

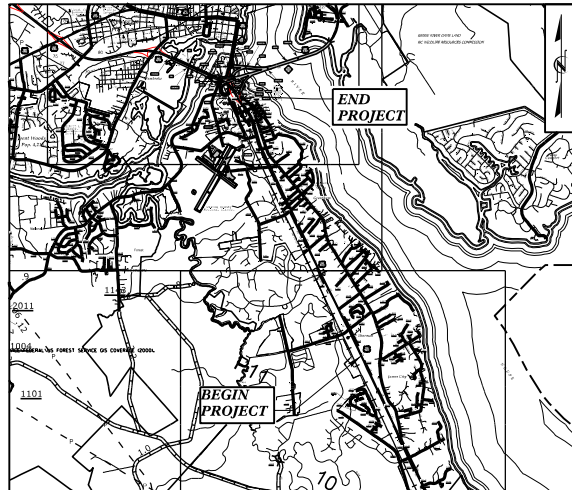
TIP PROJECT: U-5713 /R-5777A&B
CONTRACT: C204225

See Sheet 1A For Index of Sheets
See Sheet 1B For Standard Symbology Sheet

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

BUFFER DRAWING
SHEET 1 OF 12
DATE: 06-03-2020

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5713/R-5777A&B	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
50111.3.1	N/A	DESIGN-BUILD	



VICINITY MAP N.T.S.

CRAVEN COUNTY

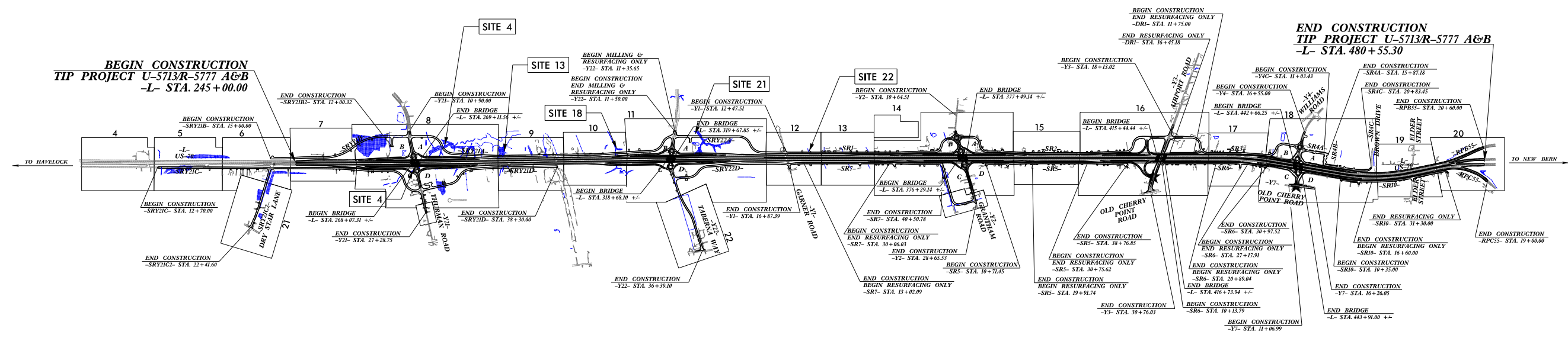
LOCATION: U.S. 70 FROM EASTERN APPROACH OF THE NEUSE RIVER BRIDGE TO APPROXIMATELY ONE (1) MILE EAST OF S.R. 1116 (THURMAN ROAD)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNING, ITS AND STRUCTURES



DESIGN CRITERIA AND STRUCTURE RECOMMENDATIONS
SUBMITTED: 02-20-20

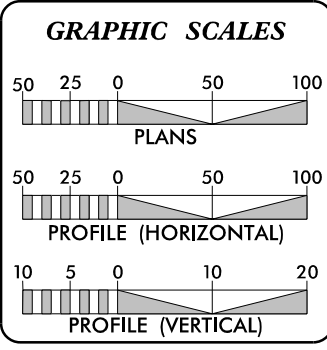
BUFFER IMPACTS PERMIT



THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARY OF THE CITY OF NEW BERN
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
THIS IS A CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.

★ PROPOSED TRAFFIC SIGNAL

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



DESIGN DATA

ADT 2015 =	45,200
ADT 2040 =	62,000
K =	8%
D =	50%
T =	7%*
V =	60 MPH
* (TTST = 2% + DUAL 5%)	
FUNC. CLASSIFICATION =	INTERSTATE STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U-5713 /R-5777A&B =	4.350 MILES
LENGTH STRUCTURE TIP PROJECT U-5713 /R-5777A&B =	0.111 MILES
TOTAL LENGTH OF TIP PROJECT U-5713 /R-5777A&B =	4.461 MILES

NCDOT CONTACT: CADMUS CAPEHART, PE
DIVISION 2 - DIVISION CONSTRUCTION ENGINEER

PLANS PREPARED FOR THE NCDOT BY:

Balfour Beatty Infrastructure Inc.

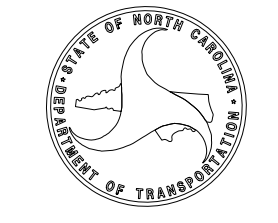
2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: SEPTEMBER 17, 2019	J. ADAM FREEMAN, PE PROJECT ENGINEER
LETTING DATE: SEPTEMBER 17, 2019	NARONG PHAL, PE PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.
ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



\$\$\$\$\$ SYSTEM \$\$\$\$\$\$
\$\$\$\$\$ DESIGN \$\$\$\$\$\$
\$\$\$\$\$ USERNAME \$\$\$\$\$\$

6/2/19

PROJECT REFERENCE NO. U-5713/R-5777 A&B SHEET NO. 8

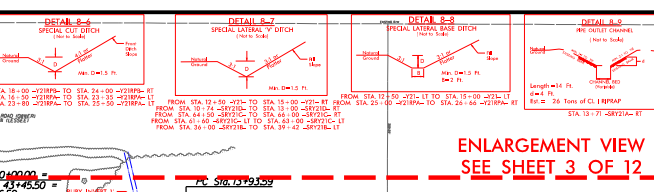
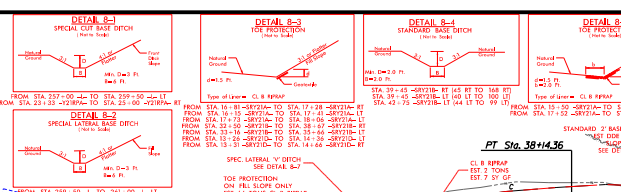
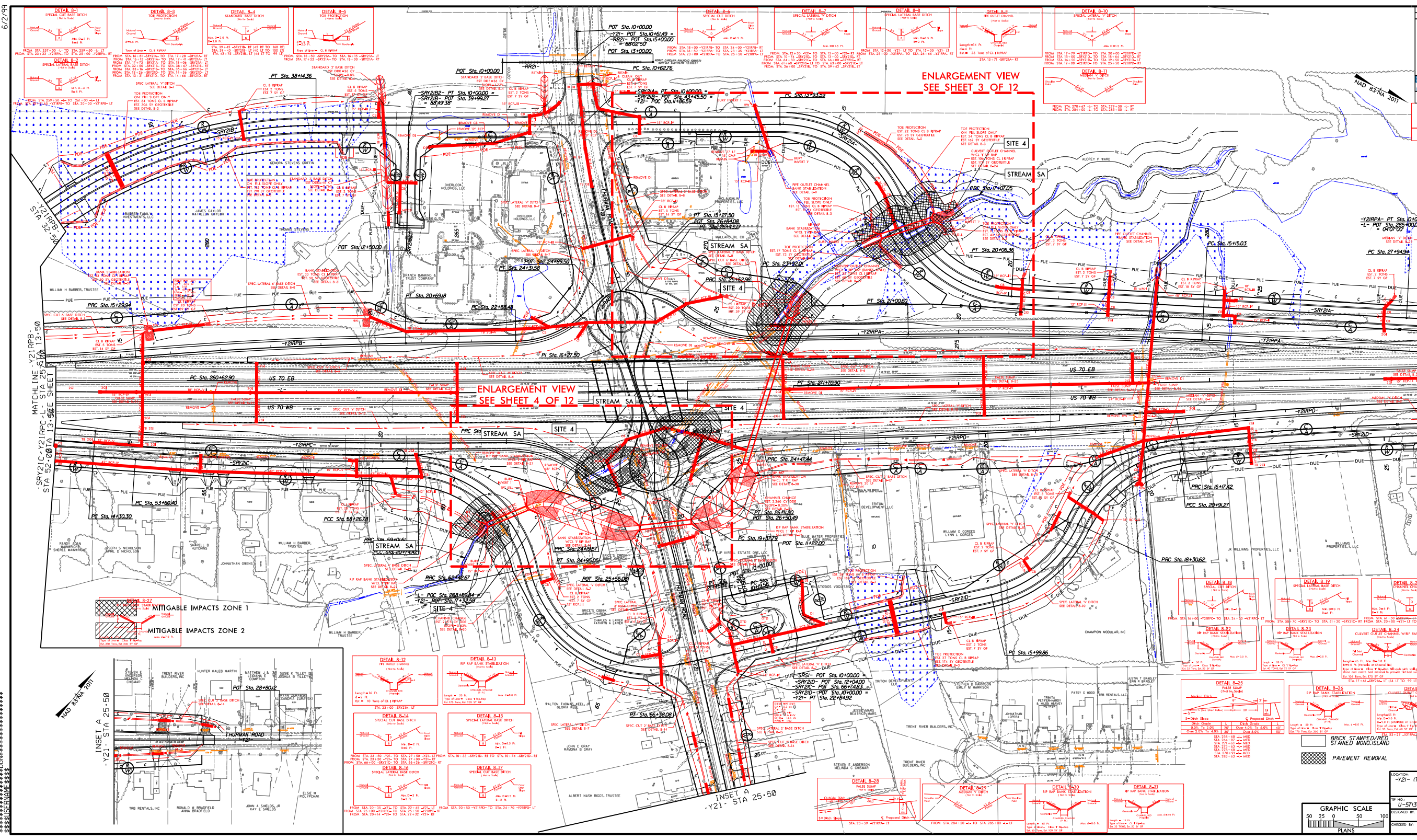
PRELIMINARY PLANS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Salour Beatty STV 100

DATE: 06-03-2020

INTEGRITY: 100%



MATCHLINE -Y21RPP- STA 52+00 TO STA 52+50 SEE SHEET 1

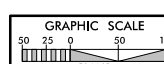
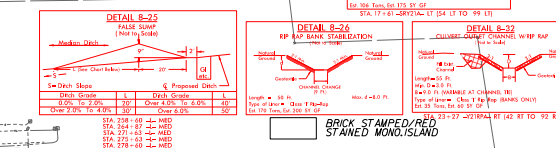
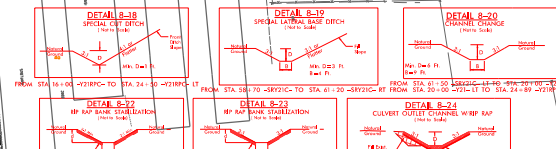
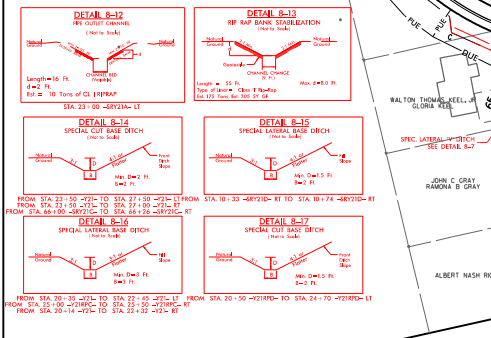
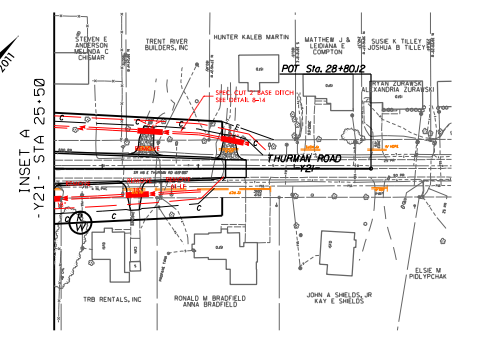
MATCHLINE -Y21RPP- STA 13+50 TO STA 13+00 SEE SHEET 2

MATCHLINE -Y21RPP- STA 26+50 TO STA 26+00 SEE SHEET 3

MATCHLINE -Y21RPP- STA 10+00 TO STA 10+50 SEE SHEET 4

ENLARGEMENT VIEW SEE SHEET 4 OF 12

ENLARGEMENT VIEW SEE SHEET 3 OF 12



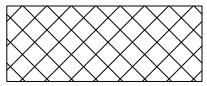
LOCATION: -Y21- (THURMAN RD) / -L-

CRWEN

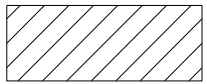
DATE: 11/05/19

SYSTEMS

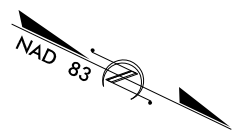
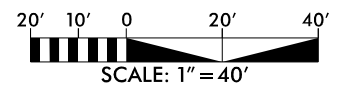
8.17.1999



MITIGABLE IMPACTS ZONE 1

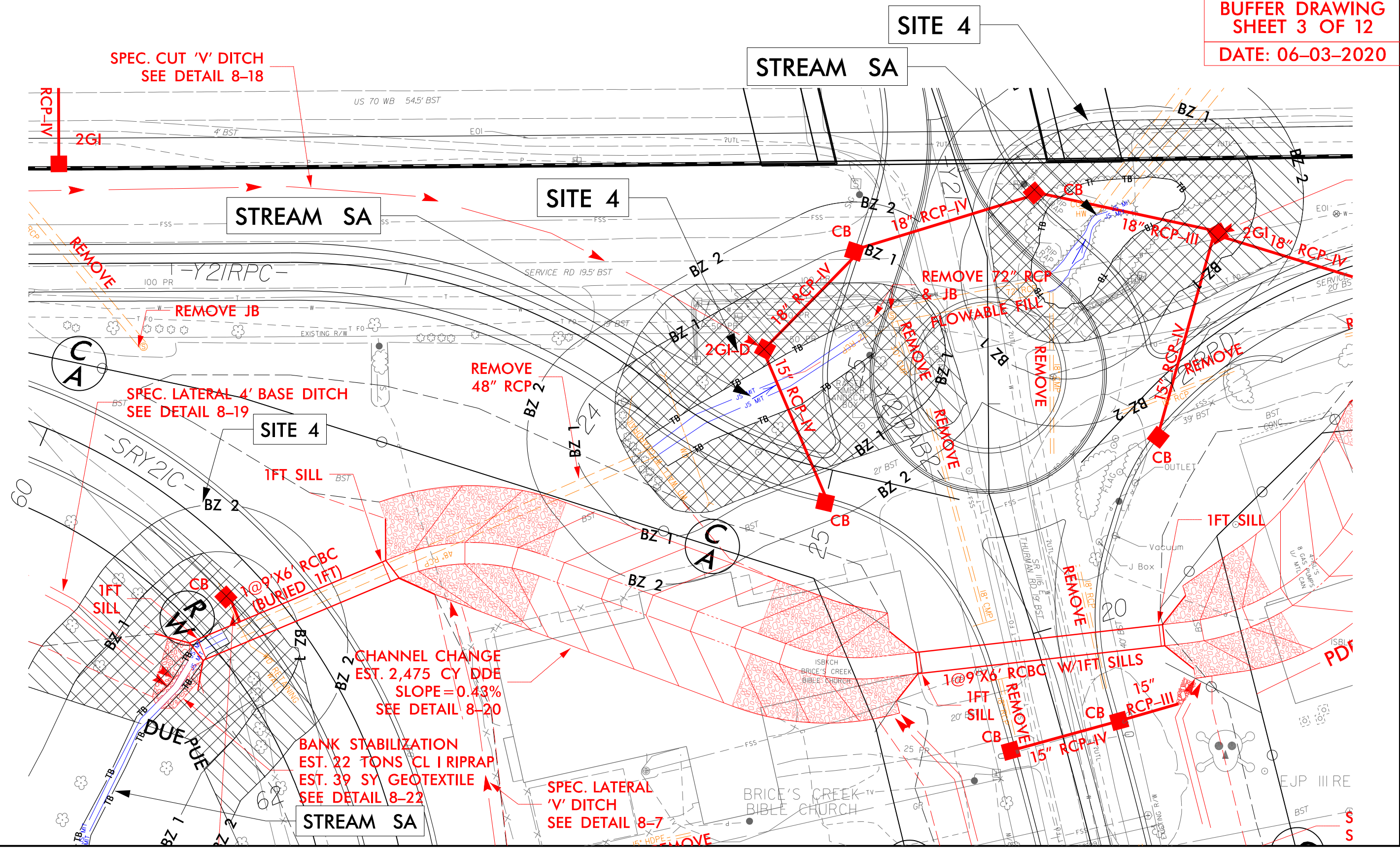


MITIGABLE IMPACTS ZONE 2



PROJECT REFERENCE NO. U-5713/R-5777A&B	SHEET NO.
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

BUFFER DRAWING
SHEET 3 OF 12
DATE: 06-03-2020

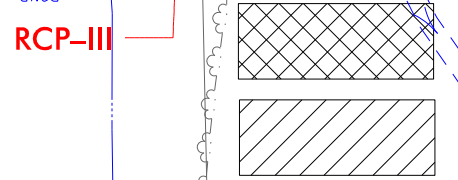
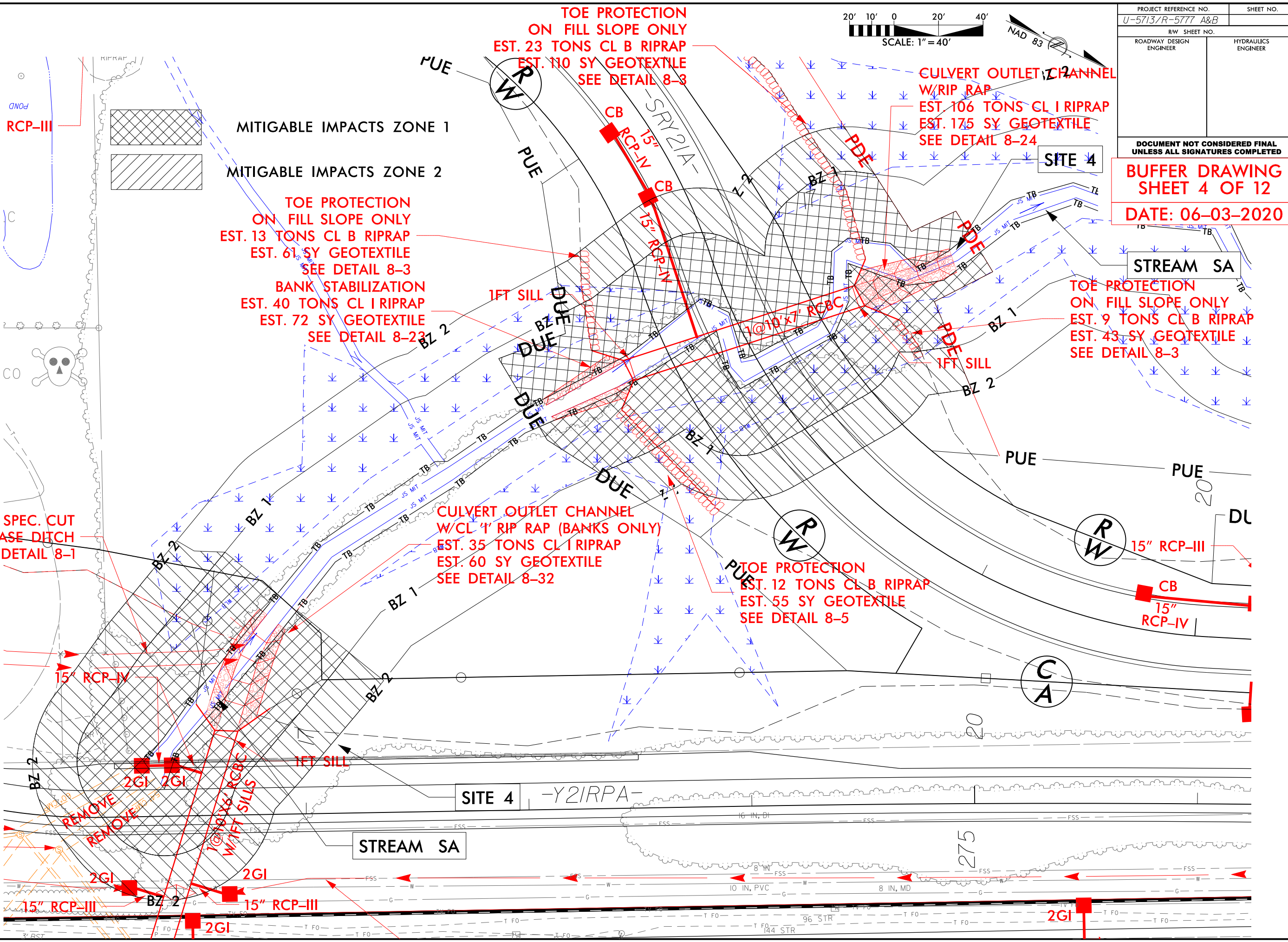
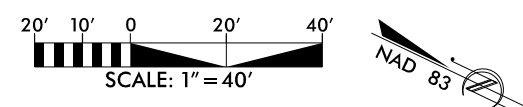


8.17/99

PROJECT REFERENCE NO. SHEET NO.
U-5713/R-5777 A&B

RW SHEET NO.
ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED
BUFFER DRAWING SHEET 4 OF 12
DATE: 06-03-2020



MITIGABLE IMPACTS ZONE 1
MITIGABLE IMPACTS ZONE 2

TOE PROTECTION
ON FILL SLOPE ONLY
EST. 23 TONS CL B RIPRAP
EST. 110 SY GEOTEXTILE
SEE DETAIL 8-3

TOE PROTECTION
ON FILL SLOPE ONLY
EST. 13 TONS CL B RIPRAP
EST. 61 SY GEOTEXTILE
SEE DETAIL 8-3

BANK STABILIZATION
EST. 40 TONS CL I RIPRAP
EST. 72 SY GEOTEXTILE
SEE DETAIL 8-23

TOE PROTECTION
ON FILL SLOPE ONLY
EST. 23 TONS CL B RIPRAP
EST. 110 SY GEOTEXTILE
SEE DETAIL 8-3

CULVERT OUTLET CHANNEL
W/RIP RAP
EST. 106 TONS CL I RIPRAP
EST. 175 SY GEOTEXTILE
SEE DETAIL 8-24

TOE PROTECTION
ON FILL SLOPE ONLY
EST. 9 TONS CL B RIPRAP
EST. 43 SY GEOTEXTILE
SEE DETAIL 8-3

CULVERT OUTLET CHANNEL
W/CL '1' RIP RAP (BANKS ONLY)
EST. 35 TONS CL I RIPRAP
EST. 60 SY GEOTEXTILE
SEE DETAIL 8-32

TOE PROTECTION
ON FILL SLOPE ONLY
EST. 12 TONS CL B RIPRAP
EST. 55 SY GEOTEXTILE
SEE DETAIL 8-5

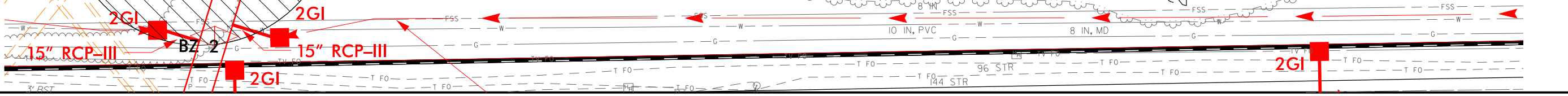
SPEC. CUT
6' BASE DITCH
SEE DETAIL 8-1

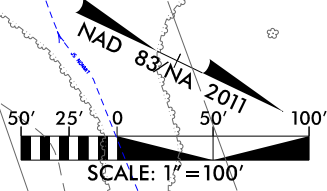
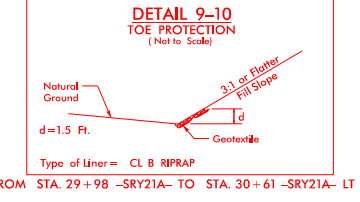
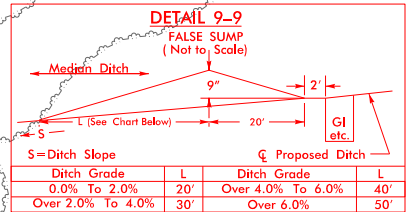
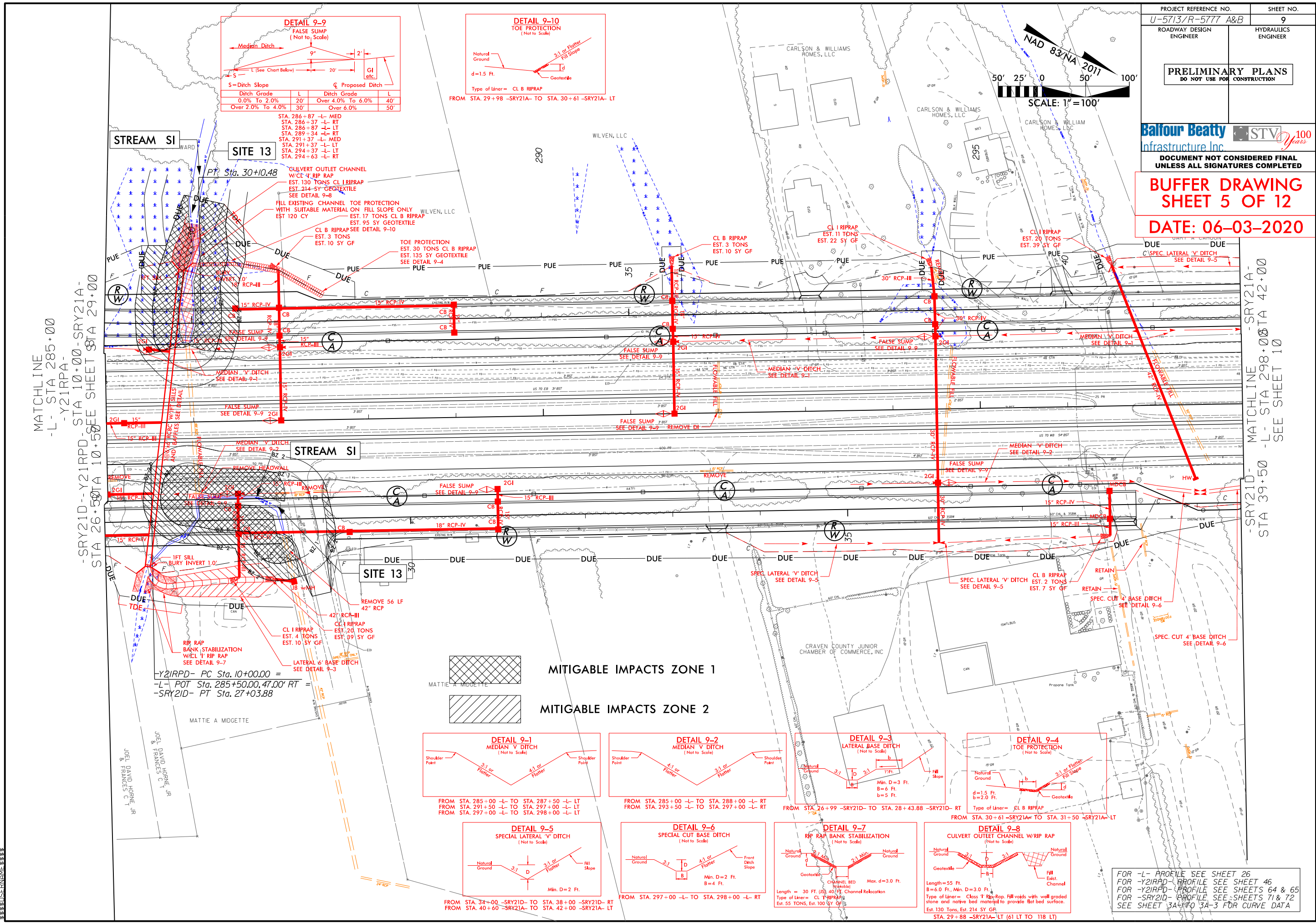
REMOVE
REMOVE

2G1
2G1
W/1FT SILLS

SITE 4 -Y2IRPA-

STREAM SA





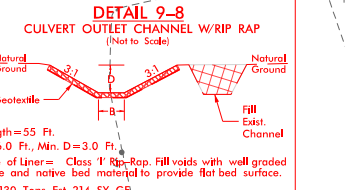
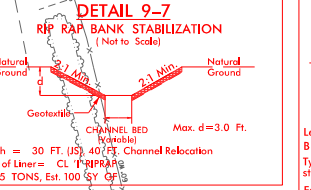
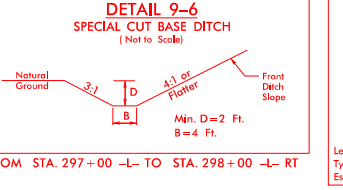
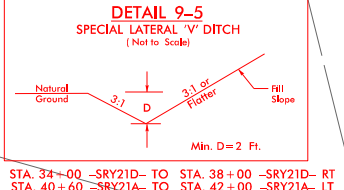
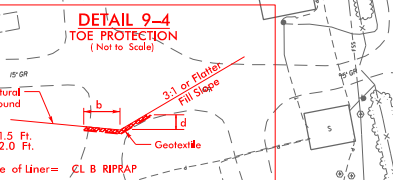
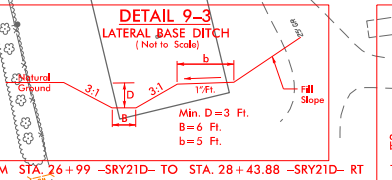
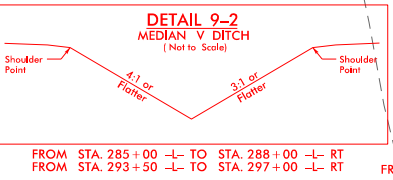
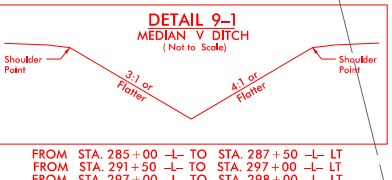
MATCHLINE
 -L- STA 285+00
 -Y21RPA-
 -SRY21D--Y21RPD- STA 10+00-SRY21A-
 STA 26+50 STA 10+50 SEE SHEET STA 29+00

MATCHLINE -SRY21A-
 STA 298+00 STA 42+00
 -L- STA 298+00 STA 42+00
 SEE SHEET 10

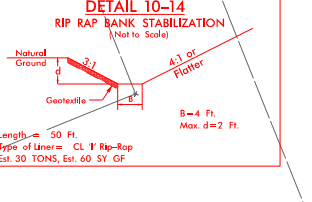
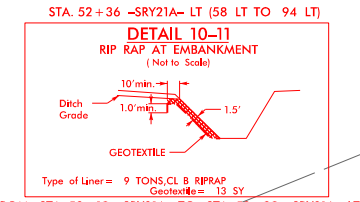
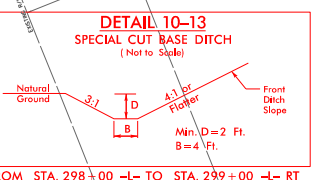
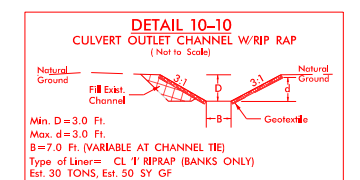
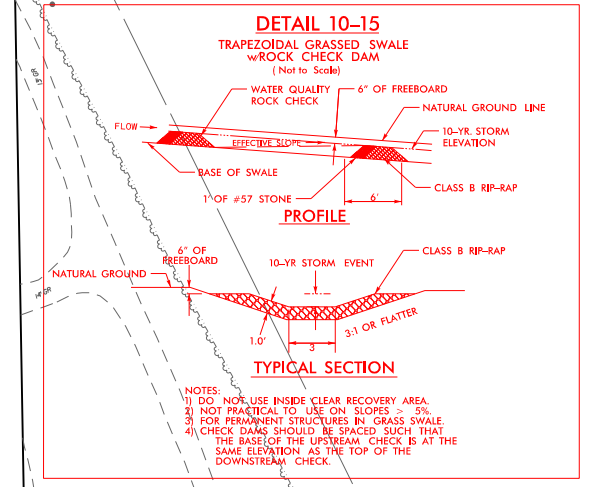
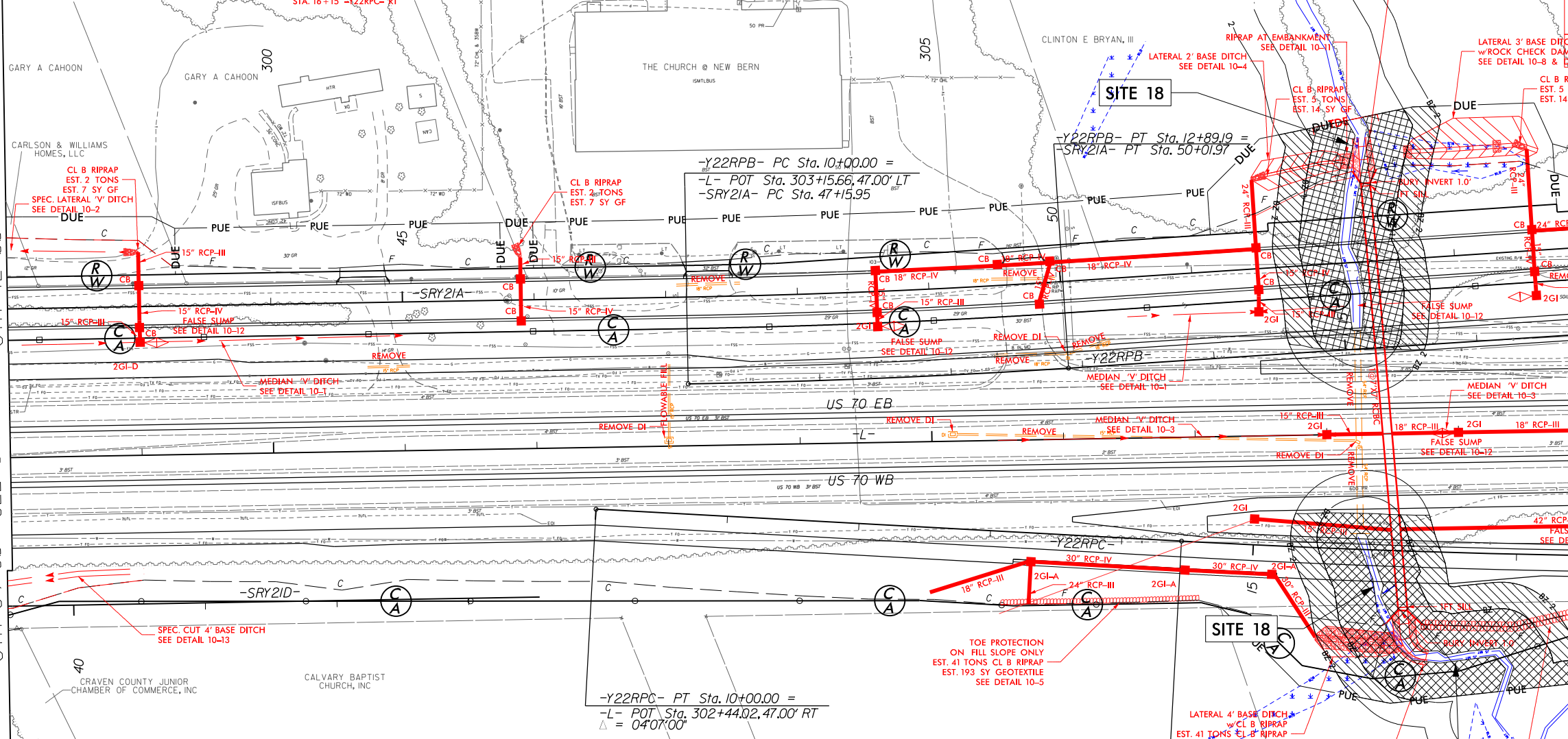
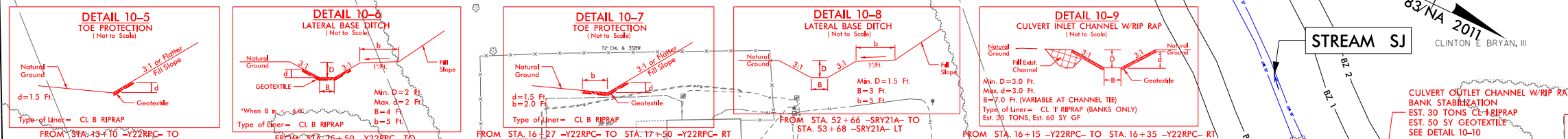
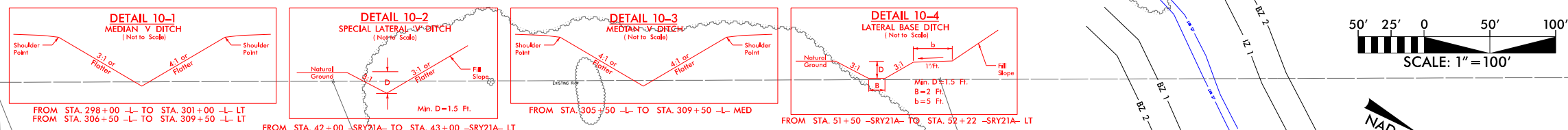
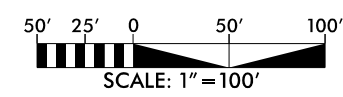
-Y21RPD- PC Sta. 10+00.00 =
 -L- POT Sta. 285+50.00, 47.00' RT =
 -SRY21D- PT Sta. 27+03.88

MITIGABLE IMPACTS ZONE 1

MITIGABLE IMPACTS ZONE 2



FOR -L- PROFILE SEE SHEET 26
 FOR -Y21RPD- PROFILE SEE SHEET 46
 FOR -Y21RPD- PROFILE SEE SHEETS 64 & 65
 FOR -SRY21D- PROFILE SEE SHEETS 71 & 72
 SEE SHEET 3A-3 FOR CURVE DATA




DETAIL 10-12: FALSE SUMP (Not to Scale)

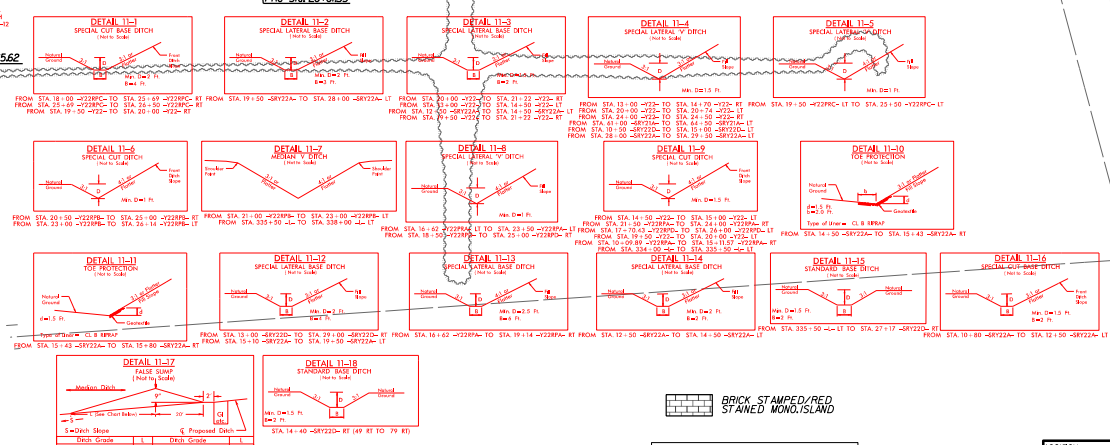
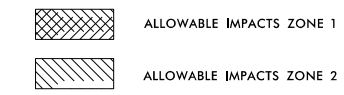
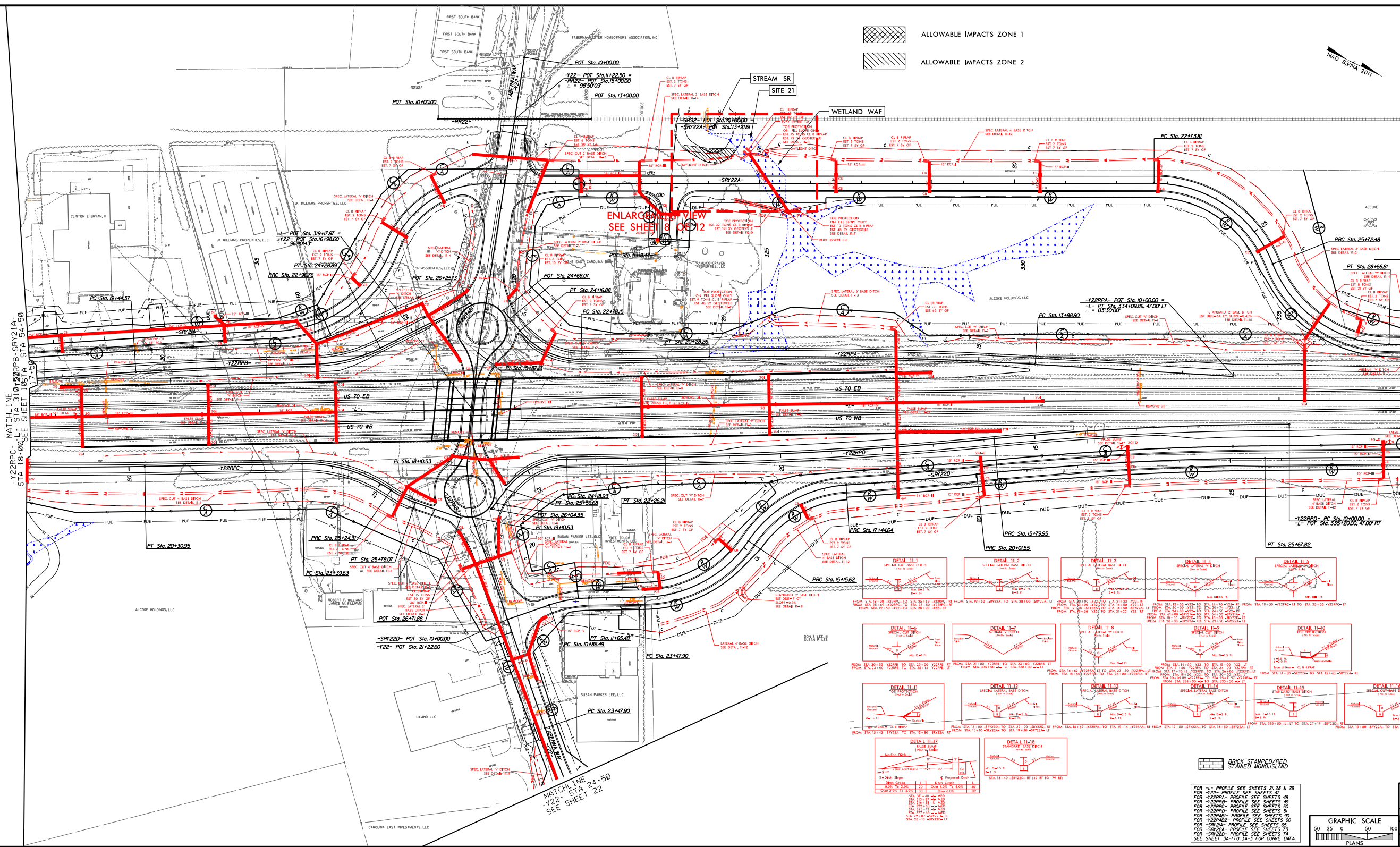
Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

S = Ditch Slope
 L (See Chart Below)
 C = Proposed Ditch

FOR -L- PROFILE SEE SHEETS 26 & 27
 FOR -Y22RPB- PROFILE SEE SHEETS 49
 FOR -Y22RPC- PROFILE SEE SHEETS 50
 FOR -SRY21A- PROFILE SEE SHEET 65
 SEE SHEET 3A-1 TO 3A-3 FOR CURVE DATA

6/2/99

PROJECT REFERENCE NO. U-5713/R-5777 A&B	SHEET NO. 11
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
	
BUFFER DRAWING	
SHEET 7 OF 12	
DATE: 06-03-2020	



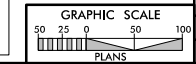
MATCHLINE -SRV220-
L STA 338+00 STA 29+50
SEE SHEET 12

MATCHLINE -SRV220-
L STA 105+00 STA 54+50
SEE SHEET 10

MATCHLINE
-Y22- STA 24+50
SEE SHEET 22

BRICK STAMPED/RED
STAINED MOND-ISLAND

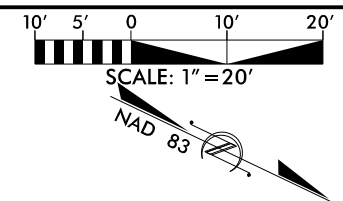
- FOR -L- PROFILE SEE SHEETS 21, 28 & 29
- FOR -R- PROFILE SEE SHEETS 47
- FOR -Y22RPA- PROFILE SEE SHEETS 48
- FOR -Y22RPA- PROFILE SEE SHEETS 49
- FOR -Y22RPA- PROFILE SEE SHEETS 50
- FOR -Y22RPA- PROFILE SEE SHEETS 51
- FOR -SRV22A- PROFILE SEE SHEETS 65
- FOR -SRV22A- PROFILE SEE SHEETS 73
- FOR -SRV22A- PROFILE SEE SHEETS 74
- SEE SHEET SA-1 TO SA-3 FOR CURVE DATA



LOCATION:
-Y22- (TABERNA WAY) / -L-

PROJECT NO.: U-5713/R-5777 A&B COUNTY: CRAWEN
DESIGNED BY: NP DATE: 11/05/19
CHECKED BY: JAF DATE: 11/05/19

8/17/99

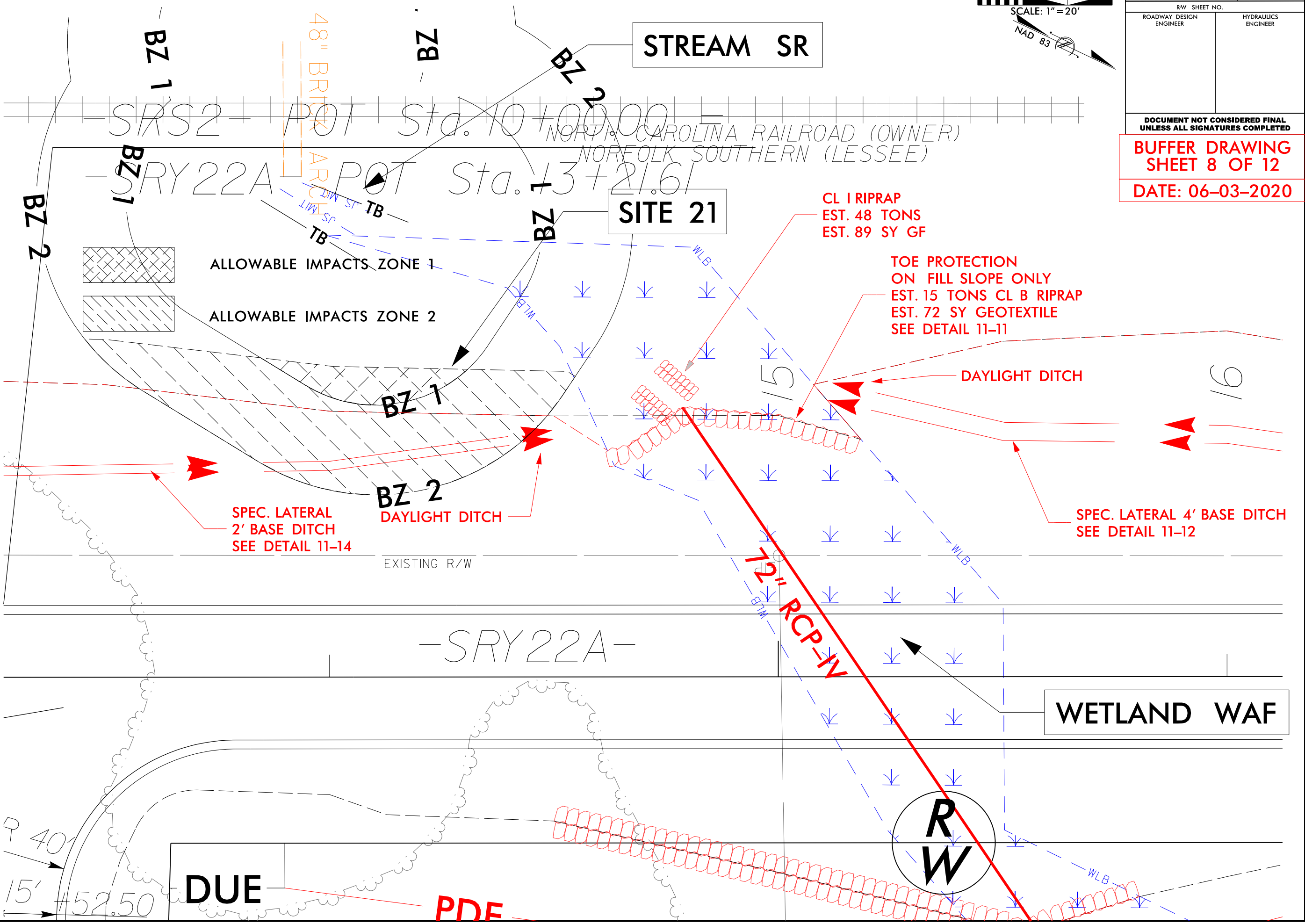


PROJECT REFERENCE NO. U-5713/R-5777 A&B	SHEET NO.
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

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

**BUFFER DRAWING
SHEET 8 OF 12**

DATE: 06-03-2020



STREAM SR

WETLAND WAF

DUE

PDE

SITE 21

SRS2 POT Sta. 10+00.00
 SRY22A POT Sta. 13+21.61
 NORTH CAROLINA RAILROAD (OWNER)
 NORFOLK SOUTHERN (LESSEE)

**CL I RIPRAP
EST. 48 TONS
EST. 89 SY GF**

**TOE PROTECTION
ON FILL SLOPE ONLY
EST. 15 TONS CL B RIPRAP
EST. 72 SY GEOTEXTILE
SEE DETAIL 11-11**

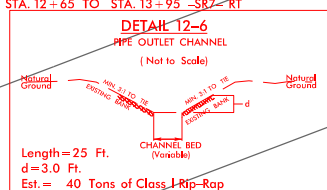
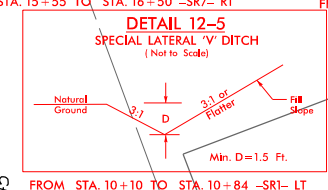
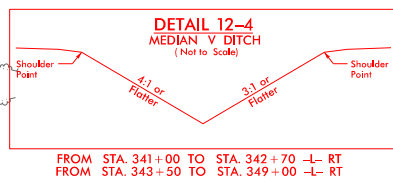
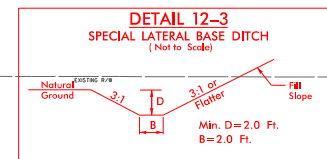
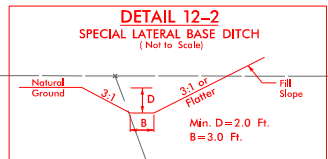
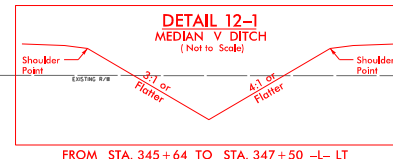
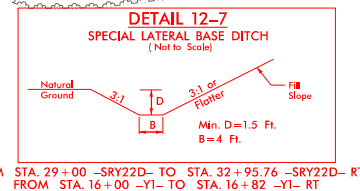
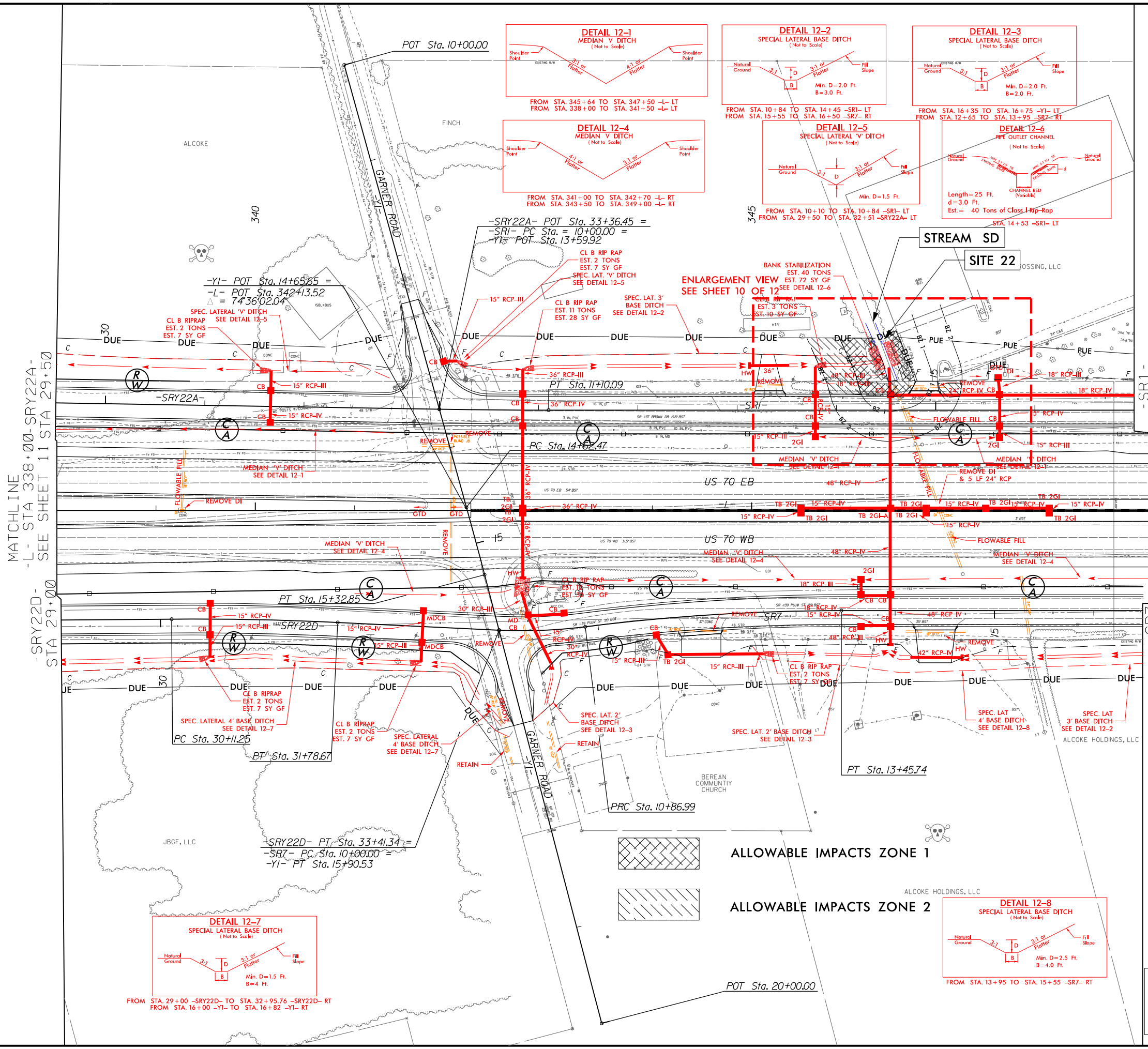
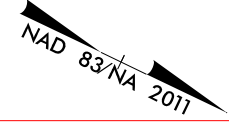
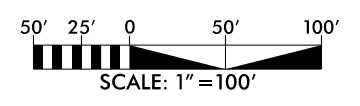
**SPEC. LATERAL
2' BASE DITCH
SEE DETAIL 11-14**

**SPEC. LATERAL 4' BASE DITCH
SEE DETAIL 11-12**

**R
W**

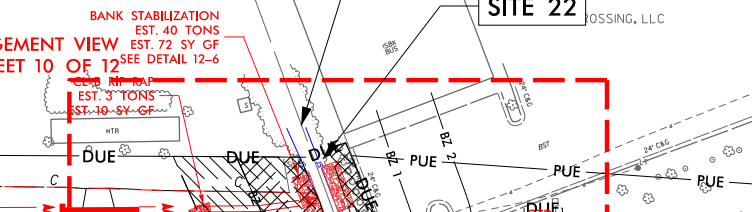
40'
15'
52.50

BUFFER DRAWING
SHEET 9 OF 12
DATE: 06-03-2020



STREAM SD
SITE 22

ENLARGEMENT VIEW
SEE SHEET 10 OF 12

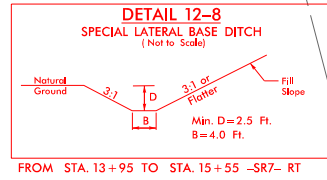


US 70 EB

US 70 WB

ALLOWABLE IMPACTS ZONE 1

ALLOWABLE IMPACTS ZONE 2



 PAVEMENT REMOVAL

FOR -L- PROFILE SEE SHEETS 29 & 30
FOR -Y1- PROFILE SEE SHEET 52
FOR -SRY21A- PROFILE SEE SHEET 73
FOR -SRY21D- PROFILE SEE SHEET 74
FOR -SR1- PROFILE SEE SHEET 75
FOR -SR7- PROFILE SEE SHEET 85
SEE SHEET 3A-1 TO 3A-3 FOR CURVE DATA

MATCHLINE -L- STA 338+00-SRY22A-
SEE SHEET 11 STA 29+50

MATCHLINE -SR1- STA 17+00
-L- STA 349+00
SEE SHEET 13

MATCHLINE -SRY22D- STA 29+00
SEE SHEET 10 STA 29+50

RIPARIAN BUFFER IMPACTS SUMMARY

Site No.	Station (From/To)	Structure Size / Type	IMPACTS									BUFFER REPLACEMENT	
			TYPE			ALLOWABLE			MITIGABLE			ZONE 1 (ft ²)	ZONE 2 (ft ²)
			ROAD CROSSING	BRIDGE	PARALLEL IMPACT	ZONE 1 (ft ²)	ZONE 2 (ft ²)	TOTAL (ft ²)	ZONE 1 (ft ²)	ZONE 2 (ft ²)	TOTAL (ft ²)		
4	60+54 to 62+09-SRY21C-RT	1 at 9'x6' RCBC	X						4,401	3,007	7,408		
	24+00 to 25+49-Y21RPC-		X						7,693	1,254	8,947		
	25+14 to 26+28-Y21RPD-RT	ROADWAY FILL			X				6,298	1,684	7,982		
	22+64 to 24+26-Y21RPA-	1 at 10'x6' RCBC	X						7,778	6,624	14,402		
	16+72 to 18+41-SRY21A-	1 at 10'x7' RCBC	X						13,523	7,151	20,674		
13	26+94 to 28+57-SRY21D-	1 at 6'x6' RCBC			X				9,124	5,417	14,541		
	29+35 to 30+63-SRY21A-		X						9,733	5,569	15,302		
18	16+28 to 17+43-Y22RPC-	1 at 7'x7' RCBC	X						13,437	8,112	21,549		
	51+63 to 52+96-SRY21A-		X						10,800	7,134	17,934		
21	13+45 to 14+55-SRY22A-LT	1 at 72" RCP	X			254	1,857	2,111					
22	13+73 to 15+26-SR1-LT	1 at 54" RCP	X			2,766	2,130	4,896					
TOTALS*:						3020	3987	7007	82787	45952	128739	0	0

NOTES:

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 06/03/2020
 CRAVEN COUNTY
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 50111.3.1

WETLANDS IN BUFFER IMPACTS SUMMARY

SITE NO.	STATION (FROM/TO)	WETLANDS IN BUFFERS	
		ZONE 1 (ft ²)	ZONE 2 (ft ²)
4	22+64 to 24+26-Y21RPA-	661	533
	16+72 to 18+41-SRY21A-	4,635	1,794
13	29+35 to 30+63-SRY21A-	9,768	2,617
18	16+28 to 17+43-Y22RPC-	528	411
	51+63 to 52+96-SRY21A-	573	476
TOTAL:		16165	5831

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 SHEET 12 OF 12

Revised 2018 Feb