



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

December 11, 2009

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

Mr. Stephen Lane
N.C. Dept. of Environment and Natural Resources
Division of Coastal Management
400 Commerce Avenue
Morehead City, NC 28557

Dear Sirs:

Subject: Application for Section 404 Nationwide Permit 23, Section 401 Water Quality Certification, Buffer Authorization, and CAMA Major Development Permit for the Replacement of Bridge No. 59 on NC 99 over Jack Creek in Beaufort County, North Carolina. Federal Aid Project No. BRSTP-99(4), Debit \$475.00 from WBS Element 33693.1.1. TIP No. B-4417.

Please find enclosed the North Carolina Division of Coastal Management Major Permit Forms, Pre-Construction Notification (PCN) form, permit drawings, design plans, utility plans, EEP acceptance letter, and stormwater management plan for the above referenced project. The adjacent riparian landowner return receipts will be forwarded upon receipt. A Categorical Exclusion (CE) was completed for this project on July 15, 2008, and distributed shortly thereafter. Additional copies are available upon request. The North Carolina Department of Transportation (NCDOT), Division of Highways, in consultation with the Federal Highway Administration (FHWA), proposes to replace the existing 76-foot Bridge No. 59 with a 200-foot bridge over Jack Creek on NC 99 in Beaufort County. Proposed permanent impacts are 0.02 acre to coastal wetlands due to fill and 0.07 acre of fill in surface waters. The proposed let date for the project is May 17, 2011 with a review date of March 29, 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
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1598

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

LOCATION:
4701 ATLANTIC AVENUE
SUITE 116
RALEIGH NC 27604

Section 401 Permit: We anticipate 401 General Certification number 3701 will apply to this project. NCDOT is providing five copies of this application to the North Carolina Department of Environmental and Natural Resources, Division of Water Quality, for their approval.


Tar-Pamlico Riparian Buffer Authorization: NCDOT is requesting a Tar-Pamlico Riparian Buffer Authorization from the NCDWQ.

CAMA: NCDOT requests that the proposed work be authorized under a Coastal Area Management Act Major Development Permit. The landowner receipts are provided with this permit application. Authorization to debit the \$475 Permit Application Fee from WBS Element 33693.1.1 is hereby given.

A copy of this permit application will be posted on the NCDOT Website at: <http://www.ncdot.org/doh/preconstruct/pe/>. Thank you for your assistance with this project. If you have any questions or need additional information, please contact Tyler Stanton at tstanton@ncdot.gov or (919) 431-6748.

Sincerely,



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

cc:

W/attachment

Mr. Brian Wrenn, NCDWQ (5 Copies)
Mr. Steve Sollod, NCDCM

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. C. E. Lassiter, P.E., Div. 2 Engineer
Mr. Jay Johnson, Div. 2 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 and TIP
Mr. Art McMillan, P.E., Highway Design
Ms. Beth Harmon, EEP
Mr. Phillip Ayscue, NCDOT External Audit Branch
Mr. John Williams, PDEA

APPLICATION for Major Development Permit

(last revised 12/27/06)



North Carolina DIVISION OF COASTAL MANAGEMENT

1. Primary Applicant/ Landowner Information

Business Name NCDOT		Project Name (if applicable) B-4417 (33693.1.1)	
Applicant 1: First Name Gregory	MI J.	Last Name Thorpe	
Applicant 2: First Name	MI	Last Name	
<i>If additional applicants, please attach an additional page(s) with names listed.</i>			
Mailing Address 1598 Mail Service Center		PO Box	City Raleigh
		State NC	
ZIP 27699 1598	Country USA	Phone No. 919 - 431 - 2000 ext.	FAX No. 919 - 431 - 2002
Street Address (if different from above)		City	State
			ZIP -
Email			

2. Agent/Contractor Information

Business Name			
Agent/ Contractor 1: First Name	MI	Last Name	
Agent/ Contractor 2: First Name	MI	Last Name	
Mailing Address		PO Box	City
		State	
ZIP		Phone No. 1 - - ext.	Phone No. 2 - - ext.
FAX No.		Contractor #	
Street Address (if different from above)		City	State
			ZIP -
Email			

<Form continues on back>

3. Project Location

County (can be multiple) Beaufort		Street Address		State Rd. # NC 99	
Subdivision Name		City		State	Zip -
Phone No. - - ext.			Lot No.(s) (if many, attach additional page with list)		
a. In which NC river basin is the project located? Tar-Pamlico			b. Name of body of water nearest to proposed project Jack Creek		
c. Is the water body identified in (b) above, natural or manmade? <input checked="" type="checkbox"/> Natural <input type="checkbox"/> Manmade <input type="checkbox"/> Unknown			d. Name the closest major water body to the proposed project site. Pungo Creek		
e. Is proposed work within city limits or planning jurisdiction? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			f. If applicable, list the planning jurisdiction or city limit the proposed work falls within.		

4. Site Description

a. Total length of shoreline on the tract (ft.) 850'		b. Size of entire tract (sq.ft.) 114,240 sq ft (inside R/W limits)	
c. Size of individual lot(s) (If many lot sizes, please attach additional page with a list)		d. Approximate elevation of tract above NHW (normal high water) or NWL (normal water level) 4.5' - 7.5' <input type="checkbox"/> NHW or <input checked="" type="checkbox"/> NWL	
e. Vegetation on tract Wetlands, trees, grass (NC 99 shoulders and yard)			
f. Man-made features and uses now on tract Existing NC 99 road facility including ditches			
g. Identify and describe the existing land uses <u>adjacent</u> to the proposed project site. Existing NC 99 road facility, ditches; Residence			
h. How does local government zone the tract? Residential		i. Is the proposed project consistent with the applicable zoning? (Attach zoning compliance certificate, if applicable) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	
j. Is the proposed activity part of an urban waterfront redevelopment proposal?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
k. Has a professional archaeological assessment been done for the tract? If yes, attach a copy. If yes, by whom?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA NCDOT Archaeology	
l. Is the proposed project located in a National Registered Historic District or does it involve a National Register listed or eligible property?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA	

<Form continues on next page>

m. (i) Are there wetlands on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(ii) Are there coastal wetlands on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(iii) If yes to either (i) or (ii) above, has a delineation been conducted? (Attach documentation, if available)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

n. Describe existing wastewater treatment facilities.

N/A

o. Describe existing drinking water supply source.

N/A

p. Describe existing storm water management or treatment systems.

None

5. Activities and Impacts

a. Will the project be for commercial, public, or private use?

☐ Commercial ☒ Public/Government
☐ Private/Community

b. Give a brief description of purpose, use, and daily operations of the project when complete.

Replace existing bridge due to low sufficiency rating. Lengthen bridge and improve road facility and safety with widening and addition of guardrail

c. Describe the proposed construction methodology, types of construction equipment to be used during construction, the number of each type of equipment and where it is to be stored.

Propose top/down construction with no temporary causeway(s). Typical construction equipment includes crane, bulldozer, dump trucks, motor grader, etc.

d. List all development activities you propose.

Replace/Lengthen bridge; Remove portion of existing road fill/causeway to improve bridge hydraulic conveyance and offset surface water being filled in. Addition of fill due to widening facility and raising of the existing road grade. The grade has to be raised to provide access for future bridge maintenance/inspection activities. Relocate utilities in non-jurisdictional areas.

e. Are the proposed activities maintenance of an existing project, new work, or both?

Both

f. What is the approximate total disturbed land area resulting from the proposed project?

2.2

☐ Sq.Ft or ☒ Acres

g. Will the proposed project encroach on any public easement, public accessway or other area that the public has established use of?

☒ Yes ☐ No ☐ NA

h. Describe location and type of existing and proposed discharges to waters of the state.

Existing ditches drain to creek/wetlands in all 4 quadrants. Propose shoulder berm gutter on West side of road which will outlet to grassed swales. East side of road will drain over grassed shoulders to grassed swales.

i. Will wastewater or stormwater be discharged into a wetland?

☐ Yes ☒ No ☐ NA

If yes, will this discharged water be of the same salinity as the receiving water?

☐ Yes ☐ No ☐ NA

j. Is there any mitigation proposed?

☒ Yes ☐ No ☐ NA

If yes, attach a mitigation proposal.

<Form continues on back>

6. Additional Information*In addition to this completed application form, (MP-1) the following items below, if applicable, must be submitted in order for the application package to be complete. Items (a) – (f) are always applicable to any major development application. Please consult the application instruction booklet on how to properly prepare the required items below.*

a. A project narrative.

b. An accurate, dated work plat (including plan view and cross-sectional drawings) drawn to scale. Please give the present status of the proposed project. Is any portion already complete? If previously authorized work, clearly indicate on maps, plats, drawings to distinguish between work completed and proposed.

c. A site or location map that is sufficiently detailed to guide agency personnel unfamiliar with the area to the site.

d. A copy of the deed (with state application only) or other instrument under which the applicant claims title to the affected properties.
e. The appropriate application fee. Check or money order made payable to DENR.
f. A list of the names and complete addresses of the adjacent waterfront (riparian) landowners and signed return receipts as proof that such owners have received a copy of the application and plats by certified mail. Such landowners must be advised that they have 30 days in which to submit comments on the proposed project to the Division of Coastal Management. Name See attached list Phone No. Address Name Phone No. Address Name Phone No. Address
g. A list of previous state or federal permits issued for work on the project tract. Include permit numbers, permittee, and issuing dates.
h. Signed consultant or agent authorization form, if applicable.
i. Wetland delineation, if necessary.
j. A signed AEC hazard notice for projects in oceanfront and inlet areas. <i>(Must be signed by property owner)</i>
k. A statement of compliance with the N.C. Environmental Policy Act (N.C.G.S. 113A 1-10), if necessary. If the project involves expenditure of public funds or use of public lands, attach a statement documenting compliance with the North Carolina Environmental Policy Act.

7. Certification and Permission to Enter on Land

I understand that any permit issued in response to this application will allow only the development described in the application. The project will be subject to the conditions and restrictions contained in the permit.

I certify that I am authorized to grant, and do in fact grant permission to representatives of state and federal review agencies to enter on the aforementioned lands in connection with evaluating information related to this permit application and follow-up monitoring of the project.

I further certify that the information provided in this application is truthful to the best of my knowledge.

Date 12.10.09

Print Name E. Lusk

Signature E. Lusk

Please indicate application attachments pertaining to your proposed project.

☒ DCM MP-2 Excavation and Fill Information

☒ DCM MP-5 Bridges and Culverts

☐ DCM MP-3 Upland Development

☐ DCM MP-4 Structures Information

Form DCM MP-2**EXCAVATION and FILL****(Except for bridges and culverts)**

Attach this form to Joint Application for CAMA Major Permit, Form DCM MP-1. Be sure to complete all other sections of the Joint Application that relate to this proposed project. Please include all supplemental information.

Describe below the purpose of proposed excavation and/or fill activities. All values should be given in feet.

	Access Channel (NLW or NWL)	Canal	Boat Basin	Boat Ramp	Rock Groin	Rock Breakwater	Other (excluding shoreline stabilization)
Length							395'
Width							13'
Avg. Existing Depth					NA	NA	5'
Final Project Depth					NA	NA	8'

1. EXCAVATION☒ This section not applicable

- a. Amount of material to be excavated from below NHW or NWL in cubic yards.
- b. Type of material to be excavated.
- c. (i) Does the area to be excavated include coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.
- ☐CW ☐SAV ☐SB ☐WL ☐None
- (ii) Describe the purpose of the excavation in these areas:

d. High-ground excavation in cubic yards.

2. DISPOSAL OF EXCAVATED MATERIAL☒ This section not applicable

- a. Location of disposal area.
- b. Dimensions of disposal area.
- c. (i) Do you claim title to disposal area?
☐Yes ☐No ☐NA
- (ii) If no, attach a letter granting permission from the owner.
- d. (i) Will a disposal area be available for future maintenance?
☐Yes ☐No ☐NA
- (ii) If yes, where?
- e. (i) Does the disposal area include any coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.
- ☐CW ☐SAV ☐SB ☐WL ☐None
- (ii) Describe the purpose of disposal in these areas:
- f. (i) Does the disposal include any area in the water?
☐Yes ☐No ☐NA
- (ii) If yes, how much water area is affected?

3. SHORELINE STABILIZATION☐ This section not applicable

(If development is a wood groin, use MP-4 – Structures)

Form DCM MP-2 (Excavation and Fill, Page 2 of 2)

- a. Type of shoreline stabilization:
☐ Bulkhead ☒ Riprap ☐ Breakwater/Sill ☐ Other: _____
- b. Length: 395'
Width: 13'
- c. Average distance waterward of NHW or NWL: 6'
- d. Maximum distance waterward of NHW or NWL: 15'
- e. Type of stabilization material:
Class II Rip Rap w/ Filter Fabric
- f. (i) Has there been shoreline erosion during preceding 12 months?
☐ Yes ☒ No ☐ NA
(ii) If yes, state amount of erosion and source of erosion amount information.
- g. Number of square feet of fill to be placed below water level.
Bulkhead backfill _____ Riprap 3040 sq ft
Breakwater/Sill _____ Other _____
- h. Type of fill material.
Class II Rip Rap; Select embankment fill material
- i. Source of fill material.

4. OTHER FILL ACTIVITIES

(Excluding Shoreline Stabilization)

☒ This section not applicable

- a. (i) Will fill material be brought to the site? ☐ Yes ☐ No ☐ NA
If yes,
(ii) Amount of material to be placed in the water _____
(iii) Dimensions of fill area _____
(iv) Purpose of fill _____
- b. (i) Will fill material be placed in coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.
☐ CW _____ ☐ SAV _____ ☐ SB _____
☐ WL _____ ☐ None _____
(ii) Describe the purpose of the fill in these areas: _____

5. GENERAL

- a. How will excavated or fill material be kept on site and erosion controlled?
Use of Standard NCDOT Best Management Practices and erosion control measures.
- b. What type of construction equipment will be used (e.g., dragline, backhoe, or hydraulic dredge)?
Crane, bulldozer, dump truck, motor grader
- c. (i) Will navigational aids be required as a result of the project?
☐ Yes ☒ No ☐ NA
(ii) If yes, explain what type and how they will be implemented.
- d. (i) Will wetlands be crossed in transporting equipment to project site? ☐ Yes ☒ No ☐ NA
(ii) If yes, explain steps that will be taken to avoid or minimize environmental impacts.

12-10-09

Date

Applicant Signature

B-4417

Project Name

NCDOT - Gregory J. Thorpe, PhD

Applicant Name

E. L. Lusk

BRIDGES and CULVERTS

Attach this form to Joint Application for CAMA Major Permit, Form DCM MP-1. Be sure to complete all other sections of the Joint Application that relate to this proposed project. Please include all supplemental information.

1. BRIDGES☐ This section not applicable

- a. Is the proposed bridge:
☐ Commercial ☒ Public/Government ☐ Private/Community
- b. Water body to be crossed by bridge:
 Jack Creek
- c. Type of bridge (construction material):
 4 @ 50' -- 21" Cored Slab
- d. Water depth at the proposed crossing at NLW or NWL:
 Varies 5' - 10'
- e. (i) Will proposed bridge replace an existing bridge? ☒ Yes ☐ No
 If yes,
 (ii) Length of existing bridge: 75.5'
 (iii) Width of existing bridge: 23.5'
 (iv) Navigation clearance underneath existing bridge: 2.5'
 (v) Will all, or a part of, the existing bridge be removed?
 (Explain) All the existing bridge will be removed.
 Portion of existing road fill will be removed.
- f. (i) Will proposed bridge replace an existing culvert? ☐ Yes ☒ No
 If yes,
 (ii) Length of existing culvert: _____
 (iii) Width of existing culvert: _____
 (iv) Height of the top of the existing culvert above the NHW or NWL: _____
 (v) Will all, or a part of, the existing culvert be removed?
 (Explain)
- g. Length of proposed bridge: 200'
- h. Width of proposed bridge: 39'
- i. Will the proposed bridge affect existing water flow? ☒ Yes ☐ No
 If yes, explain: Longer bridge and removed fill will improve bridge conveyance and reduce velocities.
- j. Will the proposed bridge affect navigation by reducing or increasing the existing navigable opening? ☒ Yes ☐ No
 If yes, explain: Bridge opening will increase from existing 75.5' x 2.5' to 200' x 4.9'
- k. Navigation clearance underneath proposed bridge: 4.9'
- l. Have you contacted the U.S. Coast Guard concerning their approval? ☒ Yes ☐ No
 If yes, explain: Coast Guard is in the process of evaluating project.
- m. Will the proposed bridge cross wetlands containing no navigable waters? ☐ Yes ☒ No
 If yes, explain:
- n. Height of proposed bridge above wetlands: _____

2. CULVERTS☒ This section not applicable

- a. Number of culverts proposed: _____
- b. Water body in which the culvert is to be placed:

< Form continues on back >

- c. Type of culvert (construction material):

Form DCM MP-5 (Bridges and Culverts, Page 2 of 4)

d. (i) Will proposed culvert replace an existing bridge?

☐Yes ☐No

If yes,

(ii) Length of existing bridge: _____

(iii) Width of existing bridge: _____

(iv) Navigation clearance underneath existing bridge: _____

(v) Will all, or a part of, the existing bridge be removed?

(Explain)

f. Length of proposed culvert: _____

h. Height of the top of the proposed culvert above the NHW or NWL.

j. Will the proposed culvert affect navigation by reducing or increasing the existing navigable opening? ☐Yes ☐No

If yes, explain:

e. (i) Will proposed culvert replace an existing culvert?

☐Yes ☐No

If yes,

(ii) Length of existing culvert(s): _____

(iii) Width of existing culvert(s): _____

(iv) Height of the top of the existing culvert above the NHW or NWL: _____

(v) Will all, or a part of, the existing culvert be removed?

(Explain)

g. Width of proposed culvert: _____

i. Depth of culvert to be buried below existing bottom contour.

k. Will the proposed culvert affect existing water flow?

☐Yes ☐No

If yes, explain:

3. EXCAVATION and FILL☐This section not applicablea. (i) Will the placement of the proposed bridge or culvert require any excavation below the NHW or NWL? ☒Yes ☐No

If yes,

(ii) Avg. length of area to be excavated: 124'(iii) Avg. width of area to be excavated: 78'(iv) Avg. depth of area to be excavated: 5'(v) Amount of material to be excavated in cubic yards: 2390 cu yd

b. (i) Will the placement of the proposed bridge or culvert require any excavation within coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.

☐CW _____ ☐SAV _____ ☐SB _____☐WL _____ ☒None

(ii) Describe the purpose of the excavation in these areas:

c. (i) Will the placement of the proposed bridge or culvert require any high-ground excavation? ☒Yes ☐No

If yes,

(ii) Avg. length of area to be excavated: 460'(iii) Avg. width of area to be excavated: 12'(iv) Avg. depth of area to be excavated: 2.0'(v) Amount of material to be excavated in cubic yards: 200 cu yds

Form DCM MP-5 (Bridges and Culverts, Page 3 of 4)

d. If the placement of the bridge or culvert involves any excavation, please complete the following:

(i) Location of the spoil disposal area: To be determined by contractor

(ii) Dimensions of the spoil disposal area: TBD

(iii) Do you claim title to the disposal area? ☐ Yes ☒ No (If no, attach a letter granting permission from the owner.)

(iv) Will the disposal area be available for future maintenance? ☐ Yes ☒ No

(v) Does the disposal area include any coastal wetlands/marsh (CW), submerged aquatic vegetation (SAVs), other wetlands (WL), or shell bottom (SB)?

☐ CW ☐ SAV ☐ WL ☐ SB ☒ None

If any boxes are checked, give dimensions if different from (ii) above.

(vi) Does the disposal area include any area below the NHW or NWL? ☒ Yes ☐ No

If yes, give dimensions if different from (ii) above.

e. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d above) to be placed below NHW or NWL? ☐ Yes ☒ No

If yes,

(ii) Avg. length of area to be filled: _____

(iii) Avg. width of area to be filled: _____

(iv) Purpose of fill: _____

f. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d above) to be placed within coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.

☒ CW 3380' ☐ SAV _____ ☐ SB _____

☐ WL _____ ☐ None

(ii) Describe the purpose of the excavation in these areas:

Fill due to proposed widening and raising of existing road grade.

g. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d above) to be placed on high-ground? ☒ Yes ☐ No

If yes,

(ii) Avg. length of area to be filled: 550'

(iii) Avg. width of area to be filled: 4'

(iv) Purpose of fill: Due to proposed road widening and raising of existing road grade.

4. GENERAL

a. Will the proposed project require the relocation of any existing utility lines? ☒ Yes ☐ No

If yes, explain: Water: 6" water line located to the west side is in conflict with construction of the bridge and will be relocated 5' inside the R/W line on the same side using trenchless method. No Impacts to jurisdictional areas. See plans; Tel and CATV: Tri-County telephone has telephone and CATV cables on both sides of NC 99 north and south of the current bridge location are in conflict with construction of the bridge and will be relocated to the east side of the bridge. 5' inside R/W line, using trenchless method. No impacts on jurisdictional areas. See plans; Power: Tideland EMC has power facilities in the area but will not be impacted by this project.

b. Will the proposed project require the construction of any temporary detour structures? ☐ Yes ☒ No

If yes, explain:

Form DCM MP-5 (Bridges and Culverts, Page 4 of 4)

If this portion of the proposed project has already received approval from local authorities, please attach a copy of the approval or certification.

< Form continues on back >

- c. Will the proposed project require any work channels?

☐ Yes ☒ No

If yes, complete Form DCM-MP-2.

- d. How will excavated or fill material be kept on site and erosion controlled?

Use of Standard NCDOT Best Management Practices and erosion control measures.

- e. What type of construction equipment will be used (for example, dragline, backhoe, or hydraulic dredge)?

Crane, bulldozer, dump truck, motor grader

- f. Will wetlands be crossed in transporting equipment to project site?

☐ Yes ☒ No

If yes, explain steps that will be taken to avoid or minimize environmental impacts.

- g. Will the placement of the proposed bridge or culvert require any shoreline stabilization?

☒ Yes ☐ No

If yes, complete form MP-2, Section 3 for Shoreline Stabilization only.

Date

12.10.09

Project Name

NCDOT - Gregory J. Thorpe, PhD

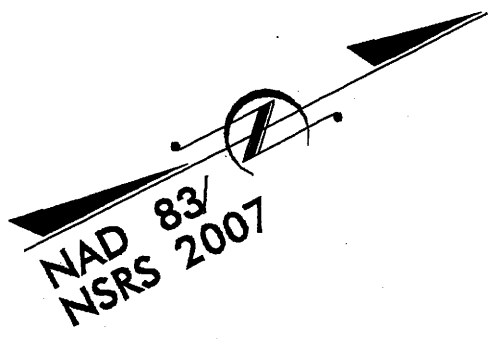
Applicant Name

E. P. Luck

Applicant Signature

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4417	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33693.1.1	BRSTP-0099(4)	P.E.	
33693.2.1	BRSTP-0099(4)	ROW, UTIL	

Permit Drawing
Sheet 1 of 7

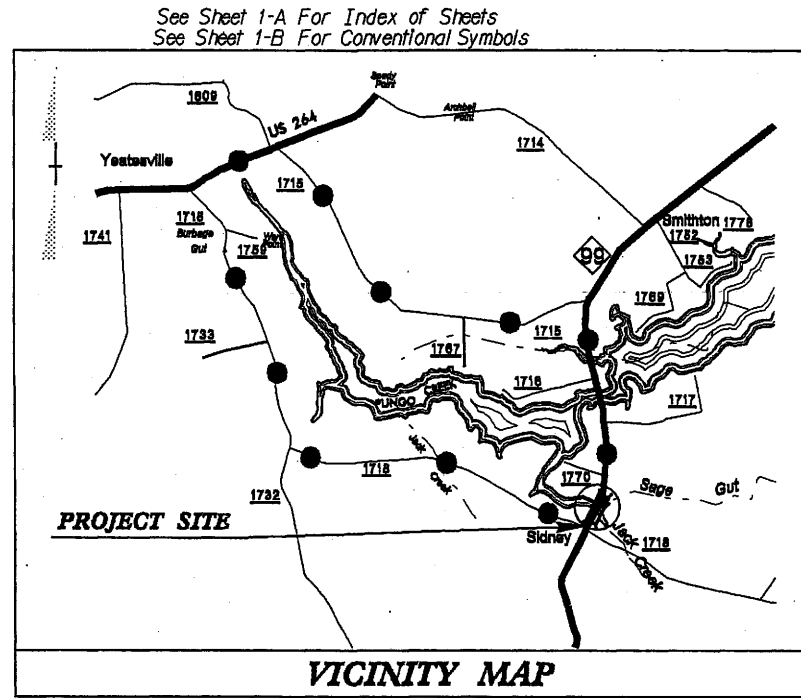


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
BEAUFORT COUNTY

LOCATION: BRIDGE NO. 59 OVER JACK CREEK ON NC 99

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

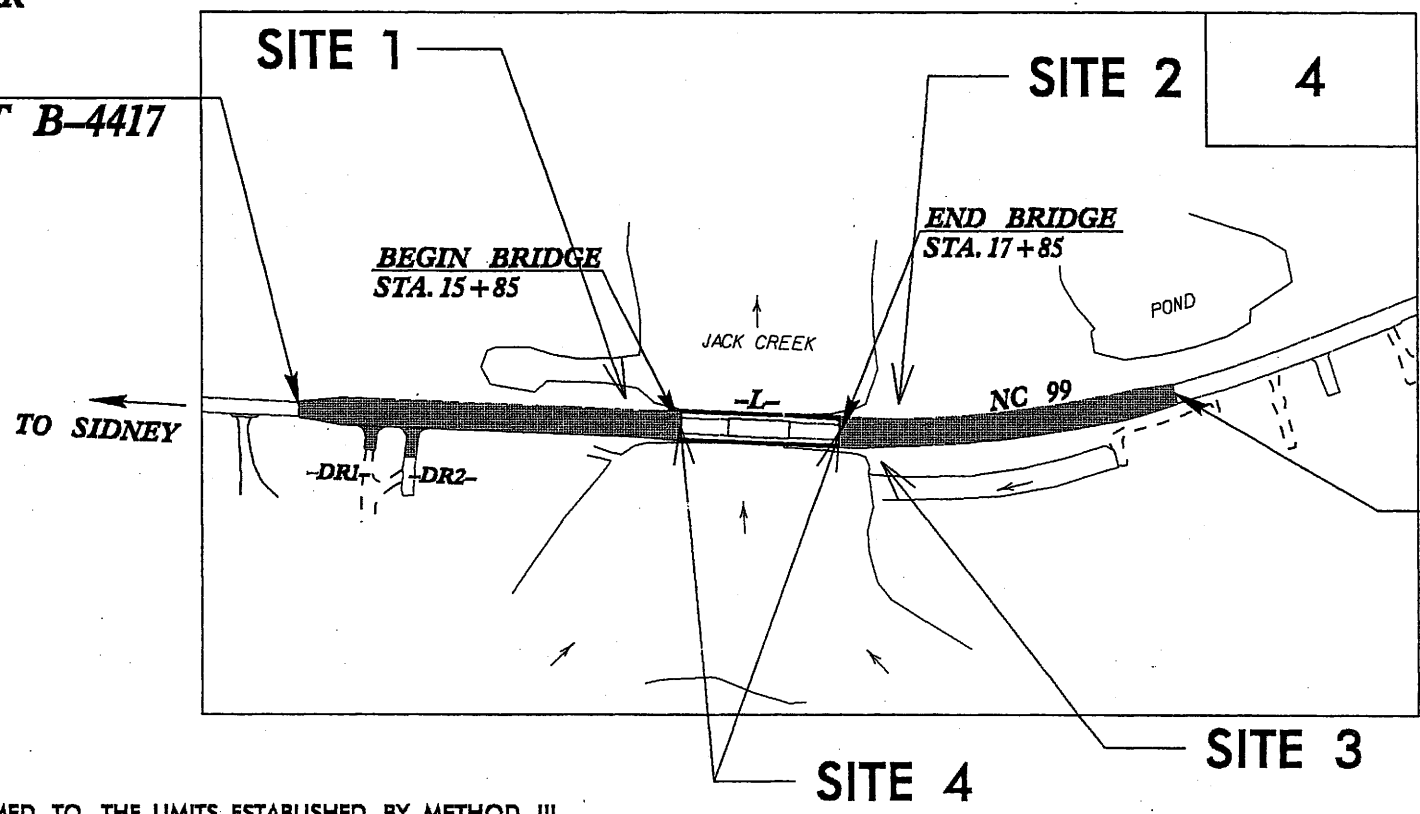
WETLAND /STREAM PERMIT



VICINITY MAP

● — OFFSITE DETOUR

STA. 11 + 17.00
-L- BEGIN TIP PROJECT B-4417



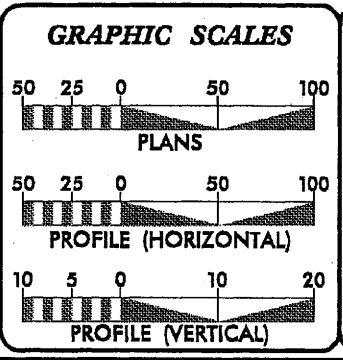
TO BELHAVEN

STA. 22 + 05.00
-L- END TIP PROJECT B-4417

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONTRACT: TIP PROJECT: B-4417



DESIGN DATA

ADT 2010 =	2,660
ADT 2030 =	4,200
DHV =	10 %
D =	60 %
T =	9 % *
V =	60 MPH
FUNC CLASS = RURAL MAJOR COLLECTOR	
* (TTST 3% + DUAL 6%)	

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT B-4417	=	0.168 MILES
LENGTH OF STRUCTURE TIP PROJECT B-4417	=	0.038 MILES
TOTAL LENGTH STATE TIP PROJECT B-4417	=	0.206 MILES

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

2006 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: MAY 15, 2009	BRENDA MOORE, PE PROJECT ENGINEER
LETTING DATE: MAY 18, 2010	THAD F. DUNCAN, PE PROJECT DESIGN ENGINEER

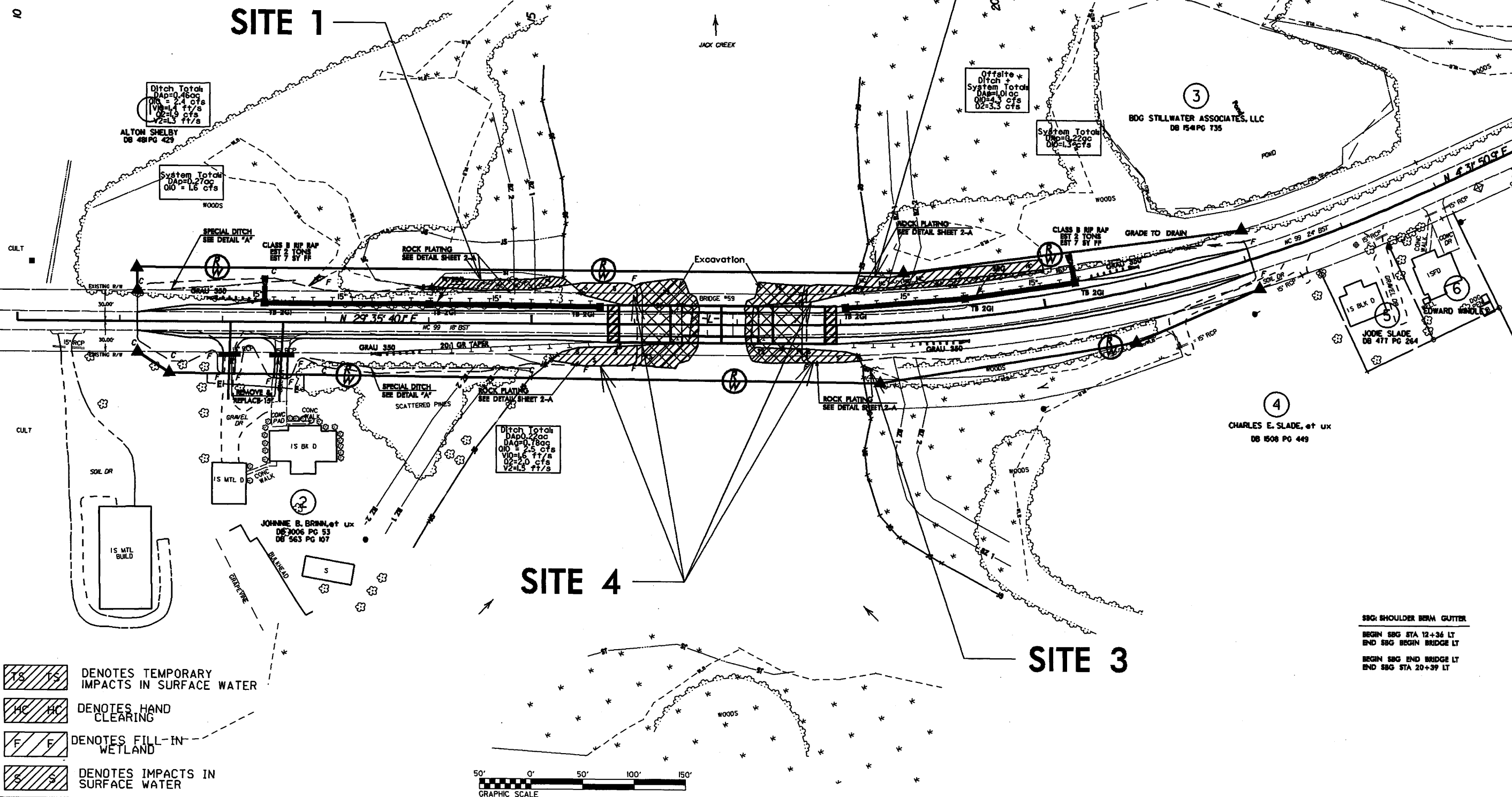
HYDRAULICS ENGINEER

SIGNATURE: _____	P.E.
ROADWAY DESIGN ENGINEER	
SIGNATURE: _____	P.E.

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

STATE HIGHWAY DESIGN ENGINEER

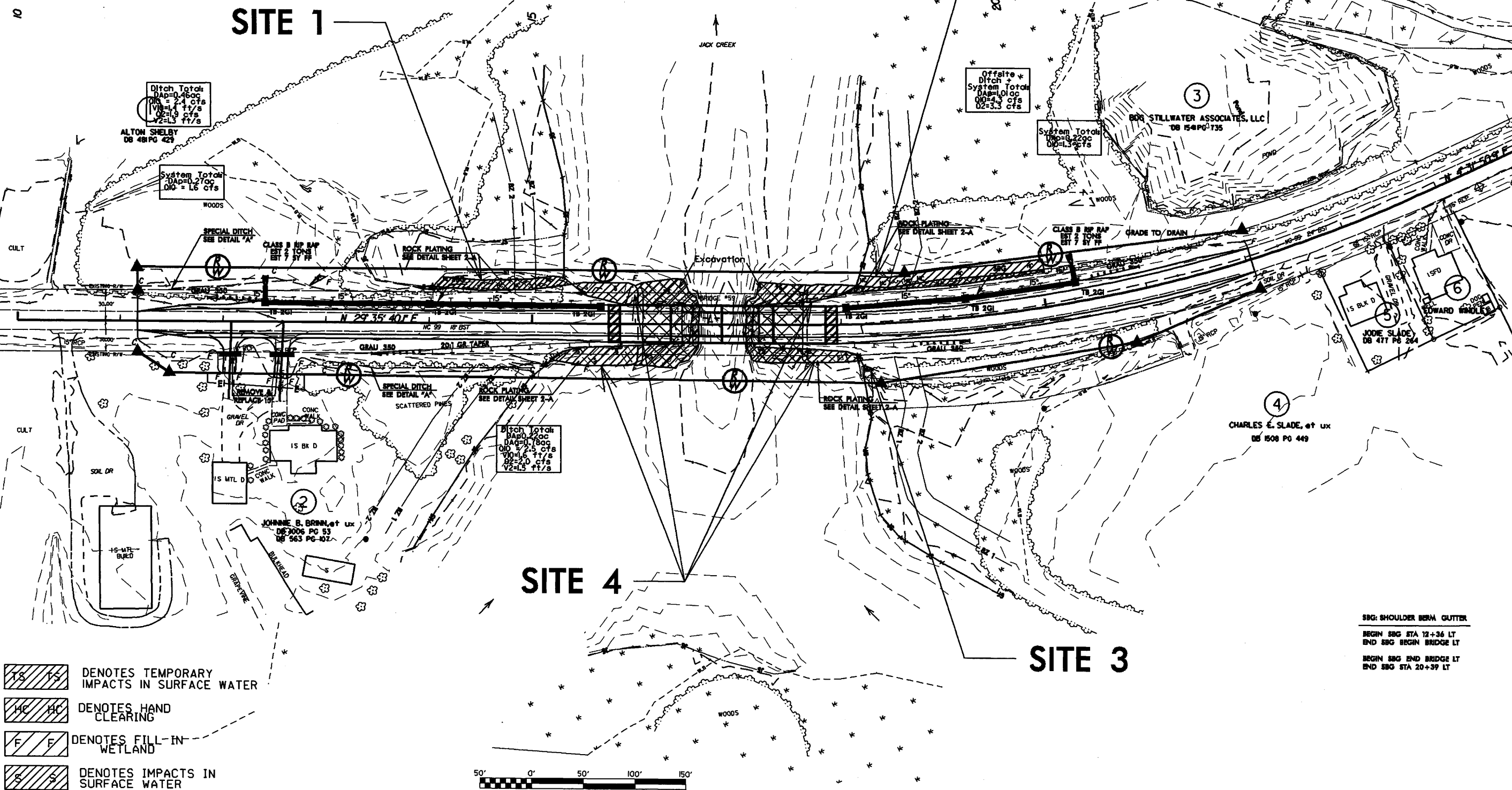
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opened at H1244562



SBG: SHOULDER BERM GUTTER

BEGIN SBG STA 12+36 LT
END SBG BEGIN BRIDGE LT

BEGIN SBG END BRIDGE LT
END SBG STA 20+39 LT



SBG: SHOULDER BERM GUTTER

BEGIN SBG STA 12+36 LT
END SBG BEGIN BRIDGE LT

BEGIN SBG END BRIDGE LT
END SBG STA 20+39 LT

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b4417_hyd.dwg
b4417_hyd.dwg

STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE	=	CFS
DESIGN FREQUENCY	=	YRS
DESIGN HW ELEVATION	=	FT
BASE DISCHARGE	=	CFS
BASE FREQUENCY	=	YRS
BASE HW ELEVATION	=	FT
OVERTOPPING DISCHARGE	=	CFS
OVERTOPPING FREQUENCY	=	YRS
OVERTOPPING ELEVATION	=	FT

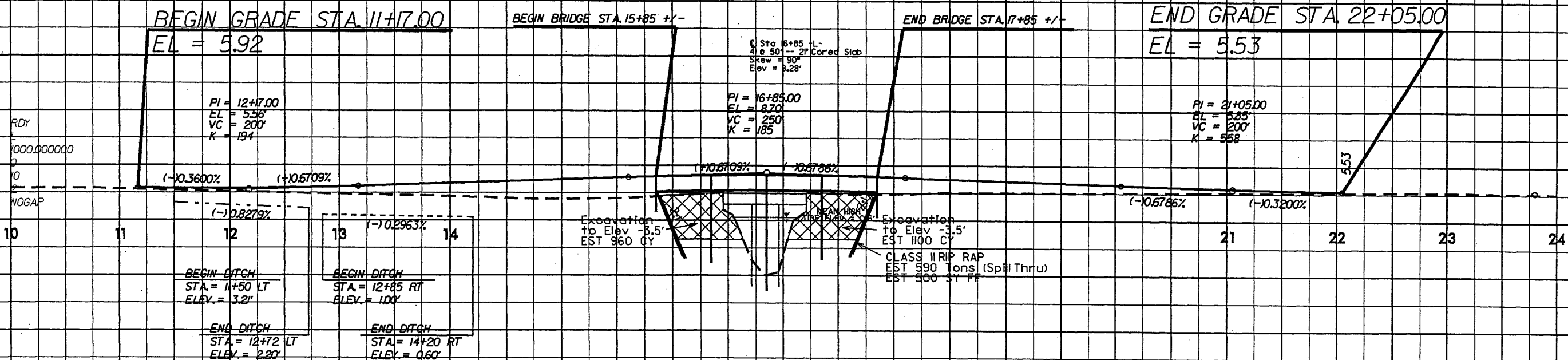
PROJECT REFERENCE NO. B-4417	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

Permit Drawing
Sheet 4 of 7

BM #10
53.3' LEFT OF -BL- STA. 14+81.60
ELEV. 2.22'

BM #11
3.37' LEFT OF -BL- STA. 17+80.60
ELEV. 4.81'

BM #12
76.6' RIGHT OF -BL- STA. 21+46.50
ELEV. 5.08'

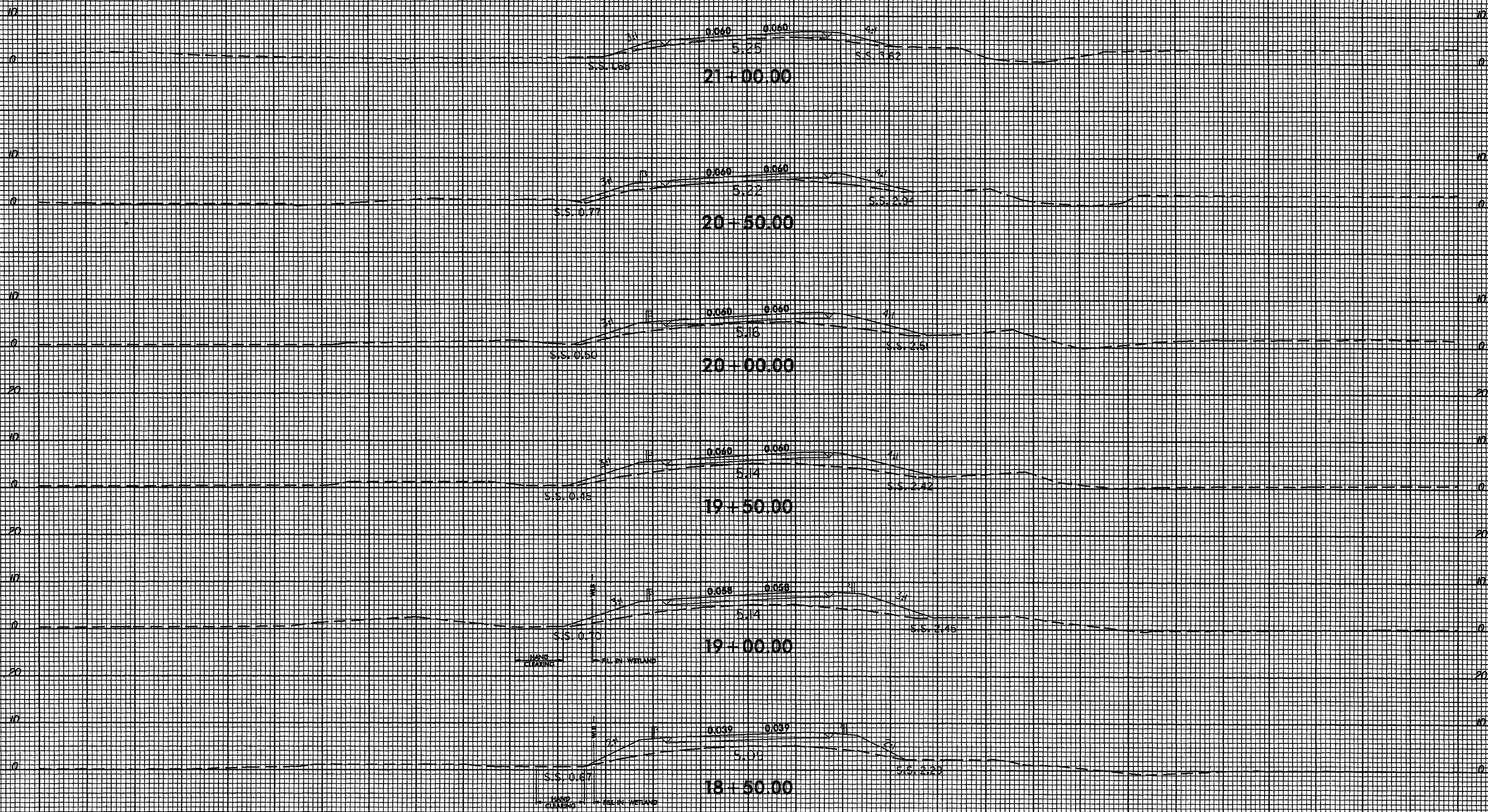


8/23



PROJ. REFERENCE NO.	SHEET NO.
B-4417	X-4

Permit Drawing
Sheet 5 of 7



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amdgows AT 11/2/2008

NOTE: 1:1 WITH BLACK IN

WETLAND PERMIT IMPACT SUMMARY

SURFACE WATER IMPACTS												
WETLAND IMPACTS												
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	14+00 LT/15+53 LT	Road Fill					0.03					
2	18+15 LT/20+04 LT	Road Fill	0.02				0.04					
3	18+18 RT	Road Fill					<0.01					
4	15+19 CL/18+19 CL	Bank Stabilization						0.07	0.11			

0.01 acres of Temp Fill In Wetlands in the Hand Clearing areas for erosion control measures.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

BEAUFORT COUNTY
WBS - 33693.1.1 (B-4417)

Permit Drawing

SHEET **Sheet 6 of 7** 7/15/2009

PROPERTY OWNERS

NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
1	NORMAN J. SELBY, SR.	5724 SIDNEY RD. BELHAVEN, NC 27810
2	JOHNNIE & MARIEK BRINN	5459 NC HWY 99 SOUTH BELHAVEN, NC 27810
3	LEWIS & DONNA LINCOLN	475 BRENTWOOD RD. WINSTON-SALEM, NC 27107
4	CHARLES & SHEILA SLADE	4653 SYNDEY ROAD BELHAVEN, NC 27810

NCDOT

DIVISION OF HIGHWAYS
BEAUFORT COUNTY

PROJECT: 33693.1.1 (B-4417)

SIDNEY

BRIDGE NO. 59 OVER JACK CREEK

ON NC 99

Permit Drawing

Sheet 7 of 7

SHEET

OF

4/7/09



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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

2. Project Information

2a. Name of project:	Replacement of Bridge 59 over Jack Creek on NC-99
2b. County:	Beaufort
2c. Nearest municipality / town:	Belhaven
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no:	B-4417

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 (for 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) 431-6748
3g. Fax no.:	(919) 431-2002
3h. Email address:	tstanton@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):	not applicable	
1b. Site coordinates (in decimal degrees):	Latitude: 35.4839 (DD.DDDDDD)	Longitude: - 76.6729 (-DD.DDDDDD)
1c. Property size:	2.6 acres	
2. Surface Waters		
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Jack Creek	
2b. Water Quality Classification of nearest receiving water:	SC; NSW	
2c. River basin:	Tar Pamlico	
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: residential and agricultural land uses		
3b. List the total estimated acreage of all existing wetlands on the property: 5.34		
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 1,238		
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 76-foot bridge with a 200-foot, 4-span bridge on the existing alignment with an off-site detour. Water, Telephone, and CATV utilities will be relocated via directional-bore. Standard road 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):	Agency/Consultant Company: ESI for NCDOT Other:	
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. May 8, 2006		
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 type="checkbox"/> P <input checked="" type="checkbox"/> T	EC* Device	Riparian	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	< 0.01**
Site 2 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Fill	CAMA Marsh	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	0.02
Site 2 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	EC* Device	Riparian	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	< 0.01**
Site 3 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	EC* Device	Riparian	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	< 0.01**
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					0.02 Permanent 0.01 Temporary

2h. Comments: There will be 0.07ac. of Hand Clearing in Wetlands (see permit drawings). *EC - Erosion Control. **The sum of "less thans" does not total more than 0.01 acre.

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 checked="" type="checkbox"/> P <input checked="" type="checkbox"/> T	Jack Creek	Fill	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ		0.18*
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						0.07 Perm 0.11 Temp

3i. Comments: * Impacts are in surface water and calculated in area (acre).

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				0 Permanent 0 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	Excavat ed	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.

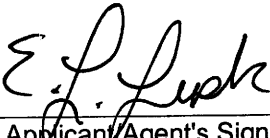
6a. Project is in which protected basin?			<input type="checkbox"/> Neuse <input type="checkbox"/> Catawba			<input checked="" type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Randleman			<input type="checkbox"/> Other:		
6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for 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	Jack Creek	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1409.0	1055.0						
B2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No								
B3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No								
6h. Total buffer impacts				1409.0	1055.0						
6i. Comments: Total length equals 43' for Zone1 and 52' for Zone 2											

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 125 feet longer than the existing bridge; the proposed bridge will be on a slightly higher grade than the existing structure; an off site detour will be used, 3:1 fill slopes where practicable.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. Top-down Construction will be used precluding the need for a temporary construction structure, utilities will be directionally bored, and an in-water work moratorium from Feb. 15 to June 15 of any year to protect anadromous fish.		
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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
2b. If yes, mitigation is required by (check all that apply):	<input type="checkbox"/> DWQ <input checked="" type="checkbox"/> Corps	
2c. If yes, which mitigation option will be used for this project?	<input type="checkbox"/> Mitigation bank <input checked="" 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 checked="" 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:	0.04 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?				<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:				

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 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 checked="" 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 checked="" type="checkbox"/> No, in process
5. DWQ 401 Unit Stormwater Review	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No, pending
5b. Have all of the 401 Unit submittal requirements been met?	<input type="checkbox"/> Yes <input checked="" 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 & 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 type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
8b. If yes, explain how project meets FEMA requirements: NCDOT Hydraulics coordination with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA Maps		
Dr. Gregory J. Thorpe, Ph D Applicant/Agent's Printed Name	 Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	12-10-09 Date



August 7, 2009

Mr. William Wescott
U. S. Army Corps of Engineers
Washington Regulatory Field Office
Post Office Box 1000
Washington, North Carolina 27789-1000

Dear Mr. Wescott:

Subject: EEP Mitigation Acceptance Letter:

B-4417, Replace Bridge Number 59 over Jack Creek on NC 99, Beaufort County; Tar-Pamlico River Basin (Cataloging Unit 03020104); Northern Outer Coastal Plain (NOCP) Eco-Region

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) will provide the compensatory coastal marsh mitigation for the unavoidable impact associated with the above referenced project. As indicated in the NCDOT's mitigation request dated July 15, 2009, coastal marsh mitigation from EEP is required for 0.02 acre of coastal marsh impact.

Also, this project will impact buffers located in CU 03020104 of the Tar-Pamlico River Basin. The total buffer impacts are 4,327.0 square feet in Zone 1 and 863.0 square feet in Zone 2 with a total buffer mitigation requirement of 14,276.0 square feet. If the buffer impacts or the amount of mitigation required from EEP increases or decreases for this project, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required. All buffer mitigation requests and approvals are administrated through the Riparian Restoration Buffer Fund (Fund 2982).

The NCDOT will be responsible to ensure that the appropriate compensation for the buffer mitigation will be provided in the agreed upon method of fund transfer. Upon receipt of the NCDWQ's Buffer Authorization Certification, EEP will transfer funds from Fund 2984 (Tri-Party MOA Account) into Fund 2982 and commit to provide the appropriate buffer mitigation to offset the impacts associated with this project in either Tar-Pamlico 03020103 or 03020105.

Mr. Wescott
August 7, 2009
TIP B-4417
Page Two

Mitigation associated with this project will be provided in accordance with Section X of Amendment No. 2 to the Memorandum of Agreement between the N. C. Department of Environment and Natural Resources, the N. C. Department of Transportation, and the U. S. Army Corps of Engineers fully executed on March 8, 2007 (Tri-Party MOA). EEP commits to implement sufficient compensatory coastal marsh mitigation up to 0.04 coastal marsh mitigation credits in the appropriate cataloging unit to offset the impacts associated with this project by the end of the MOA year in which this project is permitted. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from EEP.

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

Sincerely,



William D. Gilmore, P.E.
EEP Director

cc: Mr. Gregory J. Thorpe, Ph.D., NCDOT-PDEA
Mr. Brian Wrenn, Division of Water Quality, Wetlands/401 Unit
Mr. Steve Sollod, Division of Coastal Management
File: B-4417

Restoring... Enhancing... Protecting Our State





August 7, 2009

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

Dear Dr. Thorpe:

Subject: EEP Mitigation Acceptance Letter:

B-4417, Replace Bridge Number 59 over Jack Creek on NC 99, Beaufort County

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) will provide the coastal marsh mitigation and buffer mitigation for the subject project. Based on the information supplied by you dated July 15, 2009, the impacts are located in CU 03020104 of the Tar-Pamlico River Basin in the Northern Outer Coastal Plain (NOCP) Eco-Region, and are as follows:

Coastal Marsh	0.02 acre
Buffer – Zone 1	6,063 square feet
Buffer – Zone 2	1,169 square feet

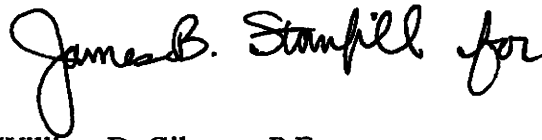
All buffer mitigation requests and approvals are administrated through the Riparian Restoration Buffer Fund. The NCDOT will be responsible to ensure that appropriate compensation for the buffer mitigation will be provided in the agreed upon method of fund transfer. Upon receipt of the NCDWQ's Buffer Authorization Certification, EEP will transfer funds from Tri-Party MOA Fund into the Riparian Restoration Buffer Fund. Upon completion of transfer payment, NCDOT will have completed its riparian buffer mitigation responsibility for the above referenced project. Subsequently, EEP will conduct a review of current MOA mitigation projects in the river basin to determine if available buffer mitigation credits exist. If there are buffer mitigation credits available, then the Riparian Restoration Buffer Fund will purchase the appropriate amount of buffer mitigation credits from Tri-Party MOA Fund. EEP commits to providing the riparian buffer restoration mitigation for the buffer impacts in either Tar-Pamlico 03020103 or 03020105.

Dr. Thorpe
August 7, 2009
TIP B-4417
Page Two

EEP commits to implementing sufficient compensatory coastal marsh mitigation credits to offset the impacts associated with this project by the end of the MOA Year in which this project is permitted, in accordance with Section X of the Amendment No. 2 to the Memorandum of Agreement between the North Carolina Department of Environment and Natural Resources, the North Carolina Department of Transportation, and the U. S. Army Corps of Engineers, fully executed on March 8, 2007. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from EEP.

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

Sincerely,



William D. Gilmore, P.E.
EEP Director

cc: Mr. William Wescott, USACE – Washington Regulatory Field Office
Mr. Brian Wrenn, Division of Water Quality – Wetlands/401 Unit
Mr. Steve Sollod, Division of Coastal Management
File: B-4417

Restoring... Enhancing... Protecting Our State



STORMWATER MANAGEMENT PLAN

TIP No. B-4417 (33693.1.1)
Beaufort County
April 2009

Project Description

This project consists of approach roadway work and the replacement of Bridge #59 over Jacks Creek on NC 99. The existing 2 lane facility has 9' lanes. The proposed facility will improve to 2 lanes w/ 12' lanes and 4' shoulders. The existing 3 @ 25' (75.5' total) bridge will be replaced with a 4 @ 50' - 21" cored slab bridge (200' total). There are CAMA wetlands in the NE, NW and SW quadrants of the project.

Project Involvement

The project will require widening of the existing road/fill with wider lanes and the addition of wider shoulders and guardrail. The drainage at the site consists of ephemeral drainage ditches. There are CAMA wetlands in the NE, NW and SW quadrants of the project. Jacks Creek is classified as C; NSW and is a Public Trust Water.

Best Management Practices

Best Management Practices (BMPs) utilized on the project are as follows:

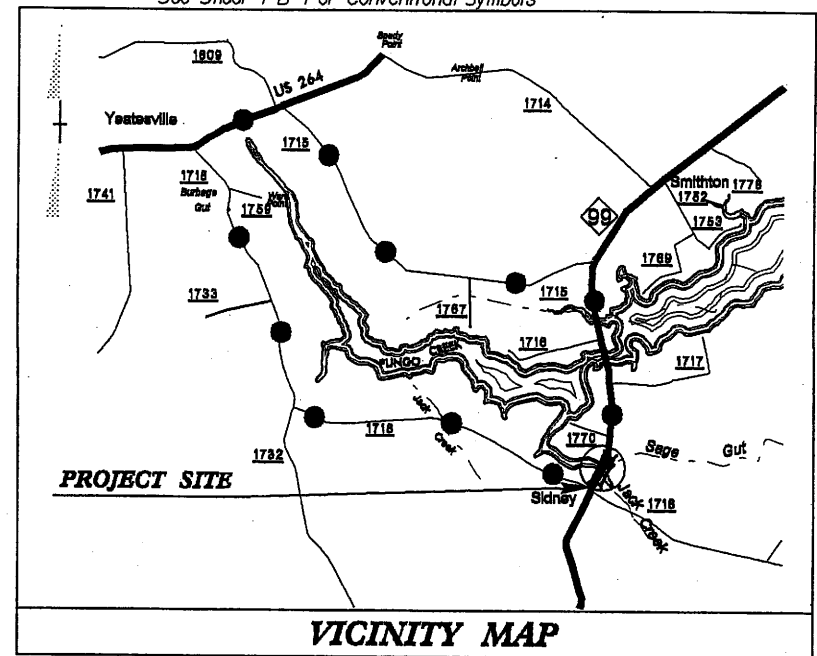
- Promotion of sheet flow and infiltration with grassed shoulders and grassed swales.
- No direct discharge into wetlands/buffer. Outlet drainage systems to grassed swales.
- No deck drains on bridge
- Removal of existing road fill. The removal of road fill offsets the amount of fill in surface waters due to widening. Fill removal also improves bridge conveyance and reduces bridge opening velocities.

07-APR-2009 14:12
r:\hydro\projects\environmental\drawings\buffer\b-4417_hyd_tsh_buf.dgn
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TIP PROJECT: B-4417

CONTRACT:

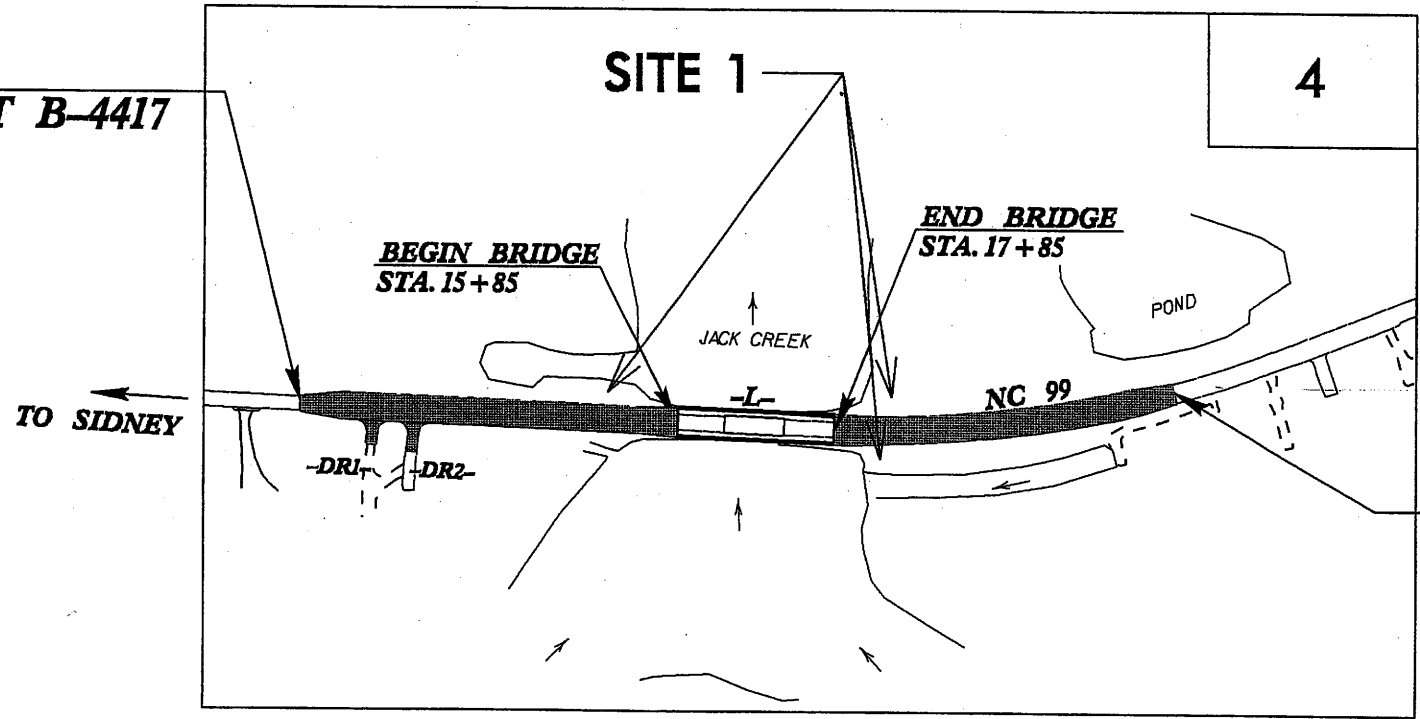
See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols



VICINITY MAP

●●● OFFSITE DETOUR

STA. 11+17.00
-L- BEGIN TIP PROJECT B-4417



STA. 22+05.00
-L- END TIP PROJECT B-4417

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
BEAUFORT COUNTY

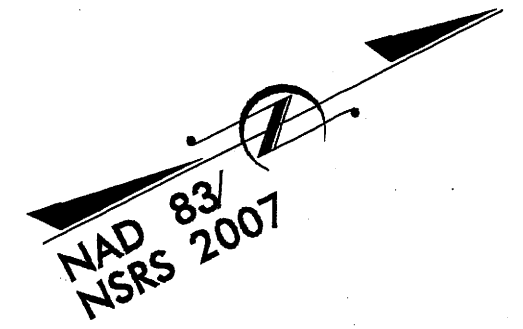
LOCATION: BRIDGE NO. 59 OVER JACK CREEK ON NC 99

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

BUFFER PERMIT

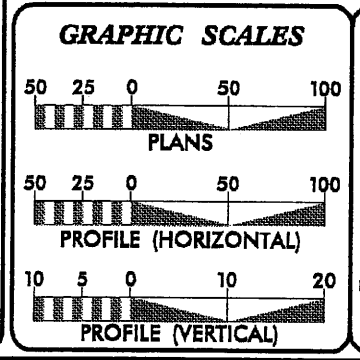
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4417	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33693.1.1	BRSTP-0099(4)	P.E.	
33693.2.1	BRSTP-0099(4)	ROW, UTIL	

Buffer Drawing
Sheet 1 of 9



CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



DESIGN DATA

ADT 2010 = 2,660
ADT 2030 = 4,200
DHV = 10 %
D = 60 %
T = 9 % *
V = 60 MPH
FUNC CLASS = RURAL MAJOR COLLECTOR
* (TTST 3% + DUAL 6%)

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT B-4417 = 0.168 MILES
LENGTH OF STRUCTURE TIP PROJECT B-4417 = 0.038 MILES
TOTAL LENGTH STATE TIP PROJECT B-4417 = 0.206 MILES

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

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: MAY 15, 2009
LETTING DATE: MAY 18, 2010

BRENDA MOORE, PE
PROJECT ENGINEER

THAD F. DUNCAN, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

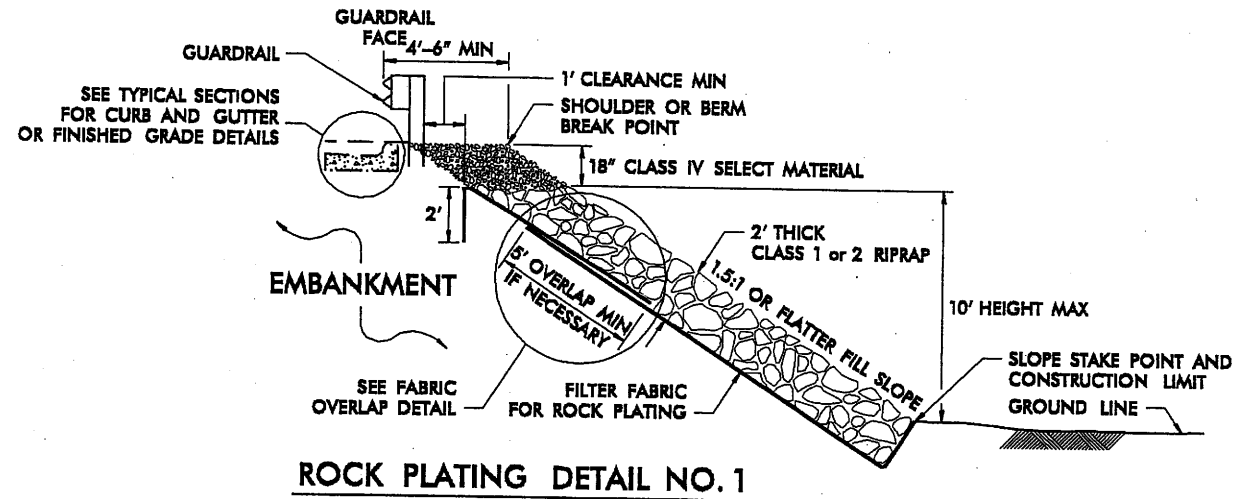
SIGNATURE: _____ P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER

PROJECT REFERENCE NO. B-4417	SHEET NO. 2-A
ROADWAY DESIGN ENGINEER	PAYEMENT DESIGN ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

Buffer Drawing
Sheet 2 of 9

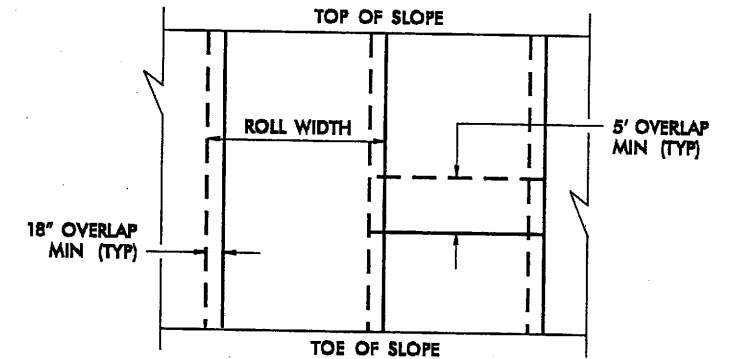


ROCK PLATING DETAIL NO. 1

USE ROCK PLATING DETAIL NO. 1
AT THE FOLLOWING LOCATIONS:

STA 13+40 ± TO STA 15+85 ± -L- LT
STA 14+50 ± TO STA 15+85 ± -L- RT
STA 17+85 ± TO STA 18+50 ± -L- LT & RT

EXTEND ROCK PLATING LIMITS TO 2.5 : 1 (H:V) SLOPES.



FABRIC OVERLAP DETAIL
(PLAN VIEW)

ROCK PLATING DETAILS AND LOCATIONS WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENT WAS SUBMITTED TO THE ROADWAY DESIGN UNIT ON APRIL 16, 2009 AND SEALED BY A PROFESSIONAL ENGINEER, THEIN T. ZAN, LICENSE # 30943.

FOR ROCK PLATING,
SEE ROCK PLATING SPECIAL PROVISION.

ESTIMATED QUANTITIES:
ROCK PLATING 900 SQ.YD.
6" PERFORATED SUBDRAIN PIPE 100 LIN.FT.
SUBDRAIN FINE AGGREGATE 300 CU.YD.

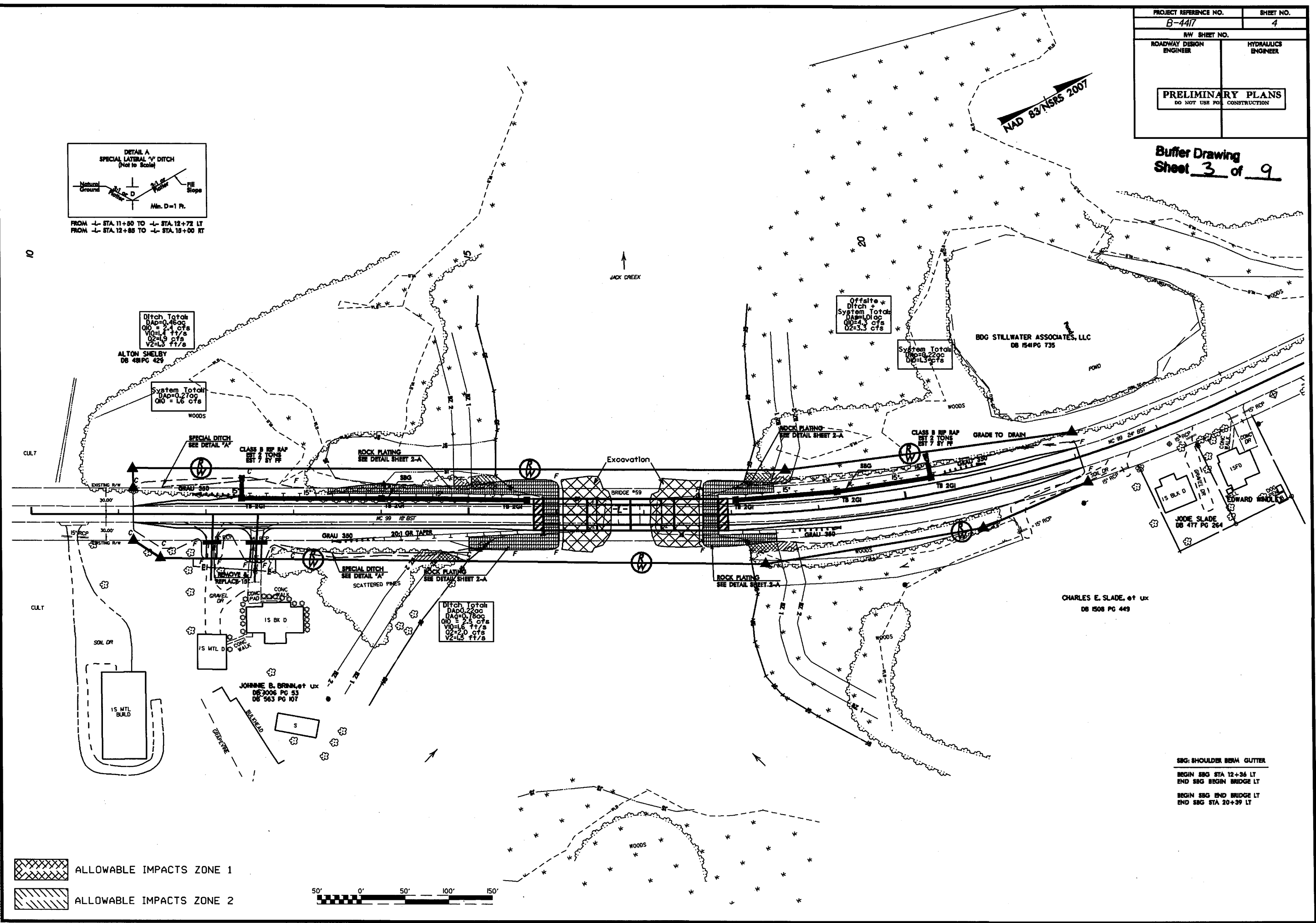
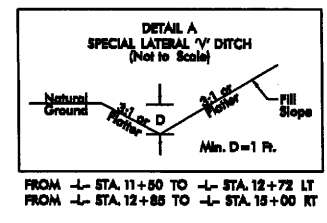
8/17/99

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REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
B-4417	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

Buffer Drawing
Sheet 3 of 9



- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2

SBG: SHOULDER BERM GUTTER
BEGIN SBG STA 12+36 LT
END SBG BEGIN BRIDGE LT
BEGIN SBG END BRIDGE LT
END SBG STA 20+39 LT

Buffer Drawing
Sheet 5 of 9

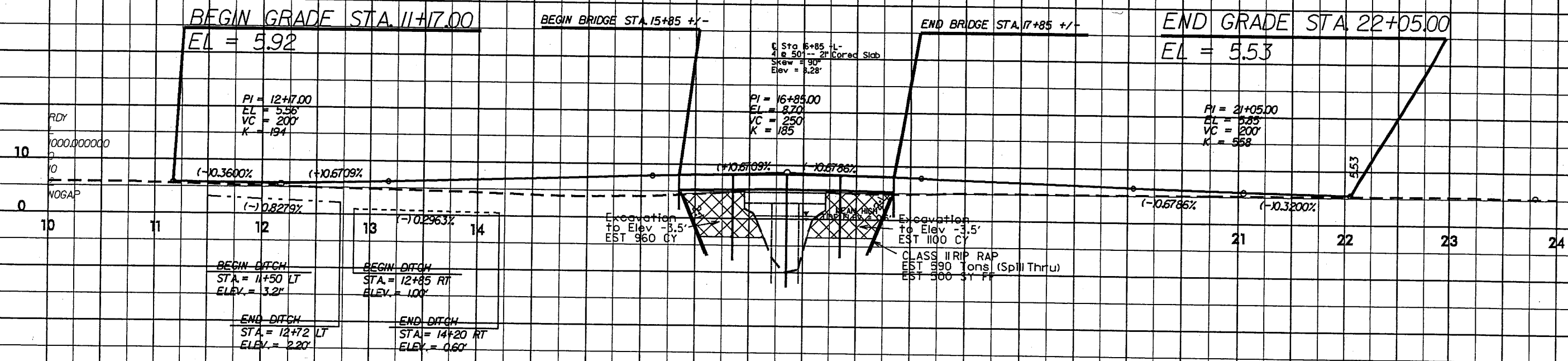
STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE	=	CFS
DESIGN FREQUENCY	=	YRS
DESIGN HW ELEVATION	=	FT
BASE DISCHARGE	=	CFS
BASE FREQUENCY	=	YRS
BASE HW ELEVATION	=	FT
OVERTOPPING DISCHARGE	=	CFS
OVERTOPPING FREQUENCY	=	YRS
OVERTOPPING ELEVATION	=	FT

BM #10
53.3' LEFT OF -BL- STA. 14+81.60
ELEV. 2.22'

BM #15
3.3' LEFT OF -BL- STA. 17+80.60
ELEV. 4.81'

BM #11
76.6' RIGHT OF -BL- STA. 21+46.50
ELEV. 5.08'



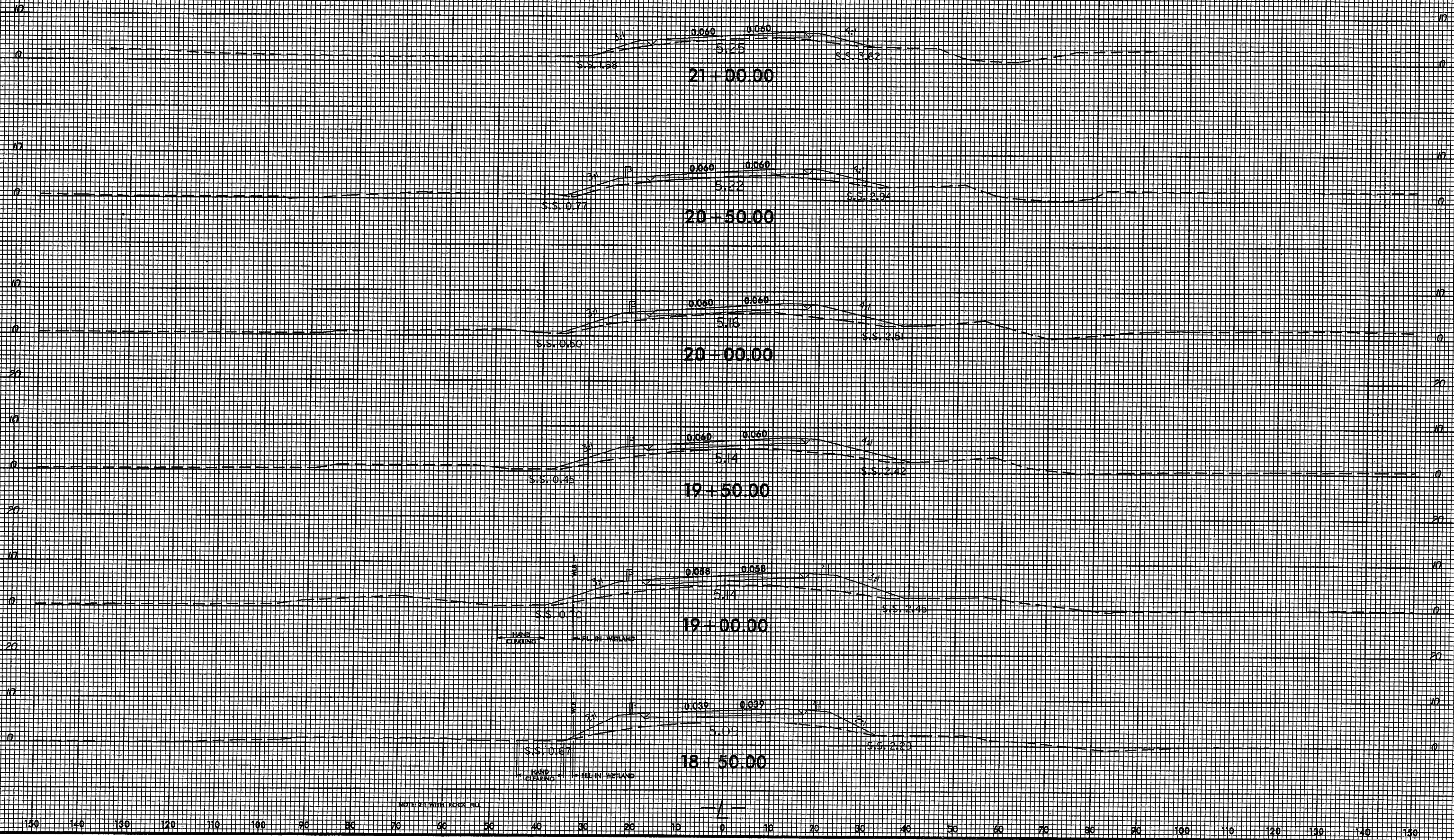
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Sheet 5 of 9

8/23



PROJ. REFERENCE NO. B-4417 SHEET NO. X-4

Butter Drawing
Sheet 6 of 8



01-APR-2009 16:08
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omeadows AT HY24562

[illegible][illegible][illegible][illegible][illegible][illegible]

PROPERTY OWNERS

NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
1	NORMAN J. SELBY, SR.	5724 SIDNEY RD. BELHAVEN, NC 27810
2	JOHNNIE & MARIEK BRINN	5459 NC HWY 99 SOUTH BELHAVEN, NC 27810
3	LEWIS & DONNA LINCOLN	475 BRENTWOOD RD. WINSTON-SALEM, NC 27107
4	CHARLES & SHEILA SLADE	4653 SYNDEY ROAD BELHAVEN, NC 27810

NCDOT

DIVISION OF HIGHWAYS

BEAUFORT COUNTY

PROJECT: 33693.1.1 (B-4417)

SIDNEY

BRIDGE NO. 59 OVER JACK CREEK

ON NC 99

Buffer Drawing

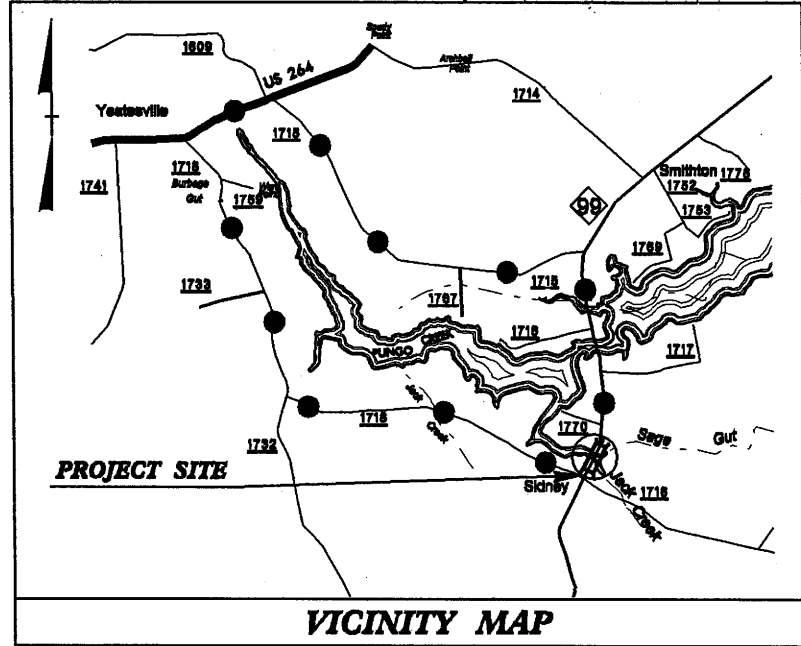
Sheet 9 of 9

SHEET

OF 4/7/09

TIP PROJECT: B-4417

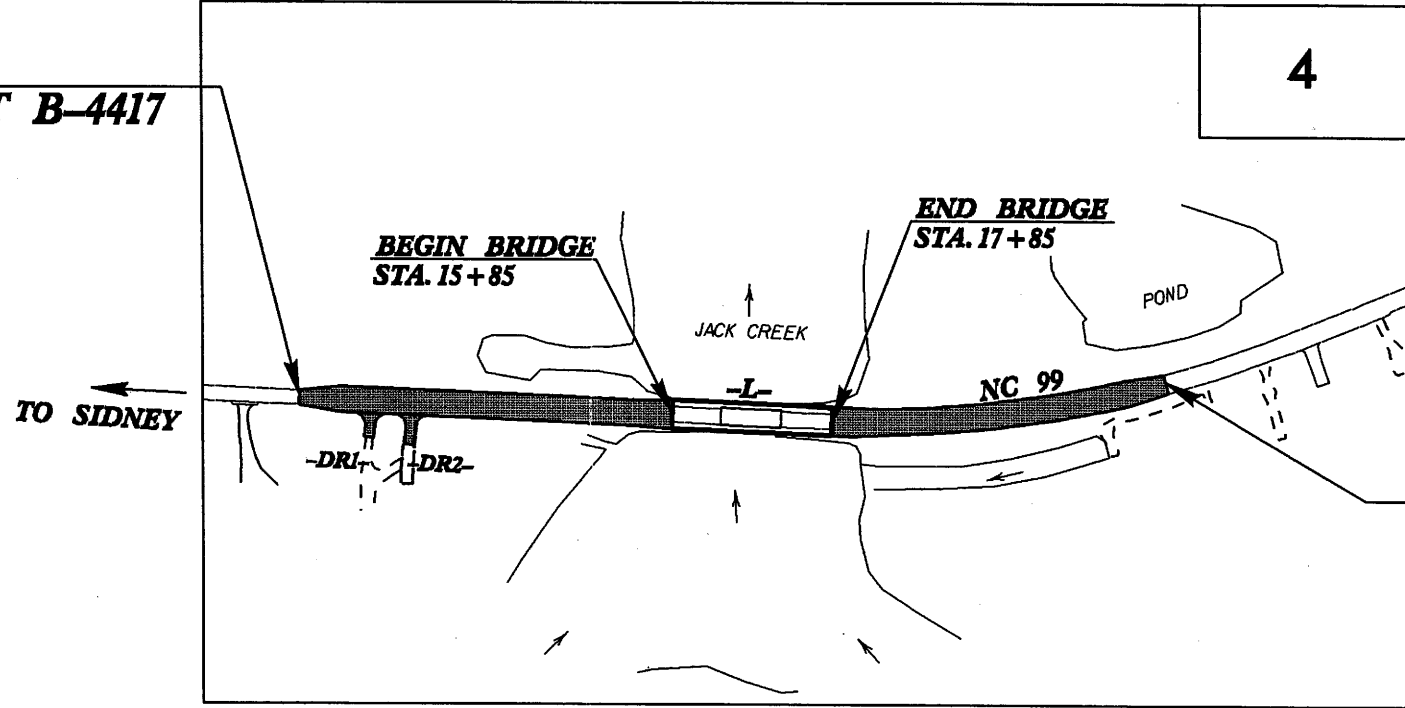
See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols



VICINITY MAP

--- OFFSITE DETOUR

STA. 11+17.00
-L- BEGIN TIP PROJECT B-4417



CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

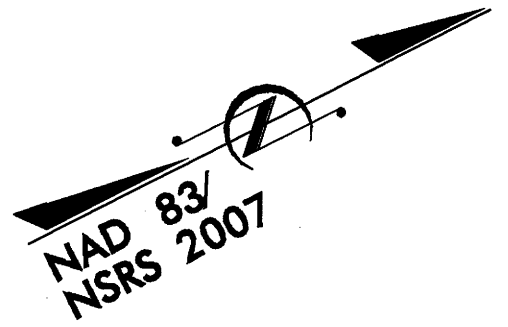
BEAUFORT COUNTY

LOCATION: BRIDGE NO. 59 OVER JACK CREEK ON NC 99

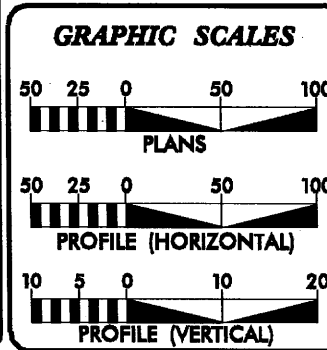
TYPE OF WORK: RELOCATING UTILITY LINES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4417	1	
STATE PROJECT NO.	F.A. PROJECT NO.	DESCRIPTION	
33693.1.1	BRSTP-0099(4)	P.E.	
33693.2.1	BRSTP-0099(4)	ROW, UTIL	

Utility Permit Drawing
Sheet 1 of 4



CONTRACT:



DESIGN DATA
ADT 2010 = 2,660
ADT 2030 = 4,200
DHV = 10 %
D = 60 %
T = 9 % *
V = 60 MPH
FUNC CLASS = RURAL MAJOR COLLECTOR
* (TTST 3% + DUAL 6%)

PROJECT LENGTH
LENGTH OF ROADWAY TIP PROJECT B-4417 = 0.168 MILES
LENGTH OF STRUCTURE TIP PROJECT B-4417 = 0.038 MILES
TOTAL LENGTH STATE TIP PROJECT B-4417 = 0.206 MILES

Prepared in the Office of: DIVISION OF HIGHWAYS 1000 Birch Ridge Dr., Raleigh NC, 27610	
2006 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: MAY 15, 2009	BRENDA MOORE, PE PROJECT ENGINEER
LETTING DATE: MAY 18, 2010	THAD F. DUNCAN, PE PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER
SIGNATURE: _____ P.E.
ROADWAY DESIGN ENGINEER
SIGNATURE: _____ P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

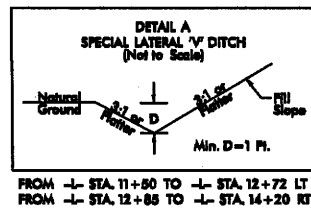
STATE HIGHWAY DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
B-4417	2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR CONSTRUCTION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

Utility Permit Drawing
Sheet 2 of 4



STA. 11+17.00 -L- BEGIN STATE PROJECT B-4417

-L- POT Sta. 12+08.02
-DRI- POT Sta. 10+00.00
BEARING AH = S 58° 10' 49.8" E

-L- POT Sta. 12+59.10
-DRI- POT Sta. 10+00.00
BEARING AH = S 57° 22' 59.6" E

PROP. U/G WATER LINE
SEE SHEET 4

BEGIN APPROACH SLAB
STA. 15+70 +/-

END APPROACH SLAB
STA. 18+00 +/-

PC Sta. 17+66.47

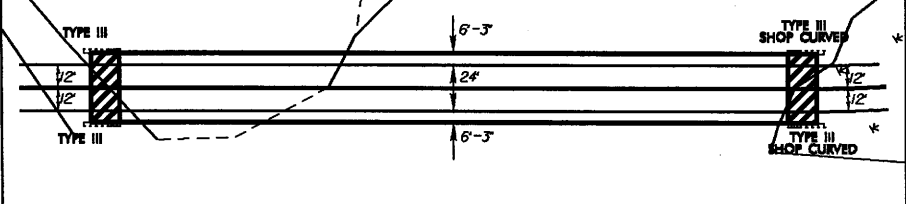
BEGIN BRIDGE
STA. 15+85 +/-

END BRIDGE
STA. 17+85 +/-

STA. 22+05.00 -L- END STATE PROJECT B-4417

PROP. U/G TEL. & CATV
CABLES SEE SHEET 3

SKETCH OF BRIDGE IN RELATIONSHIP TO PAVEMENT



-L-
PI Sta. 20+84.33
Δ = 25° 03' 49.3" (LT)
D = 4° 00' 24"
L = 625.54'
T = 317.86'
R = 1,430.00'
SE = .06
RO = 156'

SBG: SHOULDER BERM GUTTER

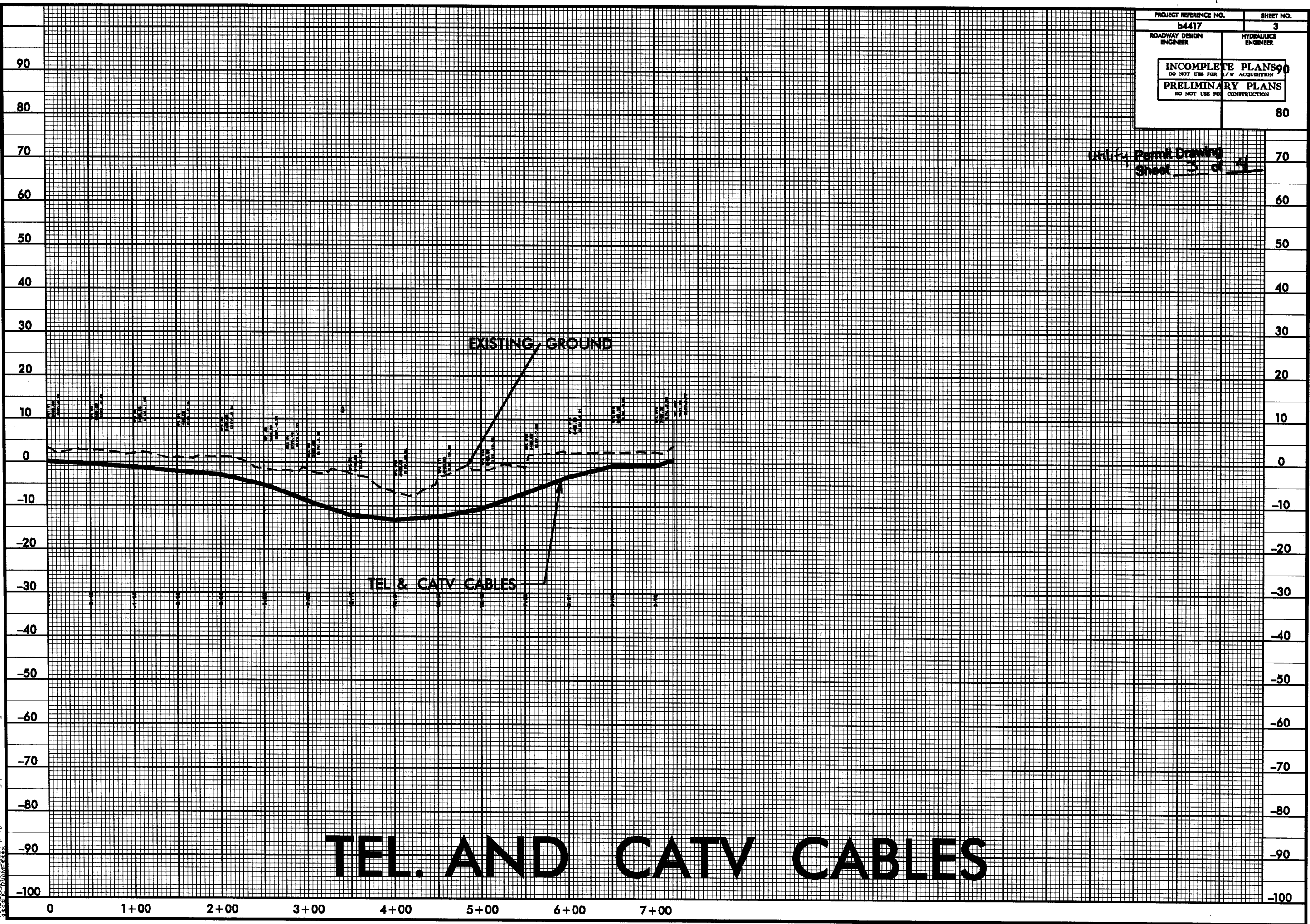
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END SBG BEGIN BRIDGE LT

BEGIN SBG END BRIDGE LT
END SBG STA. 20+39 LT

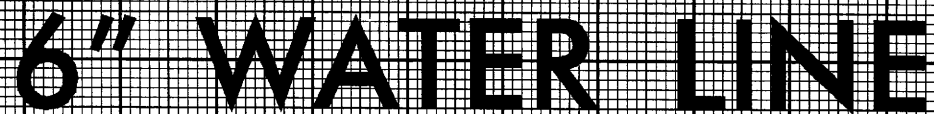
FOR -L- PROFILE SEE SHEET 5
FOR -DRI- PROFILE SEE SHEET 6
FOR -DR2- PROFILE SEE SHEET 6
FOR STRUCTURE SEE SHEET SI TO SX

21-APR-2009 16:18
C:\Users\jgibson\Documents\proj\B4417_permit\sheet2.dgn
jgibson

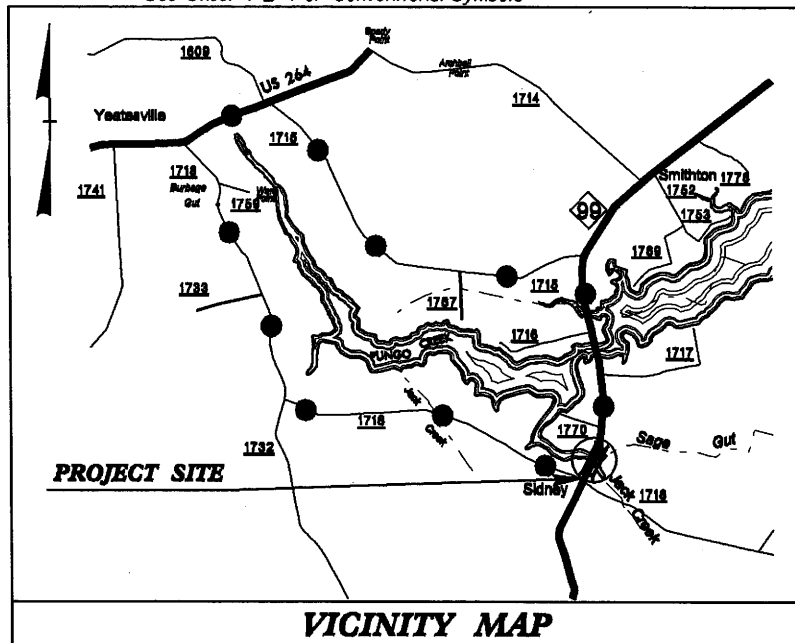
Utility Permit Drawing
Sheet 3 of 4



Utility Permit Drawing
Sheet 4 of 4



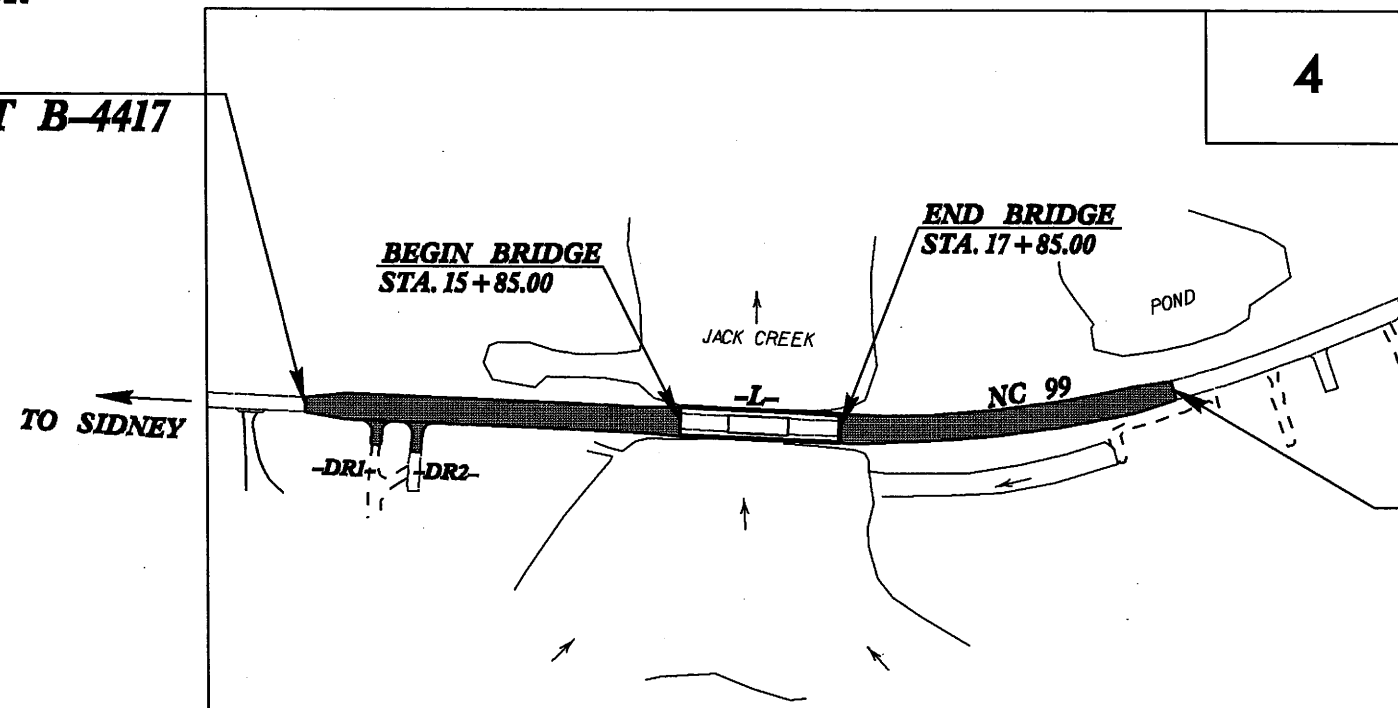
See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols



VICINITY MAP

● ● ● OFFSITE DETOUR

STA. 11+17.00
-L- BEGIN TIP PROJECT B-4417

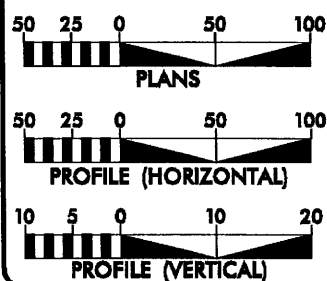


TO BELHAVEN

STA. 22+05.00
-L- END TIP PROJECT B-4417

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

GRAPHIC SCALES



DESIGN DATA

ADT 2010 = 2,660
ADT 2030 = 4,200
DHV = 10 %
D = 60 %
T = 9 % *
V = 60 MPH
FUNC CLASS = RURAL MAJOR COLLECTOR
* (TTST 3% + DUAL 6%)

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT B-4417 = 0.168 MILES
LENGTH OF STRUCTURE TIP PROJECT B-4417 = 0.038 MILES
TOTAL LENGTH STATE TIP PROJECT B-4417 = 0.206 MILES

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

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
MAY 15, 2009

LETTING DATE:
MAY 18, 2010

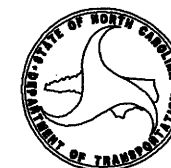
BRENDA MOORE, PE
PROJECT ENGINEER

THAD F. DUNCAN, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

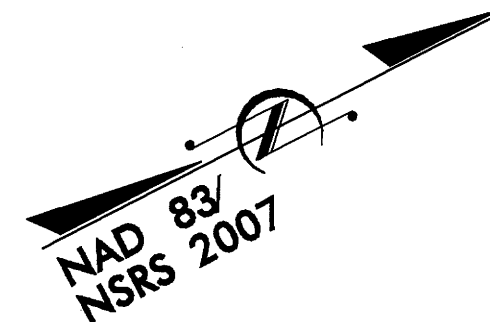
ROADWAY DESIGN
ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



STATE HIGHWAY DESIGN ENGINEER

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4417	1	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
33693.1.1	BRSTP-0099(4)	P.E.	
33693.2.1	BRSTP-0099(4)	ROW, UTIL	



TIP PROJECT: B-4417

CONTRACT:

Note: Not to Scale***S.U.E. = Subsurface Utility Engineering**STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYSPROJECT REFERENCE NO.
B-4417SHEET NO.
1-B

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	②3
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 U/G 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	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 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 Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	XXXX

VEGETATION:

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

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	CONC
Bridge Wing Wall, Head Wall and End Wall	CONC WW
MINOR:	
Head and End Wall	CONC HW
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	CB
Paved Ditch Gutter	-----
Storm Sewer Manhole	⑤
Storm Sewer	-----

UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	⑤
Power Line Tower	⊗
Power Transformer	⊗
UG Power Cable Hand Hole	□
H-Frame Pole	●
Recorded U/G Power Line	-----
Designated U/G Power Line (S.U.E.*)	-----

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⑤
Telephone Booth	③
Telephone Pedestal	④
Telephone Call Tower	⊗
UG Telephone Cable Hand Hole	□
Recorded U/G Telephone Cable	-----
Designated U/G Telephone Cable (S.U.E.*)	-----
Recorded U/G Telephone Conduit	-----
Designated U/G Telephone Conduit (S.U.E.*)	-----
Recorded U/G Fiber Optics Cable	-----
Designated U/G Fiber Optics Cable (S.U.E.*)	-----

WATER:

Water Manhole	⑤
Water Meter	○
Water Valve	⊗
Water Hydrant	⊗
Recorded U/G Water Line	-----
Designated U/G Water Line (S.U.E.*)	-----
Above Ground Water Line	A/G Water

TV:

TV Satellite Dish	⊗
TV Pedestal	④
TV Tower	⊗
UG TV Cable Hand Hole	□
Recorded U/G TV Cable	-----
Designated U/G TV Cable (S.U.E.*)	-----
Recorded U/G Fiber Optic Cable	-----
Designated U/G Fiber Optic Cable (S.U.E.*)	-----

GAS:

Gas Valve	⊗
Gas Meter	⊗
Recorded U/G Gas Line	-----
Designated U/G Gas Line (S.U.E.*)	-----
Above Ground Gas Line	A/G Gas

SANITARY SEWER:

Sanitary Sewer Manhole	⑤
Sanitary Sewer Cleanout	⊗
UG Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	A/G Sanitary Sewer
Recorded SS Forced Main Line	-----
Designated SS Forced Main Line (S.U.E.*)	-----

MISCELLANEOUS:

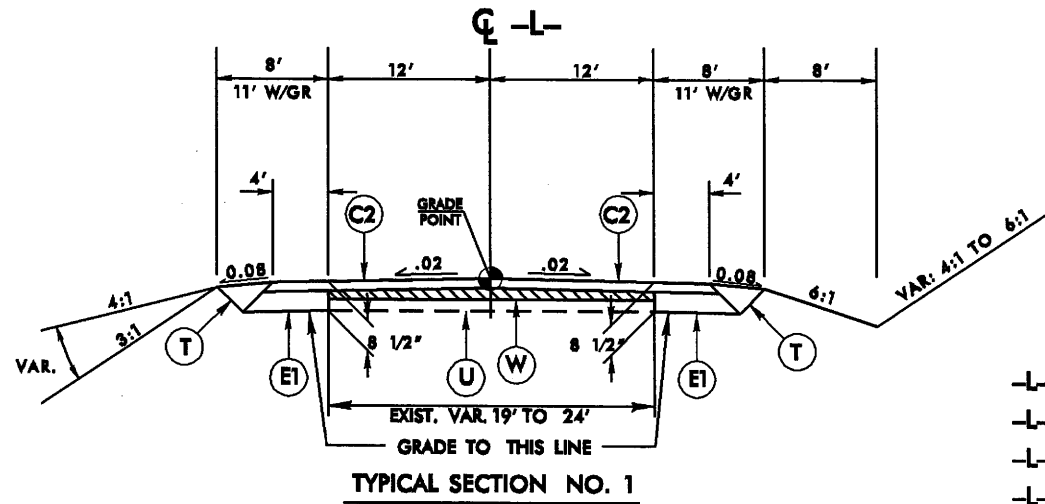
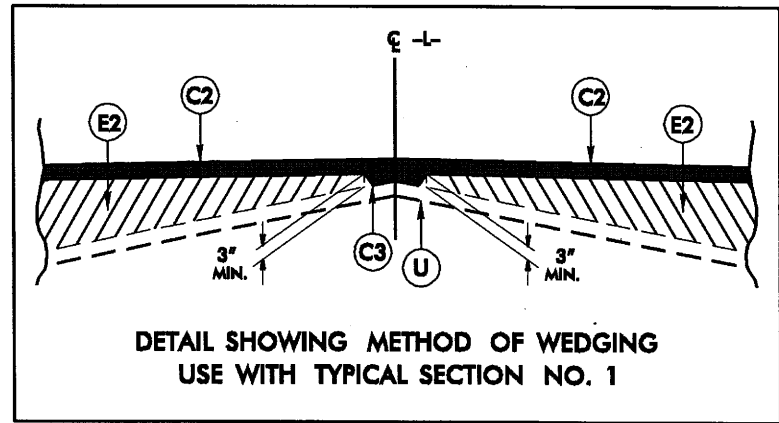
Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	③
Utility Unknown U/G Line	-----
UG Tank; Water, Gas, Oil	□
AG Tank; Water, Gas, Oil	□
UG Test Hole (S.U.E.*)	⊗
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

6/2/99

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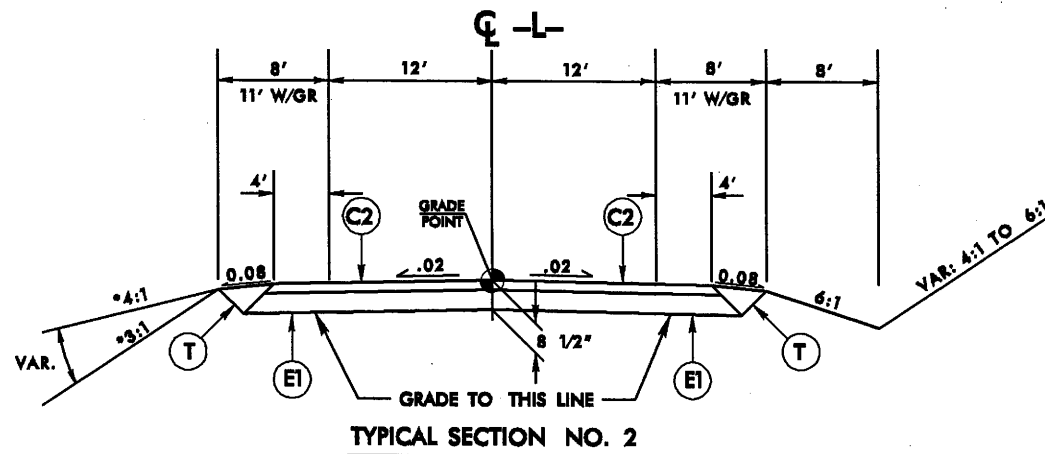
PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN)	
C1	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 89.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD IN EACH OF TWO LAYERS.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE 89.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD IN EACH OF TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 89.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.
D1	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2 1/2" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 5 1/2" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 827 LBS. PER SQ. YARD.
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 6 1/2" IN DEPTH.
J1	PROP. 6" AGGREGATE BASE COURSE.
U	EXISTING PAVEMENT.
T	EARTH MATERIAL.
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL THIS SHEET.)

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



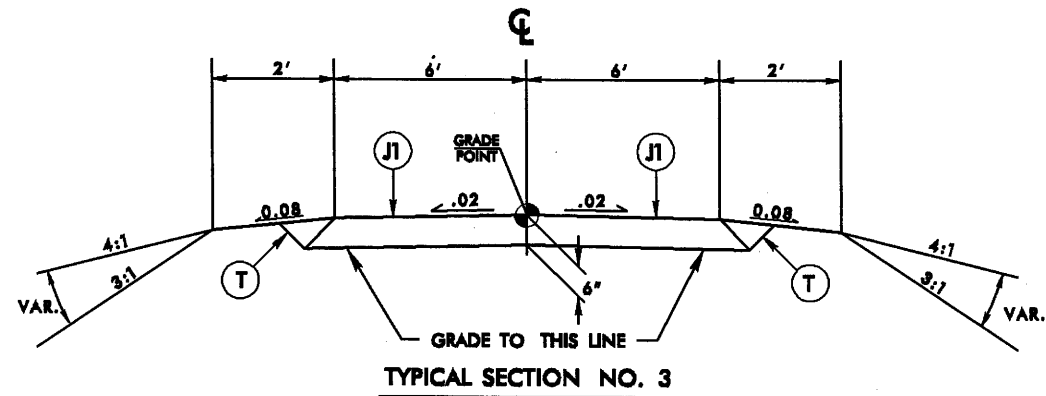
USE TYPICAL SECTION NO. 1

- L- STA. 11+17.00 TO -L- STA. 11+67.00 TRANSITION FROM EXIST.
- L- STA. 11+67.00 TO -L- STA. 12+50.00
- L- STA. 20+50.00 TO -L- STA. 21+55.00
- L- STA. 21+55.00 TO -L- STA. 22+05.00 TRANSITION TO EXIST.



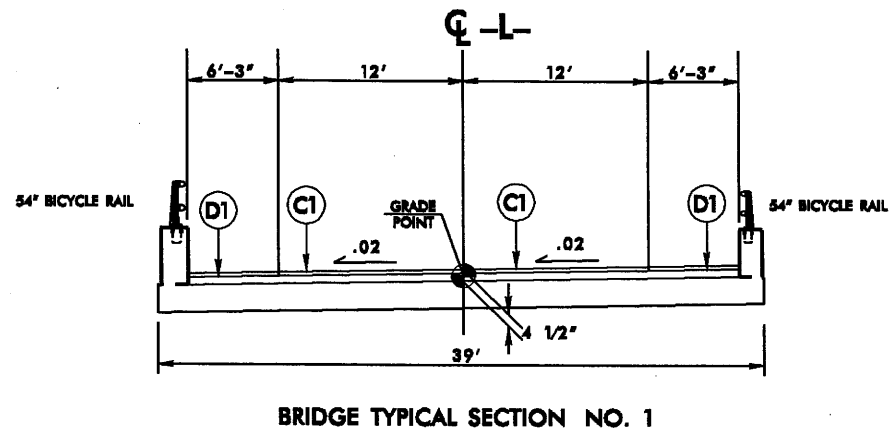
USE TYPICAL SECTION NO. 2

- L- STA. 12+50.00 TO -L- STA. 15+85.00 (BEGIN BRIDGE)
- L- STA. 17+85.00 (END BRIDGE) TO -L- STA. 20+50.00
- * NOTE: USE 2:1 FILL SLOPES AT ROCK PLATING LOCATIONS
- L- STA. 13+50 TO -L- STA. 18+50 LT
- L- STA. 14+50 TO -L- STA. 18+50 RT



USE TYPICAL SECTION NO. 3

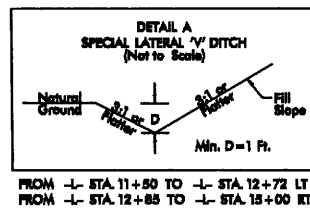
- DR1- STA. 10+16.01 TO -DR1- STA. 10+51.00
- DR2- STA. 10+16.02 TO -DR2- STA. 10+55.00



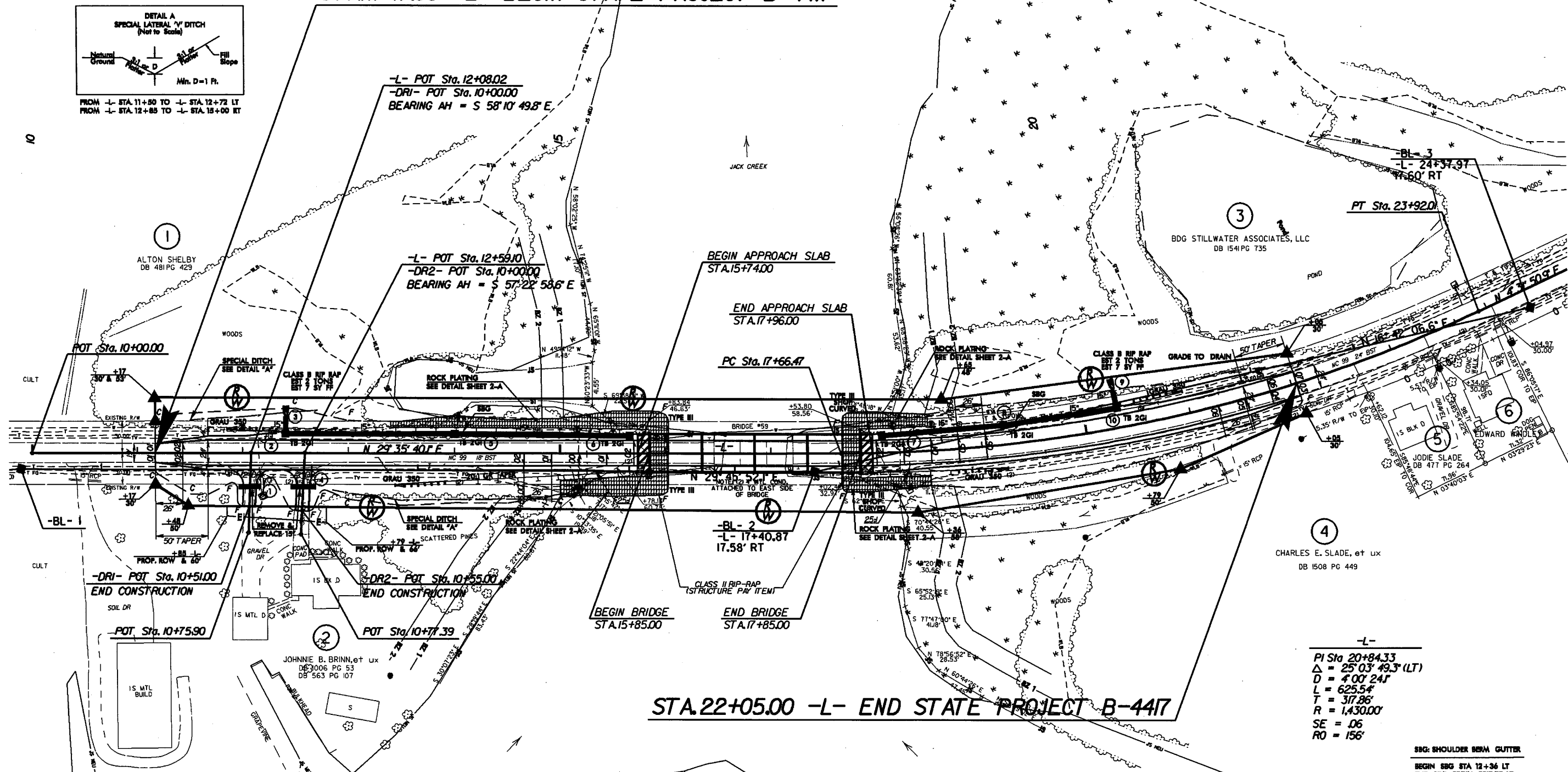
USE BRIDGE TYPICAL SECTION NO. 1

- L- STA. 15+85.00 TO -L- STA. 17+85.00

PROJECT REFERENCE NO.	SHEET NO.
B-4417	2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
INCOMPLETE PLANS DO NOT USE FOR CONSTRUCTION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

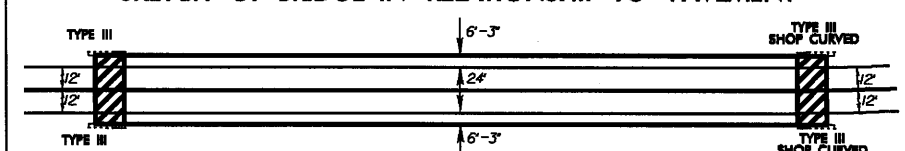


STA. 11+17.00 -L- BEGIN STATE PROJECT B-4417



STA. 22+05.00 -L- END STATE PROJECT B-4417

SKETCH OF BRIDGE IN RELATIONSHIP TO PAVEMENT



-L-
PI Sta 20+84.33
 $\Delta = 25^{\circ} 03' 49.3''$ (LT)
 $D = 400' 24''$
 $L = 625.54'$
 $T = 317.86'$
 $R = 1,430.00'$
 $SE = .06$
 $RO = 156'$

SBG: SHOULDER BERM GUTTER
BEGIN SBG STA 12+36 LT
END SBG BEGIN BRIDGE LT
BEGIN SBG END BRIDGE LT
END SBG STA 20+39 LT

FOR -L- PROFILE SEE SHEET 5
FOR -DRI- PROFILE SEE SHEET 6
FOR -DR2- PROFILE SEE SHEET 6
FOR STRUCTURE SEE SHEET SI TO SX

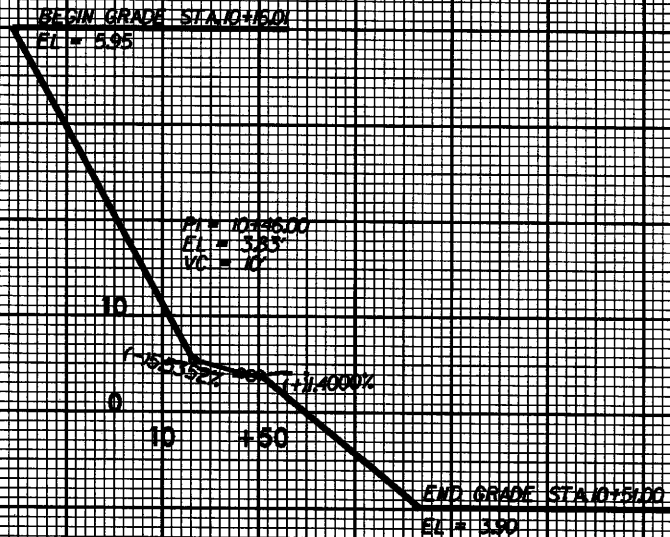
8/17/99

REVISIONS

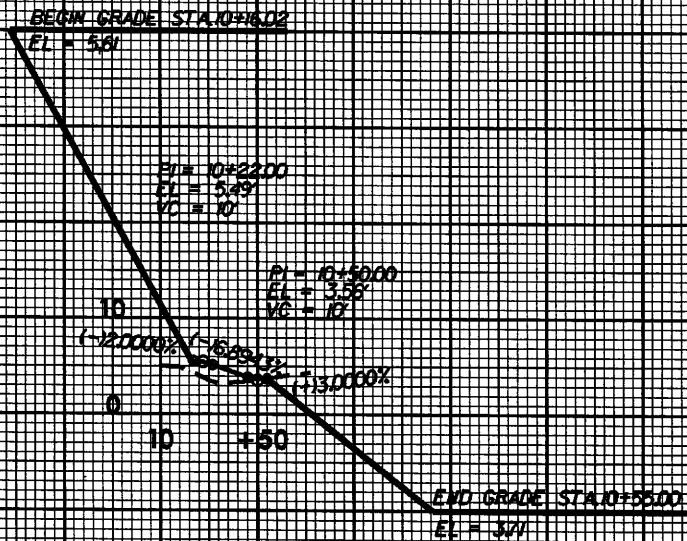
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AT B-4417

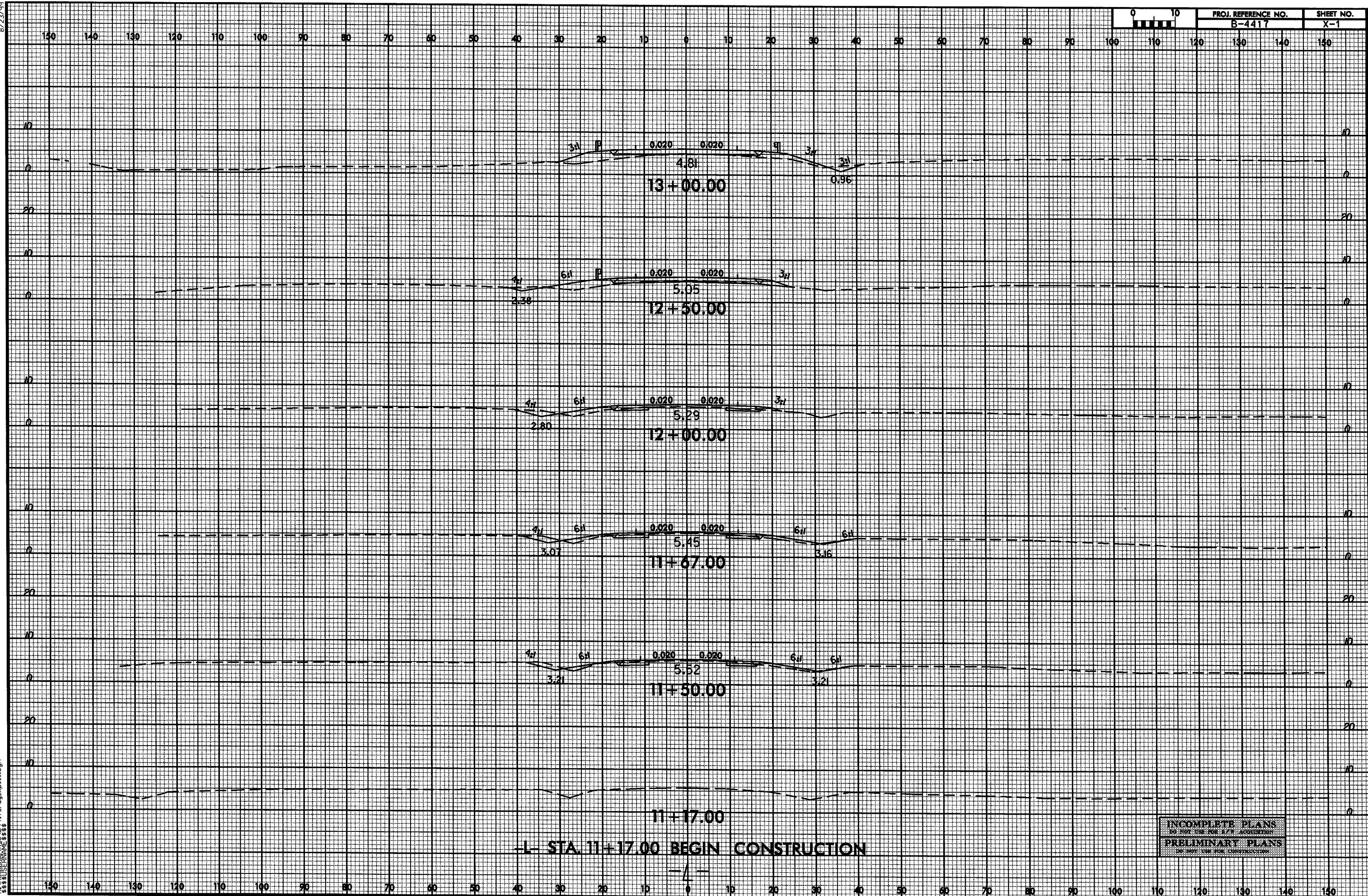
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B-4417	6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR A/W ACQUISITION</div> <div>PRELIMINARY PLANS</div> <div>DO NOT USE FOR CONSTRUCTION</div>	

-DR1-



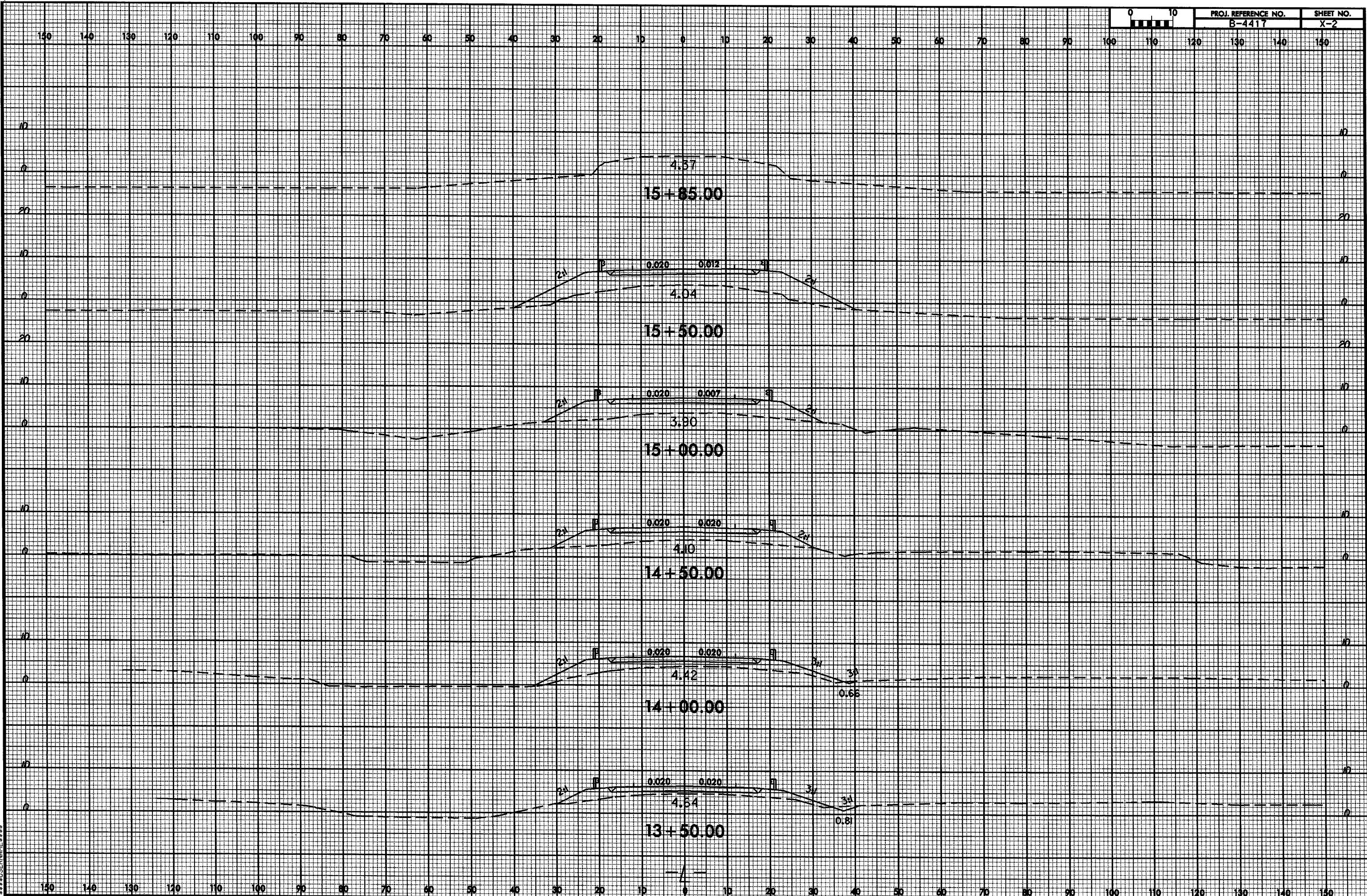
-DR2-





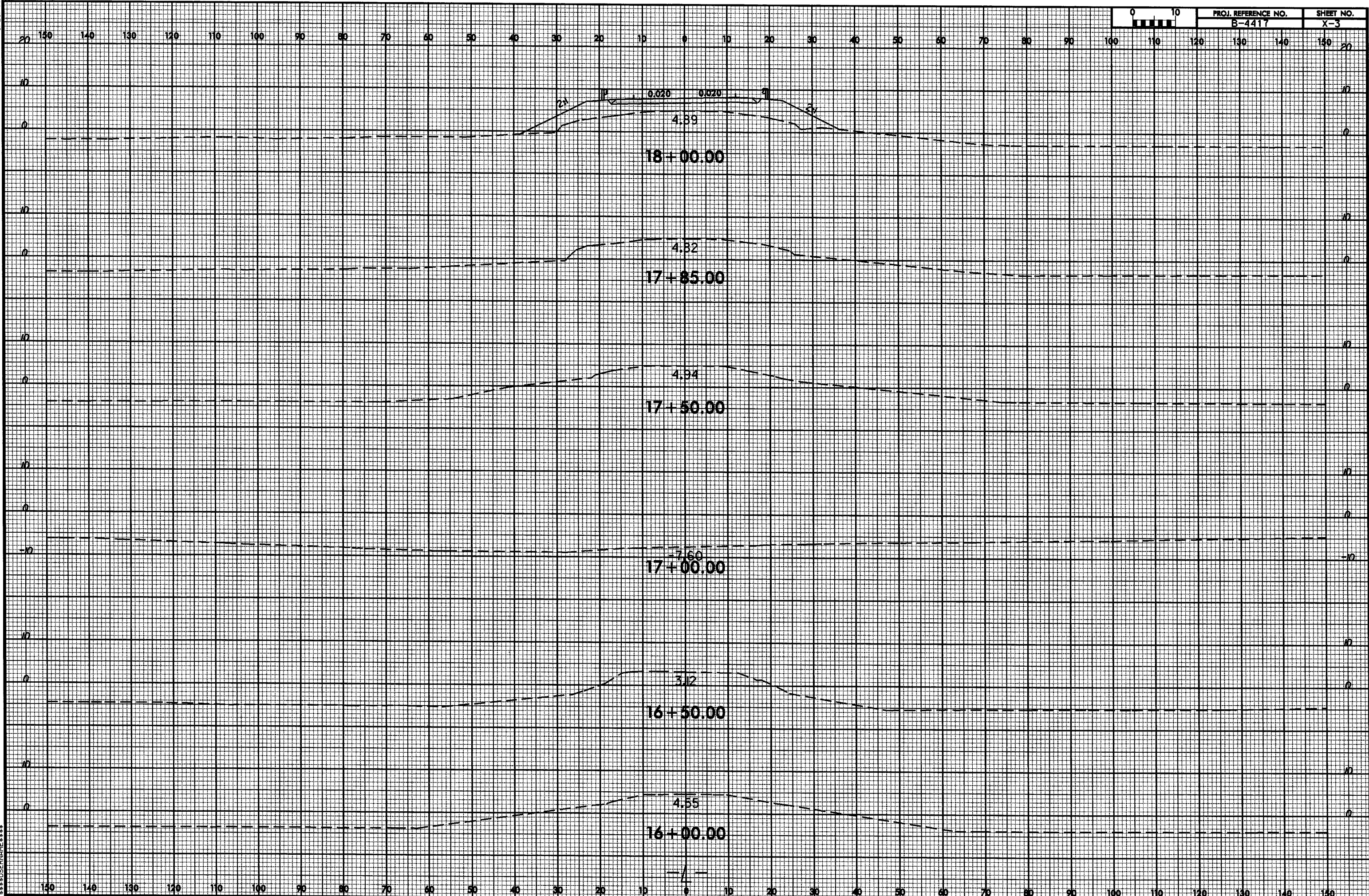
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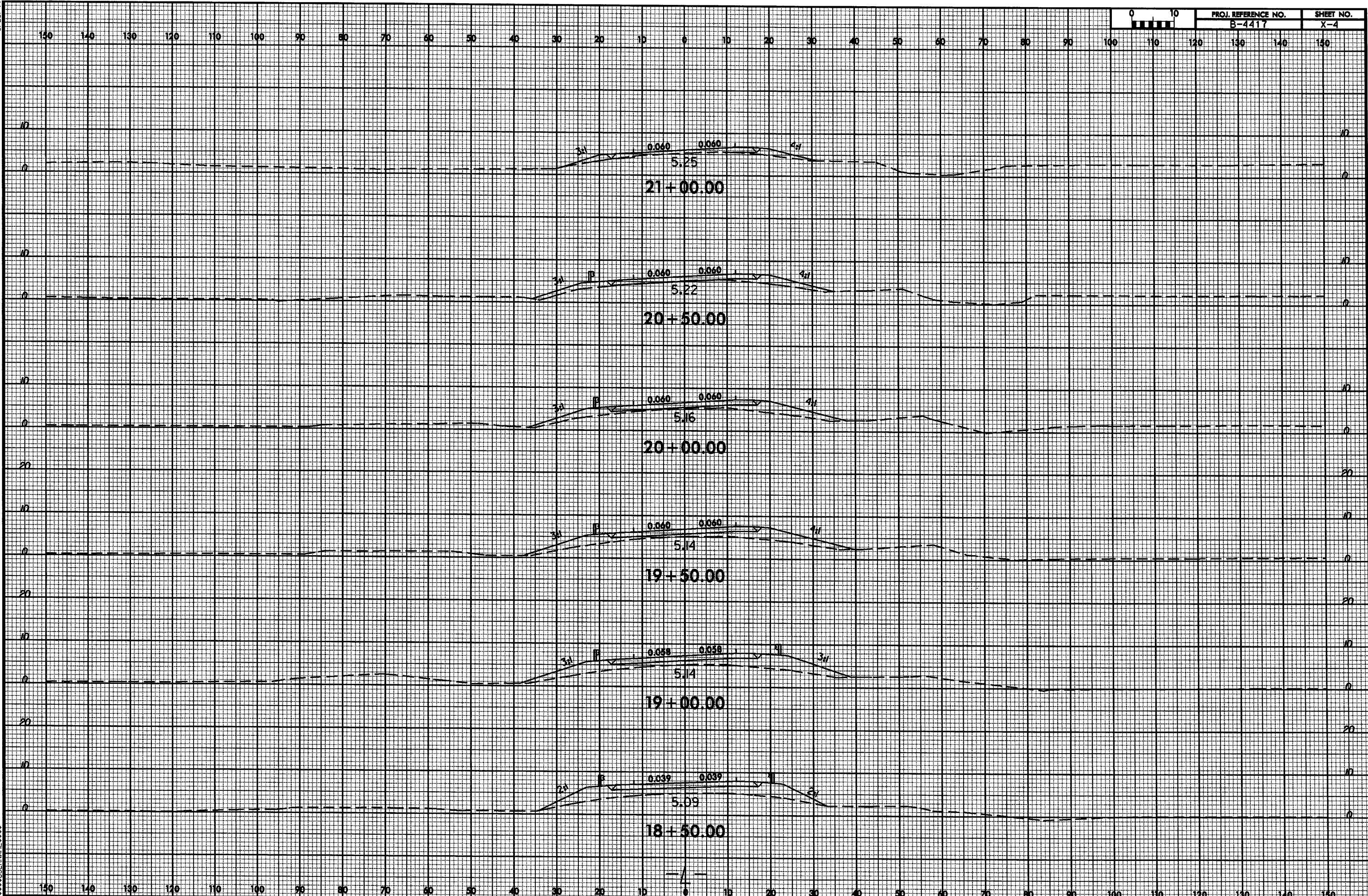
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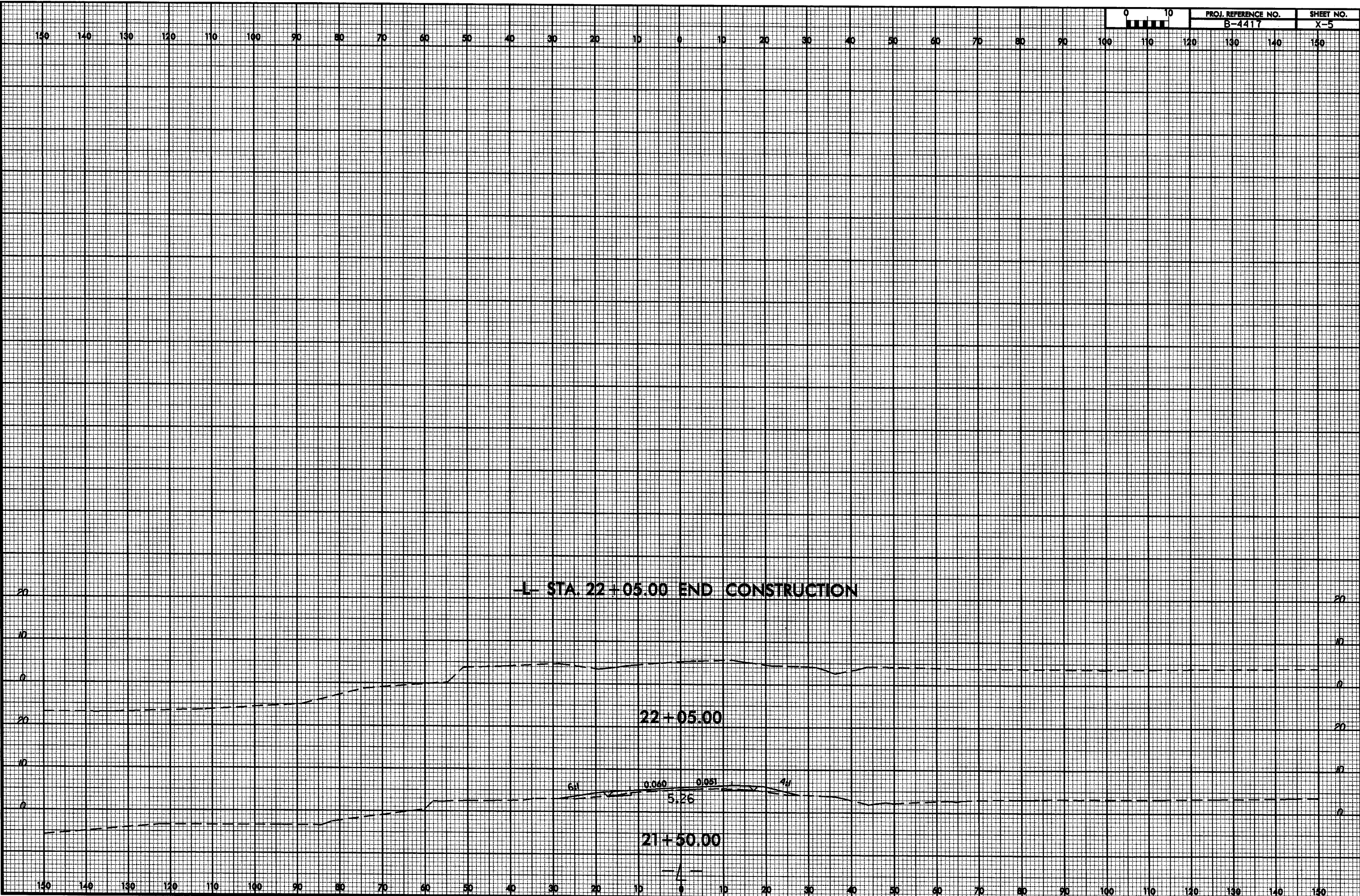
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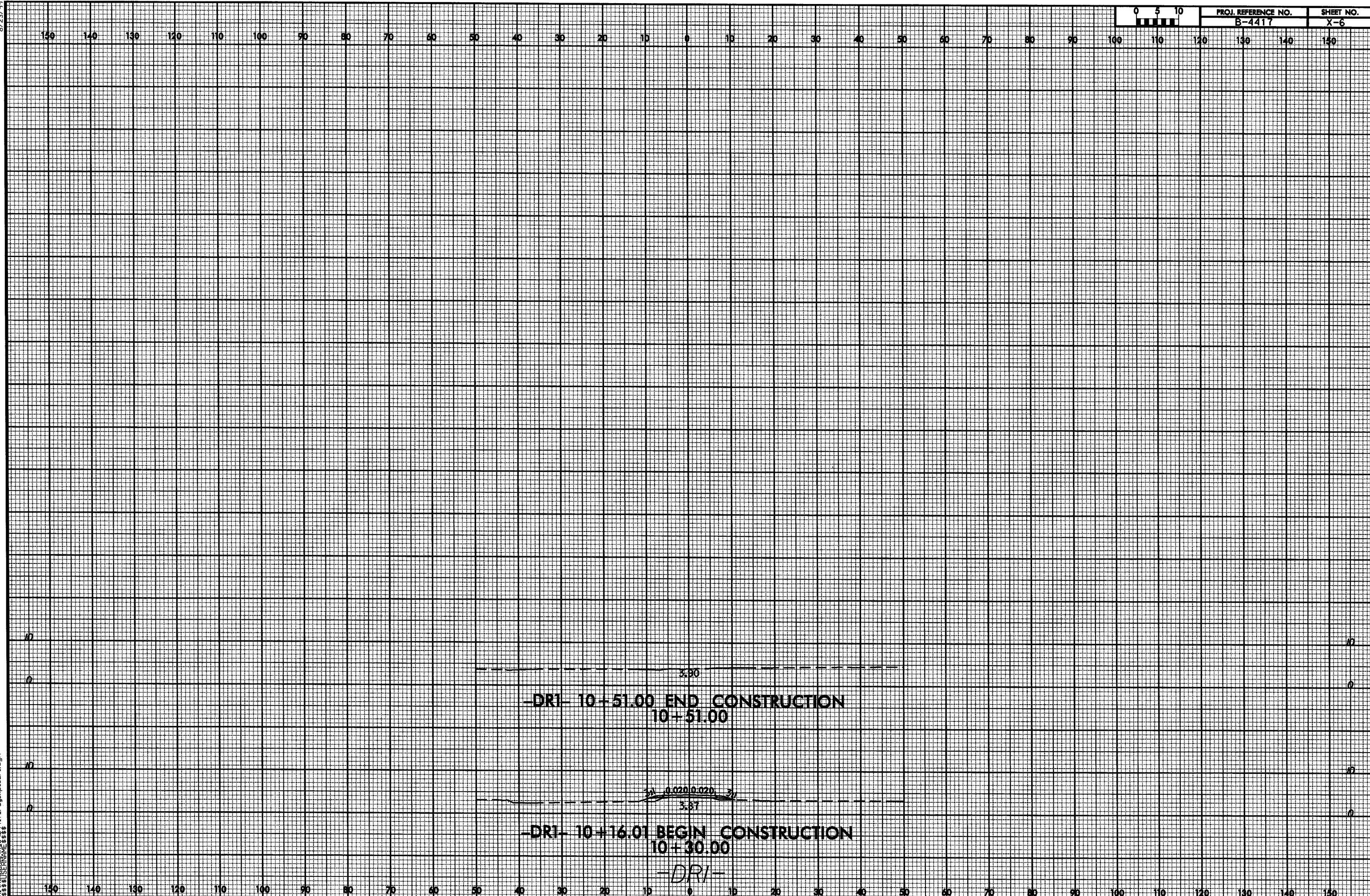
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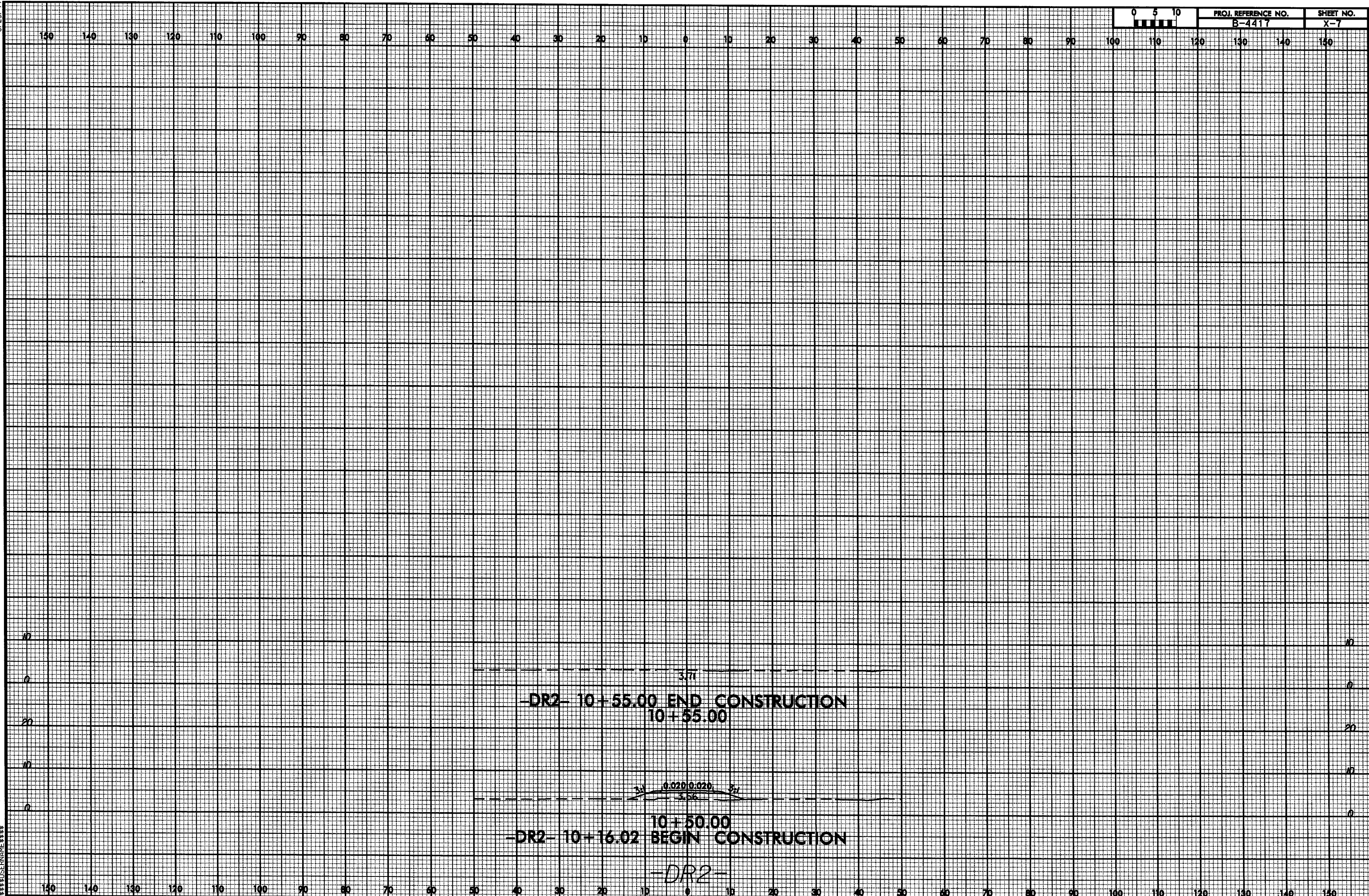
PROJ. REFERENCE NO.			SHEET NO.	
B-4417			X-5	







PROJ. REFERENCE NO.	SHEET NO.
B-4417	X-7



-DR2- 10+55.00 END CONSTRUCTION
10+55.00

3.1 0.020 0.020 3.1
3.66
10+50.00
-DR2- 10+16.02 BEGIN CONSTRUCTION

-DR2-