



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

April 15, 2005

U. S. Army Corps of Engineers  
Raleigh Regulatory Field Office  
6508 Falls of the Neuse Road  
Raleigh, North Carolina 27615-6814

Attention: Mr. Eric Alsmeyer  
NCDOT Coordinator

Subject: **Revised Request for Permit Modification** for TIP No. R-2906A, Wake and Durham County. The widening of NC 55 from US 64 to Morrisville Carpenter Road (SR 3014). Federal Aid No. HPSTP-55(12), State Project No. 8.1403901.

Reference: Individual Permit, USACE Action ID No. 200120353, issued on June 14, 2001. 401 Major Certification, DWQ Project No. 010120, issued on January 3, 2001. NCDOT Request for Permit Modification dated April 4, 2005.

Dear Sir:

The U.S. Army Corps of Engineers (USACE) issued a Section 404 Individual Permit (IP) to the North Carolina Department of Transportation (NCDOT) on June 14, 2001 for the widening of NC 55 from US 64 to Morrisville Carpenter Road. The purpose of this letter is to amend the permit modification which was dated April 4, 2005.

In order to create a properly functioning drainage system, a 48-inch steel pipe is going to be bored under the existing roadway. A 5-foot wide base ditch containing Class I Rip-Rap is being added to the west end of this new 48-inch steel pipe to convey water. In order to properly construct this base ditch, NCDOT has purchased a temporary drainage easement from the property owner, Anne Mills. Since the existing 30-inch RCP (reinforced concrete pipe) was ineffective and will no longer be needed, it will be plugged and filled.

Due to changing site conditions, the 18-inch RCP parallel to the road, on the east side, has been extended so that it connects with the newly constructed 15-inch RCP. Also, the CSP (corrugated steel pipe) with two elbows has been increased from 18-inches to 24-inches. Because of these

two changes, additional rip-rap has been added for soil stabilization. This rip-rap will not come into contact with the surface water.

As a result of these changes, some impacts will be incurred. Fill in surface water will increase from 0.848 acre to 0.859 acre, a total increase of 0.011 acre. The amount of existing channel impacted will increase from 1,634 feet to 1,660 feet, a total increase of 26 linear feet.

The revised design does not compromise NCDOT's compliance with the existing permit conditions. The new impact site has been evaluated for compliance with the avoidance/minimization criteria and is in compliance with all previous Individual Permit factors, including the following:

- Protected Species
- Cultural Resources
- Aquatic Life passage
- FEMA compliance
- Utilities

### **Mitigation Strategy**

Based upon the agreements stipulated in the "Memorandum of Agreement Among the North Carolina Department of Environment and Natural Resources, the North Carolina Department of Transportation, and the U.S. Army Corps of Engineers, Wilmington District" (MOA), it is understood that the North Carolina Department of Environment and Natural Resources Ecosystem Enhancement Program (EEP), will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for NCDOT projects that are listed in Exhibit 1 of the subject MOA during the EEP transition period which ends on June 30, 2005.

Since the subject project is listed in Exhibit 1, the necessary compensatory mitigation to offset unavoidable impacts to waters that are jurisdictional under the federal Clean Water Act will be provided by the EEP. The offsetting mitigation will derive from an inventory of assets already in existence within the same 8-digit cataloguing unit. The Department has avoided and minimized impacts to jurisdictional resources to the greatest extent possible as described above.

### **Regulatory Approval**

The NCDOT respectfully requests that the referenced 404 Individual Permit and 401 Major Water Quality Certification be modified to reflect the revisions outlined in this letter. In compliance with Section 143-215 of the NCAC, we will provide \$475.00 to act as payment for processing the Section 401 permit application previously noted in this application (see Subject line).

If you have any questions about this request, please contact Ms. Megan Willis of my staff at (919) 715-1341.

Sincerely,



Gregory J. Thorpe, Ph.D., Environmental Management Director  
Project Development and Environmental Analysis Branch

cc:

w/attachment

Mr. John Hennessy, NCDWQ (7 copies)  
Mr. Travis Wilson, NCWRC  
Ms. Becky Fox, USEPA – Whittier, NC  
Mr. Ronald Mikulak, USEPA – Atlanta, GA  
Mr. Gary Jordan, USFWS  
Dr. David Chang, P.E., Hydraulics  
Mr. Mark Staley, Roadside Environmental  
Mr. Greg Perfetti, P.E., Structure Design  
Mr. Jon Nance, P.E., Division Engineer  
Mr. Chris Murray, P.E. DEO

w/o attachment

Mr. Jay Bennett, P.E., Roadway Design  
Mr. Omar Sultan, Programming and TIP  
Mr. Art McMillan, P.E., Highway Design  
Mr. David Franklin, USACE, Wilmington  
Mr. Michael Penney, PDEA Engineer  
Ms. Beth Harmon, EEP  
Ms. Laurie P. Smith, CPA, NCDOT, Program Management



April 19, 2005

Mr. Gregory J. Thorpe, Ph.D.  
Environmental Management Director  
Project Development and Environmental Analysis Branch  
North Carolina Department of Transportation  
1548 Mail Service Center  
Raleigh, North Carolina 27699-1548

Dear Dr. Thorpe:

Subject: EEP Mitigation Acceptance Letter:

**R-2906A**, NC 55 Widening, Wake and Durham Counties

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) will provide the additional stream mitigation for the subject project. Based on the information supplied by you in a letter dated April 4, 2005, the impacts are located in CU 03030002 of the Cape Fear River Basin in the Central Piedmont (CP) Eco-Region, and are as follows:

Stream Impacts: 26 feet

The subject project is not listed in Exhibit 2 of the Memorandum of Agreement among the North Carolina Department of Environment and Natural Resources, the North Carolina Department of Transportation, and the U. S. Army Corps of Engineers, Wilmington District dated July 22, 2003. The EEP is only committed to provide the mitigation needs for projects listed on Exhibit 2 during the first two years of the program; however Amendment 1 details how non-Exhibit 2 projects may be swapped for an appropriate project included on the Exhibit 2 list. Specifically, Amendment 1 states that:

“Exhibit 2 may be modified if requested jointly by NCDENR and NCDOT, and approved in writing by the USACE. In no event may the total projected impacts of projects per cataloging unit on Exhibit 2 exceed the total projected impacts of projects per cataloging unit on Exhibit 2 as it existed at the time of the original execution of the MOA, July, 2003.”

In this case, the NCDOT has not proposed to swap this project for an appropriate project included on the Exhibit 2 list. However, EEP currently has surplus riverine

*Restoring... Enhancing... Protecting Our State*



North Carolina Ecosystem Enhancement Program, 1652 Mail Service Center, Raleigh, NC 27699-1652 / 919-715-0476 / [www.nceep.net](http://www.nceep.net)

wetland and stream mitigation with sufficient assets to cover this years projected mitigation requirements plus the mitigation for the above referenced project. Therefore, the EEP agrees to accept this project and will provide compensatory non-riverine wetland and stream mitigation up to a 2:1 ratio in Cataloging Unit 03030002 of the Cape Fear River Basin.

If you have any questions or need additional information, please contact Ms. Beth Harmon at 919-715-1929.

Sincerely,

A handwritten signature in black ink, appearing to read "James B. Gilmore, P.E.", written in a cursive style.

William D. Gilmore, P.E.  
EEP Director

cc: Mr. Eric Alsmeyer, USACE-Raleigh  
Mr. John Hennessy, Division of Water Quality, Wetlands/401 Unit  
File: R-2906A



# LEGEND

	WETLAND BOUNDARY		LIVE STAKES
	WETLAND		BOULDER
	DENOTES FILL IN WETLAND		COIR FIBER ROLLS
	DENOTES FILL IN SURFACE WATER		ADJACENT PROPERTY OWNER OR PARCEL NUMBER
	DENOTES FILL IN SURFACE WATER (POND)		PROPOSED BRIDGE
	DENOTES TEMPORARY FILL IN WETLAND		PROPOSED BOX CULVERT
	DENOTES EXCAVATION IN WETLAND		PROPOSED PIPE CULVERT
	DENOTES TEMPORARY FILL IN SURFACE WATER		(DASHED LINES DENOTE EXISTING STRUCTURES) SINGLE TREE
	DENOTES MECHANIZED CLEARING		WOODS LINE
	FLOW DIRECTION		DRAINAGE INLET
	TOP OF BANK		ROOTWAD
	EDGE OF WATER		VANE
	PROP. LIMIT OF CUT		RIP RAP
	PROP. LIMIT OF FILL		RIP RAP ENERGY DISSIPATOR BASIN
	PROP. RIGHT OF WAY		
	NATURAL GROUND		
	PROPERTY LINE		
	TEMP. DRAINAGE EASEMENT		
	PERMANENT DRAINAGE EASEMENT		
	EXIST. ENDANGERED ANIMAL BOUNDARY		
	EXIST. ENDANGERED PLANT BOUNDARY		
	WATER SURFACE		

NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
DURHAM/WAKE COUNTIES  
PROJECT: 8.1403901 (R-2906 A, B&C)

PROPOSED WIDENING OF NC 55 FROM  
MILE 70 TO GREENVILLE ROAD INTERCHANGE

SHEET 2 OF 52

3/24/00







**SUMMARY**

Site No.	Station (From/To)	Structure Size	WETLAND IMPACTS				SURFACE WATER IMPACTS				
			Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation In Wetlands (ac)	Interchange Isolated Wetland (ac)	Mechanized Clearing (Method III) (ac)	Fill In SW (Natural) (ac)	Existing Channel Impacted (ft)	Temp. Channel Impacted (ft)	Relocated Channel (ft)
AH	-Y47-17+00 TO 18+25	3 - 12' x 8'						0.069	87	0	0
AI	-Y47-18+00 TO 21+50	NONE						0.065	416	0	0
AJ	-Y47-21+75 TO 22+50	5 - 6' x 10'						0.037	193	0	0
AK	58+50 +/-	18" RCP	0	0	0	0	0.001				
AK2	87+10 +/-	18" RCP						0.002	16		
AL	100 TO 101 +/-	60" RCP	0.039	0	0	0	0.001	0.012	135		
AM	108 TO 109 +/-	5' x 6' RCBC	0.006	0	0	0	0.008	0.009	170		0
AN	127 TO 129 +/-	18" RCP	0.004	0	0	0	0.003				
AO	193+50 +/-	NONE	0.013	0	0	0	0.009				
AP	194+50 TO 195+50 +/-	NONE	0.088	0	0	0	0.002	0.008	91		
AQ	196+25 +/-	66" RCP	0.001	0	0	0	0.008				
AR	199+25 +/-	NONE	0.063	0	0	0	0.008				
AS	248+00 +/-	18" RCP	0.006	0	0	0	0.005				
AT	256+50 +/-	18" RCP	0.001	0	0	0	0.001				
AU	143+32 +/-	2 - 7' x 9' RCBC						0.015	112		
AV	152+23 +/-	5' x 6' RCBC						0.004	97		
AW	187+00 TO 190+00 +/-	5' x 6' RCBC	0.042					0.005	101		
AX	242+00 +/-	24" RCP						0.002	47		0
AY	264+24 +/-	48" RCP						0.020	195		0
SHEET TOTALS:			0.263	0	0	0	0.038	0.248	1660	0	0
TOTALS:			0.717	0	0.012	0	0.09	0.889	6066	0	1175

MODIFIED METHOD III CLEARING USED IN WETLANDS

N.C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS

Rev 4/05

PROJECT: 8.1403901 (R-2906 A, B & C)  
PROPOSED WIDENING OF NC 55 FROM  
US HWY. 84 TO SR 1121  
SHEET 524 OF 52



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

April 15, 2005

U. S. Army Corps of Engineers  
Raleigh Regulatory Field Office  
6508 Falls of the Neuse Road  
Raleigh, North Carolina 27615-6814

Attention: Mr. Eric Alsmeyer  
NCDOT Coordinator

Subject: **Request for Permit Modification** for TIP No. R-2906C, Wake and Durham County. The widening of NC 55 from north of North Wake Expressway to SR 1121 Cornwallis Road in Durham. Federal Aid No. HPSTP-55(12), State Project No. 8.1403901.

Reference: Individual Permit, USACE Action ID No. 200120353, issued on June 14, 2001.  
Individual Permit Modification, issued on January 13, 2004.  
401 Major Certification, DWQ Project No. 010120, issued on January 3, 2001.  
401 Major Certification Modification, issued on July 8, 2003.

Dear Sir:

The U.S. Army Corps of Engineers (USACE) issued a Section 404 Individual Permit (IP) to the North Carolina Department of Transportation (NCDOT) on June 14, 2001 for the widening of NC 55. The purpose of this letter is to request a modification for Site AJ (reference attachment).

The NCDOT previously applied for a permit modification for Site AJ on April 18, 2003. The modification application addressed stream impacts associated with the installation of two gravity sewer lines along two tributaries to Northeast Creek. This activity would involve complete crossings of both stream banks at Line 1 and Line 2 (see Utility Permit Drawing 8 of 11). The modification application indicated that installation would involve the placement of the sewer lines into open trenches that were dewatered utilizing sandbags across half of the channel at a time and diverting water flow through the open portion of the channel. This would result in five feet of temporary stream impact. The NCDENR-DWQ issued a permit modification for this activity on July 8, 2003 and the USACE issued a permit modification for this activity on January 13, 2004.

**MAILING ADDRESS:**  
NC DEPARTMENT OF TRANSPORTATION  
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS  
1598 MAIL SERVICE CENTER  
RALEIGH NC 27699-1598

TELEPHONE: 919-733-3141  
FAX: 919-733-9794

WEBSITE: [WWW.DOT.ORG](http://WWW.DOT.ORG)

**LOCATION:**  
TRANSPORTATION BUILDING  
1 SOUTH WILMINGTON STREET  
RALEIGH NC

Construction activities associated with the installation of the gravity sewer lines were initiated on November 11, 2004. However, construction did not adhere to the information supplied in the above mentioned permit modification application, resulting in non-compliance with the permits. Additionally, construction at this site did not adhere to NCDOT specifications in reference to pipe material. Accordingly, the contractor will have to reinstall the gravity sewer lines at Line 1 and Line 2. This temporary impact will include complete dewatering of the streams utilizing sandbags or sheet piling and open cut of the stream channel at Line 1 and Line 2. The stream will be bypass pumped to maintain flow following approved best management practices. The trenching across the channel will take approximately four weeks. Following construction, the stream bank and bed will be stabilized.

As a result of these changes, some impacts will be incurred. Temporary fill in surface water will increase by 75 feet. No mitigation is proposed for this activity.

The revised design does not compromise NCDOT's compliance with the existing permit conditions. The new impact site has been evaluated for compliance with the avoidance/minimization criteria and is in compliance with all previous Individual Permit factors, including the following:

- Protected Species
- Cultural Resources
- Aquatic Life passage
- FEMA compliance
- Utilities

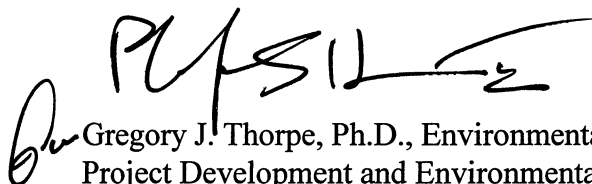
#### Regulatory Approval

The NCDOT respectfully requests that the referenced 404 Individual Permit and 401 Major Water Quality Certification be modified to reflect the revisions outlined in this letter. In compliance with Section 143-215.3 of the NCAC, we will provide \$475.00 to act as payment for processing the Section 401 permit application previously noted in the application (see Subject line).

NCDOT submitted a modification application for this same project on April 8, 2005. We would like to request that these two permit modification letters be combined into one.

If you have any questions about this request, please contact Ms. Megan Willis of my staff at (919) 715-1341.

Sincerely,

A handwritten signature in black ink, appearing to read 'Gregory J. Thorpe', is written over a printed name and title.

Gregory J. Thorpe, Ph.D., Environmental Management Director  
Project Development and Environmental Analysis Branch

cc:

w/attachment

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Mr. Art McMillan, P.E., Highway Design  
Mr. David Franklin, USACE, Wilmington  
Mr. Michael Penney, PDEA Engineer  
Ms. Beth Harmon, EEP

# VICINITY MAP

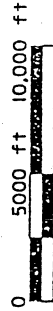
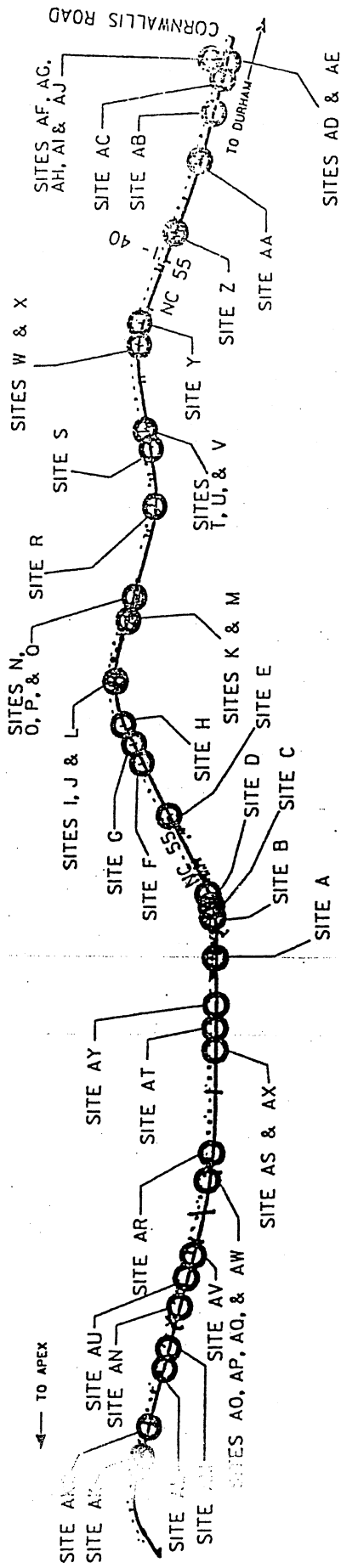
## SITE



NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
DURHAM/WAKE COUNTIES  
PROJECT: 8.1403901 (R-2906 A, B&C)

PROPOSED WIDENING OF NC 55 FROM  
1.001 TO 1.001 (R-2906 A, B&C)

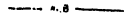

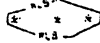

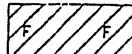




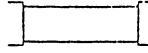

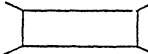

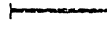


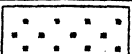

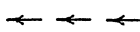
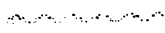
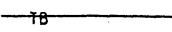

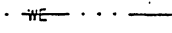

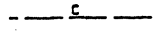
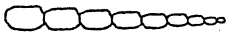
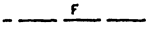




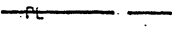

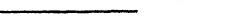


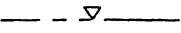
# SITE MAP



NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 DURHAM/WAKE COUNTIES  
 PROJECT: 8.1403901 (R-2906 A, B & C)  
 PROPOSED WIDENING OF NC 55 FROM  
 US64 TO CORNWALLIS ROAD (SR 1121)

NOTE: SITE AG HAS BEEN DETERMINED NOT TO BE A WETLAND BY THE USACE AND NCDOT.  
 SITE L IS NO LONGER IMPACTED BY THIS PROJECT DUE TO A DESIGN CHANGE.

# LEGEND

	WETLAND BOUNDARY		LIVE STAKES
	WETLAND		BOULDER
	DENOTES FILL IN WETLAND		COIR FIBER ROLLS
	DENOTES FILL IN SURFACE WATER		ADJACENT PROPERTY OWNER OR PARCEL NUMBER
	DENOTES FILL IN SURFACE WATER (POND)		PROPOSED BRIDGE
	DENOTES TEMPORARY FILL IN WETLAND		PROPOSED BOX CULVERT
	DENOTES EXCAVATION IN WETLAND		PROPOSED PIPE CULVERT
	DENOTES TEMPORARY FILL IN SURFACE WATER		(DASHED LINES DENOTE EXISTING STRUCTURES)
	DENOTES MECHANIZED CLEARING		SINGLE TREE
	FLOW DIRECTION		WOODS LINE
	TOP OF BANK		DRAINAGE INLET
	EDGE OF WATER		ROOTWAD
	PROP. LIMIT OF CUT		VANE
	PROP. LIMIT OF FILL		RIP RAP
	PROP. RIGHT OF WAY		RIP RAP ENERGY DISSIPATOR BASIN
	NATURAL GROUND		
	PROPERTY LINE		
	TEMP. DRAINAGE EASEMENT		
	PERMANENT DRAINAGE EASEMENT		
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	EXIST. ENDANGERED PLANT BOUNDARY		
	WATER SURFACE		

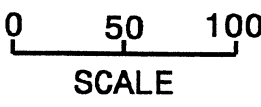
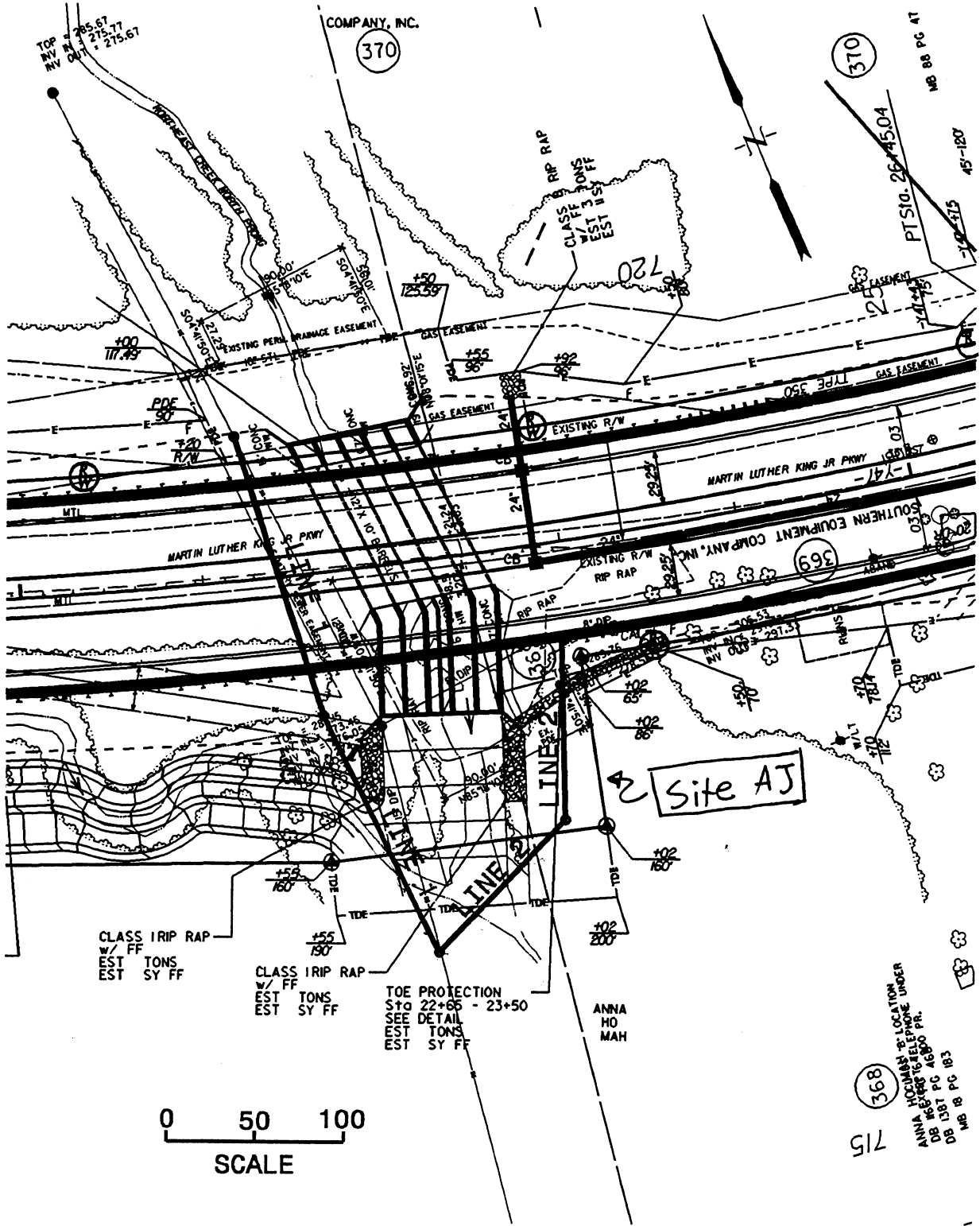
NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
DURHAM/WAKE COUNTIES  
PROJECT: 8.1403901 (R-2906 A, B&C)

PROPOSED WIDENING OF NC 55 FROM  
1056 TO DURHAM/PLANTATION

SHEET 2 OF 52

3/24/00





SITE AJ

N. C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 DURHAM-WAKE COUNTY  
 PROJECT 8.1403901  
 R-2906C UTILITY  
 NC 55 From North of North Wake  
 Expressway to SR 1121 Cornwallis  
 Road in Durham  
 Sheet 8 of 11

## Utility Impact Summary

### Additional Temporary Impacts

Site	Station Number	Plan View Permit Drawing	Fill In Surface Water-Natural (Acre)	Existing Stream Channel Impacted - Mitigation (Feet)	Existing Stream Channel Impacted - No Mitigation (Feet)	Temporary Channel Impact (Feet)	Relocated Stream Channel (Feet)	Proposed On-Site Stream Mitigation (Feet)	Stream Channel Loss After On-Site Mitigation	Proposed 2:1 Off-Site Compensatory Stream Mitigation (Feet)
AI' & AJ'	-Y47- 21+42	46 of 52	0	-	-	75	-	-	-	-

This revision involves the relocation of two gravity sewer lines that are in conflict with proposed culvert construction at approximate Station 21+42, -Y47-. There will be no additional permanent fill placed in the existing stream and no relocation of the stream associated with this utility work. The site is identified as AI' and AJ', which corresponds with sites identified in the original permit application dated January 3, 2001.

### Impacts Simultaneous with Culvert Extension

Site	Station Number	Plan View Permit Drawing	Fill In Surface Water-Natural (Acre)	Existing Stream Channel Impacted - Mitigation (Feet)	Existing Stream Channel Impacted - No Mitigation (Feet)	Temporary Channel Impact (Feet)	Relocated Stream Channel (Feet)	Proposed On-Site Stream Mitigation (Feet)	Stream Channel Loss After On-Site Mitigation	Proposed 2:1 Off-Site Compensatory Stream Mitigation (Feet)
Z	-L- 639+00 to 640+00	40 of 52	0	-	-	3	-	-	-	-

This revision involves the relocation of an existing ductile iron water line outside the wingwalls of the proposed culvert and culvert extensions at approximate Station 639+76 -L-. The existing water line is being impacted by the culvert extension and the new culvert construction to the south. Due to the anticipated method of construction, water will be diverted around a portion of the existing culvert to facilitate construction of the culvert extension to the east. The water line can be installed by open cut through the channel at this location at that time.

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 DURHAM-WAKE COUNTY  
 PROJECT 8.1403901  
 R-2906C UTILITY WORK  
 NC 55 From North of North Wake  
 Expressway to SR 1121, Cornwallis  
 Road In Durham