



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

March 5, 2012

U. S. Army Corps of Engineers
Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

ATTN: Ms. Sarah Hair
NCDOT Coordinator

Dear Madam:

Subject: **Revised Modification Request for Section 404 Individual Permit and Section 401 Water Quality Certification** for the widening of NC 49 from East of NC 73 to East of SR 2630 (Cline Road) in Cabarrus County. Federal Aid Project No. NHS-0049(26), Division 10, TIP No. R-2533CC.

Reference: USACE Individual Permit Action ID SAW-2010-00726, dated June 6, 2011.
NCDWQ Water Quality Certification No. 003847, dated January 19, 2011.
R-2533CC Permit Modification Application dated January 20, 2012

The purpose of this letter is to request a modification to the United States Army Corps of Engineers (USACE) Individual Permit and North Carolina Division of Water Quality Certification for the above referenced project. The requested modification is to rectify an elevation problem that has occurred during the placement of a 1650 mm RCP at site 7 and to address two new sites (Site 1A and Site 2A) that were discovered on the project during a site visit on February 9, 2012. This request will take the place of the previous request for permit modification for site 7 dated January 20, 2012.

Site 7

Currently there is a considerable elevation difference between the undisturbed portion of the stream and the pipe inlet. There is approximately 2.85 feet of fall occurring within the approximate 26 feet of stream as it enters the pipe. NCDOT proposed to rectify this problem by installing a log sill in the area of the stream before it enters the pipe. The log sill will be used to direct the stream flow (thalweg)

toward the center of the channel and to provide grade control. The log will be constructed of hardwood tree species with a minimum diameter of 12-inches. The length of each log shall be sufficient to allow proper construction and so they can be keyed into the banks at a minimum of 1.5 meters (Approximately 5 feet).

The permanent impacts at Site 7 will change from 902 linear feet to 928 linear feet. The temporary impacts will decrease from 43 feet to 17 feet.

New Permit Site 1A

This is a newly found site with a wetland and stream located on NC 49 adjacent to the First Bank and east of Skyland Drive. There are 85 linear feet of permanent stream impacts consisting of 60 feet of fill due to the extension of a pipe and 25 feet of fill due to rip rap placement. Also at this site, 0.103 acre of wetland has been cleared and partly filled on the north side of NC 49.

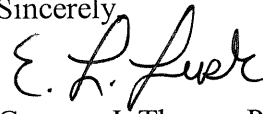
New Permit Site 2A

This is a newly found site with a wetland located at NC 73. The area has been cleared and grubbed and a hardware cloth/rock silt check has been added where the feature becomes a stream channel to reduce sedimentation and control erosion. There has been 0.07 acre of impact to this wetland.

NCDOT is not requesting to change the Jurisdictional Determination (dated May 25, 2011). Attached you will find the new impact summary sheets and drawings showing the changes to Site 7 and the new Permit Sites 1A and 2A.

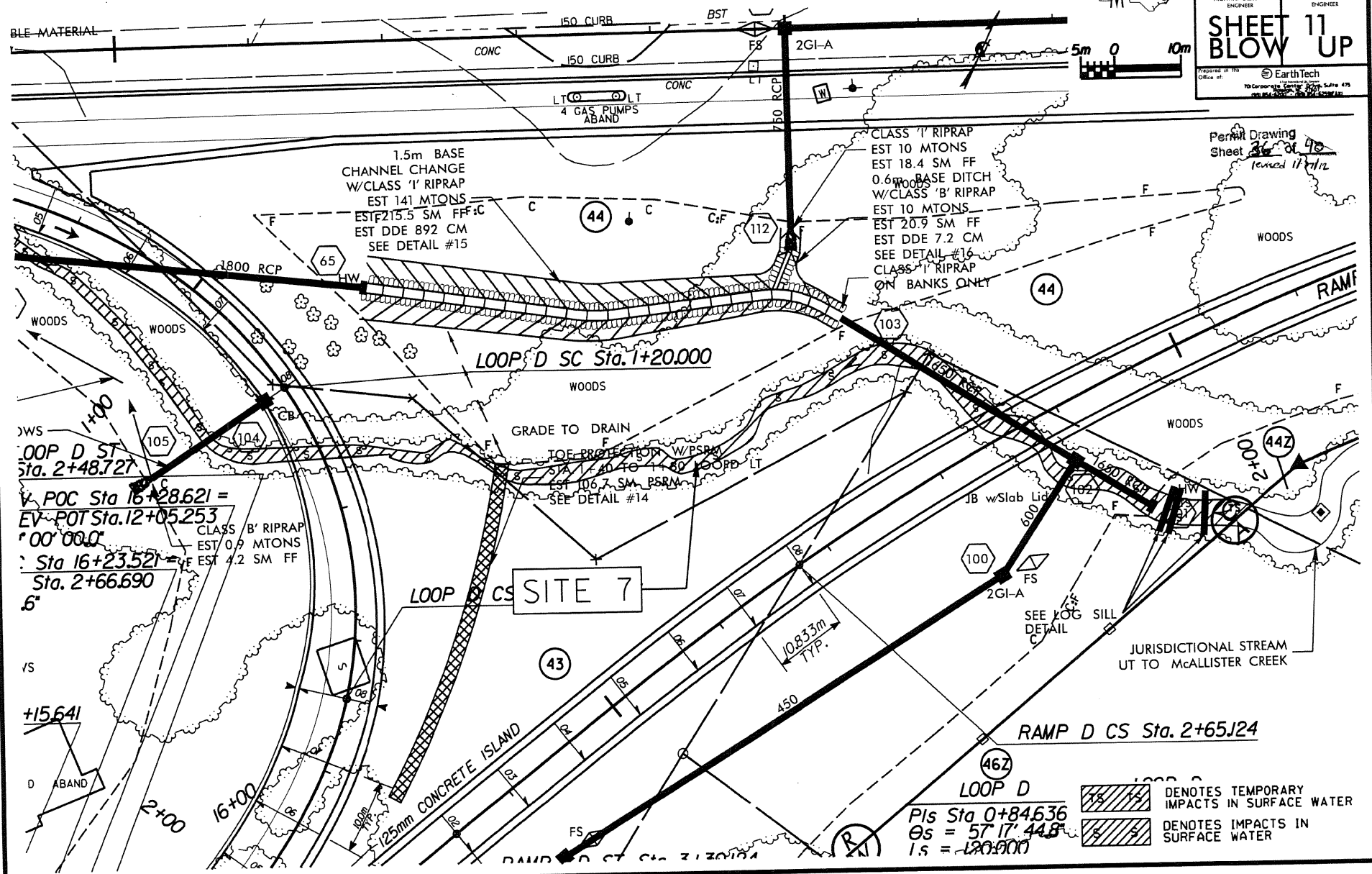
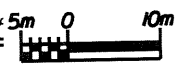
Thank you for your assistance with this project. If you have any questions or need additional information, please contact Carla Dagnino at cdagnino@ncdot.gov or (919) 707-6110. A copy of this modification application will also be posted at <http://www.ncdot.org/planning/pe/naturalunit/Permit.html>.

Sincerely,

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Gregory J. Thorpe, Ph.D., Manager
Project Development and Environmental Analysis Unit

CC:
NCDOT Permit Application Standard Distribution List

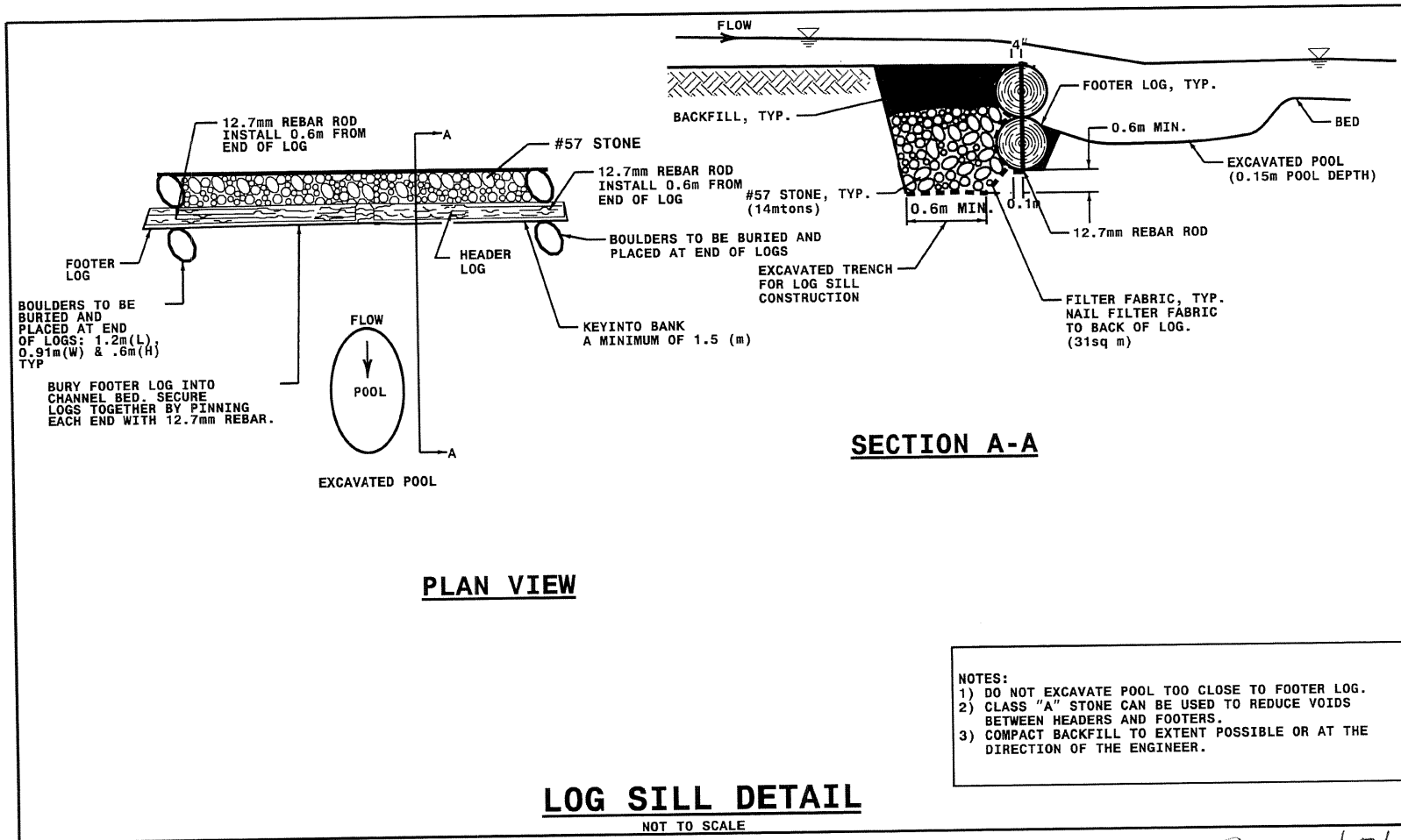


POC Sta 16+28.621 =
 EV POT Sta. 12+05.253
 00' 00"
 Sta 16+23.521 =
 Sta. 2+66.690
 6"

LOOP D
 PLS Sta 0+84.636
 OS = 57' 44.8"
 LS = 120.000

DENOTES TEMPORARY IMPACTS IN SURFACE WATER
 DENOTES IMPACTS IN SURFACE WATER

Revised 3/5/12



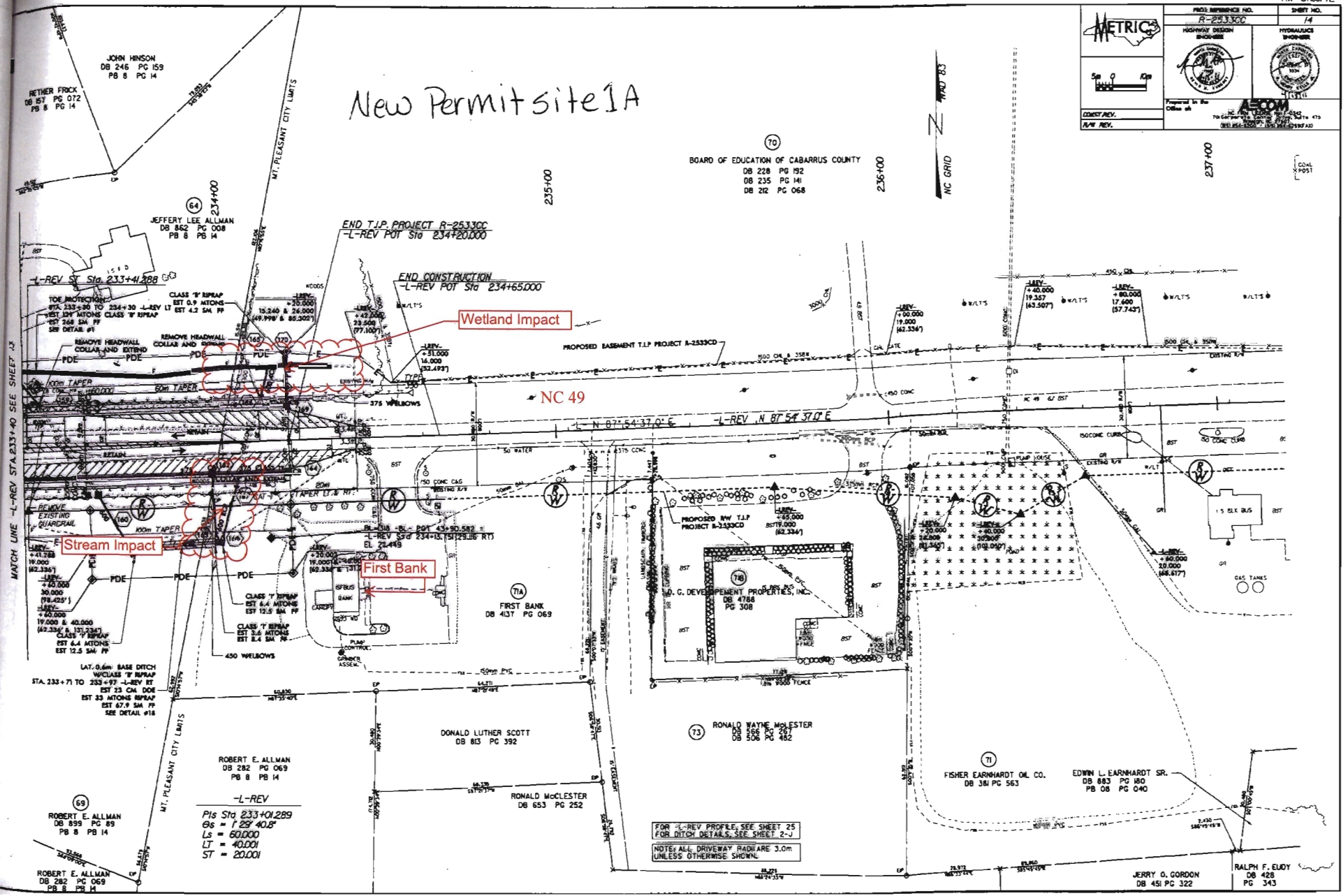
- NOTES:
- 1) DO NOT EXCAVATE POOL TOO CLOSE TO FOOTER LOG.
 - 2) CLASS "A" STONE CAN BE USED TO REDUCE VOIDS BETWEEN HEADERS AND FOOTERS.
 - 3) COMPACT BACKFILL TO EXTENT POSSIBLE OR AT THE DIRECTION OF THE ENGINEER.

New Revised 3/5/12

	PROJECT REFERENCE NO. R-253300	SHEET NO. 14
	HIGHWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
Prepared by the Office of		
CONSTR. REV. R/W REV.	700 CAPITAL BLVD., SUITE 475 WELLSVILLE, NC 27685	

New Permit site 1A

BOARD OF EDUCATION OF CABARRUS COUNTY
 DB 228 PG 192
 DB 235 PG 141
 DB 212 PG 068



MATCH LINE - L-REV STA. 233+40 SEE SHEET 13

(64)
 234+00
 JEFFERY LEE ALLMAN
 DB 852 PG 008
 PB 8 PG 14

END T.I.P. PROJECT R-253300
 -L-REV POT Sta 234+20.000

END CONSTRUCTION
 -L-REV POT Sta 234+65.000

Wetland Impact

Stream Impact

First Bank

(69)
 ROBERT E. ALLMAN
 DB 899 PG 89
 PB 8 PG 14

ROBERT E. ALLMAN
 DB 282 PG 069
 PB 8 PG 14

-L-REV
 Pis Sta 233+01.289
 Gs = 1' 28" 40.8"
 Ls = 60.000
 Lt = 40.001
 ST = 20.001

DONALD LUTHER SCOTT
 DB 813 PG 392

RONALD MCLESTER
 DB 653 PG 252

(73)
 RONALD WAYNE MCLESTER
 DB 508 PG 482

(71)
 FISHER EARNHARDT OIL CO.
 DB 384 PG 563

EDWIN L. EARNHARDT SR.
 DB 883 PG 180
 PB 08 PG 040

JERRY O. GORDON
 DB 451 PG 322

RALPH F. EUDY
 DB 428
 PG 343

FOR -L-REV PROFILE, SEE SHEET 25
 FOR DITCH DETAILS, SEE SHEET 2-J
 NOTE: ALL DRIVEWAY RADIARE 3.0m
 UNLESS OTHERWISE SHOWN.

New site 1A
 3/5/12

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1 *	200+17/201+21-L-REV	3@3.7 x 3.7 RCBC	0.025					0.11	0.07	108	125	
		Bank Stabilization								98		
		UT Channel Relocation						0.01		36		
2	212+13/212+79 -L-REV	1@11.0 x 2.7 BOTTOMLESS RCBC						0.01	0.12	46	184	
		Bank Stabilization								39		
3 *	213+52/214+02 -L-REV	Roadway Fill	0.200									
4	218+26/219+34 -L-REV	2@2.7 x 2.7 RCBC						0.09	0.01	361	39	
	Shopping Center Access	2@2.7 x 2.7 RCBC								46		
		Bank Stabilization								837		
5 *	9+90/12+47 -Y1-REV RT	1050mm RCP	0.089					0.06		10		
		Bank Stabilization								371	89	
6	11+87/12+70 -Y1-REV	2@2.7 x 2.7 RCBC						0.09	0.02	66		
	12+11.6 -Y16-REV	2@2.7 x 2.7 RCBC								928	17	
		Bank Stabilization										
7	219+45/219+59 -L-REV	1 @ 1650mm RCP						0.14				
		1 @ 1800mm RCP										
8	11+06-Y16REV-RT	600 RCP						<0.01		10		
		Bank Stabilization								10		
9	220+00/220+28 -L-REV LT	450mm RCP						0.02		118		
1A	Pipe Extension				0.10					85		
2A	Pipe Placement				0.07							
TOTALS:			0.31		0.17			0.53	0.22	3169	454	

ENGLISH IMPACTS

* WETLAND CONSIDERED TOTAL TAKE.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

CABARRUS COUNTY
WBS - 34448.1.1 (R-2533CC)

SHEET

1.13.2012

Revised 3/5/12

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS					
			Permanent Fill In Wetlands (ha)	Temp. Fill In Wetlands (ha)	Excavation in Wetlands (ha)	Mechanized Clearing in Wetlands (ha)	Hand Clearing in Wetlands (ha)	Permanent SW impacts (ha)	Temp. SW impacts (ha)	Existing Channel Impacts Permanent (m)	Existing Channel Impacts Temp. (m)	Natural Stream Design (m)	
1 *	200+17/201+21-L-REV	3@3.7 x 3.7 RCBC	0.010						0.046	0.026	33	38	
		Bank Stabilization									30		
		UT Channel Relocation							0.003		11		
2	212+13/212+79 -L-REV	1@11.0 x 2.7 BOTTOMLESS RCBC							0.007	0.048	14	56	
		Bank Stabilization									12		
3 *	213+52/214+02 -L-REV	Roadway Fill	0.081										
4	218+26/219+34 -L-REV	2@2.7 x 2.7 RCBC							0.037	0.006	110	12	
	Shopping Center Access	2@2.7 x 2.7 RCBC									14		
		Bank Stabilization									255		
5	9+90/12+47 -Y1-REV RT	1050mm RCP	0.036						0.026		3		
		Bank Stabilization									113	27	
6	11+87/12+70 -Y1-REV	2@2.7 x 2.7 RCBC							0.035	0.009			
	12+11.6 -Y16-REV	2@2.7 x 2.7 RCBC									20		
		Bank Stabilization											
7	219+45/219+59 -L-REV	1 @ 1650mm RCP							0.058		283	5	
		1 @ 1800mm RCP											
8	11+06-Y16REV-RT	600 RCP							<0.001		3		
		Bank Stabilization									3		
9	220+00/220+28 -L-REV LT	450mm RCP							0.008		36		
1A	Pipe extenstion				0.042						26		
2A	Pipe placement				0.028								
TOTALS:			0.127		0.070				0.220	0.089	966	138	

METRIC IMPACTS

* WETLAND CONSIDERED A TOTAL TAKE.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

CABARRUS COUNTY

Revised 3/5/12