



PAT McCrory
Governor

NICHOLAS J. TENNYSON
Secretary

July 11, 2016

U. S. Army Corps of Engineers
Regulatory Field Office
3331 Heritage Trade Drive, Suite 105
Wake Forest, NC 27587

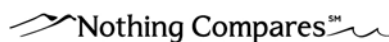
ATTN: Mr. Dave Bailey
NCDOT Coordinator

Subject: **MODIFICATION to** Request for Modification to the Section 404 Individual Permit and Section 401 Water Quality Certification for the proposed Greensboro Western Loop from north of SR 2176 (Bryan Boulevard) to SR 2303 (Lawndale Drive), Guilford County, Division 7. Federal Aid Project No. STP-NHF-124(1), WBS Element No. 34820.1.2, TIP No. U-2524C and D.

Reference: USACE Individual Permit Action ID SAW-2001-21125, August 1, 2013.
USACE Individual Permit Modification Action ID SAW-2001-21125, March 25, 2014.
USACE Individual Permit Modification Action ID SAW-2001-21125, June 19, 2015.
USACE Individual Permit Modification Action ID SAW-2001-21125, October 7, 2015.
NCDWR Project No. 20130223, Certification No. 3965, July 2, 2013.
NCDWR Project No. 20130223_v2, Modification to Certification No. 3965, April 15, 2014.
NCDWR Project No. 20130223_v3, Modification to Certification No. 3965, June 25, 2015.
NCDWR Project No. 20130223_v4, Modification to Certification No. 3965, October 12, 2015.
Request for Modification Permit Application, May 12, 2016

Dear Sir:

The purpose of this letter is to modify the May 12, 2016 request for modification to the United States Army Corps of Engineers (USACE) Section 404 Individual Permit and North Carolina Division of Water Resources Section 401 Certification for the above referenced project. *After phone conversations with the USACE on July 8, 2016, it has been determined that permit sites 11 and 12 as identified in the May 12, 2016 modification request extend beyond the logical termini of TIP U-*



2524D, and should be permitted with TIP U-2525C. This memo provides updated information to reflect the removal of these two permit sites.

Please see the enclosed revised permit sheets 18, 19 and 25 (of 25). Permit sheets 21-24 are no longer applicable and will be included under TIP U-2525C.

IMPACTS TO WATERS OF THE U.S.

Table 1 is no longer applicable due to the removal of Site 11. Revised Table 2 summarizes the impacts to jurisdictional water resources for the final design of U-2524D.

Revised Table 2 – U-2524D Final Stream Impacts

Site	Stream Name & Intermittent (I) or Perennial (P)	Stream ID ¹	Impact Type	Impact Length (linear feet)	Temporary Impacts (acres)	Mitigation Requirement ² (linear feet)
1	UT to Horsepen Creek (I)	SQ	Perm. Fill	--	--	--
			Bank Stabilization	15	--	--
			Temp Fill	--	<0.01	--
2	UT to Horsepen Creek (P)	SY	Perm. Fill	414	--	USACE & DWR
			Bank Stabilization	--	--	--
			Temp Fill	--	<0.01	--
3A	UT to Richland Creek (I)	SV	Perm. Fill	96	--	DWR*
			Bank Stabilization	--	--	--
			Temp Fill	--	--	--
3	UT to Richland Creek (I/P)	SV	Perm. Fill	996	--	USACE & DWR
			Bank Stabilization	24	--	DWR
			Temp Fill	--	<0.01	--
			Loss of Function	780	--	USACE (@0.5:1)
4	UT to Richland Creek (P)	SV	Perm. Fill	1,581	--	USACE & DWR
			Bank Stabilization	--	--	--
			Temp Fill	--	<0.01	--
5	Richland Creek (P)	Richland Creek	Perm. Fill	1,192	--	USACE & DWR
			Bank Stabilization	--	--	--
			Temp. Fill	--	0.01	--
6	UT to Richland Creek (I)	SU	Perm. Fill	158	--	USACE & DWR
			Bank Stabilization	--	--	--
			Temp. Fill	--	<0.01	--
7	UT to Richland Creek (P)	ST	Perm. Fill	291	--	USACE (@1:1) & DWR
			Bank Stabilization	23	--	DWR
			Temp. Fill	--	<0.01	--
8	UT to Richland Creek (P)	SS	Perm. Fill	--	--	--
			Bank Stabilization	46	--	--
			Temp. Fill	--	<0.01	--
9	UT to Richland Creek (P)	SR	Perm. Fill	388	--	USACE & DWR
			Bank Stabilization	--	--	--
			Temp. Fill	--	<0.01	--

Revised Table 2 Continued – U-2524D Final Stream Impacts

Site	Stream Name & Intermittent (I) or Perennial (P)	Stream ID ¹	Impact Type	Impact Length (linear feet)	Temporary Impacts (acres)	Mitigation Requirement ² (linear feet)
10	Richland Creek (P)	Richland Creek	Perm. Fill	--	--	--
			Bank Stabilization	34	--	DWR
			Temp. Fill	--	<0.01	--
Total Temporary Impacts:				--	0.04³	--
Total Perm. Impacts (Perm. Fill + Bank Stabilization):				5,258	--	--
Permanent Impacts Requiring DWR Mitigation:				5,197	--	--
Permanent Impacts Requiring USACE Mitigation:				5,020	--	--
Loss of Function Impacts Requiring USACE Mitigation:				780	--	--
Total Impacts Requiring Mitigation:				5,800	--	†

1 – As identified in the 2014 JD Appeals Map

2 – Mitigation for bank stabilization impacts required by DWR – not required by USACE

3 – Values are based on rounding, due to some of the individual impacts being <0.01 acre

* – USACE said no mitigation required for this site at the CP4C meeting

† – Final mitigation requirement will be up to the USACE and DWR

U-2524D Avoidance and Minimization:

In addition to the avoidance and minimization measures listed in the May 12, 2016 modification application, the following measures from the original 2013 phased Individual Permit application also apply to the D section:

- NCDOT’s Best Management Practices (BMPs) for the Protection of Surface Waters will be enforced
- Use of Design Standards in Sensitive Watersheds through entire project
- Impacts to wetlands and surface waters were minimized using 2:1 side slopes where practicable
- Ditches that discharge directly into wetlands have been designed to “daylight” to zero depth just outside the wetlands boundaries to diffuse flow and reduce velocities

U-2524D Compensation:

The D Section will permanently impact 5,258 linear feet of streams (5,116 linear feet of permanent fill and 142 linear feet of bank stabilization), and temporarily impact 0.04 acre of streams. This Section will also result in 780 feet of loss of stream function.

Per Table 2, the total mitigation required by the USACE is 5,020 lf of streams plus 780 lf due to loss of stream function. Therefore, total mitigation required for the D Section is 5,800 lf of streams.

Compensatory mitigation for impacts from the C and D Sections of this project will be provided by DMS. Revised Table 5 summarizes the required compensatory mitigation and ratios for the D Section.

Revised Table 5 – U-2524D Required Compensatory Mitigation

	Stream Impact Length (ft)	Riparian Wetland Impacts (ac)
Required USACE Mitigation	4,729 @ 2:1 291 @ 1:1 780 @ 0.5:1	0
Total USACE Mitigation	10,139	0
Required NCDWR Mitigation	5,197 @ 1:1	0
Total NCDWR Mitigation	5,197	0

A copy of this permit application modification and its distribution list will be posted on the NCDOT Website at: <http://connect.ncdot.gov/resources/Environmental>. If you have any questions or need additional information, please call Erin Cheely at (919) 707-6108.

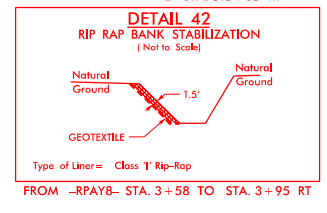
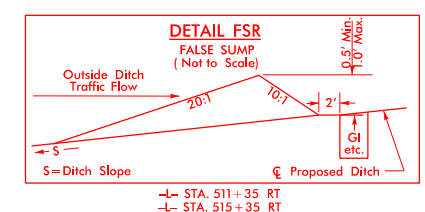
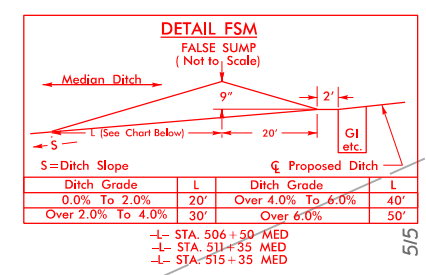
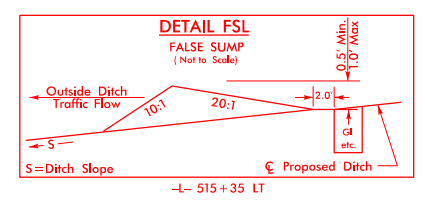
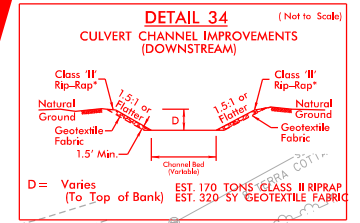
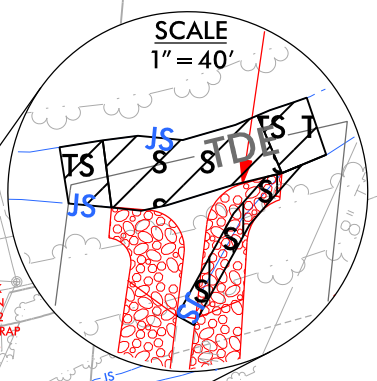
Sincerely,



for

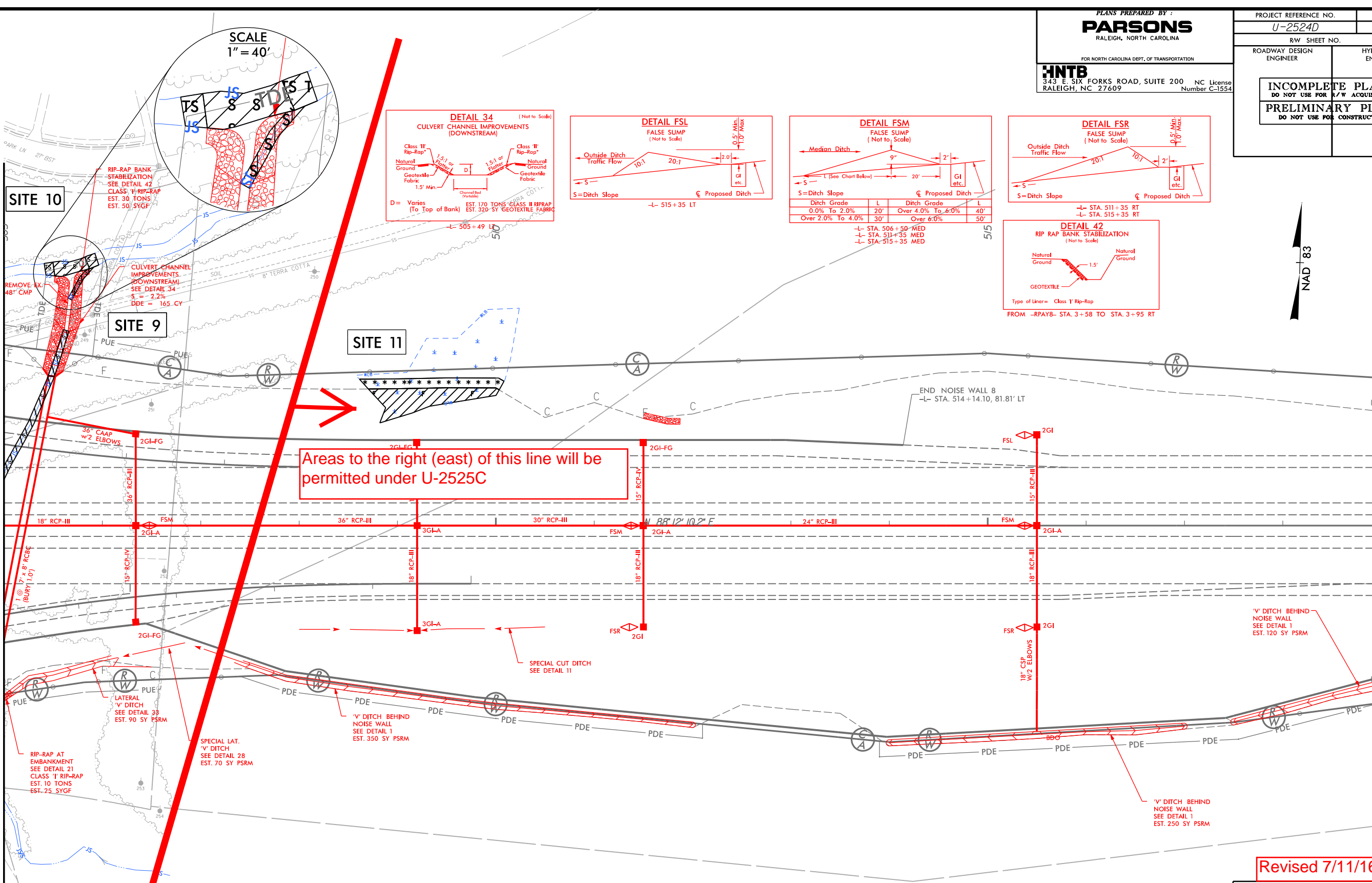
Philip S. Harris III, P.E., C.P.M.
Natural Environment Section Head

cc:
NCDOT Permit Application Standard Distribution List



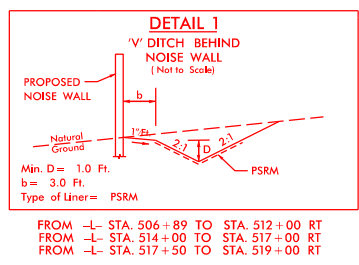
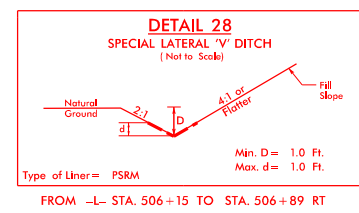
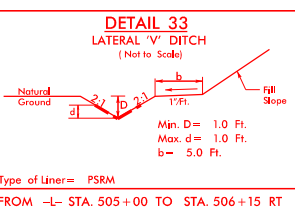
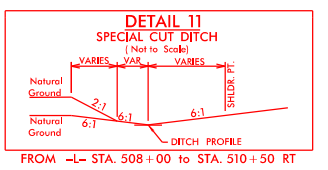
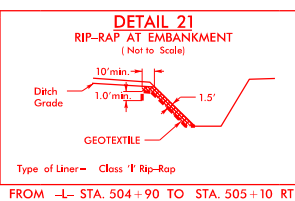
MATCH LINE -L- STA 505+00 SEE SHEET 9

MATCH LINE -L- STA 519+00 SEE SHEET 10A



Areas to the right (east) of this line will be permitted under U-2525C

NOTE:
SEE SHEET 2B-2 FOR CURVE DATA
SEE SHEET 19 FOR -L- PROFILE
SEE SHEET 24 FOR RPAY8 PROFILE
SEE SHEET 27 FOR RPDY8 PROFILE



Revised 7/11/16

PERMIT DRAWINGS
SHEET 18 OF 25

LEGEND

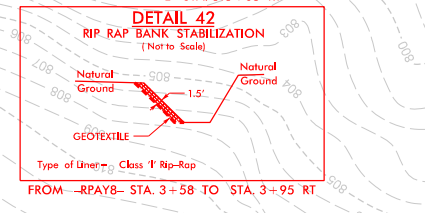
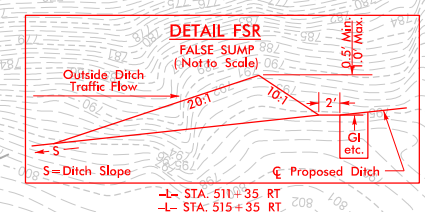
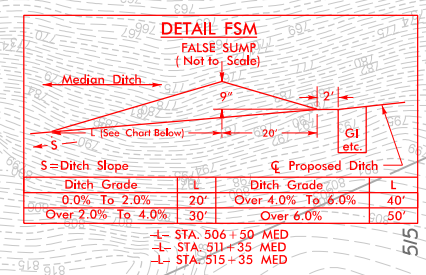
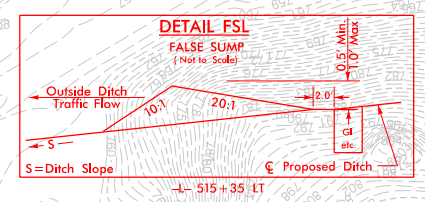
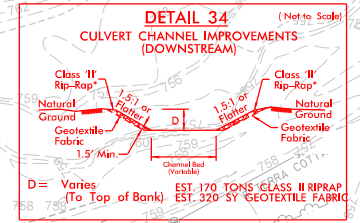
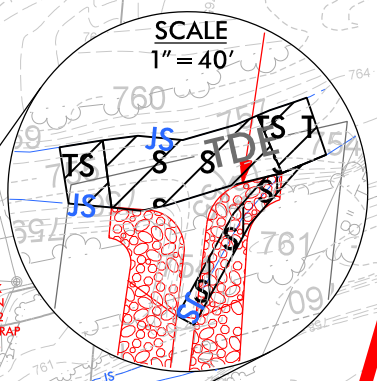
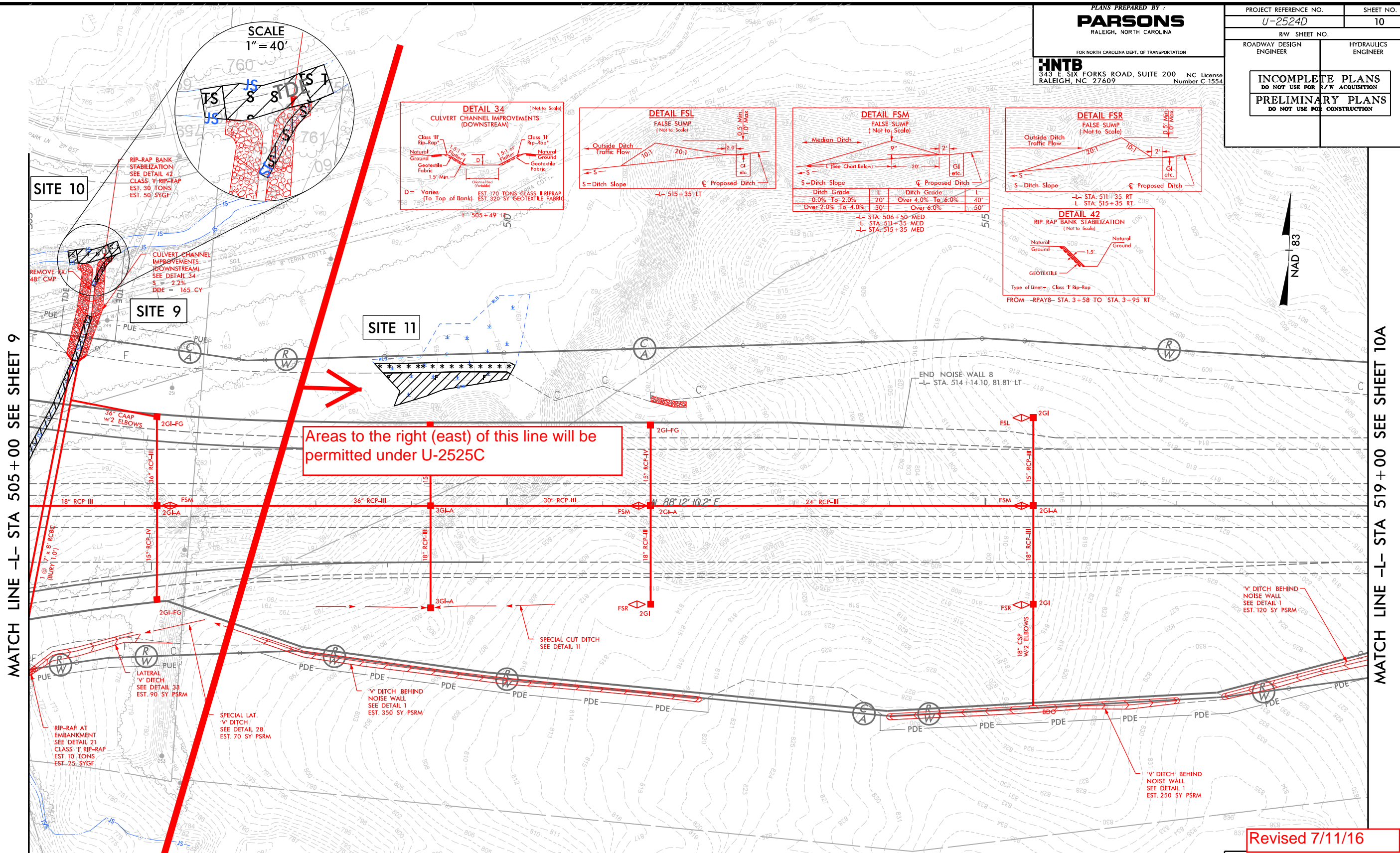
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING

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PROJECT REFERENCE NO. U-2524D	SHEET NO. 10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

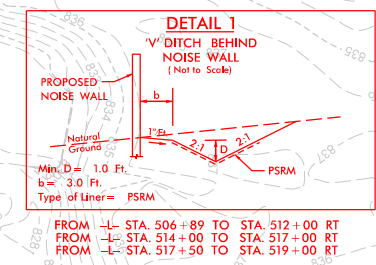
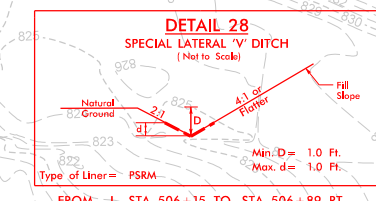
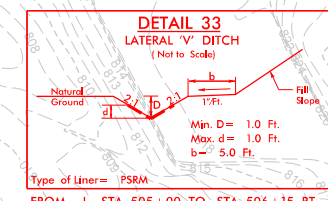
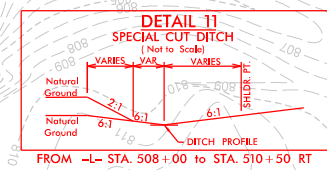
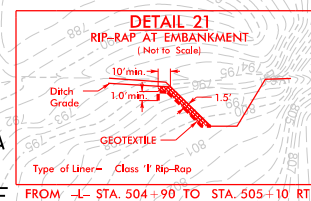
INCOMPLETE PLANS
DO NOT USE FOR ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



Areas to the right (east) of this line will be permitted under U-2525C

MATCH LINE -L- STA 505+00 SEE SHEET 9

MATCH LINE -L- STA 519+00 SEE SHEET 10A



Revised 7/11/16

PERMIT DRAWINGS
SHEET 19 OF 25

LEGEND

	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING

NOTE:
SEE SHEET 2B-2 FOR CURVE DATA
SEE SHEET 19 FOR -L- PROFILE
SEE SHEET 24 FOR RPAY8 PROFILE
SEE SHEET 27 FOR RPDY8 PROFILE

REVISIONS

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9/17/99
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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	-L- 434+26 - 434+49	Bank Stabilization						< 0.01	< 0.01	15	15	
2	-L- 440+16 - 443+31	48" / 30" RCP						0.05	< 0.01	414	10	
3A	-L- 458+38 - 458+84	4' Base Ditch						< 0.01		96		
3	-L- 462+49 - 471+23	4' Base Ditch / 60" RCP						0.09		996		
		Bank Stabilization						< 0.01	< 0.01	24	10	
4	-L- 478+25 - 494+65	1 @ 8' X 7' RCBC						0.15	< 0.01	1581	12	
5	-L- 491+99 - 503+80	1 @ 10' X 7' / 2 @ 10' X 7' RCBC						0.27	0.01	1192	43	
6	-L- 492+63 - 493+02	1 @ 10' X 7' RCBC						0.02	< 0.01	158	16	
7	-L- 497+58 - 499+12	48" RCP						0.04		291		
		Bank Stabilization						< 0.01	< 0.01	23	10	
8	-L- 502+83 - 503+29	Bank Stabilization						0.01	< 0.01	46	18	
9	-L- 504+11 - 505+91	1 @ 7' X 8' RCBC						0.07	< 0.01	388	20	
10	-L- 505+41 - 505+96	Bank Stabilization						0.01	< 0.01	34	20	
11	-L- 508+61 - 510+08	Roadway Fill	0.05				0.03					
12	-L- 521+16 - 521+61	72"RCP						0.05	<0.01	284	10	
		Bank Stabilization						<0.01	<0.01	24	5	
TOTALS*:			0.05				0.03	0.72	0.04	5258	174	0

Sites Removed

*Rounded totals are sum of actual impacts

NOTES:
- 780 LF OF STREAM BETWEEN SITES 3 & 4 WILL REQUIRE 0.5 : 1 MITIGATION DUE TO INDIRECT PROJECT IMPACTS & LOSS OF FUNCTION.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
11/13/15
Guilford
U-2524D
34820.1.2
Revised 7/11/16
SHEET 25 OF 25