



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

December 18, 2007

MEMORANDUM TO: Pat Ivey, PE
Division Nine Engineer

FROM: Philip S. Harris, III, P.E., Unit Head
Natural Environment Unit
Project Development and Environmental Analysis Branch

SUBJECT: Davidson County, Replace Bridge No.416 over Beaverdam
Creek; T.I.P. Number B-4103; Federal Aid Project No.
BRSTP-2550(1); State Project No. 8.2604601

A handwritten signature in black ink, appearing to read "P. S. Harris", with a small "for" written below it.

Attached are the modifications to the U.S. Army Corps of Engineers Section 404 Nationwide Permit Numbers 23 & 33 and the N.C. Division of Water Quality Section 401 for the above referenced project. All environmental permits have been received for the construction of this project.

PSH/gyb

Attachment

Cc:

Mr. Majed Alghandour, P. E., Programming and TIP
Mr. Jay Bennett, P.E., Roadway Design
Dr. David Chang, P.E., Hydraulics
Mr. Randy Garris, P.E. State Contract Officer
Mr. Art McMillan, P.E., Highway Design
Mr. Greg Perfetti, P.E., Structure Design
Mr. Mark Staley, Roadside Environmental
Mr. John F. Sullivan, FHWA
Ms. Beth Harmon, EEP
Mr. Eric Midkiff, P.E., PDEA Central Region Unit Head
Ms. Diane K. Hampton, PE, Division Environmental Officer

PROJECT COMMITMENTS

Davidson County
Replacement of Bridge No. 416 Over Beaverdam Creek
State Project 8.2604601
Federal-Aid Project No. BRSTP-2550 (1)
WBS No. 33459.1.1
TIP No. B-4103

In addition to the standard Section 404 Nationwide Permit No. 23 and Nationwide Permit No. 33 conditions, Section 401 Water Quality Certification No. 3632 and Water Quality Certification 3634 conditions, NCDOT's Guidelines for Best Management Practices for the Protection of Surface Waters, and NCDOT's Guidelines for Best Management Practices for Bridge Demolition and Removal, the following special commitments have been agreed to by NCDOT:

Commitments Developed Through Project Development and Design

Project Development and Environmental Analysis Branch

Prior to project advertising a query will be made of the researchers (Center for Conservation Biology at the College of William and Mary in cooperation with Alcoa Power Generating, Inc) to determine if any additional nesting activity has been observed in the vicinity of the project. Information obtained during this pre-construction interval must be communicated to the USFWS in Asheville to ensure that the department has met its obligations under Section 7. If additional nesting activity is reported at that time, it will be necessary to continue consultation with the USFWS and the NCWRC.

Action taken: *Mr. Bryan Watts of the Center for Conservation Biology at the College of William and Mary was contacted on April 3, 2007. Mr. Watts flew the Badin Lake area (including the project area) on March 27, 2007. According to MR. Watts, no eagle nests were found in the Pine Haven area of Badin Lake. The project area is located in the Pine Haven portion of Badin Lake.*

Also, NCDOT Biologists conducted a bald eagle survey in the project area Badin Lake on March 27, 2007. No bald eagles or bald eagle nests were observed during the survey.

NCDOT informed the USFWS regarding the above bald eagle information in and email dated April 3, 2007.

NCDOT will develop a plan for the bridge relocation that will include the potential recipient (City of Albemarle) and Alcoa representatives.

PROJECT COMMITMENTS

Roadway Design/Division

A meeting with Alcoa will be scheduled at right-of-way stage for a walk-through with Mr. Robert Smet (704) 422-5678

Two copies of right-of-way plans will be provided to: Mr. Robert Smet
Yadkin Power and Property Coordinator
Alcoa power Generating Inc.
Yadkin division
PO Box 576
Badin, North Carolina 28009-0576

Hydraulic Design

Deck drains will not discharge directly into Badin Lake/Beaverdam Creek.

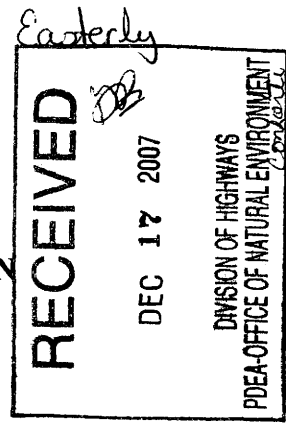
Commitments Developed Through the Permitting Process

The attached standard Nationwide (NW) conditions are the new 2007 NW and Regional Conditions. No special commitments apply to this project.

NCDOT's Design Standards in Sensitive Watersheds do not apply to this project and therefore will not be adhered to. This commitment from the Categorical Exclusion (CE) document has been removed from the permit conditions for this permit.

**U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT**

Action ID: 2007 01710 229 County: Davidson USGS Quad: Handy



GENERAL PERMIT (REGIONAL AND NATIONWIDE) VERIFICATION

Property Owner / Authorized Agent: NCDOT / Gregory J. Thorpe
Address: 1598 Mail Service Center
Raleigh, NC
27699

Telephone No.: 919 733-3141

Size and location of property (water body, road name/number, town, etc.): Bridge No. 416 on SR 2550, south of Denton in Davidson County, North Carolina. The project is located adjacent to Beaverdam Creek (Badin Lake). TIP B-4103

Description of projects area and activity: Mechanized landclearing, excavation and the discharge of fill material associated with the replacement of Bridge No. 416 with a new bridge at the existing location resulting in 0.01 acre of open water impacts associated bent construction. Traffic will be maintained onsite during construction. This project will require a temporary detour bridge during the replacement of the bridge resulting in approximately 0.01 acre of temporary impact to the jurisdictional waters of Beaverdam Creek. Note: This verification does not include impacts to waters of the United States, including wetlands, from any spoil disposal or borrow sites. These impacts would have to be permitted separately if they become necessary. NCDOT shall follow the current version of the Best Management Practices for Bridge Demolition and Removal for the existing bridges. Per your request of December 3, 2007, this verification is modified to include temporary impacts of 0.01 acre of open water impacts associated with construction of a work bridge as define in the plans included in your referenced request.

Applicable Law: Section 404 (Clean Water Act, 33 USC 1344)
 Section 10 (Rivers and Harbors Act, 33 USC 403)
Authorization: Regional General Permit Number:
Nationwide Permit Number: 23 33

Your work is authorized by the above referenced permit provided it is accomplished in strict accordance with the attached conditions and your submitted plans. Any violation of the attached conditions or deviation from your submitted plans may subject the permittee to a stop work order, a restoration order and/or appropriate legal action.

This verification is valid until the NWP is modified, reissued, or revoked. All of the existing NWPs are scheduled to be modified, reissued, or revoked prior to March 18, 2012. It is incumbent upon you to remain informed of changes to the NWPs. We will issue a public notice when the NWPs are reissued. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant nationwide permit is modified or revoked, you will have twelve (12) months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this nationwide permit. If, prior to the expiration date identified below, the nationwide permit authorization is reissued and/or modified, this verification will remain valid until the expiration date identified below, provided it complies with all new and/or modified terms and conditions. The District Engineer may, at any time, exercise his discretionary authority to modify, suspend, or revoke a case specific activity's authorization under any NWP.

Activities subject to Section 404 (as indicated above) may also require an individual Section 401 Water Quality Certification. You should contact the NC Division of Water Quality (telephone (919) 733-1786) to determine Section 401 requirements.

For activities occurring within the twenty coastal counties subject to regulation under the Coastal Area Management Act (CAMA), prior to beginning work you must contact the N.C. Division of Coastal Management .

This Department of the Army verification does not relieve the permittee of the responsibility to obtain any other required Federal, State or local approvals/permits.

If there are any questions regarding this verification, any of the conditions of the Permit, or the Corps of Engineers regulatory program, please contact John Thomas at 919 876-8441 ext. 25 .

Corps Regulatory Official John S. Thomas Date: 05/22/2007
Expiration Date of Verification: 05/22/2009

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS						SURFACE WATER IMPACTS									
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)						
	MAIN STRUCTURE¹																	
1	17+45 -L- To 17+51 -L-	205 Ft. - 33" Box Girder																
	DETOUR STRUCTURE²																	
1	17+00 -DET- To 19+00 -DET-	200 Ft. Detour Bridge																
	TEMP. WORK BRIDGE³																	
1	17+51.5 -L- To 17+88.4 -L-	Work Bridge																
TOTALS:																		

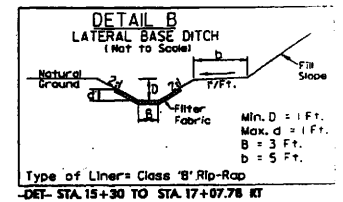
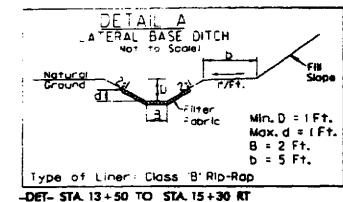
- For the main structure, there will be 1 bent with permanent surface water impacts. The pier will be 3.5 feet wide. The width of the bridge is 39 feet including the barrier rail.
- For the detour structure, it is assumed that there will be 3 bents with temporary surface water impacts. At each bent, the piers will be one foot wide. The width of the bridge is 18 feet.
- For the temporary work bridge, it is assumed that there will be 1 bent with temporary surface water impacts. The pier will be one foot wide. The width of the bridge is 35 feet.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

DAVIDSON COUNTY
WBS - 33459.1.1 (B-4103)

REV. 11/27/07
SHEET 5 of 9
#####

5/14/99



PROJECT REFERENCE NO. B 4103 SHEET NO. 2-B
 RW SHEET NO.
 ROADWAY DESIGN ENGINEER
 HYDRAULICS ENGINEER
Permit Drawing
Sheet 6 of 9
PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION
 rev. 11/27/07

NOTE: NO IMPACTS ARE SHOWN ON THIS SHEET FOR THE PROPOSED DETOUR BRIDGE BECAUSE THE LOCATION OF THE PROPOSED DETOUR BRIDGE PIERS ARE UNKNOWN. THIS WILL BE DECIDED BY THE CONTRACTOR AT THE TIME OF CONSTRUCTION. SEE THE IMPACT SUMMARY SHEET FOR IMPACT ASSUMPTIONS.

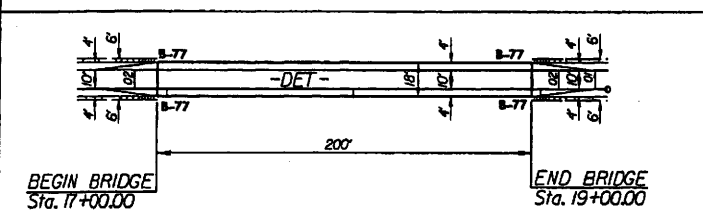
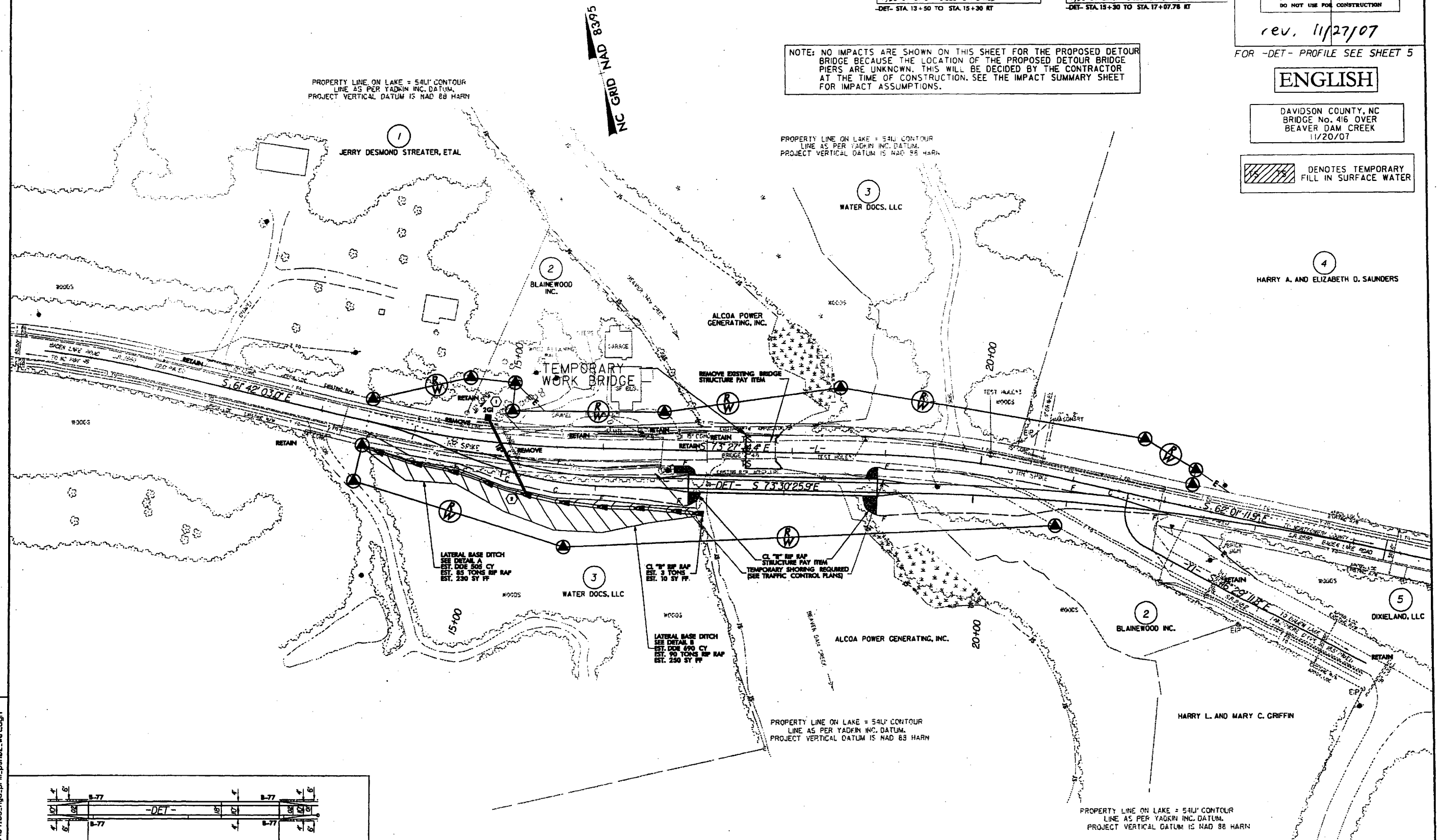
FOR -DET- PROFILE SEE SHEET 5

ENGLISH

DAVIDSON COUNTY, NC
 BRIDGE No. 416 OVER
 BEAVER DAM CREEK
 11/20/07

DENOTES TEMPORARY FILL IN SURFACE WATER

4
 HARRY A. AND ELIZABETH D. SAUNDERS



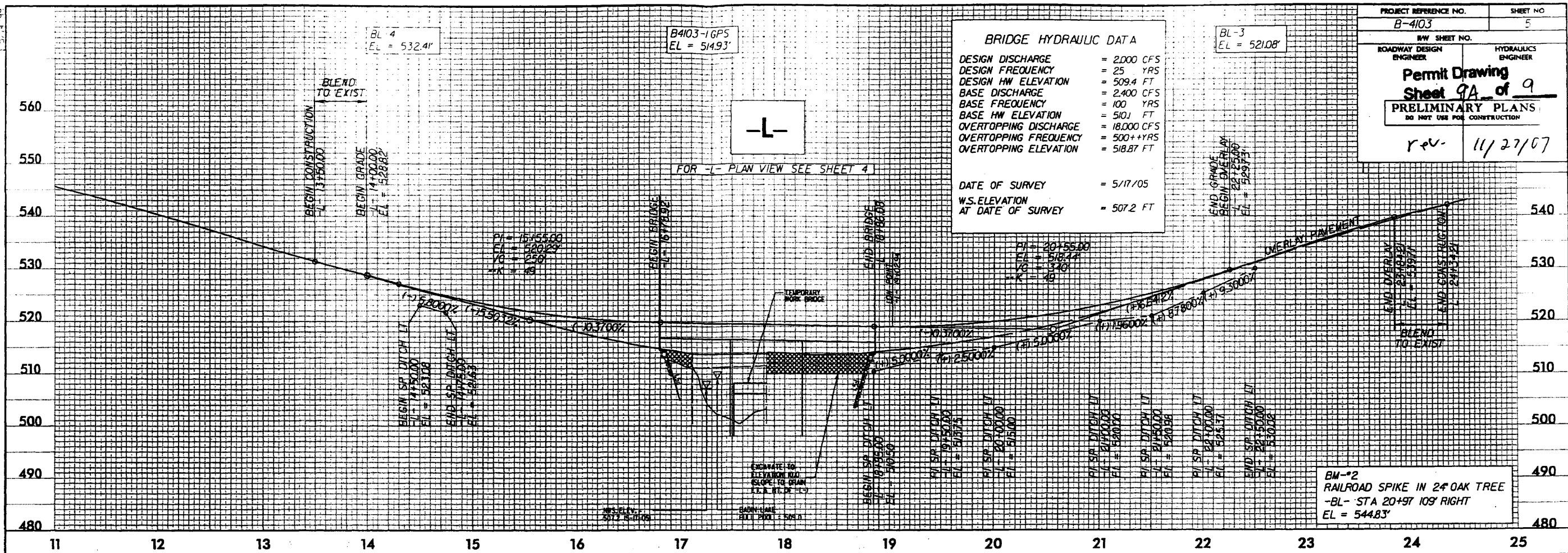
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REVISIONS

BRIDGE HYDRAULIC DATA

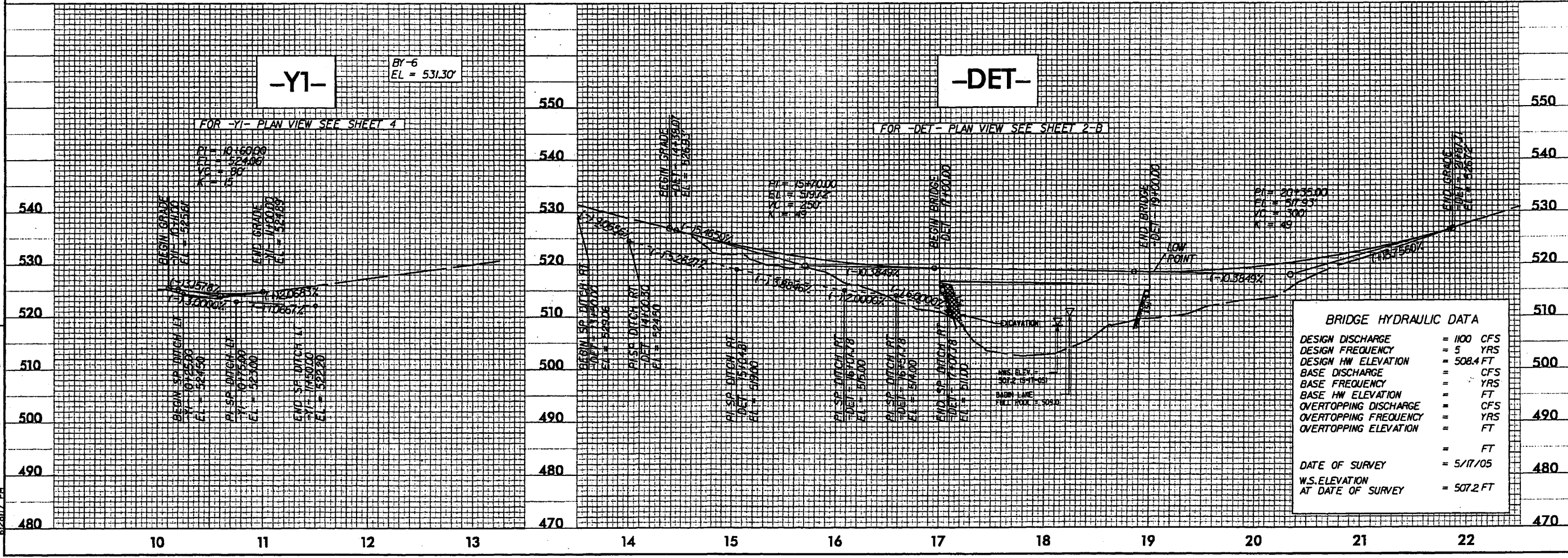
DESIGN DISCHARGE = 2,000 CFS
 DESIGN FREQUENCY = 25 YRS
 DESIGN HW ELEVATION = 509.4 FT
 BASE DISCHARGE = 2,400 CFS
 BASE FREQUENCY = 100 YRS
 BASE HW ELEVATION = 510.1 FT
 OVERTOPPING DISCHARGE = 18,000 CFS
 OVERTOPPING FREQUENCY = 500+ YRS
 OVERTOPPING ELEVATION = 518.87 FT

DATE OF SURVEY = 5/17/05
 W.S. ELEVATION AT DATE OF SURVEY = 507.2 FT



BM-2
RAILROAD SPIKE IN 2" OAK TREE
-BL- STA 20+97.109' RIGHT
EL = 544.83'

REVISIONS



BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE = 100 CFS
 DESIGN FREQUENCY = 5 YRS
 DESIGN HW ELEVATION = 508.4 FT
 BASE DISCHARGE = CFS
 BASE FREQUENCY = YRS
 BASE HW ELEVATION = FT
 OVERTOPPING DISCHARGE = CFS
 OVERTOPPING FREQUENCY = YRS
 OVERTOPPING ELEVATION = FT

DATE OF SURVEY = 5/17/05
 W.S. ELEVATION AT DATE OF SURVEY = 507.2 FT

11/20/2007
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