



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI
SECRETARY

February 3, 2011

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

ATTENTION: Tom Steffens
NCDOT Coordinator

Dear Sir:

Subject: **Application for Section 404 Nationwide Permit 23, Section 401 Water Quality Certification, and Neuse Riparian Buffer Authorization** for the proposed replacement of Bridge No. 48 on SR 1432 over Wheat Swamp Creek, Greene County. TIP No. B-4533; Federal Aid Project No. BRZ-1432(3); State Project No. 8.2180601; Debit \$240.00 from WBS 33752.1.1.

Please find enclosed the PCN form, jurisdictional determination, permit drawings, and half-size plan sheets for the above referenced project. A Categorical Exclusion (CE) was completed for this project in December 2007, and distributed shortly thereafter. Additional copies will be made available upon request. The North Carolina Department of Transportation (NCDOT) proposes to replace existing Bridge No. 48 on SR 1423 over Wheat Swamp Creek in Greene County. The project involves replacement of the existing 60-foot structure with a 105-foot long bridge in approximately the same location. There will be <0.01 acre of permanent impacts to riparian wetlands resulting from fill in wetlands on this project, as well as 4,947 sq. ft. of riparian buffer impacts.

The let date for this project is November 15, 2011, with a review date of September 27, 2011; however, the let date may advance as additional funds become available.

Regulatory approvals

Section 404 Permit: All aspects of this project are being processed by the Federal Highway Administration as a "Categorical Exclusion" in accordance with 23 CFR 771.115(b). The NCDOT requests that these activities be authorized by a Nationwide Permit 23 (72 CFR; 11092-11198, March 12, 2007).

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

TELEPHONE: 919-431-2000
FAX: 919-431-2001

WEBSITE: WWW.NCDOT.ORG

LOCATION:
4701 Atlantic Ave.
Suite 116
Raleigh, NC 27604

Section 401 Water Quality Certification: We anticipate 401 General Certification number 3701 will apply to this project. All general conditions of the Water Quality Certification will be met. NCDOT is providing five copies of this application to the NCDWQ for their review and approval. Authorization to debit the \$240 Permit Application Fee from WBS Element 33752.1.1 is hereby given.

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

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

Thank you for your time and assistance with this project. Please contact Amy James at aejames@ncdot.gov or (919) 212-5757 if you have any questions or need additional information.

Sincerely,



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

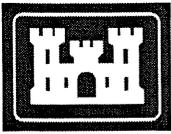
CC:

W/attachment

Mr. Brian Wrenn, NCDWQ (5 copies)

W/o attachment (see website for attachments)

Dr. David Chang, P.E., Hydraulics
Mr. Jay Bennett, P.E., Roadway Design
Mr. Dewayne Sykes, P.E., Utilities
Mr. Majed Alghandour, P. E., Programming and TIP
Mr. Art McMillan, P.E., Highway Design
Mr. Scott McLendon, USACE, Wilmington
Mr. Travis Wilson, NCWRC
Mr. Gary Jordan, USFWS
Mr. Ron Sechler, NMFS
Ms. Anne Deaton, NCDMF
Ms. Dionne Brown, PDEA
Mr. Mark Staley, Roadside Environmental
Mr. Greg Perfetti, P.E., Structure Design
Mr. Victor Barbour, P.E., Project Services Unit
Mr. C. E. Lassiter, P.E., Div. 2 Engineer
Mr. Jay Johnson, Div. 2 Environmental Officer



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: 23 or General Permit (GP) number: | | |
| 1c. Has the NWP or GP number been verified by the Corps? | | <input type="checkbox"/> Yes <input checked="" 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 48 over Wheat Swamp Creek on SR 1432 (Oakes Rd.) |
| 2b. County: | Greene |
| 2c. Nearest municipality / town: | Hookerton |
| 2d. Subdivision name: | <i>not applicable</i> |
| 2e. NCDOT only, T.I.P. or state project no: | B-4533 |

3. Owner Information

| | |
|---|---|
| 3a. Name(s) on Recorded Deed: | North Carolina Department of Transportation |
| 3b. Deed Book and Page No. | <i>not applicable</i> |
| 3c. Responsible Party (f or LLC if applicable): | <i>not applicable</i> |
| 3d. Street address: | 1598 Mail Service Center |
| 3e. City, state, zip: | Raleigh, NC 27699-1598 |
| 3f. Telephone no.: | (919) 212-5757 |
| 3g. Fax no.: | (919) 212-5785 |
| 3h. Email address: | aejames@ncdot.gov |

| | |
|---|---|
| 4. Applicant Information (if different from owner) | |
| 4a. Applicant is: | <input type="checkbox"/> Agent <input type="checkbox"/> Other, specify: |
| 4b. Name: | <i>not applicable</i> |
| 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: | <i>not applicable</i> |
| 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): | <i>not applicable</i> |
| 1b. Site coordinates (in decimal degrees): | Latitude: 35.386295 (DD.DDDDDD) Longitude: - 77.565215 (-DD.DDDDDD) |
| 1c. Property size: | 1.5 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: Natural communities found on the site include mesic mixed hardwood forest and small stream swamp forest; the main land uses in the project vicinity include agriculture and managed timberland. | |
| 3b. List the total estimated acreage of all existing wetlands on the property: 0.2 acre | |
| 3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 200 | |
| 3d. Explain the purpose of the proposed project: To replace a structurally deficient and functionally obsolete bridge. | |
| 3e. Describe the overall project in detail, including the type of equipment to be used: The project involves replacing a 60-foot bridge with a 105-foot, 2-span bridge on the existing alignment with an off-site detour. Standard road and bridge building equipment, such as trucks, dozers, and cranes will be used. | |
| 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: | <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): Jeff Harbour & John Metrailler | Agency/Consultant Company: Env. Services, Inc. Other: |
| 4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. The JD was issued on 5/9/2006 and expires on 5/9/2011 | |
| 5. Project History | |
| 5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown |
| 5b. If yes, explain in detail according to "help file" instructions. | |
| 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) |
|---|-----------------------|-----------------------------------|--|---|-------------------------------|
| Site 1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T | Fill | | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ | <0.01 |
| Site 2 <input type="checkbox"/> P <input type="checkbox"/> T | | | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Corps <input type="checkbox"/> DWQ | |
| Site 3 <input type="checkbox"/> P <input type="checkbox"/> T | | | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Corps <input type="checkbox"/> DWQ | |
| Site 4 <input type="checkbox"/> P <input type="checkbox"/> T | | | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Corps <input type="checkbox"/> DWQ | |
| Site 5 <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 <0.01 acre

2h. Comments: There will be 0.04 acre of hand clearing. Additionally, there will be <0.01 acre of temporary fill in wetlands for erosion control measures within the hand clearing area.

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) |
|--|-----------------------|--------------------|--|--|------------------------------------|------------------------------------|
| Site 1 <input type="checkbox"/> P <input type="checkbox"/> T | | | <input type="checkbox"/> PER <input type="checkbox"/> INT | <input type="checkbox"/> Corps <input type="checkbox"/> DWQ | | |
| Site 2 <input type="checkbox"/> P <input type="checkbox"/> T | | | <input type="checkbox"/> PER <input type="checkbox"/> INT | <input type="checkbox"/> Corps <input type="checkbox"/> DWQ | | |
| Site 3 <input type="checkbox"/> P <input type="checkbox"/> T | | | <input type="checkbox"/> PER <input type="checkbox"/> INT | <input type="checkbox"/> Corps <input type="checkbox"/> DWQ | | |
| Site 4 <input type="checkbox"/> P <input type="checkbox"/> T | | | <input type="checkbox"/> PER <input type="checkbox"/> INT | <input type="checkbox"/> Corps <input type="checkbox"/> DWQ | | |
| Site 5 <input type="checkbox"/> P <input type="checkbox"/> T | | | <input type="checkbox"/> PER <input type="checkbox"/> INT | <input type="checkbox"/> Corps <input type="checkbox"/> DWQ | | |
| Site 6 <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 X Perm
X Temp

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 | | | | | | X Permanent X Temporary | | |
| 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 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.

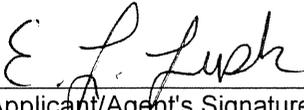
| | | | | | |
|---|--------------------------|---|--|--|------------------------------------|
| 6a. Project is in which protected basin? | | <input checked="" type="checkbox"/> Neuse <input type="checkbox"/> Catawba | | <input type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Randleman | <input type="checkbox"/> Other: |
| 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 | Road crossing | Wheat Swamp Creek | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 1,709 | 1,756 |
| B2 <input checked="" type="checkbox"/> P <input type="checkbox"/> T | Bridge | Wheat Swamp Creek | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 1,482 | 0 |
| B3 <input type="checkbox"/> P <input type="checkbox"/> T | | | <input type="checkbox"/> Yes <input type="checkbox"/> No | | |
| 6h. Total buffer impacts | | | | 3,191 | 1,756 |
| 6i. Comments: | | | | | |

| 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? | | | | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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: | | | | |

| D. Impact Justification and Mitigation | | |
|---|--|----------|
| 1. Avoidance and Minimization | | |
| 1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. The proposed bridge is 40 feet longer than the existing bridge; the proposed bridge will be at approximately the same grade as the existing structure; 3:1 fill slopes where practicable; and the implementation of Design Standards in Sensitive Watersheds. | | |
| 1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. NCDOT Best Management Practices for Bridge Demolition, Removal and Construction will be followed, as well as those for Sedimentation and Erosion Control; and the utilization of an off-site detour. | | |
| 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 If no, explain: | |
| 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. | | |

| 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: see attached permit drawings. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 2. Stormwater Management Plan | |
| 2a. What is the overall percent imperviousness of this project? | N/A |
| 2b. Does this project require a Stormwater Management Plan? | <input checked="" 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: See attached permit drawings. | |
| 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 checked="" 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? N/A | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 5b. Have all of the 401 Unit submittal requirements been met? N/A | <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. Due to the minimal transportation impact resulting from this bridge replacement, this project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect or cumulative effects study will not be necessary. | |
| 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 checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 5c. If yes, indicate the USFWS Field Office you have contacted. | <input checked="" 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? NHP, USFWS, NCDOT field surveys | | |
| 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 Index | | |
| 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? NEPA Documentation | | |
| 8. Flood Zone Designation (Corps Requirement) | | |
| 8a. Will this project occur in a FEMA-designated 100-year floodplain? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 8b. If yes, explain how project meets FEMA requirements: NCDOT Hydraulics Unit coordination with FEMA | | |
| 8c. What source(s) did you use to make the floodplain determination? FEMA Maps | | |
| <u>Dr. Gregory J. Thorpe, Ph D</u> Applicant/Agent's Printed Name |  _____ Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.) | <u>2.3.11</u> Date |

U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT

COPY

Action Id. 200610710

County: Lenoir

U.S.G.S. Quad: Hookerton

NOTIFICATION OF JURISDICTIONAL DETERMINATION

Property Owner/Agent: North Carolina Department of Transportation

Address: Division 2 Environmental Officer

Post Office Box 1587

Greenville, NC 27835

Telephone No.: 252-830-3490

Property description:

Size (acres) corridor

Nearest Town Hookerton

Nearest Waterway Wheat Swamp Creek

River Basin Neuse

USGS HUC 03020203

Coordinates N 35.3863 W 77.5653

Location description Bridge no. 48 on NCSR 1432 over Wheat Swamp Creek, south of Hookerton, at the Lenoir and Greene county line. TIP # B-4533.

Indicate Which of the Following Apply:

A. Preliminary Determination

- Based on preliminary information, there may be wetlands on the above described property. We strongly suggest you have this property inspected to determine the extent of Department of the Army (DA) jurisdiction. To be considered final, a jurisdictional determination must be verified by the Corps. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331).

B. Approved Determination

- There are Navigable Waters of the United States within the above described property subject to the permit requirements of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

- There are waters of the U.S. including wetlands on the above described project area subject to the permit requirements of Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

We strongly suggest you have the wetlands on your property delineated. Due to the size of your property and/or our present workload, the Corps may not be able to accomplish this wetland delineation in a timely manner. For a more timely delineation, you may wish to obtain a consultant. To be considered final, any delineation must be verified by the Corps.

The waters of the U.S. including wetland on your project area have been delineated and the delineation has been verified by the Corps. We strongly suggest you have this delineation surveyed. Upon completion, this survey should be reviewed and verified by the Corps. Once verified, this survey will provide an accurate depiction of all areas subject to CWA jurisdiction on your property which, provided there is no change in the law or our published regulations, may be relied upon for a period not to exceed five years.

The wetlands have been delineated and surveyed and are accurately depicted on the plat signed by the Corps Regulatory Official identified below on _____. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

- There are no waters of the U.S., to include wetlands, present on the above described property which are subject to the permit requirements of Section 404 of the Clean Water Act (33 USC 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

- The property is located in one of the 20 Coastal Counties subject to regulation under the Coastal Area Management Act (CAMA). You should contact the Division of Coastal Management in Washington, NC, at (252) 946-6481 to determine their requirements.

Action ID: 200610710

Placement of dredged or fill material within waters of the US and/or wetlands without a Department of the Army permit may constitute a violation of Section 301 of the Clean Water Act (33 USC § 1311). If you have any questions regarding this determination and/or the Corps regulatory program, please contact William Wescott at 252-975-1616 extension 31.

C. Basis For Determination

Areas exhibit the three parameters specified in the 1987 USACE Wetland Delineation Manual and are adjacent to Wheat Swamp Creek which connects to Contentnea Creek which connects to the Neuse River.

D. Remarks

E. Appeals Information (This information applies only to approved jurisdictional determinations as indicated in B. above)

This correspondence constitutes an approved jurisdictional determination for the above described site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and request for appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the South Atlantic Division, Division Office at the Following address:

Mr. Michael F. Bell, Administrative Appeal Review Officer
CESAD-ET-CO-R
U.S. Army Corps of Engineers, South Atlantic Division
60 Forsyth Street, Room 9M15
Atlanta, Georgia 30303-8801

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by 7/8/2006.

It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this correspondence.

Corps Regulatory Official: _____

William Wescott, F.W.S.

Date 05/09/2006

Expiration Date 05/09/2011

Copy furnished:

Environmental Services, Inc. -- Lauren Cobb

JURISDICTIONAL DETERMINATION
U.S. Army Corps of Engineers

Revised 8/13/04

DISTRICT OFFICE: CESA-W-RG-W
FILE NUMBER: 200610710

PROJECT LOCATION INFORMATION:

State: NC
County: Lenoir
Center coordinates of site (latitude/longitude): 35.3863 N 77.5653 W
Approximate size of area (parcel) reviewed, including uplands: acres.
Name of nearest waterway: Wheat Swamp Creek
Name of watershed: Neuse River Basin

JURISDICTIONAL DETERMINATION

Completed: Desktop determination Date:
Site visit(s) Date(s): 2/8/2006

Jurisdictional Determination (JD):

- Preliminary JD - Based on available information, *there appear to be* (or) *there appear to be no* "waters of the United States" and/or "navigable waters of the United States" on the project site. A preliminary JD is not appealable (Reference 33 CFR part 331).
- Approved JD - An approved JD is an appealable action (Reference 33 CFR part 331).
Check all that apply:
 - There are* "navigable waters of the United States" (as defined by 33 CFR part 329 and associated guidance) within the reviewed area. Approximate size of jurisdictional area:
 - There are* "waters of the United States" (as defined by 33 CFR part 328 and associated guidance) within the reviewed area. Approximate size of jurisdictional area:
 - There are* "isolated, non-navigable, intra-state waters or wetlands" within the reviewed area.
 Decision supported by SWANCC/Migratory Bird Rule Information Sheet for Determination of No Jurisdiction.

BASIS OF JURISDICTIONAL DETERMINATION:

A. Waters defined under 33 CFR part 329 as "navigable waters of the United States":

- The presence of waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

B. Waters defined under 33 CFR part 328.3(a) as "waters of the United States":

- (1) The presence of waters, which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
- (2) The presence of interstate waters including interstate wetlands¹.
- (3) The presence of other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate commerce including any such waters (check all that apply):
 - (i) which are or could be used by interstate or foreign travelers for recreational or other purposes.
 - (ii) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
 - (iii) which are or could be used for industrial purposes by industries in interstate commerce.
- (4) Impoundments of waters otherwise defined as waters of the US.
- (5) The presence of a tributary to a water identified in (1) - (4) above.
- (6) The presence of territorial seas.
- (7) The presence of wetlands adjacent² to other waters of the US, except for those wetlands adjacent to other wetlands.

Rationale for the Basis of Jurisdictional Determination (applies to any boxes checked above). *If the jurisdictional water or wetland is not itself a navigable water of the United States, describe connection(s) to the downstream navigable waters. If B(1) or B(3) is used as the Basis of Jurisdiction, document navigability and/or interstate commerce connection (i.e., discuss site conditions, including why the waterbody is navigable and/or how the destruction of the waterbody could affect interstate or foreign commerce). If B(2, 4, 5 or 6) is used as the Basis of Jurisdiction, document the rationale used to make the determination. If B(7) is used as the Basis of Jurisdiction, document the rationale used to make adjacency determination: Areas exhibit the three parameters specified in the 1987 USACE Wetland Delineation Manual and are adjacent to Wheat Swamp Creek which connects to Contentnea Creek which connects to the Neuse River.*

Lateral Extent of Jurisdiction: (Reference: 33 CFR parts 328 and 329)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Ordinary High Water Mark indicated by: | <input checked="" type="checkbox"/> High Tide Line indicated by: |
| <input checked="" type="checkbox"/> clear, natural line impressed on the bank | <input type="checkbox"/> oil or scum line along shore objects |
| <input checked="" type="checkbox"/> the presence of litter and debris | <input type="checkbox"/> fine shell or debris deposits (foreshore) |
| <input checked="" type="checkbox"/> changes in the character of soil | <input type="checkbox"/> physical markings/characteristics |
| <input checked="" type="checkbox"/> destruction of terrestrial vegetation | <input type="checkbox"/> tidal gages |
| <input type="checkbox"/> shelving | <input type="checkbox"/> other: |
| <input type="checkbox"/> other: | |
- Mean High Water Mark indicated by:
- survey to available datum; physical markings; vegetation lines/changes in vegetation types.
- Wetland boundaries, as shown on the attached wetland delineation map and/or in a delineation report prepared by: Environmental Services, Inc.

Basis For Not Asserting Jurisdiction:

- The reviewed area consists entirely of uplands.
- Unable to confirm the presence of waters in 33 CFR part 328(a)(1, 2, or 4-7).
- Headquarters declined to approve jurisdiction on the basis of 33 CFR part 328.3(a)(3).
- The Corps has made a case-specific determination that the following waters present on the site are not Waters of the United States:
- Waste treatment systems, including treatment ponds or lagoons, pursuant to 33 CFR part 328.3.
 - Artificially irrigated areas, which would revert to upland if the irrigation ceased.
 - Artificial lakes and ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
 - Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.
 - Water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States found at 33 CFR 328.3(a).
 - Isolated, intrastate wetland with no nexus to interstate commerce.
 - Prior converted cropland, as determined by the Natural Resources Conservation Service. Explain rationale:
 - Non-tidal drainage or irrigation ditches excavated on dry land. Explain rationale:
 - Other (explain):

DATA REVIEWED FOR JURISDICTIONAL DETERMINATION (mark all that apply):

- Maps, plans, plots or plat submitted by or on behalf of the applicant.
- Data sheets prepared/submitted by or on behalf of the applicant.
- This office concurs with the delineation report, dated 3/22/2006, prepared by (company): Environmental Services, Inc.
- This office does not concur with the delineation report, dated _____, prepared by (company): _____
- Data sheets prepared by the Corps.
- Corps' navigable waters' studies:
- U.S. Geological Survey Hydrologic Atlas:
- U.S. Geological Survey 7.5 Minute Topographic maps: Hookerton
- U.S. Geological Survey 7.5 Minute Historic quadrangles:
- U.S. Geological Survey 15 Minute Historic quadrangles:
- USDA Natural Resources Conservation Service Soil Survey:
- National wetlands inventory maps:
- State/Local wetland inventory maps:
- FEMA/FIRM maps (Map Name & Date):
- 100-year Floodplain Elevation is: _____ (NGVD)
- Aerial Photographs (Name & Date): USGS 1998
- Other photographs (Date):
- Advanced Identification Wetland maps:
- Site visit/determination conducted on: 2/8/2006
- Applicable/supporting case law:
- Other information (please specify):

¹Wetlands are identified and delineated using the methods and criteria established in the Corps Wetland Delineation Manual (87 Manual) (i.e., occurrence of hydrophytic vegetation, hydric soils and wetland hydrology).

²The term "adjacent" means bordering, contiguous, or neighboring. Wetlands separated from other waters of the U.S. by man-made dikes or barriers, natural river berms, beach dunes, and the like are also adjacent.

**NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND
REQUEST FOR APPEAL**

| | | |
|-------------------------------------|--|-------------------|
| Applicant: NCDOT | File Number: 200610710 | Date: 5/9/2006 |
| Attached is: | | See Section below |
| <input type="checkbox"/> | INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission) | A |
| <input type="checkbox"/> | PROFFERED PERMIT (Standard Permit or Letter of permission) | B |
| <input type="checkbox"/> | PERMIT DENIAL | C |
| <input checked="" type="checkbox"/> | APPROVED JURISDICTIONAL DETERMINATION | D |
| <input type="checkbox"/> | PRELIMINARY JURISDICTIONAL DETERMINATION | E |

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://www.usace.army.mil/inet/functions/cw/cecwo/reg> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

US Army Corps of Engineers
attn: William Wescott
Post Office Box 1000
Washington, NC 27889

If you only have questions regarding the appeal process you may also contact:

Mr. Michael F. Bell, Administrative Appeal Review Officer
CESAD-ET-CO-R
U.S. Army Corps of Engineers, South Atlantic Division
60 Forsyth Street, Room 9M15
Atlanta, Georgia 30303-8801

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

| | | |
|----------------------------------|-------|-------------------|
| Signature of appellant or agent. | Date: | Telephone number: |
|----------------------------------|-------|-------------------|

DIVISION ENGINEER:

Commander
U.S. Army Engineer Division, South Atlantic
60 Forsyth Street, Room 9M15
Atlanta, Georgia 30303-3490

STORMWATER MANAGEMENT PLAN

Project: 33752.1.1

TIP No. B-4533

County: Greene and Lenoir

Date: 1/12/2011

Hydraulics Project Manager: Andrew Nottingham, PE (NCDOT Hydraulics Unit)

ROADWAY DESCRIPTION

The project B-4533 consists of constructing a new two-lane bridge 100 feet long to replace the existing bridge #48 in Greene County on SR-1091 over Wheat Swamp Creek. The total project length is 0.123miles. The project creates impacts to Wheat Swamp Creek, which is part of the Neuse River Basin. The project drainage systems primarily consist of open ditches.

ENVIRONMENTAL DESCRIPTION

The project is located at the Greene/Lenoir County line. The surrounding land is wide coastal plain and consists of farmland, woodland, swamp, and rural housing. Wetlands are located in the project vicinity. Wheat Swamp Creek is classified as C, Sw, NSW. Neuse River basin riparian buffers will be impacted by roadway fill and temporarily by clearing and construction staging operations.

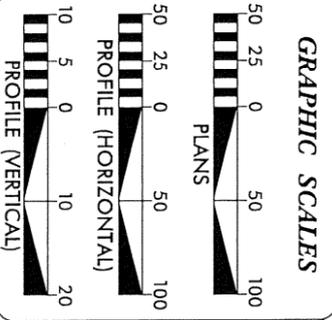
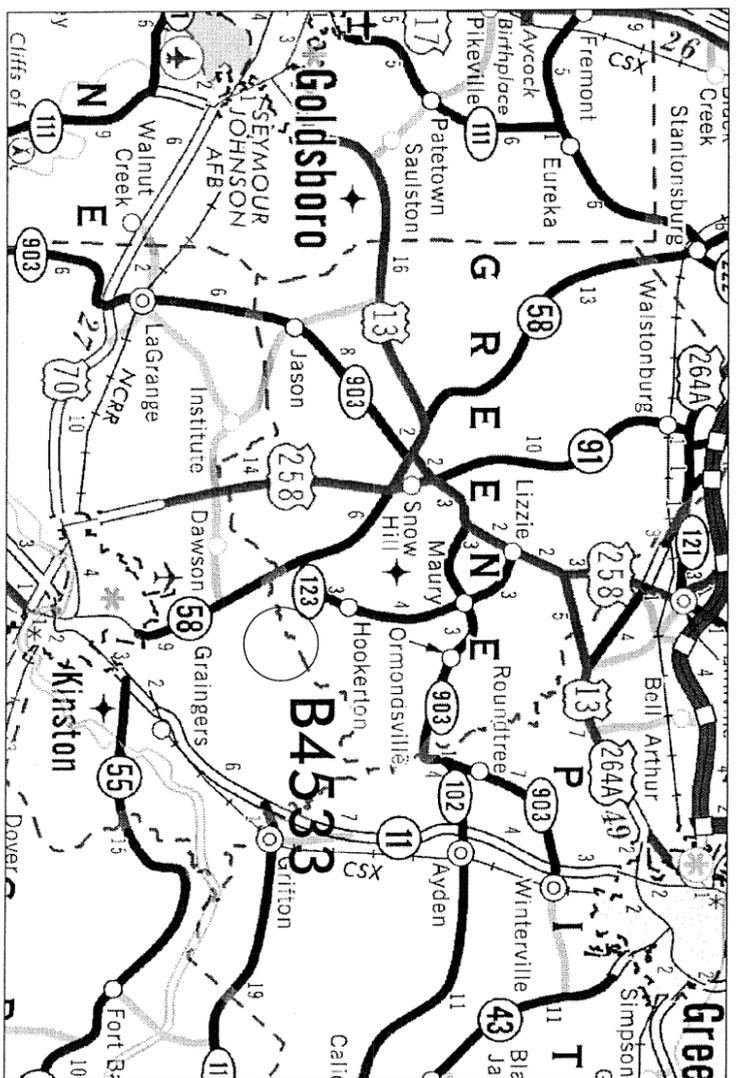
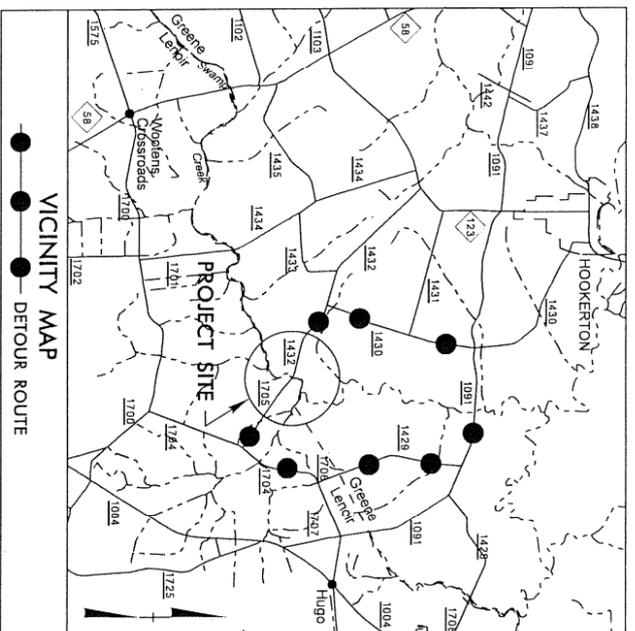
BEST MANAGEMENT PRACTICES AND MAJOR STRUCTURES

- Roadway drainage conveys through grass swales into wetlands southwest of the bridge prior to the buffer and into an existing ditch northwest of the bridge prior to the buffer.
- Bridge deck drainage is collected by a short channel section and is released just east of the bridge into a grass swale that drains east and away from Wheat Swamp Creek.
- Deck drains have been eliminated to remove direct discharge from the bridge deck.
- Top down construction will be used to construct the proposed 2 @ 50 ft span cored slab bridge.

SYTIME
DCN
USERNAME

TIP PROJECT: B-4533

CONTRACT:



DESIGN DATA

| | | |
|----------|---|--------|
| ADT 2011 | = | 637 |
| ADT 2031 | = | 1230 |
| DHV | = | 10 % |
| D | = | 60 % |
| T | = | 3 % |
| V | = | 60 MPH |

* (TTST 1% + DUAL 2%)
FUNC. CLASS. = LOCAL RURAL
SUB-REGIONAL TIER

PROJECT LENGTH

| | | |
|-------------------------------------|---|------------|
| LENGTH ROADWAY TIP PROJECT B-4533 | = | 0.104 MILE |
| LENGTH STRUCTURE TIP PROJECT B-4533 | = | 0.019 MILE |
| TOTAL LENGTH TIP PROJECT B-4533 | = | 0.123 MILE |

Prepared in the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
NOVEMBER 15, 2010

LETTING DATE:
NOVEMBER 15, 2011

BRENDA MOORE, PE
PROJECT ENGINEER

KATRINA N. WASHINGTON, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

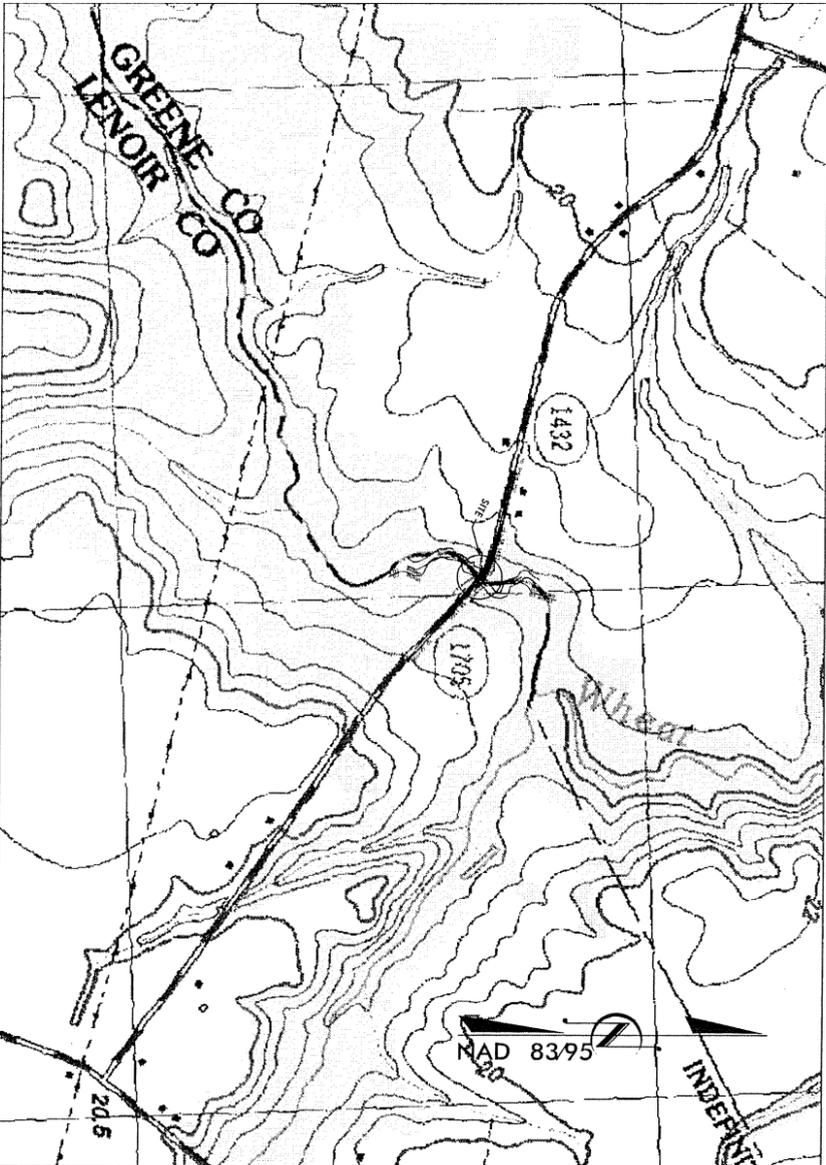
ROADWAY DESIGN ENGINEER

STATE HIGHWAY DESIGN ENGINEER



THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
** DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE RADIUS (45 MPH) AND HORIZONTAL STOPPING SIGHT DISTANCE (36 MPH).

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



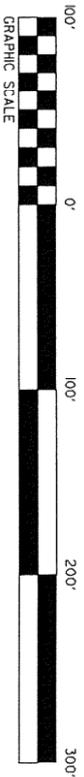
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

GREENE AND LENOIR COUNTIES

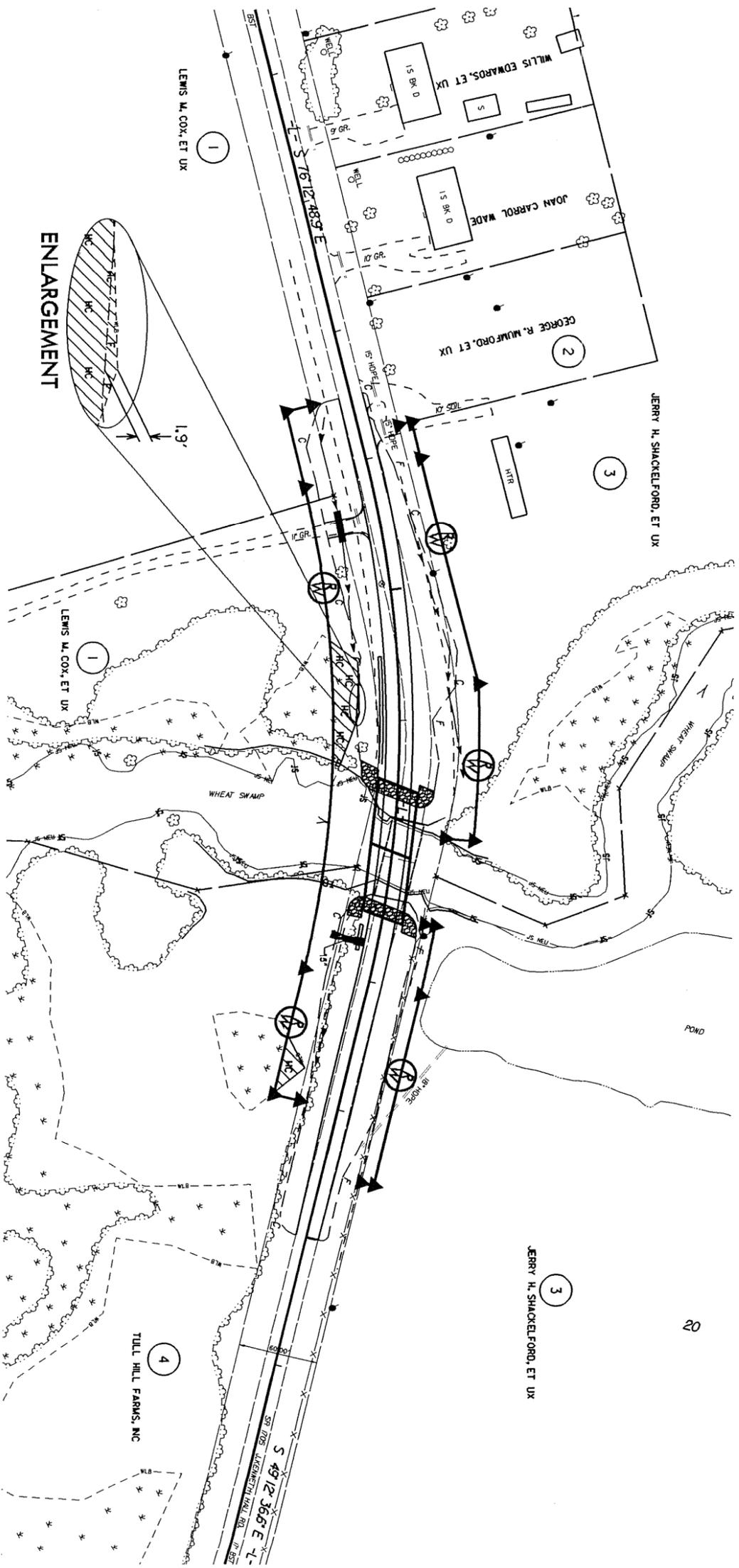
WETLAND AND SURFACE WATER IMPACTS PERMIT DRAWINGS

| STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
|-----------------|----------------|---------------|--------------|
| N.C. | B-4533 | 1 | |
| STATE PROJ. NO. | F.L. PROJ. NO. | DESCRIPTION | |
| 33752.1.1 | BR2-1432(3) | PE | |
| 33752.2.1 | BR2-1432(3) | RW, UTILITIES | |

Permit Drawing
Sheet 1 of 7



WETLAND AND SURFACE WATER IMPACTS



HC HC DENOTES HAND CLEARING

F F DENOTES FILL IN WETLAND

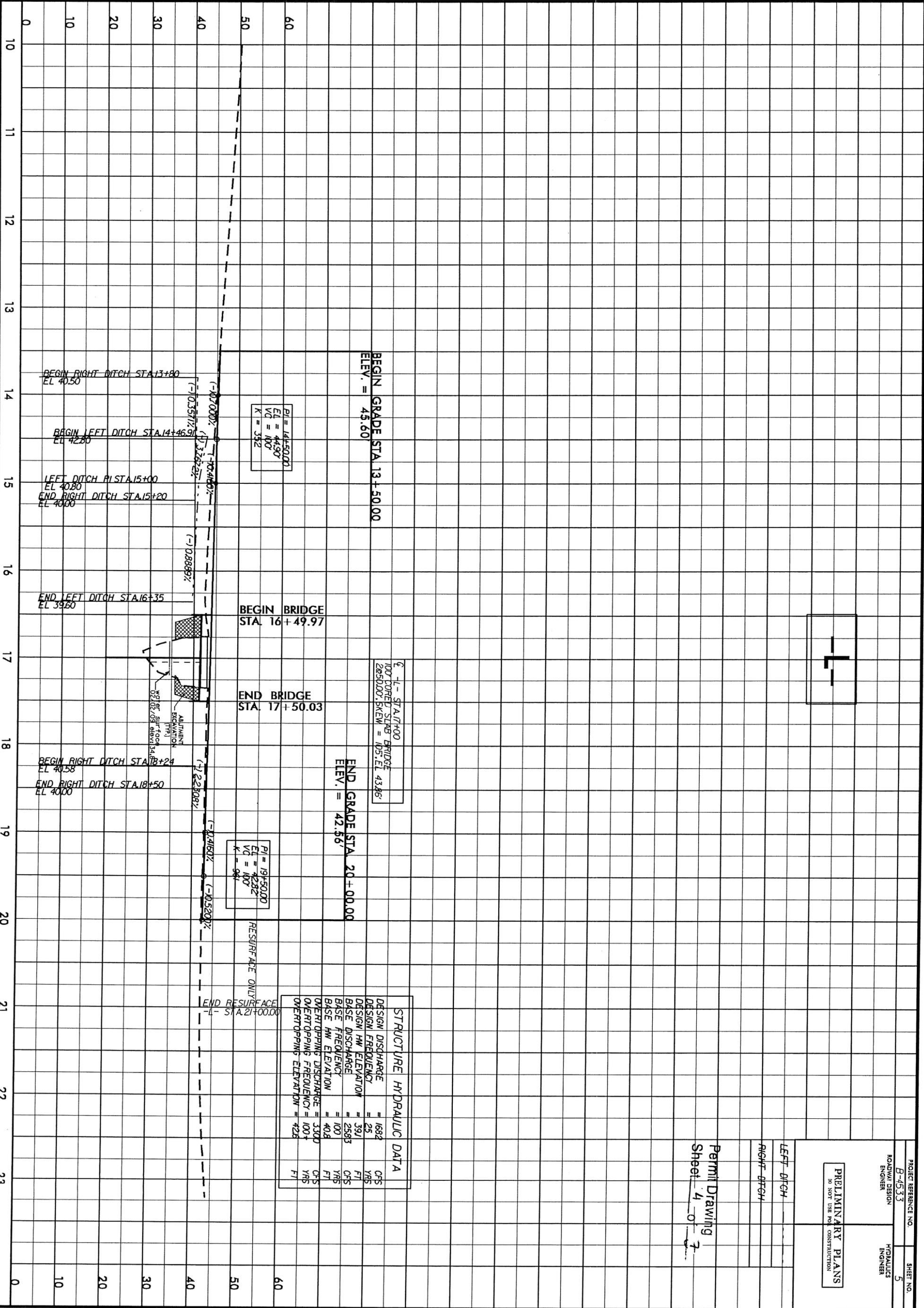


Permit Drawing
Sheet 2 of 7

| | |
|---|---------------------|
| PROJECT REFERENCE NO. B-4533 | SHEET NO. 4 |
| HW SHEET NO. ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small> | |

DATE: 5/14/99
TIME: 10:00 AM
DRAWN BY: J. W. WILSON
CHECKED BY: J. W. WILSON
SCALE: AS SHOWN
PROJECT: S 7612 489' E
SHEET: 2 OF 7

SYSTEM ###
 ### DGN ###
 ### USERNAME ###



BEGIN GRADE STA. 13+50.00
 ELEV. = 45.60

PI = 14+50.00
 VC = 44.90
 K = 352

BEGIN BRIDGE
 STA. 16+49.97

END BRIDGE
 STA. 17+50.03

100' CORED SLAB BRIDGE
 265000' SKEM = 105' EL. 43.86'

END GRADE STA. 20+00.00
 ELEV. = 42.56'

PI = 19+50.00
 VC = 42.82
 K = 941

END RESURFACE
 STA. 21+00.00

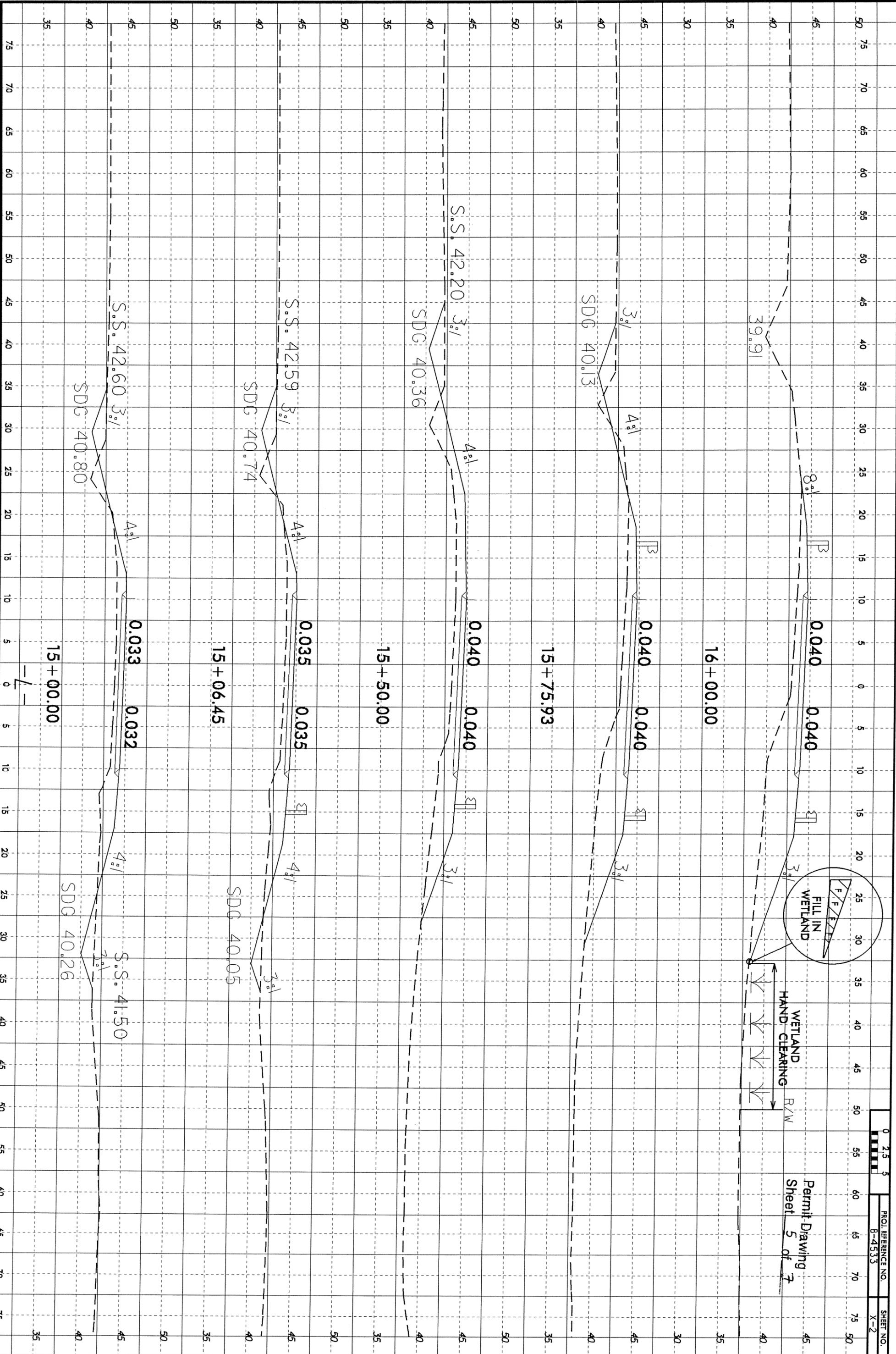
| STRUCTURE HYDRAULIC DATA | |
|--------------------------|------------|
| DESIGN DISCHARGE | = 1682 CFS |
| DESIGN FREQQUENCY | = 25 YRS |
| DESIGN HW ELEVATION | = 39.1 FT |
| BASE DISCHARGE | = 2583 CFS |
| BASE FREQQUENCY | = 100 YRS |
| BASE HW ELEVATION | = 40.8 FT |
| OVERTOPPING DISCHARGE | = 3300 CFS |
| OVERTOPPING FREQQUENCY | = 100+ YRS |
| OVERTOPPING ELEVATION | = 42.6 FT |



PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

LEFT DITCH
 RIGHT DITCH

Permit Drawing
 Sheet 4 of 7



Property Owners

| | | | | |
|-------------------|--------------------------|-----------|----|-------|
| Lewis Cox | 2036 Oakes Rd. | Hookerton | NC | 28536 |
| Shackleford Farms | 1652 J. Kenneth Hall Rd. | Hookerton | NC | 28536 |
| TULL HILL FARMS | 2262 Hugo Rd. | Kinston | NC | 28501 |

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GREENE & LENOIR COUNTY
WBS - 33752.1.1 (B-4533)

1/12/2011

SHEET

ATN Revised 3/31/05

Permit Drawing
Sheet 6 of 7

BUFFER IMPACTS SUMMARY

| SITE NO. | STRUCTURE SIZE / TYPE | STATION (FROM/TO) | TYPE | | | | IMPACT | | | MITIGABLE | | | BUFFER REPLACEMENT | | |
|----------------|-----------------------|-------------------|---------------|--------|-----------------|---------------------------|---------------------------|--------------------------|---------------------------|---------------------------|--------------------------|---------------------------|---------------------------|--------|--------|
| | | | ROAD CROSSING | BRIDGE | PARALLEL IMPACT | ZONE 1 (ft ²) | ZONE 2 (ft ²) | TOTAL (ft ²) | ZONE 1 (ft ²) | ZONE 2 (ft ²) | TOTAL (ft ²) | ZONE 1 (ft ²) | ZONE 2 (ft ²) | | |
| | | | | | | | | | | | | | | BRIDGE | BRIDGE |
| | Roadway | 15+98/16+50 | x | | | 1069 | 1137 | | | | | | | | |
| | 100' Bridge | 16+50/17+50 | | x | | 1482 | | | | | | | | | |
| | Roadway | 17+50/17+92 | x | | | 640 | 619.0 | | | | | | | | |
| | | | | | | | | | | | | | | | |
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| TOTALS: | | | | | | 3191 | 1756 | | | | | | | | |

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

GREENE & LENOIR COUNTY
PROJECT: 33752.1.1. (B-4533)

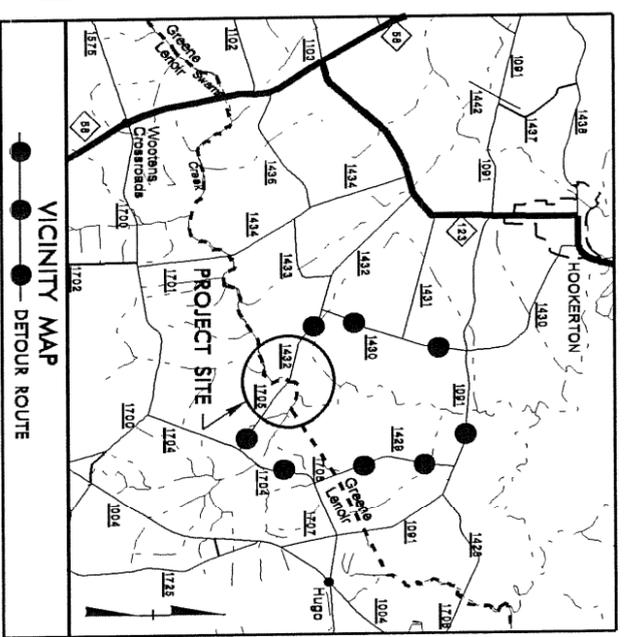
Buffer Drawing
Sheet 5 of 6

1/12/2011
SHEET OF

TIP PROJECT: B-4533

CONTRACT:

See Sheet 1-A For Index of Sheets



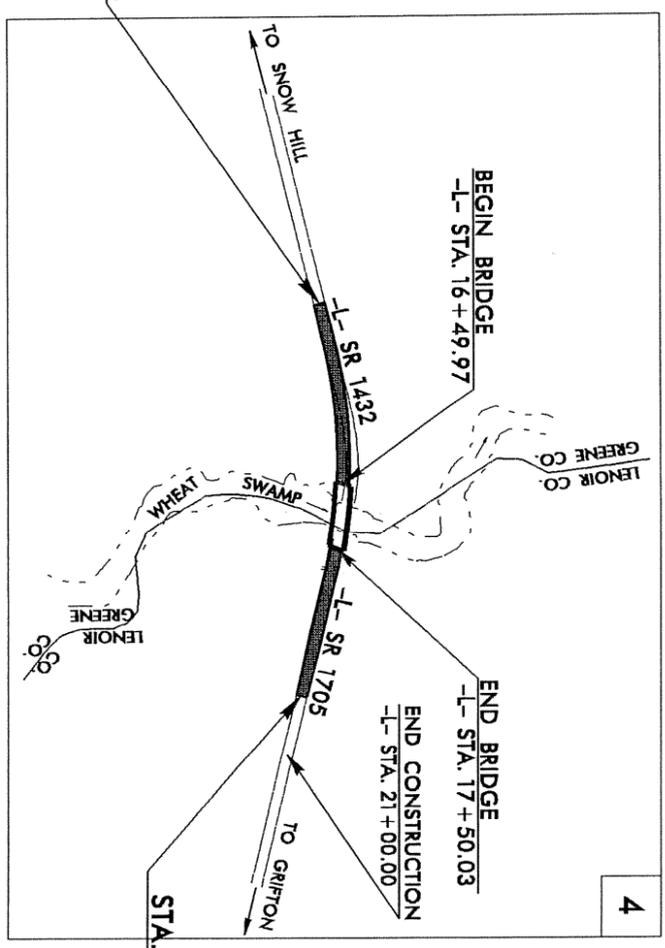
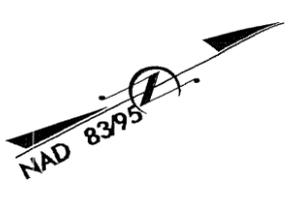
STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

GREENE AND LENOIR COUNTIES

LOCATION: REPLACE BRIDGE NO. 48 OVER WHEAT SWAMP CREEK
 ON SR 1432

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

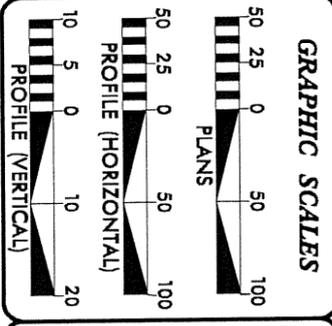
| STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|-----------------------------|-------------|---------------|
| N.C. B-4533 | 1 | |
| STATE REGION | 7-A (RURAL) | |
| 33752.1.1 | BRZ-1432(3) | PE |
| 33752.2.1 | BRZ-1432(3) | RAW UTILITIES |



STA. 13+50.00 -L- BEGIN TIP PROJECT B-4533

STA. 20+00.00 -L- END TIP PROJECT B-4533

THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.
 CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
 ** DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE RADIUS (45 MPH) AND HORIZONTAL STOPPING SIGHT DISTANCE (36 MPH).



DESIGN DATA

| | |
|----------------------------|--------|
| ADT 2011 = | 637 |
| ADT 2031 = | 1230 |
| DHV = | 10 % |
| D = | 60 % |
| T = | 3 % |
| V = | 60 MPH |
| * (TTST 1% + DUAL 2%) | |
| FUNC. CLASS. = LOCAL RURAL | |
| SUB-REGIONAL TIER | |

PROJECT LENGTH

| | | |
|-------------------------------------|---|------------|
| LENGTH ROADWAY TIP PROJECT B-4533 | = | 0.104 MILE |
| LENGTH STRUCTURE TIP PROJECT B-4533 | = | 0.019 MILE |
| TOTAL LENGTH TIP PROJECT B-4533 | = | 0.123 MILE |

Prepared in the Office of:
DIVISION OF HIGHWAYS
 1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
 NOVEMBER 17, 2010

LETTING DATE:
 NOVEMBER 15, 2011

BRENDA MOORE, PE
 PROJECT ENGINEER

KATRINA N. WASHINGTON, PE
 PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.

DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER

P.E.

PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

- State Line _____
- County Line _____
- Township Line _____
- City Line _____
- Reservation Line _____
- Property Line _____
- Existing Iron Pin _____
- Property Corner _____
- Property Monument _____
- Parcel/Sequence Number _____
- Existing Fence Line _____
- Proposed Woven Wire Fence _____
- Proposed Chain Link Fence _____
- Proposed Barbed Wire Fence _____
- Existing Wetland Boundary _____
- Proposed Wetland Boundary _____
- Existing Endangered Animal Boundary _____
- Existing Endangered Plant Boundary _____

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or UG Tank Cap _____
- Sign _____
- Well _____
- Small Mine _____
- Foundation _____
- Area Outline _____
- Cemetery _____
- Building _____
- School _____
- Church _____
- Dam _____

HYDROLOGY:

- Stream or Body of Water _____
- Hydro, Pool or Reservoir _____
- Jurisdictional Stream _____
- Buffer Zone 1 _____
- Buffer Zone 2 _____
- Flow Arrow _____
- Disappearing Stream _____
- Spring _____
- Wetland _____
- Proposed Lateral, Tail, Head Ditch _____
- False Sump _____

RAILROADS:

- Standard Gauge _____
- RR Signal Milepost _____
- Switch _____
- RR Abandoned _____
- RR Dismantled _____

RIGHT OF WAY:

- Baseline Control Point _____
- Existing Right of Way Marker _____
- Existing Right of Way Line _____
- Proposed Right of Way Line _____
- Proposed Right of Way Line with Iron Pin and Cap Marker _____
- Proposed Right of Way Line with Concrete or Granite Marker _____
- Existing Control of Access _____
- Proposed Control of Access _____
- Existing Easement Line _____
- Proposed Temporary Construction Easement _____
- Proposed Temporary Drainage Easement _____
- Proposed Permanent Drainage Easement _____
- Proposed Permanent Drainage / Utility Easement _____
- Proposed Permanent Utility Easement _____
- Proposed Temporary Utility Easement _____
- Proposed Permanent Easement with Iron Pin and Cap Marker _____

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement _____
- Existing Curb _____
- Proposed Slope Stakes Cut _____
- Proposed Slope Stakes Fill _____
- Proposed Wheel Chair Ramp _____
- Existing Metal Guardrail _____
- Proposed Guardrail _____
- Existing Cable Guidrail _____
- Proposed Cable Guidrail _____
- Equality Symbol _____
- Pavement Removal _____

VEGETATION:

- Single Tree _____
- Single Shrub _____
- Hedge _____
- Woods Line _____
- Orchard _____
- Vineyard _____

EXISTING STRUCTURES:

- MAJOR:
 - Bridge, Tunnel or Box Culvert _____
 - Bridge Wing Wall, Head Wall and End Wall _____
- MINOR:
 - Head and End Wall _____
 - Pipe Culvert _____
 - Footbridge _____
 - Drainage Box: Catch Basin, DI or JB _____
 - Paved Ditch Gutter _____
 - Storm Sewer Manhole _____
 - Storm Sewer _____

UTILITIES:

- POWER:
 - Existing Power Pole _____
 - Proposed Power Pole _____
 - Existing Joint Use Pole _____
 - Proposed Joint Use Pole _____
 - Power Manhole _____
 - Power Line Tower _____
 - Power Transformer _____
 - UG Power Cable Hand Hole _____
 - H-Frame Pole _____
 - Recorded UG Power Line _____
 - Designated UG Power Line (S.U.E.*) _____
- TELEPHONE:
 - Existing Telephone Pole _____
 - Proposed Telephone Pole _____
 - Telephone Manhole _____
 - Telephone Booth _____
 - Telephone Pedestal _____
 - Telephone Cell Tower _____
 - UG Telephone Cable Hand Hole _____
 - Recorded UG Telephone Cable _____
 - Designated UG Telephone Cable (S.U.E.*) _____
 - Recorded UG Telephone Conduit _____
 - Designated UG Telephone Conduit (S.U.E.*) _____
 - Recorded UG Fiber Optics Cable _____
 - Designated UG Fiber Optics Cable (S.U.E.*) _____

WATER:

- Water Manhole _____
- Water Meter _____
- Water Valve _____
- Water Hydrant _____
- Recorded UG Water Line _____
- Designated UG Water Line (S.U.E.*) _____
- Above Ground Water Line _____

TV:

- TV Satellite Dish _____
- TV Pedestal _____
- TV Tower _____
- UG TV Cable Hand Hole _____
- Recorded UG TV Cable _____
- Designated UG TV Cable (S.U.E.*) _____
- Recorded UG Fiber Optic Cable _____
- Designated UG Fiber Optic Cable (S.U.E.*) _____

GAS:

- Gas Valve _____
- Gas Meter _____
- Recorded UG Gas Line _____
- Designated UG Gas Line (S.U.E.*) _____
- Above Ground Gas Line _____

SANITARY SEWER:

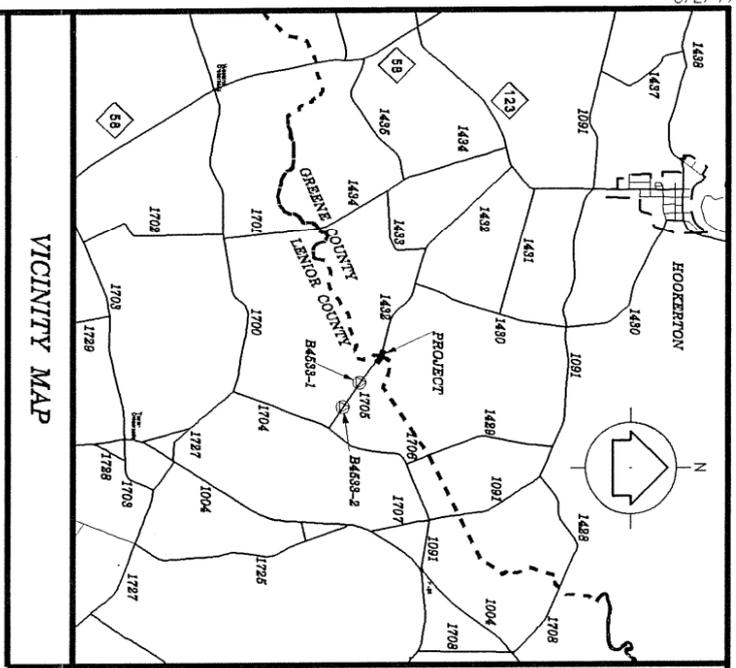
- Sanitary Sewer Manhole _____
- Sanitary Sewer Cleanout _____
- UG Sanitary Sewer Line _____
- Above Ground Sanitary Sewer _____
- Recorded SS Forced Main Line _____
- Designated SS Forced Main Line (S.U.E.*) _____

MISCELLANEOUS:

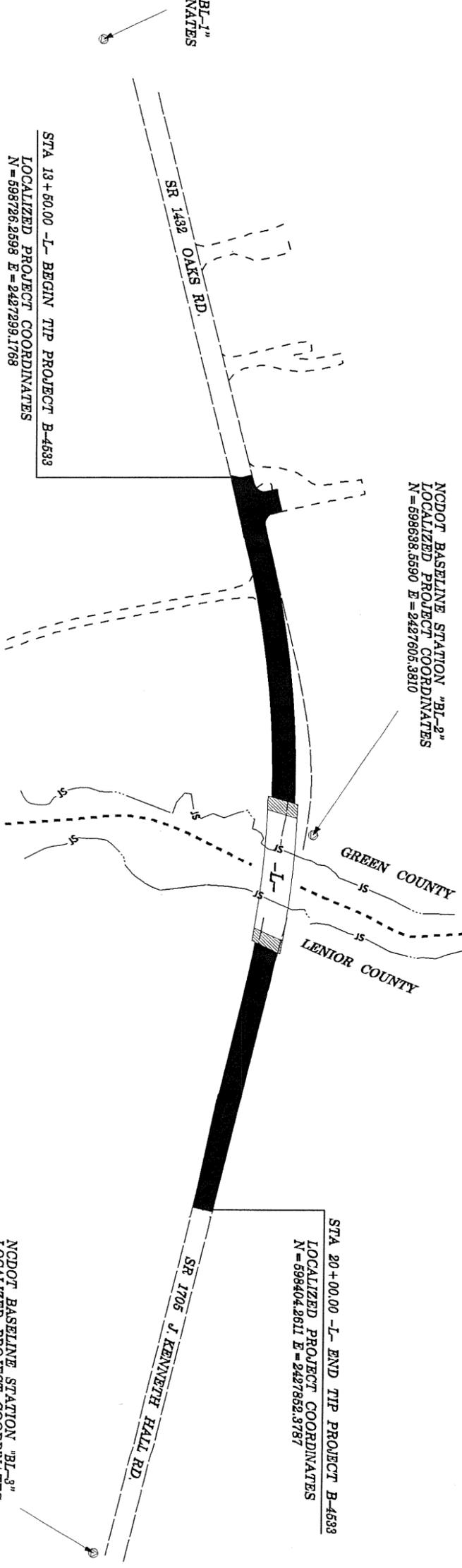
- Utility Pole _____
- Utility Pole with Base _____
- Utility Located Object _____
- Utility Traffic Signal Box _____
- Utility Unknown UG Line _____
- UG Tank: Water, Gas, Oil _____
- AG Tank: Water, Gas, Oil _____
- UG Test Hole (S.U.E.*) _____
- Abandoned According to Utility Records _____
- End of Information _____

SURVEY CONTROL SHEET B-4533

| | |
|---------------------------------|------------------|
| PROJECT REFERENCE NO. B-4533 | SHEET NO. 1-C |
| Location and Surveys | |



| BL POINT | DESC. | NORTH | EAST | ELEVATION | L STATION | OFFSET |
|----------|-------|-------------|--------------|-----------|------------------------|----------|
| 1 | BL-1 | 598796.6320 | 2426904.8860 | 49.55 | OUTSIDE PROJECT LIMITS | |
| 2 | BL-2 | 598638.5390 | 2427605.3810 | 43.37 | 16+63.88 | 27.77 LT |
| 3 | BL-3 | 598182.9720 | 2428080.4360 | 43.01 | 23-17.23 | 18.55 RT |



NCDOT BASELINE STATION "BL-1"
LOCALIZED PROJECT COORDINATES
N = 698796.6320 E = 2426904.8860

NCDOT BASELINE STATION "BL-2"
LOCALIZED PROJECT COORDINATES
N = 698638.5390 E = 2427605.3810

NCDOT BASELINE STATION "BL-3"
LOCALIZED PROJECT COORDINATES
N = 698182.9720 E = 2428080.4360

STA 13+60.00 -L- BEGIN TIP PROJECT B-4533
LOCALIZED PROJECT COORDINATES
N = 698728.2598 E = 2427299.1768

STA 20+00.00 -L- END TIP PROJECT B-4533
LOCALIZED PROJECT COORDINATES
N = 698404.2611 E = 2427652.3787

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "GPS B4533-1" WITH NAD 83/95 STATE PLANE GRID COORDINATES OF NORTHING: 597663.6411(++) EASTING: 2428792.0121(++) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99987757

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "GPS B4533-1" TO "L- STATION 13+50.00 IS N 54°33'22.5" W 1832.41 (++)

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

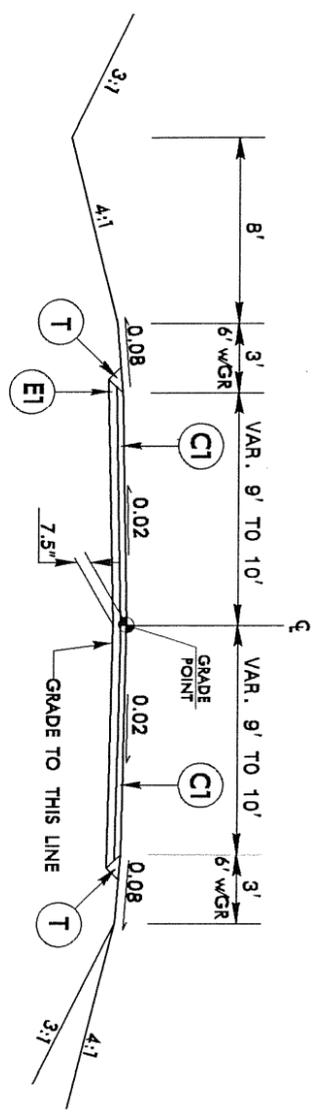
NOTES:

1. THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
[HTTP://WWW.NCDOT.ORG/HP/RECONSTRUCT/HIGHWAY/LOCATION/PROJECT/](http://www.ncdot.org/ohp/reconstruct/highway/location/project/)
 - THE FILES TO BE FOUND ARE AS FOLLOWS:
B4533_LS_CONTROL_081016.TXT
- SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
- INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT.
PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.
NETWORK ESTABLISHED FROM NGS ONLINE POSITIONING SERVICE (OPUS)

NOTE: DRAWING NOT TO SCALE

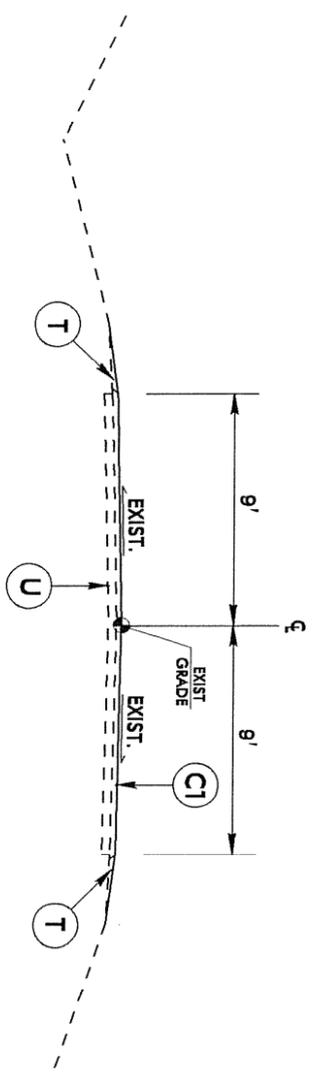
| PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN) | |
|--|---|
| C1 | PROP. APPROX. 2.5" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS. |
| C2 | PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1 1/2" IN DEPTH. |
| E1 | PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD. |
| T | EARTH MATERIAL. |
| U | EXISTING PAVEMENT. |
| W | VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL SHEET NO. 2) |

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



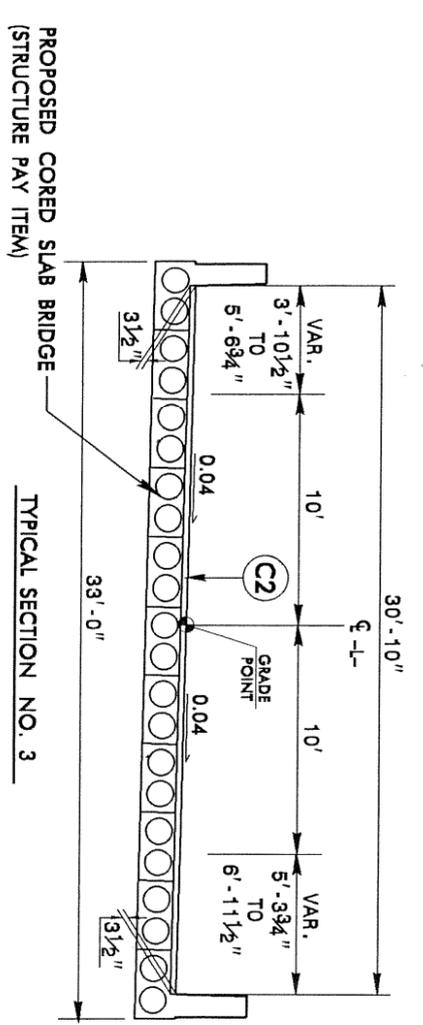
TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1
 -L- STA. 13+50.00 TO STA. 16+49.97 (BEGIN BRIDGE)
 -L- STA. 17+50.03 (END BRIDGE) TO STA. 20+00.00



TYPICAL SECTION NO. 2

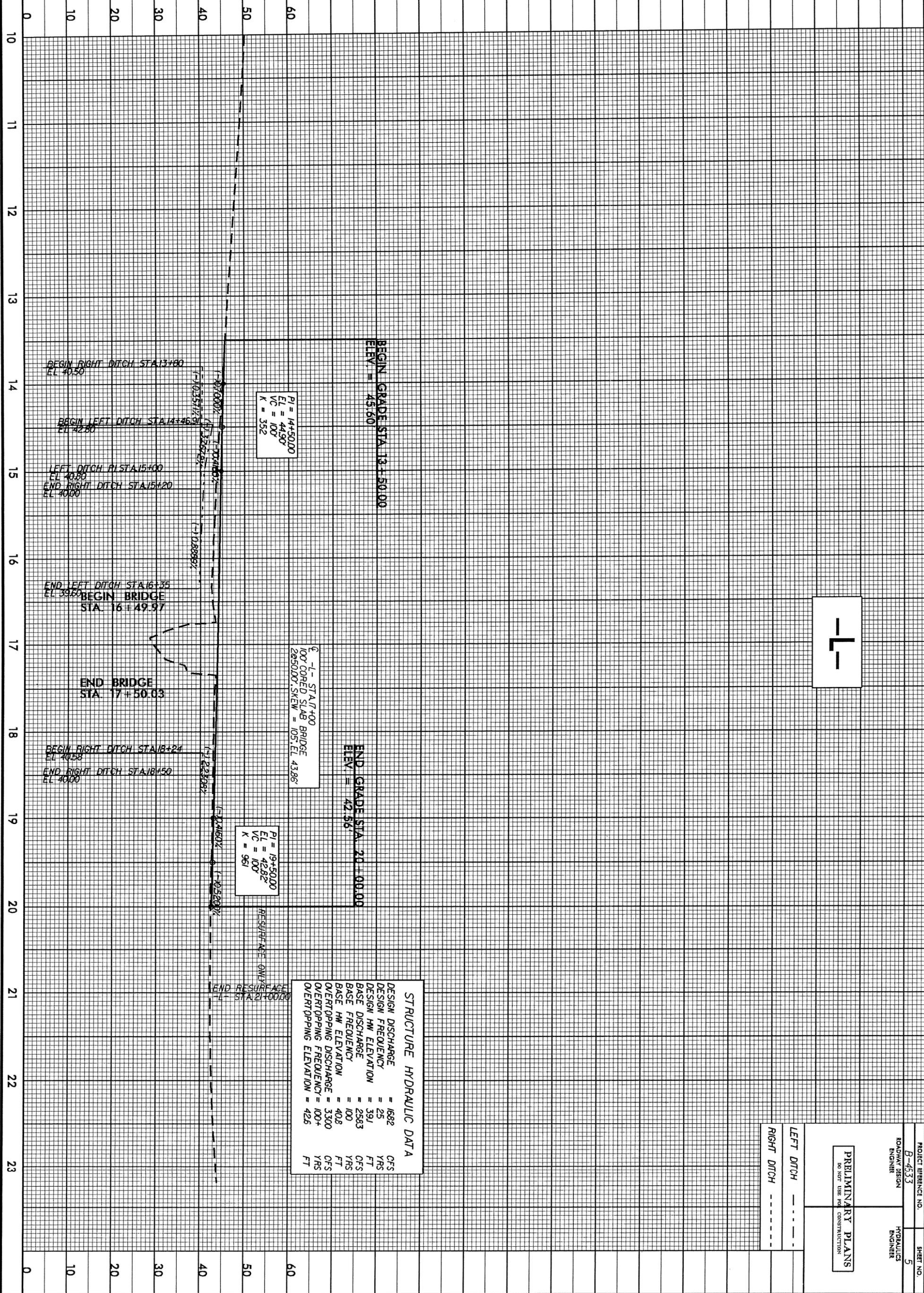
USE TYPICAL SECTION NO. 2
 RESURFACE EXISTING PAVEMENT
 -L- STA. 20+00.00 TO 21+00.00



TYPICAL SECTION NO. 3

PROPOSED CORED SLAB BRIDGE
 (STRUCTURE PAY ITEM)
 USE TYPICAL SECTION NO. 3
 -L- STA. 16+49.97 (BEGIN BRIDGE) TO STA. 17+50.03 (END BRIDGE)

| | |
|--|-----------------------------|
| PROJECT REFERENCE NO. B-4533 | SHEET NO. 2 |
| ROADWAY DESIGN ENGINEER | PAVEMENT DESIGN ENGINEER |
| PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small> | |



PI = 14+50.00
 EL = 44.90
 VC = 100'
 K = 352

④ -L- STA 17+00
 100' CORED SLAB BRIDGE
 2850.00' SKEW = 105' EL 43.86'

PI = 19+50.00
 EL = 42.82'
 VC = 100'
 K = 961

STRUCTURE HYDRAULIC DATA

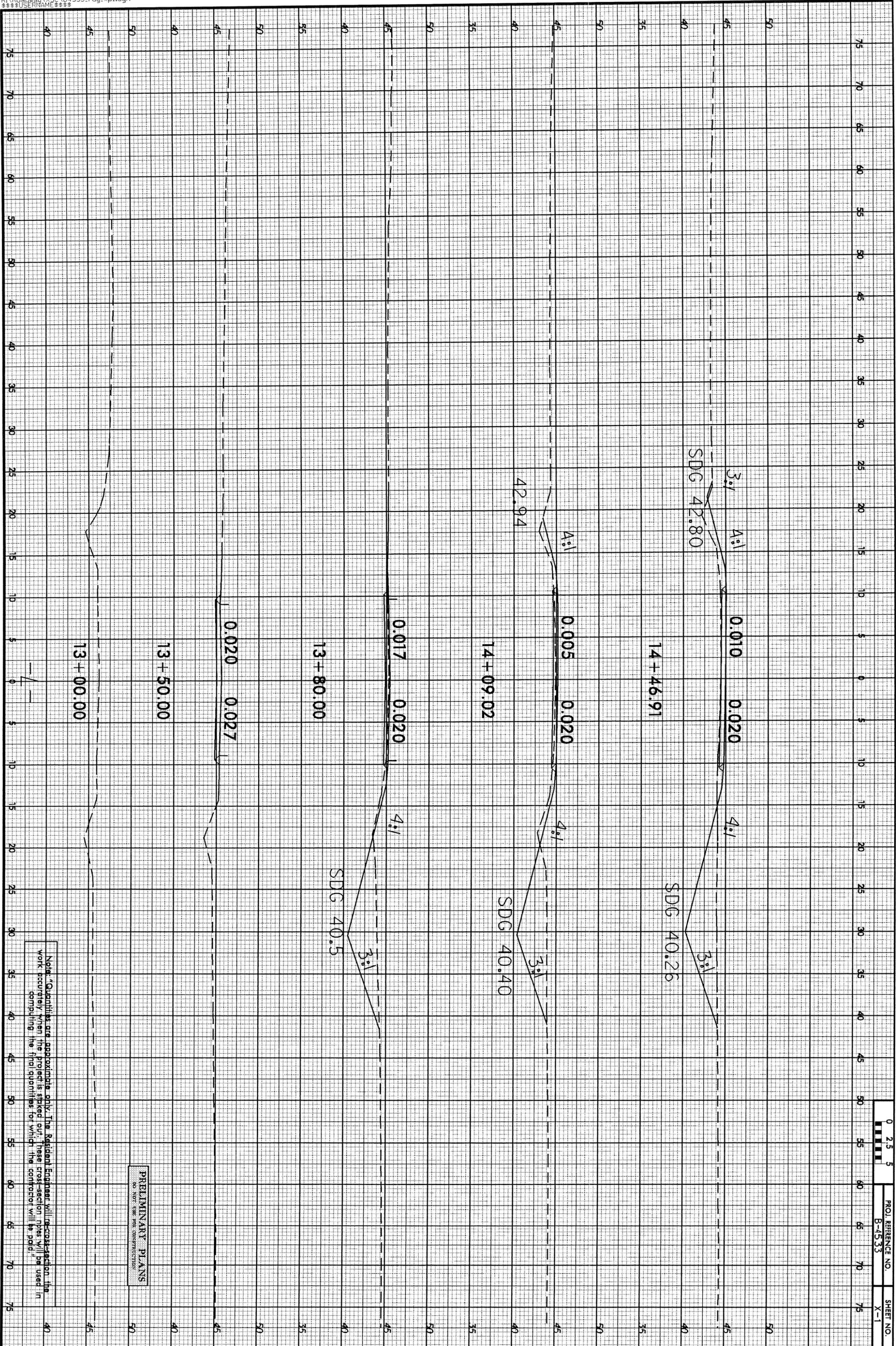
| | | |
|-----------------------|--------|-----|
| DESIGN DISCHARGE | = 1682 | CFS |
| DESIGN FREQUENCY | = 25 | YRS |
| DESIGN HW ELEVATION | = 39.1 | FT |
| BASE DISCHARGE | = 2583 | CFS |
| BASE FREQUENCY | = 100 | YRS |
| BASE HW ELEVATION | = 40.8 | FT |
| OVERTOPPING DISCHARGE | = 3300 | CFS |
| OVERTOPPING FREQUENCY | = 100+ | YRS |
| OVERTOPPING ELEVATION | = 42.6 | FT |

-L-

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

PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

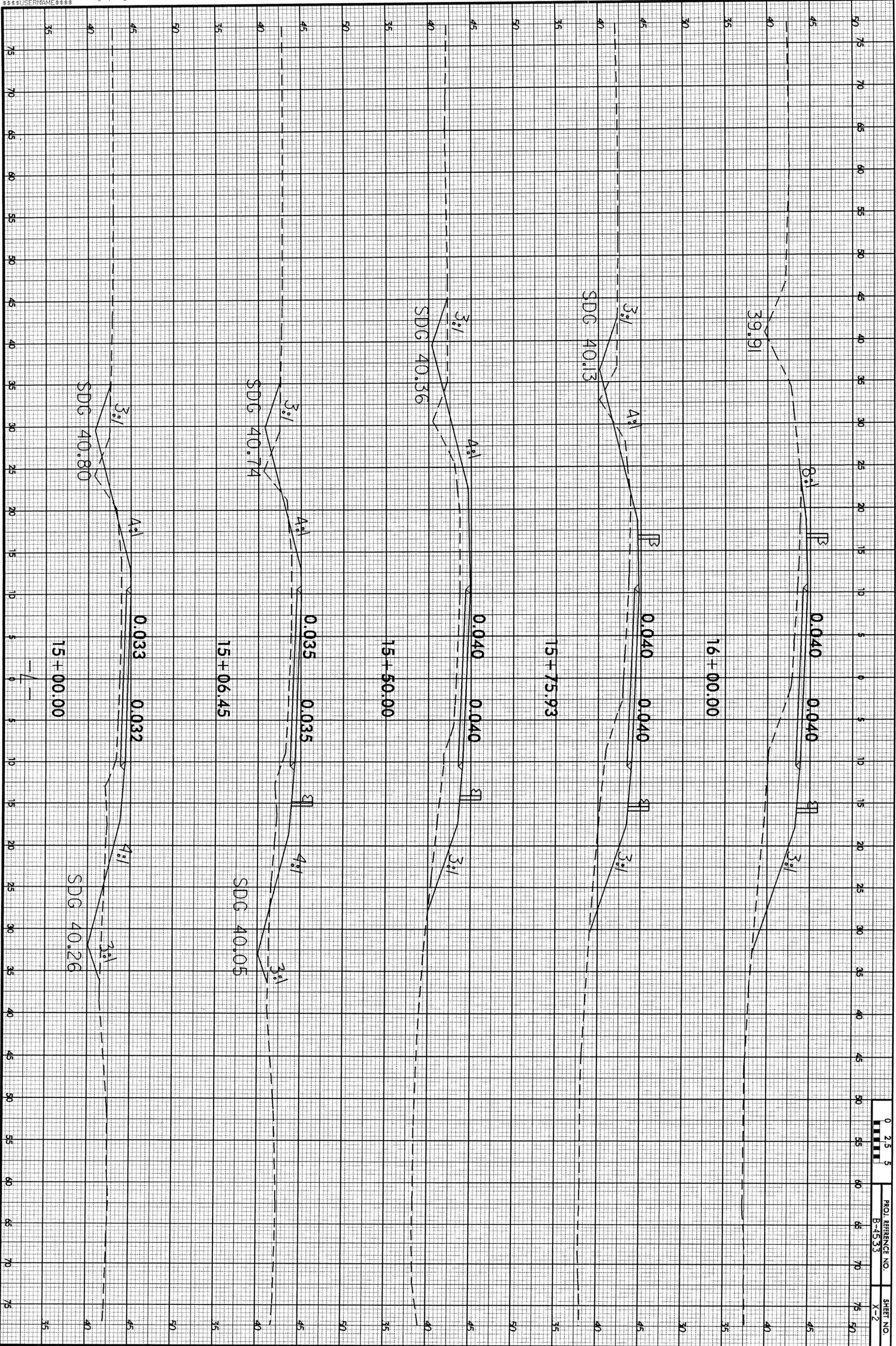
PROJECT REFERENCE NO. B-4533
 ROADWAY DESIGN ENGINEER
 SHEET NO. 5
 HYDRAULICS ENGINEER

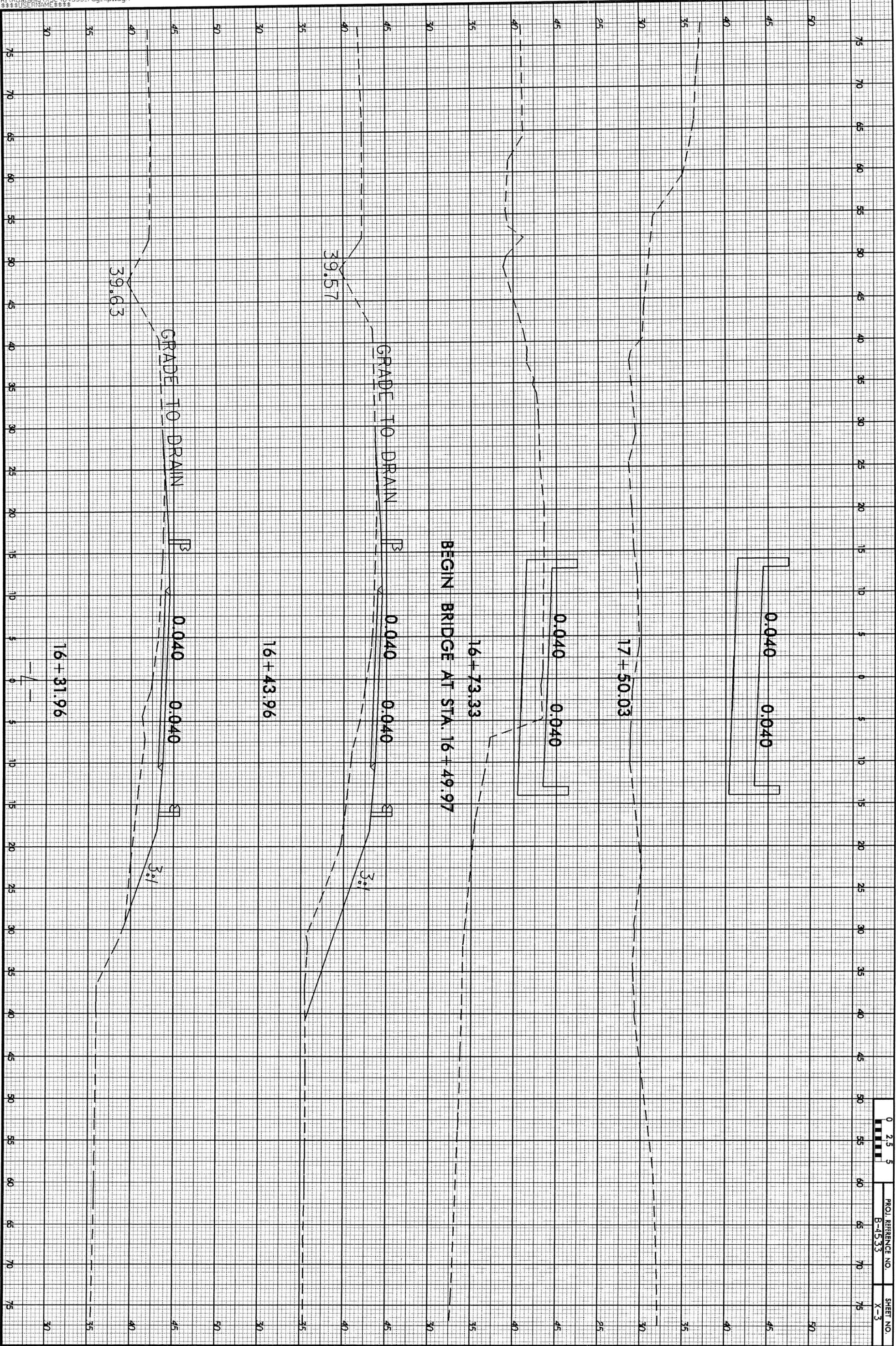


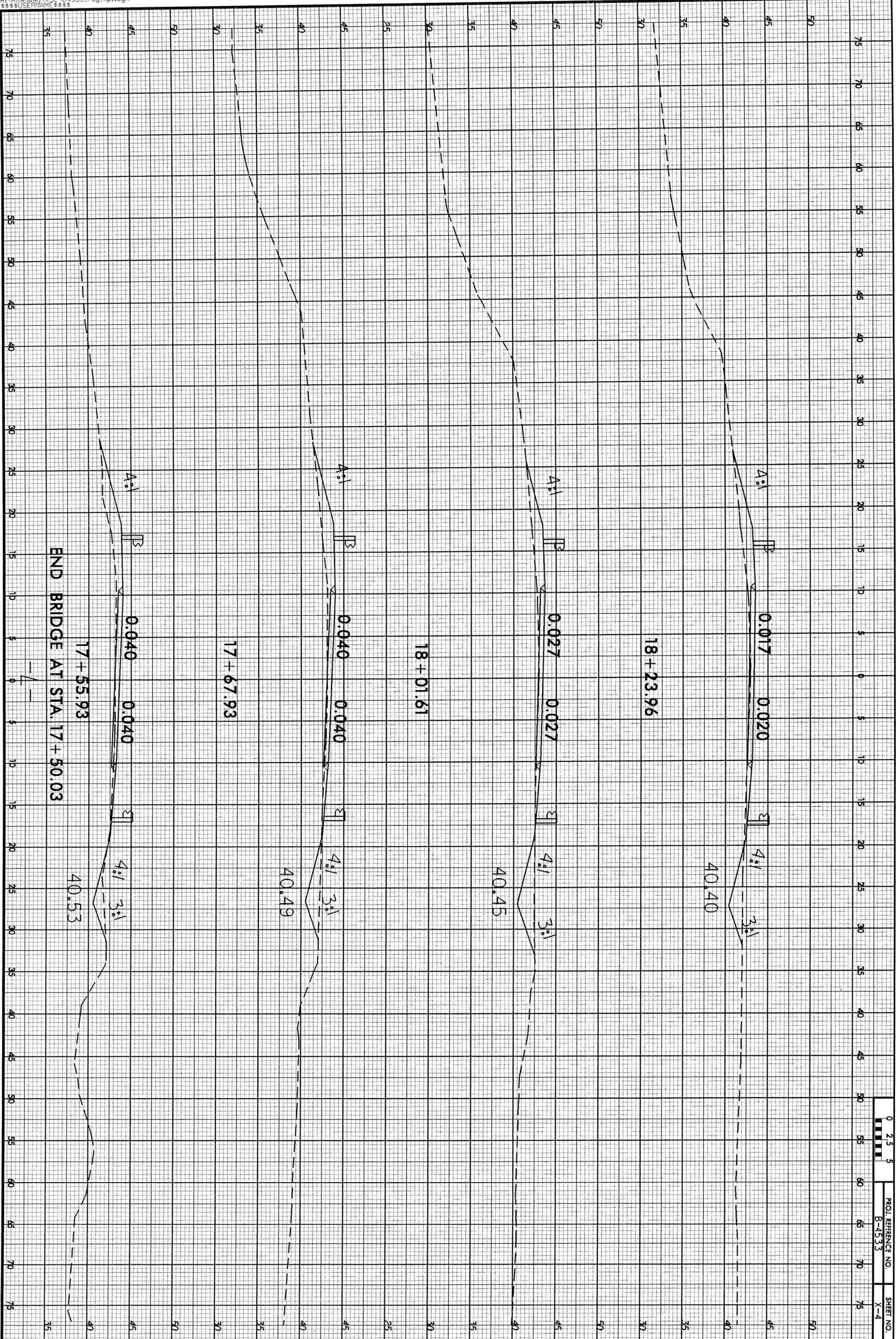
| | | |
|---------|---------------------|-----------|
| 0 2.5 5 | PROJ. REFERENCE NO. | SHEET NO. |
| | B-4533 | X-1 |

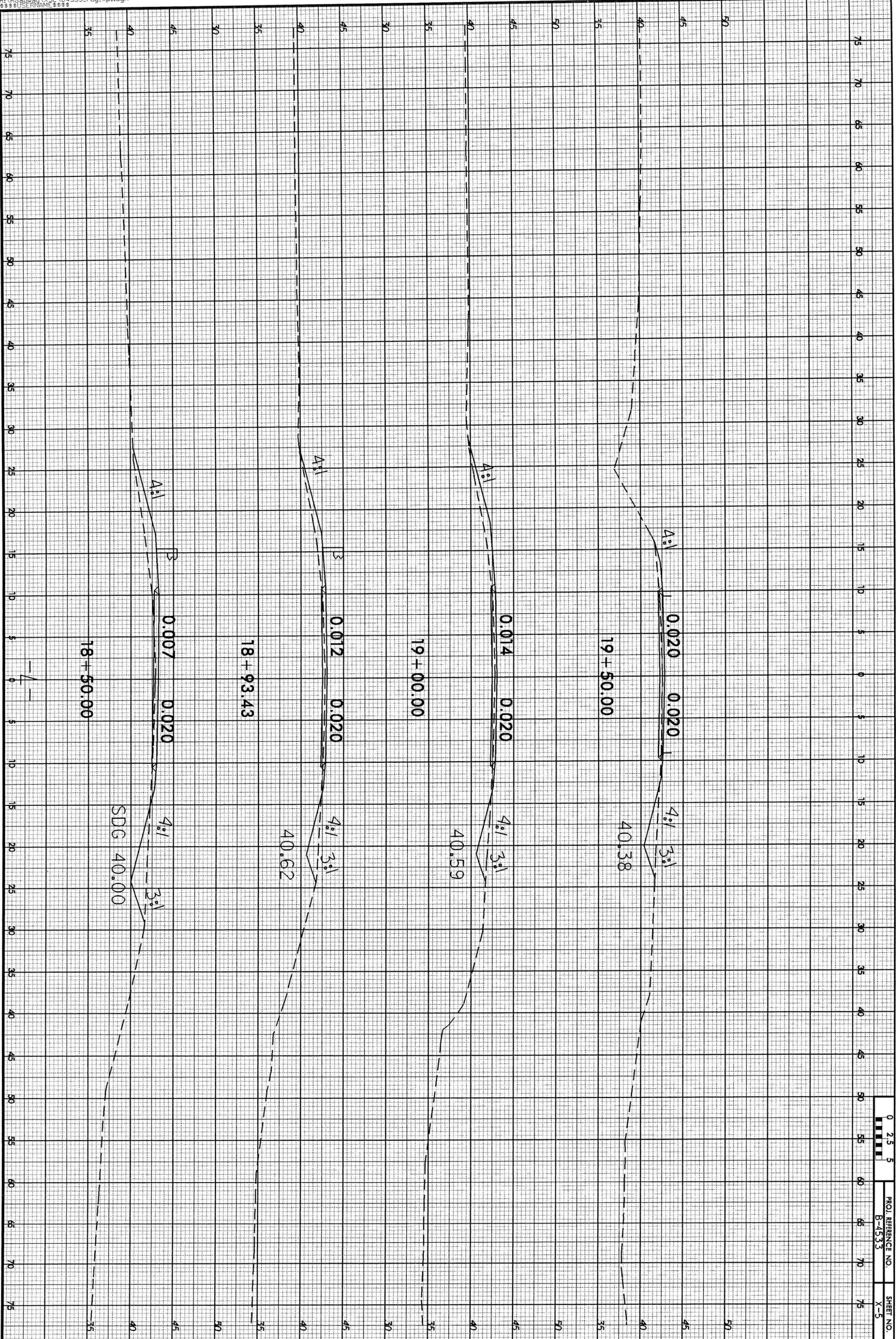
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

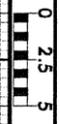
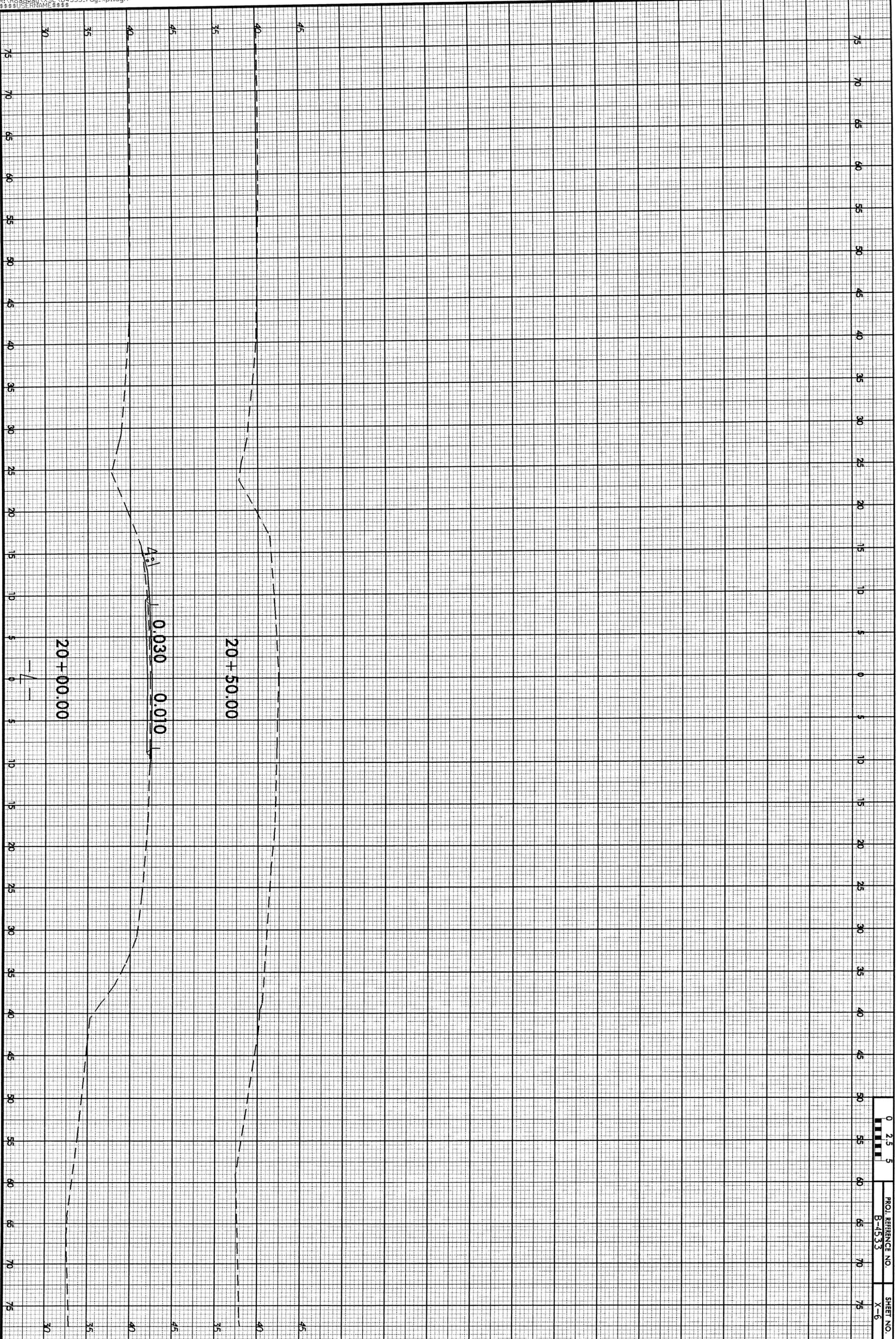
Note: Quantities are approximate only. The Resident Engineer will re-calculate the work accurately when the project is spiked out. These cross-section notes will be used in computing the final quantities for which the contractor will be paid.











| | |
|---------------------|-----------|
| PROJ. REFERENCE NO. | SHEET NO. |
| B-4533 | X-6 |