



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

May 16, 2006

MEMORANDUM TO: Mr. Jon G. Nance, PE
Division Five Engineer

FROM: Philip S. Harris, III, P.E., Unit Head *PSH*
Natural Environment Unit
Project Development and Environmental Analysis Branch

SUBJECT: Wake County, Northern Wake Expressway (I-540) from US
1 to US 64; T.I.P. Number R-2000 AC; Federal Aid Project
No. NHF-123-1(11); State Project 8.U401711

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

PSH/gyb

Attachment

Mr. Majed Alghandour, P. E., Programming and TIP
Mr. Jay Bennett, P.E., Roadway Design
Dr. David Chang, P.E., Hydraulics
Mr. Randy Garris, P.E. State Contract Officer
Mr. Art McMillan, P.E., Highway Design
Mr. Greg Perfetti, P.E., Structure Design
Mr. Mark Staley, Roadside Environmental
Mr. John F. Sullivan, FHWA
Mr. Eric Midkiff, P.E., PDEA Central Region Unit Head
Mr. Chris Murray, Division Environmental Officer

PROJECT COMMITMENTS

Northern Wake Expressway (I-540) from US 1 to US 64
Wake County
State Project No. 8.U401711
Federal Aid Project No. NHF-123-1(11)
TIP No.: R-2000AC

In addition to the standard Individual Section 404 and 401 Permit Conditions, State Consistency Conditions, NCDOT's Guidelines for Best Management Practices for Protection of Surface Waters, the following special commitments have been agreed to by NCDOT:

Commitments Developed through Permit Modifications

No new special permit conditions are stated in the attached permits. All standard permit conditions apply to this project and all other conditions written into previous Section 404 permits, Water Quality Certifications and Neuse River Riparian Buffer Certifications for this project still apply.



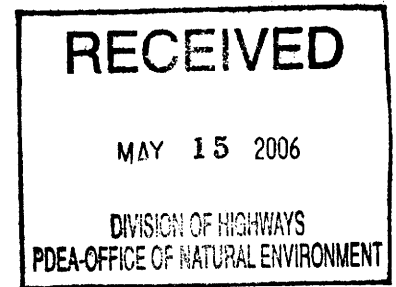
DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
PO BOX 1890
WILMINGTON NC 28402-1890



May 9, 2006

Regulatory Division

Action ID. 200021863



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

Dear Dr. Thorpe:

Reference the permit that the Department of the Army issued on October 10, 1996, for the discharge of dredged and fill material in waters of the United States, including wetlands, to facilitate construction of the Northern Wake Expressway (T.I.P. No. R-2000), Sections A, CA, CB, D, E, F and G, crossing Kit Creek, Lower Bartons Creek, Perry Creek, the Neuse River, Beaverdam Creek, unnamed tributaries, and adjacent wetlands, generally northwest and northeast of Raleigh, in Wake and Durham Counties, North Carolina (Action ID. 199601917). Reference also two earlier modifications to that permit and supplemental information provided on March 22, 2006, for additional permit modification for two changes of impacts to waters, from a discovered discrepancy between the permit drawings and actual site slopes, and additional required riprap bank stabilization, in Section AC. The revisions result in 53 linear feet of additional permanent stream impacts. NCDOT proposes to mitigate for the additional permanent stream losses through the North Carolina Ecosystem Enhancement Program (EEP).

We have reviewed the proposed modifications, and determined that they are minor, and that an additional public notice will not be necessary. Therefore, the permit is hereby modified to include the work as shown on the enclosed revised drawings, subject to the following additional special condition:

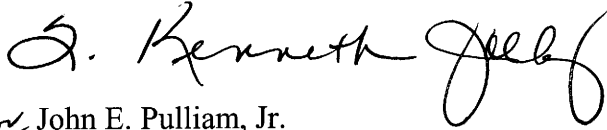
Compensatory mitigation for the additional unavoidable loss of 33 linear feet of stream associated with the proposed project, associated with the March 22, 2006 modification request, shall be provided by the Ecosystem Enhancement Program (EEP), as outlined in the letter dated March 22, 2006 from William D. Gilmore, P.E., EEP Director. Pursuant to the EEP Memorandum of Agreement (MOA) between the State of North Carolina and the U.S. Army Corps of Engineers signed on July 22, 2003, the EEP will provide 66 linear feet of restoration equivalent warm water stream channel in the Neuse River basin (Hydrologic Cataloging Unit 030202012) by one year of the date of this permit. 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.

It is understood that all other conditions of the original permit remain applicable and that the expiration date (December 31, 2007) is unchanged.

If you have questions, please contact Eric Alsmeyer of the Raleigh Regulatory Field Office, at (919) 876-8441, extension 23.

Sincerely,


John E. Pulliam, Jr.
Colonel, U.S. Army
District Engineer

Enclosures

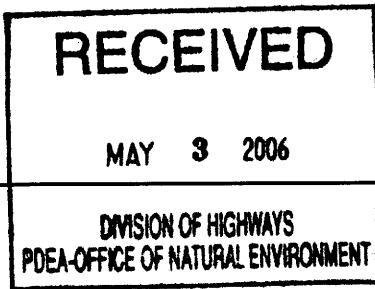
Copies Furnished (with enclosures):

Mr. Jon Nance
Division Engineer
N.C. Department of Transportation
2612 North Duke Street
Durham, North Carolina 27704

Mr. Chris Murray
Division Environmental Officer
N.C. Department of Transportation
2612 North Duke Street
Durham, North Carolina 27704

Copy Furnished (without enclosures):

Mr. John Hennessey
Water Quality Section
Division of Environmental Management
N.C. Department of Environment
and Natural Resources
Post Office Box 29535
Raleigh, North Carolina 27626-0535

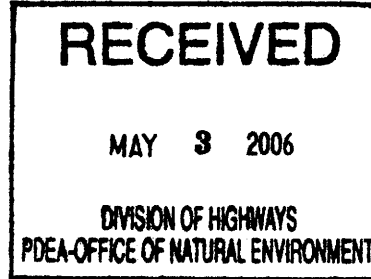
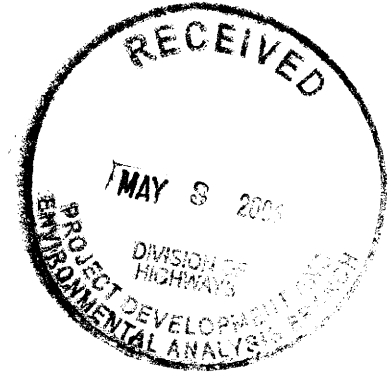


Michael F. Easley, Governor
William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources

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

*Rachelle
Beauregard*

April 24, 2006



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 of 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act,
Proposed to Individual Permit in Wake County (TIP R-2000 AA, AB, AC).
DWQ Project No. 030918 ver.3

Attached hereto is a copy of the Modification of Certification No. 3439 issued to The North Carolina Department of Transportation dated October 7, 2003. All the authorized activities and conditions of the certification associated with the Water Quality Certification dated October 7, 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 us.

Sincerely,

Alan W. Klimek
Alan W. Klimek, P.E.
Director

Attachments

- cc: Wilmington District US Army Corps of Engineers
- Mr. Eric Alsmeyer, Corps of Engineers Raleigh Field Office
- Mr. Christopher Militscher, US Environmental Protection Agency – Region IV
- Mr. William Gilmore, P.E. Transition Manager, NC DENR Ecosystem Enhancement Program
- Mr. Jon G. Nance, P.E. Division 5 Engineer, 2612 N. Duke St., Durham NC 27704
- Mr. Chris Murray, Division 5 Environmental Officer, 2612 N. Duke St., Durham NC 27704
- Ms. Rachelle Beauregard, ONE, Parker-Lincoln Bldg., 2728-168 Capital Blvd., Raleigh NC 27604
- NC DWQ Raleigh Regional Office
- Central Files
- File Copy





**APPROVAL OF 401 Water Quality Certification and ADDITIONAL CONDITIONS
 and Neuse River Buffer Rules**

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 .0233. This certification authorizes the NCDOT for the following new impacts:

New Surface Water Impacts for the Neuse River Basins in this version

| Section | Ponds (acres) | Stream Impacts (linear feet) | Stream Impacts Requiring Mitigation (linear feet) | On-Site Natural Channel Design (linear feet) | Mitigation Required |
|---|---------------|----------------------------------|---|--|---------------------|
| Section AC Impacts for this modification (ver. 3) | 0 | 20 (at Site 3) 33 (at Site 4) | 53 | 0 | 53 |
| Total new impacts for this modification | 0 | 53 | 53 | 0 | 53 |

New Neuse Riparian Buffer Impacts for this modification (Ver. 3) in Section AC

| Site | Zone 1 Impact (sq ft) | minus Wetlands in Zone 1 (sq ft) | = Zone 1 Buffers (not wetlands) (sq ft) | Zone 1 Buffer Mitigation Required (using 3:1 ratio) | Zone 2 Impact (sq ft) | minus Wetlands in Zone 2 (sq ft) | = Zone 2 Buffers (not wetlands) (sq ft) | Zone 2 Buffer Mitigation Required (using 1.5:1 ratio) |
|---------------|-----------------------|----------------------------------|---|---|-----------------------|----------------------------------|---|---|
| 4 | 1,939 | N/A | 1,939 | 5,817 | 1,280 | N/A | 1,280 | 1,920 |
| Totals | 1,939 | 0 | 1,939 | 5,817 | 1,280 | 0 | 1,280 | 1,920 |

Total new Buffer Impact for this modification: 3,919 square feet.

The project shall be constructed pursuant to the modification received on March 24, 2006 for the I-540 interstate (Northern Wake Freeway) in Wake County. All the authorized activities and conditions of the certification associated with the Water Quality Certification dated October 7, 2003 and all subsequent modifications still apply except where superseded by this certification.

The application provides adequate assurance that the discharge of fill material into the waters of the Neuse and Cape Fear River Basins 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.

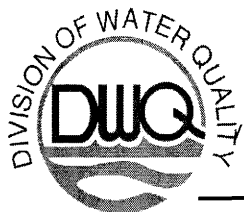
This approval is only valid for the purpose and design that you submitted in your application, as described in the Public Notice. Should your project change, you are required to notify the DWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If 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.

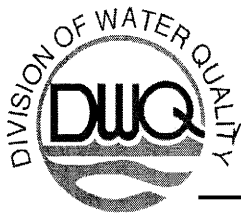
Condition(s) of Certification:

1. 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 water quality 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*. 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.
 - b.) 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*. 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 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. 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:
4. 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.
5. No live or fresh concrete shall come into contact with waters of the state until the concrete has hardened.
6. 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.



7. Upon completion of the project, the NCDOT shall complete and return the "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 Transportation Permitting Unit of the Division of Water Quality upon completion of the project.
8. 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.
9. All stormwater runoff shall be directed to sheetflow through stream buffers at nonerosive velocities, unless approved otherwise by this certification.
10. 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.
11. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1.
12. Riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.
13. Any riprap used must not interfere with thalweg performance and aquatic life passage during low flow conditions.
14. 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.
15. 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.
16. The presence of equipment in the channels must be minimized. Under no circumstances must rock, sand or other materials be dredged from the wetted stream channel under authorization of this permit, except in the immediate vicinity of the culverts.
17. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
18. We understand that you have chosen to perform compensatory mitigation for new impacts to 53 linear feet of streams, 1,939 square feet of Zone 1 Neuse Buffer, and 1,280 square feet of Zone 2 Neuse Buffer, through the North Carolina Ecosystem Enhancement Program (NCEEP). We also understand that the EEP has agreed to implement the mitigation for the project, as per the Mitigation Acceptance Letter dated March 22, 2006.

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, 6714 Mail Service Center, Raleigh, N.C. 27699. 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 24th day of April 2006

DIVISION OF WATER QUALITY

A handwritten signature in black ink, appearing to read "Alan W. Klimek", is written over the typed name and title.

Alan W. Klimek, P.E.
Director

WQC No. 3439



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 Transportation Permitting 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 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: _____

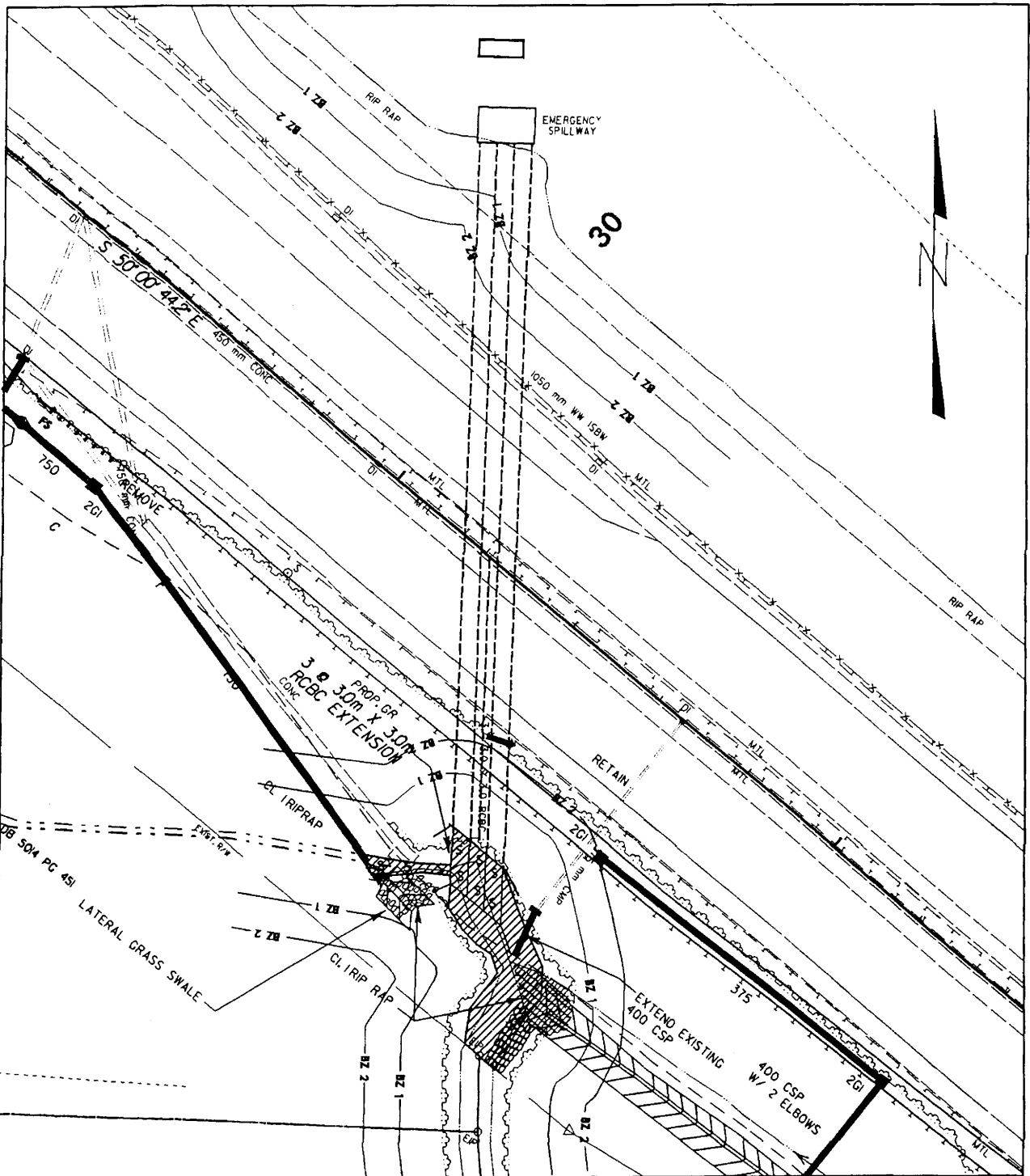
Engineer's Certification

_____ 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. _____

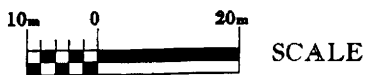
Date _____



PLAN VIEW

 DENOTES FILL IN SURFACE WATER

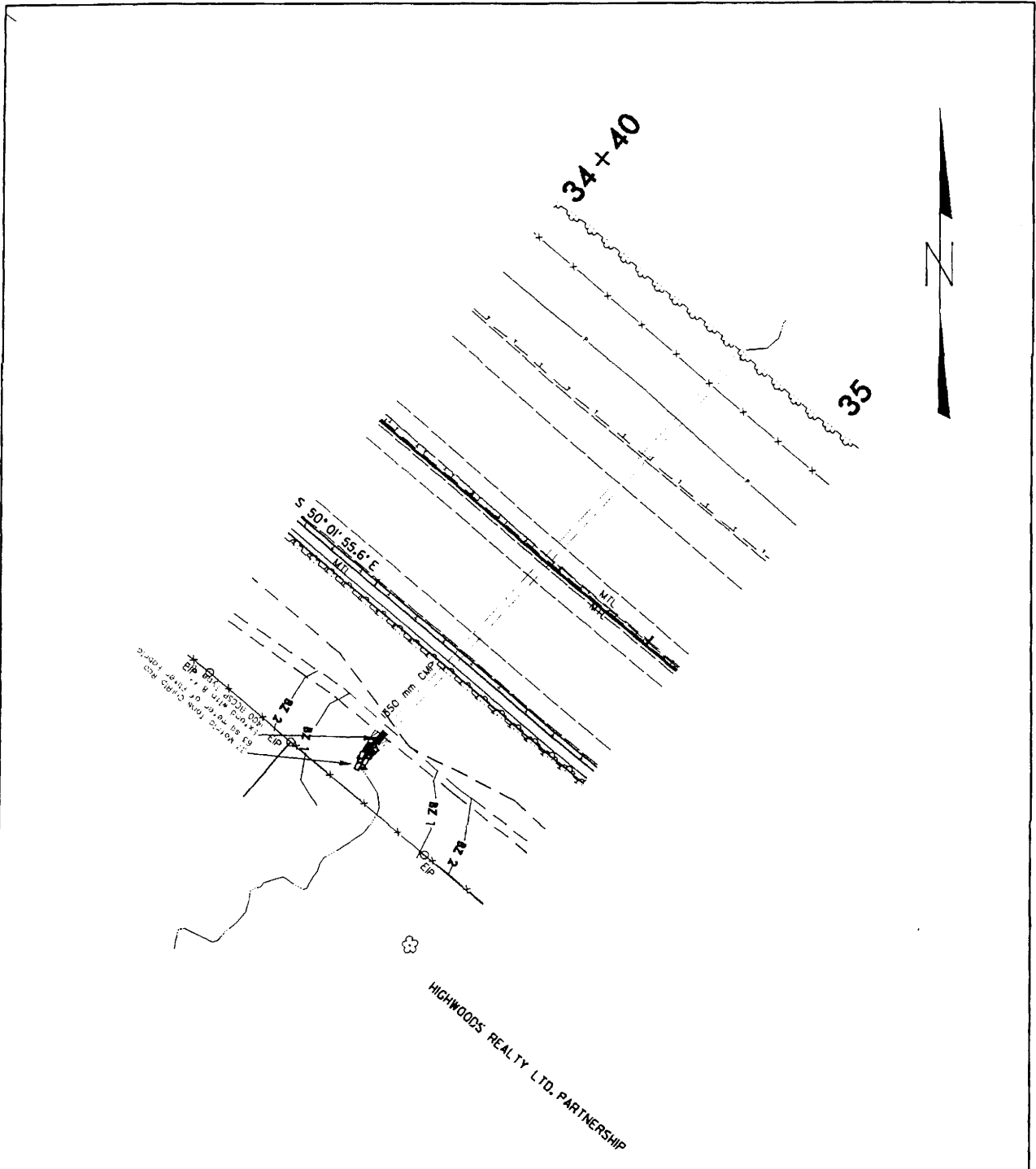
3
SITE #




SCALE

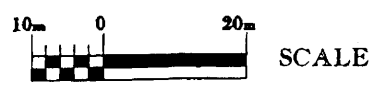
N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
WAKE / DURHAM COUNTY

PROJECT: 8.U401711 (R-2000AC)
I-540 (NORTHERN WAKE EXPRESSWAY)
FROM 0.9 KM SOUTHWEST OF I-40 TO 0.7 KM
NORTHEAST OF I-40



PLAN VIEW

 DENOTES FILL IN SURFACE WATER



SITE IV

N. C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 WAKE/DURHAM COUNTY
 PROJECT: 8.U401711 (R-2000AC)
 I-540 (NORTHERN WAKE EXPRESSWAY)
 FROM 0.9 KM SOUTHWEST OF I-40 TO 0.7 KM
 NORTHEAST OF I-40
 SHEET 10 OF 9 03/06/2006

WETLAND PERMIT IMPACT SUMMARY

| Site No. | Station (From/To) | Structure Size / Type | WETLAND IMPACTS | | | | SURFACE WATER IMPACTS | | | | Natural Stream Design (ft) | | |
|----------------|----------------------------|---|-----------------------|-----------------------------|-----------------------------|---------------------------------------|---------------------------|------------------------|-----------------------|--------------------------------|----------------------------|------|---|
| | | | Fill In Wetlands (ac) | Temp. Fill In Wetlands (ac) | Excavation In Wetlands (ac) | Mechanized Clearing (Method III) (ac) | Fill In SW (Natural) (ac) | Fill In SW (Pond) (ac) | Temp. Fill In SW (ac) | Existing Channel Impacted (ft) | | | |
| 1 | 13+44 -RPC- TO 13+54 -RPC- | NA | 0.001 | | | | | | | | | | |
| 2 | 73+80 -L- TO 75+90 -L- | 2@ 3.0m x 2.4m RCBC | | | | | 0.301 | | | | | 577 | |
| | 73+80 -L- TO 75+90 -L- | TRIBUTARY | | | | | 0.037 | | | | | 495 | |
| 3 | 30+50 -Y3- RT. | 3@ 3.0m x3.0m RCBC EXTENSION | | | | | 0.079 | | | | | 105 | |
| | | Additional Impacts To Protect Channel Banks | | | | | 0.002 | | | | | 20 | |
| | | TOTAL IMPACTS AT SITE 3 | | | | | 0.096 | | | | | 125 | |
| 4 | 34+75 | Extend Existing 1400 CSP | | | | | 0.005 | | | | | 33 | |
| TOTALS: | | | 0.001 | 0 | 0 | 0 | 0.424 | 0 | 0 | 0 | 0 | 1230 | 0 |

NCDOT

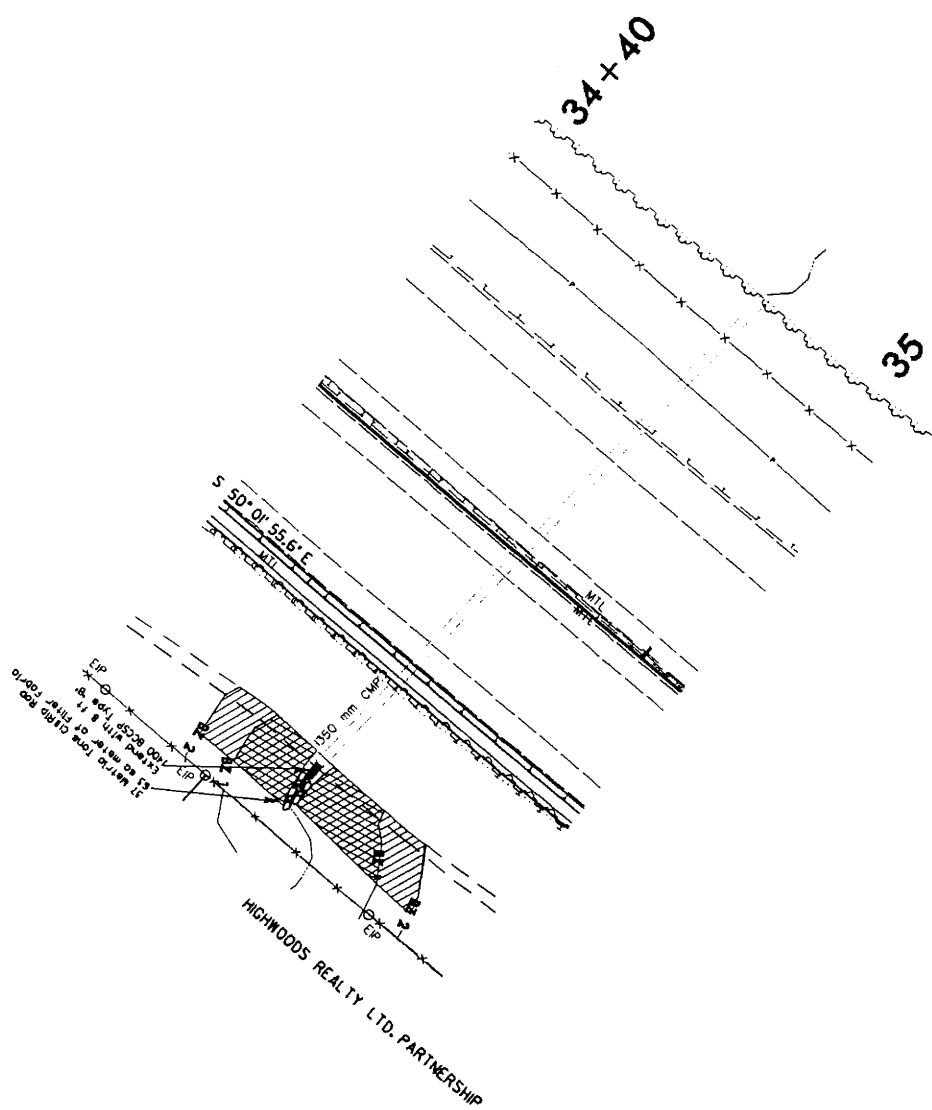
DIVISION OF HIGHWAYS
 WAKE/DURHAM COUNTY
 PROJECT 8.U401711 (R-2000AC)
 I-540 (NORTHERN WAKE EXPRESSWAY)
 FROM 0.9KM SOUTHWEST OF I-40 TO
 0.7KM NORTHEAST OF I-40





WETLAND PERMIT IMPACT SUMMARY

| Site No. | Station (From/To) | Structure Size / Type | WETLAND IMPACTS | | | | SURFACE WATER IMPACTS | | | | Natural Stream Design (m) | | |
|----------|----------------------------|---|-----------------------|-----------------------------|-----------------------------|---------------------------------------|---------------------------|------------------------|-----------------------|-------------------------------|---------------------------|-----|---|
| | | | Fill In Wetlands (ha) | Temp. Fill In Wetlands (ha) | Excavation In Wetlands (ha) | Mechanized Clearing (Method III) (ha) | Fill In SW (Natural) (ha) | Fill In SW (Pond) (ha) | Temp. Fill In SW (ha) | Existing Channel Impacted (m) | | | |
| 1 | 13+44 -RPC- TO 13+54 -RPC- | NA | 0.0005 | | | | | | | | | | |
| 2 | 73+80 -L- TO 75+90 -L- | 2@ 3.0m x 2.4m RCBC | | | | | 0.122 | | | | | 176 | |
| | 73+80 -L- TO 75+90 -L- | TRIBUTARY | | | | | 0.015 | | | | | 151 | |
| 3 | 30+50 -Y3- RT. | 3@ 3.0m x3.0m RCBC | | | | | 0.032 | | | | | 32 | |
| | | EXTENSION | | | | | 0.007 | | | | | 6 | |
| | | Additional Impacts To Protect Channel Banks | | | | | 0.039 | | | | | 38 | |
| | | TOTAL IMPACTS AT SITE 3 | | | | | 0.002 | | | | | 10 | |
| 4 | 34+75 | Extend Existing 1400 CSP | | | | | | | | | | | |
| TOTALS: | | | 0.0005 | 0 | 0 | 0 | 0.178 | 0 | 0 | 0 | 0 | 375 | 0 |

NCDOT

DIVISION OF HIGHWAYS
 WAKE/DURHAM COUNTY
 PROJECT 8.U401711 (R-2000AC)
 I-540 (NORTHERN WAKE EXPRESSWAY)
 FROM 0.9KM SOUTHWEST OF I-40 TO
 0.7KM NORTHEAST OF I-40



-  MITIGABLE IMPACTS ZONE 1
-  MITIGABLE IMPACTS ZONE 2
-  ALLOWABLE IMPACTS ZONE 1
-  ALLOWABLE IMPACTS ZONE 2

SITE III
PLAN VIEW
SCALE= 1:1000

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
WAKE/DURHAM COUNTY
PROJECT: 8.U401711 (R-2000AC)
I-540 (NORTHERN WAKE EXPRESSWAY)
FROM 0.9 KM SOUTHWEST OF I-40 TO 0.7 KM
NORTHEAST OF I-40

SHEET 15 OF 14 03/06/2006

BUFFER IMPACTS SUMMARY

| SITE NO. | STRUCTURE SIZE / TYPE | STATION (FROM/TO) | IMPACT | | | | | | BUFFER REPLACEMENT | | | |
|---------------|--------------------------|--------------------------------------|---------------|-----------------|---------------------------|---------------------------|--------------------------|---------------------------|---------------------------|---------------------------|--------------------------|---------------------------|
| | | | TYPE | | ALLOWABLE | | MITIGABLE | | ZONE 1 (ft ²) | ZONE 2 (ft ²) | TOTAL (ft ²) | |
| | | | ROAD CROSSING | PARALLEL IMPACT | ZONE 1 (ft ²) | ZONE 2 (ft ²) | TOTAL (ft ²) | ZONE 1 (ft ²) | | | | ZONE 2 (ft ²) |
| 1 | 2@3.0x2.4 RCBC | -L- Sta 75+71+/- | X | | | | | 2912.0 | 1765.0 | 4677.0 | | |
| 1 | | -L- Sta 74+10+/- -L- Sta 75+49+/- | | X | | | | 2659.0 | 1803.0 | 4462.0 | | |
| 2 | 3@3.0x3.0 RCBC EXT. | -Y3- Sta 30+21+/- | X | | 271.9 | 143.4 | 415.3 | 1073.0 | 782.0 | 1855.0 | | |
| 3 | Extend Existing 1350 CSP | -Y3- Sta 34+75+/- | X | | | | | 1939.0 | 1280.0 | 3219.0 | | |
| TOTAL: | | | | | 271.9 | 143.4 | 415.3 | 8563.0 | 5630.0 | 14213.0 | | |

N.C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 WAKE COUNTY
 PROJECT: 8 U401711 (R-2000AC)
 I-540 (NORTH WAKE EXPRESSWAY) FROM
 0.9 KM SOUTHWEST OF I-40 TO 0.7 KM
 NORTHEAST OF I-40