TIP PROJECT: B-6046

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-6046	EC-1	7

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
48409.1.1		

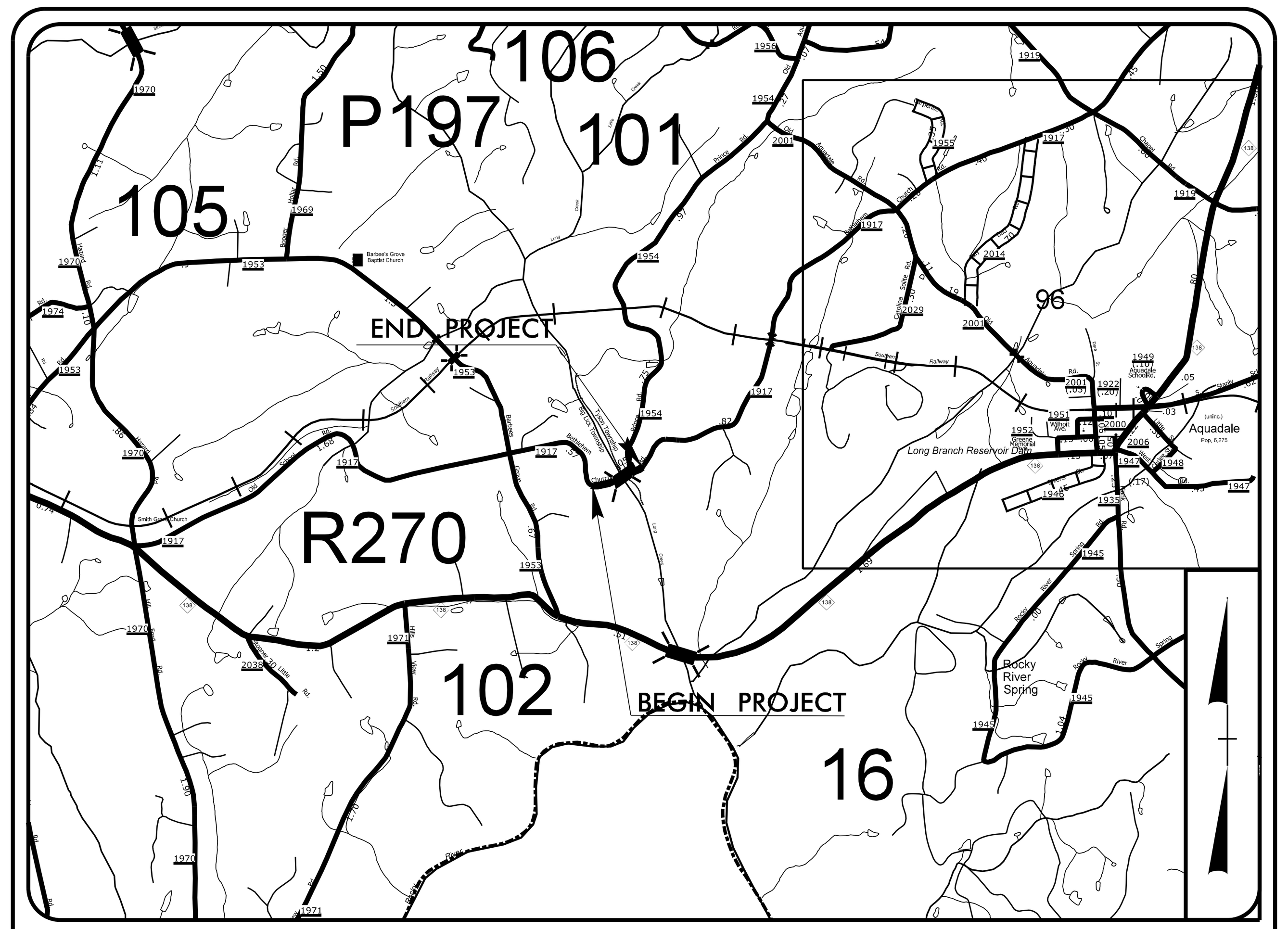
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

STANLY COUNTY

NAD 83/2011

THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.



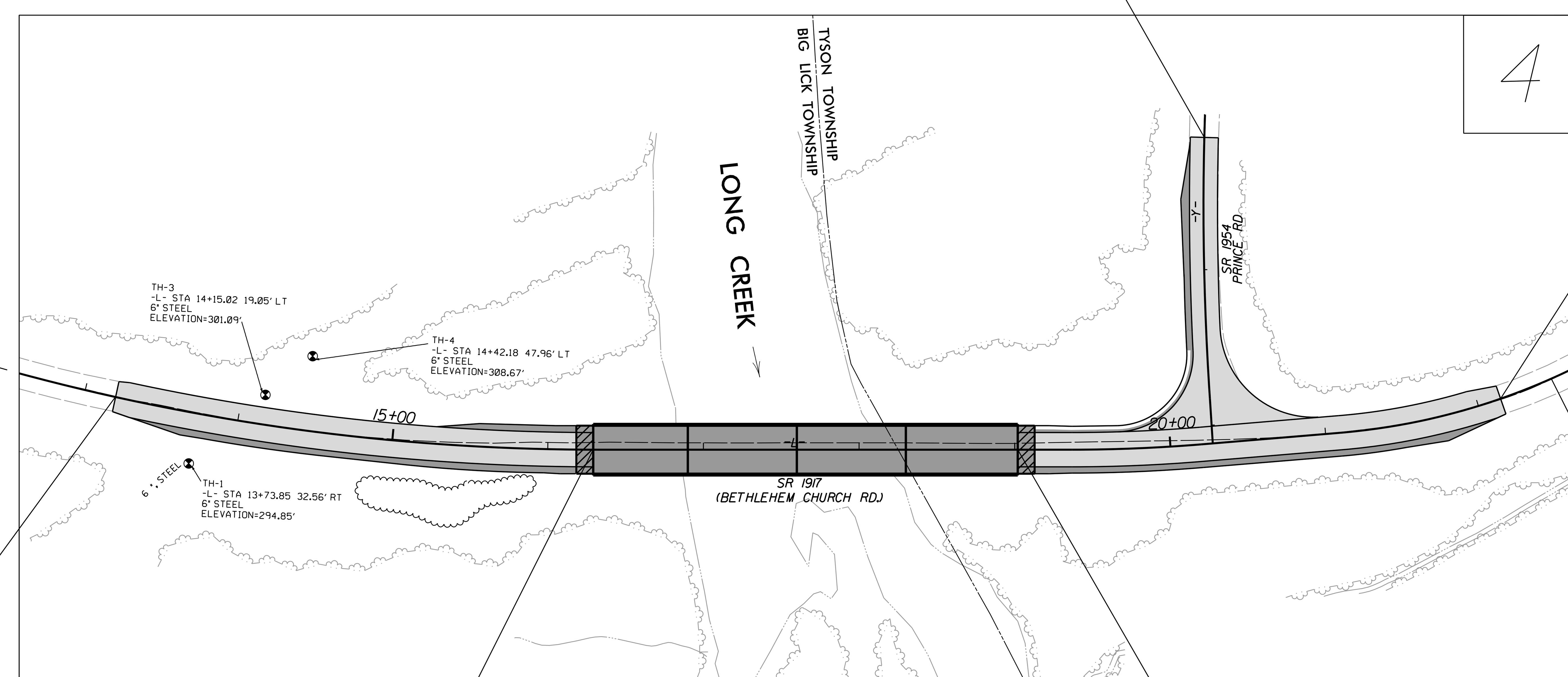
VICINITY MAP
NOT TO SCALE

LOCATION: REPLACE BRIDGE NO. 102 ON SR1917 (BETHLEHEM CHURCH ROAD) OVER LONG CREEK

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURE

BEGIN CONSTRUCTION
-Y- POC STA. 10+00.00

END TIP B-6046
-L- POC STA. 22+15.00



BEGIN TIP B-6046
-L- POC STA. 13+20.00

END CONSTRUCTION
-L- POC STA. 22+50.00

BEGIN BRIDGE
-L- STA. 16+29.26

END BRIDGE
-L- STA. 19+01.89

GRAPHIC SCALE

50 25 0 50 100

PLANS

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.

ICE of CAROLINAS, PLLC

ICE of Carolinas, PLLC
4505 Falls of Neuse Road, Suite 110
Raleigh, North Carolina 27609
Phone: 803-822-0333
License #: P-0999

Prepared in the Office of:

ICE OF CAROLINAS
4505 FALLS OF NEUSE ROAD
RALEIGH, NC 27609

Designed by:

BRADLEY BOGGS, PE 3005
NAME — LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

The "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2024 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

PROJECT REFERENCE NO.	SHEET NO.
B-6046	EC-02
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

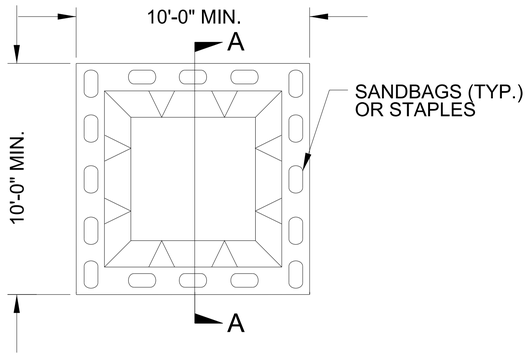
EROSION & SEDIMENT CONTROL LEGEND

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1630.03	Temporary Silt Ditch	TSD
1630.04	Stilling Basin	
1630.05	Temporary Diversion	TD
1630.06	Special Stilling Basin	
1630.07	Skimmer Basin	
1630.08	Tiered Skimmer Basin	
1630.09	Earthen Dam with Skimmer	
	Infiltration Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C

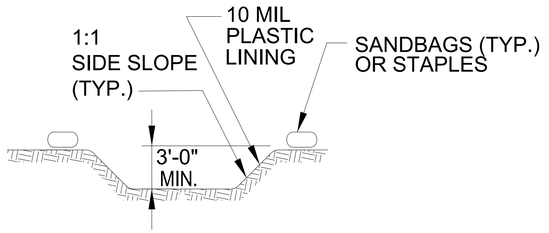
Std. #	Description	Symbol
1633.01	Temporary Rock Silt Check Type A	
1633.02	Temporary Rock Silt Check Type B	
1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1634.01	Temporary Rock Sediment Dam Type A	
1634.02	Temporary Rock Sediment Dam Type B	
1635.01	Rock Pipe Inlet Sediment Trap Type A	A
1635.02	Rock Pipe Inlet Sediment Trap Type B	B
1636.01	Excelsior Wattle Check	
1636.01	Excelsior Wattle Check with Flocculant	
1636.01	Coir Fiber Wattle Check	
1636.01	Coir Fiber Wattle Check with Flocculant	
1636.02	Silt Fence Excelsior Wattle Break	EW
	Silt Fence Coir Fiber Wattle Break	CFW
1636.03	Excelsior Wattle Barrier	EW EW EW
1636.03	Coir Fiber Wattle Barrier	CFW CFW CFW

PROJECT REFERENCE NO.	SHEET NO.
B-6046	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



PLAN



SECTION A-A

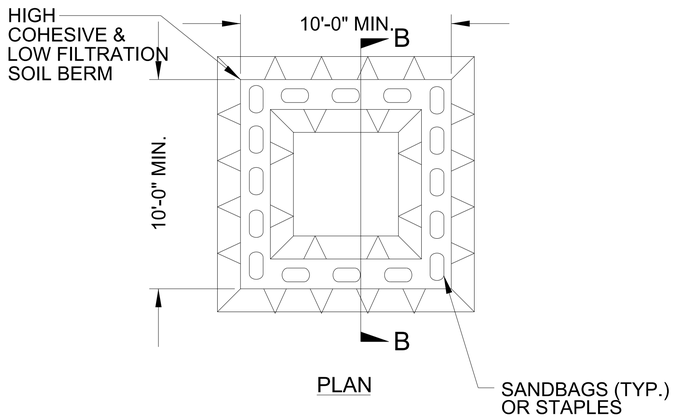
NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.

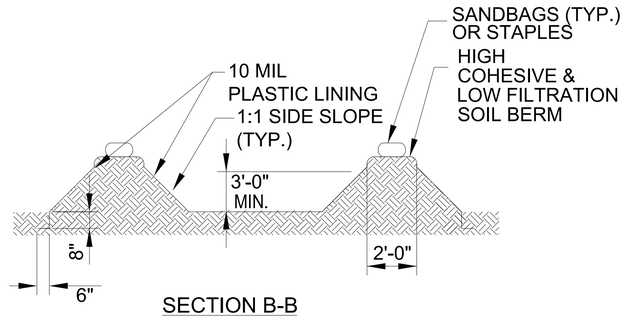
3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

BELOW GRADE WASHOUT STRUCTURE

NOT TO SCALE



PLAN



SECTION B-B

NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.

3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

ABOVE GRADE WASHOUT STRUCTURE

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
B-6046	EC-03
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

EXCELSIOR MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	Y	10+00	11+12	LT	95
4	Y	11+12	11+50	LT	50
			SUBTOTAL		145
	ADDITIONAL EXCELSIOR MATTING TO BE			INSTALLED	7645
				TOTAL	7790
				SAY	7795

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	L	13+50	15+50	LT	235
4	L	21+00	22+50	LT	185
4	Y	11+50	11+82	LT	40
			SUBTOTAL		460
		ADDITIONAL PSRM TO BE		INSTALLED	0
				TOTAL	460
				SAY	500

PROJECT REFERENCE NO.	SHEET NO.
B-6046	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

8/17/99

PROJECT REFERENCE NO. B-6046 | SHEET NO. EC-4/CONST.4

R/W SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

ICE of CAROLINAS, PLLC
ICE of Carolinas, PLLC
4505 Falls of Neuse Road, Suite 110
Raleigh, North Carolina 27609
Phone: 803-822-0333
License #: P-0999

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4

NOTE:

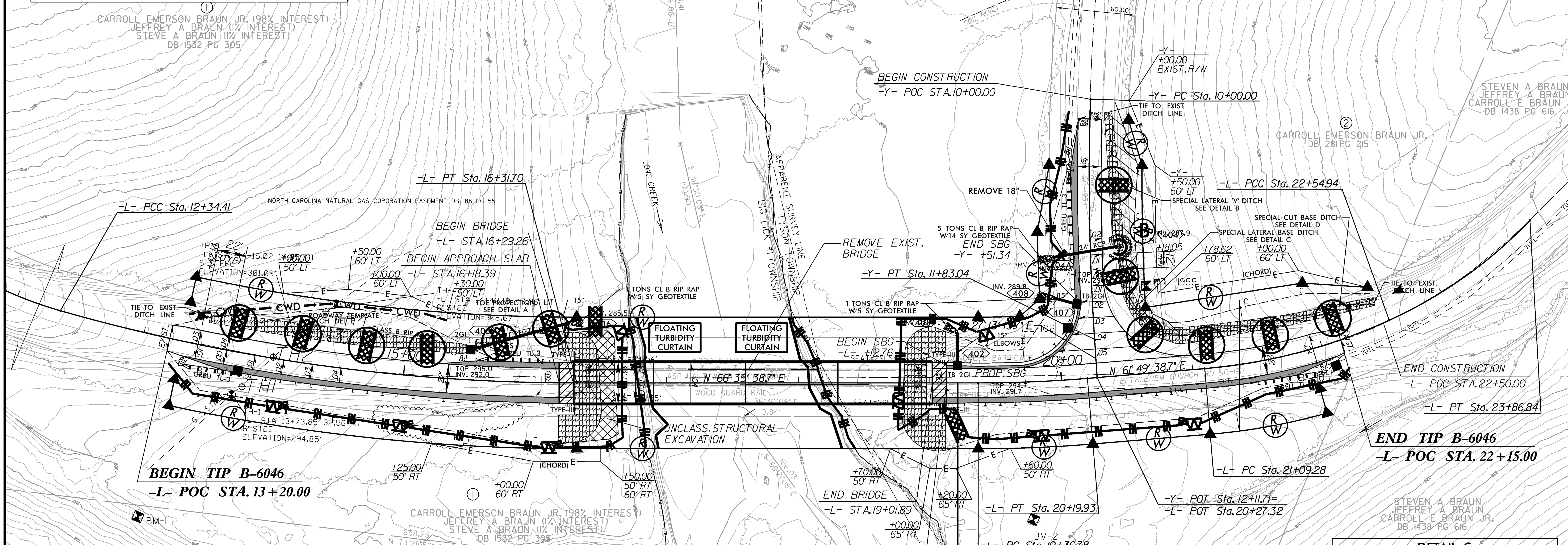
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE-B AND TEMPORARY ROCK SILT CHECKS TYPE-A AT DRAINAGE OUTLETS.

NOTE:

PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

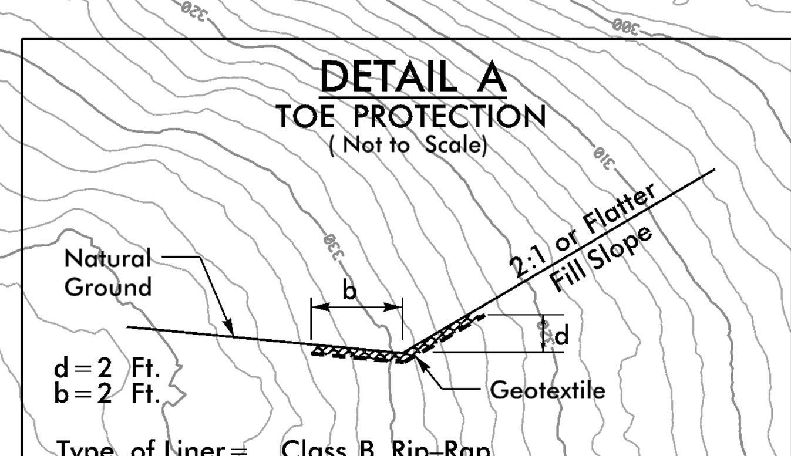
NOTE:

FOLLOW BMP MANUAL FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES FOR BRIDGE DEMO AND CONSTRUCTION.


CARROLL EMERSON BRAUN JR. (98% INTEREST)
JEFFREY A BRAUN (1% INTEREST)
STEVE A BRAUN (1% INTEREST)
DB 1532 PG 305
CARROLL EMERSON BRAUN JR.
DB 281 PG 215
STEVEN A BRAUN
JEFFREY A BRAUN
CARROLL E BRAUN JR.
DB 1438 PG 616
CLINTON D AUSTIN
GRACE L AUSTIN
DB 184 PG 140
NORTH CAROLINA NATURAL GAS COPORATION EASEMENT DB 188 PG 55
LONG CREEK
APPARENT SURVEY LINE
BIG LICK TOWNSHIP
TYSON TOWNSHIP
-L- PCC Sta. 12+34.41
-L- PT Sta. 16+31.70
BEGIN BRIDGE
-L- STA.16+29.26
BEGIN APPROACH SLAB
-L- STA.16+18.39
BEGIN CONSTRUCTION
-Y- POC STA.10+00.00
-Y- PC Sta. 10+00.00
-Y- +00.00 EXIST.R/W
TIE TO EXIST. DITCH LINE
-Y- +50.00 50' LT
REMOVE 18"
SPECIAL LATERAL 'V' DITCH SEE DETAIL B
-L- PCC Sta. 22+54.94
SPECIAL CUT BASE DITCH SEE DETAIL D
SPECIAL LATERAL BASE DITCH SEE DETAIL C
5 TONS CL B RIP RAP W/14 SY GEOTEXTILE
END SBG -Y- +51.34
REMOVE EXIST. BRIDGE
-Y- PT Sta. 11+83.04
1 TONS CL B RIP RAP W/5 SY GEOTEXTILE
FLOATING TURBIDITY CURTAIN
FLOATING TURBIDITY CURTAIN
BEGIN SBG -L- +12.76
PROP. SBG
N 66°35' 38.7" E
N 61°49' 38.7" E
BETHLEHEM CHURCH RD SR-1917
END CONSTRUCTION
-L- POC STA.22+50.00
-L- PT Sta. 23+86.84
END TIP B-6046
-L- POC STA. 22+15.00
BEGIN TIP B-6046
-L- POC STA. 13+20.00
UNCLASS. STRUCTURAL EXCAVATION
TOE PROTECTION SEE DETAIL A
END BRIDGE
-L- STA.19+01.89
END APPROACH SLAB
-L- STA.19+12.76
-L- PT Sta. 20+19.93
-L- PC Sta. 19+36.78
-L- PC Sta. 21+09.28
-Y- POT Sta. 12+11.71=
-L- POT Sta.20+27.32
BM-1
BM-2
-0.300%
11.436%
SAG
-L- 19+21.13
ELEV=295.239

DETAIL A

TOE PROTECTION (Not to Scale)

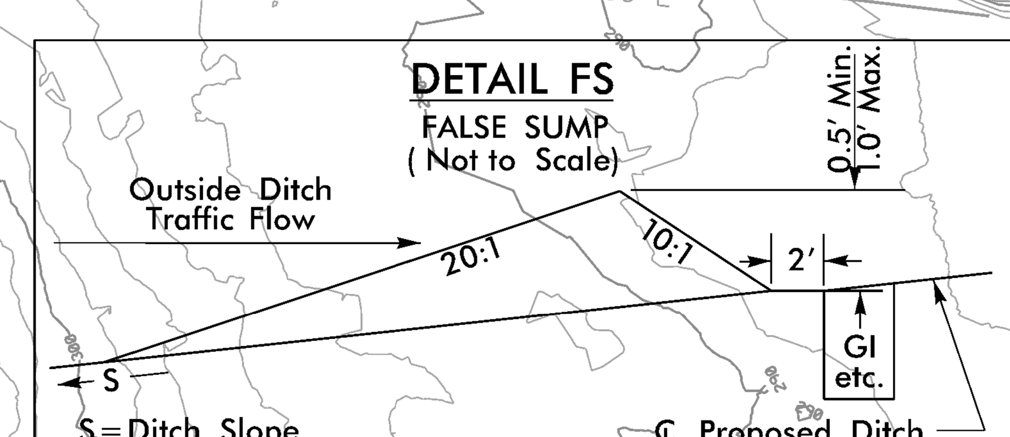


Type of Liner= Class B Rip-Rap

-L- STA. 15+53 TO 16+17 LT
EST. 37 TONS CLASS B RIP RAP
EST. 99 SY GF

DETAIL FS

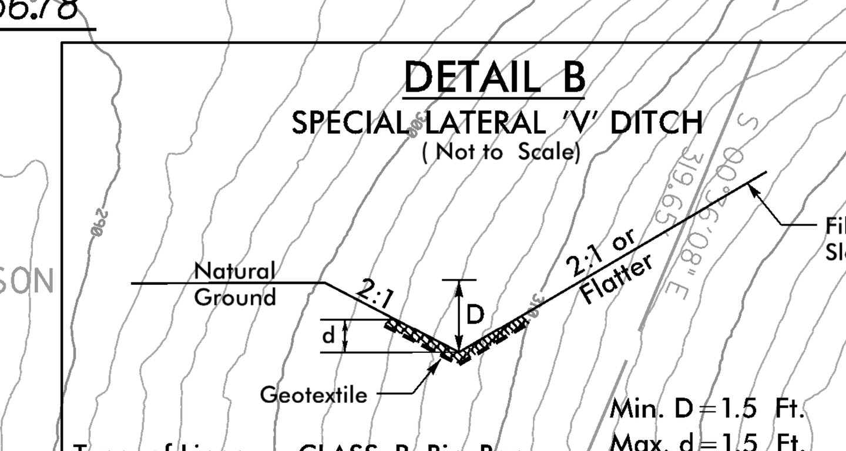
FALSE SUMP (Not to Scale)



-L- STA. 15+55 LT

DETAIL B

SPECIAL LATERAL 'V' DITCH (Not to Scale)

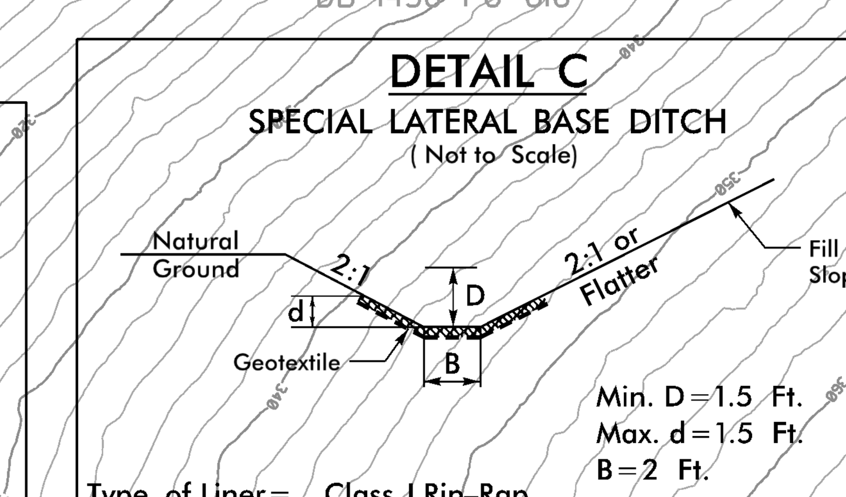


Type of Liner= CLASS B Rip-Rap

-Y1- STA. 10+00 TO 11+12 LT
EST. 52 TONS CLASS B RIP RAP
EST. 146 SY GF

DETAIL C

SPECIAL LATERAL BASE DITCH (Not to Scale)

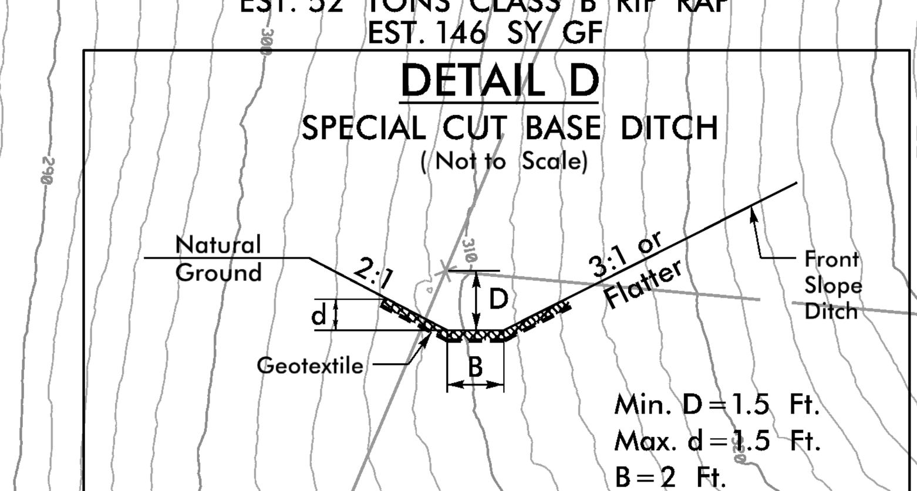


Type of Liner= Class I Rip-Rap

-Y1- STA. 11+12 TO 11+82 LT
EST. 69 TONS CLASS I RIP RAP
EST. 126 SY GF

DETAIL D

SPECIAL CUT BASE DITCH (Not to Scale)

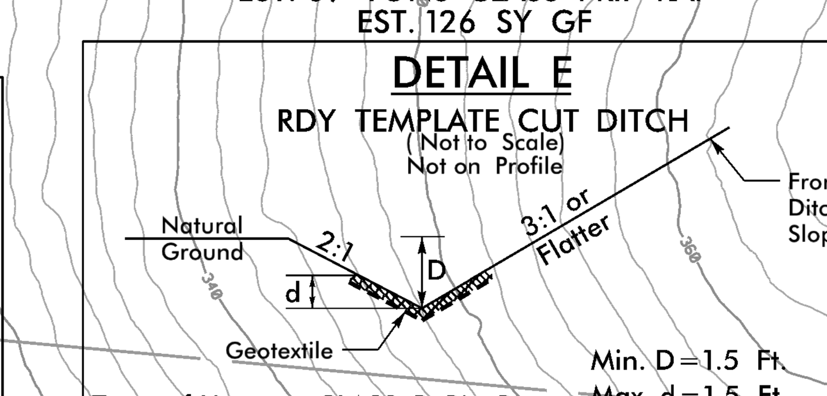


Type of Liner= CLASS B Rip-Rap

-L- STA. 21+00 TO 22+50 LT
EST. 84 TONS CLASS B RIP RAP
EST. 228 SY GF

DETAIL E

RDY TEMPLATE CUT DITCH (Not to Scale) Not on Profile



Type of Liner= CLASS B Rip-Rap

-L- STA. 13+50 TO 15+50 LT
EST. 92 TONS CLASS B RIP RAP
EST. 259 SY GF

-L- CURVE DATA

PI Sta 10+63.17	PI Sta 11+77.63	PI Sta 14+34.34	PI Sta 19+78.38	PI Sta 21+82.85	PI Sta 23+21.72
△ = 46° 04' 12.6" (LT)	△ = 21° 41' 19.4" (LT)	△ = 15° 55' 04.7" (LT)	△ = 4° 45' 50.3" (LT)	△ = 19° 53' 01.2" (LT)	△ = 22° 09' 11.2" (LT)
D = 38° 34' 05.7"	D = 18° 51' 58.3"	D = 4° 00' 24.1"	D = 5° 43' 46.5"	D = 13° 39' 04.6"	D = 16° 47' 44.2"
L = 119.45'	L = 114.96'	L = 397.28'	L = 83.15'	L = 145.65'	L = 131.90'
T = 63.17'	T = 58.18'	T = 199.93'	T = 41.60'	T = 73.57'	T = 66.78'
R = 148.56'	R = 303.70'	R = 1,430.00'	R = 1,000.00'	R = 419.71'	R = 341.14'
SE = EXIST.	SE = .04	SE = .04	SE = .04	SE = .04	SE = EXIST.
	DS = 30 MPH**	DS = 50 MPH*	DS = 50 MPH*	DS = 35 MPH**	

-Y1- CURVE DATA

PI Sta 10+91.60
△ = 5° 40' 39.5" (LT)
D = 3° 06' 06.4"
L = 183.04'
T = 91.60'
R = 1,847.19'
SE = EXIST.

* MEETS SUBREGIONAL TIER DESIGN GUIDELINES

** TYING TO EXISTING ALIGNMENT

12/4/2023
R:\Projects\19-55.01_SMU_B_6046_SR1917_over_Long_Creek\NCDOT\Hydraulics\CADD\PSH\ErosionControl\B-6046_EC_psh04_C&G.dgn
brad.boggs

8/17/99

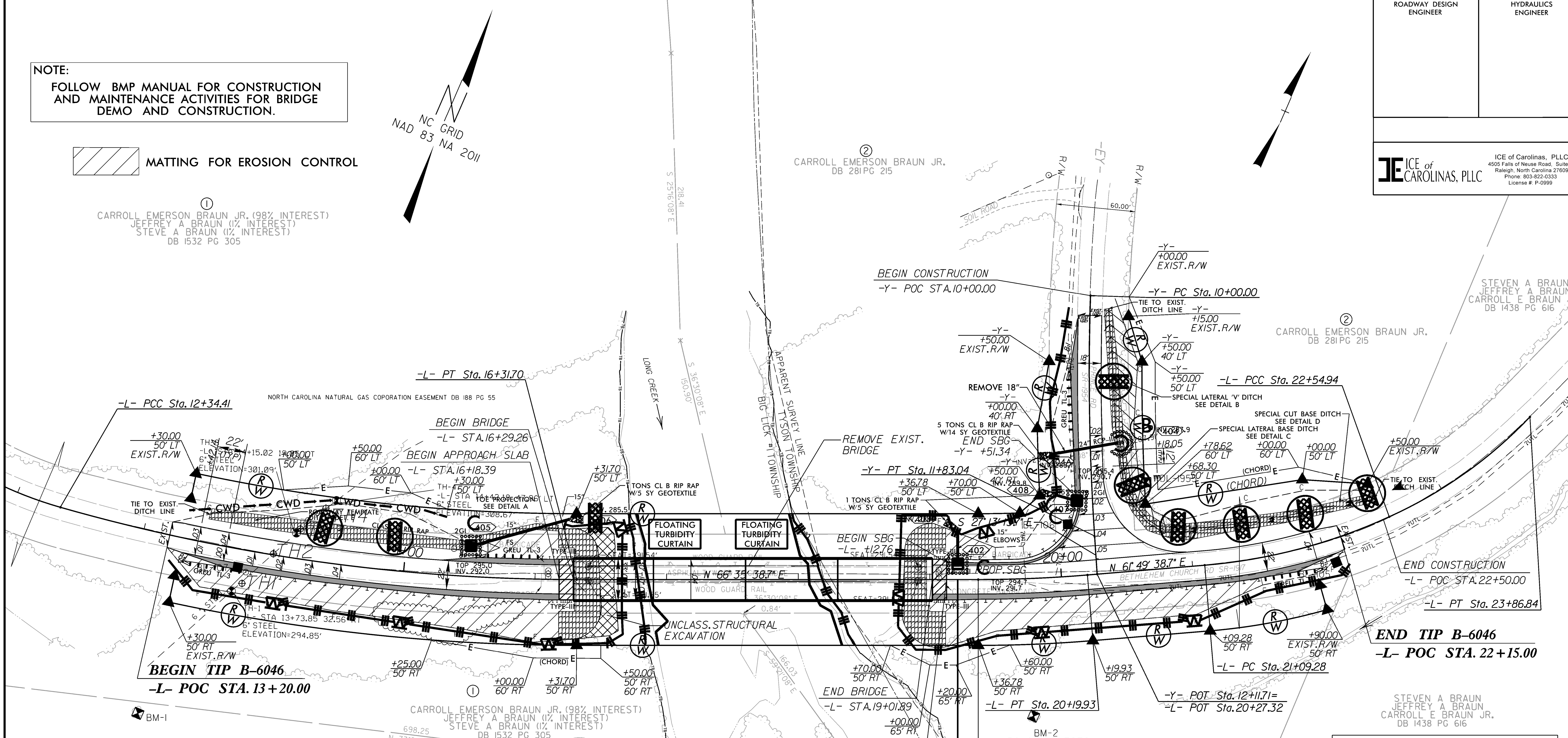
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

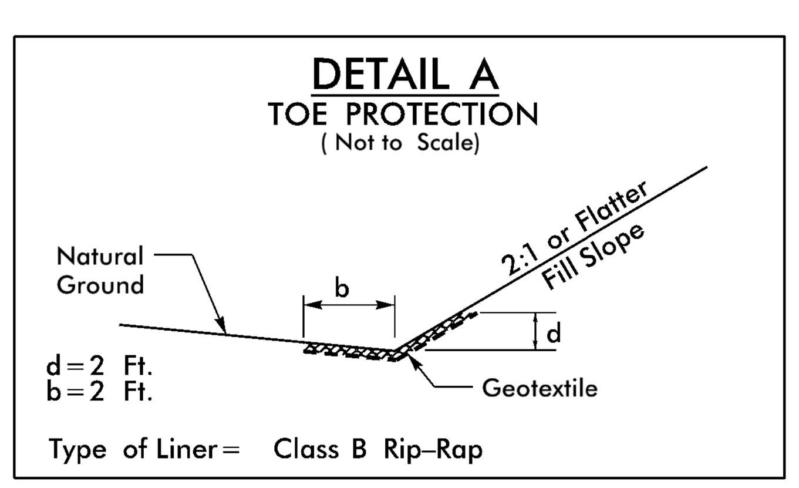
PROJECT REFERENCE NO.	SHEET NO.
B-6046	EC-5/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ICE of CAROLINAS, PLLC
ICE of Carolinas, PLLC
4505 Falls of Neuse Road, Suite 110
Raleigh, North Carolina 27609
Phone: 803-822-0333
License #: P-0999

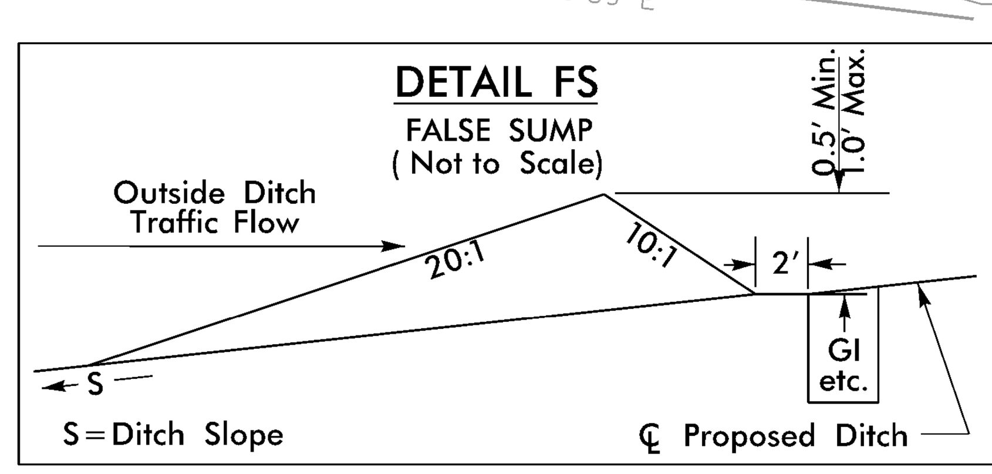
NOTE:
FOLLOW BMP MANUAL FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES FOR BRIDGE DEMO AND CONSTRUCTION.

MATTING FOR EROSION CONTROL

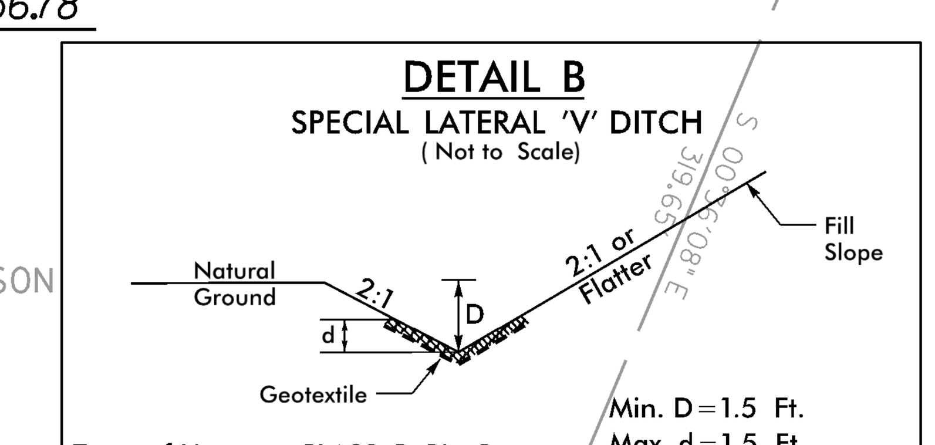




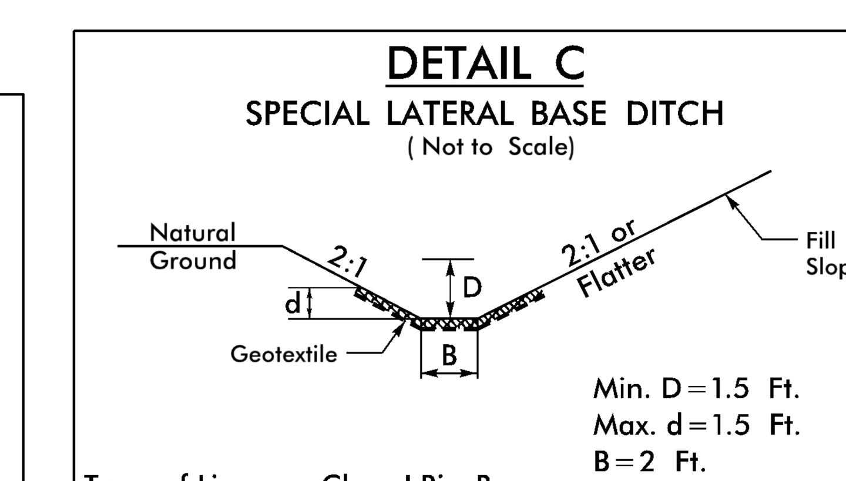
-L- STA. 15+53 TO 16+17 LT
EST. 37 TONS CLASS B RIP RAP
EST. 99 SY GF



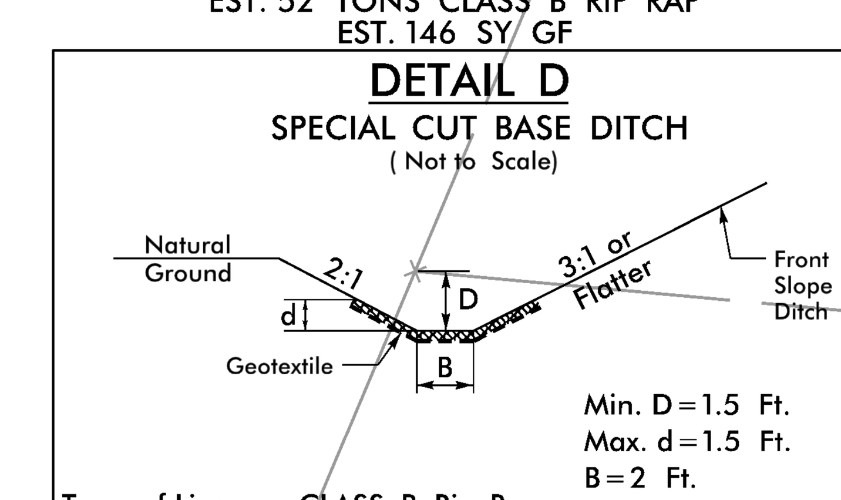
-L- STA. 15+55 LT



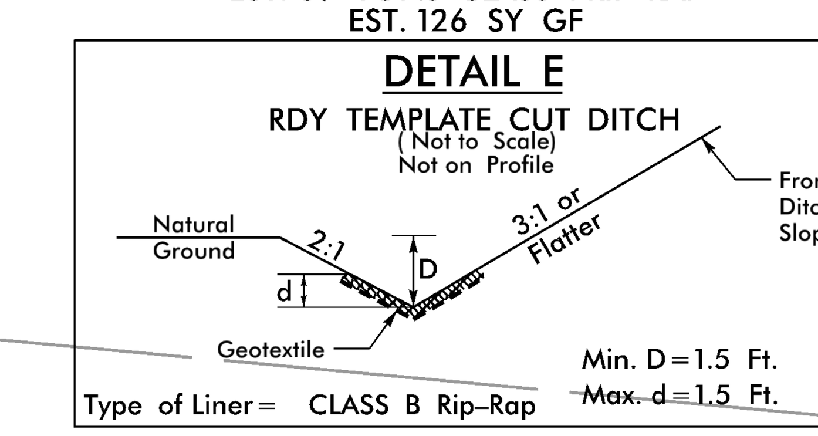
-Y1- STA. 10+00 TO 11+12 LT
EST. 52 TONS CLASS B RIP RAP
EST. 146 SY GF



-Y1- STA. 11+12 TO 11+82 LT
EST. 69 TONS CLASS I RIP RAP
EST. 126 SY GF



-L- STA. 21+00 TO 22+50 LT
EST. 84 TONS CLASS B RIP RAP
EST. 228 SY GF



-L- STA. 13+50 TO 15+50 LT
EST. 92 TONS CLASS B RIP RAP
EST. 259 SY GF

-L- CURVE DATA

PI Sta 10+63.17	PI Sta 11+77.63	PI Sta 14+34.34	PI Sta 19+78.38	PI Sta 21+82.85	PI Sta 23+21.72
△ = 46° 04' 12.6" (LT)	△ = 21° 41' 19.4" (LT)	△ = 15° 55' 04.7" (LT)	△ = 4° 45' 50.3" (LT)	△ = 19° 53' 01.2" (LT)	△ = 22° 09' 11.2" (LT)
D = 38° 34' 05.7"	D = 18° 51' 58.3"	D = 4° 00' 24.1"	D = 5° 43' 46.5"	D = 13° 39' 04.6"	D = 16° 47' 44.2"
L = 119.45'	L = 114.96'	L = 397.28'	L = 83.15'	L = 145.65'	L = 131.90'
T = 63.17'	T = 58.18'	T = 199.93'	T = 41.60'	T = 73.57'	T = 66.78'
R = 148.56'	R = 303.70'	R = 1,430.00'	R = 1,000.00'	R = 419.71'	R = 341.14'
SE = EXIST.	SE = .04	SE = .04	SE = .04	SE = .04	SE = EXIST.
	DS = 30 MPH**	DS = 50 MPH*	DS = 50 MPH*	DS = 35 MPH**	

-Y1- CURVE DATA

PI Sta 10+91.60
△ = 5° 40' 39.5" (LT)
D = 3° 06' 06.4"
L = 183.04'
T = 91.60'
R = 1,847.19'
SE = EXIST.

* MEETS SUBREGIONAL TIER DESIGN GUIDELINES
** TYING TO EXISTING ALIGNMENT

12/4/2023
R:\Projects\19-55.01_SMU_B_6046_SR1917_over_Long_Creek\NCDOT\Hydraulics\CADD\PSH\ErosionControl\B-6046_EC_psh04_FINAL.dgn
brad.boggs