



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

September 6, 2006

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

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

SUBJECT: Wake County, US 64 from New Hope Rd SR 2306 to  
Existing US 64 near SR 1003; T.I.P. Number R-2547;  
Federal Aid Project NHF-DPI-0199(004); State Project  
No.: 8.1402202

Attached is the modification to 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

Cc:

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

US 64 from New Hope Rd. SR 2306 to Existing US 64 near SR 1003;

Wake County

State Project No.: 8.1402202

Federal Aid Project No.: NHF-DPI-0199(004)

TIP No.: R-2547

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 permit conditions are stated in the attached permit. All other conditions written into previous Water Quality Certifications and Neuse River Riparian Buffer Certifications for this project still apply.

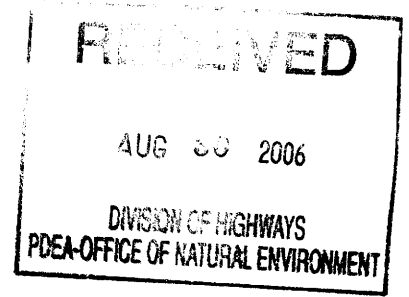


IN REPLY REFER TO

**DEPARTMENT OF THE ARMY  
WILMINGTON DISTRICT, CORPS OF ENGINEERS**

P. O. BOX 1890  
WILMINGTON, NORTH CAROLINA 28402-1890

August 29, 2006



Regulatory Division

SUBJECT: Action ID 200220819; TIP No. R-2547

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

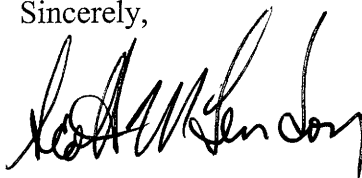
Dear Dr. Thorpe:

Reference is made to the Department of the Army permit issued on April 25, 2002, for the discharges of fill material in waters of the United States, including wetlands, to facilitate construction of the US 64 Knightdale Bypass (T.I.P. No. R-2547), in the Neuse River basin, Wake County, North Carolina, and the subsequent modifications for additional impacts dated May 4, 2004 & February 16, 2005. Also reference your August 3, 2006 letter requesting modification of the permit, to authorize additional impacts to waters of the United States, primarily for stabilization of banks associated with bridge sites for the project, as Mr. Eric Alsmeyer of my staff observed and discussed with staff of the Department of Transportation, Division 5, at a field meeting on May 22, 2006.

We have reviewed your proposal and have determined that impacts are relatively minor, and will protect the aquatic ecosystem from further impact, and an additional public notice is not necessary. Therefore, the permit is hereby modified to authorize the revised design, as described in your request, and as shown in the attached modified drawings, with impacts of an additional 15 linear feet of stream, 0.01 acre of open water (stream), and less than 0.01 acre of wetlands, and to extend the permit expiration date to December 31, 2007. No additional stream or wetland mitigation will be required for this modification.

It is understood that all other conditions of the permit remain applicable. If you have questions, please contact Eric Alsmeyer of the Raleigh Regulatory Field Office, at telephone (919) 876-8441, extension 23.

Sincerely,

A handwritten signature in black ink, appearing to read "John E. Pulliam, Jr.", written in a cursive style.

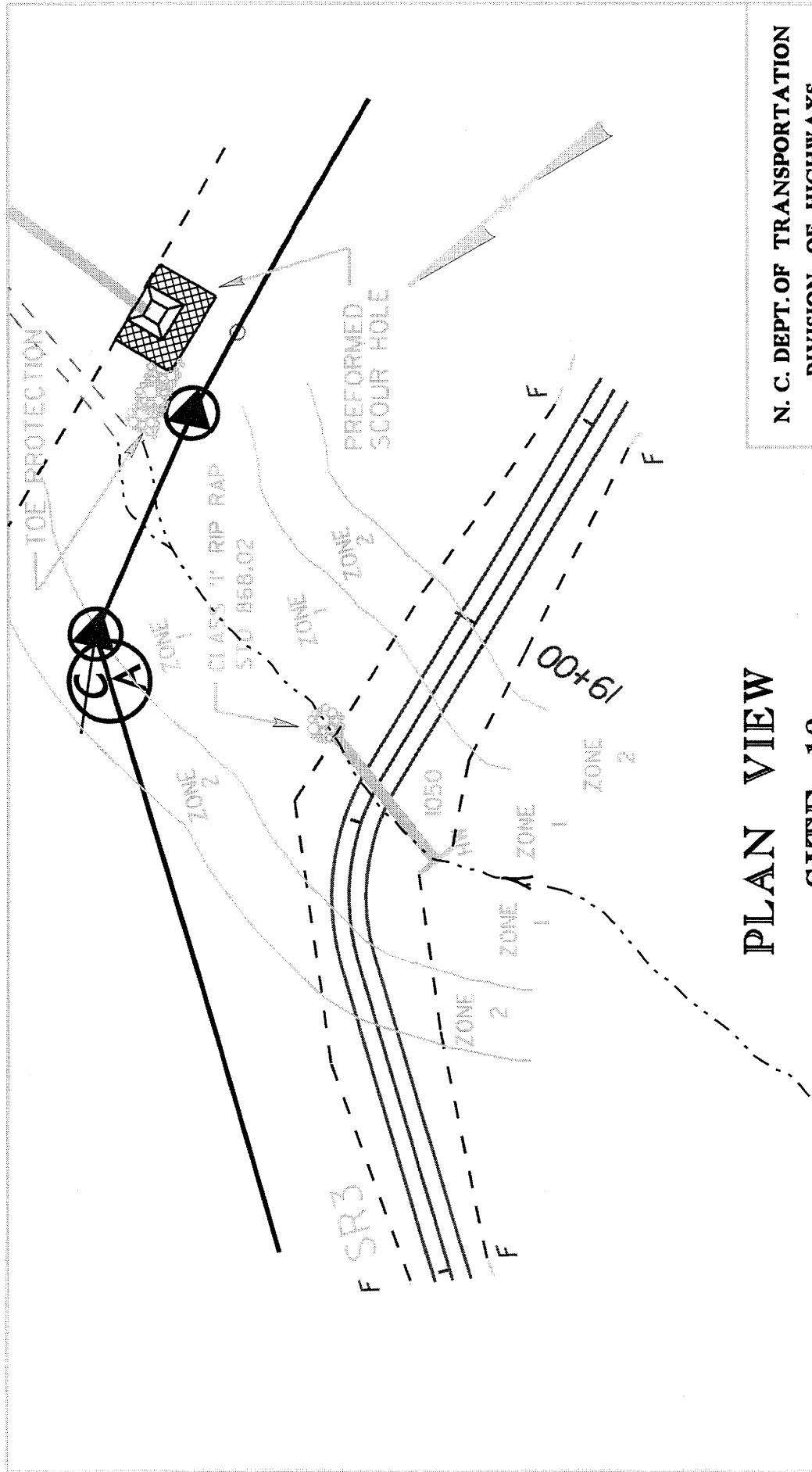
John E. Pulliam, Jr.  
Colonel, U. S. Army  
District Commander

Enclosure

Copies Furnished (without enclosure):

Mr. Clarence Coleman  
Federal Highway Administration  
310 New Bern Ave., Rm. 410  
Raleigh, North Carolina 27601-1442

Mr. John Hennessy  
Division of Water Quality  
North Carolina Department of  
Environment and  
Natural Resources  
1650 Mail Service Center  
Raleigh, North Carolina 27699-1650



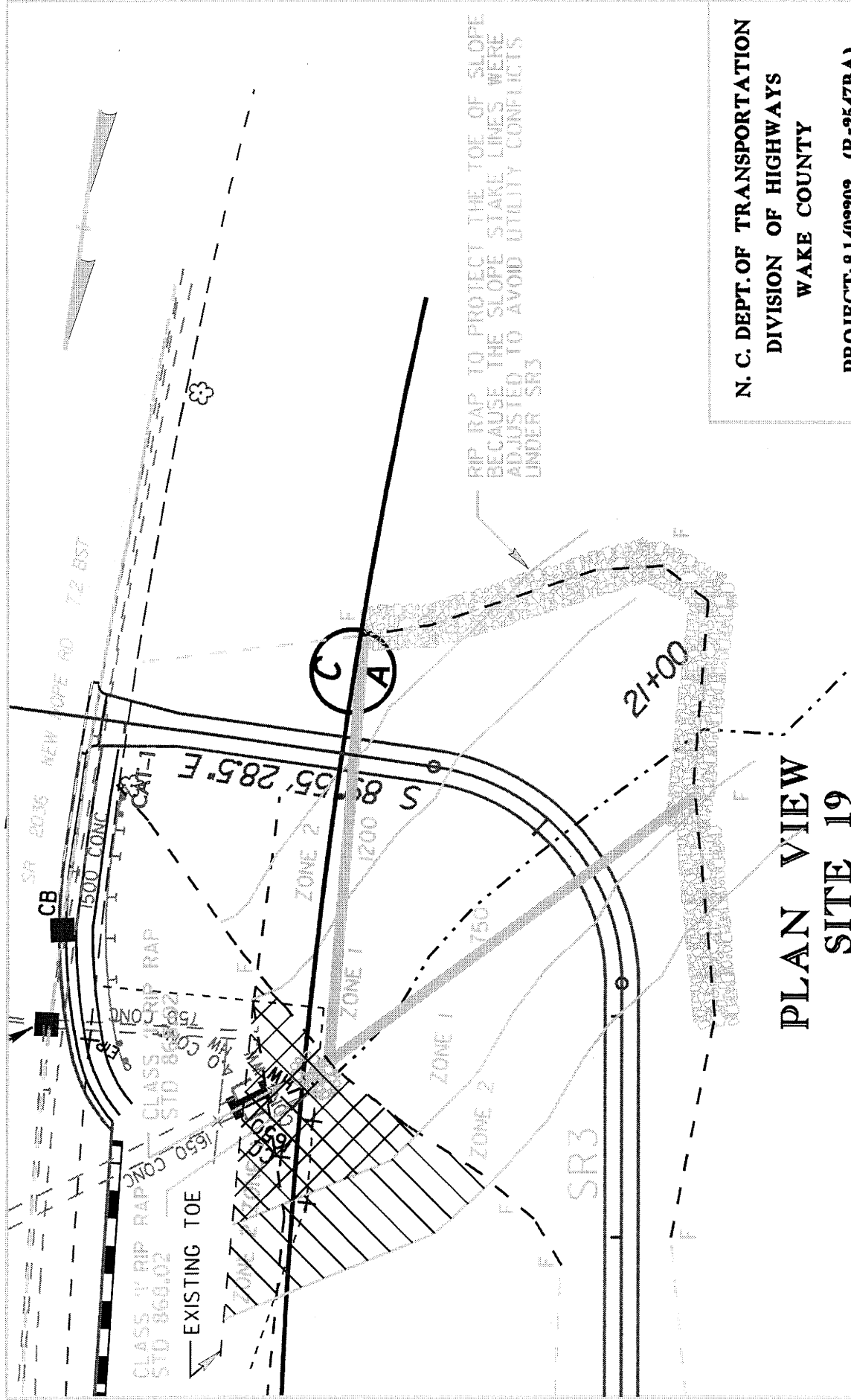
**PLAN VIEW  
SITE 18**



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

PROJECT: 8.1402202 (R-2547BA)  
US 64 BYPASS FROM I-440  
TO NEW HOPE ROAD

SHEET 20 OF 25 *Rev.*  
5/6/2006

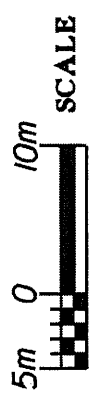


N. C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 WAKE COUNTY

PROJECT: 8.1402202 (R-2547BA)  
 US 64 BYPASS FROM I-440  
 TO NEW HOPE ROAD

SHEET 21 OF 25 Rev. 6/5/2006

PLAN VIEW  
 SITE 19



**IMPACT SUMMARY**

Site No.	Station (From/To)	Structure Size	WETLAND IMPACTS				SURFACE WATER IMPACTS					FILL IN BUFFER				
			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)	Relocated Channel (m)	Enclosed Channel (m)	Zone 1 (ha)	Zone 2 (ha)		
18	18+84 -SR3-	1050 RCP											14		0.024	0.015
19	21+00 -SR3-	1650 RCP											21		0.040	0.030
19 REV	21+00 -SR3	1650 RCP										7.5			0.058	0.052
TOTALS: AS Approved			0.71		0	0	0.034	0.042	0	0.004	328.5	219	367.5		1853.500	1.210
TOTALS: AS Revised			0.71		0	0	0.034	0.042	0	0.004	333	219	367.5		1853.514	1.224
TOTAL Additions:											14.8 ft				1457 sf	1518 sf

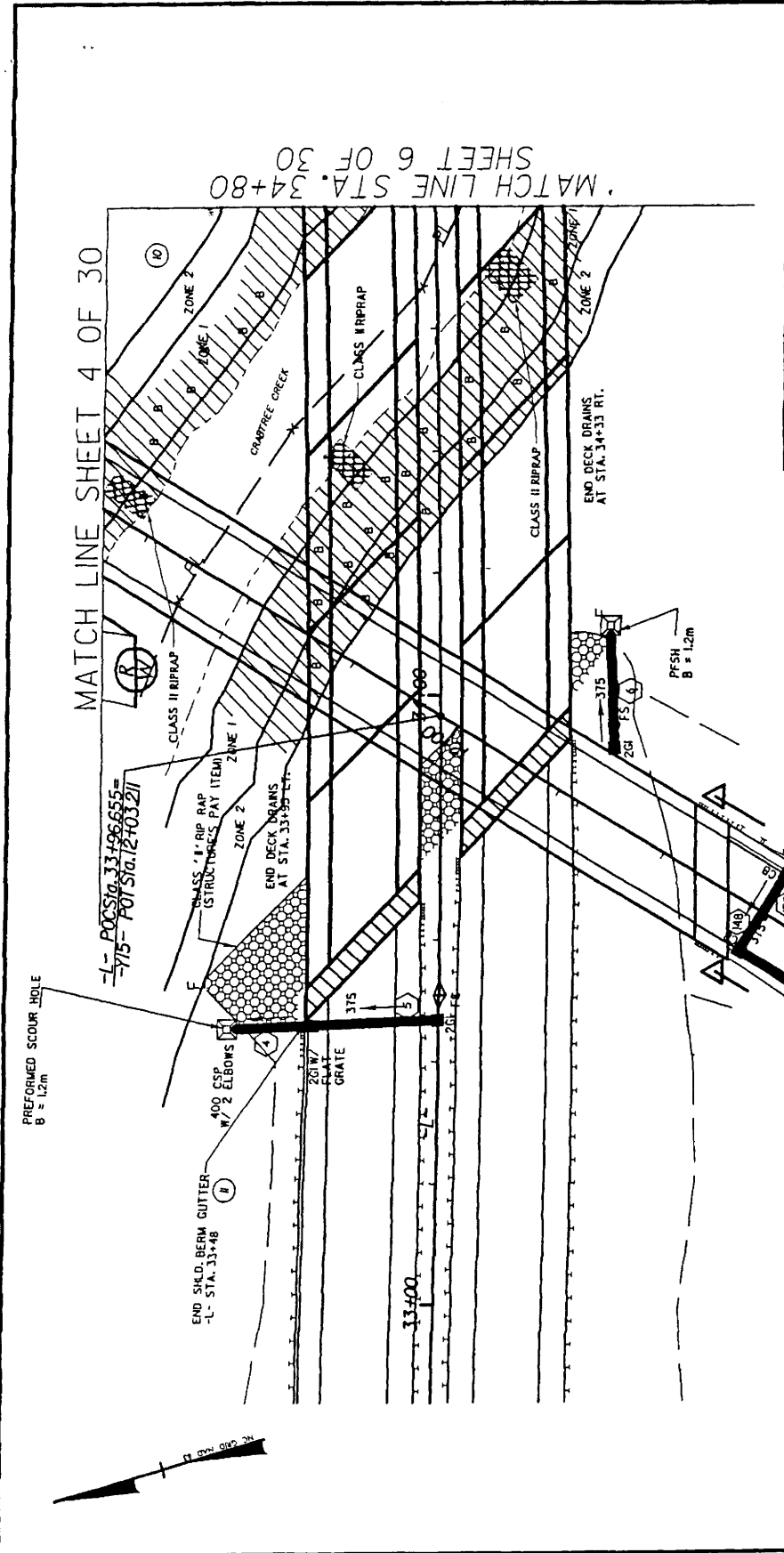
N.C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS

WAKE COUNTY

PROJEC 8.1402202 R-2547BA

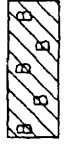
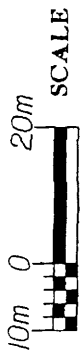
25 SHEET OF 25

9/15/2004  
REVISED 5/5/2006



N. C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 WAKE COUNTY  
 PROJECT: 8.1402202 (R-2547BD)  
 US 64 BYPASS FROM NEW HOPE  
 ROAD TO EAST OF SR 2601  
 CLIFTON ROAD  
 SHEET 5 OF 30 REV 6/28/06

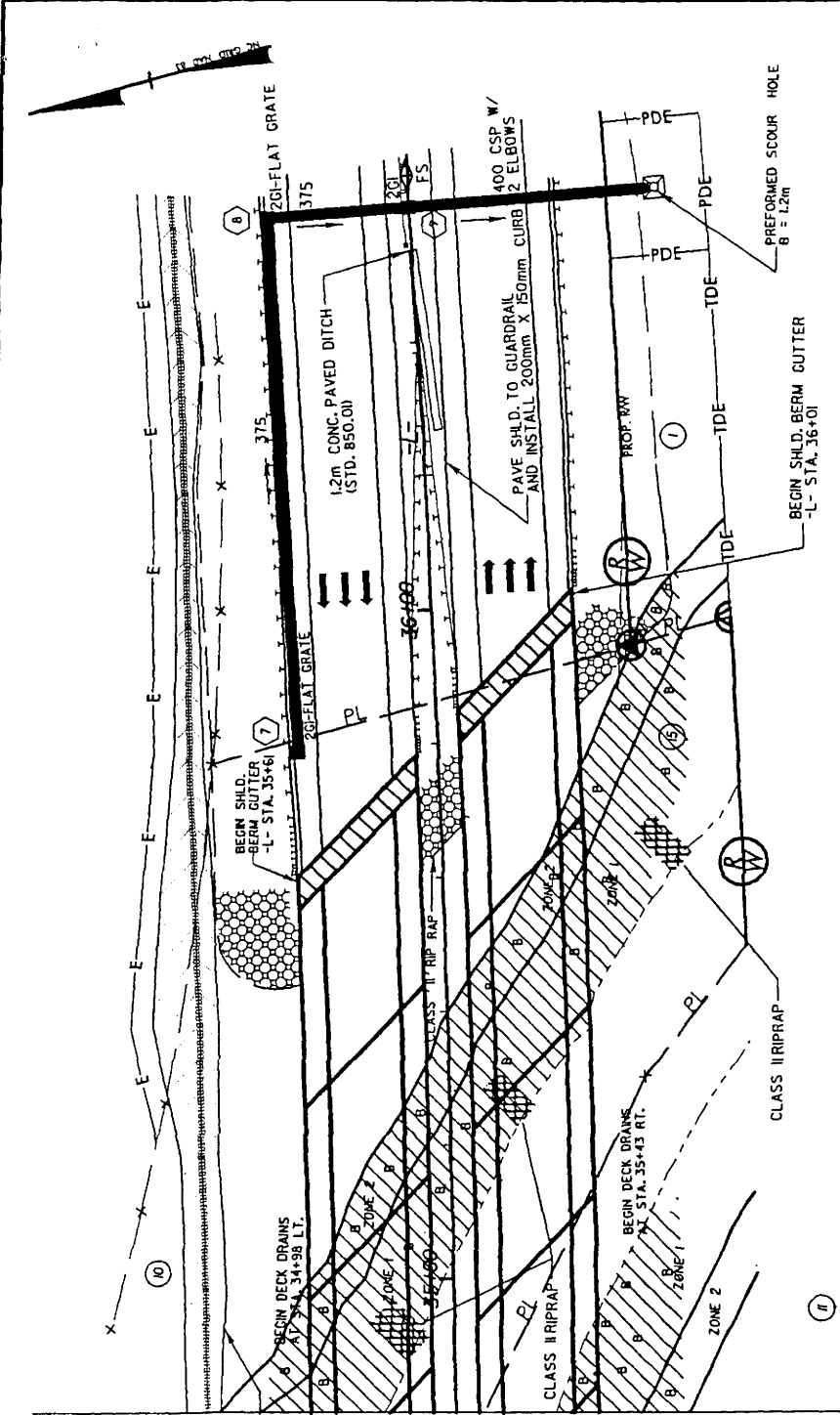
PLAN VIEW  
 SITE 1



SCALE  
 DENOTES IMPACTS TO BUFFER ZONES

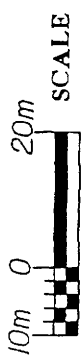
RECEIVED JUL 1 3 2006





N. C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 WAKE COUNTY  
 PROJECT: 8.1402202 (R-2547BB)  
 US 64 BYPASS FROM NEW HOPE  
 ROAD TO EAST OF SR 2601  
 CLIFTON ROAD  
 SHEET 6 OF 30 REV 6/28/06

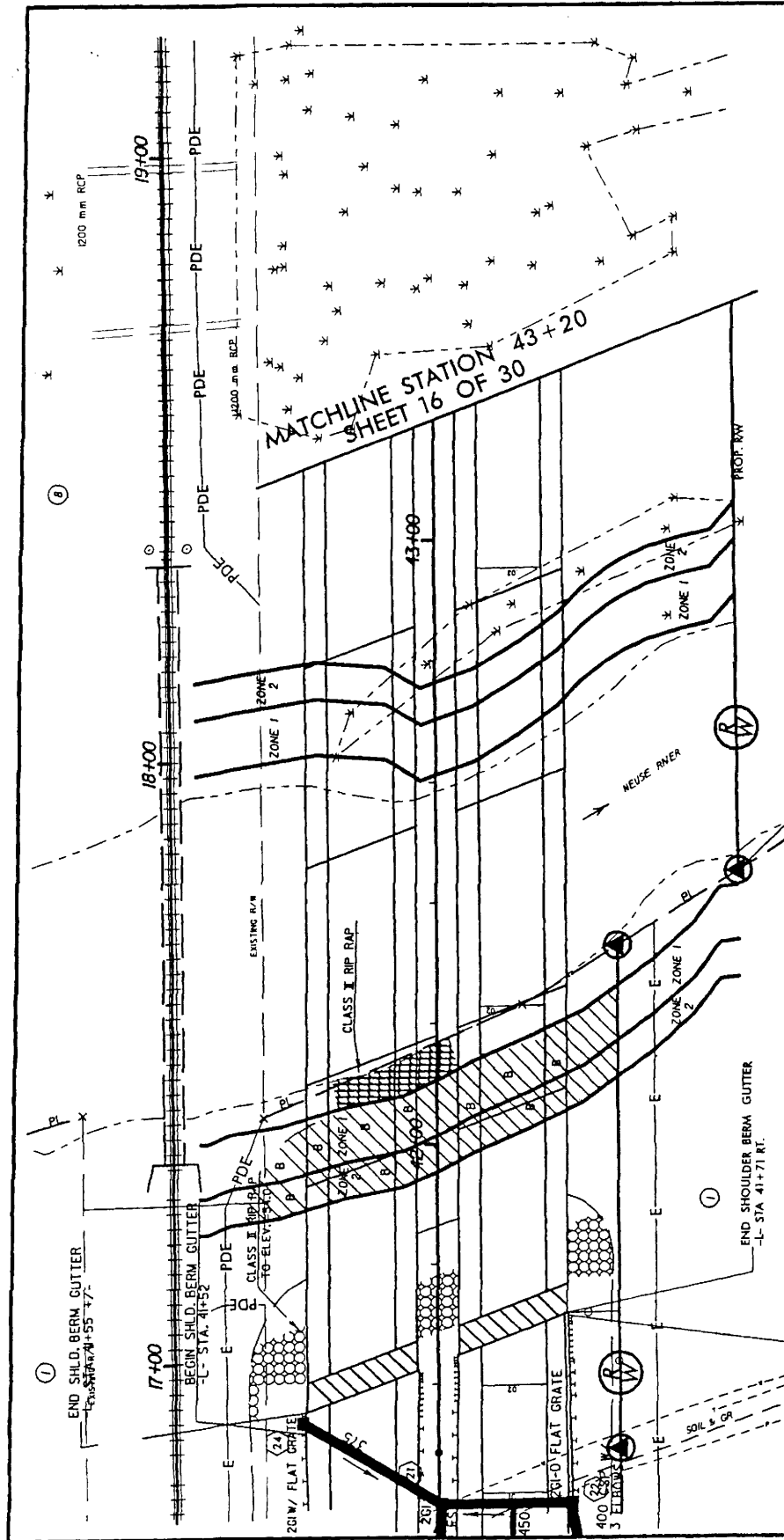
PLAN VIEW  
 SITE 1



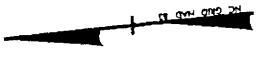
'V' DITCH  
 CLASS 'B' RIP RAP  
 W/ FILTER FABRIC  
 EST. 235 TONS  
 EST. 651 SM FABRIC

MATCH LINE STA. 34+80  
 SHEET 5 OF 30

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N. C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 WAKE COUNTY  
 PROJECT: 8.1402202 (R-2547BB)  
 US 64 BYPASS FROM NEW HOPE  
 ROAD TO EAST OF SR 2601  
 CLIFTON ROAD



PLAN VIEW  
 SITE 3

END PRIVACY WALL -L- STA 41+71 +/- RT.  
 END WOVEN WIRE FENCE -L- STA 41+71 +/- RT.

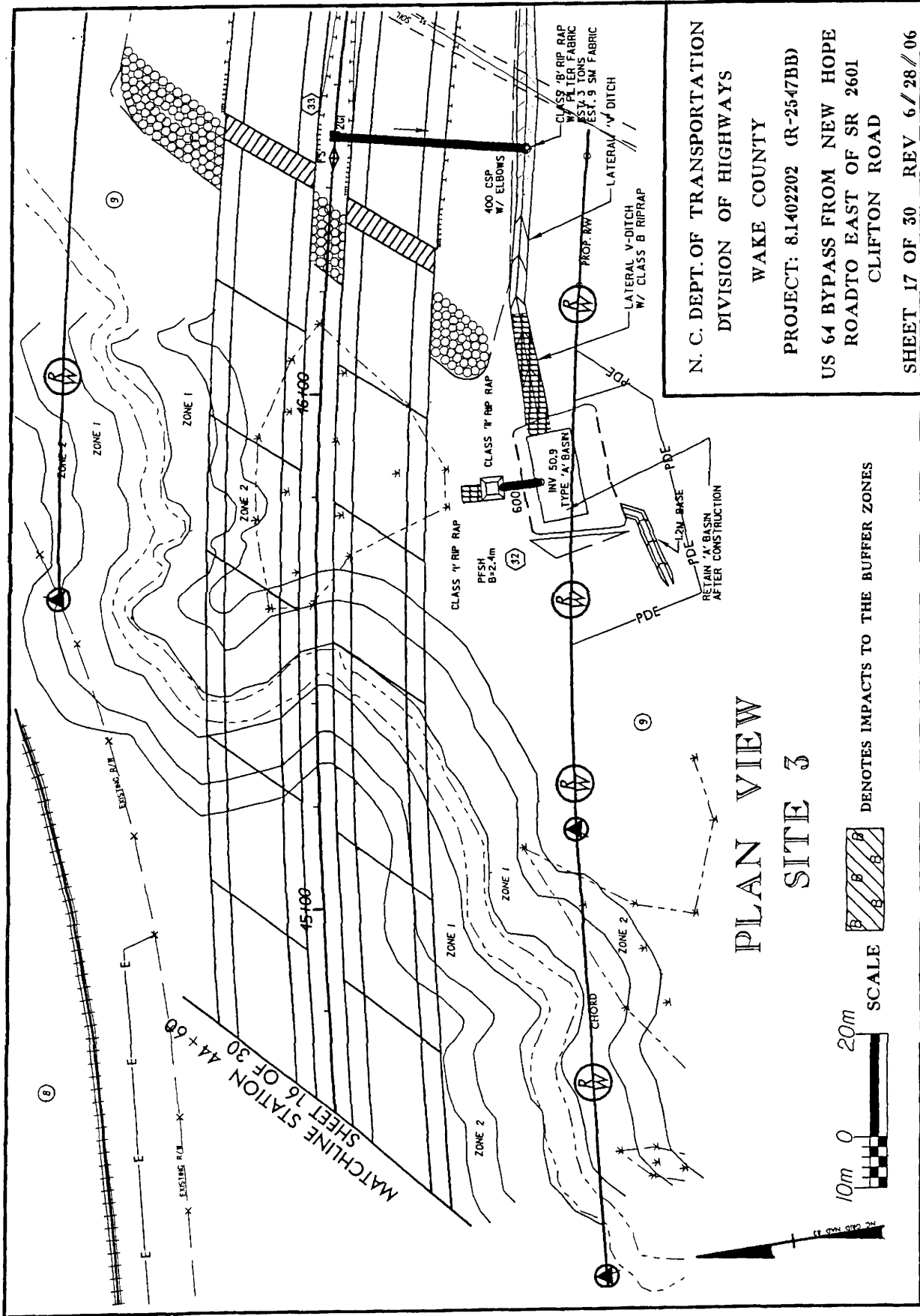
END SHOULDER BERM GUTTER  
 -L- STA 41+71 RT.

SCALE

10m 0 20m

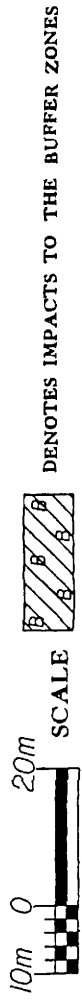
⊞ DENOTES IMPACTS TO THE BUFFER ZONES

RECEIVED JUL 13 2006

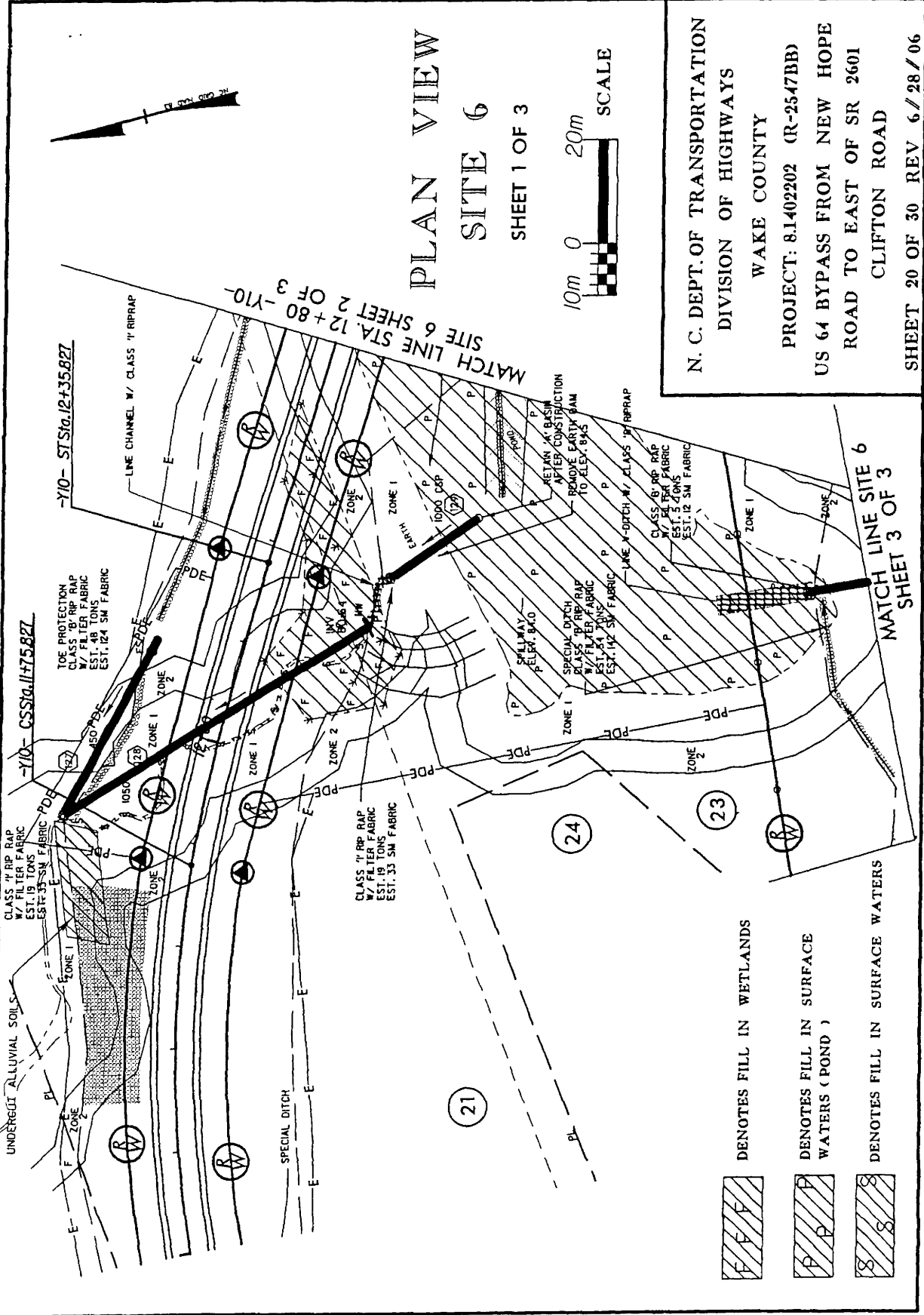


N. C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 WAKE COUNTY  
 PROJECT: 8.1402202 (R-2547BB)  
 US 64 BYPASS FROM NEW HOPE  
 ROAD TO EAST OF SR 2601  
 CLIFTON ROAD  
 SHEET 17 OF 30 REV 6/28/06

PLAN VIEW  
 SITE 3





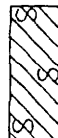
RECEIVED JUL 13 2006



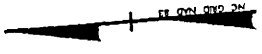
N. C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 WAKE COUNTY  
 PROJECT: 8.1402202 (R-2547BB)  
 US 64 BYPASS FROM NEW HOPE  
 ROAD TO EAST OF SR 2601  
 CLIFTON ROAD  
 SHEET 20 OF 30 REV 6/28/06




PLAN VIEW  
 SITE 6  
 SHEET 1 OF 3



-  DENOTES FILL IN WETLANDS
-  DENOTES FILL IN SURFACE WATERS ( POND )
-  DENOTES FILL IN SURFACE WATERS

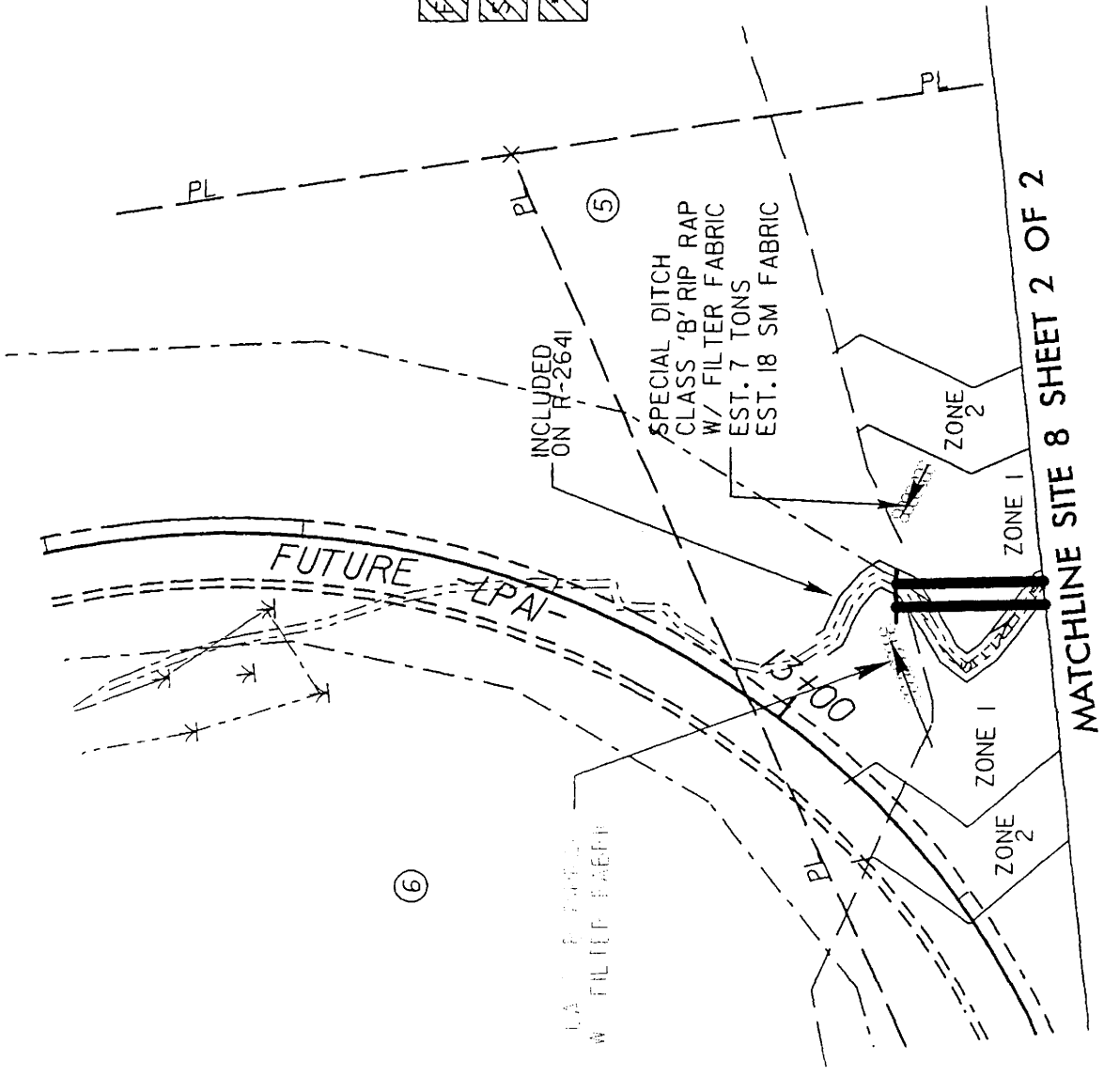
PLAN VIEW  
SITE 8A  
SHEET 1 OF 2



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



N. C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
WAKE COUNTY  
PROJECT: 8.1402202 (R-2547BB)  
US 64 BYPASS FROM NEW HOPE  
ROAD TO EAST OF SR 2601  
CLIFTON ROAD  
SHEET 23 OF 30 REV 6/28/06



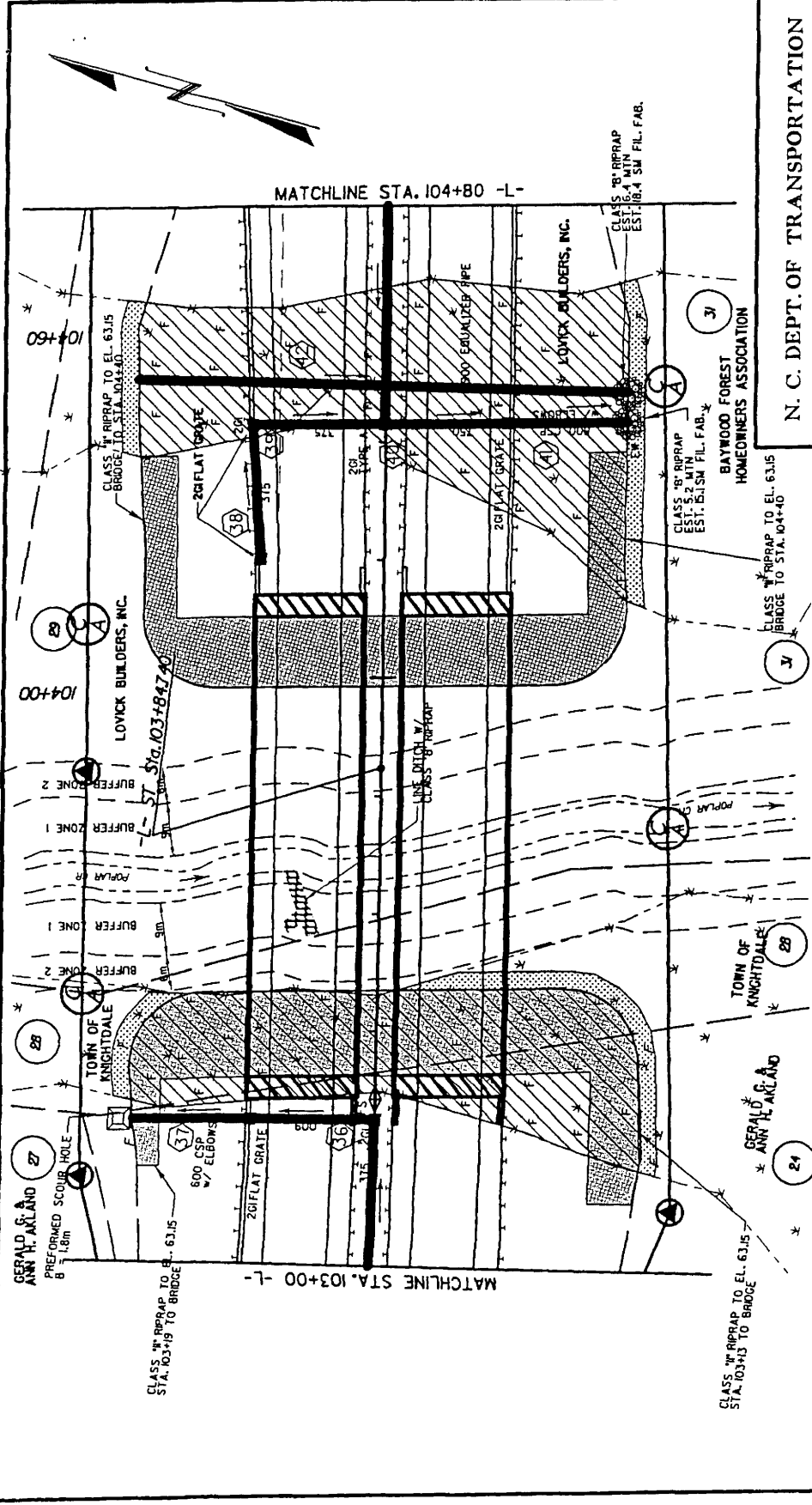
**IMPACT SUMMARY**

Site No.	Station (From/To)	Structure Size	WETLAND IMPACTS					SURFACE WATER IMPACTS					FILL IN BUFFER			
			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)	Relocated Channel (m)	Enclosed Channel (m)	Zone 1 (ha)	Zone 2 (ha)		
1	33+80-35+80 L	BRIDGE					0.0028					23			0.241	0.002
	12+70 -Y15	BRIDGE					0.0002					4			0.0005	
2	36+80-38+00 L							1.276							0.157	0.085
3	41+80-43+20 L	BRIDGE					0.0012					20			0.043	0.035
4	43+20-43+80 L	---DELETED---BRIDGED														
5	44+60-46+40 L	---DELETED---PART OF 3														
6	11+80-14+40 Y10	1050	0.073				0.005	1.096				93			0.349	0.23
7	71+0072+00 L	1500 RCP						0.71							0.239	0.153
8	12+60-13+00 LPA1 75+20-75+40 L	2 @ 900 RCP	0.0005				0.003		0.003			136		63	0.107	0.07
9	79+20-79+60 L	1 @ 2.7m X 1.8m RCBC	0.565				0.047		0.047			87		84	0.327	0.217
10	11+60 TO 12+80 LPC1		0.42				0.04		0.04							
<b>TOTALS:</b>			1.06 ha/meters ac/feet	0.00	0.00	0.09	0.03	3.08	0.00	0.00	363.00	0.00	147.00	1.46	0.79	
			2.62	0.00	0.22	0.07	7.62	0.00	0.00	1191	0	482	3.62	1.96		

N.C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS

WAKE COUNTY  
PROJEC 8.1402202 R-2547BB

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

PROJECT: 8.1402202 (R-2547C)  
 US 64 FROM EAST WAKE  
 EXPRESSWAY TO SR 2502

SHEET 12 OF 34 REV 6/28/06

PLAN VIEW

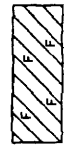
SITE 4

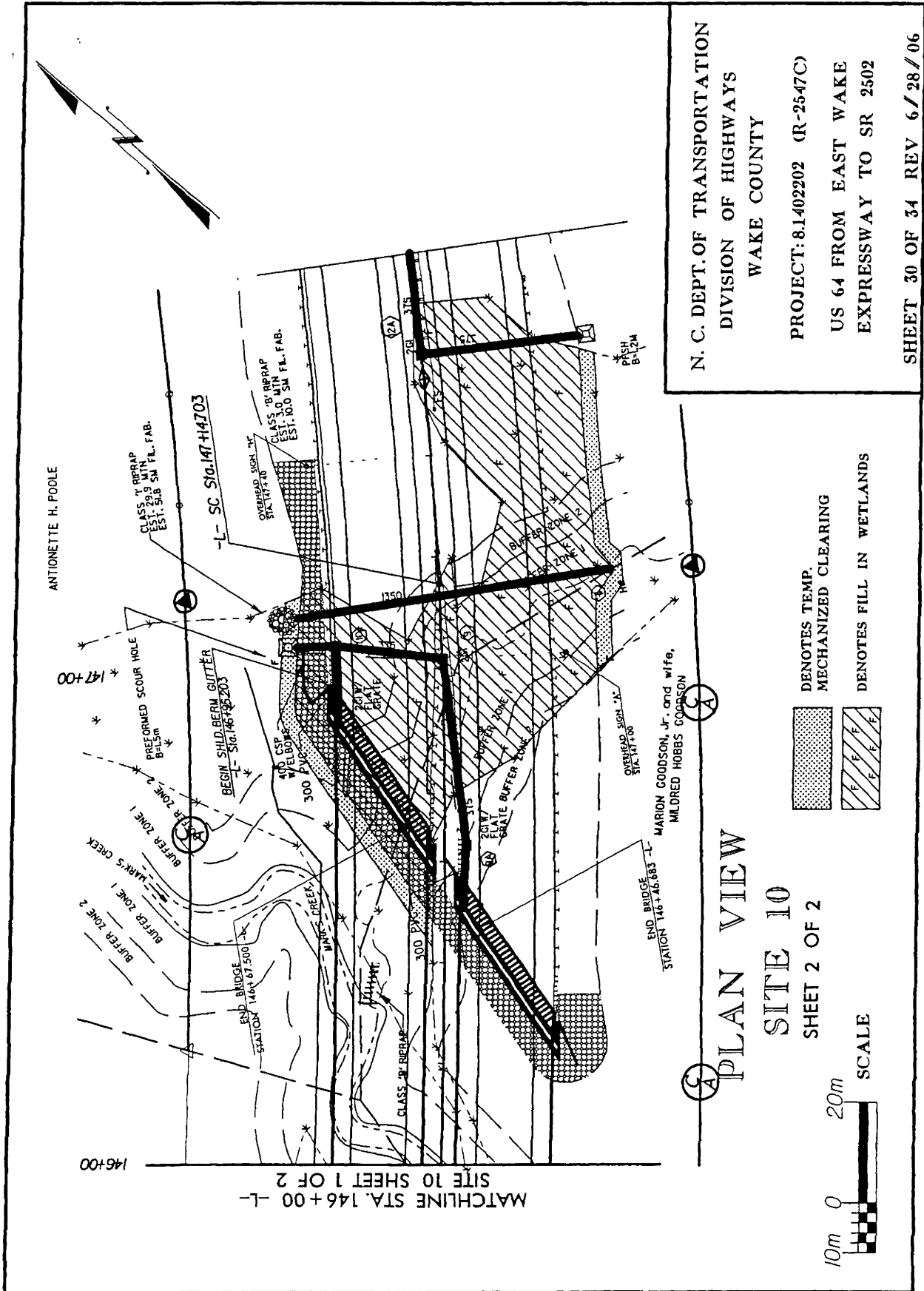


DENOTES TEMP.  
MECHANIZED CLEARING



DENOTES FILL IN WETLANDS





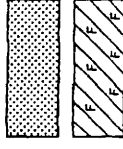
N. C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 WAKE COUNTY

PROJECT: 8.1402202 (R-25-47C)  
 US 64 FROM EAST WAKE  
 EXPRESSWAY TO SR 2502

SHEET 30 OF 34 REV 6/28/06

DENOTES TEMP.  
 MECHANIZED CLEARING

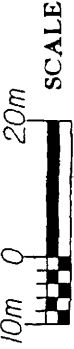
DENOTES FILL IN WETLANDS



PLAN VIEW

SITE 10

SHEET 2 OF 2



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**IMPACT SUMMARY**

Site No.	Station (From/To)	Structure Size	WETLAND IMPACTS			SURFACE WATER IMPACTS					BUFFER IMPACTS								
			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)	Relocated Channel (m)	Enclosed Channel (m)	Zone 1 (ha)	Zone 2 (ha)					
1	189+08/89+63-L	750 RCP								0.44									
2	195+95/96+62-L	N/A								0.217									
3	198+20/98+50-L	N/A								0.012									
4	103/104+80-L	3 @ 26m BRIDGE	0.427	0.0121		0.048													
5	10+30-Y16	1800 RCP																	
5A	110/113-L	1050 RCP																	
6	118/119+60-L	1900 RCP	0.040			0.015				0.315									
7	131/133-L	1350 RCP	0.033			0.003													
8A	134+00-L	1800 RCP	0.038			0.003													
8B	134+40/137-L	1500 RCP, 900 RCP	0.225		0.019	0.059													
9	140/143-L	1650 RCP	0.456		0.003	0.026													
10	144/147+80-L	2@27m, 1@36, 2@23.5m	0.6105	0.274		0.079													
11	17/18+40-Y10	1 @ 24m, 2 @ 17m BRIDGE	0.253			0.029													
<b>TOTALS:</b>			2.0825	0.2861	0.022	0.292	0.0819	0.984	0	984	219	627	2.8953	1.844					
			5.15	0.71	0.05	0.72	0.20	2.43	0.00	3228	719	2057	7.15	4.56					

N.C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS

WAKE COUNTY

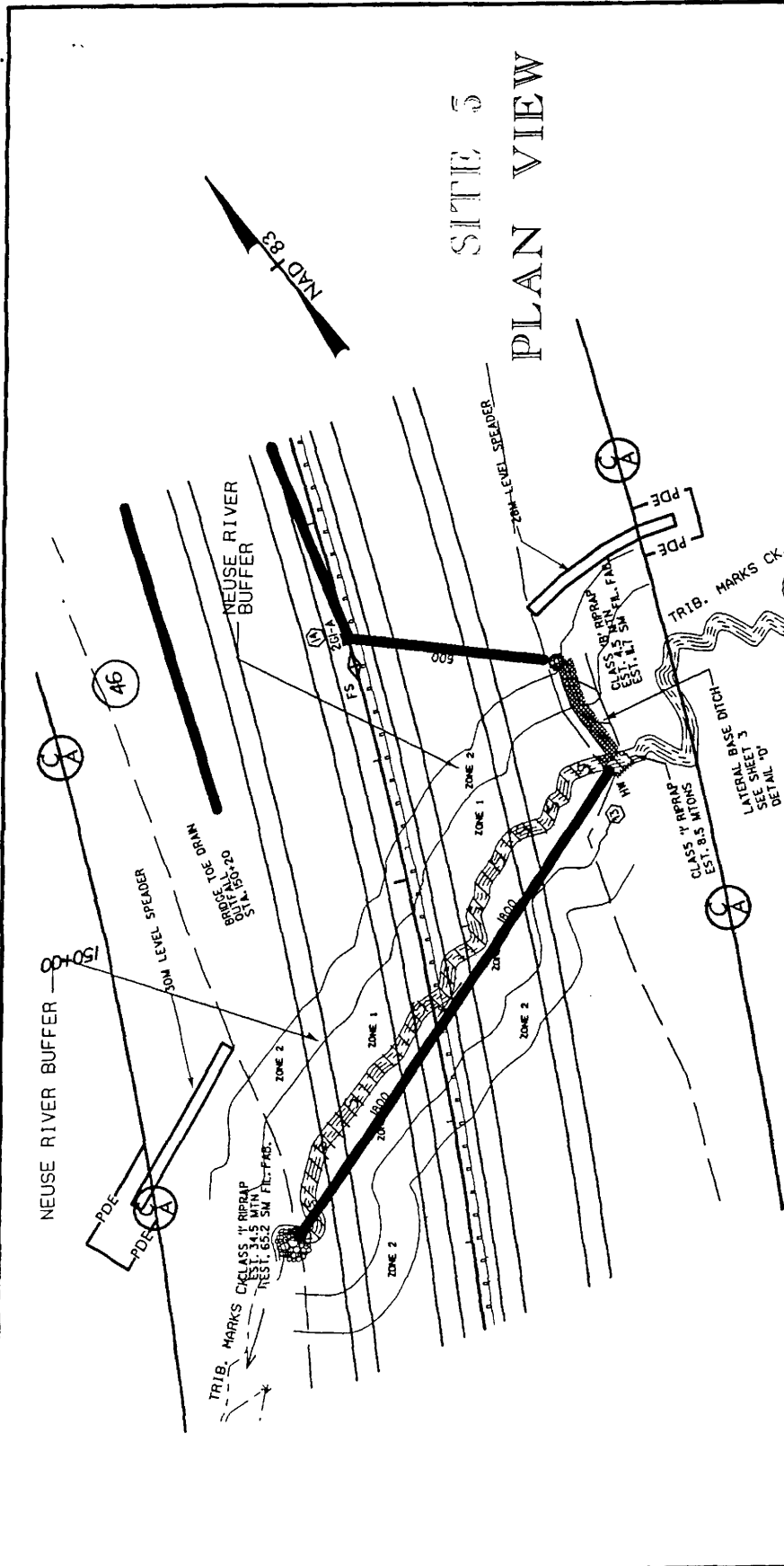
PROJECT: 8.1402202 (R-2547C)

SHEET 34 OF 34

REV. 6/28/2006

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SITE 5  
PLAN VIEW

IMPACTED NEUSE RIVER  
BUFFER ZONES  
AND STREAM IMPACTS



DENOTES FILL IN SURFACE WATERS



SCALE

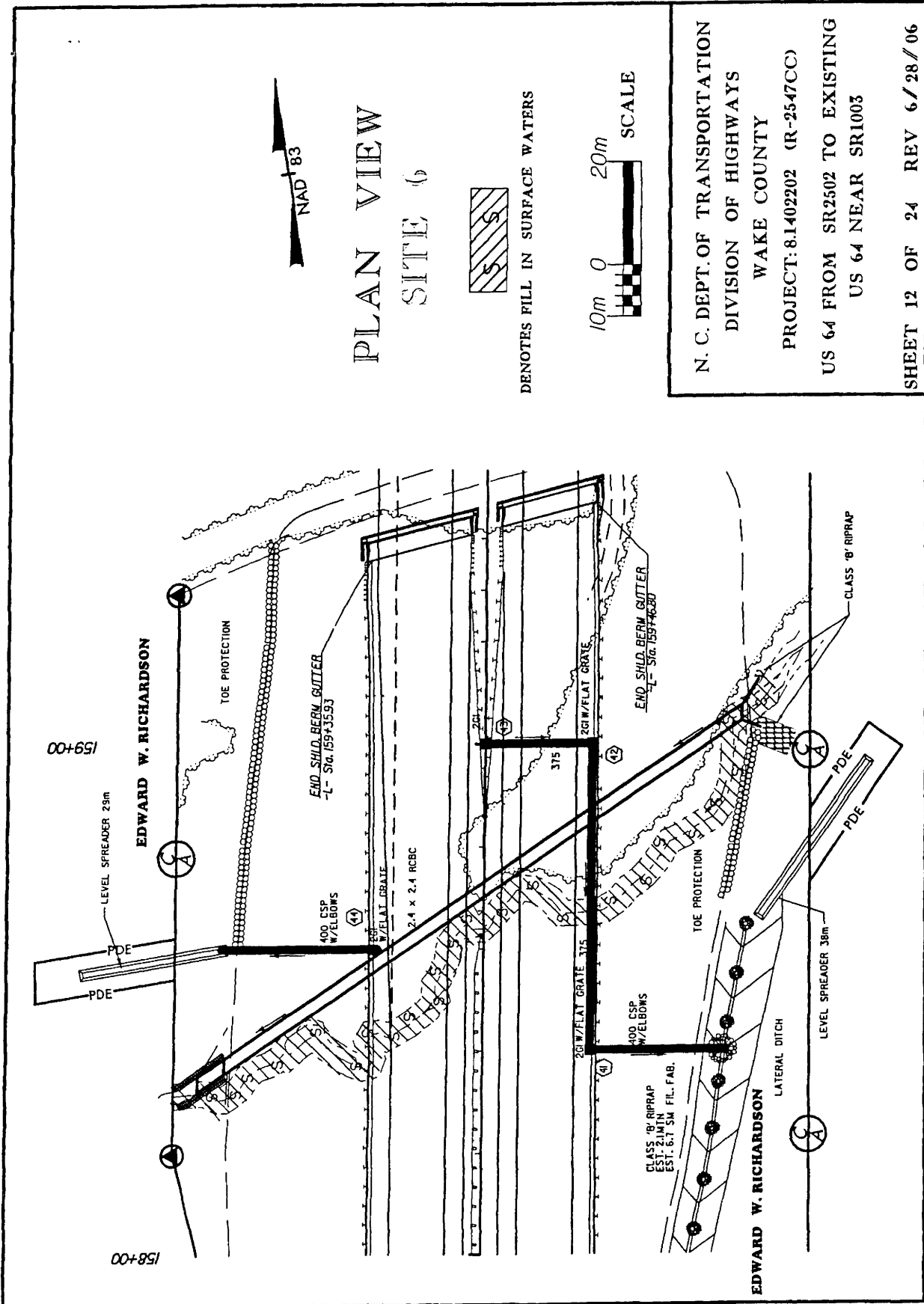
N. C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS

WAKE COUNTY

PROJECT: 8.1402202 (R-2547CC)

US64 FROM SR2502 TO EXISTING  
US64 NEAR SR1003

SHEET 7 OF 24 REV 6/28/06



PLAN VIEW  
SITE (b)



DENOTES FILL IN SURFACE WATERS



N. C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
WAKE COUNTY  
PROJECT: 8.1402202 (R-2547CC)  
US 64 FROM SR2502 TO EXISTING  
US 64 NEAR SR1003  
SHEET 12 OF 24 REV 6/28/06

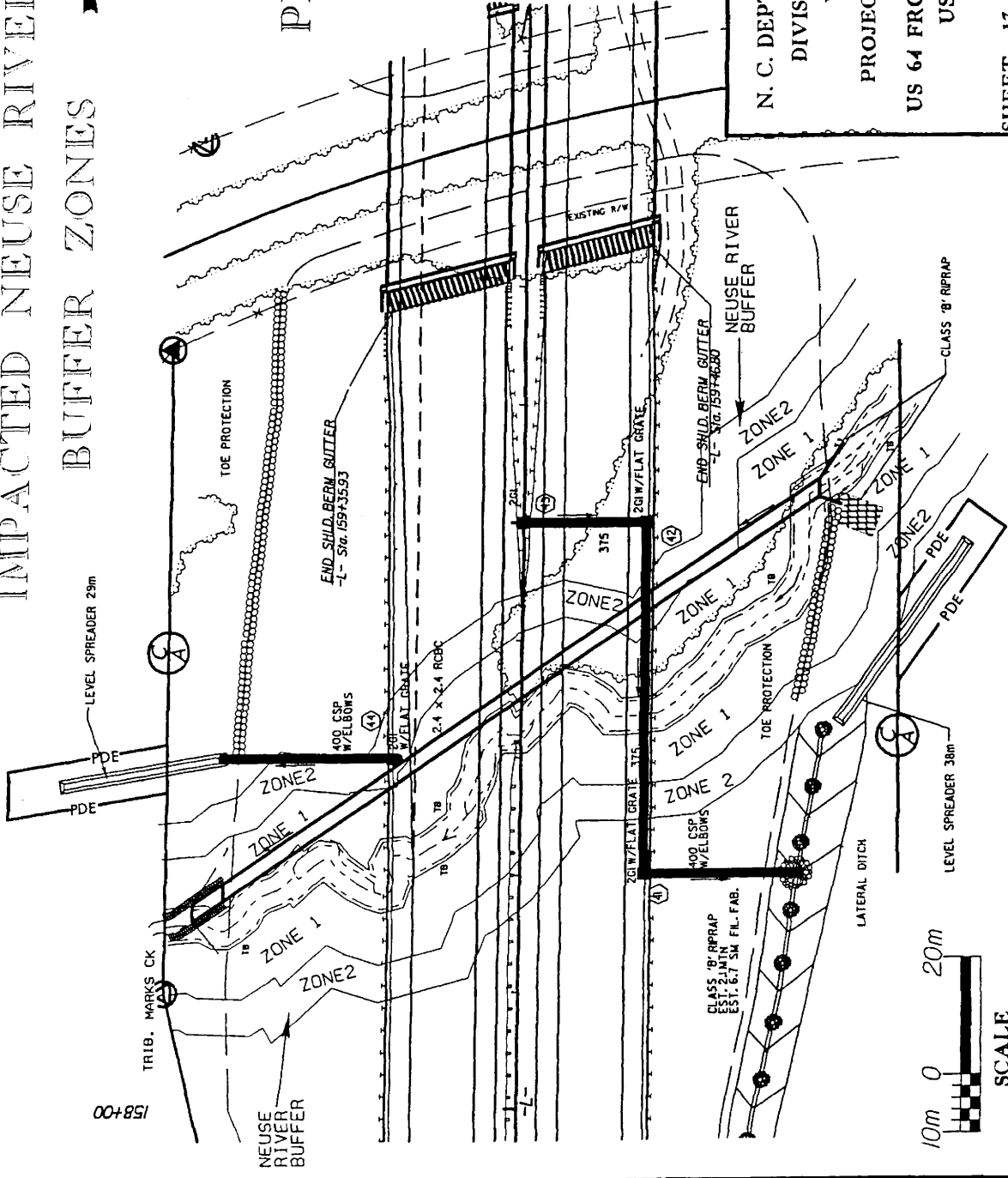
RECEIVED JUL 13 2006

# IMPACTED NEUSE RIVER BUFFER ZONES



SITE (b)

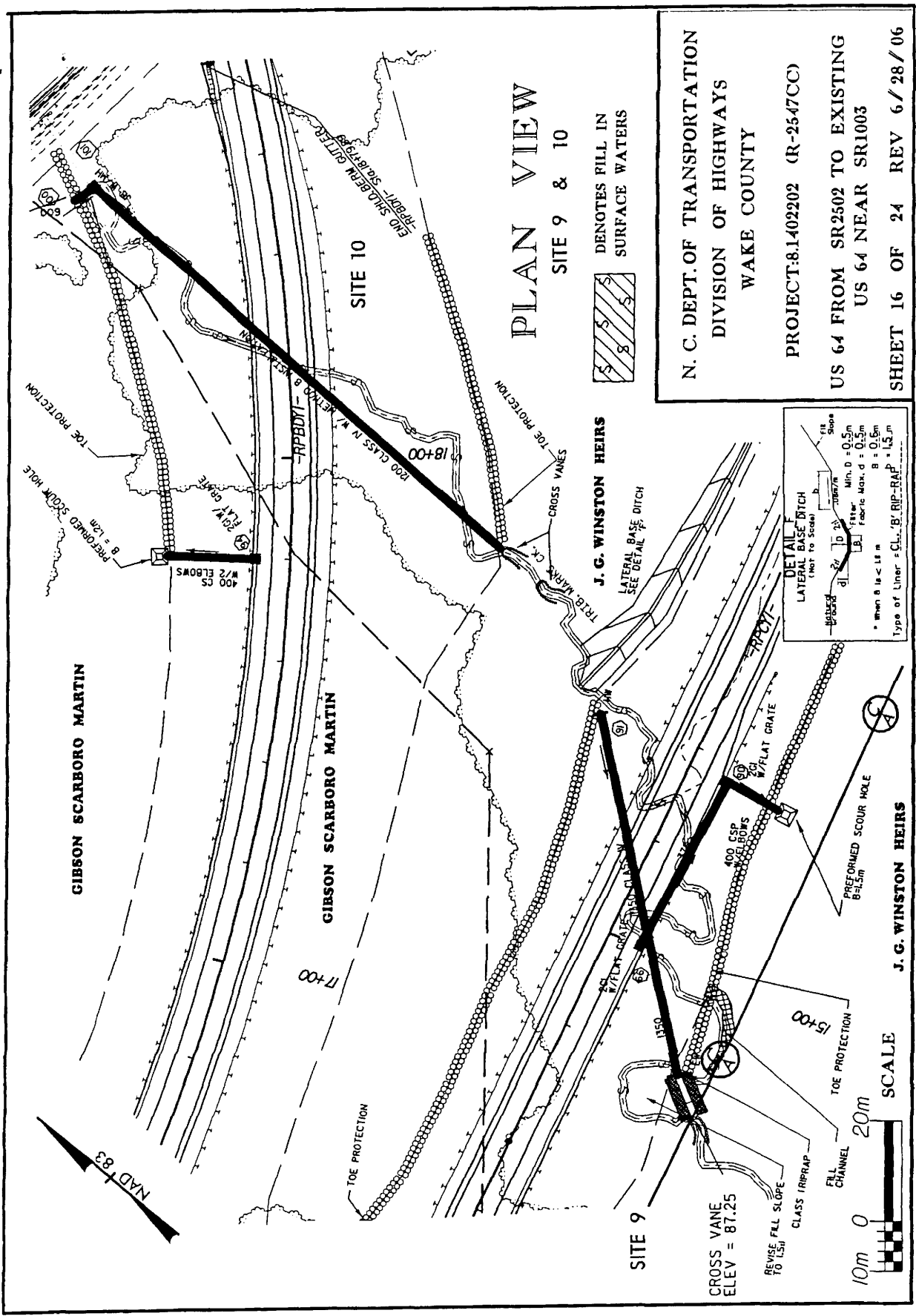
PLAN VIEW



N. C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 WAKE COUNTY  
 PROJECT: 8.1402202 (R-2547CC)  
 US 64 FROM SR2502 TO EXISTING  
 US 64 NEAR SR1003


SHEET 13 OF 24 REV 6/28/06

RECEIVED JUL 1 3 2006



**PLAN VIEW**

**SITE 9 & 10**

 DENOTES FILL IN SURFACE WATERS

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

PROJECT: 8.1402202 (R-2547CC)

US 64 FROM SR2502 TO EXISTING  
 US 64 NEAR SR1003

SHEET 16 OF 24 REV 6/28/06

GIBSON SCARBORO MARTIN

GIBSON SCARBORO MARTIN

J. G. WINSTON HEIRS

J. G. WINSTON HEIRS



CROSS VANE  
 ELEV = 87.25

REVISE FILL SLOPE  
 TO 1:1.5

CLASS RIPRAP

FILL CHANNEL

TOE PROTECTION

15+00

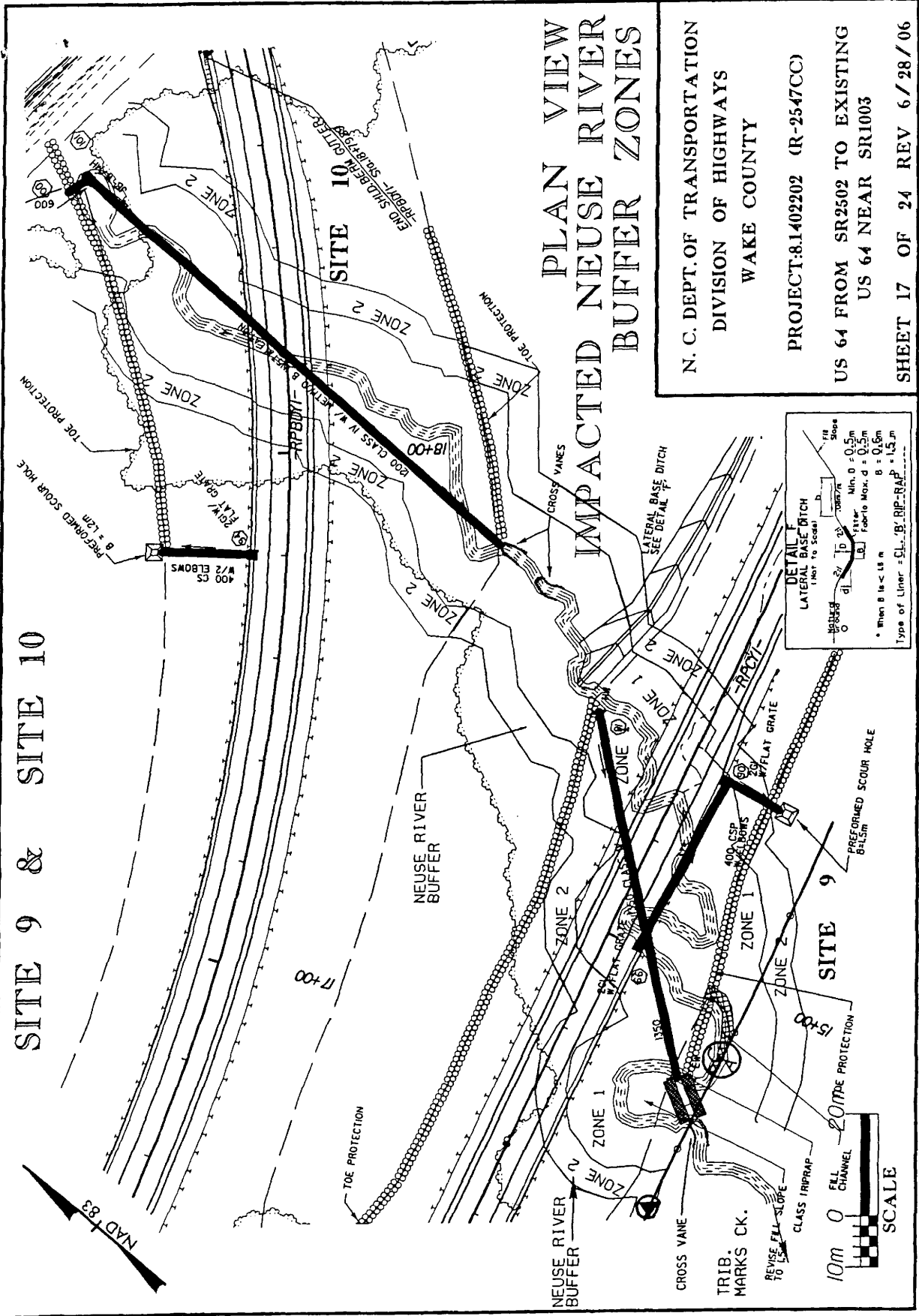
400 ESP  
 W/FLAT GRATE

PREFORMED SCOUR HOLE  
 B=1.5m



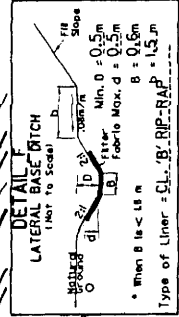
SCALE

SITE 9 & SITE 10



PLAN VIEW  
IMPACTED NEUSE RIVER  
BUFFER ZONES

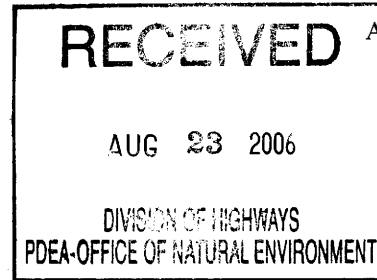
N. C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
WAKE COUNTY  
PROJECT: 8.1402202 (R-2547CC)  
US 64 FROM SR2502 TO EXISTING  
US 64 NEAR SR1003  
SHEET 17 OF 24 REV 6/28/06





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



August 16, 2006

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

Subject: Modification to the 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act and NEUSE BUFFER RULES, with ADDITIONAL CONDITIONS for Proposed construction of US 64 Bypass in Wake County, Federal Aid Project No. NHF-DPI-0199, State Project No. 8.142202, TIP No. R-2547B/C.DWQ Project No. 20011689v.7

Dear Dr. Thorpe:

Attached hereto is a modification of Certification No. 3377 issued to The North Carolina Department of Transportation dated April 10, 2002. This modification is applicable only to the additional proposed activities as described in your application dated August 3, 2006. All the authorized activities and conditions of certification associated with the original Water Quality Certification dated April 10, 2002 and all subsequent modifications still apply except where superceded by this certification.

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

Sincerely,

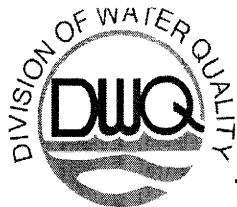
Alan W. Klimek, P.E.  
Director

Attachment (Modification to WQC#3377)

cc: Eric Alsmeyer, US Army Corps of Engineers, Raleigh Field Office  
Wilmington District US Army Corps of Engineers  
Jon G. Nance, PE, Division 5 Engineer  
Chris Murray, Division 5 Environmental Officer  
Chris Militscher, Environmental Protection Agency  
Travis Wilson, NC Wildlife Resources Commission  
Gary Jordan, US Fish and Wildlife  
Ecosystem Enhancement Program  
DWQ Raleigh Regional Office copy  
File Copy







**Modification to the 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act and NEUSE BUFFER RULES with ADDITIONAL CONDITIONS**

**THIS CERTIFICATION** is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15 NCAC 2H .0500 and 15A NCAC 2B.0233. This certification authorized the NCDOT to impact an additional 0.001 acres of jurisdictional wetlands, 187 linear feet of jurisdictional streams, 0.012 acres of open waters, and 2,975 square feet of protected riparian buffers in Wake County. The project shall be constructed pursuant to the modification dated received August 3, 2006. The authorized impacts are as described below:

**New Stream Impacts in the Neuse River Basin**

Site	Riprap Impact to Perennial Stream (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
BA 19	15	15
BB 1	89	0
BB 3	66	0
C 4	7	0
C 10	10	0
<b>Total</b>	<b>187</b>	<b>15</b>

**Total New Stream Impact for Project: 187 linear feet of Riprap.**

**New Wetland Impacts in the Neuse River Basin**

Site	Fill (ac)	Total Wetland Impact (ac)
C 4	0.001	0.001
<b>Total</b>	<b>0.001</b>	<b>0.001</b>

**Total Wetland Impact for Project: 0.001 acres.**

**New Open Water (Ponds/Lakes/Rivers/Sound/Ocean/etc) Impacts in the Neuse River Basin**

Site	Riprap Impact in Open Waters (ac)	Total Impact to Open Waters (ac)
BB 1	0.007	0.007
BB 3	0.003	0.003
C 4	0.001	0.001
C 10	0.001	0.001
<b>Total</b>	<b>0.012</b>	<b>0.012</b>

**Total New Open Water Impact for Project: 0.012 acres**

**New Neuse Riparian Buffer Impacts**

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)
BA 18	1,457	0	1,457	4,371	1,518	0	1,518	2,277
<b>Totals</b>	<b>1,457</b>	<b>0</b>	<b>1,457</b>	<b>4,371</b>	<b>1,518</b>	<b>0</b>	<b>1,518</b>	<b>2,277</b>

**Total New Buffer Impact for Project: 2,975 square feet.**



The application provides adequate assurance that the discharge of fill material into the waters of the 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 design changes that you submitted in your modified application dated August 3, 2006. All the authorized activities and conditions of certification associated with the original Water Quality Certification dated April 10, 2002 and subsequent modifications still apply except where superceded by this certification. 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 on the same day as the expiration date of the corresponding Corps of Engineers Permit.

#### **Conditions of this Certification:**

1. All other conditions written into previous Water Quality Certifications for this project still apply.
2. Compensatory mitigation for impacts to 1,457 square feet of protected riparian buffers in Zone 1 and 1,518 square feet of protected riparian buffers in Zone 2 shall be required. We understand that you have chosen to perform compensatory mitigation for impacts to protected buffers through use of the North Carolina Ecosystem Enhancement Program (EEP). Mitigation for unavoidable impacts to Neuse Riparian Buffers shall be provided in the Neuse River Basin and done in accordance with 15A NCAC 2B.0233. EEP has indicated in a letter dated July 31, 2006 that they will assume responsibility for satisfying the compensatory mitigation requirements for the above-referenced project, in accordance with the Tri-Party MOA signed on July 22, 2003 and the Dual-Party MOA signed on April 12, 2004.
3. Compensatory mitigation for 15 linear feet of impact to streams is required. We understand that you have chosen to perform compensatory mitigation for impacts to streams through the North Carolina Ecosystem Enhancement Program (EEP), and that the EEP has agreed to implement the mitigation for the project. EEP has indicated in a letter dated July 31, 2006 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with the Tri-Party MOA signed on July 22, 2003 and the Dual-Party MOA signed on April 12, 2004.
4. All stormwater runoff shall be directed as sheetflow through stream buffers at nonerosive velocities, unless otherwise approved by this certification.
5. All riparian buffers impacted by the placement of temporary fill or clearing activities shall be restored to the preconstruction contours and revegetated. Maintained buffers shall be permanently revegetated with non-woody species by the end of the growing season following completion of construction. For the purpose of this condition, maintained buffer areas are defined as areas within the transportation corridor that will be subject to regular DOT maintenance activities including mowing. The area with non-maintained buffers shall be permanently revegetated, with native woody species before the next growing season following completion of construction.



6. Pursuant to NCAC15A 2B.0233(6), sediment and erosion control devices shall not be placed in Zone 1 of any Neuse 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.
7. Riprap should not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. The use of rip-rap above the Normal High Water Mark shall be minimized except where authorized by this certification. Bioengineering boulders or structures should be properly designed, sized and installed.
8. Bridge deck drains should not discharge directly into the stream. Stormwater should be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Please refer to the most current version of *Stormwater Best Management Practices*.
9. If concrete is used during construction, a dry work area should be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete should not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.
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. 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.
12. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.
13. Heavy equipment shall be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the introduction of other pollutants into the stream.
14. 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.
15. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification.
16. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
17. The permittee 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 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.



18. 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.

19. 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.

20. Upon completion of the project, the NCDOT Division Engineer shall complete and return the enclosed "Certification of Completion Form" to notify DWQ when all work included in the 401 Certification has been completed.

21. Native riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.

22. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities.

23. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards:

- a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
- b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
- c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
- d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.

24. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, they shall be removed and the natural grade restored upon completion of the project.

Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal 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. 27699-6714. 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 16th day of August 2006

DIVISION OF WATER QUALITY

A handwritten signature in cursive script, appearing to read "Alan W. Klimek", is written over a horizontal line.

Alan W. Klimek, P.E.  
Director

WQC No. 3377

# Certification of Completion

DWQ Project No.: \_\_\_\_\_ County: \_\_\_\_\_

Applicant: \_\_\_\_\_

Project Name: \_\_\_\_\_

Date of Issuance of Wetland Permit: \_\_\_\_\_

## Certificate of Completion

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

### *Applicant's Certification*

I, \_\_\_\_\_, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification 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: \_\_\_\_\_

### *If this project was designed by a Certified Professional*

I, \_\_\_\_\_, as a duly registered Professional \_\_\_\_\_ (i.e., Engineer, Landscape Architect, Surveyor, etc.) 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: \_\_\_\_\_