



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

September 1, 2004

MEMORANDUM TO: Mr. Terry R. Gibson, PE
Division 6 Engineer

FROM: Philip S. Harris, III, P.E., CPM, Manager *Maalexander*
Jai Office of the Natural Environment
Project Development and
Environmental Analysis Branch

SUBJECT: Cumberland County, Hope Mills Bypass from SR 1141
(Bingham Drive) to SR 1132 (Legion Road); State Work Order
Number 8.2623601; T.I.P. No. U-620

Attached are the U. S. Army Corps of Engineers 404 Individual Permit and the Division of Water Quality 401 Water Quality Certification for the above referenced project. All environmental permits have been received for the construction of this project.

PSH/mka

Attachment

cc: Mr. Art McMillan, P.E.
Mr. Jay Bennett, P.E.
Mr. David Chang, P.E.
Mr. Randy Garris, P.E.
Mr. Greg Perfetti, P.E.
Mr. Mark Staley
Mr. Omar Sultan
Mr. John F. Sullivan, FHWA
Mr. Jim Rerko, Division 6 DEO



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
P.O. BOX 1890
WILMINGTON, NORTH CAROLINA 28402-1890

August 17, 2004

Regulatory Division

Action ID. 199704287; Tip No. U-620

Dr. Gregory J. Thorpe, Ph.D.
Environmental Management Director, PDEA
N.C. Department of Transportation
1548 Mail Service Center
Raleigh, NC 27699-1548

Dear Dr. Thorpe:

In accordance with the written request of May 7, 2004, and the ensuing administrative record, enclosed is a permit to discharge dredged or fill material into waters of the United States, including jurisdictional wetlands for the widening of the existing George Owen Road (SR 1133) to a four-lane, median divided, facility from Bingham Drive (SR 1141) to Columbine Road (SR 3065) and extending on new location to the intersection of Legion Road (SR 1132) directly across from Elk Road (SR 1363) in Hope Mills, Cumberland County, North Carolina. State Project 8.1442601, TIP NO. U-620, NCDOT Division 6.

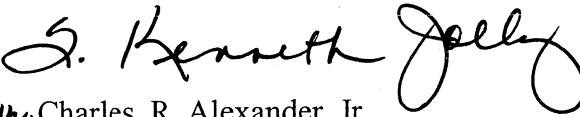
If any change in the authorized work is required because of unforeseen or altered conditions or for any other reason, the plans revised to show the change must be sent promptly to this office. Such action is necessary, as revised plans must be reviewed and the permit modified.

Carefully read your permit. The general and special conditions are important. Your failure to comply with these conditions could result in a violation of Federal law. Certain significant general conditions require that:

- a. You must complete construction before December 31, 2007.
- b. You must notify this office in advance as to when you intend to commence and complete work.
- c. You must allow representatives from this office to make periodic visits to your worksite as deemed necessary to assure compliance with permit plans and conditions.

Should you have questions, contact Mr. Richard K. Spencer of my Wilmington Field Office regulatory staff at telephone (910) 251-4172.

Sincerely,


Charles R. Alexander, Jr.
Colonel, U.S. Army
District Engineer

Enclosures

Copy Furnished with enclosures:

Chief, Source Data Unit
NOAA/National Ocean Service
ATTN: Sharon Tear N/CS261
1315 East-West Hwy., Rm 7316
Silver Spring, MD 20910-3282

Mr. Ronald Mikulak, Chief
Wetlands Section - Region IV
Water Management Division
U.S. Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303

Copies Furnished with special conditions
and plans:

Mr. Pete Benjamin, Field Supervisor
U.S. Fish and Wildlife Service
Fish and Wildlife Enhancement
Post Office Box 33726
Raleigh, North Carolina 27636-3726

Mr. Doug Huggett
Division of Coastal Management
North Carolina Department of
Environment and Natural Resources
1638 Mail Service Center
Raleigh, North Carolina 27699-1638

Mr. Ron Sechler
National Marine Fisheries
Service, NOAA
Pivers Island
Beaufort, North Carolina 28516

Mr. William D. Gilmore, P.E.
EEP Transition Manager
Ecosystem Enhancement Program
1652 Mail Service Center
Raleigh, NC 27699-1652

Mr. David Rackley
National Marine Fisheries
Service, NOAA
219 Fort Johnson Road
Charleston, South Carolina 29412-9110

DEPARTMENT OF THE ARMY PERMIT

NC Department of Transportation

Permittee _____

199704287

Permit No. _____

USAED, Wilmington

Issuing Office _____

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description:

To directly discharge dredged and/or fill material into Beaver Creek, Buckhead Creek and tributaries to Beaver Creek, Buckhead Creek, and Little Rockfish Creek impacting a total of 1,215 linear feet of streams and 2.3 acres of wetlands to facilitate the construction of the Hope Mills Bypass, Transportation Improvements Project (TIP) U-620, State Project Number 8.1442601. This authorization will also include the temporary placement of equipment work pads at stations L 161+00, Site 5 and the construction of a temporary detour at station Y2DET 12+50, Site 7A.

Project Location:

In the Cape Fear River basin, from the intersection of SR-1141 (Bingham Drive) and SR-1133 (George Owen Road) and runs along George Owens Road to SR-3065 (Columbine Road) and extends on new location to intersect SR-1132 (Legion Road) in Cumberland County, North Carolina.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on December 31, 2007. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

d. Design or construction deficiencies associated with the permitted work.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

d. This permit does not authorize interference with any existing or proposed Federal project.

c. This permit does not authorize any injury to the property or rights of others.

b. This permit does not grant any property rights or exclusive privileges.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

2. Limits of this authorization.

() Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

() Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

Further Information:

See enclosed sheet.

Special Conditions:

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

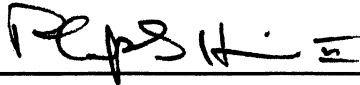
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

- e. Damage claims associated with any future modification, suspension, or revocation of this permit.
- 4. **Reliance on Applicant's Data:** The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
- 5. **Reevaluation of Permit Decision.** This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
 - a. You fail to comply with the terms and conditions of this permit.
 - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
 - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. **Extensions.** General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.



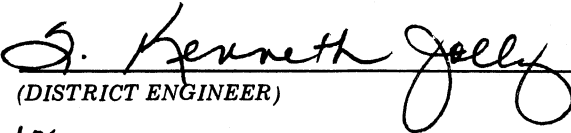
(PERMITTEE)

8/9/04

(DATE)

NC DEPARTMENT OF TRANSPORTATION

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.



(DISTRICT ENGINEER)
for CHARLES R. ALEXANDER, JR. COLONEL

8/17/04

(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE)

(DATE)

SPECIAL CONDITIONS (Action ID. 1997-0-4287; NCDOT/TIP U-620)

1. All work authorized by this permit must be prepared in strict compliance with the attached plans, which are a part of this permit. Written verification shall be provided that the final construction drawings comply with the attached permit drawings prior to any active construction in waters of the United States, including wetlands. The permittee shall ensure that the construction design plans for this project do not deviate from the permit plans attached to this authorization. Any deviation in the construction design plans shall be brought to the attention of the Corps of Engineers, Mr. Richard Spencer, Wilmington Regulatory Field Office prior to any active construction in waters or wetlands.

2. The permittee shall schedule a preconstruction meeting between its representatives, the contractor's representatives, and the Corps of Engineers, Mr. Richard Spencer, Wilmington Regulatory Field Office, prior to any work within jurisdictional waters and wetlands to ensure that there is a mutual understanding of all of the terms and conditions contained within this Department of the Army Permit. The permittee shall notify the Corps of Engineers Project Manager a minimum of thirty (30) days in advance of the scheduled meetings in order to provide that individual with ample opportunity to schedule and participate in the required meetings.

3. The permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project, and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this permit. Copies of this permit and any modifications authorized by the USACE shall be available for review at the construction site at all times. All violations, including non-compliance of these conditions, of the authorized permit shall be reported to the District Engineer within 24 hours of the violation.

4. Prior to commencing construction within jurisdictional waters of the United States for any portion of the proposed highway project, the permittee shall forward the latest version of project construction drawings to the Corps of Engineers, Wilmington Regulatory Field Office NCDOT Regulatory Project Manager. Half-size drawings will be acceptable.

5. The temporary work pads at L-station 161+00, Site 5 and the temporary detour fill at Y2DET 12+50, Site 7A, shall be placed on filter cloth and shall be removed in its entirety upon completion of construction at the site. Removal of the fill and stabilization of the disturbed substrate area shall be accomplished within 30 calendar days following completion of construction at the site. A restoration plan shall be submitted to the Corps of Engineers, Wilmington Regulatory Field Office NCDOT Regulatory Project Manager for review and approval 30 calendar days prior to the start of fill removal.

6. Compensatory mitigation for the unavoidable impacts to 2.3 acres of wetland and 1,215 linear feet of perennial stream associated with the proposed project shall be provided by the Ecosystem Enhancement Program (EEP), as outlined in the letters dated March 3, 2004 and May 20, 2004 from William D. Gilmore, EEP Transition Manager. The EEP will provide 23.5 acres of preservation of riverine wetlands and 12,150 linear feet of preservation of warm water stream channel in the Southern Inner Coastal Eco-Region at the Great Coharie Site in Sampson County that has been acquired and protected by the EEP. Pursuant to the EEP Memorandum of Agreement (MOA) between the State of North Carolina and the US Army Corps of Engineers signed on July 22, 2003, the EEP will provide a minimum of 2.3 acres of restoration of riverine wetlands and 1,215 linear feet of restoration of warm water stream channel in the Cape Fear River basin (Hydrologic Cataloging Unit 03030004 by July 22, 2005 and half of the proposed preservation mitigation would be available at that time for mitigation for other project impacts. Construction within wetlands on the permitted highway project shall begin only after the EEP has provided written confirmation to the District Engineer that the EEP and not the NCDOT is responsible for providing the required mitigation, pursuant to Paragraph VI.B.7 of the MOA. The NCDOT shall, within 30 days of the issue date of this permit, certify that sufficient funds have been provided to EEP to complete the required mitigation, pursuant to Paragraph V. of the MOA.

7. The permittee and its contractors and/or agents shall not excavate, fill, or perform mechanized landclearing at any time in the construction or maintenance of this project within waters and/or wetlands, or cause the degradation of waters and/or wetlands, except as authorized by this permit, or any modification to this permit. There shall be no excavation from, waste disposal into, or degradation of, jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit, including appropriate compensatory mitigation. This prohibition applies to all borrow and fill activities connected with this project.

8. To ensure that all borrow and waste activities occur on high ground and do not result in the loss or degradation of adjacent wetlands and streams, except as authorized by this permit, the permittee shall require its contractors and/or agents to identify all areas to be used to borrow material, or to dispose of dredged, fill, or waste material. The permittee shall ensure that all such areas comply with the preceding condition (#7.) of this permit, and shall require and maintain documentation of the location and characteristics of all borrow and disposal sites associated with this project. This information will include data regarding soils, vegetation and hydrology sufficient to clearly demonstrate compliance with the preceding condition (#7). All information will be available to the Corps of Engineers upon request. NCDOT shall require its contractors to complete and execute reclamation plans for each waste and borrow site and provide written documentation that the reclamation plans have been implemented and all work is completed. This documentation will be provided to the Corps of Engineers within 30 days of the completion of the reclamation work.

9. The permittee shall comply with the conditions specified in the water quality certification, No. 3465, issued by the North Carolina Division of Water Quality on 23 July 2004.

10. The permittee shall place the inverts of culverts and other structures greater than 48 inches in diameter in waters, streams, and wetlands one foot below the bed of the stream to allow low flow passage of water and aquatic life, unless providing passage would be impractical and the Corps of Engineers has waived this requirement. For culverts 48 inches in diameter or smaller, culverts must be buried below the bed of the stream to a depth equal to or greater than 20 percent of the diameter of the culvert. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to, upstream or downstream of the structures.

11. The permittee shall use appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of the "North Carolina Sediment and Erosion Control Planning and Design Manual" to assure compliance with the appropriate turbidity water quality standard.

12. The permittee shall remove all sediment and erosion control measures placed in wetlands or waters, and shall restore natural grades in those areas, prior to project completion.

13. The permittee shall take measures to prevent live or fresh concrete from coming into contact with any surface waters until the concrete has hardened.

14. If the permittee discovers any previously unknown historic or archeological remains while accomplishing the authorized work, he shall immediately stop work and notify the Wilmington District Engineer who will initiate the required State/Federal coordination.

15. No excavated or fill material shall be placed at any time in waters or wetlands outside the authorized permit area, nor will it be placed in any location or in any manner so as to impair surface water flow into or out of any wetland area.

16. The permittee shall maintain the authorized work in good condition and in conformance with the terms and conditions of this permit. The permittee is not relieved of this requirement if he abandons the permitted activity without transferring it to a third party.

17. All fill material shall be clean and free of any pollutants except in trace quantities. Metal products, organic materials, or unsightly debris will not be used.

18. This Department of the Army permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.

19. In issuing this permit, the Federal Government does not assume any liability for:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future Federal activities initiated on behalf of the general public.
- c. Damages to other permitted or un-permitted activities or structures caused by the authorized activity.
- d. Design and construction deficiencies associated with the permitted work.
- e. Damage claims associated with any future modification, suspension, or revocation of this permit.



Michael F. Easley, Governor
William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources

Alan W. Klimek, P.E., Director
Division of Water Quality
Coleen H. Sullins, Deputy Director
Division of Water Quality

July 23, 2004

RECEIVED

AUG 02 2004

REGULATORY

Mr. Gregory J. Thorpe, Ph.D., Environmental Director
NCDOT Planning and Environmental Branch
1548 Mail Service Center
Raleigh, NC, 27699-1548

Dear Dr. Thorpe:

Re: Water Quality Certification Pursuant to §401 of the Federal Clean Water Act,
Hope Mills Bypass, from SR 1141 (Bingham Drive) to SR 1363 (Elk Road), Cumberland County.
Federal Aid No. STP-0622 (2); WBS Element 34408.1.1; State Project No. 8.1442601
TIP No. U-0620
DWQ Project No. 040806

Attached hereto is a copy of Certification No. 3465 issued to The North Carolina Department of
Transportation dated July 23, 2004.

If we can be of further assistance, do not hesitate to contact us.

Sincerely,

Alan W. Klimek, P.E.

Attachments

cc: Wilmington District Corps of Engineers
Richard Spencer, USACE Wilmington Field Office
Ken Averitte, NCDWQ Fayetteville Regional Office
Christopher Militscher, US Environmental Protection Agency – Region IV
William D. Gilmore, P.E., Transition Manager, NC DENR Division of Ecosystem Enhancement
T. R. Gibson, PE, Division Engineer, NCDOT Division 6
Central Files
File Copy

NORTH CAROLINA 401 WATER QUALITY CERTIFICATION

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15 NCAC 2H .0500. This Certification authorizes the NCDOT to incur the following permanent impacts:

- 2.3 acres of jurisdictional wetlands;
 - 1,215 linear feet of jurisdictional stream loss;
- in Cumberland County.

Site	Waterbody	Wetlands (ac)	Streams (ft)
1B	Beaver Creek Trib A	0.77	
2	Buckhead Creek		280
3	UT to Buckhead Creek	0.82	334
4	UT to Buckhead Creek	0.14	
5	UT to Little Rockfish Creek	0.15	
6	Ut to Little Rockfish Creek	0.39	259
7	Beaver Creek Trib B	0.03	78
7A	Beaver Creek Trib B		62
	TOTALS	2.30	1215

The Hope Mills Bypass project, from SR 1141 (Bingham Drive) to SR 1363 (Elk Road), Cumberland County, shall be constructed pursuant to the Application dated May 7, 2004.

The Application provides adequate assurance that the discharge of fill material into the waters of the state with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your Application. All work authorized by this Certification must be done in strict compliance with the plans attached to the Application. If this project changes, incurring additional impacts to streams or wetlands, you are required to notify the DWQ *in writing*, and you may be required to submit a new application. Additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion Control, Non-discharge and Water Supply watershed regulations. This Certification shall expire three (3) years from the date of the cover letter from DWQ or on the same day as the expiration date of the corresponding US Army Corps of Engineers Permit, whichever is later.

Condition(s) of Certification:

1. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards:
 - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.

- b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
 - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
 - d. Any reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
2. No waste, spoil, solids, or fill of any kind shall occur in wetlands, waters, or riparian areas beyond the footprint of the impacts depicted in the Application. All construction activities shall be performed so that no violations of state water quality standards, statutes, or rules occur.
3. Sediment and erosion control measures shall not be placed in wetlands or waters to the maximum extent practicable. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, they shall be removed and the natural grade restored within 30 days after the project has been released.
4. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by orange fabric fencing prior to any land disturbing activities. Impacts to those areas are prohibited unless otherwise authorized by this certification.
5. NCDOT and its contractors and/or agents shall not excavate, fill, or perform mechanized land clearing at any time in the construction or maintenance of this project within waters and/or wetlands, except as authorized by this Certification, or any modification to this Certification. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this Certification without appropriate modification. If this occurs, compensatory mitigation will be required since it is a direct impact from road construction activities.
6. Excavation of stream crossings should be conducted in the dry unless demonstrated by the applicant or its authorized agent to be unfeasible and approved by the DWQ. Sandbags, cofferdams, flexible pipe, or other diversion structures should be used to minimize excavation in flowing water.
7. Placement of culverts and other structures in waters, streams, and wetlands shall be placed below the elevation of the streambed to allow low flow passage of water and aquatic life unless it is otherwise approved by the DWQ that providing passage would be impractical. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium shall be maintained if requested in writing by DWQ.

8. The natural dimension, pattern and profile of the streams above and below the approved crossings shall not be modified by widening the stream channel or changing the depth of the stream, except as approved by this certification.
9. The removal of vegetation in riparian areas should be minimized. NCDOT is encouraged to use existing on-site vegetation and materials for stream bank stabilization and to minimize the use of rip rap. Riprap shall not be placed in the stream bottom.
10. Riparian vegetation, using native trees and shrubs, must be re-established within the construction limits of the project by the end of the growing season following completion of construction to reestablish the riparian zone and to provide long-term erosion control.
11. Heavy equipment should be operated from the bank rather than in the stream channel unless demonstrated by the applicant or its authorized agent to be unfeasible and approved by the DWQ. All mechanized equipment operated near surface waters should be inspected and maintained regularly to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids or other toxic substances.
12. Live or fresh concrete shall not come into contact with waters of the state until the concrete has hardened. Water that inadvertently contacts uncured concrete should not be discharged to surface waters.
13. Discharging hydroseeding mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is strictly prohibited.
14. NCDOT shall require its contractors (and/or agents) to comply with all of the terms of this Certification, and shall provide each of its contractors (and/or agents) a copy of this Certification.
15. *Mitigation:*

Wetland Mitigation

Compensatory mitigation for 2.3 acres of wetland impacts shall be provided through the following schemes:

- The NCDENR Ecosystem Enhancement Program has agreed to provide compensatory mitigation for 2.82 acres of wetland impacts incurred for construction of U-0620. DWQ acknowledges that the NCDENR Ecosystem Enhancement Program has agreed to provide compensation for the subject project (reference EEP letters of March 3, 2004 and May 20, 2004).

Stream Mitigation

Compensatory mitigation for 1215 feet of stream impacts shall be provided through the following schemes:

- The NCDENR Ecosystem Enhancement Program has agreed to provide compensatory mitigation for 1215 feet of stream impacts incurred for construction of U-0620 (reference EEP letters of March 3, 2004 and May 20, 2004).

16. Upon completion of the project, the NCDOT shall complete and return the enclosed "Certification of Completion Form" to notify DWQ when all work included in the 401 Certification has been completed. The responsible party shall complete the attached form and return it to the 401/Wetlands Unit of the Division of Water Quality upon completion of the project.

NCDOT and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act) and any other appropriate requirements of State law and Federal law.

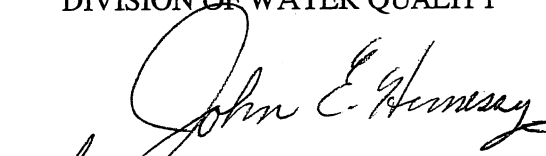
If DWQ determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use), or that State or federal law is being violated, or that further conditions are necessary to assure compliance, DWQ may reevaluate and modify this certification to include conditions appropriate to assure compliance with such standards and requirements in accordance with 15A NCAC 2H.0507(d). Any new or revised conditions shall be provided to NCDOT in writing, shall be provided to the United States Army Corps of Engineers for reference in any permit issued pursuant to Section 404 of the Clean Water Act, and shall also become conditions of the 404 Permit for the project.

Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal Permit. This Certification shall expire upon the expiration of the 404 Permit.

If you do not accept any of the conditions of this certification, you may ask for an adjudicatory hearing. You must act within 60 days of the date that you receive this letter. To ask for a hearing, send a written petition that conforms to Chapter 150B of the North Carolina General Statutes to the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699-6714. This Certification and its conditions are final and binding unless you ask for a hearing.

This the 23rd day of July 2004

DIVISION OF WATER QUALITY


for Alan W. Klimek, P.E.

DWQ Project No.: 040806

County: Cumberland

Applicant: NCDOT

Project Name: U-0620 Hope Mills Bypass

Date of Issuance of 401 Water Quality Certification: July 23, 2004

Certificate of Completion

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401/Wetlands Unit, North Carolina Division of Water Quality, 1650 Mail Service Center, Raleigh, NC, 27699-1650. This form may be returned to DWQ by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

Applicant's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Agent's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

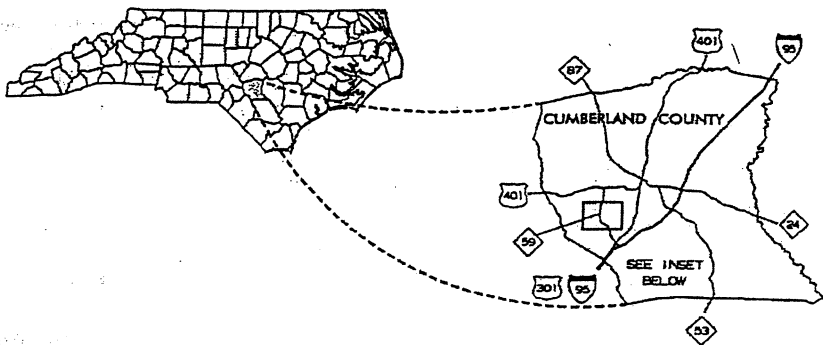
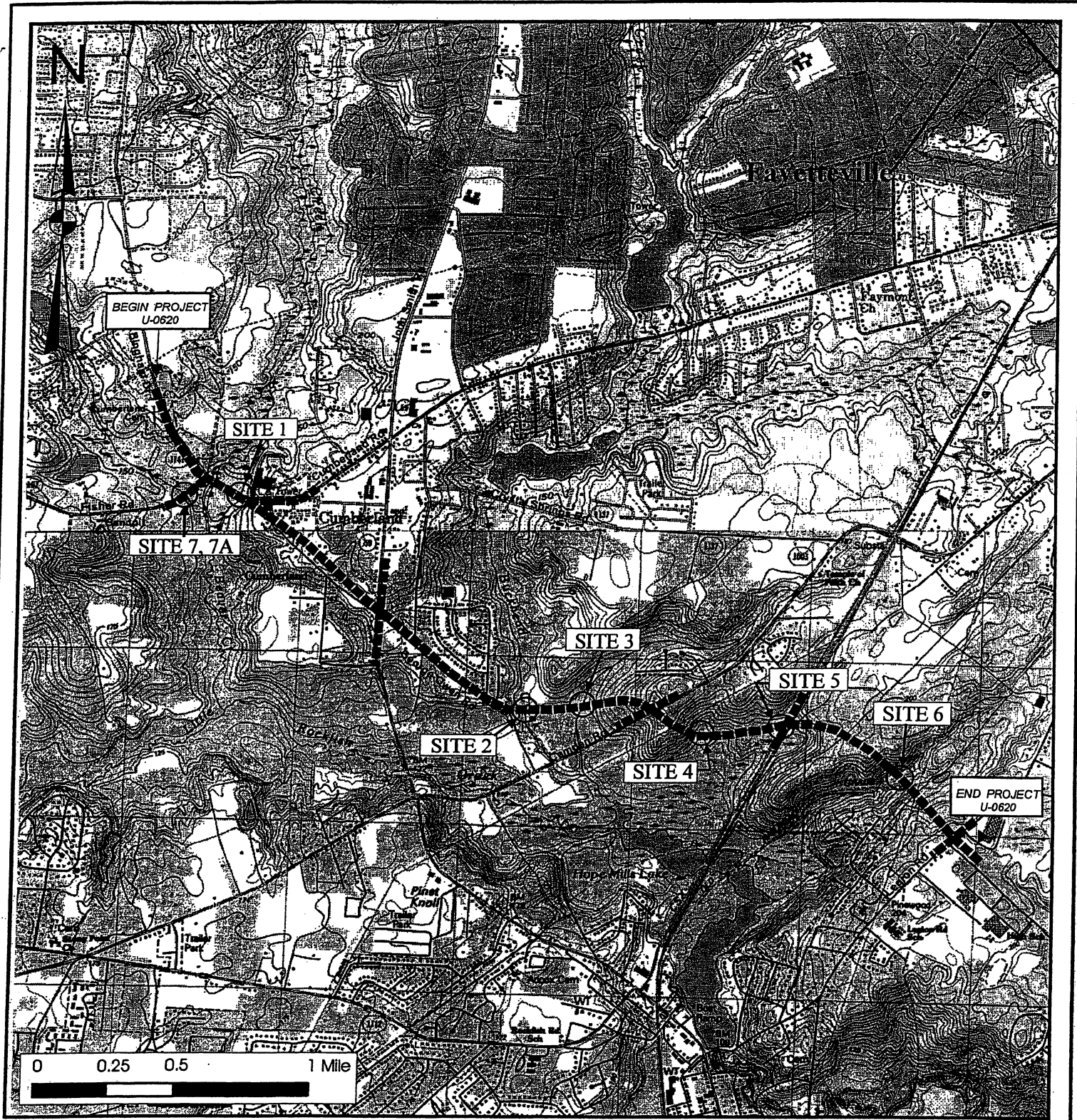
Engineer's Certification

_____ Partial _____ Final

I, _____, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project, for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification, the approved plans and specifications, and other supporting materials.

Signature _____ Registration No. _____

Date _____



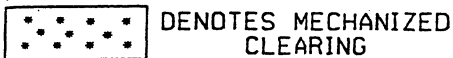
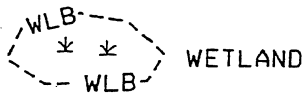
N.C. DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

CUMBERLAND COUNTY

PROJECT: 8.1442601 (U-0620)
HOPE MILLS BYPASS
FROM SR 1141 (BINGHAM DRIVE)
TO SR 1363 (ELK ROAD)

WETLAND LEGEND

--- WLB --- WETLAND BOUNDARY



— BZ — RIPARIAN BUFFER ZONE

← ← FLOW DIRECTION

— TB — TOP OF BANK

--- WE --- EDGE OF WATER

— C — PROP. LIMIT OF CUT

— F — PROP. LIMIT OF FILL

▲ PROP. RIGHT OF WAY

--- NG --- NATURAL GROUND

--- PL --- PROPERTY LINE

— TDE — TEMP. DRAINAGE EASEMENT

— PDE — PERMANENT DRAINAGE EASEMENT

— EAB — EXIST. ENDANGERED ANIMAL BOUNDARY

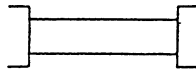
— EPB — EXIST. ENDANGERED PLANT BOUNDARY

▽ WATER SURFACE

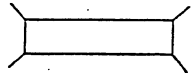
X X X LIVE STAKES

BOULDER

--- COIR FIBER ROLLS



PROPOSED BRIDGE



PROPOSED BOX CULVERT



PROPOSED PIPE CULVERT

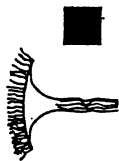
(DASHED LINES DENOTE EXISTING STRUCTURES)



SINGLE TREE



WOODS LINE



DRAINAGE INLET



RIP RAP



ADJACENT PROPERTY OWNER OR PARCEL NUMBER IF AVAILABLE

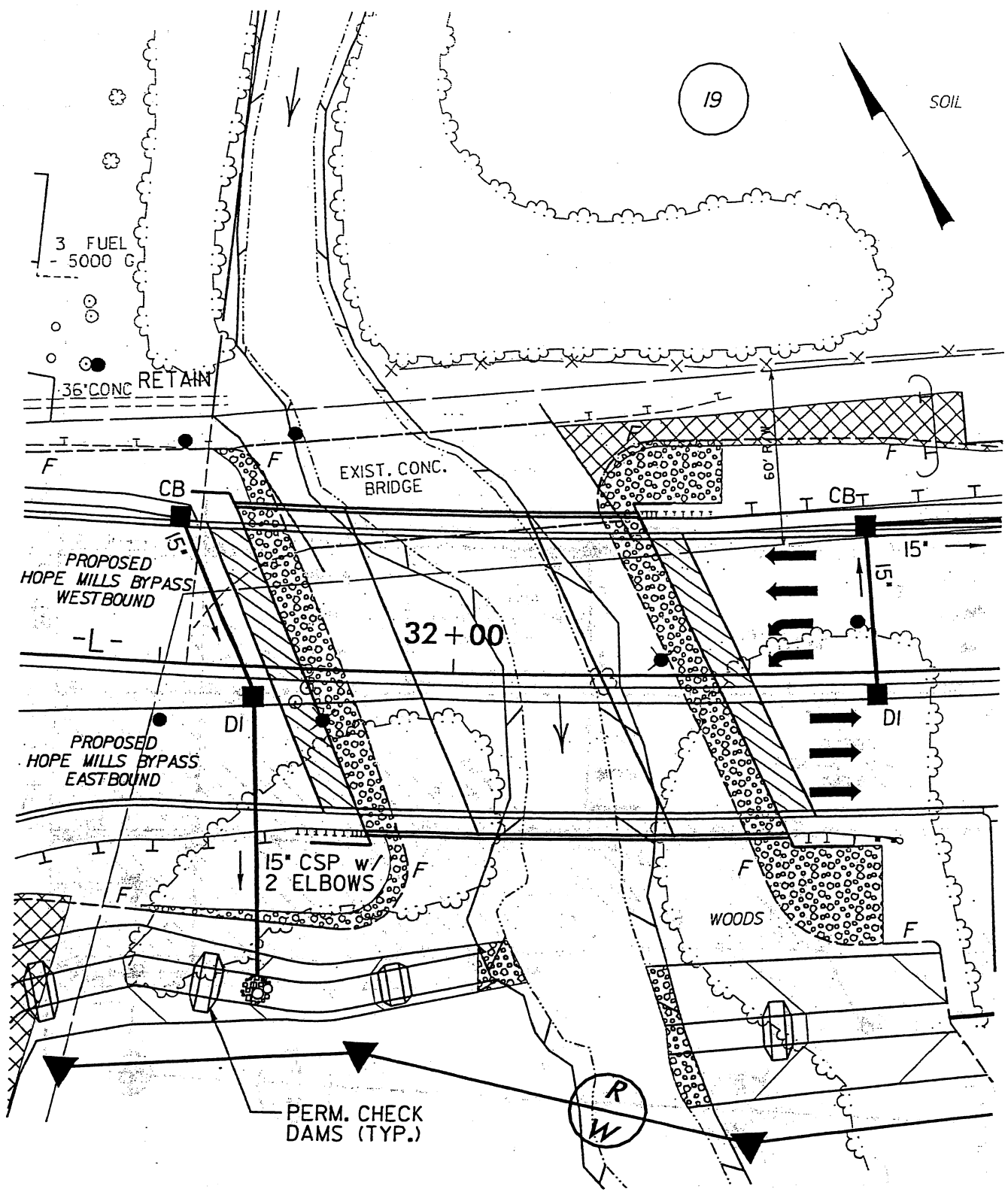
**N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS**

CUMBERLAND COUNTY

**PROJECT: 8.1442601 (U-0620)
HOPE MILLS BYPASS
FROM SR 1141 (BINGHAM DRIVE)
TO SR 1363 (ELK ROAD)**

SHEET 2 OF 27

01/21/03



**PLAN VIEW
SITE 1A**

**N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS**

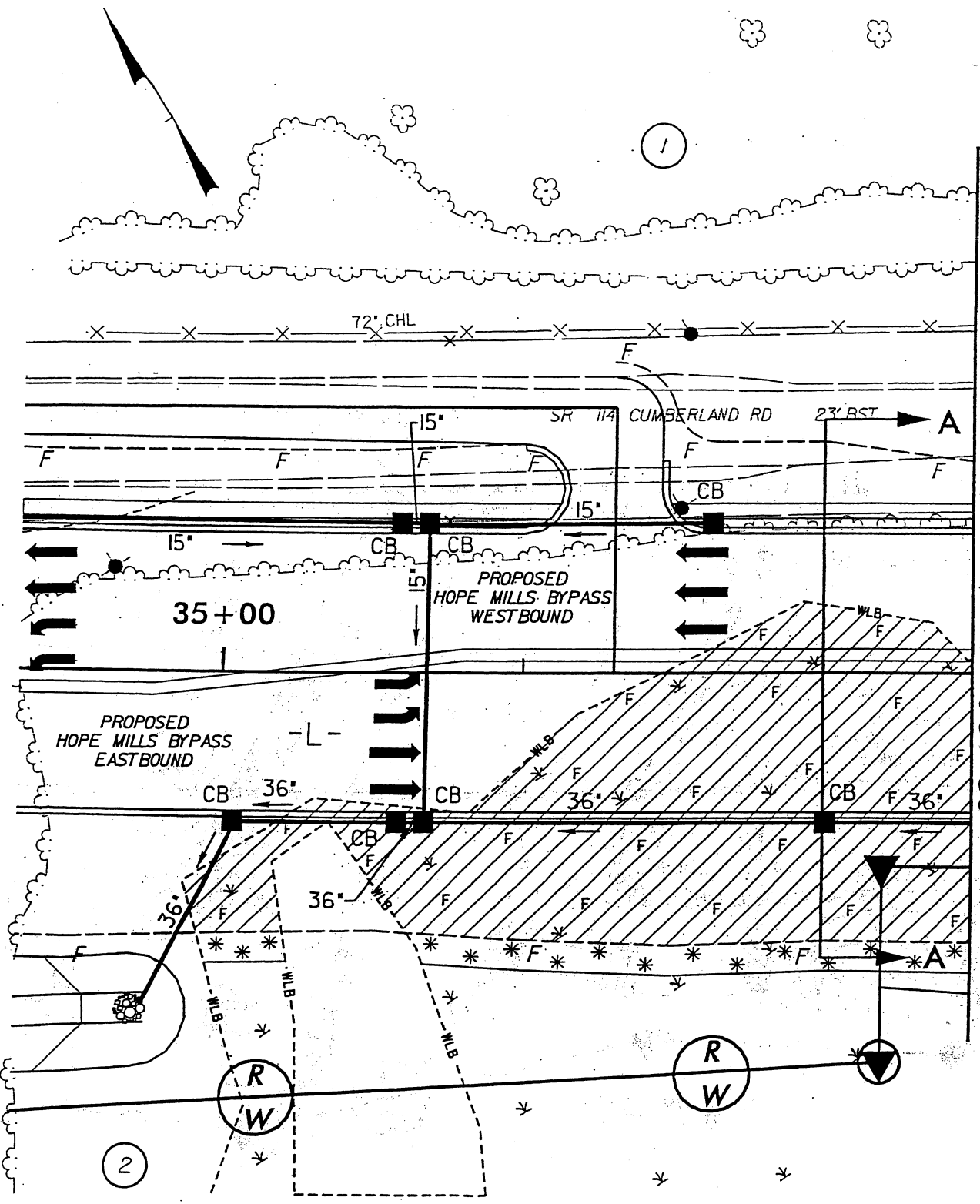
CUMBERLAND COUNTY

**PROJECT: 8.1442601 (U-0620)
HOPE MILLS BYPASS
FROM SR 1141 (BINGHAM DRIVE)
TO SR 1363 (ELK ROAD)**

SHEET 3 OF 27

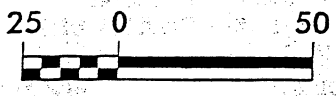
01/21/03

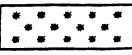
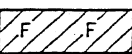
REVISED 2/3/04



MATCHLINE STA. 37+50

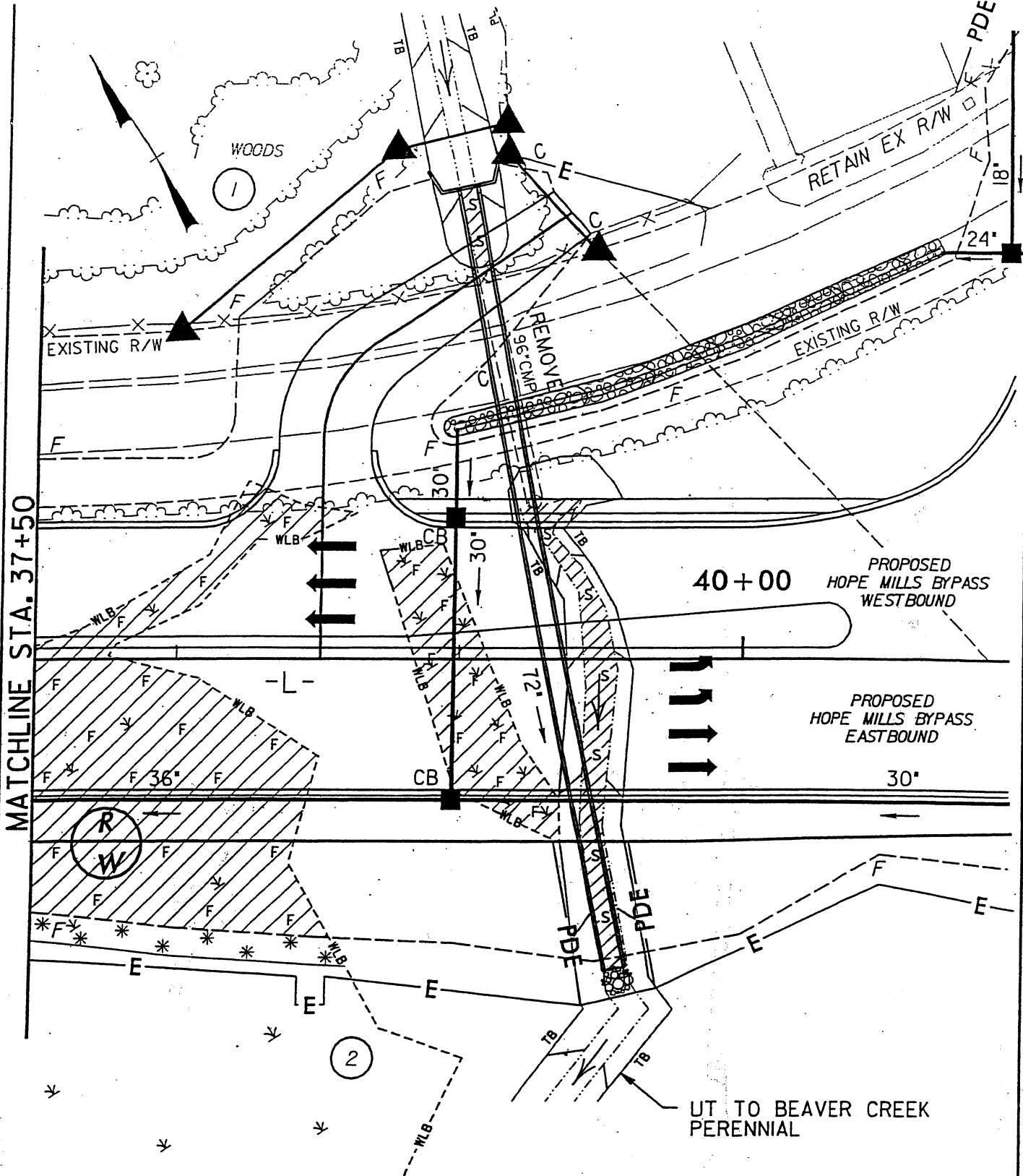
**PLAN VIEW
SITE 1B**



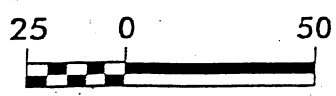
DENOTES MECHANIZED CLEARING 
 DENOTES FILL IN WETLANDS 

N.C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 CUMBERLAND COUNTY
 PROJECT: 8.1442601 (U-0620)
 HOPE MILLS BYPASS
 FROM SR 114 (BINGHAM DRIVE)
 TO SR 1363 (ELK ROAD)
 SHEET 4 OF 27
 01/21/03

REVISED 4/15/04



**PLAN VIEW
SITE 1B**



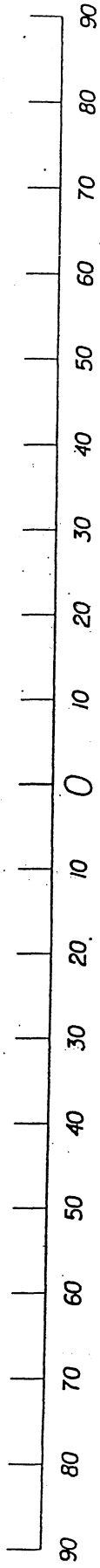
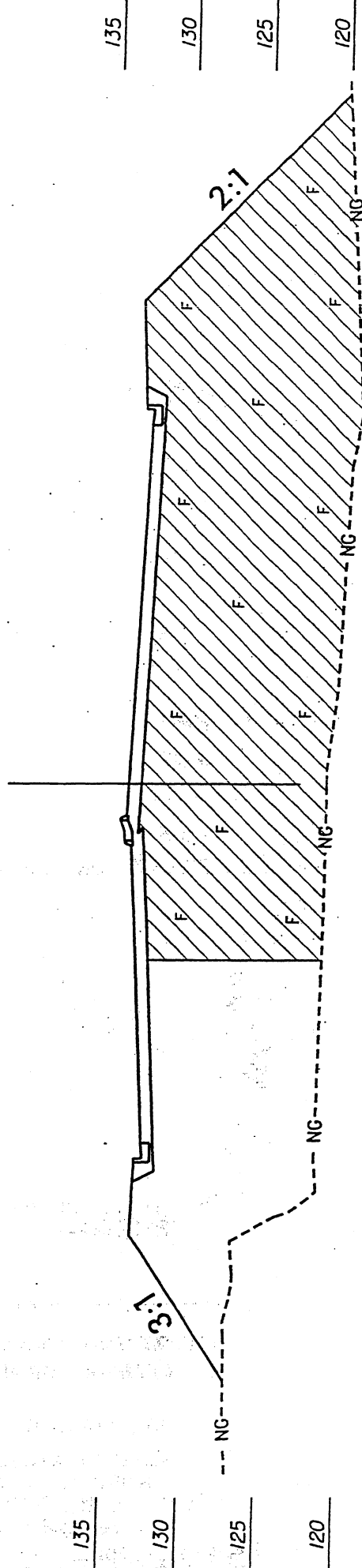
- DENOTES MECHANIZED CLEARING
- DENOTES FILL IN WETLANDS
- DENOTES FILL IN SURFACE WATERS

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)
 SHEET 5 OF 21 01/21/03

REVISED 4/15/04

37+00 -L-



SITE 1
SECTION A-A



DENOTES FILL IN
WETLANDS



N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

CUMBERLAND COUNTY

PROJECT: 81442601 (U-0620)
HOPE MILLS BYPASS
FROM SR 1141 (BINGHAM DRIVE)
TO SR 1363 (ELK ROAD)

SHEET ___ OF ___ 03/08/02

REVISED 4/15/04

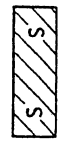
N.C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 CUMBERLAND COUNTY
 PROJECT: 8.1442601 (U-0620)
 HOPE MILLS BYPASS
 FROM SR 1141 (BINGHAM DRIVE)
 TO SR 1363 (ELK ROAD)

SHEET 7 OF 11 01/21/03
 REVISED 2/3/04

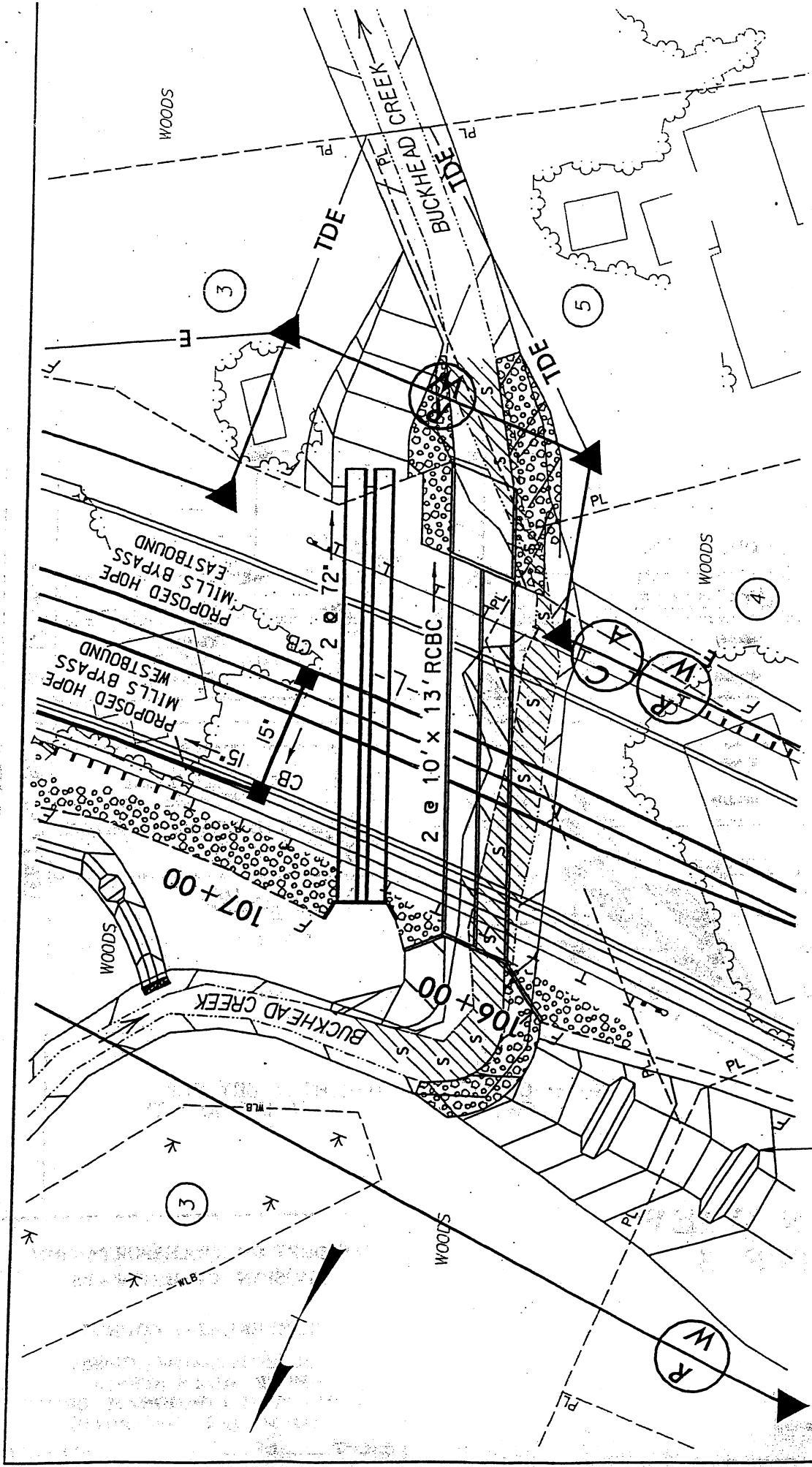
PLAN VIEW SITE 2

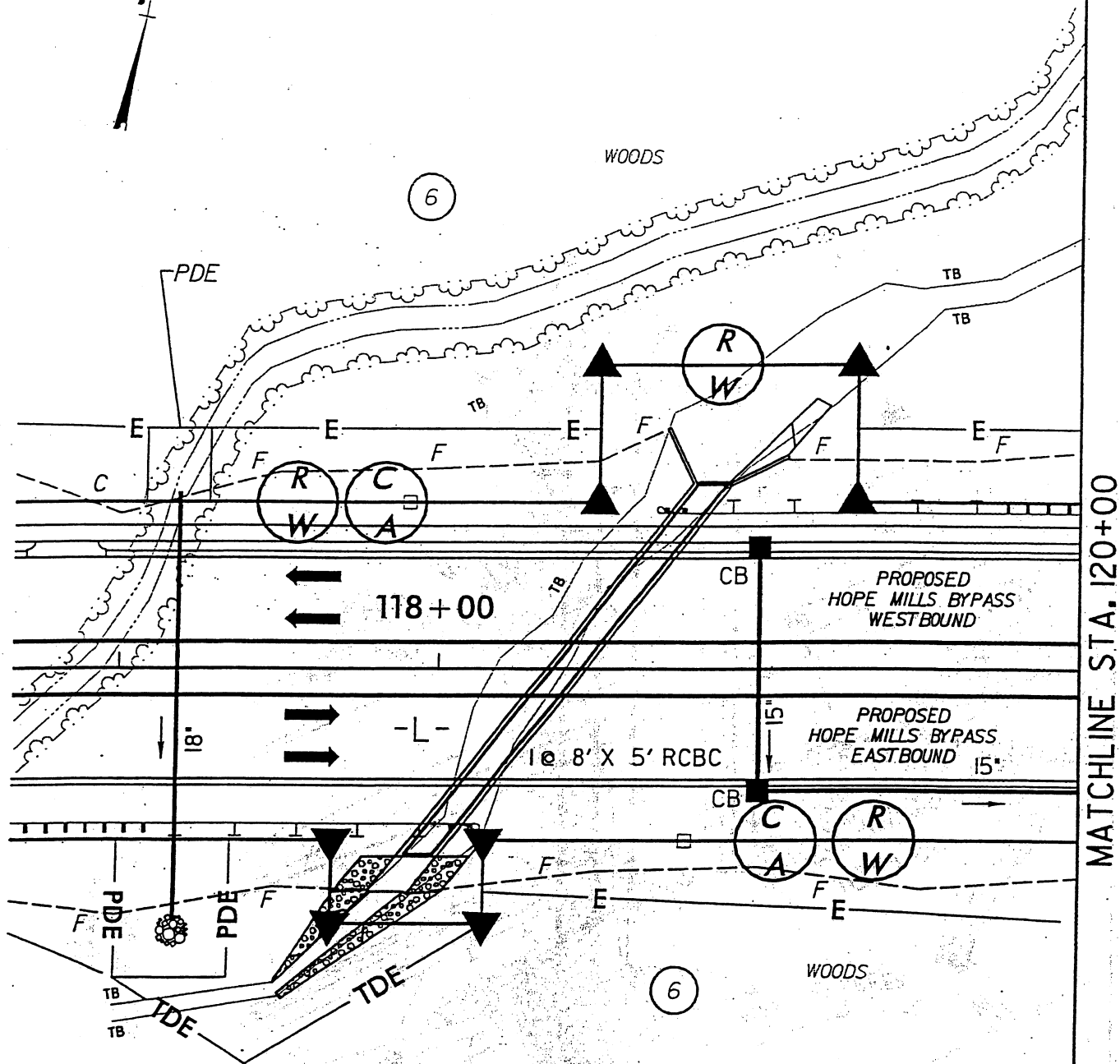


DENOTES FILL IN
 SURFACE WATERS



PERMANENT CHECK
 DAMS (TYP.)

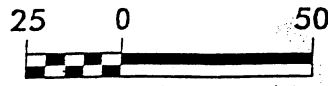




MATCHLINE STA. 120+00

NOTE: CHANNEL IS CURRENTLY DRY DUE DIVERSION AT -L- STA 122+50 (LT)

**PLAN VIEW
SITE 3**



N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

CUMBERLAND COUNTY

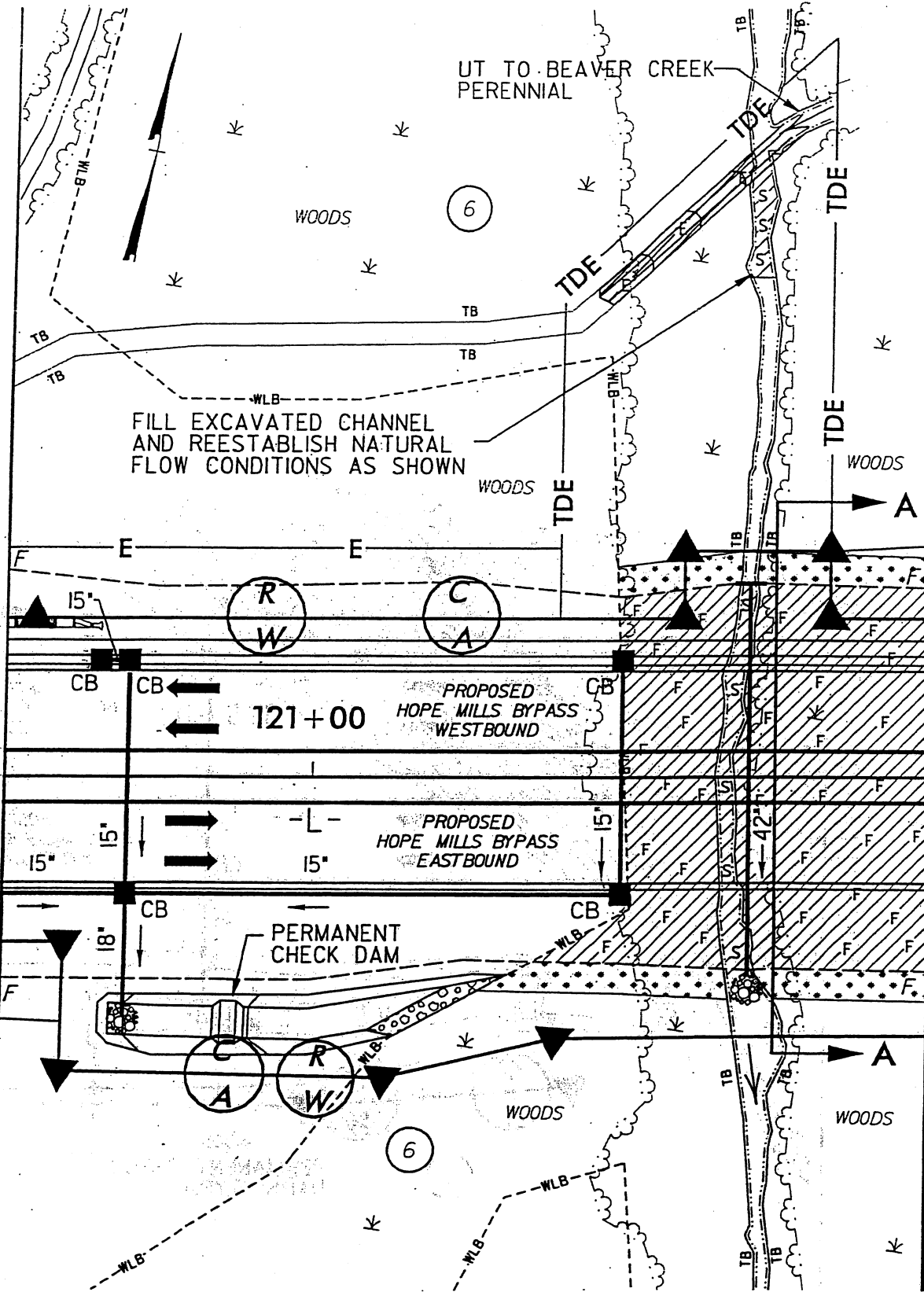
PROJECT: 8.1442601 (U-0620)
HOPE MILLS BYPASS
FROM SR 1141 (BINGHAM DRIVE)
TO SR 1363 (ELK ROAD)

SHEET 5 OF 27 01/21/03

REVISED 2/3/04

MATCHLINE STA. 120+00

MATCHLINE STA. 123+00



**PLAN VIEW
SITE 3**

DENOTES MECHANIZED CLEARING



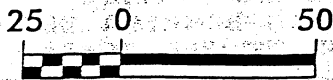
DENOTES EXCAVATION IN WETLANDS



DENOTES FILL IN WETLANDS



DENOTES FILL IN SURFACE WATERS



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)

SHEET ____ OF ____ 01/21/03

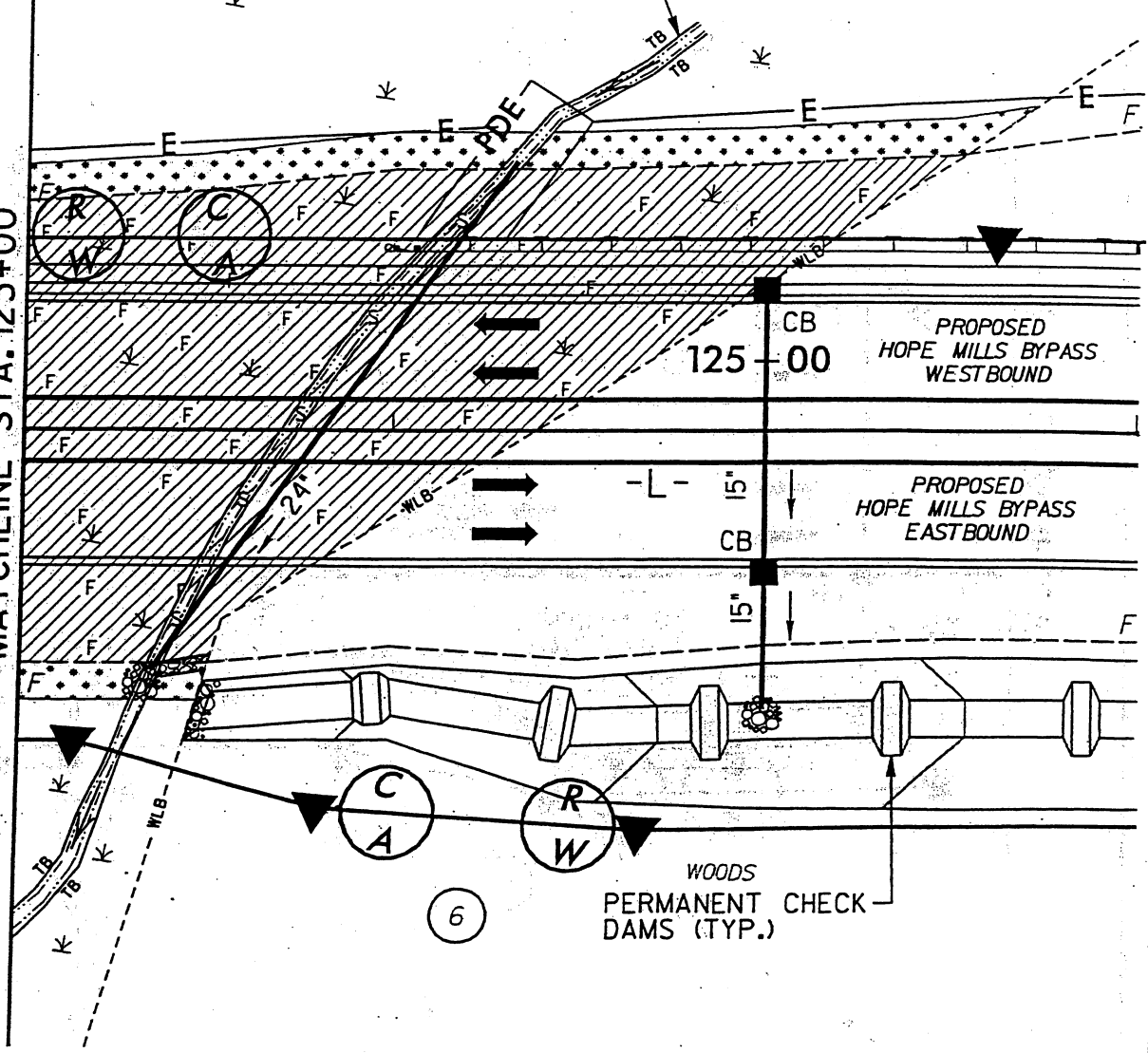
REVISED 2/3/04

MATCHLINE STA. 123+00

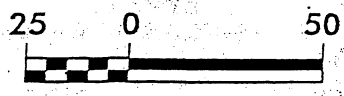
UT TO BEAVER CREEK PERENNIAL

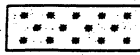
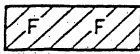
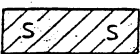
WOODS

6



PLAN VIEW SITE 3



- DENOTES MECHANIZED CLEARING 
- DENOTES FILL IN WETLANDS 
- DENOTES FILL IN SURFACE WATERS 

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)

SHEET OF 01 / 21 / 03

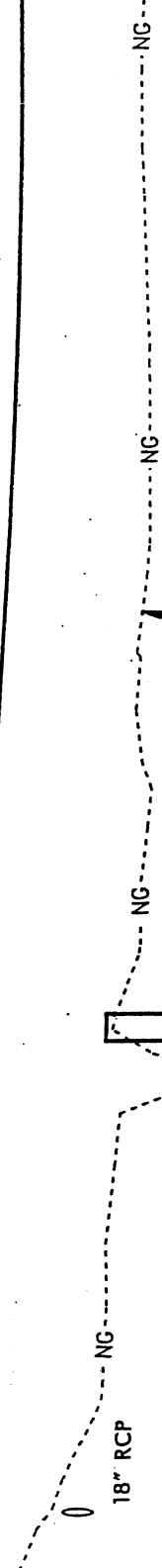
REVISED 2/3/04

140
130
120
110

MATCHLINE STA. 121+50

L- PROFILE GRADE LINE

EXISTING GROUND LINE



117+00 118+00 119+00 120+00 121+00

PROFILE SITE 3



N.C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 CUMBERLAND COUNTY
 PROJECT: 81442601 (U-0620)
 HOPE MILLS BYPASS
 FROM SR 1141 (BINGHAM DRIVE)
 TO SR 1363 (ELK ROAD)
 SHEET OF 11 01/21/03

MATCHLINE STA. 121+50

140

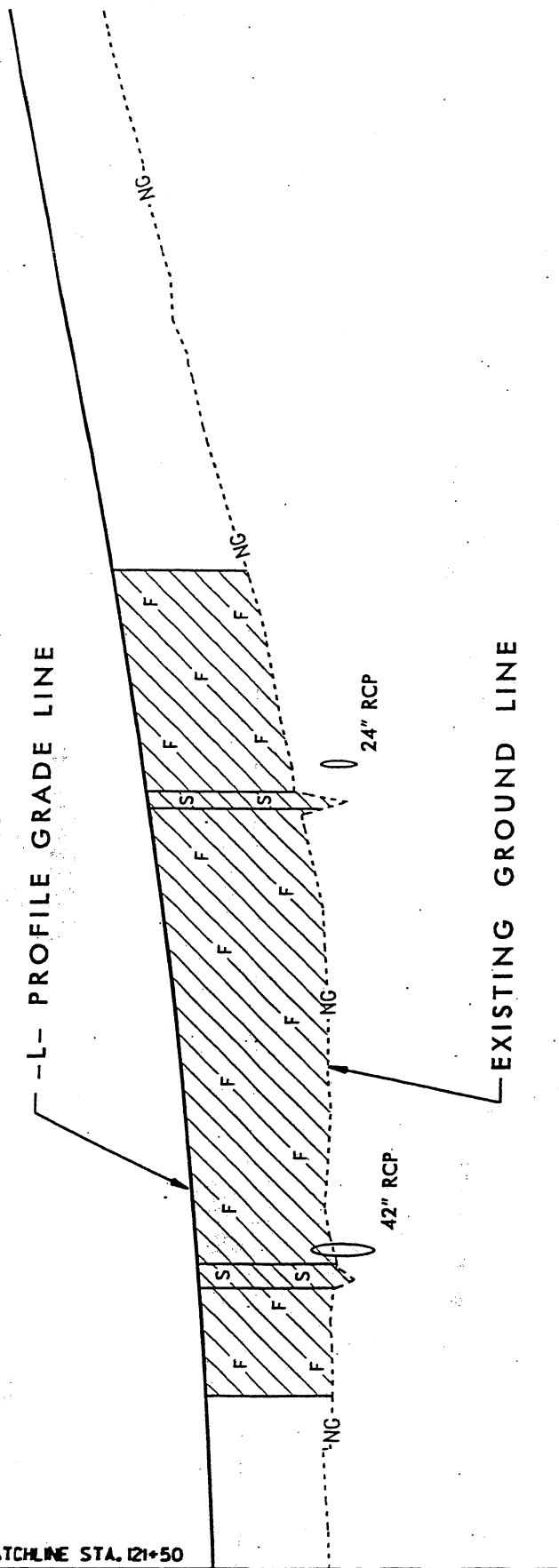
130

120

110

-L- PROFILE GRADE LINE

EXISTING GROUND LINE



140

130

120

110

122+00

123+00

124+00

125+00

126+00

PROFILE SITE 3



DNOTES FILL IN WETLANDS



DNOTES FILL IN SURFACE WATERS



N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

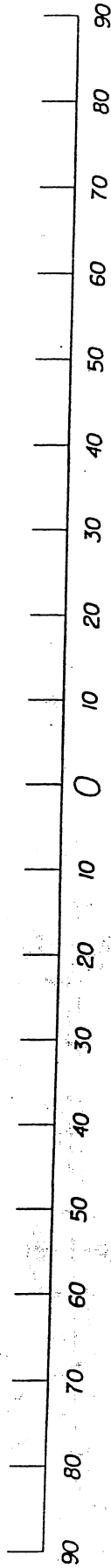
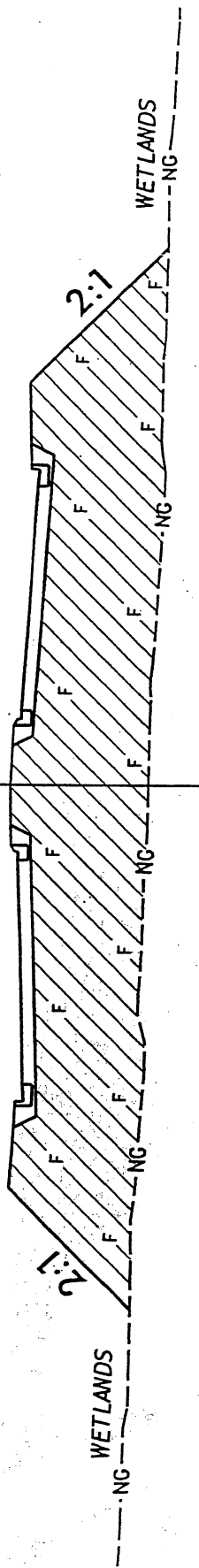
CUMBERLAND COUNTY
PROJECT: 8.1442601 (U-0620)
HOPE MILLS BYPASS
FROM SR 1141 (BINGHAM DRIVE)
TO SR 1363 (ELK ROAD)

SHEET 01 OF 21

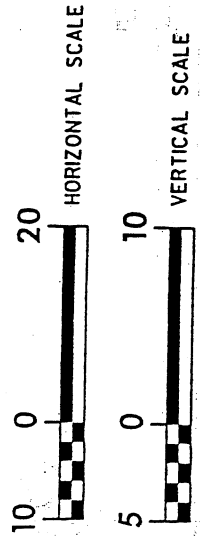
122+50 -L-

135
130
125
120

135
130
125
120



SITE 3
SECTION A-A



DENOTES FILL IN
WETLANDS

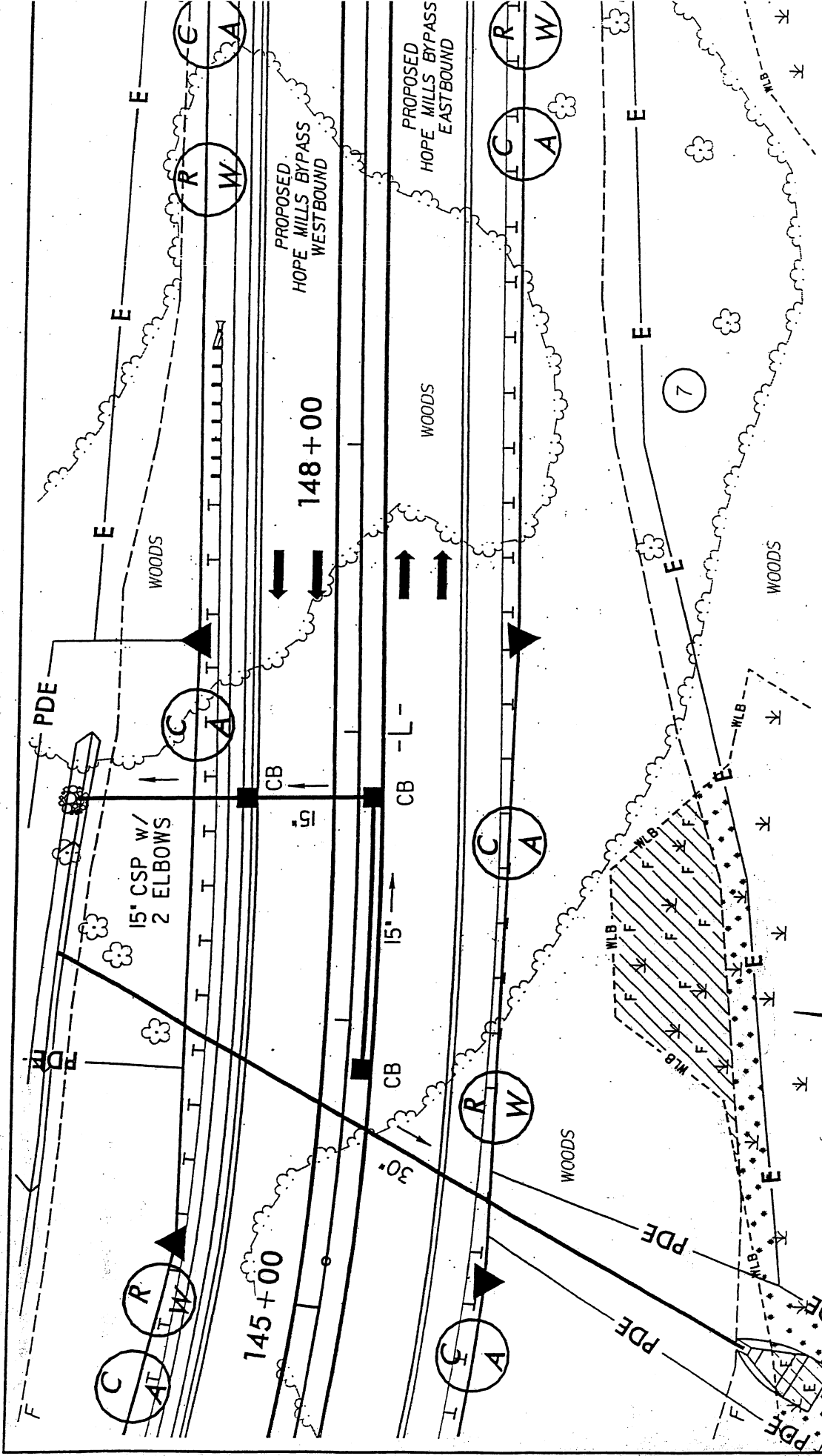


N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS




CUMBERLAND COUNTY

PROJECT: 8.1442601 (U-0620)
HOPE MILLS BYPASS
FROM SR 1141 (BINGHAM DRIVE)
TO SR 1563 (BLK ROAD)

SHEET 1 OF 1 01/21/03

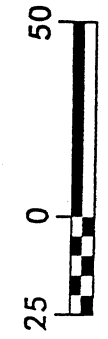


N.C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 CUMBERLAND COUNTY
 PROJECT: 8.1442601 (U-0620)
 HOPE MILLS BYPASS
 FROM SR 1141 (BINGHAM DRIVE)
 TO SR 1363 (ELK ROAD)
 SHEET 11 OF 27

-  DENOTES MECHANIZED CLEARING
-  DENOTES FILL IN WETLANDS
-  DENOTES EXCAVATION IN WETLANDS

PLAN VIEW SITE 4

ENERGY DISSIPATOR
 O10=16.2CFS
 V10=1.63FPS



N.C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS

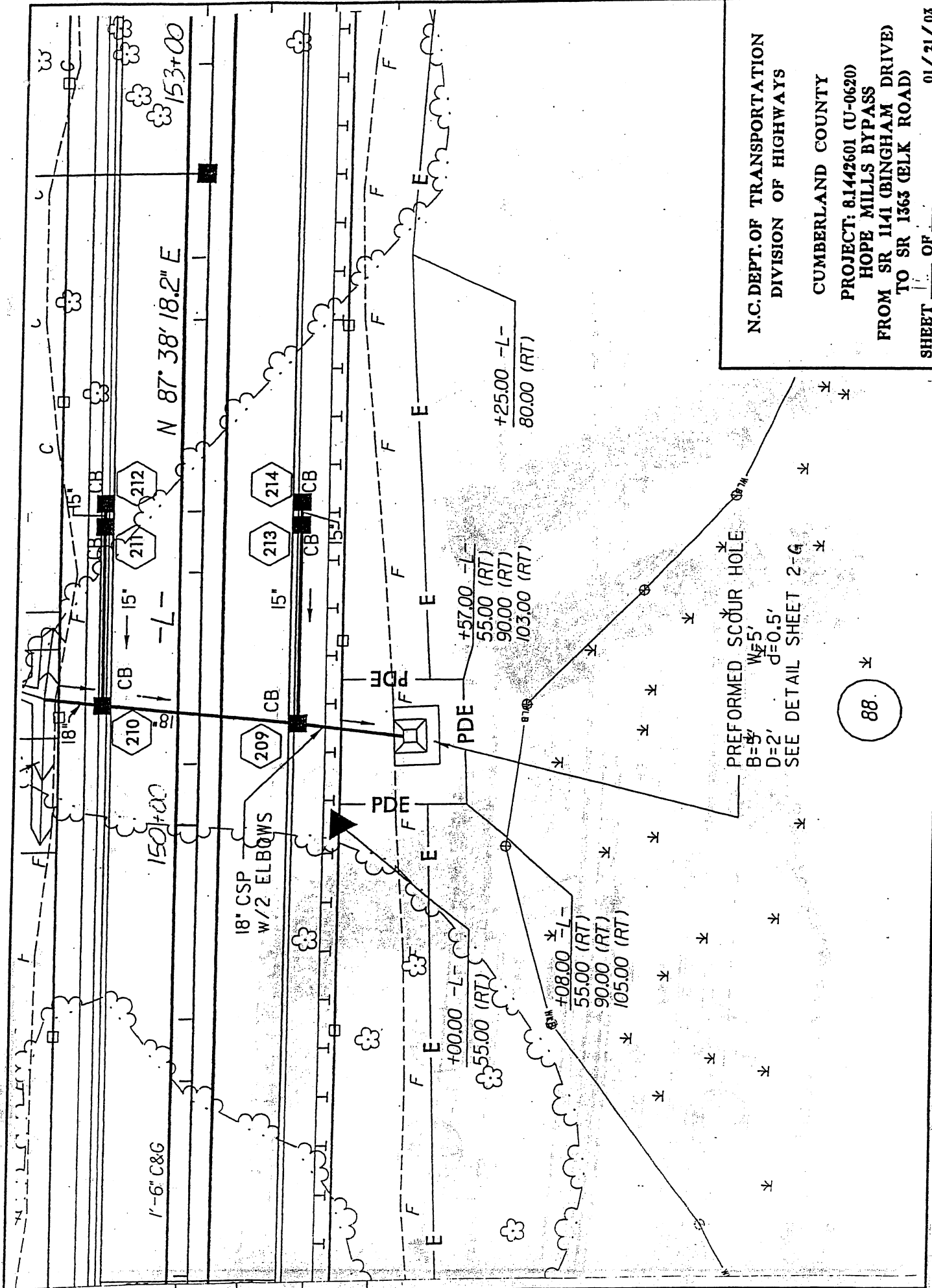
CUMBERLAND COUNTY

PROJECT: 8.1442601 (U-0620)

HOPE MILLS BYPASS

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

SHEET OF 01/21/03



PREFORMED SCOUR HOLE
 $B = \frac{W}{5}$
 $D = 2'$
 $d = 0.5'$
 SEE DETAIL SHEET 2-G

88

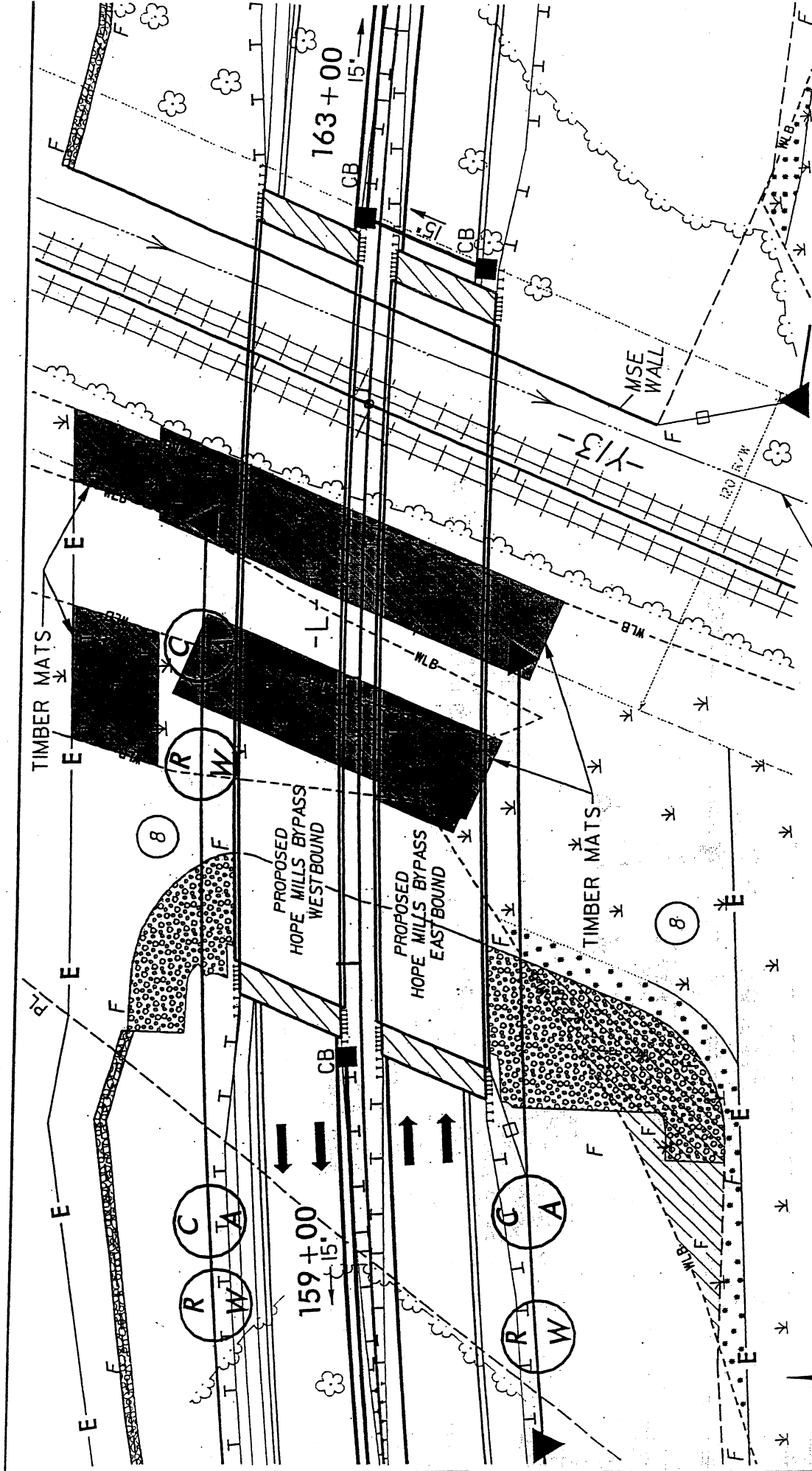
N.C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS

CUMBERLAND COUNTY

PROJECT: 8.1442601 (U-0620)
 HOPE MILLS BYPASS
 FROM SR 1141 (BINGHAM DRIVE)
 TO SR 1363 (ELK ROAD)

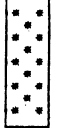


SHEET 16 OF 17 09/08/03

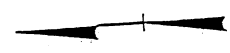
REVISED 4/15/04

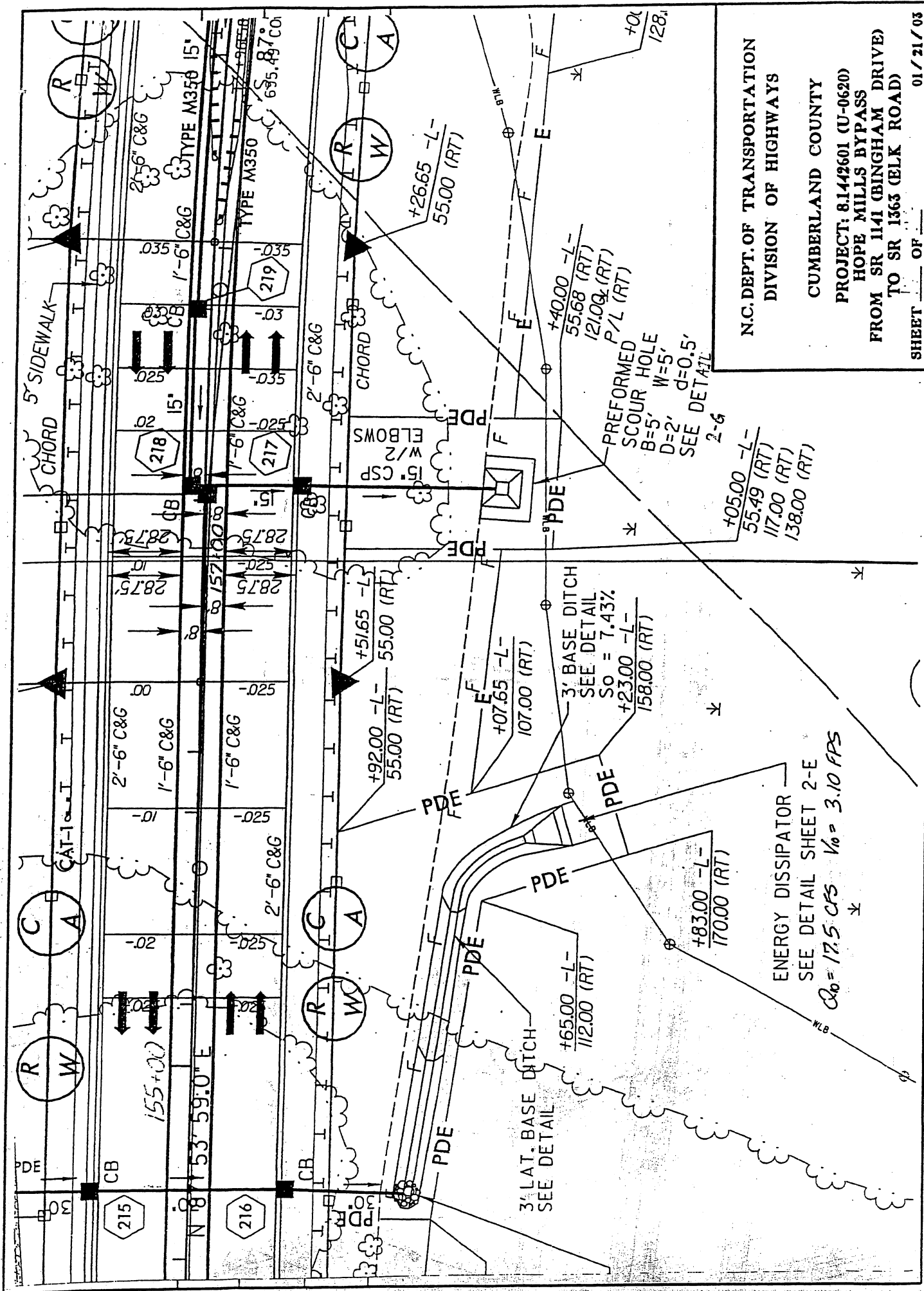


UT TO LITTLE
 ROCKFISH CREEK

PLAN VIEW
 SITE 5

-  DENOTES MECHANIZED CLEARING
-  DENOTES FILL IN WETLANDS
-  DENOTES TEMPORARY FILL IN WETLANDS





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 (BLK ROAD)

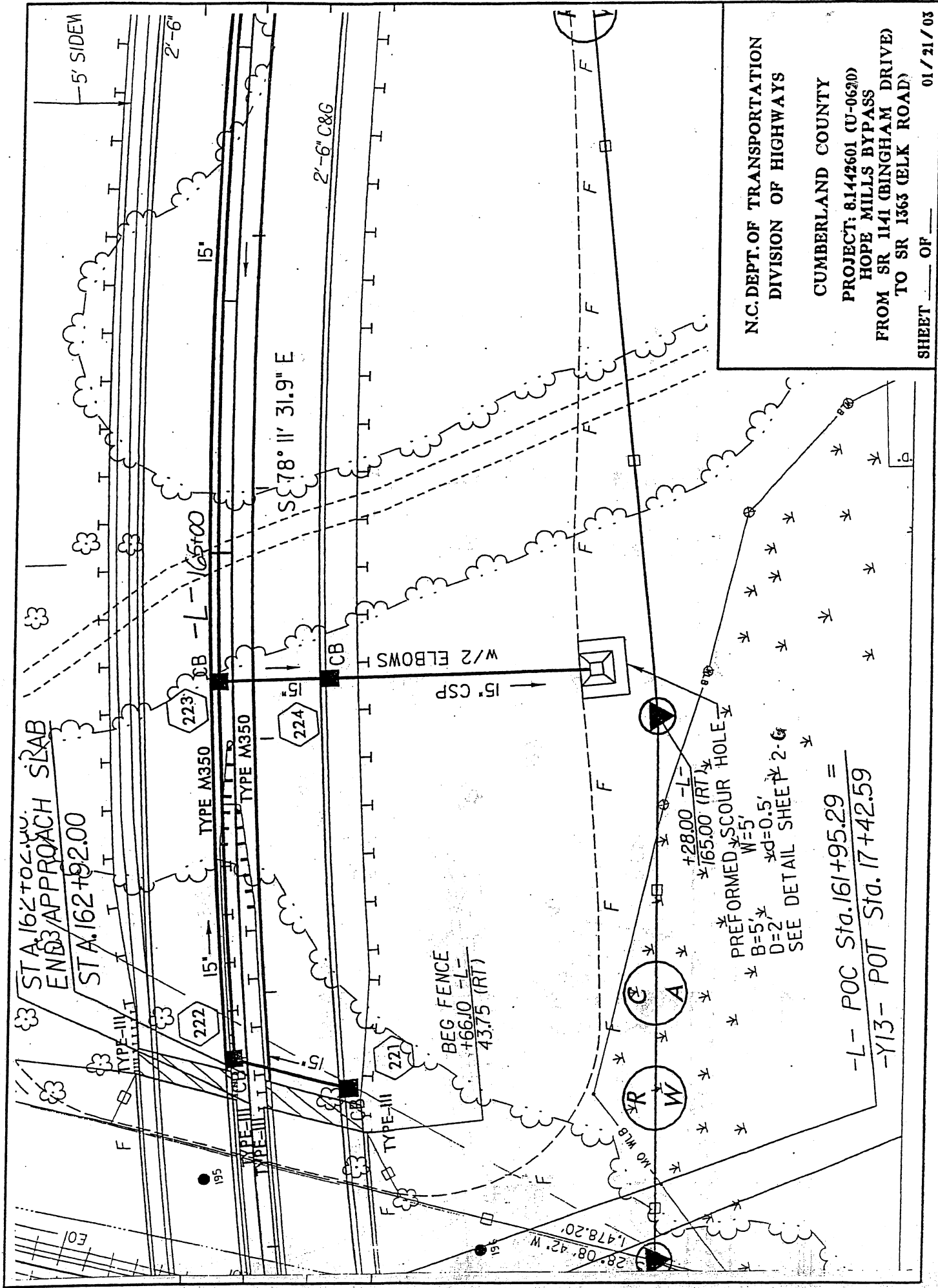
SHEET _____ OF _____ 01 / 21 / 03

N.C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS

CUMBERLAND COUNTY

PROJECT: 8.1442601 (U-06280)
 HOPE MILLS BYPASS
 FROM SR 1141 (BINGHAM DRIVE)
 TO SR 1363 (ELK ROAD)

SHEET ___ OF ___ 01 / 21 / 03



STA. 162+00 TO STA. 162+92.00
 END OF APPROACH SLAB

TYPE M350

TYPE M350

BEG FENCE
 $+66.10 -L-$
 $43.75 (RT)$

PREFORMED SCOUR HOLE
 $+28.00 -L-$
 $+165.00 (RT)$
 $W=5'$
 $D=2'$
 $d=0.5'$
 SEE DETAIL SHEET 2-G

$-L-$ POC Sta. 161+95.29 =
 $-Y13-$ POT Sta. 17+42.59

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

CUMBERLAND COUNTY

PROJECT: 8.1442601 (U-0620)

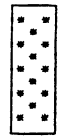
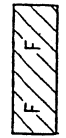


HOPE MILLS BYPASS

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

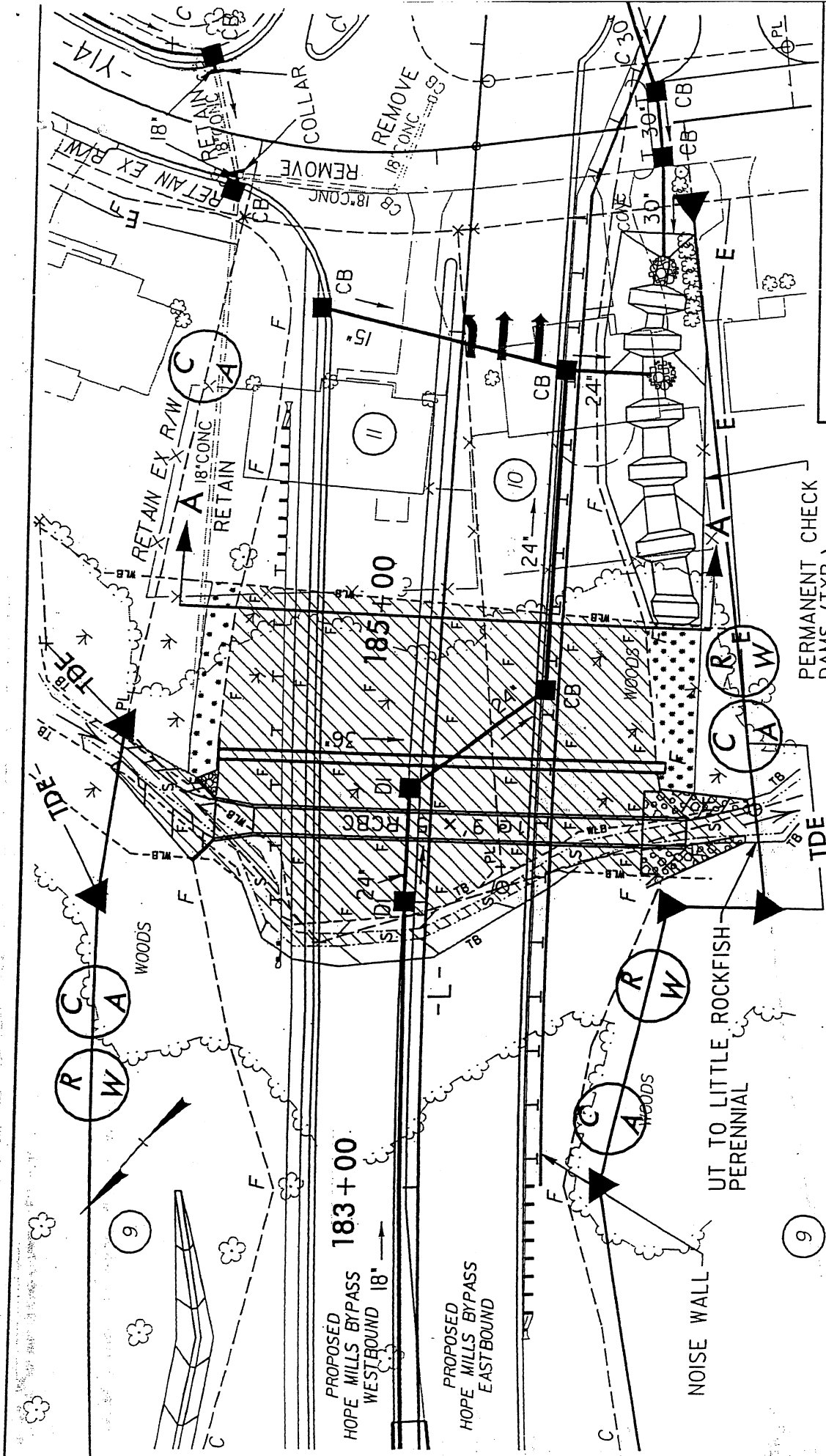
SHEET ___ OF ___

01/21/03

REVISED 4/15/04

-  DENOTES MECHANIZED CLEARING
-  DENOTES FILL IN WETLANDS
-  DENOTES FILL IN SURFACE WATERS
-  PERMANENT CHECK DAMS (TYP.)

PLAN VIEW SITE 6



PERMANENT CHECK DAMS (TYP.)

UT TO LITTLE ROCKFISH PERENNIAL

160

--L-- PROFILE GRADE LINE

150

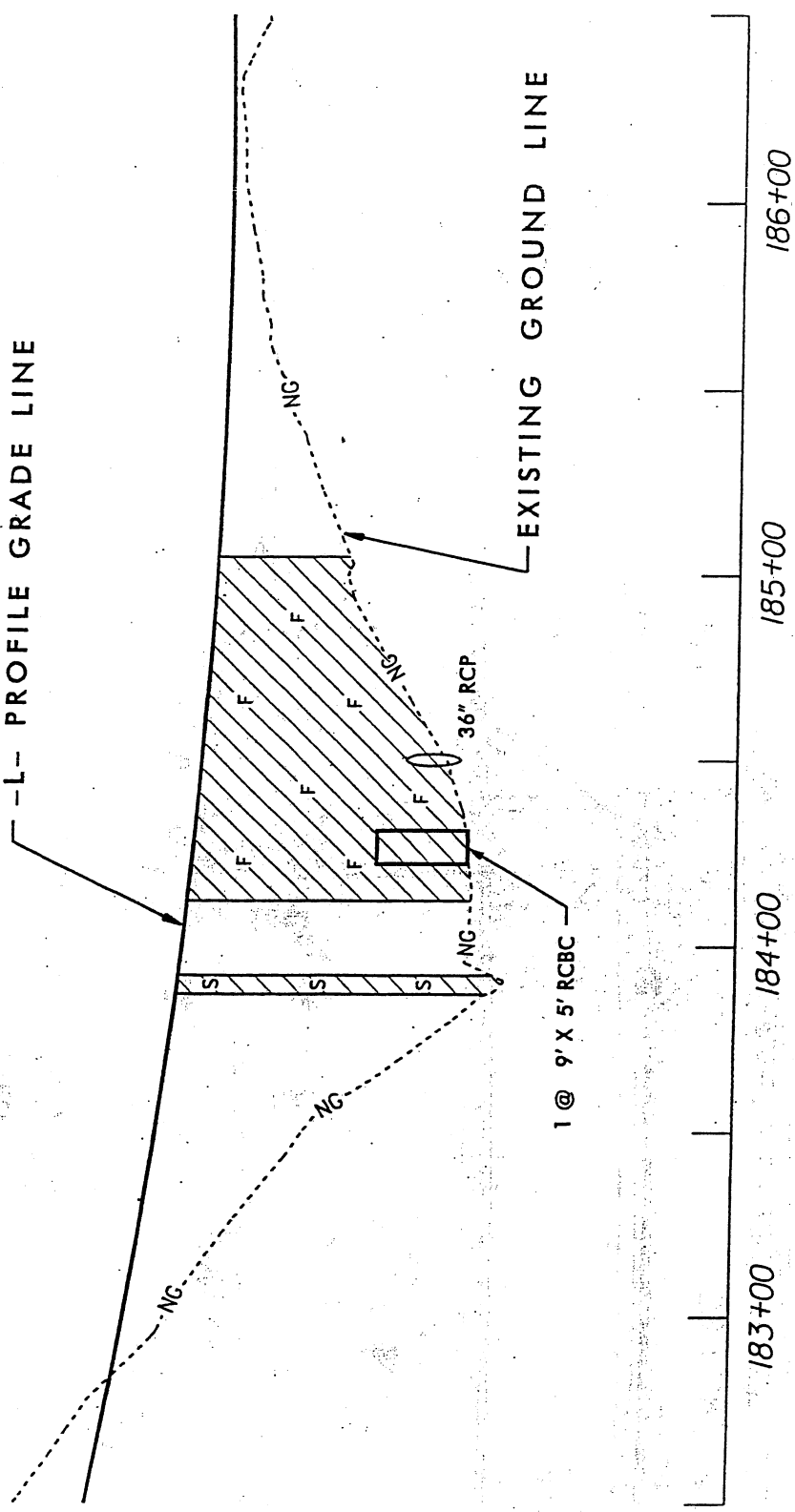
150

140

140

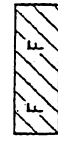
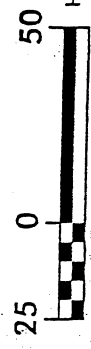
130

130



183+00 184+00 185+00 186+00

PROFILE SITE 6



DENOTES FILL IN
WETLANDS



DENOTES FILL IN
SURFACE WATERS

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

CUMBERLAND COUNTY

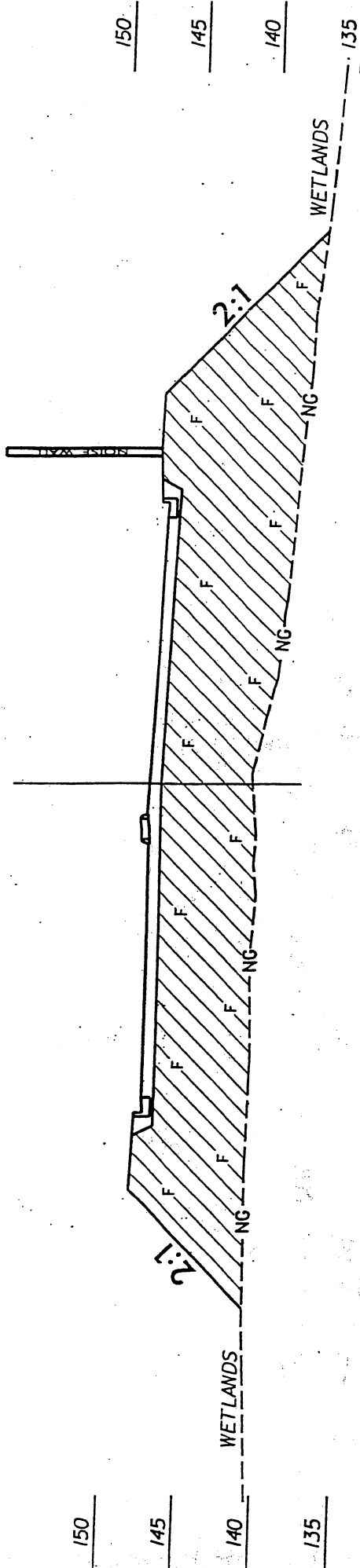
PROJECT: 8.1442601 (U-0620)

HOPE MILLS BYPASS

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

SHEET ___ OF ___ 01/21/05

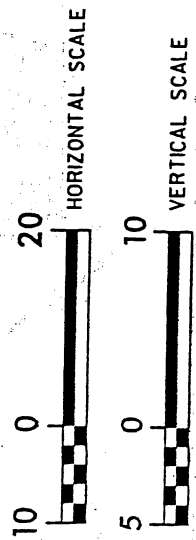
185+00 -L-



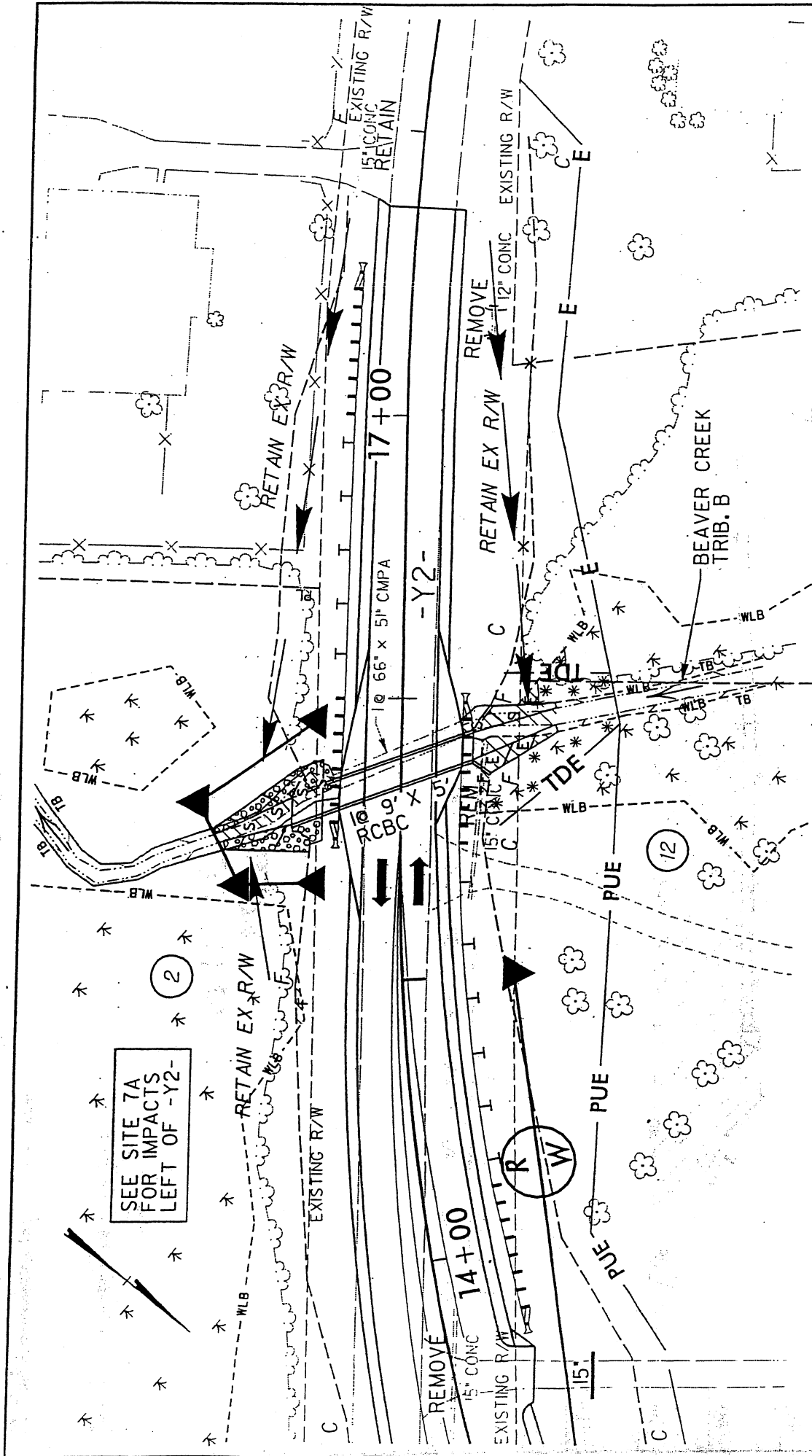
SITE 6
SECTION A-A

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
CUMBERLAND COUNTY
PROJECT: 81442601 (U-0620)
HOPE MILLS BYPASS
FROM SR 1141 (BINGHAM DRIVE)
TO SR 1363 (ELK ROAD)

SHEET ___ OF ___ 01/21/03
REVISED 2/3/04



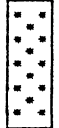
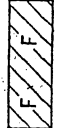


DENOTES FILL IN
WETLANDS



SEE SITE 7A
FOR IMPACTS
LEFT OF -Y2-

PLAN VIEW SITE 7



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

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS



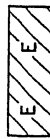
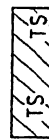
CUMBERLAND COUNTY

PROJECT: 8.1442601 (U-0620)
HOPE MILLS BYPASS
FROM SR 1141 (BINGHAM DRIVE)
TO SR 1363 (ELK ROAD)

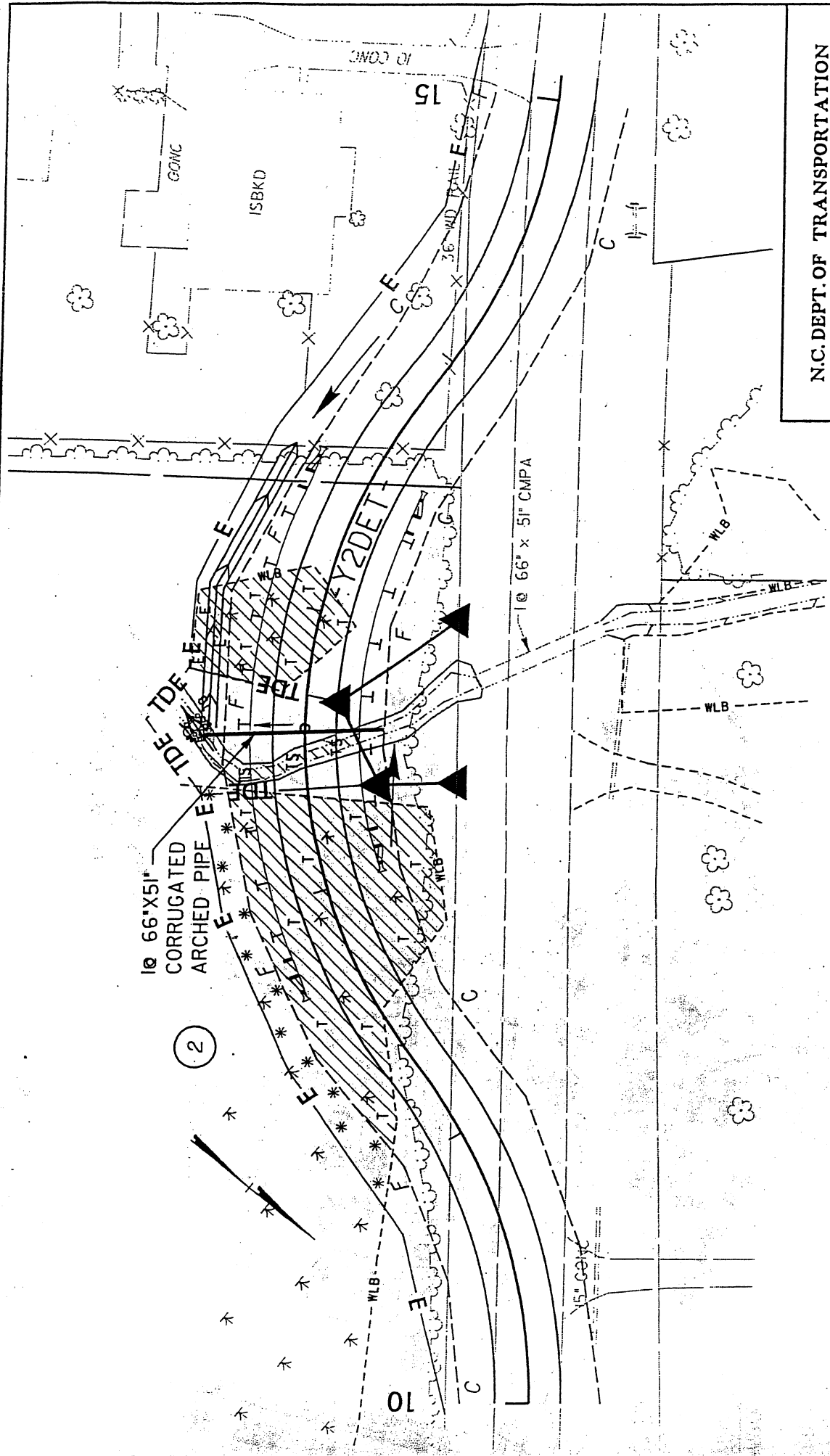
SHEET ___ OF ___ 01/21/03

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)

SHEET 12 OF 13
 01/21/03
 REVISED 4/15/04

-  DENOTES MECHANIZED CLEARING
-  DENOTES TEMP. FILL IN WETLANDS
-  DENOTES EXCAVATION IN WETLANDS
-  DENOTES TEMP. FILL IN SURFACE WATERS

PLAN VIEW
 SITE 7A



10 66"X51"
 CORRUGATED
 ARCHED PIPE

2

10 66" x 51" CMPA

GOMC

ISBKD

10 COMC

15

10

WLB

WLB

WLB

WLB

WLB

WLB

WLB

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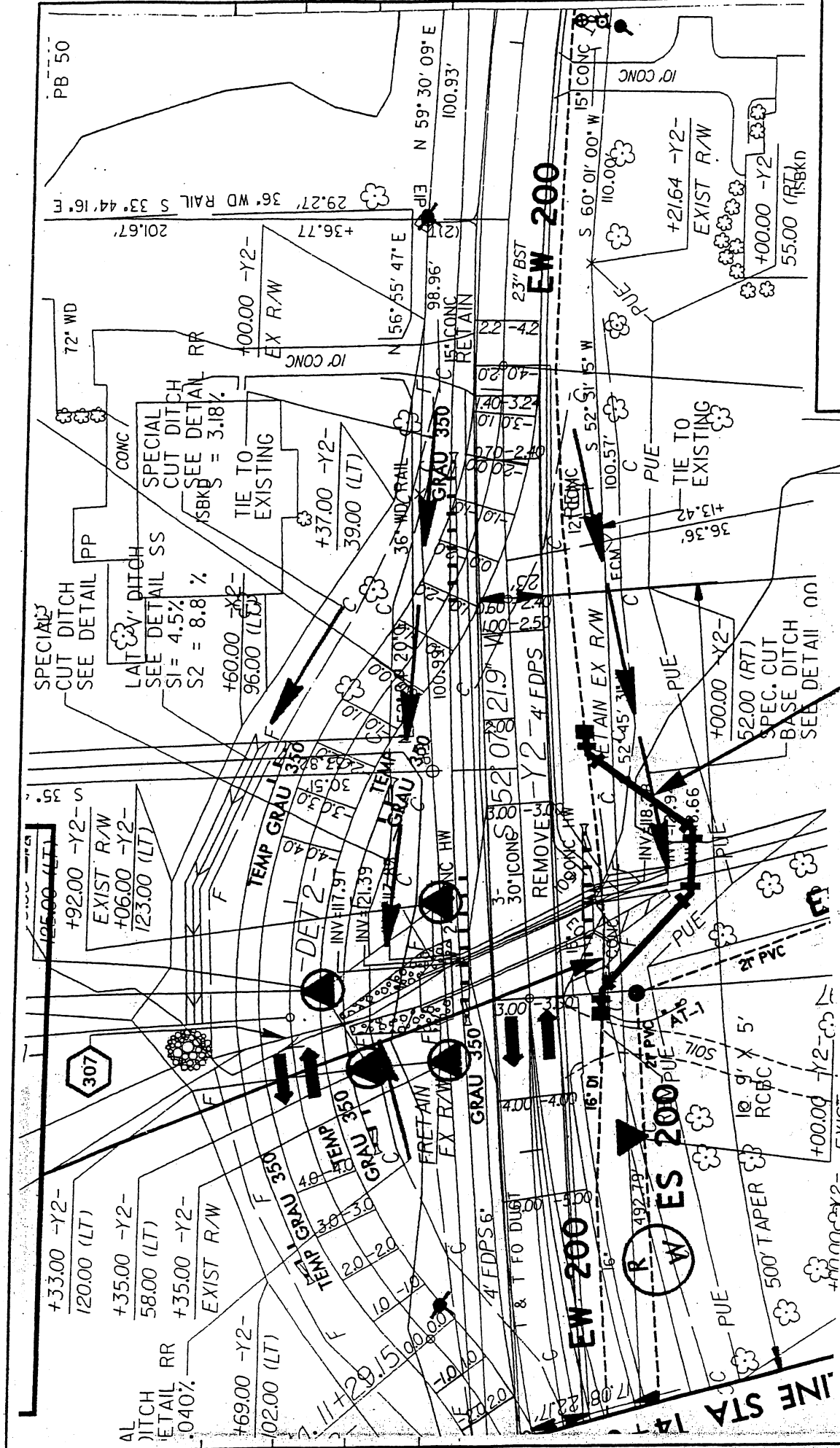
WLB

N.C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS

CUMBERLAND COUNTY

PROJECT: 81442601 (U-0620)
 HOPE MILLS BYPASS
 FROM SR 1141 (BINGHAM DRIVE)
 TO SR 1363 (ELK ROAD)

SHEET 1 OF 2 01/21/03



POSSIBLE WATER LINE
 REALIGNMENT
 SITE 7



PROJECT COMMITMENTS

Hope Mills Bypass from SR 1141 (Bingham Drive) to SR 1132 (Legion Road)
Cumberland County
State Project No. 8.2623601
U-620

Current status, changes, or additions to the project commitments as shown in the environmental document for the project are printed in italics.

COMMITMENTS DEVELOPED THROUGH PROJECT DEVELOPMENT AND DESIGN

Standard Operating Procedures

Precautions will be taken to minimize impacts to water resources in the study area. NCDOT's Best Management Practices for Protection of Surface Waters will be strictly enforced during the construction stage of the project.

NCDOT's Stream Crossing Guidelines for Anadromous Fish Passage will apply to all stream crossings within the project area.

Hydraulics Unit and Project Development and Environmental Analysis Branch (PDEA)

The NCDOT Hydraulics Unit will coordinate with the Federal Emergency Management Agency (FEMA) and local authorities during final design to process the floodway revisions and ensure compliance with applicable floodplain ordinances. Floodway revisions are anticipated to be needed for the crossing of Beaver Creek, Beaver Creek tributary B, and Buckhead Creek.

Floodway revisions will be required for Buckhead Creek. In-kind replacement is being pursued for Beaver Creek and Beaver Creek Tributary B. The NCDOT Hydraulics Unit will coordinate with FEMA before construction.

Roadway Design Unit

Efforts will be made during design to further reduce impacts to a wetland area near the CSX Railroad on Alternate 1. These minimization efforts will be coordinated with resource agencies early in the preliminary design process.

Wetlands in the vicinity of the CSX Railroad will be spanned with the proposed new bridge. This will minimize the impacts to these wetlands. The alignment was also adjusted to minimize impacts to these wetlands.

AASHTO guideline 14-foot wide outside lanes will be constructed on George Owen Road and 4-foot paved shoulders will be provided on the new location portion of the project for bicycle accommodations.

Curb and gutter will be provided on the new location portion of the project to provide sidewalks. Due to the need for curb and gutter, 14-foot wide outside lanes will be provided on the new location portion of the project for bicycle accommodations.

Sidewalks will be constructed on the south side of the proposed project for the entire length.

PDEA

The NCDENR, Division of Parks and Recreation recommended mitigation consisting of protecting a nearby tract of wet pine flatwoods. No wet pine flatwoods have been identified in the project area however, this will be evaluated in more detail during the design phase.

No wet pine flatwoods have been identified in the project area.

NCDOT committed to providing mitigation for unavoidable wetland impacts. This mitigation will be developed in coordination with resource agencies during the preliminary process.

This project is located in a WRP Basin therefore; NCDOT is prohibited to search for mitigation for this project. Mitigation will be handled through the WRP.

Design Services

Noise walls will be constructed at the Pinewoods Lakes subdivision from just west of Pinewood Drive to southeast of the cul-de-sac at Pinewood Drive.

PDEA, Roadway Design, Hydraulics Unit

WRC recommends installing a level spreader into wetland areas to aid in filtering stormwater runoff. Project Development along with Roadway Design will work with the Hydraulics Unit to develop stormwater drainage plans. A series of alternates for handling runoff will be developed for the proposed project. Drainage Plans will be forwarded to resource agencies once they are completed.

A drainage plan was completed in April 2001. This plan included a level spreader along with a ditch detail for ditches that end in the vicinity of wetlands. This plan was forwarded to resource agencies for their comments.

Geotechnical Unit

The Hope Mills Bypass will impact four facilities with underground storage tanks (UST's). These facilities could not be avoided, therefore, "Preliminary Site Assessments" will be performed prior to right of way acquisition to determine the existence and/or extent of any contamination.

Per the Geotechnical Unit, a "Preliminary Site Assessment" will begin in December 2001. Right of way will not be acquired in the vicinity of the four facilities being impacted prior to approval from the Geotechnical Unit.

Area Traffic Engineer

The Area traffic engineer will determine if intermediate installation of a left turn lane and turn signal is warranted at the Cumberland Road/George Owen Road intersection.

An intermediate signal will be installed at the Cumberland Road/George Owen Road intersection. A permanent signal will be installed once construction begins on this portion of the project.

COMMITMENTS DEVELOPED THROUGH PERMITTING

Division 6

The outside wetland and water boundary located within the construction corridor approved by the Water Quality Certification (WQC) shall be clearly marked by orange fabric fencing prior to any land disturbing activities. Impacts to those areas are prohibited unless otherwise authorized by the WQC.

Division 6, Roadside Environmental Unit (REU)

The removal of vegetation in riparian areas should be minimized. NCDOT is encouraged to use existing on-site vegetation and materials for stream bank stabilization and to minimize the use of rip rap. Rip rap shall not be placed in the stream bottom.

Riparian vegetation, using native trees and shrubs, must be re-established within the construction limits of the project by the end of the growing season following completion of construction to reestablish the riparian zone and to provide long-term erosion control.

Division 6

The temporary work pads at L-station 161+00, Site 5 and the temporary detour fill at Y2DET 12+50, Site 7A, shall be placed on filter cloth and shall be removed in its entirety upon completion of construction at the site. Removal of the fill and stabilization of the disturbed substrate area shall be accomplished within 30 calendar days following completion of construction at the site. A restoration plan shall be submitted to the Corps of Engineers, Wilmington Regulatory Field Office NCDOT Regulatory Project Manager for review and approval 30 calendar days prior to the start of fill removal.

PDEA

Compensatory mitigation for the unavoidable impacts to 2.3 acres of wetland and 1,215 linear feet of perennial stream associated with the proposed project shall be provided by the Ecosystem Enhancement Program (EEP), as outlined in the letters dated March 3, 2004 and May 20, 2004 from William D. Gilmore, EEP Transition Manager. The EEP will provide 23.5 acres of preservation of riverine wetlands and 12,150 linear feet of preservation of warm water stream channel in the Southern Inner Coastal Eco-Region at the Great Coharie Site in Sampson County that has been acquired and protected by the EEP. Pursuant to the EEP Memorandum of Agreement (MOA) between the State of North Carolina and the US Army Corps of Engineers signed on July 22, 2003, the EEP will provide a minimum of 2.3 acres of restoration of riverine wetlands and 1,215 linear feet of restoration of warm water stream channel in the Cape Fear River basin (Hydrologic Cataloging Unit 03030004 by July 22, 2005 and half of the proposed preservation mitigation would be available at that time for mitigation for other project impacts. Construction within wetlands on the permitted highway project shall begin only after the EEP has provided written confirmation to the District Engineer that the EEP and not the NCDOT is responsible for providing the required mitigation, pursuant to Paragraph VI.B.7 of the MOA. The NCDOT shall, within 30 days of the issue date of this permit, certify that sufficient funds have been provided to EEP to complete the required mitigation, pursuant to Paragraph V. of the MOA.