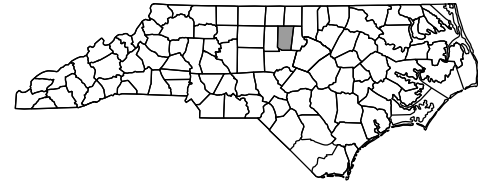
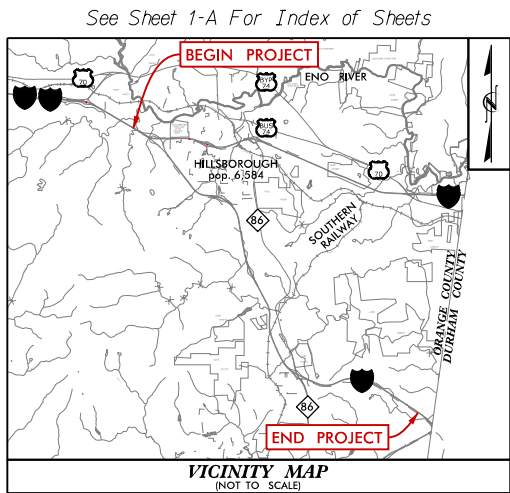


09/08/99

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CONTRACT: C204632 TIP PROJECT: I-3306A / W-5707C



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

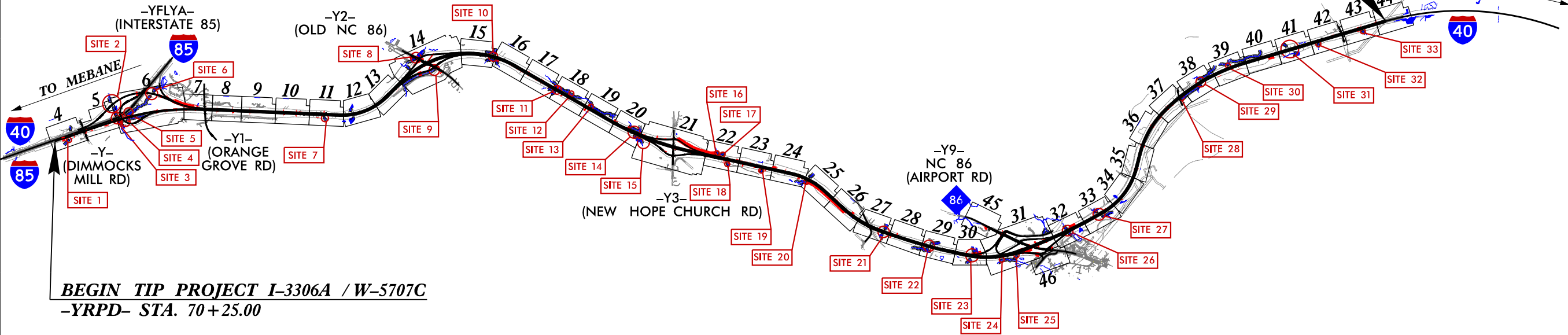
ORANGE COUNTY

LOCATION: I-40 WIDENING FROM I-85 IN ORANGE COUNTY TO THE DURHAM COUNTY LINE WITH INTERCHANGE MODIFICATIONS, INCLUDING THE I-40 / NC-86 INTERCHANGE; AND I-40 WESTBOUND TEMPORARY PAVEMENT MARKING AND OVERHEAD LANE USE SIGN MODIFICATIONS NEAR US 15-501 IN DURHAM COUNTY

TYPE OF WORK: DESIGN-BUILD AS SPECIFIED IN THE SCOPE OF WORK CONTAINED IN THE REQUEST FOR PROPOSALS

**I-3306A
RIPARIAN BUFFER IMPACTS**

END TIP PROJECT I-3306A / W-5707C
-L- STA. 550+00.00



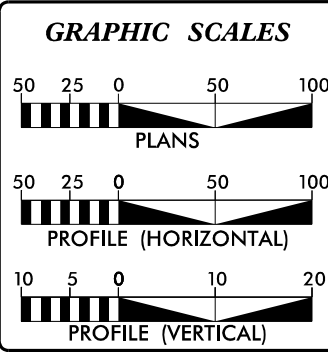
BEGIN TIP PROJECT I-3306A / W-5707C
-YRPD- STA. 70+25.00

LANE

HDR HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

**BUFFER DRAWING
SHEET 1 OF 41**

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**



DESIGN DATA

ADT 2019 =	68,200
ADT 2040 =	106,000
K =	6.5 %
D =	60 %
T =	18 % *
V =	70 MPH
*TTST =	11% DUAL = 3%
FUNC CLASS =	INTERSTATE
STATEWIDE TIER	

PROJECT LENGTH

LENGTH ROADWAY -L- (I-40) =	11.304 MILES
LENGTH STRUCTURES -L- (I-40) =	0.096 MILES
TOTAL LENGTH TIP PROJECT I-3306A / W-5707C =	11.40 MILES

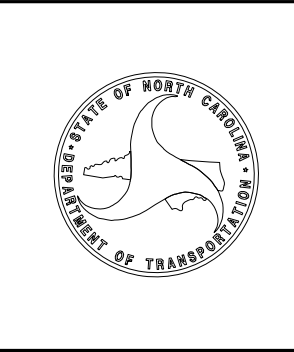
NCDOT CONTACT: RON McCOLLUM, P.E.
DESIGN-BUILD ASSISTANT MANAGER

Prepared In the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2018 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: AUGUST 17, 2021	ANTHONY G. THOMPSON, P.E. PROJECT ENGINEER
LETTING DATE: AUGUST 17, 2021	CALVIN MOODY, P.E. PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

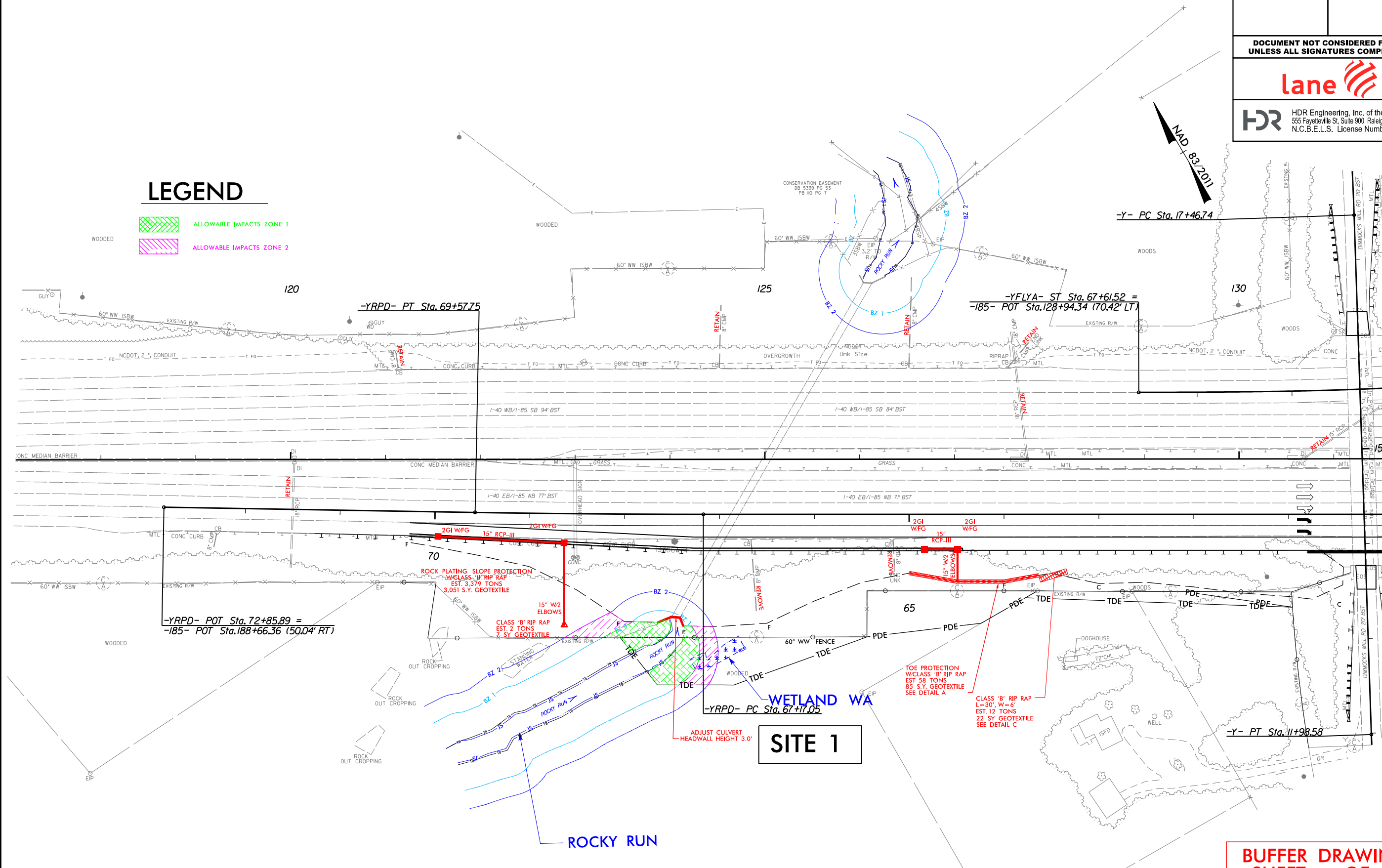
SIGNATURE: _____ P.E.
ROADWAY DESIGN ENGINEER
SIGNATURE: _____ P.E.



LEGEND

 ALLOWABLE IMPACTS ZONE 1

 ALLOWABLE IMPACTS ZONE 2

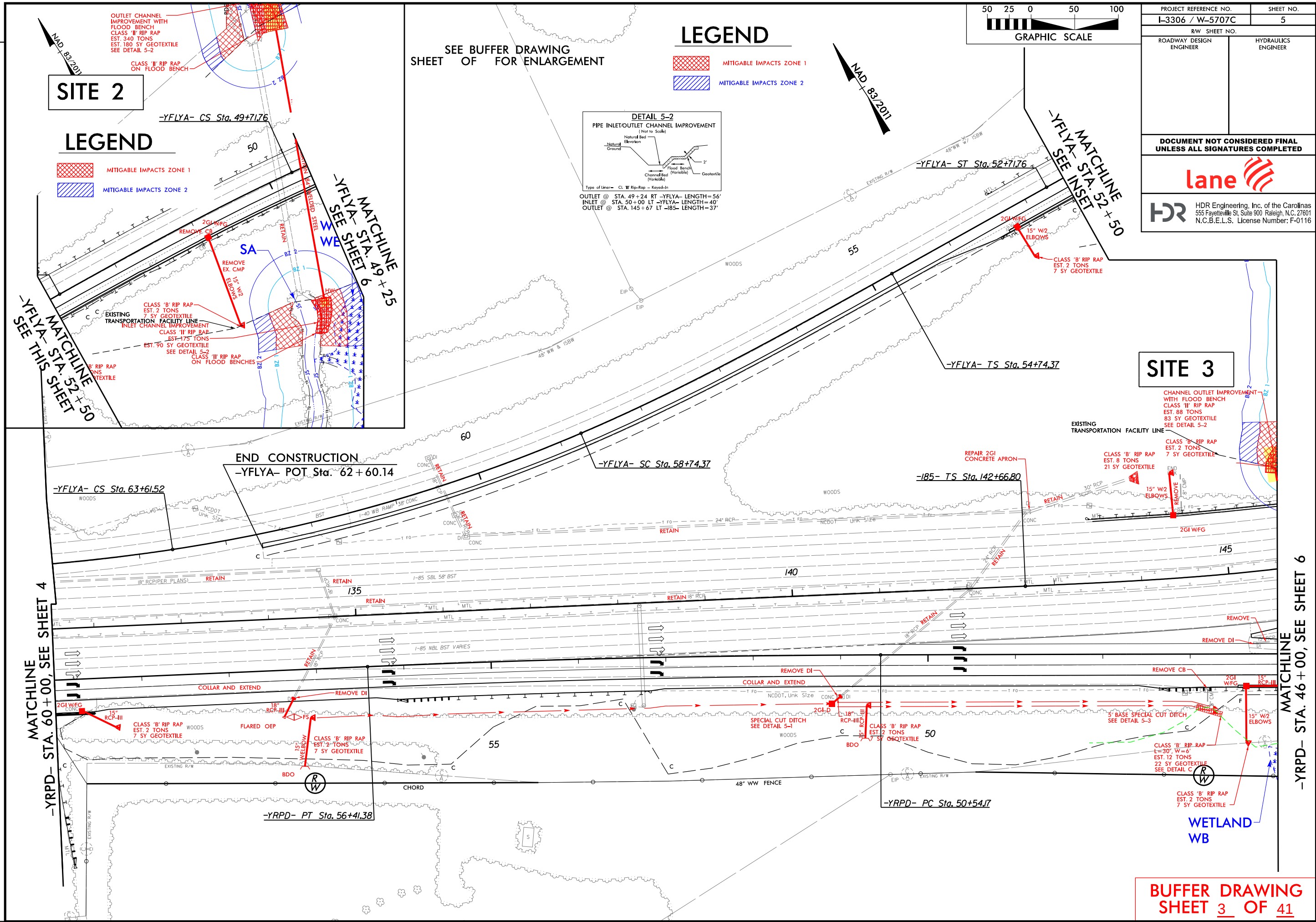


BUFFER SHEET 2 OF 41

MATCHLINE
-YRPD- STA. 60+00, SEE SHEET 5

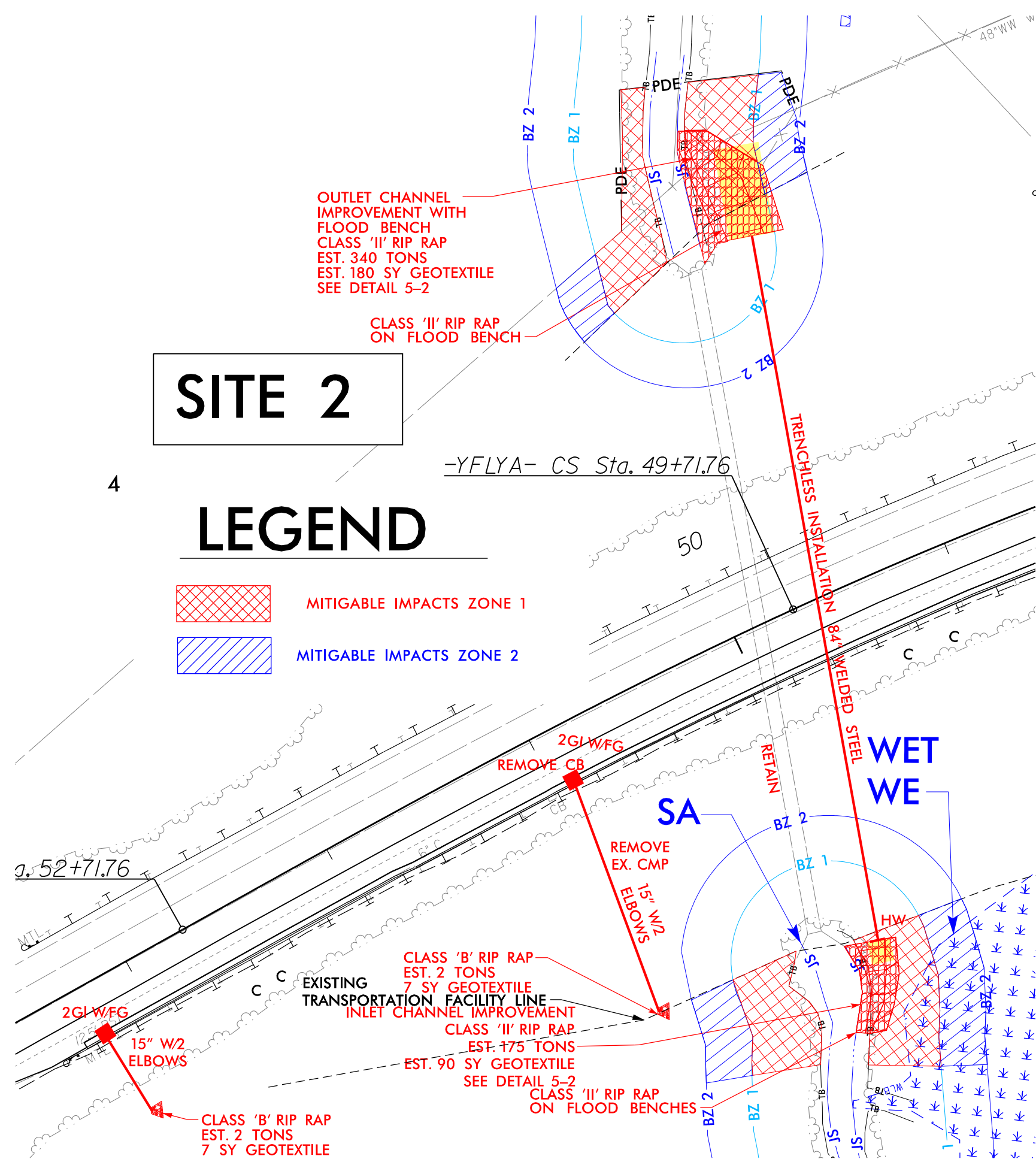
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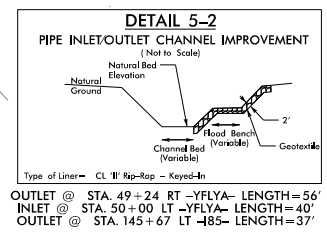
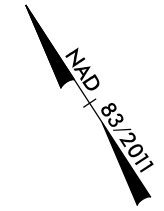
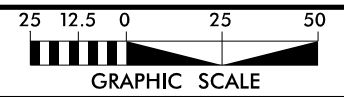
REVISIONS



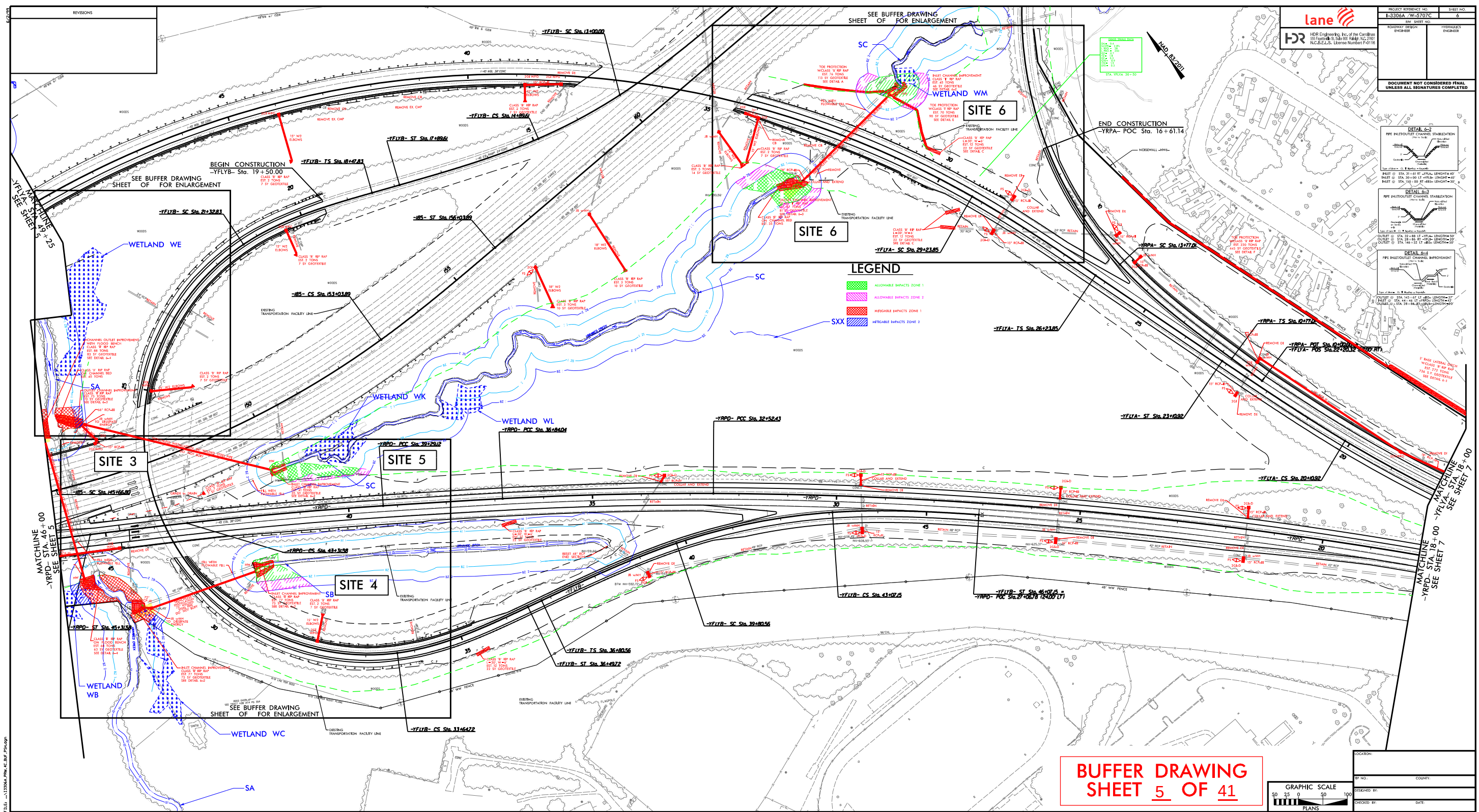
SITE 2

LEGEND

-  MITIGABLE IMPACTS ZONE 1
-  MITIGABLE IMPACTS ZONE 2



PROJECT REFERENCE NO.		SHEET NO.	
I-3306 / W-5707C		5A	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
			
 HDR Engineering, Inc. of the Carolinas 555 Fayetteville St. Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116			



REVISIONS

lane

FOR

FOR ENGINEERING, INC. OF THE CAROLINAS
255 FARMER ST. SUITE 100 RALEIGH, NC 27601
N.C. REG. LICENSE NUMBER F-0119

PROJECT REFERENCE NO.	SHEET NO.
I-3306A / W-5707C	6
RDWY DESIGN	PROJ. NO.
ENGINEER	ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

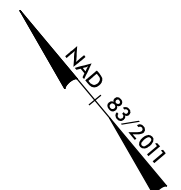
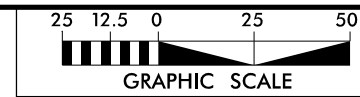
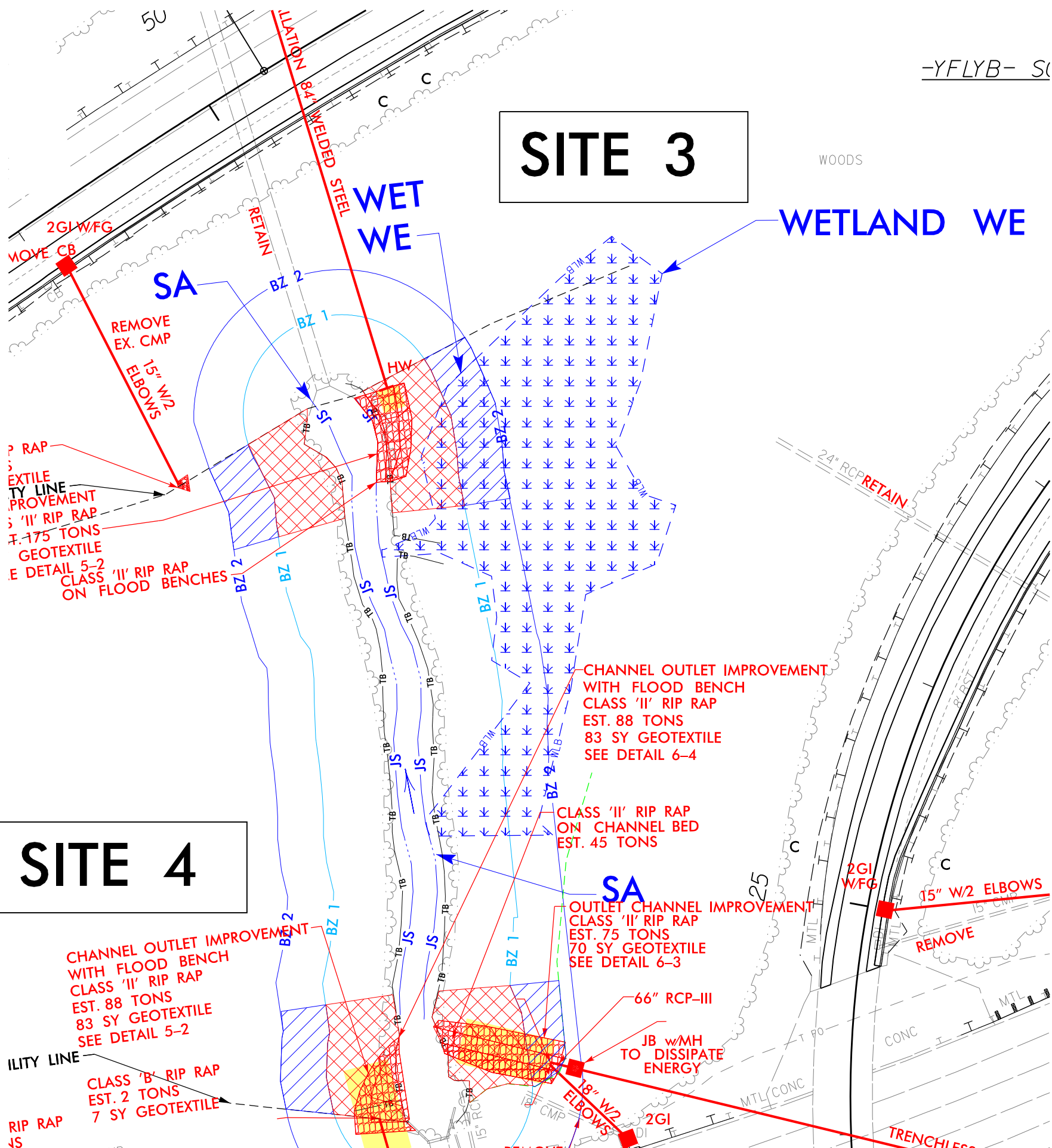
DETAIL 6-2
PIPE INLET/OUTLET CHANNEL STABILIZATION
INLET @ STA. 21+48.17 - 21+51.14 - LENGTH=22.97
OUTLET @ STA. 20+49.17 - 21+14.14 - LENGTH=64.97

DETAIL 6-3
PIPE INLET/OUTLET CHANNEL STABILIZATION
INLET @ STA. 22+48.17 - 22+51.14 - LENGTH=22.97
OUTLET @ STA. 14+44.14 - 14+51.14 - LENGTH=7.00

DETAIL 6-4
PIPE INLET/OUTLET CHANNEL STABILIZATION
INLET @ STA. 14+44.14 - 14+51.14 - LENGTH=7.00
OUTLET @ STA. 14+44.14 - 14+51.14 - LENGTH=7.00

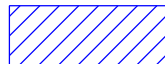
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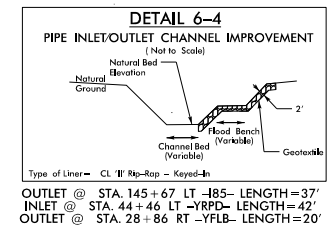
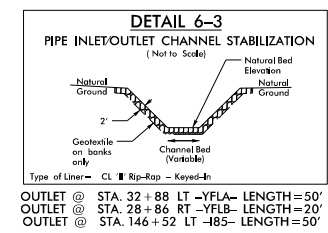
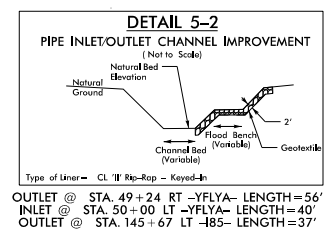
REVISIONS



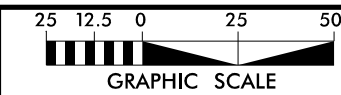
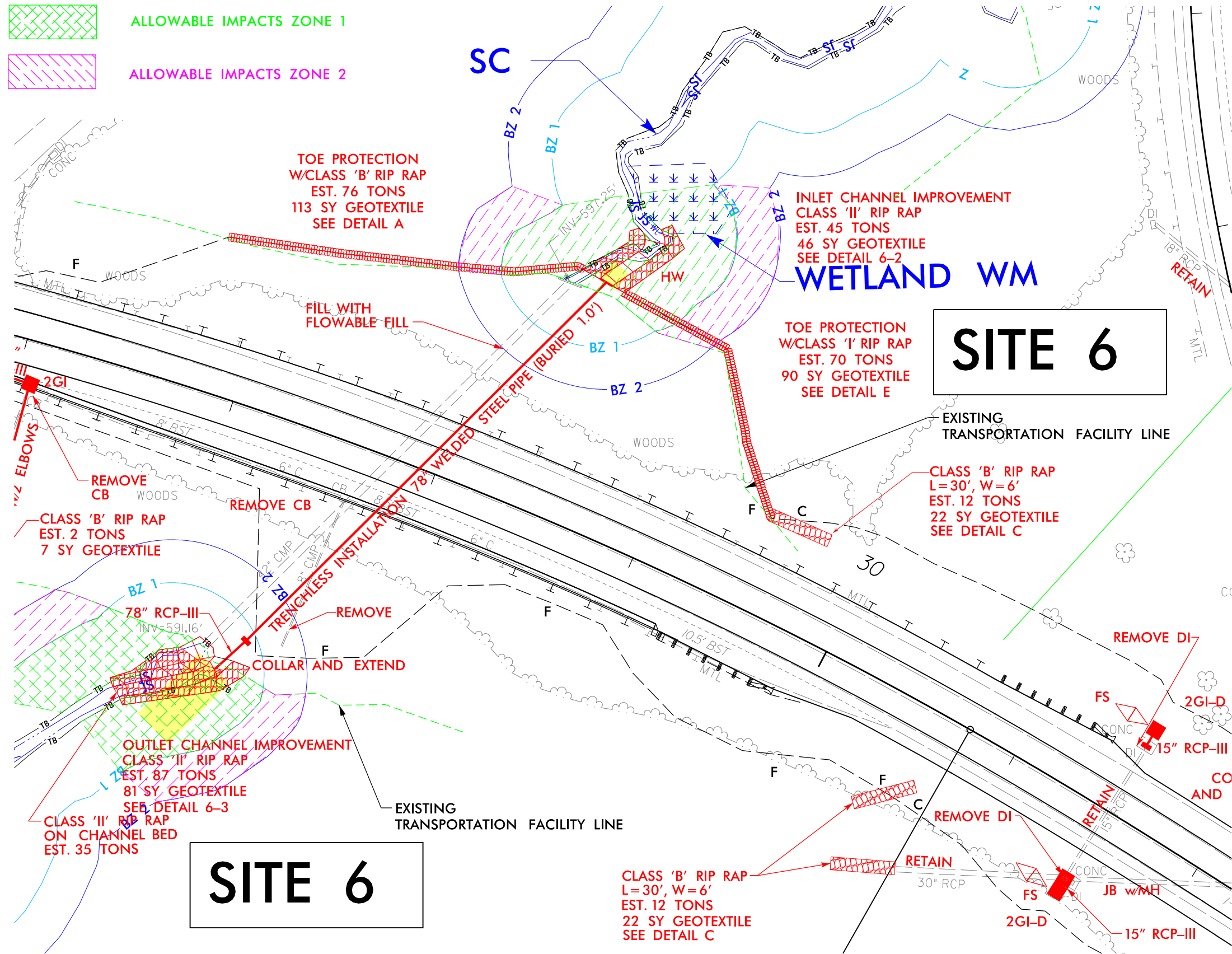
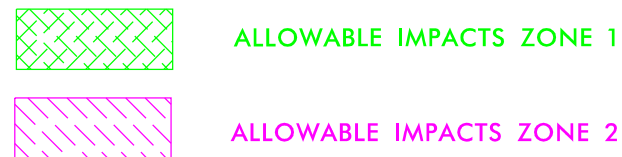
PROJECT REFERENCE NO.		SHEET NO.	
I-3306 / W-5707C		6A	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

LEGEND

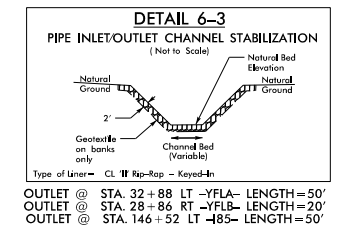
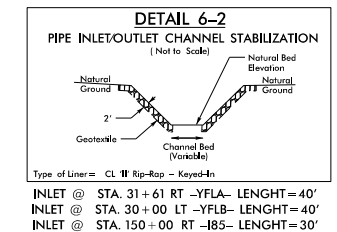
-  MITIGABLE IMPACTS ZONE 1
-  MITIGABLE IMPACTS ZONE 2



LEGEND



PROJECT REFERENCE NO.		SHEET NO.
I-3306 / W-5707C		6C
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
		
	HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	



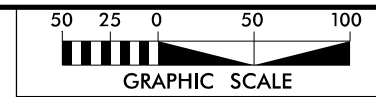
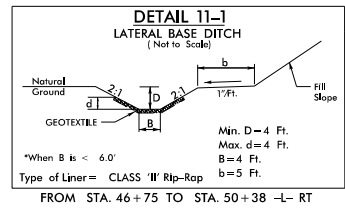
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DATE: 4/5/2022

REVISIONS

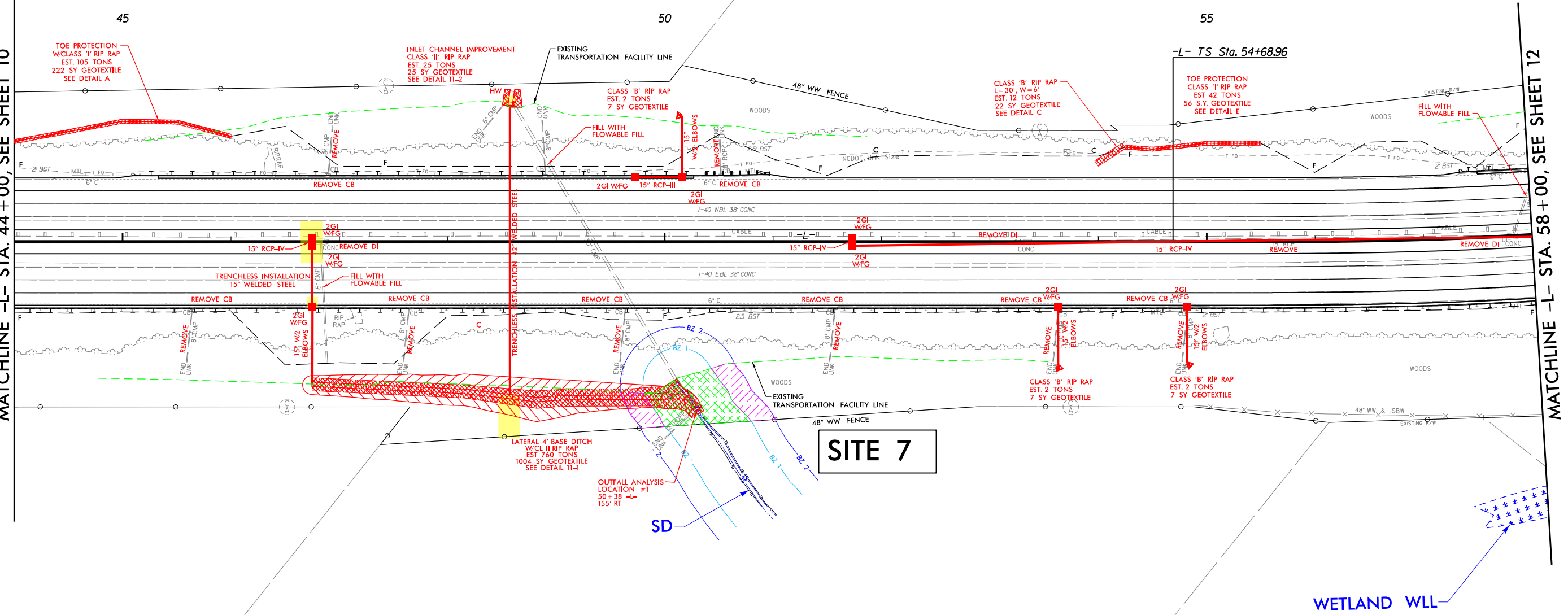
MATCHLINE -L- STA. 44+00, SEE SHEET 10

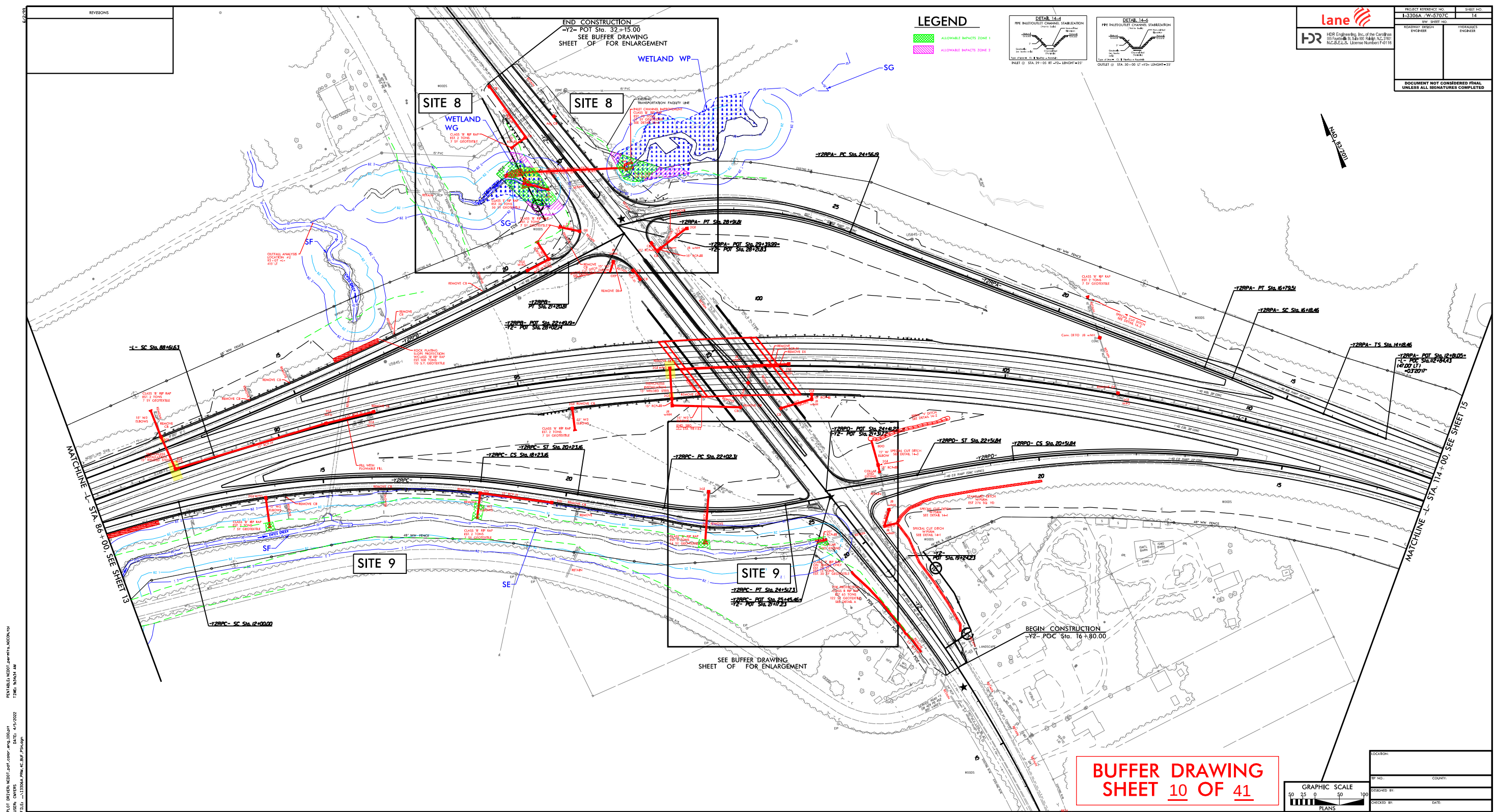
LEGEND

- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2



PROJECT REFERENCE NO.		SHEET NO.	
I-3306 / W-5707C		11	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			





WETLAND WP

SITE 8

WETLAND WG

CLASS 'B' RIP RAP
EST. 2 TONS
7 SY GEOTEXTILE

SITE 8

— EXISTING
TRANSPORTATION FACILITY LINE

INLET CHANNEL IMPROVEMENT
CLASS 'II' RIP RAP
EST. 70 TONS
57 SY GEOTEXTILE
SEE DETAIL 14-4

NAD 83/2011

DETAIL 14-4
PIPE INLET/OUTLET CHANNEL STABILIZATION
(Not to Scale)

Natural Ground

2:1

Geotextile
(on banks only)

Channel Bed
(Variable)

Natural Bed Elevation

Natural Ground

Keyed-In

Type of Liner = CL W Rip-Rop - Keyed-In

INLET @ STA. 29 + 05 RT -Y2- LENGTH = 25'

DETAIL 14-6

PIPE INLET/OUTLET CHANNEL STABILIZATION
(Not to Scale)

Labels in diagram:
Natural Ground
2'
Geotextile (on banks only)
Channel Bed (Variable)
Natural Bed Elevation
Natural Ground

Type of Liner = CL 11' Rip-Rap - Keyed-In

OUTLET @ STA. 30+00 LT -Y2- LENGTH = 25'

LEGEND

ALLOWABLE IMPACTS ZONE 1

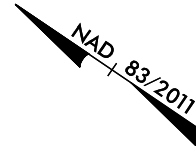
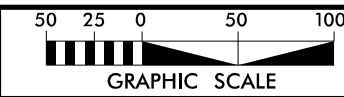
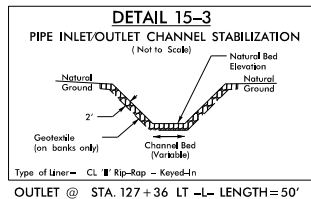
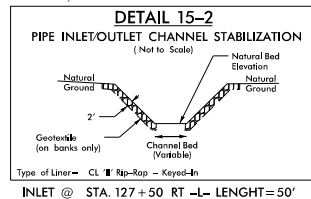
ALLOWABLE IMPACTS ZONE 2

BUFFER DRAWING
SHEET 11 OF 41

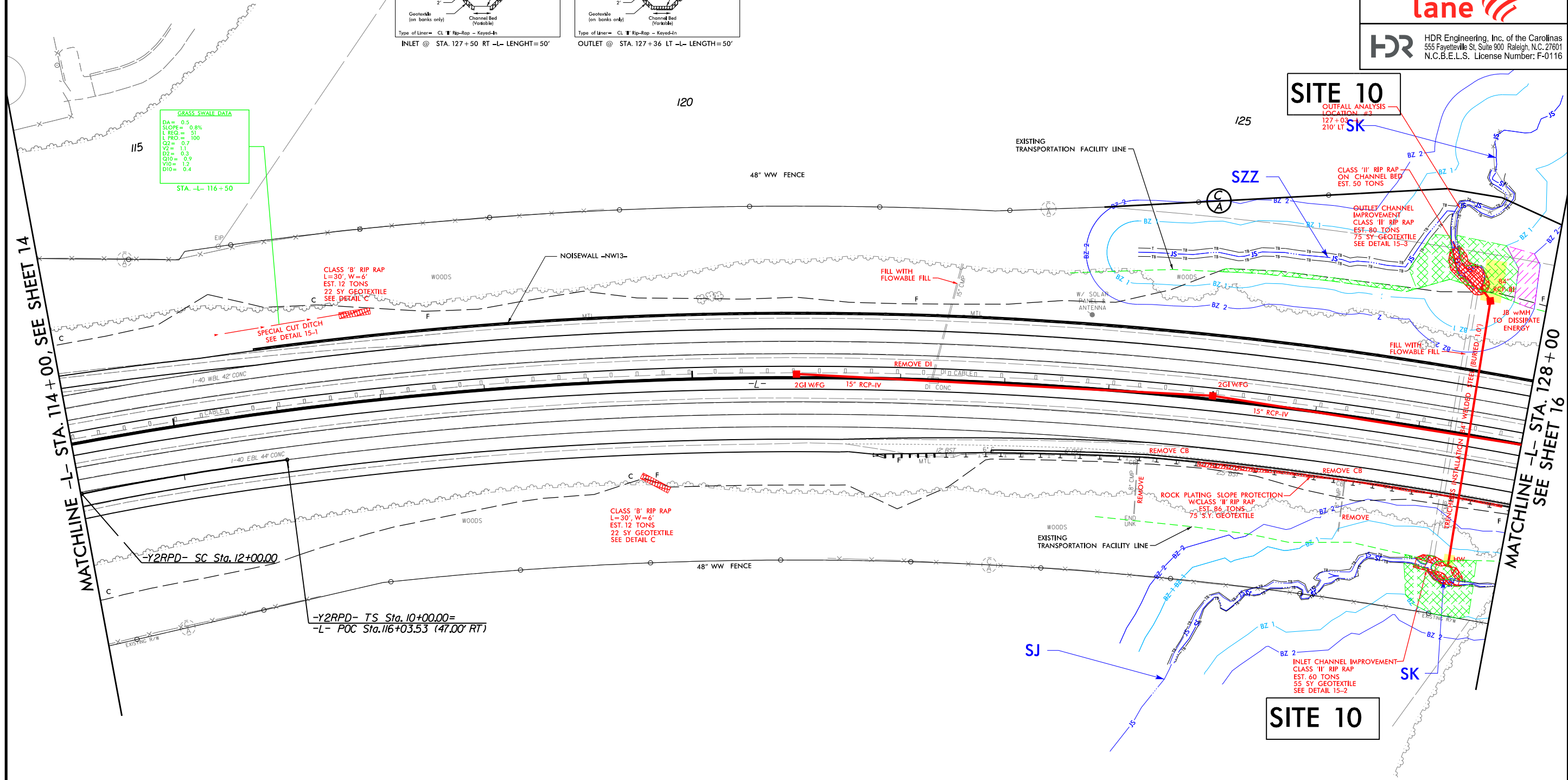
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DATE: 4/5/2022

LEGEND

- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2



PROJECT REFERENCE NO.		SHEET NO.	
I-3306 / W-5707C		15	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
lane 			
HDR		HDR Engineering, Inc. of the Carolinas 555 Fayetteville St. Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	

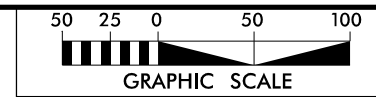
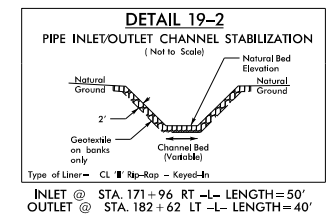


REVISIONS

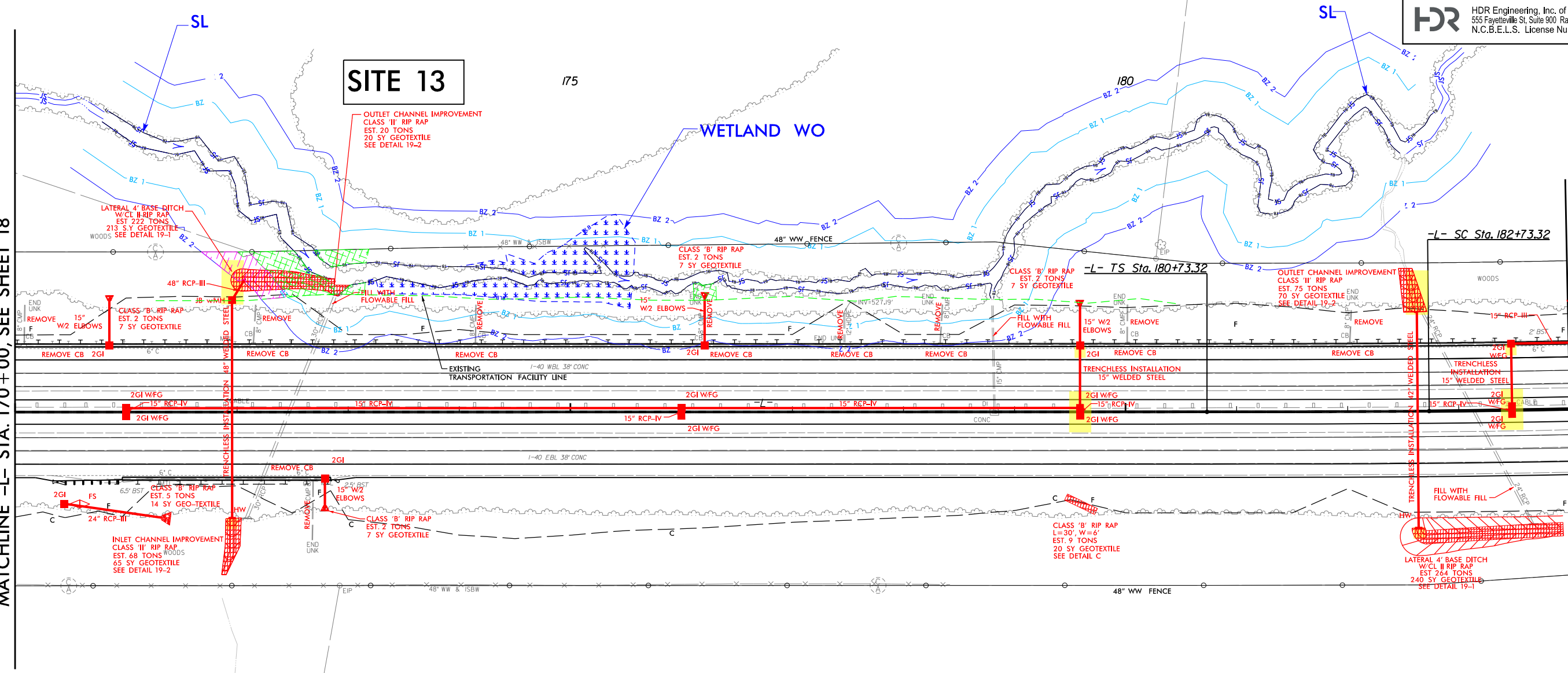
MATCHLINE -L- STA. 170+00, SEE SHEET 18

LEGEND

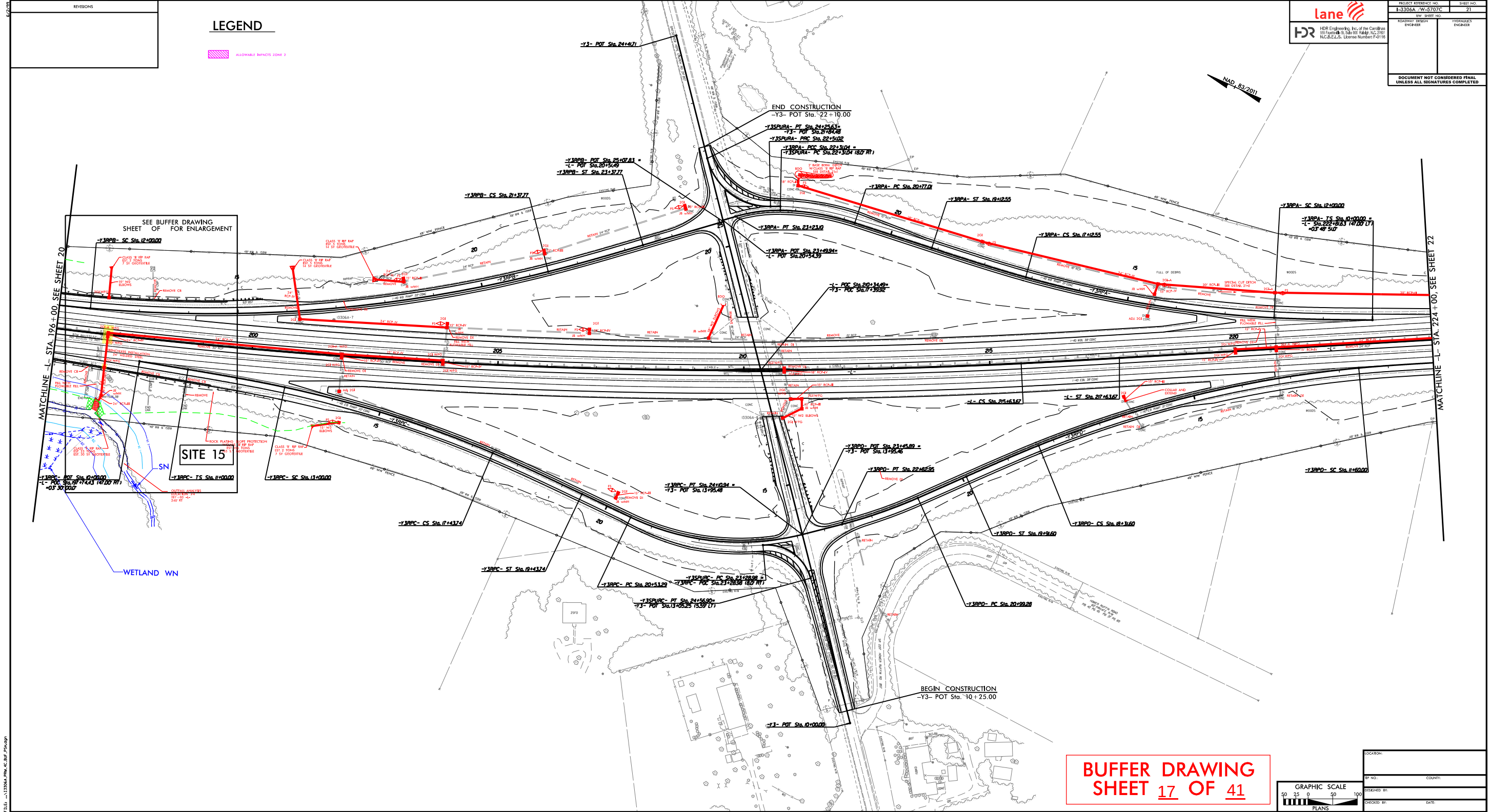
- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2



PROJECT REFERENCE NO. I-3306 / W-5707C		SHEET NO. 19
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116		



MATCHLINE -L- STA. 184+00, SEE SHEET 20

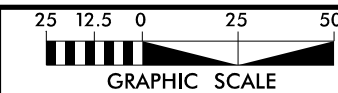


PROJECT REFERENCE NO. I-3306A-W-5707C	SHEET NO. 21
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

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 DATE: 4/1/2022
 TIME: 10:04:41 AM

BUFFER DRAWING
 SHEET 17 OF 41

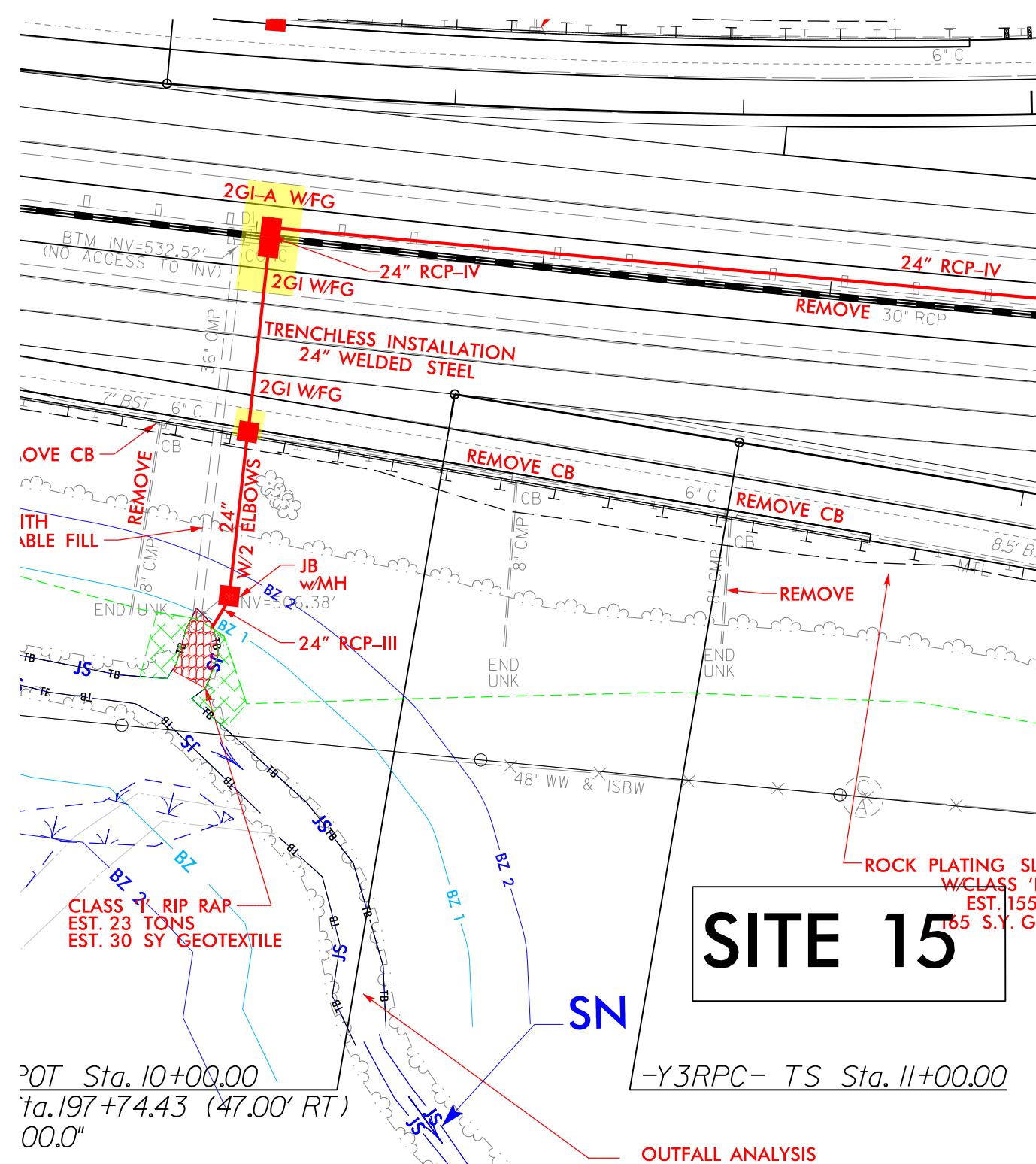
GRAPHIC SCALE 0 25 50 100 FEET	
LOCATION:	COUNTY:
DESIGNED BY:	CHECKED BY:
DATE:	DATE:



PROJECT REFERENCE NO.	SHEET NO.
I-3306 / W-5707C	21A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED 	
 HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. Registration Number: F-0111	



LEGEND



BUFFER DRAWING
 SHEET 18 OF 41

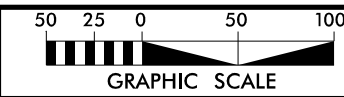
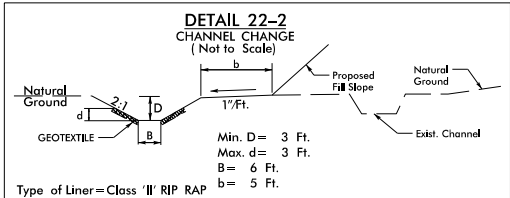
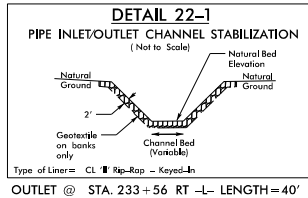
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PLOT DRIVER: NCDOT_pdf_color_eng_100.plt
USER: CMYERS DATE: 4/5/2022
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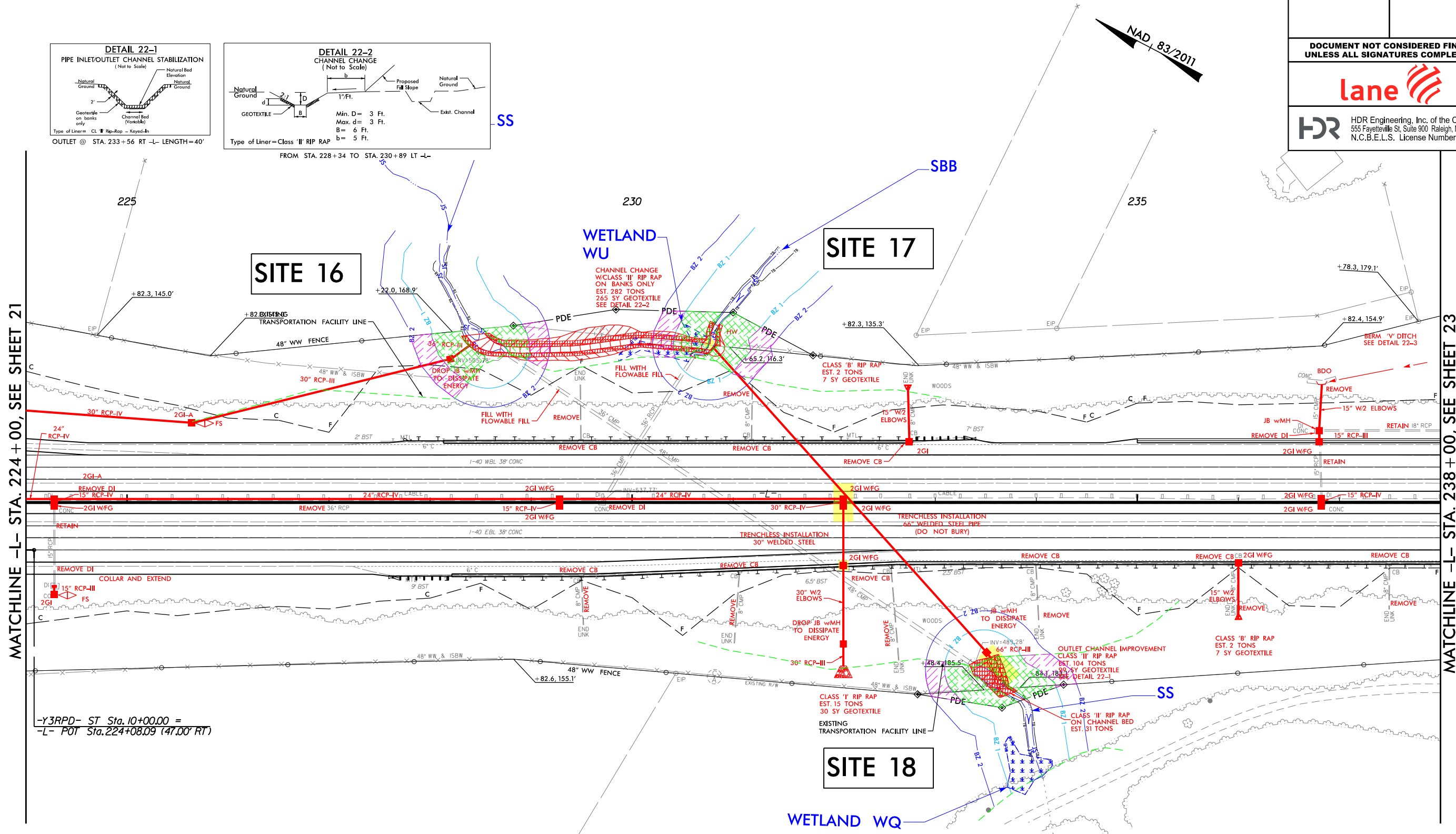
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DATE: 4/5/2022

LEGEND

- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2

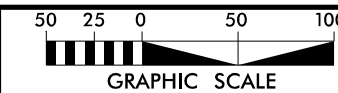
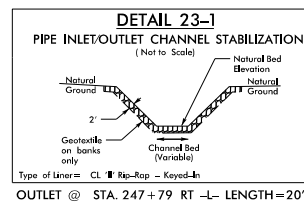


PROJECT REFERENCE NO.		SHEET NO.	
I-3306 / W-5707C		22	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



MATCHLINE -L- STA. 238+00, SEE SHEET 22

LEGEND



NAD / 83/201

PROJECT REFERENCE NO.	SHEET NO.
I-3306 / W-5707C	23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED 	
	HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0111

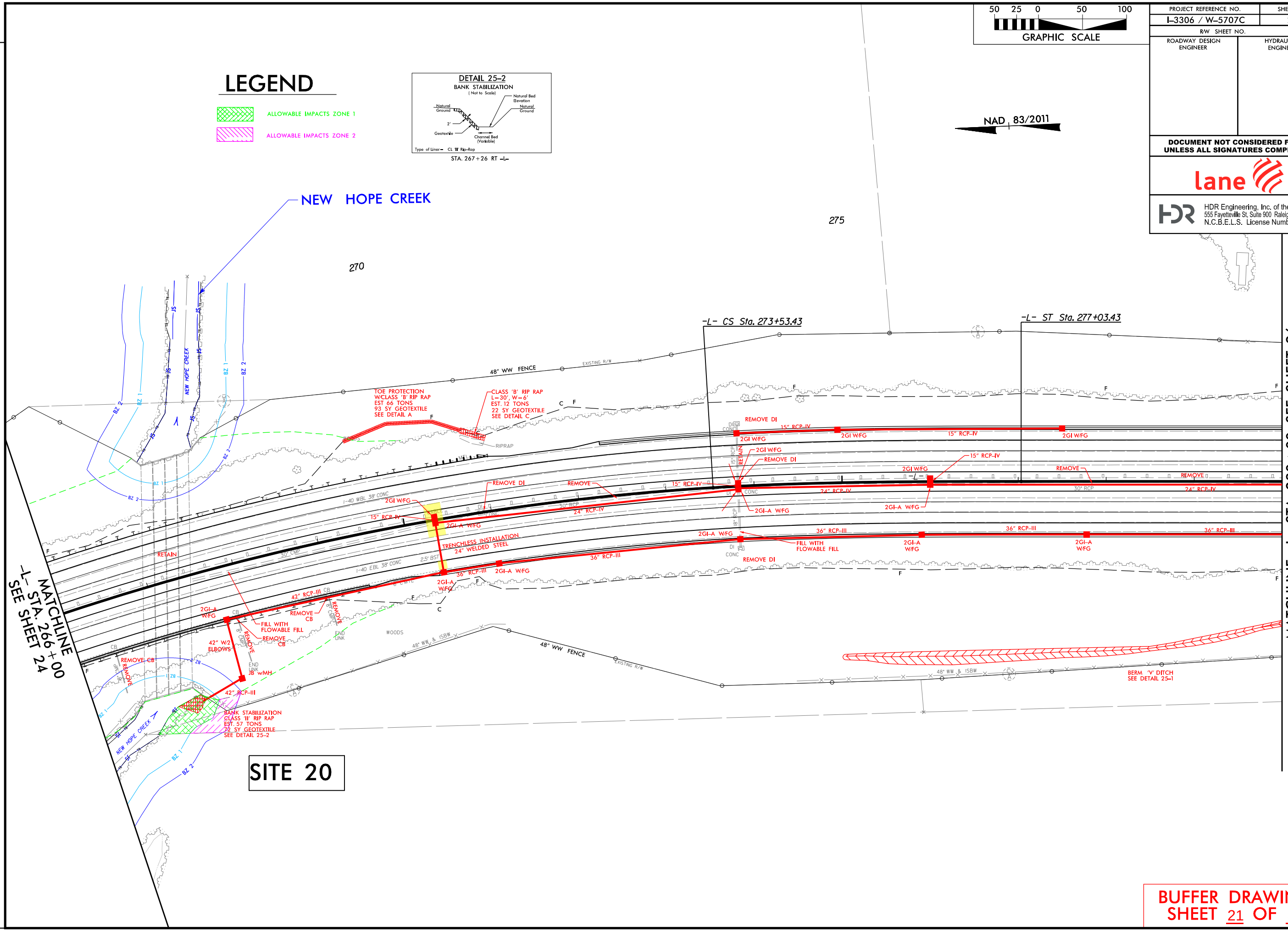
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SITE 19

BUFFER DRAWING SHEET 20 OF 41

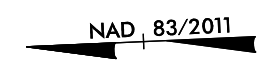
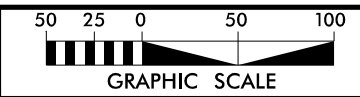
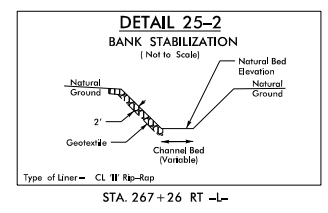
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TIME: 9:36:24 AM
DATE: 4/5/2022

REVISIONS



LEGEND

- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2

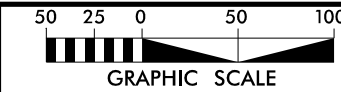
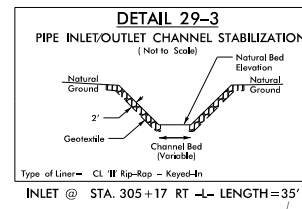
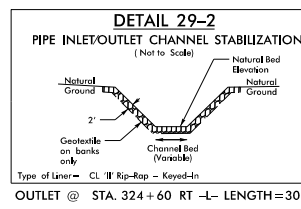
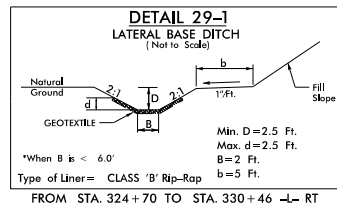


PROJECT REFERENCE NO.		SHEET NO.
I-3306 / W-5707C		25
RW SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
lane 		
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116		

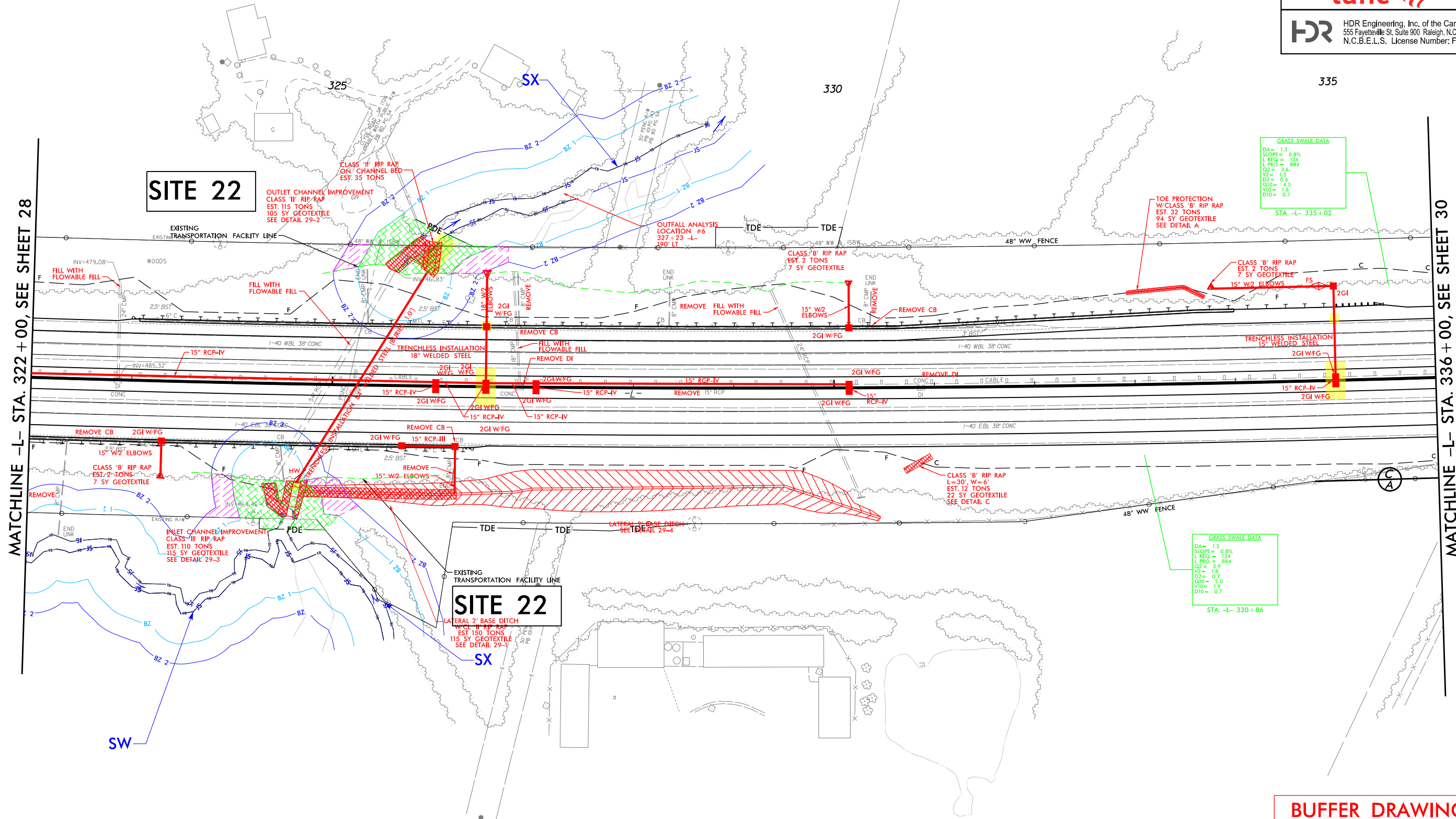
REVISIONS

LEGEND

- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2



PROJECT REFERENCE NO.		SHEET NO.	
I-3306 / W-5707C		29	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
			
 HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116			



DETAIL A
TOE PROTECTION
(Not To Scale)

Natural Ground

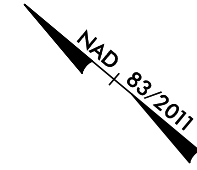
$d = 2 \text{ Ft.}$
 $b = 5 \text{ Ft.}$

2:1 or Flatter Fill Slope

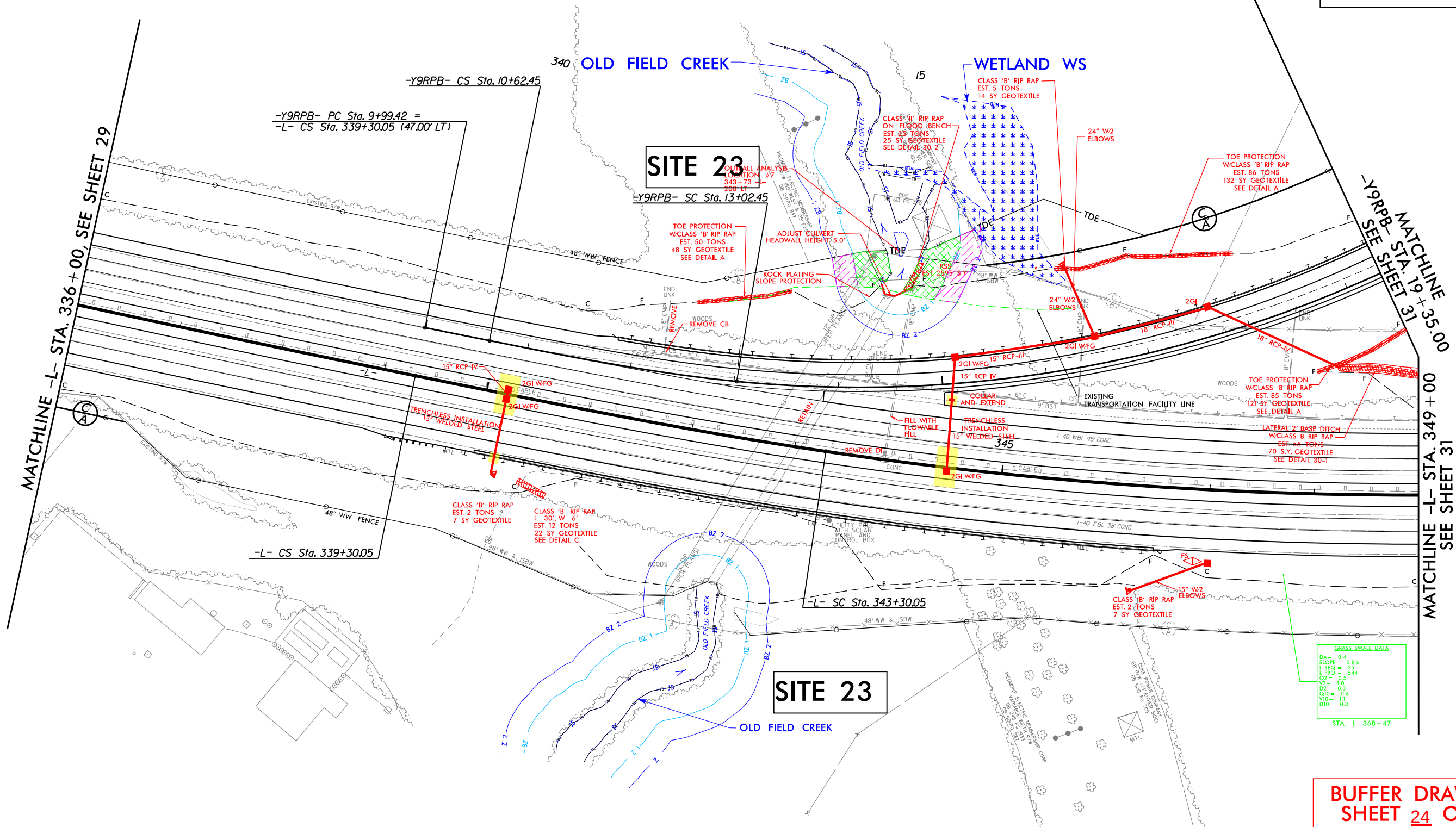
Geotextile

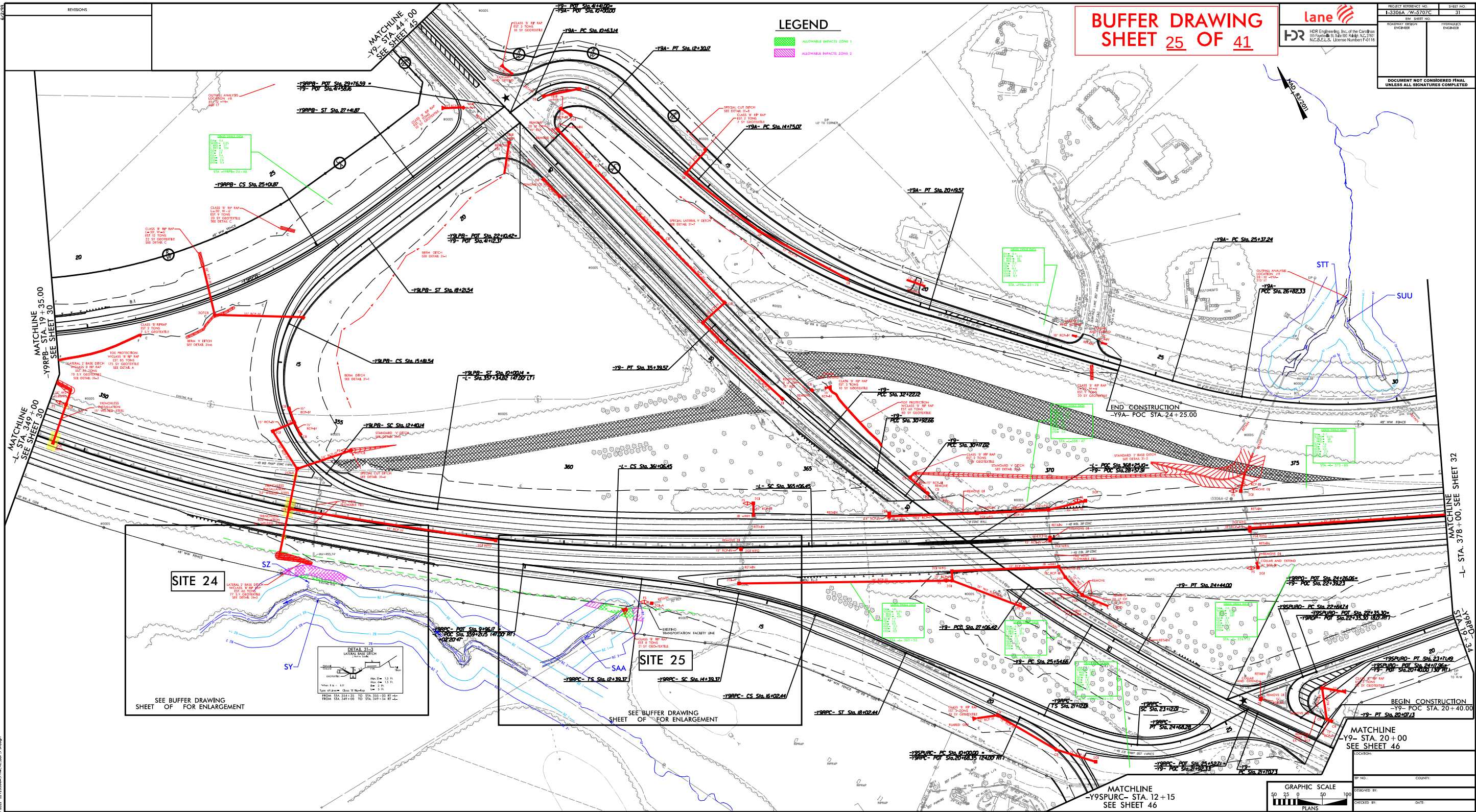
Type of Liner = Class 'B' Rip-Rap

FROM STA. 12 + 55 TO STA. 13 + 50 LT -Y9RPB-
FROM STA. 16 + 25 TO STA. 18 + 06 LT -Y9RPB-
FROM STA. 18 + 45 TO STA. 21 + 05 RT -Y9RPB-



PROJECT REFERENCE NO.	SHEET NO.
I-3306 / W-5707C	30
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
	
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REVISIONS

PROJECT REFERENCE NO.

I-3306A-W-5707C

SHEET NO.

31

REV. SHEET NO.

ROADWAY DESIGN

ENGINEER

DOCUMENT NOT CONSIDERED FINAL

UNLESS ALL SIGNATURES COMPLETED

lane

INC.

1000 Engineering, Inc. of the Carolinas

555 Fayetteville St., Suite 600 Raleigh, NC 27601

N.C. B.C.E.C.S. License Number F-0119

PROJ. NO.

COUNTY:

DESIGNED BY:

CHECKED BY:

DATE:

GRAPHIC SCALE

0 25 50 100

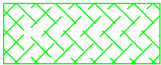
PLANS

BUFFER DRAWING

SHEET 25 OF 41

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USER: C:\PLOT\1000\1000-01\1000-01.dwg
DATE: 4/1/2022
TIME: 10:00:00 AM
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DATE: 4/1/2022
TIME: 10:00:00 AM

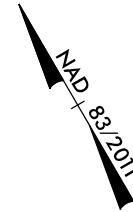
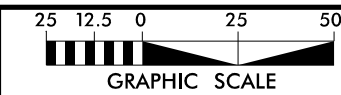
LEGEND



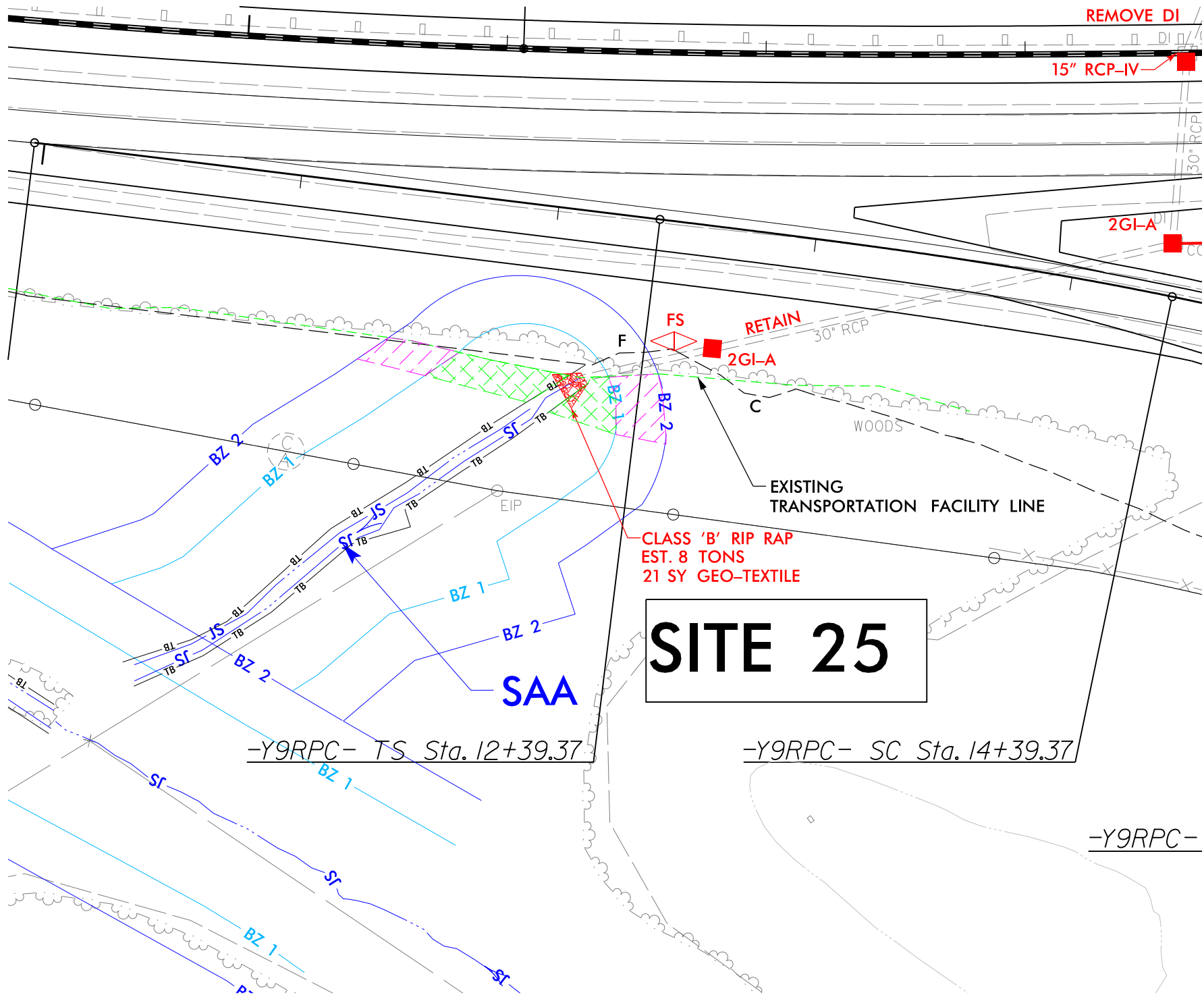
ALLOWABLE IMPACTS ZONE 1



ALLOWABLE IMPACTS ZONE 2



PROJECT REFERENCE NO.		SHEET NO.
I-3306 / W-5707C		31B
RAW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
lane		
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116		



PLOT DRIVER: NCDOT_pdf_color_eng-100.plt
USER: CMYERS
FILE: ...\\I3306A_PRM-4C.BUF.PSH.dgn
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TIME: 9:37:24 AM
DATE: 4/5/2022

REVISIONS

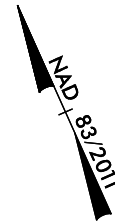
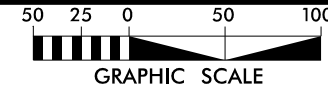
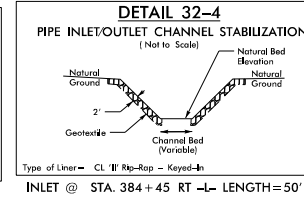
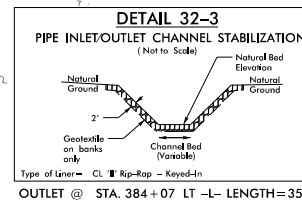
REVISIONS

MATCHLINE -Y9RPD- STA. 19+34
-L- STA. 378+00, SEE SHEET 31

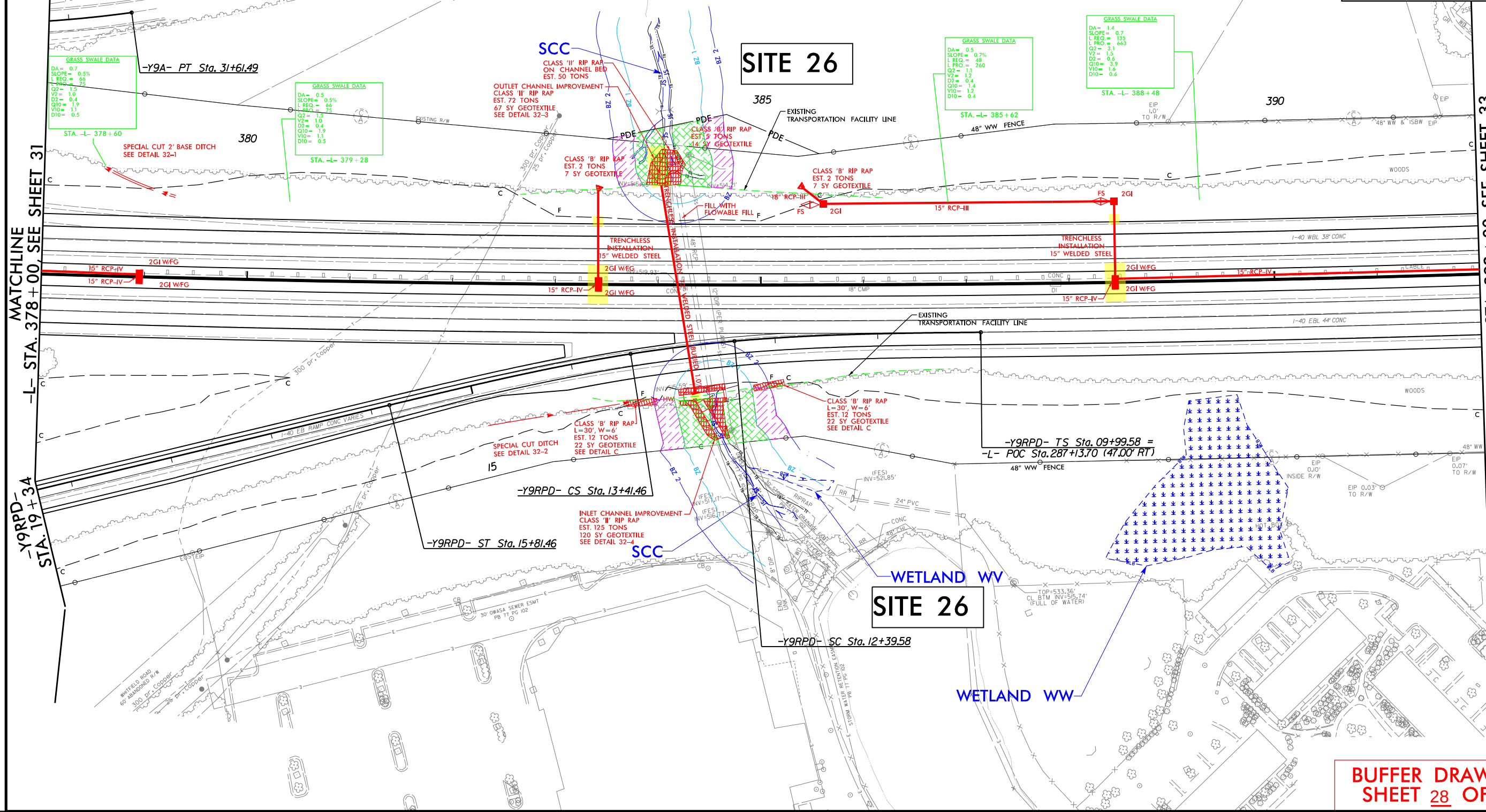
MATCHLINE -L- STA. 378+00, SEE SHEET 31

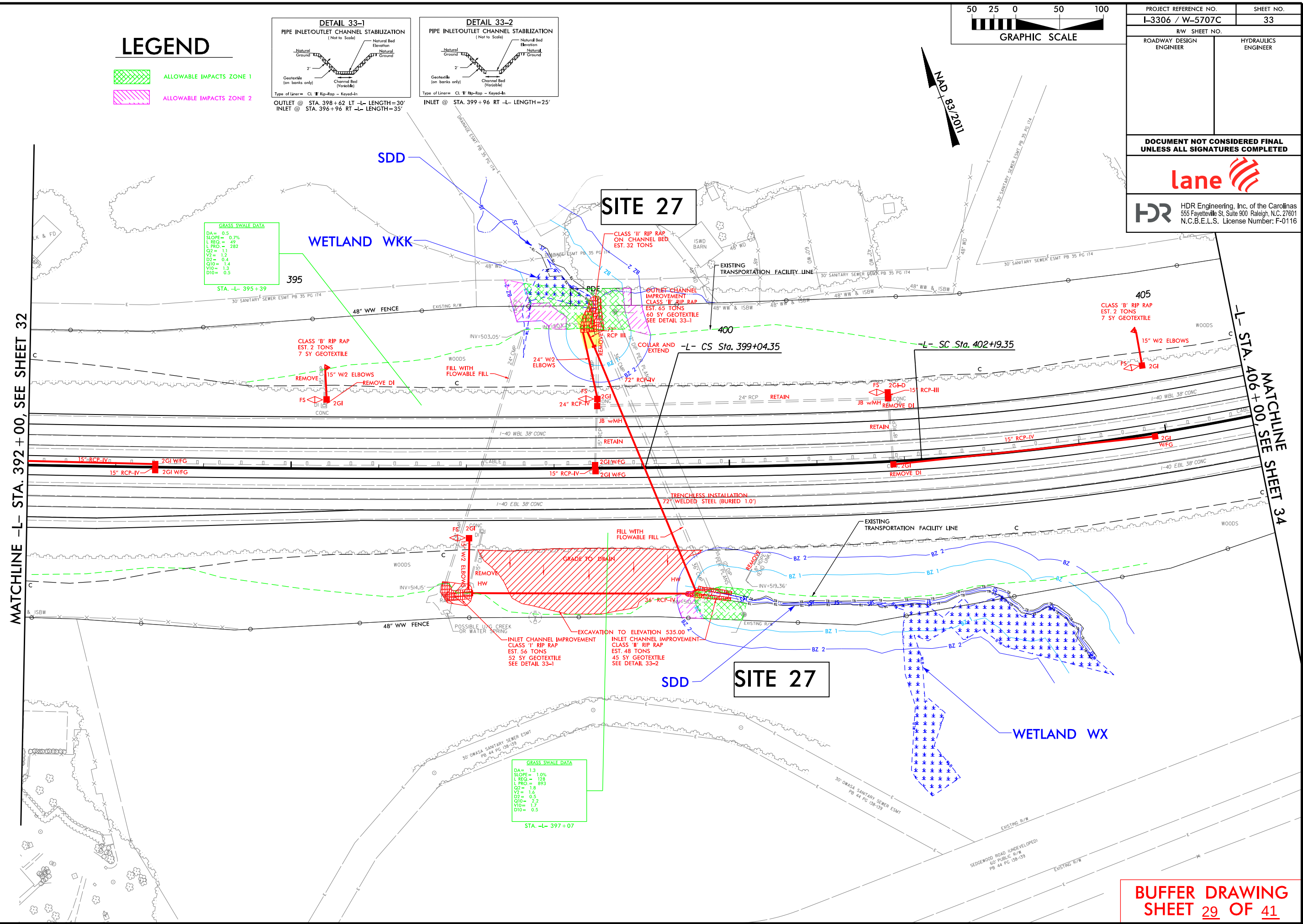
MATCHLINE -L- STA. 392+00, SEE SHEET 33

LEGEND

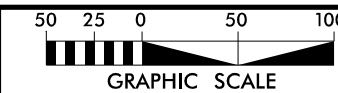
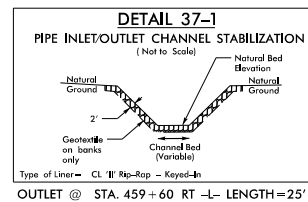


PROJECT REFERENCE NO.		SHEET NO.	
I-3306 / W-5707C		32	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
			
		HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	

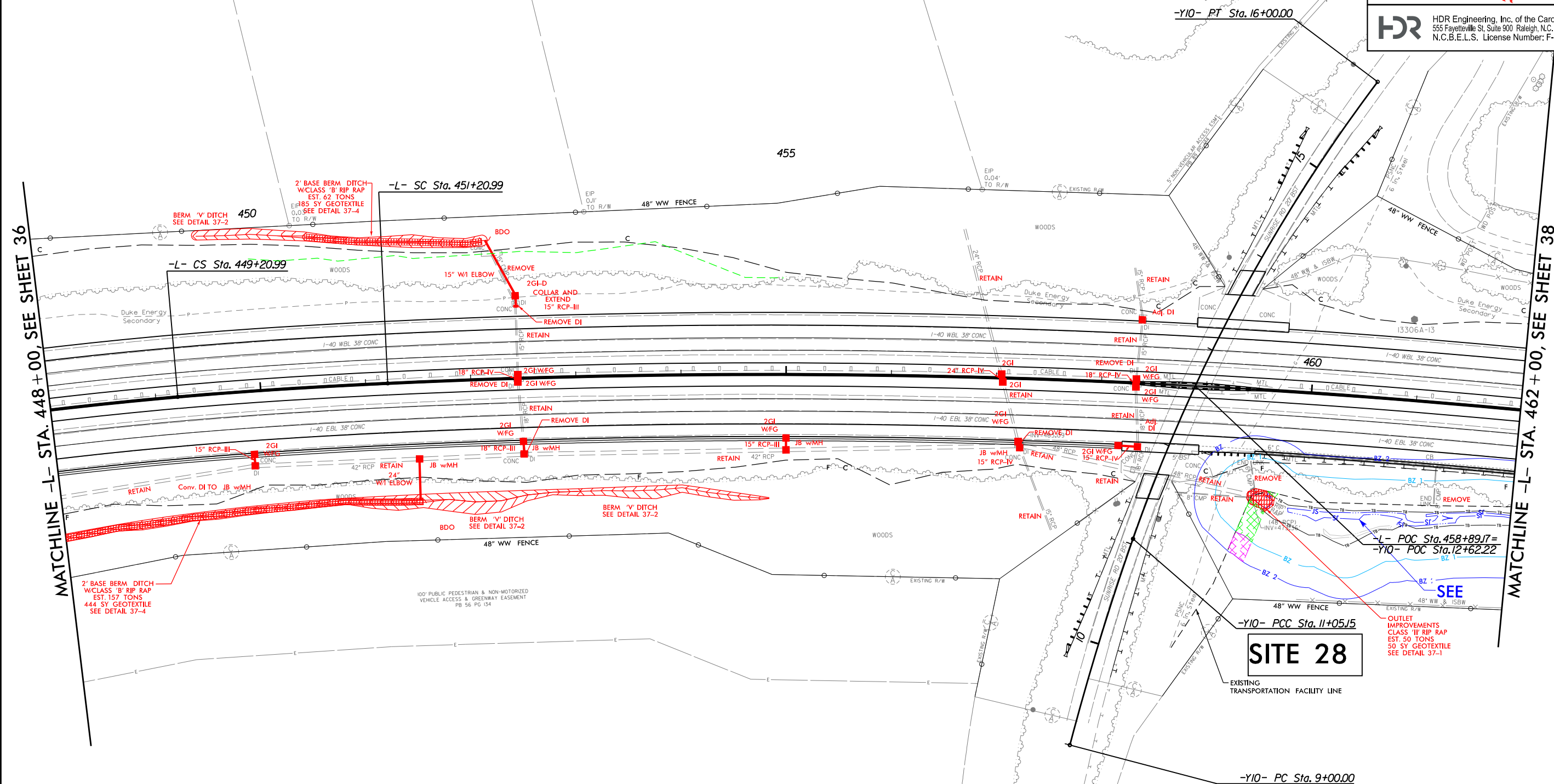




LEGEND



PROJECT REFERENCE NO.	SHEET NO.
I-3306 / W-5707C	37
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
	
	
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PLOT DRIVER: NCDOT_color_eng-100.plt
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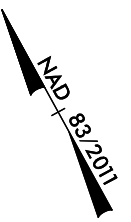
REVISIONS

LEGEND

- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2

SEE

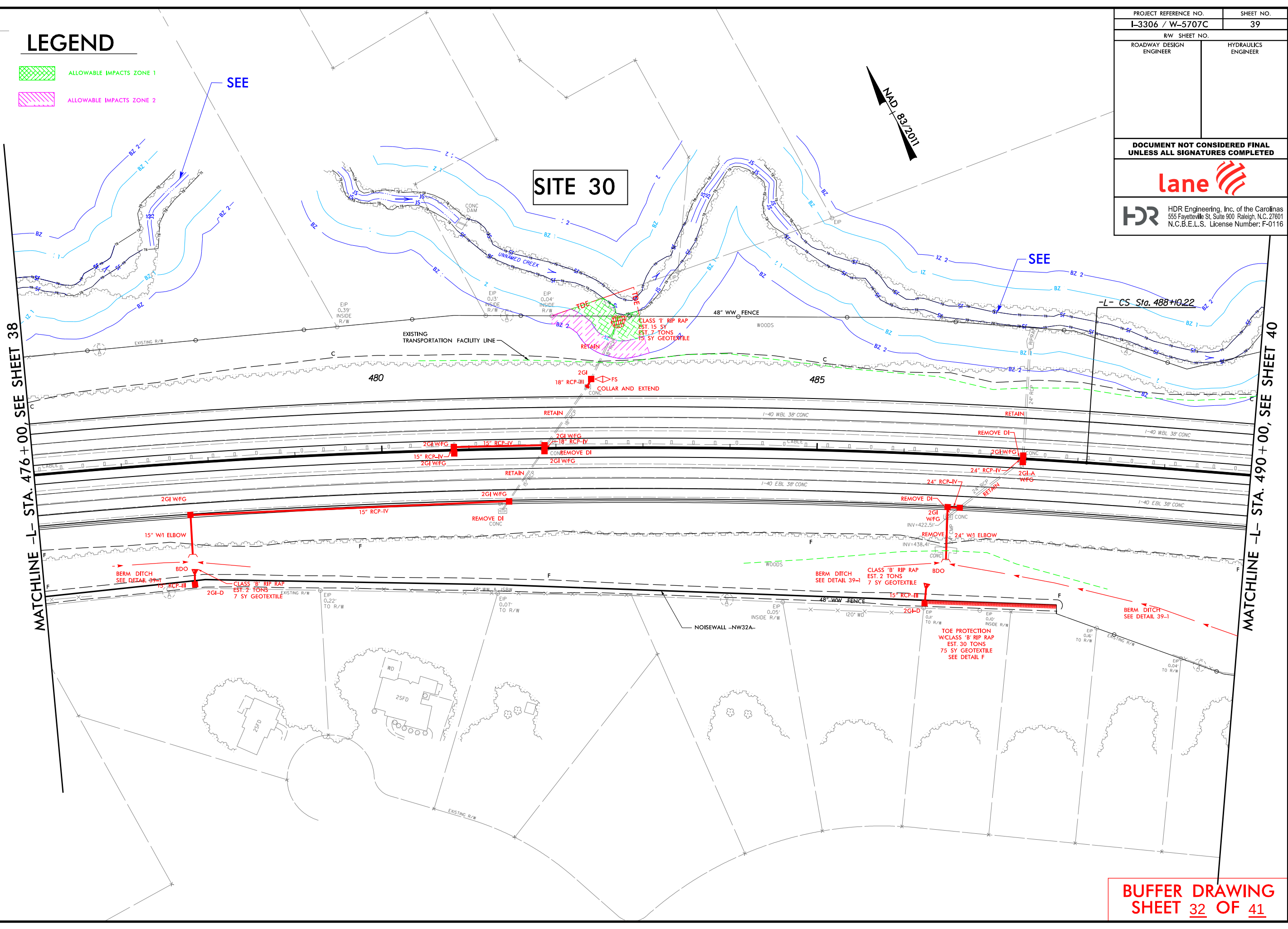
SITE 30



PROJECT REFERENCE NO. I-3306 / W-5707C		SHEET NO. 39
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116		

MATCHLINE -L- STA. 476 + 00, SEE SHEET 38

MATCHLINE -L- STA. 490 + 00, SEE SHEET 40



PLOT DRIVER: NCDOT_color_eng-100.plt
USER: NWOMACK
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TIME: 10:21:01 AM
DATE: 4/5/2022

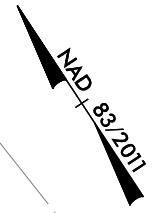
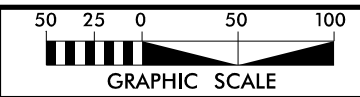
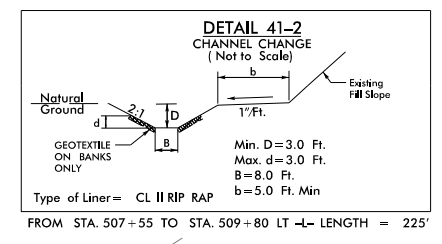
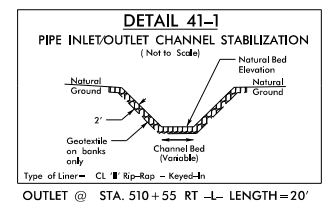
REVISIONS

MATCHLINE -L- STA. 504 + 00 SEE SHEET 40

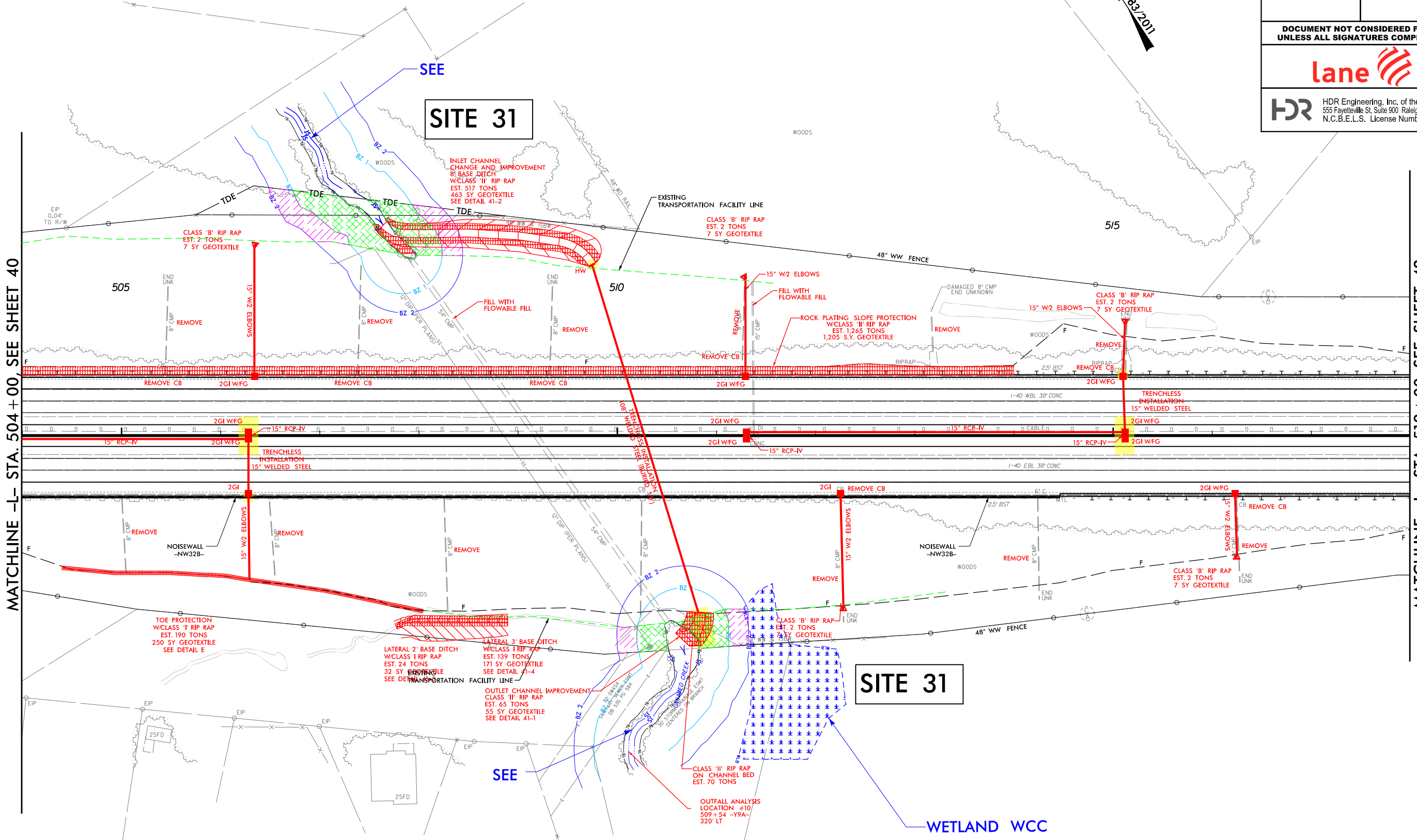
MATCHLINE -L- STA. 518 + 00, SEE SHEET 42

LEGEND

- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2



PROJECT REFERENCE NO. I-3306 / W-5707C		SHEET NO. 41	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116			



PLOT DRIVER: NCDOT_color_eng-100.plt
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TIME: 9:38:36 AM
DATE: 4/5/2022

REVISIONS

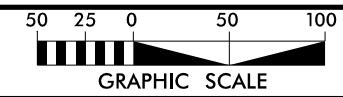
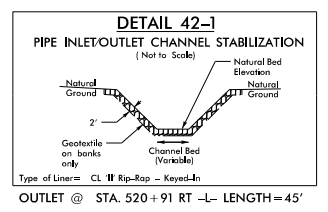
MATCHLINE -L- STA. 518 + 00 SEE SHEET 41

SITE 32

SHH

LEGEND

- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2

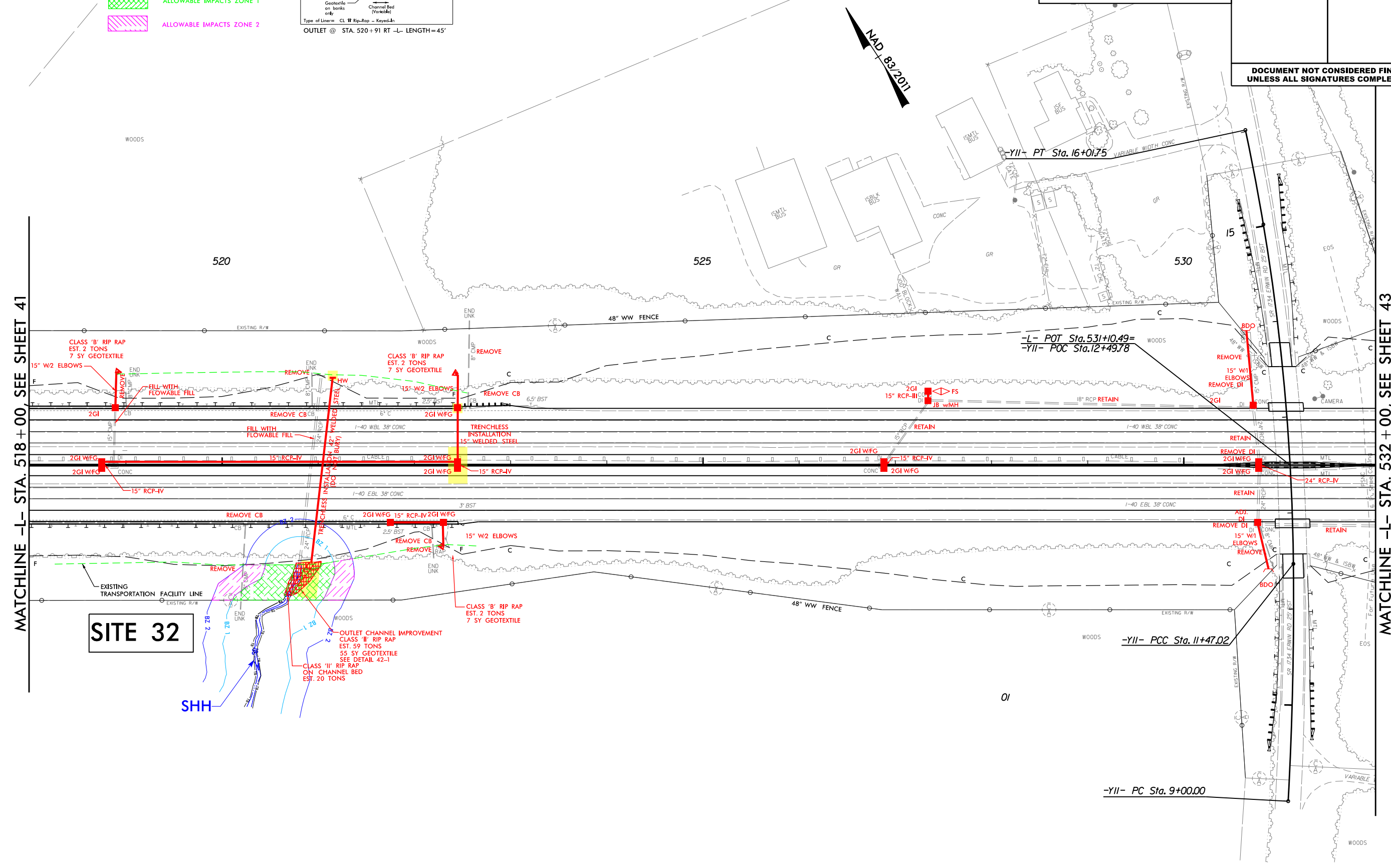


LANE

HDR HDR Engineering, Inc. of the Carolinas
555 Fayetteville St. Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO.	SHEET NO.
I-3306 / W-5707C	42
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



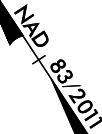
MATCHLINE -L- STA. 532 + 00, SEE SHEET 43

REVISIONS

MATCHLINE -L- STA. 532 + 00, SEE SHEET 42

LEGEND

- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2



PROJECT REFERENCE NO.		SHEET NO.
I-3306 / W-5707C		43
R/W SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
lane 		
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St. Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116		

MATCHLINE -L- STA. 546 + 00, SEE SHEET 44

RIPARIAN BUFFER IMPACTS SUMMARY													
			IMPACTS									BUFFER REPLACEMENT	
Site No.	Station (From/To) 6214	Structure Size / Type	TYPE			ALLOWABLE			MITIGABLE				
			ROAD CROSSING	BRIDGE	PARALLEL IMPACT	ZONE 1 (ft²)	ZONE 2 (ft²)	TOTAL (ft²)	ZONE 1 (ft²)	ZONE 2 (ft²)	TOTAL (ft²)	ZONE 1 (ft²)	ZONE 2 (ft²)
1	67+50 -YRPD- LT	8' x 7' RCBC	x			4238	3473	7711					
2	49+50 -YFLYA-	84" PIPE	x						5359	3582	8941		
3	145+67 -I85-	42" PIPE	x						6838	2588	9426		
4	29+50 -YFLYB-	72" PIPE	x			2626	1884	4510	947	480	1427		
5	150+00 -I85- RT	66" PIPE	x			4037	1156	5193					
6	32+00 -YFLYA-	78" PIPE	x			8571	5863	14434					
7	50+00 -L- RT	30" PIPE	x			2952	2015	4967					
8	29+15 -Y2-	78" PIPE	x			7862	3483	11345					
9	20+20 -Y2- LT	30" PIPE			x	1448		1448					
10	127+50 -L-	84" PIPE	x			6621	1119	7740					
11	156+35 -L-	60" PIPE	x			6088	852	6940					
12	162+50 -L- LT	42" PIPE	x			985		985					
13	172+00 -L- LT	48" PIPE	x			1359	2798	4157					
14	194+00 -L-	66" PIPE	x			5797		5797					
15	197+00 -L- RT	24" PIPE	x			530		530					
16	228+00 -L- LT	36" PIPE	x			2426	2269	4695					
17	231+00 -L- LT	66" PIPE	x			3151	2071	5222					
18	234+00 -L- RT	66" PIPE	x			3237	1667	4904					
19	247+50 -L- RT	42" PIPE	x			1994	1288	3282					
20	267+00 -L- RT	4 -13'x12" RCBC	x			1716	1070	2786					
21	305+00 -L-	78" PIPE	x			6042	3789	9831					
22	325+00 -L-	84" PIPE	x			6848	3503	10351					
23	343+00 -L-	8' x 8' RCBC	x			2774	2053	4827					
24	355+00 -L-	24" PIPE			x	421	2367	2788					
TOTALS SHEET 1*:						81723	42720	124443	13144	6650	19794	0	0

NOTES:

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
MARCH 2022
ORANGE COUNTY
TIP I-3360A
STATE PROJ. # 34178.3.GV3
SHEET 36 OF 41

RIPARIAN BUFFER IMPACTS SUMMARY													
			IMPACTS									BUFFER REPLACEMENT	
Site No.	Station (From/To) 6214	Structure Size / Type	TYPE			ALLOWABLE			MITIGABLE				
			ROAD CROSSING	BRIDGE	PARALLEL IMPACT	ZONE 1 (ft²)	ZONE 2 (ft²)	TOTAL (ft²)	ZONE 1 (ft²)	ZONE 2 (ft²)	TOTAL (ft²)	ZONE 1 (ft²)	ZONE 2 (ft²)
25	12+00 -Y9RPC- RT	30" PIPE	x			858	778	1636					
26	125+00 -L- RT	72" PIPE	x			6229	4457	10686					
27	399+00 -L-	72" PIPE	x			5258	2580	7838					
28	11+70 -Y10- RT	48" PIPE	x			564	367	931					
29	470+00 -L-	78" PIPE	x			2465	1488	3953					
30	482+00 -L- LT	18" PIPE	x			2164	2335	2083					
31	510+00 -L-	108" PIPE	x			6745	4091	10836					
32	521+00 -L- RT	42" PIPE	x			2682	1938	4620					
33	539+50 -L- RT	36" PIPE	x			3119	1978	5097					
TOTALS*:						30084	20012	47680	0	0	0	0	0

NOTES:

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
MARCH 2022
ORANGE COUNTY
TIP I-3360A
STATE PROJ. # 34178.3.GV3
SHEET 37 OF 41

RIPARIAN BUFFER IMPACTS SUMMARY													
			IMPACTS									BUFFER REPLACEMENT	
Site No.	Station (From/To) 6214	Structure Size / Type	TYPE			ALLOWABLE			MITIGABLE				
			ROAD CROSSING	BRIDGE	PARALLEL IMPACT	ZONE 1 (ft²)	ZONE 2 (ft²)	TOTAL (ft²)	ZONE 1 (ft²)	ZONE 2 (ft²)	TOTAL (ft²)	ZONE 1 (ft²)	ZONE 2 (ft²)
BUFFER SUM 1						81723	42720	124443	13144	6650	19794	0	0
BUFFER SUM 2						30084	20012	47680	0	0	0	0	0
I-3306A PROJECT TOTALS*:						111807	62732	172123	13144	6650	19794	0	0

NOTES:

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
MARCH 2022
ORANGE COUNTY
TIP I-3360A
STATE PROJ. # 34178.3.GV3
SHEET 38 OF 41

WETLANDS IN BUFFER IMPACTS SUMMARY				
			WETLANDS IN BUFFERS	
SITE NO.	STATION (FROM/TO)		ZONE 1 (ft ²)	ZONE 2 (ft ²)
1	125+00 -L-RT		69	268
2	49+50 -YFLYA- LT		544	1136
3	145+67 -L- RT		465	434
4	29+50 -YFLYB- RT		470	100
6	32+00 -YFLYA- RT		752	14
8	29+15 -Y2-		5730	1436
17	231+00 -L- LT		396	178
20	305+00 -L- LT		692	515
22	343+00 -L- LT			34
TOTAL:			9118	4115

WETLANDS IN BUFFER IMPACTS SUMMARY				
			WETLANDS IN BUFFERS	
SITE NO.	STATION (FROM/TO)		ZONE 1 (ft ²)	ZONE 2 (ft ²)
27	399+00 -L- LT		1029	183
29	470+00 -L- RT		1117	496
31	510+00 -L- RT			30
TOTAL:			2146	709

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
MARCH 2022
ORANGE COUNTY
TIP I-3306A
STATE PROJ. # 34178.3.GV3
SHEET 40 OF 41

WETLANDS IN BUFFER IMPACTS SUMMARY

			WETLANDS IN BUFFERS	
SITE NO.	STATION (FROM/TO)		ZONE 1 (ft²)	ZONE 2 (ft²)
BUFFER SUM 1			9964	4114
BUFFER SUM 2			2146	709
TOTAL:			12110	4823

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
MARCH 2022
ORANGE COUNTY
TIP I-3306A
STATE PROJ. # 34178.3.GV3
SHEET 41 OF 41