



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PURDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

March 2, 2009

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: Request for a **Section 404 General Permit 31 Application, Section 401 Water Quality Certification, and Neuse River Riparian Buffer Authorization** for the Replacement of Bridge No. 46 on SR 1091 over Wheat Swamp Creek in Greene County. Federal Project No. BRZ- 1091[1], TIP No. B-4125. Debit \$240 from WBS Element No. 33478.1.1

References: USACE GP 31 Action ID SAW 2007-1105-140 issued 3/21/07.
NCDWQ WQC No. 20070402 and Neuse River Riparian Buffer Authorization issued 3/23/07.
NCDOT Permit Application dated March 8, 2006

Due to the expiration of the permits referenced above, the North Carolina Department of Transportation (NCDOT) is re-applying for the permits necessary for project construction. Neither the design nor proposed impacts have changed from those provided in the original application for this project. Please find enclosed the Pre-Construction Notification form (PCN), permit drawings, and half-size plan sheets for the above referenced project. The NCDOT proposes to replace existing Bridge No. 46 on SR 1091 over the Wheat Swamp Creek in Greene County. A Categorical Exclusion (CE) was signed on December 18, 2003 and distributed shortly thereafter. Additional copies are available upon request. The project involves replacement of the existing structure with a 105-foot bridge at approximately the same location using top-down construction. The approach roadway will consist of two 12-foot travel lanes with shoulder widths of 6 feet. Permanent impacts will consist of 0.08 acre to riparian wetlands adjacent to Wheat Swamp Creek, and 2,275 ft² of riparian buffer. Traffic will be detoured off-site, along surrounding roads, during construction. The project schedule calls for a July 21, 2009 Let date with a review date of June 2, 2009.

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1598

TELEPHONE: 919-431-2000
FAX: 919-431-2002
WEBSITE: WWW.NCDOT.ORG

LOCATION:
NATURAL ENVIRONMENT UNIT
PDEA-ENVIRONMENTAL RESOURCES CENTER
4701-116 Atlantic Ave.
Raleigh, NC 27604

Moratorium

The NC Division of Marine Fisheries (NCDMF) recommended a moratorium for anadromous fish in a letter dated June 12, 2002. However in an email (attached) dated July 31, 2006, Sean McKenna with NCDMF deferred the anadromous fish call to NC Wildlife Resources Commission (NCWRC). According to a letter from the NCWRC, dated June 12, 2002, no in-stream moratoria were requested for this project. Therefore, NCDOT will not adhere to an in-stream work moratorium for this project.

Regulatory Approvals

Section 404 Permit: All aspects of this project are being processed by the Federal Highway Administration as a "Categorical Exclusion". The NCDOT requests that these activities be authorized by a General Permit 31.

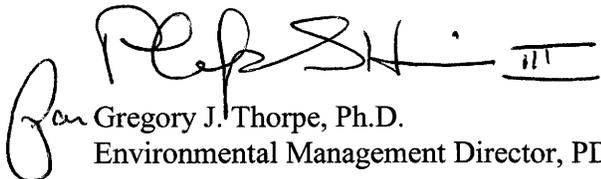
Section 401 Permit: We anticipate 401 General Certification number 3704 will apply to this project. In accordance with 15A NCAC 2H, Section .0500(a) and 15A NCAC 2B.0200 we are providing 5 copies of this application to the NCDWQ, for their approval. We are also providing authorization to debit \$240 from WBS 33478.1.1 as payment for processing the 401 Water Quality Certification.

Neuse River Riparian Buffer Authorization: NCDOT requests that the NCDWQ review this application and issue a written approval for a Neuse River Riparian Buffer Authorization.

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

Thank you for your time and assistance with this project. Please contact John Merritt at jsmerritt@ncdot.gov or (919) 431-6749 if you have any questions or need any additional information.

Sincerely,


Gregory J. Thorpe, Ph.D.
Environmental Management Director, PDEA

W/attachment

Mr. Brian Wrenn, NCDWQ (5 Copies)

W/o attachment (see website for attachments)

Dr. David Chang, P.E., Hydraulics

Mr. Greg Perfetti, P.E., Structure Design

Mr. Victor Barbour, P.E., Project Services Unit

Mr. Mark Staley, Roadside Environmental

Mr. Richard E. Greene, P.E. Div. 4 Engineer

Mr. Chad Coggins, Div. 4 Environmental Officer

Mr. Scott McLendon, USACE, Wilmington

Mr. Gary Jordan, USFWS

Mr. Travis Wilson, NCWRC

Mr. Ron Sechler, NMFS

Ms. Anne Deaton, NCDMF

Mr. Jay Bennett, P.E., Roadway Design

Mr. Majed Alghandour, P.E., Programming & TIP

Mr. Art McMillan, P.E., Highway Design

Mr. John Williams, P.E., Planning Engineer



Office Use Only:
 Corps action ID no. _____
 DWQ project no. _____
 Form Version 1.3 Dec 10 2008

Pre-Construction Notification (PCN) Form

A. Applicant Information

1. Processing

1a. Type(s) of approval sought from the Corps:	<input checked="" type="checkbox"/> Section 404 Permit	<input type="checkbox"/> Section 10 Permit
1b. Specify Nationwide Permit (NWP) number: _____ or General Permit (GP) number: 198200031		
1c. Has the NWP or GP number been verified by the Corps?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
1d. Type(s) of approval sought from the DWQ (check all that apply):		
<input checked="" type="checkbox"/> 401 Water Quality Certification – Regular <input type="checkbox"/> Non-404 Jurisdictional General Permit <input type="checkbox"/> 401 Water Quality Certification – Express <input checked="" type="checkbox"/> Riparian Buffer Authorization		
1e. Is this notification solely for the record because written approval is not required?	For the record only for DWQ 401 Certification: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	For the record only for Corps Permit: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1f. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts? If so, attach the acceptance letter from mitigation bank or in-lieu fee program.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

2. Project Information

2a. Name of project:	Replacement of Bridge No. 46 on SR 1091 over Wheat Swamp Creek
2b. County:	Greene
2c. Nearest municipality / town:	Hookerton
2d. Subdivision name:	not applicable
2e. NCDOT only, T.I.P. or state project no:	B-4125

3. Owner Information

3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation
3b. Deed Book and Page No.	not applicable
3c. Responsible Party (for LLC if applicable):	not applicable
3d. Street address:	PDEA-NEU, 4701-116 Atlantic Ave
3e. City, state, zip:	Raleigh, NC 27604
3f. Telephone no.:	(919) 431-6749
3g. Fax no.:	(919) 431-2002
3h. Email address:	jsmerritt@ncdot.gov

4. Applicant Information (if different from owner)	
4a. Applicant is:	<input type="checkbox"/> Agent <input type="checkbox"/> Other, specify:
4b. Name:	not applicable
4c. Business name (if applicable):	
4d. Street address:	
4e. City, state, zip:	
4f. Telephone no.:	
4g. Fax no.:	
4h. Email address:	
5. Agent/Consultant Information (if applicable)	
5a. Name:	not applicable
5b. Business name (if applicable):	
5c. Street address:	
5d. City, state, zip:	
5e. Telephone no.:	
5f. Fax no.:	
5g. Email address:	

B. Project Information and Prior Project History	
1. Property Identification	
1a. Property identification no. (tax PIN or parcel ID):	NCDOT Right-of-Way
1b. Site coordinates (in decimal degrees):	Latitude: 35.4096 (DD.DDDDDD) Longitude: - 77.5590 (-DD.DDDDDD)
1c. Property size:	approximately 0.43 acres
2. Surface Waters	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Wheat Swamp Creek
2b. Water Quality Classification of nearest receiving water:	C Sw NSW
2c. River basin:	Neuse
3. Project Description	
3a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: Rural with forested areas, scattered residential and farms	
3b. List the total estimated acreage of all existing wetlands on the property: 0.10	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 120	
3d. Explain the purpose of the proposed project: To replace a structurally deficient and/ or functionally obsolete bridge.	
3e. Describe the overall project in detail, including the type of equipment to be used: Replacement of the existing bridge structure with a 105-foot bridge at approximately the same location and roadway elevation of the existing structure using top-down construction. Typical road construction equipment such as but not limited to: cranes, bulldozers, and track hoes.	
4. Jurisdictional Determinations	
4a. Have jurisdictional wetland or stream determinations by the Corps or State been requested or obtained for this property / project (including all prior phases) in the past? Comments: SAW-2006-32604-140 issued 6/30/06	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
4b. If the Corps made the jurisdictional determination, what type of determination was made?	<input type="checkbox"/> Preliminary <input checked="" type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known): Ryan Smith, Corri Faquin, Jamie Shern	Agency/Consultant Company: Landmark Design Group Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. March 21, 2007	
5. Project History	
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
5b. If yes, explain in detail according to "help file" instructions. USACE ORM ID SAW 2007-1105-140 on 3/21/07, NCDWQ Project No. 20070402 v.1 on 3/23/07	
6. Future Project Plans	
6a. Is this a phased project?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6b. If yes, explain.	

C. Proposed Impacts Inventory

1. Impacts Summary

1a. Which sections were completed below for your project (check all that apply):

- Wetlands Streams - tributaries Buffers
 Open Waters Pond Construction

2. Wetland Impacts

If there are wetland impacts proposed on the site, then complete this question for each wetland area impacted.

2a. Wetland impact number – Permanent (P) or Temporary (T)	2b. Type of impact	2c. Type of wetland (if known)	2d. Forested	2e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	2f. Area of impact (acres)
W1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	fill	herbaceous	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input checked="" type="checkbox"/> DWQ	0.01
W2 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	mech. clearing	herbaceous	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input checked="" type="checkbox"/> DWQ	0.02
W3 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	fill	bottomland hardwood	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input checked="" type="checkbox"/> DWQ	0.02
W4 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	mech. clearing	bottomland hardwood	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input checked="" type="checkbox"/> DWQ	0.01
W5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
W6 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
2g. Total wetland impacts					0.08

2h. Comments:

3. Stream Impacts

If there are perennial or intermittent stream impacts (including temporary impacts) proposed on the site, then complete this question for all stream sites impacted.

3a. Stream impact number - Permanent (P) or Temporary (T)	3b. Type of impact	3c. Stream name	3d. Perennial (PER) or intermittent (INT)?	3e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	3f. Average stream width (feet)	3g. Impact length (linear feet)
S1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S6 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
3h. Total stream and tributary impacts						

3i. Comments:

4. Open Water Impacts

If there are proposed impacts to lakes, ponds, estuaries, tributaries, sounds, the Atlantic Ocean, or any other open water of the U.S. then individually list all open water impacts below.

4a. Open water impact number – Permanent (P) or Temporary (T)	4b. Name of waterbody (if applicable)	4c. Type of impact	4d. Waterbody type	4e. Area of impact (acres)
O1 <input type="checkbox"/> P <input type="checkbox"/> T				
O2 <input type="checkbox"/> P <input type="checkbox"/> T				
O3 <input type="checkbox"/> P <input type="checkbox"/> T				
O4 <input type="checkbox"/> P <input type="checkbox"/> T				
4f. Total open water impacts				

4g. Comments:

5. Pond or Lake Construction

If pond or lake construction proposed, then complete the chart below.

5a. Pond ID number	5b. Proposed use or purpose of pond	5c. Wetland Impacts (acres)			5d. Stream Impacts (feet)			5e. Upland (acres)
		Flooded	Filled	Excavated	Flooded	Filled	Excavated	Flooded
P1								
P2								
5f. Total								

5g. Comments:

5h. Is a dam high hazard permit required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, permit ID no:
5i. Expected pond surface area (acres):		
5j. Size of pond watershed (acres):		
5k. Method of construction:		

6. Buffer Impacts (for DWQ)

If project will impact a protected riparian buffer, then complete the chart below. If yes, then individually list all buffer impacts below. If any impacts require mitigation, then you **MUST** fill out Section D of this form.

6a. Project is in which protected basin?		<input checked="" type="checkbox"/> Neuse <input type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Other: <input type="checkbox"/> Catawba <input type="checkbox"/> Randleman			
6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name	6e. Buffer mitigation required?	6f. Zone 1 impact (square feet)	6g. Zone 2 impact (square feet)
B1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Bridge	Wheat Swamp Creek	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	628	113
B2 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Road Fill	Wheat Swamp Creek	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	460	1074
B3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
6h. Total buffer impacts				1088	1187

6i. Comments:

D. Impact Justification and Mitigation		
1. Avoidance and Minimization		
1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. Longer spans with fewer bents than the existing bridge, 3:1 slopes in jurisdictional areas		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. Bridge No. 46 will be replaced in place with an offsite detour. Design Standards in Sensitive Watersheds will be implemented,		
2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State		
2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2b. If yes, mitigation is required by (check all that apply):	<input type="checkbox"/> DWQ <input type="checkbox"/> Corps	
2c. If yes, which mitigation option will be used for this project?	<input type="checkbox"/> Mitigation bank <input type="checkbox"/> Payment to in-lieu fee program <input type="checkbox"/> Permittee Responsible Mitigation	
3. Complete if Using a Mitigation Bank		
3a. Name of Mitigation Bank: not applicable		
3b. Credits Purchased (attach receipt and letter)	Type	Quantity
3c. Comments:		
4. Complete if Making a Payment to In-lieu Fee Program		
4a. Approval letter from in-lieu fee program is attached.	<input type="checkbox"/> Yes	
4b. Stream mitigation requested:	linear feet	
4c. If using stream mitigation, stream temperature:	<input type="checkbox"/> warm <input type="checkbox"/> cool <input type="checkbox"/> cold	
4d. Buffer mitigation requested (DWQ only):	square feet	
4e. Riparian wetland mitigation requested:	acres	
4f. Non-riparian wetland mitigation requested:	acres	
4g. Coastal (tidal) wetland mitigation requested:	acres	
4h. Comments:		
5. Complete if Using a Permittee Responsible Mitigation Plan		
5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.		

6. Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ

6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation? Yes No

6b. If yes, then identify the square feet of impact to each zone of the riparian buffer that requires mitigation. Calculate the amount of mitigation required.

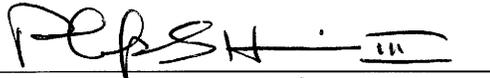
Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1			3 (2 for Catawba)	
Zone 2			1.5	
6f. Total buffer mitigation required:				

6g. If buffer mitigation is required, discuss what type of mitigation is proposed (e.g., payment to private mitigation bank, permittee responsible riparian buffer restoration, payment into an approved in-lieu fee fund).

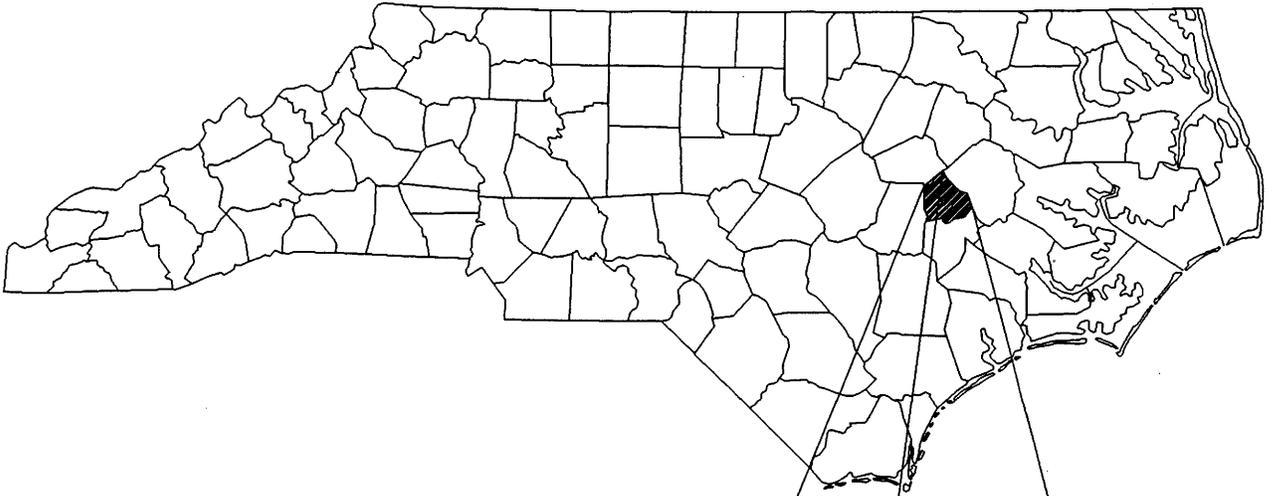
6h. Comments:

E. Stormwater Management and Diffuse Flow Plan (required by DWQ)	
1. Diffuse Flow Plan	
1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1b. If yes, then is a diffuse flow plan included? If no, explain why. Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Stormwater Management Plan	
2a. What is the overall percent imperviousness of this project?	%
2b. Does this project require a Stormwater Management Plan?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2c. If this project DOES NOT require a Stormwater Management Plan, explain why:	
2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan:	
2e. Who will be responsible for the review of the Stormwater Management Plan?	<input type="checkbox"/> Certified Local Government <input type="checkbox"/> DWQ Stormwater Program <input type="checkbox"/> DWQ 401 Unit
3. Certified Local Government Stormwater Review	
3a. In which local government's jurisdiction is this project?	not applicable
3b. Which of the following locally-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Phase II <input type="checkbox"/> NSW <input type="checkbox"/> USMP <input type="checkbox"/> Water Supply Watershed <input type="checkbox"/> Other:
3c. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. DWQ Stormwater Program Review	
4a. Which of the following state-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Coastal counties <input type="checkbox"/> HQW <input type="checkbox"/> ORW <input type="checkbox"/> Session Law 2006-246 <input type="checkbox"/> Other:
4b. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No
5. DWQ 401 Unit Stormwater Review	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	<input type="checkbox"/> Yes <input type="checkbox"/> No
5b. Have all of the 401 Unit submittal requirements been met?	<input type="checkbox"/> Yes <input type="checkbox"/> No

F. Supplementary Information	
1. Environmental Documentation (DWQ Requirement)	
1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1b. If you answered "yes" to the above, does the project require preparation of an environmental document pursuant to the requirements of the National or State (North Carolina) Environmental Policy Act (NEPA/SEPA)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1c. If you answered "yes" to the above, has the document review been finalized by the State Clearing House? (If so, attach a copy of the NEPA or SEPA final approval letter.) Comments:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Violations (DWQ Requirement)	
2a. Is the site in violation of DWQ Wetland Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H .1300), DWQ Surface Water or Wetland Standards, or Riparian Buffer Rules (15A NCAC 2B .0200)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2b. Is this an after-the-fact permit application?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2c. If you answered "yes" to one or both of the above questions, provide an explanation of the violation(s):	
3. Cumulative Impacts (DWQ Requirement)	
3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3b. If you answered "yes" to the above, submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent DWQ policy. If you answered "no," provide a short narrative description.	
4. Sewage Disposal (DWQ Requirement)	
4a. 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. not applicable	

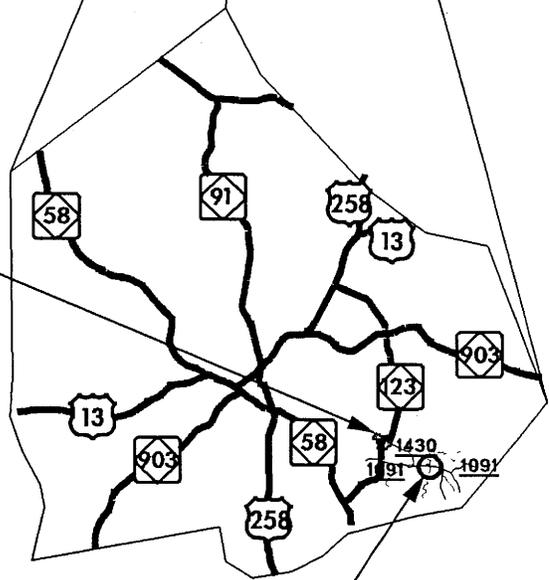
5. Endangered Species and Designated Critical Habitat (Corps Requirement)		
5a. Will this project occur in or near an area with federally protected species or habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5c. If yes, indicate the USFWS Field Office you have contacted.	<input type="checkbox"/> Raleigh <input type="checkbox"/> Asheville	
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? Actual surveys conducted at the site by NCDOT staff as well as the NCNHP Inventory		
6. Essential Fish Habitat (Corps Requirement)		
6a. Will this project occur in or near an area designated as essential fish habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat? NMFS County List		
7. Historic or Prehistoric Cultural Resources (Corps Requirement)		
7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? Investigations by NCDOT staff and review from the NCSHPO.		
8. Flood Zone Designation (Corps Requirement)		
8a. Will this project occur in a FEMA-designated 100-year floodplain?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
8b. If yes, explain how project meets FEMA requirements:		
8c. What source(s) did you use to make the floodplain determination?		
Philip S. Harris III Applicant/Agent's Printed Name	 Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	02/27/2009 Date

NORTH CAROLINA



GREENE COUNTY
NEUSE RIVER BASIN

HOOKERTON



PROJECT LOCATION

VICINITY
MAP

WETLAND PERMIT

NCDOT

DIVISION OF HIGHWAYS

GREENE COUNTY

PROJECT: 33478.1.1 (B-4125)

REPLACE BRIDGE #46

OVER WHEAT SWAMP CREEK

ON SR 1091

Permit Drawing

SHEET

OF Sheet 1 of 6



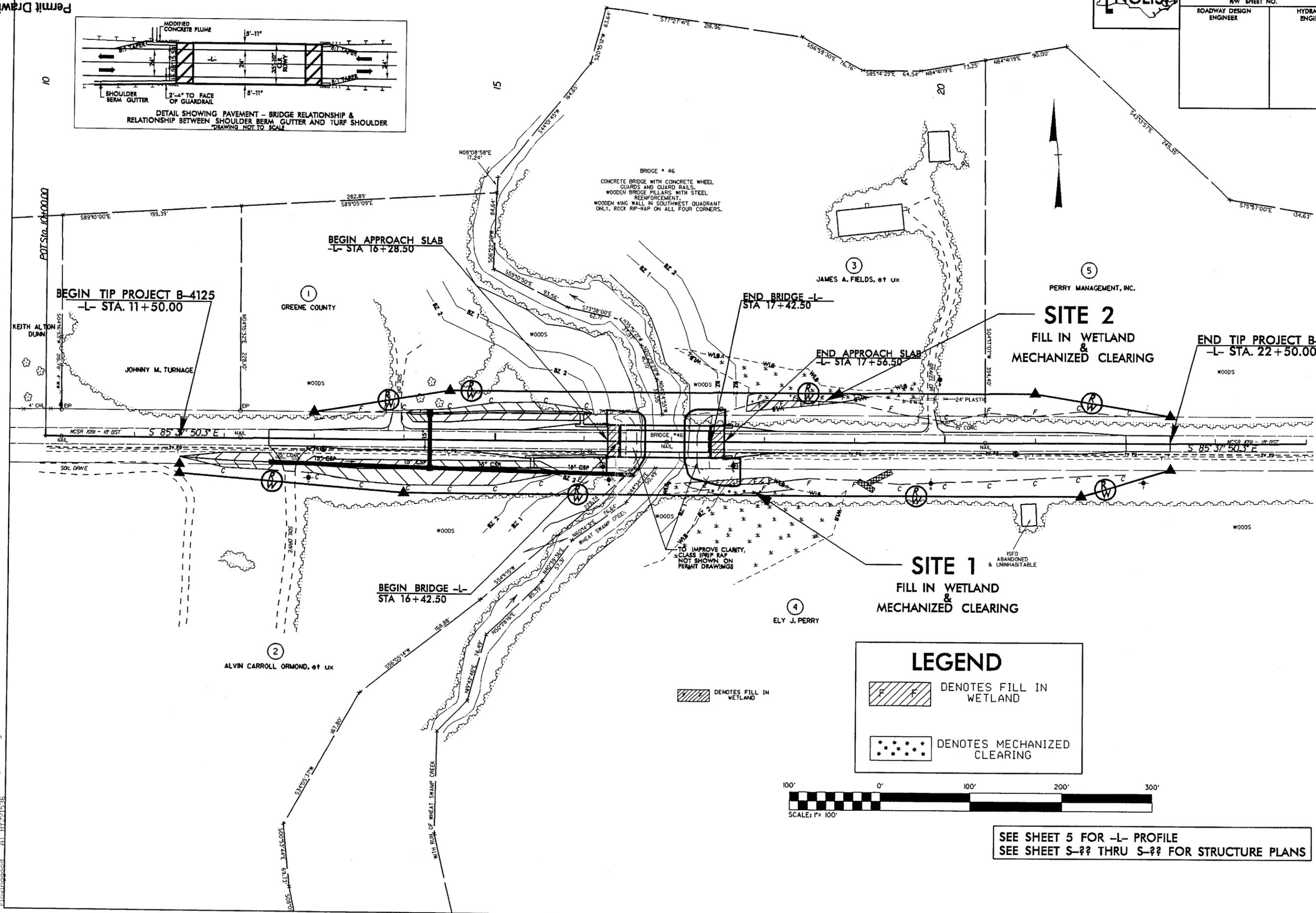
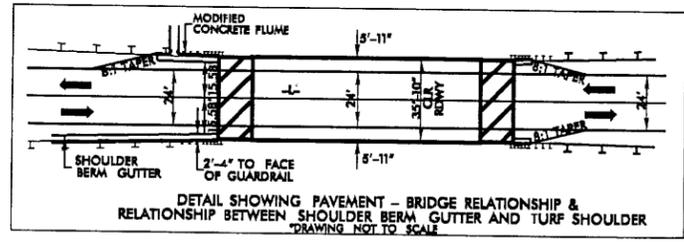
NOT TO SCALE

LOCATION MAP

NCDOT
DIVISION OF HIGHWAYS
GREENE COUNTY
PROJECT: 33478.11 (B-4125)
REPLACE BRIDGE #46
OVER WHEAT SWAMP CREEK
ON SR 1091

Permit Drawing
SHEET OF Sheet 2 of 6

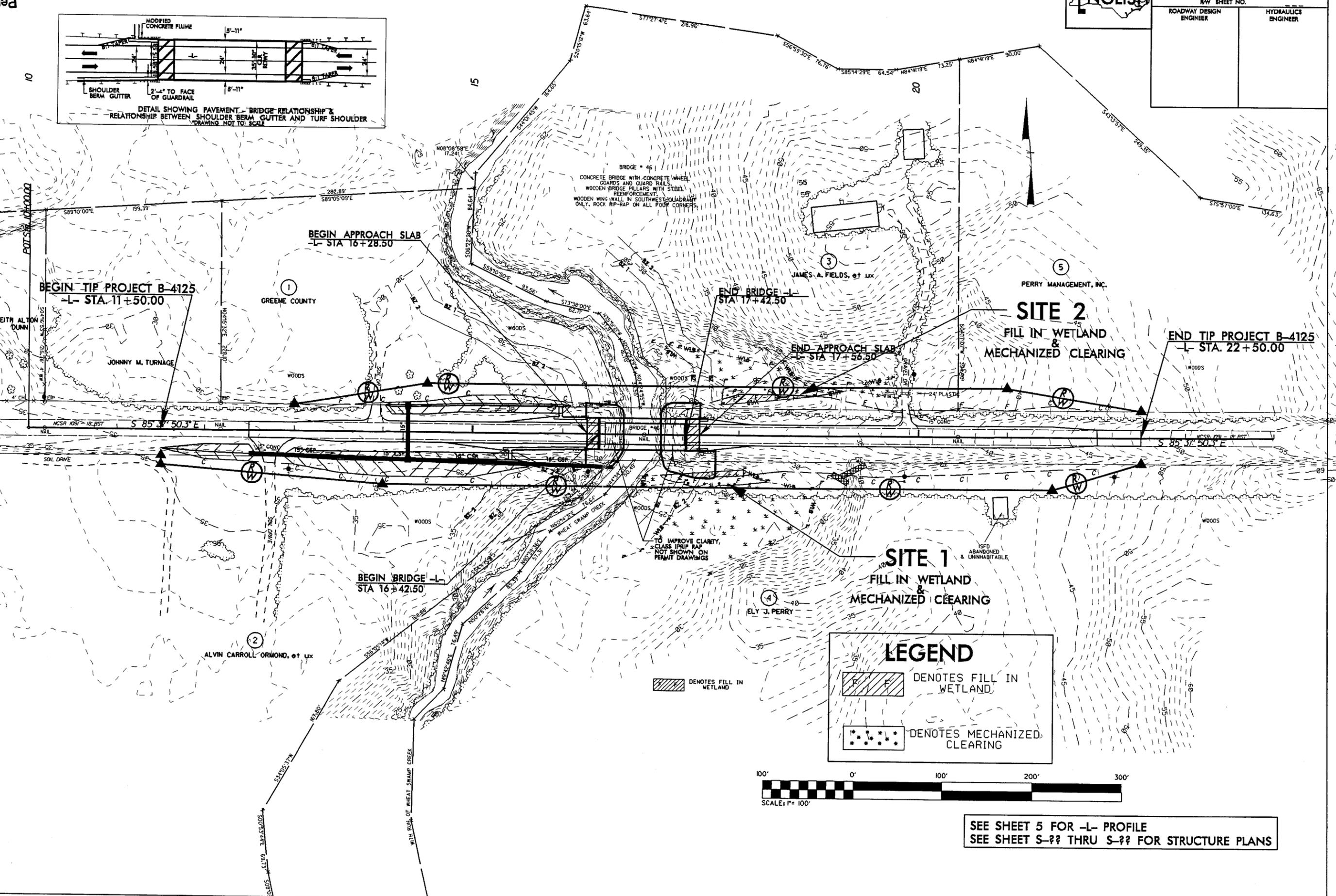
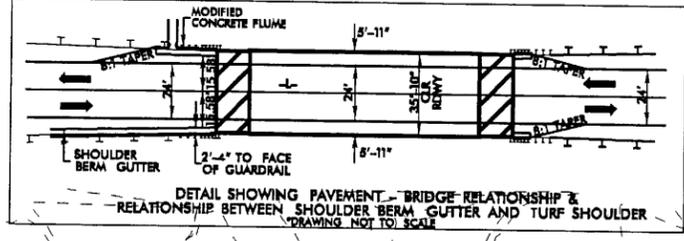
PROJECT REFERENCE NO. B-4125		SHEET NO. 4
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	



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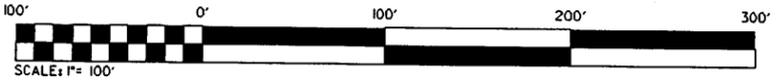


PROJECT REFERENCE NO. B-4125	SHEET NO. 4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



LEGEND

- DENOTES FILL IN WETLAND
- DENOTES MECHANIZED CLEARING



SEE SHEET 5 FOR -L- PROFILE
SEE SHEET S-?? THRU S-?? FOR STRUCTURE PLANS

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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 Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)					
1	-L- Sta 17+03 Rt. to -L- Sta 18+32 Rt.	Roadway Fill	0.01			0.02											
2	-L- Sta 17+78 Lt. to -L- Sta 20+17 Lt.	Roadway Fill	0.02			0.03											
TOTALS:			0.03			0.05											

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

GREENE COUNTY
PROJECT: 33478.1.1 (B-4125)

DATE: _____
Permit Drawing 6
SHEET **5** OF **6**

PROPERTY OWNERS
NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
3	James A. Fields, et ux	6899 Hugo Road Hookerton, NC 28538
4	Ely J. Perry	P.O. Box 1475 Kinston, NC 28503

NCDOT

DIVISION OF HIGHWAYS
GREENE COUNTY

PROJECT: 33478.1.1 (B-4125)

REPLACE BRIDGE #46

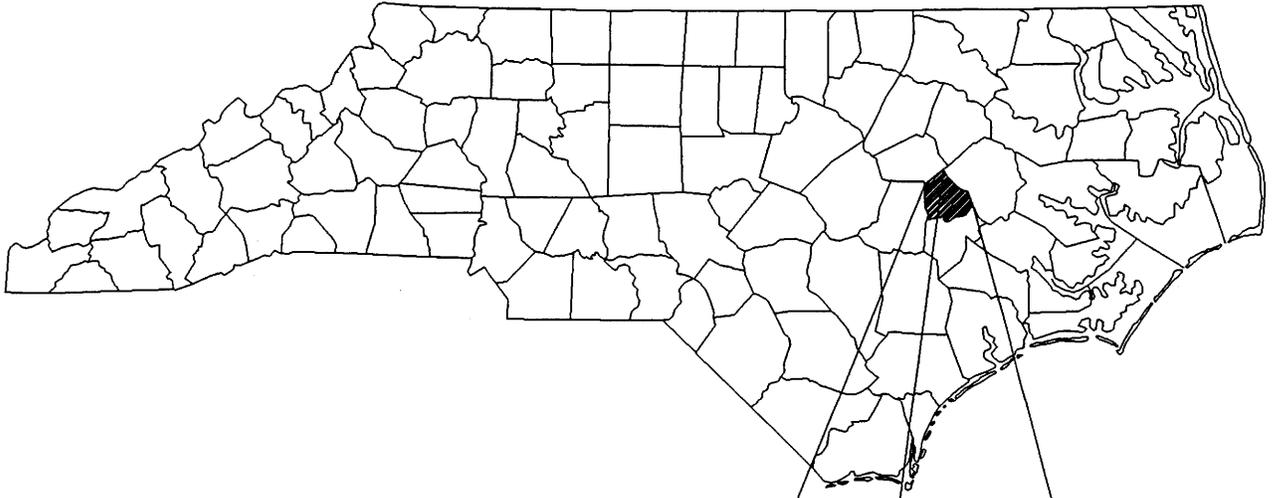
OVER WHEAT SWAMP CREEK

ON SR 1091

Permit Drawing

SHEET OF Sheet 6 of 6

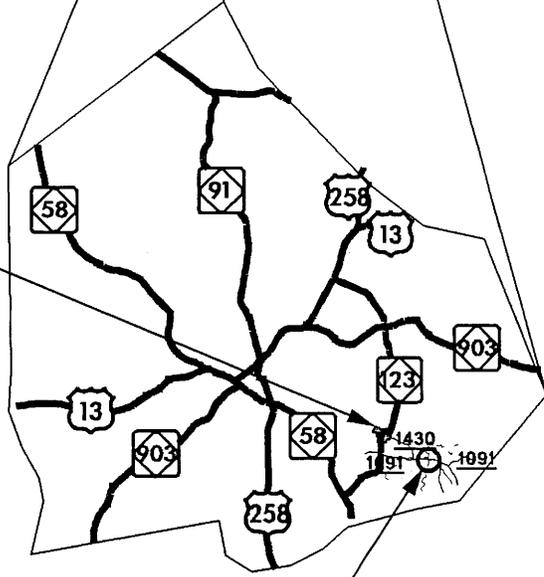
NORTH CAROLINA



GREENE COUNTY
NEUSE RIVER BASIN

HOOKERTON

PROJECT LOCATION



VICINITY MAP

BUFFER PERMIT

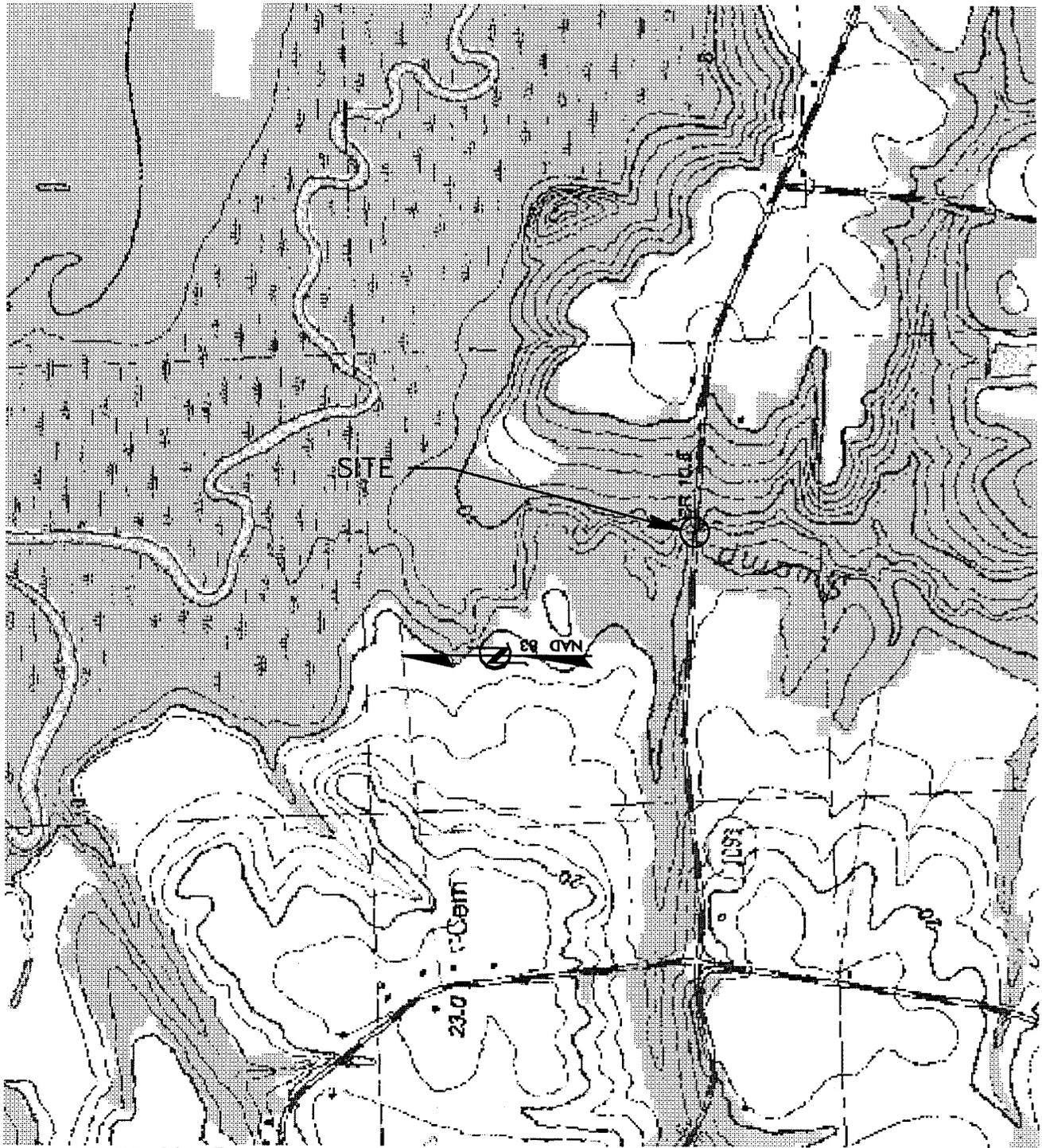
NCDOT
DIVISION OF HIGHWAYS
GREENE COUNTY
PROJECT: 33478.1.1 (B-4125)
REPLACE BRIDGE #46
OVER WHEAT SWAMP CREEK

ON SR 1091
Buffer Drawing

Sheet 1 of 2

SHEET

OF



NOT TO SCALE

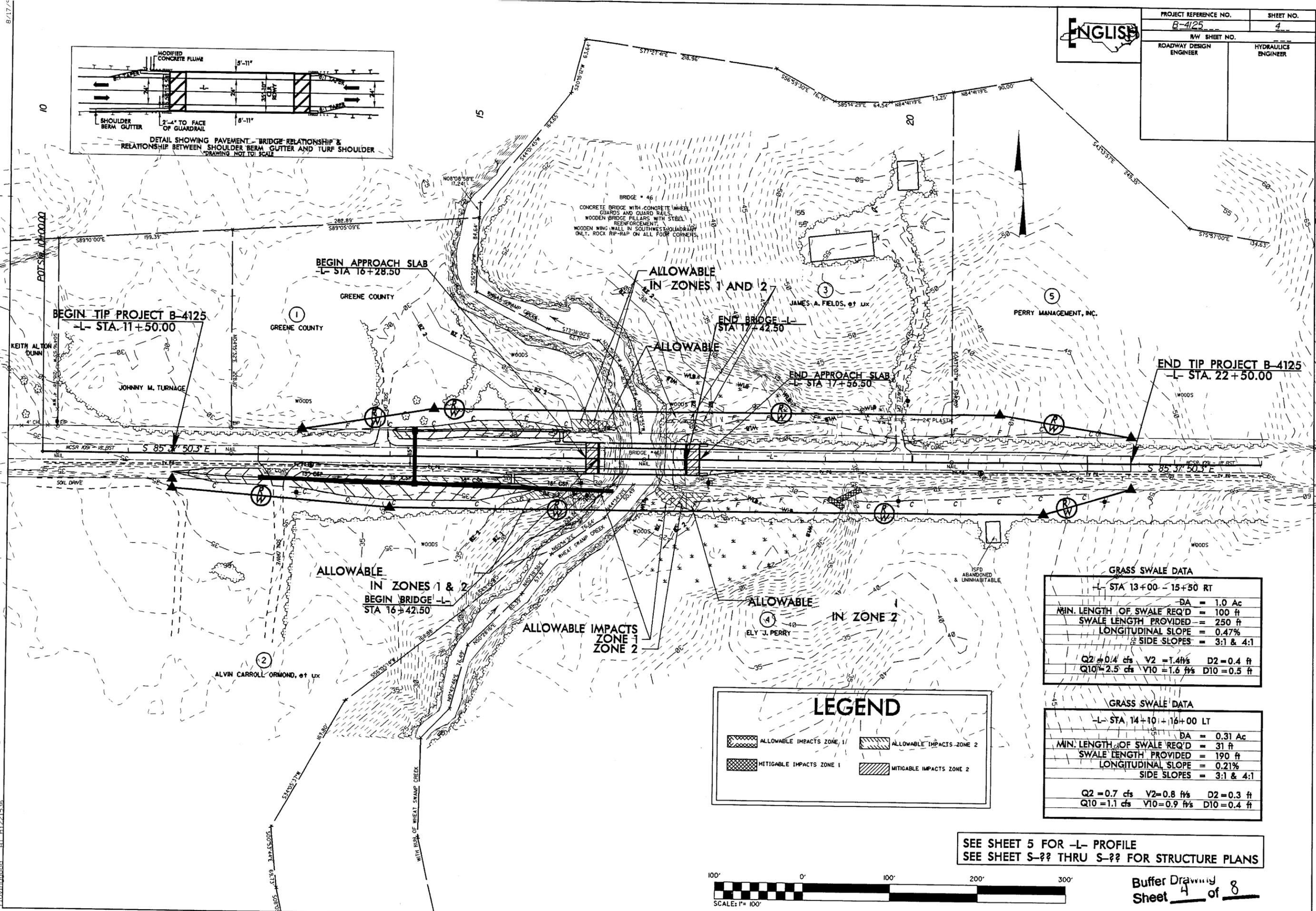
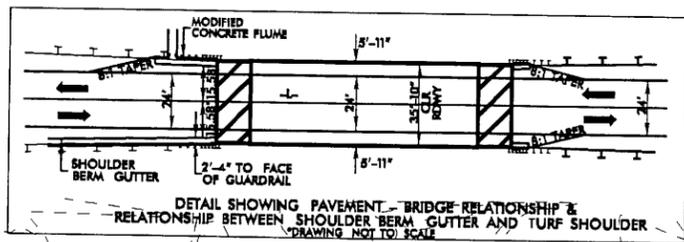
LOCATION MAP

NCDOT
 DIVISION OF HIGHWAYS
 GREENE COUNTY
 PROJECT: 33478.1.1 (B-4125)
 REPLACE BRIDGE #46
 OVER WHEAT SWAMP CREEK

ON SR 1091
 Buffer Drawing
 Sheet 2 of 8

SHEET

OF



GRASS SWALE DATA

-L- STA 13+00 - 15+50 RT

DA	= 1.0 Ac
MIN. LENGTH OF SWALE REQ'D	= 100 ft
SWALE LENGTH PROVIDED	= 250 ft
LONGITUDINAL SLOPE	= 0.47%
SIDE SLOPES	= 3:1 & 4:1
Q2	= 0.4 cfs
V2	= 1.4 ft/s
D2	= 0.4 ft
Q10	= 2.5 cfs
V10	= 1.6 ft/s
D10	= 0.5 ft

GRASS SWALE DATA

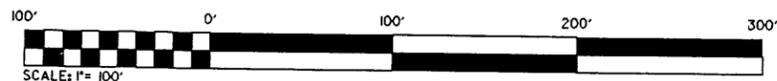
-L- STA 14+10 - 16+00 LT

DA	= 0.31 Ac
MIN. LENGTH OF SWALE REQ'D	= 31 ft
SWALE LENGTH PROVIDED	= 190 ft
LONGITUDINAL SLOPE	= 0.21%
SIDE SLOPES	= 3:1 & 4:1
Q2	= 0.7 cfs
V2	= 0.8 ft/s
D2	= 0.3 ft
Q10	= 1.1 cfs
V10	= 0.9 ft/s
D10	= 0.4 ft

LEGEND

	ALLOWABLE IMPACTS ZONE 1		ALLOWABLE IMPACTS ZONE 2
	MITIGABLE IMPACTS ZONE 1		MITIGABLE IMPACTS ZONE 2

SEE SHEET 5 FOR -L- PROFILE
SEE SHEET S-?? THRU S-?? FOR STRUCTURE PLANS



03-AUG-2006 15:09
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11/17/2006

8/17/99

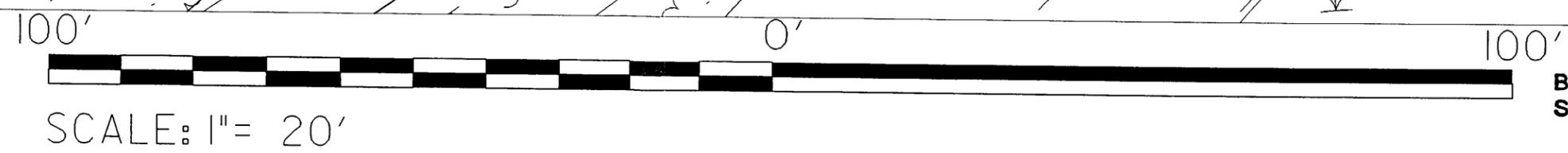
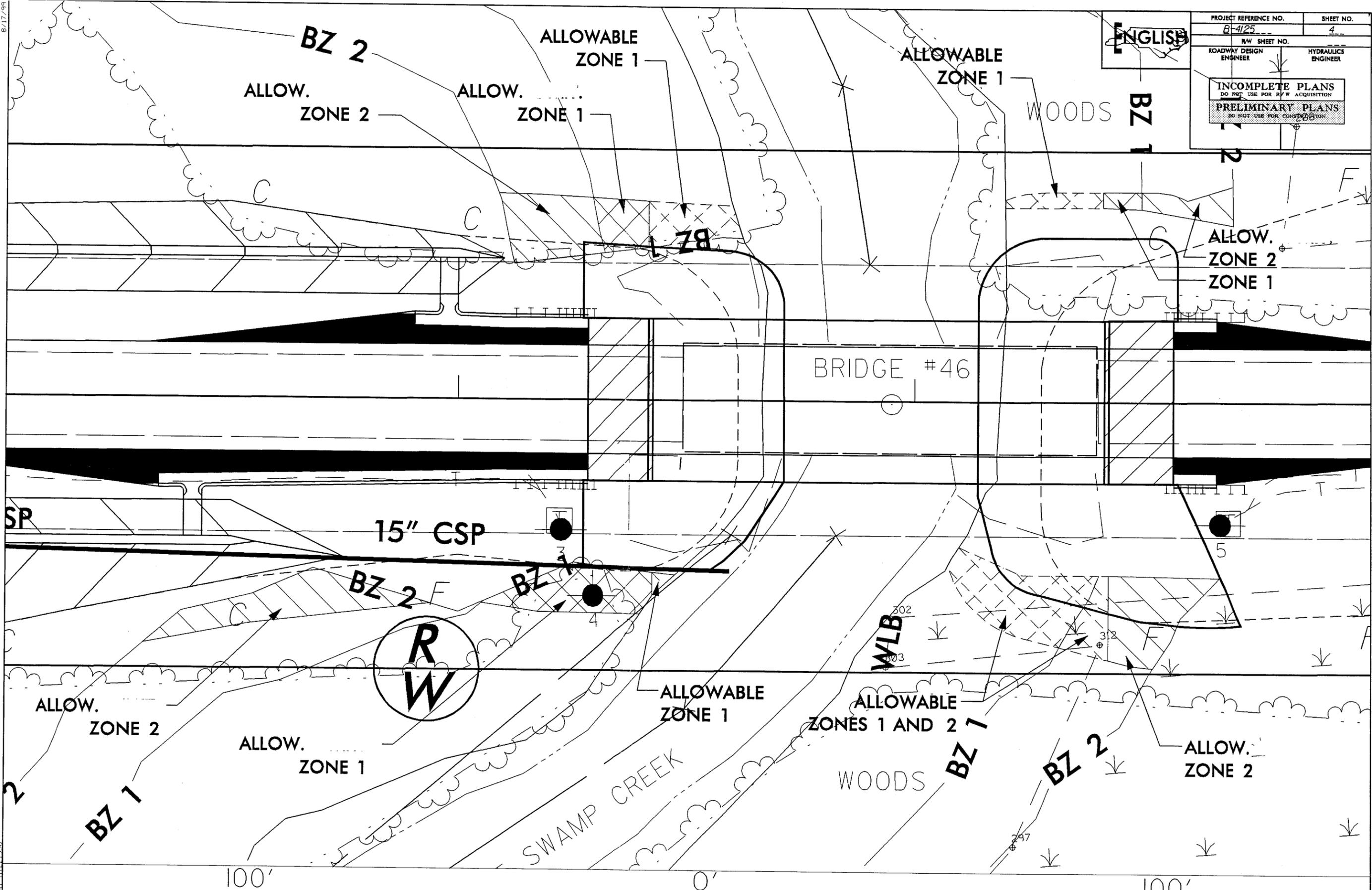
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PROJECT REFERENCE NO. B-4125	SHEET NO. 4
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

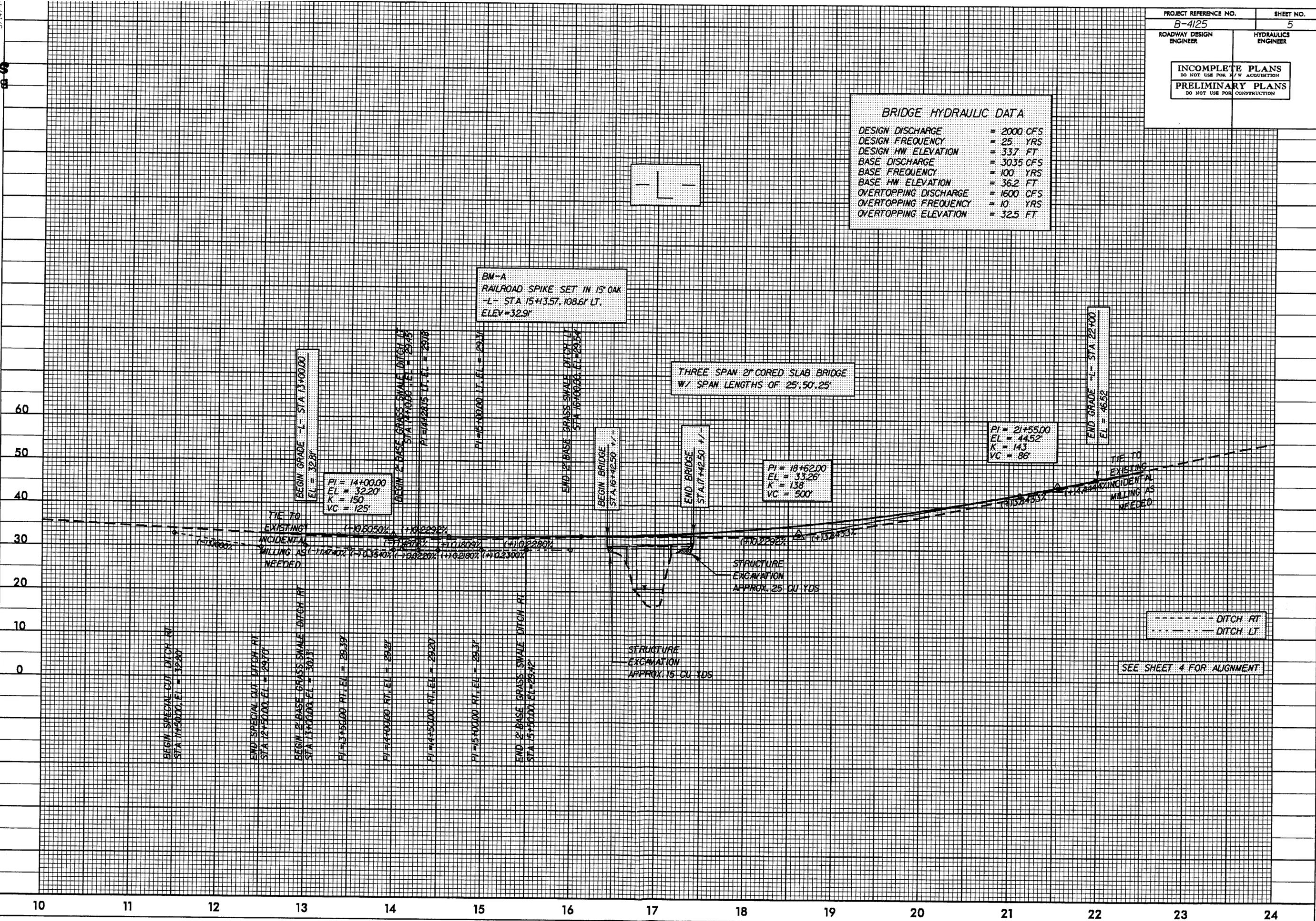
ENGLISH



Buffer Drawing Sheet 5 of 8

BRIDGE HYDRAULIC DATA	
DESIGN DISCHARGE	= 2000 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 337 FT
BASE DISCHARGE	= 3035 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 362 FT
OVERTOPPING DISCHARGE	= 1600 CFS
OVERTOPPING FREQUENCY	= 10 YRS
OVERTOPPING ELEVATION	= 325 FT

Sheet 6 of 8
Buffer Drawing



BM-A
RAILROAD SPIKE SET IN 15' OAK
-L- STA 15+357.1086 LT.
ELEV=32.91

THREE SPAN 21" CORED SLAB BRIDGE
W/ SPAN LENGTHS OF 25.50, 25

PI = 18+62.00
EL = 33.26
K = 138
VC = 500'

PI = 21+55.00
EL = 44.52
K = 143
VC = 86'

END GRADE -L- STA 22+00
EL = 46.52

TIE TO EXISTING
INCIDENTAL MILLING AS NEEDED

STRUCTURE EXCAVATION
APPROX. 25 CU YDS

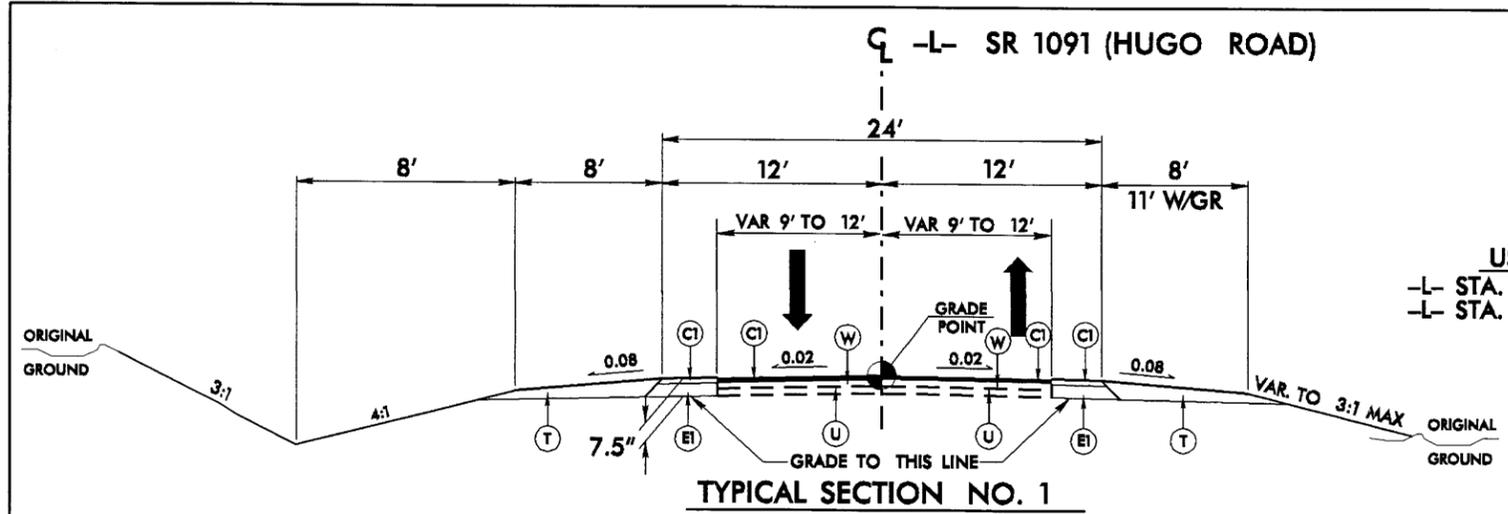
STRUCTURE EXCAVATION
APPROX. 15 CU YDS

SEE SHEET 4 FOR ALIGNMENT

--- DITCH RT
--- DITCH LT

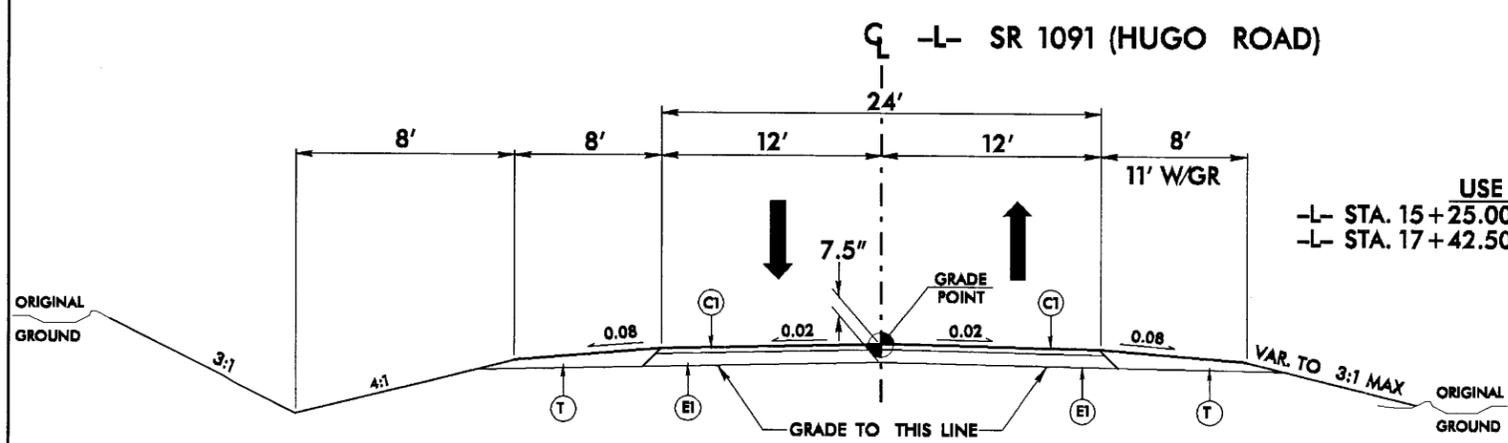
PROJECT REFERENCE NO.	SHEET NO.
B-4125	2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

USE TYPICAL SECTION NO. 1
 -L- STA. 13+00.00 TO -L- STA. 15+25.00
 -L- STA. 21+50.00 TO -L- STA. 22+00.00



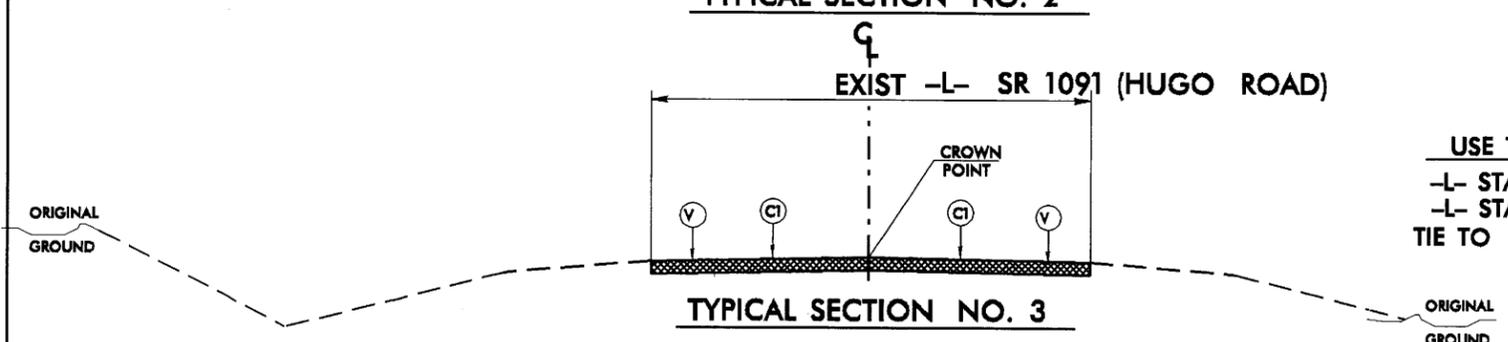
TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 2
 -L- STA. 15+25.00 TO -L- STA. 16+42.50 (BEGIN BRIDGE)
 -L- STA. 17+42.50 (END BRIDGE) TO -L- STA. 21+50.00



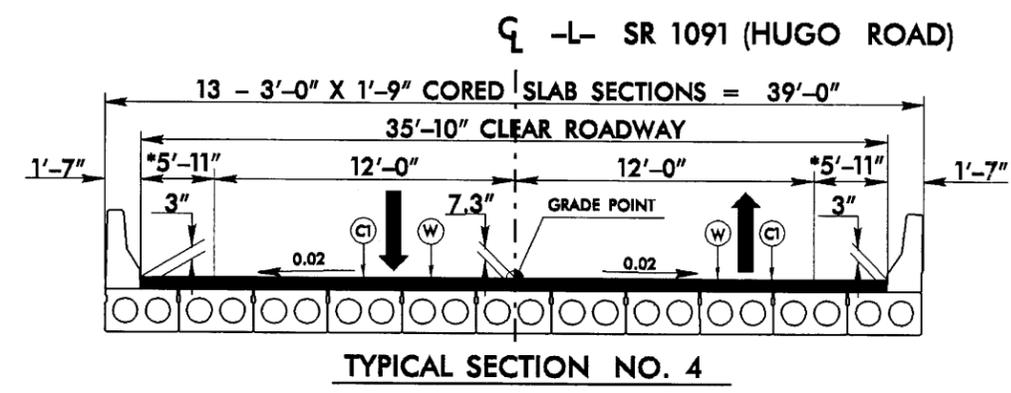
TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 3
 -L- STA. 12+50.00 TO -L- STA. 13+00.00
 -L- STA. 22+00.00 TO -L- STA. 22+50.00
 TIE TO EXISTING - INCIDENTAL MILLING AS NEEDED.



TYPICAL SECTION NO. 3

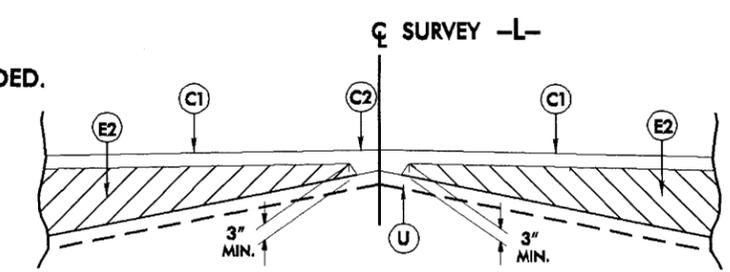
USE TYPICAL SECTION NO. 4
 -L- STA. 16+42.50 (BEGIN BRIDGE) TO
 -L- STA. 17+42.50 (END BRIDGE)



TYPICAL SECTION NO. 4

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 2.5" ASPHALT CONCRETE SURFACE COURSE, TYPE 8F8.6A, AT AN AVERAGE RATE OF 137.6 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 8F8.6A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1" OR GREATER THAN 2" IN DEPTH.
E1	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5 1/2" IN DEPTH.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	INCIDENTAL MILLING.
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE DETAIL SHOWING METHOD OF WEDGING).

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



Detail Showing Method of Wedging

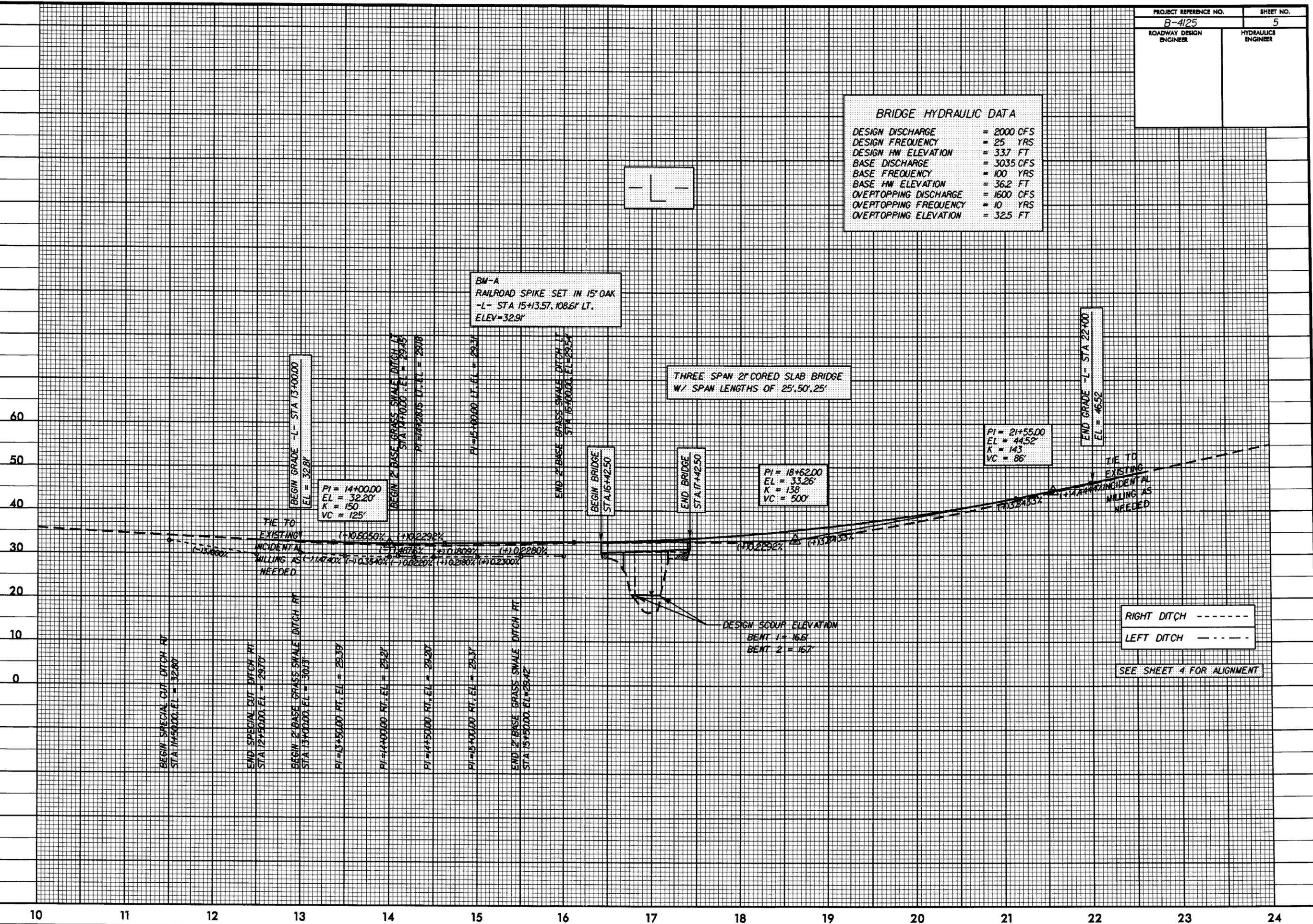
* SHOULDERS ON THE BRIDGE WERE WIDENED FROM 2' 11" TO 5' 11" TO CARRY STORM WATER COMPLETELY WITHIN THE SHOULDER AREA

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BRIDGE HYDRAULIC DATA	
DESIGN DISCHARGE	= 2000 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 337 FT
BASE DISCHARGE	= 3035 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 362 FT
OVERTOPPING DISCHARGE	= 1600 CFS
OVERTOPPING FREQUENCY	= 10 YRS
OVERTOPPING ELEVATION	= 325 FT

5/14/09

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BM-A
 RAILROAD SPIKE SET IN 15' OAK
 -L- STA 15+13.57, 108.61' LT.
 ELEV=32.91'

THREE SPAN 21" CORED SLAB BRIDGE
 W/ SPAN LENGTHS OF 25', 50', 25'

PI = 21+55.00
 EL = 44.52'
 K = 143
 VC = 86'

PI = 18+62.00
 EL = 33.26'
 K = 138
 VC = 500'

PI = 14+00.00
 EL = 32.20'
 K = 150
 VC = 125'

TIE TO EXISTING
 INCIDENTA MILLING
 NEEDED

(-10.6050%) (+10.2292%)
 (-13.4671%) (+10.2809%) (+10.2280%)
 (-11.4740%) (-10.3510%) (-10.0220%) (+10.2280%) (+10.2300%)

RIGHT DITCH - - - - -
 LEFT DITCH - - - - -

SEE SHEET 4 FOR ALIGNMENT

DESIGN SCOUR ELEVATION
 BENT 1 = 16.6'
 BENT 2 = 16.7'

END GRADE -L- STA 22+00
 EL = 46.52'

BEGIN GRADE -L- STA 13+00.00
 EL = 32.81'

BEGIN 2' BASE GRASS SWALE DITCH LT
 STA 14+00.00 EL = 29.45
 PI=14+20.00 LT.LT = 28.08

PI=15+00.00 LT.LT.E.L = 29.31

END 2' BASE GRASS SWALE DITCH LT
 STA 16+00.00 EL=29.54

BEGIN BRIDGE
 STA.16+42.50

END BRIDGE
 STA.17+42.50

BEGIN SPECIAL CUT DITCH RT
 STA 14+50.00 EL = 32.80'

END SPECIAL CUT DITCH RT
 STA 12+50.00 EL = 29.77'

BEGIN 2' BASE GRASS SWALE DITCH RT
 STA 13+00.00 EL = 30.13'

PI=13+50.00 RT.E.L = 29.39'

PI=14+00.00 RT.E.L = 29.21'

PI=14+50.00 RT.E.L = 29.20'

PI=15+00.00 RT.E.L = 29.31'

END 2' BASE GRASS SWALE DITCH RT
 STA 15+50.00 EL=29.42'