



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

November 14, 2005

US Army Corps of Engineers  
Regulatory Branch  
Post Office Box 1890  
Wilmington, NC 28402-1890

ATTENTION: Mr. Eric Alsmeyer  
NCDOT Coordinator

Subject: **Utility Impact memo and Randleman Buffer Permit Modification Request** for the replacement of Bridge No. 20 over Deep River on SR 4121, Guilford County. Federal Aid Project No. BRSTP-4121(2), State Project No. 8.2495801, Division 7, TIP Project No. B-3652, WBS Element 33198.

Dear Mr. Alsmeyer:

On February 22, 2005 the NCDOT received a Nationwide 33 (USACE Action ID200520447 and 200520448) for the above referenced project. After further review of the project, the NCDOT Utilities determined that temporary impacts will occur to 25 feet of The Deep River due to the relocation of a 12" water line and 6" gas line that cross the stream. The water and gas lines will be buried under the stream by using an open cut. Directional boring methods cannot be used to bury the pipe because of the rock present beneath the stream bed. Attached to this letter is the phasing plan (Sheet 2 of 3) for the cofferdam that will be used to relocate these pipes and plan view (Sheet 1 of 3) showing the placement of the water and gas line.

It is not anticipated that the impacts related to the 12" water line and 6" gas line will require written concurrence of the Section 404 Nationwide Permit 12. We are submitting this memo for the USACE records.

**Randleman Buffer Impacts**

On February 18, 2005 NCDWQ issued a Buffer Certification # 05-0164 to impact 18,295 ft<sup>2</sup> of riparian buffers on the Deep River within the Randleman Lake Watershed. A 36" raw water main that runs parallel to the Deep River will also need to be relocated. The relocation will result in an additional 600 ft<sup>2</sup> of allowable impacts within zone two of the buffer (Sheet 3 of 3). Avoidance of the buffer is not practical because the relocated portion of the water main will need to tie into the existing water line that is currently located within the buffer. The relocation of the 12" water line and 6" gas line perpendicular to the stream is within the currently permitted area and will not result in additional impacts to buffer.

Please find enclosed Utility impact drawings along with a vicinity map and a revised buffer impact summary sheet. NCDOT requests a modification to the Buffer Certification from the Division of Water Quality issued February 18, 2005. The project has a current let date of January 17, 2006 and a review date of November 29, 2005. If you need additional information, please contact Brett Feulner at (919) 715-1488.

Sincerely,



Gregory J. Thorpe, Ph.D.

Environmental Management Director, PDEA

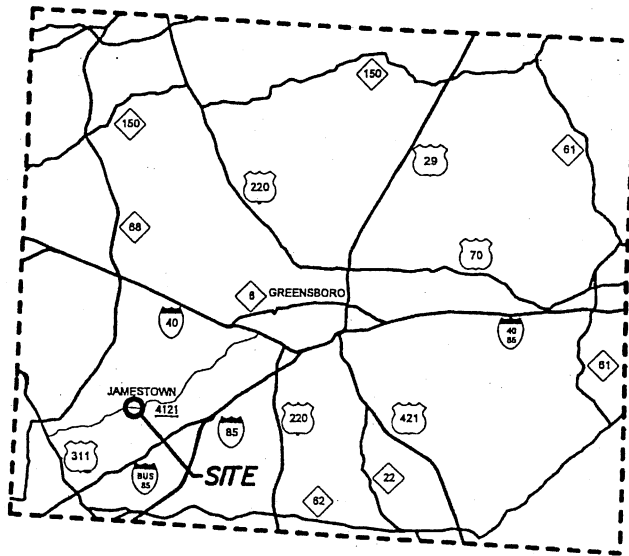
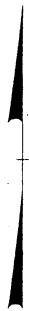
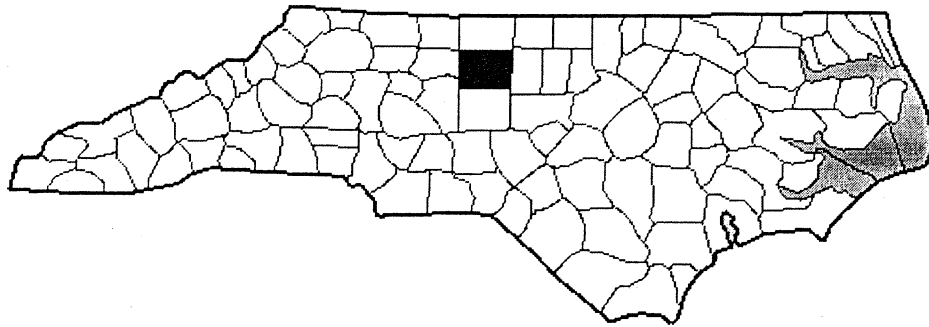
w/ attachment

Mr. John Hennessy, NCDWQ (7 Copies)  
Mr. Travis Wilson, NCWRC  
Mr. Gary Jordan, USFWS  
Dr. David Chang, P.E., Hydraulics  
Mr. Greg Perfetti, P.E., Structure Design  
Mr. Mark Staley, Roadside Environmental  
Mr. J. M. Mills, P.E., Division Engineer  
Mr. Jerry Parker, DEO

w/o attachment

Mr. Jay Bennett, P.E., Roadway Design  
Mr. Majed Alghandour, P. E., Programming and TIP  
Mr. Art McMillan, P.E., Highway Design  
Mr. Elmo Vance, PDEA  
Mr. Scott McLendon, USACE, Wilmington

# NORTH CAROLINA



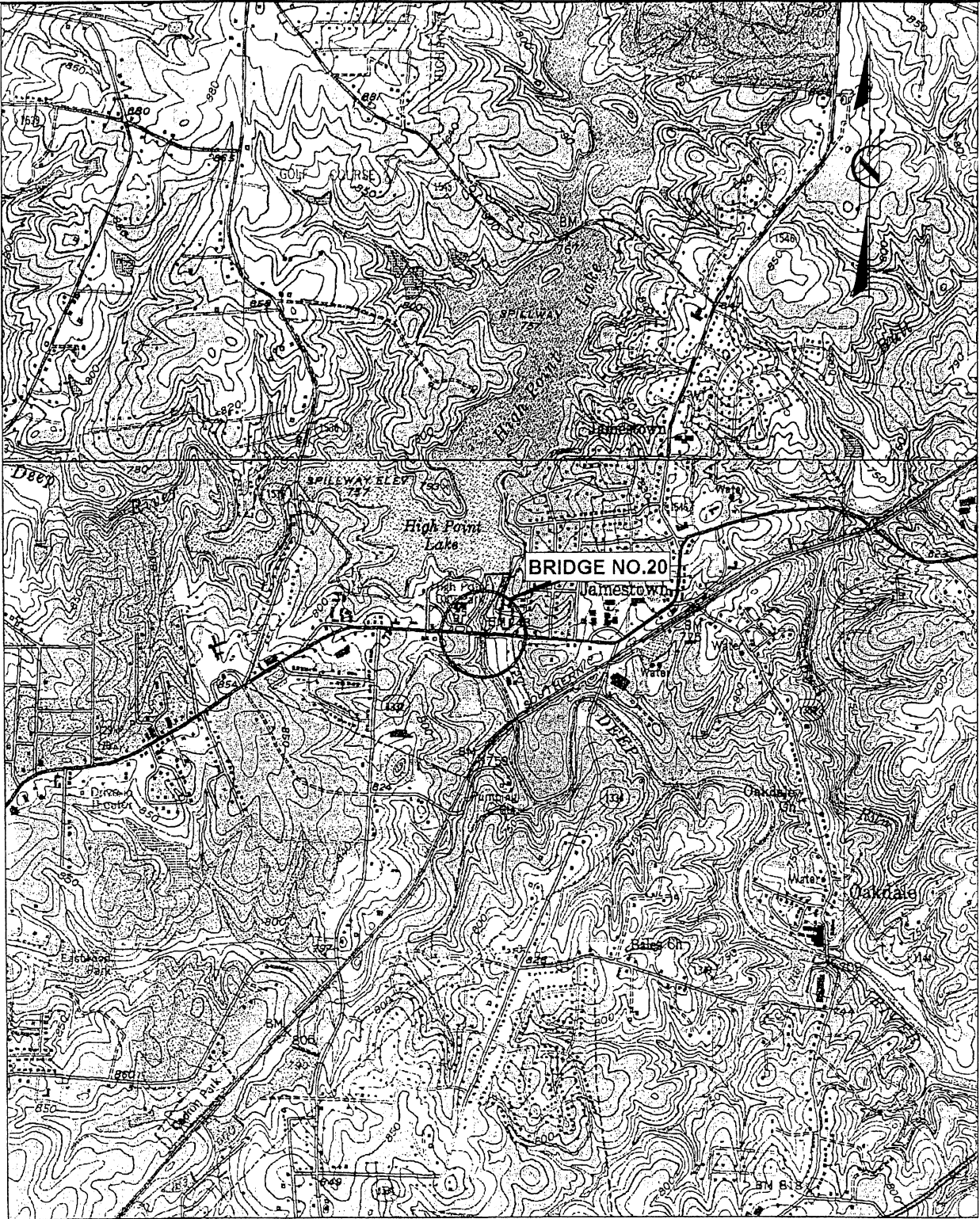
## VICINITY MAP

NCDOT  
DIVISION OF HIGHWAYS  
PROJECT: 8.2495801 (B-3652)  
GUILFORD COUNTY

REPLACE BRIDGE NO. 20  
OVER DEEP RIVER ON SR 4121

SHEET 1 OF 8

JUNE 2004



# SITE MAP

N. C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS

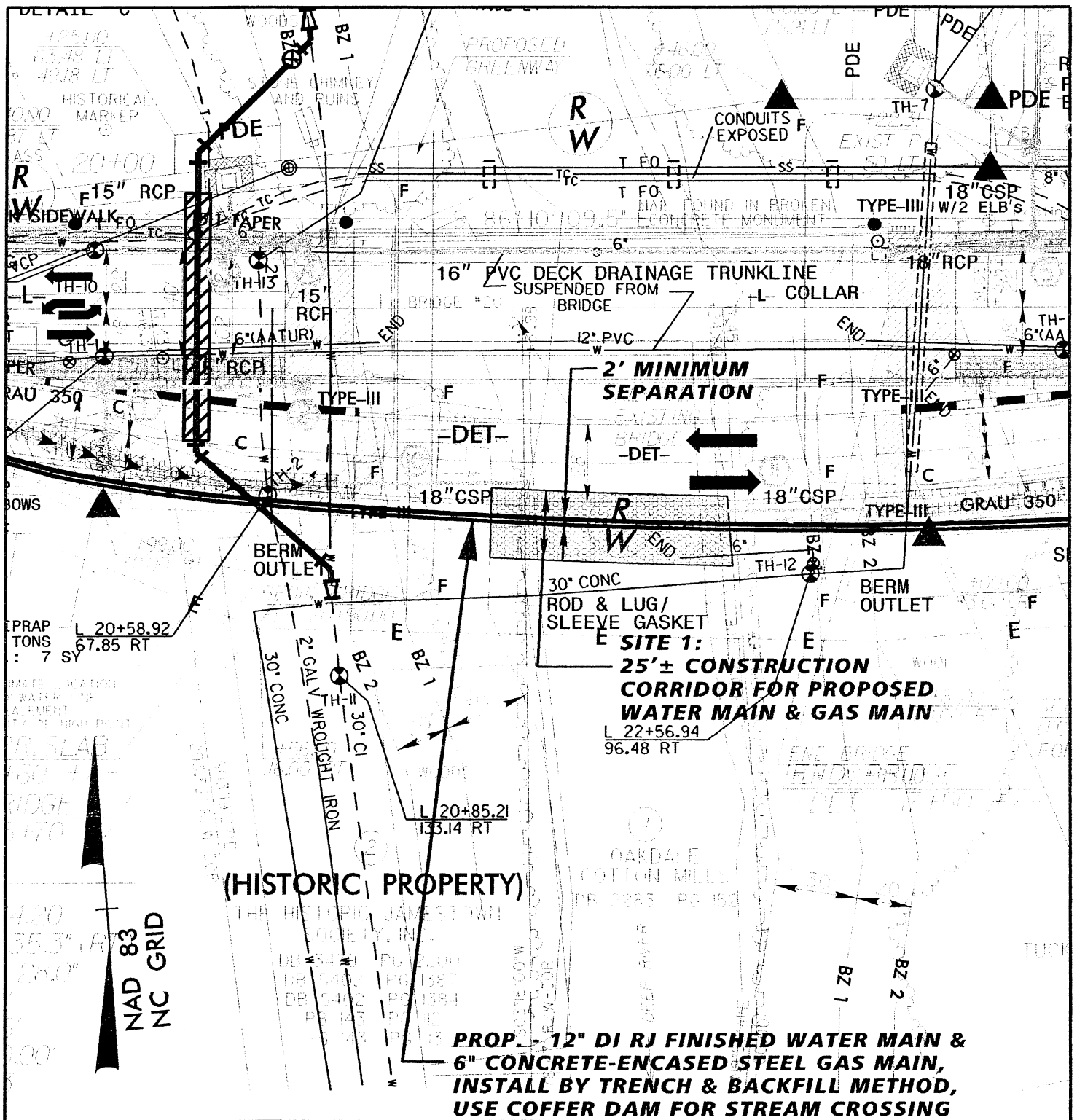
GUILFORD COUNTY

PROJECT: - B-3652

BRIDGE #20 OVER  
DEEP RIVER ON SR 4121

SHEET 2 OF 8

JUNE 2004

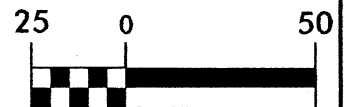


**DISTURBED AREAS**



IMPACTS TO CHANNEL (TOP OF BANK TO TOP OF BANK):  
DISTURBED AREA = 0.0501± AC

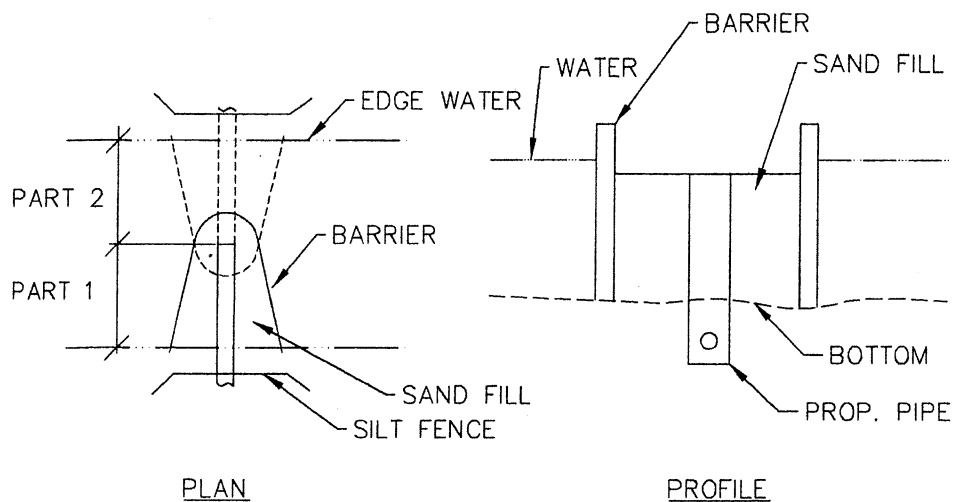
AREA REQUIRED FOR TEMPORARY  
FILL IN CHANNEL FOR COFFER DAM  
CONSTRUCTION: 0.0016± AC



**DAVIS-MARTIN-POWELL & ASSOC., INC.**  
ENGINEERING—LAND PLANNING—SURVEYING  
6415 OLD PLANK ROAD  
HIGH POINT, NORTH CAROLINA 27265  
PHONE (336) 886-4821

**N.C. DEPARTMENT OF TRANSPORTATION  
REPLACEMENT OF MAIN STREET BRIDGE  
IN JAMESTOWN, NC**  
SITE 1 - STREAM CROSSING AND BUFFER ZONE IMPACTS  
TO DEEP RIVER FOR INSTALLATION OF PROPOSED  
12" FINISHED WATER MAIN AND 6" GAS MAIN

Nov 2005 Sheet 1 of 3



CONSTRUCTION SEQUENCE

- 1 CONSTRUCTION SHALL BE PERFORMED DURING LOW FLOW PERIODS.
- 2 CROSSINGS SHALL BE ACCOMPLISHED IN A MANNER THAT WILL NOT PROHIBIT THE STREAM FLOW.
- 3 THE BANK OPPOSITE OF THE COFFER DAM SHALL BE PROTECTED BY SAND BAGS. THE MINIMUM LENGTH OF PROTECTION REQUIRED IS 25 FT ON EACH SIDE OF THE COFFER DAM, AT A HEIGHTH OF 24" ABOVE WATER LEVEL. THE EXTENT OF PROTECTION MAY VARY AS DIRECTED BY THE ENGINEER ON AN INDIVIDUAL BASIS.
- 4 INSTALL NON-ERRODIBLE BARRIER AROUND 1/2 OF CROSSING.
- 5 INSTALL FILTER FABRIC AROUND INSIDE BARRIER.
- 6 PLACE SAND FILL INSIDE BARRIER.
- 7 EXCAVATE PIPE TRENCH.
- 8 INSTALL PIPE.
- 9 BACKFILL WITH CONCRETE AND/OR EXCAVATED MATERIAL TO ORIGINAL PROFILE.
- 10 REMOVE SAND FILL.
- 11 REMOVE FILTER FABRIC AND BARRIER.
- 12 IMMEDIATELY REVEGETATE STREAM BANK BY SEEDING AND MULCHING.
- 13 INSTALL TEMPORARY SILT FENCE.
- 14 RELOCATE TO OPPOSITE SIDE OF STREAM AND REPEAT ABOVE STEPS.
- 15 AFTER WATER MAIN HAS BEEN INSTALLED AND COFFER DAMS REMOVED, CONTRACTOR SHALL INSTALL CLASS I RIP RAP WITH FILTER FABRIC AND STONE UNDERLAYMENT TO STABILIZE STREAM BED.

COFFER DAM STREAM CROSSING  
NO SCALE

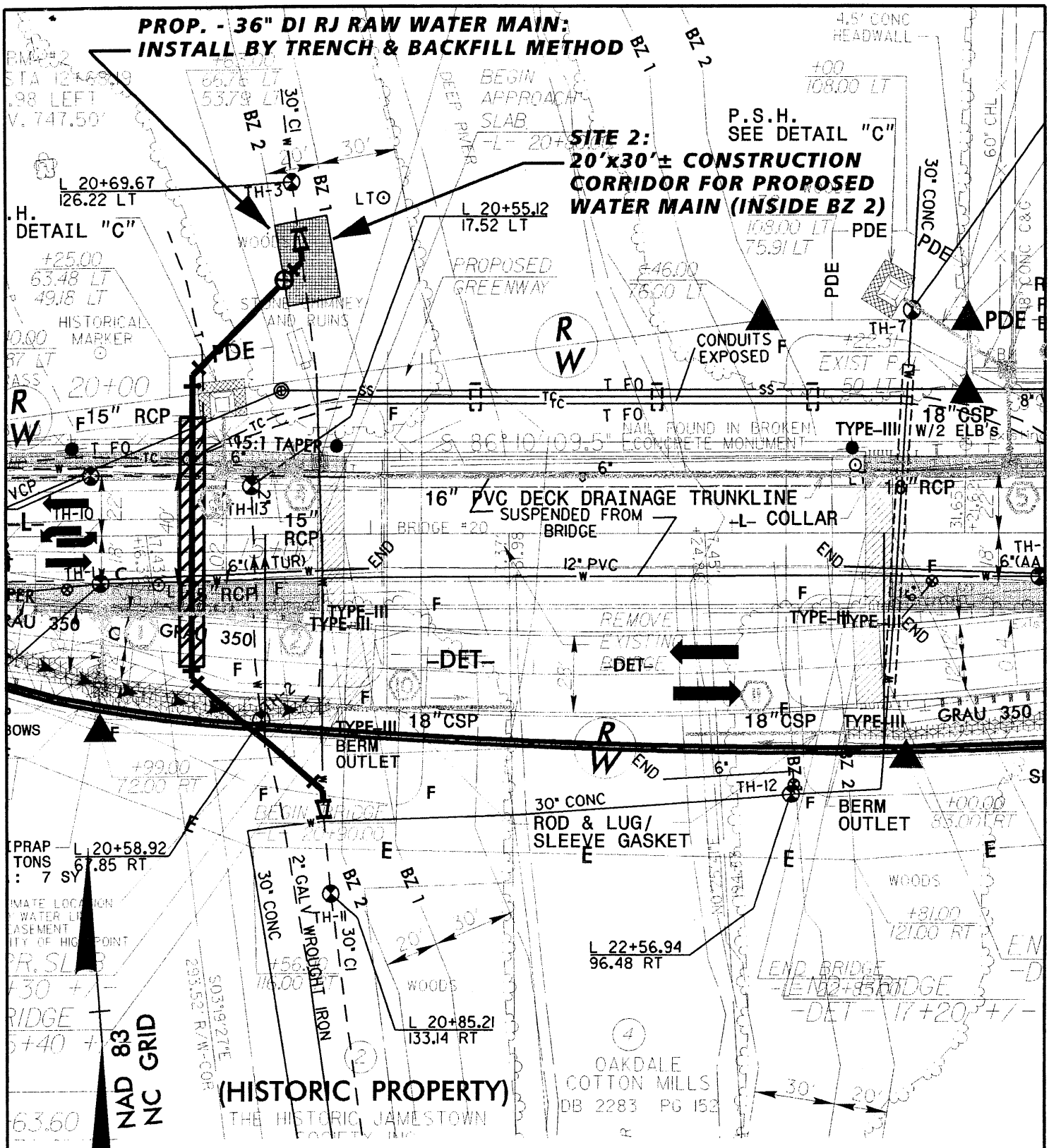


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
**N.C. DEPARTMENT OF TRANSPORTATION**  
**REPLACEMENT OF MAIN STREET BRIDGE**  
**IN JAMESTOWN, NC**  
SITE 1 - STREAM CROSSING DETAIL  
FOR INSTALLATION OF  
PROPOSED 12" FINISHED WATER MAIN

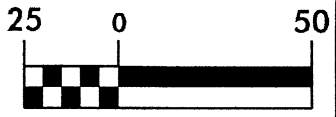
Nov 2005 Sheet 2 of 3

**PROP. - 36" DI RJ RAW WATER MAIN:  
INSTALL BY TRENCH & BACKFILL METHOD**



**DISTURBED AREAS**

 IMPACTS TO BUFFER ZONE 2:  
DISTURBED AREA = 0.0138± AC



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**N.C. DEPARTMENT OF TRANSPORTATION  
REPLACEMENT OF MAIN STREET BRIDGE  
IN JAMESTOWN, NC**

SITE 2 - BUFFER ZONE IMPACTS TO DEEP RIVER FOR  
INSTALLATION OF PROPOSED 36" RAW WATER MAIN

Nov 2005 Sheet 3 of 3

