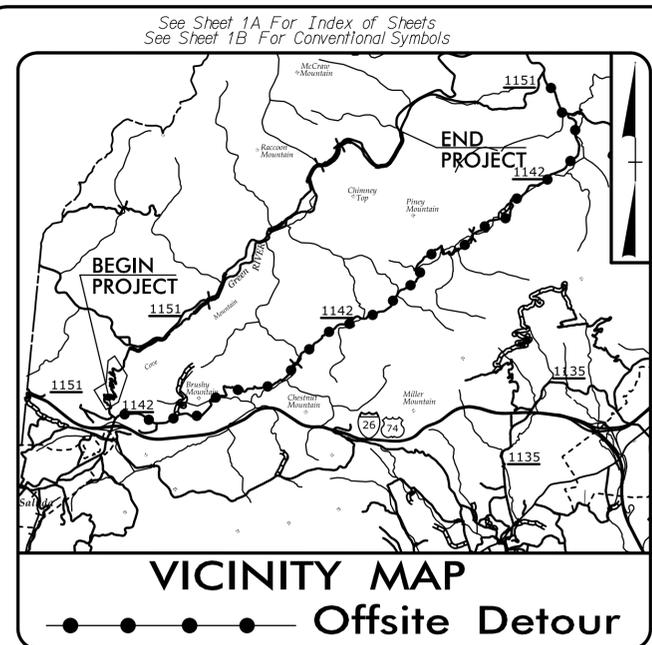


09/08/99

3/24/2026  
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User:cbue11

**PROJECT: W03291**

**CONTRACT: C205178**

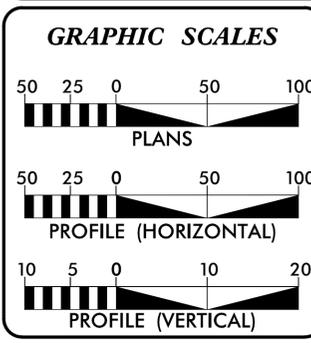
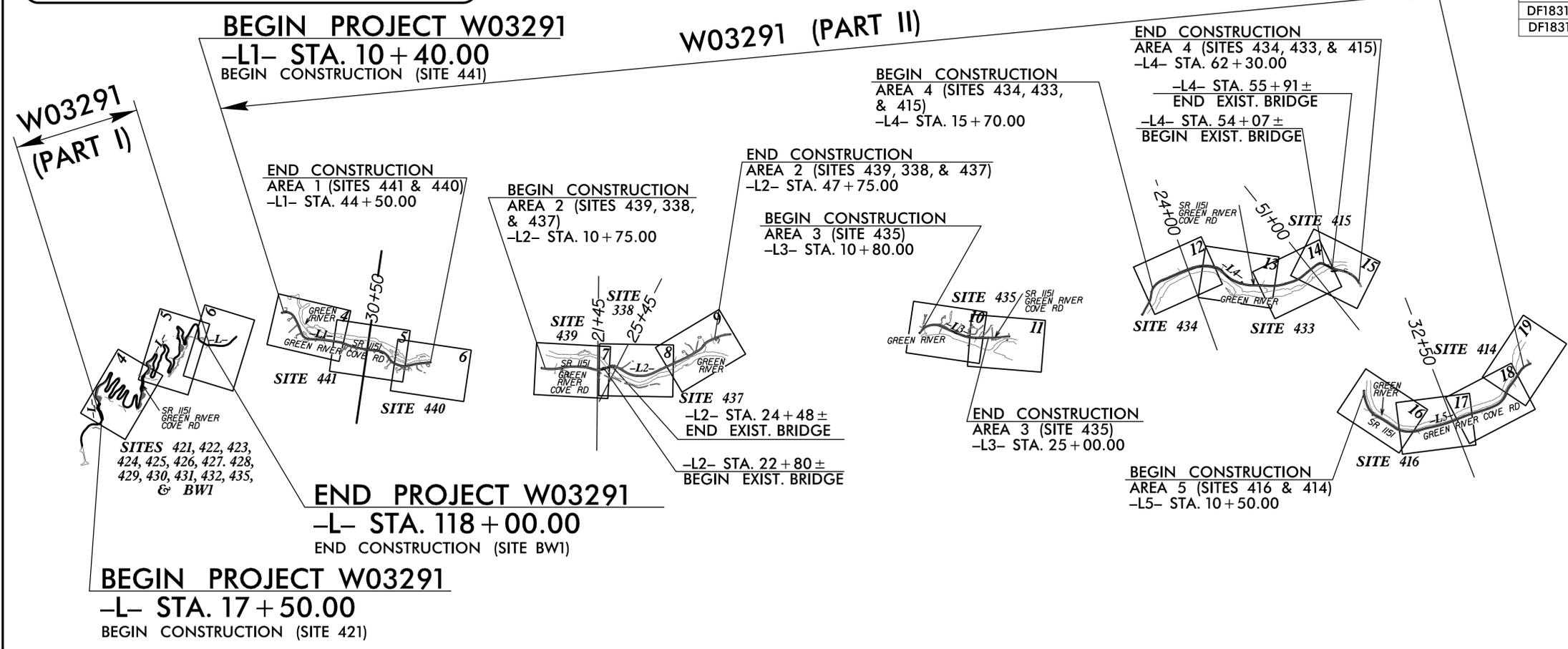


STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
**POLK COUNTY**

**LOCATION: SR 1151 (GREEN RIVER COVE ROAD)**

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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W03291	1	
STATE PROJ. NO.	DESCRIPTION		
DF18314.2075062	421		
DF18314.2075063	422		
DF18314.2075064	423		
DF18314.2075065	424		
DF18314.2075066	425		
DF18314.2075067	426		
DF18314.2075068	427		
DF18314.2075069	428		
DF18314.2075070	429		
DF18314.2075071	430		
DF18314.2075139	431		
DF18314.2075100	432		
DF18314.2075099	435 (PART I)		
DF18314.2075140	BW1		
DF18314.2075080	441		
DF18314.2075079	440		
DF18314.2075078	439		
DF18314.2075095	338		
DF18314.2075076	437		
DF18314.2075074	435 (PART II)		
DF18314.2075073	434		
DF18314.2075072	433		
DF18314.2075033	415		
DF18314.2075032	416		
DF18314.2075031	414		



**DESIGN DATA**

ADT 2025 = 310  
ADT 2050 = 400  
V = 40 MPH

FUNC CLASS = LOCAL RURAL SUBREGIONAL

**PROJECT LENGTH**

LENGTH OF ROADWAY W03291 PART I = 1.142 MILES  
LENGTH OF STRUCTURE W03291 PART I = 0.004 MILES  
TOTAL LENGTH PROJECT W03291 PART I = 1.146 MILES

LENGTH OF ROADWAY W03291 PART II = 3.208 MILES  
LENGTH OF STRUCTURE W03291 PART II = 0.067 MILES  
TOTAL LENGTH PROJECT W03291 PART II = 3.275 MILES

LENGTH OF ROADWAY W03291 = 4.350 MILES  
LENGTH OF STRUCTURE W03291 = 0.071 MILES  
TOTAL LENGTH PROJECT W03291 = 4.421 MILES

**NCDOT CONTACT: JEANETTE L. WHITE, PE**

<p>PLANS PREPARED BY:</p> <p><b>TGS ENGINEERS</b> 201 W. MARION ST., STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO. C-0275</p>	<p>PLANS PREPARED FOR:</p> <p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION</p> <p>DIVISION 14 252 Webster Rd Sylva, NC 28779</p>
<p><b>RIGHT OF WAY DATE:</b> NOV. 5, 2025 (PART I) JULY 31, 2025 (PART II)</p> <p><b>LETTING DATE:</b> APRIL 21, 2026</p> <p>2024 STANDARD SPECIFICATIONS</p>	<p><b>JIMMY L. TERRY, PE</b> PROJECT ENGINEER</p> <p><b>AUSTIN R. TURNER, PE</b> PROJECT DESIGN ENGINEER</p> <p><b>KATELYN S. ALMOND</b> PROJECT DESIGN ENGINEER</p>

**HYDRAULICS ENGINEER**

3/24/2026

Signed by: *John W. Twissdale, Jr.* P.E.  
SIGNATURE: [Signature]

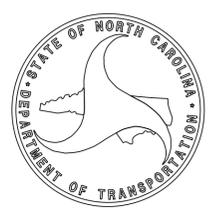
**ROADWAY DESIGN ENGINEER**

3/24/2026

Signed by: *Jimmy Terry* P.E.  
SIGNATURE: [Signature]

Professional Engineer Seals for John W. Twissdale, Jr. and Jimmy L. Terry.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



# INDEX OF SHEETS

## INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
W03291 PART I INDEX OF SHEETS	
SHEET NUMBER	SHEET
1	TITLE SHEET
2A-1	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2B-1 THRU 2B-2	ROADWAY ALIGNMENT DATA
2C-1 THRU 2C-2	SPECIAL DETAIL - METHOD OF PIPE INSTALLATION
2C-3	SPECIAL DETAIL - GUARDRAIL PLACEMENT
2C-4	SPECIAL DETAIL - GUARDRAIL INSTALLATION
2C-5	SPECIAL DETAIL - GUARDRAIL PLACEMENT
2D-1	DRAINAGE DETAIL - TRAFFIC BEARING GRATED INLET
2G-1 THRU 2G-3	GEOTECHNICAL DETAIL - GROUTED ROCK EMBANKMENT
2G-4	GEOTECHNICAL DETAIL - WIRE MESH SOIL STABILIZATION
3B-1 THRU 3B-4	ROADWAY SUMMARIES (EARTHWORK, PAVEMENT REMOVAL, SHOULDER BERM GUTTER, & EXPRESSWAY GUTTER)
3B-5 THRU 3B-6	GUARDRAIL SUMMARY
3D-1 THRU 3D-3	DRAINAGE SUMMARIES
3G-1	GEOTECHNICAL SUMMARIES
3P-1	PARCEL INDEX SHEET
4 THRU 6	PLAN SHEETS
7	PROFILE SHEET
RW-1 THRU RW-6	SURVEY CONTROL SHEETS
TMP-1 THRU TMP-3	TRANSPORTATION MANAGEMENT PLANS
EC-1 THRU EC-9	EROSION CONTROL PLANS
RF-1	REFORESTATION DETAIL SHEET
UO-1 THRU UO-4	UTILITIES BY OTHERS PLANS
X-1	CROSS-SECTION INDEX SHEET
X-1A	CROSS-SECTION SUMMARY SHEET
X-2 THRU X-92	CROSS-SECTIONS
STUCTURE TITLE SHEET	
S1 THRU S-2	STRUCTURE PLANS - TIMBER BRIDGE RAIL SYSTEM
STRUCTURE STANDARD NOTES	
W-1 THRU W-5	RETAINING WALL SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
2A-1	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2C-1 THRU 2C-2	SPECIAL DETAIL - METHOD OF PIPE INSTALLATION
2C-3 THRU 2C-4	SPECIAL DETAIL - GUARDRAIL PLACEMENT
2C-5	SPECIAL DETAIL - GUARDRAIL INSTALLATION
2C-6	SPECIAL DETAIL - GUARDRAIL PLACEMENT
2C-7 THRU 2C-9	GUARDRAIL ANCHOR UNITS B-77 & B-77 SC DETAILS
2D-1 THRU 2D-2	DRAINAGE DETAIL - SINGLE 83" X 57" CSPA, 90° SKEW - HEADWALL
2D-3 THRU 2D-4	DRAINAGE DETAIL - DOUBLE 57" X 38" CSPA, 90° SKEW - HEADWALL
2D-5 THRU 2D-6	DRAINAGE DETAIL - SINGLE 112" X 75" CSPA, 90° SKEW - HEADWALL
2D-7	DRAINAGE DETAIL - CONCRETE CATCH BASIN - 3 OR 4 SIDE OPEN THROAT
2G-1 THRU 2G-3	GEOTECHNICAL DETAIL - ROCK EMBANKMENTS (SITES 433, 434, 437 & 441)
3B-1 THRU 3B-4	ROADWAY SUMMARIES (EARTHWORK, PAVEMENT REMOVAL, SHOULDER BERM GUTTER, & EXPRESSWAY GUTTER)
3B-5	GUARDRAIL SUMMARY
3D-1 THRU 3D-4	DRAINAGE SUMMARIES
3G-1	GEOTECHNICAL SUMMARIES
4 THRU 19	PLAN SHEETS
20 THRU 28	PROFILE SHEETS
RW02C-1 THRU RW02C-5	SURVEY CONTROL SHEETS
TMP-1 THRU TMP-6	TRANSPORTATION MANAGEMENT PLANS
PMP-1 THRU PMP-17	PAVEMENT MARKING PLANS
EC-1 THRU EC-35	EROSION CONTROL PLANS
RF-1	REFORESTATION DETAIL SHEET
SIGN-1 THRU SIGN-8	SIGNING PLANS
UO-1 THRU UO-9	UTILITIES BY OTHERS PLANS
X-1	CROSS-SECTION INDEX SHEET
X-1A THRU X-1B	CROSS-SECTION SUMMARY SHEETS
X-2 THRU X-155	CROSS-SECTIONS
STUCTURE TITLE SHEET	
S1-1 THRU S1-10	STRUCTURE PLANS STRUCTURE #740047
S2-1 THRU S2-7	STRUCTURE PLANS STRUCTURE #740105
STRUCTURE STANDARD NOTES	

## GENERAL NOTES

2024 SPECIFICATIONS  
EFFECTIVE: 01-16-2024  
REVISED:

### GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

### CLEARING:

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

### SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

### SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01

### SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

### SUBSURFACE DRAINS:

SUBSURFACE DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.02 AT LOCATIONS DIRECTED BY THE ENGINEER.

### GUARDRAIL:

THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

### TEMPORARY SHORING:

SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

### END BENTS:

THE ENGINEER SHALL CHECK THE STRUCTURE END BENT PLANS, DETAILS, AND CROSS-SECTION PRIOR TO SETTING OF THE SLOPE STAKES FOR THE EMBANKMENT OR EXCAVATION APPROACHING A BRIDGE.

### UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE DUKE ENERGY AND RIVERSTREET.

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

### RIGHT-OF-WAY MARKERS:

ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS.

### ROCK

ROCK IS ANTICIPATED BETWEEN -L- STA.65+50+/- TO 67+00+/-, LT . BLASTING MAY BE REQUIRED FOR EXCAVATION ON THE PROJECT. SEE SECTION 220 OF THE STANDARD SPECIFICATIONS AND IF APPLICABLE, ROCK BLASTING PROVISION



TGS ENGINEERS  
201 W. MARION ST., STE 200  
SHELBY, NC 28150  
PH (704) 476-0003  
CORP. LICENSE NO.: C-0275

PROJECT REFERENCE NO. W03291	SHEET NO. 1A
---------------------------------	-----------------

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

# STANDARD DRAWINGS

EFF. 08-11-2025  
REV.

2024 ROADWAY ENGLISH 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 hereby are considered a part of these plans:

STD.NO. TITLE

### DIVISION 2 - EARTHWORK

- 200.02 Method of Clearing - Method II
- 225.02 Guide for Grading Subgrade - Secondary and Local
- 225.04 Method of Obtaining Superelevation - Two Lane Pavement
- 275.01 Rock Plating

### DIVISION 3 - PIPE CULVERTS

- 300.01 Method of Pipe Installation (Use Details in Lieu of Standards for Sheets 1 and 2 of 2)
- 310.10 Driveway Pipe Construction

### DIVISION 4 - MAJOR STRUCTURES

- 423.01 Bridge Approach Fills - Type 1 Approach Fill for Bridge Abutment

### DIVISION 5 - SUBGRADE, BASES AND SHOULDERS

- 560.01 Method of Shoulder Construction - High Side of Superelevated Curve - Method I

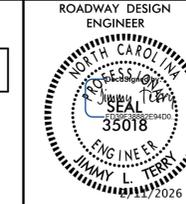
### DIVISION 6 - ASPHALT BASES AND PAVEMENTS

- 654.01 Pavement Repairs

### DIVISION 8 - INCIDENTALS

- 815.02 Subsurface Drain
- 838.01 Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
- 838.04 Conc. Endwall for Single & Double Pipe Culverts - 17"x13" thru 71"x47" Arch 90 Skew
- 838.11 Brick Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
- 838.14 Brick Endwall for Single & Double Pipe Culverts - 17"x13" thru 71"x47" Arch 90 Skew
- 838.27 Reinforced Concrete Endwall - for Single 60" Pipe 90 Skew
- 838.33 Reinforced Concrete Endwall - for Single 66" Pipe 90 Skew
- 838.45 Notes for Reinforced Concrete Endwall - Std. Dwg 838.21 thru 838.40
- 838.80 Precast Endwalls - 12" thru 72" Pipe 90 Skew
- 840.00 Concrete Base Pad for Drainage Structures
- 840.04 Concrete Open Throat Catch Basin - 12" thru 48" Pipe
- 840.05 Brick Open Throat Catch Basin - 12" thru 48" Pipe
- 840.17 Concrete Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
- 840.25 Anchorage for Frames - Brick or Concrete or Precast
- 840.26 Brick Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
- 840.29 Frames and Narrow Slot Flat Grates
- 840.31 Concrete Junction Box - 12" thru 66" Pipe
- 840.32 Brick Junction Box - 12" thru 66" Pipe
- 840.35 Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates

- 840.37 Steel Grate and Frame
- 840.45 Precast Drainage Structure
- 840.46 Traffic Bearing Precast Drainage Structure
- 840.52 Precast Manhole - 4', 5' and 6' Diameter 12" thru 48" Pipe
- 840.54 Manhole Frame and Cover
- 840.55 Manhole Frame and Cover (Flush with Slab for Open Throat Catch Basin)
- 840.66 Drainage Structure Steps
- 846.01 Concrete Curb, Gutter and Curb & Gutter
- 846.02 Drop Inlet Installation in Expressway Gutter
- 846.04 Drop Inlet Installation in Shoulder Berm Gutter
- 862.01 Guardrail Placement (Use Details in Lieu of Standards for Sheets 4, 6, 11, 12, and 14 of 15)
- 862.02 Guardrail Installation (Use Detail in Lieu of Standard for Sheet 5 of 9)
- 876.01 Rip Rap in Channels and Ditches
- 876.02 Guide for Rip Rap at Pipe Outlets



05/20/24

Note: Not to Scale

# STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS CONVENTIONAL PLAN SHEET SYMBOLS

## BOUNDARIES AND PROPERTY:

State Line	
County Line	
Township Line	
City Line	
Reservation Line	
Property Line	
Existing Iron Pin (EIP)	
Computed Property Corner	
Existing Concrete Monument (ECM)	
Parcel / Sequence Number	
Existing Fence Line	
Proposed Woven Wire Fence	
Proposed Chain Link Fence	
Proposed Barbed Wire Fence	
Existing Wetland Boundary	
Proposed Wetland Boundary	
Existing Endangered Animal Boundary	
Existing Endangered Plant Boundary	
Existing Historic Property Boundary	
Known Contamination Area: Soil	
Potential Contamination Area: Soil	
Known Contamination Area: Water	
Potential Contamination Area: Water	
Contaminated Site: Known or Potential	

## BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	
Sign	
Well	
Small Mine	
Foundation	
Area Outline	
Cemetery	
Building	
School	
Church	
Dam	

## HYDROLOGY:

Stream or Body of Water	
Hydro, Pool or Reservoir	
Jurisdictional Stream	
Buffer Zone 1	
Buffer Zone 2	
Flow Arrow	
Disappearing Stream	
Spring	
Wetland	
Proposed Lateral, Tail, Head Ditch	
False Sump	

## RAILROADS:

Standard Gauge	
RR Signal Milepost	
Switch	
RR Abandoned	
RR Dismantled	

## RIGHT OF WAY & PROJECT CONTROL:

Primary Horiz Control Point	
Primary Horiz and Vert Control Point	
Secondary Horiz and Vert Control Point	
Vertical Benchmark	
Existing Right of Way Monument	
Proposed Right of Way Monument (Rebar and Cap)	
Proposed Right of Way Monument (Concrete)	
Existing Permanent Easement Monument	
Proposed Permanent Easement Monument (Rebar and Cap)	
Existing C/A Monument	
Proposed C/A Monument (Rebar and Cap)	
Proposed C/A Monument (Concrete)	
Existing Right of Way Line	
Proposed Right of Way Line	
Existing Control of Access Line	
Proposed Control of Access Line	
Proposed ROW and CA Line	
Existing Easement Line	
Proposed Temporary Construction Easement	
Proposed Temporary Drainage Easement	
Proposed Permanent Drainage Easement	
Proposed Permanent Drainage/Utility Easement	
Proposed Permanent Utility Easement	
Proposed Temporary Utility Easement	
Proposed Aerial Utility Easement	

## ROADS AND RELATED FEATURES:

Existing Edge of Pavement	
Existing Curb	
Proposed Slope Stakes Cut	
Proposed Slope Stakes Fill	
Proposed Curb Ramp	
Existing Metal Guardrail	
Proposed Guardrail	
Existing Cable Guiderail	
Proposed Cable Guiderail	
Equality Symbol	
Pavement Removal	
VEGETATION:	
Single Tree	
Single Shrub	
Hedge	

Woods Line	
Orchard	
Vineyard	

## EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	
Bridge Wing Wall, Head Wall and End Wall	
MINOR:	
Head and End Wall	
Pipe Culvert	
Footbridge	
Drainage Box: Catch Basin, DI or JB	
Paved Ditch Gutter	
Storm Sewer Manhole	
Storm Sewer	

## UTILITIES:

\* SUE - Subsurface Utility Engineering  
LOS - Level of Service - A, B, C or D (Accuracy)

POWER:	
Existing Power Pole	
Proposed Power Pole	
Existing Joint Use Pole	
Proposed Joint Use Pole	
Power Manhole	
Power Line Tower	
Power Transformer	
U/G Power Cable Hand Hole	
H-Frame Pole	
U/G Power Line Test Hole (SUE - LOS A)*	
U/G Power Line (SUE - LOS B)*	
U/G Power Line (SUE - LOS C)*	
U/G Power Line (SUE - LOS D)*	

## TELEPHONE:

Existing Telephone Pole	
Proposed Telephone Pole	
Telephone Manhole	
Telephone Pedestal	
Telephone Cell Tower	
U/G Telephone Cable Hand Hole	
U/G Telephone Test Hole (SUE - LOS A)*	
U/G Telephone Cable (SUE - LOS B)*	
U/G Telephone Cable (SUE - LOS C)*	
U/G Telephone Cable (SUE - LOS D)*	
U/G Telephone Conduit (SUE - LOS B)*	
U/G Telephone Conduit (SUE - LOS C)*	
U/G Telephone Conduit (SUE - LOS D)*	
U/G Fiber Optics Cable (SUE - LOS B)*	
U/G Fiber Optics Cable (SUE - LOS C)*	
U/G Fiber Optics Cable (SUE - LOS D)*	

## WATER:

Water Manhole	
Water Meter	
Water Valve	
Water Hydrant	
U/G Water Line Test Hole (SUE - LOS A)*	
U/G Water Line (SUE - LOS B)*	
U/G Water Line (SUE - LOS C)*	
U/G Water Line (SUE - LOS D)*	
Above Ground Water Line	

## TV:

TV Pedestal	
TV Tower	
U/G TV Cable Hand Hole	
U/G TV Test Hole (SUE - LOS A)*	
U/G TV Cable (SUE - LOS B)*	
U/G TV Cable (SUE - LOS C)*	
U/G TV Cable (SUE - LOS D)*	
U/G Fiber Optic Cable (SUE - LOS B)*	
U/G Fiber Optic Cable (SUE - LOS C)*	
U/G Fiber Optic Cable (SUE - LOS D)*	

## GAS:

Gas Valve	
Gas Meter	
U/G Gas Line Test Hole (SUE - LOS A)*	
U/G Gas Line (SUE - LOS B)*	
U/G Gas Line (SUE - LOS C)*	
U/G Gas Line (SUE - LOS D)*	
Above Ground Gas Line	

## SANITARY SEWER:

Sanitary Sewer Manhole	
Sanitary Sewer Cleanout	
U/G Sanitary Sewer Line	
Above Ground Sanitary Sewer	
SS Force Main Line Test Hole (SUE - LOS A)*	
SS Force Main Line (SUE - LOS B)*	
SS Force Main Line (SUE - LOS C)*	
SS Force Main Line (SUE - LOS D)*	

## MISCELLANEOUS:

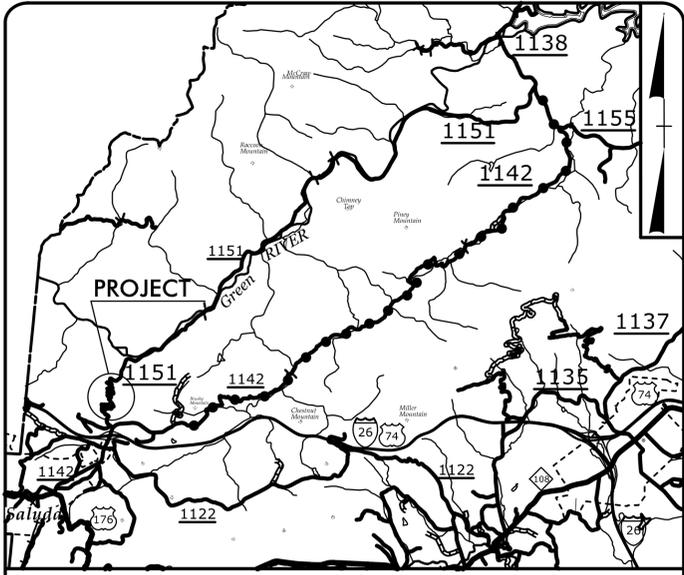
Utility Pole	
Utility Pole with Base	
Utility Located Object	
Utility Traffic Signal Box	
Utility Unknown U/G Line (SUE - LOS B)*	
U/G Tank; Water, Gas, Oil	
Underground Storage Tank, Approx. Loc.	
A/G Tank; Water, Gas, Oil	
Geoenvironmental Boring	
Abandoned According to Utility Records	
End of Information	

09\_08/2019

**PROJECT: W03291**

**CONTRACT: C205178**

See Sheet 1A For Index of Sheets  
See Sheet 1B For Conventional Symbols



**VICINITY MAP**  
Offsite Detour

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

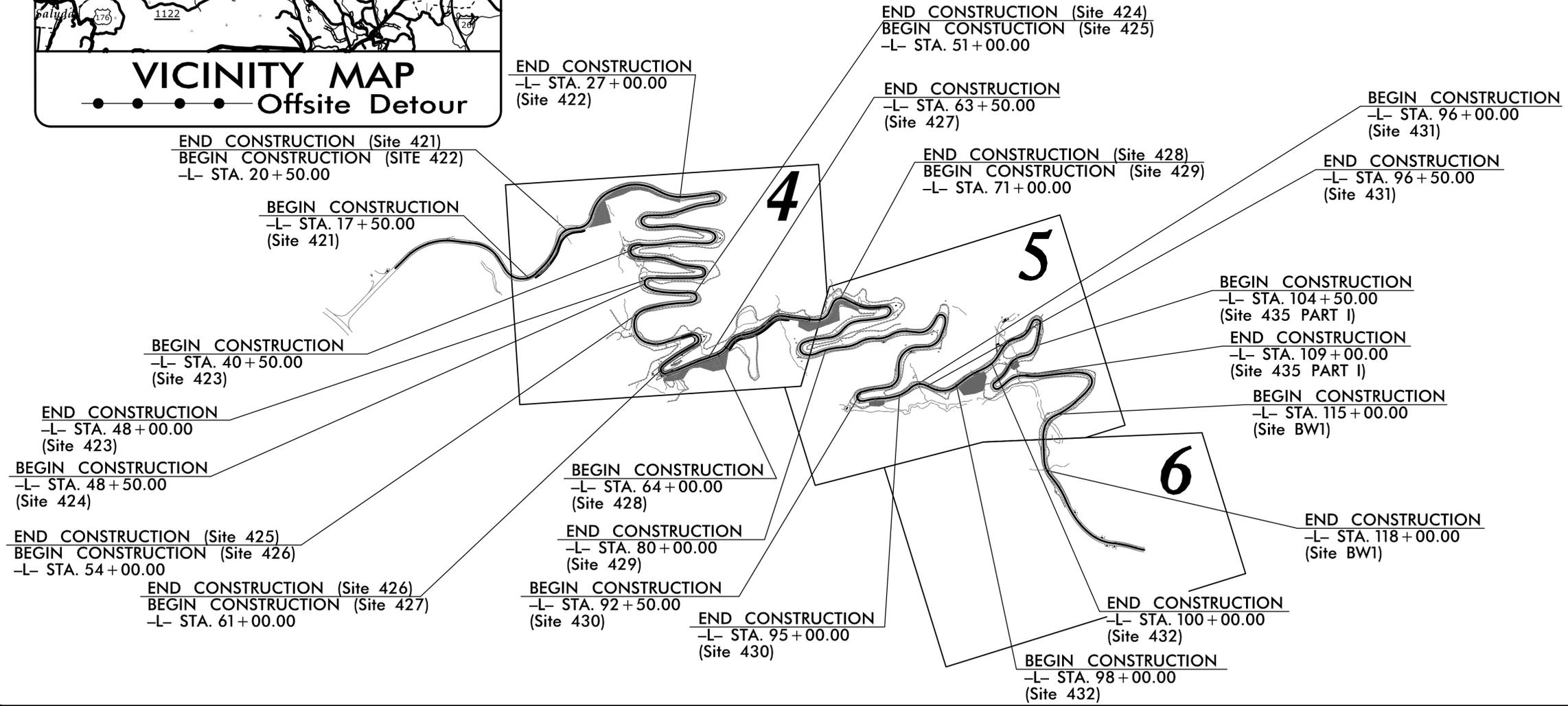
**POLK COUNTY**

**LOCATION: GREEN RIVER COVE RD**

**TYPE OF WORK: GRADING, DRAINAGE, PAVING, & STRUCTURE**

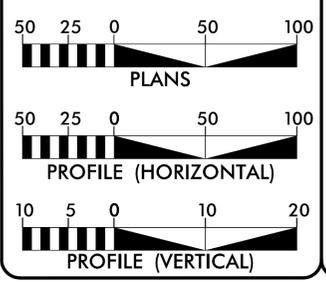
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W03291	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
DF18314.2075062		421	
DF18314.2075063		422	
DF18314.2075064		423	
DF18314.2075065		424	
DF18314.2075066		425	
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DF18314.2075069		428	
DF18314.2075070		429	
DF18314.2075071		430	
DF18314.2075139		431	
DF18314.2075100		432	
DF18314.2075099		435 (PART I)	
DF18314.2075140		BW1	

**PART I**



DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

**GRAPHIC SCALES**



**DESIGN DATA**

ADT 2025 = 310  
ADT 2050 = 400  
V = 40 MPH  
FUNC CLASS = LOCAL  
SUBREGIONAL TIER

**PROJECT LENGTH**

LENGTH ROADWAY SITE 421 = 0.057 MILES
LENGTH ROADWAY SITE 422 = 0.123 MILES
LENGTH ROADWAY SITE 423 = 0.142 MILES
LENGTH ROADWAY SITE 424 = 0.047 MILES
LENGTH ROADWAY SITE 425 = 0.057 MILES
LENGTH ROADWAY SITE 426 = 0.133 MILES
LENGTH ROADWAY SITE 427 = 0.047 MILES
LENGTH ROADWAY SITE 428 = 0.133 MILES
LENGTH ROADWAY SITE 429 = 0.170 MILES
LENGTH ROADWAY SITE 430 = 0.047 MILES
LENGTH ROADWAY SITE 431 = 0.010 MILES
LENGTH ROADWAY SITE 432 = 0.038 MILES
LENGTH ROADWAY SITE 435 = 0.085 MILES
LENGTH ROADWAY SITE BW1 = 0.053 MILES
LENGTH STRUCTURE SITE BW1 = 0.004 MILES

**TOTAL LENGTH PROJECT W03291 = 1.146 MILES**

**NCDOT CONTACT: JEANETTE L. WHITE, PE**

PLANS PREPARED BY:	PLANS PREPARED FOR:
 TGS ENGINEERS 201 W. MARION ST., STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO. C-0275	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION 14 252 Webster Rd Sylva, NC 28779
<b>RIGHT OF WAY DATE:</b> NOV. 5, 2025	<b>JIMMY L. TERRY, PE</b> PROJECT ENGINEER
<b>LETTING DATE:</b> APR. 21, 2026	<b>KATELYN S. ALMOND</b> PROJECT DESIGN ENGINEER
2024 STANDARD SPECIFICATIONS	

**HYDRAULICS ENGINEER**

3/24/2026

Seal for John W. Twissdale, Jr., P.E., No. 024897

Seal for Jimmy L. Terry, P.E., No. 35018

**ROADWAY DESIGN ENGINEER**

3/24/2026

Signature of Jimmy L. Terry



3/24/2026 X:\NCDOT\Green River Cove Rd Rehab\Roadway\Design\Switchbacks - USE THIS FOR SWB\GreenRiverCoveRdSWB\_LRdy\_tsh.dgn User:cpue11

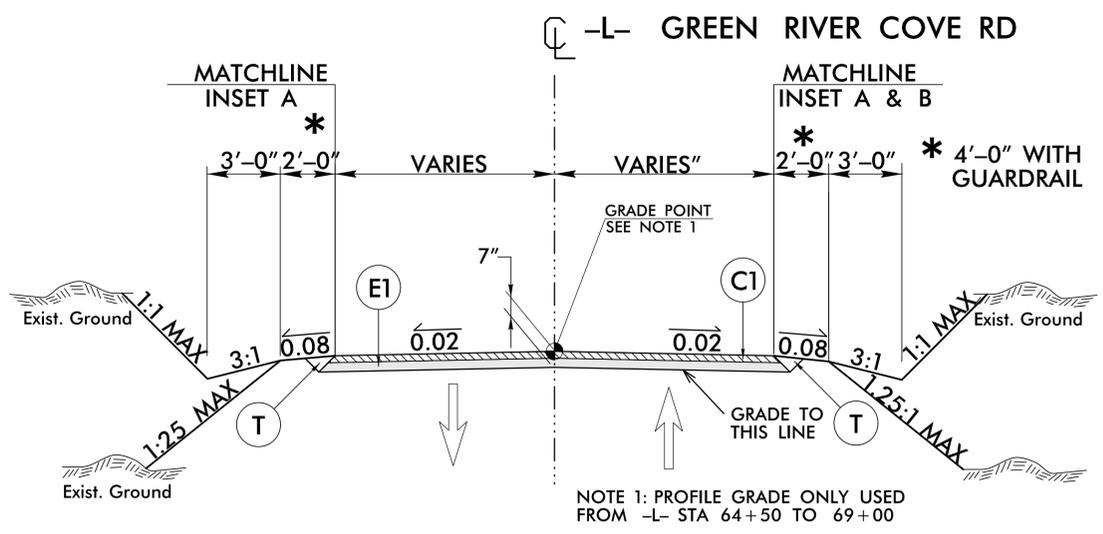
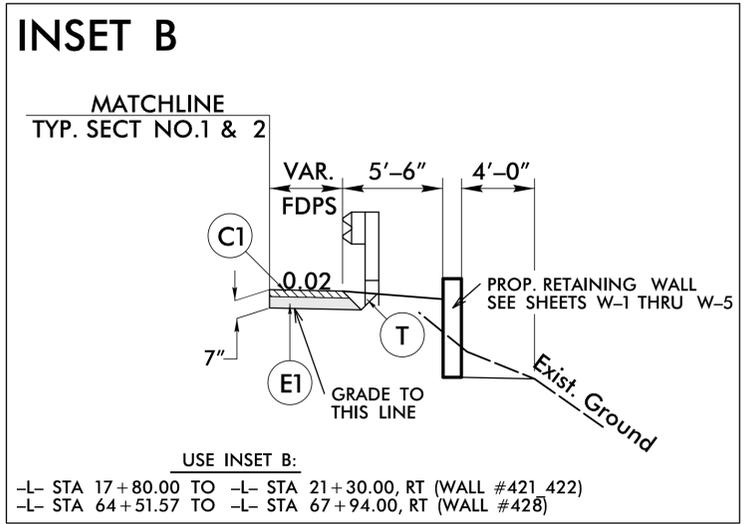
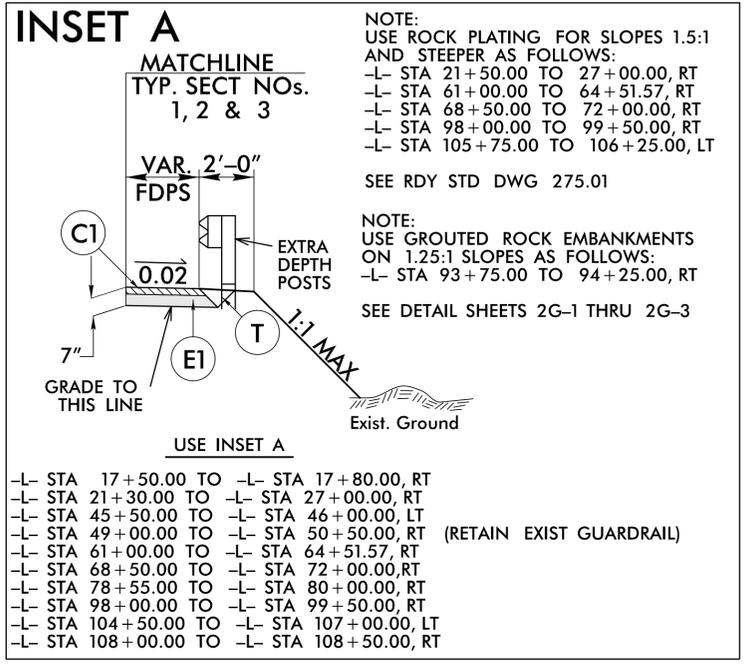
6/2/2025 Green River Cove Rd Rehab Roadway Design\Switchbacks - USE THIS FOR SWB\GreenRiverCoveRdSwB\_Rdy\_tjup.dgn

## FINAL PAVEMENT SCHEDULE

(DEC. 9, 2025)

C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT

PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



TRANSITION BETWEEN EXISTING AND TYP. SECT. NO. 1 AS FOLLOWS:

- L- STA 58+00.00 TO -L- STA 58+50.00
- L- STA 92+00.00 TO -L- STA 92+50.00
- L- STA 98+00.00 TO -L- STA 98+50.00
- L- STA 99+50.00 TO -L- STA 100+00.00

#### TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1

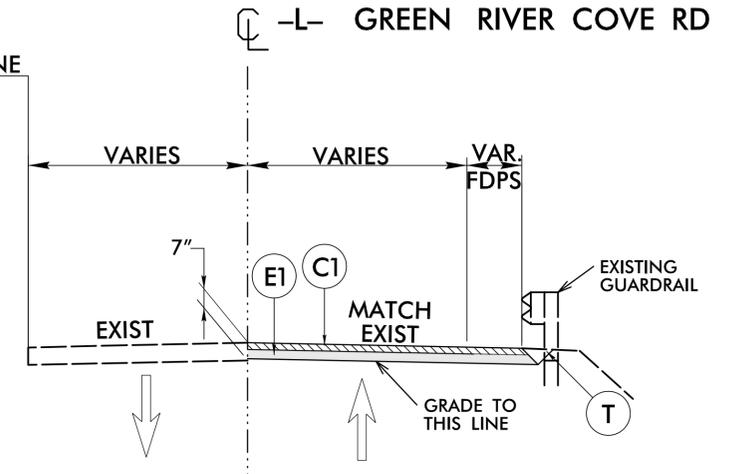
- L- STA 58+50.00 TO -L- STA 68+50.00
- L- STA 72+00.00 TO -L- STA 73+00.00
- L- STA 92+50.00 TO -L- STA 95+00.00
- L- STA 98+50.00 TO -L- STA 99+50.00
- L- STA 105+50.00 TO -L- STA 106+50.00
- L- STA 115+00.00 TO -L- STA 116+00.00

TRANSITION BETWEEN TYP. SECT. NO. 1 AND TYP. ECT. NO.2 AS FOLLOWS:

- L- STA 68+50.00 TO -L- STA 69+00.00
- L- STA 71+50.00 TO -L- STA 72+00.00
- L- STA 73+00.00 TO -L- STA 73+50.00
- L- STA 105+00.00 TO -L- STA 105+50.00
- L- STA 106+50.00 TO -L- STA 107+00.00

NOTE:  
USE WIRE MESH SLOPE STABILIZATION FOR CUT SLOPES 1.5:1 AND STEEPER AS FOLLOWS:  
-L- STA 60+50.00 TO 63+00.00, LT  
-L- STA 65+50.00 TO 68+50.00, LT  
-L- STA 72+00.00 TO 73+00.00, LT

SEE DETAIL SHEET 2G-4



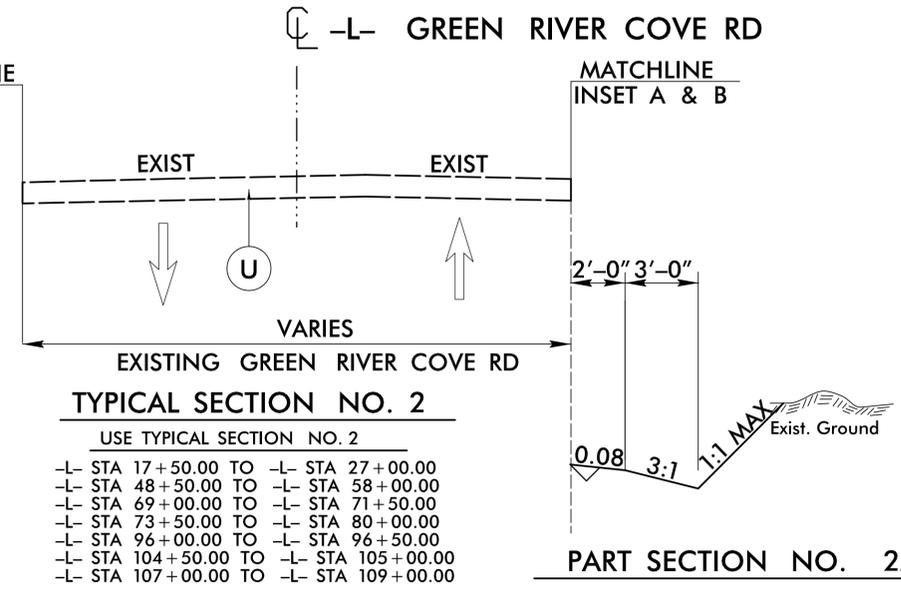
#### TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3

- L- STA 40+50.00 TO -L- STA 48+00.00

NOTE:  
USE WIRE MESH SLOPE STABILIZATION FOR CUT SLOPES 1.5:1 AND STEEPER AS FOLLOWS:  
-L- STA 77+75.00 TO 78+25.00, LT

SEE DETAIL SHEET 2G-4



#### PART SECTION NO. 2A

USE PART SECTION NO. 2A

- L- STA 78+00.00 TO -L- STA 78+55.00, RT
- L- STA 107+50.00 TO -L- STA 108+00.00, RT

PROJECT REFERENCE NO. W03291	SHEET NO. 2A-1
ROADWAY DESIGN ENGINEER JIMMY L. TERRY 35018 11/2026	PAVEMENT DESIGN ENGINEER KELLY DE MONTBRUN 045542 10/2026
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
TGS ENGINEERS 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	

8/17/99

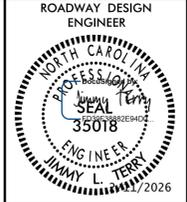
**TGS ENGINEERS**  
 201 W. MARION ST., STE 200  
 SHELY, NC 28150  
 PH (704) 476-0003  
 CORP. LICENSE NO.: C-0275

PROJECT REFERENCE NO.	SHEET NO.
W03291	2B-1
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	



# W03291 CURVE DATA

<p>PI Sta 12+06.34  <math>\Delta = 51' 18" 23.9^\circ</math> (RT)  <math>D = 20' 50" 05.4'</math>  <math>L = 246.25'</math>  <math>T = 132.07'</math>  <math>R = 275.00'</math></p>	<p>PI Sta 14+96.78  <math>\Delta = 51' 28" 03.9^\circ</math> (RT)  <math>D = 36' 57" 54.1'</math>  <math>L = 139.23'</math>  <math>T = 74.71'</math>  <math>R = 155.00'</math></p>	<p>PI Sta 17+41.77  <math>\Delta = 102' 35" 49.6^\circ</math> (LT)  <math>D = 60' 18" 40.8'</math>  <math>L = 170.11'</math>  <math>T = 118.57'</math>  <math>R = 95.00'</math></p>	<p>PI Sta 18+95.00  <math>\Delta = 23' 55" 51.7^\circ</math> (LT)  <math>D = 22' 55" 05.9'</math>  <math>L = 104.42'</math>  <math>T = 52.98'</math>  <math>R = 250.00'</math></p>	<p>PI Sta 20+39.62  <math>\Delta = 61' 55" 37.9^\circ</math> (RT)  <math>D = 81' 51" 04.0'</math>  <math>L = 75.66'</math>  <math>T = 42.00'</math>  <math>R = 70.00'</math></p>	<p>PI Sta 21+53.38  <math>\Delta = 64' 02" 01.5^\circ</math> (LT)  <math>D = 37' 42" 20.7'</math>  <math>L = 78.23'</math>  <math>T = 43.77'</math>  <math>R = 70.00'</math></p>	<p>PI Sta 22+99.55  <math>\Delta = 49' 18" 16.9^\circ</math> (RT)  <math>D = 22' 51" 04.0'</math>  <math>L = 130.76'</math>  <math>T = 69.74'</math>  <math>R = 151.95'</math></p>	<p>PI Sta 24+91.51  <math>\Delta = 47' 36" 36.6^\circ</math> (RT)  <math>D = 28' 40" 38.4'</math>  <math>L = 166.02'</math>  <math>T = 88.14'</math>  <math>R = 199.79'</math></p>	<p>PI Sta 26+56.80  <math>\Delta = 27' 15" 59.1^\circ</math> (LT)  <math>D = 29' 32" 02.1'</math>  <math>L = 92.32'</math>  <math>T = 47.05'</math>  <math>R = 194.00'</math></p>	<p>PI Sta 27+48.06  <math>\Delta = 8' 03" 21.9^\circ</math> (LT)  <math>D = 8' 46" 21.4'</math>  <math>L = 91.83'</math>  <math>T = 45.99'</math>  <math>R = 653.12'</math></p>	
<p>PI Sta 28+66.78  <math>\Delta = 30' 17" 23.7^\circ</math> (RT)  <math>D = 133' 59" 21.0'</math>  <math>L = 22.61'</math>  <math>T = 11.57'</math>  <math>R = 42.76'</math></p>	<p>PI Sta 29+33.18  <math>\Delta = 138' 27" 39.4^\circ</math> (RT)  <math>D = 27' 22" 13.4'</math>  <math>L = 50.75'</math>  <math>T = 55.37'</math>  <math>R = 21.00'</math></p>	<p>PI Sta 29+40.01  <math>\Delta = 12' 13" 35.3^\circ</math> (RT)  <math>D = 53' 36" 48.0'</math>  <math>L = 22.80'</math>  <math>T = 11.45'</math>  <math>R = 106.87'</math></p>	<p>PI Sta 30+14.07  <math>\Delta = 10' 11" 55.8^\circ</math> (LT)  <math>D = 21' 03" 11.1'</math>  <math>L = 48.44'</math>  <math>T = 24.29'</math>  <math>R = 272.15'</math></p>	<p>PI Sta 31+68.68  <math>\Delta = 17' 17" 52.8^\circ</math> (RT)  <math>D = 20' 59" 13.6'</math>  <math>L = 48.55'</math>  <math>T = 41.53'</math>  <math>R = 273.00'</math></p>	<p>PI Sta 32+72.54  <math>\Delta = 23' 52" 21.6^\circ</math> (LT)  <math>D = 84' 55" 18.5'</math>  <math>L = 28.11'</math>  <math>T = 14.26'</math>  <math>R = 67.47'</math></p>	<p>PI Sta 33+28.37  <math>\Delta = 123' 37" 12.3^\circ</math> (LT)  <math>D = 254' 38" 52.5'</math>  <math>L = 82.42'</math>  <math>T = 41.98'</math>  <math>R = 22.50'</math></p>	<p>PI Sta 33+56.92  <math>\Delta = 33' 09" 23.7^\circ</math> (LT)  <math>D = 77' 36" 20.0'</math>  <math>L = 42.72'</math>  <math>T = 21.98'</math>  <math>R = 73.83'</math></p>	<p>PI Sta 34+25.57  <math>\Delta = 5' 21" 17.1^\circ</math> (LT)  <math>D = 19' 05" 54.9'</math>  <math>L = 28.04'</math>  <math>T = 14.03'</math>  <math>R = 300.00'</math></p>	<p>PI Sta 34+89.62  <math>\Delta = 17' 11" 23.0^\circ</math> (RT)  <math>D = 26' 00" 35.8'</math>  <math>L = 66.09'</math>  <math>T = 33.29'</math>  <math>R = 220.28'</math></p>	
<p>PI Sta 35+83.80  <math>\Delta = 3' 40" 18.3^\circ</math> (LT)  <math>D = 8' 42" 31.9'</math>  <math>L = 42.16'</math>  <math>T = 21.09'</math>  <math>R = 657.90'</math></p>	<p>PI Sta 36+55.57  <math>\Delta = 25' 14" 16.4^\circ</math> (RT)  <math>D = 66' 36" 19.7'</math>  <math>L = 37.89'</math>  <math>T = 19.26'</math>  <math>R = 86.02'</math></p>	<p>PI Sta 37+00.76  <math>\Delta = 99' 27" 45.9^\circ</math> (RT)  <math>D = 254' 38" 52.5'</math>  <math>L = 39.06'</math>  <math>T = 26.56'</math>  <math>R = 22.50'</math></p>	<p>PI Sta 37+33.47  <math>\Delta = 48' 31" 56.4^\circ</math> (RT)  <math>D = 127' 48" 51.3'</math>  <math>L = 37.97'</math>  <math>T = 20.21'</math>  <math>R = 44.83'</math></p>	<p>PI Sta 37+85.77  <math>\Delta = 4' 00" 16.9^\circ</math> (RT)  <math>D = 11' 27" 33.0'</math>  <math>L = 34.95'</math>  <math>T = 17.48'</math>  <math>R = 500.00'</math></p>	<p>PI Sta 38+94.25  <math>\Delta = 13' 10" 49.0^\circ</math> (LT)  <math>D = 11' 27" 33.0'</math>  <math>L = 115.02'</math>  <math>T = 57.76'</math>  <math>R = 500.00'</math></p>	<p>PI Sta 40+08.71  <math>\Delta = 13' 03" 13.0^\circ</math> (RT)  <math>D = 11' 27" 33.0'</math>  <math>L = 113.91'</math>  <math>T = 17.48'</math>  <math>R = 500.00'</math></p>	<p>PI Sta 40+82.23  <math>\Delta = 17' 52" 25.3^\circ</math> (LT)  <math>D = 53' 34" 47.9'</math>  <math>L = 33.36'</math>  <math>T = 57.20'</math>  <math>R = 106.94'</math></p>	<p>PI Sta 42+14.99  <math>\Delta = 154' 18" 32.7^\circ</math> (LT)  <math>D = 216' 12" 37.8'</math>  <math>L = 71.37'</math>  <math>T = 116.21'</math>  <math>R = 26.50'</math></p>	<p>PI Sta 42+19.25  <math>\Delta = 15' 43" 45.6^\circ</math> (LT)  <math>D = 16' 07" 05.8'</math>  <math>L = 97.59'</math>  <math>T = 49.10'</math>  <math>R = 355.47'</math></p>	<p>PI Sta 43+02.31  <math>\Delta = 26' 49" 31.0^\circ</math> (RT)  <math>D = 39' 30" 51.6'</math>  <math>L = 67.89'</math>  <math>T = 34.58'</math>  <math>R = 145.00'</math></p>
<p>PI Sta 44+05.25  <math>\Delta = 17' 54" 30.4^\circ</math> (LT)  <math>D = 21' 41" 20.2'</math>  <math>L = 82.57'</math>  <math>T = 41.62'</math>  <math>R = 264.17'</math></p>	<p>PI Sta 44+90.26  <math>\Delta = 18' 25" 50.8^\circ</math> (RT)  <math>D = 85' 46" 06.0'</math>  <math>L = 21.49'</math>  <math>T = 10.84'</math>  <math>R = 66.80'</math></p>	<p>PI Sta 45+76.66  <math>\Delta = 146' 13" 01.7^\circ</math> (RT)  <math>D = 249' 06" 43.5'</math>  <math>L = 58.70'</math>  <math>T = 75.74'</math>  <math>R = 23.00'</math></p>	<p>PI Sta 45+81.59  <math>\Delta = 9' 19" 09.3^\circ</math> (RT)  <math>D = 21' 14" 45.4'</math>  <math>L = 43.86'</math>  <math>T = 21.98'</math>  <math>R = 269.68'</math></p>	<p>PI Sta 46+65.91  <math>\Delta = 1' 31" 17.9^\circ</math> (RT)  <math>D = 11' 13" 06.6'</math>  <math>L = 124.88'</math>  <math>T = 62.44'</math>  <math>R = 4,702.11'</math></p>	<p>PI Sta 47+40.58  <math>\Delta = 2' 48" 11.5^\circ</math> (RT)  <math>D = 11' 27" 33.0'</math>  <math>L = 24.46'</math>  <math>T = 12.23'</math>  <math>R = 500.00'</math></p>	<p>PI Sta 47+81.05  <math>\Delta = 5' 35" 06.5^\circ</math> (LT)  <math>D = 9' 53" 55.5'</math>  <math>L = 56.42'</math>  <math>T = 28.23'</math>  <math>R = 578.82'</math></p>	<p>PI Sta 48+73.45  <math>\Delta = 139' 57" 18.1^\circ</math> (LT)  <math>D = 244' 51" 13.5'</math>  <math>L = 57.16'</math>  <math>T = 64.21'</math>  <math>R = 23.40'</math></p>	<p>PI Sta 48+90.89  <math>\Delta = 27' 19" 46.8^\circ</math> (LT)  <math>D = 56' 51" 39.5'</math>  <math>L = 48.06'</math>  <math>T = 24.50'</math>  <math>R = 100.76'</math></p>	<p>PI Sta 49+47.88  <math>\Delta = 5' 14" 24.0^\circ</math> (LT)  <math>D = 22' 55" 05.9'</math>  <math>L = 48.06'</math>  <math>T = 11.44'</math>  <math>R = 250.00'</math></p>	<p>PI Sta 50+12.21  <math>\Delta = 8' 07" 09.8^\circ</math> (LT)  <math>D = 7' 41" 11.5'</math>  <math>L = 105.63'</math>  <math>T = 52.90'</math>  <math>R = 745.40'</math></p>
<p>PI Sta 50+81.43  <math>\Delta = 20' 37" 11.0^\circ</math> (RT)  <math>D = 63' 11" 15.7'</math>  <math>L = 32.63'</math>  <math>T = 16.49'</math>  <math>R = 90.68'</math></p>	<p>PI Sta 51+55.58  <math>\Delta = 142' 18" 33.9^\circ</math> (RT)  <math>D = 289' 22" 21.4'</math>  <math>L = 49.18'</math>  <math>T = 58.01'</math>  <math>R = 19.80'</math></p>	<p>PI Sta 51+65.42  <math>\Delta = 19' 05" 47.1^\circ</math> (RT)  <math>D = 51' 37" 27.3'</math>  <math>L = 36.99'</math>  <math>T = 18.67'</math>  <math>R = 110.99'</math></p>	<p>PI Sta 52+52.02  <math>\Delta = 1' 04" 46.5^\circ</math> (LT)  <math>D = 8' 08" 19.0'</math>  <math>L = 136.14'</math>  <math>T = 68.28'</math>  <math>R = 704.00'</math></p>	<p>PI Sta 53+52.51  <math>\Delta = 4' 26" 14.1^\circ</math> (LT)  <math>D = 11' 27" 33.0'</math>  <math>L = 38.72'</math>  <math>T = 19.37'</math>  <math>R = 500.00'</math></p>	<p>PI Sta 54+40.89  <math>\Delta = 75' 23" 13.9^\circ</math> (LT)  <math>D = 81' 21" 46.6'</math>  <math>L = 92.66'</math>  <math>T = 54.41'</math>  <math>R = 70.42'</math></p>	<p>PI Sta 55+56.90  <math>\Delta = 77' 47" 42.5^\circ</math> (LT)  <math>D = 66' 37" 22.8'</math>  <math>L = 116.77'</math>  <math>T = 69.39'</math>  <math>R = 86.00'</math></p>	<p>PI Sta 56+35.90  <math>\Delta = 16' 57" 35.5^\circ</math> (LT)  <math>D = 73' 27" 22.1'</math>  <math>L = 23.09'</math>  <math>T = 11.63'</math>  <math>R = 78.00'</math></p>	<p>PI Sta 56+65.69  <math>\Delta = 10' 28" 28.3^\circ</math> (LT)  <math>D = 28' 38" 52.4'</math>  <math>L = 36.56'</math>  <math>T = 13.33'</math>  <math>R = 200.00'</math></p>	<p>PI Sta 58+15.75  <math>\Delta = 31' 21" 13.4^\circ</math> (RT)  <math>D = 119' 23" 38.0'</math>  <math>L = 26.26'</math>  <math>T = 13.47'</math>  <math>R = 47.99'</math></p>	<p>PI Sta 58+49.14  <math>\Delta = 78' 19" 15.7^\circ</math> (RT)  <math>D = 226' 27" 55.9'</math>  <math>L = 34.58'</math>  <math>T = 20.61'</math>  <math>R = 25.30'</math></p>
<p>PI Sta 58+72.41  <math>\Delta = 57' 17" 38.5^\circ</math> (RT)  <math>D = 337' 02" 02.4'</math>  <math>L = 17.00'</math>  <math>T = 9.29'</math>  <math>R = 17.00'</math></p>	<p>PI Sta 59+78.81  <math>\Delta = 4' 18" 26.8^\circ</math> (LT)  <math>D = 11' 27" 33.0'</math>  <math>L = 37.59'</math>  <math>T = 18.80'</math>  <math>R = 500.00'</math></p>	<p>PI Sta 60+62.63  <math>\Delta = 11' 51" 04.2^\circ</math> (LT)  <math>D = 32' 16" 26.6'</math>  <math>L = 36.72'</math>  <math>T = 18.43'</math>  <math>R = 177.53'</math></p>	<p>PI Sta 61+60.58  <math>\Delta = 150' 59" 59.2^\circ</math> (LT)  <math>D = 278' 08" 05.5'</math>  <math>L = 54.29'</math>  <math>T = 79.65'</math>  <math>R = 20.60'</math></p>	<p>PI Sta 61+91.17  <math>\Delta = 5' 38" 33.7^\circ</math> (LT)  <math>D = 11' 27" 33.0'</math>  <math>L = 49.24'</math>  <math>T = 24.64'</math>  <math>R = 500.00'</math></p>	<p>PI Sta 62+92.98  <math>\Delta = 4' 04" 20.9^\circ</math> (RT)  <math>D = 11' 36" 20.9'</math>  <math>L = 35.09'</math>  <math>T = 17.55'</math>  <math>R = 493.68'</math></p>	<p>PI Sta 64+23.40  <math>\Delta = 36' 07" 42.0^\circ</math> (LT)  <math>D = 46' 23" 36.0'</math>  <math>L = 77.87'</math>  <math>T = 40.28'</math>  <math>R = 123.50'</math></p>	<p>PI Sta 65+18.10  <math>\Delta = 47' 51" 08.8^\circ</math> (RT)  <math>D = 57' 17" 44.8'</math>  <math>L = 83.52'</math>  <math>T = 44.37'</math>  <math>R = 100.00'</math>          DS = &lt;15 MPH          SE = 4%</p>	<p>PI Sta 66+14.91  <math>\Delta = 33' 20" 18.5^\circ</math> (LT)  <math>D = 30' 58" 14.5'</math>  <math>L = 107.65'</math>  <math>T = 55.39'</math>  <math>R = 185.00'</math>          DS = 20 MPH          SE = 4%</p>	<p>PI Sta 67+44.13  <math>\Delta = 48' 43" 24.3^\circ</math> (RT)  <math>D = 88' 08" 50.5'</math>  <math>L = 55.27'</math>  <math>T = 29.43'</math>  <math>R = 65.00'</math>          DS = &lt;15 MPH          SE = 4%</p>	<p>PI Sta 68+36.07  <math>\Delta = 1' 29" 09.8^\circ</math> (LT)  <math>D = 3' 49" 11.0'</math>  <math>L = 39.22'</math>  <math>T = 19.61'</math>  <math>R = 1,500.00'</math>          DS = 40 MPH          SE = -4%</p>
<p>PI Sta 69+30.46  <math>\Delta = 17' 18" 20.1^\circ</math> (LT)  <math>D = 45' 26" 06.6'</math>  <math>L = 38.09'</math>  <math>T = 19.19'</math>  <math>R = 126.10'</math></p>	<p>PI Sta 69+80.80  <math>\Delta = 55' 37" 13.0^\circ</math> (LT)  <math>D = 96' 08" 01.9'</math>  <math>L = 57.86'</math>  <math>T = 31.44'</math>  <math>R = 59.60'</math></p>	<p>PI Sta 70+97.49  <math>\Delta = 92' 38" 10.2^\circ</math> (RT)  <math>D = 133' 14" 45.6'</math>  <math>L = 69.52'</math>  <math>T = 45.03'</math>  <math>R = 43.00'</math></p>	<p>PI Sta 72+24.16  <math>\Delta = 31' 05" 19.6^\circ</math> (LT)  <math>D = 32' 33" 15.9'</math>  <math>L = 95.50'</math>  <math>T = 48.96'</math>  <math>R = 20.20'</math></p>	<p>PI Sta 73+58.87  <math>\Delta = 115' 31" 09.2^\circ</math> (RT)  <math>D = 283' 38" 32.9'</math>  <math>L = 40.73'</math>  <math>T = 32.03'</math>  <math>R = 20.20'</math></p>	<p>PI Sta 73+84.96  <math>\Delta = 52' 29" 34.8^\circ</math> (RT)  <math>D = 162' 24" 02.9'</math>  <math>L = 32.32'</math>  <math>T = 17.40'</math>  <math>R = 35.28'</math></p>	<p>PI Sta 74+25.36  <math>\Delta = 8' 56" 17.8^\circ</math> (RT)  <math>D = 4' 13" 15.9'</math>  <math>L = 27.46'</math>  <math>T = 13.76'</math>  <math>R = 176.00'</math></p>	<p>PI Sta 74+74.50  <math>\Delta = 2' 59" 58.6^\circ</math> (RT)  <math>D = 4' 13" 58.2'</math>  <math>L = 70.87'</math>  <math>T = 35.44'</math>  <math>R = 1,353.60'</math></p>	<p>PI Sta 75+30.56  <math>\Delta = 9' 40" 56.4^\circ</math> (LT)  <math>D = 23' 31" 02.3'</math>  <math>L = 41.17'</math>  <math>T = 20.63'</math>  <math>R = 243.63'</math></p>	<p>PI Sta 75+79.61  <math>\Delta = 32' 36" 15.9^\circ</math> (LT)  <math>D = 58' 45" 53.6'</math>  <math>L = 55.48'</math>  <math>T = 28.52'</math>  <math>R = 97.50'</math></p>	<p>PI Sta 76+64.33  <math>\Delta = 39' 50" 20.6^\circ</math> (RT)  <math>D = 39' 00" 32.3'</math>  <math>L = 60.35'</math>  <math>T = 31.45'</math>  <math>R = 86.80'</math></p>
<p>PI Sta 77+91.07  <math>\Delta = 14' 30" 41.8^\circ</math> (LT)  <math>D = 25' 07" 02.3'</math>  <math>L = 57.78'</math>  <math>T = 29.04'</math>  <math>R = 228.11'</math></p>	<p>PI Sta 79+10.48  <math>\Delta = 143' 06" 16.7^\circ</math> (LT)  <math>D = 189' 24" 27.1'</math>  <math>L = 75.55'</math>  <math>T = 90.68'</math>  <math>R = 30.25'</math></p>	<p>PI Sta 79+25.09  <math>\Delta = 39' 10" 09.2^\circ</math> (LT)  <math>D = 68' 32" 47.1'</math>  <math>L = 57.14'</math>  <math>T = 29.74'</math>  <math>R = 83.59'</math></p>	<p>PI Sta 80+07.48  <math>\Delta = 18' 44" 45.6^\circ</math> (RT)  <math>D = 17' 12" 00.8'</math>  <math>L = 108.99'</math>  <math>T = 54.98'</math>  <math>R = 333.11'</math></p>	<p>PI Sta 81+27.59  <math>\Delta = 23' 35" 09.9^\circ</math> (LT)  <math>D = 32' 54" 21.1'</math>  <math>L = 71.68'</math>  <math>T = 36.35'</math>  <math>R = 174.12'</math></p>	<p>PI Sta 82+09.55  <math>\Delta = 32' 49" 33.5^\circ</math> (RT)  <math>D = 42' 25" 37.3'</math>  <math>L = 77.37'</math>  <math>T = 39.78'</math>  <math>R = 135.05'</math></p>	<p>PI Sta 82+87.21  <math>\Delta = 34' 15" 47.6^\circ</math> (LT)  <math>D = 44' 04" 25.2'</math>  <math>L = 77.74'</math>  <math>T = 40.07'</math>  <math>R = 130.00'</math></p>	<p>PI Sta 83+65.96  <math>\Delta = 36' 06" 50.7^\circ</math> (RT)  <math>D = 45' 28" 22.2'</math>  <math>L = 79.42'</math>  <math>T = 41.08'</math>  <math>R = 126.00'</math></p>	<p>PI Sta 84+90.87  <math>\Delta = 52' 26" 54.8^\circ</math> (LT)  <math>D = 82' 26" 23.9'</math>  <math>L = 63.62'</math>  <math>T = 34.23'</math>  <math>R = 69.50'</math></p>	<p>PI Sta 85+38.04  <math>\Delta = 14' 43" 16.9^\circ</math> (LT)  <math>D = 41' 37" 10.4'</math>  <math>L = 35.37'</math>  <math>T = 17.78'</math>  <math>R = 137.67'</math></p>	<p>PI Sta 86+42.24  <math>\Delta = 142' 06" 36.7^\circ</math> (RT)  <math>D = 276' 47" 28.3'</math>  <math>L = 51.34'</math>  <math>T = 60.31'</math>  <math>R = 20.70'</math></p>
<p>PI Sta 86+53.80  <math>\Delta = 29' 29" 28.7^\circ</math> (RT)  <math>D = 73' 28" 15.7'</math>  <math>L = 40.14'</math>  <math>T = 20.53'</math>  <math>R = 77.98'</math></p>	<p>PI Sta 87+71.22  <math>\Delta = 66' 24" 48.0^\circ</math> (RT)  <math>D = 75' 47" 17.0'</math>  <math>L = 87.63'</math>  <math>T = 49.48'</math>  <math>R = 75.60'</math></p>	<p>PI Sta 89+42.30  <math>\Delta = 85' 07" 25.1^\circ</math> (LT)  <math>D = 63' 39" 43.1'</math>  <math>L = 133.71'</math>  <math>T = 82.65'</math>  <math>R = 90.00'</math></p>	<p>PI Sta 90+84.97  <math>\Delta = 76' 04" 55.9^\circ</math> (RT)  <math>D = 91' 40" 23.7'</math>  <math>L = 82.99'</math>  <math>T = 48.90'</math>  <math>R = 62.50'</math></p>	<p>PI Sta 91+44.06  <math>\Delta = 7' 51" 27.4^\circ</math> (RT)  <math>D = 15' 44" 22.1'</math>  <math>L = 49.92'</math>  <math>T = 25.00'</math>  <math>R = 364.03'</math></p>	<p>PI Sta 91+98.16  <math>\Delta = 10' 41" 05.2^\circ</math> (LT)  <math>D = 18' 21" 50.5'</math>  <math>L = 58.18'</math>  <math>T = 29.18'</math>  <math>R = 312.00'</math></p>	<p>PI Sta 92+58.60  <math>\Delta = 31' 21" 36.3^\circ</math> (LT)  <math>D = 143' 43" 56.8'</math>  <math>L = 21.82'</math>  <math>T = 11.9'</math>  <math>R = 39.86'</math></p>	<p>PI Sta 93+01.91  <math>\Delta = 119' 39" 56.9^\circ</math> (LT)  <math>D = 301' 33" 24.2'</math>  <math>L = 39.68'</math>  <math>T = 11.53'</math>  <math>R = 19.00'</math></p>	<p>PI Sta 93+20.44  <math>\Delta = 27' 14" 43.3^\circ</math> (LT)  <math>D = 120' 23" 13.0'</math>  <math>L = 22.63'</math>  <math>T = 11.</math></p>		

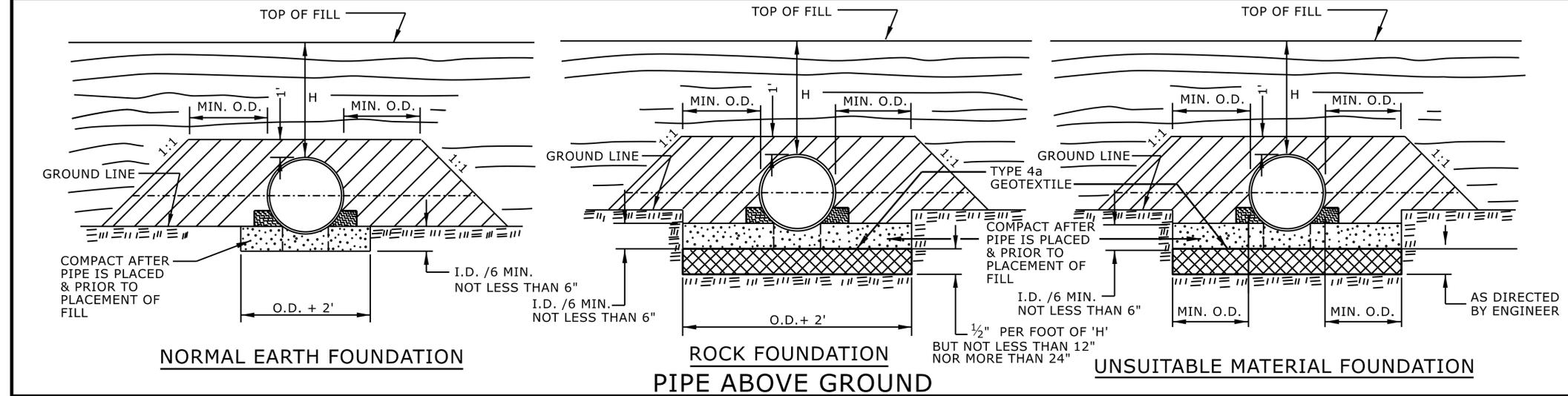
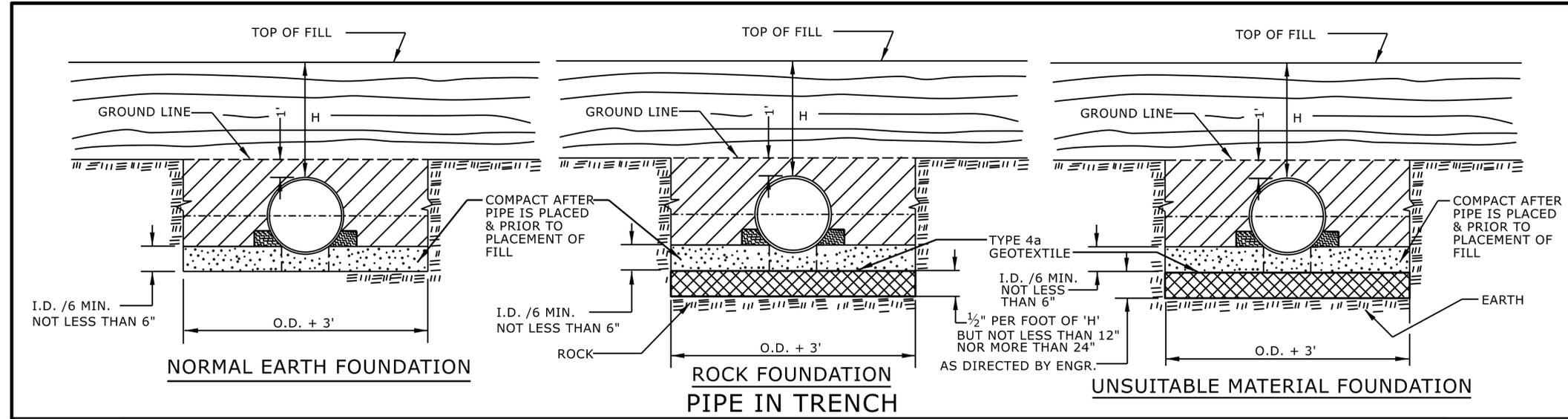


**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**

# W03291 STATION LABEL DATA

① -L- PT Sta. 17+93.31	③① -L- PC Sta. 35+62.71	⑥① -L- PCC Sta. 51+46.75	⑨① -L- PT Sta. 66+67.16	⑫① -L- PRC Sta. 82+47.14	⑮① -L- PC Sta. 98+50.49
② -L- PC Sta. 18+42.02	③② -L- PT Sta. 36+04.87	⑥② -L- PRC Sta. 51+83.74	⑨② -L- PC Sta. 67+14.69	⑫② -L- PRC Sta. 83+24.88	⑮② -L- PT Sta. 99+23.09
③ -L- PT Sta. 19+46.43	③③ -L- PC Sta. 36+36.31	⑥③ -L- PT Sta. 53+19.88	⑨③ -L- PT Sta. 67+69.97	⑫③ -L- PT Sta. 84+04.30	⑮③ -L- PC Sta. 99+55.85
④ -L- PC Sta. 19+97.62	③④ -L- PCC Sta. 36+74.20	⑥④ -L- PC Sta. 53+33.14	⑨④ -L- PC Sta. 68+16.46	⑫④ -L- PC Sta. 84+56.64	⑮④ -L- PT Sta. 100+42.25
⑤ -L- PT Sta. 20+73.28	③⑤ -L- PCC Sta. 37+13.26	⑥⑤ -L- PT Sta. 53+71.86	⑨⑤ -L- PT Sta. 68+55.67	⑫⑤ -L- PCC Sta. 85+20.26	⑮⑤ -L- PC Sta. 100+94.58
⑥ -L- PC Sta. 21+09.61	③⑥ -L- PT Sta. 37+51.23	⑥⑥ -L- PC Sta. 53+86.48	⑨⑥ -L- PC Sta. 69+11.27	⑫⑥ -L- PT Sta. 85+55.63	⑮⑥ -L- PT Sta. 101+58.14
⑦ -L- PT Sta. 21+87.84	③⑦ -L- PC Sta. 37+68.29	⑥⑦ -L- PT Sta. 54+79.13	⑨⑦ -L- PCC Sta. 69+49.36	⑫⑦ -L- PC Sta. 85+81.94	⑮⑦ -L- PC Sta. 101+84.70
⑧ -L- PC Sta. 22+29.81	③⑧ -L- PT Sta. 38+03.24	⑥⑧ -L- PC Sta. 54+87.52	⑨⑧ -L- PT Sta. 70+07.22	⑫⑧ -L- PCC Sta. 86+33.28	⑮⑧ -L- PT Sta. 102+50.95
⑨ -L- PT Sta. 23+60.58	③⑨ -L- PC Sta. 38+36.48	⑥⑨ -L- PT Sta. 56+04.29	⑨⑨ -L- PC Sta. 70+52.47	⑫⑨ -L- PT Sta. 86+73.42	⑮⑨ -L- PC Sta. 102+84.94
⑩ -L- PC Sta. 24+03.37	④① -L- PRC Sta. 39+51.50	⑦① -L- PC Sta. 56+24.27	⑩① -L- PT Sta. 71+21.99	⑬① -L- PC Sta. 87+21.74	⑮⑩ -L- PCC Sta. 103+20.81
⑪ -L- PT Sta. 25+69.39	④② -L- PRC Sta. 40+65.41	⑦② -L- PCC Sta. 56+47.36	⑩② -L- PC Sta. 71+75.21	⑬② -L- PT Sta. 88+09.37	⑮⑪ -L- PCC Sta. 103+40.36
⑫ -L- PC Sta. 26+09.75	④③ -L- PCC Sta. 40+98.77	⑦③ -L- PT Sta. 56+83.92	⑩③ -L- PT Sta. 72+70.71	⑬③ -L- PC Sta. 88+59.66	⑮⑫ -L- PT Sta. 103+80.88
⑬ -L- PCC Sta. 27+02.07	④④ -L- PCC Sta. 41+70.14	⑦④ -L- PC Sta. 58+02.28	⑩④ -L- PC Sta. 73+26.84	⑬④ -L- PT Sta. 89+93.37	⑮⑬ -L- PC Sta. 104+24.00
⑭ -L- PT Sta. 27+93.90	④⑤ -L- PRC Sta. 42+67.73	⑦⑤ -L- PCC Sta. 58+28.54	⑩⑤ -L- PCC Sta. 73+67.57	⑬⑤ -L- PC Sta. 90+36.06	⑮⑭ -L- PCC Sta. 104+67.38
⑮ -L- PC Sta. 28+55.21	④⑥ -L- PT Sta. 43+35.62	⑦⑥ -L- PCC Sta. 58+63.12	⑩⑥ -L- PT Sta. 73+99.89	⑬⑥ -L- PCC Sta. 91+19.06	⑮⑮ -L- PT Sta. 105+15.60
⑯ -L- PCC Sta. 28+77.81	④⑦ -L- PC Sta. 43+63.63	⑦⑦ -L- PT Sta. 58+80.12	⑩⑦ -L- PC Sta. 74+11.60	⑬⑦ -L- PRC Sta. 91+68.98	⑮⑯ -L- PC Sta. 105+42.02
⑰ -L- PCC Sta. 29+28.56	④⑧ -L- PT Sta. 44+46.20	⑦⑧ -L- PC Sta. 59+60.00	⑩⑧ -L- PCC Sta. 74+39.06	⑬⑧ -L- PT Sta. 92+27.16	⑮⑰ -L- PCC Sta. 105+77.30
⑱ -L- PT Sta. 29+51.37	④⑨ -L- PC Sta. 44+79.42	⑦⑨ -L- PT Sta. 59+97.59	⑩⑨ -L- PRC Sta. 75+09.92	⑬⑨ -L- PC Sta. 92+47.41	⑮⑱ -L- PT Sta. 106+09.55
⑲ -L- PC Sta. 29+89.78	⑤① -L- PCC Sta. 45+00.91	⑧① -L- PC Sta. 60+44.20	⑪① -L- PCC Sta. 75+51.09	⑬⑲ -L- PCC Sta. 92+69.22	⑮⑲ -L- PC Sta. 106+40.97
⑳ -L- PT Sta. 30+38.23	⑤② -L- PCC Sta. 45+59.61	⑧② -L- PCC Sta. 60+80.92	⑪② -L- PT Sta. 76+06.58	⑬⑳ -L- PCC Sta. 93+08.91	⑮㉑ -L- PT Sta. 106+95.19
㉑ -L- PC Sta. 31+27.15	⑤③ -L- PCC Sta. 46+03.47	⑧③ -L- PT Sta. 61+35.21	⑪③ -L- PC Sta. 76+32.87	⑬㉑ -L- PRC Sta. 93+31.54	⑮㉒ -L- PC Sta. 107+27.60
㉒ -L- PT Sta. 32+09.57	⑤④ -L- PCC Sta. 47+28.35	⑧④ -L- PC Sta. 61+66.53	⑪④ -L- PT Sta. 76+93.23	⑬㉒ -L- PT Sta. 94+01.30	⑮㉓ -L- PCC Sta. 107+78.66
㉓ -L- PC Sta. 32+58.28	⑤⑤ -L- PRC Sta. 47+52.81	⑧⑤ -L- PT Sta. 62+15.78	⑪⑤ -L- PC Sta. 77+62.03	⑬㉓ -L- PC Sta. 94+26.53	⑮㉔ -L- PT Sta. 108+04.21
㉔ -L- PCC Sta. 32+86.39	⑤⑥ -L- PCC Sta. 48+09.24	⑧⑥ -L- PC Sta. 62+75.42	⑪⑥ -L- PCC Sta. 78+19.80	⑬㉔ -L- PT Sta. 94+56.27	⑮㉕ -L- PC Sta. 108+35.58
㉕ -L- PCC Sta. 33+34.94	⑤⑦ -L- PCC Sta. 48+66.39	⑧⑦ -L- PT Sta. 63+10.51	⑪⑦ -L- PCC Sta. 78+95.35	⑬㉕ -L- PC Sta. 94+74.76	⑮㉖ -L- PRC Sta. 109+26.53
㉖ -L- PT Sta. 33+77.66	⑤⑧ -L- PT Sta. 49+14.46	⑧⑧ -L- PC Sta. 63+83.12	⑪⑧ -L- PRC Sta. 79+52.50	⑬㉖ -L- PT Sta. 95+55.14	⑮㉗ -L- PT Sta. 110+14.69
㉗ -L- PC Sta. 34+11.54	⑤⑨ -L- PC Sta. 49+36.44	⑧⑨ -L- PT Sta. 64+61.00	⑪⑨ -L- PT Sta. 80+61.48	⑬㉗ -L- PC Sta. 95+67.54	⑮㉘ -L- PC Sta. 110+75.49
㉘ -L- PT Sta. 34+39.58	⑤⑩ -L- PCC Sta. 49+59.31	⑧⑩ -L- PC Sta. 64+73.73	⑪⑩ -L- PC Sta. 80+91.24	⑬㉘ -L- PT Sta. 96+43.11	⑮㉙ -L- PT Sta. 111+50.68
㉙ -L- PC Sta. 34+56.33	⑤⑪ -L- PRC Sta. 50+64.94	⑧⑪ -L- PT Sta. 65+57.25	⑪⑪ -L- PT Sta. 81+62.91	⑬㉙ -L- PC Sta. 96+79.62	⑮㉚ -L- PC Sta. 111+62.52
㉚ -L- PT Sta. 35+22.42	⑤⑫ -L- PCC Sta. 50+97.57	⑧⑫ -L- PC Sta. 65+59.51	⑪⑫ -L- PC Sta. 81+69.77	⑬㉚ -L- PT Sta. 97+97.06	⑮㉛ -L- PCC Sta. 112+18.24

REVISIONS  
 I:\26\2005\Green River Cove Rd Rehab\Roadway\Design\Switchbacks - USE THIS FOR SWB\GreenRiverCoveRdSWB.Rdy.Station Labels\_2B-2.dgn  
 8/17/99  
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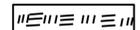


**GENERAL NOTES:**  
 I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.  
 O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.  
 H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

 APPROVED SUITABLE LOCAL MATERIAL.  
 TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.  
 LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

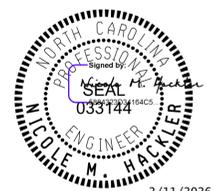
DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

REFER TO NCDOT PIPE MATERIAL SELECTION GUIDE AND STANDARD SPECIFICATIONS FOR ALLOWABLE PIPE FILL HEIGHTS AND PIPE SPECIFICATIONS.

 SPRINGLINE OF PIPE  
 SELECT BACKFILL MATERIAL CLASS III OR CLASS II, TYPE 1 ABOVE AND BELOW SPRINGLINE.  
 UNDISTURBED EARTH MATERIAL  
 SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE IV GEOTEXTILE AS DIRECTED BY THE ENGINEER.

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ROADWAY DETAIL DRAWING FOR  
**METHOD OF PIPE INSTALLATION**  
FLEXIBLE PIPE



2/11/2026

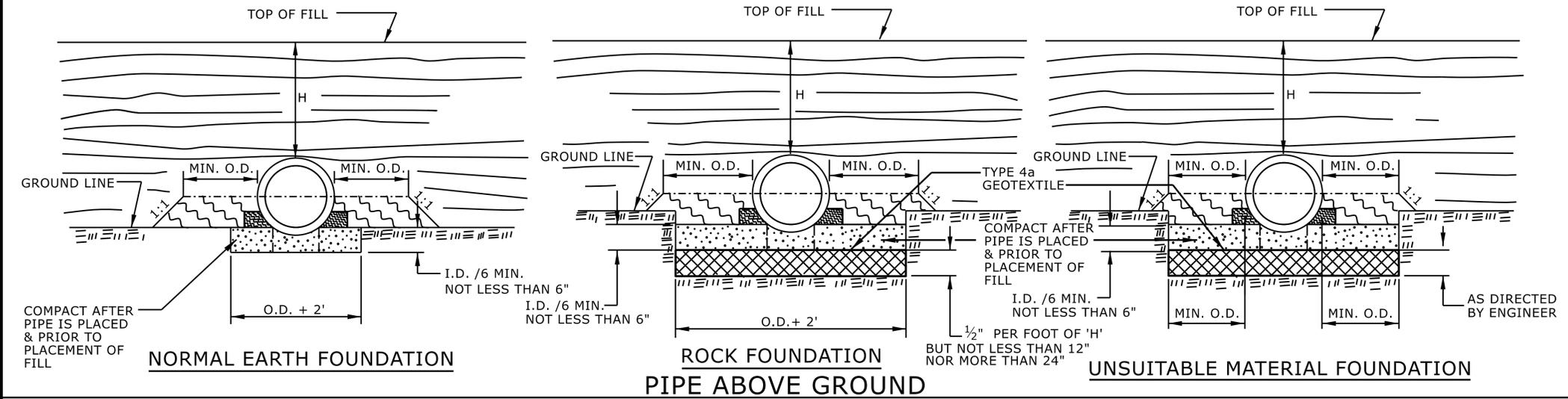
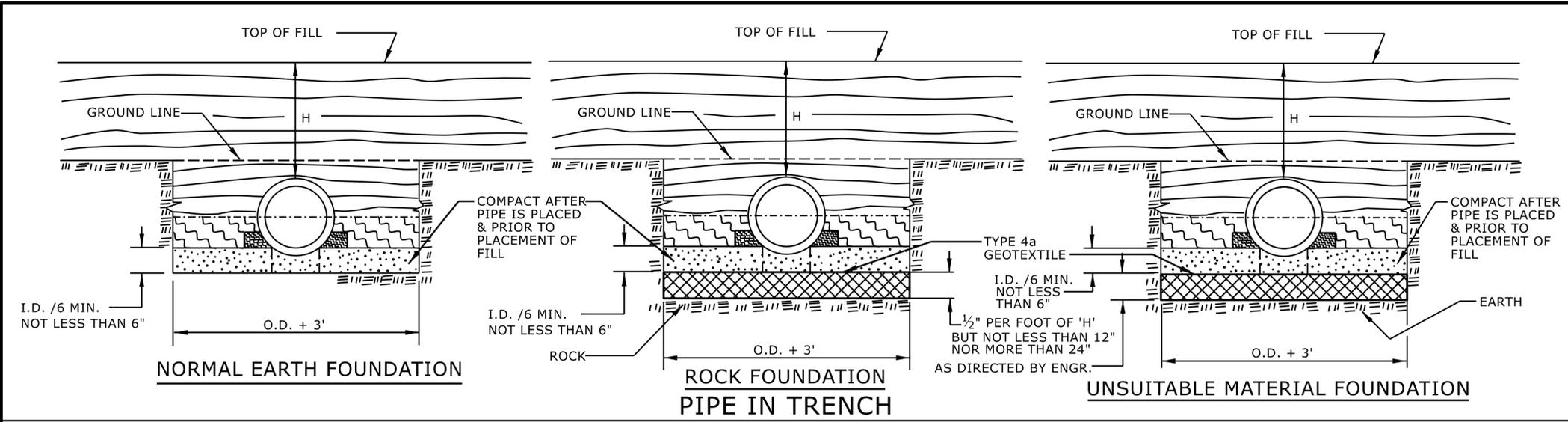
SHEET 1 OF 2  
**300.01**

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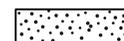
**CONTRACTS STANDARDS  
AND DEVELOPMENT UNIT**  
Office 919-707-6950 FAX 919-250-4119

**SEE TITLE BLOCK**

ORIGINAL BY: S.CALHOUN DATE: 7-25-2024  
MODIFIED BY: DATE: \_\_\_\_\_  
CHECKED BY: DATE: \_\_\_\_\_  
FILE SPEC: \_\_\_\_\_



**GENERAL NOTES:**  
 I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.  
 O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.  
 H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

 APPROVED SUITABLE LOCAL MATERIAL.  
 TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.  
 LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.  
 REFER TO NCDOT PIPE MATERIAL SELECTION GUIDE AND STANDARD SPECIFICATIONS FOR ALLOWABLE PIPE FILL HEIGHTS AND PIPE SPECIFICATIONS.

-  SPRINGLINE OF PIPE
-  SELECT BACKFILL MATERIAL CLASS III OR CLASS II, BELOW SPRINGLINE.
-  UNDISTURBED EARTH MATERIAL
-  SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE IV GEOTEXTILE AS DIRECTED BY THE ENGINEER.

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ROADWAY DETAIL DRAWING FOR  
**METHOD OF PIPE INSTALLATION**  
 RIGID PIPE



2/11/2026

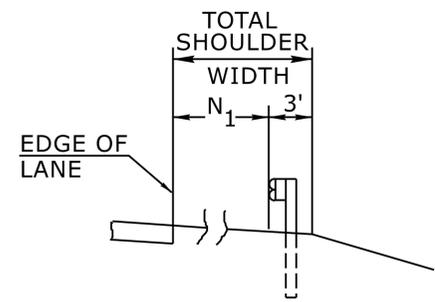
SHEET 2 OF 2  
**300.01**

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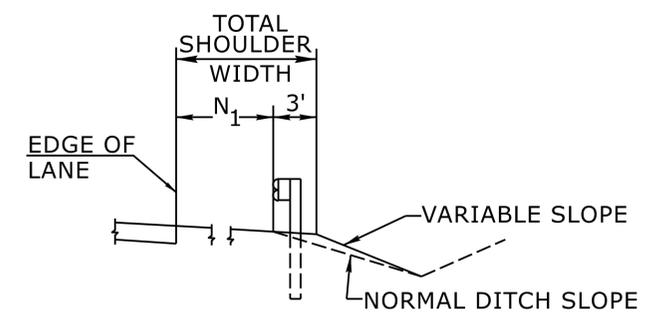
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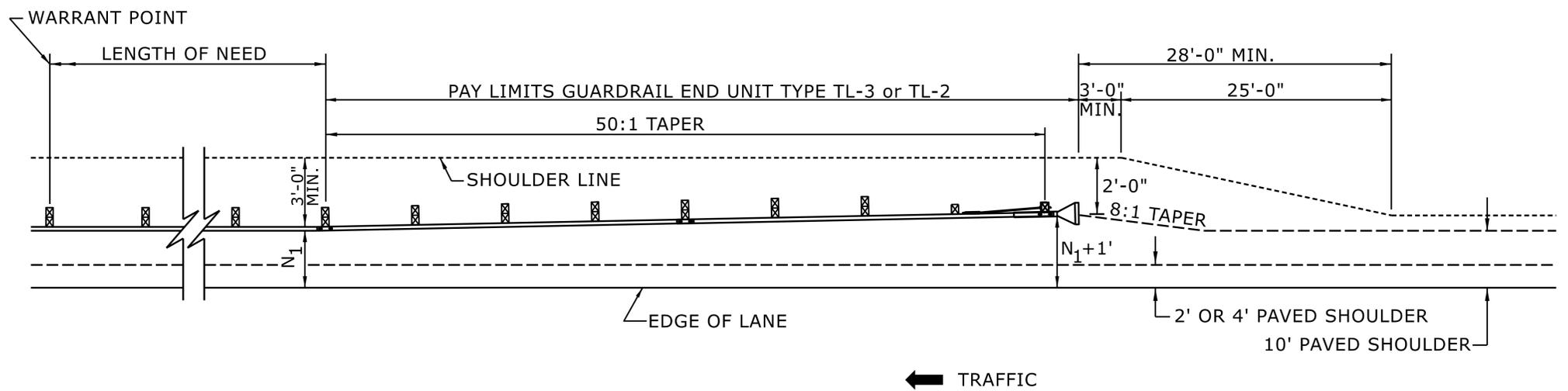


**FILL SECTION**



**CUT SECTION**

"N<sub>1</sub>" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL WHERE GUARDRAIL IS PARALLEL TO LANE.

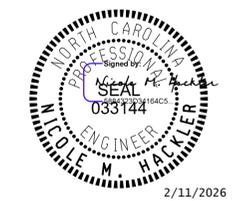


FOR POSTED SPEEDS ≥ 45mph USE GREU TYPE TL-3  
FOR POSTED SPEEDS < 45mph USE GREU TYPE TL-2

**DETAIL OF BEGINNING OF GUARDRAIL IN CUT OR FILL SECTION**

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RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR  
**GUARDRAIL PLACEMENT**



SHEET 6 OF 15  
**862D01**

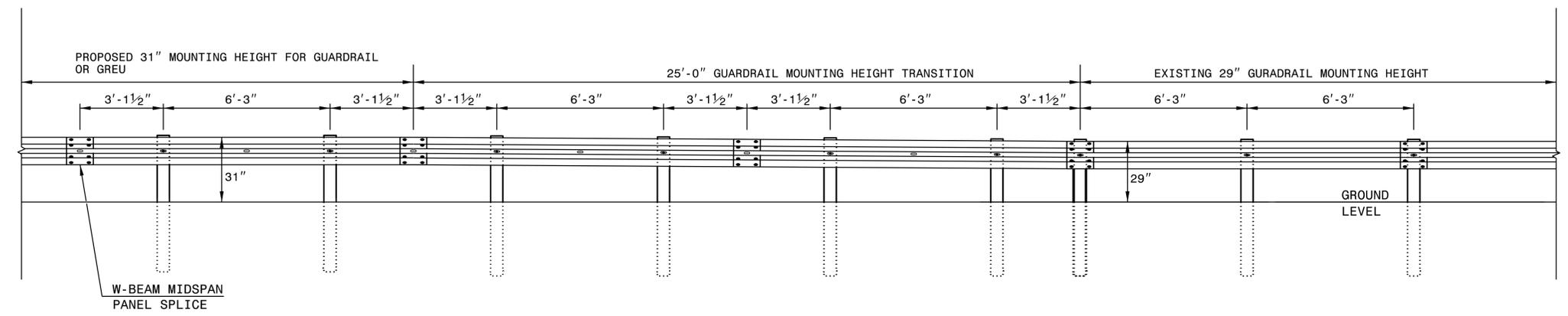
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AND DEVELOPMENT UNIT**  
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ORIGINAL BY: S.CALHOUN	DATE: 7-25-2024
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.:	

**NOTE: IF EXISTING GUARDRAIL IS LOWER THAN 29", USE AN ADDITIONAL 12'-6" LONG SECTION OF GUARDRAIL, FOR EVERY 1" OF HEIGHT DIFFERENCE, TO TRANSITION FROM EXISTING GUARDRAIL TO PROPOSED 31" GUARDRAIL.**



**ELEVATION VIEW**

**TRANSITION FROM 29" TO 31" W-BEAM GUARDRAIL MOUNTING HEIGHT**

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RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR  
**GUARDRAIL INSTALLATION**

SHEET 5 OF 9  
**862D02**



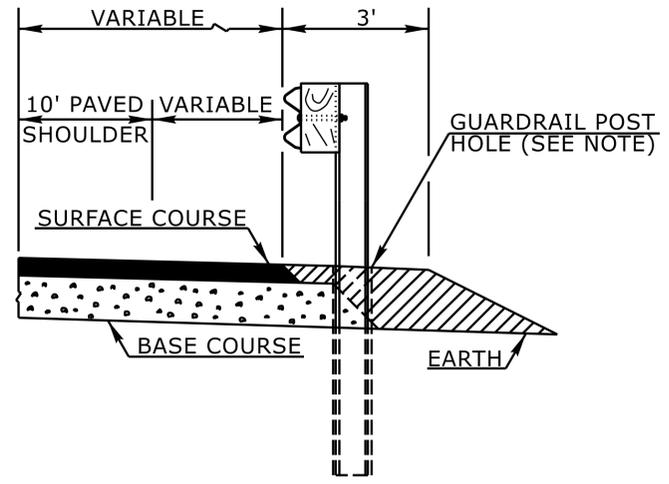
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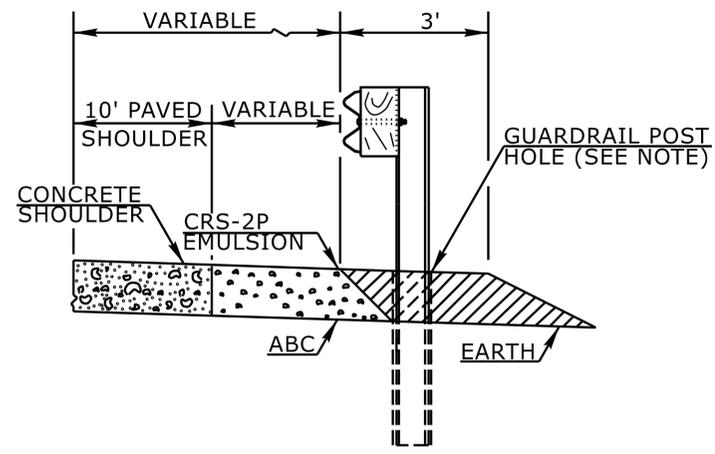
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MODIFIED BY:	DATE:
CHECKED BY:	DATE:
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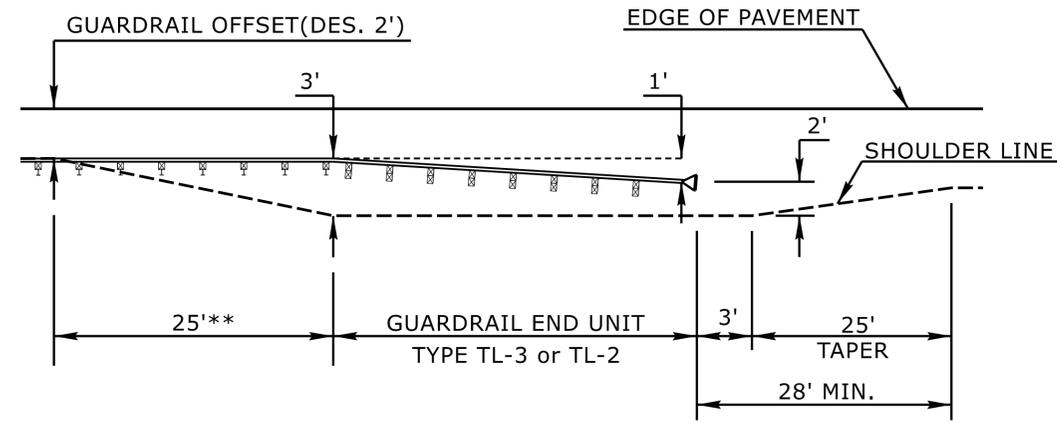
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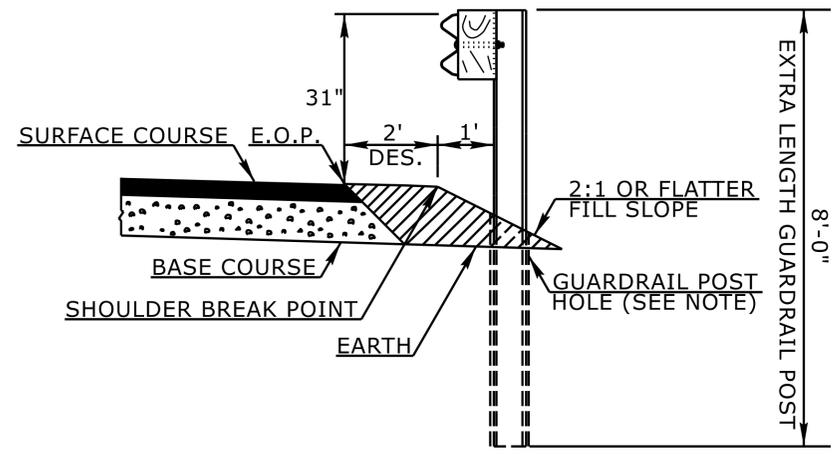
FLEXIBLE PAVED SHOULDER



CONCRETE PAVED SHOULDER



8' GUARDRAIL POST ON 2:1 SLOPE-END UNIT TRANSITION\*  
PLAN VIEW



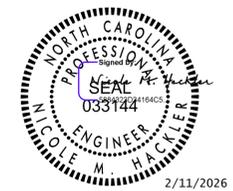
8' GUARDRAIL POST ON 2:1 SLOPE\*

\* THE 8' GUARDRAIL POST ON 2:1 SLOPE DETAIL IS INTENDED FOR USE ONLY IN SEVERELY CONSTRAINED AREAS WITH A POSTED SPEED ≤ 60 MPH. GUARDRAIL END UNITS MAY NOT BE PLACED ON THE 2:1 SLOPE AND MUST TRANSITION TO THE SHOULDER.  
 \*\* 8' GUARDRAIL POST SHOULD BE USED IN THIS RANGE

NOTE:  
 WHEN WOODEN GUARDRAIL POSTS ARE USED, DRILL HOLES THROUGH EARTH MATERIAL AND BASE COURSE. THE POST MAY THEN BE DRIVEN TO THE PROPER DEPTH. DRILL THE HOLE OF SUFFICIENT SIZE TO ACCOMMODATE THE PARTICULAR POST BEING USED. BACKFILL AND TAMP HOLES USING THE EXCAVATED MATERIAL.

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ROADWAY DETAIL DRAWING FOR  
**GUARDRAIL PLACEMENT**



2/11/2026

SHEET 11 OF 15  
**862D01**

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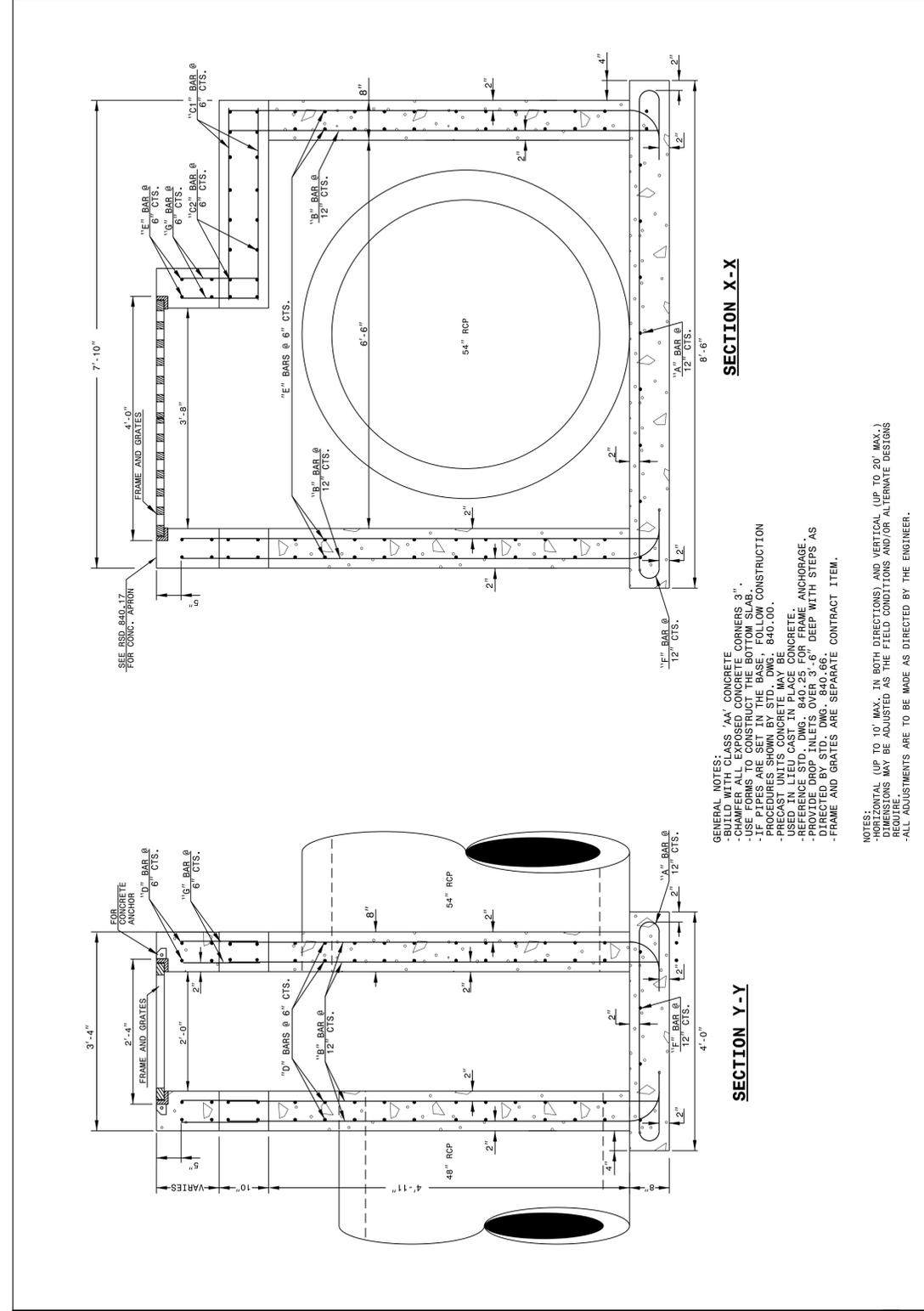
CONTRACTS STANDARDS  
 AND DEVELOPMENT UNIT  
 Office 919-707-6950 FAX 919-250-4119

**SEE TITLE BLOCK**

ORIGINAL BY: L.SMITH DATE: 10-14-2025  
 MODIFIED BY: DATE:  
 CHECKED BY: DATE:  
 FILE SPEC.: DATE:

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 Jhewerton AT\_CSD-232595

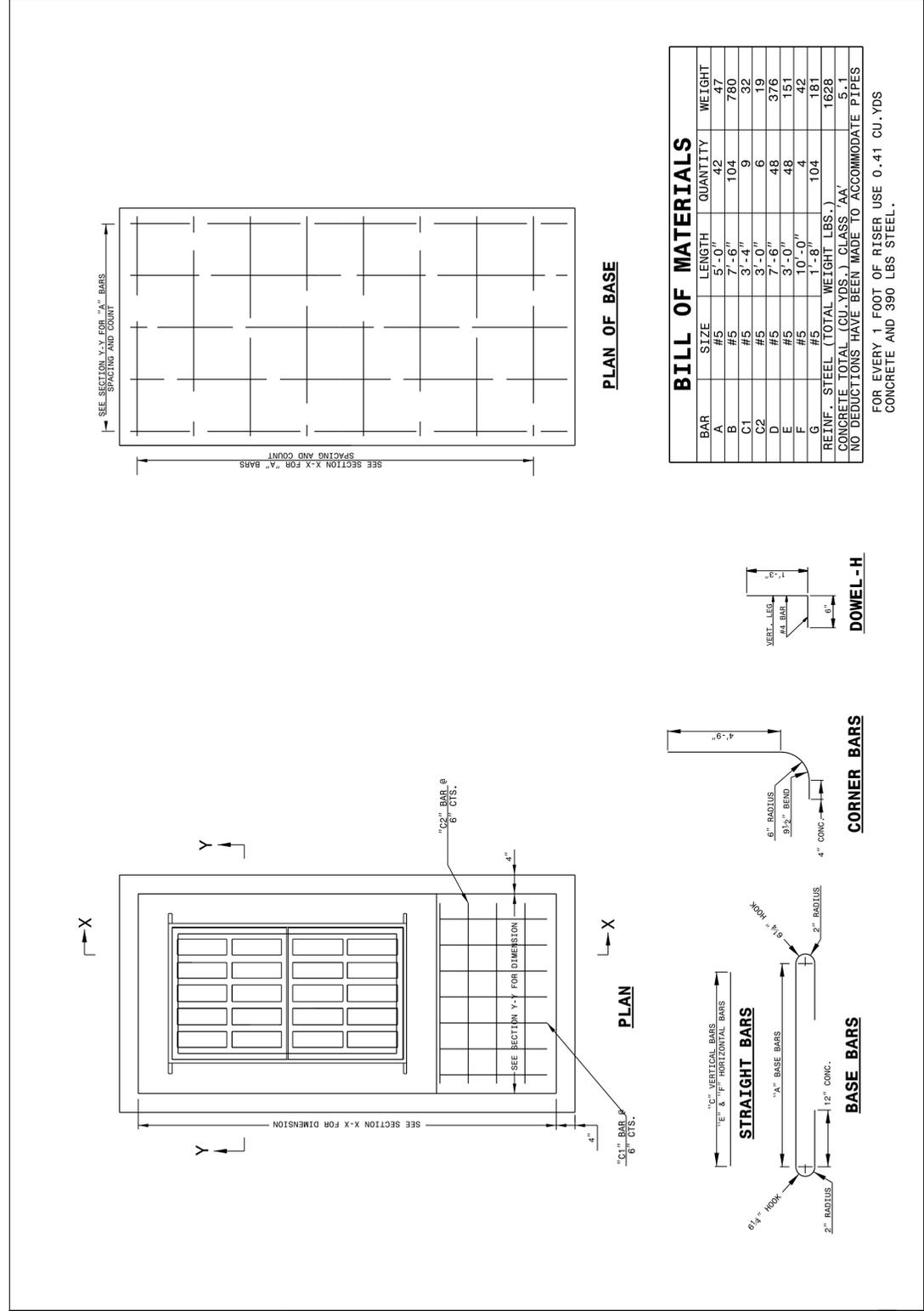
ENGLISH DETAIL DRAWING FOR  
**TRAFFIC BEARING GRATED INLET**  
 FOR PIPES UP TO 54"  
 STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.



ENGLISH DETAIL DRAWING FOR  
**TRAFFIC BEARING GRATED INLET**  
 FOR PIPES UP TO 54"  
 STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

SHEET 1 OF 2  
**840D35**

ENGLISH DETAIL DRAWING FOR  
**TRAFFIC BEARING GRATED INLET**  
 FOR PIPES UP TO 54"  
 STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.



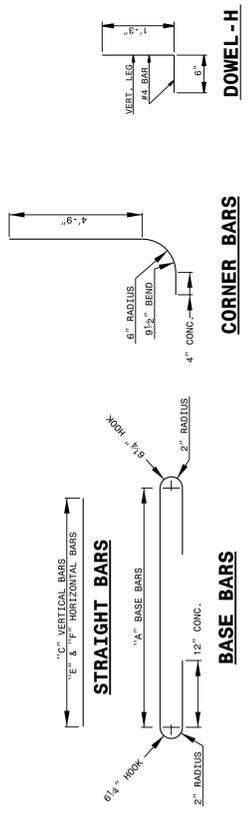
ENGLISH DETAIL DRAWING FOR  
**TRAFFIC BEARING GRATED INLET**  
 FOR PIPES UP TO 54"  
 STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

SHEET 2 OF 2  
**840D35**

**BILL OF MATERIALS**

BAR	SIZE	LENGTH	QUANTITY	WEIGHT
A	#2	5'-0"	42	47
B	#2	7'-6"	104	790
C1	#3	3'-0"	9	32
C2	#3	3'-0"	6	19
D	#5	3'-6"	48	376
E	#5	3'-0"	48	151
F	#5	1'-0"	4	42
G	#5	1'-0"	104	1626
REFIN. STEEL (TOTAL WEIGHT LBS.)				5111
CONCRETE TOTAL (CU. YDS.) CLASS AA'				5.1
NO DEDUCTIONS HAVE BEEN MADE TO ACCOMMODATE PIPES				

FOR EVERY 1 FOOT OF RISER USE 0.41 CU. YDS  
 CONCRETE AND 390 LBS STEEL.



**SECTION X-X**

GENERAL NOTES:  
 -BUILD WITH CLASS 'AA' CONCRETE  
 -CHAMFER ALL EXPOSED CONCRETE CORNERS 3".  
 -USE FORMS TO CONSTRUCT THE BOTTOM SLAB.  
 -PIPE ANCHORS IN THE BASE, FOLLOW CONSTRUCTION PRACTICES SHOWN IN THE DRAWING.  
 -PRECAST UNITS CONCRETE MAY BE USED IN LIEU CAST IN PLACE CONCRETE.  
 -REFERENCE STD. DWG. 840.25 FOR FRAME ANCHORAGE.  
 -REINFORCEMENT SHALL BE OVERLAPPED AS DIRECTED BY STD. DWG. 840.66.  
 -FRAME AND GRATES ARE SEPARATE CONTRACT ITEM.

NOTES:  
 -HORIZONTAL UP TO 10' MAX. IN BOTH DIRECTIONS AND VERTICAL (UP TO 20' MAX.) DIMENSIONS MAY BE ADJUSTED AS THE FIELD CONDITIONS AND/OR ALTERNATE DESIGNS REQUIRE.  
 -ALL ADJUSTMENTS ARE TO BE MADE AS DIRECTED BY THE ENGINEER.

**SECTION Y-Y**

**CONTRACT STANDARDS AND DEVELOPMENT UNIT**  
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SEE PLATE FOR TITLE

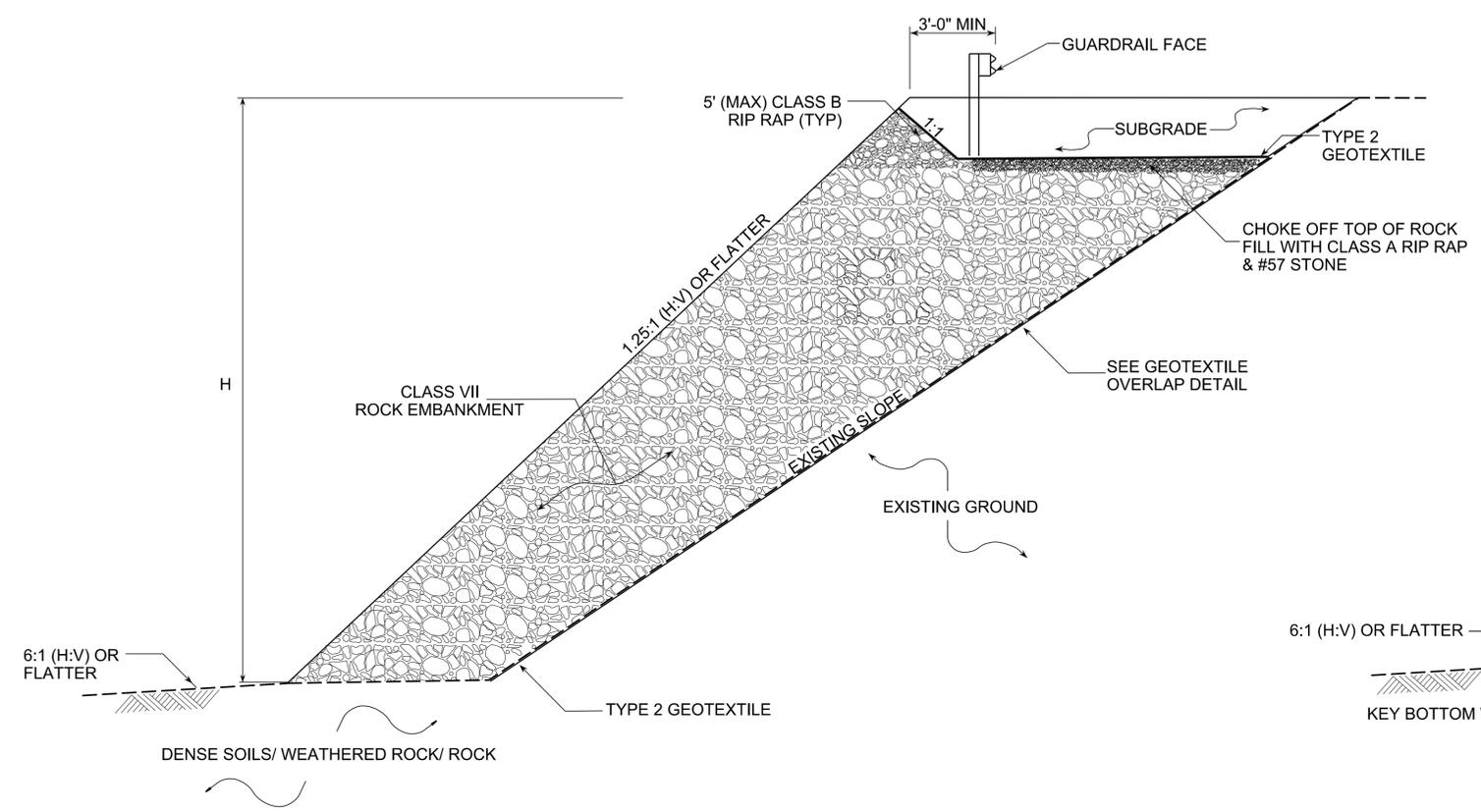
ORIGINAL BY: K. KEMPF	DATE: 03-03-2015
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.: jhewerton/840d35 TBD1 Up to 54in.dgn	



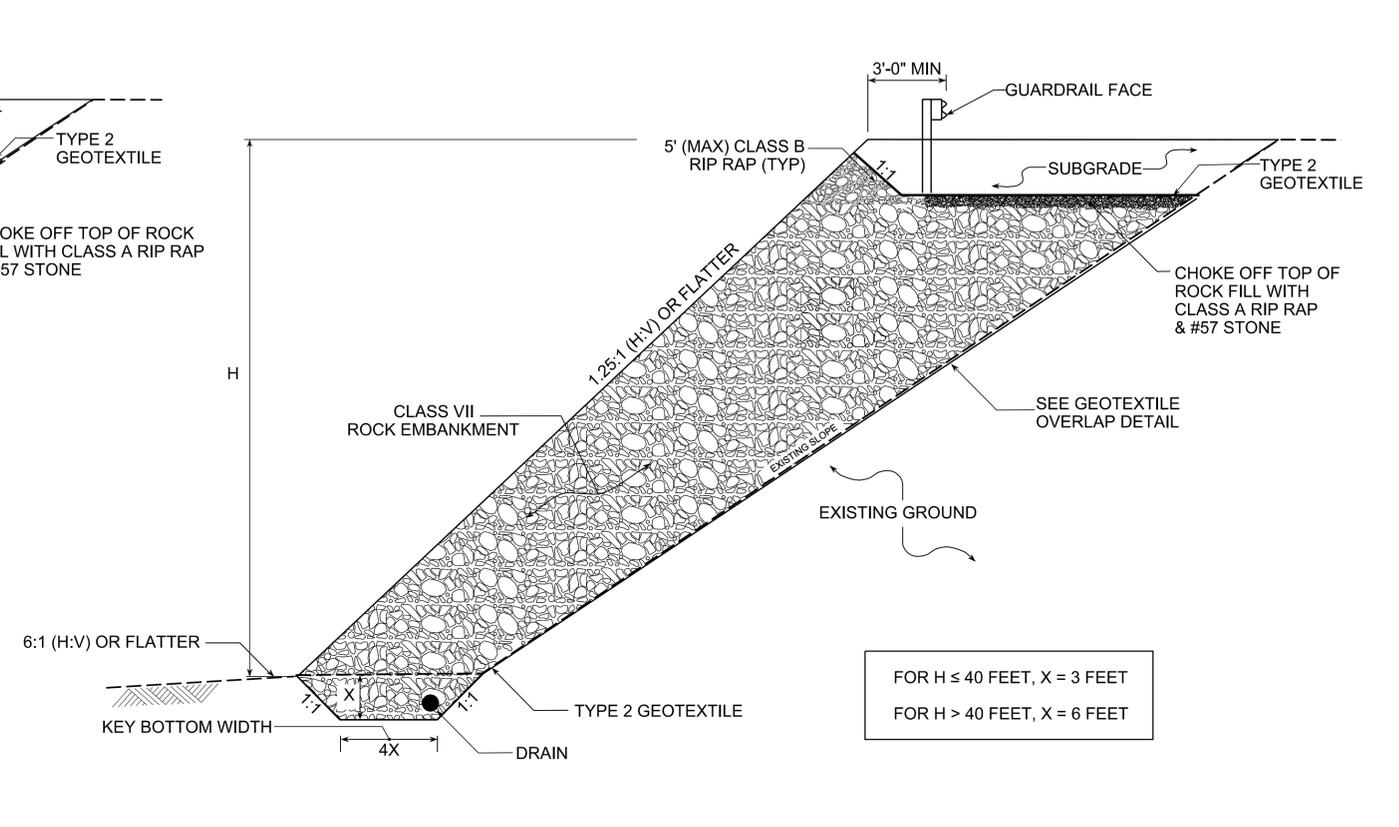
2/11/2026

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GEOTECHNICAL ENGINEER  Signed by: <i>Kelly De Montbrun</i> DATE: 1/5/2026	ENGINEER SIGNATURE: _____ DATE: _____
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ROCK EMBANKMENT DETAIL



ROCK EMBANKMENT WITH TOE KEY DETAIL

FOR H ≤ 40 FEET, X = 3 FEET  
 FOR H > 40 FEET, X = 6 FEET

- NOTES:**
1. THE MAXIMUM ALLOWABLE HEIGHT FOR THE ROCK EMBANKMENT DETAIL IS 80'.
  2. FOR ROCK EMBANKMENT, BENCH EXISTING SLOPE IN ACCORDANCE WITH SECTION 235 OF THE STANDARD SPECIFICATIONS, WHERE POSSIBLE.
  3. FOR ROCK EMBANKMENTS, SEE ROCK EMBANKMENTS SPECIAL PROVISION.

PROJECT NO.: W03291  
POLK COUNTY  
 STATION: -L- STA. 93+75 TO 94+25  
 SHEET 1 OF 3

PREPARED BY: KND	DATE: 11/25
REVIEWED BY: DMB	DATE: 11/25

Prepared in the Office of:



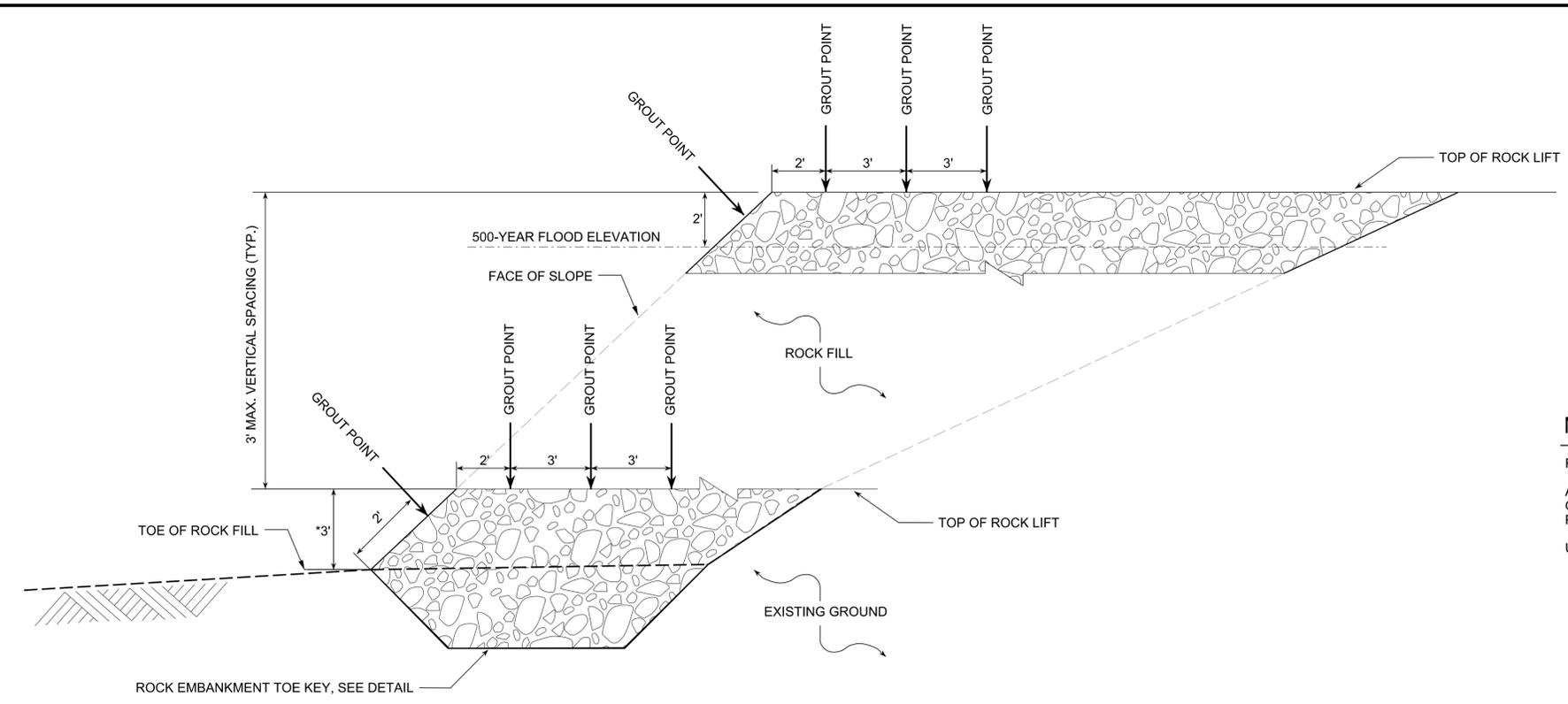
**CAROLINUS  
 GEOTECHNICAL  
 GROUP**  
 1805 SARDIS ROAD NORTH  
 SUITE 100  
 CHARLOTTE, NC 28270  
 (980) 339-8684



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

REVISIONS						SHEET NO. 2G-1
NO.	BY	DATE	NO.	BY	DATE	
1			3			
2			4			

GEOTECHNICAL ENGINEER  Signed by: <i>Kelly De Montbrun</i> 1/5/2026 _____ SIGNATURE DATE	ENGINEER _____ SIGNATURE DATE
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

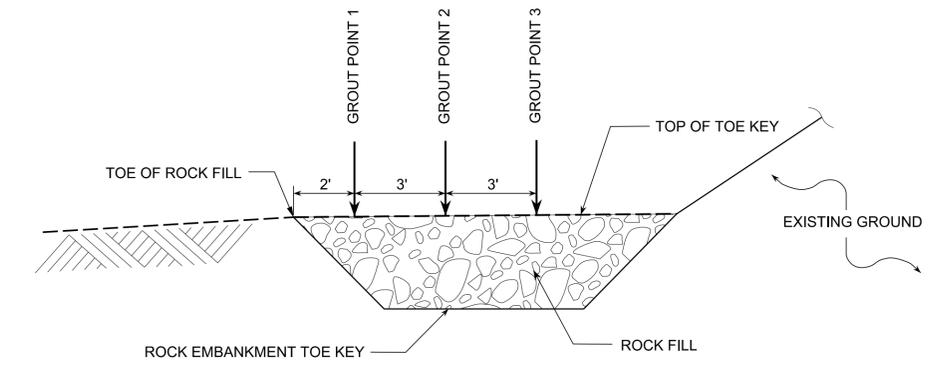


**NOTES:**

FOR PARTIALLY GROUTED ROCK FILL, SEE THE PARTIALLY GROUTED ROCK FILL SPECIAL PROVISION.

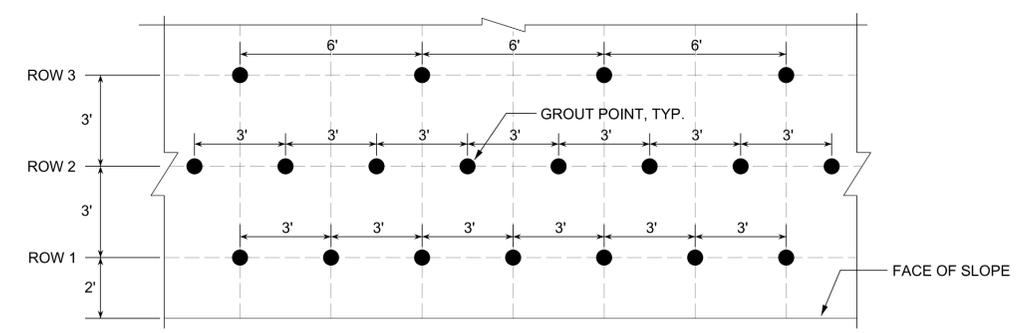
APPLY GROUT ON THE SLOPE FACE AND AT THE TOP OF EACH 3 FT LIFT OF ROCK FILL. APPLY 3 CUBIC FEET OF GROUT AT EACH GROUT POINT IN THE PATTERNS SHOWN ON SHEET 2 AND SHEET 3. THE HIGHEST GROUT POINT WILL BE THE TOP OF THE ROCK EMBANKMENT.

USE PARTIALLY GROUTED ROCK FILL FROM TOE TO AT LEAST 2FT ABOVE THE 500-YR FLOOD ELEVATION.



**PARTIALLY GROUTED ROCK FILL - ROCK FILL SECTION**  
 \* IF NO TOE KEY, START GROUTING AT THE TOP OF THE FIRST 3-FT LIFT

**PARTIALLY GROUTED ROCK FILL - TOE KEY DETAIL**



**PARTIALLY GROUTED ROCK FILL - PLAN VIEW GROUT POINTS**  
 VIEW FROM FRONT TOP

**PARTIALLY GROUTED ROCK FILL DETAILS**

PROJECT NO.: W03291  
 POLK COUNTY  
 STATION: -L- STA. 93+75 TO 94+25  
 SHEET 2 OF 3

PREPARED BY: KND	DATE: 11/25
REVIEWED BY: DMB	DATE: 11/25

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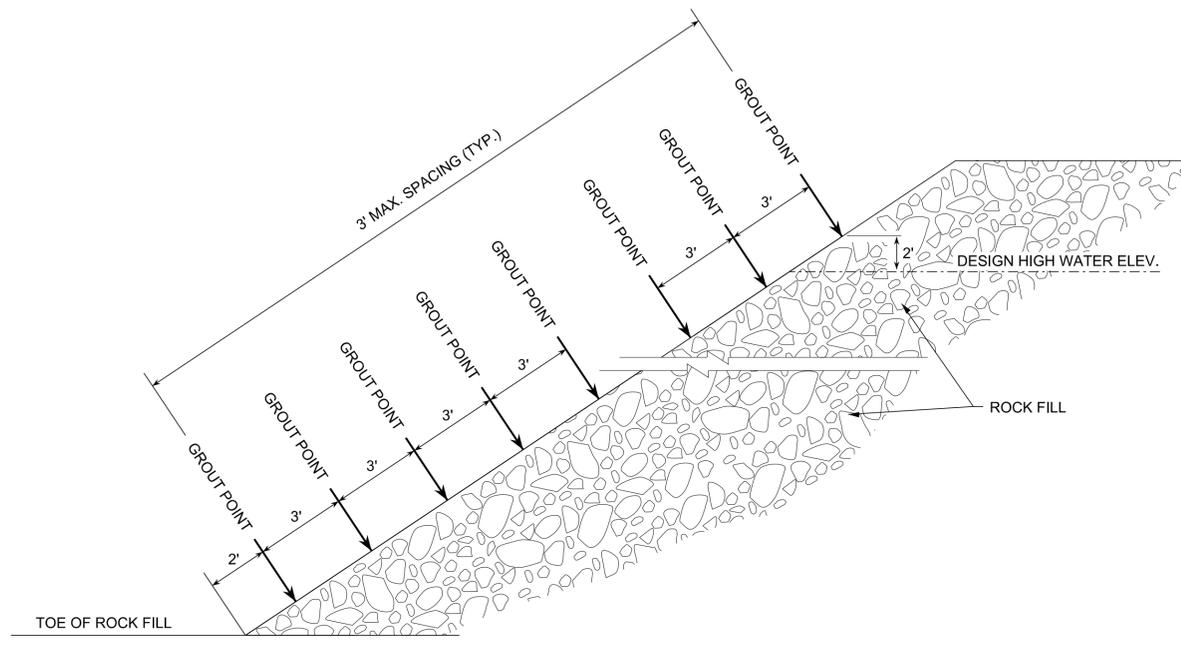
NORTH CAROLINA  
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 DIVISION OF HIGHWAYS

**GEOTECHNICAL  
 ENGINEERING UNIT**

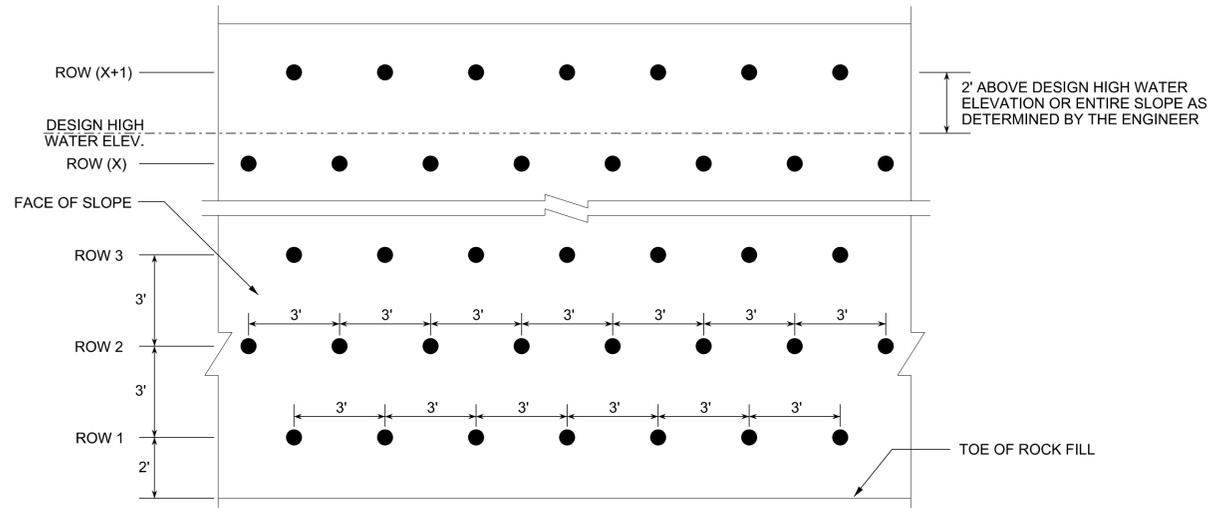
REVISIONS						SHEET NO. 2G-2
NO.	BY	DATE	NO.	BY	DATE	
1			3			
2			4			

GROUTED ROCK EMBANKMENTS

GEOTECHNICAL ENGINEER   Signed by: <i>Kelly De Montbrun</i> 1/5/2026 <small>DATE</small>	ENGINEER   <small>SIGNATURE</small> <small>DATE</small>
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PARTIALLY GROUTED ROCK FILL - SLOPE FACE DETAIL



PARTIALLY GROUTED ROCK FILL - SLOPE FACE GROUT POINTS  
VIEW FROM FRONT SLOPE FACE

PARTIALLY GROUTED ROCK FILL DETAILS

ESTIMATED QUANTITIES - SITE 430	
ROCK EMBANKMENTS	425 TON
GEOTEXTILE FOR ROCK EMBANKMENTS	275 SY
GROUT FOR ROCK FILL	40 CY

PROJECT NO.: W03291  
POLK COUNTY  
 STATION: -L- STA. 93+75 TO 94+25  
 SHEET 3 OF 3

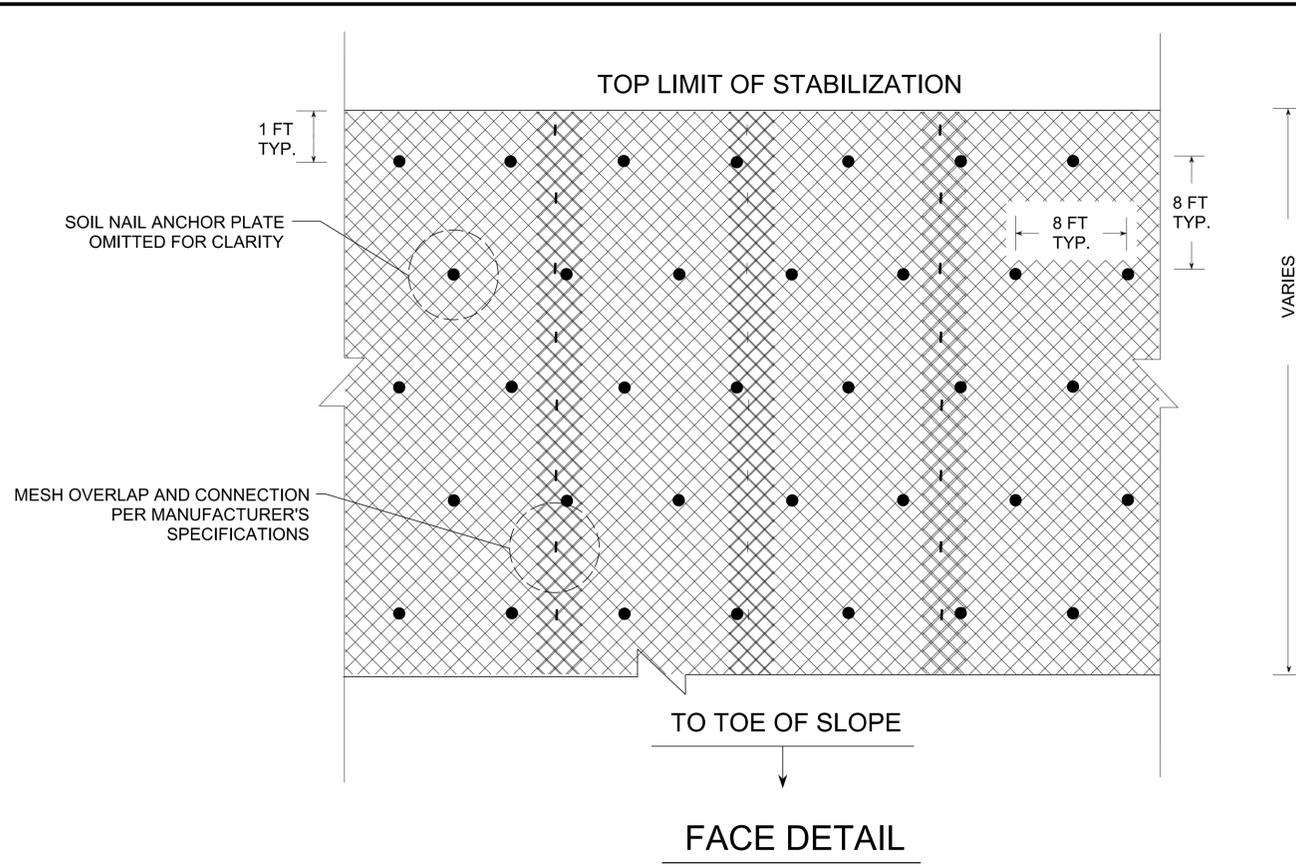
PREPARED BY: KND	DATE: 11/25
REVIEWED BY: DMB	DATE: 11/25

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 SUITE 100  
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 NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
  
**GEOTECHNICAL  
ENGINEERING UNIT**

REVISIONS						SHEET NO. 2G-3
NO.	BY	DATE	NO.	BY	DATE	
1			3			
2			4			



**NOTES:**

WIRE MESH SHALL BE INSTALLED ON SLOPES AS DIRECTED BY THE ENGINEER. AREAS TO BE ANCHORED MUST BE APPROVED BY THE ENGINEER PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION.

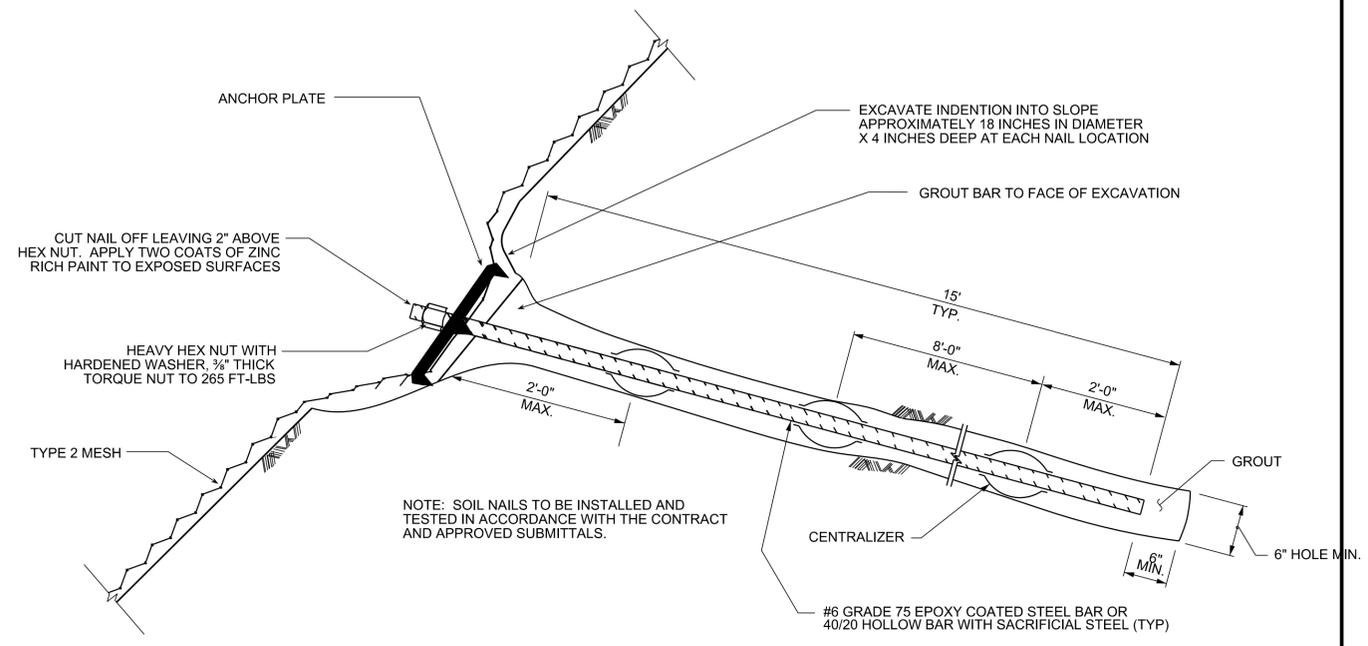
SOIL NAIL LENGTH = 15 FT (TYP)

DESIGN TEST LOAD (DTL) = 15 KIPS (1 k/ft)

INSTALL NAILS INTO SLOPE WITH AN INCLINATION OF 75 TO 90 DEGREES TO THE SLOPE.

VERIFICATION TESTS ARE NOT REQUIRED.

GEOTECHNICAL ENGINEER  Signed by: <i>Kelly De Montbrun</i> 1/5/2026 DATE	ENGINEER SIGNATURE DATE
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

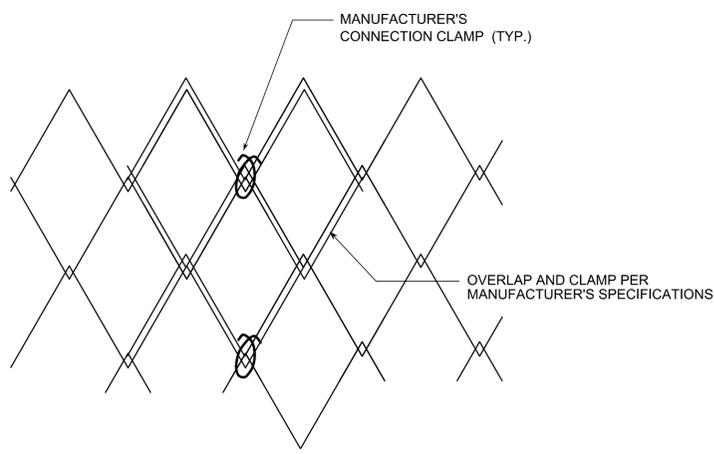


**TYPICAL SECTION**

ESTIMATED QUANTITIES - SITE 428	
WIRE MESH SLOPE STABILIZATION	890 SY
SUPPLEMENTAL SOIL NAILS	5 EA
SOIL NAIL PROOF TESTS	5 EA

ESTIMATED QUANTITIES - SITE 429	
WIRE MESH SLOPE STABILIZATION	600 SY
SUPPLEMENTAL SOIL NAILS	5 EA
SOIL NAIL PROOF TESTS	5 EA

ESTIMATED QUANTITIES - SITE 427	
WIRE MESH SLOPE STABILIZATION	670 SY
SUPPLEMENTAL SOIL NAILS	5 EA
SOIL NAIL PROOF TESTS	5 EA



**MESH OVERLAP & CONNECTION DETAIL**

PROJECT NO.: W03291  
 POLK COUNTY

STATION: -L- STA. 60+50 TO 63+00      STATION: -L- STA. 72+00 TO 73+00  
 STATION: -L- STA. 65+50 TO 68+50      STATION: -L- STA. 77+75 TO 78+25

SHEET 1 OF 1

PREPARED BY: KND	DATE: 11/25
REVIEWED BY: REK	DATE: 11/25

Prepared in the Office of:

**CAROLINAS GEOTECHNICAL GROUP**  
 1805 SARDIS ROAD NORTH  
 SUITE 100  
 CHARLOTTE, NC 28270  
 (980) 339-8684

NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

**GEOTECHNICAL ENGINEERING UNIT**

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			2G-4
2			4			

COMPUTED BY: SGM DATE: 11/26/25  
 CHECKED BY: JLT DATE: 12/8/25

PROJECT NO.	SHEET NO.
W03291	3B-1

**STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS**

PROJECT TOTALS	EXCAVATION TOTAL UNCLASS.	BORROW	WASTE
SITE			
SITE 421	96	119	
SITE 422	8	1,571	
SITE 423	165		122
SITE 424	0		0
SITE 425	N/A		
SITE 426	231		226
SITE 427	408	185	
SITE 428	3,242		2,018
SITE 429	800		717
SITE 430	812		803
SITE 431	N/A		
SITE 432	109	1,867	
SITE 435	51	414	
SITE BW1	38		35

SEE SHEET 3B-2 FOR EARTHWORK SUMMARY  
 SEE SHEET 3B-2 FOR EARTHWORK SUMMARY  
 SEE SHEET 3B-2 FOR EARTHWORK SUMMARY  
 SEE SHEET 3B-2 FOR EARTHWORK SUMMARY

SEE SHEET 3B-2 FOR EARTHWORK SUMMARY  
 SEE SHEET 3B-2 FOR EARTHWORK SUMMARY  
 SEE SHEET 3B-3 FOR EARTHWORK SUMMARY  
 SEE SHEET 3B-3 FOR EARTHWORK SUMMARY  
 SEE SHEET 3B-3 FOR EARTHWORK SUMMARY

SEE SHEET 3B-3 FOR EARTHWORK SUMMARY  
 SEE SHEET 3B-3 FOR EARTHWORK SUMMARY  
 SEE SHEET 3B-3 FOR EARTHWORK SUMMARY

<b>GRAND TOTALS</b>	5,960	4,156	3,921
<b>SAY W03291 (Part I)</b>	<b>6,000</b>	<b>4,250</b>	

<b>SAY W03291 (Part II)</b>	<b>8,000</b>	<b>2,500</b>	
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<b>SAY Combined Project W03291</b>	<b>14,000</b>	<b>6,750</b>	
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	Part I	Part II	Combined Project
EST. DDE(CY)	<b>500</b>	<b>2,422</b>	<b>2,922</b>
SELECT GRANULAR MATERIAL (CY)	<b>2,600</b>	<b>2,200</b>	<b>4,800</b>
EST. SHALLOW UNDERCUT (CY)	<b>650</b>	<b>550</b>	<b>1,200</b>
ESTIMATED UNDERCUT TO BE USED AT THE DISCRETION OF THE RESIDENT ENGINEER PER GEOTECH RECOMMENDATION. (CY)	<b>2,600</b>	<b>2,200</b>	<b>4,800</b>

COMPUTED BY: SGM DATE: 11/17/2025  
CHECKED BY: JLT DATE: 12/8/25

PROJECT NO. W03291 SHEET NO. 3B-2

### STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY TGS ENGINEERS. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEERING UNIT.

#### SUMMARY OF EARTHWORK

IN CUBIC YARDS  
Site 421

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L-17+00.00	-L- 20+50.00	146	209	63	
<b>SUBTOTALS:</b>		146	209	63	
<b>TOTALS:</b>		146	209	63	
LOSS DUE TO CLEARING & GRUBBING		-50		50	
<b>PROJECT TOTALS:</b>		96	209	113	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				6	
<b>GRAND TOTALS:</b>		96	209	119	

DDE = 30 CUBIC YARDS  
SELECT GRANULAR MATERIAL = 200 CUBIC YARDS  
EST. SHALLOW UNDERCUT = 50 CUBIC YARDS

PER GEOTECH RECOMMENDATION, ESTIMATED 200 CUBIC YARDS OF UNDERCUT TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, BORROW EXCAVATION, FINE GRADING, CLEARING AND GRUBBING, AND REMOVAL OF EXISTING PAVEMENT WILL BE PAID FOR AT THE LUMP SUM PRICE FOR "GRADING".

#### SUMMARY OF EARTHWORK

IN CUBIC YARDS  
Site 422

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L-20+50.00	-L- 27+00.00	58	1504	1446	
<b>SUBTOTALS:</b>		58	1504	1446	
<b>TOTALS:</b>		58	1504	1446	
LOSS DUE TO CLEARING & GRUBBING		-50		50	
<b>PROJECT TOTALS:</b>		8	1504	1496	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				75	
<b>GRAND TOTALS:</b>		8	1,504	1,571	

DDE = 54 CUBIC YARDS  
SELECT GRANULAR MATERIAL = 200 CUBIC YARDS  
EST. SHALLOW UNDERCUT = 50 CUBIC YARDS

PER GEOTECH RECOMMENDATION, ESTIMATED 200 CUBIC YARDS OF UNDERCUT TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, BORROW EXCAVATION, FINE GRADING, CLEARING AND GRUBBING, AND REMOVAL OF EXISTING PAVEMENT WILL BE PAID FOR AT THE LUMP SUM PRICE FOR "GRADING".

#### SUMMARY OF EARTHWORK

IN CUBIC YARDS  
Site 423

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L-40+50.00	-L- 48+00.00	215	43		172
<b>SUBTOTALS:</b>		215	43		172
<b>TOTALS:</b>		215	43		172
LOSS DUE TO CLEARING & GRUBBING		-50			-50
<b>PROJECT TOTALS:</b>		165	43		122
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT					
<b>GRAND TOTALS:</b>		165	43		122

DDE = 62 CUBIC YARDS  
SELECT GRANULAR MATERIAL = 200 CUBIC YARDS  
EST. SHALLOW UNDERCUT = 50 CUBIC YARDS

PER GEOTECH RECOMMENDATION, ESTIMATED 200 CUBIC YARDS OF UNDERCUT TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, FINE GRADING, CLEARING AND GRUBBING, AND REMOVAL OF EXISTING PAVEMENT WILL BE PAID FOR AT THE LUMP SUM PRICE FOR "GRADING".

#### SUMMARY OF EARTHWORK

IN CUBIC YARDS  
Site 424

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L-48+50.00	-L- 51+00.00	8	0		8
<b>SUBTOTAL 1:</b>		8	0		8
<b>TOTALS:</b>		8	0		8
LOSS DUE TO CLEARING & GRUBBING		-8			-8
<b>PROJECT TOTALS:</b>		0	0		0
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT					
<b>GRAND TOTALS:</b>			0		0

DDE = 20 CUBIC YARDS  
SELECT GRANULAR MATERIAL = 200 CUBIC YARDS  
EST. SHALLOW UNDERCUT = 50 CUBIC YARDS

PER GEOTECH RECOMMENDATION, ESTIMATED 200 CUBIC YARDS OF UNDERCUT TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

APPROXIMATE QUANTITIES ONLY. FINE GRADING AND CLEARING AND GRUBBING WILL BE PAID FOR AT THE LUMP SUM PRICE FOR "GRADING".

#### SUMMARY OF EARTHWORK

IN CUBIC YARDS  
Site 426

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L-54+00.00	-L- 61+00.00	281	5		276
<b>SUBTOTALS:</b>		281	5		276
<b>TOTALS:</b>		281	5		276
LOSS DUE TO CLEARING & GRUBBING		-50			-50
<b>PROJECT TOTALS:</b>		231	5		226
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT					
<b>GRAND TOTALS:</b>		231	5		226

DDE = 58 CUBIC YARDS  
SELECT GRANULAR MATERIAL = 200 CUBIC YARDS  
EST. SHALLOW UNDERCUT = 50 CUBIC YARDS

PER GEOTECH RECOMMENDATION, ESTIMATED 200 CUBIC YARDS OF UNDERCUT TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, FINE GRADING, CLEARING AND GRUBBING, AND REMOVAL OF EXISTING PAVEMENT WILL BE PAID FOR AT THE LUMP SUM PRICE FOR "GRADING".

#### SUMMARY OF EARTHWORK

IN CUBIC YARDS  
Site 427

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L-61+00.00	-L- 64+00.00	458	584	126	
<b>SUBTOTALS:</b>		458	584	126	
<b>TOTALS:</b>		458	584	126	
LOSS DUE TO CLEARING & GRUBBING		-50		50	
<b>PROJECT TOTALS:</b>		408	584	176	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				9	
<b>GRAND TOTALS:</b>		408	584	185	

DDE = 20 CUBIC YARDS  
SELECT GRANULAR MATERIAL = 200 CUBIC YARDS  
EST. SHALLOW UNDERCUT = 50 CUBIC YARDS

PER GEOTECH RECOMMENDATION, ESTIMATED 200 CUBIC YARDS OF UNDERCUT TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, BORROW EXCAVATION, FINE GRADING, CLEARING AND GRUBBING, REMOVAL OF EXISTING PAVEMENT AND BREAKING OF EXISTING PAVEMENT WILL BE PAID FOR AT THE LUMP SUM PRICE FOR

COMPUTED BY: SGM DATE: 11/17/2025  
 CHECKED BY: JLT DATE: 12/8/25

PROJECT NO. W03291 SHEET NO. 3B-3

## STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY TGS ENGINEERS. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEERING UNIT.

### SUMMARY OF EARTHWORK

IN CUBIC YARDS  
Site 428

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L-64+00.00	-L- 71+00.00	3292	1224		2068
<b>SUBTOTALS:</b>		3292	1224		2068
<b>TOTALS:</b>		3292	1224		2068
LOSS DUE TO CLEARING & GRUBBING		-50			-50
<b>PROJECT TOTALS:</b>		3242	1224		2018
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT					
<b>GRAND TOTALS:</b>		3,242	1,224		2,018

DDE = 58 CUBIC YARDS  
 SELECT GRANULAR MATERIAL = 200 CUBIC YARDS  
 EST. SHALLOW UNDERCUT = 50 CUBIC YARDS

PER GEOTECH RECOMMENDATION, ESTIMATED 200 CUBIC YARDS OF UNDERCUT TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, FINE GRADING, CLEARING AND GRUBBING, AND REMOVAL OF EXISTING PAVEMENT WILL BE PAID FOR AT THE LUMP SUM PRICE FOR "GRADING".

### SUMMARY OF EARTHWORK

IN CUBIC YARDS  
Site 432

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L-98+00.00	-L- 100+00.00	159	1887	1728	
<b>SUBTOTAL 1:</b>		159	1887	1728	
<b>TOTALS:</b>		159	1887	1728	
LOSS DUE TO CLEARING & GRUBBING		-50		50	
<b>PROJECT TOTALS:</b>		109	1887	1778	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT					
<b>GRAND TOTALS:</b>		109	1,887	1,867	

DDE = 17 CUBIC YARDS  
 SELECT GRANULAR MATERIAL = 200 CUBIC YARDS  
 EST. SHALLOW UNDERCUT = 50 CUBIC YARDS

PER GEOTECH RECOMMENDATION, ESTIMATED 200 CUBIC YARDS OF UNDERCUT TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, BORROW EXCAVATION, FINE GRADING, CLEARING AND GRUBBING, REMOVAL OF EXISTING PAVEMENT AND BREAKING OF EXISTING PAVEMENT WILL BE PAID FOR AT THE LUMP SUM PRICE FOR

### SUMMARY OF EARTHWORK

IN CUBIC YARDS  
Site 429

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L-71+00.00	-L- 80+00.00	850	83		767
<b>SUBTOTALS:</b>		850	83		767
<b>TOTALS:</b>		850	83		767
LOSS DUE TO CLEARING & GRUBBING		-50			-50
<b>PROJECT TOTALS:</b>		800	83		717
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT					
<b>GRAND TOTALS:</b>		800	83		717

DDE = 74 CUBIC YARDS  
 SELECT GRANULAR MATERIAL = 200 CUBIC YARDS  
 EST. SHALLOW UNDERCUT = 50 CUBIC YARDS

PER GEOTECH RECOMMENDATION, ESTIMATED 200 CUBIC YARDS OF UNDERCUT TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, FINE GRADING, CLEARING AND GRUBBING, AND REMOVAL OF EXISTING PAVEMENT WILL BE PAID FOR AT THE LUMP SUM PRICE FOR "GRADING".

### SUMMARY OF EARTHWORK

IN CUBIC YARDS  
Site 435

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L-104+50.00	-L- 109+00.00	101	445	344	
<b>SUBTOTALS:</b>		101	445	344	
<b>TOTALS:</b>		101	445	344	
LOSS DUE TO CLEARING & GRUBBING		-50		50	
<b>PROJECT TOTALS:</b>		51	445	394	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT					
<b>GRAND TOTALS:</b>		51	445	414	

DDE =37 CUBIC YARDS  
 SELECT GRANULAR MATERIAL = 200 CUBIC YARDS  
 EST. SHALLOW UNDERCUT = 50 CUBIC YARDS

PER GEOTECH RECOMMENDATION, ESTIMATED 200 CUBIC YARDS OF UNDERCUT TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, BORROW EXCAVATION, FINE GRADING, CLEARING AND GRUBBING, REMOVAL OF EXISTING PAVEMENT AND BREAKING OF EXISTING PAVEMENT WILL BE PAID FOR AT THE LUMP SUM PRICE FOR

### SUMMARY OF EARTHWORK

IN CUBIC YARDS  
Site 430

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L-92+00.00	-L- 95+00.00	862	9		853
<b>SUBTOTALS:</b>		862	9		853
<b>TOTALS:</b>		862	9		853
LOSS DUE TO CLEARING & GRUBBING		-50			-50
<b>PROJECT TOTALS:</b>		812	9		803
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT					
<b>GRAND TOTALS:</b>		812	9		803

DDE = 20 CUBIC YARDS  
 SELECT GRANULAR MATERIAL = 200 CUBIC YARDS  
 EST. SHALLOW UNDERCUT = 50 CUBIC YARDS

PER GEOTECH RECOMMENDATION, ESTIMATED 200 CUBIC YARDS OF UNDERCUT TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, FINE GRADING, CLEARING AND GRUBBING, AND REMOVAL OF EXISTING PAVEMENT WILL BE PAID FOR AT THE LUMP SUM PRICE FOR "GRADING".

### SUMMARY OF EARTHWORK

IN CUBIC YARDS  
Site BW1

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L-115+00.00	-L- 115+48.75	23	1		22
<b>Bridge</b>					
-L-115+67.45	-L- 116+00.00	15	2		13
<b>SUBTOTALS:</b>		38	3		35
<b>TOTALS:</b>		38	3		35
LOSS DUE TO CLEARING & GRUBBING					
<b>PROJECT TOTALS:</b>		38	3		35
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT					
<b>GRAND TOTALS:</b>		38	3	0	35

DDE =25 CUBIC YARDS  
 SELECT GRANULAR MATERIAL = 200 CUBIC YARDS  
 EST. SHALLOW UNDERCUT = 50 CUBIC YARDS

PER GEOTECH RECOMMENDATION, ESTIMATED 200 CUBIC YARDS OF UNDERCUT TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, BORROW EXCAVATION, FINE GRADING, CLEARING AND GRUBBING, REMOVAL OF EXISTING PAVEMENT AND BREAKING OF EXISTING PAVEMENT WILL BE PAID FOR AT THE LUMP SUM PRICE FOR

COMPUTED BY: SGM DATE: 11/17/2025  
 CHECKED BY: JLT DATE: 12/8/2025

PROJECT NO.	SHEET NO.
W03291	3B-4

## STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

### PAVEMENT REMOVAL SUMMARY IN SQUARE YARDS

Site	SURVEY LINE	Station	Station	LOCATION LT/RT/CL	ASPHALT REMOVAL
421	-L-	17+00	20+50	RT	35.72
422	-L-	20+50	27+00	RT	71.40
423	-L-	40+71	47+77	RT	839.94
426	-L-	57+66	61+00	CL	716.86
427	-L-	61+00	64+00	CL	576.96
428	-L-	64+00	69+00	CL	1,122.95
429	-L-	72+00	73+50	CL	207.06
430	-L-	92+50	95+00	CL	565.93
432	-L-	98+00	100+00	CL	398.06
435	-L-	105+50	106+50	CL	192.27
BW1	-L-	115+00	115+49	CL	106.04
	-L-	115+67	116+00	CL	72.94
Part I TOTAL:					4,906.13
PART I SAY:					<b>5,000</b>
PART II SAY:					<b>25,570</b>
COMBINED PROJECT SAY:					<b>30,570</b>

### SHOULDER BERM GUTTER SUMMARY IN FEET

PART I SAY:	N/A
PART II SAY:	60 LF
COMBINED PROJECT SAY:	60 LF

### CONCRETE EXPRESSWAY GUTTER IN FEET

PART I SAY:	N/A
PART II SAY:	155 LF
COMBINED PROJECT SAY:	155 LF

COMPUTED BY: SGM DATE: 11/21/25  
 CHECKED BY: JLT DATE: 12/8/25

PROJECT REFERENCE NO. W03291 SHEET NO. 3B-5

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

**GUARDRAIL SUMMARY**

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL  
 TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.  
 FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL  
 W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL

G = GATING IMPACT ATTENUATOR TYPE 350  
 NG = NON-GATING IMPACT ATTENUATOR TYPE 350

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOULDER WIDTH	FLARE LENGTH		W		ANCHORS						IMPACT ATTENUATOR		EXTRA DEPTH POSTS	REMOVE EXISTING GUARDRAIL	REMOVE & STOCKPILE EXISTING GUARDRAIL	REMARKS		
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	B-77	B-77 SC	GREU, TL-2										G	NG
<b>SITE 421</b>																												
-L-	17+50.00	20+50.00	RT	212.50	87.5				SEE NOTE 1																	1st SECTION OF GUARDRAIL SITES 421/422 30/6.25=4.8, SAY 5 EA TIE TO EXIST GUARDRAIL		
<b>SITE 421 TOTALS</b>				212.50	87.50																							
<b>SAY</b>				<b>218.75</b>	<b>93.75</b>				<b>Additional Guardrail Posts = 2 EA</b>																			
<b>SITE 422</b>																												
-L-	20+50.00	27+00.00	RT	543.75	106.25				SEE NOTE 1																	2nd SECTION OF GUARDRAIL SITES 421/422 568.75/6.25=91, SAY 100 EA TIE TO EXIST GUARDRAIL		
<b>SITE 422 TOTALS</b>				543.75	106.25																							
<b>SAY</b>				<b>550.00</b>	<b>112.50</b>				<b>Additional Guardrail Posts = 2 EA</b>																			
<b>SITE 423</b>																												
-L-	45+25+/-	46+36.00	LT	112.50	56.25				SEE NOTE 1	25'	25'	0.5'	0.5'													168.75/6.25=27, SAY 30 EA		
<b>SUB-TOTALS</b>				112.50	56.25																							
<b>LESS ANCHOR DEDUCTIONS</b>																												
GREU, TL-2 2 @ 25.00 ft				50.00																								
<b>ANCHOR TOTALS</b>				50.00																								
<b>SITE 423 TOTALS</b>				62.50	56.25																							
<b>SAY</b>				<b>75.00</b>	<b>62.50</b>				<b>Additional Guardrail Posts = 2 EA</b>																			
<b>SITE 426</b>																												
-L-	54+57.75	57+64.00	RT	306.25					SEE NOTE 1		25'		0.5'															
-L-	58+64+/-	60+22.00	LT	181.25					SEE NOTE 1	25'	25'	0.5'	0.5'													306.25/6.25=49 ,SAY 54 EA; TIE TO EXIST GR 181.25/6.25=29 ,SAY 32 EA		
<b>SUB-TOTALS</b>				487.50																								
<b>LESS ANCHOR DEDUCTIONS</b>																												
GREU, TL-2 3 @ 25.00 ft				75.00																								
<b>ANCHOR TOTALS</b>				75.00																								
<b>SITE 426 TOTALS</b>				412.50																								
<b>SAY</b>				<b>425.00</b>					<b>Additional Guardrail Posts = 2 EA</b>																			
<b>SITE 427</b>																												
-L-	61+00.00	64+00.00	RT	268.75	106.25				SEE NOTE 1	25'			0.5'													1st SECTION OF 3 - SITES 427/428/429 243.75/6.25=39; SAY 43 EA		
<b>SUB-TOTALS</b>				268.75	106.25																							
<b>LESS ANCHOR DEDUCTIONS</b>																												
GREU, TL-2 1 @ 25.00 ft				25.00																								
<b>ANCHOR TOTALS</b>				25.00																								
<b>SITE 427 TOTALS</b>				243.75	106.25																							
<b>SAY</b>				<b>250.00</b>	<b>112.50</b>				<b>Additional Guardrail Posts = 2 EA</b>																			
<b>SITE 428</b>																												
-L-	64+00.00	71+00.00	RT	350.00	350.00				SEE NOTE 1																	2nd SECTION OF 3 - SITES 427/428/429 362.5/6.25=54.5; SAY 60 EA		
<b>SITE 428 TOTALS</b>				350.00	350.00																							
<b>SAY</b>				<b>362.50</b>	<b>362.50</b>				<b>Additional Guardrail Posts = 2 EA</b>																			
<b>SITE 429</b>																												
-L-	71+00.00	72+20.89	RT	81.25	37.5				SEE NOTE 1		25'		0.5													3rd SECTION OF 3 - SITES 427/428/429 118.75/6.25=9.5; SAY 11 EA		
-L-	78+50+/-	79+95.00	RT	106.25	81.25				SEE NOTE 1	25'	25'	0.5'	0.5'													187.5/6.25=30 ,SAY 33 EA		
<b>SUB-TOTALS</b>				187.50	118.75																							
<b>LESS ANCHOR DEDUCTIONS</b>																												
GREU, TL-2 3 @ 25.00 ft				75.00																								
<b>ANCHOR TOTALS</b>				75.00																								
<b>SITE 429 TOTALS</b>				112.50	118.75																							
<b>SAY</b>				<b>125.00</b>	<b>125.00</b>				<b>Additional Guardrail Posts = 2 EA</b>																			
<b>W03291 (PART I) SHEET 3B-5 TOTALS</b>				<b>2006.25</b>	<b>868.75</b>				<b>Additional Guardrail Posts = 14 EA</b>																			
															<b>9</b>										<b>368</b>	<b>1467</b>		

NOTE 1 : SEE SHEET 2A-1 INSETS A & B









COMPUTED BY: KND DATE: 11/14/2025  
 CHECKED BY: REK DATE: 11/14/2025

(9-17-24)

PROJECT NO.  
W03291

SHEET NO.  
3G-1

**STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS**

**SUMMARY OF SUBSURFACE DRAINAGE**

LINE	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	LF
CONTINGENCY				SD	1300
				<b>TOTAL LF:</b>	1300

\*UD = Underdrain  
 \*BD = Blind Drain  
 \*SD = Subsurface Drain

**SUMMARY OF ROCK PLATING**

LINE	Beginning Slope (H:V)	Approx. Station	Ending Slope (H:V)	Approx. Station	Location LT/RT	Rock Plating Detail No. 1/2/3/4	Riprap Class* 1/2/B	Rock Plating SY
-L-	1.5:1	21+50	1.5:1	27+00	RT	2		1660
-L-	1.5:1	61+00	1.5:1	63+50	RT	2		700
-L-	1.5:1	64+00	1.5:1	64+50	RT	2		210
-L-	1.5:1	68+50	1.5:1	71+00	RT	2		1080
-L-	1.5:1	71+00	1.5:1	72+00	RT	2		190
-L-	1.5:1	98+00	1.5:1	99+50	RT	2		1190
-L-	1.5:1	105+75	1.5:1	106+25	LT	2		250
<b>TOTAL SY:</b>								5280

\*Use Class 1, 2 or B riprap if riprap class is not shown for rock plating location.

**SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION**

LINE	Station	Station	Aggregate Type* ASU(1/2)/ AST	Aggregate Thickness INCHES [8" for ASU(2)]	Shallow Undercut CY	Class IV Subgrade Stabilization TONS	Geotextile for Subgrade Stabilization SY	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS
CONTINGENCY			ASU1	12	650	1300	1950		
<b>TOTAL CY/TONS/SY:</b>					650	1300**	1950**	0	0

\*ASU(1/2) = Aggregate Subgrade (Type 1 or 2)  
 \*AST = Aggregate Stabilization  
 \*\*Total tons of "Class IV Subgrade Stabilization" and total square yards of "Geotextile for Subgrade Stabilization" are only the estimated quantities for ASU(1/2)/AST and may only represent a portion of the subgrade stabilization and geotextile quantities shown in the Item Sheets of the Proposal.

**SUMMARY OF REINFORCED SOIL SLOPES AND SLOPE EROSION CONTROL**

LINE	Beginning Slope/ RSS (H:V)	Approx. Station	Ending Slope/ RSS (H:V)	Approx. Station	Location LT/RT	Reinforced Soil Slope (RSS) SY	Geocells SY	Compost Blanket for Geocells SY	Coir Fiber Mat SY	Matting for Erosion Control SY
-L-	1.5:1	92+50	1.5:1	93+25	LT & RT				190	
-L-	1.5:1	98+75	1.5:1	99+25	LT & RT				220	
<b>TOTAL SY:</b>						0	0	0	410*	0**

\*Total square yards of "Coir Fiber Mat" is only the estimated quantity for slopes steeper than 2:1 (H:V) and may only represent a portion of the coir fiber mat quantity shown in the Item Sheets of the Proposal.  
 \*\*Total square yards of "Matting for Erosion Control" is only the estimated quantity for RSS and may only represent a portion of the matting quantity shown in the Item Sheets of the Proposal.



8/17/09

EXISTING OR FUTURE OBSTRUCTIONS, SUCH AS FOUNDATIONS, GUARDRAIL, FENCE OR HANDRAIL POSTS, PAVEMENTS, PIPES, INLETS OR UTILITIES WILL INTERFERE WITH MICROPILES FOR RETAINING WALL NO. 421 422 AND RETAINING WALL NO. 428.

**BEGIN CONSTRUCTION**  
-L- STA. 20+50.00  
(SITE 422)

**END CONSTRUCTION**  
-L- STA. 27+00.00  
(SITE 422)

SEE SHEETS 2B-1 AND 2B-2 FOR ALIGNMENT DATA

NAD 83/2011

PROJECT REFERENCE NO. W03291	SHEET NO. 04
ROADWAY DESIGN ENGINEER JIMMY L. TERRY 35018	HYDRAULICS ENGINEER JOHN W. TWISDALE 024897

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS  
201 W. MARION ST. STE 200  
SHELBY, NC 28150  
PH (704) 476-0003  
CORP. LICENSE NO.: C-0275

**REPAIR ASPHALT AND SHOULDER FROM**  
-L- STA. 17+50.00 TO -L- STA. 27+00.00

**BEGIN CONSTRUCTION**  
-L- STA. 40+50.00  
(SITE 423)

CLEANOUT DITCHES PER RECOMMENDATION OF THE RESIDENT ENGINEER. SEE NCDOT 240 SPECIFICATION DITCH EXCAVATION

- ⓐ N 80° 40' 36.5" E
- ⓑ N 2° 52' 54.1" E
- ⓒ N 62° 26' 27.3" W
- ⓓ N 14° 35' 18.5" W
- ⓔ N 47° 55' 37.0" W
- ⓕ N 0° 47' 47.3" E
- ⓖ N 0° 42' 05.3" W

**BEGIN CONSTRUCTION**  
-L- STA. 17+50.00  
(SITE 421)

**END CONSTRUCTION**  
-L- STA. 20+50.00  
(SITE 421)

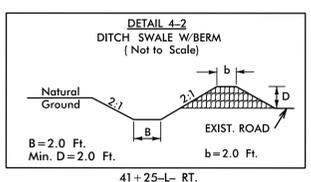
**END CONSTRUCTION**  
-L- STA. 48+00.00  
(SITE 423)

**END CONSTRUCTION (SITE 424)**  
**BEGIN CONSTRUCTION (SITE 425)**  
-L- STA. 51+00.00

**BEGIN CONSTRUCTION**  
-L- STA. 48+50.00  
(SITE 424)

**END CONSTRUCTION (SITE 425)**  
**BEGIN CONSTRUCTION (SITE 426)**  
-L- STA. 54+00.00

**END REALIGNMENT**  
-L- STA. 69+00.00



**REPLACE PAVEMENT WITH FULL DEPTH ASPHALT FROM**  
-L- STA. 58+50.00 TO -L- STA. 64+50.00

**END CONSTRUCTION**  
-L- STA. 61+00.00  
(SITE 426)

**BEGIN CONSTRUCTION**  
-L- STA. 61+00.00  
(SITE 427)

**BEGIN REALIGNMENT**  
-L- STA. 64+50.00  
**BEGIN CONSTRUCTION (SITE 428)**  
-L- STA. 64+00.00

**END CONSTRUCTION**  
-L- STA. 63+50.00  
(SITE 427)

FOR -L- PROFILE FROM STA. 64+50.00 TO 69+00.00, SEE SHEET NO. 7

MATCH LINE STA. -L- 69+50  
MATCH TO SHEET NO. 5

REVISIONS

USE THIS FOR SWB\GreenRiverCove\Rehab\Roadway\Design\Switchbacks - USE THIS FOR SWB\GreenRiverCove\Rehab\Roadway\Design\Switchbacks - USE THIS FOR SWB\GreenRiverCove\Rehab\Roadway\Design\Switchbacks - USE THIS FOR SWB\GreenRiverCove\Rehab\Roadway\Design\Switchbacks

TGR HOLDINGS, LLC  
DB 399 PG 1648  
PB F PG 327

UNDER THE GEORGIA SUN, LLC  
DB 470 PG 950  
PB B PG 382

8/17/99  
REVISIONS  
12/18/2009 Green River Cove Rd Rehab (Roadway) Design\Switchbacks - USE THIS FOR SWB\GreenRiverCoveRdSWB\_Rdy\_psh\_05.dgn  
12/18/2009 Green River Cove Rd Rehab (Roadway) Design\Switchbacks - USE THIS FOR SWB\GreenRiverCoveRdSWB\_Rdy\_psh\_05.dgn

SEE SHEETS 2B-1 AND 2B-2 FOR ALIGNMENT DATA

MATCH LINE STA. -L- 69 + 50 MATCH TO SHEET NO. 4

END CONSTRUCTION (SITE 428)  
BEGIN CONSTRUCTION (SITE 429)  
-L- STA. 71 + 00.00

REMOVE ROCK AND CRUSH IN PLACE OF SLOPE FAILURE

REESTABLISHED EOT

BEGIN CONSTRUCTION  
-L- STA. 98 + 00.00 (SITE 432)

END CONSTRUCTION  
-L- STA. 100 + 00.00 (SITE 432)

BEGIN CONSTRUCTION (SITE 429)  
-L- STA. 92 + 50.00 (SITE 430)

REPLACE PAVEMENT WITH FULL DEPTH ASPHALT FROM -L- STA. 92 + 50.00 TO -L- STA. 95 + 00.00

END CONSTRUCTION  
-L- STA. 95 + 00.00 (SITE 430)

BEGIN CONSTRUCTION  
-L- STA. 96 + 00.00 (SITE 431)

END CONSTRUCTION  
-L- STA. 96 + 50.00 (SITE 431)

REPLACE PAVEMENT WITH FULL DEPTH ASPHALT FROM -L- STA. 98 + 50.00 TO -L- STA. 99 + 50.00

END CONSTRUCTION  
-L- STA. 109 + 00.00 (SITE 435)

MATCH LINE STA. -L- 116 + 50 MATCH TO SHEET NO. 6

BEGIN CONSTRUCTION  
-L- STA. 115 + 00.00 (SITE BW1)

REPLACE BRIDGE RAILS SEE SHEETS S-1 THRU S-2  
REPLACE PAVEMENT WITH FULL DEPTH ASPHALT FROM -L- STA. 115 + 00.00 TO -L- STA. 116 + 00.00

BEGIN CONSTRUCTION  
-L- STA. 104 + 50.00 (SITE 435)

REPLACE PAVEMENT WITH FULL DEPTH ASPHALT FROM -L- STA. 105 + 50 TO 106 + 50

FINN B. CULLUM  
DB 259 PG 1154  
PB B PG 524

MARK WAHL  
DB 410 PG 2367  
PB B PG 522

CAROL S. SLATER  
DB 306 PG 1882  
PB B PG 489

DAVID M. ATCHLEY  
DB 417 PG 1064  
PB B PG 389

HAROLD F. WHATLEY  
ANDREA E. WHATLEY  
DB 330 PG 1635  
PB D PG 1073

SIERRA M. ALLEN  
DANIEL B. CHAPMAN  
DB 425 PG 2402  
PB F PG 825

NATALIE D. LIVINGSTON  
DB 401 PG 762  
PB A308 PG 450

MATTHEW P. GETTER  
CARA S. GETTER  
DB 468 PG 1563  
PB B PG 458

UNDER THE GEORGIA SUN, LLC  
DB 470 PG 950  
PB B PG 382

MERRELL T. SWALM  
DB 398 PG 2006  
PB B PG 402

FINN B. CULLUM  
DB 259 PG 1154  
PB B PG 524

FINN B. CULLUM  
DB 259 PG 1154  
PB B PG 524

FINN B. CULLUM  
DB 259 PG 1154  
PB B PG 524

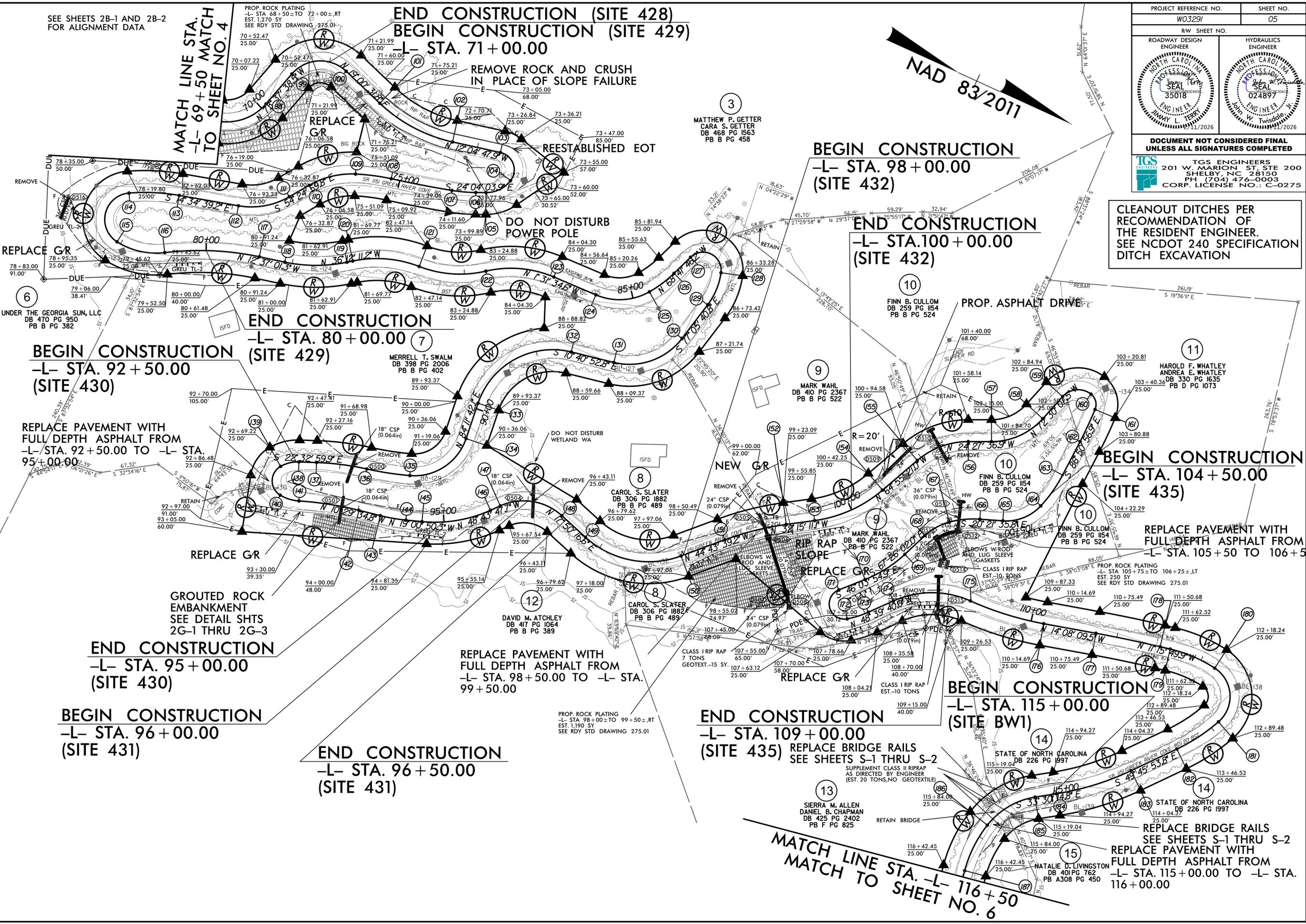
FINN B. CULLUM  
DB 259 PG 1154  
PB B PG 524

FINN B. CULLUM  
DB 259 PG 1154  
PB B PG 524

STATE OF NORTH CAROLINA  
DB 226 PG 1997

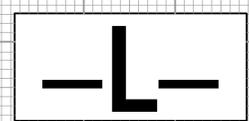
CLEANOUT DITCHES PER RECOMMENDATION OF THE RESIDENT ENGINEER. SEE NCDOT 240 SPECIFICATION DITCH EXCAVATION

PROJECT REFERENCE NO. W03291	SHEET NO. 05
ROADWAY DESIGN ENGINEER SEAL 35018 JIMMY L. TERRY	HYDRAULICS ENGINEER SEAL 024897 John W. Twissdale, Jr.
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
TGS ENGINEERS 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH: (704) 476-0003 CORP. LICENSE NO.: C-0275	

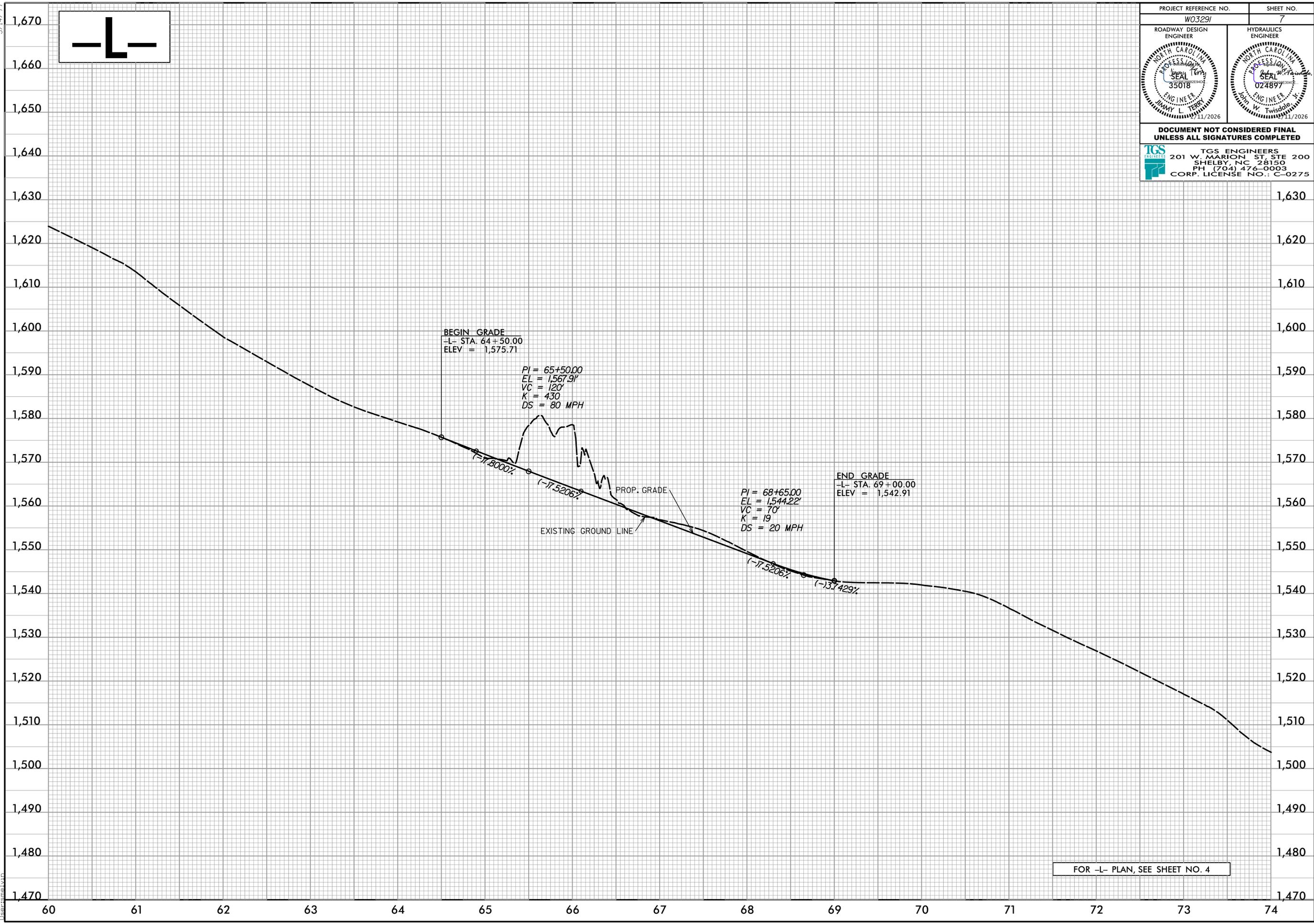




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5/14/2025  
11:52:51 AM



PROJECT REFERENCE NO. W03291	SHEET NO. 7
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	
 <b>TGS ENGINEERS</b> 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	



FOR -L- PLAN, SEE SHEET NO. 4