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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

LIST OF ROADWAY STANDARDS

EFF. 01-16-2024
REV.

2024 ROADWAY STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Contracts Standards and Development Unit - N. C. Department of Transportation - Raleigh, N. C., Dated January 16, 2024 are applicable to this project and by reference here by are considered a part of these plans:

STD. NO.	TITLE
DIVISION 8 - INCIDENTALS	
862.01	Guardrail Placement (Use Details in Lieu of Standards for Sheets 4, 6, 12, and 14 of 15)
862.02	Guardrail Installation (Use Details in Lieu of Standards for Sheets 5 of 9)
876.03	Drainage Ditches with Class 'A' Rip Rap
876.04	Drainage Ditches with Class 'B' Rip Rap

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

HELENE
EMERGENCY REPAIRS

COUNTY TRANSYLVANIA

PROJECT DESCRIPTION 1 SITE ON NC 215

NORTH CAROLINA PROFESSIONAL SEAL Ø23481 ENGINEER J. DEAN HARDISTER

Signed by: J. Dean Hardister
BE970DAF9D0D403...

04/15/2025

SIGNATURE DATE

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

ROUTE	SITE #	SITE LATITUDE	SITE LONGITUDE	REPAIR OPTION 1	REPAIR OPTION 2	REPAIR OPTION 3
NC 215	707	35.15729254	-82.83155174	Shotcrete Slope Stabilization		

WHEN MULTIPLE REPAIR OPTIONS ARE AVAILABLE AT A SITE LOCATION, THE CONTRACTOR SHALL PROCEED IN SEQUENTIAL ORDER AND CHOOSE THE FIRST OPTION THAT FITS WITHIN SITE CONSTRAINTS

PRIOR TO CONSTRUCTING THE GEOTECHNICAL REPAIRS, AN ON-SITE MEETING WITH THE PRIME CONTRACTOR, THE GEOTECHNICAL SPECIALTY SUBCONTRACTOR (IF APPLICABLE), THE DIVISION CONSTRUCTION REPRESENTATIVE AND THE GEOTECHNICAL OPERATIONS GROUP REPRESENTATIVE SHALL BE CONDUCTED

CONTRACT: DN01116

GEOTECHNICAL ENGINEER

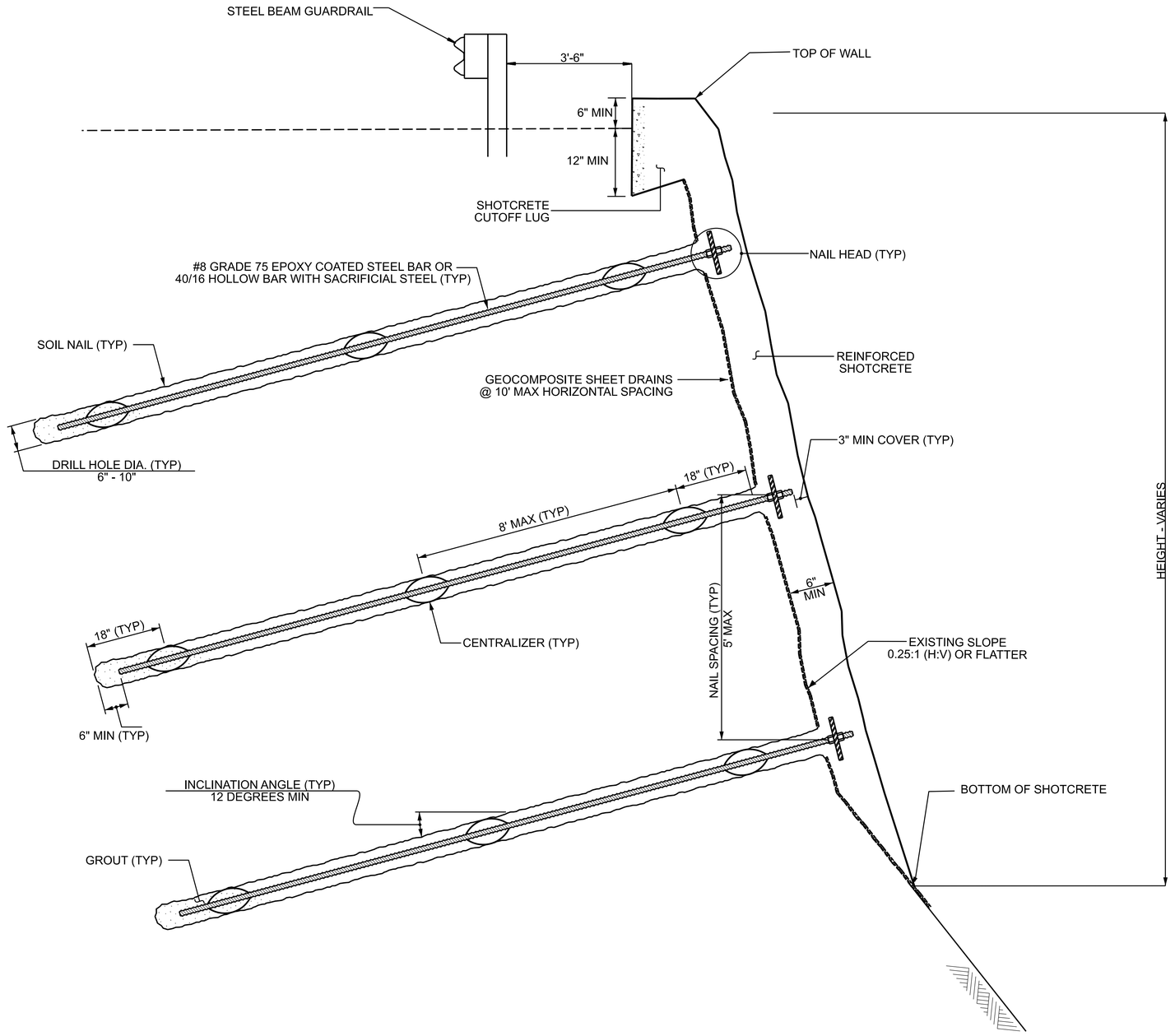
NORTH CAROLINA PROFESSIONAL SEAL 023481 ENGINEER J. DEAN HARDISTER

Signed by: J. Dean Hardister 04/15/2025
6E070DAF50DD403...
SIGNATURE DATE

ENGINEER

SIGNATURE DATE

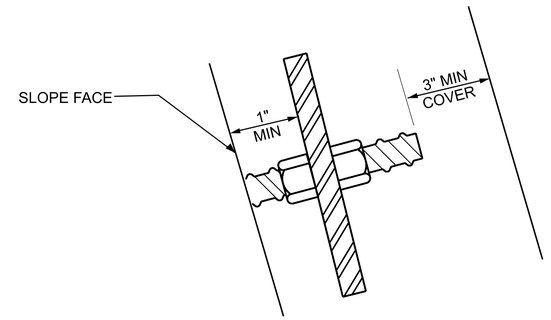
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



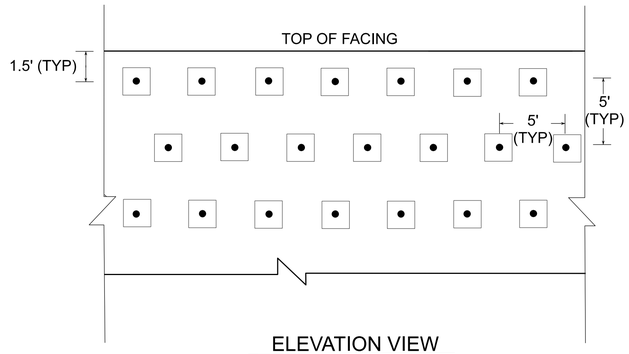
SHOTCRETE SLOPE STABILIZATION - TYPICAL SECTION

NOTES:

1) FOR SHOTCRETE SLOPE STABILIZATION, SEE PROVISION.
2) SOIL NAIL AVERAGE LENGTH = 40 FEET.
3) SOIL NAIL SHALL BE #8 GRADE 75 EPOXY COATED STEEL BAR OR 40/16 HOLLOW BAR.
4) DESIGN FACING FOR MAXIMUM To OF 39 KIPS.
5) FOR TESTING, REQUIRED PROOF TEST LOAD = BONDED LENGTH (FT) x 2.4 KIPS/FT x 0.75.
6) IF GUARDRAIL IS CLOSER THAN SHOWN, CONTACT THE ENGINEER.



NAIL HEAD DETAIL



ELEVATION VIEW

CONTRACT NO.: DN01116

DO NOT USE THESE DETAILS UNLESS DIRECTED BY THE ENGINEER

PREPARED BY: DP	DATE: 10/24
REVIEWED BY:	DATE:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT

HURRICANE HELENE EMERGENCY REPAIRS

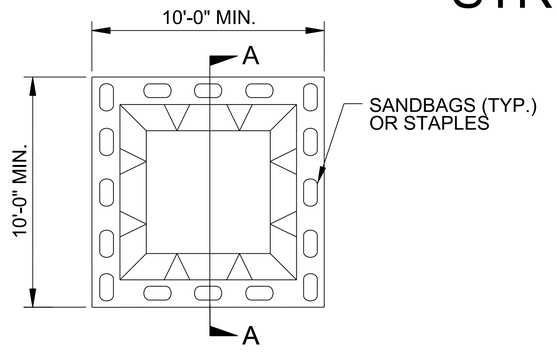
SHOTCRETE SLOPE STABILIZATION

REVISIONS						
NO.	BY	DATE	NO.	BY	DATE	
1			3			
2			4			

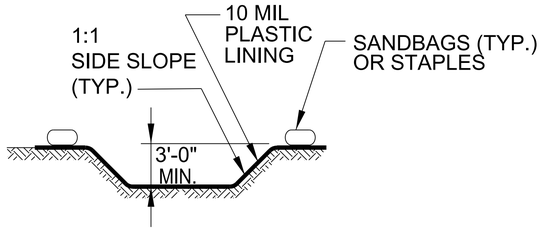
SHEET NO. 1 OF 1

PROJECT REFERENCE NO.	SHEET NO.
X-XXXX	EC-XX
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

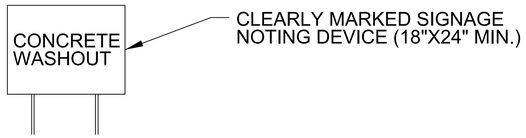
ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



PLAN



SECTION A-A



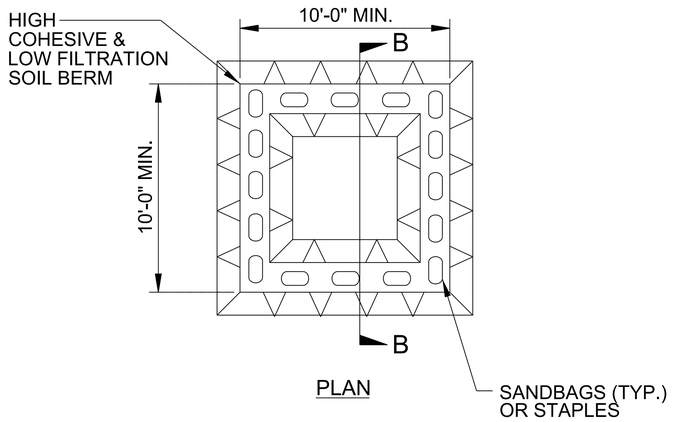
NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

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.

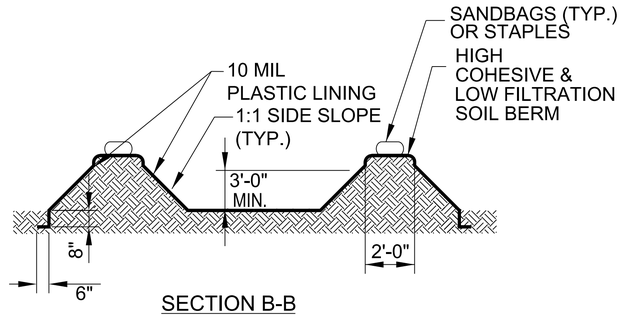
3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

BELOW GRADE WASHOUT STRUCTURE

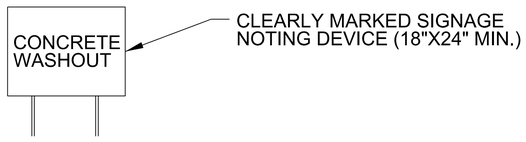
NOT TO SCALE



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

SUMMARY OF QUANTITIES

								0000400000-N	0043000000-N	0196000000-E	0448200000-E	0996000000-N	1099700000-E	1491000000-E	1523000000-E	1575000000-E	2556000000-E	2815000000-N	3030000000-E	3360000000-E	3420000000-E	6138000000-E
PROJECT NO	COUNTY	MAP NO	ROUTE	LENGTH	WIDTH	BEGIN MP	END MP	CONSTRUCTION SURVEYING	GRADING	GEOTEXTILE FOR SOIL STABILIZATION	15" RC PIPE CULVERTS, CLASS IV	PIPE CLEAN OUT	CLASS IV SUBGRADE STABILIZATION	BASE COURSE, B25.0C	SURFACE COURSE, S9.5C	ASPHALT BINDER FOR PLANT MIX	SHOULDER BERM GUTTER	ADJUSTMENT OF DROP INLETS	STEEL BEAM GUARDRAIL	REMOVE EXISTING GUARDRAIL	WEATHERING STEEL BEAM GUARDRAIL	VEGETATIVE DEBRIS REMOVAL AND DISPOSAL
				MI	FT			LS	LS	SY	LF	EA	TON	TONS	TONS	TONS	LF	EA	LF	LF	LF	CY
18314.1088015	Transylvania	2	US-64	0.05	22	6.58	6.63	0.50	0.50	100	60	1	350	21	9	2	175	1	200	200		30
TOTAL FOR MAP NO. 2				**0.05**				**0.50**	**0.50**	**100**	**60**	**1**	**350**	**21**	**9**	**2**	**175**	**1**	**200**	**200**		30
TOTAL FOR PROJ NO. 18314.1088015				**0.05**				**0.50**	**0.50**	**100**	**60**	**1**	**350**	**21**	**9**	**2**	**175**	**1**	**200**	**200**		30
18314.1088038	Transylvania	3	NC-215	0.06	20	1.32	1.38	0.50	0.50											125	125	
TOTAL FOR MAP NO. 3				**0.06**				**0.50**	**0.50**											**125**	**125**	
TOTAL FOR PROJ NO. 18314.1088038				**0.06**				**0.50**	**0.50**											**125**	**125**	
GRAND TOTAL				**0.11**				**1.00**	**1.00**	**100**	**60**	**1**	**350**	**21**	**9**	**2**	**175**	**1**	**200**	**325**	**125**	**30**

SUMMARY OF QUANTITIES

								8252000000-E	8834000000-N		8839000000-E		8853000000-E
PROJECT NO	COUNTY	MAP NO	ROUTE	LENGTH	WIDTH	BEGIN MP	END MP	REINFORCING STEEL (RETAINING WALL)	SOIL NAIL, AVERAGE LENGTH	SOIL NAIL PROOF TESTS	SOIL NAIL, ADDITIONAL LENGTH OVER AVERAGE	GEOCOMPOSITE DRAINS	SHOTCRETE
				MI	FT			LB	EA	EA	LF	LF	CY
18314.1088015	Transylvania	2	US-64	0.05	22	6.58	6.63						
TOTAL FOR MAP NO. 2				**0.05**									
TOTAL FOR PROJ NO. 18314.1088015				**0.05**									
18314.1088038	Transylvania	3	NC-215	0.06	20	1.32	1.38	2293	429	22	656	450	125
TOTAL FOR MAP NO. 3				**0.06**				**2293**	**429**	**22**	**656**	**450**	**125**
TOTAL FOR PROJ NO. 18314.1088038				**0.06**				**2293**	**429**	**22**	**656**	**450**	**125**
GRAND TOTAL				**0.11**				**2293**					

Sheet No: 7

SUMMARY OF QUANTITIES

								6000000000-E	6006000000-E	6009000000-E	6012000000-E	6029000000-E	6036000000-E	6042000000-E	6071010000-E	6084000000-E	6096000000-E	6108000000-E	6117000000-N	6117500000-N
PROJECT NO	**COUNTY**	**MAP NO**	**ROUTE**	**LENGTH**	**WIDTH**	**BEGIN MP**	**END MP**	**TEMPORARY SILT FENCE**	**STONE FOR EROSION CONTROL, CLASS A**	**STONE FOR EROSION CONTROL, CLASS B**	**SEDIMENT CONTROL STONE**	**SAFETY FENCE**	**MATTING FOR EROSION CONTROL**	**1/4" HARDWARE CLOTH**	**WATTLE**	**SEED & MULCHING**	**SEED FOR SUPPLEMENTAL SEEDING**	**FERTILIZER TOPDRESSING**	**RESPONSE FOR EROSION CONTROL**	**CONCRETE WASHOUT STRUCTURE**
				MI	**FT**			**LF**	**TON**	**TON**	**TON**	**LF**	**SY**	**LF**	**LF**	**AC**	**LB**	**TON**	**EA**	**EA**
18314.1088015	Transylvania	2	US-64	0.05	22	6.58	6.63	150	20	20	20		100	20	50	0.1	50.0	0.1	1	1
TOTAL FOR MAP NO. 2				**0.05**				**150**	**20**	**20**	**20**		**100**	**20**	**50**	**0.1**	**50.0**	**0.1**	**1**	**1**
TOTAL FOR PROJ NO. 18314.1088015				**0.05**				**150**	**20**	**20**	**20**		**100**	**20**	**50**	**0.1**	**50.0**	**0.1**	**1**	**1**
18314.1088038	Transylvania	3	NC-215	0.06	20	1.32	1.38	100				100							1	1
TOTAL FOR MAP NO. 3				**0.06**				**100**				**100**							**1**	**1**
TOTAL FOR PROJ NO. 18314.1088038				**0.06**				**100**				**100**							**1**	**1**
GRAND TOTAL				**0.11**				**250**	**20**	**20**	**20**	**100**	**100**	**20**	**50**	**0.1**		**0.1**	**2**	**2**

Sheet No: 8

THERMOPLASTIC AND PAINT QUANTITIES

									4457000000-N	4424500000-N	4688000000-E	4688000000-E
PROJECT NO	COUNTY	MAP NO	ROUTE	LANES	LENGTH	WIDTH	BEGIN MP	END MP	TEMPORARY TRAFFIC CONTROL	TEMPORARY PORTABLE TRAFFIC SIGNAL SYSTEM	6" X 90 M WHITE THERMO	6" X 90 M YELLOW THERMO
					MI	FT			LS	LS	LF	LF
18314.1088015	Transylvania	2	US-64	2	0.05	22	6.58	6.63	0.50	0.50	250	250
TOTAL FOR MAP NO. 2					**0.05**				**0.50**	**0.50**	**250**	**250**
TOTAL FOR PROJ NO. 18314.1088015					**0.05**				**0.50**	**0.50**	**250**	**250**
18314.1088038	Transylvania	3	NC-215	2	0.06	20	1.32	1.38	0.50	0.50		
TOTAL FOR MAP NO. 3					**0.06**				**0.50**	**0.50**		
TOTAL FOR PROJ NO. 18314.1088038					**0.06**				**0.50**	**0.50**		
GRAND TOTAL					**0.11**				**1**	**1**	**250**	**250**