




STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

December 1, 2004

MEMORANDUM TO: Mr. Jon G. Nance, P.E.
Division 5 Engineer

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

SUBJECT: Durham County; Division 5; Widening of I-85 from west of US 15-501
to west of Broad Street; State Project No. 8.1414801; TIP No. I-306C

Attached is the modification of 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/gyb

Attachment

cc: Mr. Art McMillan, P.E.
Mr. Omar Sultan
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. Chris Murray, Division 5 DEO
Ms. Cathy Houser, PE

PROJECT COMMITMENTS

Widening of I-85
from west of US 15-501 to west of Broad Street
Federal Aid Project I-85-4(49)174
State Project 8.1414801
TIP No. I-306C

In addition to the standard Individual Permit Conditions, Section 404 Only Conditions, Regional Conditions, State Consistency Conditions, General Certification Conditions, and the Section 401 Conditions of Certification, the following Environmental Commitments were developed through Project Development and Design and have been agreed to by NCDOT:

No new special conditions are contained in this Section 401 Water Quality Certification Modification. All standard conditions apply along with any previous Section 401 conditions.



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

November 12, 2004

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

Dear Dr. Thorpe:

Re: Certification Pursuant to Section 401 of the Federal Clean Water Act,
 Modification to the widening of I-85 from west of US 15-501 to west of Broad Street, TIP I-306C, WQC
 Project No. 021677. Durham County

Attached hereto is a modification to Certification No. 3411 issued to the North Carolina Department of Transportation on February 5, 2003, modified August 12, 2003. The attached modification authorizes the changes in pipe sizes at Site 1, changes in pipe sizes, location of pipes, addition in pipes and elimination of concrete collars and pipes from Station 22+200 through Station 22+500(+) as well as the following:

Site Location	Original WQC Buffer Impacts Zone 1 (sq. ft.)	Original WQC Buffer Impacts Zone 2 (sq. ft.)	Additional Buffer Impacts Zone 1 (sq. ft.) with this modification	Additional Buffer Impacts Zone 2 (sq. ft.) with this modification
1 (road crossing)	2,265	1,742	688	441
Zone 1 Impacts Total (sq. ft.) at Site 1 with this modification				
Zone 2 Impacts Total (sq. ft.) at Site 1 with this modification				
7 (Utility)	2,309	1,307	107	-39
Zone 1 Impacts Total (sq. ft.) at Site 7 with this modification				
Zone 2 Impacts Total (sq. ft.) at Site 7 with this modification				
7A (Utility)	566	741	-263	1,247
Zone 1 Impacts Total (sq. ft.) at Site 7A with this modification				
Zone 2 Impacts Total (sq. ft.) at Site 7A with this modification				





Michael F. Easley, Governor
William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources
Alan W. Klimek, P.E. Director

This modification is applicable only to the additional proposed activities. All the authorized activities and conditions of certification associated with the original Water Quality Certification dated February 5, 2003 and all other corresponding modifications still apply except where superceded by this certification.

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

Sincerely,

Alan W. Klimek, P.E.
Director

Attachments:

Modification to WQC No. 3411

cc: Wilmington District US Army Corps of Engineers
Mr. Eric Alsmeyer, US Army Corps of Engineers Raleigh Field Office
Mr. Jon G. Nance, PE, Division 5 Engineer, 2612 N. Duke St., Durham, NC 27704
Mr. Chris Murray, Division 5 Environmental Officer, 2612 N. Duke St., Durham, NC 27704
DWQ Raleigh Regional Office
Mr. Bill Gilmore, NC Ecosystem Enhancement Program
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, Section .0500. The attached modification authorizes the changes in pipe sizes at Site 1, changes in pipe sizes, location of pipes, addition in pipes and elimination of concrete collars and pipes from Station 22+200 through Station 22+500(+) as well as the following:

Site Location	Original WQC Buffer Impacts Zone 1 (sq. ft.)	Original WQC Buffer Impacts Zone 2 (sq. ft.)	Additional Buffer Impacts Zone 1 (sq. ft.) with this modification	Additional Buffer Impacts Zone 2 (sq. ft.) with this modification
1 (road crossing)	2,265	1,742	688	441
Zone 1 Impacts Total (sq. ft.) at Site 1 with this modification				
Zone 2 Impacts Total (sq. ft.) at Site 1 with this modification				
7 (Utility)	2,309	1,307	107	-39
Zone 1 Impacts Total (sq. ft.) at Site 7 with this modification				
Zone 2 Impacts Total (sq. ft.) at Site 7 with this modification				
7A (Utility)	566	741	-263	1,247
Zone 1 Impacts Total (sq. ft.) at Site 7A with this modification				
Zone 2 Impacts Total (sq. ft.) at Site 7A with this modification				

This modification is applicable only to the additional proposed activities. All the authorized activities and conditions of certification associated with the original Water Quality Certification dated February 5, 2003 and all other corresponding modifications still apply except where superseded by this certification.

The application provides adequate assurance that the proposed impacts to the Protected Neuse Riparian Buffers 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 total wetland fills for this project (now or in the future exceed one acre, 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.

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. Measures shall be taken to prevent live or fresh concrete from coming into contact with waters of the state until the concrete has hardened.
 3. 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.
 4. Placement of culverts and other structures in waters, streams, and wetlands must be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. 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 stream beds 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.
 5. All channel relocations will be constructed in a dry work area, and stabilized before stream flows are diverted. Channel relocations will be completed and stabilized prior to diverting water into the new channel. Whenever possible, channel relocations shall be allowed to stabilize for an entire growing season. Vegetation used for bank stabilization shall be limited to native woody species, and should include establishment of a 30 foot wide wooded and an adjacent 20 foot wide vegetated buffer on both sides of the relocated channel to the maximum extent practical. A transitional phase incorporating coir fiber and seedling establishment is allowable. Also, rip-rap may be allowed if it is necessary to maintain the physical integrity of the stream, but the applicant must provide written justification and any calculations used to determine the extent of rip-rap coverage requested.
 6. 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.
 7. The dimension, pattern and profile of the stream above and below the crossing should not be modified. Disturbed floodplains and streams should be restored to natural geomorphic conditions.
 8. Any riprap used must not interfere with thalweg performance and aquatic life passage during low flow conditions.
 9. Heavy equipment must be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into the stream.
 10. 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.



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11. All work shall be performed during low or normal flow conditions.
12. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
13. 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.
14. 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 areas within the fencing are prohibited unless otherwise authorized by this certification.
15. 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 Division of Water Quality upon completion of the project.
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. 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.
18. 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.
19. Mitigation for impacts to 410 square feet of protected riparian buffers in Zone 1 and 0 square feet of protected riparian buffers in Zone 2 will be mitigated for as described below:

Zone of Impact	Impacts (Square Feet)	Replacement Ratio	Total Square Feet of Mitigation Required
Zone 1	410	3:1	1,230
Zone 2	0	1.5:1	0
Total	410		1,230

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 Neuse 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 for 1,230 square feet of buffer impact. Therefore, a total payment of \$1,180.80 shall be submitted to the NCEEP to offset the impacts. No construction activities in Neuse 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).



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20. All other conditions written into previous Water Quality Certifications for this project still apply.

Violations of any condition herein set forth shall 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 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.

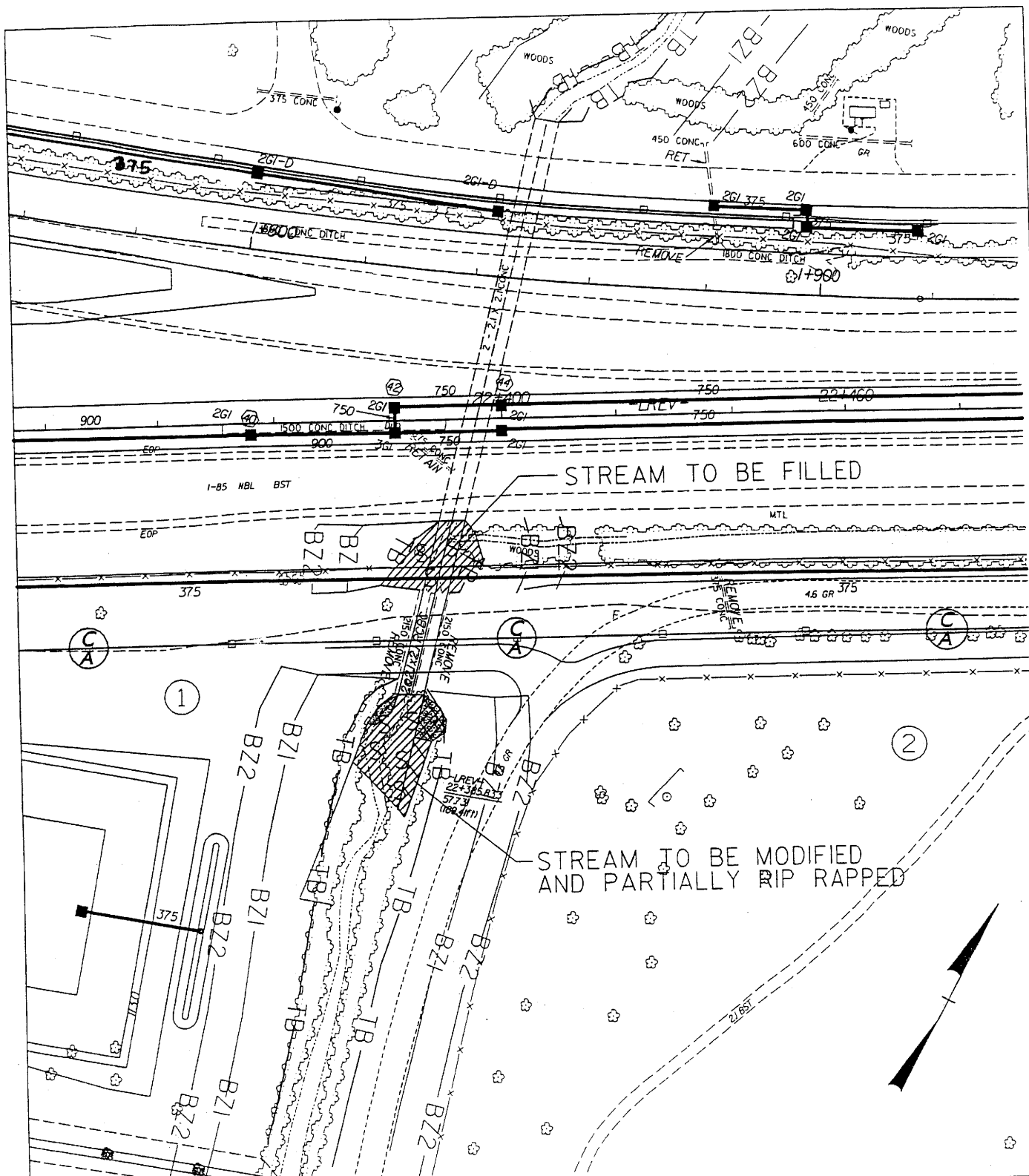
This the 12th day of November 2004
DIVISION OF WATER QUALITY

A handwritten signature in black ink, appearing to read "Alan W. Klimek", is written over a faint, circular stamp or watermark.

Alan W. Klimek, P.E.
Director

Modification to WQC No. 3411

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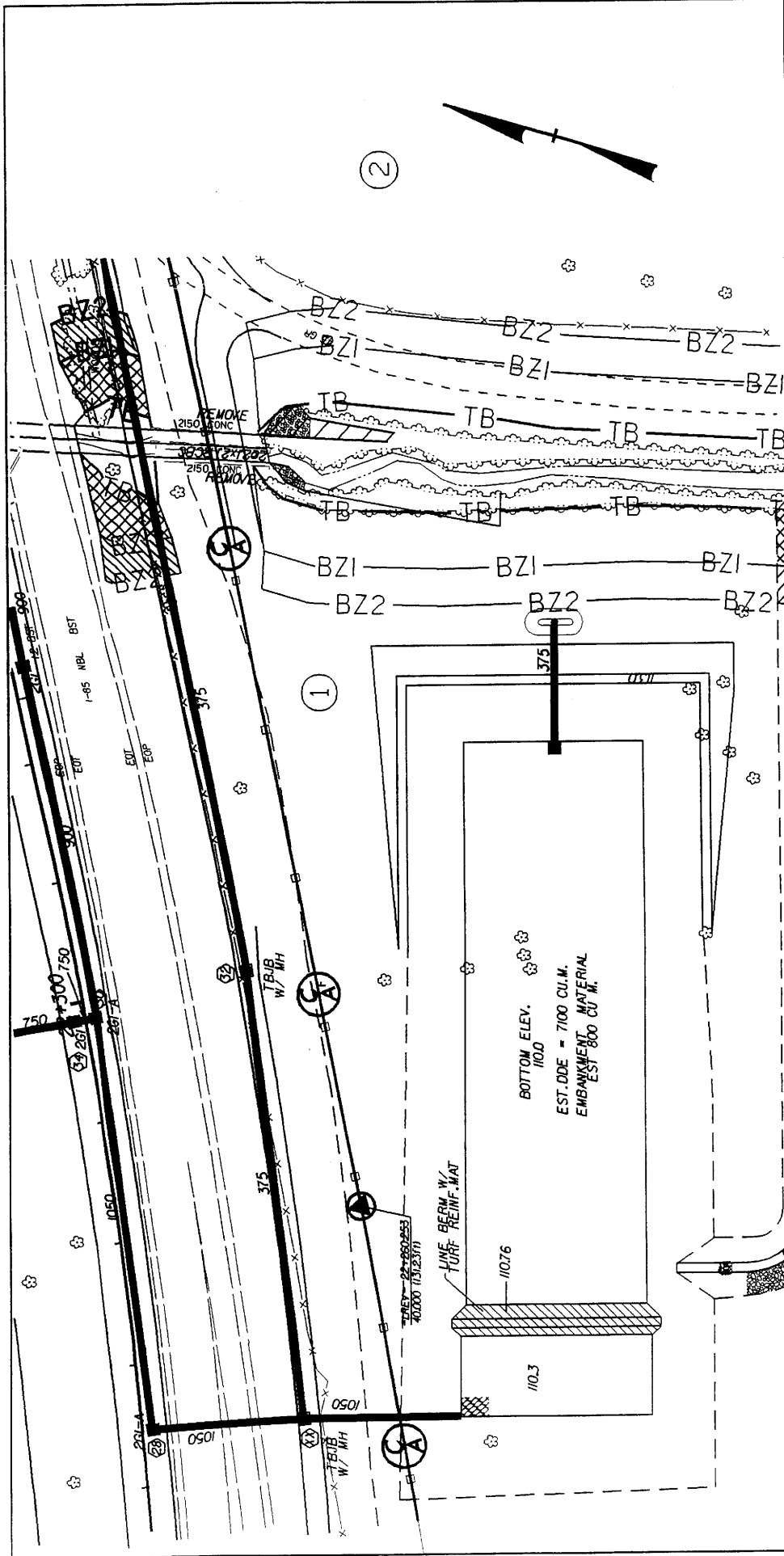
PLAN VIEW
 SITE 1
 STREAM IMPACTS

SCALE = 1:1000

NCDOT
 DIVISION OF HIGHWAYS
 DURHAM COUNTY
 PROJECT: 8.1414801 (I-306C)
 I-85 FROM WEST OF US 15-501
 TO WEST OF BROAD STREET

SHEET 6 OF 21

Rev
 9/2/04



NCDOT

DIVISION OF HIGHWAYS

DURHAM COUNTY

PROJECT: 8.1414801 (I-306C)

I-85 FROM WEST OF US 15-501
TO WEST OF BROAD STREET

Rev

SHEET 7 OF 21

SCALE 1:1000

8/24/04

PLAN VIEW
SITE 1

BUFFER IMPACTS

BUFFER IMPACTS SUMMARY

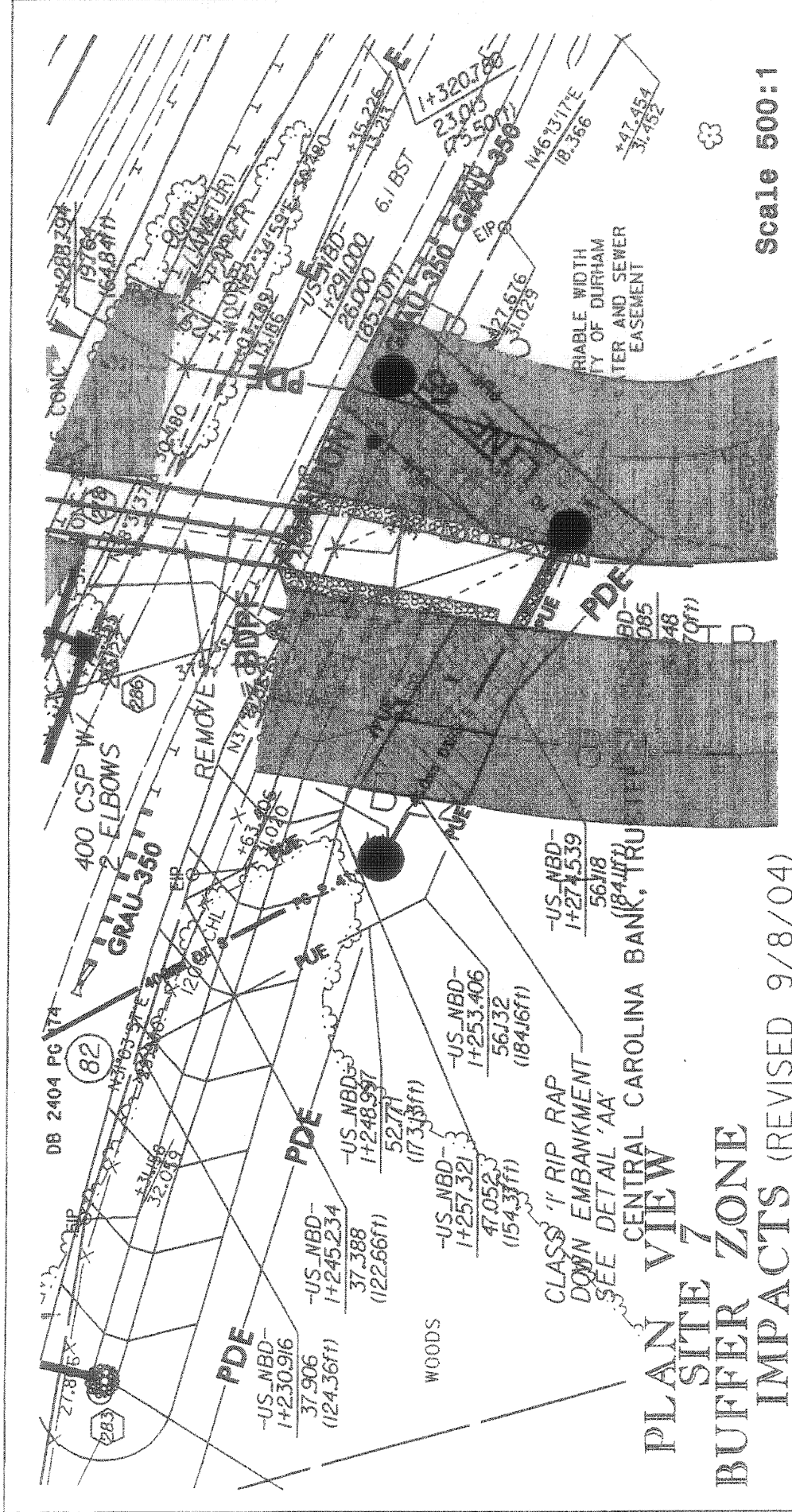
SITE NO.	STRUCTURE SIZE / TYPE	STATION (FROM/TO)	PERMANENT IMPACTS			WETLANDS IN BUFFER			BUFFER REPLACEMENT				
			ZONE 1 (sq ft)	ZONE 2 (sq ft)	TOTAL (sq ft)	LINEAR (ft)	ZONE 1 (ha)	ZONE 2 (ha)	ZONE 1 (ha)	ZONE 2 (ha)	ZONE 1 (ha)	ZONE 2 (ha)	
1	2 @ 2.1 x 2.1 RCBC	22+380/22+520-L-						0	0	0	0	0	0
	approved site		2265	1742	4007	44.00		0	0	0	0	0	0
	additional impact		688	441	1129	23.00							
	total impacts		2953	2183	5136	67.00		0	0	0	0	0	0
2	1200mm RCP	23+287 -L-	0	0	0	0.00		0	0	0	0	0	0
3	1050mm RCP	23+680 -L-	4090	2691	6781			0	0	0	0	0	0
4	1200mm RCP	24+460/24+740-L-	49514	5059	54573	1033.00							
5	2 @ 3.7 x 3.0 RCBC	24+720/24+737-L-	1507	969	2476	52.00		0	0	0	0	0	0
6	NOT ON SOILS MAP OR USGS TOPO MAP												
7	2 @ 2.4 x 2.7 RCBC	1+269 -USNBD-	7642	4628	12270	212.00							
TOTAL:			65706	15530	81236	1364.00		0	0	0	0	0	0

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

DURHAM COUNTY
PROJECT: 8.1414801 (I-306C)

Rev.
September 28, 2004

Sheet 21 of 21



Scale 500:1

**PLAN VIEW
SITE 7
BUFFER ZONE
IMPACTS (REVISED 9/8/04)**

LOCATION, RIGHT OF STA. 1+260 LINE -US_NBD-

STREAM IMPACT
Length=24.90 ft
Area=82.67 ft²

**PERMANENT IMPACTS
ZONE 1**

Length=89.81 ft
Area=2415.31 ft²

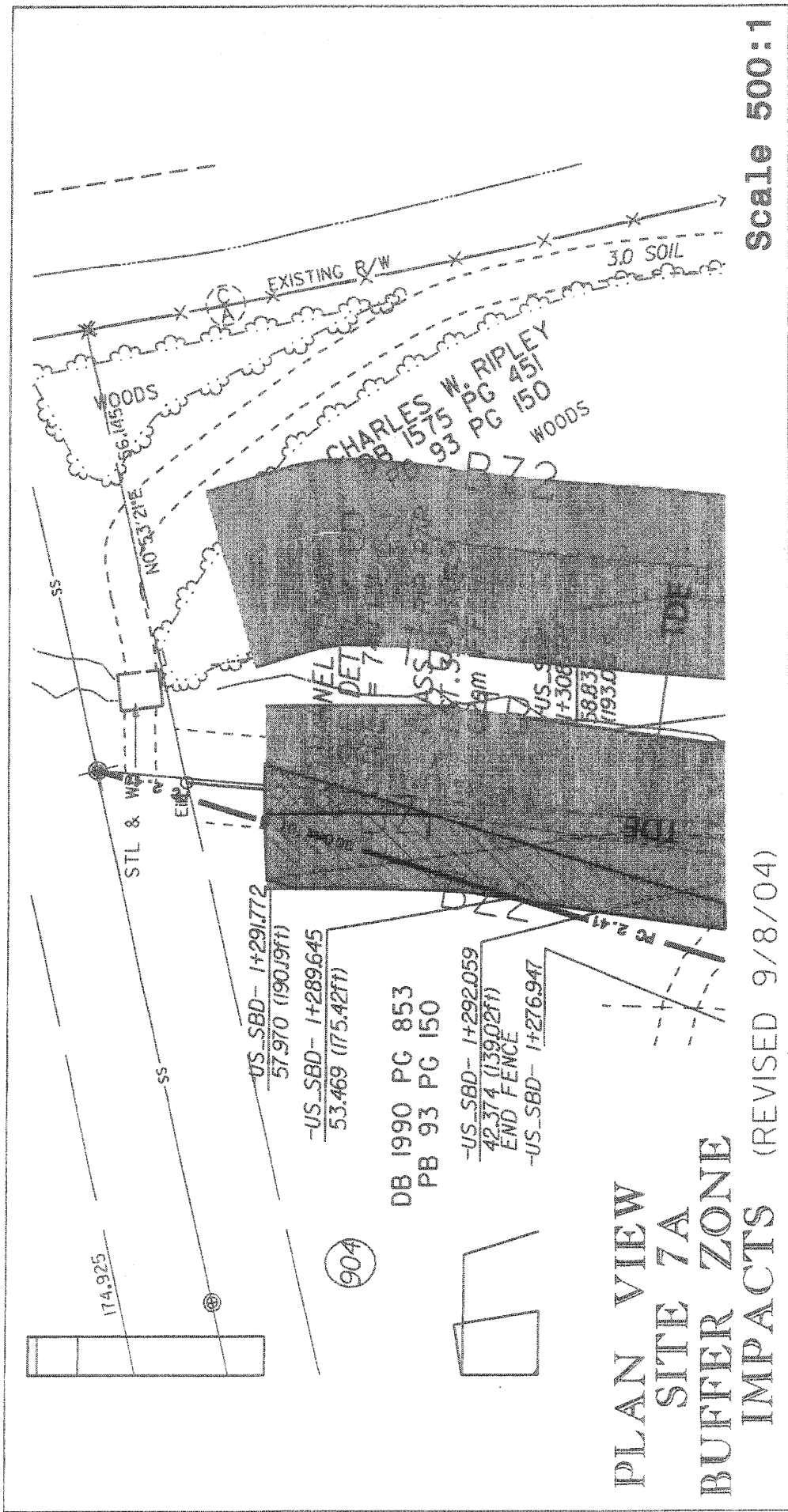
**PERMANENT IMPACTS
ZONE 2**

Length=36.18 ft
Area=1267.67 ft²



N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
DURHAM COUNTY

PROJECT: 8.1414801, (I-0306C)
I-85 FROM EAST OF US 15/501
TO WEST OF BROAD STREET
SHEET 11 OF 14



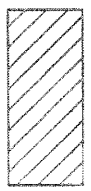
Scale 500:1

LOCATION, LEFT OF STA. 1+260 LINE -US_NBD-



PERMANENT IMPACTS
ZONE 1

Length=0 ft
Area=303.43 ft²



PERMANENT IMPACTS
ZONE 2

Length=78.74 ft
Area=1988.31 ft²

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
DURHAM COUNTY

PROJECT: 8.1414801, (I-0306C)
I-85 FROM EAST OF US 15/501
TO WEST OF BROAD STREET

SHEET 14 OF 14

TOTAL PERMANENT IMPACTS IN
BUFFER ZONE 1

Area=6,726.26 ft²

TOTAL PERMANENT IMPACTS IN
BUFFER ZONE 2

Area=18,371.30 ft²

(REVISED 9/8/04)

TOTAL STREAM IMPACT

Area=82.67 ft²

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
DURHAM COUNTY

PROJECT: 8.1414801, (I-0306C)
I-85 FROM EAST OF US 15/501
TO WEST OF BROAD STREET

SHEET 13 OF 14