



PAT McCRORY  
Governor

NICHOLAS J. TENNYSON  
Secretary

February 18, 2016

U.S. Army Corps of Engineers  
Asheville Regulatory Field Office  
151 Patton Avenue, Room 208  
Asheville, NC 28805

ATTN: Ms. Crystal Amschler  
NCDOT Division 10 Coordinator

SUBJECT: **Modification Request of Section 404 Regional General Permit No. 31 and Section 401 General Water Quality Certification No. 3886** for the proposed Interstate 85 (I-85) Widening and Interchange Improvements from north of NC 73 (Davidson Highway / Exit 55) to north of SR 2180 (Lane Street/Exit 63), Cabarrus & Rowan Counties, Divisions 9 and 10. Federal Aid Project No. FANHIMF-085-2(61)55, TIP Project No. I-3802A.

REFERENCE:1) Section 404 General Permit No. 198200031 (GP 31), Action ID No. SAW-2008-03229, issued July 16, 2015.  
2) Section 401 General Water Quality Certification No. 3886, NCDWR Project No. 20150362v.2, issued June 29, 2015.

Dear Madam:

Since the issuance of the above-referenced permit approvals, design changes have occurred which necessitate the need for a temporary stream crossing across Cold Water Creek (Stream SE) and additional bank stabilization. This design change will modify jurisdictional impacts to Waters of the US at Permit Site No. 18.

The temporary causeway at Site 18 is required to enable construction of the proposed I-85 bridges over Cold Water Creek. The temporary stream crossing will utilize a stone causeway with three 72-inch pipe culverts. The causeway will be constructed from Class II riprap and will be topped with a Class B riprap work pad. Geotextile fabric will be installed between the Class II riprap and the stream bed and stream banks. The culverts will allow for 50% or greater flow of the creek through the causeway.

The stone causeway and pipe culverts will be removed from the stream prior to completion of construction and the stream bed will be restored to its original condition.



Bank stabilization consisting of Class II riprap will be installed where the stream banks have been impacted by installation of the causeway.

In addition to this cover letter, please find the revised permit drawings (Permit Drawing Sheet Nos. 61 – 65 of 128) and revised impact summary sheets (Permit Drawing Sheet Nos. 126 – 128 of 128).

The temporary stream crossing will result in an additional 66 linear feet of temporary surface water impacts as well as 30 linear feet of bank stabilization impacts. The temporary surface water impacts associated with the causeway will occur completely within this site's bank stabilization impact footprint. Previously, Site 18 impacts included 35 linear feet of temporary stream impacts and 185 linear feet of bank stabilization impacts. The proposed overall total for Site 18, including the previously-permitted impacts as well as the currently proposed impacts, will be 101 linear feet of temporary and 215 linear feet of bank stabilization impacts. No other changes to permitted wetland and stream impacts are proposed for the project.

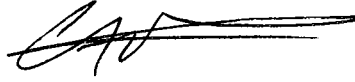
Previously-permitted bank stabilization impacts for the entire project totaled 956 linear feet. The proposed total impacts for bank stabilization will now be 986 linear feet. Previously-permitted overall permanent impacts totaled 4,273 linear feet for the project. The proposed permanent impacts now total 4,303 linear feet. Previously-permitted overall temporary impacts totaled 631 linear feet for the project. The proposed temporary impacts now total 697 linear feet.

The approved Section 404 permit stated that the US Army Corps of Engineers (USACE) required 2:1 mitigation for 1,823 linear feet and 1:1 mitigation for 1,307 linear feet of permanent stream impacts, which totaled 4,953 linear feet of compensatory stream mitigation. The USACE did not require mitigation for impacts resulting from bank stabilization. The NC Division of Water Resources (NCDWR) approved certification only required 1:1 mitigation for 2,565 linear feet of permanent stream impacts, which included 293 linear feet of bank stabilization impacts. The proposed addition of 30 linear feet of bank stabilization at Site 18 would not require additional mitigation from the USACE, but would require 1:1 mitigation from the NCDWR. NCDWR's new mitigation requirement will now total 215 linear feet at Site 18 and 2,595 linear feet (323 linear feet of which is for bank stabilization) for the entire project, which is still less than the 4,953 linear feet of compensatory mitigation already required by the USACE. Therefore, NCDOT will continue to use the USACE mitigation requirement for mitigation purposes and is not requesting any additional mitigation from the NC Division of Mitigation Services (DMS) to offset the proposed addition of 30 linear feet of bank stabilization impacts at Site 18.

A request is hereby made to the Department of the Army to modify the Section 404 GP 31 as required for T.I.P. I-3802A. We are also hereby requesting a modification to the Section 401 Water Quality Certification from the NCDWR. A copy of this modification request and its distribution list will be posted on the NCDOT website at <https://connect.ncdot.gov/resources/Environmental/Pages/default.aspx>, under *Quick Links* > *Permit Applications*. Thank you for your time and assistance with this project. Please

contact James Mason at either [jmason@ncdot.gov](mailto:jmason@ncdot.gov) or at (919) 707-6136 if you have any questions or need additional information.

Sincerely,



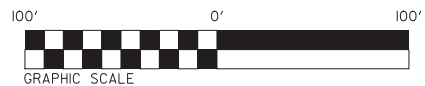
*RW* Richard W. Hancock, P.E., Manager  
Project Development and Environmental Analysis  
Unit

cc: NCDOT Permit Application Standard Distribution List



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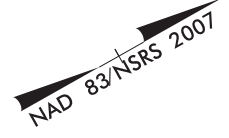
PROJECT REFERENCE NO. <b>L-3802A</b>	SHEET NO. <b>22</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>BLYTHE</b>	



**PERMIT DRAWING  
SHEET 61 OF 128**

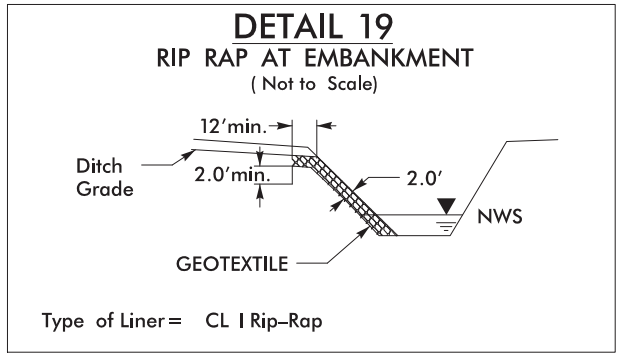
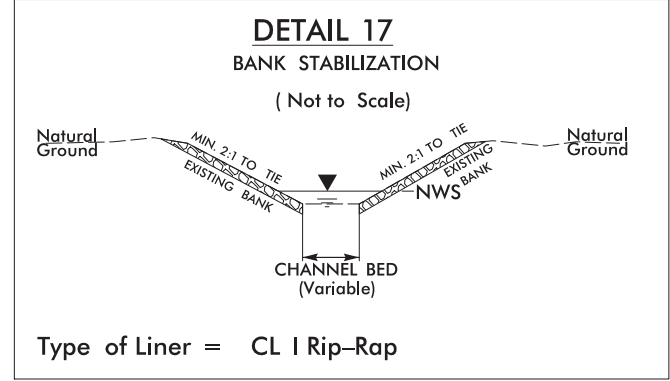
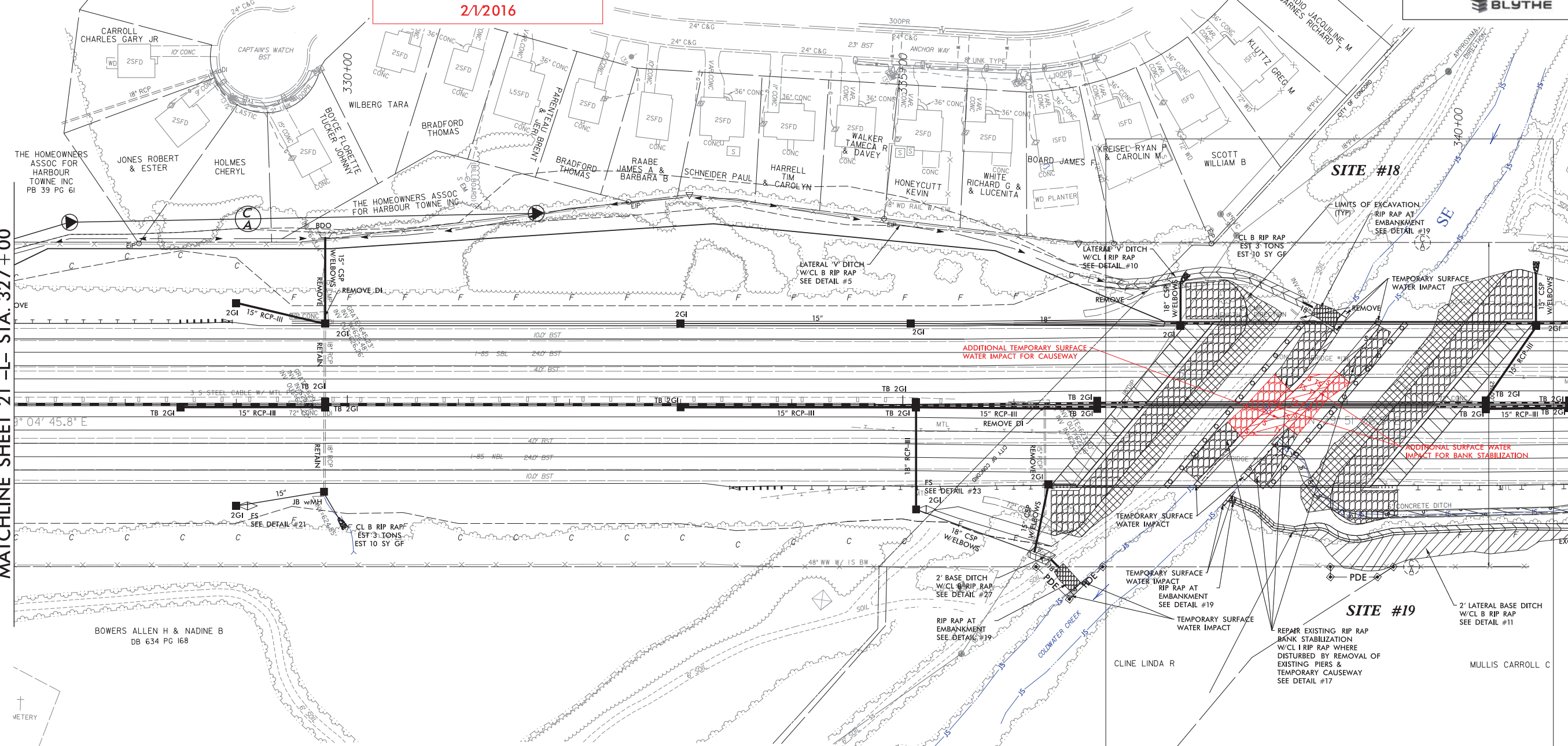
**Revised  
2/1/2016**

**TS** DENOTES TEMPORARY IMPACTS IN SURFACE WATER  
**S** DENOTES IMPACTS IN SURFACE WATER



MATCHLINE SHEET 21 -L- STA. 327+00

MATCHLINE SHEET 23 -L- STA. 341+00



**SEE SHEET 22A**

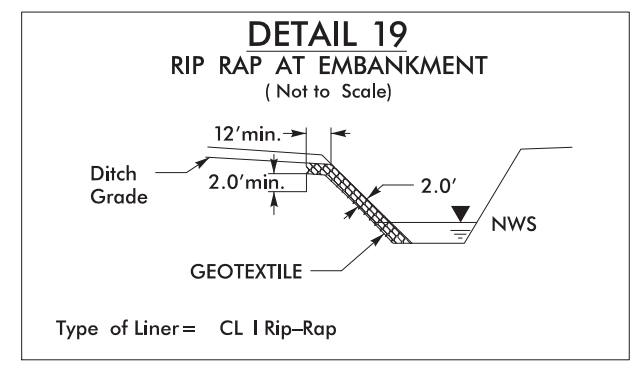
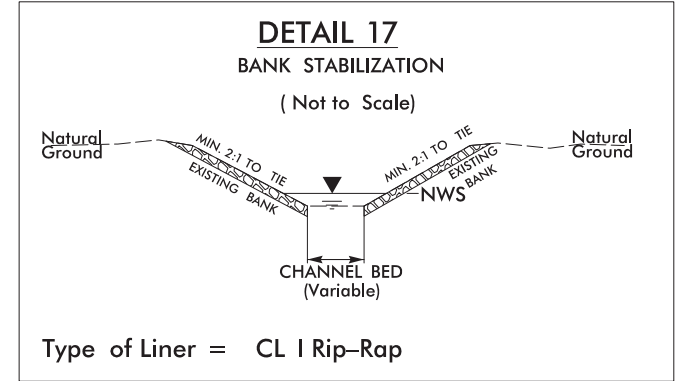
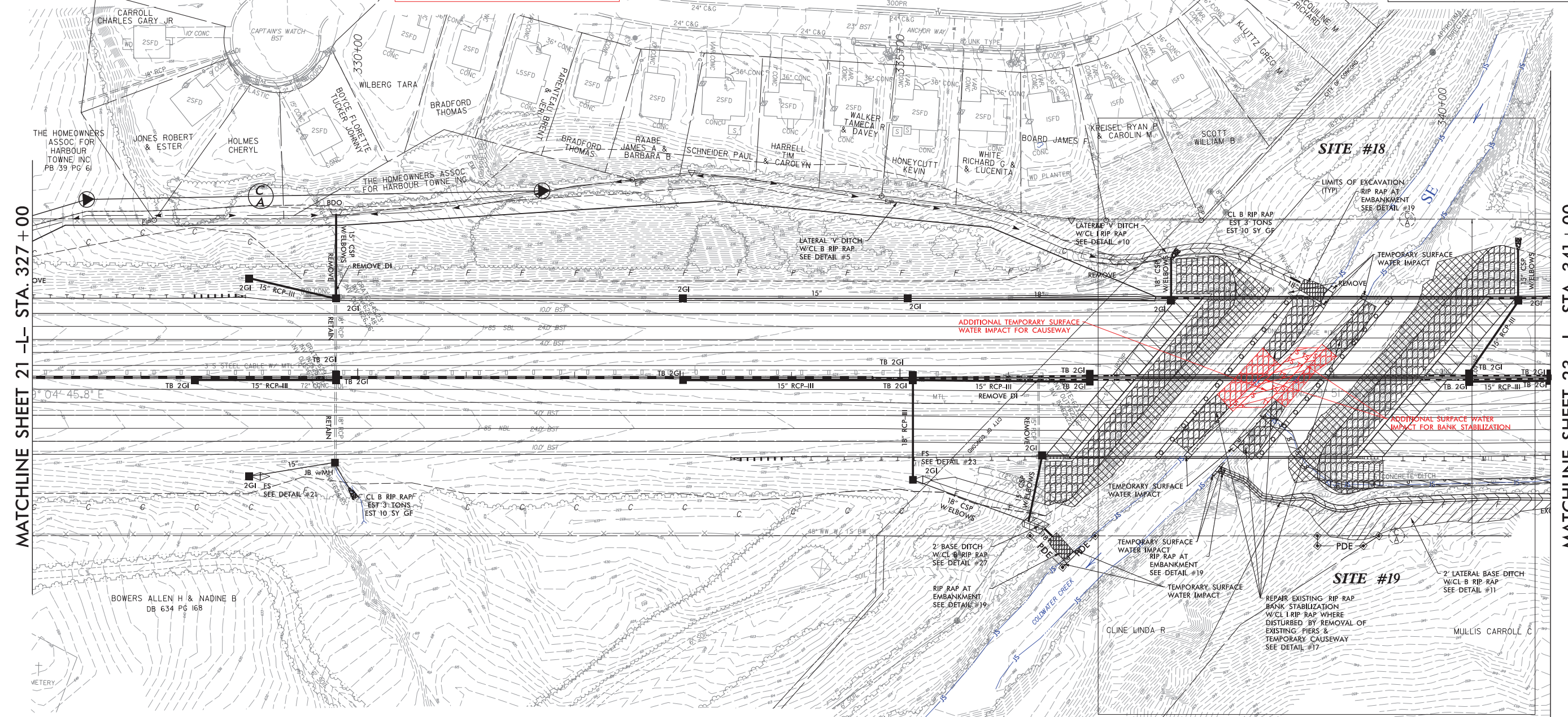
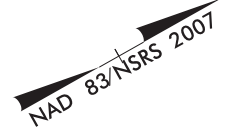


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PROJECT REFERENCE NO. <b>I-3802A</b>	SHEET NO. <b>22</b>
RW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>BLYTHE</b>	

100' 0' 100'  
 GRAPHIC SCALE  
**PERMIT DRAWING  
SHEET 62 OF 128**  
 Revised  
 2/1/2016

**TS** DENOTES TEMPORARY IMPACTS IN SURFACE WATER  
**S** DENOTES IMPACTS IN SURFACE WATER

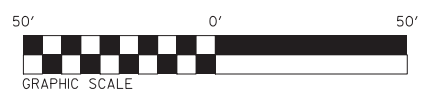
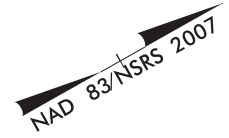
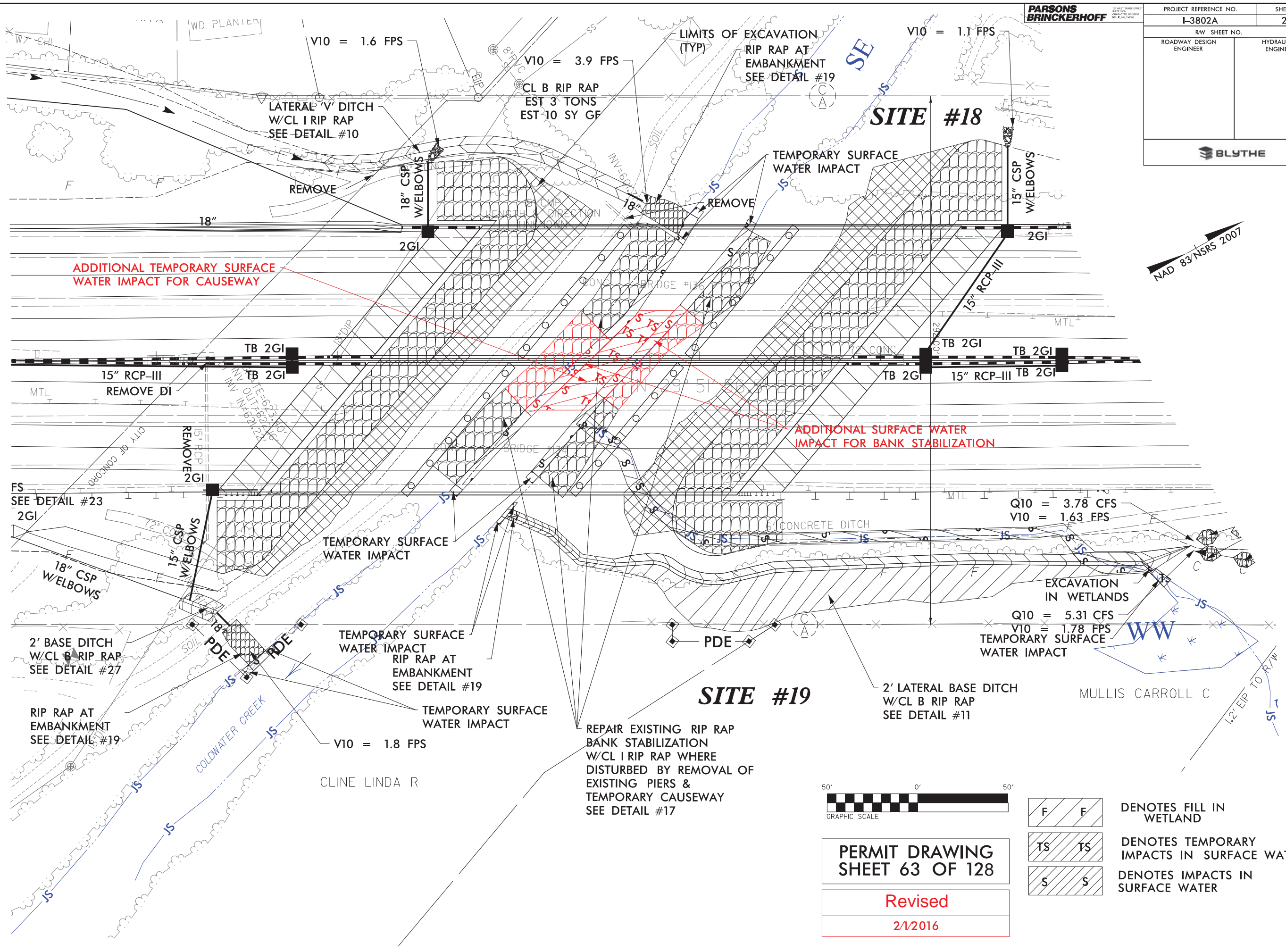


**SEE SHEET 22A**



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PROJECT REFERENCE NO. I-3802A	SHEET NO. 22A
RW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



- DENOTES FILL IN WETLAND
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES IMPACTS IN SURFACE WATER

**PERMIT DRAWING SHEET 63 OF 128**

**Revised**

**2/1/2016**

REVISIONS

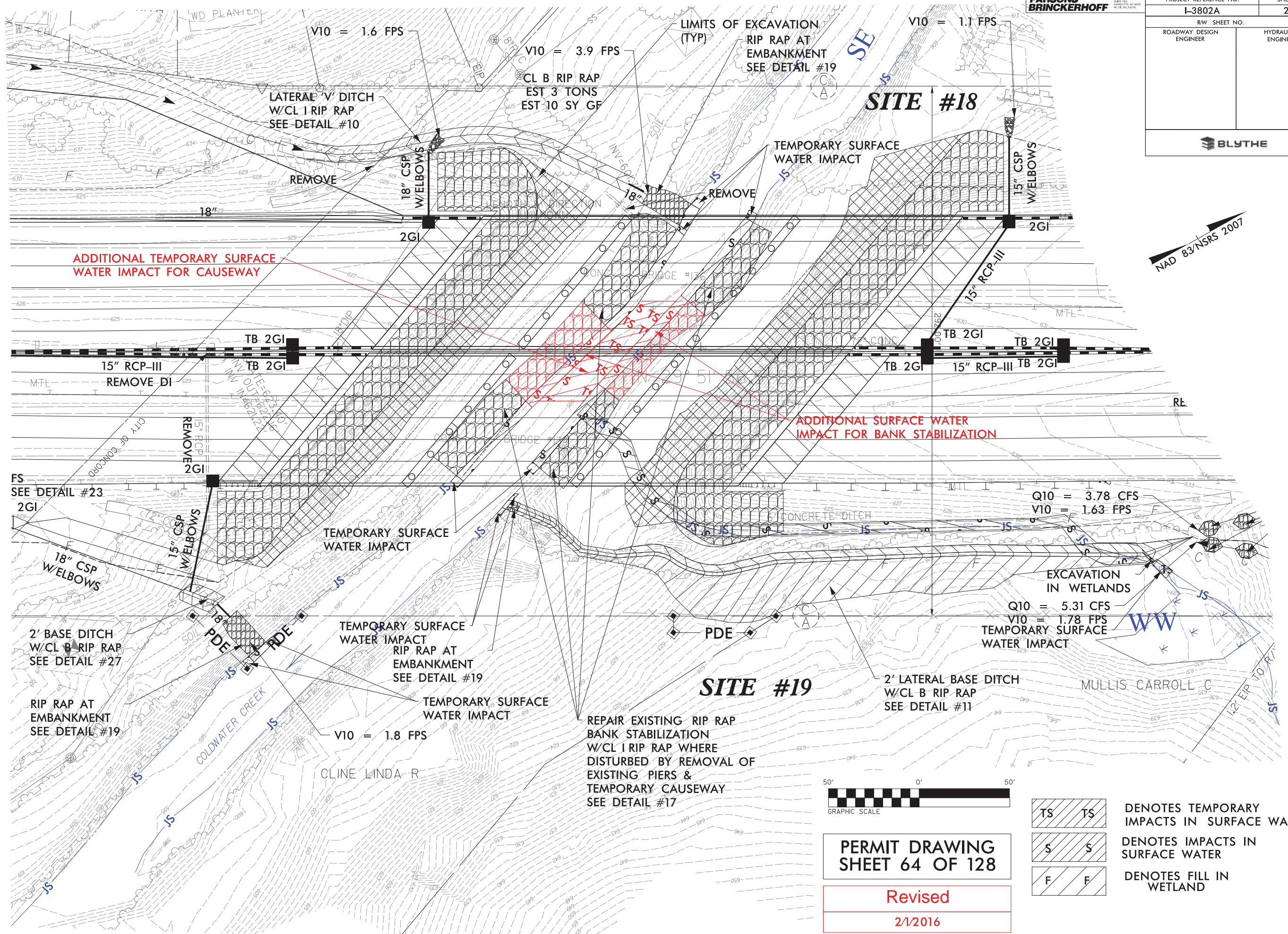


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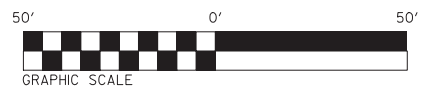
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PROJECT REFERENCE NO. I-3802A	SHEET NO. 22A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



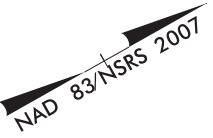
REVISIONS



**PERMIT DRAWING SHEET 64 OF 128**

Revised  
2/1/2016

- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES FILL IN WETLAND









**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	83+00 -L-	BANK STABILIZATION						< 0.01	< 0.01	15	10	
2	94+68 -L-	BANK STABILIZATION						0.02	< 0.01	137	30	
3	97+00 -L-	EXTEND EX 30" RCP-III						< 0.01	< 0.01	15	20	
4	157+27 -L-	EXTEND EX 42" RCP-III						< 0.01	< 0.01	7	10	
4	157+25 -L-	BANK STABILIZATION						< 0.01	< 0.01	14	10	
6	193+25 -L-	FILL						0.01		95		
7	193+00 -L-	6' LATERAL BASE DITCH						0.03	< 0.01	140	10	
7A	44+87 -Y7-	REPLACE EXIST. 48" CMP						0.02		120		
8	195+25 -L-	4' LATERAL BASE DITCH							< 0.01		15	
9	205+50 -L-	BANK STABILIZATION						< 0.01	< 0.01	9	5	
9A	205+50 -L-	BANK STABILIZATION						< 0.01	< 0.01	5	5	
10	230+75 - 237+60 -L-	CHANNEL CHANGE						0.11	< 0.01	666	30	
10A	229+40 -L-	BANK STABILIZATION						< 0.01	< 0.01	7	12	
12	241+00 / 248+00 -L-	BANK STABILIZATION						0.01	< 0.01	22	20	
12	241+40 -L-	EXTEND EX 48" RCP-III						< 0.01	< 0.01	25	10	
UC-1	257+45 -L-	6" WATER LINE							< 0.01		37	
12A	257+45 -L-	BANK STABILIZATION						< 0.01	< 0.01	21	20	
13	267+70 -L-	EXTEND 36" CSP	0.08				0.01					
14	268+45 -L-	18" RCP-III						0.03	< 0.01	106	16	
14	267+00 -L-	EXTEND EX 36" CMP	< 0.01				< 0.01	< 0.01		3		
15	269+50 -L-	EXTEND EX 42" CMP						< 0.01		23		
15	269+50 -L-	BANK STABILIZATION						< 0.01	< 0.01	20	4	
15	271+00 -L-	FILL						0.01		60		
SHEET 126 SUBTOTALS*:			0.08				0.02	0.27	0.04	1510	264	0

\*Rounded subtotals are sum of actual impacts

NOTES: Site 5 was eliminated by reconfiguring storm drainage system per 4C meeting comments.  
 Site 11 was eliminated by reconfiguring storm drainage system per 4C meeting comments.  
 Site 7A was added after the 4C meeting.  
 Site UC-1 was added after the 4C meeting.

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 04/07/2015  
 CABARRUS AND ROWAN  
 I-3802A  
 C203328  
 SHEET 126 OF 128

**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)
16	279+00 -L-	FILL	< 0.01									
17	305+00 -L-	FILL, OTCB					0.01		< 0.01		10	
17	306+00 -L-	EXTEND 30" RCP-IV						< 0.01		12		
17	306+00 -L-	BANK STABILIZATION						< 0.01	< 0.01	16	6	
17A	317+76 -L-	BANK STABILIZATION						< 0.01	< 0.01	8	10	
17B	322+90 -L-	BANK STABILIZATION						< 0.01	< 0.01	6	5	
18	338+00 -L-	BANK STABILIZATION						0.03	< 0.01	185	35	
18	338+00 -L-	CAUSEWAY**							0.03		66	
18	338+00 -L-	BANK STABILIZATION**						0.02		30		
19	340+00 -L-	FILL			< 0.01			0.06	< 0.01	356	15	
20	350+50 -L-	EXTEND 54" RCP-III						< 0.01	< 0.01	12	10	
20	352+00 -L-	BANK STABILIZATION						< 0.01	< 0.01	22	10	
21	48+75 -Y3-	FILL						0.04		210		
21	48+75 -Y3-	BANK STABILIZATION						< 0.01	< 0.01	15	20	
22	50+00 -Y3-	FILL, EXTEND 54" RCP-III						0.02		130		
22	50+00 -Y3-	BANK STABILIZATION						< 0.01	< 0.01	15	10	
23	58+00 -Y3-	FILL	0.10				< 0.01	0.04	0.01	135	65	
23	58+00 -Y3-	BANK STABILIZATION						< 0.01	< 0.01	11	10	
24	16+00 -Y34-	EXTEND 36" RCP-III	< 0.01					0.01	< 0.01	80	10	
SHEET 121 SUBTOTALS*:			0.11		< 0.01		0.02	0.24	0.06	1243	282	0

\*Rounded subtotals are sum of actual impacts

NOTES:

\*\*Additional impacts due to temporary crossing - 12/15/2015

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 12/15/2015  
 CABARRUS AND ROWAN  
 I-3802A  
 C203328



**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 (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
25	388+34 -L-	CHANNEL CHANGE						0.01	< 0.01	63	10	
25	388+34 -L-	BANK STABILIZATION						< 0.01		35		
26	388+34 -L-	72" WSP WORK AREA					0.02					
27	405+66 -L-	EXTEND 48" RCP						< 0.01		14		
27	405+66 -L-	CHANNEL CHANGE						0.01	< 0.01	56	7	
27	405+66 -L-	BANK STABILIZATION						< 0.01	< 0.01	31	12	
28	412+82 -L-	EXTEND 72" RCP /42" WSP						0.02		76		
28	412+82 -L-	CHANNEL CHANGE						0.01	< 0.01	43	12	
28	412+82 -L-	BANK STABILIZATION						0.02	< 0.01	73	17	
29	20+91 -Y13RPA-	42" RCP						0.01		93		
29	20+91 -Y13RPA-	OUTFALL CHANNEL						< 0.01	< 0.01	35	8	
30	437+82 -L-	48" WSP						< 0.01		34		
30	437+82 -L-	CHANNEL CHANGE						< 0.01	< 0.01	10	11	
30	437+82 -L-	BANK STABILIZATION						0.01	< 0.01	71	10	
31	437+82 -L-	CHANNEL CHANGE						< 0.01	< 0.01	37	11	
32	449+92 -L-	BANK STABILIZATION						0.02	< 0.01	106	23	
33	470+69 / 473+73 -L-	LATERAL BASE DITCH	0.11		0.04		0.02					
34	470+85 / 477+45 -L-	LATERAL BASE DITCH						0.03		427		
34	470+85 / 477+45 -L-	42" ALTERNATE PIPE						0.02		234		
34	470+85 / 477+45 -L-	BANK STABILIZATION						< 0.01		13		
35	478+17 -L-	BANK STABILIZATION						0.02	< 0.01	99	30	
SHEET 126 SUBTOTALS*:			0.08				0.02	0.27	0.04	1510	264	0
SHEET 127 SUBTOTALS*:			0.11		< 0.01		0.02	0.24	0.06	1243	282	0
SHEET 128 SUBTOTALS*:			0.11		0.04		0.04	0.22	0.03	1550	151	0
PROJECT TOTALS*:			0.30	0.00	0.04	0.00	0.07	0.72	0.13	4303	697	0

\*Rounded subtotals and totals are sum of actual impacts

NOTES: In addition to the project totals listed above, this permit includes a total of 0.01 acres of Temporary Impacts in Wetlands for Erosion Control Devices per the NCDOT Roadside Environmental Unit.

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
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 I-3802A  
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SHEET 128 OF 128