



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

February 25, 2005

U.S. Army Corps of Engineers  
Regulatory Field Office  
P.O. Box 1890  
Wilmington, NC 28402-1890

ATTN: Mr. Richard Spencer  
NCDOT Coordinator

Dear Sir:

Subject: **404 Individual Permit and 401 Water Quality Certification Modification**  
**Request** for Hope Mills Bypass from SR 1141 to SR 1132, Cumberland County,  
Federal Aid Project No. STP-0622(2), State Project No. 8.2623601, TIP No. U-  
620, NCDOT Division 6, \$475 Debit WBS Element 34760.1.1.

Reference: Section 404 Individual Permit dated August 17, 2004 (Action ID. 199704287)  
Section 401 Water Quality Certification dated July 23, 2004 (DWQ Project No.  
040806)

The US Army Corps of Engineers issued an Individual Permit dated August 17, 2004. The NC Division of Water Quality issued a Water Quality Certification dated September 24, 2004. NCDOT has recently realized that there will be additional surface water and wetland impacts at some sites.

**Site 2 (Station 106+32):**

A 130 LF twin 10' x 13' RCBC/30 LF end wall is proposed along with a 150 LF twin 72" culvert to convey Buckhead Creek and the associated flood flows. The actual permit drawings did not address the temporary diversion channel, which is necessary to ensure a dry worksite for the culvert construction and isolation of the fresh concrete from the live channel. The diversion will be installed in accordance with the NCDOT BMP Manual Section 5.2.4. The culvert construction sequence is contained on Sheet EC-11 within the final construction plans. Barnhill Contracting Co. has suggested utilizing driven sheeting to provide the impervious dike, but, this methodology may change as the project progresses. Approximately 60 ft of temporary stream channel side slopes will be disturbed in the installation of the diversion channel. The impacts are temporary, and, once the diversion channel is eliminated, all disturbed areas shall be stabilized.

**This accounts for an increase of 60 ft of temporary stream impacts.**

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

TELEPHONE: 919-715-1500  
FAX: 919-715-1501  
WEBSITE: [WWW.NCDOT.ORG](http://WWW.NCDOT.ORG)

**LOCATION:**  
2728 CAPITAL BLVD.  
PARKER LINCOLN BUILDING, SUITE 168  
RALEIGH NC 27604

**Site 3 (Station 121+56 to 125+73 –L-):**

This site requires an additional 0.08 ac of mechanized clearing in order to complete the stream diversion. The permit drawing demonstrates that the stream channel work is enclosed within a Temporary Drainage Easement (TDE). It is not possible to complete the required work without the additional mechanized clearing. Once the area is mechanized cleared, and the stream channel work completed, the excess mechanized clearing area (0.08 ac) will be reforested within the required planting season. **This accounts for an increase of 0.08 ac of permanent wetland impacts.**

**Site 5 (Station 159+45 to 163+25 –L-):**

This site includes the proposed bridge location over the CSX rail line. Within this area, the proposed bridge bents were laid out on the ground to determine the exact impact to the jurisdictional areas. The enclosed drawing (1 in=40 ft) demonstrates the 0.02 ac of permanent impact. **This accounts for an increase of 0.02 ac of permanent wetland impacts.**

Though the timber mats were illustrated upon the permit drawings, the arrangement of the timber mats must be revised to ensure a safe and efficient worksite. In discussing the proposed revisions in the field with Richard Spencer (COE) and Ken Averitte (DWQ) on January 12, 2005, the bridge sub-contractor expressed the need to place geofabric and a layer of fill material down prior to placing the timber mats to ensure a level pad for the crane. The need for the leveling is necessary due to expected crane movements (swings) that could yield unsafe conditions. The enclosed plan demonstrates the proposed timber mat layout. The total temporary wetland impact will be 0.04 ac. Upon completion of the proposed bridge work, the timber mats shall be removed along with all fill material. The geofabric will ensure that all fill material will be removed entirely. **This accounts for an increase of 0.04 ac of temporary wetland impacts.**

When laying out the eastern side of the CSX bridge, it has been identified that the CSX ditch (UT to Rockfish Creek) has encroached upon the proposed MSE (Mechanically Stabilized Earthen) wall. The UT to Rockfish Creek is an intermittent channel. The channel will be relocated approximately 300 ft back to the location in which it was shown on the permit plans (Site 5). In looking at the condition of the channel, there are a couple of reasons why the channel relocated itself: CSX ballast stone maintenance and debris placed in channel. Ballast stone has relocated down the slope and the roughness of the ballast stone caused the channel to relocate. In addition to the ballast stone situation, railroad debris was noted in the channel. A few railroad ties and a large truck tire were seen in the channel. The channel is not that large, typically 2-3 ft wide with a depth of 1 ft. Additionally, since this channel is located along a rail line, the slope is marginal. The channel will be relocated to its previous location in the dry and once relocated, the stream will be directed into the relocated channel. Richard Spencer stated that impacts to this stream do not require mitigation. Approximately 300 ft of the existing stream will be filled in. The new, relocated channel will be approximately 330 ft in length. **This accounts for an increase of 300 ft of permanent stream impacts.**

**Site 6 (Station 183+85 to 185+08 –L-):**

This site requires the installation of a temporary diversion channel to convey the expected flows around the 9'x5' RCBC and 36" CMP overflow pipe. The diversion channel for Site 6 was not within the permit drawing, but it does appear upon Sheet EC-19 of the final construction plans. The diversion channel will be installed in accordance with the NCDOT BMP Manual Section 5.2.4. An impervious dike (potentially sheeting) will be installed and 60 ft of stream bank will

be disturbed as a result. Additional mechanized clearing (0.02 ac permanent wetland impacts) must be completed in the area of the proposed diversion channel. The additional area of mechanized clearing includes the 0.01 ac of disturbance from the actual installation of the diversion channel. Upon completion of the culvert, the diversion channel will be backfilled, original grades re-established, and the area will be reforested. **This accounts for an increase of 60 ft of temporary stream impacts and 0.02 ac of permanent wetland impacts.**

The design does not compromise NCDOT's compliance with the existing Corps of Engineers permit and Division of Water Quality Certification conditions for the project. The revised project has been evaluated for compliance with the avoidance/minimization criteria and are in compliance with all previous permit factors, including the following:

- protected species;
- cultural resources; and,
- aquatic life passage.

### **Summary of Additional Impacts**

Site 2 will temporarily impact upon 60 ft of stream bank in the installation of the diversion channel.

Site 3 requires an additional 0.08 ac of mechanized clearing (permanent).

Site 5 impacts upon 0.02 ac of wetlands for the bridge bent (permanent) and 0.04 ac of temporary wetland impact for the leveling fill under the timber mats. An UT to Rockfish Creek will be filled in for a length of 300 ft (permanent) and relocated. No mitigation is required for impacts to this stream. The relocated stream will total 330 ft.

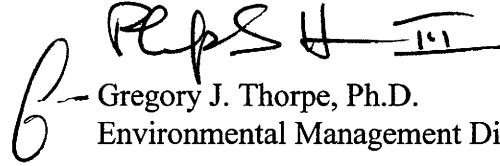
Site 6 requires a temporary 60 ft of stream bank impact for the diversion channel installation and 0.02 ac of permanent wetland impact for the diversion channel.

NCDOT will request that the NC Ecosystem Enhancement Program provide an additional 0.12 ac of wetland mitigation.

The NCDOT respectfully requests a permit modification for the USACE Permit Action ID #199704287 and NCDENR DWQ WQC# 040806 as described in this letter. Attached please find the permit drawings of the project area. Seven copies of the permit application have been provided to the North Carolina Department of Environment and Natural Resources, Division of Water Quality for their review.

If you should have any questions or need additional information, please contact Mr. Matt Haney at (919) 715-1428 or Mr. James Rerko at (910) 437-0207.

Sincerely,

A handwritten signature in black ink, appearing to read 'G. J. Thorpe', with a horizontal line extending to the right.

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

cc:

w/attachments

- Mr. John Hennessy, Division of Water Quality (7 copies)
- Mr. Gary Jordan, USFWS
- Mr. Travis Wilson, NCWRC
- Ms. Becky Fox, USEPA-Whittier, NC
- Mr. Ronald Mikulak, USEPA-Atlanta, GA
- Dr. David Chang, P.E., Hydraulics
- Mr. Greg Perfetti, P.E., Structure Design
- Mr. Terry Gibson, P.E., Division 6 Engineer
- Mr. Jim Rerko, Division 6 DEO

w/o attachments

- Mr. Jay Bennett, P.E., Roadway Design
- Mr. Omar Sultan, Programming and TIP
- Mr. Art McMillan, P.E., Highway Design
- Mr. Mark Staley, Roadside Environmental
- Mr. David Franklin, USACE, Wilmington
- Mr. Jay McInnis, P.E., PDEA
- Ms. Beth Harmon, EEP

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT  
(33 CFR 325)

OMB APPROVAL NO. 0710-003  
Expires December 31, 2004

Public reporting burden for this collection of information is estimated to average 10 hours per response, although the majority of applications should require 5 hours or less. This includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Service Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302; and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003), Washington, DC 20503. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authority: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research and Sanctuaries Act, 33 USC 1413, Section 103. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued.

One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETED
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(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME North Carolina Department of Transportation Project Development & Environmental Analysis	8. AUTHORIZED AGENT'S NAME AND TITLE (an agent is not required)
6. APPLICANT'S ADDRESS 1548 Mail Service Center Raleigh, NC 27699-1548	9. AGENT'S ADDRESS
7. APPLICANT'S PHONE NOs. W/AREA CODE a. Residence b. Business 919-715-1335	10. AGENT'S PHONE NOs. W/AREA CODE a. Residence b. Business

11. STATEMENT OF AUTHORIZATION

I hereby authorize, \_\_\_\_\_ to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

APPLICANT'S SIGNATURE

DATE

NAME, LOCATION, AND DESCRIPTION OR PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions) Hope Mills Bypass from SR 1141 (Bingham Dr) to SR 1132 (Legion Rd), Hope Mills, Cumberland County, TIP Project No. U-620	
13. NAME OF WATERBODY, IF KNOWN (if applicable) Buckhead Creek and tributaries Beaver Creek and tributaries Tributaries to Little Rockfish Creek	14. PROJECT STREET ADDRESS (if applicable)
15. LOCATION OF PROJECT Cumberland COUNTY NC STATE	

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions) Section, Township, Range, Lat/Lon, and/or Accessors's Parcel Number, for example.

17. DIRECTIONS TO THE SITE

From 1-95 south take exit 41 (NC 59) west. Follow NC 59 about 5.5 miles to Cumberland Rd. Turn left onto Cumberland Rd and go about 0.5 mile. Cumberland Rd turns into Bingham Dr at intersection of Fisher Rd. Project begins just to the northwest of this location on Bingham Dr.

E

18. Nature of Activity (Description of project, include all features)  
NCDOT proposes to construct a new facility, Hope Mills Bypass. The proposed project will widen existing George Owen Rd (SR 1133) to a multi-lane facility from Bingham Dr (SR 1141) to Columbine Rd (SR 3065) and extend on new location to intersect Legion Rd (SR 1132) directly across from Elk Rd (SR 1363). A four-lane divided facility with an 18-ft raised median is proposed for the new location section. The proposed action is about 3.7 miles in length.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

Public transportation; to improve traffic flow and increase safety. See cover letter for purpose and need.

**USE BLOCKS 20-22 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED**

20. Reason(s) for Discharge

Highway fill

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards

See attached application and summary sheet for details.

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Impacts on jurisdictional areas of the proposed project consist of the following: a total of 2.47 ac of permanent impacts, which includes fill, excavation, and mechanized clearing in wetlands, 0.4 ac temporary wetland impacts. In addition, there will be 1515 linear ft of existing channel impacted and 0.005 ac (120 ft) temporary fill in surface waters.

See permit drawings for wetland and surface water impacts by site.

23. Is Any Portion of the Work Already Complete? Yes  No  IF YES, DESCRIBE THE COMPLETED WORK

Construction has begun on jurisdictional areas that were permitted in the Section 404 Individual Permit issued on August 17, 2004 and Section 401 Water Quality Certification issued on July 23, 2004.

24. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (If more than can be entered here, please attach a supplemental list).

See permit drawings for a list of landowners.

25. List of Other Certifications or Approvals/Denials Received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED

\* Would include but is not restricted to zoning, building, and flood plain permits

26. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

  
SIGNATURE OF APPLICANT

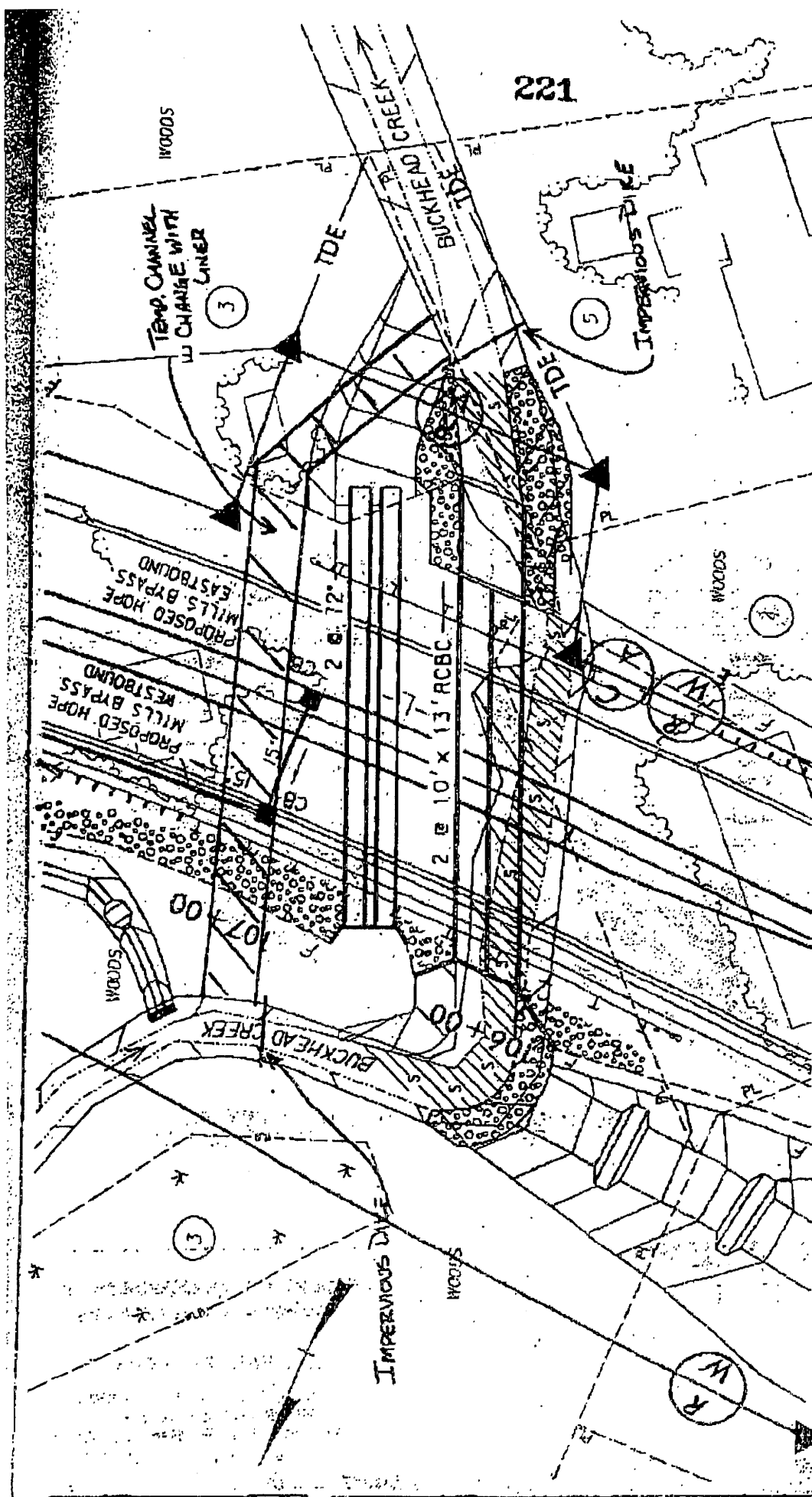
2/25/05  
DATE

\_\_\_\_\_  
SIGNATURE OF AGENT

\_\_\_\_\_  
DATE

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.



N.C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
CUMBERLAND COUNTY  
PROJECT: 61442601 (U-0620)  
HOPE MILLS BYPASS  
FROM SR 1141 (BINGHAM DRIVE)  
TO SR 1868 (BLK ROAD)  
SHEET \_\_\_ OF \_\_\_ 01/31/05

### PLAN VIEW SITE 2



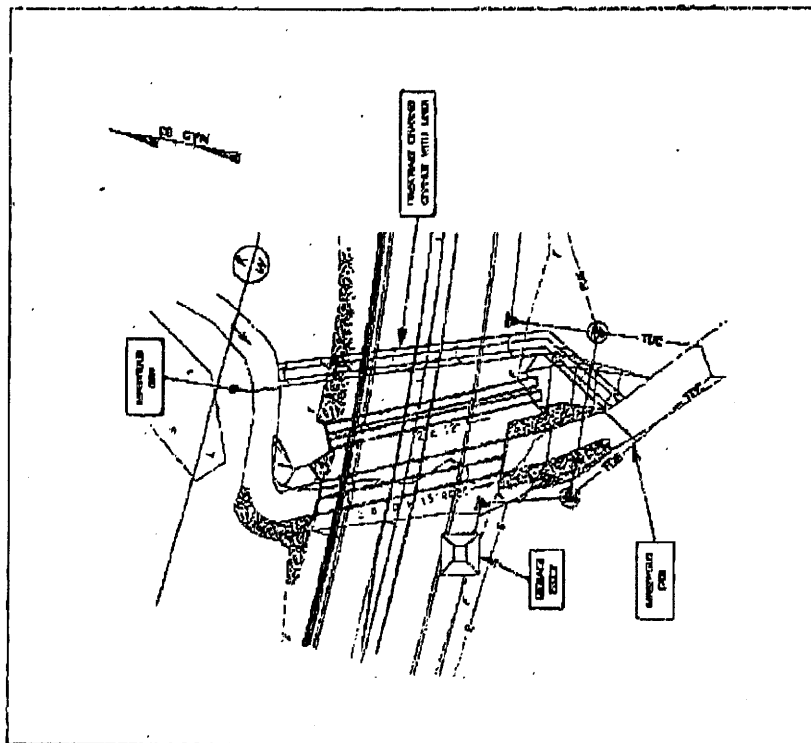
DENDLES FILL IN  
SURFACE WATERS



REV 2/05

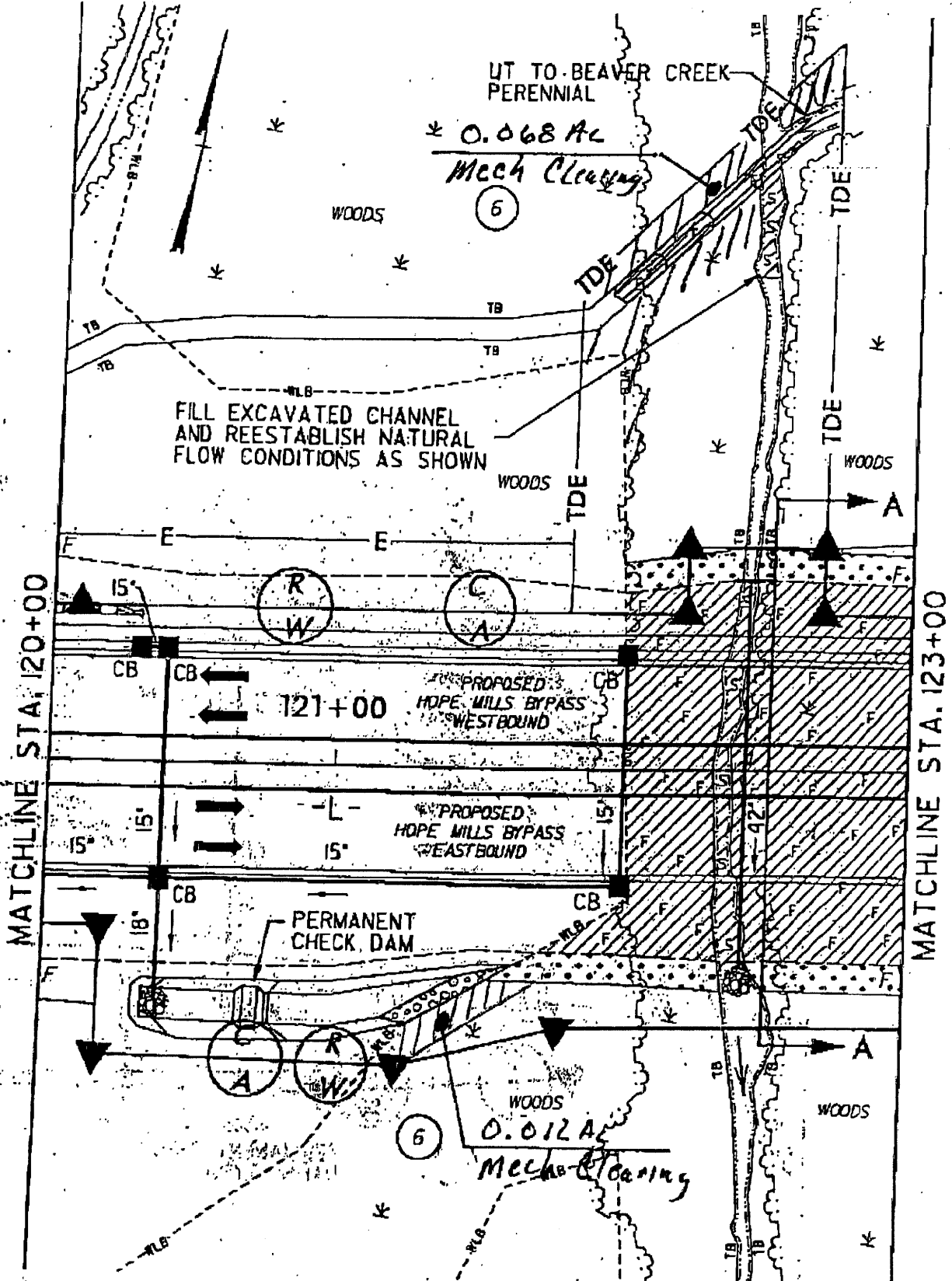
PROJECT APPROVED FOR	DATE
U-0000	01/07/05
BY	
FOR	
PROJECT	

# CULVERT CONSTRUCTION SEQUENCE (STA. 106 + 32)



- CONSTRUCTION SEQUENCE (STA. 106 + 32)
1. EXISTING CHANNEL MARK CROSS
  2. EXISTING CHANNEL CHANNEL CROSS MARK
  3. EXISTING CHANNEL CHANNEL CROSS MARK
  4. EXISTING CHANNEL CHANNEL CROSS MARK
  5. EXISTING CHANNEL CHANNEL CROSS MARK
  6. EXISTING CHANNEL CHANNEL CROSS MARK
  7. EXISTING CHANNEL CHANNEL CROSS MARK
  8. EXISTING CHANNEL CHANNEL CROSS MARK
  9. EXISTING CHANNEL CHANNEL CROSS MARK
  10. EXISTING CHANNEL CHANNEL CROSS MARK





**PLAN VIEW**  
**SITE 3**

- DENOTES MECHANIZED CLEARING
  - DENOTES EXCAVATION IN WETLANDS
  - DENOTES FILL IN WETLANDS
  - DENOTES FILL IN SURFACE WATERS
- 25 50

N.C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS

CUMBERLAND COUNTY

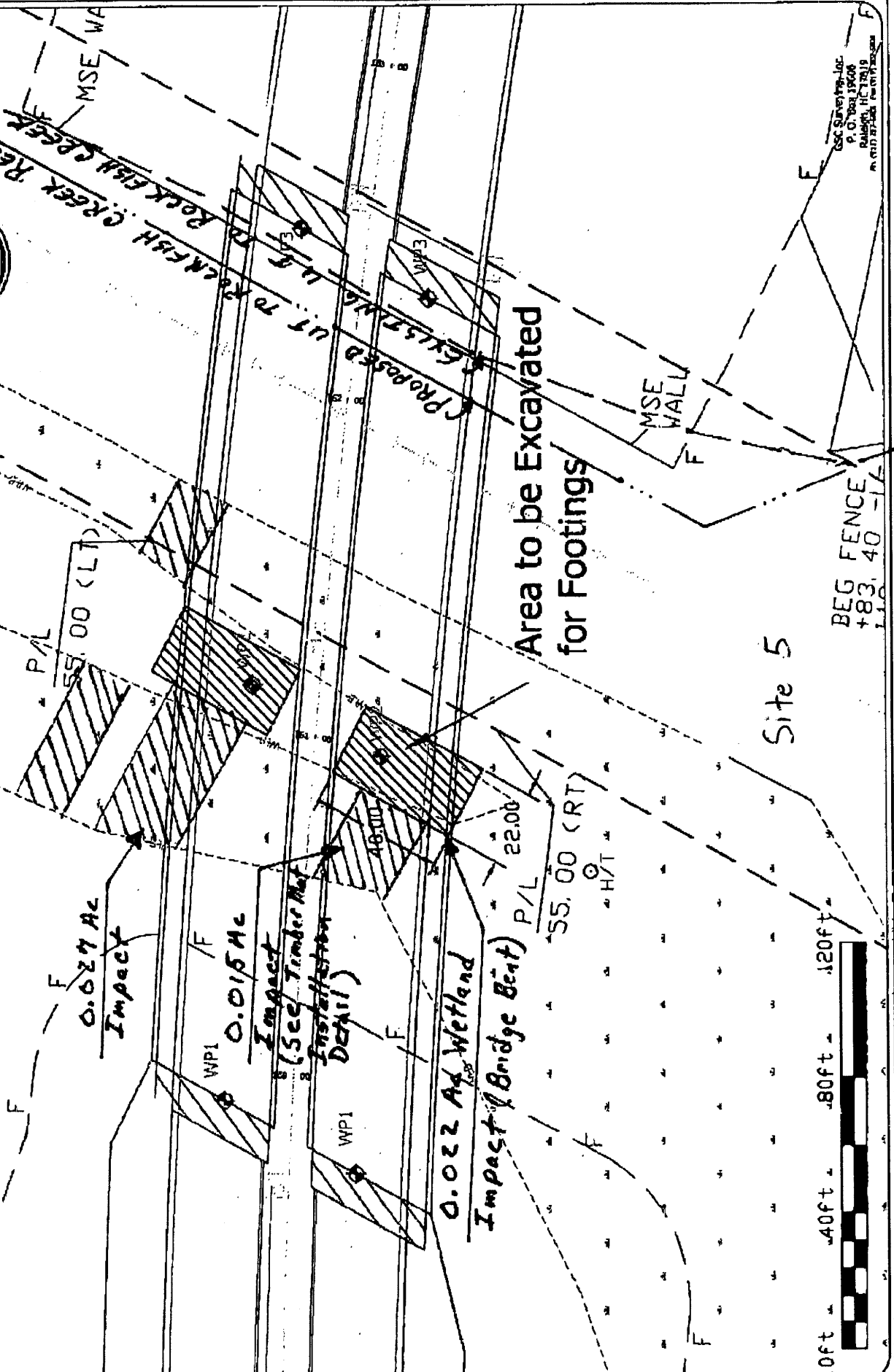
PROJECT: R1442601 (U-0620)  
HOPE MILLS BYPASS  
FROM SR-1141 (BINGHAM DRIVE)  
TO SR-1363 (CLK. ROAD)

SHEET OF 01/21/03

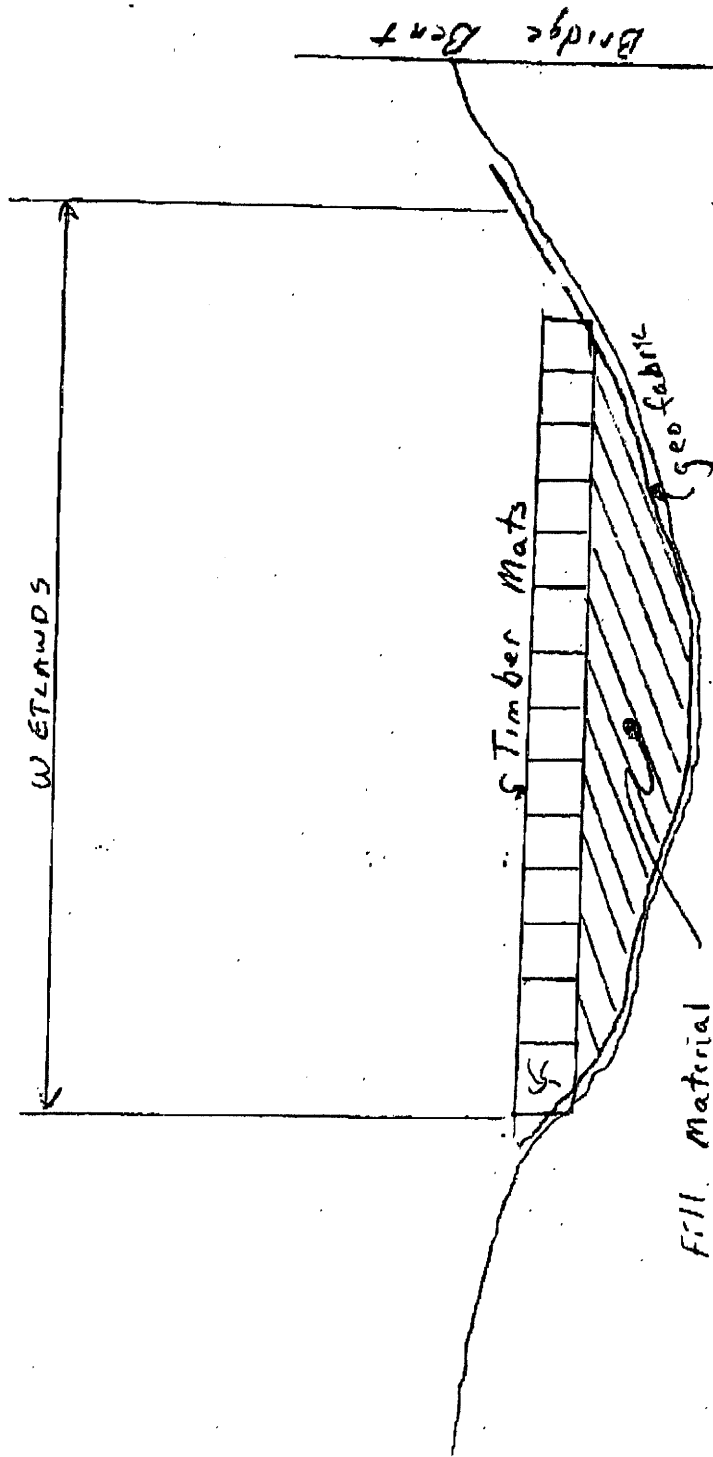
REV. 2/05

# U-0620 Hope Mills Bypass

## Str #2 & #3 over CSX Railroad

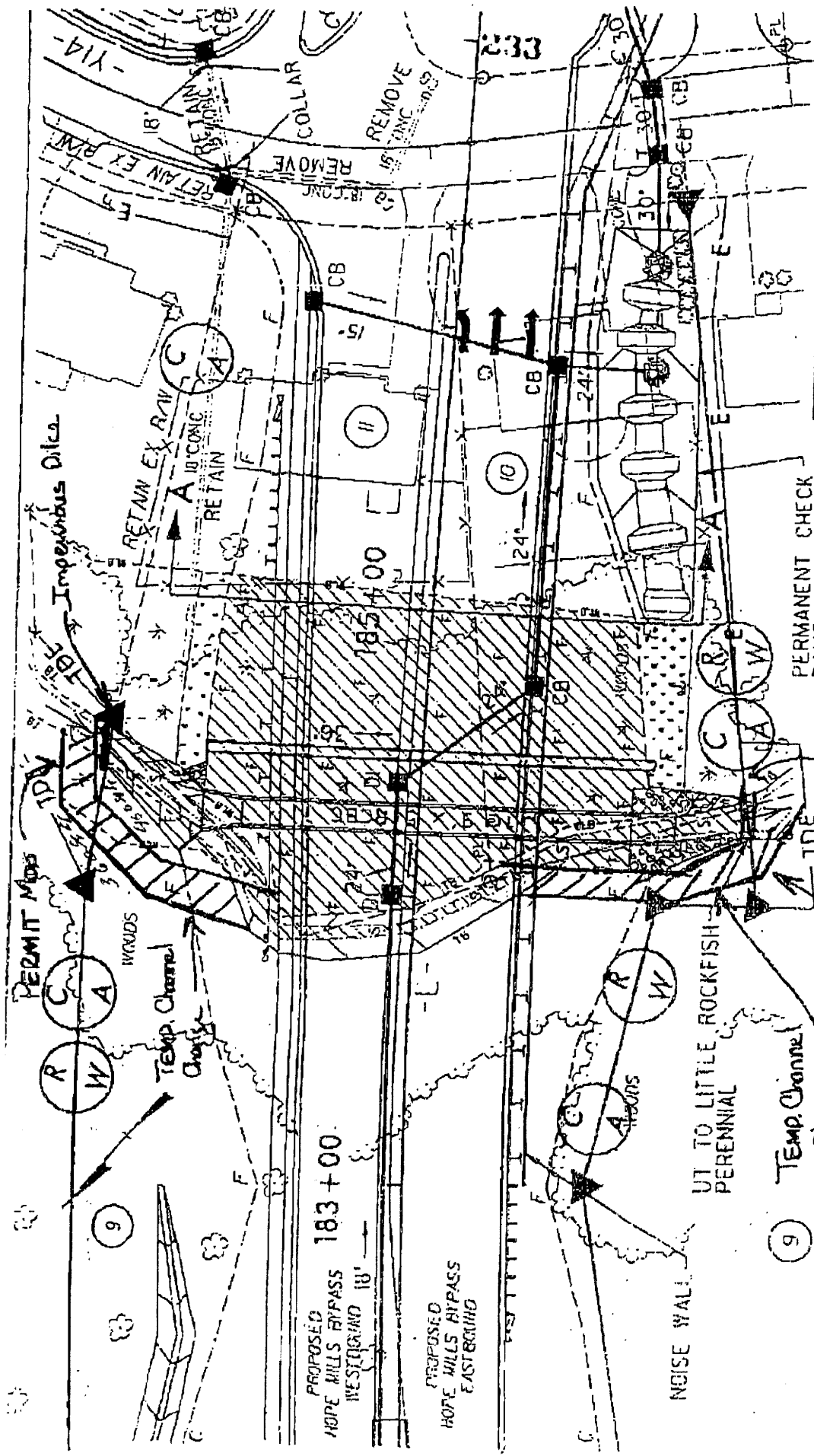


CSX Surveying, Inc.  
 P. O. Box 19606  
 Raleigh, NC 27619  
 Tel: (919) 872-5600 Fax: (919) 872-5601



Timber Mat Installation

Site 5



N.C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 CUMBERLAND COUNTY  
 PROJECT: B1442602 (U-0620)  
 HOPE MILLS BYPASS  
 FROM SR 1141 (BINGHAM DRIVE)  
 TO SR 1363 (ELK ROAD)  
 SHEET \_\_\_ OF \_\_\_ 01/21/03

- DENOTES MECHANIZED CLEARING
- DENOTES FILL III WETLANDS
- DENOTES FILL RI SURFACE WATERS
- PERMANENT CHECK DAMS (TYP.)
- Impervious Dike

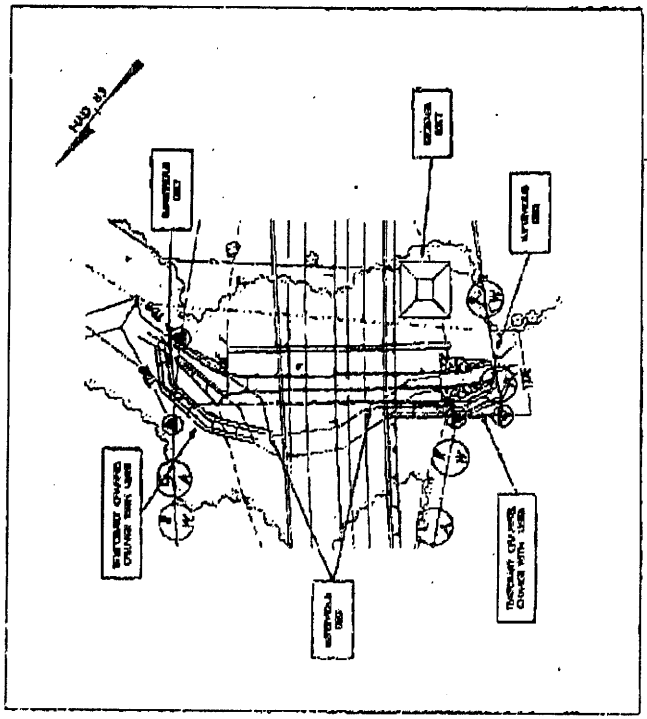
PLAN VIEW  
 SITE 6

Permit Mod

RBV 2/05

PROJECT NUMBER: 14	DATE: 02/11/05
PROJECT NAME: I-95/285/77	SCALE: 1" = 100'
PROJECT NO.:	DATE: 01/07/05
PROJECT NAME:	SCALE: 1" = 100'

# CULVERT CONSTRUCTION SEQUENCE (STA. 184 + 27)

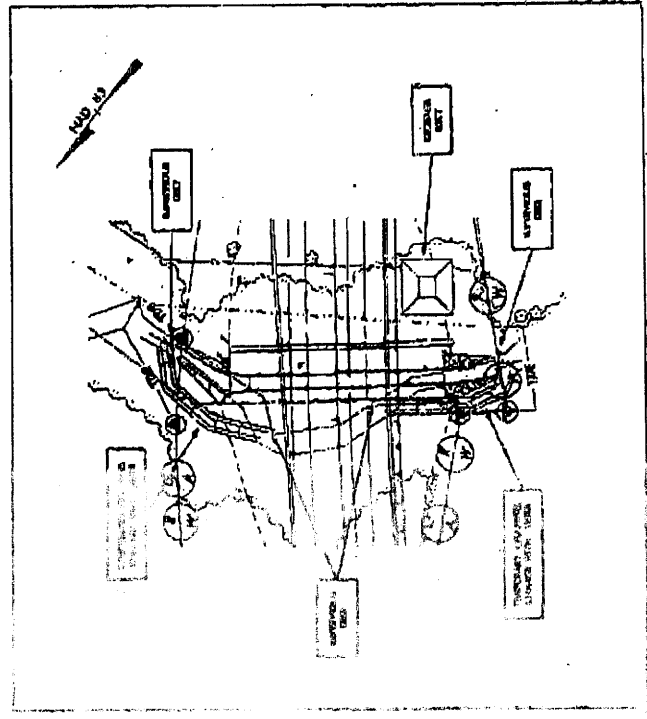


CONSTRUCTION SEQUENCE FOR STA. 184 + 27

1. EXISTING GRADE
2. CULVERT TRENCH
3. CONCRETE SIDEWALLS
4. CONCRETE TOP SLAB
5. CONCRETE BOTTOM SLAB
6. CONCRETE CURBS
7. CONCRETE FLOOR SLAB
8. CONCRETE SIDEWALKS
9. CONCRETE DRIVEWAY
10. CONCRETE DRIVEWAY CURBS
11. CONCRETE DRIVEWAY FLOOR SLAB
12. CONCRETE DRIVEWAY SIDEWALKS
13. CONCRETE DRIVEWAY CURBS

# ALBERT CONSTRUCTION SEQUENCE (STA. 184 + 27)

PROJECT NUMBER: 184 + 27	DATE: 11-19-72
U-3320	
CONTRACT NUMBER:	
CONTRACT DATE:	



CONSTRUCTION SEQUENCE (STA. 184 + 27)

1. CONTRACT NUMBER: U-3320
2. CONTRACT DATE: 11-19-72
3. CONTRACT NUMBER:
4. CONTRACT DATE:
5. CONTRACT NUMBER:
6. CONTRACT DATE:
7. CONTRACT NUMBER:
8. CONTRACT DATE:
9. CONTRACT NUMBER:
10. CONTRACT DATE:

## WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS			SURFACE WATER IMPACTS						
			Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation In Wetlands (ac)	Mechanized Clearing (Method III) (ac)	Fill In SW (Natural) (ac)	Fill In SW (Pond) (ac)	Temp. Fill In SW (ac)	Existing Channel Impacted (ft)	Natural Stream Design (ft)	
1	-L- 34+90 / 39+57	1 @ 72" RCP	0.699			0.0739	0.0375				201.6	
2	-L- 105+83 / 106+95	2 @ 10' x 13' RCBC w/ 2 @ 72" RCP					0.0825			0.02	279.8	
3	-L- 121+56 / 125+73	1 @ 42" RCP 1 @ 24" RCP	0.6879		0.0133	0.2004	0.0197	0.0078			164.8	169.2
4	-L- 145+20 / 146+83		0.0713		0.0071	0.0634						
5	-L- 159+45 / 160+15 -L- 160+45 / 161+91 -L- 162+57 / 163+25		0.0685	0.2429		0.0401					300	
6	-L- 183+85 / 185+08	1 @ 9' x 5' RCBC w/ 1 @ 36" RCP	0.3508			0.0565	0.0302			0.01	259.5	
7	-Y2- 15+47 / 16+00	1 @ 9' x 5' RCBC	0.0017		0.0046	0.0205	0.0084				77.77	
7A	-Y2DET- 12+42 / 12+61	1 @ 66" x 51" CMPA		0.1559	0.0087	0.0374				0.0051	62.5	
<b>TOTALS:</b>			1.8792	0.3988	0.0337	0.4676	0.1861	0	0.0351	1515.17	0	

Site 5: 0.02ac of permanent wetland impacts (bridge bent)

N.C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS

CUMBERLAND COUNTY

PROJECT 8.1442601 (U-0620)  
HOPE MILLS BYPASS

FROM SR 1141 (BINGHAM DRIVE) TO SR 1363 (ELK ROAD)

9/8/03  
Revised 2/05

SHEET - OF

Form Revised 1/21/03