



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

May 19, 2017

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

ATTN: Ms. Crystal C. Amschler, NCDOT Regulatory Coordinator

Subject: **Request for Modification Individual Section 404 Permit and Section 401 Water Quality Certification for the Central and South sections of the I-77 HOT Lanes Project, I-5405 and I-3311C.**

Reference: **Individual 404 Permit** SAW-2012-00156 issued January 28, 2016 for the Central Section and subsequent modifications issued for the North Section on May 20, 2016, and South Section on November 24, 2016.
Individual 401 Water Quality Certification No. WQC004036 issued November 13, 2015 for the Central Section, and subsequent modifications issued for the North Section on February 15, 2016 and South Section on May 16, and June 28, 2016.

Dear Madam:

As the I-77 HOT Lane project construction is underway, a review of the drawings and revisions to project access have resulted in modifications in three areas, two permanent impact changes in the Central Section and one temporary impact change in the South Section.

These changes result in a surplus of 6 linear feet of permanent stream impact and request for 40 additional feet of temporary stream impact.

The changes for the Central Section of I-77 are as follows:

Site 6-C: 8' x 7' culvert extension to the median

The original/ permitted impact from culvert extensions was 26 linear feet of permanent stream impact, 21 linear feet of stream embankment, and 42 feet of temporary stream impacts for de-watering and construction access.

When looking closely at the drawings (magnified below), it is noted that the measurement of the extension was based on the "JS line" instead of the existing culvert.

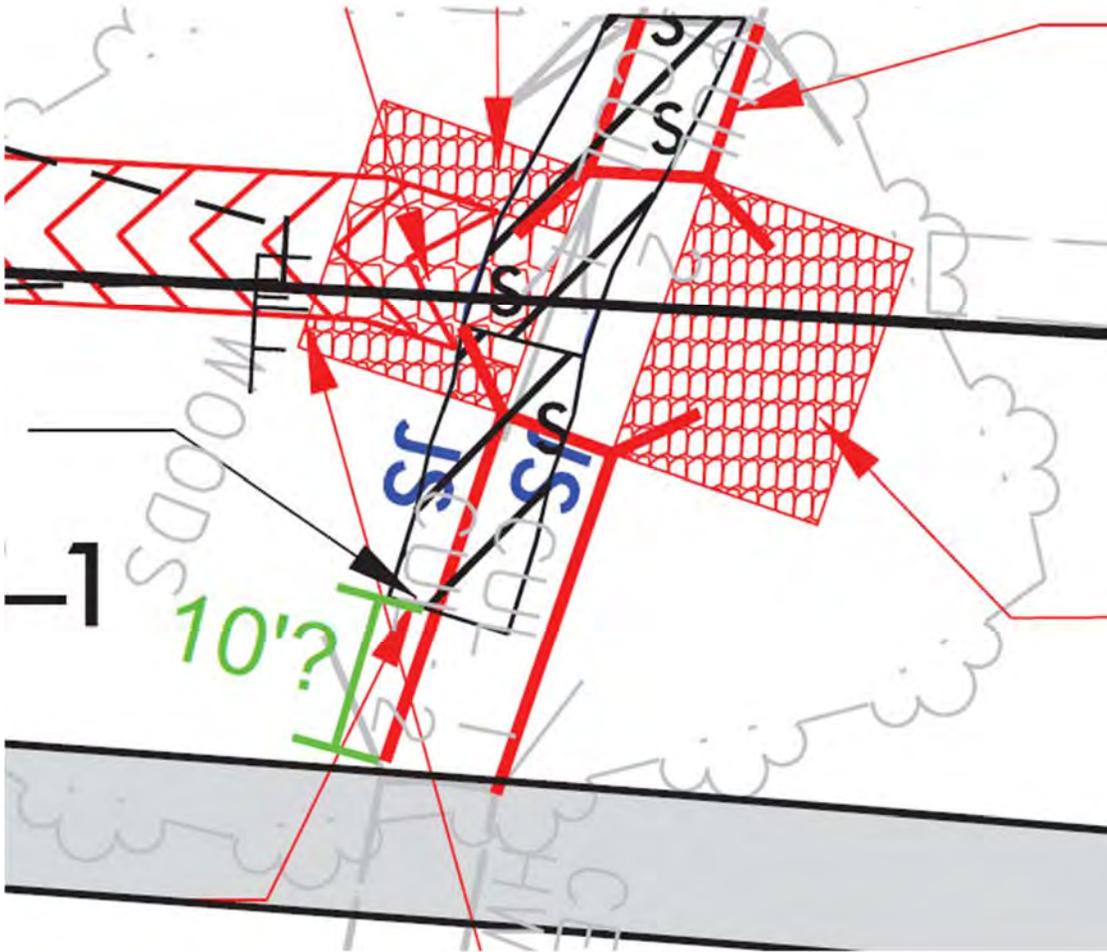
This discrepancy results in a 10 linear foot deficit of permanent stream impact (noted in green below). The impact summary table has been revised to reflect the increase from 26 to 36 linear feet of culvert extension.

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
NATURAL ENVIRONMENT SECTION
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1598

Telephone: (919) 707-6000
Fax: (919) 212-5785
Customer Service: 1-877-368-4968
Website: www.ncdot.gov

Location:
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610

Site 6-C:

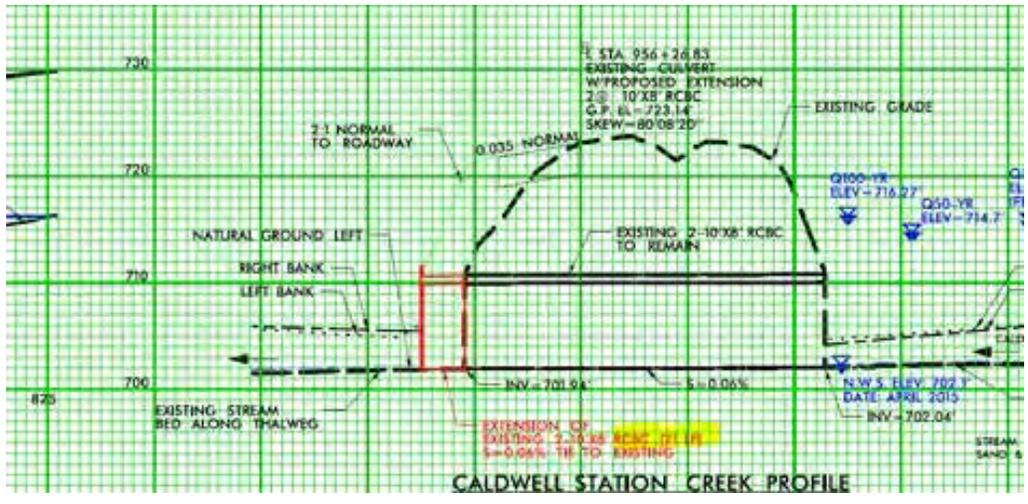
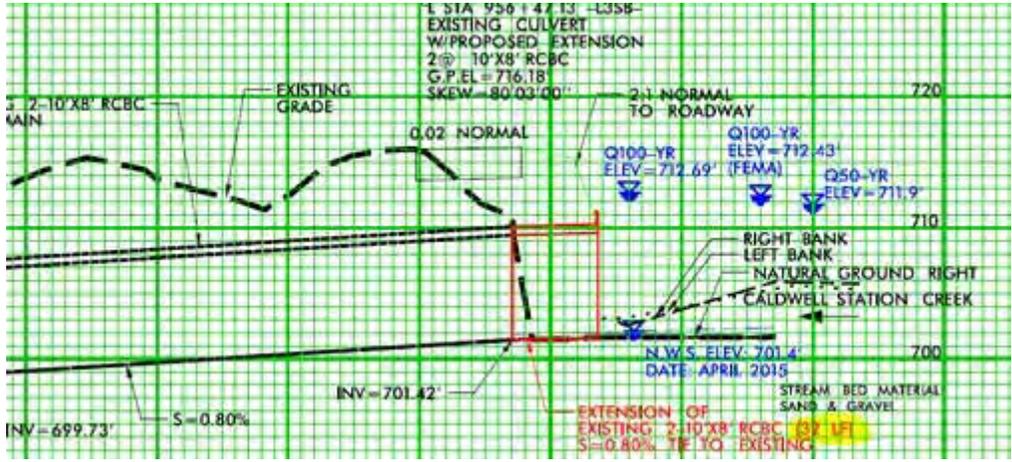


Site 7-C: (2) 10' x 8' culvert extension to the median

The original/ permitted impact from culvert extensions was 69 linear feet of permanent stream impact, 22 linear feet of channel protection, 99 linear feet of stream bank stabilization, and 40 linear feet of temporary stream impacts for de-watering and construction access.

Plans (below) now indicate that only 53 linear feet of culvert extension is required.

This change results in a surplus of permanent stream impact of 16 feet. The impact summary table has been revised to reflect the decrease from 91 to 75.



The change for the South Section of I-77 is as follows:

Site 3C-S: UT to Irwin Creek that outlets into the Irwin Creek culvert extension

The original/ permitted temporary impact for construction access, managing water flows, and reworking the riprapped banks was 45 linear feet of temporary stream impact, and 45 linear feet of permanent stream impact for the installation of a 72” pipe.

The team requests an additional 40 linear feet of temporary access/dewatering impact for a total of 85 linear feet, which will allow them to construct the Irwin Creek culvert at a more productive and safer location and sequence. This will also facilitate faster construction of the culvert, and reduced temporary fills in Irwin Creek, resulting in less time/exposure to high flow events while under construction. Please find attached revised Sheet 12 of 35 displaying this modification.

[This change results in the addition of 40 linear feet of temporary access/ dewatering. The impact summary table has been revised to reflect the increase from 45 to 85 linear feet.](#)

Impact Summary

Permanent Stream Impact

The deficit of 10 linear feet of permanent stream impact at Site 6-C, and surplus of 16 linear feet at Site 7-C result in a total of 6 feet of surplus of permanent stream impact for the project. This decreases:

The total permanent stream impact for the Central Section from: 410 to 404 linear feet,
The total mitigable stream impact for the Central Section from: 185 to 179 linear feet,
The total mitigable stream impact in HUC 03050101 from: 212 to 206 linear feet, and
The total project from 1,860 to 1,854 linear feet.

Temporary Stream Impact

Forty additional linear feet of temporary dewatering/ impact is needed at site 3C-S. This increases:

The total temporary stream impact for the South Section of the project: from 2,328 to 2,368 lf.,
The total temporary stream impact in HUC 03050103 from 2,328 to 2,368 linear feet, and
The total temporary stream impact for the entire project from 3,117 to 3,157 linear feet, and

Please reference attached revised Impact Summary Tables.

Due to the amount of project construction remaining, NCDOT requests to retain the surplus 6 linear feet of stream mitigation. If no other modifications are required, NCDOT will reconcile this difference during the final inspection by the USACE and NCDWR.

If you have any questions or need additional information, please contact Michael Turchy at either maturchy@ncdot.gov or (919) 707-6157. A copy of this permit application and its distribution list will also be posted on the NCDOT website at: <https://connect.ncdot.gov/resources/Environmental/Pages>.

Sincerely,

A handwritten signature in black ink, appearing to read "P. Harris III", with a horizontal line underneath.

Philip S. Harris III, P.E., C.P.M.
Natural Environment Section Head

cc: NCDOT Permit Application Standard Distribution List

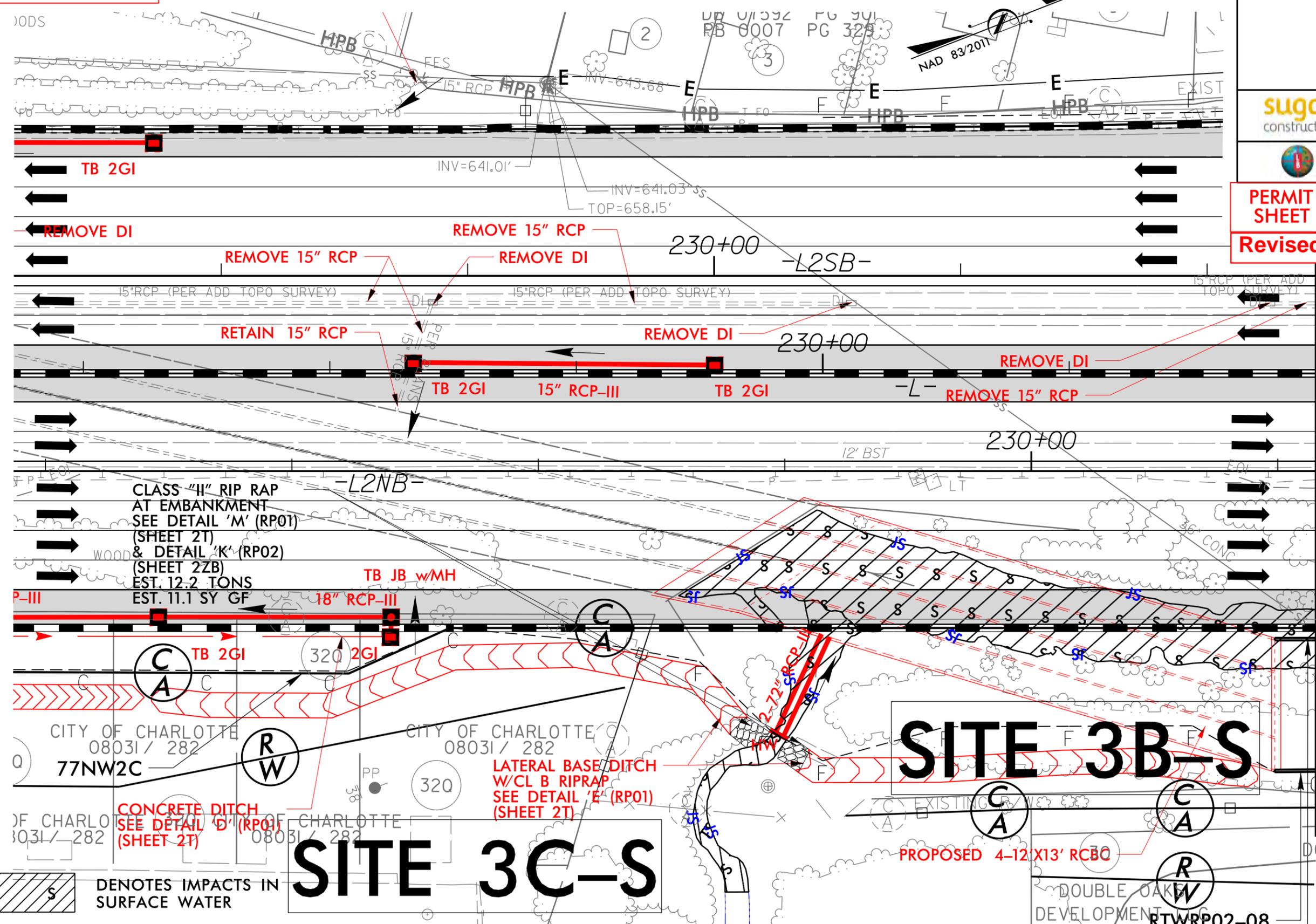
ENLARGEMENT SHEET



PROJECT REFERENCE NO. L-3311C	SHEET NO. 12B
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



**PERMIT DRAWING
SHEET 12 OF 35
Revised 5/19/2017**



DENOTES IMPACTS IN SURFACE WATER

NOTE:
IRWIN CREEK AND SITE 3C-S HAVE EXISTING RIPRAP BANK STABILIZATION THAT WILL BE RESTORED AS NECESSARY IF DISTURBED BY THE WORK

NOTE:
-CHANNEL RELOCATION SHALL BE COMPLETED AND STABILIZED, AND APPROVED ON SITE BY NCDWR STAFF, PRIOR TO DIVERTING WATER INTO THE NEW CHANNEL.

MATCH LINE RP02
-L- STA 232+00

DATE: \$
FILE: \$
PEN: \$

Central Section Revised Impact Summary Table

Highlighted values = revised values

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-C	371+40 - 372+80 RT	TEMP. FILL / ACCESS	< 0.01	0.06									
2-C	388+12 - 388+58 RT	TEMP. FILL / ACCESS BANK STABILIZATION							0.01		40	60	
3-C	407+60 - 411+90 RT	TEMP. FILL							0.03			150	
4-C	709+50 MID	FILL						< 0.01			33		
5-C	721+97 - 722+03 MED	30" RCP BANK STABILIZATION						< 0.01	< 0.01		35 65	17	
6-C	776+15 - 776+25 MED	8' x 7' RCBC BANK STABILIZATION						< 0.01			36	21	
	776+15 - 776+25 LT/RT	8' x 7' RCBC / DEWATERING							< 0.01			42	
7-C	955+50-956+05 MED	2@10'x8' RCBC/CHAN. PROT. BANK STABILIZATION						0.04			75	99	
	955+50-956+05 LT/RT	2@10'x8' RCBC / DEWATERING							0.02			40	
TOTALS*:			< 0.01	0.06				0.07	0.08		404	309	0

*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 18-05-2017
 MECKLENBURG
 I-5405 / I-4750AA
 Central Section

SHEET
27
OF
27

South Section Revised Impact Summary Table

Highlighted values = revised values

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-S	155+10 - 157+30 LT	FILL / CHANNEL RELOCATION						0.05		225		
		TEMP. FILL / ACCESS							0.01		50	
1A-S	171+00 RT	TEMP. FILL / ACCESS							< 0.01		19	
2-S	207+50 - 210+60 LT	TEMP. FILL / ACCESS							0.15		270	
3A-S	219+00 - 221+00 LT	TEMP. FILL / ACCESS							0.15		217	
3B-S	228+50 - 231+00 RT	4-12'x13' RCBC						0.15		234		
	231+00 - 238+20 RT	CHANNEL REALIGN. / STABILIZ						0.35		720		
	238+20 - 250+00 RT	CHANNEL STABILIZATION							0.60		1180	
3C-S	229+10 - 229+50 RT	2-72" RCP						0.01	0.01	45	85	
4A-S	271+20 - 276+70 LT	TEMP. FILL / ACCESS		0.17								
4B-S	275+50 - 276+10 RT	TEMP. FILL / ACCESS							0.02		57	
5-S	290+00 - 293+80 RT	TEMP. FILL / ACCESS							0.08		350	
6-S	320+40 - 321+30 RT	7' X 8' RCBC						0.01	< 0.01	166	40	
		BANK STABILIZATION								10		
7-S	320+20 - 321+15 LT	TEMP. FILL / ACCESS							< 0.01		100	
TOTALS*:				0.17				0.57	1.02	1400	2368	0

*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 05-17-2017
 MECKLENBURG
 I-3311C
 South Section
 SHEET 35 OF 35

