



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

December 8, 2017

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: **Addendum to Revision Request for 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) Revision Request for Section 404 Regional General Permit No. 31 and Section 401 General Water Quality Certification No. 3886, dated October 26, 2017.

Dear Madam:

Since the submittal of the above-referenced permit revision request by the N.C. Department of Transportation (NCDOT) on October 26, 2017, it has been determined that there are additional impacts associated with this project at Permit Site No. 18 that NCDOT would like to have included in the permit revision.

Additionally, there was an error in the reporting of wetland excavation impacts at Permit Site No. 14 in the revision request. The impacts were accidentally double-reported, with <0.01 acres being added twice to the impact summary sheet. This error, due to rounding, accidentally added 0.02 acres of mitigable wetland impact to the project. This error has been corrected in the attached permit drawings and a revised mitigation summary is included below with the correct required wetland mitigation amount.

In addition to this letter, please find enclosed revised Wetland and Stream Permit Drawing Sheet Nos. 61 – 64 and 126 – 128 of 128; and drawings depicting the approximate location of the crane mats to be used at Site 18.

Description of Changes at Site 18

Stream SE – Cold Water Creek

In order to assist with demolition of the existing bridge, crane mats will be placed into Cold Water Creek, resulting in temporary surface water impacts. The crane mats are 4 – foot wide by 1 – foot thick oak timbers that will be placed in the stream bed by an excavator from the bank. Two parallel rows of mats will run 125 feet within the stream channel. The excavator will place the bucket on the furthest timber from the bank and elevate its tracks to load itself onto the closest timber. Once the front portion of the tracks are on the timber it will position itself on both timbers by rotating 90 degrees and placing the bucket once again on the crane mats. While on the crane mats, Type 2 fabric will be secured across the creek channel and under the excavator to catch any demoed debris. Once demolition is complete, the removal process of the crane mats will be in the reverse order as they were placed.

By using the timber mats within the streambed, construction crews can minimize the amount of concrete material from bridge demolition to fall in Cold Water Creek. Not only will this help limit the amount of material loss, but also allow construction crews to reduce the demolition time to six days. Work would commence on a week when the weather forecast did not support any precipitation, and work nonstop continuous days until the two existing mid-bents are demolished.

The placement of these mats will result in 125 linear feet (0.07 acres) of temporary surface water impacts. A portion of this impact overlaps with the bank stabilization impacts at this site, but is occurring in a portion of the channel that was not impacted by the bank stabilization.

Revised Compensatory Mitigation

The addition of temporary impacts at Site 18 will not result in the addition of any mitigable stream impacts. Therefore, the mitigable stream impacts presented in the permit revision request dated October 26, 2017 are correct and unchanged by this letter (Table 1).

However, due to the accidental double-reporting of wetland excavation impacts at Site 14 in the revision request, there is a change to the wetland mitigation required for the project. The double-reporting added an additional <0.01 acres of excavation to the site which, due to rounding, resulted in 0.02 acres of mitigable wetland impact being added to the project total. This increased the total mitigable wetland impact for the project to 0.36 acres. The accidentally-added <0.01 acres of wetland excavation has been removed from the site. The new total impact for this site is <0.01 acres. Due to rounding, this addition did not increase the total wetland impacts for the project. The total wetland impacts have been corrected to a total of 0.34 acres, which is what is currently permitted for the project. In summary, although there is a new excavation impact at Site 14, it does not change the overall permanent wetland impact or wetland mitigation required for the project.

Table 1. I-3802A Revised Compensatory Mitigation Summary

	Stream Impacts in Length (ft.)	Riparian Wetland Impacts (ac.)
Impacts Requiring Mitigation	3,048¹	0.34
Required NCDMS Mitigation	1,838 @ 2:1	2:1
	1,210 @ 1:1	
Total NCDMS Mitigation Required	4,886	0.68

¹ Of the 4,241 linear feet of permanent stream impact, 1,006 linear feet did not require mitigation from USACE since it was bank stabilization. An additional 187 linear feet at Site 19 did not require mitigation.

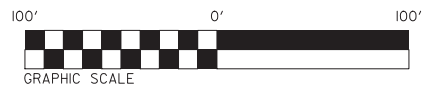
A request is hereby made to the Department of the Army and N.C. Division of Water Resources to include the above information with the Permit Revision Request submitted by NCDOT on October 26, 2017. A copy of this addendum and its distribution list will be posted on the NCDOT website at <https://connect.ncdot.gov/resources/Environmental/Pages/default.aspx>, under *Quick Links > Permit Applications*. Thank you for your time and assistance with this project. Please contact James Mason at either jmason@ncdot.gov or at (919) 707-6136 if you have any questions or require any additional information.

Sincerely,



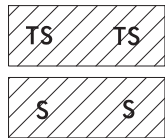
Ar Philip S. Harris III, P.E., C.P.M.
Environmental Analysis Unit Head

cc: NCDOT Permit Application Standard Distribution List
Khaled Al-Akhdar, Design Build

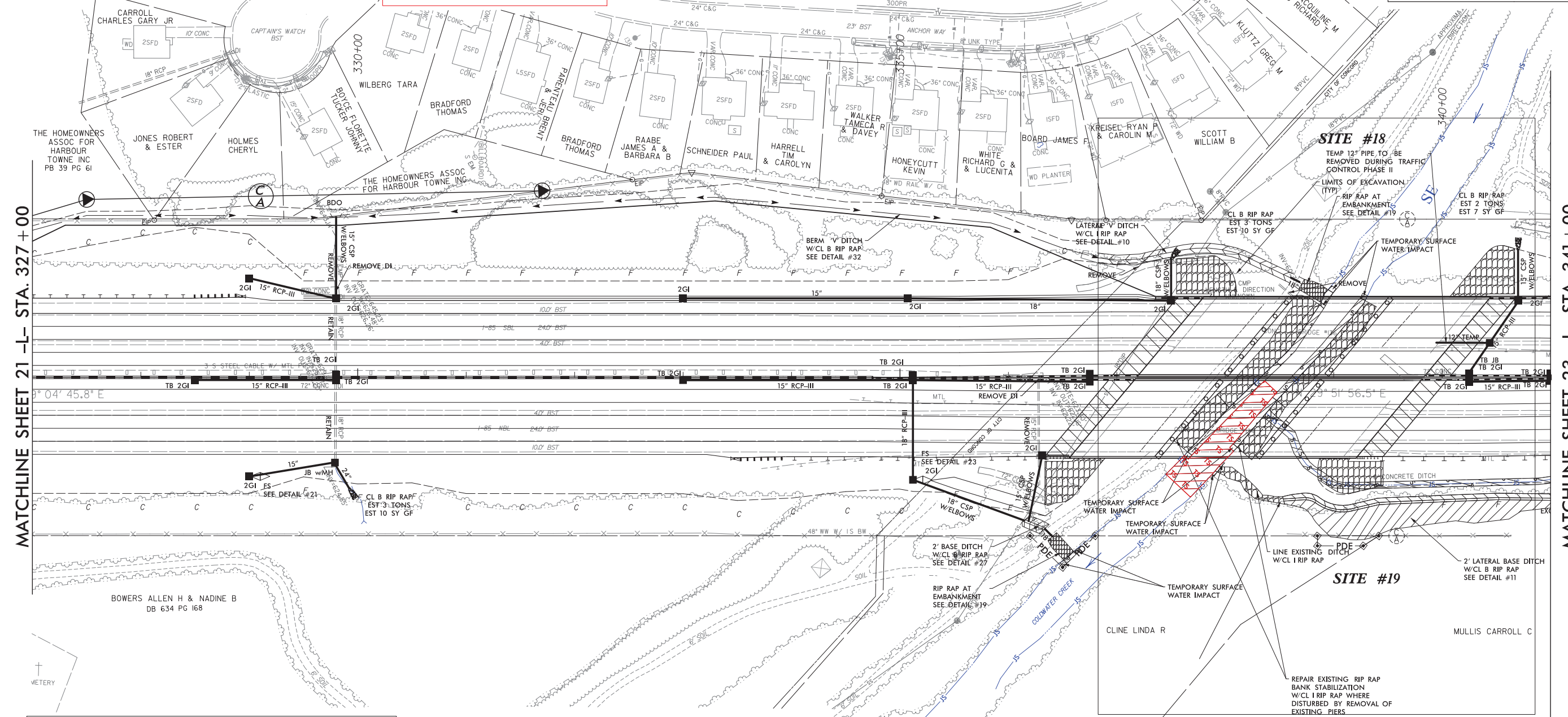
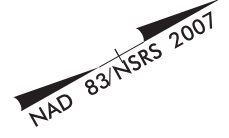


**PERMIT DRAWING
SHEET 61 OF 128**

MODIFICATION
11/3/2017

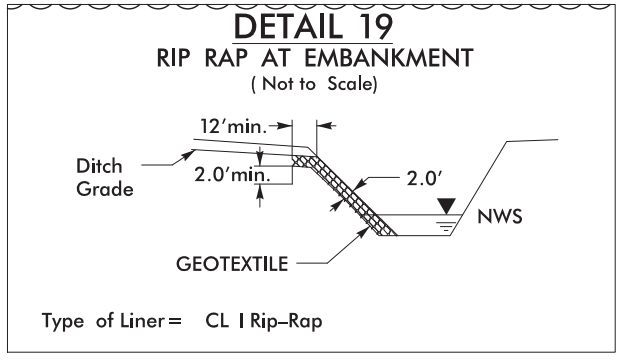
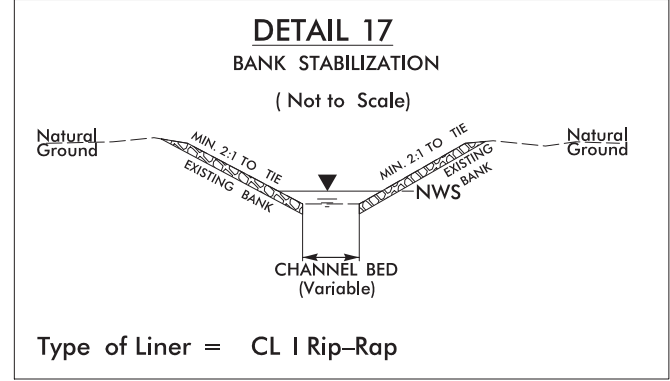


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MATCHLINE SHEET 21 -L- STA. 327+00

MATCHLINE SHEET 23 -L- STA. 341+00



SEE SHEET 22A

REVISIONS

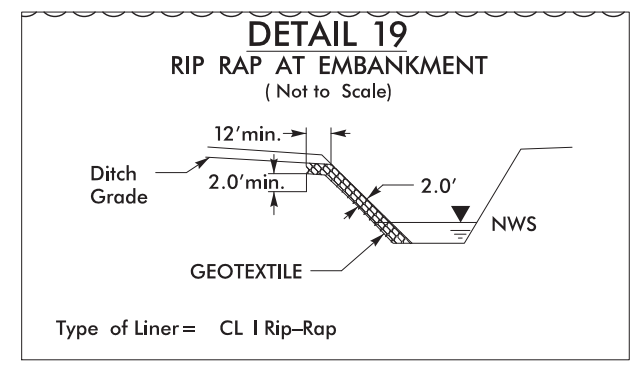
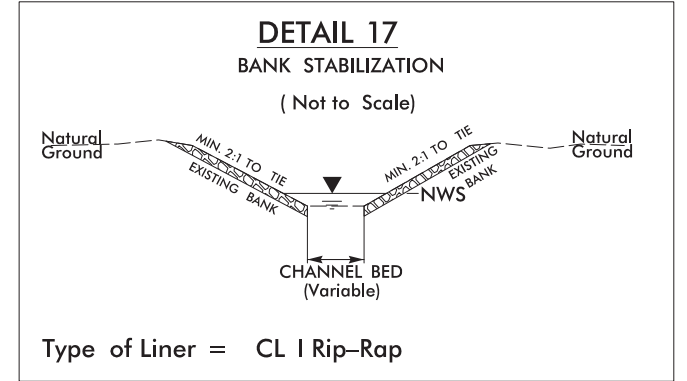
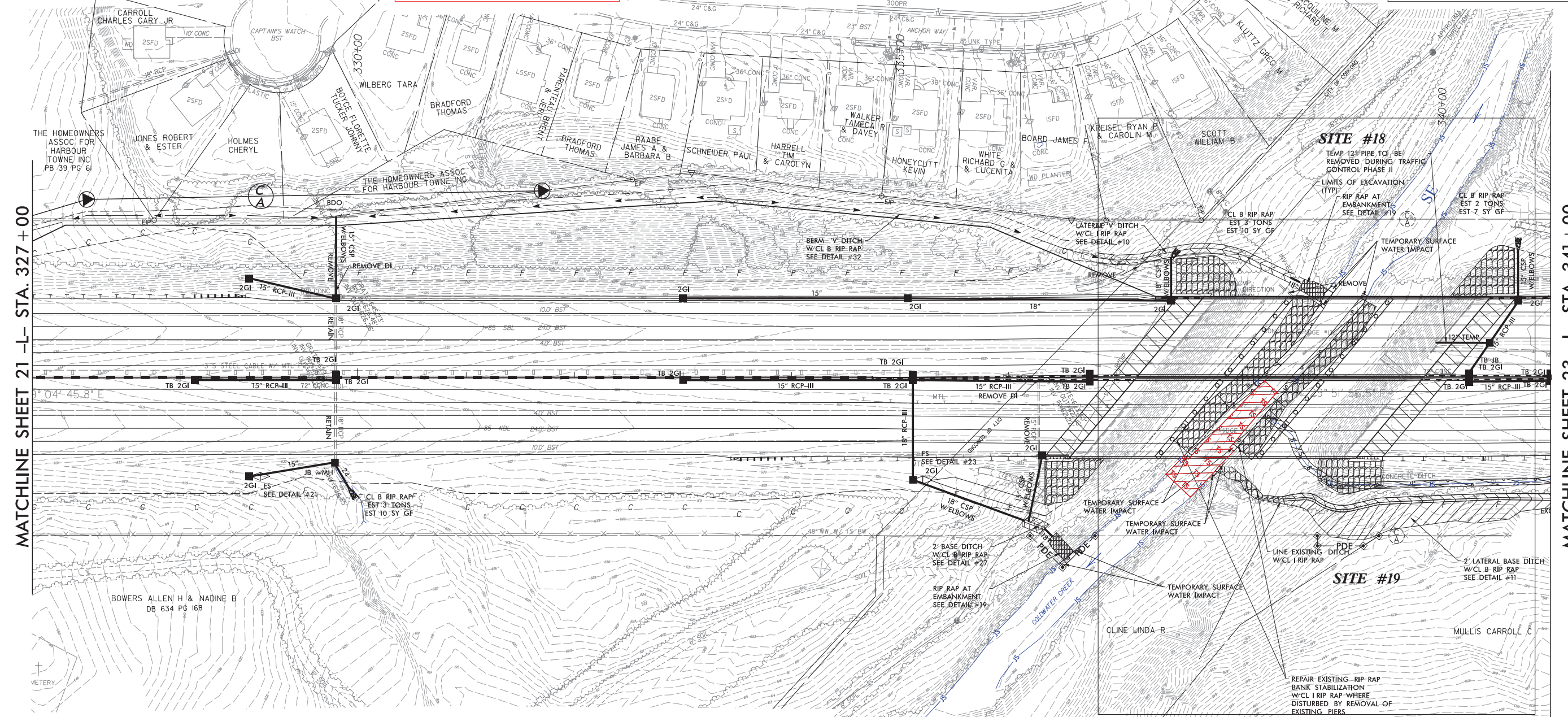
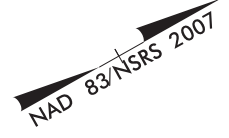
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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
BLYTHE	

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PERMIT DRAWING SHEET 62 OF 128
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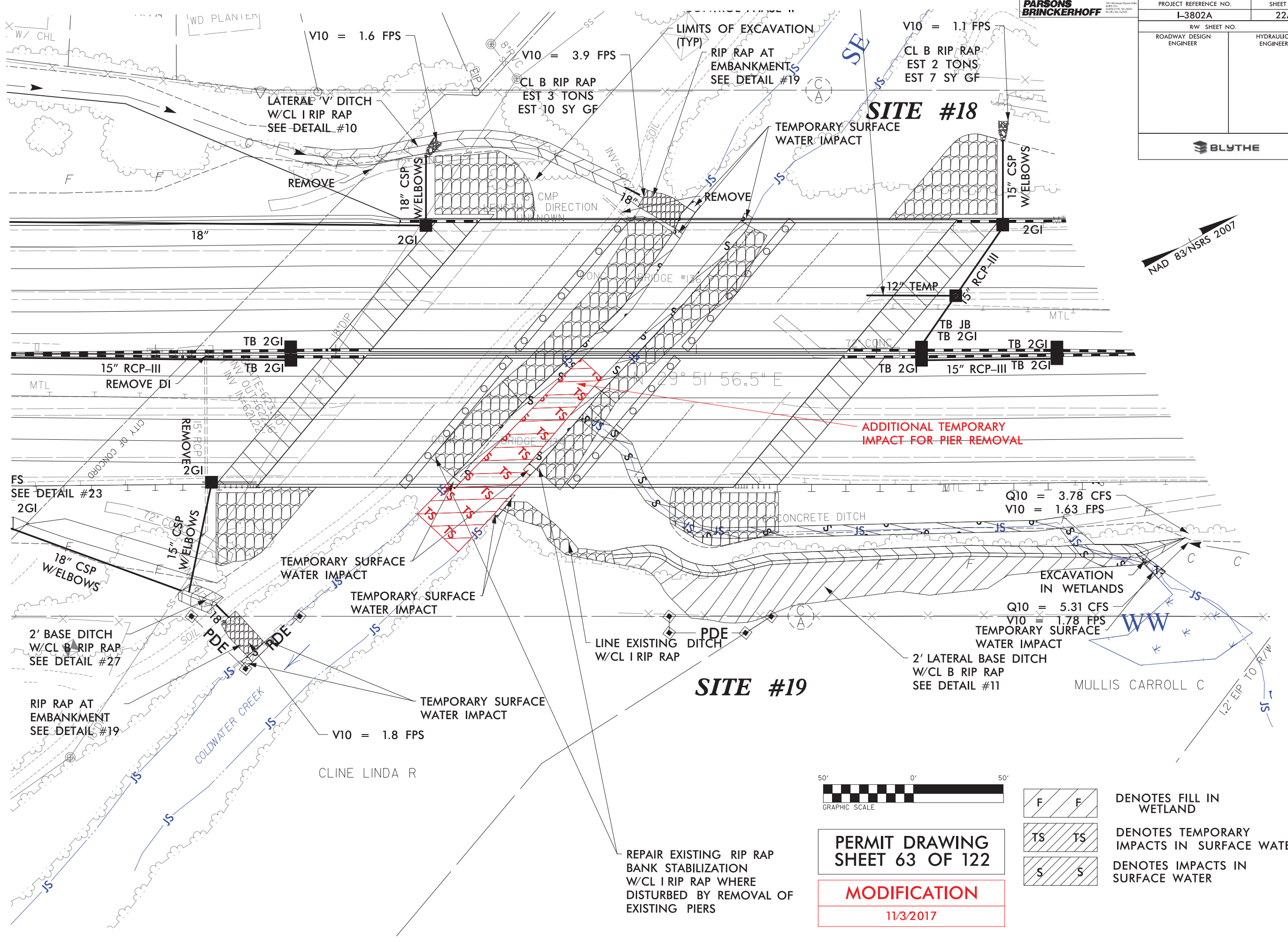
SEE SHEET 22A

MATCHLINE SHEET 23 -L- STA. 341 + 00

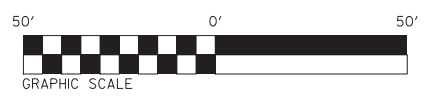
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PROJECT REFERENCE NO. I-3802A	SHEET NO. 22A
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REVISIONS



PERMIT DRAWING SHEET 63 OF 122
MODIFICATION
 11/3/2017

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DENOTES IMPACTS IN SURFACE WATER

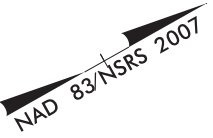
REPAIR EXISTING RIP RAP BANK STABILIZATION W/CL I RIP RAP WHERE DISTURBED BY REMOVAL OF EXISTING PIERS

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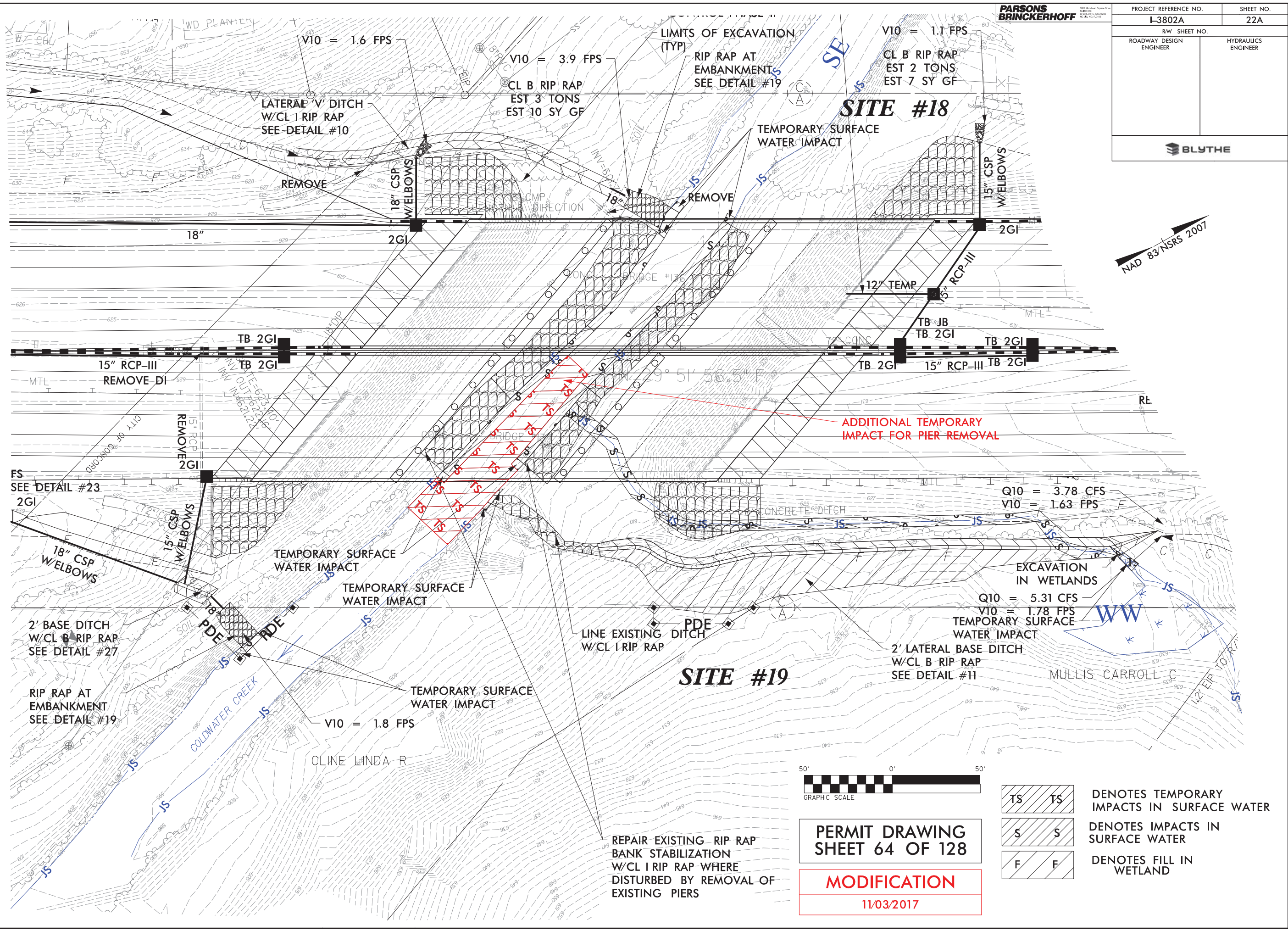
SITE #18



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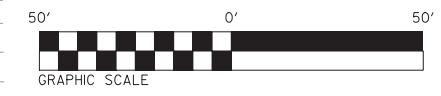
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PROJECT REFERENCE NO. I-3802A	SHEET NO. 22A
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REVISIONS

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PERMIT DRAWING
SHEET 64 OF 128

MODIFICATION
11/03/2017

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

REPAIR EXISTING RIP RAP
BANK STABILIZATION
W/CL 1 RIP RAP WHERE
DISTURBED BY REMOVAL OF
EXISTING PIERS

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						0.04	< 0.01	172	20	
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	20	
7A	44+87 -Y7-	REPLACE EXIST. 48" CMP						< 0.01	< 0.01	23	24	
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		56	
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-	FILL	< 0.01				< 0.01	< 0.01		3		
14	267+00 - 267+25 -L-	6' LATERAL BASE DITCH			< 0.01		0.02					
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		< 0.01		0.03	0.26	0.05	1448	307	0

*Rounded subtotals are sum of actual impacts

NOTES:

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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)
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-	BANK STABILIZATION						0.02		30		
18	338+00 -L-	PIER REMOVAL							0.07		125	
19	340+00 -L-	FILL			< 0.01			0.07	< 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-	OUTLET PROTECTION						< 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 127 SUBTOTALS*:			0.11		< 0.01		0.02	0.24	0.10	1243	341	0

*Rounded subtotals are sum of actual impacts

NOTES:

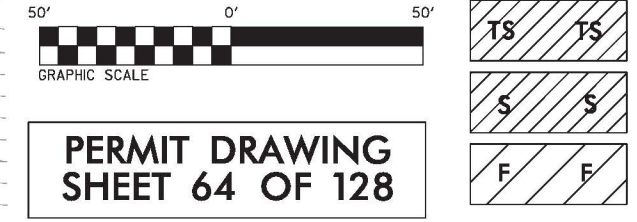
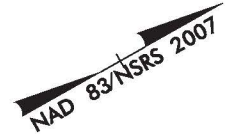
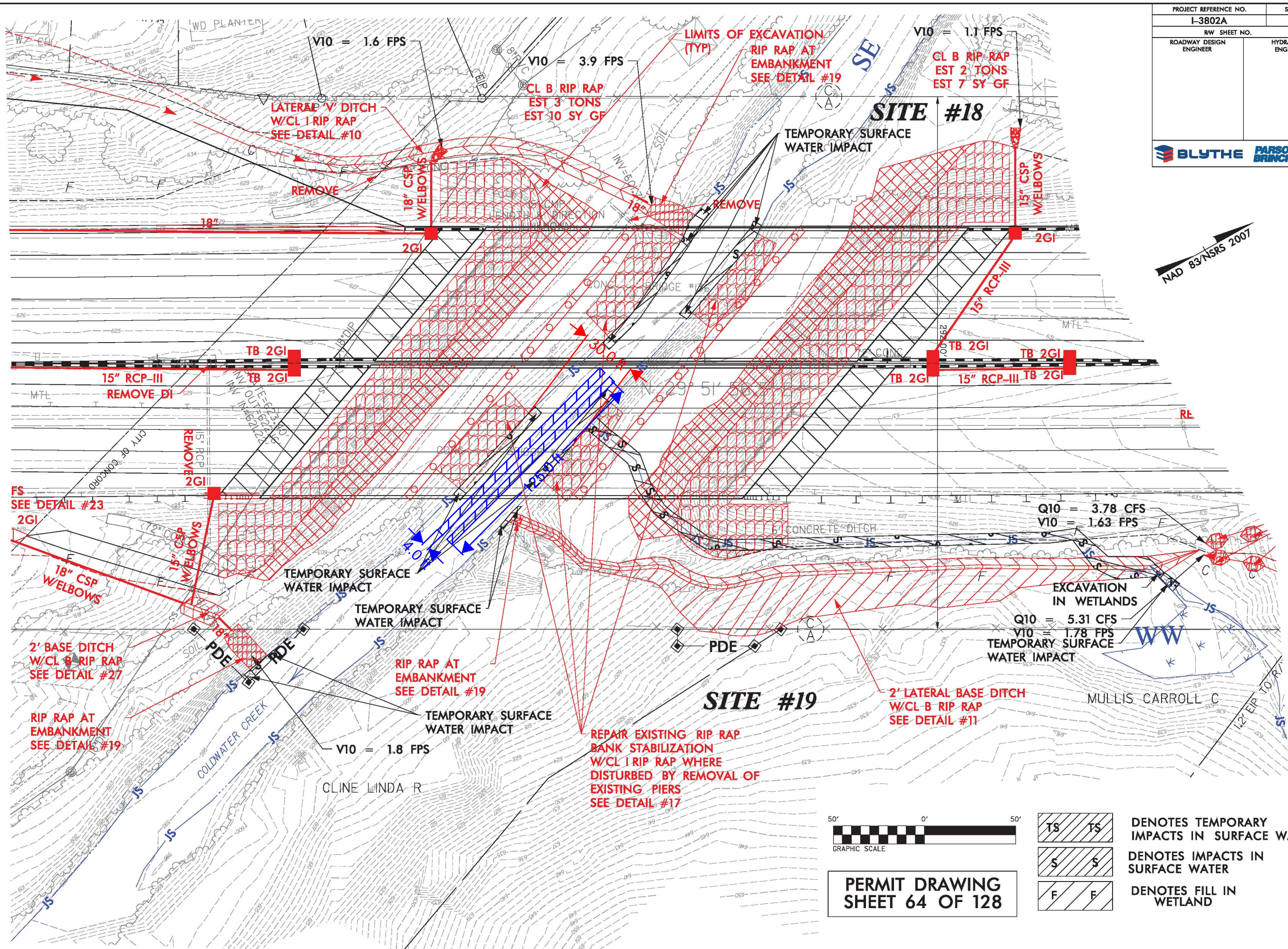
NC DEPARTMENT OF TRANSPORTATION
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WETLAND PERMIT IMPACT SUMMARY												
Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (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)
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		<0.01		0.03	0.26	0.05	1448	307	0
SHEET 127 SUBTOTALS*:			0.11		< 0.01		0.02	0.24	0.10	1243	341	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	0.09	0.72	0.18	4241	799	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.

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**PERMIT DRAWING
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