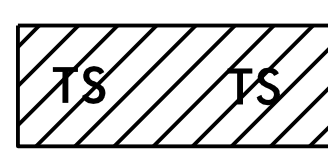


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1/27/2015
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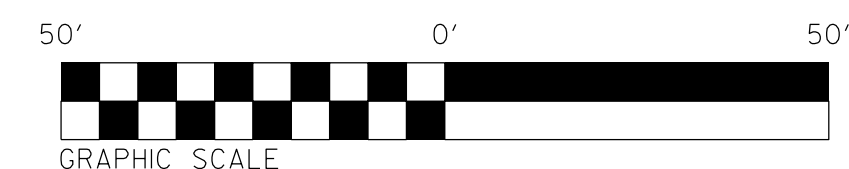
DENOTES IMPACTS IN
SURFACE WATER



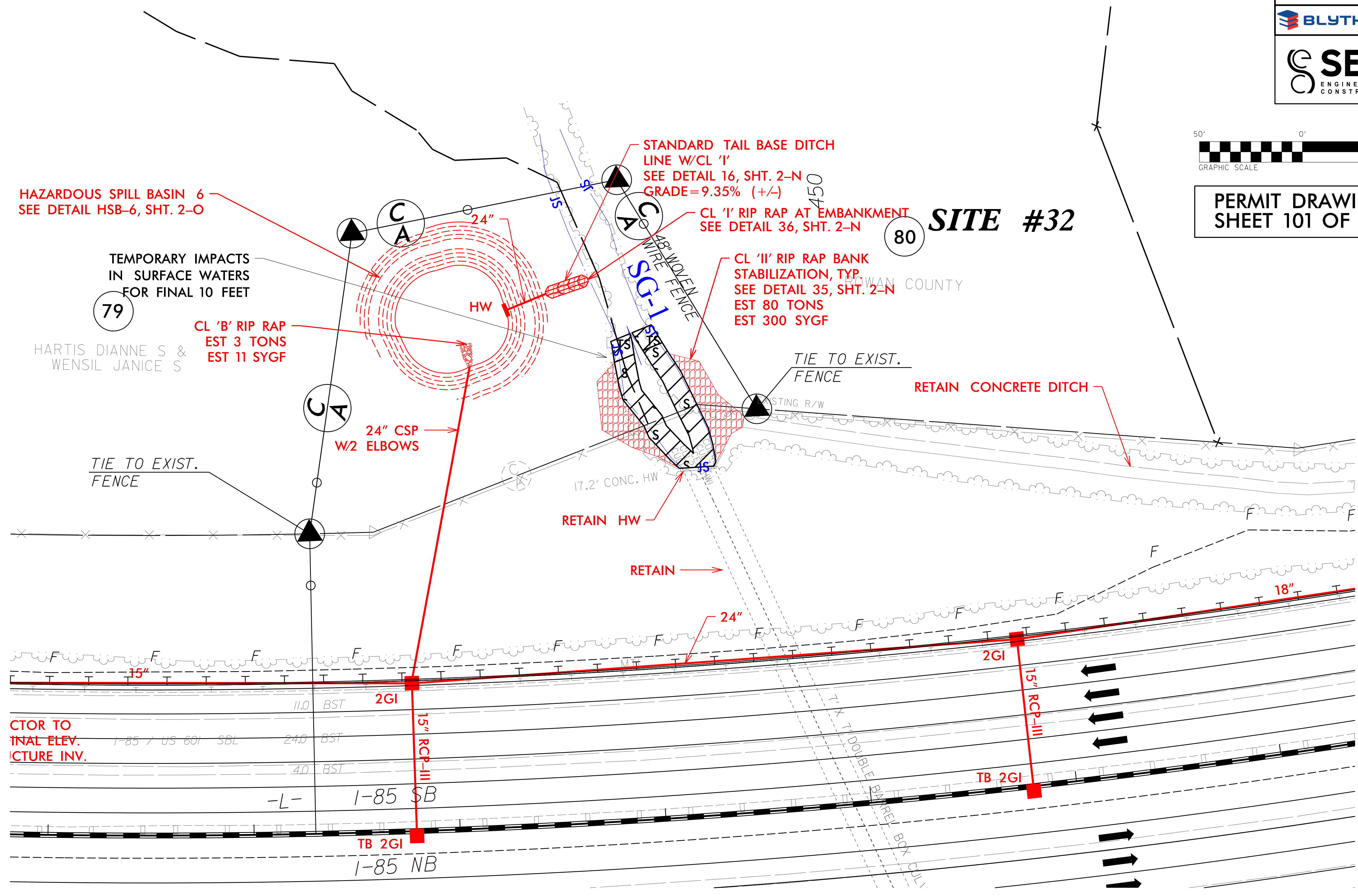
DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

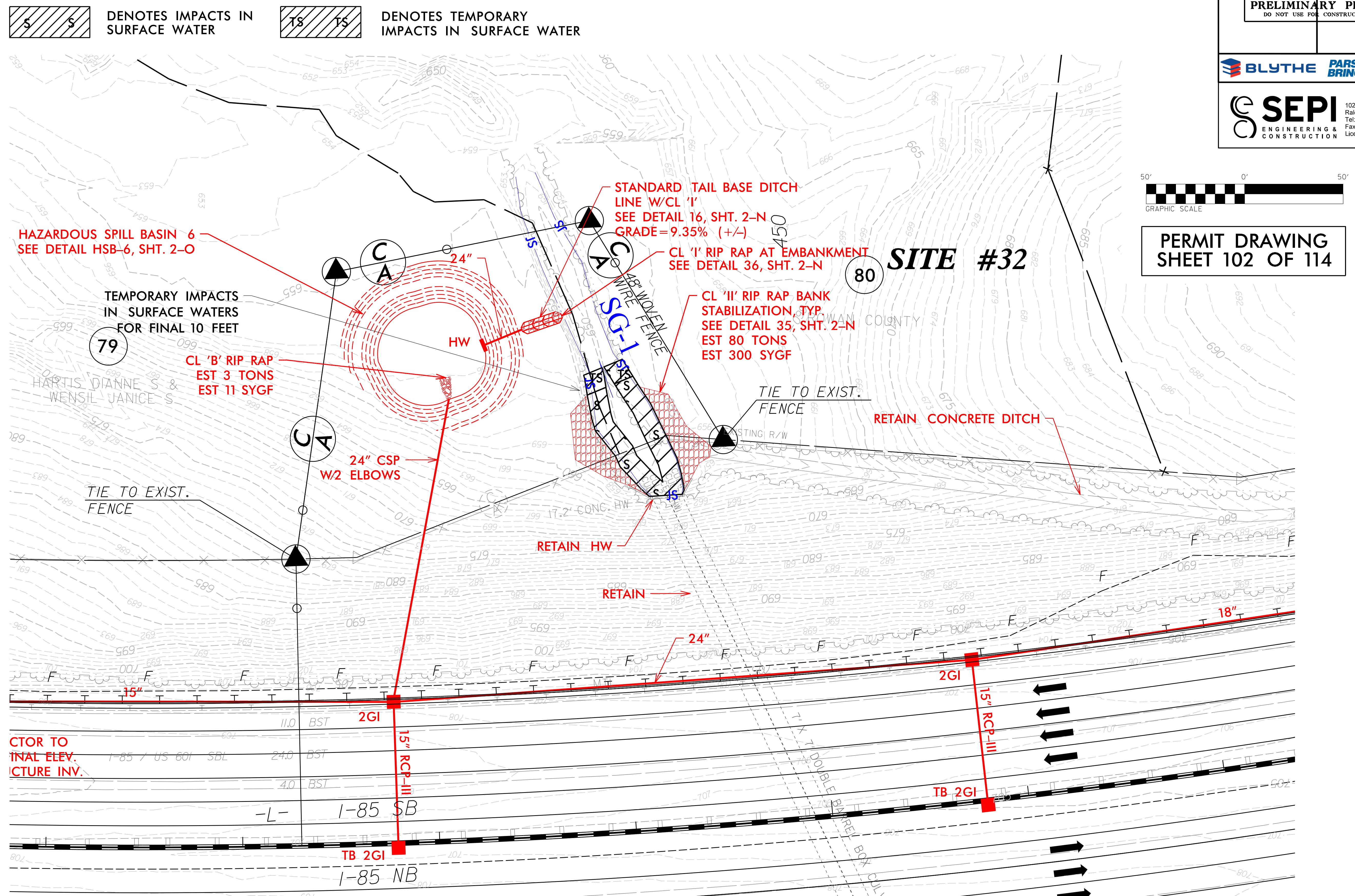
NAD 83/NSRS 2007

PROJECT REFERENCE NO. I-3802A		SHEET NO. 30A	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			
BLYTHE PARSONS BRINCKERHOFF			
SEPI ENGINEERING & CONSTRUCTION 1025 Wade Avenue Raleigh, NC 27605 Tel: 919-789-9977 Fax: 919-789-9591 License: C-2197			

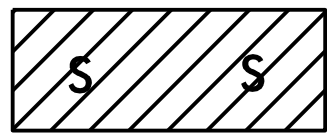


PERMIT DRAWING
SHEET 101 OF 114

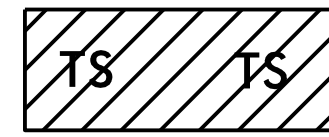




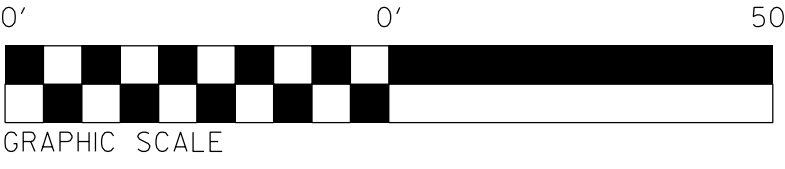
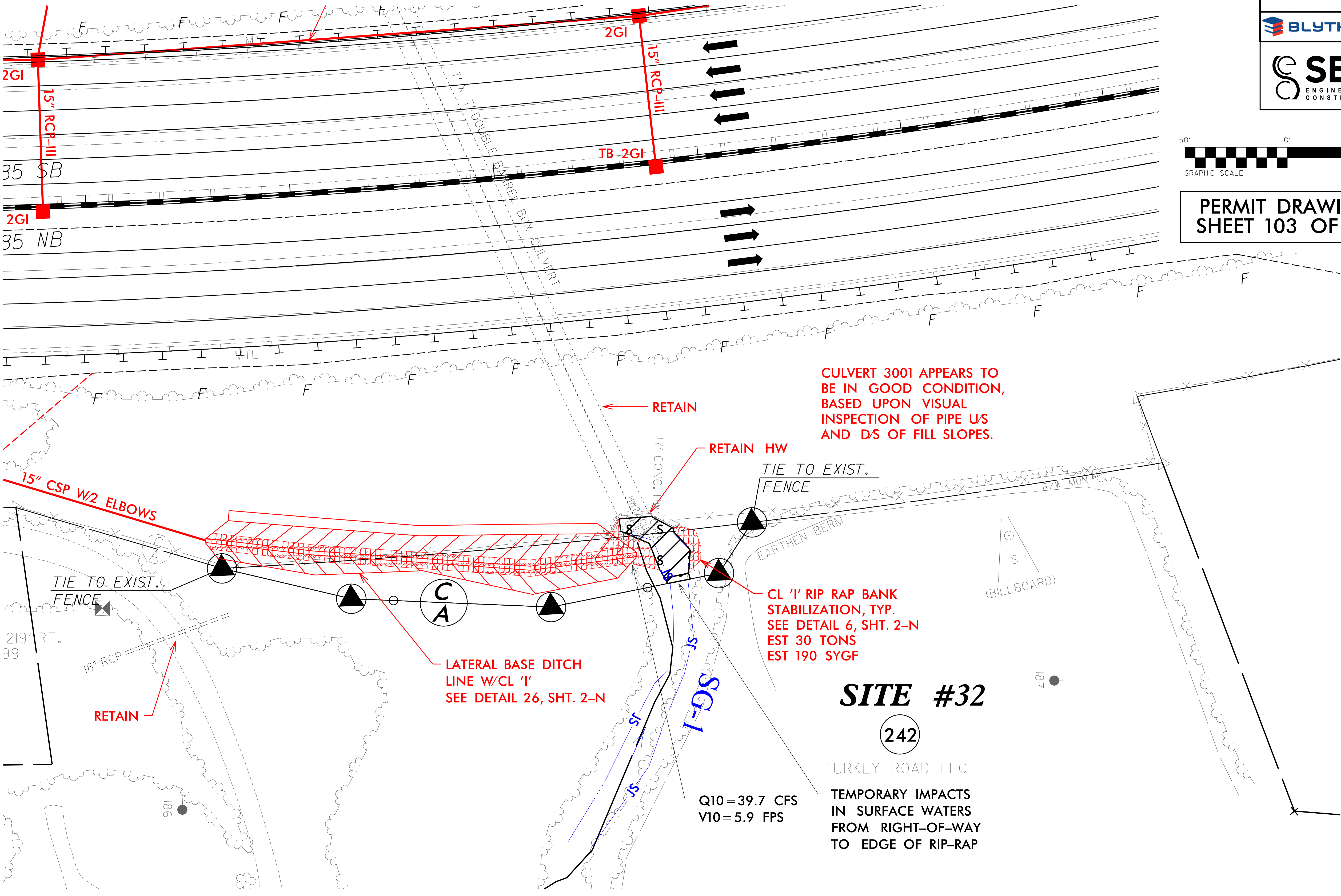
PROJECT REFERENCE NO.		SHEET NO.	
I-3802A		30B	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			
BLYTHE PARSONS BRINCKERHOFF			
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DENOTES IMPACTS IN SURFACE WATER



DENOTES TEMPORARY IMPACTS IN SURFACE WATER



PERMIT DRAWING
SHEET 103 OF 114

CULVERT 3001 APPEARS TO BE IN GOOD CONDITION, BASED UPON VISUAL INSPECTION OF PIPE US AND DS OF FILL SLOPES.

RETAIN

RETAIN HW

TIE TO EXIST. FENCE

CL 'I' RIP RAP BANK STABILIZATION, TYP. SEE DETAIL 6, SHT. 2-N
EST 30 TONS
EST 190 SYGF

LATERAL BASE DITCH LINE W/CL 'I' SEE DETAIL 26, SHT. 2-N

RETAIN

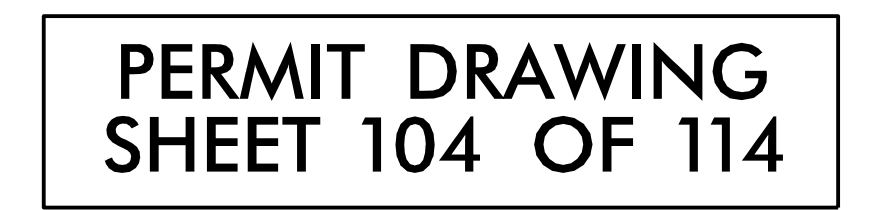
SITE #32

242

TURKEY ROAD LLC

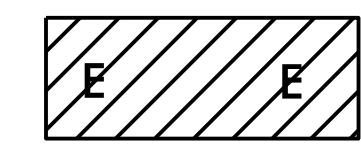
Q10=39.7 CFS
V10=5.9 FPS

TEMPORARY IMPACTS IN SURFACE WATERS FROM RIGHT-OF-WAY TO EDGE OF RIP-RAP



TEMPORARY IMPACTS IN SURFACE WATERS FROM RIGHT-OF-WAY TO EDGE OF RIP-RAP

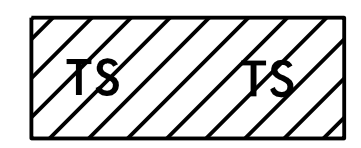
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11:58:00



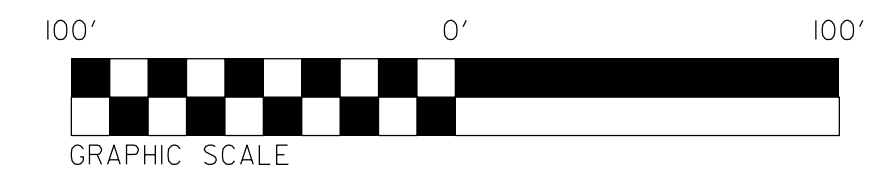
DENOTES EXCAVATION
IN WETLAND



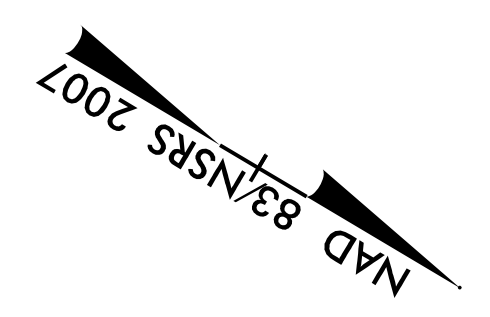
DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



PERMIT DRAWING
SHEET 105 OF 114

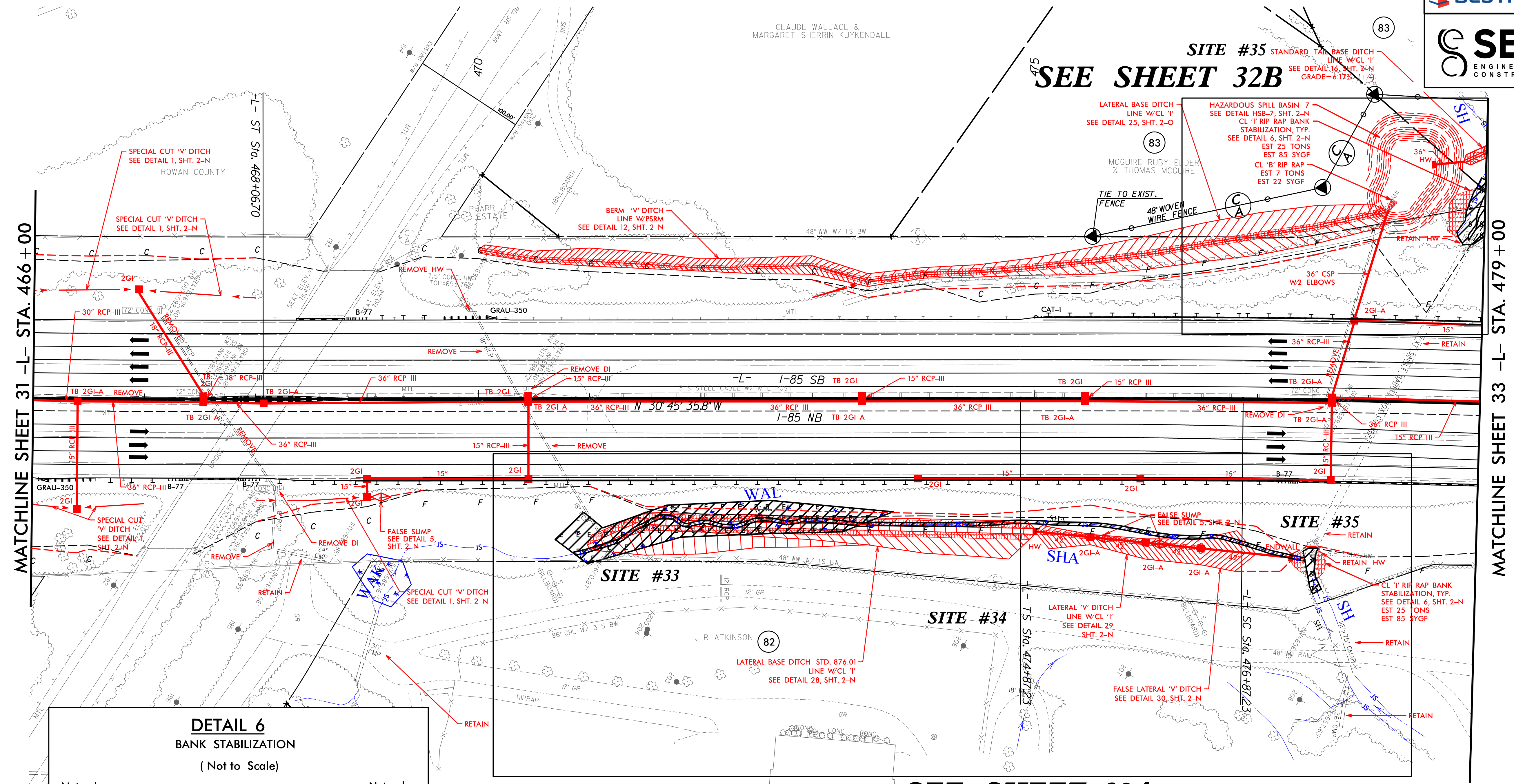


PROJECT REFERENCE NO.		SHEET NO.	
I-3802A		32	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			



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DETAIL 6
BANK STABILIZATION
(Not to Scale)

MIN 2.1 TO 2.5
EXISTING BANK TYP.

2.0', TYP.

GEOTEXTILE, TYP.

CHANNEL BED
(Variable)

Type of Liner = CL '1' Rip-Rap
No Rip Rap Shall Be Placed In Channel Bed

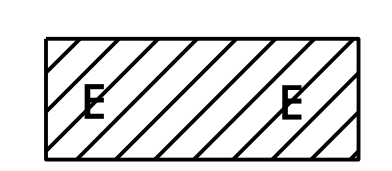
SEE SHEET 32A

CULVERT 3201 APPEARS TO
BE IN GOOD CONDITION,
BASED UPON VISUAL
INSPECTION OF PIPE US
AND DS OF FILL SLOPES.

- NOTES:
- EXISTING PIPE MAY BE RETAINED FOR TEMPORARY DRAINAGE DURING CONSTRUCTION. ONCE PROPOSED DRAINAGE SYSTEM IS INSTALLED AND FUNCTIONING PIPE IS TO BE REMOVED. THE PORTION OF PIPE REMAINING UNDER NEW PAVEMENT IS TO BE PLUGGED AND THE FILLED WITH FLOWABLE FILL.

SEE SHEET 78 & 79 FOR -LSB- & -LNB- PROFILES

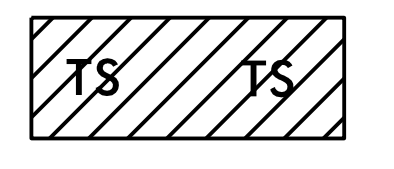
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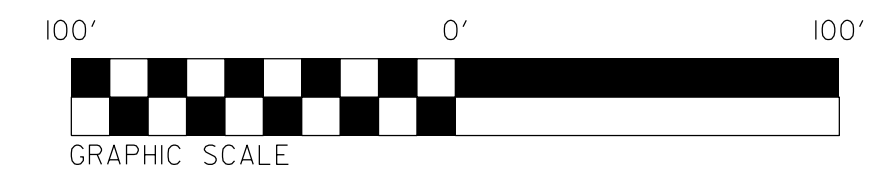
DENOTES EXCAVATION
IN WETLAND



DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



PERMIT DRAWING
SHEET 106 OF 114

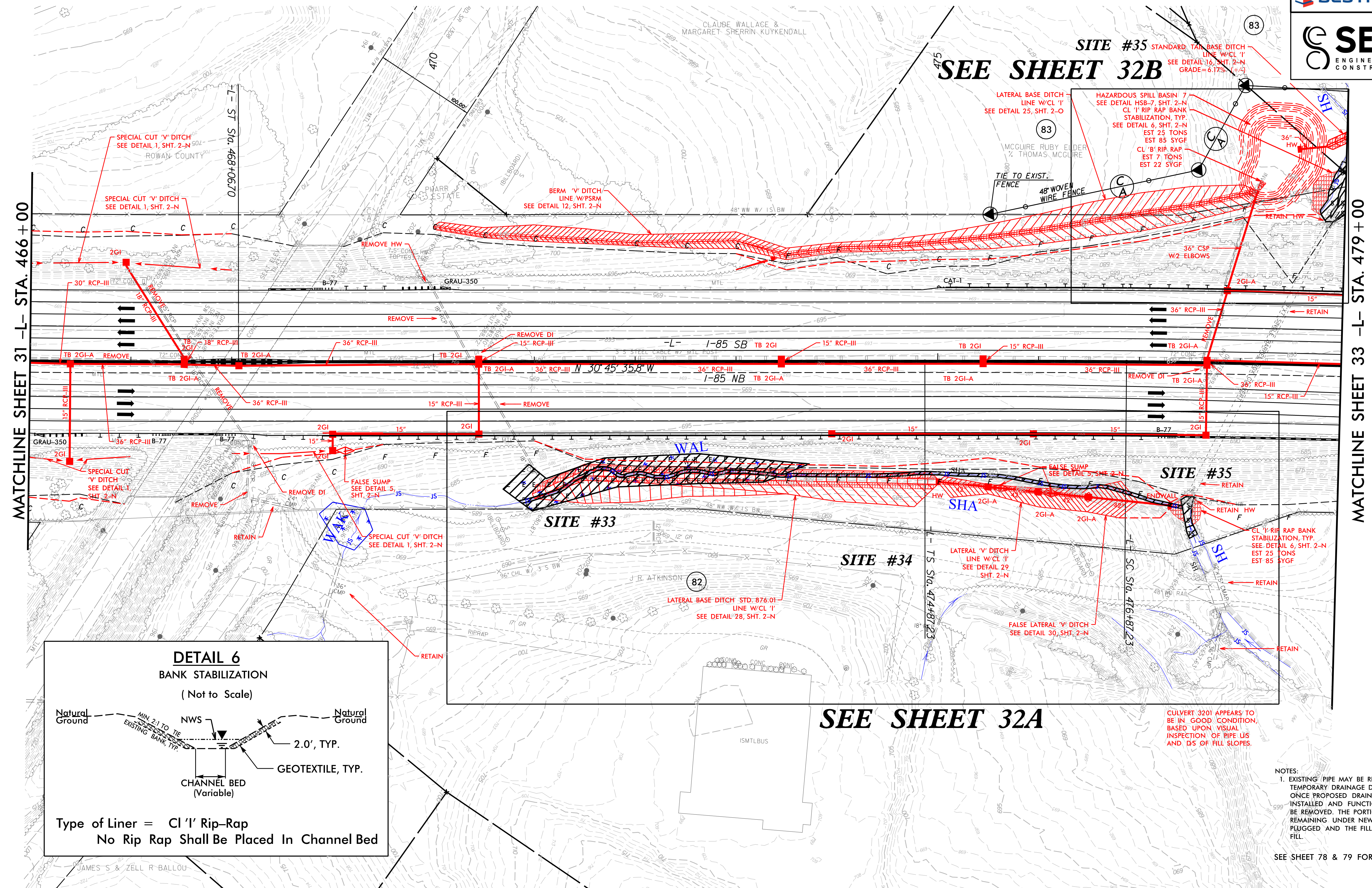
NAD 83 NSRS 2007

PROJECT REFERENCE NO.		SHEET NO.	
I-3802A		32	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			



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DETAIL 6
BANK STABILIZATION
(Not to Scale)

Natural Ground
MIN 2.1 TO 2.5' TO EXISTING BANK TYP.
NWS
2.0', TYP.
GEOTEXTILE, TYP.
CHANNEL BED (Variable)

Type of Liner = CL 1' Rip-Rap
No Rip Rap Shall Be Placed In Channel Bed

SEE SHEET 32A

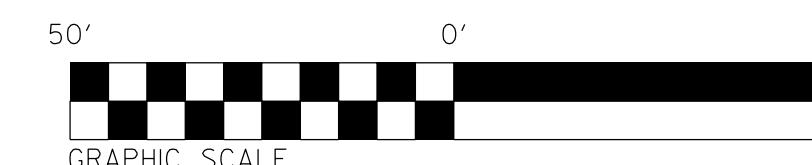
SEE SHEET 32B

CULVERT 3201 APPEARS TO BE IN GOOD CONDITION, BASED UPON VISUAL INSPECTION OF PIPE U/S AND D/S OF FILL SLOPES.

- NOTES:
- EXISTING PIPE MAY BE RETAINED FOR TEMPORARY DRAINAGE DURING CONSTRUCTION. ONCE PROPOSED DRAINAGE SYSTEM IS INSTALLED AND FUNCTIONING PIPE IS TO BE REMOVED. THE PORTION OF PIPE REMAINING UNDER NEW PAVEMENT IS TO BE PLUGGED AND THE FILLED WITH FLOWABLE FILL.

SEE SHEET 78 & 79 FOR -LSB- & -LNB- PROFILES

 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

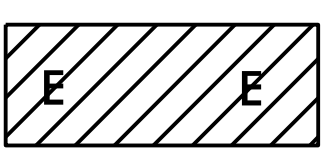


PERMIT DRAWING
SHEET 107 OF 114

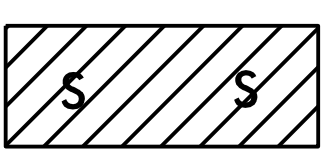
Q10 = 80.8 CFS
V10 = 10.1 FPS

TEMPORARY IMPACTS IN SURFACE WATERS FOR FIRST 10 FEET

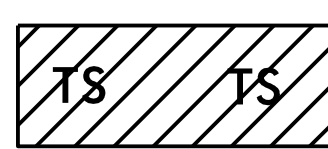
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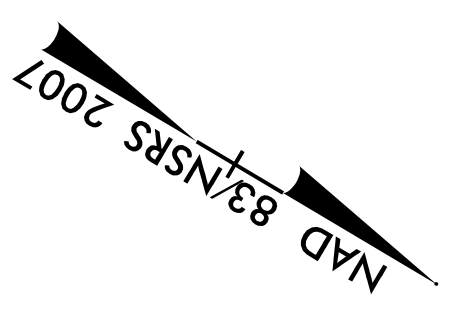
DENOTES EXCAVATION
IN WETLAND



DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

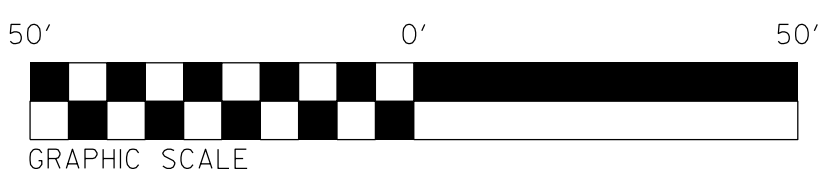


PROJECT REFERENCE NO.		SHEET NO.
I-3802A		32A
R/W SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION		

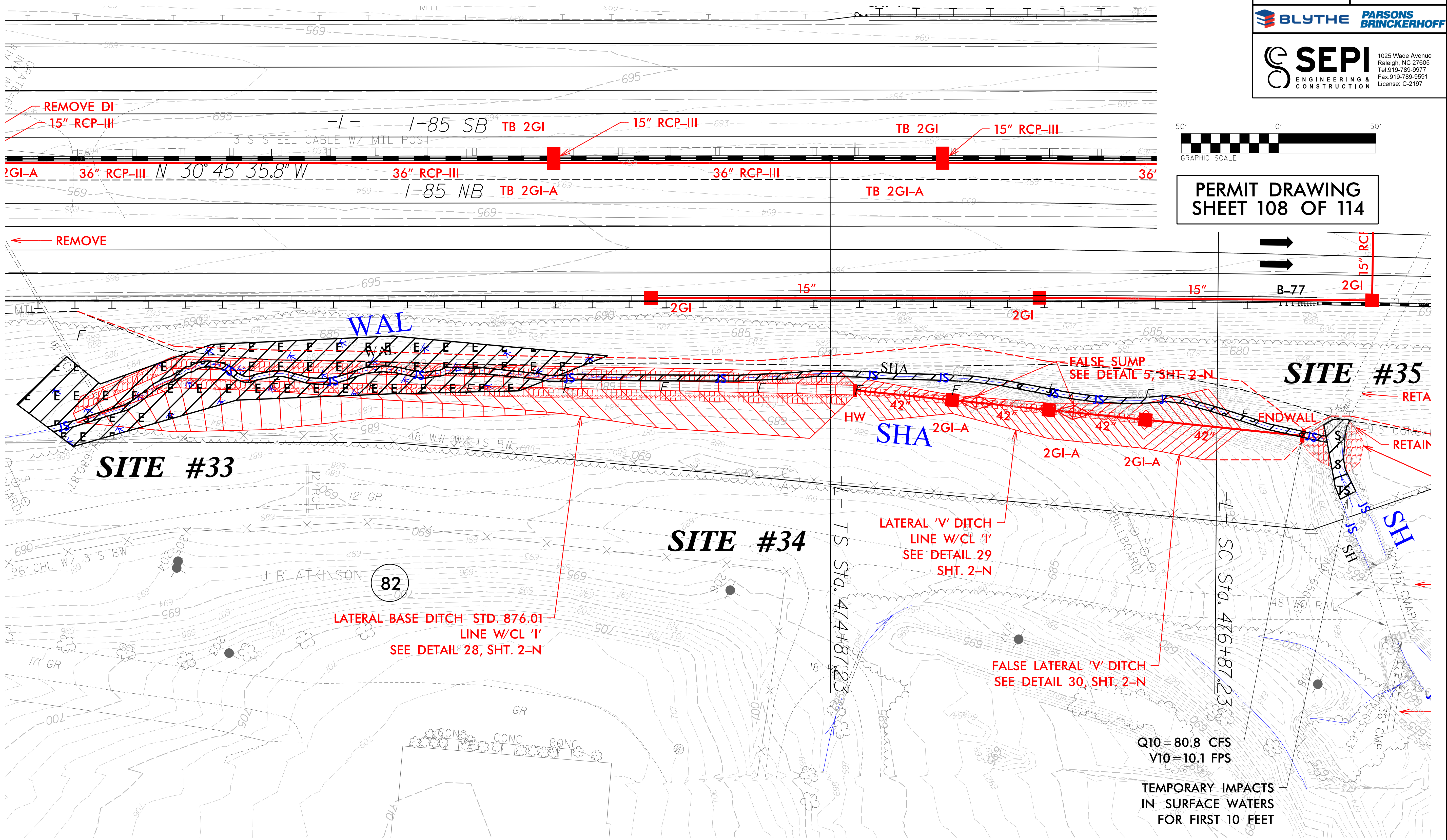


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Fax: 919-789-9591
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PERMIT DRAWING
SHEET 108 OF 114



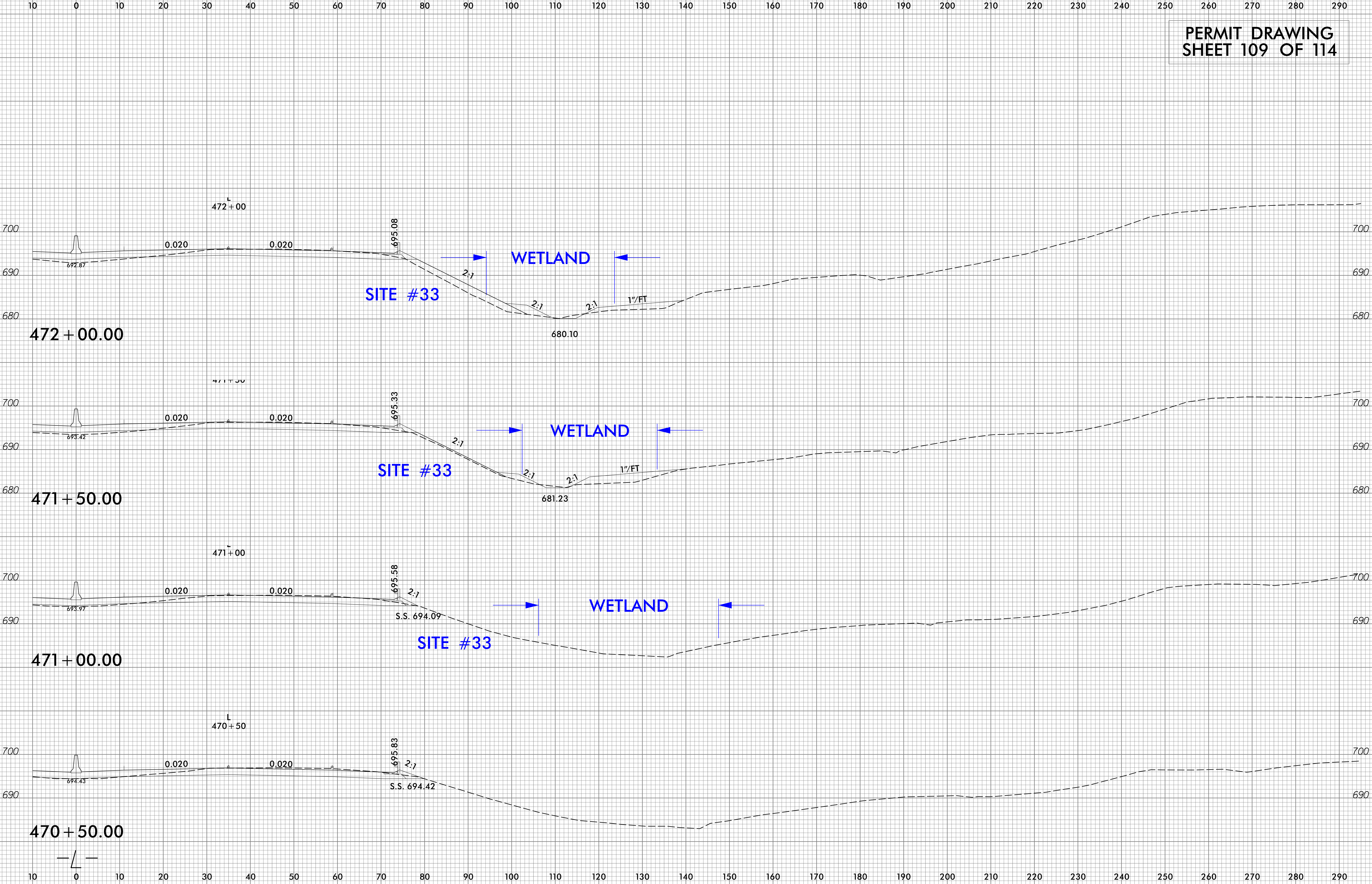
Q10=80.8 CFS
V10=10.1 FPS

TEMPORARY IMPACTS
IN SURFACE WATERS
FOR FIRST 10 FEET

8/23/99

0 5 10 [Scale Bar]	PROJ. REFERENCE NO. I-3802A	SHEET NO. X-479
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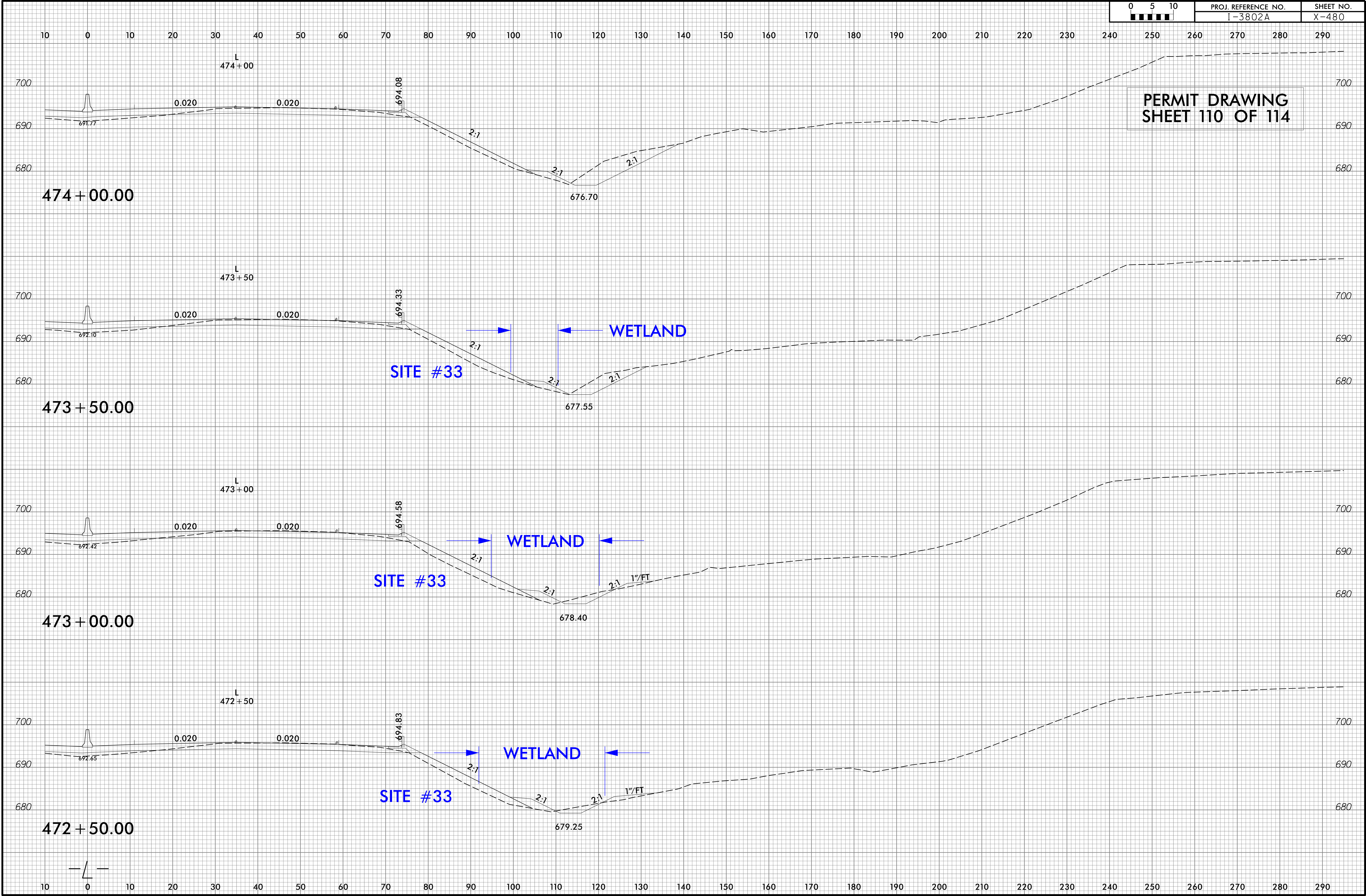
PERMIT DRAWING
SHEET 109 OF 114



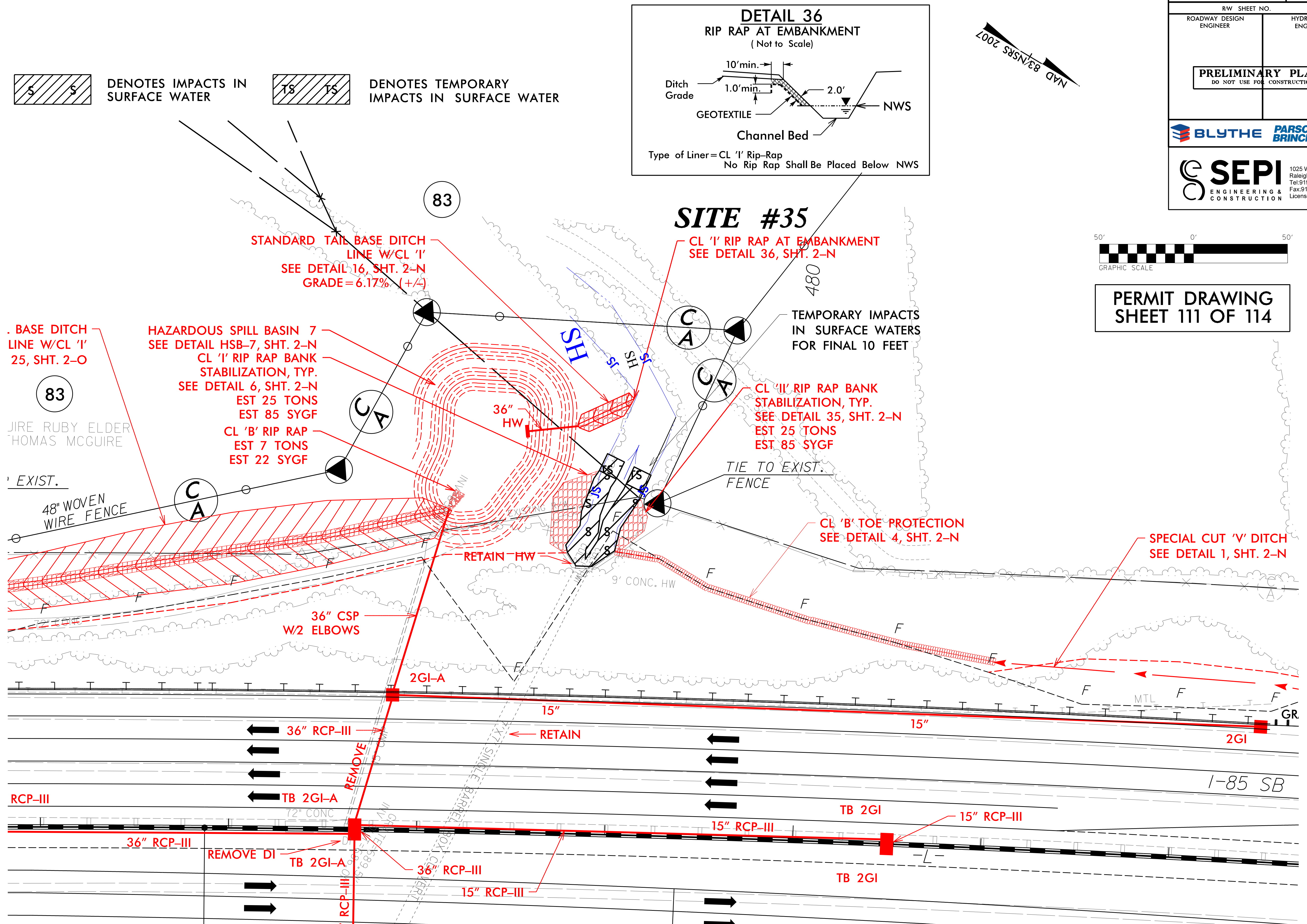
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8/23/99

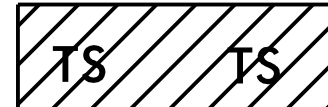
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	I-3802A	X-480

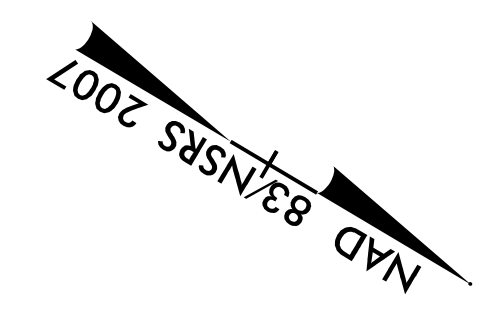
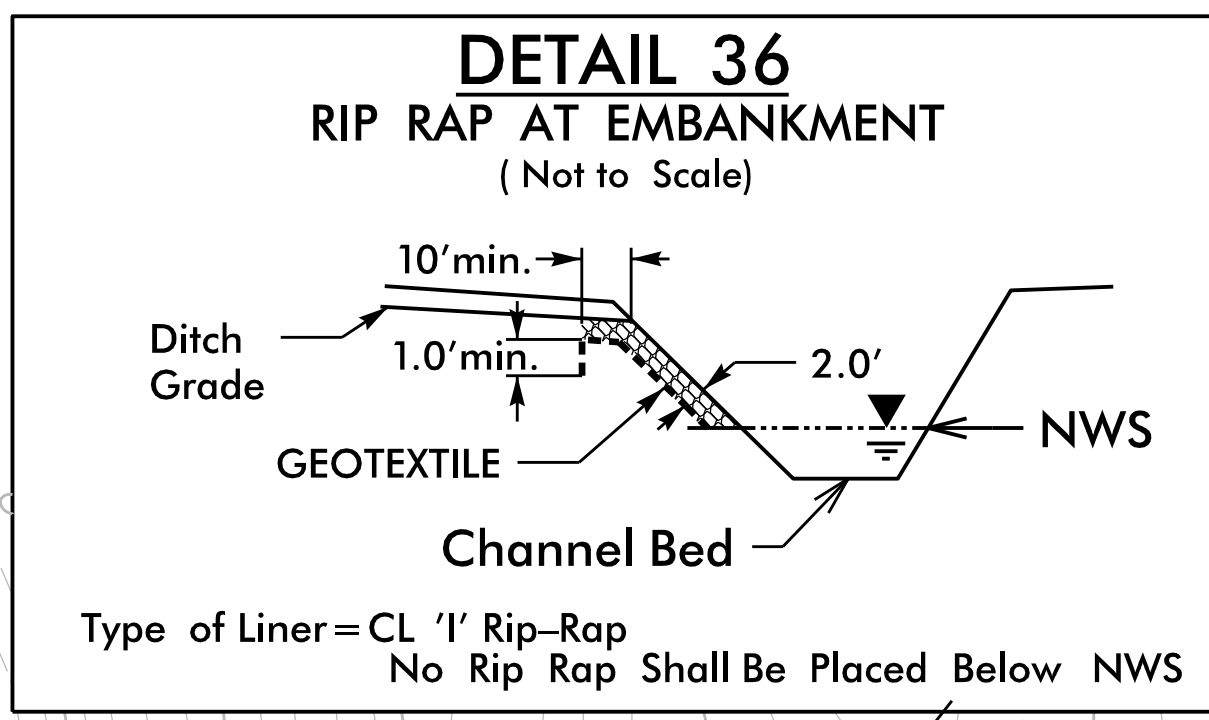


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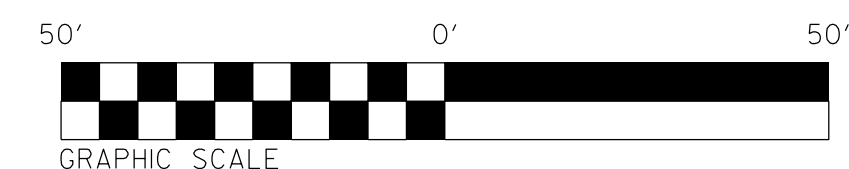


 DENOTES IMPACTS IN SURFACE WATER

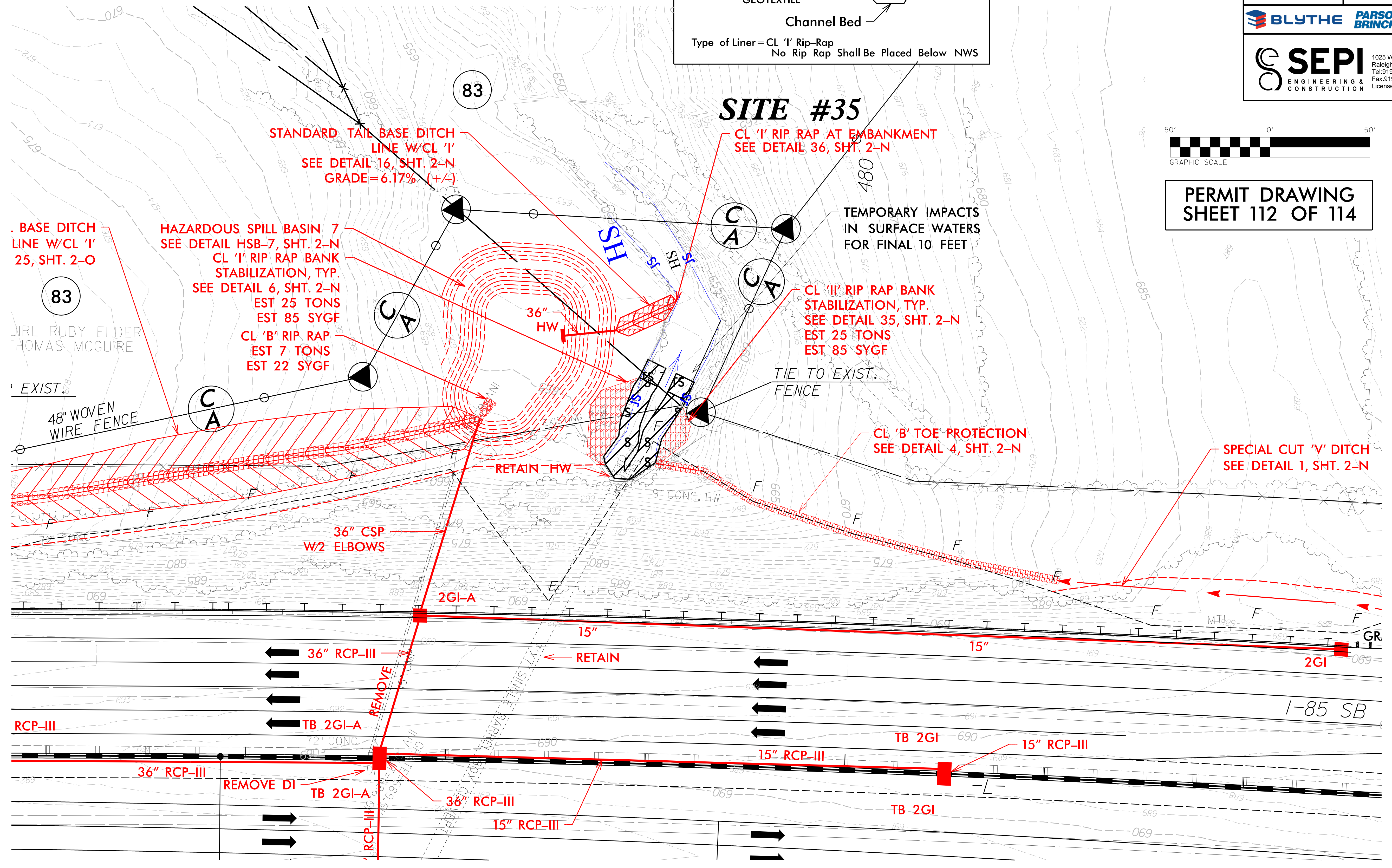
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER



PROJECT REFERENCE NO. I-3802A		SHEET NO. 32B	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			
			
			



PERMIT DRAWING
SHEET 112 OF 114



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						< 0.010	< 0.010	15.000	10.000	
2	94+68 -L-	BANK STABILIZATION						0.020		137.000	30.000	
3	97+00 -L-	EX 30" RCP						< 0.010		15.000	10.000	
3	99+00 -L-	BANK STABILIZATION							< 0.010		10.000	
4	157+27 -L-	EX 42" RCP						< 0.010		7.000	10.000	
4	157+25 -L-	BANK STABILIZATION						< 0.010	< 0.010	14.000	10.000	
5	61+30 -Y7-	ENERGY DISIPATION						< 0.010		10.000		
6	193+25 -L-	LATERAL BASE DITCH						0.010		50.000		
7	193+00 -L-	FILL						0.030	0.010	170.000	33.000	
7	195+25 -L-	PIPE OUTLET						< 0.010	< 0.010	10.000	14.000	
8	195+25 -L-	LATERAL BASE DITCH						< 0.010	< 0.010	18.000	10.000	
9	205+50 -L-	STANDARD BASE DITCH						< 0.010	< 0.010	5.000	10.000	
10	231+00 -L-	CHANNEL CHANGE						0.110	< 0.010	666.000	40.000	
11	239+20 -L-	BANK STABILIZATION						< 0.010		16.000		
12	241+00 -L-	BANK STABILIZATION						< 0.010	< 0.010	12.000	10.000	
12	241+40 -L-	EX 48" RCP							< 0.010		10.000	
12	248+00 -L-	EX 48" RCP								25.000		
12	248+00 -L-	LATERAL 'V' DITCH						0.010	< 0.010	10.000	10.000	
13	267+70 -L-	36" CSP	0.080				0.010					
14	268+45 -L-	FILL						0.030	< 0.010	106.000	16.000	
14	267+00 -L-	EX 36" CMP					0.010	< 0.010		3.000		
15	269+50 -L-	EX 42" CMP						0.010		23.000		
15	269+50 -L-	BANK STABILIZATION						< 0.010	< 0.010	18.000	4.000	
15	271+00 -L-	42" RCP-CD						0.010		60.000		
16	279+00 -L-	24" RCP-III	0.010									
17	305+00 -L-	FILL, OTCB					0.010	< 0.010		9.000		
17	306+00 -L-	30" RCP-IV						< 0.010		12.000		
17	306+00 -L-	BANK STABILIZATION						< 0.010	< 0.010	16.000	12.000	
18	338+00 -L-	BANK STABILIZATION						0.030		185.000	20.000	
19	340+00 -L-	2' LATERAL BASE DITCH	< 0.010					0.070	< 0.010	375.000	15.000	
20	350+50 -L-	54" RCP-III						0.010	< 0.010	18.000	10.000	
20	352+00 -L-	BANK STABILIZATION						< 0.010	< 0.010	19.000	10.000	
21	48+75 -Y3-	42" CSP						0.040		210.000		
21	48+75 -Y3-	BANK STABILIZATION						< 0.010	< 0.010	15.000	20.000	
22	50+00 -Y3-	54" RCP-III						0.020		128.000		
22	50+00 -Y3-	BANK STABILIZATION						< 0.010	< 0.010	15.000	10.000	
22	50+00 -Y3-	FILL						< 0.010		17.000		
23	58+00 -Y3-	42" RCP-III	0.090			0.030	< 0.010	0.040	0.010	154.000	60.000	
23	58+00 -Y3-	BANK STABILIZATION						< 0.010		11.000		
24	16+00 -Y34-	36" RCP-III	< 0.010					0.020	< 0.010	80.000	10.000	

NOTES: See Sheet 114 for Totals

