



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

May 13, 2015

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

ATTN: Mr. David Bailey
NCDOT Coordinator

SUBJECT: Permit Modification Request for Section 404 Individual Permit and Section 401 Individual Water Quality Certification for the new location facility from SR 2011 to the Haw River at US 220, Greensboro, Guilford County; Division 7; TIP No. R-2413A

Debit \$570.00 from WBS No. 34429.1.1

Reference: US Army Corps of Engineers (USACE) 404 Permit issued January 28, 2014; Action ID: SAW2013-00557, Modified October 14, 2014
NC Division of Water Resources (NCDWR) 401 Water Quality Certification Permit issued February 3, 2014; NCDWR Project No. 20130517 v.2, Modified October 17, 2014

Dear Mr. Bailey:

The North Carolina Department of Transportation (NCDOT) awarded the design-build team this project on April 8, 2014 to construct projects R-2413A, R-2413B, and I-5110. Sections R-2413A and B were authorized by the USACE and NCDWR as referenced above. We are requesting a modification in the permits for two Permit Sites: 7A and 18 for Section R-2413A.

Permit Site 7A. As you are aware from the site review held on January 27 and 28, 2015, the downstream end of the culvert is angled such that it would likely cause future erosion on the north bank. In response to a question contained in your January 29 email, the culvert was installed at the correct angle, and either the stream meandered slightly from its original course or it was not located precisely enough when initially surveyed. To correct this outlet, the "peninsula" of existing soil jutting into the stream from the north bank will be removed and the north bank will be sloped back and protected with rip rap. A larger rip rap will be installed first, and a smaller rip rap will then be applied to fill in the gaps. This will not extend below mean high water. This modification will require the bank stabilization to extend 10 more linear feet (LF) into an area originally considered temporary impacts. As such, the temporary impacts will decrease by 10 LF (new total of 11 LF) and the bank stabilization will increase by 10 LF (new total of 55 LF). Please see Revised Permit Drawings 21-23 and 79 of 81.

Permit Site 18. NCDOT's understanding of the 33CFR323.3(c)(2) was that it was not necessary to include the impacts from the bents from this bridge as permanent and the project was permitted as such.

MAILING ADDRESS:
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PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS
NATURAL ENVIRONMENT SECTION
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1598

TELEPHONE: 919-707-6100

FAX: 919-212-5785

WEBSITE: WWW.NCDOT.ORG

PHYSICAL ADDRESS:
Century Center - Building B
1020 Birch Ridge Dr
Raleigh, NC 27610-4328

However, based upon USACE comments and internal NCDOT discussions, we have updated the impact sheet to reflect <0.01 ac (40 ft²) of permanent wetland impacts from the bents. Permit Drawings 53-55 and 81 of 81 have been revised.

Revised impacts to R-2413 Sections A & B are 12,766 LF of streams, 5.47 acres of wetlands, and 0.6 acre of jurisdictional open waters, and temporary impact to 1,180 LF of jurisdictional stream channel and 0.18 acre of adjacent riparian wetlands.

Mitigation

The additional 10 feet of permanent impacts will require placement of rip rap along the banks and above mean high water. As such, it is listed on the provided permit sheet as bank stabilization, which does not require mitigation from the USACE.

With regards to mitigation required by NCDWR, in the original permit application, there was 424 LF of permanent impact that was required at a 1:1 ratio for Site 7a. However, due to the 2:1 mitigation ratio requirement for the USACE for 379 LF (424 LF – 45 LF of bank stabilization) the NCDWR mitigation was covered. This modification for Site 7a is adding an additional 10 LF of bank stabilization bringing the total required mitigation amount to 434 LF of impacts for NCDWR. NCDOT does not plan to request additional mitigation for this modification due to the mitigation amount still being covered under the USACE requirement.

Also, as per discussion with your office and the NCDOT-NES, no mitigation is required for the impacts due to the bridge bents at Site 18.

Regulatory Approvals

Application is hereby made for a Department of the Army Section 404 Individual Permit Modification for the above-described activities for the proposed T.I.P. Project R-2413A.

We are also hereby requesting a Section 401 Individual Water Quality Certification Modification from NCDWR. In compliance with Section 143-215.3D (e) of the NCAC, we will provide \$570.00 to act as payment for processing the Section 401 permit.

Project R-2413 does fall within the Jordan Lake Water Supply Watershed. However, NCDOT is not requesting a Jordan Buffer Authorization because an approved SFONSI was issued for this project in March 1995, which is prior to the adoption of the Jordan Lake Riparian Buffer Rules.

A copy of this permit application and its distribution list will be posted on the NCDOT website at <https://connect.ncdot.gov/resources/Environmental/Pages/default.aspx>. Thank you for your time and assistance with this project. Please contact Deanna Riffey at either driffey@ncdot.gov or (919) 707-6151 if you have any questions or need additional information.

Sincerely,

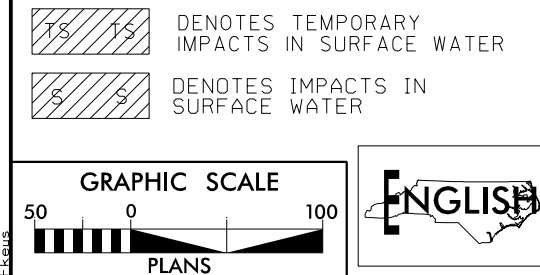
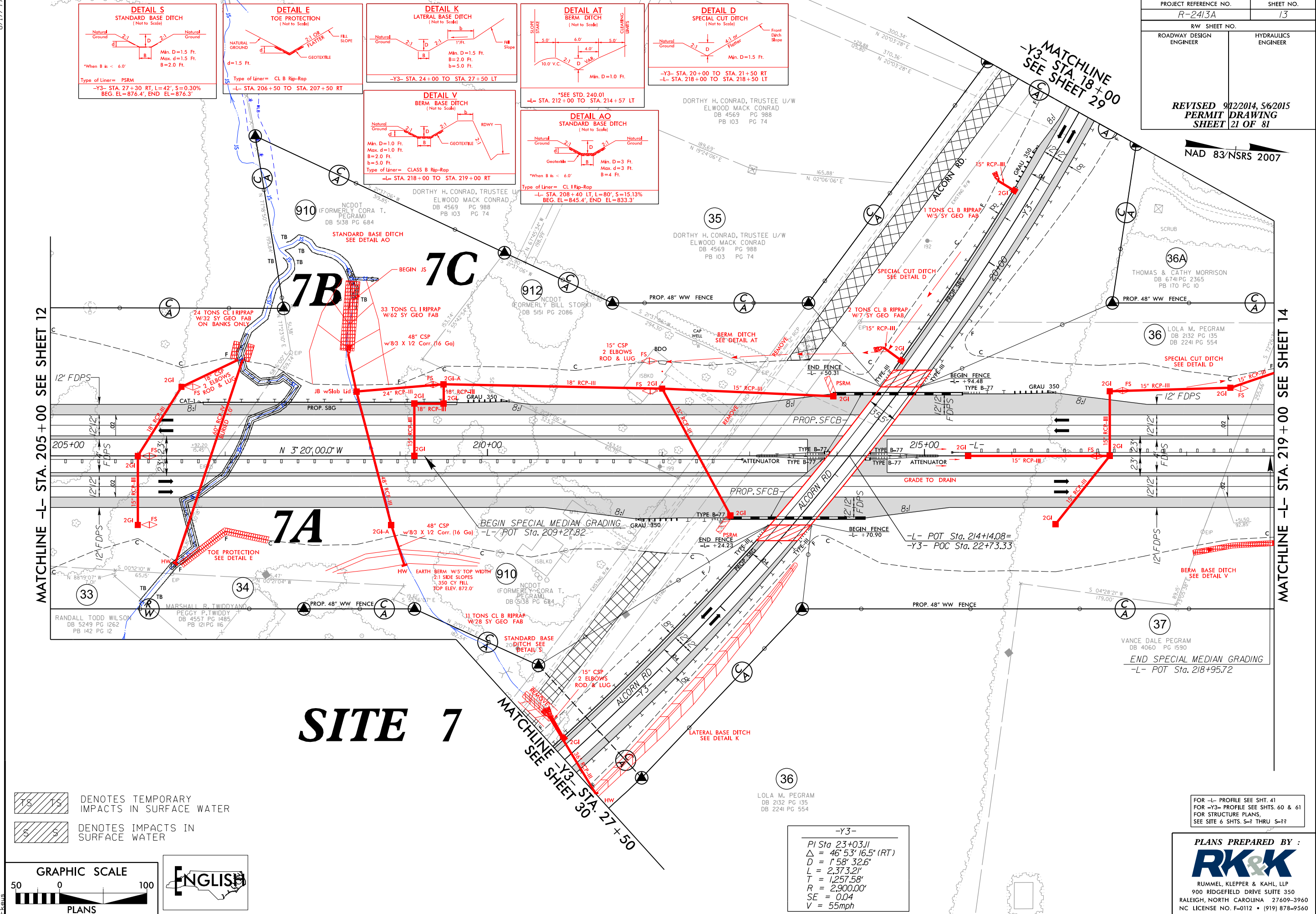
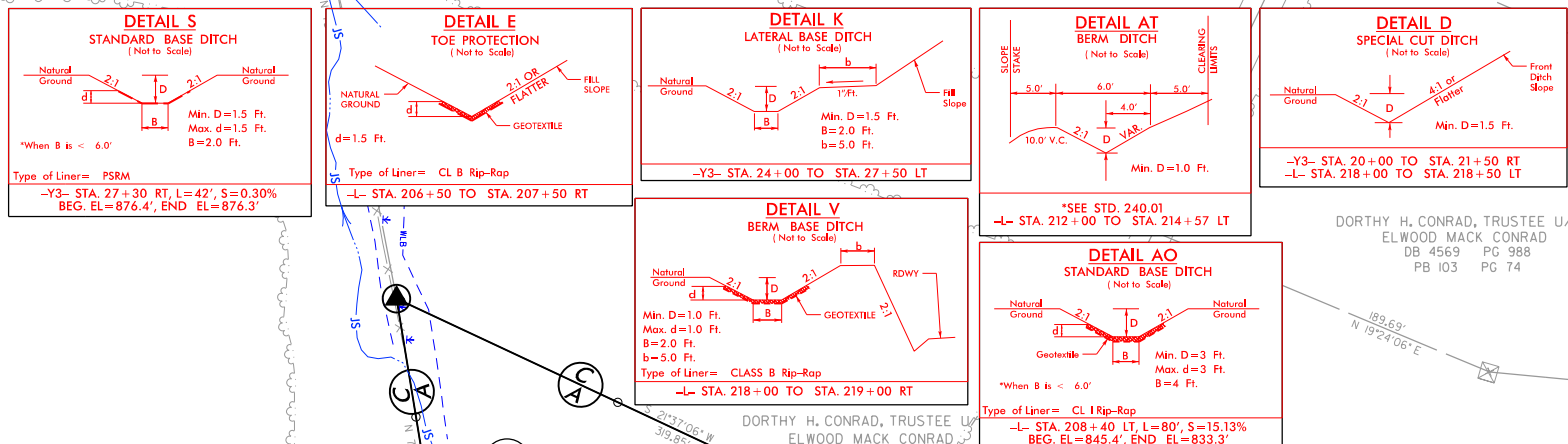


R Richard W. Hancock, P.E., Manager
Project Development and Environmental Analysis Unit

cc: NCDOT Permit Application Standard Distribution List

PROJECT REFERENCE NO. R-2413A	SHEET NO. 13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
REVISED 9/22/2014, S/62015 PERMIT DRAWING SHEET 21 OF 81	

NAD 83/NSRS 2007



-Y3-
 PI Sta 23+03.11
 $\Delta = 46^\circ 53' 16.5''$ (RT)
 $D = 158' 32.6''$
 $L = 2,373.21'$
 $T = 1,257.58'$
 $R = 2,900.00'$
 $SE = 0.04$
 $V = 55\text{mph}$

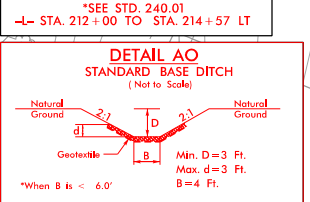
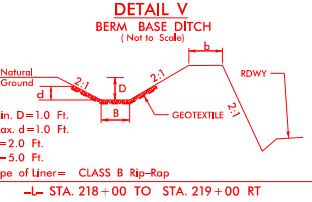
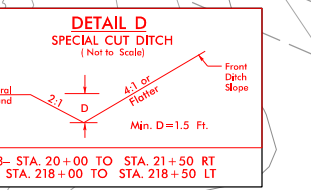
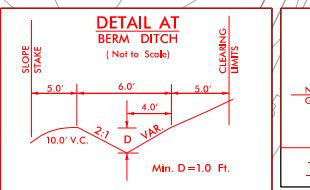
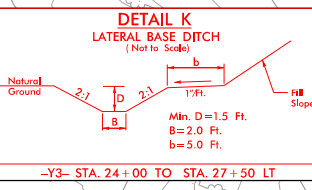
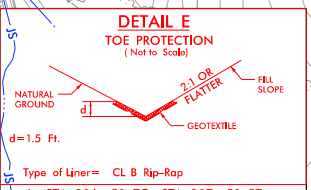
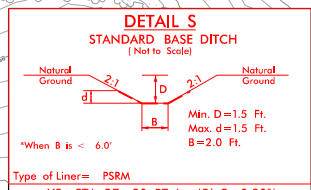
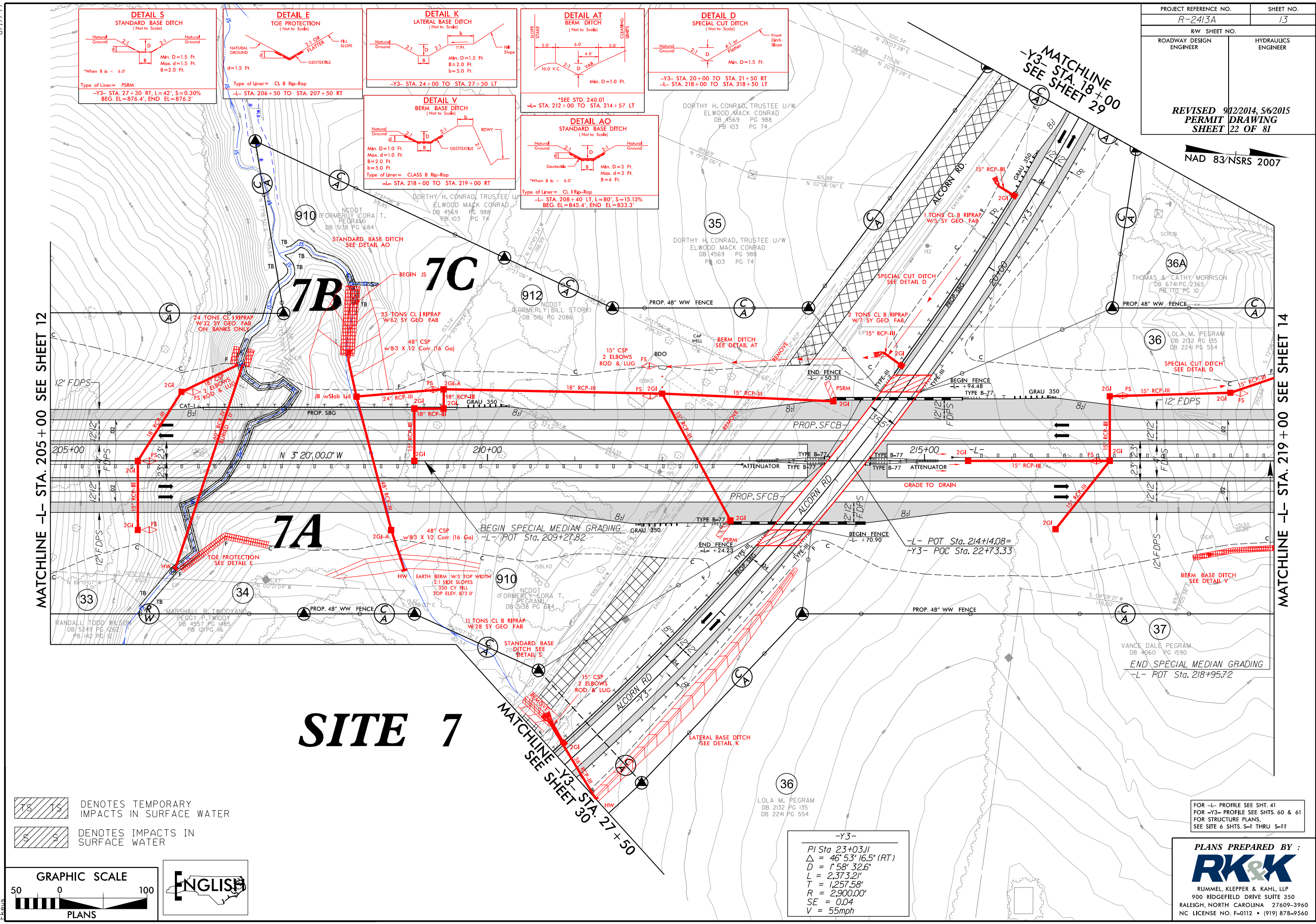
FOR -L- PROFILE SEE SHT. 41
 FOR -Y3- PROFILE SEE SHTS. 60 & 61
 FOR STRUCTURE PLANS,
 SEE SITE 6 SHTS. S-1 THRU S-7

PLANS PREPARED BY :
RK&K
 RUMMEL, KLEPPER & KAHL, LLP
 900 RIDGEFIELD DRIVE SUITE 350
 RALEIGH, NORTH CAROLINA 27609-3960
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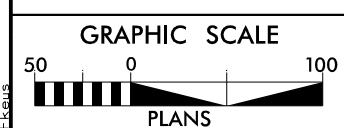
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PROJECT REFERENCE NO. R-2413A	SHEET NO. 13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
REVISED 9/22/2014, S/62015 PERMIT DRAWING SHEET 22 OF 81	

NAD 83/NSRS 2007



DENOTES TEMPORARY IMPACTS IN SURFACE WATER
 DENOTES IMPACTS IN SURFACE WATER



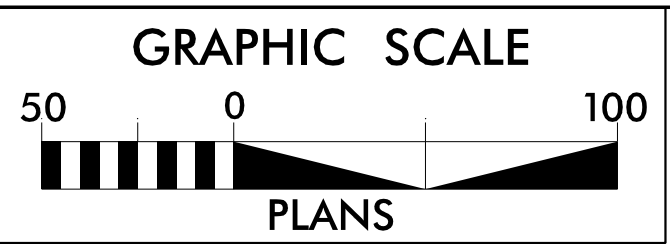
-Y3-
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D = 1' 58" 32.6"
L = 2,373.21'
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R = 2,900.00'
SE = 0.04
V = 55mph

FOR -L- PROFILE SEE SHT. 41
FOR -Y3- PROFILE SEE SHTS. 60 & 61
FOR STRUCTURE PLANS,
SEE SITE 6 SHTS. S-1 THRU S-??

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ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

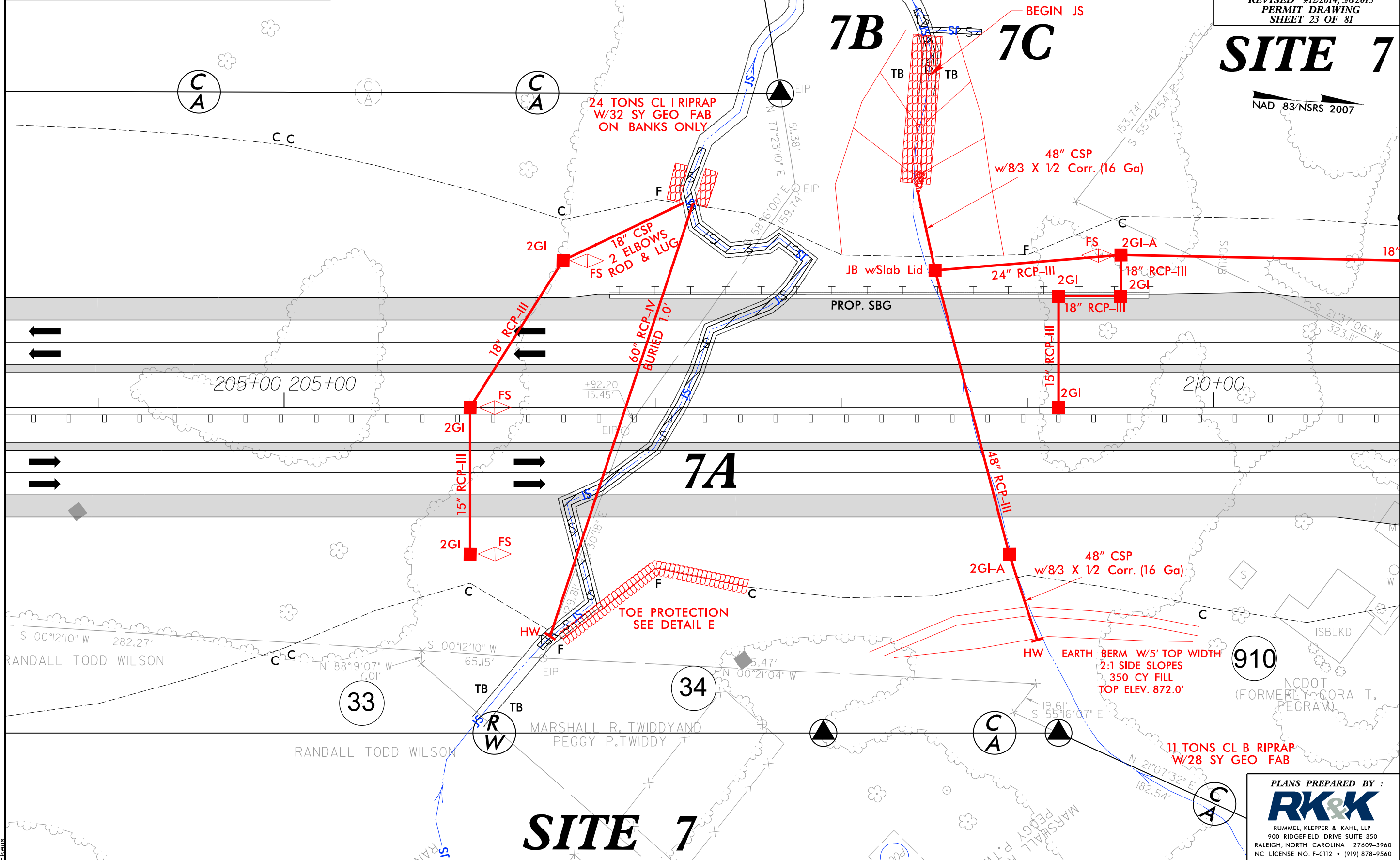
ENGLISH

	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES IMPACTS IN SURFACE WATER

REVISED 9/22/2014, 5/6/2015
PERMIT DRAWING
SHEET 23 OF 81

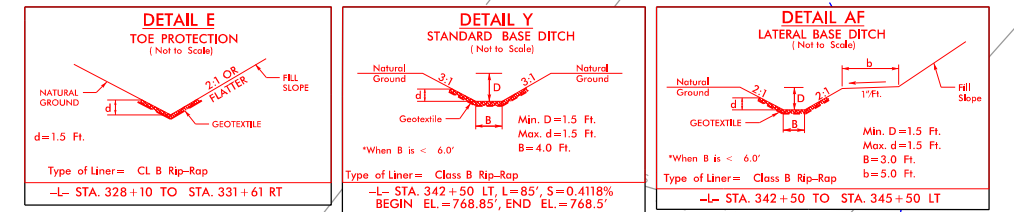
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NAD 83/NSRS 2007

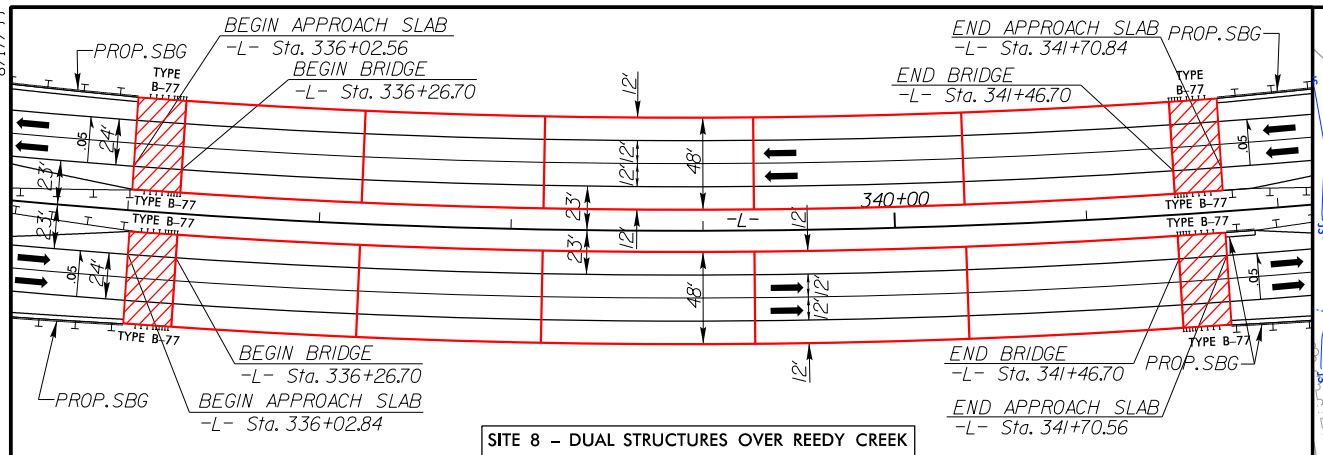


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(FORMERLY CORA T. PEGRAM)

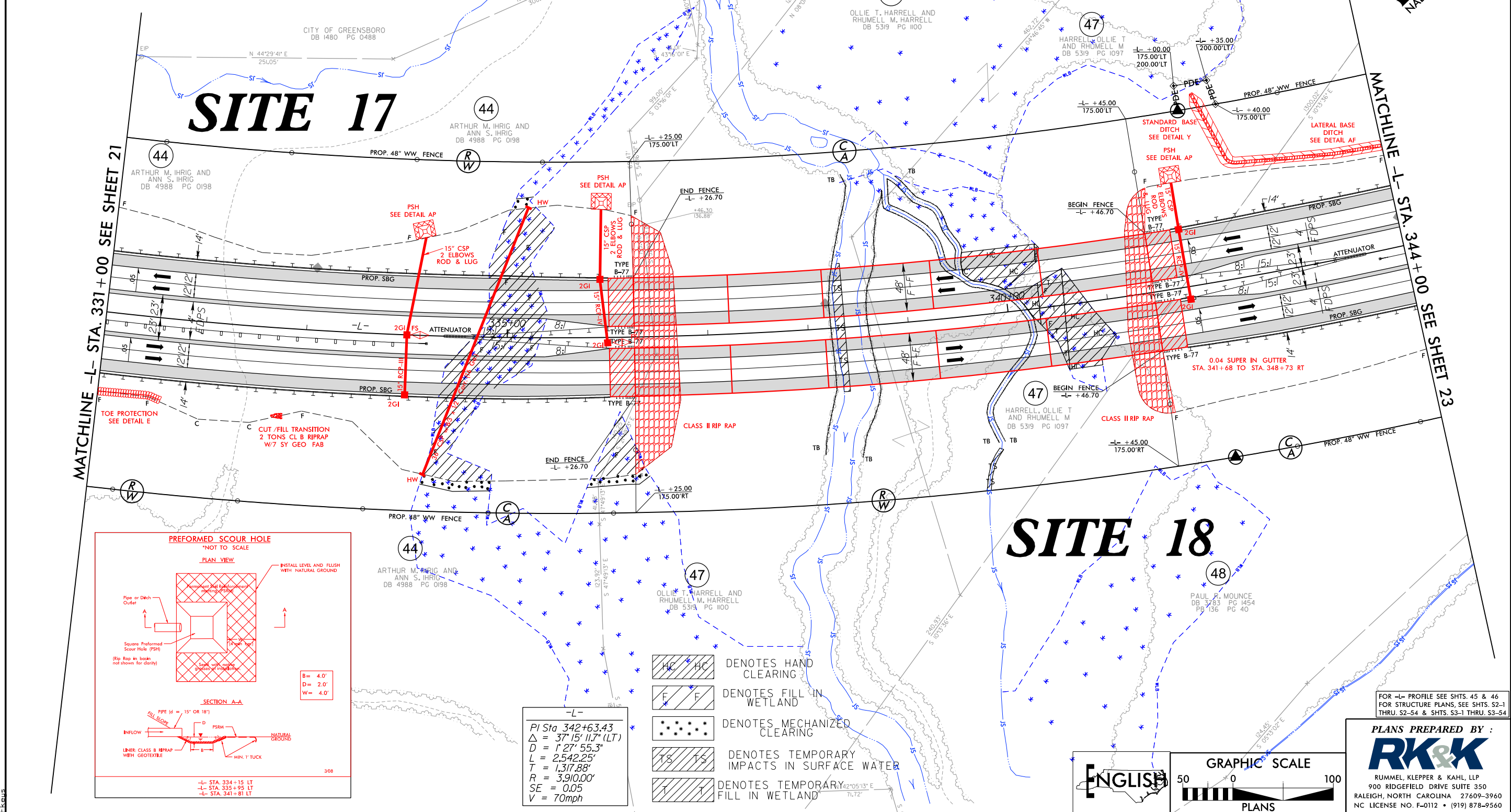
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DESCRIPTION	ALN	STATION	STATION	LOC
SBG	-L-	331+00.00	336+01.33	LT
SBG	-L-	341+72.07	344+00.00	LT
SBG	-L-	331+00.00	336+02.06	RT
SBG	-L-	341+71.34	344+00.00	RT
SBG	-L-	341+71.62	341+87.00	MED RT

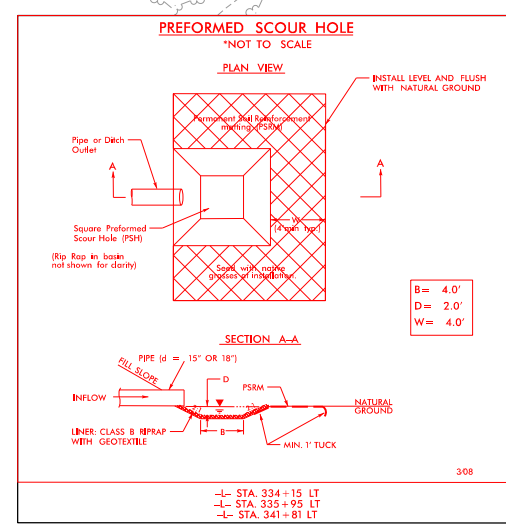


SITE 8 - DUAL STRUCTURES OVER REEDY CREEK



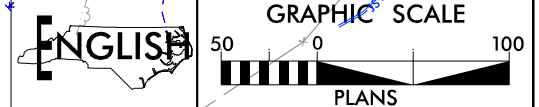
MATCHLINE -L- STA. 331+00 SEE SHEET 21

MATCHLINE -L- STA. 344+00 SEE SHEET 23



-L-
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 $D = 1'27''55.3''$
 $L = 2,542.25'$
 $T = 1,317.88'$
 $R = 3,910.00'$
 $SE = 0.05$
 $V = 70\text{mph}$

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

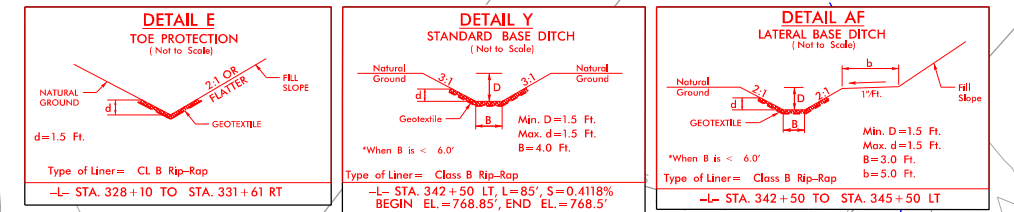


FOR -L- PROFILE SEE SHTS. 45 & 46
 FOR STRUCTURE PLANS, SEE SHTS. S2-1 THRU. S2-54 & SHTS. S3-1 THRU. S3-54

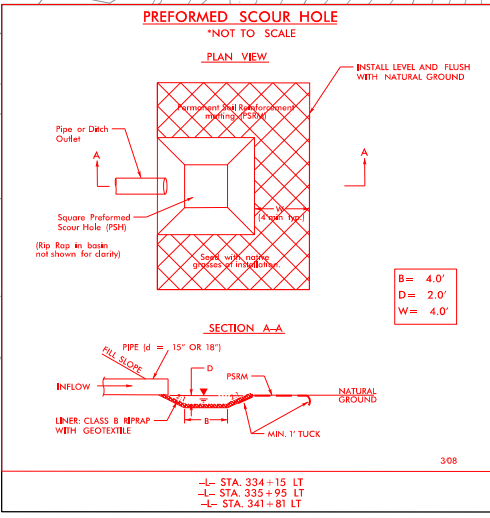
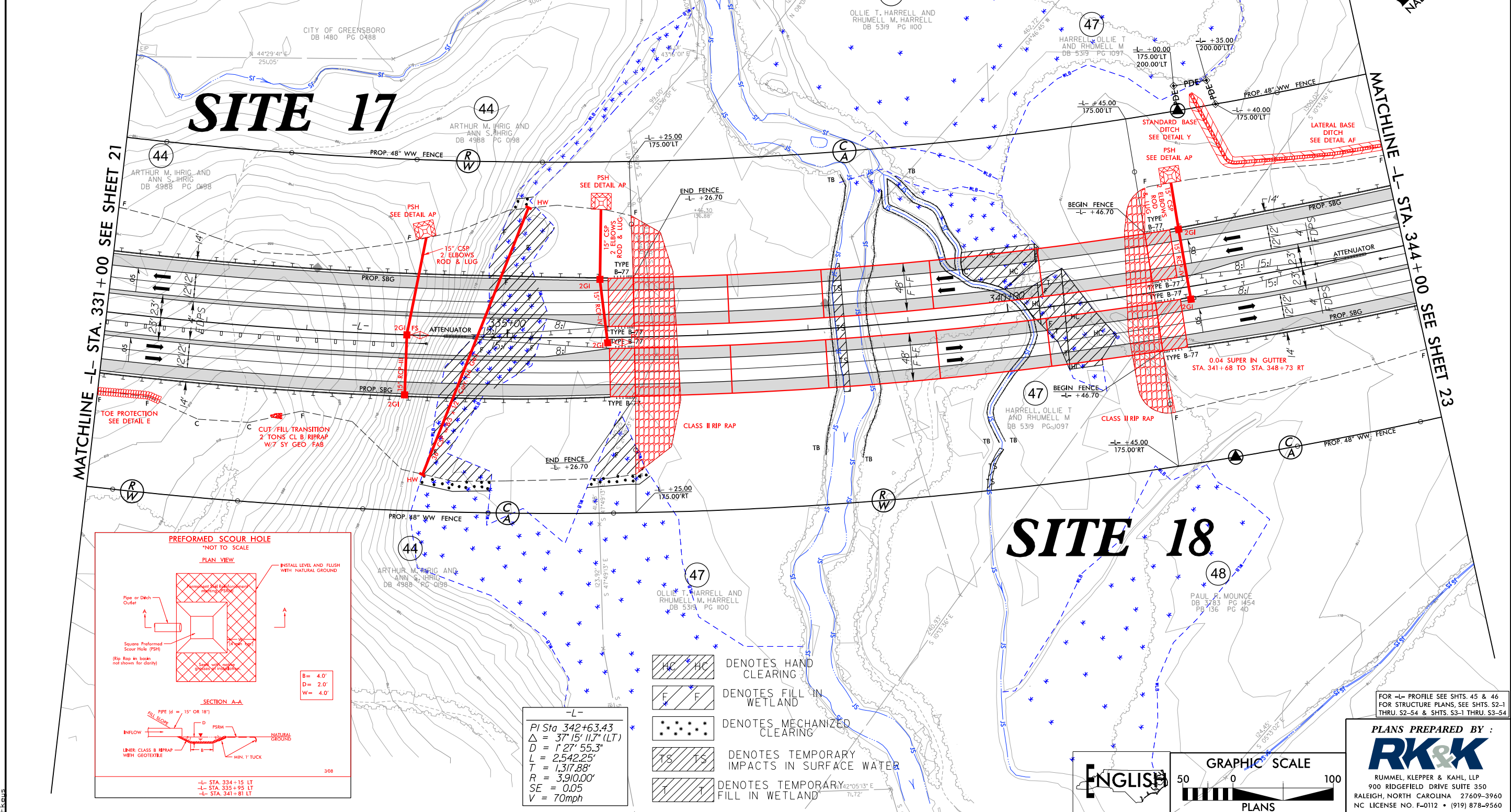
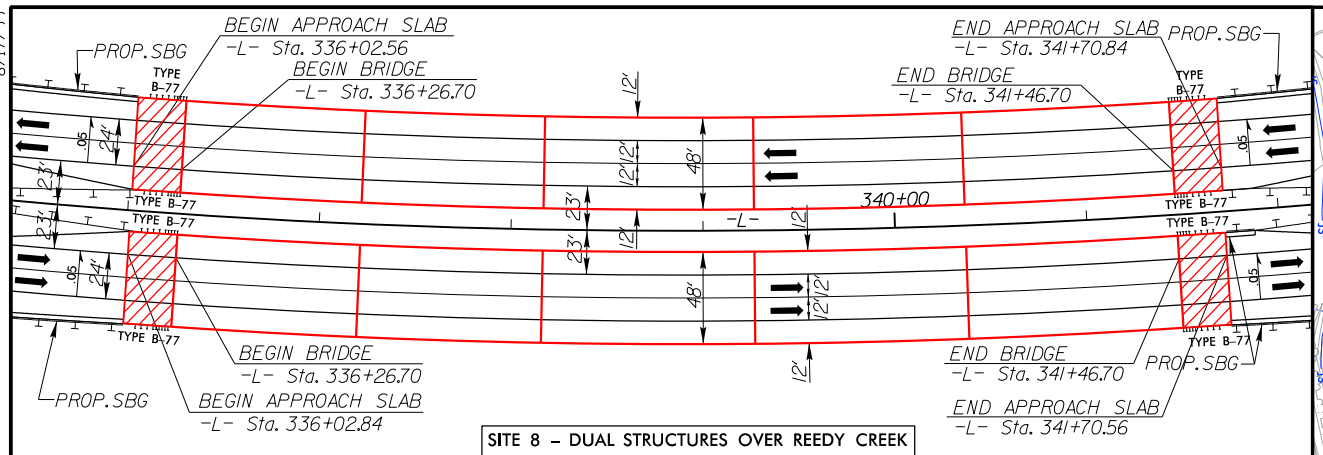
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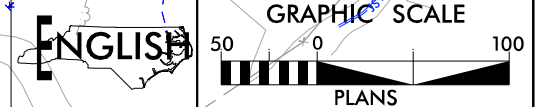


DESCRIPTION	ALN	STATION	STATION	LOC
SBG	-L-	331+00.00	336+01.33	LT
SBG	-L-	341+72.07	344+00.00	LT
SBG	-L-	331+00.00	336+02.06	RT
SBG	-L-	341+71.34	344+00.00	RT
SBG	-L-	341+71.62	341+87.00	MED RT



-L-
 PI Sta 342+63.43
 $\Delta = 37^{\circ}15'11.7''$ (LT)
 $D = 1'27''55.3''$
 $L = 2,542.25'$
 $T = 1,317.88'$
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- DENOTES HAND CLEARING
- DENOTES FILL IN WETLAND
- DENOTES MECHANIZED CLEARING
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY FILL IN WETLAND



FOR -L- PROFILE SEE SHTS. 45 & 46
FOR STRUCTURE PLANS, SEE SHTS. S2-1 THRU. S2-54 & SHTS. S3-1 THRU. S3-54

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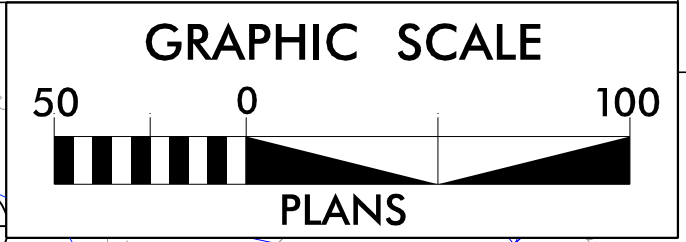
44

ARTHUR M. IHRIG AND
ANN S. IHRIG

R
W

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

PROJECT REFERENCE NO. R-2413A	SHEET NO. 22A
RW SHEET NO.	
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REVISED 9/22/2014, 5/6/2015 PERMIT DRAWING SHEET 55 OF 81	

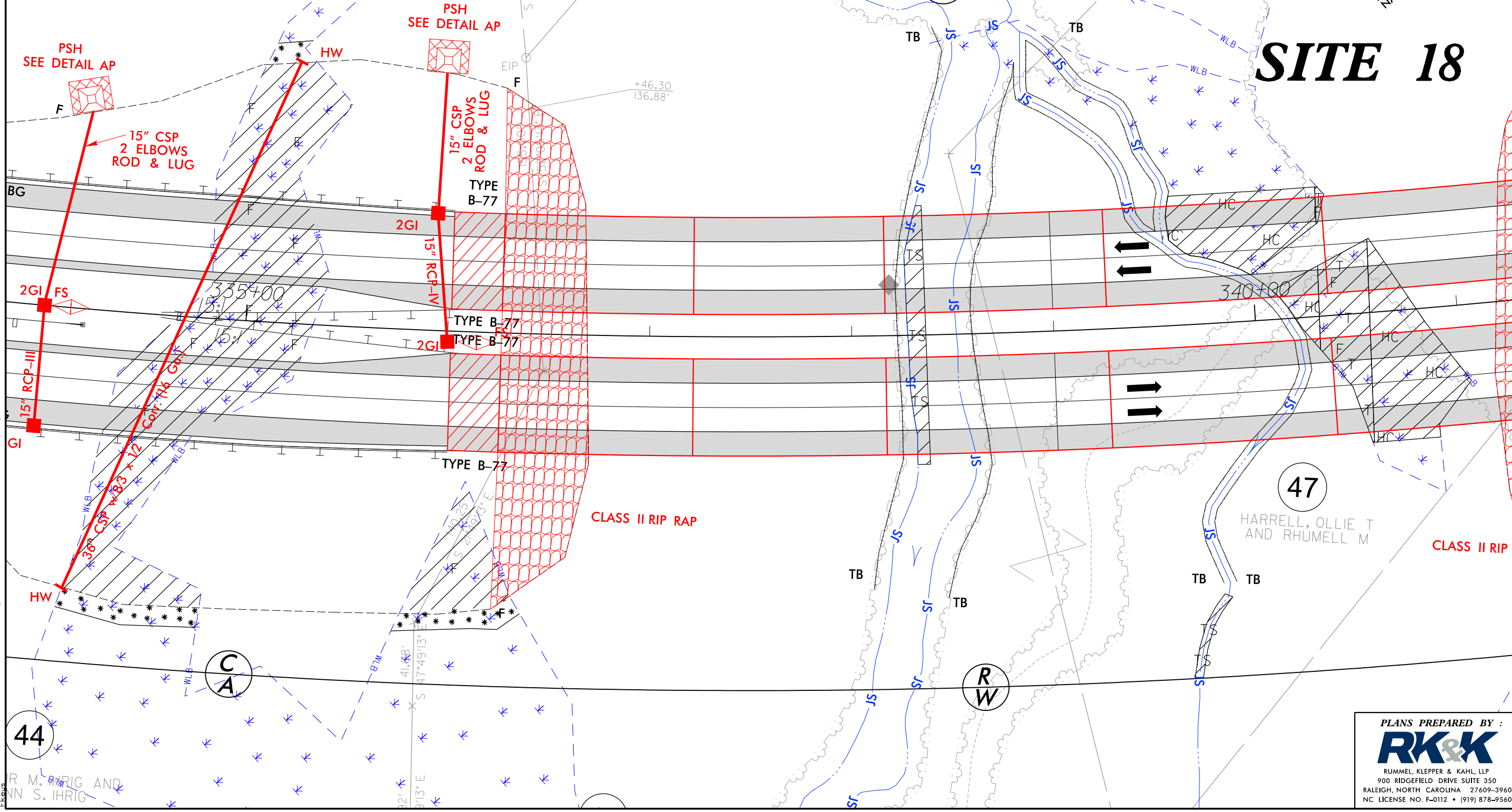


SITE 18

47

HARRELL, OLLIE T
AND RHUMELL M

CLASS II RIP RAP



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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)
7	206+50 to 208+50 -L-	60" CSP & 54" CSP										
7a.								0.03	<0.01	379	11	
7b.								<0.01	<0.01	26	10	
7c.								<0.01		31		
		Bank Stabilization								55		
8	228+00 TO 233+50 -L-	66" CSP										
8a.								0.06	<0.01	654	50	
8b.								<0.01		50		
8c.								<0.01		34		
		Bank Stabilization								21		
9	232+50 TO 235+50 -L-	42" CSP						0.60 (pond)				
10	247+50 -L-	72" CSP										
10a.			0.01		<0.01			0.05	<0.01	426	41	
10b.								<0.01		49		
10c.						0.01		0.01		116		
		Bank Stabilization								20		
11	249+50 TO 251+50 -L-	48" CSP	0.12					<0.01	<0.01	47	17	
SUBTOTALS:			0.14		<0.01	0.00		0.00	<0.06	1908	129	

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 GUILFORD COUNTY
 WBS - 34429.3.58 (R-2413A)
 REVISED
 SHEET 79 OF 81 5/6/2015

ATN Revised 3/31/05

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)
17	-L- 334+00-336+50	36" CSP	0.35			0.03						
18****	-L- 338+00-340+50	Bridge		0.04			0.13		0.03		172	
19	-L- 348+00-353+00	60" RCP						0.03	<0.01	507	34	
20	-Y4- 17+50-19+00	36" CSP	0.11					0.02		240		
21	-Y5- 29+00-36+00	1@12'x12' RCBC										
21A			2.11			0.13		0.06	0.09	288	262	250*
21B		Road Fill						0.01		149		
22	Y1C- 25+50	48" CSP Bank Stabilization						0.02	<0.01	177 16	40	
23	-Y5- 16+50	30" CSP/PDE							<0.01		12	
SUBTOTALS:			2.57	0.04		0.16	0.13	0.14	0.15	1377	520	250
TOTALS:			3.11 **	0.04	<0.01	0.19	0.13	1.42	0.30	8937	967 ***	2390

* SEE PLAN FOR ON-SITE MITIGATION

** PERMANENT FILL IN WETLAND IN ORIGINAL PERMIT WAS SUMMED WRONG. IT WAS LISTED AS 3.13ac; IT SHOULD HAVE BEEN 3.14ac

*** TEMP CHANNEL IMPACT IN ORIGINAL PERMIT WAS SUMMED WRONG. IT WAS LISTED AS 922'; IT SHOULD HAVE BEEN 952'

**** PERMANENT PIER WETLAND IMPACTS= 40sqft

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GUILFORD COUNTY
WBS - 34429.3.58 (R-2413A)

REVISED

SHEET 81 OF 81

4/21/2015