



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

J. ERIC BOYETTE  
SECRETARY

July 23, 2020

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

ATTN: Mr. Monte Matthews  
NCDOT Coordinator

**Subject: Request for Modification and Permit Renewal for Section 404 General Permit No. 198200031 and Section 401 Water Quality Certification** for the Interstate 485 (I-485) improvements from I-77 to US 74 (Independence Boulevard), Mecklenburg County, Division 10, TIP I-5507.

**Reference:** 1) Section 404 Regional General Permit No. 198200031 (GP 31), Action ID No. SAW-2013-02330, issued December 18, 2019; 2) Section 401 General Water Quality Certification No. 4135, NCDWR Project No. 20191337v.1, issued December 2, 2019.

Dear Sir:

The purpose of this letter is to request modification of the United States Army Corps of Engineers (USACE) Section 404 Regional General Permit 198200031 (GP 31) for the above referenced project and to request renewal under Regional General Permit SAW-2019-02350 (RGP 50) and North Carolina Division of Water Resources (NCDWR) Section 401 Water Quality Certification (WQC).

Revisions resulting in changes to permitted impacts are proposed at two impact sites (Sites 4 and 5). The changes to these sites are described below:

Site 4

The original permitted design at Site 4 included 0.03 acre of permanent fill impacts to wetland W3 and 181 linear feet of permanent stream channel impacts to stream SNH due to roadway fill. In the revised design, the roadway fill slopes have been adjusted and a channel change is being proposed to stream SNH to avoid potential impacts to the sanitary sewer that have may have occurred when installing the previously proposed drainage. The revised design results in 95 linear feet of permanent stream channel impacts due to roadway fill, 35 linear feet of permanent stream channel impacts due to channel change, and 10 linear feet of temporary stream impacts. The revised design results in <0.01 acre of permanent wetland fill impacts due

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to roadway fill, <0.01 acre of permanent wetland fill impacts due to the channel change, and 0.02 acre of mechanized clearing in wetlands. The revised design at Site 4 results in a reduction in permanent stream channel impacts of 51 linear feet and an increase in temporary stream impacts of 10 linear feet. Overall total permanent wetland impacts to wetland W3 will remain 0.03 acre, however permanent wetland fill impacts have been reduced by 0.02 acre and mechanized clearing in wetlands has been increased by 0.02 acre.

#### Site 5

The original permitted design at Site 5 included 473 linear of permanent stream impacts and 10 linear feet of temporary stream impacts to stream S11. The previously authorized permanent impact included 54 linear feet resulting from a 48" reinforced concrete pipe (RCP) extension and 419 linear feet resulting from a channel change. The revised design includes 444 linear feet of permanent stream impacts and 10 linear feet of temporary stream impacts resulting from a 48" RCP extension with a junction box. The design change at Site 5 results in a reduction of 29 linear feet of permanent stream impacts and no change in temporary stream impacts. The design change is being made to eliminate the concern for possible future roadway slope stability issues, to reduce the amount of relocated channel needing regular maintenance and inspections on the project, and to reduce the possibility of a noise wall in the future by retaining the existing berm.

Previously authorized permanent stream impacts for the entire project totaled 2,507 linear feet, which included 1,131 linear of bank stabilization. Previously authorized temporary stream impacts totaled 1,347 linear feet. Previously authorized wetland impacts included 0.83 acre of permanent impacts (including 0.27 acre of mechanized clearing), no temporary impacts, and no hand clearing. The revised permanent stream impacts total decreased from the previously authorized impact totals by 80 linear feet. Updated permanent stream impacts for the entire project total 2,427 linear feet, which includes 1,131 linear feet of bank stabilization. Temporary stream impacts will increase by 10 linear feet, totaling 1,357 linear feet. Wetland impact totals did not change and are still 0.83 acre of permanent impacts (now including 0.29 acre of mechanized clearing), no temporary impact, and no hand clearing.

Please see the enclosed revised permit drawings and roadway plans where drainage revisions resulted in changes to permitted impacts. The revised Wetland Impact Summary Table is also attached.

#### Revised Compensatory Mitigation

The North Carolina Division of Mitigation Services (NCDMS) previously provided compensatory mitigation for 1,376 linear of permanent stream impacts and 0.83 acre of permanent riparian wetland impacts, as referenced in the December 18, 2019 GP 31 issued permit from the United States Army Corps of Engineers (USACE) and the December 2, 2019 401 WQC from NCDWR.

Of the revised permanent stream impacts totaling 2,427 linear feet for this modification, 1,131 linear feet are the result of bank stabilization and therefore do not require mitigation from USACE. Therefore, a total of 1,296 linear feet of permanent stream impacts will require mitigation based on this modification, which is a decrease of 80 linear feet as compared to the previously approved December 19, 2019 GP 31 issued permit. NCDWR would require a total of 444 linear feet of mitigation, which is 29 linear feet less than the previously approved amount of mitigation required by NCDWR (stream SNH at Site 4 is intermittent therefore NCDWR does not require mitigation). This amount is less than the mitigation required by USACE. There are no additional permanent wetland impacts, therefore no additional wetland mitigation is required.

The North Carolina Department of Transportation was issued a Clean Water Act Section 404 Regional General Permit 198200031 (GP 31) from the USACE on December 18, 2019 for the above-referenced project. The project is still under construction and is not expected to be completed prior to April 30, 2020. Therefore, NCDOT requests renewal of the permit under Regional General Permit SAW-2019-02350 (RGP 50).

NCDOT was also issued a Section 401 Water Quality Certification No. 4135 from NCDWR on December 2, 2019. Therefore, a renewal of the NCDWR Section 401 WQC will also be needed.

No changes have occurred to special commitments for this project.

NCDOT requests to modify and renew the permit for this project. Application is hereby made for modification and renewal of the USACE 404 permit and the 401 WQC from NCDWR. We have provided a method of debiting \$570.00 to be submitted to the NCDWR for processing the WQC renewal for I-5507, as noted in the subject line of this application.

A copy of this permit application and its distribution list will be posted in the NCDOT website at <http://connect.ncdot.gov/resources/Environmental>.

Thank you for your assistance with this project. If you have any questions or need additional information, please contact Erin Cheely at either [ekcheely@ncdot.gov](mailto:ekcheely@ncdot.gov) or (919) 323-5192.

Sincerely,



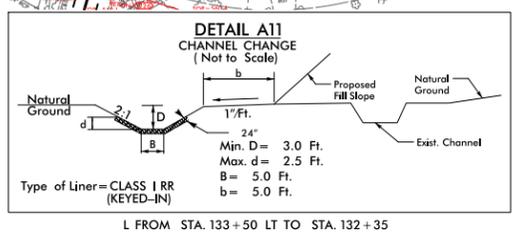
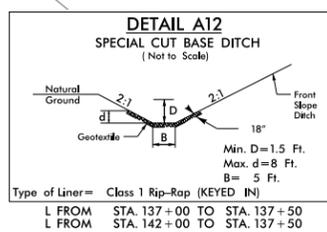
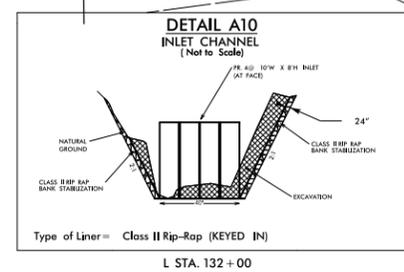
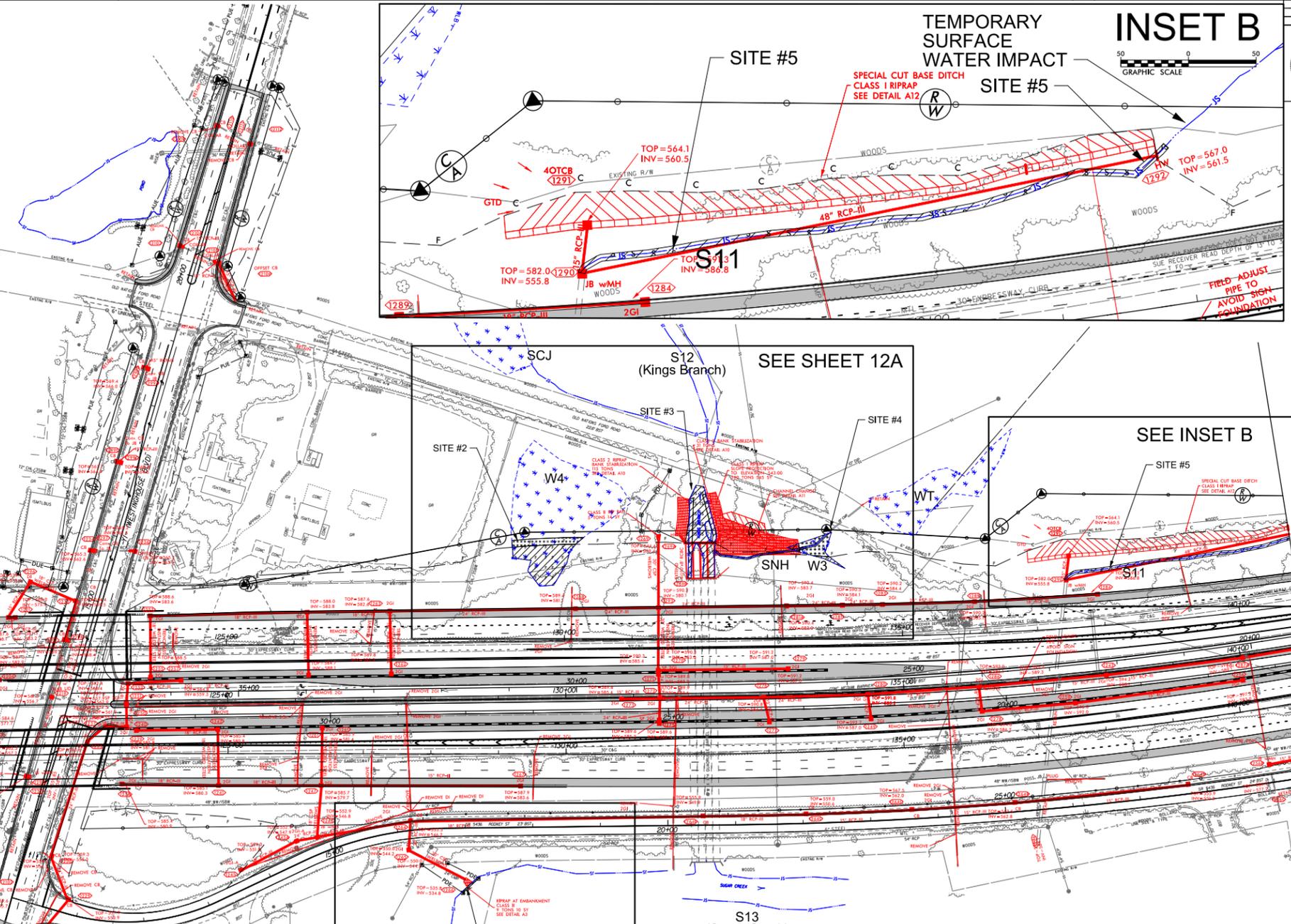
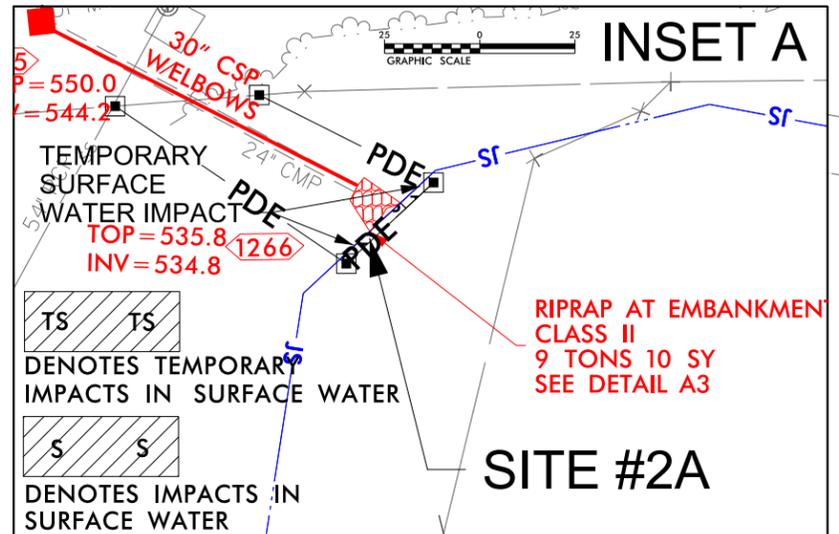
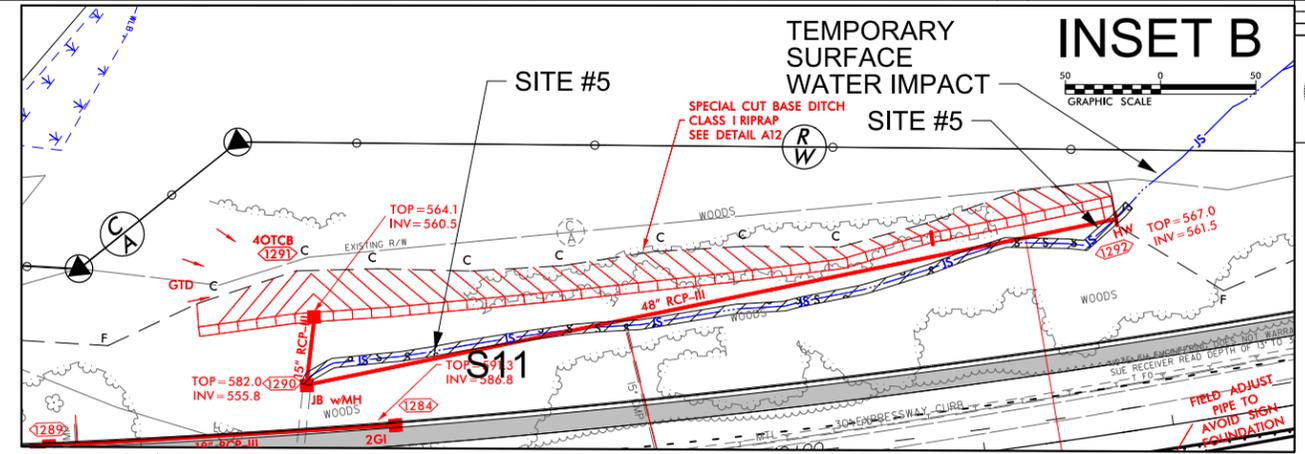
*for*  
Philip S. Harris III, P.E., C.P.M.  
Environmental Analysis Unit Head

cc:  
NCDOT Permit Application Standard Distribution List

**TEMPORARY SURFACE WATER IMPACT**

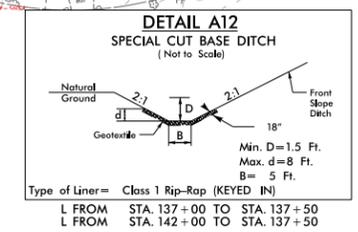
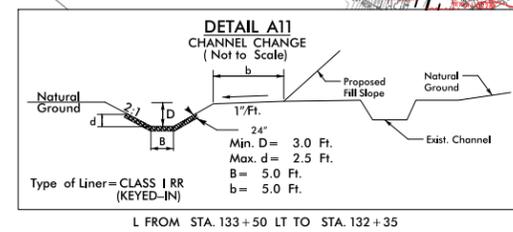
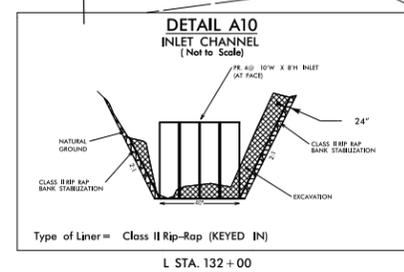
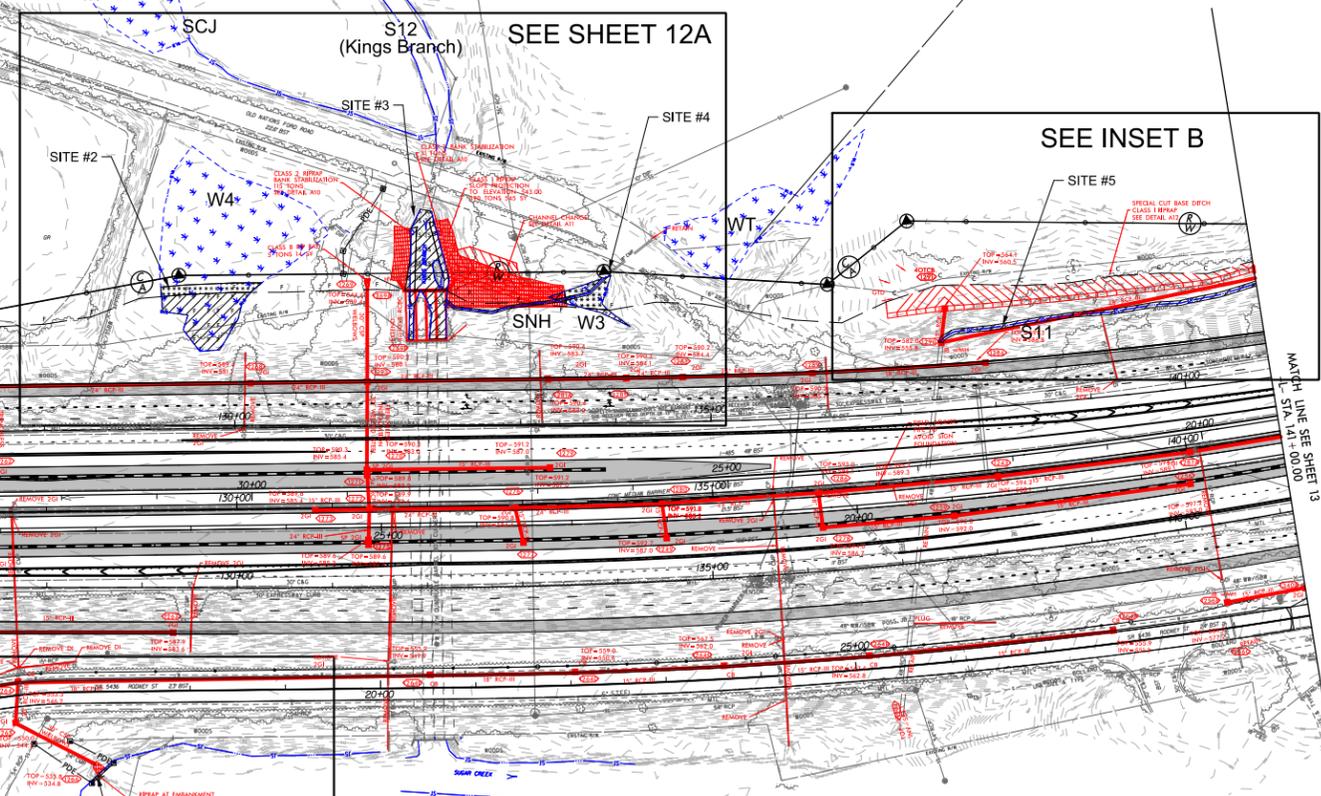
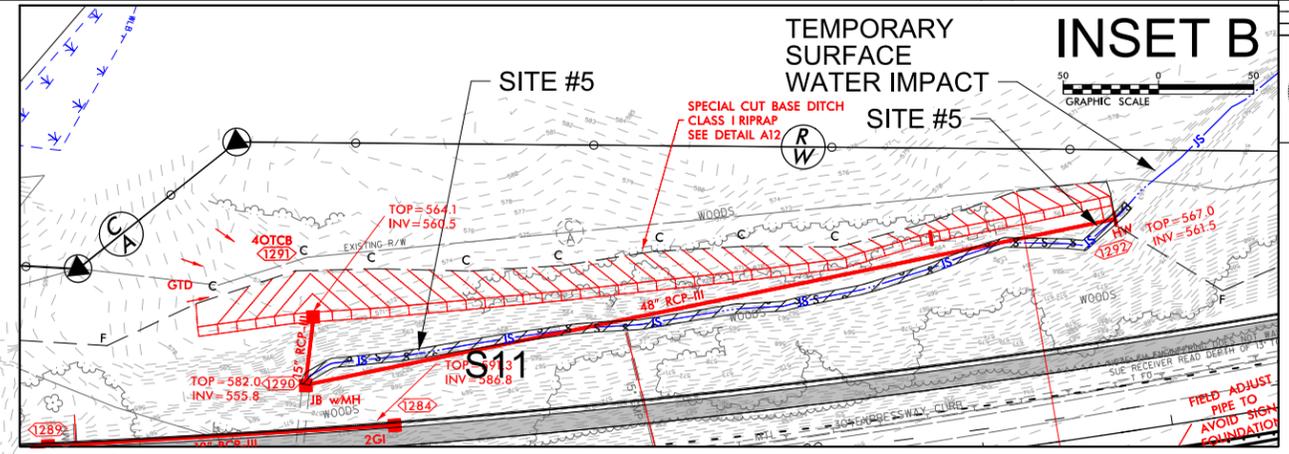
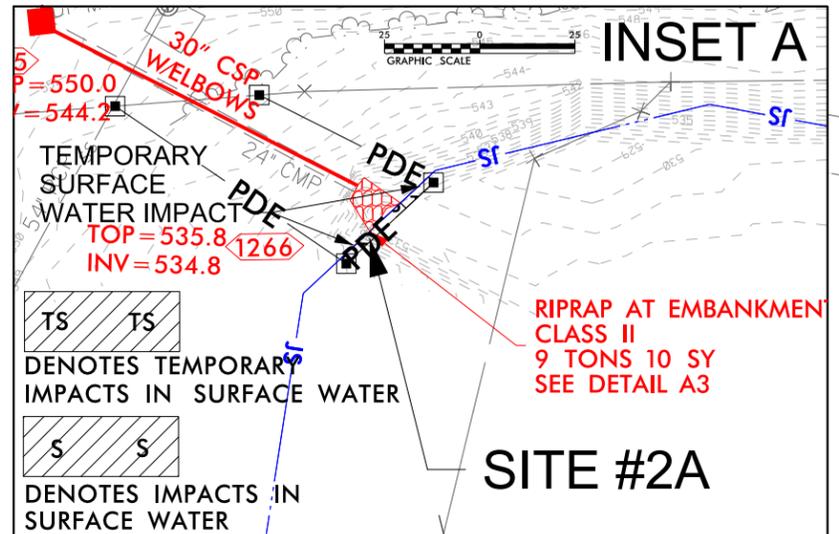
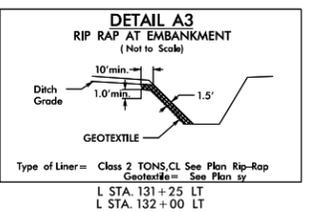
**INSET B**

50 0 50 GRAPHIC SCALE



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

**SITE #3 AND SITE #5 NOTE:**  
THE EXISTING CULVERT IS NOT BURIED, THEREFORE THE CULVERT EXTENSION WILL NOT BE BURIED. THE BOTTOM ELEVATION OF THE EXTENDED CULVERT WILL MATCH THE ELEVATION OF THE EXISTING STREAM BED.

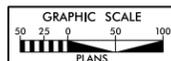


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- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES IMPACTS IN SURFACE WATER
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PERMIT DRAWING  
SHEET 11 OF 115













## WETLAND AND SURFACE WATER IMPACTS 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	110+50 -L- RT	Extend Existing 48" RCP						< 0.01		28		
1	110+50 -L- RT	Bank Stabilization						< 0.01	< 0.01	18	13	
2	129+00 - 130+00 -L- LT	Roadway Fill	0.08			0.02						
2A	128+50 -L- RT	Bank Stabilization						< 0.01	< 0.01	11	20	
3	132+00 -L- LT	Extend 4 @ 10'x8' RCBC						0.03		52		
3	132+00 LT	Bank Stabilization						0.02	< 0.01	70	16	
3	132+00 LT	Culvert Construction Activities							0.03			
4	132+00 - 134+00 -L- LT	Roadway Fill	< 0.01			0.02		< 0.01		95		
4	132+00 - 134+00 -L- LT	Channel Change	< 0.01					< 0.01	< 0.01	35	10	
5	137+40 - 142+25 -L- LT	Extend 48" RCP with Junction Box						0.05	< 0.01	444	10	
6	293+50 -L-	Bank Stabilization						< 0.01	< 0.01	48	10	
7	294+00 - 301+00 -L- LT	Rock Plating							0.07		680	
8	298+00 -L- LT	Concrete Energy Dissipator						< 0.01		7		
8	298+00 -L- LT	Bank Stabilization						< 0.01		10		
9A	302+00 - 308+50 LT	Roadway Fill	0.05			0.05						
9B	309+50 -L- LT	Roadway Fill	0.07			0.07						
10	309+50 -L- LT	Bank Stabilization at Temp. Bridge						0.01	0.01	65		
11	343+00 -L-	Bank Stabilization at Temp. Bridge						0.03	0.05	157		
11	343+00 -L-	Drill Shaft Installation							0.05			
12	344+50 - 346+50 -L- RT	Roadway Fill	0.13			< 0.01						
13	360+00 -L- LT	Bank Stabilization						< 0.01	< 0.01	8	20	
13	360+00 -L- RT	Extend 3@ 9'x9' RCBC						0.01		49		
13	360+50 -L- RT	Bank Stabilization						< 0.01	< 0.01	38	20	
13	360+50 -L- RT	Culvert Construction Activities							< 0.01			
<b>TOTALS*:</b>			<b>0.33</b>			<b>0.17</b>		<b>0.18</b>	<b>0.25</b>	<b>1135</b>	<b>799</b>	<b>0</b>

\*Rounded totals are sum of actual impacts

**NOTES:**

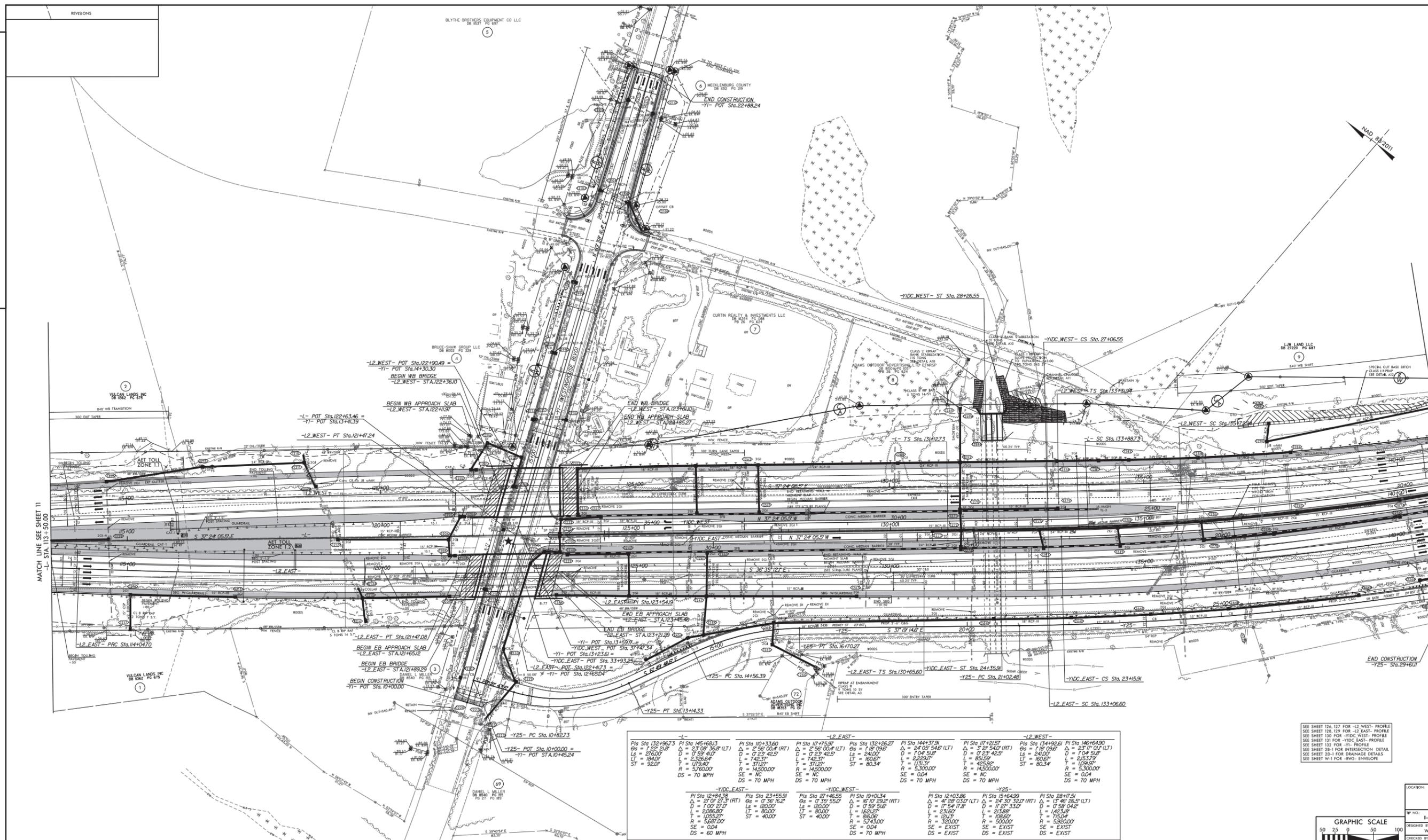
- At Sites 1, 3, 5, and 13, the existing culvert is not buried, therefore the culvert extension will not be buried. The bottom elevation of the extended culvert will match the elevation of the existing stream bed.
- At Site 1, <0.01 ac (18 lf) of temporary impacts due to construction activities are included within the bank stabilization impacts.
- At Site 3, 0.02 ac (70 lf) of temporary impacts due to construction activities are included within the bank stabilization impacts.
- At Site 10, <0.01 ac (30 lf) of temporary impacts due to the temporary bridge are included within the bank stabilization impacts.
- At Site 11, 0.03 ac (122 lf) of temporary impacts due to the temporary bridge and installation of the drilled shaft are included within the bank stabilization impacts.
- At Site 13, <0.01 ac (38 lf) of temporary impacts due to construction activities are included within the bank stabilization impacts.

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 07/20/20  
 MECKLENBURG  
 TIP NO. I-5507  
 WBS NO. 43609.3.2

SHEET 112 OF 115

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MATCH LINE SEE SHEET 11  
L STA 13+50.00

MATCH LINE SEE SHEET 13  
L STA 14+00.00

-L-		-L2 EAST-		-L2 WEST-	
PI Sta 132+967.3	PI Sta 145+668.3	PI Sta 110+33.60	PI Sta 117+75.91	PI Sta 132+26.27	PI Sta 144+37.91
Δs = 125.215'	Δs = 23.08' 36.5" (LT)	Δs = 2.56' 00.4" (RT)	Δs = 2.56' 00.4" (LT)	Δs = 1.18' 09.6"	Δs = 24.05' 54.8" (LT)
D = 0.7600'	D = 0.759' 41.7"	D = 0.759' 42.5"	D = 0.759' 42.5"	D = 0.759' 42.5"	D = 0.759' 42.5"
L = 184.0'	L = 2,336.6'	L = 742.3'	L = 742.3'	L = 160.6'	L = 2,229.7'
T = 179.44'	T = 179.44'	T = 371.2'	T = 371.2'	T = 371.2'	T = 131.3'
R = 5760.0'	R = 14500.0'	R = 14500.0'	R = 14500.0'	R = 5300.0'	R = 14500.0'
SE = NC	SE = NC	SE = NC	SE = NC	SE = 0.04	SE = NC
DS = 70 MPH	DS = 70 MPH	DS = 70 MPH	DS = 70 MPH	DS = 70 MPH	DS = 70 MPH

-L2 EAST-		-Y25-		-Y10-	
PI Sta 12+84.38	PI Sta 23+55.91	PI Sta 19+01.34	PI Sta 17+46.55	PI Sta 12+103.86	PI Sta 15+64.99
Δs = 01' 07" 27.3" (RT)	Δs = 01' 36" 16.2"	Δs = 01' 39" 55.0"	Δs = 16' 10" 29.2" (RT)	Δs = 41' 29" 03.0" (LT)	Δs = 24' 30" 32.0" (RT)
D = 120.00'	D = 120.00'	D = 120.00'	D = 120.00'	D = 17.54' 17.2"	D = 17.54' 17.2"
L = 2,086.80'	L = 80.00'	L = 160.27'	L = 160.27'	L = 231.60'	L = 213.88'
T = 1703.27'	T = 40.00'	T = 80.00'	T = 80.00'	T = 121.9'	T = 150.0'
R = 5,697.00'	R = 5,243.00'	R = 866.0'	R = 5,243.00'	R = 320.00'	R = 500.00'
SE = 0.04	SE = 0.04	SE = EXIST	SE = EXIST	SE = EXIST	SE = EXIST
DS = 60 MPH	DS = 60 MPH	DS = 70 MPH	DS = EXIST	DS = EXIST	DS = EXIST

SEE SHEET 126, 127 FOR -L2 WEST- PROFILE  
 SEE SHEET 128, 129 FOR -L2 EAST- PROFILE  
 SEE SHEET 130 FOR -Y25 WEST- PROFILE  
 SEE SHEET 131 FOR -Y25 EAST- PROFILE  
 SEE SHEET 132 FOR -Y10- PROFILE  
 SEE SHEET 28-1 FOR INTERSECTION DETAIL  
 SEE SHEET 20-1 FOR DRAINAGE DETAILS  
 SEE SHEET W-1 FOR -RW2- ENVELOPE

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