARED BY:  
**FLORENCE & HUTCHERSON, INC.**  
CONSULTING ENGINEERS  
4000 WESTCHASE BLVD., SUITE 416  
Raleigh, NC 27607

Buffer Drawing 5 of 6

NUMBER	OWNER	DEED BOOK	DEED PAGE	MAP BOOK	MAP PAGE
1	TRUSTEES of FAITH HOPE TEMPLE HOLINESS	150	152	7	31
2	JASPER BARFIELD, JR., et ux	450	403		
3	SARA STOCKS	503	623		
4	GREENE COUNTY	440	271		
6	CLARA PATRICK HEIRS	53	406		
7	J. WALTER BURTON HEIRS	68	206		
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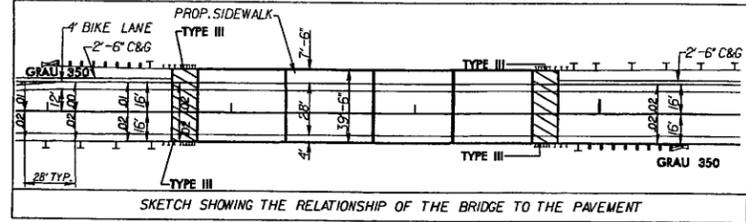
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- ALLOWABLE IMPACTS ZONE 2

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ADT 2026 = 3300
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D = 60 %
T = 4 %
V = 40 MPH
FUNC CLASS = LOCAL
* TTST 2% ± DUAL 2%

-L-  
PI Sta 10+90.12  
 $\Delta = 5^{\circ} 26' 58.7''$  (RT)  
D = 3' 42" 34.0"  
L = 146.91'  
T = 73.51'  
R = 1,544.59'

**BUFFER PERMIT**



N. C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
GREENE COUNTY  
PROJECT NO. 33480.11 (B-4127)  
  
BRIDGE NO. 43 OVER  
RAINBOW CREEK  
  
ON SR 1438  
  
SHEET OF 8/10/2006

SEE SHEET 5 FOR -L- PROFILE  
SEE SHEETS S-1 thru S- FOR STRUCTURE PLANS



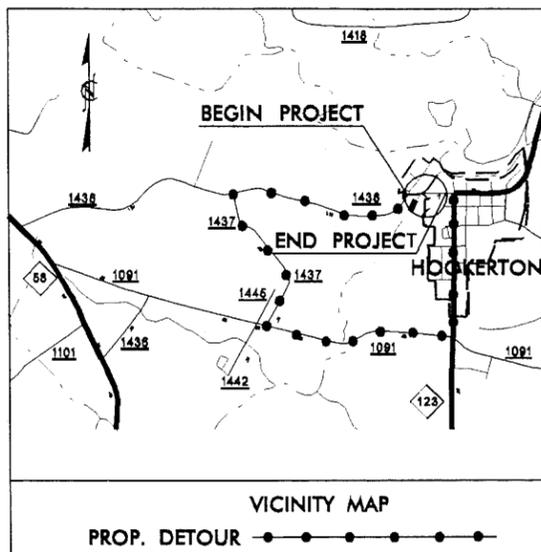




03/08/09

**TIP PROJECT: B-4127**

See Sheet 1-A For Index of Sheets  
See Sheet 1-B For Conventional Symbols



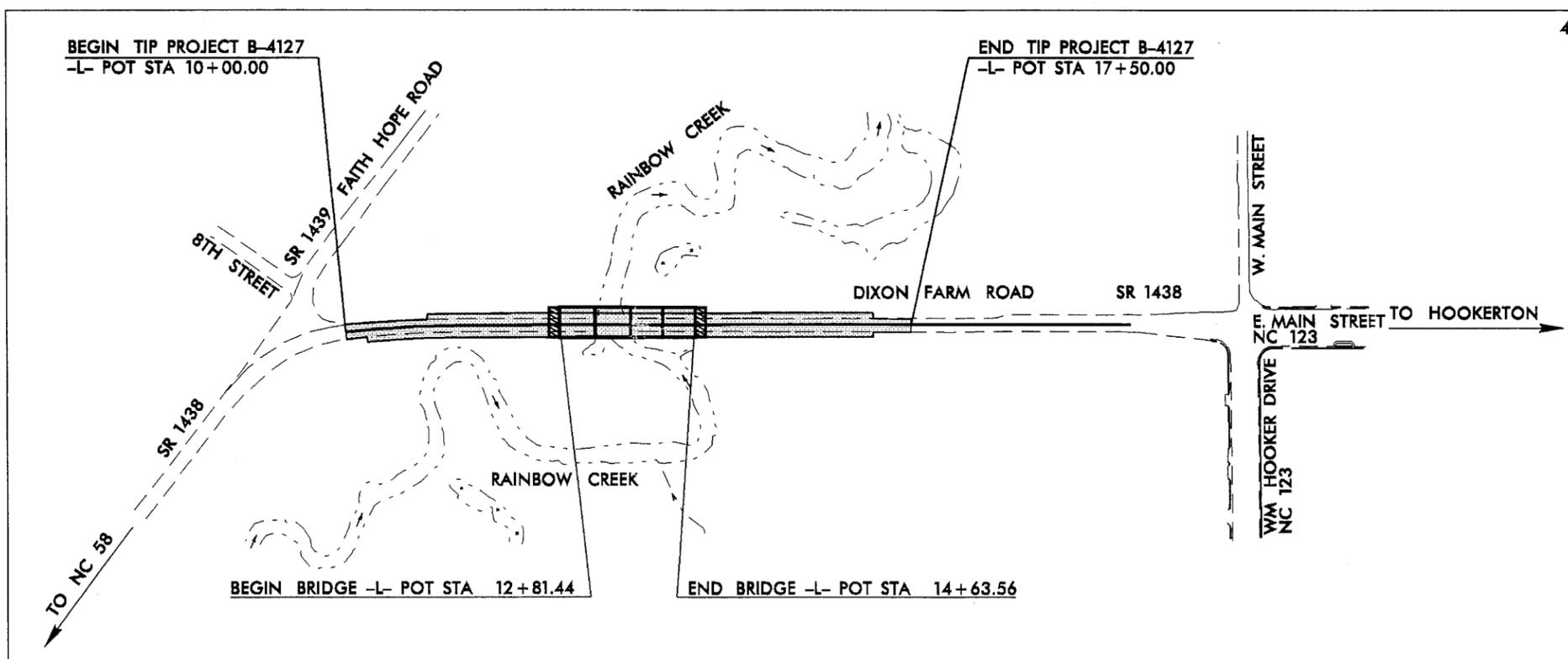
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**GREENE COUNTY**

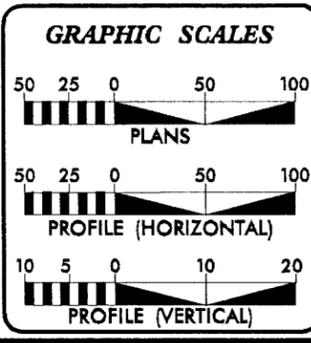
LOCATION: BRIDGE NO. 43 OVER RAINBOW CREEK  
ON SR 1438

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND  
STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4127	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33480.1.1	BRZ-1438(5)	PE	
33480.2.1	BRZ-1438(5)	RW & UTIL	
33480.2.1	BRZ-1438(5)	CONST	



**CONTRACT:**



**DESIGN DATA**

ADT 2006 =	2000
ADT 2026 =	3300
DHV =	10 %
D =	60 %
T =	4 % *
V =	40 MPH
FUNC CLASS =	LOCAL
* TTST	2% + DUAL 2%

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT B-4127 =	0.108 MILES
LENGTH STRUCTURE TIP PROJECT B-4127 =	0.034 MILES
TOTAL LENGTH TIP PROJECT B-4127 =	0.142 MILES

**NCDOT CONTACT:** CATHY S. HOUSER, PE  
PROJECT ENGINEER

Prepared in the Office of:

FOR THE NORTH CAROLINA DEPT. OF TRANSPORTATION

2002 STANDARD SPECIFICATIONS

**RIGHT OF WAY DATE:** SEPTEMBER 28, 2005

**LETTING DATE:** JANUARY 16, 2007

**CLAUDETTE M.K. ROQUE, PE**  
PROJECT ENGINEER

**WILLIAM E. TILLITT, EI**  
PROJECT DESIGN ENGINEER

**HYDRAULICS, ENGINEER**

SIGNATURE: \_\_\_\_\_ P.E.

**ROADWAY DESIGN, ENGINEER**

SIGNATURE: \_\_\_\_\_ P.E.

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

STATE DESIGN ENGINEER

**DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION**

APPROVED \_\_\_\_\_  
DIVISION ADMINISTRATOR

DATE \_\_\_\_\_

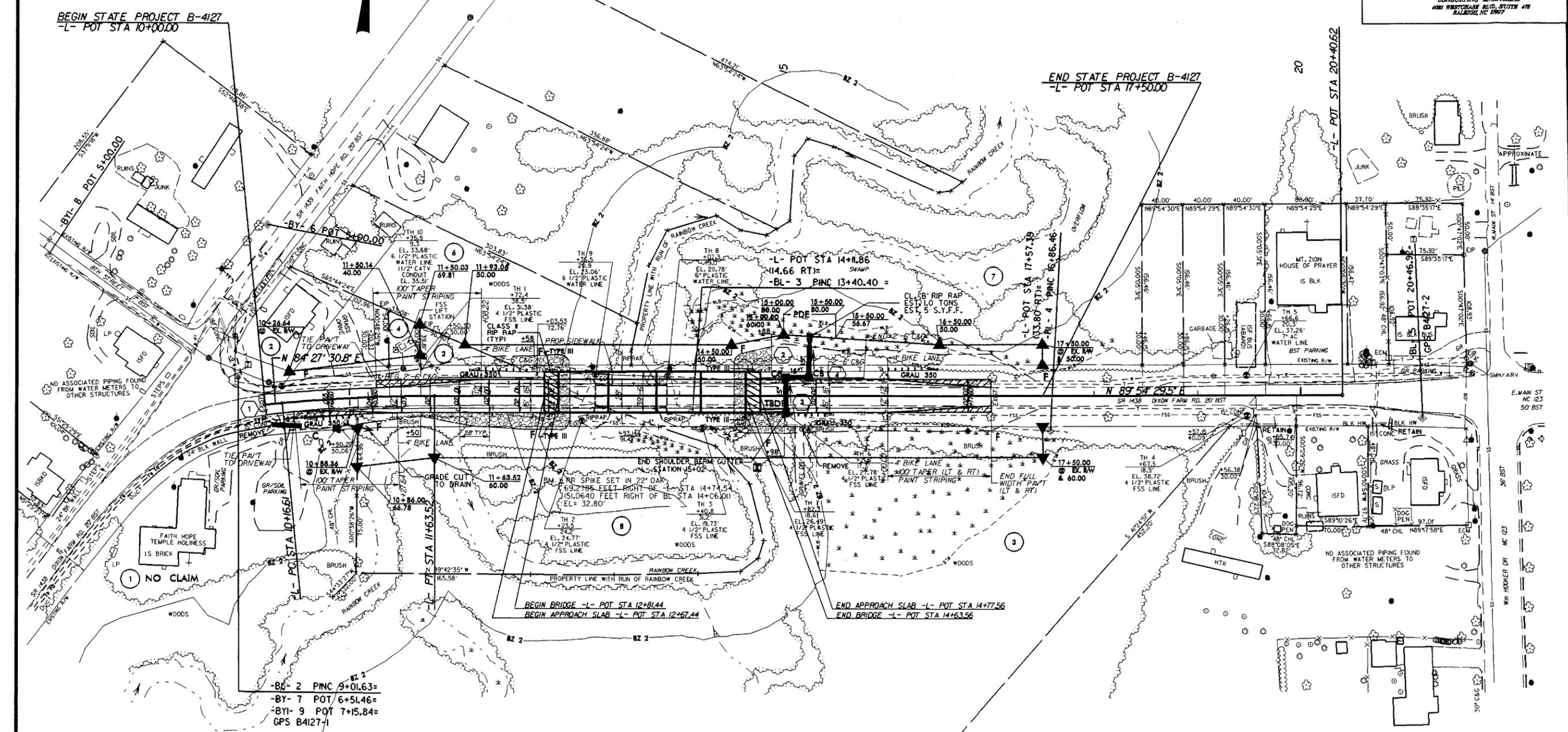
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8/17/99

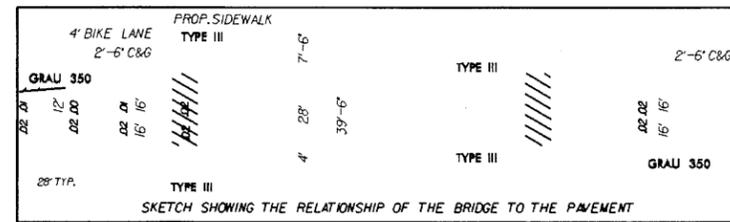
PROJECT REFERENCE NO. B-4127		SHEET NO. 4	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PLANS PREPARED BY: FLORENCE & HUTCHERSON, INC. CONSULTING ENGINEERS 400 WINDYBUSH BLVD., SUITE 410 RALEIGH, NC 27607			

NUMBER	OWNER	DEED BOOK	DEED PAGE	MAP BOOK	MAP PAGE
1	TRUSTEES of FAITH HOPE TEMPLE HOLINESS	150	152	7	31
2	JASPER BARFIELD, JR., et ux	450	403		
3	SARA STOCKS	503	623		
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7	J. WALTER BURTON HEIRS	68	206		
8	JUANITA SUGGS	N/A	N/A		



**DESIGN DATA**  
 ADT 2004 = 2000  
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 T = 4 %  
 V = 40 MPH  
 FUNC CLASS = LOCAL  
 \* TTST 2% + DUAL 2%

**-L-**  
 PI Sta 10+90.12  
 $\Delta = 5' 26' 58.7''$  (RT)  
 $D = 3' 42' 34.0''$   
 $L = 146.91'$   
 $T = 73.51'$   
 $R = 1544.59'$



SEE SHEET 5 FOR -L- PROFILE  
 SEE SHEETS 5-1 thru 5- FOR STRUCTURE PLANS

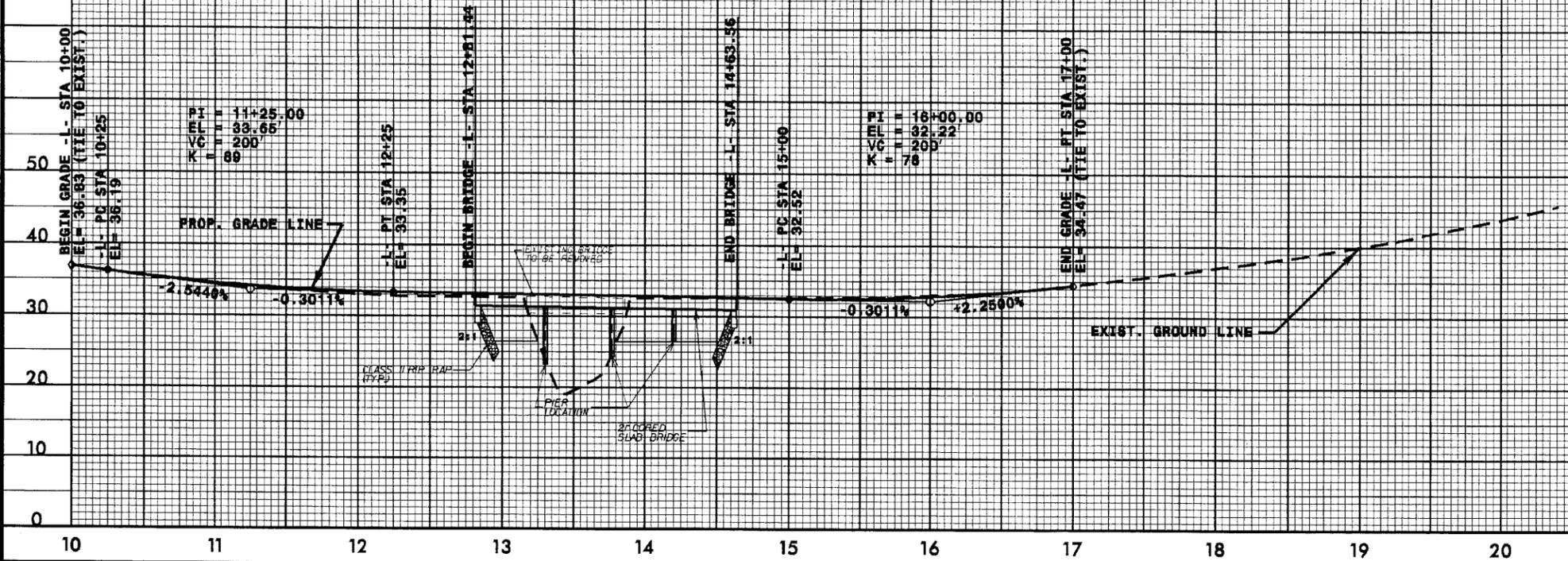
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 TIME: 10:00 AM

5/28/99

BN 1: RR SPIKE SET IN 22" OAK  
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(51.0849 FEET RIGHT OF DL STA 14+06.01)  
EL = 32.00'

-L-

PROJECT REFERENCE NO. B-4127	SHEET NO. 5
ROADWAY DESIGN ENGINEER CLAUDETTE M. J. BOULANGER PROFESSIONAL SEAL 17306	HYDRAULICS ENGINEER ROBERT S. WEADON PROFESSIONAL SEAL 21656
PLANS PREPARED BY: FLORENCE & HUTCHESON, INC. CONSULTING ENGINEERS 4000 WESTCHASE BLVD, SUITE 475 RALEIGH, NC 27607	



SEE SHEET 4 FOR -L- PLAN VIEW

DESIGN DISCHARGE	+ 1420 GFS
DESIGN FREQUENCY	+ 25 YRS
DESIGN HW ELEVATION	+ 33.2 FT
BASE DISCHARGE	+ 2000 GFS
BASE FREQUENCY	+ 100 YRS
BASE HW ELEVATION	+ 34.9 FT
OVERTOPPING DISCHARGE	+ 240 GFS
OVERTOPPING FREQUENCY	+ 10 YRS
OVERTOPPING ELEVATION	+ 32.5 FT

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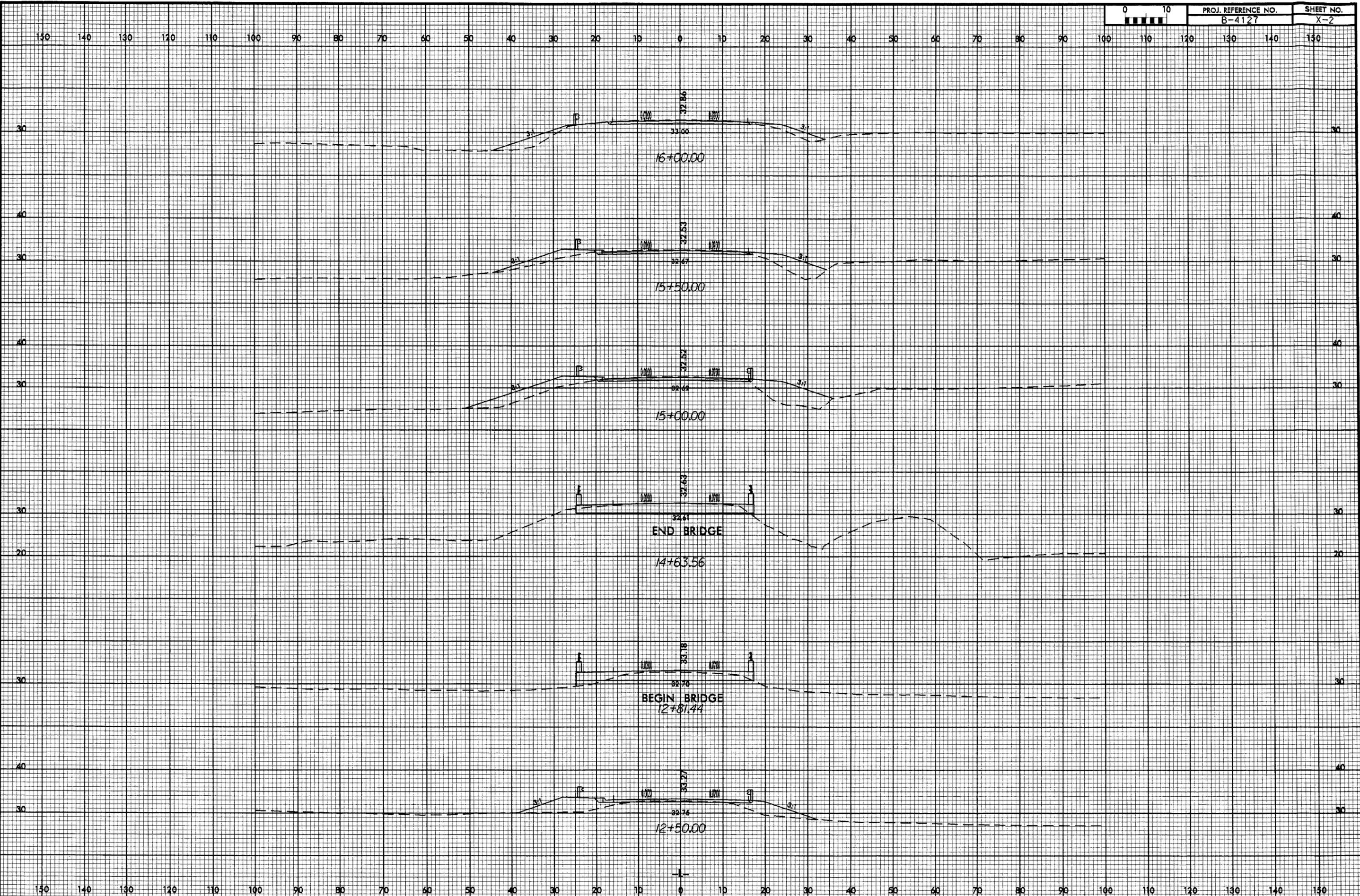


8/23/09



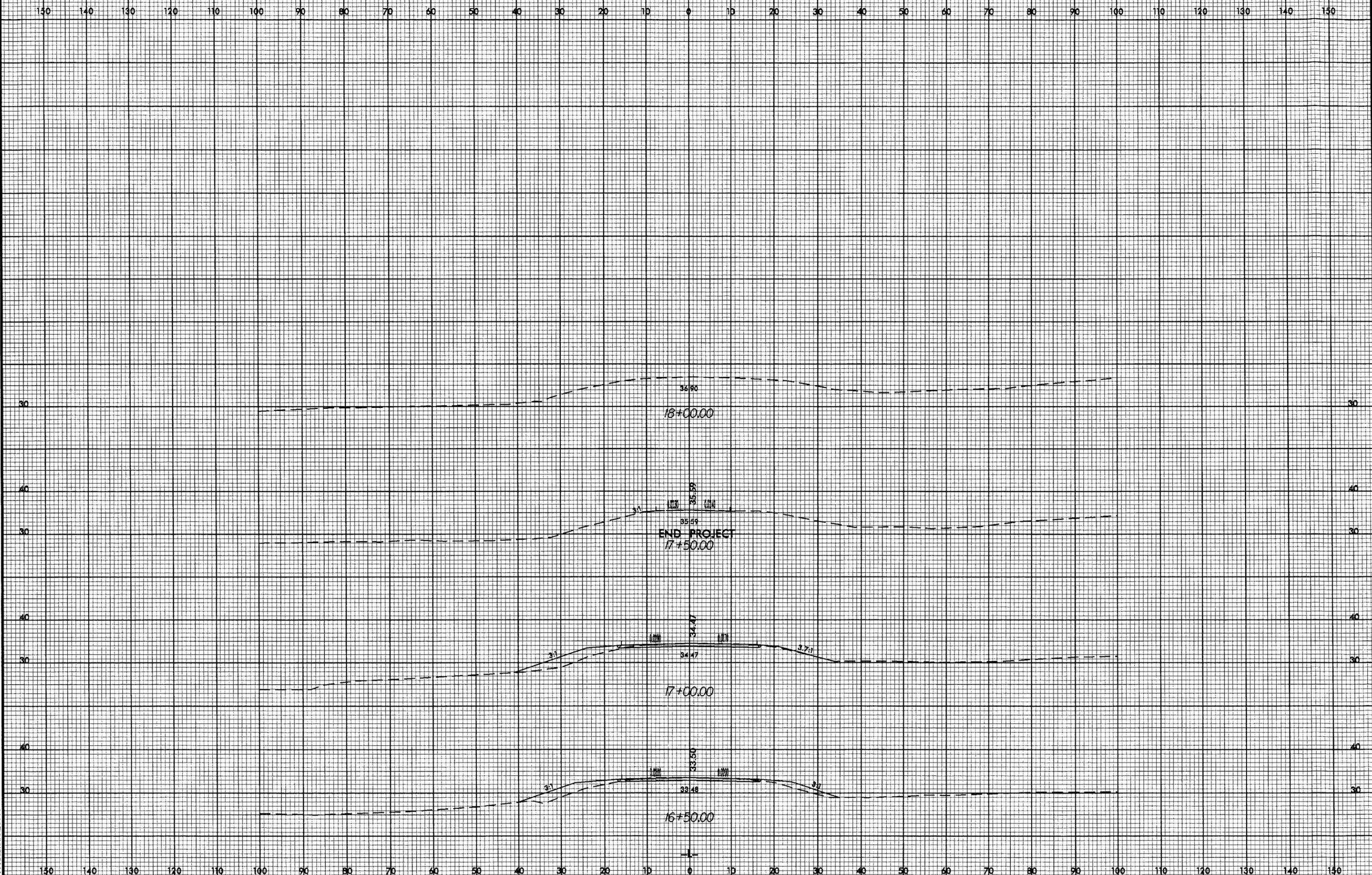
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B-4127

SHEET NO.  
X-2



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8/22/08



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**Greene County  
Bridge No. 43 on SR 1438  
Over Rainbow Creek  
Federal Aid Project No. BRZ-1438 (5)  
State Project No. 8.2180401  
W.B.S. No. 33480.1.1  
T.I.P. No. B-4127**

CATEGORICAL EXCLUSION

UNITED STATES DEPARTMENT OF TRANSPORTATION

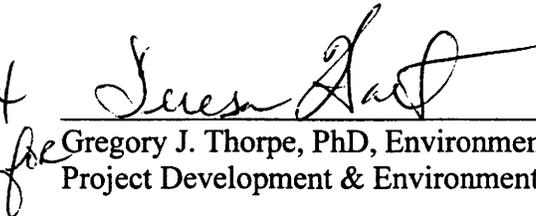
FEDERAL HIGHWAY ADMINISTRATION

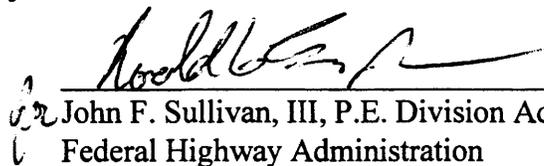
AND

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

Approved:

July 9, 2004  
DATE   
for Gregory J. Thorpe, PhD, Environmental Manager  
Project Development & Environmental Analysis Branch

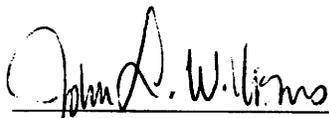
July 13, 2004  
DATE   
for John F. Sullivan, III, P.E. Division Administrator  
Federal Highway Administration

**Greene County  
Bridge No. 43 on SR 1438  
Over Rainbow Creek  
Federal Aid Project No. BRZ-1438 (5)  
State Project No. 8.2180401  
W.B.S. No. 33480.1.1  
T.I.P. No. B-4127**

CATEGORICAL EXCLUSION

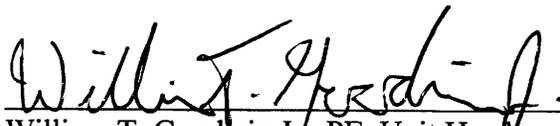
Documentation Prepared in  
Project Development and Environmental Analysis Branch By:

July 2004



---

John L. Williams, PE  
Project Planning Engineer



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William T. Goodwin Jr., PE, Unit Head  
Bridge Replacement Planning Unit

## **PROJECT COMMITMENTS:**

**Greene County  
Bridge No. 43 on SR 1438  
Over Rainbow Creek  
Federal Aid Project No. BRZ-1438 (5)  
State Project No. 8.2180401  
W.B.S. No. 33480.1.1  
T.I.P. No. B-4127**

### **PDEA – Project Development Engineer**

Coordination should be continued with Greene County Transportation to insure that a survey of demand is completed for the proposed van service to accommodate pedestrians during construction. In May 2005 Mike Lovett of Greene County Transportation will be contacted to follow up on the survey.

### **All Design Groups – High Quality Wetlands**

The footprint of the project should be minimized to the extent practical in order to reduce the impact to the surrounding wetlands.

### **All Design Groups/ Division Resident Engineer – Anadromous Fish**

The North Carolina Division of Marine Fisheries has indicated that a moratorium on in-water construction will be in place from February 1 to September 30 of any given year.

To the extent practical, construction should be accomplished without the use of construction pads.

To the extent practical, bridge demolition should occur without getting into the water.

### **PDEA/ Structure Design/ Division Resident Engineer – Streetlight and aesthetic considerations**

The Town of Hookerton has requested that the bridge include aesthetic considerations including mountings for lighting. PDEA will facilitate discussion between Structure Design and the town council to work out the details.

### **Structure Design/ Roadway Design/ Resident Engineer – Bicycle & Pedestrian Facilities**

The new bridge and approaches within the project limits shall include a sidewalk along the north side of the project limits with pedestrian safe rail. The project shall also be designed to accommodate bicycles with bicycle safe rail on the south side. The appropriate cross section is referenced in Section III Part A of this document.

**Greene County**  
**Bridge No. 43 on SR 1438**  
**Over Rainbow Creek**  
**Federal Aid Project No. BRZ-1438 (5)**  
**State Project No. 8.2180401**  
**W.B.S. No. 33480.1.1**  
**T.I.P. No. B-4127**

**INTRODUCTION:** Bridge No. 43 is included in the 2004-2010 North Carolina Department of Transportation (NCDOT) Transportation Improvement Program and is eligible for the Federal-Aid Bridge Replacement and Rehabilitation Program. The location is shown in Figure 1. No substantial environmental impacts are anticipated. The project is classified as a Federal “Categorical Exclusion”.

**I. PURPOSE AND NEED STATEMENT**

Bridge Maintenance Unit records indicate the bridge has a sufficiency rating of 48.9 out of a possible 100 for a new structure. The bridge’s two-span superstructure is composed of an asphalt wearing surface on a timber deck on I-beams and timber joists. The substructure is composed of timber caps on timber piles. The bridge has recently had temporary timber crutches added to extend the life of the timber structure until it could be replaced. According to Federal Highway Administration (FHWA) standards the bridge is considered to be functional obsolete with a deck geometry appraisal of 2 out of 9 and paired with a sufficiency rating of 50 or less is therefore considered eligible for FHWA’s Highway Bridge Replacement and Rehabilitation Program.

**II. EXISTING CONDITIONS**

The project is located on the western boundary of the Town of Hookerton, N.C. in Greene County (see Figure 1). To the west of the project is a development of approximately 100 - 150 homes and a church (Faith Hope Temple Holy Church). West of the development the area is largely agricultural with scattered residences.

SR 1438 is classified as a rural local route in the Statewide Functional Classification System and it is not a National Highway System Route. This route is not a designated bicycle route although there is indication of bicycle and heavy pedestrian traffic on this bridge.

In the vicinity of the bridge, SR 1438 has an 19-foot pavement width with 4-foot grass shoulders. The roadway grade is relatively flat through the project area. The existing bridge is on a straight alignment with a curve beginning a short distance from the bridge on the east approach. The roadway is situated approximately 13 feet above the streambed.

The existing bridge (see Figure 3) was constructed in 1958. The overall length of the structure is 71 feet. The clear roadway width is 19 feet. This bridge is not currently posted with weight restrictions.

Utility impacts are anticipated to be moderate. There is an underground telephone line on the north side of the road that emerges to become aerial across the creek. There is indication of underground water and sewer lines on the north side of SR 1438 with a sewer pumping station on the west end of the project.

The current traffic volume of 1700 vehicles per day (VPD) is expected to increase to 3200 VPD by the year 2025. The projected volume includes two-percent truck-tractor semi-trailer (TTST) and two-percent dual-tired vehicles (DT). There is a 35-mile per hour posted speed limit in the project area. The School Bus Transportation Director has indicated there are ten school busses currently utilizing the road.

There have been no accidents reported in the vicinity of Bridge No. 449 during a check of a recent three-year period.

### **III. ALTERNATIVES**

#### **A. Project Description**

The replacement structure will consist of a 115-foot long bridge on the existing location. The bridge will be of sufficient width to provide for two 12-foot lanes with a 4-foot offset on the south side and provision for a five-foot sidewalk on the north side. A pedestrian safe rail will be included on the north side of the bridge and bicycle safe rail on the south side. The total bridge width will be 30 feet. The approaches will be improved 113 feet to the east and 145 feet to the west.

The roadway grade of the new structure will be approximately the same as the existing facility at this location.

The existing roadway approaches will be widened to a 24-foot pavement width to provide two 12-foot lanes. 8-foot (11-foot where guardrail is required) grass shoulders will be provided on each side. This roadway will be designed as a rural local route with a 40 mile per hour design speed.

A design exception will not be required for this project.

#### **B. Reasonable and Feasible Alternatives**

Two alternatives for replacing Bridge No. 43 are described below.

##### Alternate 1 (**Preferred**): Replace on Existing Location, Offsite Detour

Bridge No. 43 will be replaced on the existing alignment with a new bridge (See Figure 2). Traffic would be detoured offsite during construction. NCDOT has coordinated with Greene County Transportation Services to provide a van service during the period of construction. Over the course of the next twelve months, Greene County Transportation will conduct a survey of the

residents in the community on the northwest quadrant of the bridge to determine how frequent the service should run. This service is already paid for out of other funding sources and will not incur additional costs to this project.

#### Alternate 2: Replace on Existing Location, Onsite Detour

Bridge No. 43 will be replaced on the existing alignment with a new bridge (see Figure 3). A temporary onsite detour to the north would be constructed with a bridge at least 70 feet long (the final length would probably be longer to minimize impacts to wetlands). The total length of the detour alignment would be 1060 feet.

### **C. Alternatives Eliminated From Further Consideration**

The “do-nothing” alternative will eventually necessitate closure of the bridge. This is not acceptable due to the traffic service provided by SR 1438.

Timber structures typically do not last beyond 30 to 40 years of age due to the natural deterioration rates of wood. Rehabilitation of a timber structure is generally practical only when a few members are damaged or prematurely deteriorated. However, past a certain degree of deterioration, timber structures become impractical to maintain and are programmed for replacement as is the case for this bridge.

An onsite detour to the south was not considered because of the impacts that would result to a church on the southwest quadrant of the project. A second reason for discarding the alternate is that the stream splits on the south side of the bridge running parallel with the causeway. A detour to this side is not practical.

A permanent realignment was ruled out in this case due to the presence of High Quality Wetlands in all four quadrants of the bridge, the split stream to the south and utility impacts to the north. A temporary detour alignment could be constructed in such a way as to assure a high probability of restoring the site upon completion of the project.

### **D. Preferred Alternative**

Bridge No. 43 will be replaced as recommended in Alternate 1 on the existing alignment as shown in Figure 2. Traffic will be detoured offsite during construction (see Figure 1).

There are two primary traffic patterns associated with this project. Of the 1700 vehicles per day currently crossing the bridge, 500 trips are generated from the community in the northwest quadrant of the project. An 8-minute (5.5-mile) additional travel time would result from the offsite detour. The remaining 1200 vehicles per day are primarily through traffic and a 2-minute (1.1-mile) additional travel time would result from the offsite detour. According to NCDOT Guidelines for Evaluation of Offsite Detours For Bridge Replacement Projects a project with a four-month duration of road closure and an additional travel time of less than 10 minutes is considered an acceptable delay if there are no mitigating circumstances.

In weighing the stated concerns above against the impacts to high quality wetlands and project costs resulting from Alternate 2 and in view of the comments of Greene County Emergency Services, and in consideration of a four month project duration, the North Carolina Department of Transportation in coordination with the Federal Highway Administration has selected Alternate 1 as being the most practicable alternative. However, the Department does not believe that a 5.5 mile detour is acceptable for pedestrians and as such will coordinate with Greene County Transportation Services to provide a free van service during project construction.

The NCDOT Division 2 Engineer concurs with this recommendation as the preferred alternative.

#### IV. ESTIMATED COSTS

The estimated costs for the build alternative is as follows:

<b>Item</b>	<b>Alternate 1</b>	<b>Alternate 2</b>
Structure	\$ 259,000	\$ 259,000
Roadway Approaches	160,000	160,000
Temporary Onsite Detour	N/A	570,000
Structure Removal	11,000	11,000
Eng. & Contingencies	70,000	150,000
<b>Total Construction Cost</b>	<b>\$ 500,000</b>	<b>\$ 1,150,000</b>
Right-of-way Costs	\$ 26,000	\$ 76,000
<b>Total Project Cost</b>	<b>\$ 526,100</b>	<b>\$ 1,226,000</b>

#### V. NATURAL RESOURCES

##### A. Physical Resources

###### Water Resources

Rainbow Creek and a stream draining into the creek are the surface water resources within the project area. The section of the Creek in the project area is located in sub-basin 03-04-07 of the Neuse River Basin. The average baseflow width is approximately 30 feet. Average depth is approximately 2.0 feet. The substrate of Rainbow Creek is composed of loamy sand. The average baseflow width of the stream draining into the Creek is approximately 2 feet. Average depth is approximately 0.5 feet. The substrate of the stream is composed of a sandy muck and flow was moderate upon site inspection. Water clarity was fair.

All streams have been assigned a best usage classification by the N.C. Division of Water Quality. The classification of Rainbow Creek in the project area is **C Sw NSW** (NCDWQ, 1998). Class **C** refers to waters suitable for aquatic life propagation and survival, fishing, wildlife, secondary recreation, and agriculture. The supplemental classification of **Sw** denotes waters that have low velocities and characteristics different from most water bodies including a low pH, low dissolved oxygen, and high organic content. The supplemental classification of **NSW** denotes Nutrient

Sensitive Waters that require additional nutrient management because they are subject to excessive growth of microscopic and/or macroscopic vegetation.

Neither High Quality Waters (HQW), Water Supplies (WS-I: undeveloped watersheds or WS-II: predominately undeveloped watersheds) nor Outstanding Resource Waters (ORW) occur within 1.0 miles of the project study area.

**Biotic Resources**

Four distinct terrestrial communities are identified in the project area (Figure 2): Coastal Plain Bottomland Hardwoods, Coastal Plain Small Stream Swamp, early successional, and maintained/disturbed. Community boundaries within the project area are well defined as shown in Figure 2. Faunal species likely to occur within the project area will exploit all community types for shelter, foraging opportunities, and/or as wildlife corridors.

**Table 1. Habitat Within Project Area.**

Community	Surface Water	Wetland	Upland	Totals
Bottomland Hardwoods	-	0.09 ac	0.55 ac	<b>0.64 ac</b>
Small Stream Swamp	-	0.11 ac	-	<b>0.11 ac</b>
Early Successional	-	-	0.01 ac	<b>0.01 ac</b>
Maintained/Disturbed	-	0.02 ac	0.63 ac	<b>0.65 ac</b>
Stream	0.01 ac	-	-	<b>0.01 ac</b>
Rainbow Creek	0.13 ac	-	-	<b>0.13 ac</b>
<b>Total</b>	<b>0.14 ac</b>	<b>0.22 ac</b>	<b>1.19 ac</b>	<b>1.55 ac</b>

**B. Jurisdictional Topics**

Rainbow Creek is jurisdictional surface water under Section 404 of the Clean Water Act.

**Summary of Anticipated Impacts**

Potential wetland communities were investigated pursuant to the 1987 Corps of Engineers *Wetlands Delineation Manual*. The three-parameter approach was used. Hydric soils, hydrophytic vegetation, and certain specific hydrologic characteristics must **all** be present for an area to be considered a wetland. **Wetlands are present within the Coastal Plain Bottomland Hardwoods, Coastal Plain Small Stream Swamp, and the maintained/disturbed community. The total area of wetlands within the project area is 0.22 ac (0.09 ha).**

Rainbow Creek and a stream draining into the creek are jurisdictional surface waters under Section 404 of the Clean Water Act (33 USC 1344). Rainbow Creek covers 0.13 acres and 188 linear feet of the project area. The stream draining into the Creek covers 0.01 acres and 195 linear feet of the project area.

## **Permits**

Nationwide Permit 23 (33 CFR 330.5(a) (23)) is likely to be applicable for all impacts to “Waters of the United States” resulting from the proposed project. This permit authorizes activities undertaken, assisted, authorized, regulated, funded, or financed in whole or part by another federal agency or department where that agency or department has determined that pursuant to the Council on Environmental Quality regulation for implementing the procedural provisions of the National Environmental Policy Act.

This project will also require a 401 Water Quality Certification from the DWQ prior to the issuance of the Nationwide Permit. Section 401 of the Clean Water Act requires that the state issue or deny water certification for any federally permitted or licensed activity that may result in a discharge to “Waters of the United States.” Section 401 Certification allows surface waters to be temporarily impacted for the duration of the construction or other land manipulation. The issuance of a 401 permit from the DWQ is a prerequisite to issuance of a Section 404 permit.

A Nationwide Permit 33 may be required if the construction plans require a temporary structure that is not covered in the NEPA document.

Projects located within the Neuse River Basin are subject to the Neuse River Buffer Rules, administered by the DWQ. These rules address loss of stream channel buffers for field verified streams appearing on the USGS Topographic Quad and/or the NRCS Soil Survey. Bridge construction is allowable provided that there are “no practical alternatives.” Written authorization is required from the DWQ. A request to the DWQ for the authorization should be included in the cover letter of the permit application package.

## **Bridge Demolition**

The timber and steel bridge will be removed entirely without any significant debris falling into the water.

## **Federally-Protected Species**

Plants and animals with federal classifications of Endangered (E), Threatened (T), Proposed Endangered (PE), and Proposed Threatened (PT) are protected under the provisions of Section 7 and Section 9 of the Endangered Species Act of 1973, as amended. Currently, the U.S. Fish & Wildlife Service lists one federally protected species for Greene County included below.

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**RED-COCKADED WOODPECKER**

**ENDANGERED**

The mature, open pine stands required by the RCW are not present in the project area. The North Carolina Natural Heritage Program database was reviewed on June 12, 2001 and revealed no records of existing populations of the RCW within 1.0 miles of the project area. No habitat for the RCW exists in the project area, thus, no impacts to RCWs will result from project construction.

**BIOLOGICAL CONCLUSION:**

**NO EFFECT**

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**VI. CULTURAL RESOURCES**

**A. Compliance Guidelines**

This project is subject to compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, implemented by the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106, codified at Title 36 CFR Part 800. Section 106 requires Federal agencies to take into account the effect of their undertakings (federally funded, licensed, or permitted) on properties included in or eligible for inclusion in the National Register of Historic Places and afford the Advisory Council a reasonable opportunity to comment on such undertakings.

**B. Historic Architecture**

The North Carolina Department of Cultural Resources has reviewed this project and determined that no structures of historic significance will be affected by the project (See attached letter).

**C. Archaeology**

The North Carolina Department of Cultural Resources has reviewed this project and determined that there are no likely archaeological resources of historic significance that could be affected by the project (See attached letter).

**VII. GENERAL ENVIRONMENTAL EFFECTS**

The project is expected to have an overall positive impact. Replacement of an inadequate bridge will result in safer traffic operations.

The project is considered to be a Federal "Categorical Exclusion" due to its limited scope and lack of substantial environmental consequences.

The bridge replacement will not have an adverse effect on the quality of the human or natural environment with the use of the current North Carolina Department of Transportation standards and specifications.

The project is not in conflict with any plan, existing land use, or zoning regulation. No change in land use is expected to result from the construction of the project.

No adverse impact on families or communities is anticipated. Potential impacts to pedestrians who normally use the bridge are being offset by a temporary van service. Right-of-Way acquisition will be limited. No relocatees are expected with implementation of the proposed alternative.

No adverse effect on public facilities or services is expected. The project is not expected to adversely affect social, economic, or religious opportunities in the area.

The proposed project will not require right-of-way acquisition or easement from any land protected under Section 4(f) of the Department of Transportation Act of 1966.

The Farmland Protection Policy Act requires all federal agencies or their representatives to consider the potential impact to prime farmland of all land acquisition and construction projects. There are no soils classified as prime, unique, or having state or local importance in the vicinity of the project.

This project is an air quality “neutral” project, so it is not required to be included in the regional emissions analysis and a project level CO analysis is not required. If vegetation is disposed of by burning, all burning shall be done in accordance with applicable local laws and regulations of the North Carolina State Implementation Plan (SIP) for air quality in compliance with 15 NCAC 2D.0520.

Noise levels could increase during construction but will be temporary. This evaluation completes the assessment requirements for highway traffic noise of Title 23, Code of Federal Regulation (CFR), Part 772 and for air quality (1990 Clean Air Act Amendments and the National Environmental Policy Act) and no additional reports are required.

An examination of records at the North Carolina Department of Environment and Natural Resources, Division of Environmental Management, Groundwater Section and the North Carolina Department of Human Resources, Solid Waste Management Section revealed no underground storage tanks or hazardous waste sites in the project area.

Greene County is a participant in the National Flood Insurance Program. There are no practical alternatives to crossing the floodplain area. Any shift in alignment will result in an impact area of about the same magnitude. The proposed project is not anticipated to increase the level or extent of upstream flood potential.

On the basis of the above discussion, it is concluded that no substantial adverse environmental impacts will result from implementation of the project.

## VII. PUBLIC INVOLVEMENT

On March 4, 2004, NCDOT conducted a Citizens' Informational Workshop to discuss the replacement of Bridge No. 43. Approximately 30 people were in attendance. Comment sheets were distributed at the workshop with extras given out to provide to those who could not attend. A one-month period was allowed for comment following the meeting. Ninety-nine comments were received in that period of time including a letter from the Town of Hookerton.

Listed below are the issues raised by those sending comments and NCDOT's response:

**Issue:** Many of those in the community on the west side of the bridge were concerned about Emergency Services and increased response time.

**Response:** This is a concern for NCDOT on every bridge project where an offsite detour is considered. Prior to the meeting NCDOT had coordinated with Emergency Services of Greene County who indicated that a mutual aid agreement could be established to provide adequate service during the short period of road closure (see attached letter).

**Issue:** The community west of the bridge (see attached letter) indicated a preference for maintaining traffic onsite stating that an offsite detour would disrupt normal travel patterns making it more difficult for those traveling to and from their jobs. The Town also stated a preference for maintenance of traffic onsite.

**Response:** While the NCDOT agrees with the validity of the community's concerns, we have elected to detour traffic offsite for the reasons stated in Section III Part D of this document.

**Issue:** A significant number of pedestrians using the bridge that an offsite detour would not accommodate.

**Response:** The Department concurs with the assessment and is coordinating with Greene County Transportation to provide a van service during the period of construction. Within the next twelve months, Greene County Transportation will be conducting a survey of the residents in the community on the northwest quadrant of the bridge to determine how frequent the service should run. Service will be provided for the duration of road closure.

**Issue:** The town and community have requested that the final bridge be both pedestrian and bicycle friendly. The town also prefers bicycle/pedestrian friendly rail.

**Response:** The new bridge will be designed with a sidewalk on the north side with pedestrian safe rail. The roadway cross section will be sufficient to accommodate bicycle travel with bicycle safe rail on the south side.

**Issue:** The Town and a number of those commenting indicated that the current bridge is responsible for flooding that occurs on a regular basis.

**Response:** NCDOT's Hydraulics Unit has evaluated the area and also noted frequent flooding but the cause is not the existing bridge or causeways. The flooding is the result of debris clogging Rainbow Creek from recent hurricanes. Even if the bridge were significantly lengthened and raised, the flooding would still occur to the same degree. The proposed hydraulic design meets the design criteria for this facility and in the event that the creek is ever cleared of debris, the flooding problem should subside considerably.

**Issue:** The Town has plans of adding a sidewalk and lighting to the approaches of the bridge. They have requested that the bridge be designed with to accommodate lighting.

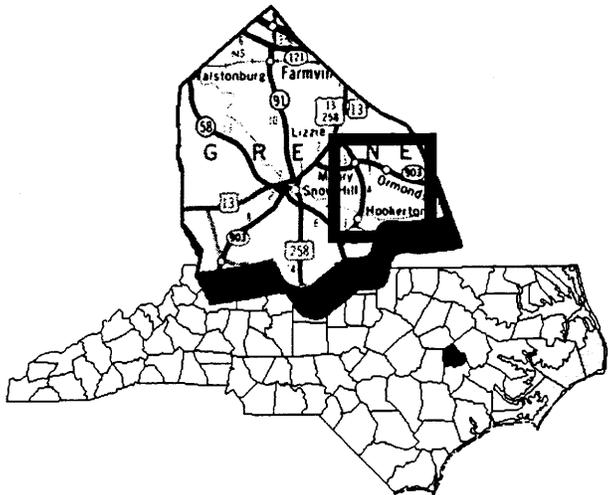
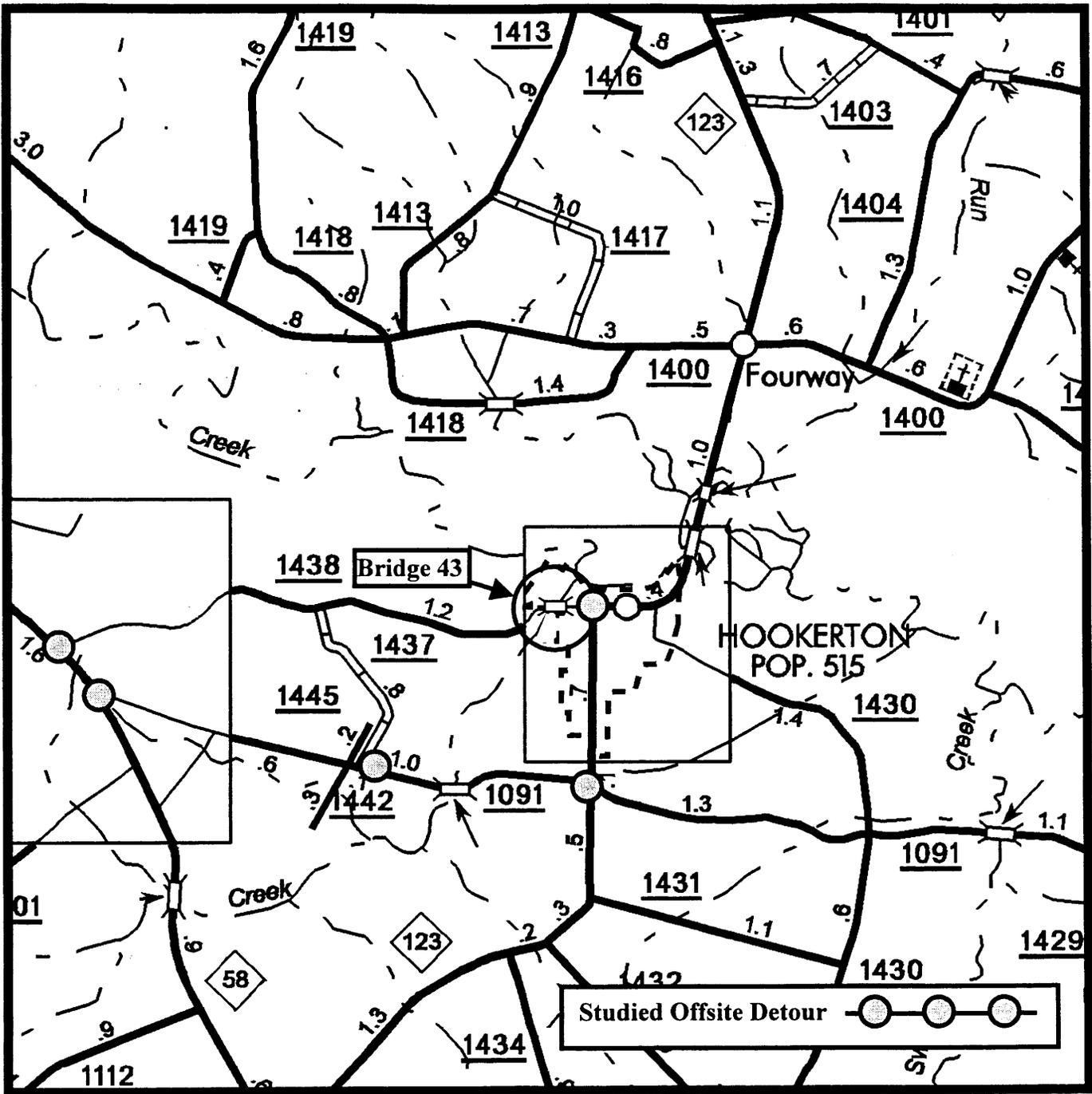
**Response:** NCDOT will include the accommodations in the design for the bridge.

**Issue:** The Town has requested that the project include curb and gutter from Faith Hope Road to the intersection of NC 123.

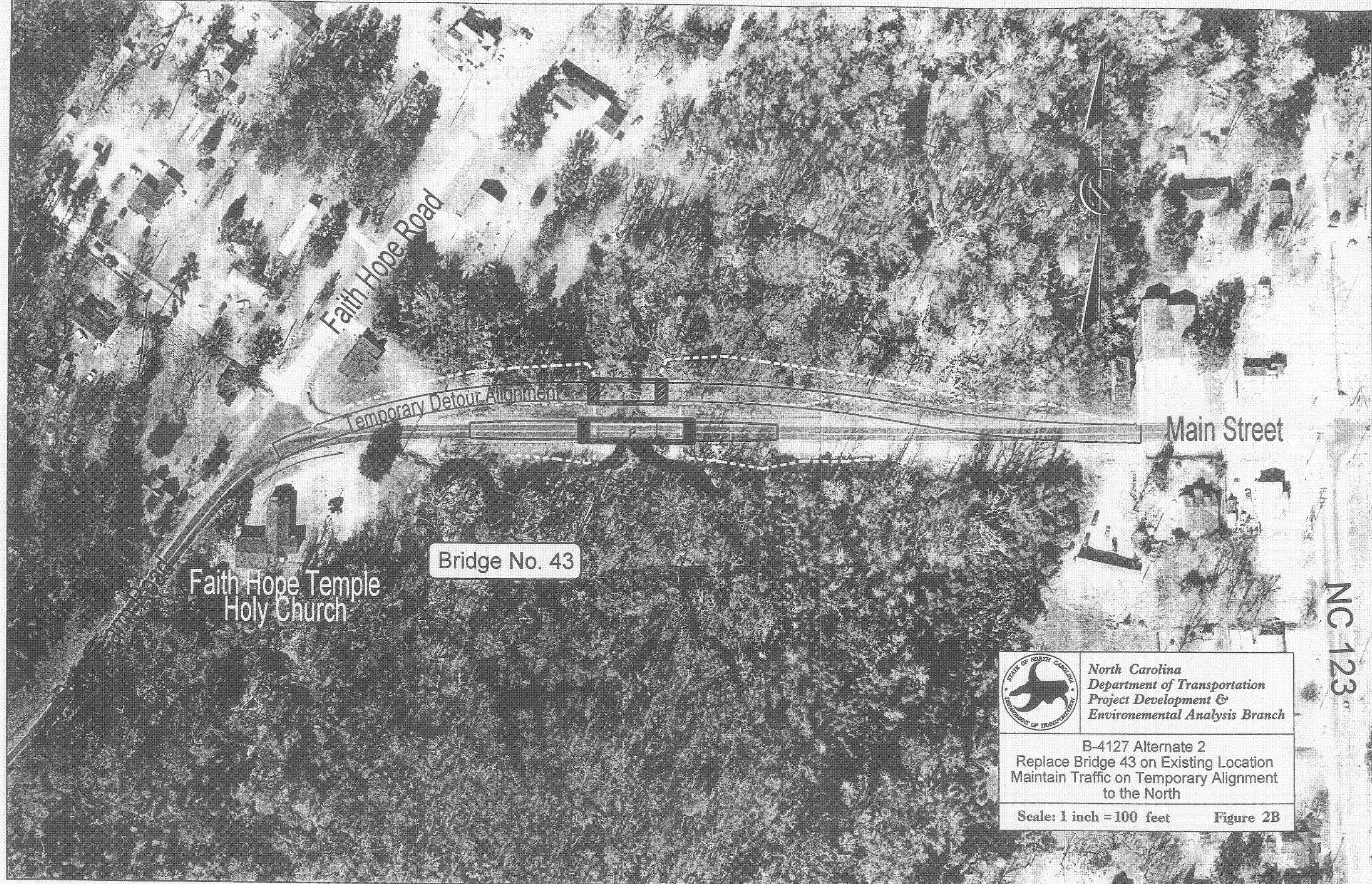
**Response:** Within the currently proposed project limits, NCDOT will include sidewalk and curb and gutter on the north side of the project. The south side will remain a grass shoulder. As a separate project, the Town of Hookerton is working with Division 2 to extend sidewalks the limits proposed by the town.

**Issue:** The Town has requested better directional signs to Hookerton.

**Response:** This concern has been forwarded to the Division Office for consideration.



	<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT &amp; ENVIRONMENTAL ANALYSIS BRANCH</p>
<p align="center"><b>GREENE COUNTY REPLACE BRIDGE NO. 43 ON SR 1438 OVER RAINBOW CREEK B-4127</b></p>	
<p align="right">Figure 1</p>	



Faith Hope Road

Temporary Detour Alignment

Main Street

Bridge No. 43

Faith Hope Temple  
Holy Church

NC 123



North Carolina  
Department of Transportation  
Project Development &  
Environmental Analysis Branch

B-4127 Alternate 2  
Replace Bridge 43 on Existing Location  
Maintain Traffic on Temporary Alignment  
to the North

Scale: 1 inch = 100 feet      Figure 2B



Faith Hope Road

Main Street

Bridge No. 43

Faith Hope Temple  
Holy Church



North Carolina  
Department of Transportation  
Project Development &  
Environmental Analysis Branch

B-4127 Alternate 1  
Replace Bridge 43 on Existing Location  
Detour Traffic Offsite

Scale: 1 inch = 100 feet      Figure 2A

NC 123

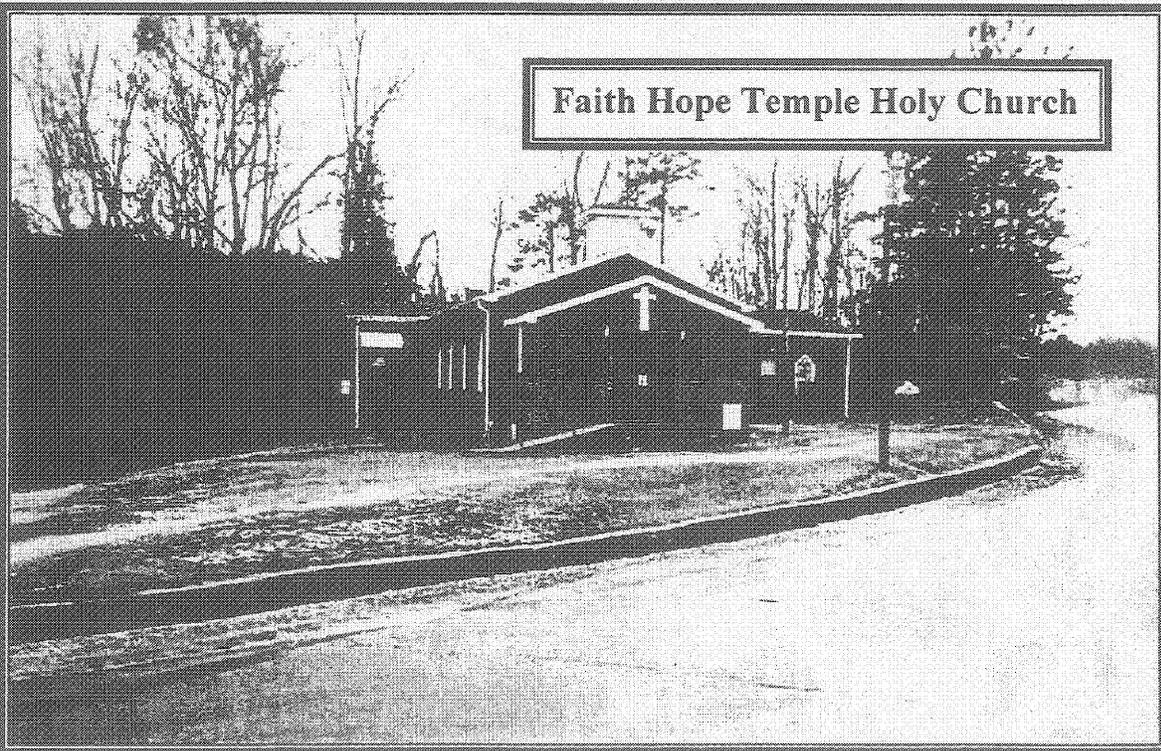
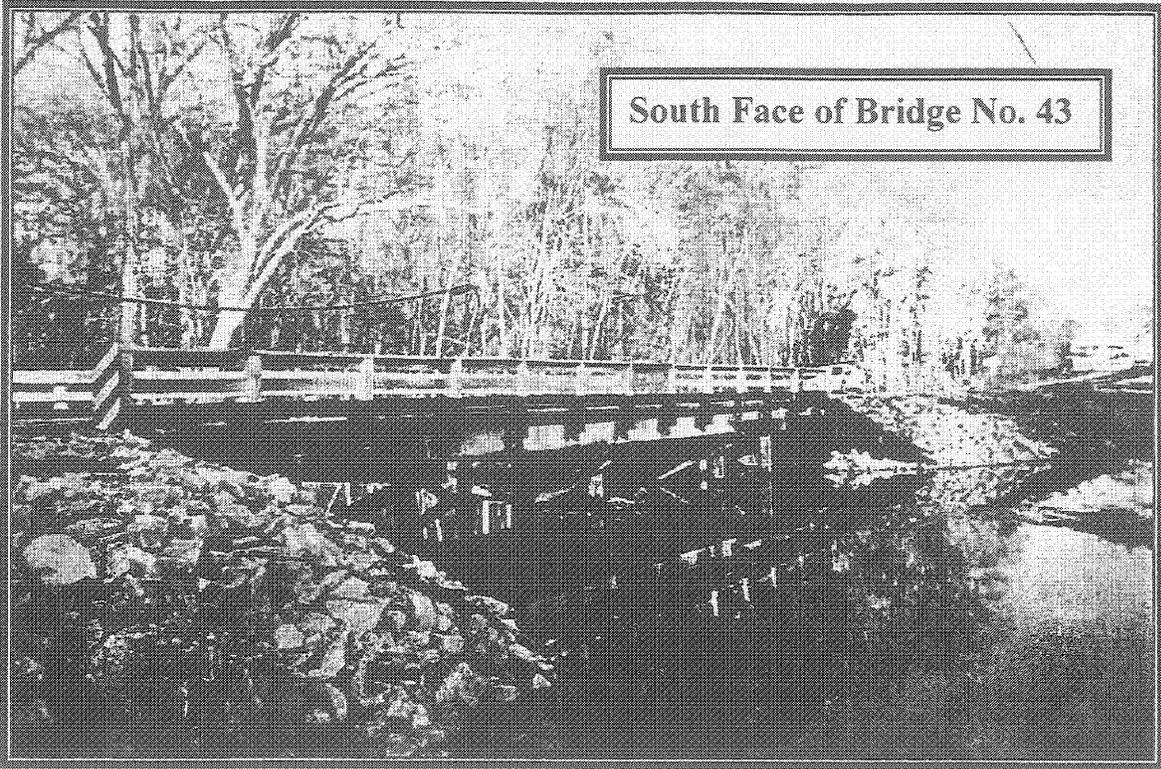


Figure 3

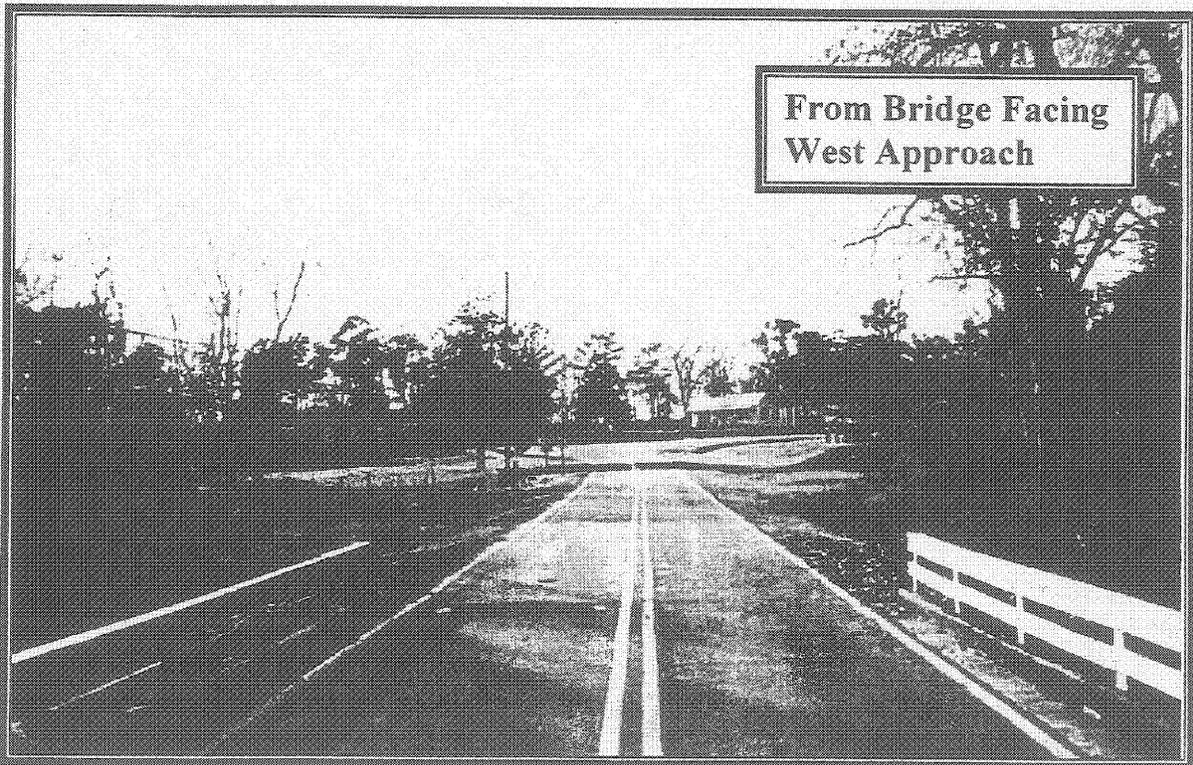
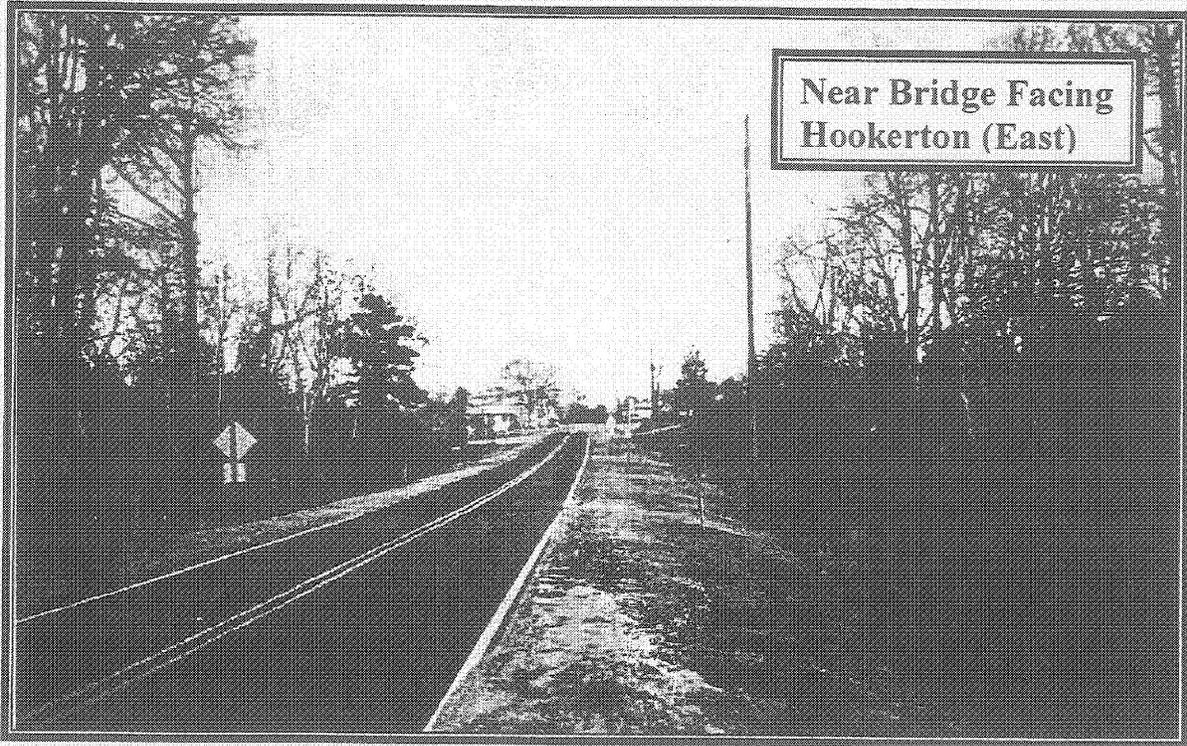


Figure 4

# GREENE COUNTY DEPARTMENT OF EMERGENCY SERVICES

31 MARTIN L. KING JR. PARKWAY  
NOW HILL, NC 28580

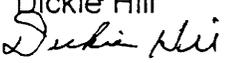
DICKIE HILL  
DIRECTOR  
(252) 747-2544  
(252) 747-7667  
(252) 747-7531  
FAX (252) 747-4222

Date: 7-9-01

NC Department of Transportation  
Project Development & Environmental Analysis  
Attn: Davis Moore  
1548 Mail Service Center  
Raleigh, NC 27699-1548

Subject: Replacement of Bridge No.'s 43, on SR 1438 , 49, on SR 1434, and 46 on SR 1091 in Greene County:

Road closures can be handled by a combination of re-routing and mutual aid arrangements with surrounding Emergency Services Providers for the above identified bridges.

Dickie Hill  
  
Emergency Manager

# Greene County Public Schools

301 Kingold Boulevard

Snow Hill, North Carolina 28580

Superintendent  
Stephen Mazingo

Board Members  
Patricia Lee Adams, Chairman  
Jerry Carraway, Vice-Chairman  
Jasper Barfield Jr  
Jeff Carmon  
Martha B. Carraway

Date: 6-28-01

To: Davis Moore

From: Ricky Whaley

Ref: Bridge Replacements

Dear Mr. Davis,

I am responding to your letters in reference to bridge replacements in Greene County on bridge numbers #49, #46, & #43. My concerns on these bridges are as follows.

Bridge #49 No buses cross this bridge at the Greene, Lenoir Co. line

Bridge #43 10 passes per day, re-routing will be ok

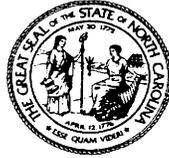
Bridge #46 6 passes per day, re-routing will be long and time consuming.  
Buses will have to be routed into Lenoir County.

If you need any thing else please call me.

Ricky Whaley  
Transportation Director  
Greene County Schools  
252-747-3665

*To prosper we must love, protect and educate our children.*

Telephone (252)747-3425 • Fax (252)747-5942



North Carolina Department of Cultural Resources  
State Historic Preservation Office

David L. S. Brook, Administrator

*John Williams*

Michael F. Easley, Governor  
Lisbeth C. Evans, Secretary  
Jeffrey J. Crow, Deputy Secretary  
Office of Archives and History

Division of Historical Resources  
David J. Olson, Director

March 22, 2002

MEMORANDUM

TO: William D. Gilmore, Manager  
Project Development and Environmental Analysis Branch  
Division of Highways  
Department of Transportation

FROM: David Brook *DLB for David Brook*

SUBJECT: Replace Bridge No. 43 and SR 1438 over Creek, B-4127,  
Greene County, ER 02-8560

Thank you for your memorandum of September 25, 2001, concerning the above project.

There are no known archaeological sites within the project area. Based on our knowledge of the area, it is unlikely that any archaeological resources that may be eligible for conclusion in the National Register of Historic Places will be affected by the project. We, therefore, recommend that no archaeological investigation be conducted in connection with this project.

Because the Department of Transportation is in the process of surveying and evaluating the National Register eligibility of all of its concrete bridges, we are unable to comment on the National Register eligibility of the subject bridge. Please contact Mary Pope Furr, in the Architectural History Section, to determine if further study of the bridge is needed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act 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, contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763. In all future communication concerning this project, please cite the above-referenced tracking number.

DB:kgc

	Location	Mailing Address	Telephone/Fax
Administration	507 N. Blount St, Raleigh, NC	4617 Mail Service Center, Raleigh 27699-4617	(919) 733-4763 • 733-8653
Restoration	515 N. Blount St, Raleigh, NC	4613 Mail Service Center, Raleigh 27699-4613	(919) 733-6547 • 715-4801
Survey & Planning	515 N. Blount St, Raleigh, NC	4618 Mail Service Center, Raleigh 27699-4618	(919) 733-4763 • 715-4801

State of North Carolina  
Department of Environment  
and Natural Resources  
Division of Marine Fisheries

Michael F. Easley, Governor  
William G. Ross, Jr., Secretary  
Preston P. Pate, Jr., Director



MEMORANDUM:

TO: William Goodwin, Jr.

THROUGH: Mike Street 

FROM: Sean McKenna

DATE: June 12, 2002

SUBJECT: Natural System Report, Replacement of Bridge Numbers 43, 49, 46, 98, 118, 136, 77, 108, 4, and 65.

The following comments by the North Carolina Division of Marine Fisheries (NCDMF) on the Natural System Reports for the replacement of the subject bridges are offered pursuant to G.S. 113-131. The NCDMF concurs with the findings in these reports and agrees with DOT's plan to protect water quality (BMP's for erosion control and surface waters protection) during construction. The NCDMF encourages DOT to bridge all wetlands for these replacement projects.

**Bridge Numbers 43, 49, and 46.**

In the Natural System Reports for these three bridges, DOT makes no mention of anadromous fish utilizing the creeks that these bridges traverse. While the NCDMF does not have specific data for these particular creeks, we do have data that show that river herring (blueback and alewife), American shad and hickory shad utilize the waters of Contentnea Creek for spawning, and nursery areas upstream of the confluence of these creeks. In the absence of specific data, the NCDMF requests that DOT take a risk-averse approach to these three areas and impose an in-water moratorium from February through September to protect adult, egg, and larval stages of these migratory species. If data from the Wildlife Resource Commission or a stream survey shows that these areas do not support anadromous fish species, then the NCDMF will withdraw its request for a moratorium.

**Bridge No. 98**

NCDMF fisheries data for this portion of Conetoe Creek are unavailable. At the confluence of this creek and the Tar River, data show that the Tar River is used as spawning and nursery areas for river herring (blueback and alewife), shads (American, and hickory), and striped bass. In the absence of specific data, the NCDMF requests that DOT take a risk-averse approach to this project and impose an in-water moratorium from February through September to protect adult, egg, and larval stages of these migratory species. If data from the Wildlife Resource Commission

or a stream survey show that these areas do not support anadromous fish species, then the NCDMF will withdrawal its request for a moratorium.

**Bridge No. 118**

NCDMF fisheries data for this portion of Grindle Creek are unavailable. At the confluence of this creek and the Tar River, data show that the Tar River is used as spawning and nursery areas for river herring (blueback, and alewife), shads (American, and hickory), and striped bass. In the absence of specific data the NCDMF requests that DOT take a risk-averse approach to this project and impose an in-water moratorium from February through September to protect adult, egg, and larval stages of these migratory species. If data from the Wildlife Resource Commission or a stream survey show that these areas do not support anadromous species, then the NCDMF will withdrawal its request for a moratorium.

**Bridge No. 4**

NCDMF fisheries data for this portion of Bay River are unavailable. However, there are numerous Primary Nursery Areas (PNA's) located downstream of this site. All care must be taken to protect these critical habitat areas. Additionally, if data from the Wildlife Resource Commission show that this area is used by anadromous fish, species then an in-water moratorium from February through September should be utilized.

**Bridge No. 65**

The proposed project is located just upstream of the confluence of this creek and the Neuse River. Given its close proximity to the Neuse and the high likelihood (creeks upstream and down stream of this site are PNA's) that this creek is utilized by estuarine fisheries species (blue crab, shrimp, spot, Atlantic croaker, southern flounder, etc), the NCDMF requests that no in-water work be conducted from April 1 through October 1. The use of silt curtains as proposed would interfere with the ingress of juveniles into this system. Stranding data from the WRC and personal observations from the NCDMF indicate that green and loggerhead sea turtles are also found in this area in addition to the Kemp's ridley sea turtle. The NCDMF has caught Kemp's and loggerheads in the shallow waters around Minnesott Beach upstream of this creek.

**Bridge No. 136, 108, and 77**

The NCDMF sees no problem with the course of action proposed for the replacement of these bridges.



☐ North Carolina Wildlife Resources Commission ☐

Charles R. Fullwood, Executive Director

TO: William T. Goodwin, Jr., PE, Unit Head  
Bridge Replacement & Environmental Analysis Branch

FROM: David Cox, Highway Project Coordinator  
Habitat Conservation Program

DATE: May 22, 2002

SUBJECT: NCDOT Bridge Replacements:  
Beaufort County – Bridge No. 77, NC 99, Pantego Creek, B-3611  
Beaufort County – Bridge No. 136, SR 1626, Canal, B-4024  
Bertie County – Bridge No. 45, SR 1110, Choowatic Creek, B-4026  
Brunswick County – Bridge No. 72, NC 179, Jinnys Branch, B-4031  
Chatham County – Bridge No. 142, SR 2170, Meadow Creek, B-4065  
Craven County – Bridge No. 10, SR 1111, Brices Creek, B-4086  
Cumberland County – Bridge No. 85, I-95 Business, Cape Fear River, B-4091  
Durham County – Bridge No. 5, SR 1616, Mountain Creek, B-4110  
Edgecombe County – Bridge No. 19, SR 1135, Cokey Swamp, B-4111  
Franklin County – Bridge No. 15, SR 1106, Little River, B-4113  
Granville County – Bridge No. 84, SR 1141, Tar River, B-4124  
Greene County – Bridge No. 46, SR 1091, Wheat Swamp Creek, B-4125  
Greene/Lenoir Cos. – Bridge No. 49, SR 1434, Wheat Swamp Creek, B-4126  
Greene County – Bridge No. 43, SR 1438, Rainbow Creek, B-4127  
Halifax County – Bridge No. 11, SR 1001, Jacket Swamp, B-4133  
Harnett County – Bridge No. 35, NC 42, Norfolk and Southern Railway, B-4137  
Hertford County – Bridge No. 67, SR 1118, Ahoskie Creek, B-4150  
Hyde County – Bridge No. 108, SR 1340, Old State Canal, B-4154  
Jones County – Bridge No. 7, SR 1129, Big Chinquapin Branch, B-4169  
Lee County – Bridge No. 4, SR 1423, Gum Fork, B-4171  
Martin County – Bridge No. 5, SR 1417, Conoho Creek, B-4187  
Nash County – Bridge No. 56, SR 1544, Tar River, B-4211  
Onslow County – Bridge No. 24, US 17, New River, B-4214  
Onslow County – Bridge No. 19, NC 210, Stones Creek, B-4215  
Pamlico County – Bridge No. 65, SR 1304, UT to Neuse River, B-4219  
Pamlico County – Bridge No. 4, SR 1344, South Prong Bay River, B-4221  
Perquimans County – Bridge No. 69, SR 1222, Mill Creek, B-4227  
Pitt County – Bridge No. 98, SR 1407, Conetoe Creek, B-4234  
Pitt County – Bridge No. 118, SR 1538, Grindle Creek, B-4235  
Randolph County – Bridge No. 34, SR 1304, Second Creek, B-4242

Randolph County – Bridge No. 257, SR 2824, Vestal Creek, B-4245  
Richmond County – Bridge No. 129, SR 1321, Big Mountain Creek, B-4247  
Sampson County – Bridge No. 150, SR 1006, Little Coharie Creek, B-4268  
Sampson County – Bridge No. 191, SR 1845, Great Coharie Creek, B-4272  
Vance County – Bridge No. 3, SR 1107, Ruin Creek, B-4298  
Wake County – Bridge No. 189, SR 2333, Little River, B-4305  
Washington County – Bridge No. 29, SR 1163, Maul Creek, B-4314  
Wilson County – Bridge No. 52, SR 1131, Turkey Creek, B-4327  
Wilson County – Bridge No. 3, SR 1634, Great Swamp, B-4328

Biologists with the N. C. Wildlife Resources Commission (NCWRC) have reviewed the information provided and have the following preliminary comments on the subject project. Our comments are provided in accordance with provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

Our standard recommendations for bridge replacement projects of this scope are as follows:

1. We generally prefer spanning structures. Spanning structures usually do not require work within the stream and do not require stream channel realignment. The horizontal and vertical clearances provided by bridges allows for human and wildlife passage beneath the structure, does not block fish passage, and does not block navigation by canoeists and boaters.
2. Bridge deck drains should not discharge directly into the stream.
3. Live concrete should not be allowed to contact the water in or entering into the stream.
4. If possible, bridge supports (bents) should not be placed in the stream.
5. If temporary access roads or detours are constructed, they should be removed back to original ground elevations immediately upon the completion of the project. Disturbed areas should be seeded or mulched to stabilize the soil and native tree species should be planted with a spacing of not more than 10'x10'. If possible, when using temporary structures the area should be cleared but not grubbed. Clearing the area with chain saws, mowers, bush-hogs, or other mechanized equipment and leaving the stumps and root mat intact, allows the area to revegetate naturally and minimizes disturbed soil.
6. A clear bank (riprap free) area of at least 10 feet should remain on each side of the stream underneath the bridge.
7. In trout waters, the N.C. Wildlife Resources Commission reviews all U.S. Army Corps of Engineers nationwide and general '404' permits. We have the option of requesting additional measures to protect trout and trout habitat and we can recommend that the project require an individual '404' permit.
8. In streams that contain threatened or endangered species, NCDOT biologist Mr. Tim Savidge should be notified. Special measures to protect these sensitive species may be required. NCDOT should also contact the U.S. Fish and Wildlife Service for information on requirements of the Endangered Species Act as it relates to the project.

9. In streams that are used by anadromous fish, the NCDOT official policy entitled "Stream Crossing Guidelines for Anadromous Fish Passage (May 12, 1997)" should be followed.
10. In areas with significant fisheries for sunfish, seasonal exclusions may also be recommended.
11. Sedimentation and erosion control measures sufficient to protect aquatic resources must be implemented prior to any ground disturbing activities. Structures should be maintained regularly, especially following rainfall events.
12. Temporary or permanent herbaceous vegetation should be planted on all bare soil within 15 days of ground disturbing activities to provide long-term erosion control.
13. All work in or adjacent to stream waters should be conducted in a dry work area. Sandbags, rock berms, cofferdams, or other diversion structures should be used where possible to prevent excavation in flowing water.
14. Heavy equipment should be operated from the bank rather than in stream channels in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into streams.
15. Only clean, sediment-free rock should be used as temporary fill (causeways), and should be removed without excessive disturbance of the natural stream bottom when construction is completed.
16. During subsurface investigations, equipment should be inspected daily and maintained to prevent contamination of surface waters from leaking fuels, lubricants, hydraulic fluids, or other toxic materials.

If corrugated metal pipe arches, reinforced concrete pipes, or concrete box culverts are used:

1. The culvert must be designed to allow for aquatic life and fish passage. Generally, the culvert or pipe invert should be buried at least 1 foot below the natural streambed (measured from the natural thalweg depth). If multiple barrels are required, barrels other than the base flow barrel(s) should be placed on or near stream bankfull or floodplain bench elevation (similar to Lyonsfield design). These should be reconnected to floodplain benches as appropriate. This may be accomplished by utilizing sills on the upstream and downstream ends to restrict or divert flow to the base flow barrel(s). Silled barrels should be filled with sediment so as not to cause noxious or mosquito breeding conditions. Sufficient water depth should be provided in the base flow barrel(s) during low flows to accommodate fish movement. If culverts are longer than 40-50 linear feet, alternating or notched baffles should be installed in a manner that mimics existing stream pattern. This should enhance aquatic life passage: 1) by depositing sediments in the barrel, 2) by maintaining channel depth and flow regimes, and 3) by providing resting places for fish and other aquatic organisms. In essence, base flow barrel(s) should provide a continuum of water depth and channel width without substantial modifications of velocity.

2. If multiple pipes or cells are used, at least one pipe or box should be designed to remain dry during normal flows to allow for wildlife passage.
3. Culverts or pipes should be situated along the existing channel alignment whenever possible to avoid channel realignment. Widening the stream channel must be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.
4. Riprap should not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be professionally designed, sized, and installed.

In most cases, we prefer the replacement of the existing structure at the same location with road closure. If road closure is not feasible, a temporary detour should be designed and located to avoid wetland impacts, minimize the need for clearing and to avoid destabilizing stream banks. If the structure will be on a new alignment, the old structure should be removed and the approach fills removed from the 100-year floodplain. Approach fills should be removed down to the natural ground elevation. The area should be stabilized with grass and planted with native tree species. If the area reclaimed was previously wetlands, NCDOT should restore the area to wetlands. If successful, the site may be utilized as mitigation for the subject project or other projects in the watershed.

Project specific comments:

1. Beaufort County – Bridge No. 77, NC 99, Pantego Creek, B-3611  
YELLOW LIGHT. Biologists indicate that a bridge is preferred. There is potential for wetland impacts at this location due to the width of stream and site elevation. Due to the potential for anadromous fish at this location, NCDOT should closely follow the “Stream Crossing Guidelines for Anadromous Fish Passage”. This includes a moratorium on work within jurisdictional waters from February 15 to June 15.
2. Beaufort County – Bridge No. 136, SR 1626, Canal, B-4024  
GREEN LIGHT. No concerns indicated by biologists. Standard conditions should be appropriate.
3. Beaufort County – Bridge No. 136, SR 1626, Canal, B-4024  
GREEN LIGHT. No concerns indicated by biologists. Standard conditions should be appropriate.
4. Bertie County – Bridge No. 45, SR 1110, Choowatic Creek, B-4026  
YELLOW LIGHT. Due to the potential for anadromous fish at this location, NCDOT should closely follow the “Stream Crossing Guidelines for Anadromous Fish Passage”. This includes a moratorium on work within jurisdictional waters from February 15 to June 15.
5. Brunswick County – Bridge No. 72, NC 179, Jinnys Branch, B-4031  
YELLOW LIGHT. Due to the potential for anadromous fish at this location, NCDOT should closely follow the “Stream Crossing Guidelines for Anadromous Fish Passage”. This includes a moratorium on work within jurisdictional waters from February 15 to June 15. There is also the potential for impacts to high quality coastal wetlands at this location. NCDOT should employ all measures necessary to avoid impacts to these resources.

6. Chatham County – Bridge No. 142, SR 2170, Meadow Creek, B-4065  
YELLOW LIGHT. If aquatic surveys indicate the potential for impacts to the Cape Fear Shiner, NCDOT should contact USFWS and NCWRC biologists for an on-site meeting to discuss special measures to reduce potential adverse effects. Standard recommendations apply.

7. Craven County – Bridge No. 10, SR 1111, Brices Creek, B-4086  
YELLOW LIGHT. Due to the potential for anadromous fish at this location, NCDOT should closely follow the “Stream Crossing Guidelines for Anadromous Fish Passage”. This includes a moratorium on work within jurisdictional waters from February 15 to June 15. Biologists indicate that a bridge is preferred. There is also the potential for impacts to high quality wetlands at this site. NCDOT should avoid or minimize impacts to these wetlands. Other standard recommendations apply.

8. Cumberland County – Bridge No. 85, I-95 Business, Cape Fear River, B-4091  
YELLOW LIGHT. Due to the potential for anadromous fish at this location, NCDOT should closely follow the “Stream Crossing Guidelines for Anadromous Fish Passage”. This includes a moratorium on work within jurisdictional waters from February 15 to June 15. Other standard recommendations apply.

9. Durham County – Bridge No. 5, SR 1616, Mountain Creek, B-4110  
YELLOW LIGHT. Due to the DWQ water quality classification, we recommend High Quality Sedimentation and Erosion Control Measures be used. Other standard recommendations apply.

10. Edgecombe County – Bridge No. 19, SR 1135, Cokey Swamp, B-4111  
YELLOW LIGHT. If aquatic surveys indicate the potential for impacts to listed mussels, NCDOT should contact USFWS and NCWRC biologists for an on-site meeting to discuss special measures to reduce potential adverse effects. Standard recommendations apply.

11. Franklin County – Bridge No. 15, SR 1106, Little River, B-4113  
RED LIGHT. Due to the potential for anadromous fish at this location, NCDOT should closely follow the “Stream Crossing Guidelines for Anadromous Fish Passage”. This includes a moratorium on work within jurisdictional waters from February 15 to June 15. There are records of state and federally listed mussels in the project vicinity. Therefore, due to the potential for impacts to listed species we request that NCDOT perform a mussel survey prior to the construction of this bridge. An on-site meeting should be held with NCWRC and USFWS biologists, prior to the ‘404’ permit application, to discuss bridge design and construction. We request NCDOT incorporate High Quality Sedimentation and Erosion Control Measures into the design of this project. Other standard recommendations apply.

12. Granville County – Bridge No. 84, SR 1141, Tar River, B-4124  
RED LIGHT. The Tar River supports a good fishery for sunfish, therefore, we recommend a moratorium on work within jurisdictional waters from April 1 to June 15. There are records of state and federally listed mussels in the project vicinity. Therefore, due to the potential for impacts to listed species we request that NCDOT perform a mussel survey prior to the construction of this bridge. An on-site meeting should be held with NCWRC and USFWS biologists, prior to the ‘404’ permit application, to discuss bridge design and construction. We request NCDOT incorporate High Quality Sedimentation and Erosion Control Measures into the design of this project. Other standard recommendations apply.

13. Greene County – Bridge No. 46, SR 1091, Wheat Swamp Creek, B-4125  
YELLOW LIGHT. There is the potential for impacts to high quality wetlands at this site. NCDOT should avoid or minimize impacts to these wetlands. Standard recommendations apply.
14. Greene/Lenoir Cos. – Bridge No. 49, SR 1434, Wheat Swamp Creek, B-4126  
YELLOW LIGHT. There is the potential for impacts to high quality wetlands at this site. NCDOT should avoid or minimize impacts to these wetlands. Standard recommendations apply.
15. Greene County – Bridge No. 43, SR 1438, Rainbow Creek, B-4127  
YELLOW LIGHT. There is the potential for impacts to high quality wetlands at this site. NCDOT should avoid or minimize impacts to these wetlands. Standard recommendations apply.
16. Halifax County – Bridge No. 11, SR 1001, Jacket Swamp, B-4133  
YELLOW LIGHT. If aquatic surveys indicate the potential for impacts to listed mussels, NCDOT should contact USFWS and NCWRC biologists for an on-site meeting to discuss special measures to reduce potential adverse effects. Standard recommendations apply.
17. Harnett County – Bridge No. 35, NC 42, Norfolk and Southern Railway, B-4137  
GREEN LIGHT. No comment.
18. Hertford County – Bridge No. 67, SR 1118, Ahoskie Creek, B-4150  
YELLOW LIGHT. Due to the potential for anadromous fish at this location, NCDOT should closely follow the “Stream Crossing Guidelines for Anadromous Fish Passage”. This includes a moratorium on work within jurisdictional waters from February 15 to June 15. Other standard comments apply.
19. Hyde County – Bridge No. 108, SR 1340, Old State Canal, B-4154  
GREEN LIGHT. Standard comments apply.
20. Jones County – Bridge No. 7, SR 1129, Big Chinquapin Branch, B-4169  
YELLOW LIGHT. Big Chinquapin Branch supports a good fishery for sunfish; therefore, we recommend a moratorium on work within jurisdictional waters from April 1 to June 15. There is also the potential for impacts to high quality wetlands at this site. NCDOT should avoid or minimize impacts to these wetlands. Other standard recommendations apply.
21. Lee County – Bridge No. 4, SR 1423, Gum Fork, B-4171  
GREEN LIGHT. Standard comments apply.
22. Martin County – Bridge No. 5, SR 1417, Conoho Creek, B-4187  
YELLOW LIGHT. Due to the potential for anadromous fish at this location, NCDOT should closely follow the “Stream Crossing Guidelines for Anadromous Fish Passage”. This includes a moratorium on work within jurisdictional waters from February 15 to June 15. Biologists indicate that a bridge is preferred. There is also the potential for impacts to high quality wetlands at this site. NCDOT should avoid or minimize impacts to these wetlands. Other standard comments apply.
23. Nash County – Bridge No. 56, SR 1544, Tar River, B-4211

YELLOW LIGHT. The Tar River supports a good fishery for sunfish; therefore, we recommend a moratorium on work within jurisdictional waters from April 1 to June 15. If aquatic surveys indicate the potential for impacts to listed mussels, NCDOT should contact USFWS and NCWRC biologists for an on-site meeting to discuss special measures to reduce potential adverse effects. Other standard recommendations apply.

24. Onslow County – Bridge No. 24, US 17, New River, B-4214

YELLOW LIGHT. The New River is designated as a Primary Nursery Area on the downstream side of the existing US 17 bridge. Due to the potential for adult and larval stages of anadromous fish at this location, NCDOT should closely follow the “Stream Crossing Guidelines for Anadromous Fish Passage”. This includes a moratorium on work within jurisdictional waters from February 15 to September 30. Other standard recommendations apply.

25. Onslow County – Bridge No. 19, NC 210, Stones Creek, B-4215

YELLOW LIGHT. Due to the potential for anadromous fish at this location, NCDOT should closely follow the “Stream Crossing Guidelines for Anadromous Fish Passage”. This includes a moratorium on work within jurisdictional waters from February 15 to June 15. Biologists indicate that a bridge is preferred. There is also the potential for impacts to high quality wetlands at this site. NCDOT should avoid or minimize impacts to these wetlands. Other standard comments apply.

26. Pamlico County – Bridge No. 65, SR 1304, UT to Neuse River, B-4219

YELLOW LIGHT. There is the potential for impacts to high quality coastal wetlands at this location. NCDOT should employ all measures necessary to avoid impacts to these resources. Other standard comments apply.

27. Pamlico County – Bridge No. 4, SR 1344, South Prong Bay River, B-4221

YELLOW LIGHT. There is the potential for impacts to high quality wetlands at this site. NCDOT should avoid or minimize impacts to these wetlands. Other standard comments apply.

28. Pender County – Bridge No. 21, NC 210, NE Cape Fear River, B-4223

RED LIGHT. There are records of the federally listed Shortnose sturgeon in the NE Cape Fear in the project area. Due to the potential for anadromous fish and Shortnose sturgeon at this location, NCDOT should closely follow the “Stream Crossing Guidelines for Anadromous Fish Passage”. This includes a moratorium on work within jurisdictional waters from February 1 to June 15. Biologists indicate that a bridge is preferred. There is also the potential for impacts to high quality wetlands at this site. NCDOT should avoid or minimize impacts to these wetlands. Other standard comments apply.

29. Perquimans County – Bridge No. 69, SR 1222, UT to Mill Creek, B-4227

YELLOW LIGHT. Due to the potential for anadromous fish at this location, NCDOT should closely follow the “Stream Crossing Guidelines for Anadromous Fish Passage”. This includes a moratorium on work within jurisdictional waters from February 15 to June 15. There is also the potential for impacts to high quality wetlands at this site. NCDOT should avoid or minimize impacts to these wetlands. Other standard comments apply.

30. Pitt County – Bridge No. 98, SR 1407, Conetoe Creek, B-4234

GREEN LIGHT. Standard comments apply.

31. Pitt County – Bridge No. 118, SR 1538, Grindle Creek, B-4235

YELLOW LIGHT. If aquatic surveys indicate the potential for impacts to listed mussels, NCDOT should contact USFWS and NCWRC biologists for an on-site meeting to discuss special measures to reduce potential adverse effects. There is also the potential for impacts to high quality wetlands at this site. NCDOT should avoid or minimize impacts to these wetlands. Other standard comments apply.

32. Randolph County – Bridge No. 34, SR 1304, Second Creek, B-4242  
GREEN LIGHT. Standard comments apply.

33. Randolph County – Bridge No. 257, SR 2824, Vestal Creek, B-4245  
YELLOW LIGHT. If aquatic surveys indicate the potential for impacts to listed mussels, NCDOT should contact USFWS and NCWRC biologists for an on-site meeting to discuss special measures to reduce potential adverse effects. Other standard comments apply.

34. Richmond County – Bridge No. 129, SR 1321, Big Mountain Creek, B-4247  
YELLOW LIGHT. If aquatic surveys indicate the potential for impacts to listed mussels, NCDOT should contact USFWS and NCWRC biologists for an on-site meeting to discuss special measures to reduce potential adverse effects. Other standard comments apply.

35. Sampson County – Bridge No. 150, SR 1006, Little Coharie Creek, B-4268  
YELLOW LIGHT. Little Coharie Creek supports a good fishery for sunfish; therefore, we recommend a moratorium on work within jurisdictional waters from April 1 to June 15. There is also the potential for impacts to high quality wetlands at this site. NCDOT should avoid or minimize impacts to these wetlands. Other standard comments apply.

36. Sampson County – Bridge No. 191, SR 1845, Great Coharie Creek, B-4272  
YELLOW LIGHT. Great Coharie Creek supports a good fishery for sunfish; therefore, we recommend a moratorium on work within jurisdictional waters from April 1 to June 15. Biologists indicate that a bridge is preferred. There is also the potential for impacts to high quality wetlands at this site. NCDOT should avoid or minimize impacts to these wetlands. Other standard comments apply.

37. Vance County – Bridge No. 3, SR 1107, Ruin Creek, B-4298  
RED LIGHT. There are records of state and federally listed mussels in the project vicinity. Therefore, due to the potential for impacts to listed species we request that NCDOT perform a mussel survey prior to the construction of this bridge. An on-site meeting should be held with NCWRC and USFWS biologists, prior to the '404' permit application, to discuss bridge design and construction. We request NCDOT incorporate High Quality Sedimentation and Erosion Control Measures into the design of this project. Other standard recommendations apply.

38. Wake County – Bridge No. 189, SR 2333, Little River, B-4305  
RED LIGHT. The Little River supports a good fishery for sunfish, therefore, we recommend a moratorium on work within jurisdictional waters from April 1 to June 15. There are records of state and federally listed mussels in the project vicinity. Therefore, due to the potential for impacts to listed species we request that NCDOT perform a mussel survey prior to the construction of this bridge. An on-site meeting should be held with NCWRC and USFWS biologists, prior to the '404' permit application, to discuss bridge design and construction. We request NCDOT incorporate High Quality Sedimentation and Erosion Control Measures into the design of this project. Other standard recommendations apply.

39. Washington County – Bridge No. 29, SR 1163, Maul Creek, B-4314  
GREEN LIGHT. Standard comments apply.

40. Wilson County – Bridge No. 52, SR 1131, Turkey Creek, B-4327  
RED LIGHT. Turkey Creek supports a good fishery for sunfish, therefore, we recommend a moratorium on work within jurisdictional waters from April 1 to June 15. There are records of state and federally listed mussels in the project vicinity. Therefore, due to the potential for impacts to listed species we request that NCDOT perform a mussel survey prior to the construction of this bridge. An on-site meeting should be held with NCWRC and USFWS biologists, prior to the '404' permit application, to discuss bridge design and construction. We request NCDOT incorporate High Quality Sedimentation and Erosion Control Measures into the design of this project. Other standard recommendations apply.

41. Wilson County – Bridge No. 3, SR 1634, Great Swamp, B- 4328  
YELLOW LIGHT. If aquatic surveys indicate the potential for impacts to listed mussels, NCDOT should contact USFWS and NCWRC biologists for an on-site meeting to discuss special measures to reduce potential adverse effects. Other standard recommendations apply.

NCDOT should routinely minimize adverse impacts to fish and wildlife resources in the vicinity of bridge replacements. Restoring previously disturbed floodplain benches should narrow and deepen streams previously widened and shallowed during initial bridge installation. NCDOT should install and maintain sedimentation control measures throughout the life of the project and prevent wet concrete from contacting water in or entering into these streams. Replacement of bridges with spanning structures of some type, as opposed to pipe or box culverts, is recommended in most cases. Spanning structures allow wildlife passage along streambanks and reduce habitat fragmentation.

If you need further assistance or information on NCWRC concerns regarding bridge replacements, please contact me at (336) 769-9453. Thank you for the opportunity to review and comment on these projects.

cc: USFWS, Raleigh

# Town of Hookerton

P. O. Box 296  
Hookerton, N. C. 28538  
Phone 717-3816

April 8, 2004

Mr. John Williams, Planning Engineer  
Project Development & Environmental Branch  
NCDOT  
1548 Mail Service Center  
Raleigh, NC 27699-1548

Subject: Bridge Replacement Preference  
B4127#43 on SR 1438

Dear Mr. Williams:

I am writing on behalf of the Hookerton Board of Commissioners to convey their decision of April 6 to support placement of a temporary bridge as part of the project to replace the existing bridge of Rainbow Run. A temporary bridge will have the least impact on disruption of normal use of Dixon Farm Road and Main Street for the citizens in town and the vicinity. The basic presentation of Alternative #2 would be desirable with the following additional considerations to maximize the public benefits of the project while causing the least cost and disruption to the Town and its residents.

## 1. Mitigate Conflict with Town's Sewer Pump Station

The proposed temporary bridge alignment conflicts with the Town's sewer pump station. The project needs redesign or the budget needs to include sufficient funds to relocate or otherwise mitigate the disruption to sewerage service to the west side of town if the conflict cannot be avoided.

## 2. Reduce Flooding on the Creek

The new bridge should span Rainbow Run with sufficient clearance to allow floodwaters to pass under the structure and eliminate the flooding problem caused by the existing low bridge and road fill at each end. The further the span clears the flood channel the better.

## 3. Sufficiently wide bridge for pedestrians and bicycles

The bridge needs to be wide enough to provide separated vehicle and pedestrian/bicycle traffic sections. We were pleased to learn from Division Project Engineer John Rouse of NCDOT approval of our request for an eight feet wide walk/bike path connecting the new bridge with our downtown and the west side of town.

## 4. Include bike style railings

Existing local bicycle usage of the road and planned regional bike routings justify placement of bicycle style (two-rail) open aluminum railings on both sides of the bridge. We do not support use of the "Jersey style" railings. Daily, residents from the neighborhood west of Rainbow Run walk or ride bicycles to and from the downtown. In addition, we foresee the need to include improvements for bicycling as a benefit to regional biking interests.

Interests in nearby Snow Hill and Grifton are working with us toward establishment of a designated bike trail to complement plans for a canoe trail and hiking trails along the Contentnea Creek. Constructing a bridge that includes safe room for vehicles, bikes, and pedestrians will enable Dixon Farm Road and Main Street to function as a link in a regional network of trails.

Plans are also underway to develop a greenway trail park along the Contentnea Creek waterfront and Rainbow Run in Hookerton. These regional and local activities yield a future increase in pedestrian and bike usage of the new bridge.

#### 6. Design for Lights

The Board wants to see lights added to the new bridge. The Hookerton Beautification Committee has already raised funds to add decorative streetlights to the NC 123 bridge of Contentnea Creek. The new bridge design should include conduit and rail mountings for the town to use in streetlight installation.

#### 7. Add Curb & Gutter

We have an interest in having NCDOT fund the addition of curb & gutters along the road from the intersection of Main Street at NC 123 to Faith Hope Road. It makes sense for NCDOT to make plans to include curb & gutter design and construction as part of improvements for these short approaches to the bridge. This way we can mutually plan and coordinate the installation of the walkway, decorative street lighting, and landscaping without having to see the area torn up at a future date to add curb & gutter, as has happened recently with the NCDOT work on First Street and the other end of Main Street (NC 123).

#### 8. Better Directional Signs to Hookerton.

Local conversation about possible disruption of traffic through town because of bridge construction has raised our awareness of the poor directional signage at NC 58 and Dixon Farm Road. We need NCDOT assistance in placing a larger sign marking direction to the Town at that intersection.

Let me know what additional information will be helpful as you move ahead with this project.

Sincerely,



Morris Lockett

Mayor

Hookerton