



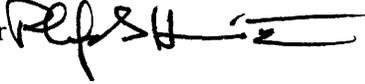
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

January 27, 2005

MEMORANDUM TO: Mr. C. E. Lassiter, Jr., P.E.
Division 2 Engineer

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

SUBJECT: Pamlico County; Widening of NC 55 from East of SR 1129
(Bennett-Tingle Road) to NC 304 in Bayboro; Federal Aid
Project No. STP-55(1); State Project No. 8.1170901; T.I.P. No.
R-2539 C

Attached is the U. S. Army Corps of Engineers Individual 404 permit and the DWQ 401 Water Quality Certification. All environmental permits have been received for the construction of this project.

PSH/gyb

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. John F. Sullivan, III, FHWA
Mr. Omar Sultan
Mr. Jay Johnson, Division 2 Environmental Officer

TIP Project No. R-2539 C

Widening of NC 55 From East of SR 1129 (Bennett-Tingle Road) to NC 304 in Bayboro in Pamlico County Federal Aid Project No. STP-55(1) State Project No. 8.1170901

In addition to the standard Section 404 Individual Permit General Conditions, Section 401 Major Water Quality Certification Conditions, and Coastal Resources Commission (CAMA) Permit general conditions, the following special commitments have been agreed to by NCDOT.

COMMITMENTS DEVELOPED THROUGH PROJECT DEVELOPMENT AND DESIGN

All standard procedures and measures, including Best Management Practices for the Protection of Surface Waters and Sedimentation, will be implemented to avoid or minimize environmental impacts.

Hydraulics Unit, Division 2 Construction

NCDOT's Best Management Practices include designing culverts to maintain the existing water surface conditions during normal flow periods. The culvert alignments and inverts will be designed to prevent interruptions to the natural stream flow. To ensure that the project will not impede fish migration, NCDOT will follow the draft design guidelines entitled "Stream Crossing Guidelines for Anadromous Fish Passage." As discussed in these guidelines, instream activities will be minimized during the spring migrating period of March, April, and May. Where spanning structures are not practicable, NCDOT will incorporate these guidelines into the culvert design. *Culvert designs for the project have incorporated both Best Management Practices and Stream Crossing Guidelines. Minimization of instream activities during the spring migrating period will be incorporated into the construction plans for the project.*

COMMITMENTS DEVELOPED THROUGH PERMITTING

In addition to the commitments specified in the Greensheet developed for construction of Section A, dated 5/15/03, the following special commitments apply:

Division 2 Construction, REU

All protected riparian buffers impacted by the placement of fill or clearing activities shall be restored to the preconstruction contours and revegetated with native woody species upon completion of the project construction. A post-construction as-built with the restoration activities included shall be submitted to the DWQ no later than 60 days after the project is closed out by the DOT.

Sediment and erosion control devices shall not be placed in Zone 1 of any Neuse or Tar-Pamlico Buffer without prior approval by the NCDWQ. At this time, the NCDWQ has approved no sediment and erosion control devices in Zone 1, outside of the approved project impacts,

anywhere on this project. Sediment and erosion control devices shall be allowed in Zone 2 of the buffers provided that Zone 1 is not compromised and that discharge is released as diffuse flow.

All temporary fills in wetlands and surface waters shall be removed upon completion of the project. In addition, the post-construction removal of any temporary bridge structures or fill will need to return the project site to its preconstruction contours and elevations. The revegetation of the impacted areas with appropriate native species will be required.

Riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction

Division 2 Construction, Hydraulics Unit

Placement of culverts and other structures in waters, streams, and wetlands must be placed below the elevation of the streambed to allow low flow passage of water and aquatic life unless it can be shown to 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. *ONE has requested an exception to this condition from DWQ, since existing perched culverts were discussed at the Interagency Permit Drawing Review meeting in Feb. 2003.*

Culverts that are less than 48-inch in diameter should be buried to a depth equal to or greater than 20% of their size to allow for aquatic life passage. Culverts that are 48-inch in diameter or larger should be buried at least 12 inches below the stream bottom to allow natural stream bottom material to become established in the culvert following installation and to provide aquatic life passage during periods of low flow. These measurements must be based on natural thalweg depths. *ONE has requested an exception to this condition from DWQ, since existing perched culverts were discussed at the Interagency Permit Drawing Review meeting in Feb. 2003.*

Division 2 Construction

The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification.

O.N.E., Division 2 Construction

Mitigation for unavoidable impacts to Tar-Pamlico Riparian Buffers shall be provided through an in-lieu payment to the North Carolina Ecosystem Enhancement Program (NCEEP). No construction activities in Tar-Pamlico River Riparian buffers shall begin until payment for buffer mitigation is made and the Ecosystem Enhancement Program receives and clears your check. *O.N.E. will forward a copy of the quarterly payment check sent to EEP.*

Compensatory mitigation for the unavoidable impacts to 0.52 acres of non-riverine wetlands, 145.6 linear feet of stream within the Tar-Pamlico River Basin, and 4.38 acres of non-riverine wetlands within the Neuse River Basin associated with the proposed project shall be provided by the EEP. Within 30 days of the Section 404 permit issue date (which would be February 18, 2005), NCDOT shall certify that sufficient funds have been provided to EEP to complete the required mitigation. *O.N.E. will forward a copy of the quarterly payment check sent to EEP.*

PERMIT EXPIRATION DATES:

404 Permit expires on **December 31, 2006**

401 WQC expires upon expiration of 404 or CAMA

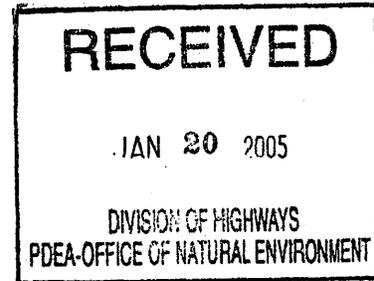
CAMA Major Development permit expires on **December 31, 2006**



REPLY TO
ATTENTION OF:

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

January 18, 2005



Regulatory Division

Action ID No. 199303531

Dr. Gregory J. Thorpe, Ph.D.
Environmental Management Director, PEDA
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Mr. Thorpe:

Reference the Department of the Army (DA) permit issued to you on May 9, 2003, and a modification to this permit issued on September 29, 2003, associated with the widening of approximately 14.2 miles of NC 55 from 0.7 miles east of US 17 in Bridgeton to NC 304 in Bayboro, Craven and Pamlico Counties, North Carolina (TIP R-2539, Federal Aid Project STP-55(1), State Project No. 8.1170901). Also reference your subsequent written request dated October 14, 2004, for a permit modification to:

1. Submit the attached final permit drawings and relevant information for R-2539 Section C. The final design revisions resulted in five sites differing from those submitted with the original permit application. These changes resulted in 4.90 additional non-riverine wetland impacts and 145.6 additional feet of stream impacts.

2. Mitigate for the additional wetland and stream impacts by utilizing the Ecosystem Enhancement Program to mitigate for 0.52 acres of non-riverine wetlands and 145.6 feet of stream located in Cataloging Unit 03020105 of the Tar-Pamlico River Basin and 4.38 acres of non-riverine wetlands located in Cataloging Unit 03020204 of the Neuse River Basin.

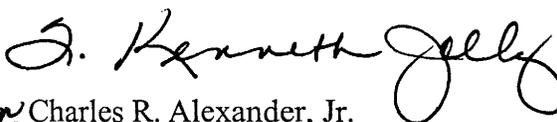
This modification request was coordinated with the North Carolina Division of Water Quality, and other appropriate State and Federal agencies. The coordination revealed no objections to this modification request. Therefore, the permit is hereby modified in accordance with the specific work activities described above and in the enclosed plans. It is understood that all conditions of the original permit remain applicable and that the expiration date is unchanged. In addition, the permittee will comply with the following special permit condition:

a. Compensatory mitigation for the unavoidable impacts within the Tar-Pamlico River Basin to 0.52 acres of non-riverine wetlands and 145.6 linear feet of stream associated with the proposed project shall be provided by the Ecosystem Enhancement Program (EEP). The EEP will provide 5.2 acres of preservation of non-riverine wetlands and 1,456 linear feet of stream preservation in the Southern Outer Coastal Plain Eco-Region at the Wallace Deer Club Tracts 1-5 in Pender 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 0.52 acres of restoration of non-riverine wetlands and 145.6 feet of stream restoration in the Tar-Pamlico River Basin (Hydrologic Cataloging Unit 03020105) by July 22, 2005, and half of the proposed preservation mitigation would be available at that time for mitigation for other project impacts. 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.

b. Compensatory mitigation for the remaining unavoidable impacts within the Neuse River Basin to 4.38 acres of non-riverine wetlands associated with the proposed project shall be provided by the Ecosystem Enhancement Program (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 8.76 acres of existing restoration equivalents of non-riverine wetlands, Neuse River Basin (Hydrologic Cataloging Unit 03020204). At least half of the 8.76 acre requirement must be in the form of restoration. 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.

Any questions regarding this correspondence may be directed to Mr. William Biddlecome, NCDOT Coordinator/Regulatory Project Manager at the Washington Regulatory Field Office, telephone (252) 975-1616, extension 31.

Sincerely,


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

Enclosure

Copies Furnished (without enclosure):

Ms. Cathey Brittingham
Division of Coastal Management
1638 Mail Service Center
Raleigh, North Carolina 27699-16387

Mr. John Hennessy
NCDENR-DWQ
Wetlands Section
1650 Mail Service Center
Raleigh, North Carolina 27699-1650

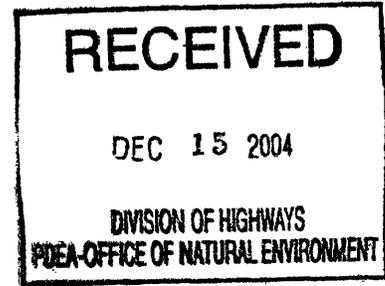
Mr. Ron Sechler
National Marine Fisheries Service
Pivers Island
Beaufort, North Carolina 28516

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

Mr. Ronald Mikulak, Chief
Wetlands Regulatory Section - Region IV
Environmental Protection Agency
Atlanta Federal Center
100 Alabama Street, SW
Atlanta, Georgia 30365



December 10, 2004



Dr. Gregory J. Thorpe, PhD., Manager
 Planning and Environmental Branch
 North Carolina Department of Transportation
 1548 Mail Service Center
 Raleigh, North Carolina, 27699-1548

Dear Dr. Thorpe:

Re: Modification to the 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act, Widening of NC 55 from US 17 in Bridgeton to NC 304 in Bayboro, Craven and Pamlico Counties. WQC Project No. 021232, TIP No. R-2539C.

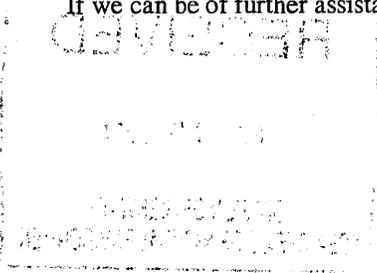
Attached hereto is a copy of a modification to Certification No. 3415 issued to The North Carolina Department of Transportation dated March 17, 2003. This certification authorizes the NCDOT for the following impacts:

Wetland, Surface Water and Protected Riparian Buffer Impacts

Section	Fill in Wetlands (acres)	Excavation & Drainage (acres)	Mechanized Clearing (acres)	Streams (Linear Feet)	Other surface waters (acres)	Buffer Zone 1 (acres)	Buffer Zone 2 (acres)
R-2539C (Original 401 WQC)	1.52	1.96	1.50	209	0.07	0.37	0.21
R-2539C (Additional Impacts with this Modification)	+0.95	+4.32	-0.37	+146	0	+0.33	+0.23
Total	2.47	6.28	1.13	355	0.07	0.70	0.44
Net Total for Wetland Impacts	9.88						
Net Total for Buffer Impacts						1.14	

This certification modifies only segment C of the widening of NC 55 from Bridgeton to Bayboro and shall be constructed pursuant to the application dated received on October 19, 2004 and all subsequent submittals and revisions. All the authorized activities and conditions of the certification associated with the original Water Quality Certification dated March 17, 2003 and all subsequent modifications still apply except where superseded by this certification.

If we can be of further assistance, do not hesitate to contact Nicole Thomson at 919-715-3415.



Sincerely,

Alan W. Klimek, P.E.
Director

Attachments

- cc: Wilmington District US Army Corps of Engineers
- Mr. Mike Bell, Corps of Engineers Washington Field Office
- Mr. Mike Thomas, NC DWQ Washington Regional Office
- Mr. Christopher Militscher, US Environmental Protection Agency – Region IV
- Mr. William Gilmore, P.E. Transition Manager, NC DENR Ecosystem Enhancement Program
- Mr. C.E. Lassiter, Jr., P.E. Division 2 Engineer, PO Box 1587, Greenville, NC 27835
- Mr. Jay Johnson, Division 2 Environmental Officer, PO Box 1587, Greenville, NC 27835
- Central Files
- File Copy

**Modification of APPROVAL OF 401 Water Quality Certification and ADDITIONAL CONDITIONS
and Tar-Pamlico River Buffer Authorization**

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, Section .0500, and 15 NCAC 2B .0259. This certification authorizes the NCDOT for the following impacts:

Wetland, Surface Water and Protected Riparian Buffer Impacts

Section	Fill in Wetlands (acres)	Excavation & Drainage (acres)	Mechanized Clearing (acres)	Streams (Linear Feet)	Other surface waters (acres)	Buffer Zone 1 (acres)	Buffer Zone 2 (acres)
R-2539C (Original 401 WQC)	1.52	1.96	1.50	209	0.07	0.37	0.21
R-2539C (Additional Impacts with this Modification)	+0.95	+4.32	-0.37	+146	0	+0.33	+0.23
Total	2.47	6.28	1.13	355	0.07	0.70	0.44
Net Total for Wetland Impacts	9.88						
Net Total for Buffer Impacts						1.14	

Impacts to Tar-Pamlico Riparian Buffers

Section	Zone 1 (Sq. Ft.)	Zone 2 (Sq. Ft.)
Site 3 (STA 196+00 -L)	10,793	6,495
Site 3 (STA 199+77 -L)	10,440	6,373
Site 3A (STA 12+10 -Y7)	750	1,064
Site 5 (STA 206+00)	8,442	5,039
Total	30,425	18,971
Impacts Requiring Mitigation	21,233	12,868
Onsite Buffer Replacement	1,186	0
Total Remaining Impacts Requiring Mitigation	20,047	12,868

This certification modifies only segment C of the widening of NC 55 from Bridgeton to Bayboro and shall be constructed pursuant to the application dated received on October 19, 2004 and all subsequent submittals and revisions. All the authorized activities and conditions of the certification associated with the original Water Quality Certification dated March 17, 2003 and all subsequent modifications still apply except where superceded by this certification.

The application provides adequate assurance that the discharge of fill material into the waters of the Tar-Pamlico and Neuse River Basin in conjunction 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, as described in the Public Notice. Should your project change, you are required to notify the DWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If any additional wetland impacts, or stream impacts, for this project (now or in the future) exceed one acre or 150 linear feet, respectively, 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, Coastal Stormwater, Non-discharge and Water Supply watershed regulations. This Certification shall expire three years from the date of the cover letter from DWQ or on the same day as the expiration date of the corresponding Corps of Engineers Permit, whichever is sooner.

Condition(s) of Certification:

1. Construction will be conducted in such a manner as to prevent a significant increase in turbidity outside the area of construction or construction-related discharge. 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 assure compliance with the appropriate turbidity water quality standard.
 - a. The erosion and sediment control measures for the project must equal or exceed the proper design, installation, operation and maintenance outlined in the most recent version of the North Carolina Sediment and Erosion Control Planning and Design Manual. These 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.
 - b. For borrow pit sites, the erosion and sediment control measures must equal or exceed the proper design, installation, operation and maintenance outlined in the most recent version of the North Carolina Surface Mining Manual. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
2. All 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 after the Division of Land Resources has released the project.
3. Pursuant to NCAC15A 2B.0233(6) and NCAC15A 2B.0259(6), sediment and erosion control devices shall not be placed in Zone 1 of any Neuse or Tar-Pamlico Buffer without prior approval by the NCDWQ. At this time, the NCDWQ has approved no sediment and erosion control devices in Zone 1, outside of the approved project impacts, anywhere on this project. Moreover, sediment and erosion control devices shall be allowed in Zone 2 of the buffers provided that Zone 1 is not compromised and that discharge is released as diffuse flow.
4. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1.
5. If an environmental document is required, this Certification is not valid until a FONSI or ROD is issued by the State Clearinghouse. All water quality-related conditions of the FONSI or ROD shall become conditions of this Certification.
6. No live or fresh concrete shall come into contact with waters of the state until the concrete has hardened.
7. There shall be no excavation from or waste disposal into jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit. Should waste or borrow sites be located in

wetlands or stream, compensatory mitigation will be required since it is a direct impact from road construction activities.

8. 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.
9. Placement of culverts and other structures in waters, streams, and wetlands must be placed below the elevation of the streambed to allow low flow passage of water and aquatic life unless it can be shown to 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 disequilibrium 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.
10. The Ecosystem Enhancement Program (EEP) previously provided wetland mitigation for Sections A and B and a portion of the mitigation required for Section C at the initial 404 and 401 permit issuance. The additional amounts of impact requiring mitigation are as follows:

Wetlands Impacted	Impacts (Ac)	Replacement Ratio	Mitigation Site	Acres of Mitigation Credited
Non-Riverine Wetland Impacts Tar-Pamlico River Basin	0.63	10:1	Wallace Club Deer Tract 1 and 2, Pender County	6.30
Non-Riverine Wetland Impacts Neuse River Basin)	4.4	2:1	Cataloging Unit 03020204 of the Neuse River Basin	8.8

11. We understand that you have chosen to perform compensatory mitigation for impacts to 145.6 linear feet of streams through the North Carolina Ecosystem Enhancement Program (NCEEP), and that the EEP has agreed to implement the mitigation for the project
12. Compensatory mitigation for the additional impacts to 0.76 acres (20,047 square feet in Zone 1 and 12,868 square feet in Zone 2) of Tar-Pamlico Riparian Buffers shall be provided for as described below.

Zone of Impact	Impacts (Square Feet)	Replacement Ratio	Total Square Feet of Mitigation Required
Zone 1	20,047	3:1	60,141
Zone 2	12,868	1.5:1	19,302
Total	32,915		79,443

We understand that you have chosen to perform compensatory mitigation for impacts to protected buffers through an in lieu payment to the North Carolina Ecosystem Enhancement Program (NCEEP), and that the EEP has agreed to implement the mitigation for the project. Mitigation for unavoidable impacts to Tar-Pamlico Riparian Buffers shall be provided through an in-lieu payment to the North Carolina Ecosystem Enhancement Program (NCEEP) at a rate of \$0.96 per square foot. Therefore, a total payment of \$76,265.28 shall be submitted to the NCEEP to offset the impacts. No construction activities in Tar-Pamlico River Riparian buffers shall begin until payment for buffer mitigation is made and the Ecosystem Enhancement Program receives and clears your check (made payable to DENR – Ecosystem Enhancement Program).

13. All stormwater runoff shall be directed to sheetflow through stream buffers at nonerosive velocities, unless approved otherwise by this certification.
14. During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S., or protected riparian buffers.
15. All temporary fills in wetlands and surface waters shall be removed upon completion of the project. In addition, the post-construction removal of any temporary bridge structures or fill will need to return the project site to its preconstruction contours and elevations. The revegetation of the impacted areas with appropriate native species will be required.
16. Riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.
17. The dimension, pattern and profile of the stream above and below the crossing should not be modified by widening the stream channel or reducing the depth of the stream. Disturbed floodplains and streams should be restored to natural geomorphic conditions.
18. Any riprap used must not interfere with thalweg performance and aquatic life passage during low flow conditions.
19. All mechanized equipment operated near surface waters must be regularly inspected and maintained to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids, or other toxic materials.
20. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
21. All protected riparian buffers impacted by the placement of temporary fill or clearing activities shall be restored to the preconstruction contours and revegetated with native woody species upon completion of the project construction. A post-construction as-built with the restoration activities included shall be submitted to the DWQ no later than 60 days after the project is closed out by the Department of Transportation.
22. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification.
23. 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). Before modifying the certification, DWQ shall notify NCDOT and the US Army Corps of Engineers, provide public notice in accordance with 15A NCAC 2H.0503 and provide opportunity for public hearing in accordance with 15A NCAC 2H.0504. 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.
24. Culverts that are less than 48-inch in diameter should be buried to a depth equal to or greater than 20% of their size to allow for aquatic life passage. Culverts that are 48-inch in diameter or larger should be buried at least 12 inches below the stream bottom to allow natural stream bottom material to become established

in the culvert following installation and to provide aquatic life passage during periods of low flow. These measurements must be based on natural thalweg depths.

25. A copy of this Water Quality Certification shall be posted on the construction site at all times. In addition, the Water Quality Certification (and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager.

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 404 and/or Coastal Area Management Act Permit. This Certification shall expire upon the expiration of the 404 or CAMA permit.

If this Certification is unacceptable to you have the right to an adjudicatory hearing upon written request within sixty (60) days following receipt of this Certification. This request must be in the form of a written petition conforming to Chapter 150B of the North Carolina General Statutes and filed with the Office of Administrative Hearings, P.O. Box 27447, Raleigh, N.C. 27611-7447. If modifications are made to an original Certification, you have the right to an adjudicatory hearing on the modifications upon written request within sixty (60) days following receipt of the Certification. Unless such demands are made, this Certification shall be final and binding.

This the 10th day of December 2004

DIVISION OF WATER QUALITY

A handwritten signature in black ink, appearing to read "Alan W. Klimek". The signature is fluid and cursive, with a large initial "A" and "K".

Alan W. Klimek, P.E.
Director

WQC No. 3415



DWQ Project No.: _____ County: _____

Applicant: _____

Project Name: _____

Date of Issuance of 401 Water Quality Certification: _____

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, 1621 Mail Service Center, Raleigh, NC, 27699-1621. 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 and Buffer Rules, 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 and Buffer Rules, 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 and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature _____ Registration No. _____

Date _____

Colista Freeman



North Carolina Department of Environment and Natural Resources
Division of Coastal Management

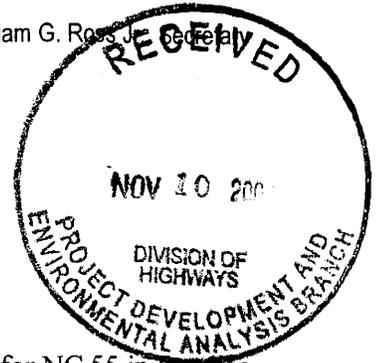
Michael F. Easley, Governor

Charles S. Jones, Director

William G. Ross, Jr., Secretary

November 8, 2004

Gregory J Thorpe, PhD, Environmental Management Director
Project Development & Environmental Analysis Branch
N.C. Department of Transportation
1548 Mail Service Center
Raleigh, NC 27699-1548



RE: Request for a Modification to authorize the C Section of the widening project for NC 55 in Pamlico County, TIP No. R-2539. NCDOT Letter dated 10/14/04 with accompanying drawings and revised drawing 13 of 24 dated 11/1/04 requesting a Modification of the existing CAMA Permit No. 55-03.

Dear Dr. Thorpe:

This letter is in response to the N.C. Department of Transportation's (NCDOT's) request dated October 14, 2004 requesting a Modification for CAMA Major Permit No. 55-03. The NCDOT letter requests authorization for construction of the C Section of the widening project for NC 55 in Pamlico County, TIP No. R-2539.

Please be advised that through this **Letter of Refinement**, DCM conveys its determination that this request as described in the October 14, 2004 NCDOT correspondence to Bill Arrington, is consistent with existing State rules and regulations and is in keeping with the original purpose and intent of the CAMA permit, with the following conditions.

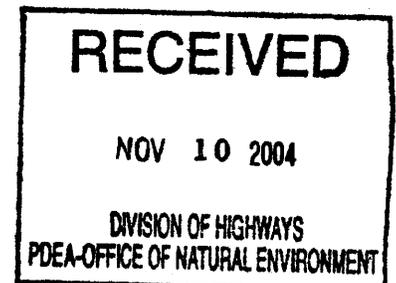
1. This letter does not eliminate the need to obtain any additional state, federal or local permits, approvals or authorizations that may be required.
2. This Letter of Refinement must be attached to the original of CAMA Permit No. 55-03, which was issued on April 22, 2003 and both documents must be readily available on site when a DCM representative inspects the project for compliance.
3. All conditions and stipulations of the active permit remain in force unless altered herein.

Please contact Bill Arrington at (252) 528-0019 if you have any questions or concerns.

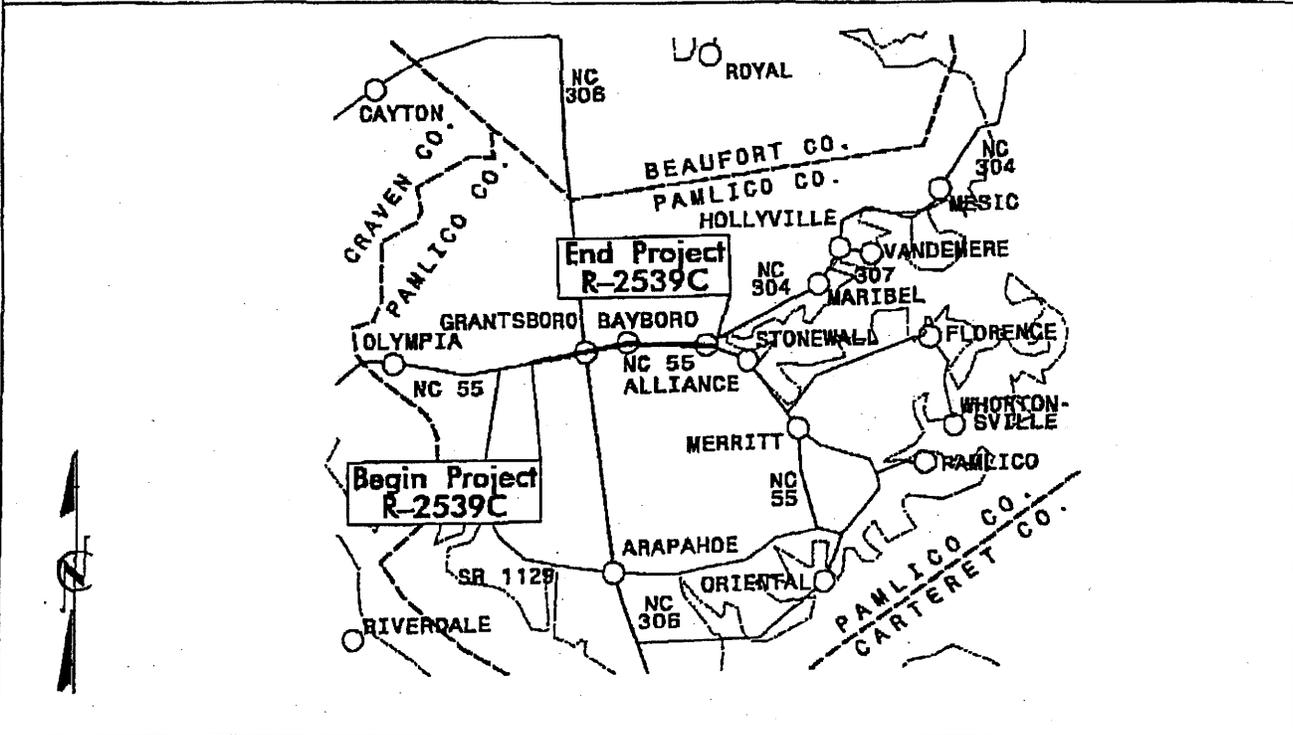
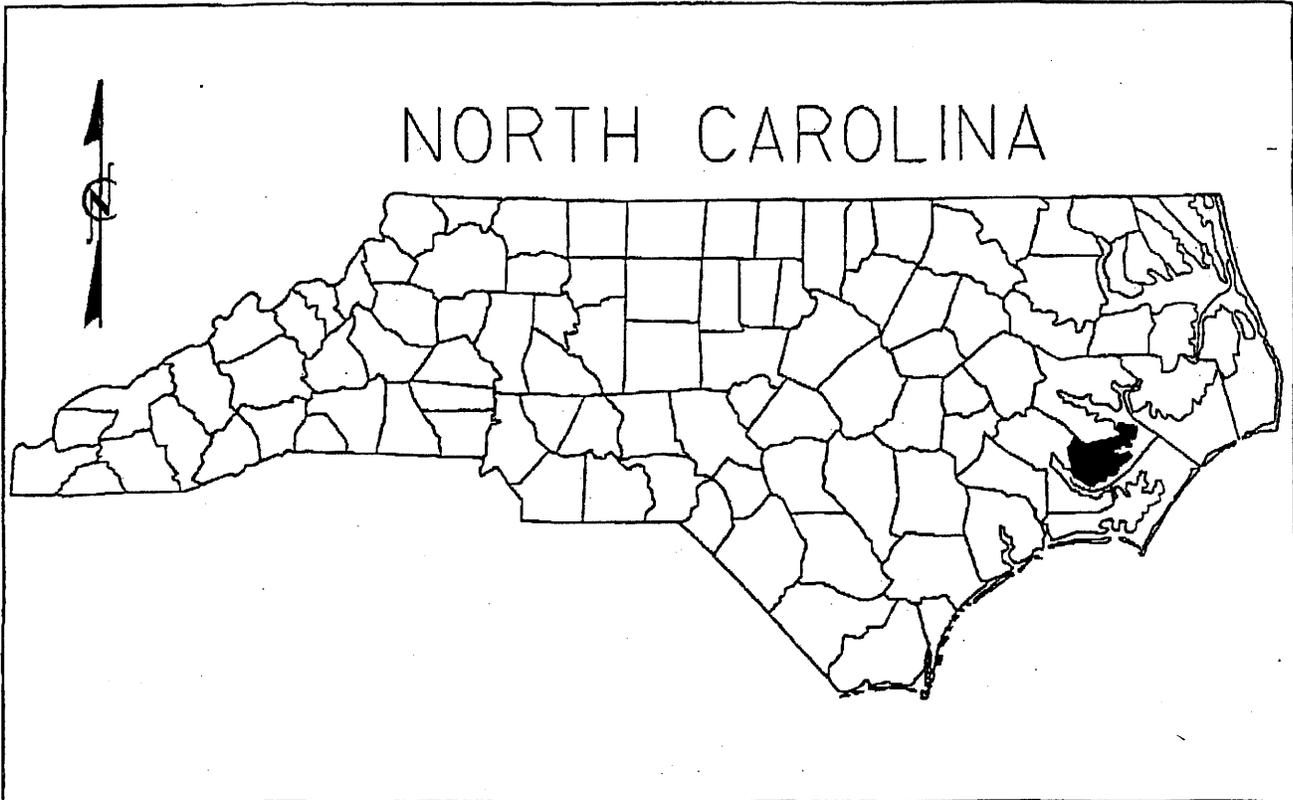
Sincerely,

Tere Barrett, MHC District Manager
NC Division of Coastal Management.

Cc: Ted Tyndall, DCM
Doug Huggett, DCM
Steve Sollod, DCM
Bill Arrington, DCM
Mike Bell, USACE
Nicole Thomson, DWQ



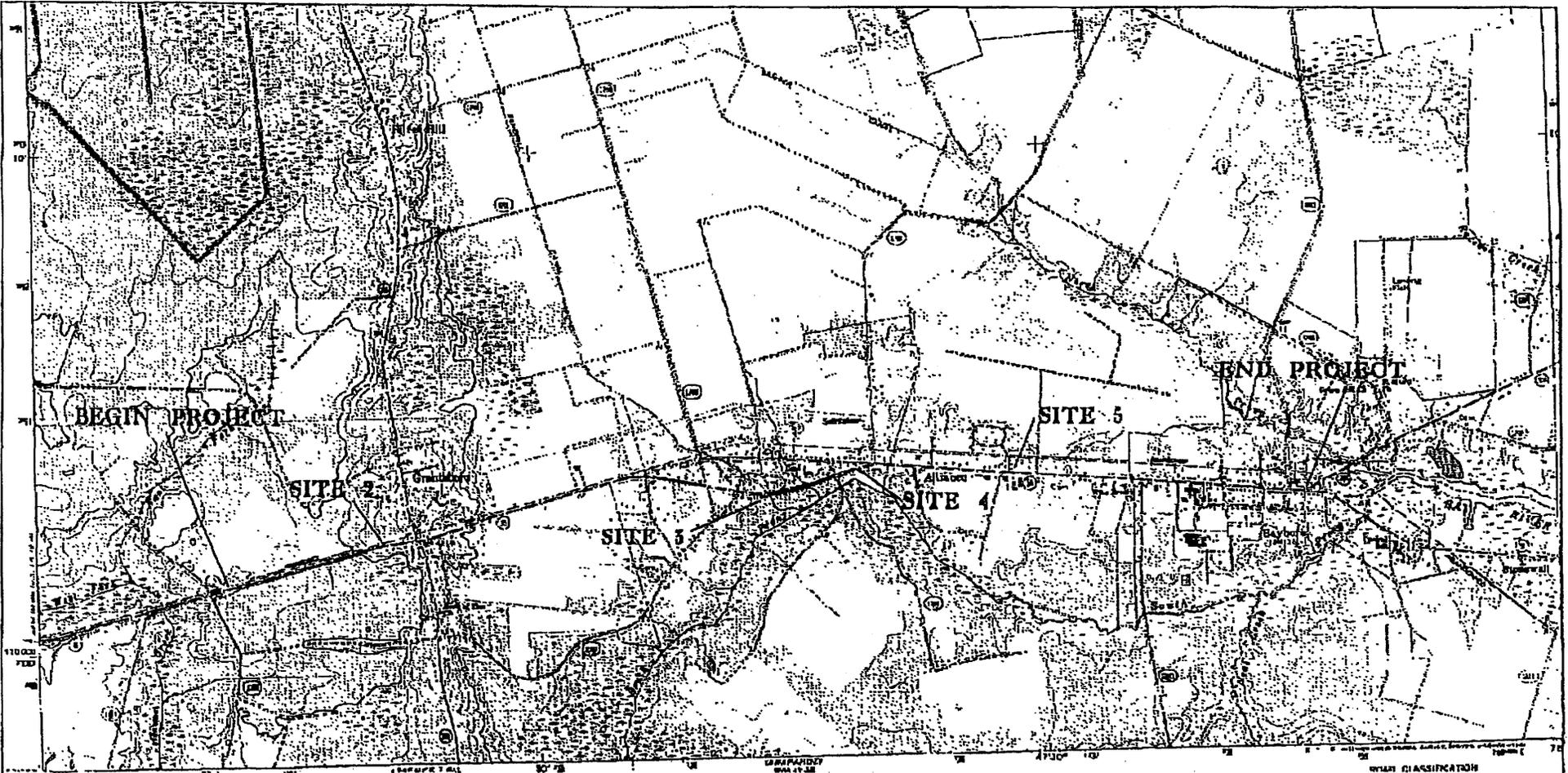
1638 Mail Service Center, Raleigh, North Carolina 27699-1638
Phone: 919-733-2293 \ FAX: 919-733-1495 \ Internet: www.nccoastalmanagement.net



VICINITY
MAPS

NCDOT
DIVISION OF HIGHWAYS
PAMLICO COUNTY
PROJECT: 8.1170901 (R-2539C)
NC 55 FROM EAST OF SR 1129
TO NC 304 IN BAYBORO

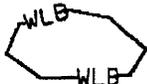
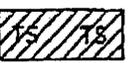
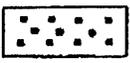
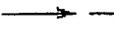
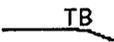
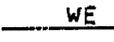
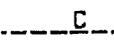
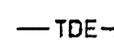
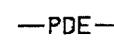
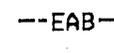
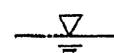
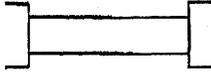
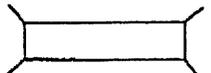
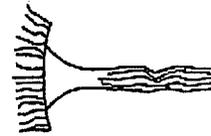
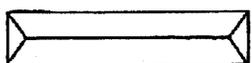
SHEET 1 OF 24 7/9/03



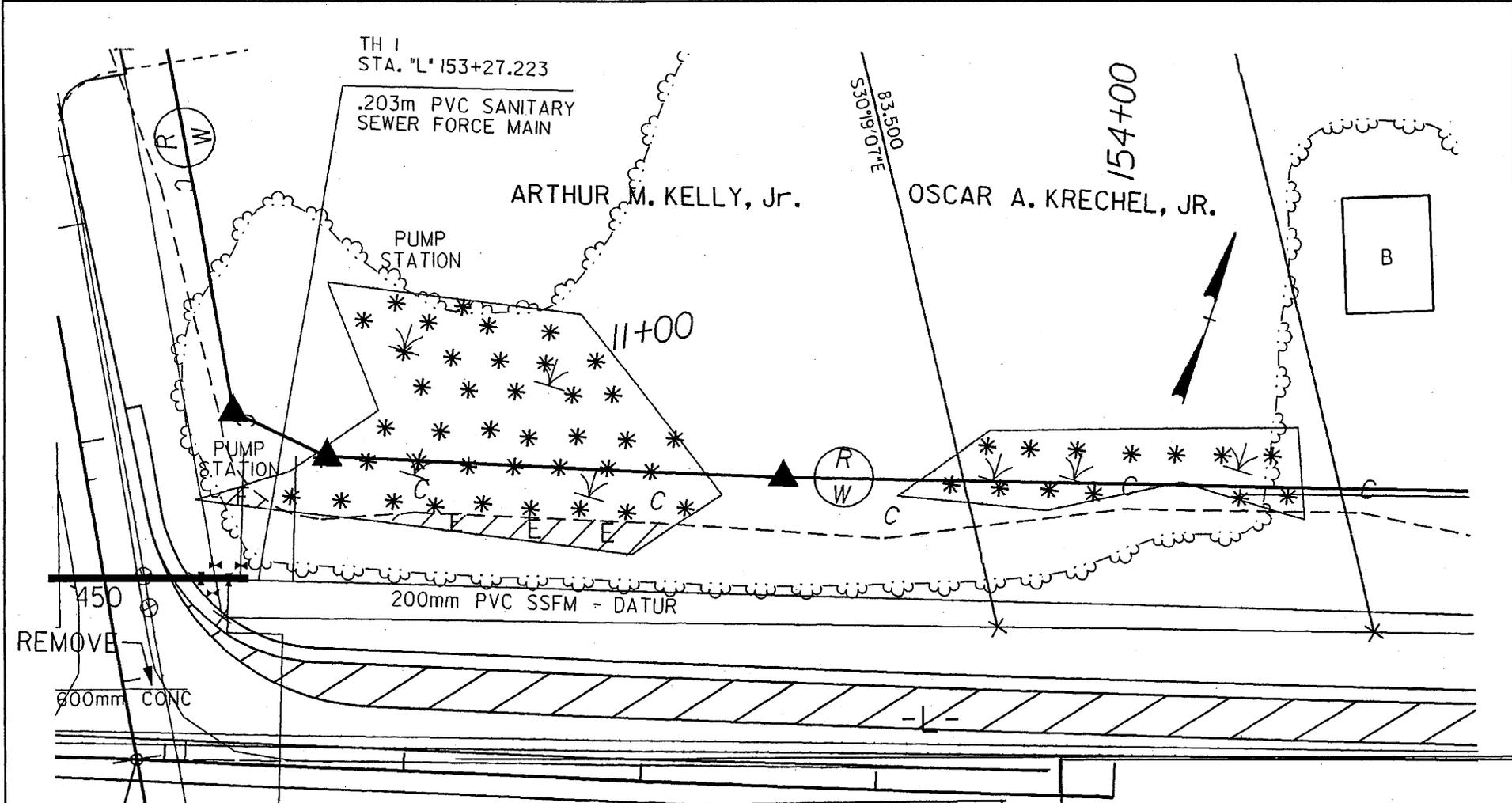
TOPO MAP
 SCALE 1" = 4000'

NCDOT
 DIVISION OF HIGHWAYS
 PAMLICO COUNTY
 PROJECT: 8.1170901 (R-2539C)
 NC 55 FROM EAST OF SR 1129
 TO NC 304 IN BAYBORO
 SHEET 3 OF 24 7/9/03

WETLAND LEGEND

-  WETLAND BOUNDARY
-  WETLAND
-  DENOTES FILL IN WETLAND
-  DENOTES FILL IN SURFACE WATER
-  DENOTES FILL IN SURFACE WATER (POND)
-  DENOTES TEMPORARY FILL IN WETLAND
-  DENOTES EXCAVATION IN WETLAND
-  DENOTES TEMPORARY FILL IN SURFACE WATER
-  DENOTES MECHANIZED CLEARING
-  FLOW DIRECTION
-  TOP OF BANK
-  EDGE OF WATER
-  PRDP. LIMIT OF CUT
-  PRDP. LIMIT OF FILL
-  PROP. RIGHT OF WAY
-  NATURAL GROUND
-  PROPERTY LINE
-  TEMP. DRAINAGE EASEMENT
-  PERMANENT DRAINAGE EASEMENT
-  EXIST. ENDANGERED ANIMAL BOUNDARY
-  EXIST. ENDANGERED PLANT BOUNDARY
-  WATER SURFACE
-  LIVE STAKES
-  BOULDER
-  CORE FIBER ROLLS
-  PROPOSED BRIDGE
-  PROPOSED BOX CULVERT
-  PROPOSED PIPE CULVERT
12'-48"
PIPES
54" PIPES
& ABOVE
- (DASHED LINES DENOTE EXISTING STRUCTURES)
-  SINGLE TREE
-  WOODS LINE
-  DRAINAGE INLET
-  ROOTWAD
-  RIP RAP
-  ADJACENT PROPERTY OWNER OR PARCEL NUMBER IF AVAILABLE
-  PREFORMED SCOUR HOLE
-  LEVEL SPREADER (LS)
-  DITCH / GRASS SWALE

NCDOT
 DIVISION OF HIGHWAYS
 PAMLICO COUNTY
 PROJECT: 8.1170901 (R-2539C)
 NC 55 FROM EAST OF SR 1129
 TO NC 304 IN BAYBORO



POC Sta 153+18.284 -L- =
 POT Sta 11+26.788 -Y10-

PLAN VIEW
 WETLAND
 IMPACTS
 SITE 1
 SCALE = 1:500

DIVISION OF HIGHWAYS
 PAMLICO COUNTY
 PROJECT: 8.1170901 (R-2539C)
 NC 55 FROM EAST OF SR 1129
 TO NC 304 IN BAYBORO
 SHEET 5 OF 24 8/13/04

MATCH LINE 157+40

MATCH LINE 159+60



MINIMUM (BOUSSINESQ)
SPECIAL DITCH IMPACTS

TREES WITH THICK BRUSH

SPECIAL CUT DITCH
SEE DETAIL

NORFOLK & SOUTHERN RAILROAD (ABANDONED)

158+00

159+00

NC 55

SPECIAL CUT DITCH
SEE DETAIL

STA 156+68 TO STA 160+20 -L- RT
STA 156+68 TO STA 160+20 -L- LT



PLAN VIEW
WETLAND
IMPACTS
SITE 2

SCALE = 1:1000

NCDOT

DIVISION OF HIGHWAYS

PAMLICO COUNTY

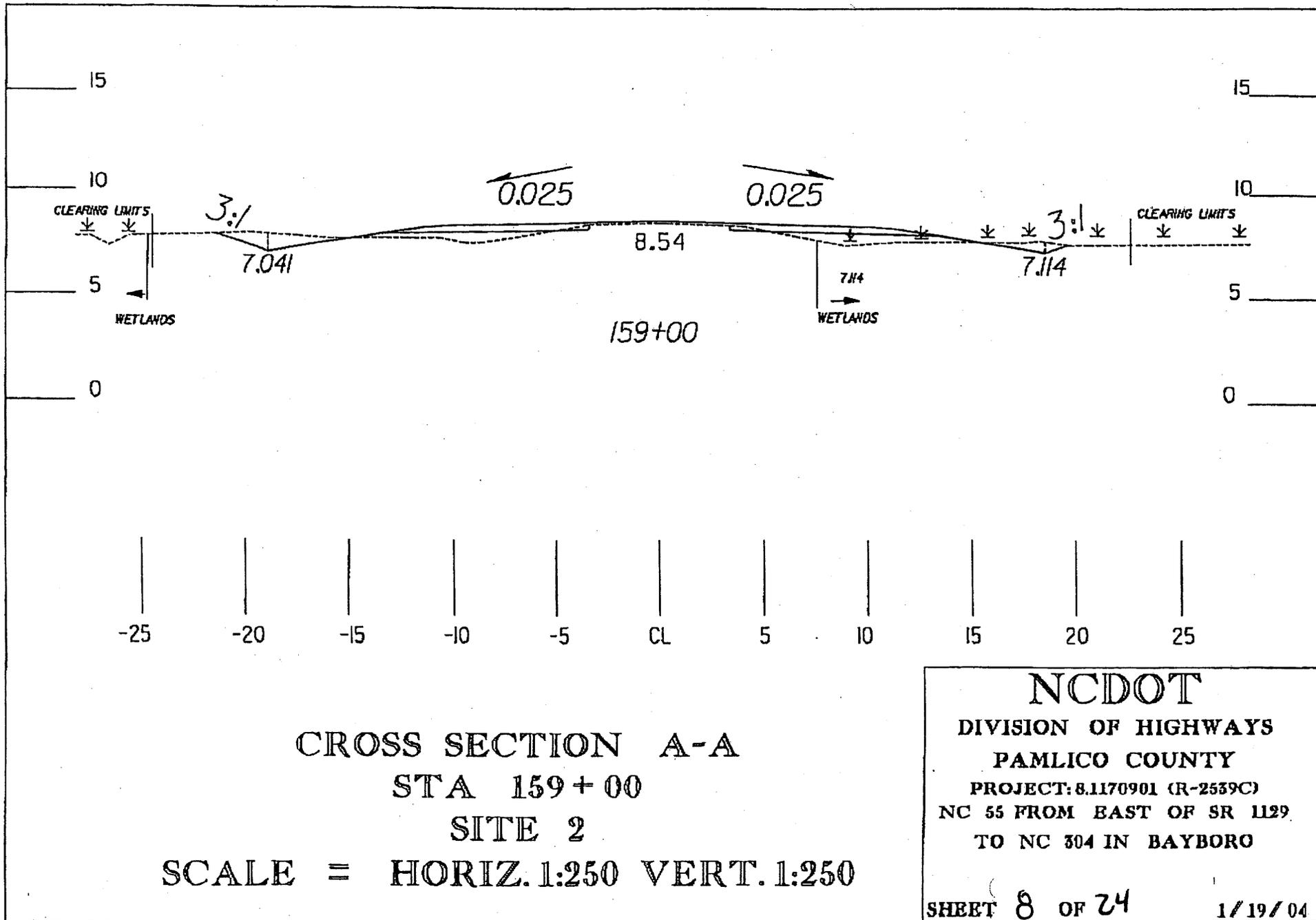
PROJECT: 8.1170901 (R-2539C)

NC 55 FROM EAST OF SR 1129

TO NC 304 IN BAYBORO

SHEET 7 OF 24

Rev 10/11/04
12/18/03



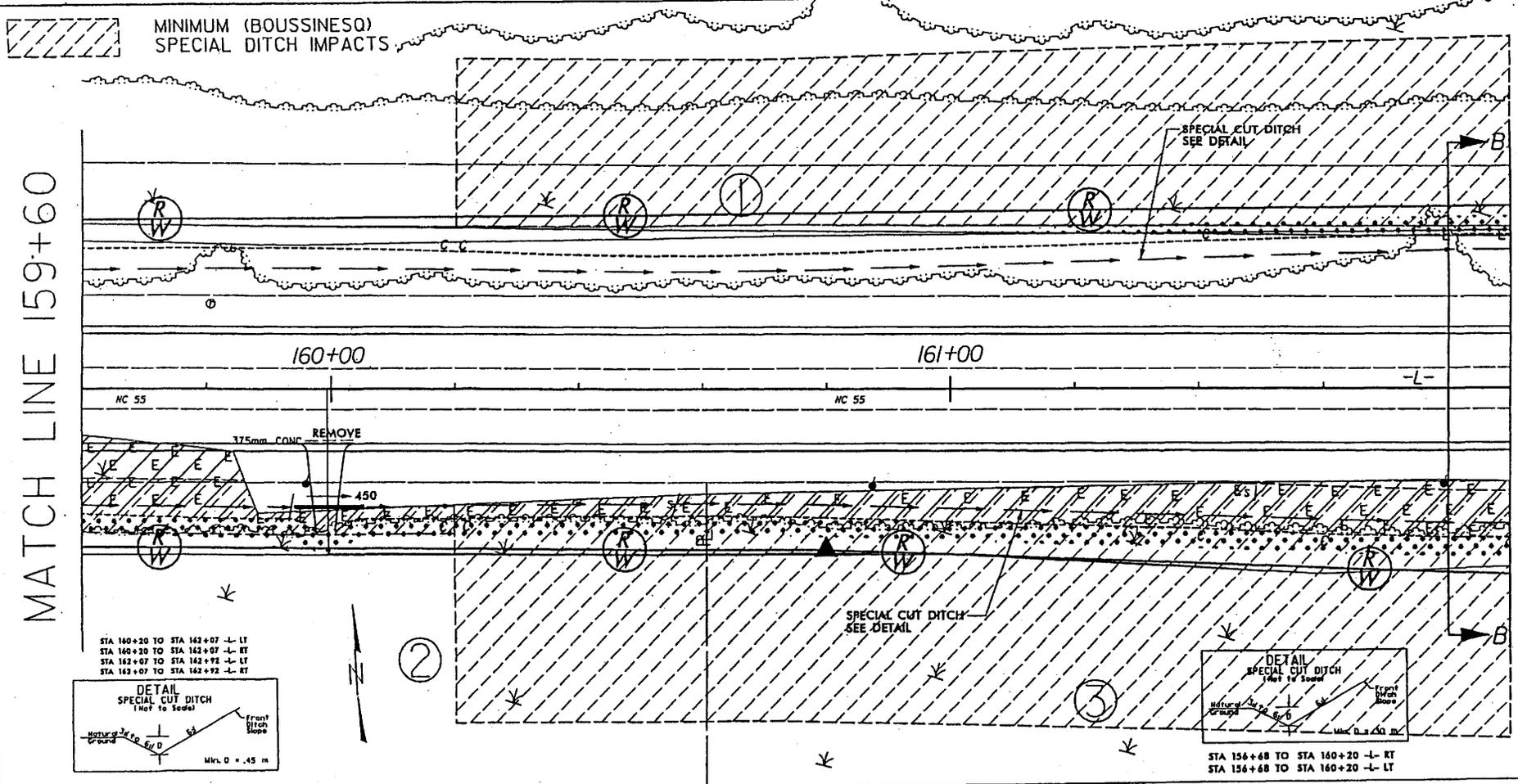
JUN-01-2004 11:01

NC001

STA 159+00 SITE 2

MATCH LINE 159+60

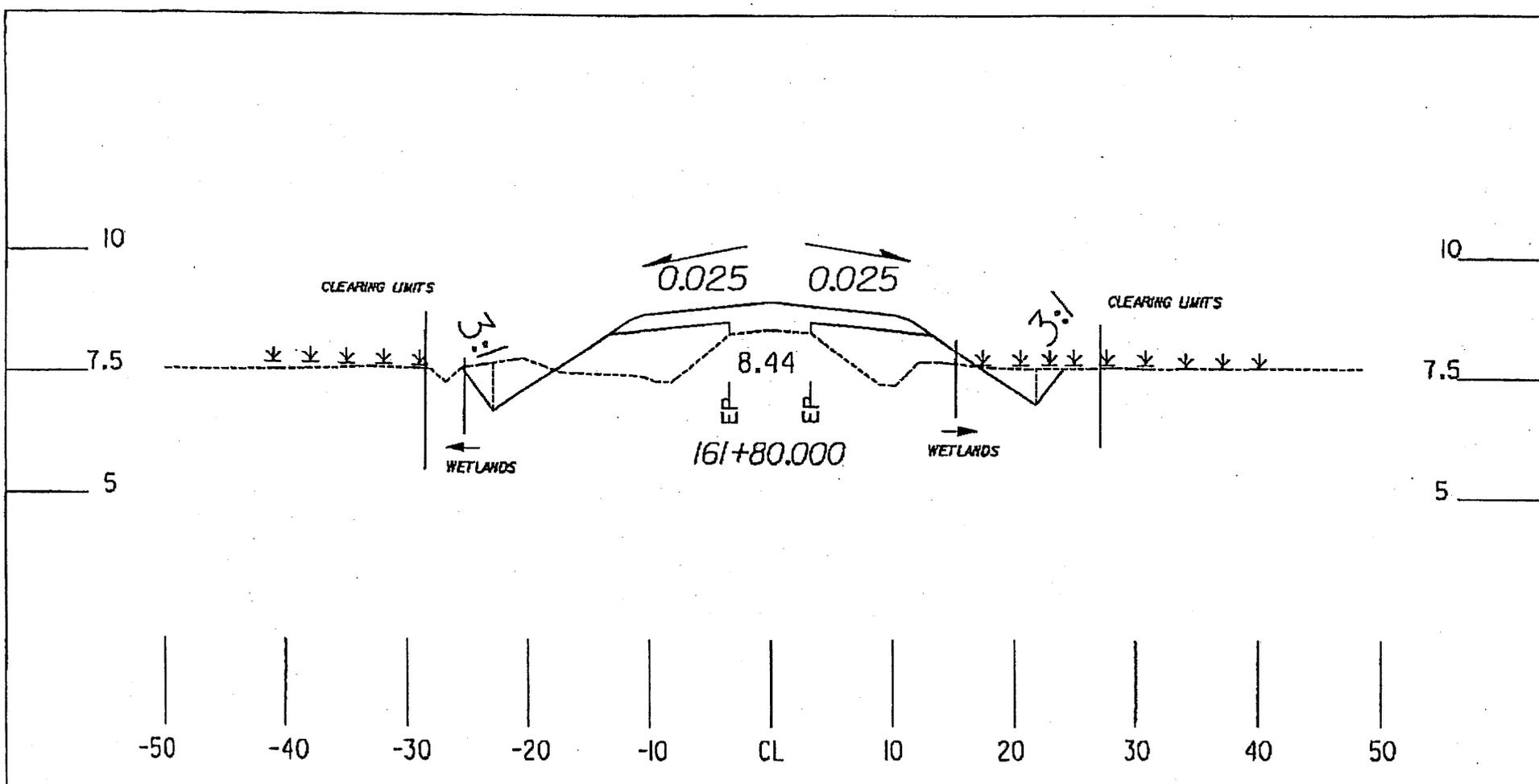
MATCH LINE 161+90



PLAN VIEW
WETLAND
IMPACTS
SITE 2

SCALE = 1:1000

NCDOT
DIVISION OF HIGHWAYS
PAMLICO COUNTY
PROJECT: 8.1170901 (R-2539C)
NC 55 FROM EAST OF SR 1129
TO NC 304 IN BAYBORO



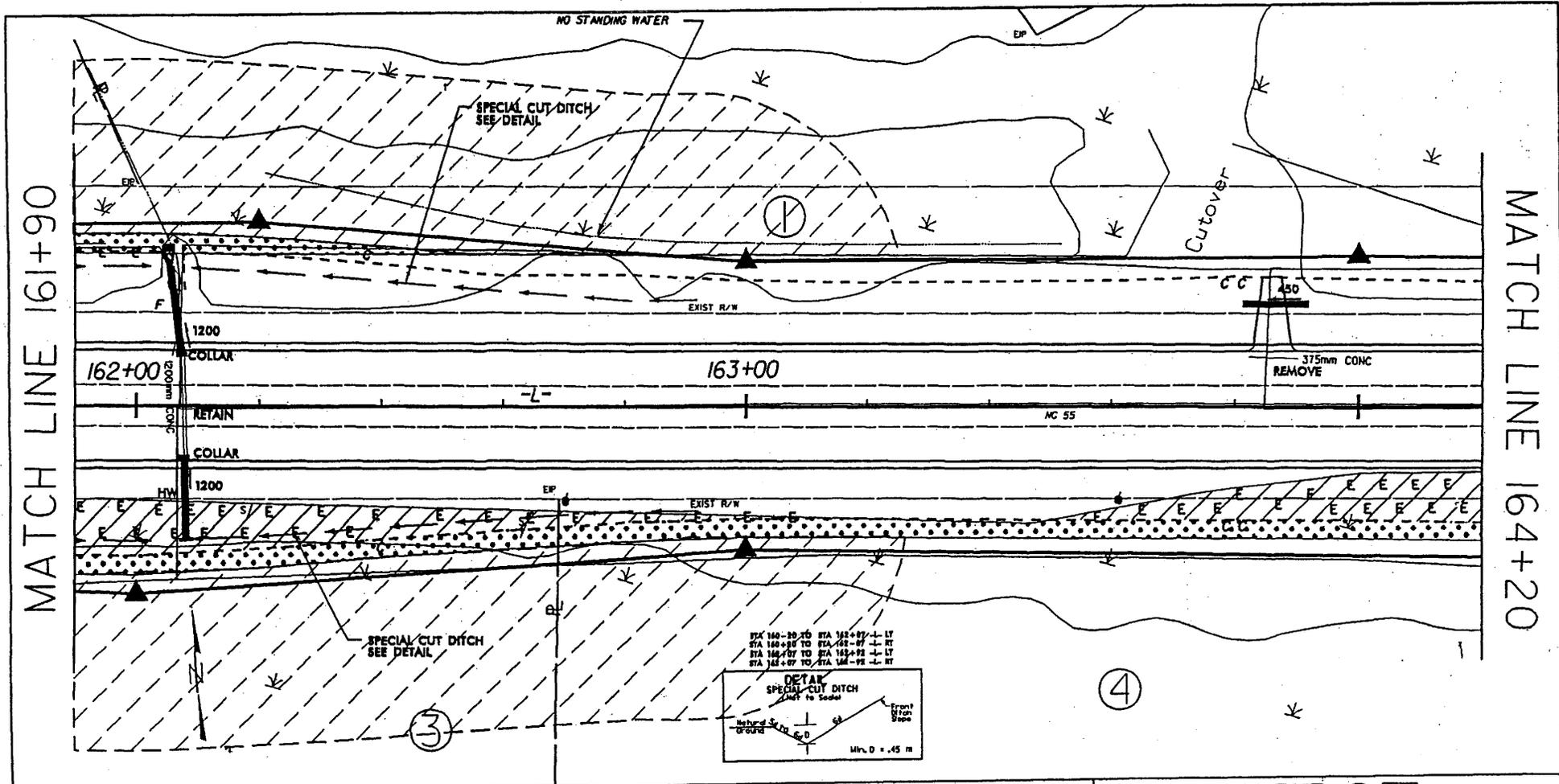
CROSS SECTION B-B
 STA 161+80
 SITE 2

SCALE = HORIZ. 1:500 VERT. 1:125

NCDOT
 DIVISION OF HIGHWAYS
 PAMLICO COUNTY
 PROJECT: 8.1170901 (R-2539C)
 NC 55 FROM EAST OF SR 1129
 TO NC 304 IN BAYBORO

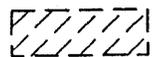
SHEET 10 OF 24

1/19/04



MATCH LINE 161+90

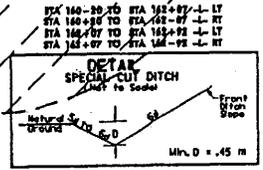
MATCH LINE 164+20



MINIMUM (BOUSSINESQ)
SPECIAL DITCH IMPACTS

**PLAN VIEW
WETLAND
IMPACTS
SITE 2**

SCALE = 1:1000



④

③

NCDOT

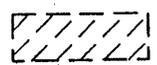
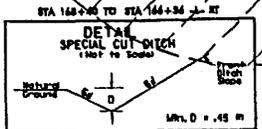
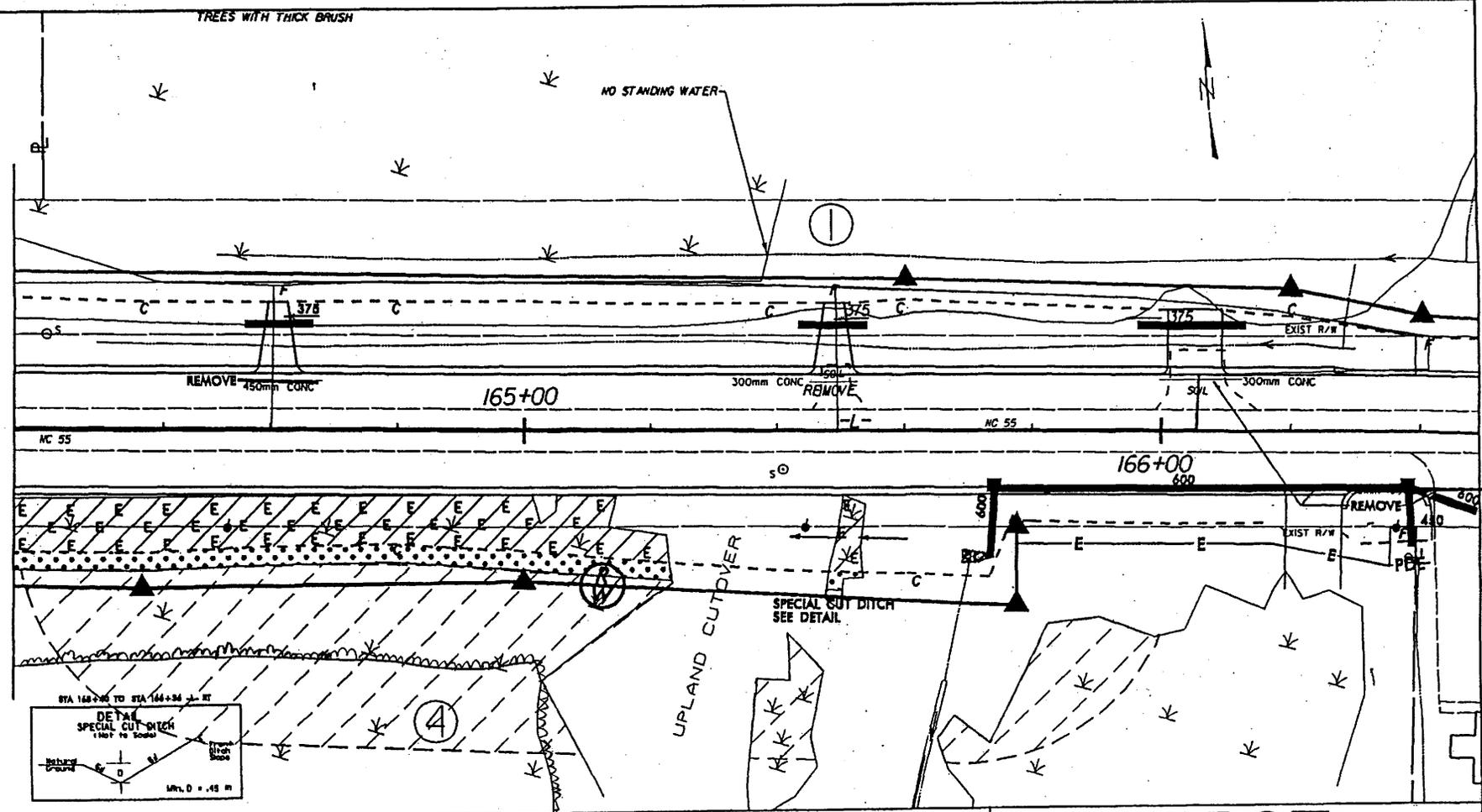
**DIVISION OF HIGHWAYS
PAMLICO COUNTY**

**PROJECT: 8.1170901 (R-2539C)
NC 55 FROM EAST OF SR 1129
TO NC 304 IN BAYBORO**

SHEET 11 OF 24

Rev 10/11/04
12/18/03

MATCH LINE 164+20



MINIMUM (BOUSSINESQ)
SPECIAL DITCH IMPACTS

PLAN VIEW
WETLAND
IMPACTS
SITE 2

SCALE = 1:1000

NCDOT

DIVISION OF HIGHWAYS

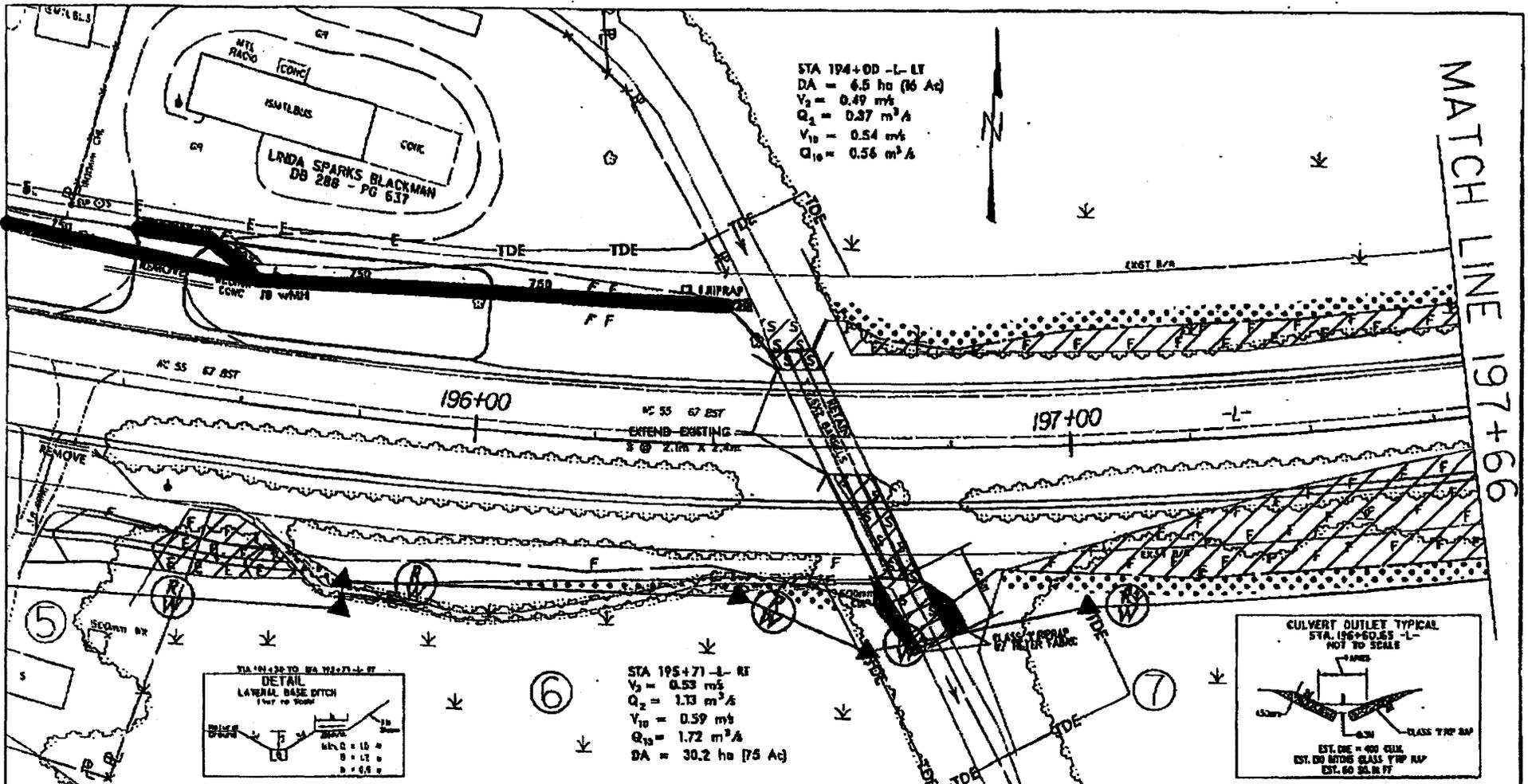
PAMLICO COUNTY

PROJECT: 8.1170901 (R-2539C)

NC 55 FROM EAST OF SR. 1129
TO NC 304 IN BAYBORO

SHEET 12 OF 24

Rev 10/11/04
12/18/03



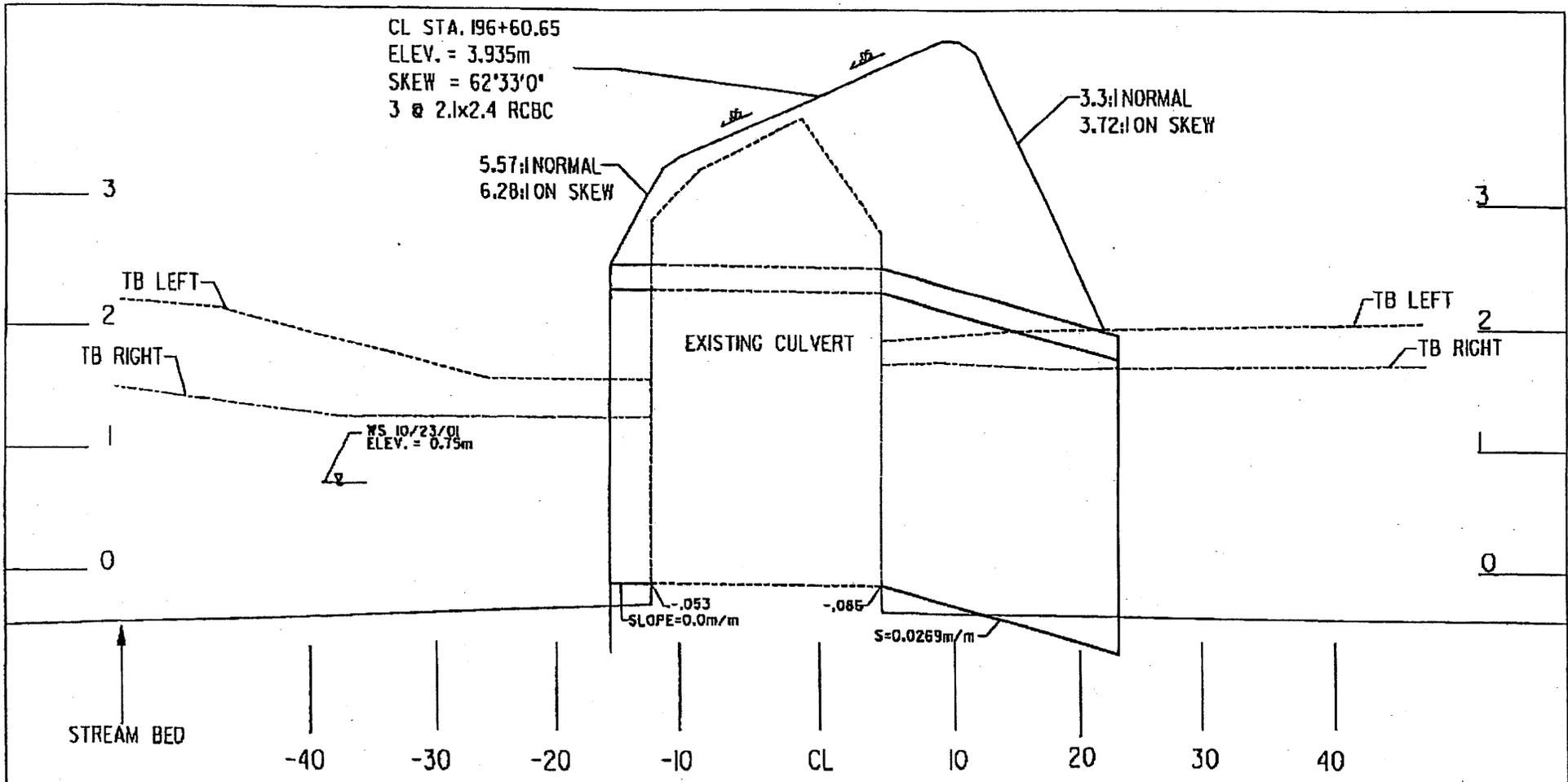
PLAN VIEW
 STREAM & WETLAND
 IMPACTS
 SITE 3
 SCALE = 1:1000

NCDOT
 DIVISION OF HIGHWAYS
 PAMLICO COUNTY
 PROJECT: 8.1170901 (R-2539C)
 NC 55 FROM EAST OF SR 1129
 TO NC 304 IN BAYBORO

SHEET 13 OF 24

Rev. 11/1/04

~~2/6/04~~

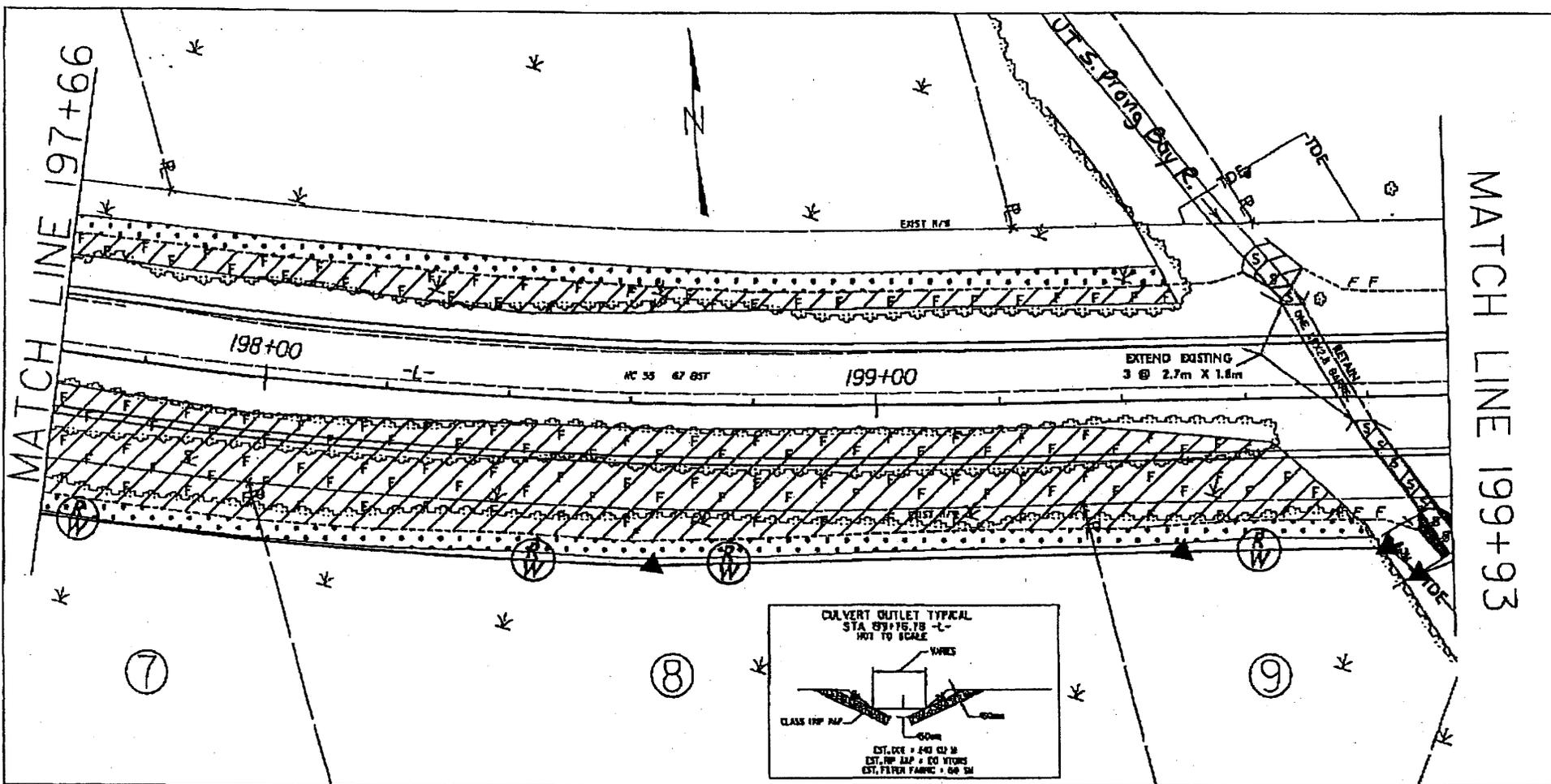


CULVERT 1 PROFILE
STA 196 + 60.65
SITE 3

SCALE = HORIZ. 1:500 VERT. 1:50

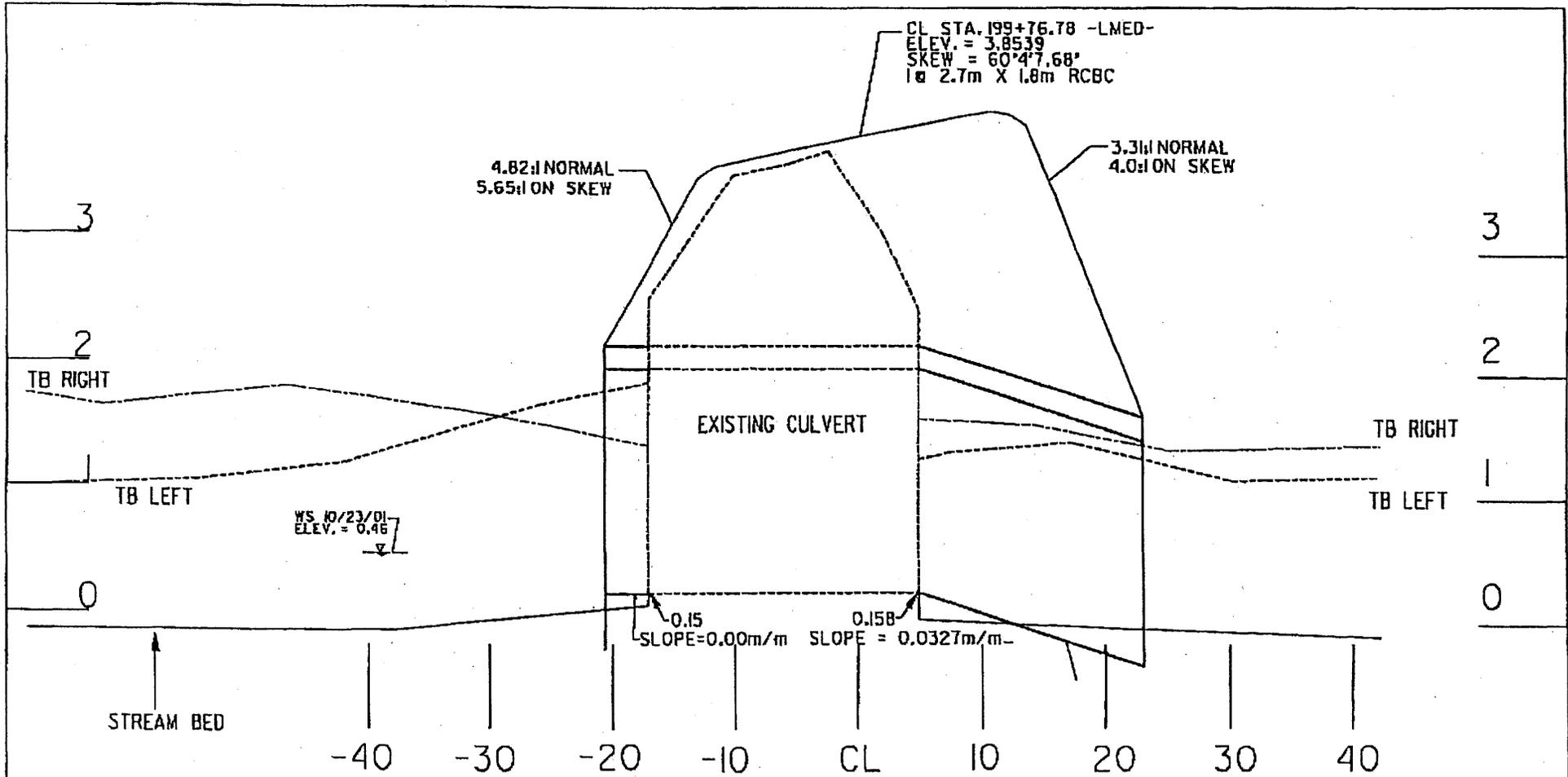
NCDOT
 DIVISION OF HIGHWAYS
 PAMLICO COUNTY
 PROJECT: 8.1170901 (R-2539C)
 NC 55 FROM EAST OF SR 1129
 TO NC 304 IN BAYBORO

JUN-01-2007 10:10 AM T.C. T. 10001



PLAN VIEW
 STREAM & WETLAND
 IMPACTS
 SITE 3
 SCALE = 1:1000

NCDOT
 DIVISION OF HIGHWAYS
 PAMLICO COUNTY
 PROJECT: 8.1170901 (R-2539C)
 NC 55 FROM EAST OF SR 1129
 TO NC 304 IN BAYBORO
 SHEET 15 OF 24 2/6/04



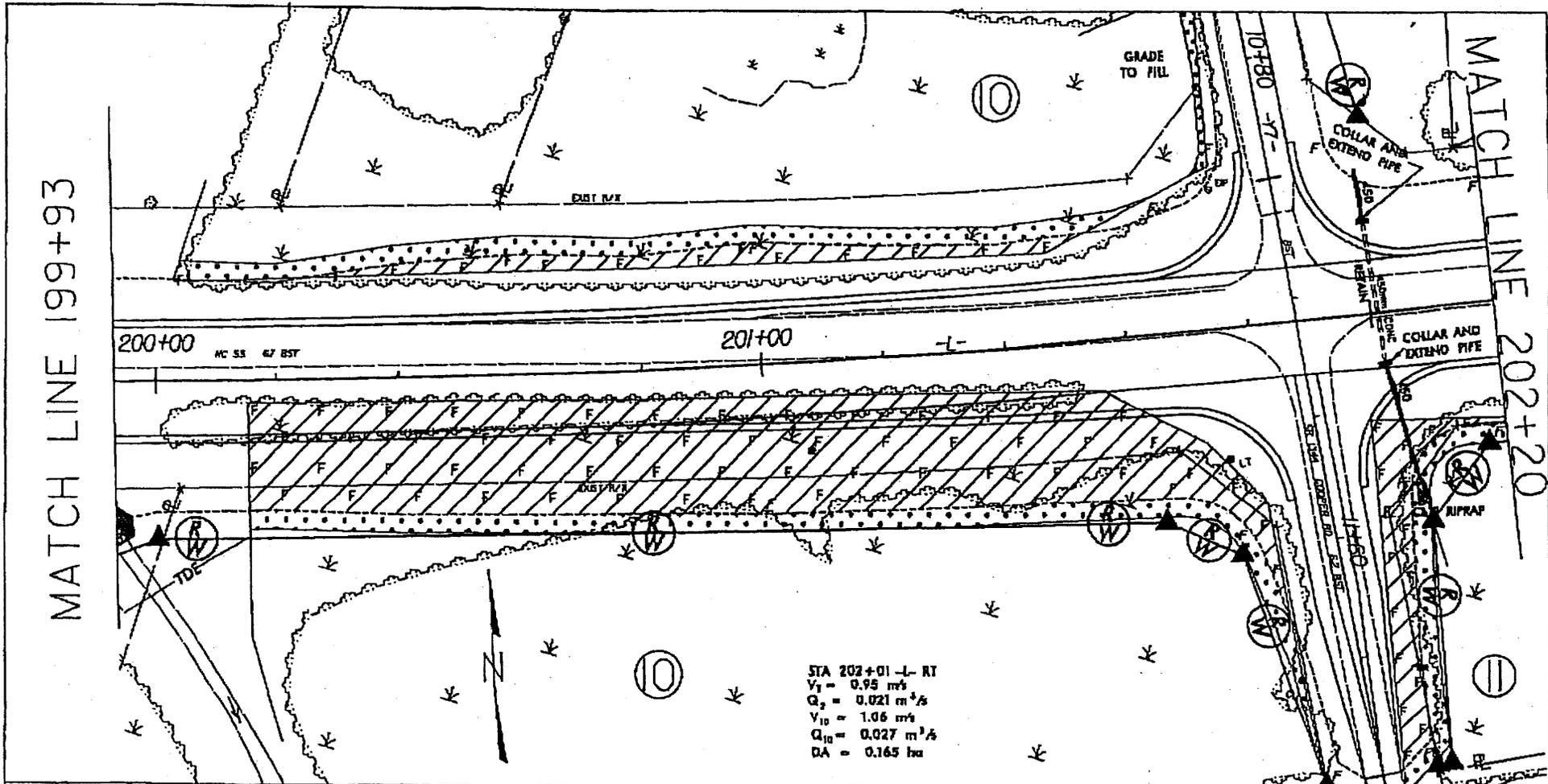
CULVERT 2 PROFILE
STA 199+76.78
SITE 3

SCALE = HORIZ. 1:500 VERT. 1:50

NCDOT
 DIVISION OF HIGHWAYS
 PAMLICO COUNTY
 PROJECT: 8.1170901 (R-2539C)
 NC 55 FROM EAST OF SR 1129
 TO NC 304 IN BAYBORO

SHEET 16 OF 24

7/15/03



PLAN VIEW
 STREAM & WETLAND
 IMPACTS

SITE 3

SCALE = 1:1000

NCDOT

DIVISION OF HIGHWAYS

PAMLICO COUNTY

PROJECT: 8.1170901 (R-2539C)

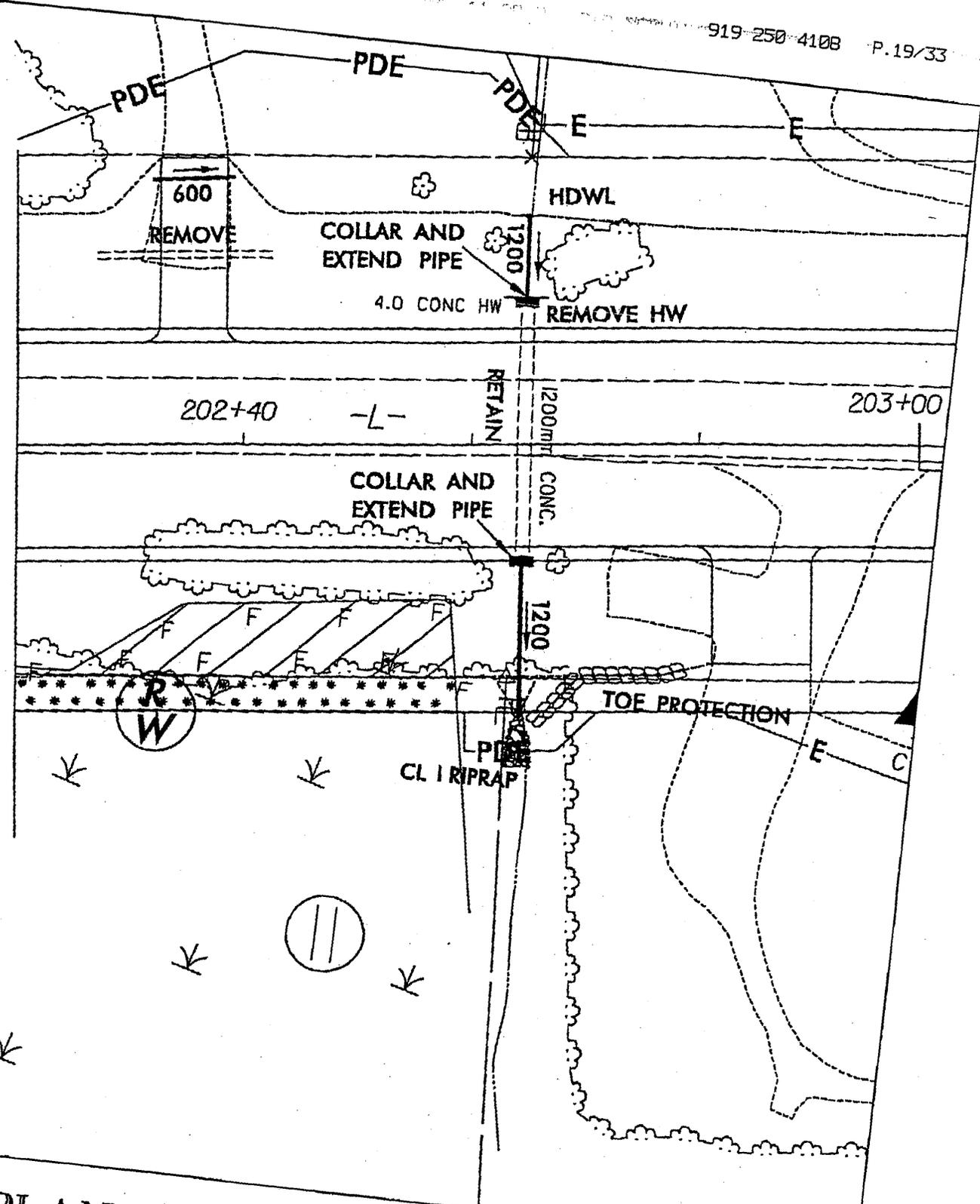
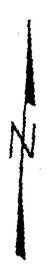
NC 55 FROM EAST OF SR 1129

TO NC 304 IN BAYBORO

SHEET 17 OF 24

2/6/04

MATCH LINE 202+20

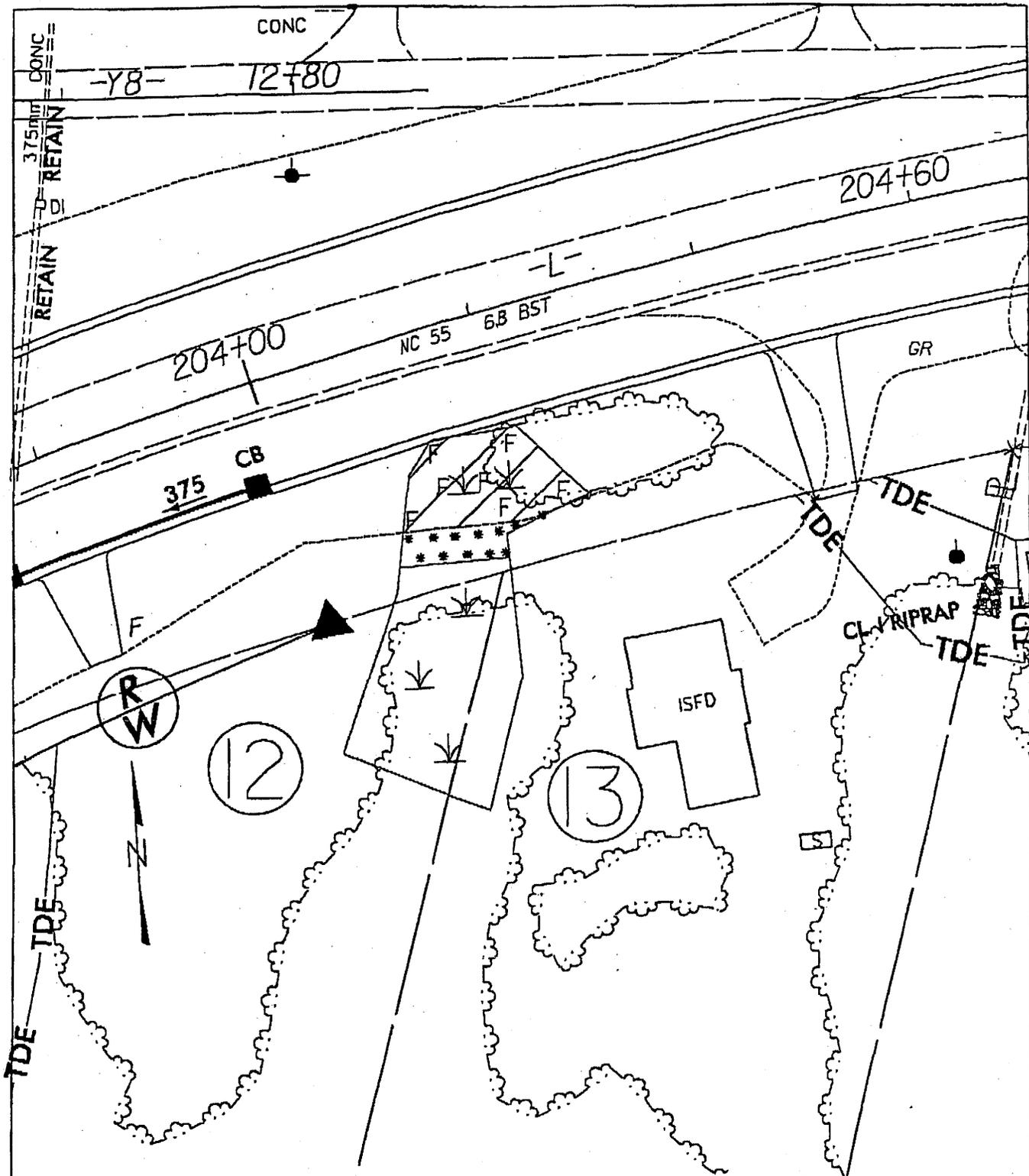


PLAN VIEW
 WETLAND
 IMPACTS
 SITE 3
 SCALE = 1:500

NCDOT
 DIVISION OF HIGHWAYS
 PAMLICO COUNTY
 PROJECT: 8.1170901 (R-2539C)
 NC 55 FROM EAST OF SR 1129
 TO NC 304 IN BAYBORO

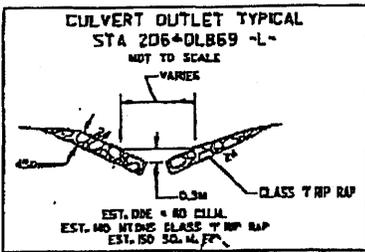
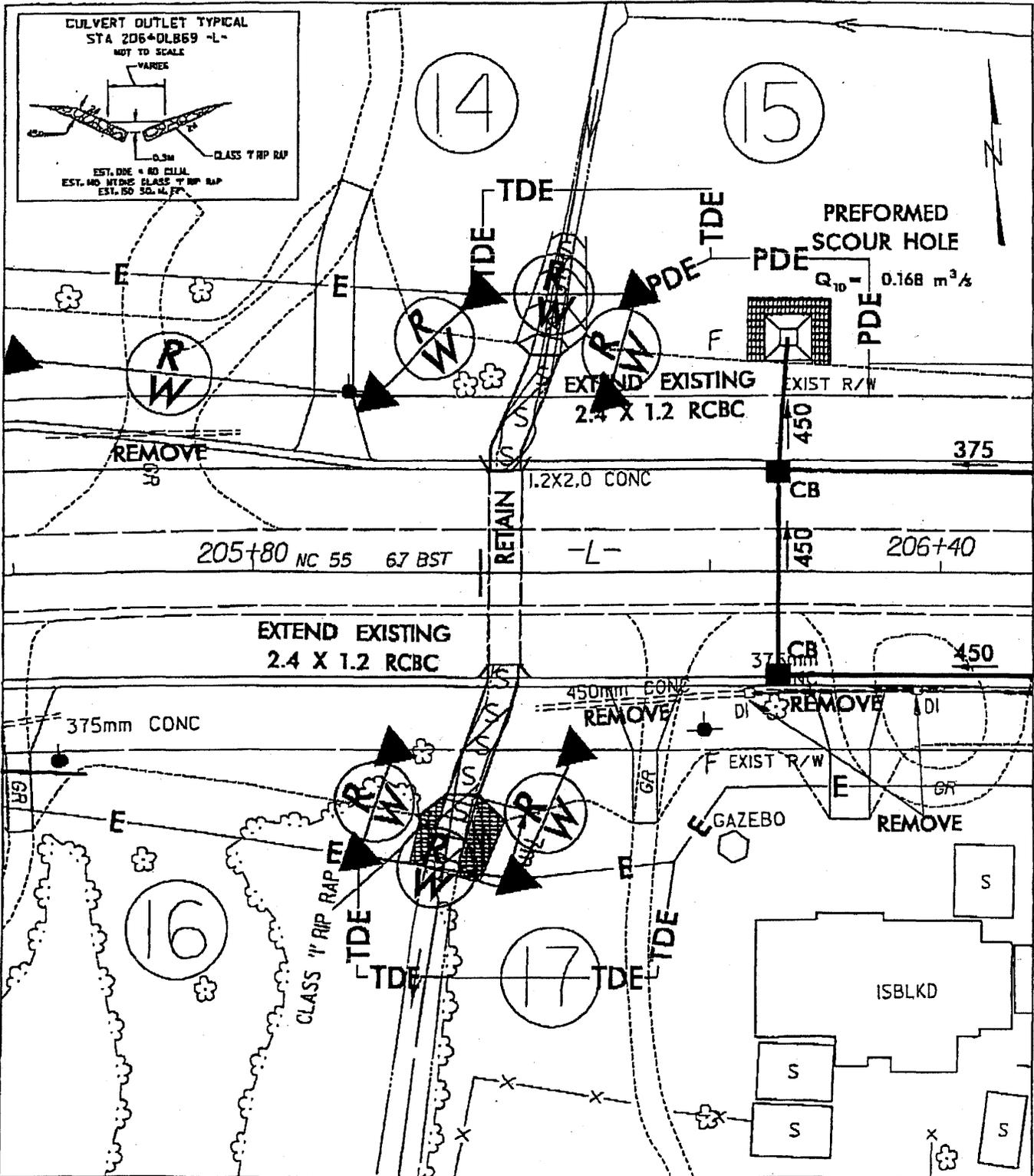
SHEET 18 OF 24

2/6/04



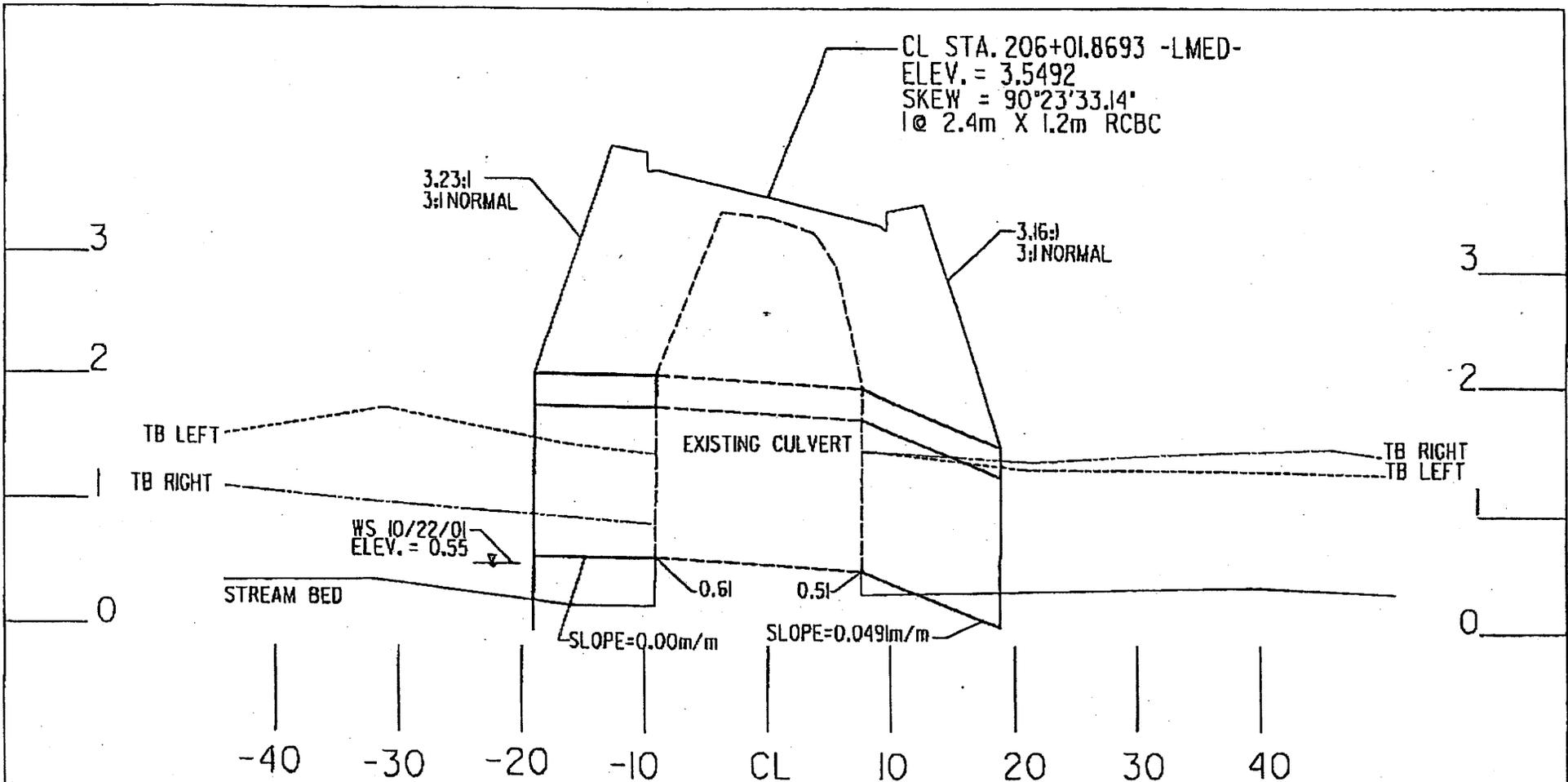
PLAN VIEW
 WETLAND
 IMPACTS
 SITE 4
 SCALE = 1:500

NCDOT
 DIVISION OF HIGHWAYS
 PAMLICO COUNTY
 PROJECT: 8.1170901 (R-2539C)
 NC 55 FROM EAST OF SR 1129
 TO NC 304 IN BAYBORO



**PLAN VIEW
STREAM
IMPACTS
SITE 5
SCALE = 1:500**

**NCDOT
DIVISION OF HIGHWAYS
PAMLICO COUNTY
PROJECT: 8.1170901 (R-2539C)
NC 55 FROM EAST OF SR 1129
TO NC 304 IN BAYBORO**



CULVERT 3 PROFILE
STA 206 + 01.87
SITE 5

SCALE = HORIZ. 1:500 VERT. 1:50

NCDOT
 DIVISION OF HIGHWAYS
 PAMLICO COUNTY
 PROJECT: 81170901 (R-2539C)
 NC 55 FROM EAST OF SR 1129
 TO NC 304 IN BAYBORO

SHEET 21 OF 24 8/6/03

PROPERTY OWNERS

NAMES AND ADDRESSES

REFERENCE NO.	NAMES	ADDRESSES
1	WEYERHAEUSER CO.	PO BOX 1391 NEW BERN, NC 28563
2	GEORGE BRINSON	7960 NEUSE RD. GRANTSBORO, NC 28529
3	JAY BARRINGTON	904 LYNN ST. NEW BERN, NC 28562
4	SARAH HARRIS	420 NC HWY. 306 SOUTH GRANTSBORO, NC 28529
5	DORIS WILLIAMS	PO BOX 294 ALLIANCE, NC 28509
6	TSUNEKO TYNDALL	233 KEEL RD. GRANTSBORO, NC 28529
7	DAVID HARRIS	188 DEER RD. HUBERT, NC 28539
8	ROBERT COURTENAY SMARIDGE	2994 WILMA EDWARDS RD. ELLABELL, GA 31308
9	ROBERT COURTENAY SMARIDGE	189 FACTORY RD. HAMSTEAD, NC 28443
10	ARTHUR KELLY, JR.	PO BOX 243 GRANTSBORO, NC 28529
11	PHOEBE CAMPEN C/O GEORGIE THOMPSON	689 LICHFIELD RD. WINSTON-SALEM, NC 27104
12	JESSE BRAXTON CAHOON	52 BRINSON DR. GRANTSBORO, NC 28529
13	PAUL LEE PEGRAM	PO BOX 274 ALLIANCE, NC 28509
14	DUDLEY PAUL, JR.	PO BOX 345 ALLIANCE, NC 28509

NCDOT

DIVISION OF HIGHWAYS

PAMLICO COUNTY

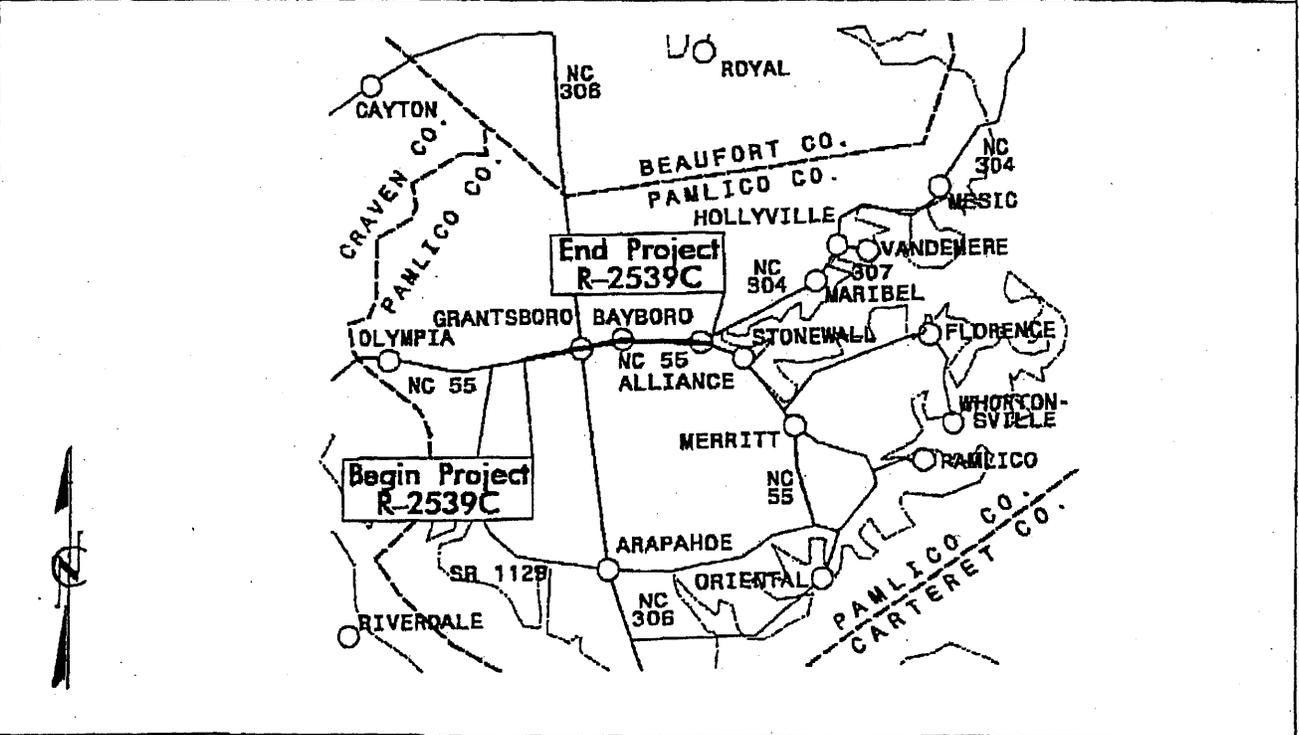
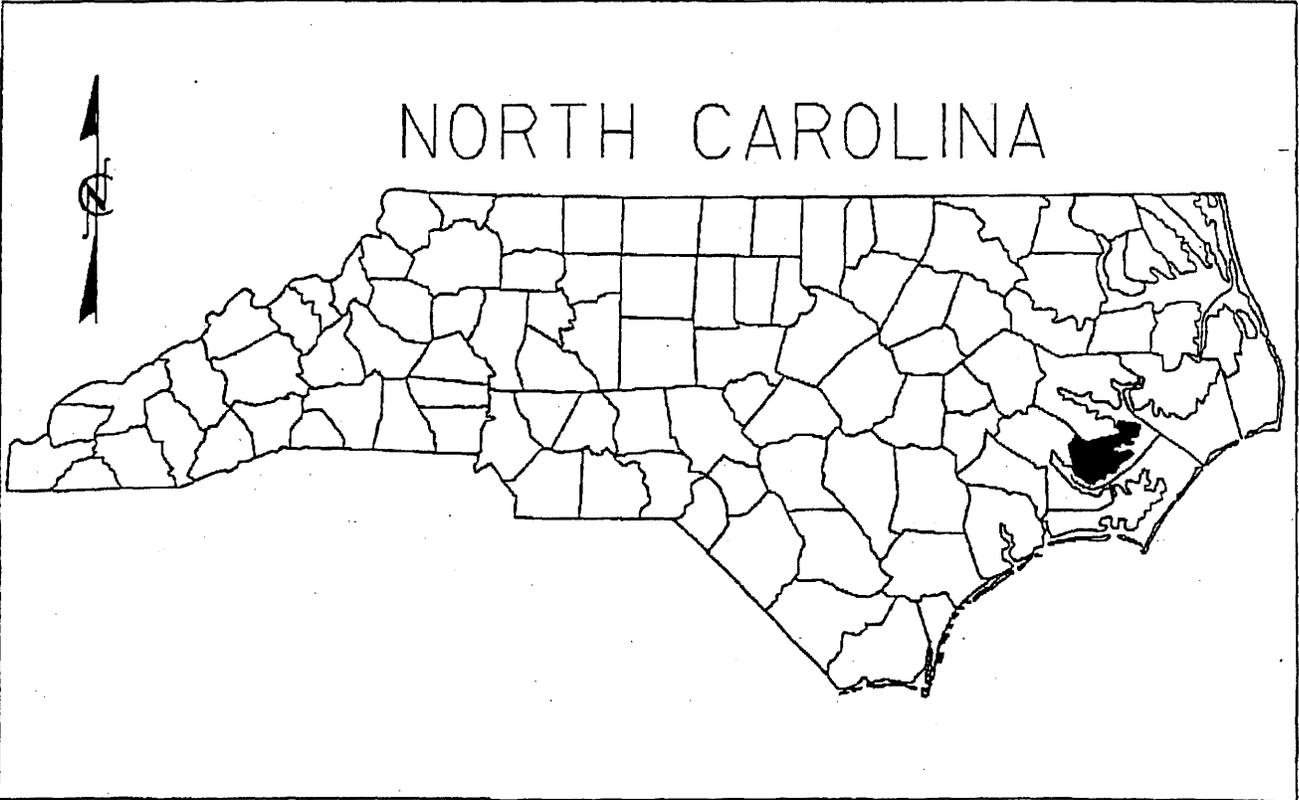
**PROJECT: 8.1170901 (R-2539C)
NC 55 FROM EAST OF SR 1129
TO NC 304 IN BAYBORO**

PROPERTY OWNERS
NAMES AND ADDRESSES

REFERENCE NO.	NAMES	ADDRESSES
15	HERMAN IRELAND	PO BOX 125 ALLIANCE, NC 28509
16	PEGGY WOOSTER	PO BOX 152 ALLIANCE, NC 28509
17	C. W. PHILLIPS	PO BOX 73 ALLIANCE, NC 28509

NCDOT
DIVISION OF HIGHWAYS
PAMLICO COUNTY
PROJECT: 8.1170901 (R-2539C)
NC 55 FROM EAST OF SR 1129
TO NC 304 IN BAYBORO

SHEET *23* OF *24* 7/31/03

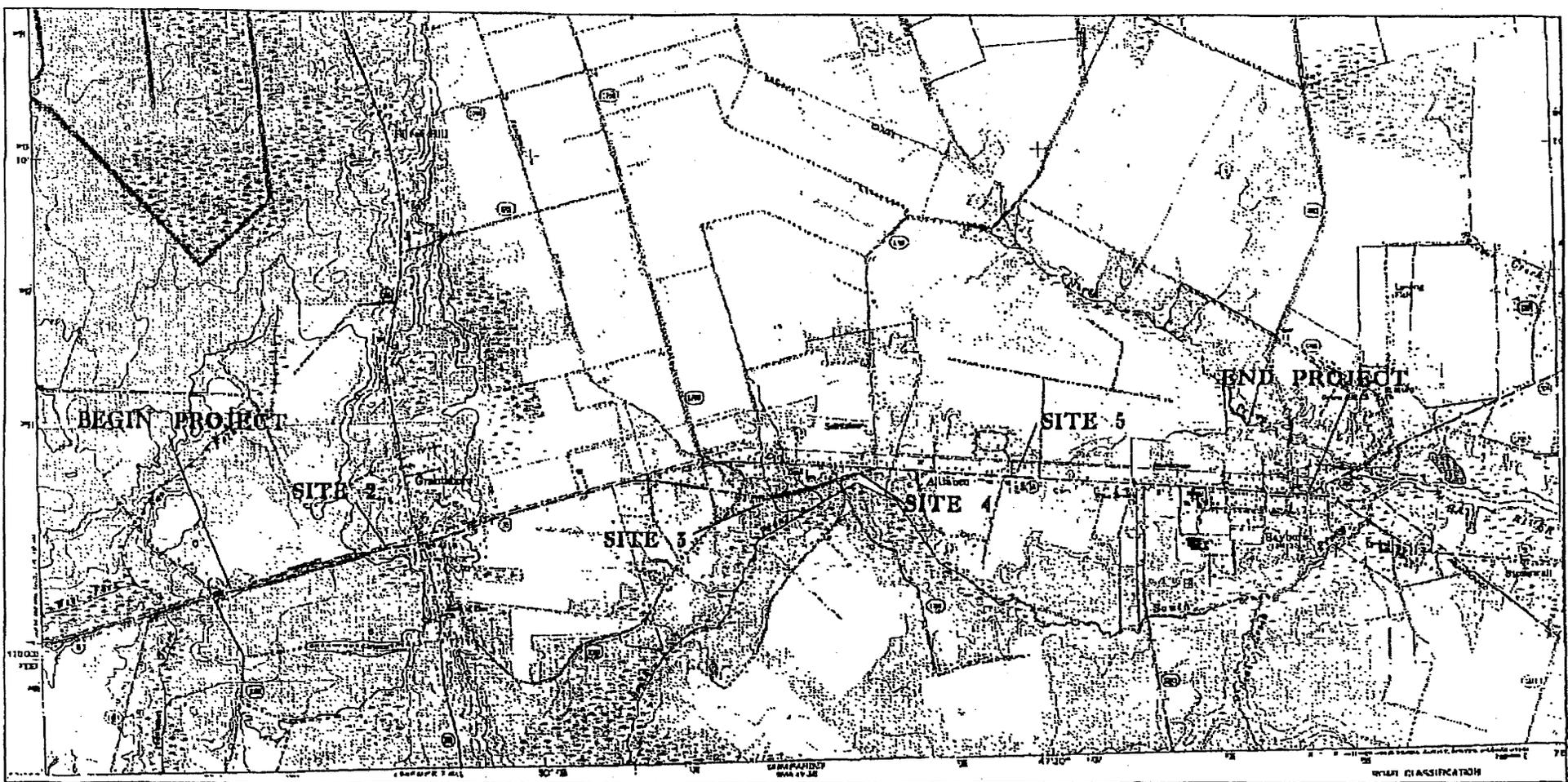


**BUFFER
VICINITY
MAPS**

NCDOT
 DIVISION OF HIGHWAYS
 PAMLICO COUNTY
 PROJECT: 8.1170901 (R-2539C)
 NC 55 FROM EAST OF SR 1129
 TO NC 304 IN BAYBORO

SHEET 1 OF 9

7/9/03



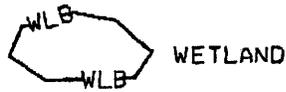
TOPO MAP
 SCALE 1" = 4000'

NCDOT
 DIVISION OF HIGHWAYS
 PAMLICO COUNTY
 PROJECT: 8.1170901 (R-2539C)
 NC 55 FROM EAST OF SR 1129
 TO NC 304 IN BAYBORO

SHEET 3 OF 9 7/9/03

BUFFER LEGEND

—WLB— WETLAND BOUNDARY



WETLAND



ALLOWABLE IMPACTS ZONE 1



ALLOWABLE IMPACTS ZONE 2



MITIGABLE IMPACTS ZONE 1



MITIGABLE IMPACTS ZONE 2

—BZ— RIPARIAN BUFFER ZONE

—BZ1— RIPARIAN BUFFER ZONE 1
30 ft (9.2m)

—BZ2— RIPARIAN BUFFER ZONE 2
20 ft (6.1m)

— 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

---PI--- PROPERTY LINE

—TDE— TEMP. DRAINAGE EASEMENT

—PDE— PERMANENT DRAINAGE EASEMENT

---EAB--- EXIST. ENDANGERED ANIMAL BOUNDARY

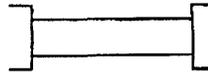
---EPB--- EXIST. ENDANGERED PLANT BOUNDARY

▽ WATER SURFACE

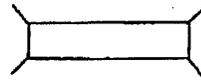
x x x x
x x x x
LIVE STAKES

○ BOUNDER

--- CORE FIBER ROLLS



PROPOSED BRIDGE



PROPOSED BOX CULVERT



PROPOSED PIPE CULVERT

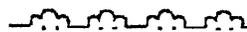
(DASHED LINES DENOTE EXISTING STRUCTURES)

12"-48" PIPES

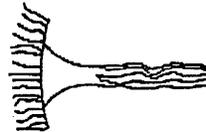
54" PIPES & ABOVE



SINGLE TREE



WOODS LINE



DRAINAGE INLET

ROOTWAD



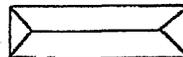
RIP RAP



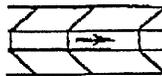
ADJACENT PROPERTY OWNER OR PARCEL NUMBER IF AVAILABLE



PREFORMED SCOUR HOLE (PSH)

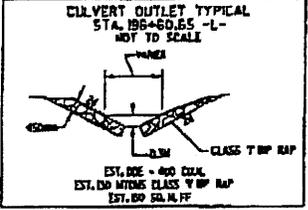
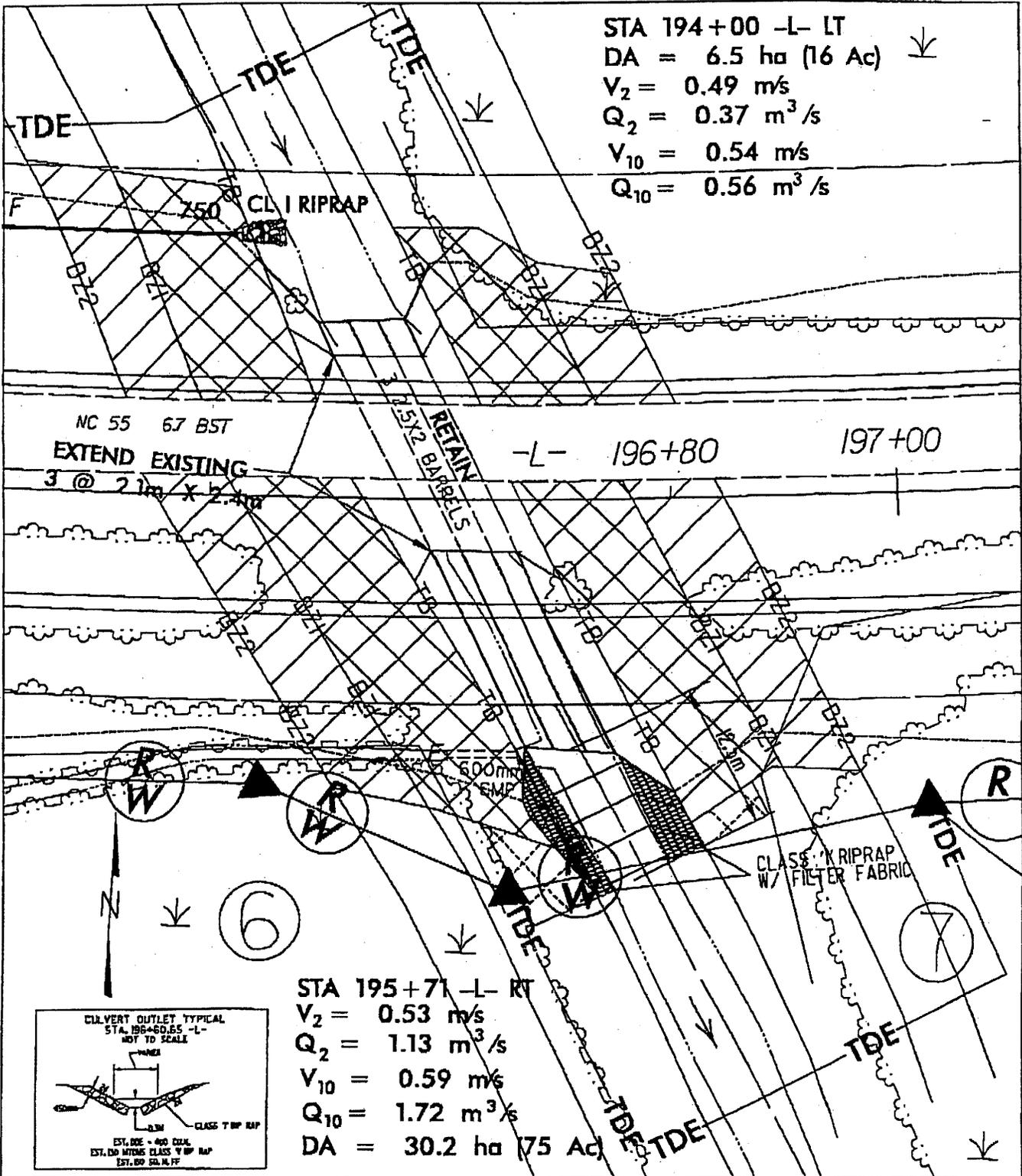


LEVEL SPREADER (LS)



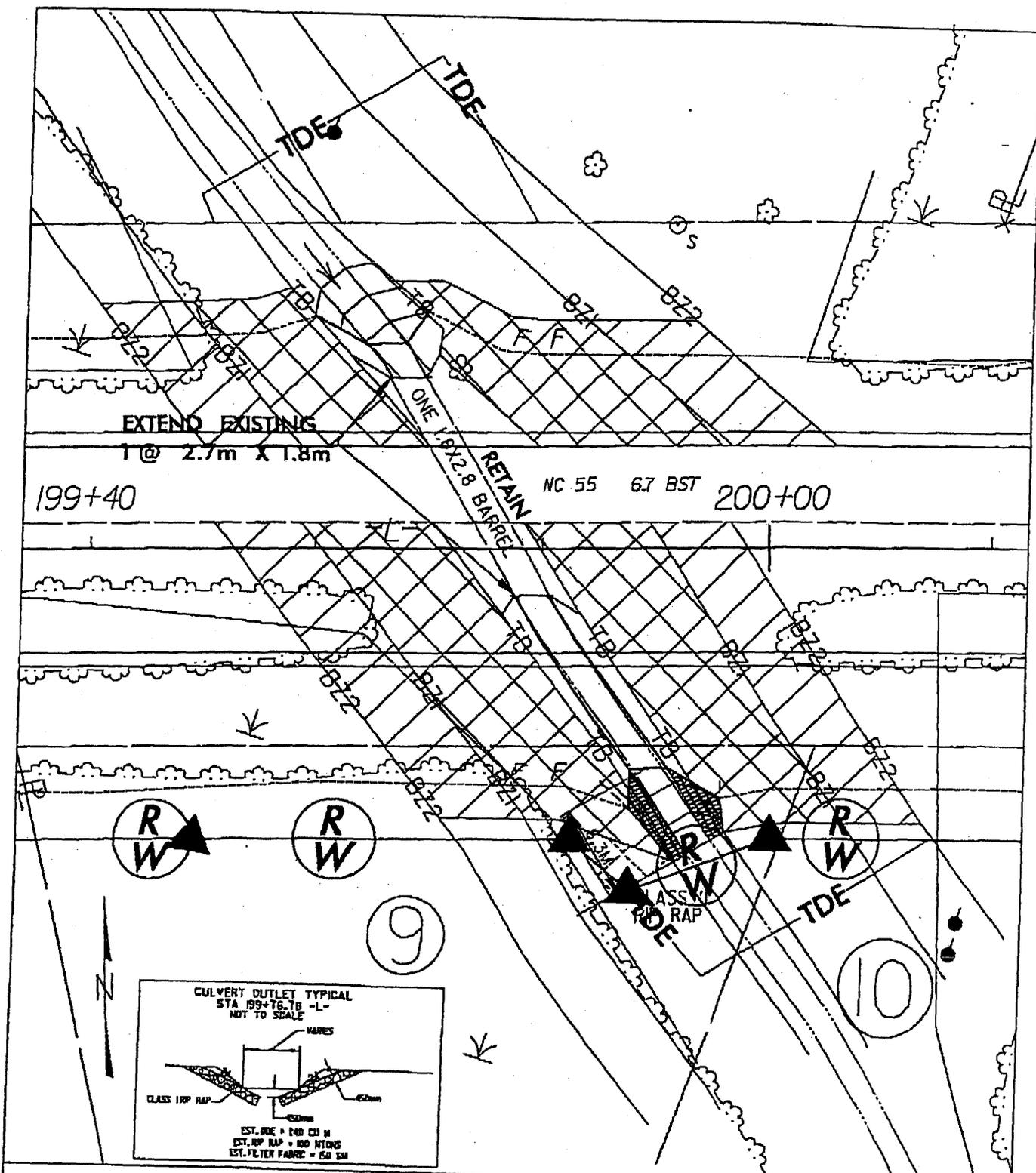
GRASS SWALE

NCDOT
DIVISION OF HIGHWAYS
PAMLICO COUNTY
PROJECT: 81170901 (R-2539C)
NC 55 FROM EAST OF SR 1129
TO NC 304 IN BAYBORO



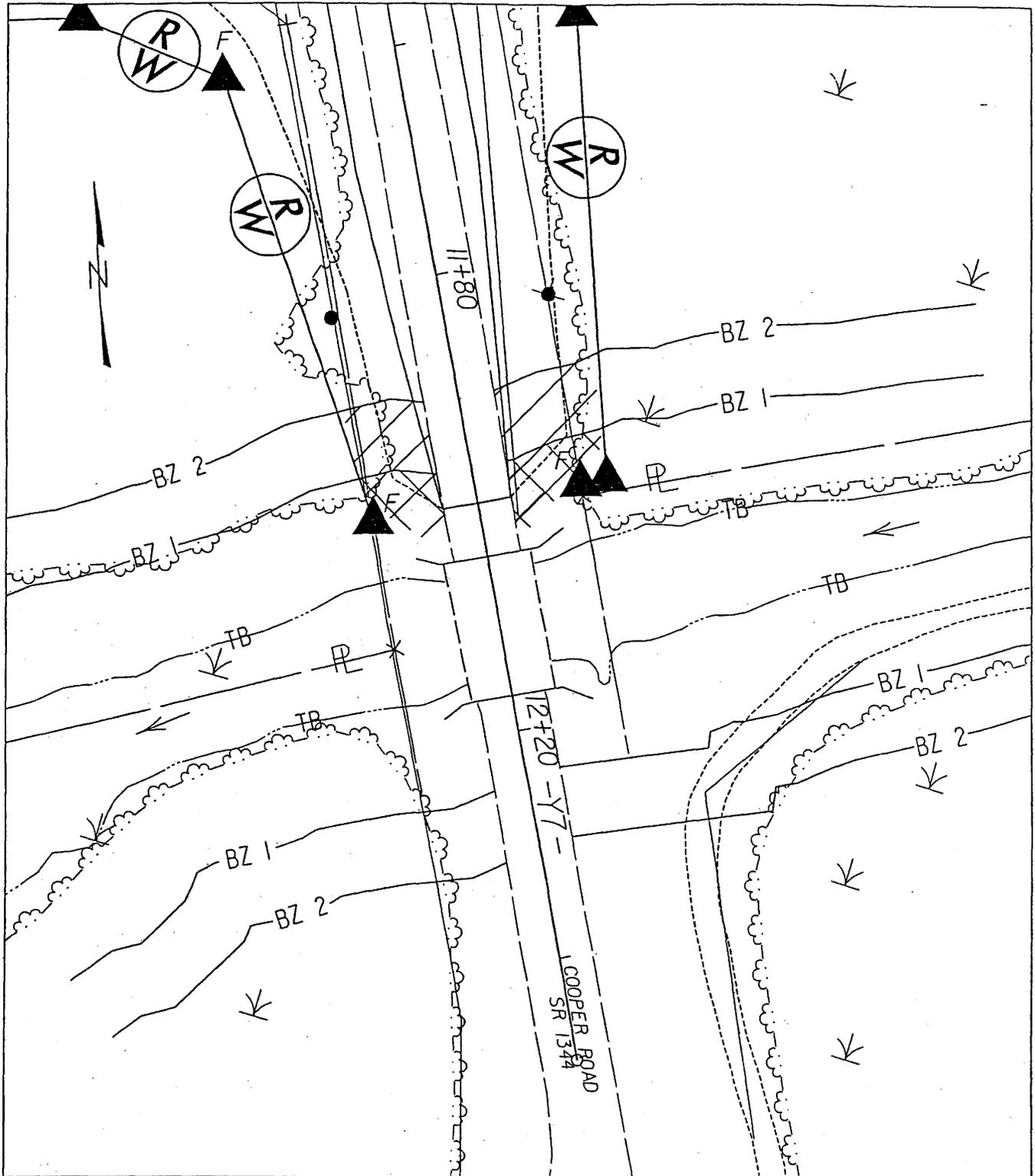
PLAN VIEW
 BUFFER
 IMPACTS
 SITE 3
 SCALE = 1:500

NCDOT
 DIVISION OF HIGHWAYS
 PAMLICO COUNTY
 PROJECT: 8.1170901 (R-2539C)
 NC 55 FROM EAST OF SR 1129
 TO NC 304 IN BAYBORO



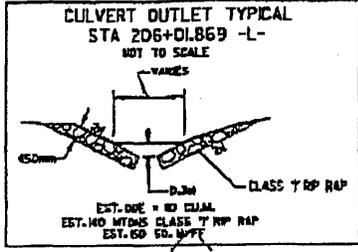
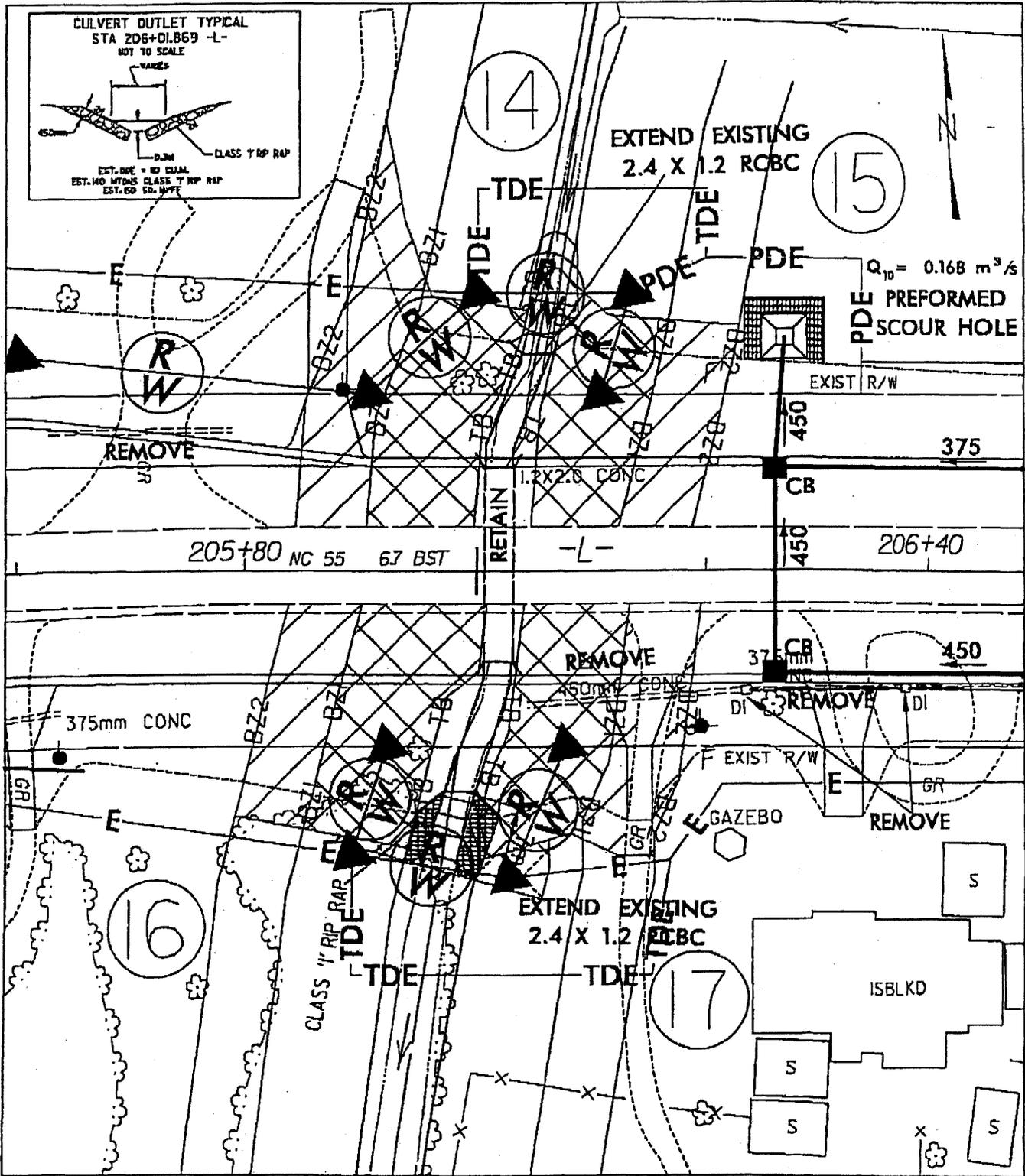
PLAN VIEW
 BUFFER
 IMPACTS
 SITE 3
 SCALE ≡ 1:500

NCDOT
 DIVISION OF HIGHWAYS
 PAMLICO COUNTY
 PROJECT: 8.1170901 (R-2539C)
 NC 55 FROM EAST OF SR 1129
 TO NC 304 IN BAYBORO
 SHEET 6 OF 9
 2/6/04



PLAN VIEW
 BUFFER
 IMPACTS
 SITE 3A
 SCALE = 1:500

NCDOT
 DIVISION OF HIGHWAYS
 PAMLICO COUNTY
 PROJECT: 8.1170901 (R-2539C)
 NC 55 FROM EAST OF SR 1129
 TO NC 304 IN BAYBORO



PLAN VIEW
 BUFFER
 IMPACTS
 SITE 5
 SCALE = 1:500

NCDOT
 DIVISION OF HIGHWAYS
 PAMLICO COUNTY
 PROJECT: 8.1170901 (R-2539C)
 NC 55 FROM EAST OF SR 1129
 TO NC 304 IN BAYBORO
 SHEET 8 OF 9
 2/6/04

BUFFER IMPACTS SUMMARY

			IMPACT							BUFFER REPLACEMENT		
SITE NO.	STRUCTURE SIZE / TYPE	STATION (FROM/TO)	TYPE		ALLOWABLE			MITIGABLE			ZONE 1 (sqft)	ZONE 2 (sqft)
			ROAD CROSSING	PARALLEL IMPACT	ZONE 1 (sqft)	ZONE 2 (sqft)	TOTAL (sqft)	ZONE 1 (sqft)	ZONE 2 (sqft)	TOTAL (sqft)		
3	3 @ 2.1 X 2.4 RCBC	196+60 -L-	X					10,793	6,495	17,288	651	
3	2 @ 2.7 X 1.8 RCBC	199+77 -L-	X					10,440	6,373	16,813	252	
3A	BRIDGE	12+10 -Y7-	X		750	1,064	1,814					
5	1 @ 2.4 X 1.2 RCBC	206+00 -L-	X		8,442	5,039	13,481				283	
TOTAL:					9,192	6,103	15,295	21,233	12,868	34,101	1,186	0

N.C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 PAMLICO COUNTY
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 NC 55 FROM EAST OF SR 1129
 TO NC 304 IN BAYBORO

SHEET **9** OF **9** 9/30/04