

TIP PROJECT: BR-0140

CONTRACT: C205091

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



VICINITY MAP (NTS)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
DAVIDSON COUNTY

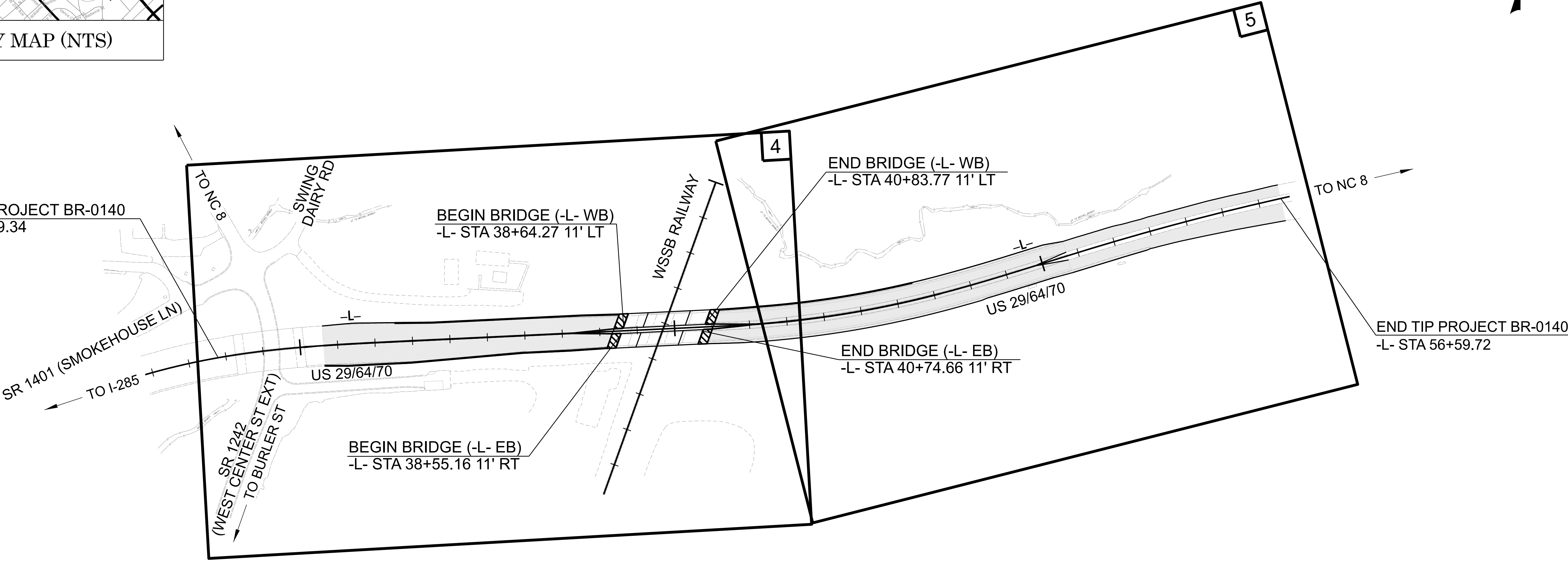
LOCATION: *REPLACE BRIDGES 280087 AND 280089 ON US 29/64/70 OVER WSSB RAILROAD*

TYPE OF WORK: *GRADING, DRAINAGE, PAVING, STRUCTURES AND BRIDGE PRESERVATION*

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0140	11	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
67140.1.1	N/A	PE	
67140.2.2	N/A	UTILITIES	
67140.3.1	N/A	CONSTRUCTION	



BEGIN TIP PROJECT BR-0140
-L- STA 27+79.34



BEGIN BRIDGE (-L- WB)
-L- STA 38+64.27 11' LT

END BRIDGE (-L- WB)
-L- STA 40+83.77 11' LT

BEGIN BRIDGE (-L- EB)
-L- STA 38+55.16 11' RT

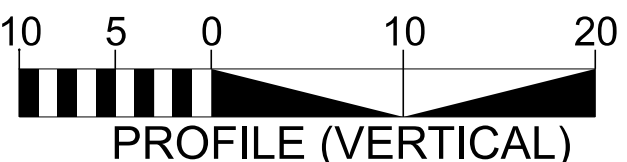
END BRIDGE (-L- EB)
-L- STA 40+74.66 11' RT

END TIP PROJECT BR-0140
-L- STA 56+59.72

DESIGN EXCEPTION FOR SHOULDER WIDTH (MEDIAN ONLY) AND CROSS SLOPE.
THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF LEXINGTON.
THIS IS A LIMITED CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES AND AT-GRADE INTERSECTIONS.

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DESIGN DATA

ADT 2025 = 21700
ADT 2045 = 25100
K = 10 %
D = 59 %
T = 10 % *
V = 60 MPH
* TTST = 5% DUAL 5%
FUNC CLASS =
FREEWAY
STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT BR-0140 = 0.504 MILES
LENGTH STRUCTURE TIP PROJECT BR-0140 = 0.042 MILES
TOTAL LENGTH TIP PROJECT BR-0140 = 0.546 MILES

Prepared in the Office of:

PARRISH & PARTNERS

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2024 STANDARD SPECIFICATIONS

JEREMY L. KEATON, PE, PLS
NCDOT CONTACT

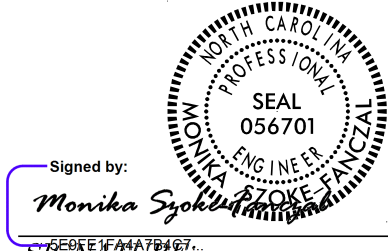
RIGHT OF WAY DATE:
DECEMBER 27, 2024

LETTING DATE:
NOVEMBER 17, 2026

ADAM PARRISH, PE
PROJECT ENGINEER

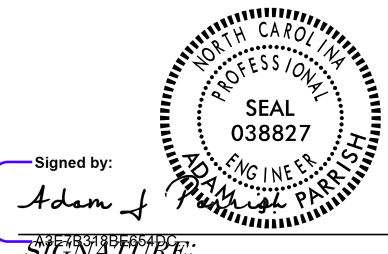
MATTHEW FERGUSON, PE
PROJECT ENGINEER

HYDRAULICS ENGINEER

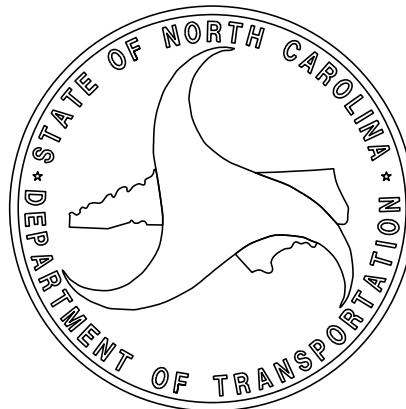


Signed by: Monica Sykes, P.E. 9/17/2026
SIGNATURE:

ROADWAY DESIGN ENGINEER



Signed by: Adam Parrish, P.E. 9/17/2026
SIGNATURE:

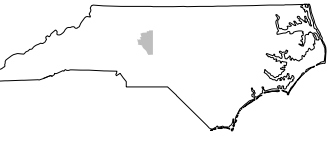


INDEX OF SHEETS		2024 ROADWAY ENGLISH STANDARD DRAWINGS		EFF. 01-16-2024 REV.	GENERAL NOTES:	2024 SPECIFICATIONS EFFECTIVE: 01-16-2024 REVISED:
SHEET NUMBER	SHEET	THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" CONTRACTS STANDARDS AND DEVELOPMENT UNIT - N. C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N. C., DATED JANUARY 16, 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:				
1	TITLE SHEET					
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS					GRADING AND SURFACING OR RESURFACING AND WIDENING:
1B	CONVENTIONAL SYMBOLS	STD.NO.	TITLE			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.
2A-1 THRU 2A-3	PAVEMENT SCHEDULE AND TYPICAL SECTIONS	DIVISION 2 - EARTHWORK				
2B-1 THRU 2B-6	CROSSOVER DETAILS AND BARRIER TRANSITION DETAILS	200.03	METHOD OF CLEARING - METHOD III			
2C-1 THRU 2C-7	SPECIAL DETAILS	225.01	GUIDE FOR GRADING SUBGRADE - INTERSTATE AND FREEWAY			
2G-1 THRU 2G-5	GEOTECHNICAL DETAILS	225.03	DECELERATION AND ACCELERATION LANES			
3B-1 THRU 3B-2	ROADWAY SUMMARIES	225.05	METHOD OF OBTAINING SUPERELEVATION - DIVIDED HIGHWAYS			
3D-1	DRAINAGE SUMMARIES	DIVISION 3 - PIPE CULVERTS				CLEARING:
3G-1	GEOTECHNICAL SUMMARIES	300.01	METHOD OF PIPE INSTALLATION (USE DETAILS IN LIEU OF STANDARDS FOR SHEETS 1 AND 2 OF 2)			CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
4 THRU 7	PLAN AND PROFILE SHEET	DIVISION 4 - MAJOR STRUCTURES				SUPERELEVATION:
RW01 THRU RW05	SURVEY CONTROL, EXISTING CENTERLINES	423.01	BRIDGE APPROACH FILLS - TYPE 1 APPROACH FILL FOR BRIDGE ABUTMENT			ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.05 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.
TMP-1 THRU TMP-16	TRAFFIC MANAGEMENT PLANS	DIVISION 5 - SUBGRADE, BASES AND SHOULDERS				
PMP-1 THRU PMP-3	PAVEMENT MARKING PLANS	560.02	METHOD OF SHOULDER CONSTRUCTION - HIGH SIDE OF SUPERELEVATED CURVE - METHOD II			
EC-1 THRU EC-7	EROSION CONTROL PLANS	DIVISION 8 - INCIDENTALS				SHOULDER CONSTRUCTION:
RF-1	REFORESTATION PLANS	815.02	SUBSURFACE DRAIN			ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.02
SIGN-1 THRU SIGN-7	SIGNING PLANS	840.00	CONCRETE BASE PAD FOR DRAINAGE STRUCTURES			
UO-1 THRU UO-3	UTILITIES BY OTHERS PLANS	840.25	ANCHORAGE FOR FRAMES - BRICK OR CONCRETE OR PRECAST			
X-1	CROSS-SECTION INDEX SHEET	840.29	FRAMES AND NARROW SLOT FLAT GRATES			
X-1A	CROSS-SECTION SUMMARY SHEET	840.31	CONCRETE JUNCTION BOX - 12" THRU 66" PIPE			
X-2 THRU X-70	CROSS-SECTIONS	840.32	BRICK JUNCTION BOX - 12" THRU 66" PIPE			
S01-1 THRU S02-40	STRUCTURE PLANS	840.35	TRAFFIC BEARING GRATED DROP INLET - FOR CAST IRON DOUBLE FRAME AND GRATES			
S-1 THRU S-7	BRIDGE PRESERVATION PLANS	840.36	TRAFFIC BEARING GRATED DROP INLET - FOR STEEL (840.37) DOUBLE FRAME AND GRATES			
		840.37	STEEL GRATE AND FRAME			
		840.45	PRECAST DRAINAGE STRUCTURE			
		840.46	TRAFFIC BEARING PRECAST DRAINAGE STRUCTURE			
		840.54	MANHOLE FRAME AND COVER			
		840.66	DRAINAGE STRUCTURE STEPS			
		840.72	PIPE COLLAR			
		846.01	CONCRETE CURB, GUTTER AND CURB & GUTTER			
		846.04	DROP INLET INSTALLATION IN SHOULDER BERM GUTTER			
		854.01	DOUBLE FACED CONCRETE BARRIER - TYPES I, II, III AND IV			
		862.01	GUARDRAIL PLACEMENT (USE DETAILS IN LIEU OF STANDARDS FOR SHEETS 4, 6, 12, AND 14 OF 15)			
		862.02	GUARDRAIL INSTALLATION			
		862.03	STRUCTURE ANCHOR UNITS (USE DETAIL IN LIEU OF STANDARD FOR SHEET 8 OF 9)			
		862.04	ANCHORING END OF GUARDRAIL - FOR B-77 AND B-83 ANCHOR UNITS			
		876.02	GUIDE FOR RIP RAP AT PIPE OUTLETS			
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BR-0140

FINALIA

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DAVIDSON COUNTY



ROADWAY DESIGN UNIT

ROADWAY DESIGN
ENGINEER



9/3/2026

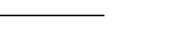
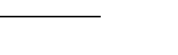
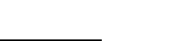
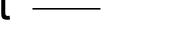
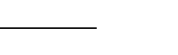
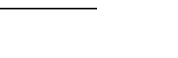
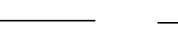
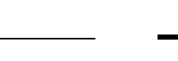
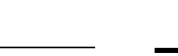
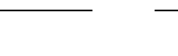
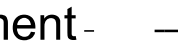
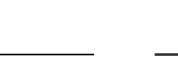
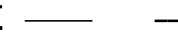
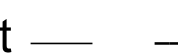
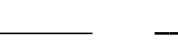
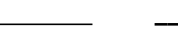
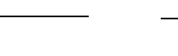
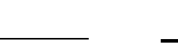
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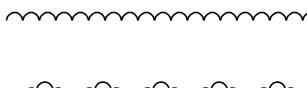
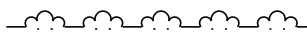
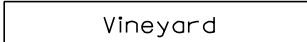
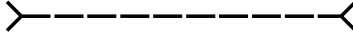
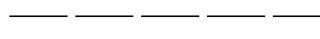
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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	 CSX TRANSPORT 35 MILEPOST 35
Switch	 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	
Permanent 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	

CONVENTIONAL PLAN SHEET SYMBOLS

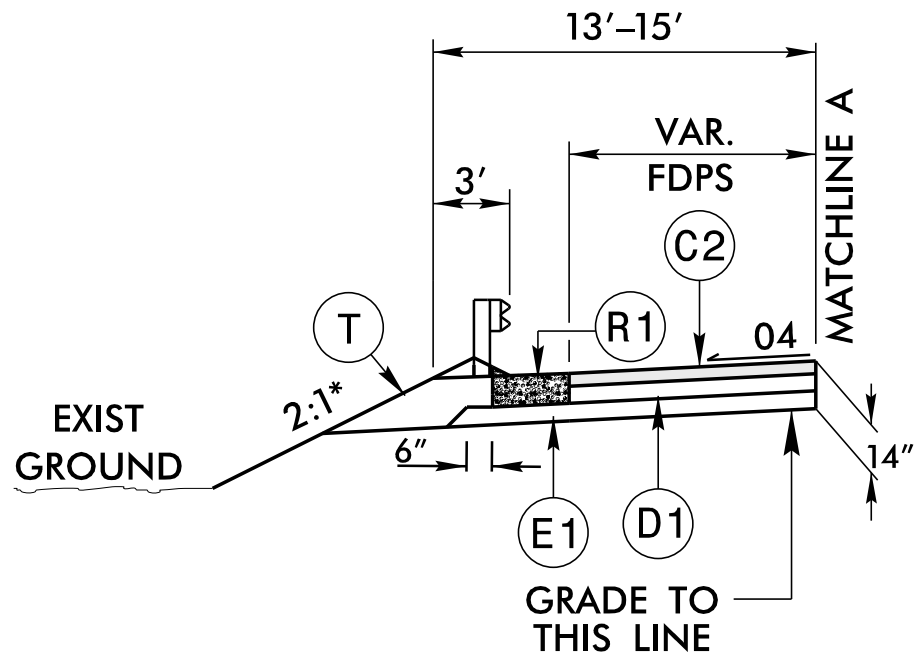
Hedge	_____	
Woods Line	_____	
Orchard	_____	
Vineyard	_____	
EXISTING STRUCTURES:		
MAJOR:		
Bridge, Tunnel or Box Culvert	_____	
Bridge Wing Wall, Head Wall and End Wall	_____	
MINOR:		
Head and End Wall	_____	
Pipe Culvert	_____	
Footbridge	_____	
Drainage Box: Catch Basin, DI or JB	_____	
Paved Ditch Gutter	_____	
Storm Sewer Manhole	_____	
Storm Sewer	_____	
UTILITIES:		
		<i>* SUE - Subsurface Utility Engineering</i>
		<i>LOS - Level of Service - A,B,C or D (Accu</i>
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 Manhole	
Water Meter	
Water Valve	
Water Hydrant	
U/G Water Line Test Hole (SUE - LOS A)*	
U/G Water Line (SUE - LOS B)*	-----W-----
U/G Water Line (SUE - LOS C)*	-----W-----
U/G Water Line (SUE - LOS D)*	-----W-----
Above Ground Water Line	-----A/G Water-----
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)*	-----TV-----
U/G TV Cable (SUE - LOS C)*	-----TV-----
U/G TV Cable (SUE - LOS D)*	-----TV-----
U/G Fiber Optic Cable (SUE - LOS B)*	-----TV FO-----
U/G Fiber Optic Cable (SUE - LOS C)*	-----TV FO-----
U/G Fiber Optic Cable (SUE - LOS D)*	-----TV FO-----
GAS:	
Gas Valve	
Gas Meter	
U/G Gas Line Test Hole (SUE - LOS A)*	
U/G Gas Line (SUE - LOS B)*	-----G-----
U/G Gas Line (SUE - LOS C)*	-----G-----
U/G Gas Line (SUE - LOS D)*	-----G-----
Above Ground Gas Line	-----A/G Gas-----
SANITARY SEWER:	
Sanitary Sewer Manhole	
Sanitary Sewer Cleanout	
U/G Sanitary Sewer Line	-----SS-----
Above Ground Sanitary Sewer	-----A/G Sanitary Sewer-----
SS Force Main Line Test Hole (SUE - LOS A)*	
SS Force Main Line (SUE - LOS B)*	-----FSS-----
SS Force Main Line (SUE - LOS C)*	-----FSS-----
SS Force Main Line (SUE - LOS D)*	-----FSS-----
MISCELLANEOUS:	
Utility Pole	
Utility Pole with Base	
Utility Located Object	
Utility Traffic Signal Box	
Utility Unknown U/G Line (SUE - LOS B)*	-----?UTL-----
U/G Tank; Water, Gas, Oil	
Underground Storage Tank, Approx. Loc.	
A/G Tank; Water, Gas, Oil	
Geoenvironmental Boring	
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

5/26/20

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	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.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1.5" OR GREATER THAN 2" IN DEPTH.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
D2	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
D3	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, TO BE PLACED IN LAYERS NOT LESS THAN 2.5" OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 7" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, TO BE PLACED IN TWO LAYERS, WITH THE BOTTOM LAYER TO BE AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. PER 4" DEPTH AND THE TOP LAYER TO BE AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD. PER 3" DEPTH.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" OR GREATER THAN 5.5" IN DEPTH.
J1	PROP. 8" AGGREGATE BASE COURSE
R1	SHOULDER BERM GUTTER
R2	VARIABLE HEIGHT CONCRETE BARRIER, TYPE III
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V1	INCIDENTAL MILLING
V2	1.5" DEPTH MILLING
W1	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL)
W2	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL)

PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE



PARTIAL TYPICAL SECTION 2-A & 3-A

SHOULDER BERM GUTTER

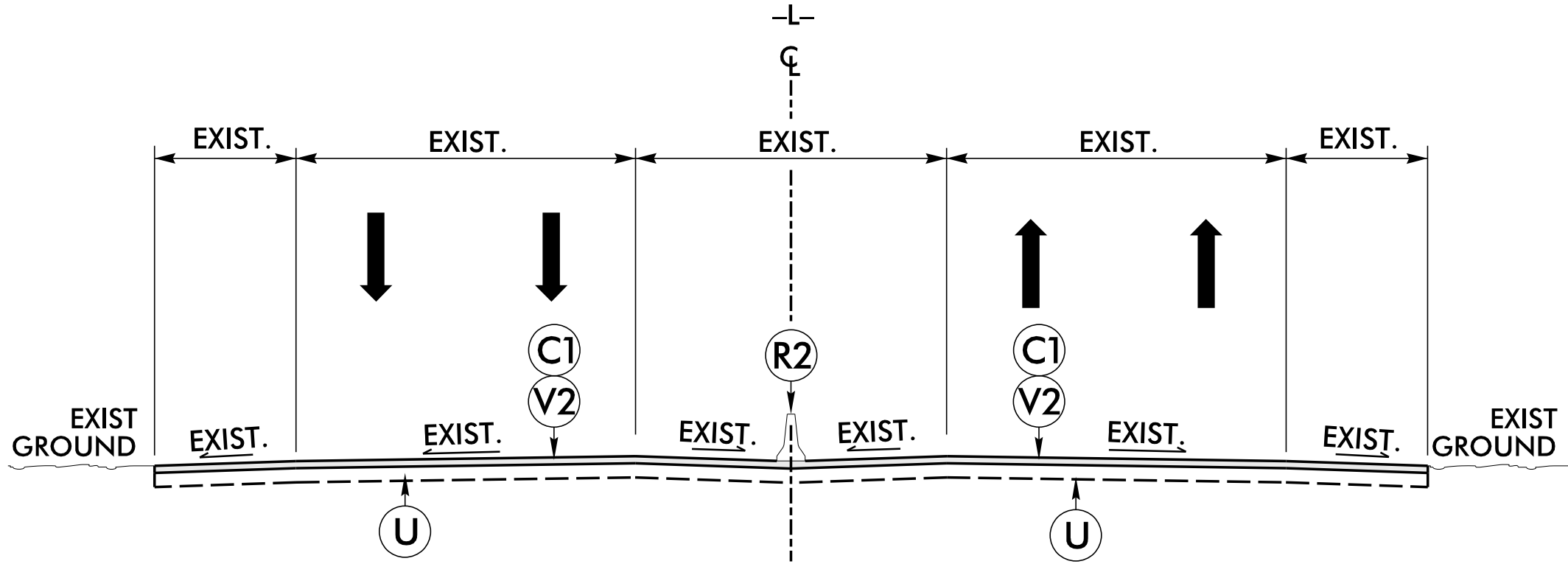
USE IN CONJUNCTION WITH TYPICAL SECTION 2 & 3

-L- STA 30+62.00 TO 38+17.16 RT (MIRRORED)

-L- STA 32+55.00 TO 38+54.43 LT*

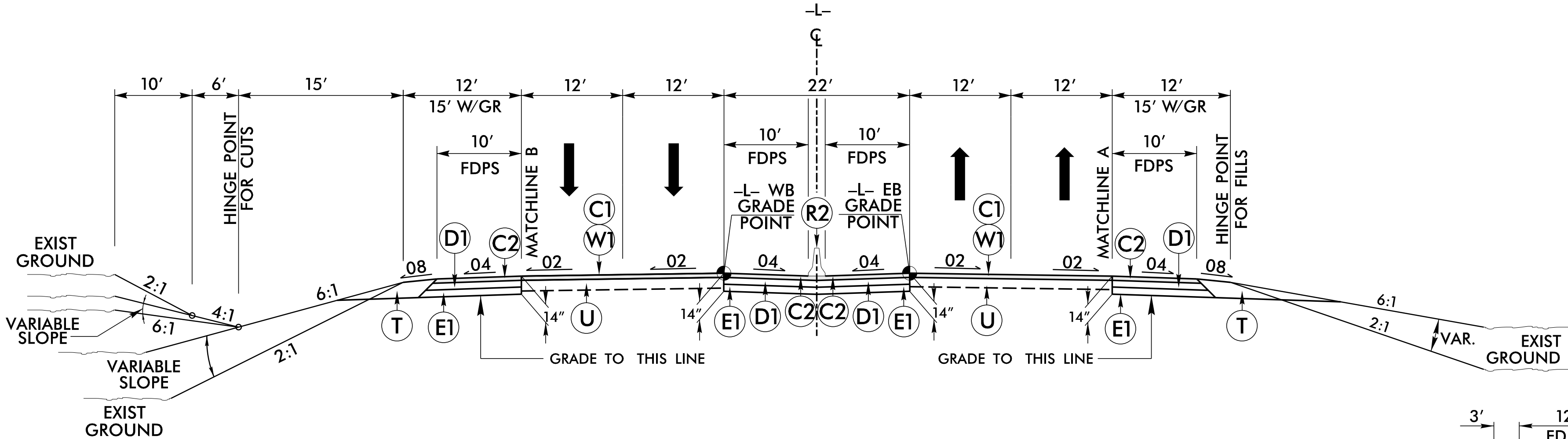
-L- STA 41+21.77 TO 46+50.00 LT*

*NOTE: USE REINFORCED SOIL SLOPE WITH 1.5:1 FILL SLOPE.
SEE SHEET 2G-1 FOR DETAILS



TYPICAL SECTION NO.1

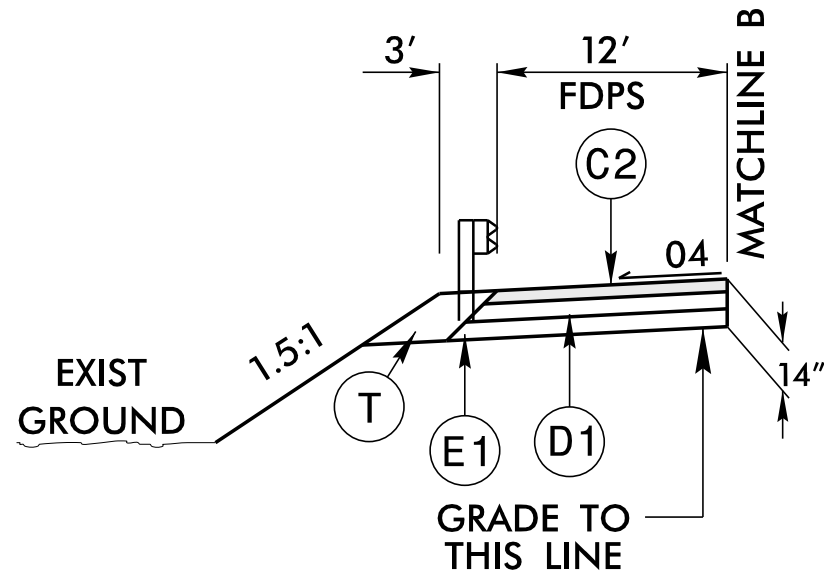
-L- STA 30+10.86 TO 30+62.00



TYPICAL SECTION NO.2

-L- STA 30+62.00 TO 34+00.01

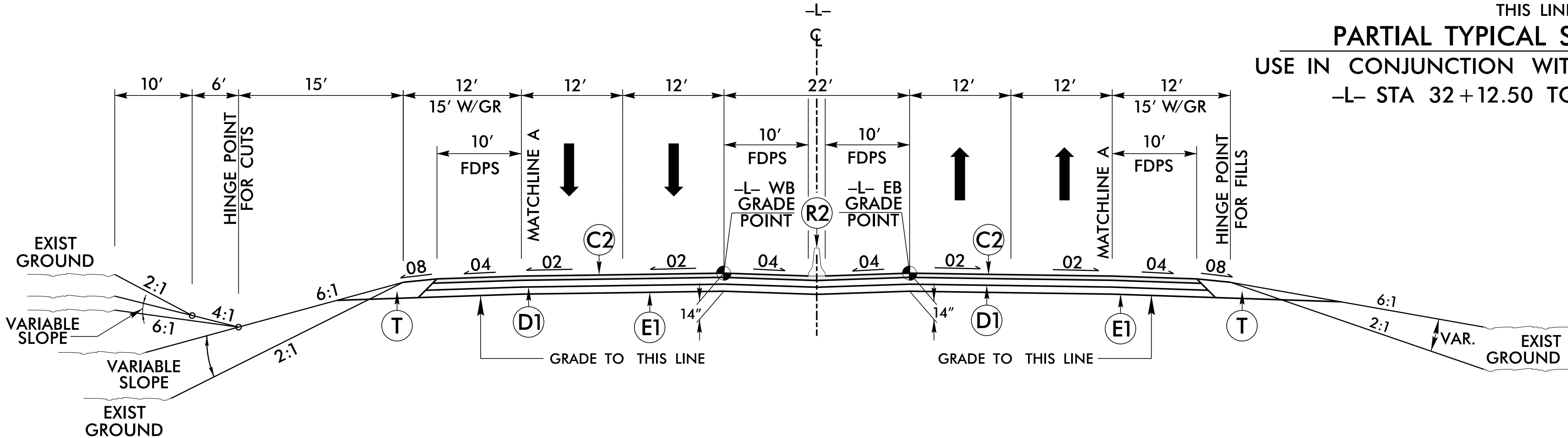
-L- STA 46+50.00 TO 49+66.59



PARTIAL TYPICAL SECTION 2-B

USE IN CONJUNCTION WITH TYPICAL SECTION 2

-L- STA 32+12.50 TO 32+55.00 LT



TYPICAL SECTION NO.3

-L- STA 34+00.01 TO 38+64.27 WB (BEGIN BRIDGE)

-L- STA 34+00.01 TO 38+55.16 EB (BEGIN BRIDGE)

-L- STA 40+83.77 (END BRIDGE) TO 46+50.00 WB

-L- STA 40+74.66 (END BRIDGE) TO 46+50.00 EB

BR-0140

FINAL 2A-1

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DAVIDSON COUNTY

ROADWAY DESIGN UNIT

ROADWAY DESIGN
ENGINEER

9/17/2026

PAVEMENT DESIGN
ENGINEER

9/17/2026

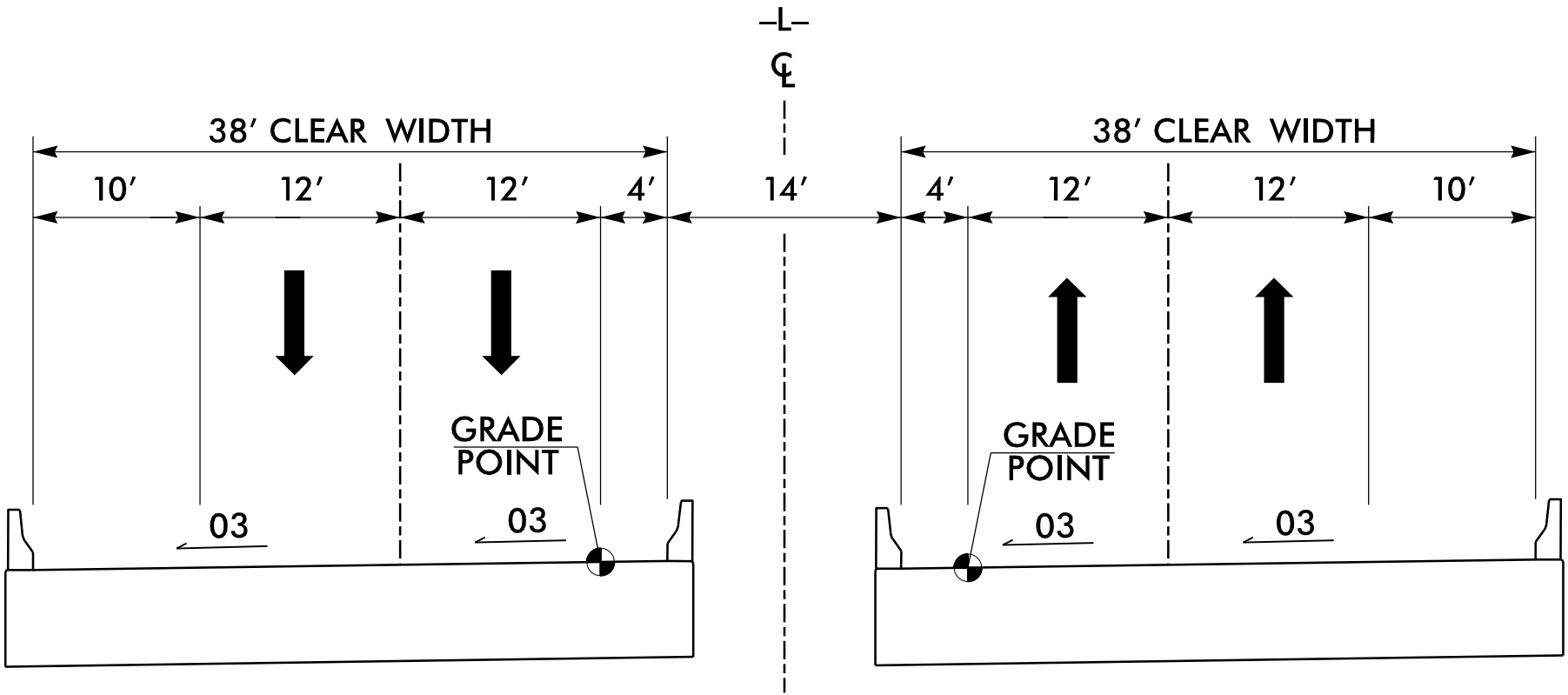
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PAVEMENT SCHEDULE	
C1	1.5" S9.5C
C2	3" S9.5C
C3	VAR. S9.5C
D1	4" I19.0C
D2	2.5"" I19.0C
D3	VAR. I19.0C
E1	7" B25.0C
E2	VAR. B25.0C
J1	8" ABC
R1	SHOULDER BERM GUTTER
R2	VAR. TYPE III BARRIER
T	EARTH MATERIAL
U	EXISTING PVMT
V1	INCIDENTAL MILLING
V2	1.5" DEPTH MILLING
W1	WEDGING
W2	WEDGING

PAVEMENT EDGE SLOPES ARE 1:1
UNLESS OTHERWISE NOTED

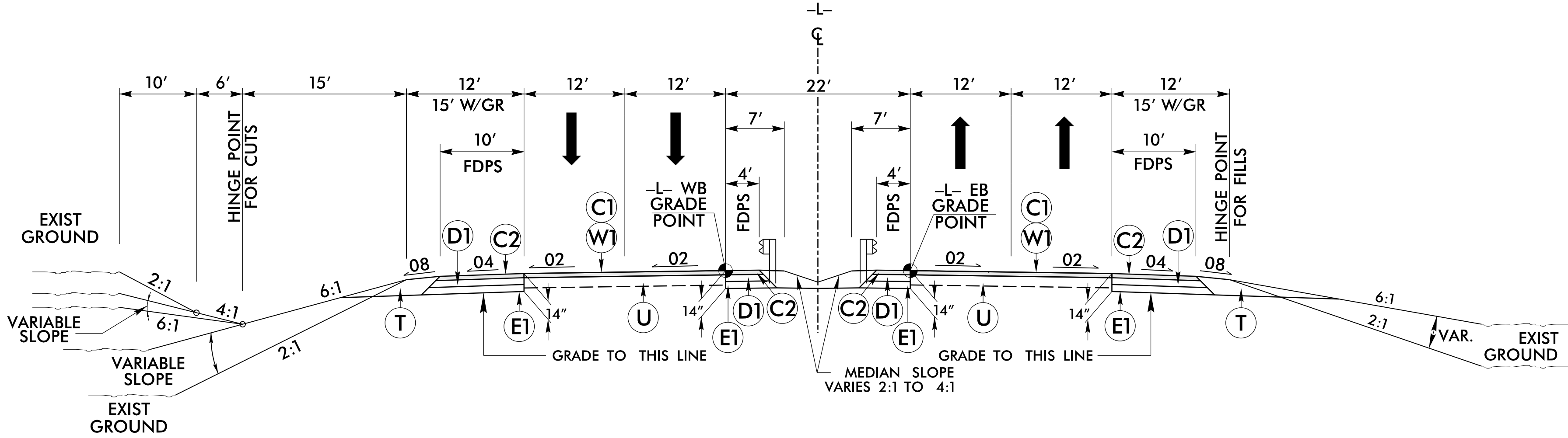


BRIDGE TYPICAL SECTION NO.6

-L- STA 38+55.16 TO 40+74.66 EB

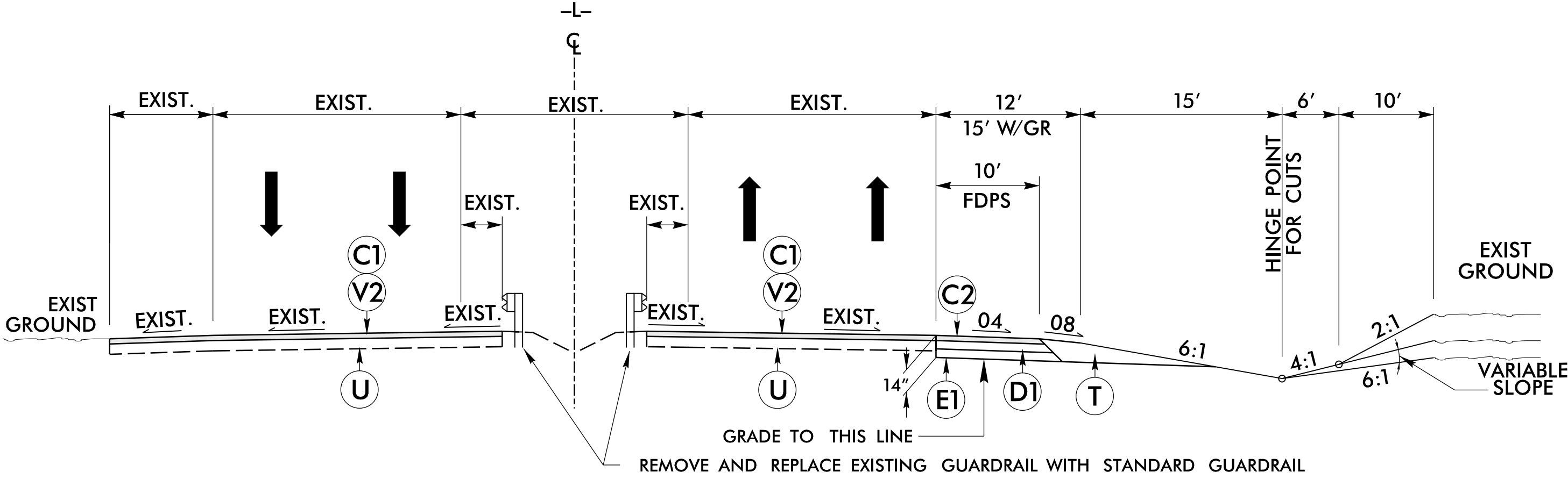
-L- STA 38+64.27 TO 40+83.77 WB

NOTE: SEE STRUCTURE PLANS FOR STRUCTURE CONSTRUCTION DETAILS



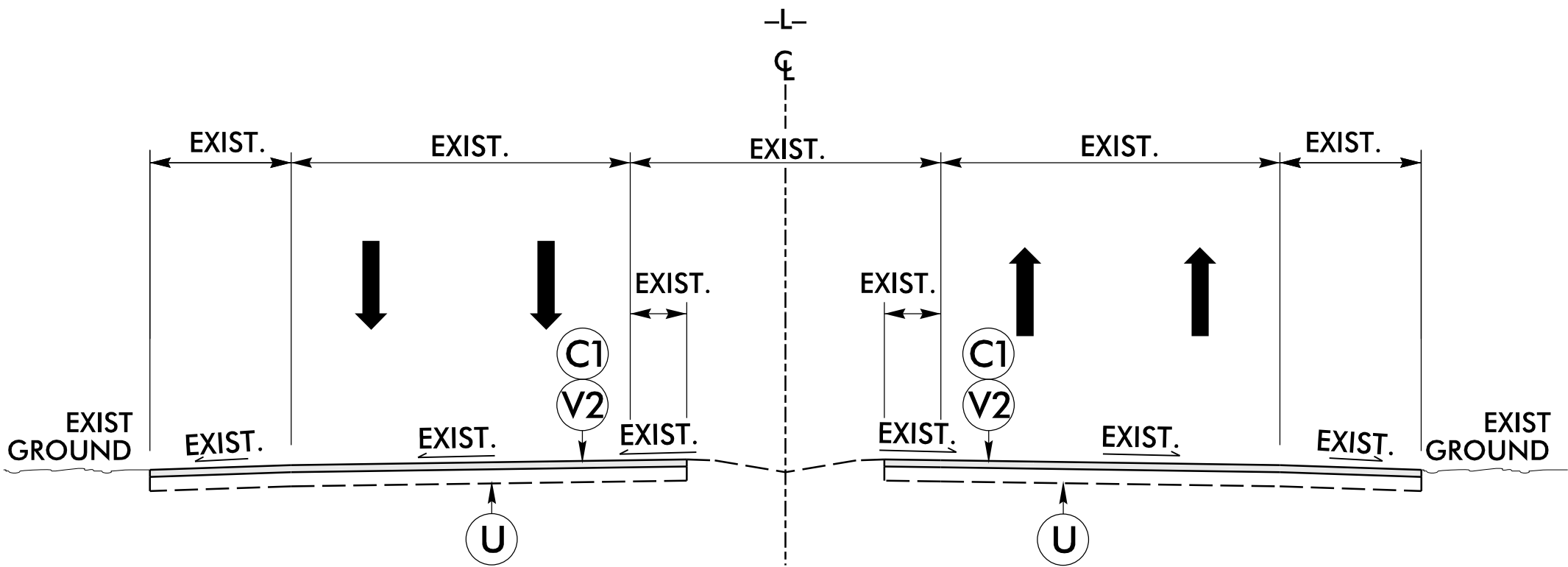
TYPICAL SECTION NO.4

-L- STA 49+66.59 TO 50+70.00



TYPICAL SECTION NO.5

-L- STA 50+70.00 TO 52+88.75



TYPICAL SECTION NO.7

-L- STA 52+88.75 TO 56+59.72

BR-0140

FINAL2A-2

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DAVIDSON COUNTY

ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER

Professional Engineer
North Carolina
2016-2021
044480
THOMAS B. FERGUSON

Professional Engineer
North Carolina
2016-2021
038176
SHIHAI ZHANG

9/1/2026

PAVEMENT DESIGN
ENGINEER

Professional Engineer
North Carolina
2016-2021
038176
SHIHAI ZHANG

Professional Engineer
North Carolina
2016-2021
044480
THOMAS B. FERGUSON

9/2/2026

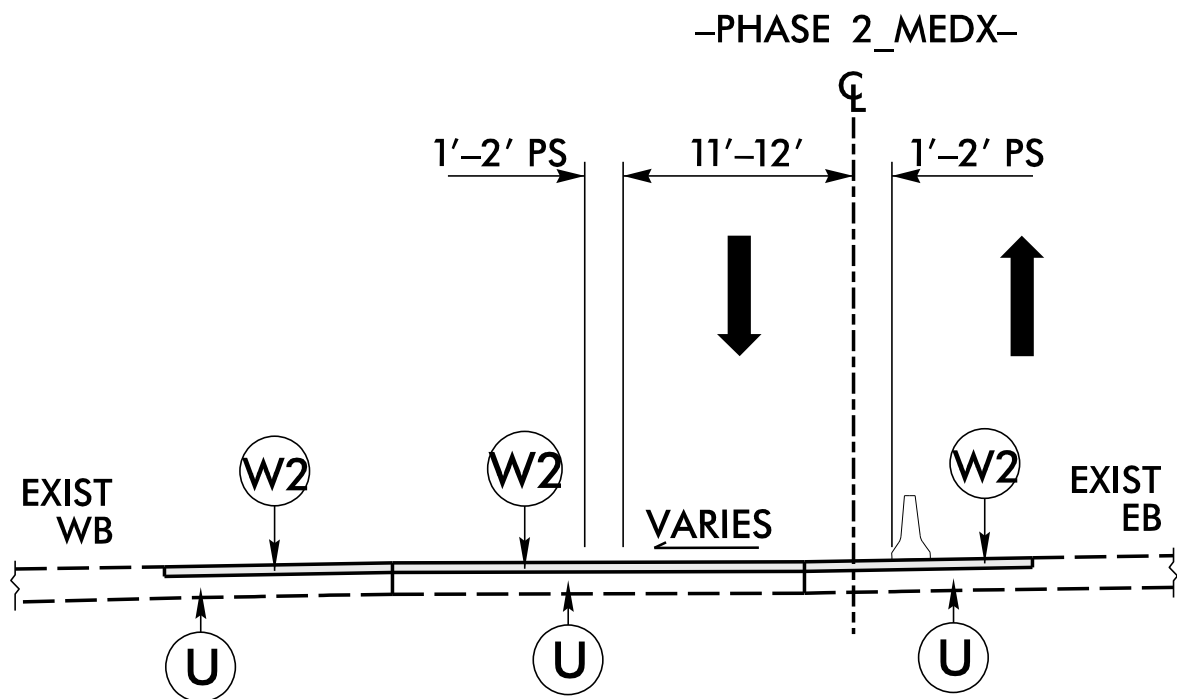
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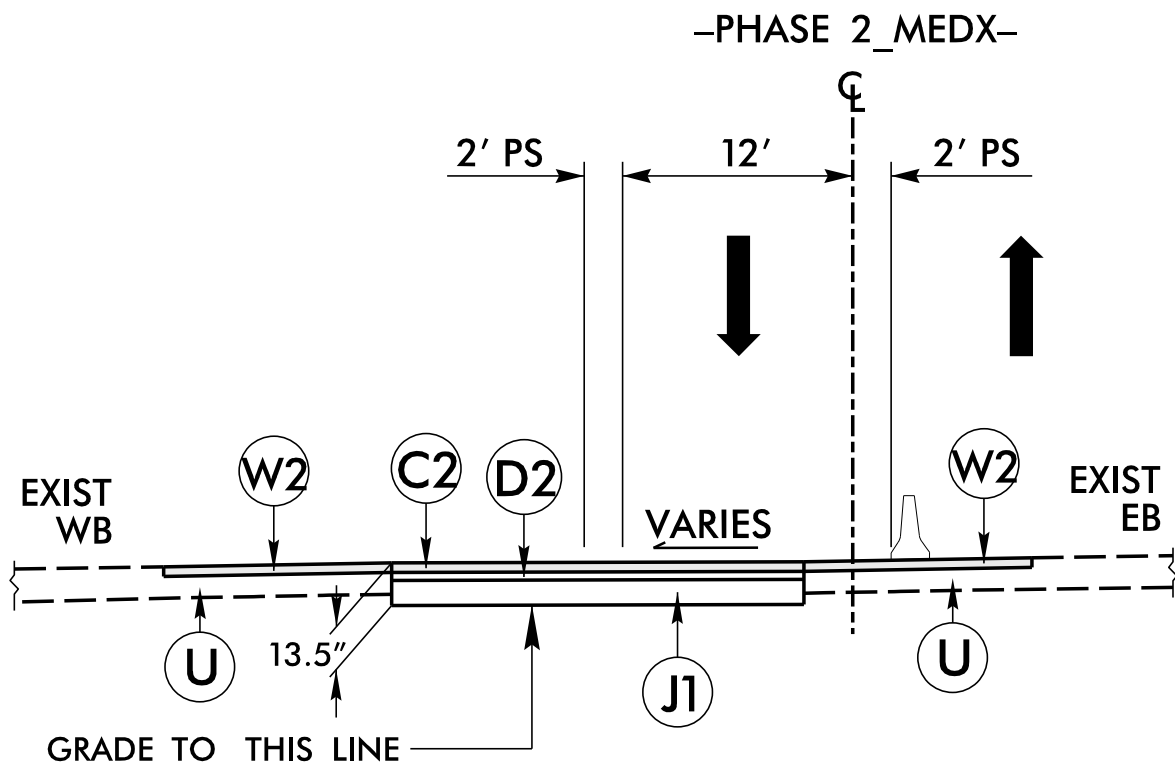
PAVEMENT SCHEDULE	
C1	1.5" S9.5C
C2	3" S9.5C
C3	VAR. S9.5C
D1	4" I19.0C
D2	2.5" I19.0C
D3	VAR. I19.0C
E1	7" B25.0C
E2	VAR. B25.0C
J1	8" ABC
R1	SHOULDER BERM GUTTER
R2	VAR. TYPE III BARRIER
T	EARTH MATERIAL
U	EXISTING PVMT
V1	INCIDENTAL MILLING
V2	1.5" DEPTH MILLING
W1	WEDGING
W2	WEDGING

PAVEMENT EDGE SLOPES ARE 1:1
UNLESS OTHERWISE NOTED



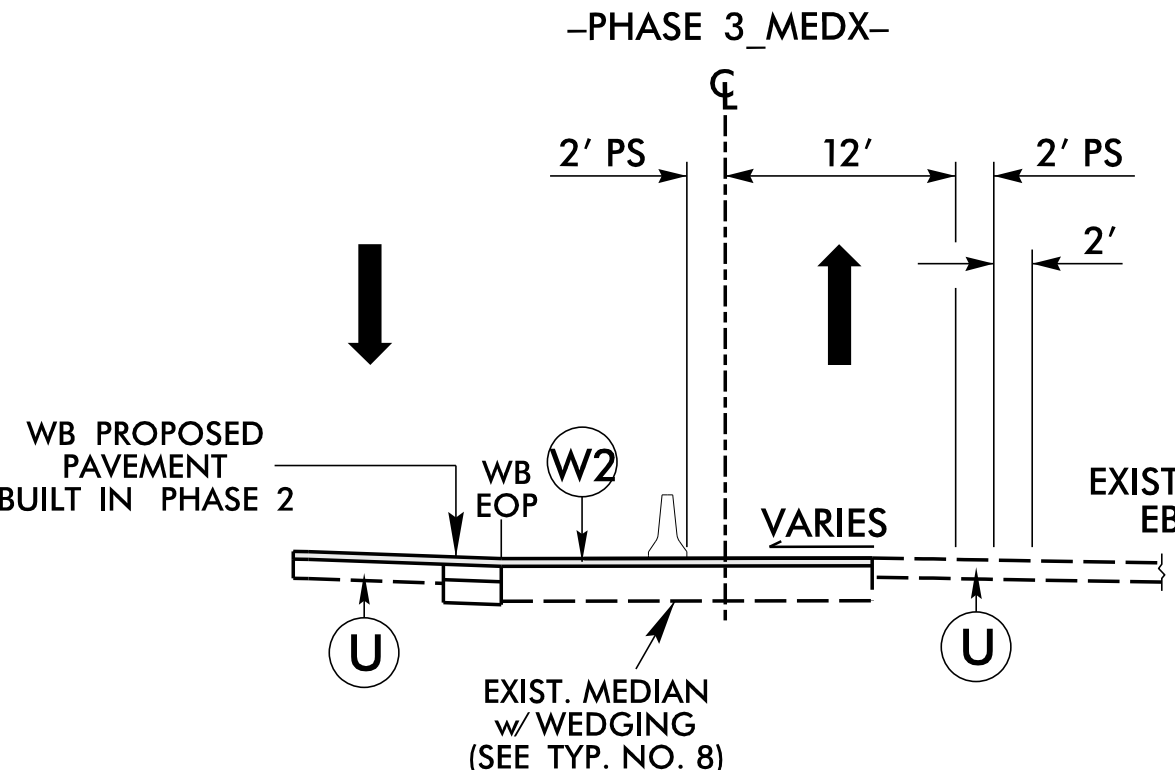
TYPICAL SECTION NO.8

NOTE: REMOVE EXISTING CONCRETE BARRIER AND WEDGE AS NEEDED
-PHASE 2_MEDX- STA 12+31.69 TO 18+50.56



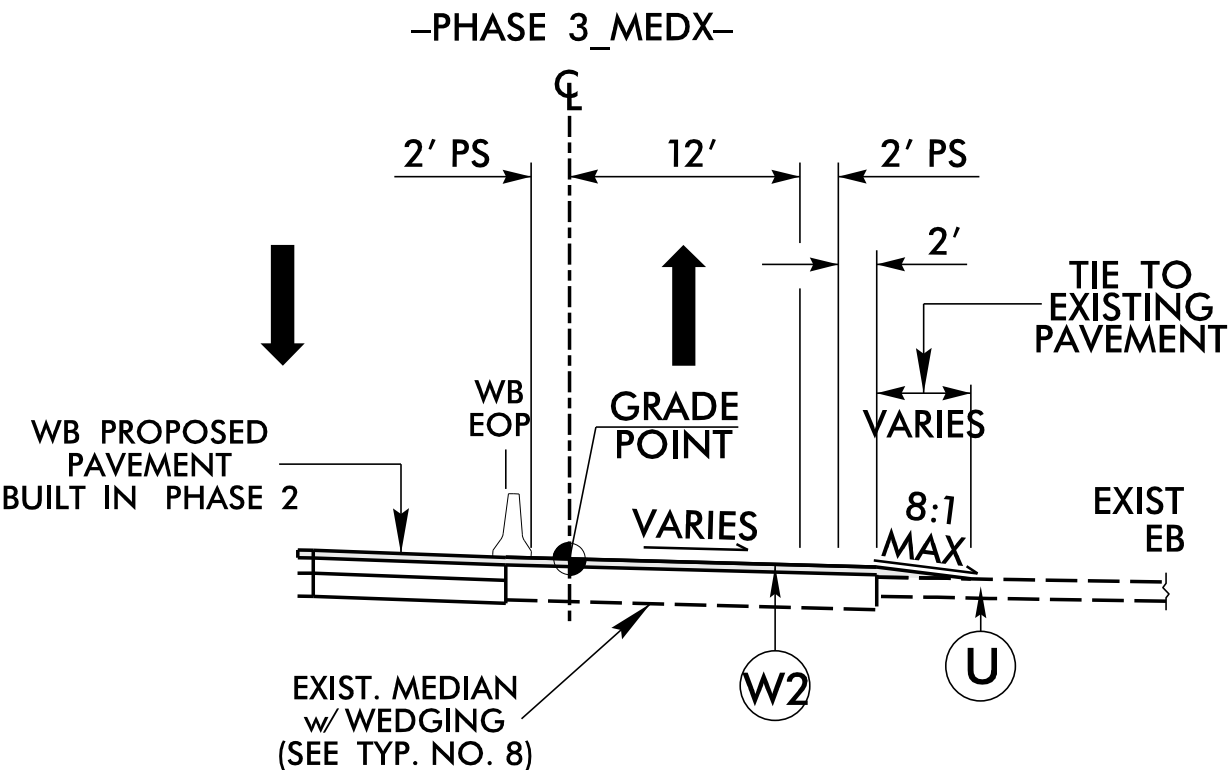
TYPICAL SECTION NO.9

-PHASE 2_MEDX- STA 29+73.98 TO 38+89.05



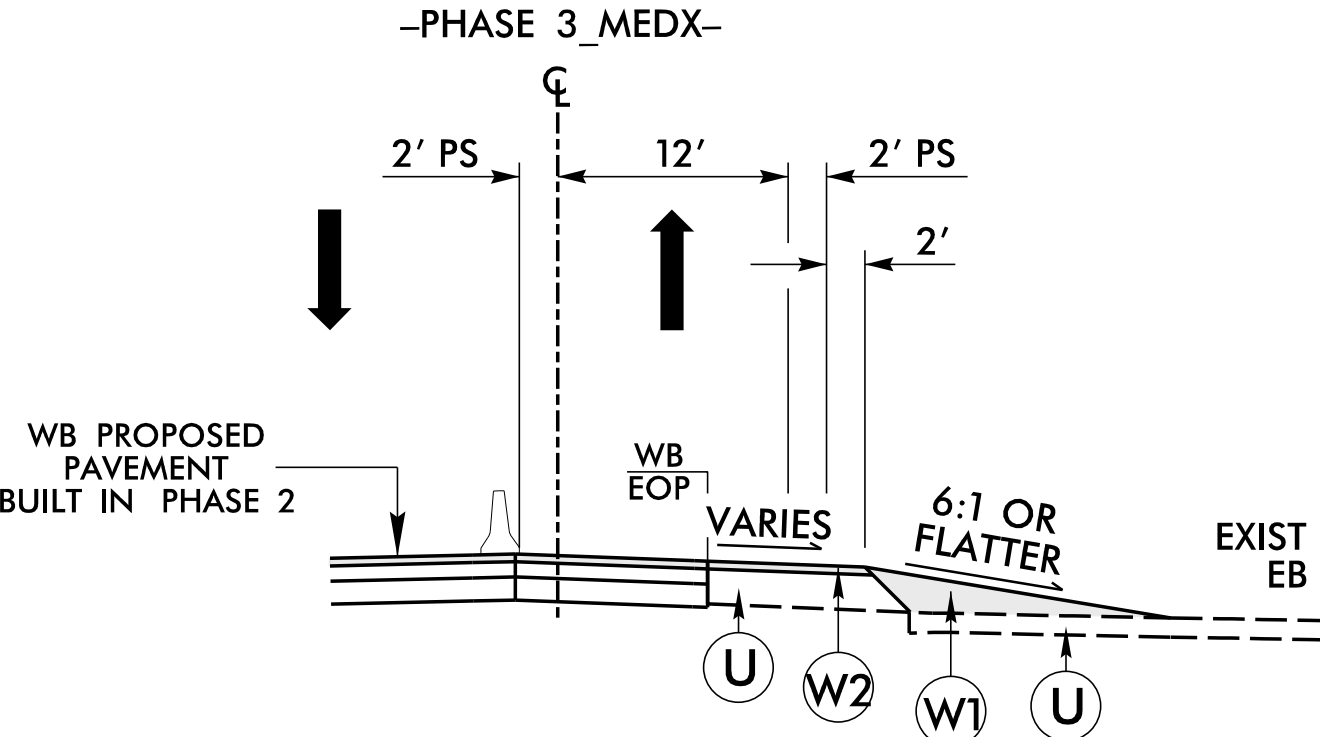
TYPICAL SECTION NO.10

-PHASE 3_MEDX- STA 10+12.26 TO 11+00.23



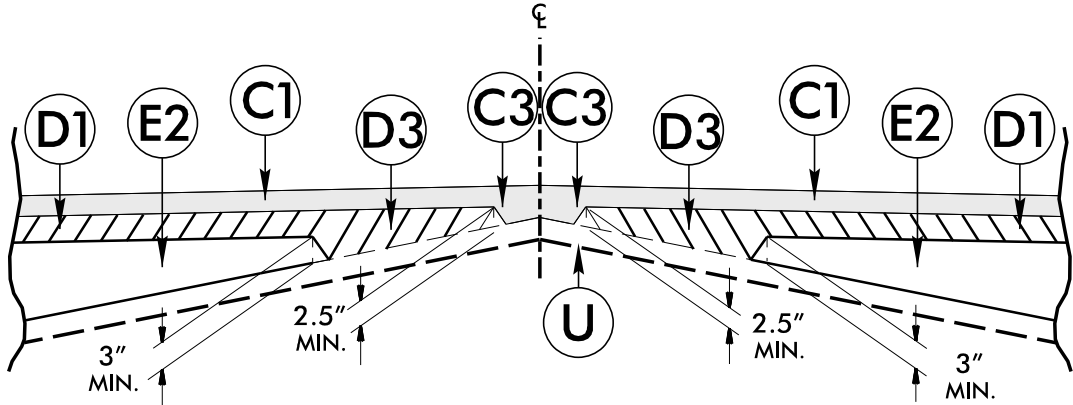
TYPICAL SECTION NO.11

-PHASE 3_MEDX- STA 11+00.23 TO 12+79.42

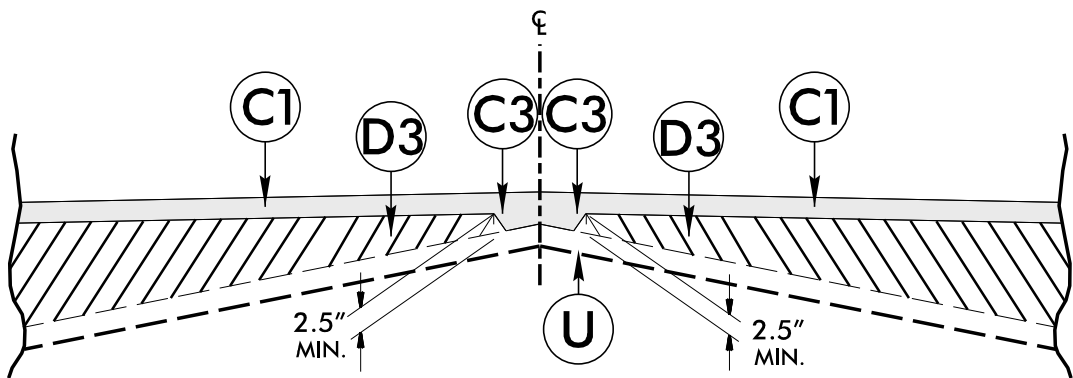


TYPICAL SECTION NO.12

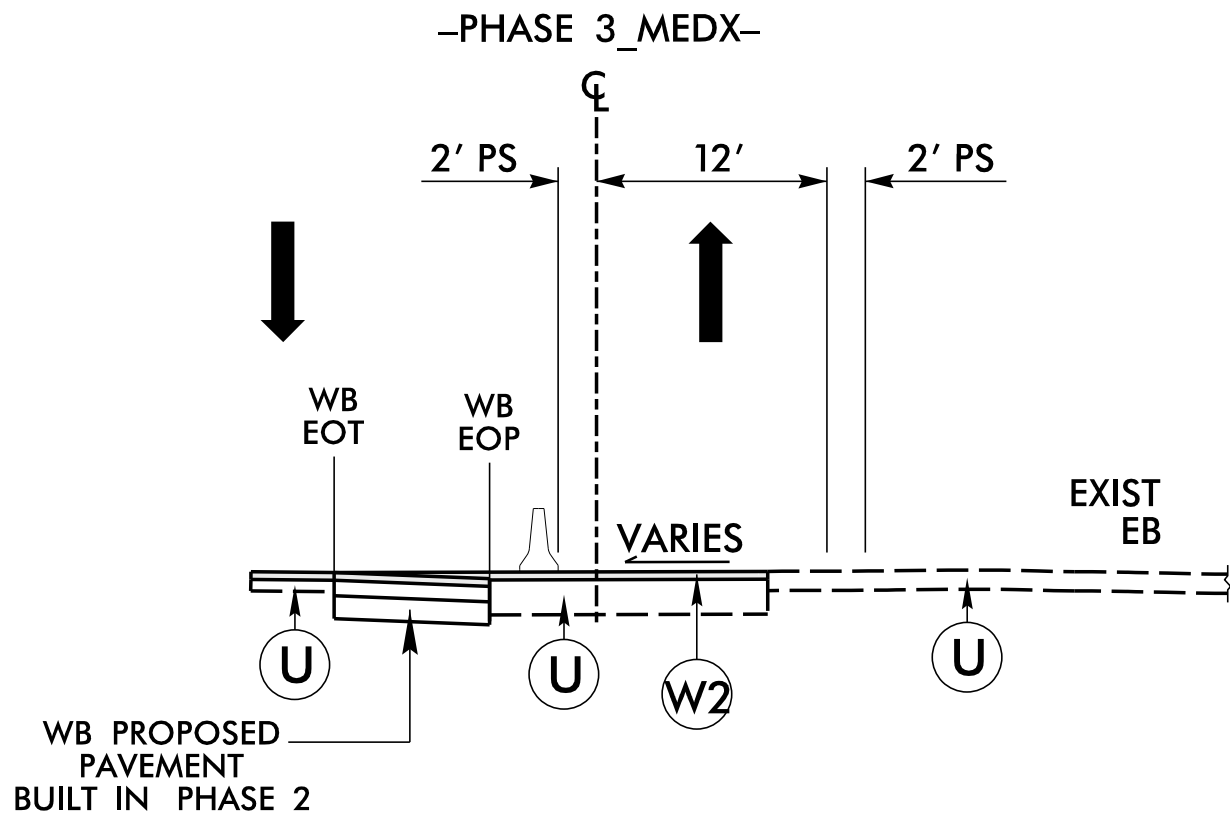
-PHASE 3_MEDX- STA. 12+79.42 TO 14+89.10



W1: WEDGING DETAIL FOR WEDGING

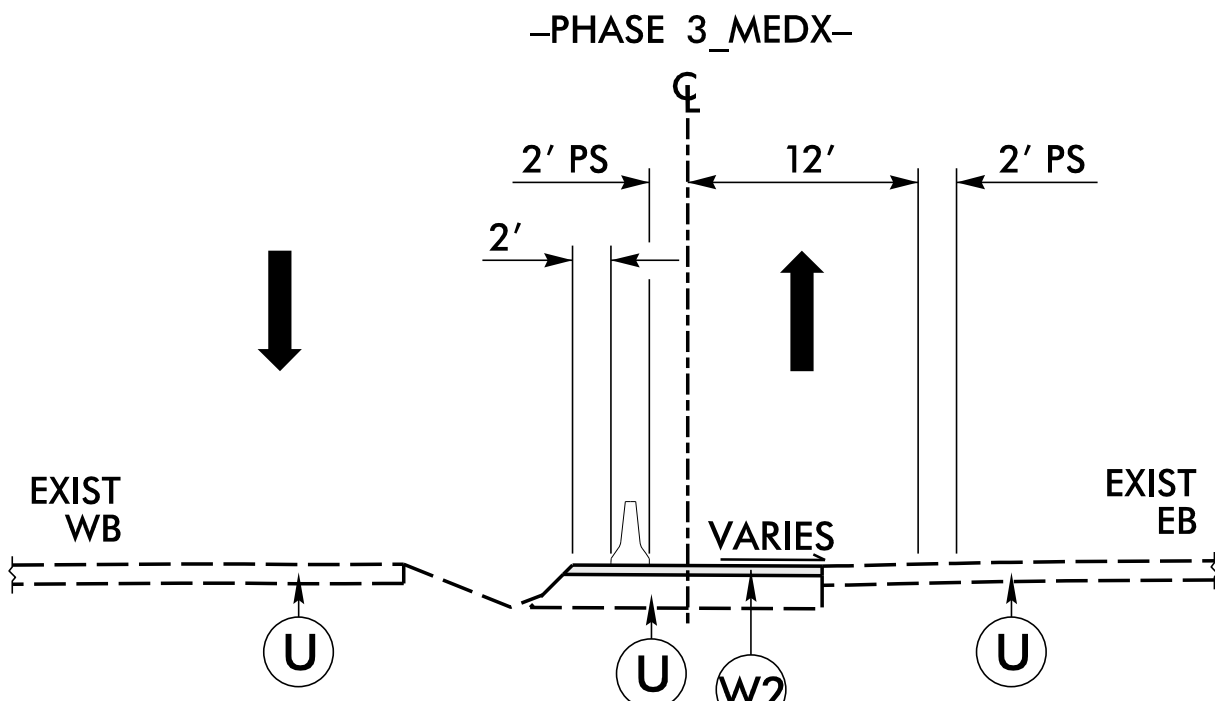


W2: WEDGING DETAIL FOR WEDGING



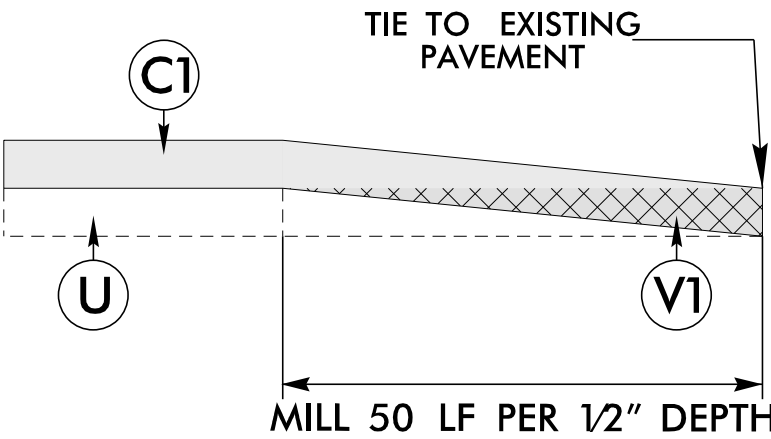
TYPICAL SECTION NO.13

-PHASE 3_MEDX- STA 26+48.11 TO 30+68.24



TYPICAL SECTION NO.14

-PHASE 3_MEDX- STA 30+67.54 TO 32+73.45



INCIDENTAL MILLING DETAIL

BR-0140

FINAL 2A-3

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DAVIDSON COUNTY

ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER

9/17/2026

PAVEMENT DESIGN
ENGINEER

9/17/2026

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NOTE: SEE SHEET 2A-3, TYP. SECTION NO. 8 & 9
SEE SHEET TMP-7

BR-0140
FINAL 2B-2

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DAVIDSON COUNTY

ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER

PROFESSIONAL
SEAL
038827
ENGINEER
ADAM J. PARRISH

9/17/2026

HYDRAULICS
ENGINEER

PROFESSIONAL
SEAL
056701
ENGINEER
VIVIA SZOKE-FAUCETT

9/17/2026

PARRISH & PARTNERS

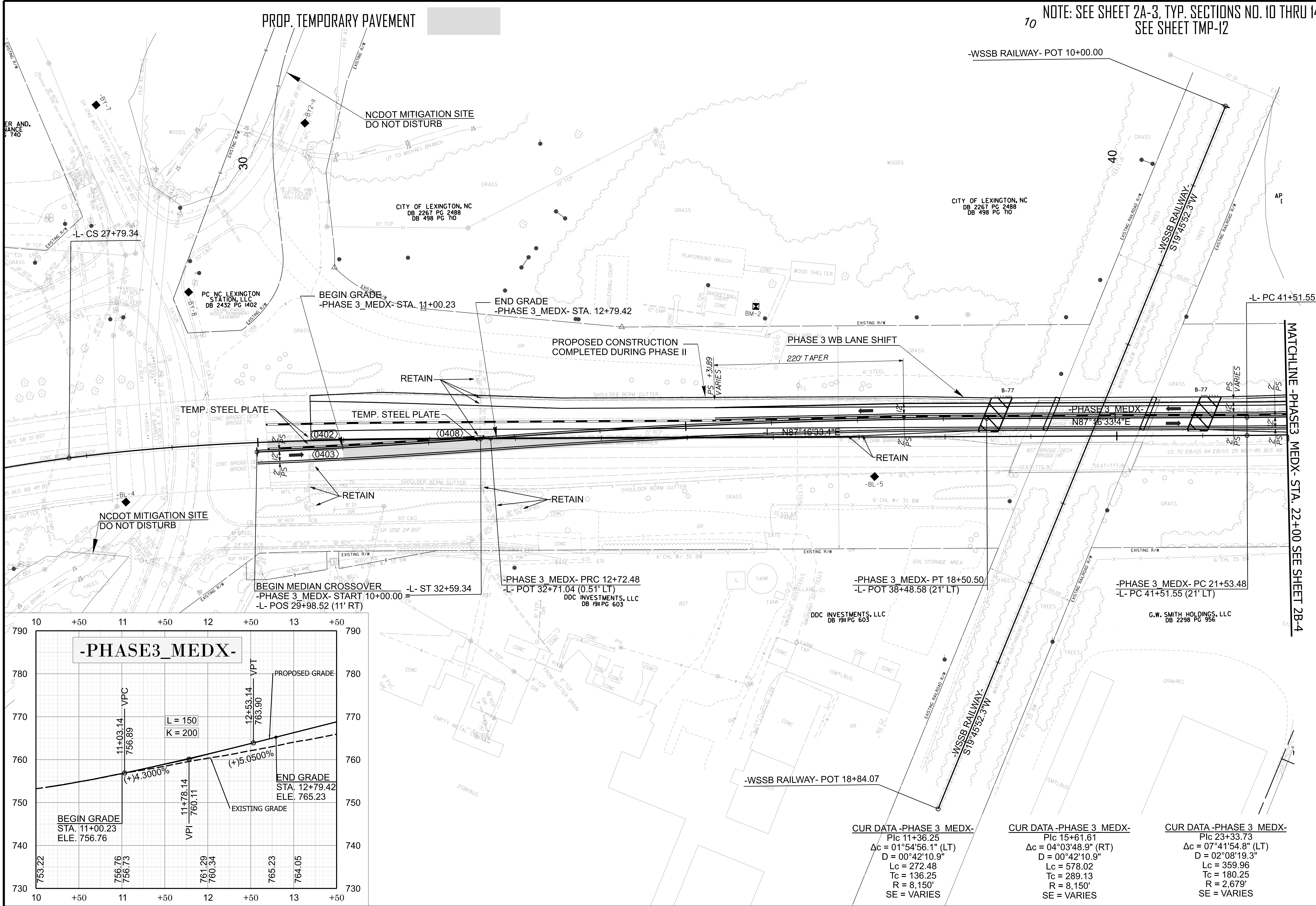
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CUR DATA -PHASE 2 MEDX- P/c 26+47.65 Δc = 11°28'51.0" (LT) D = 02°06'14.9" Lc = 545.63 Tc = 273.73 R = 2,723 SE = VARIES	CUR DATA -PHASE 2 MEDX- P/c 30+63.84 Δc = 08°05'31.3" (LT) D = 02°48'31.0" Lc = 288.11 Tc = 144.30 R = 2,040 SE = VARIES	CUR DATA -PHASE 2 MEDX- P/c 35+49.26 Δc = 10°13'12.3" (RT) D = 01°29'59.6" Lc = 681.39 Tc = 341.60 R = 3,820 SE = VARIES
--	--	--

PROP. TEMPORARY PAVEMENT

REVISIONS



NOTE: SEE SHEET 2A-3, TYP. SECTIONS NO. 10 THRU 14
SEE SHEET TMP-13

BR-0140

FINAL 2B-4

NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

DAVIDSON COUNTY

ROADWAY DESIGN UNIT

ROADWAY DESIGN ENGINEER

Professional Engineer

Seal

038827

Adam J. Parrish

Engineer

9/17/2026

Professional Engineer

Seal

056701

Wanda Szoke-Faucett

Engineer

9/17/2026

PARRISH & PARTNERS

Parrish and Partners of North Carolina, PLLC

220 Horizon Dr Suite 100

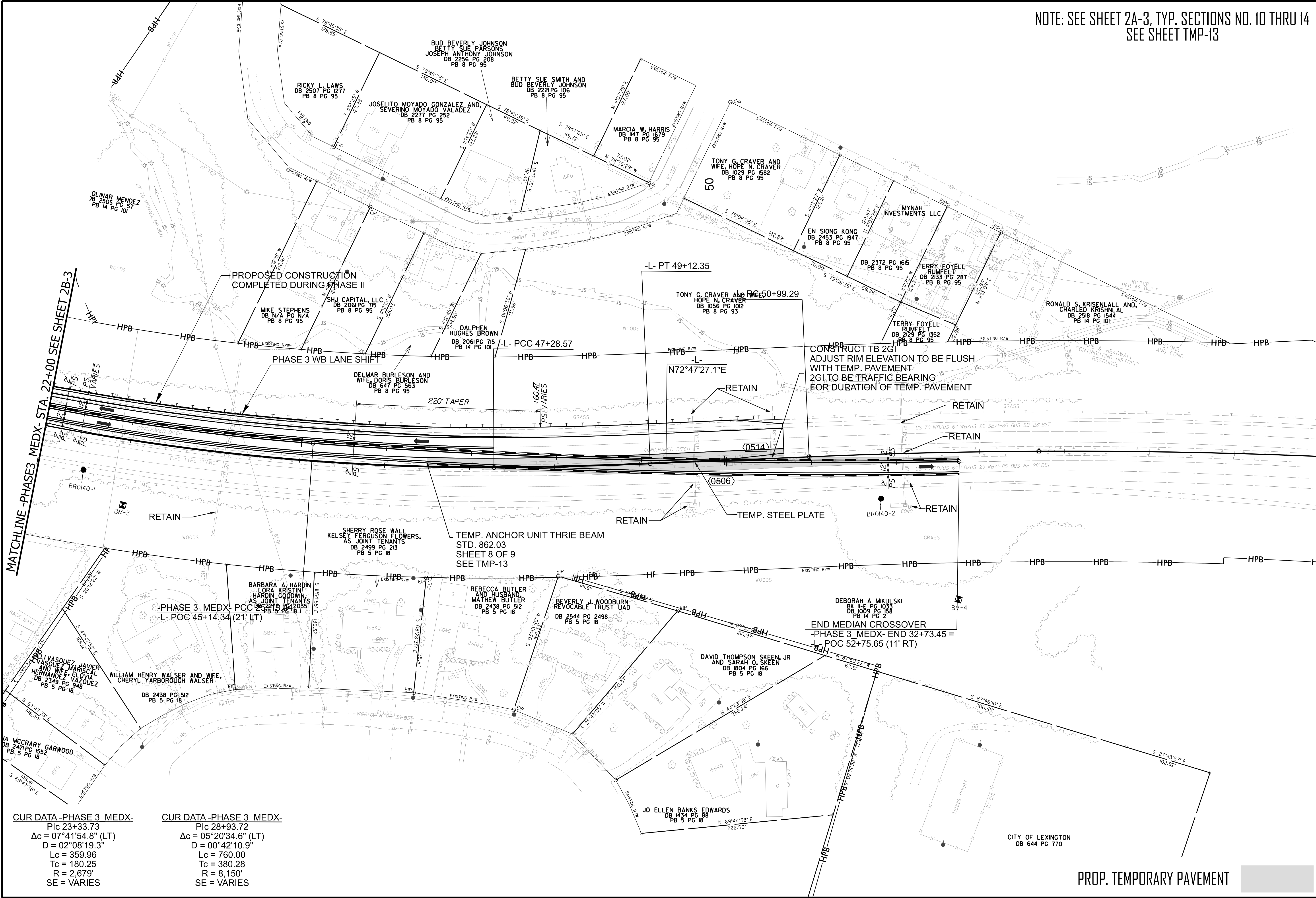
Raleigh, NC 27615

Tel. (984) 459-8280

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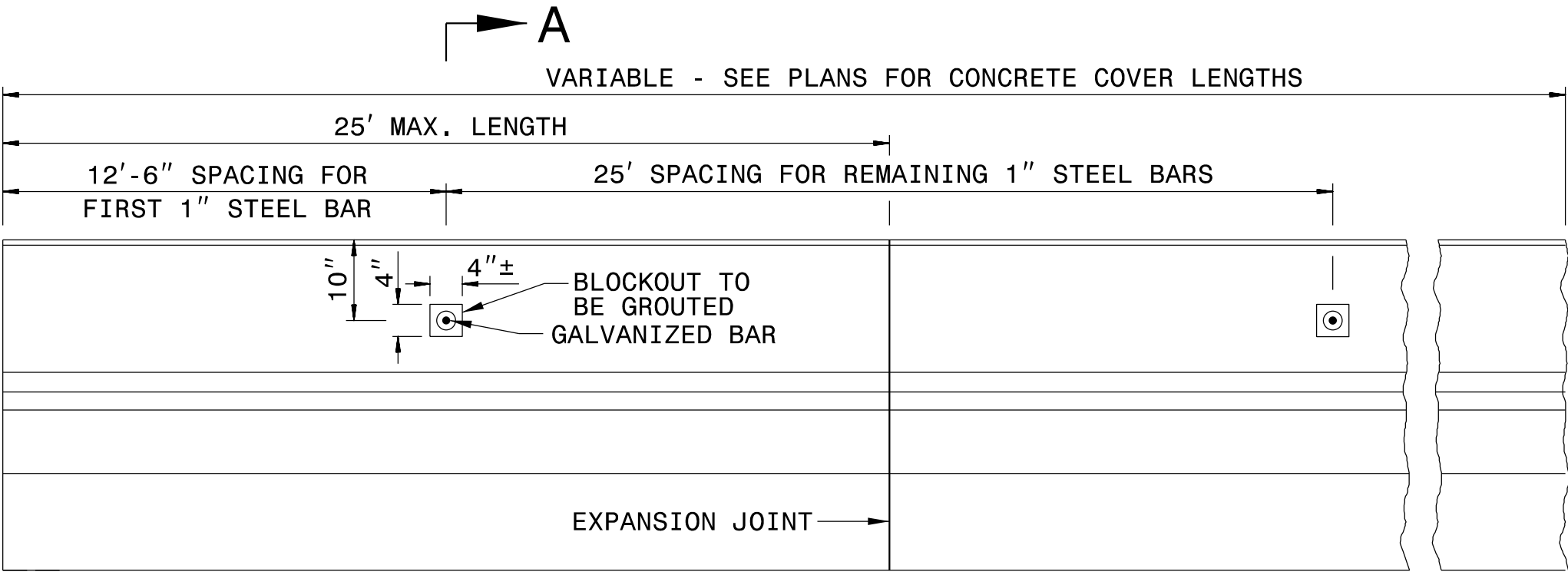
CUR DATA - PHASE 3 MEDX-	CUR DATA - PHASE 3 MEDX-
Plc 23+33.73	Plc 28+93.72
$\Delta c = 07^{\circ}41'54.8''$ (LT)	$\Delta c = 05^{\circ}20'34.6''$ (LT)
D = 02'08'19.3"	D = 00'42'10.9"
Lc = 359.96	Lc = 760.00
Tc = 180.25	Tc = 380.28
R = 2,679'	R = 8,150'
SE = VARIES	SE = VARIES

PROP. TEMPORARY PAVEMENT

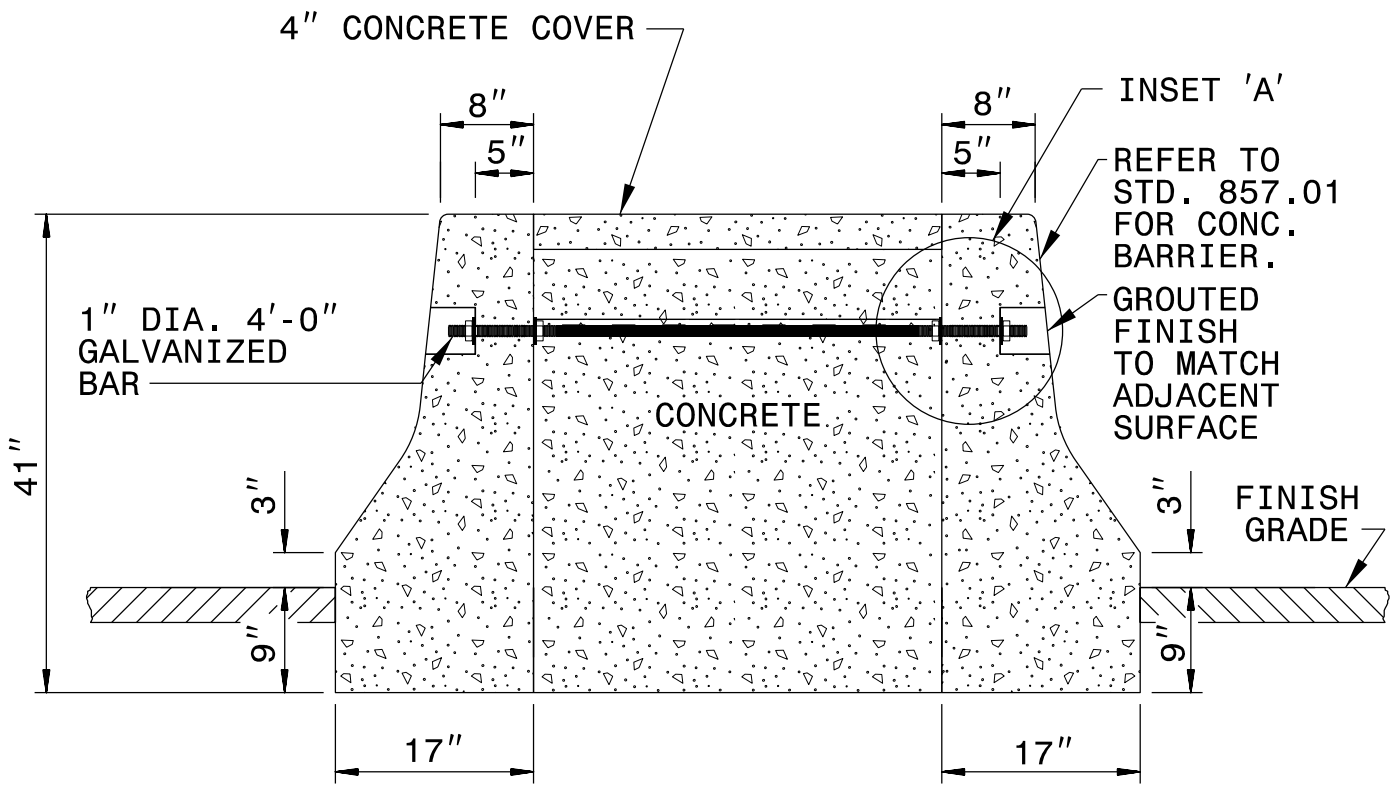
REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
BR-0140	2B-5
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

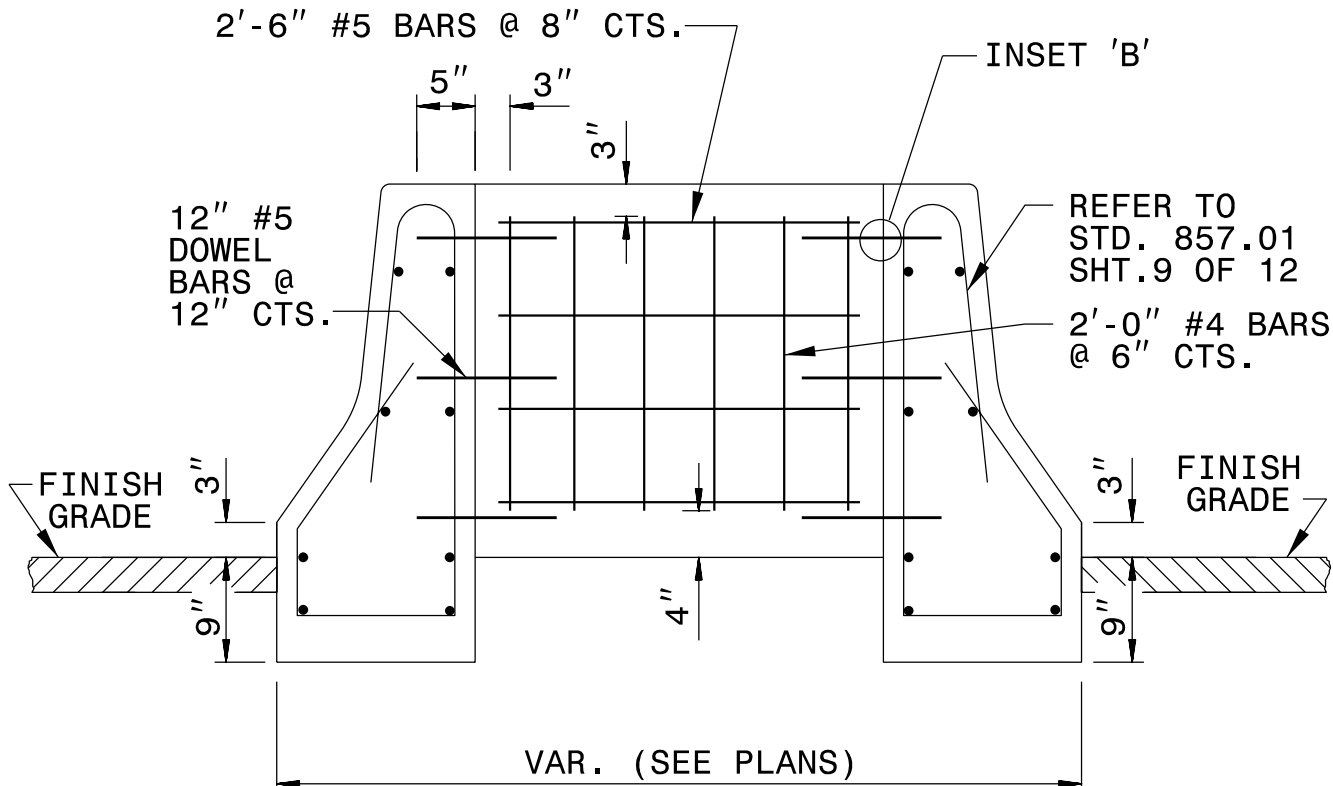
* DRAWING NOT TO SCALE



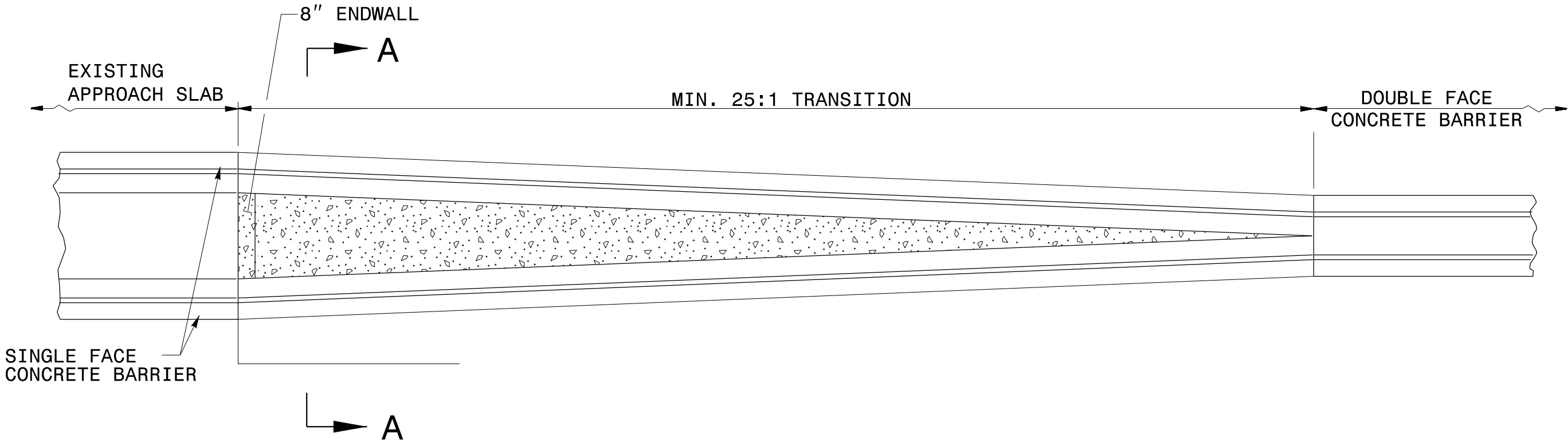
ELEVATION



SECTION 'A-A'



ENDWALL



TRANSITION FROM SINGLE FACE RAIL
TO DOUBLE FACE CONCRETE MEDIAN BARRIER

GENERAL NOTES:

USE CLASS 'AA' CONCRETE TO CONSTRUCT CONCRETE BARRIER TRANSITION.

USE CLASS 'B' CONCRETE TO CONSTRUCT CONCRETE COVER.

SEAL ALL EXPANSION JOINTS WITH JOINT FILLER (SEE SECTION 1028 OF THE SPECIFICATIONS).

SUBMIT ALTERNATIVE METHODS FOR STEEL FABRICATION FOR REVIEW.

REFER TO PLANS AND TYPICAL SECTION FOR CONCRETE COVER LOCATIONS.

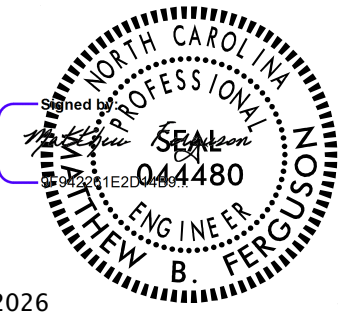
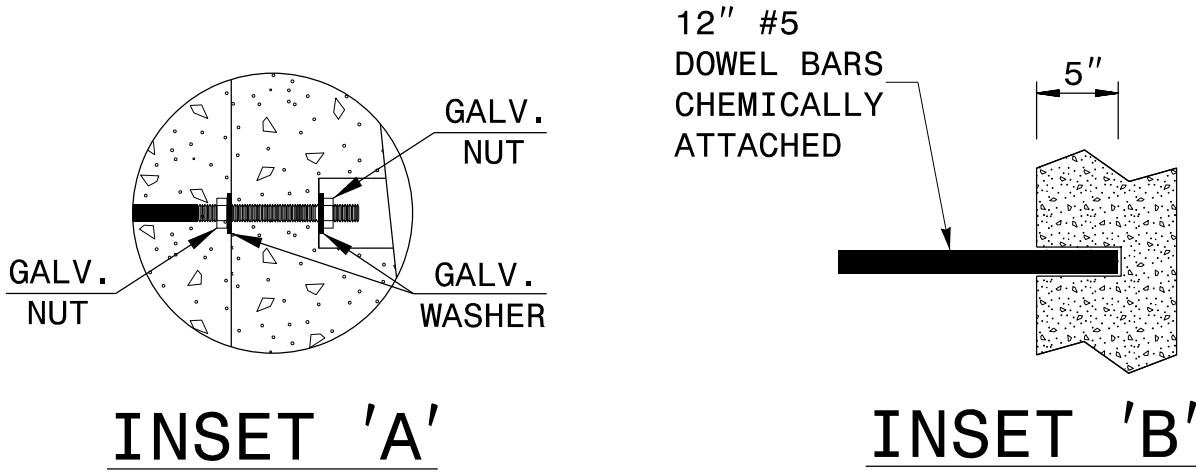
USE AN APPROVED BONDING SYSTEM IN ACCORDANCE WITH SECTION 1081-1, TYPE 3A OF THE STANDARD SPECIFICATIONS.

DRILL ANCHOR HOLES WITH A PNEUMATIC DRILL UNLESS OTHERWISE APPROVED BY THE ENGINEER.

DRILL ANCHOR HOLES IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

REMOVE ALL DEBRIS, CHIPS, DUST, GREASE, OIL AND OTHER FOREIGN MATTER FROM THE ANCHOR HOLES PRIOR TO THE APPLICATION OF THE ADHEIVE BONDING SYSTEM.

BARRIER TRANSITION LOCATED AS FIELD CONDITIONS DICTATE AND AS DIRECTED BY THE ENGINEER.



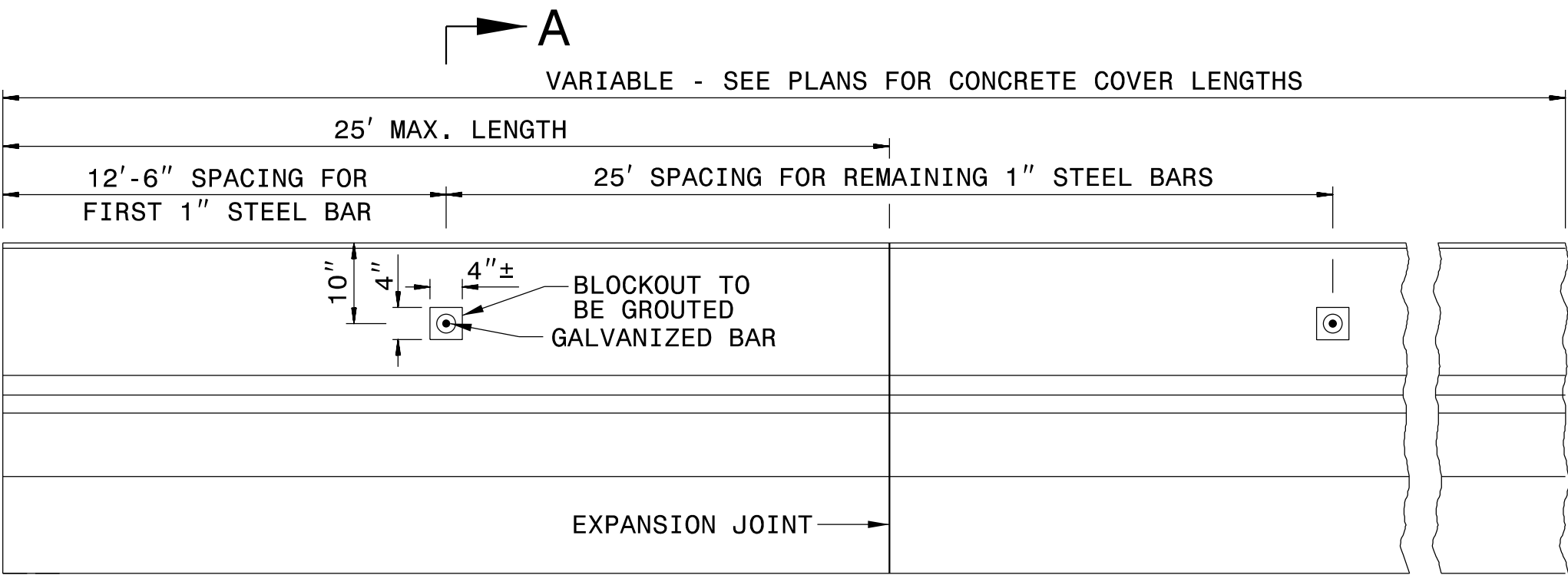
2/9/2026

DETAIL OF CONCRETE
BARRIER TRANSITION
FILLED WITH CONCRETE

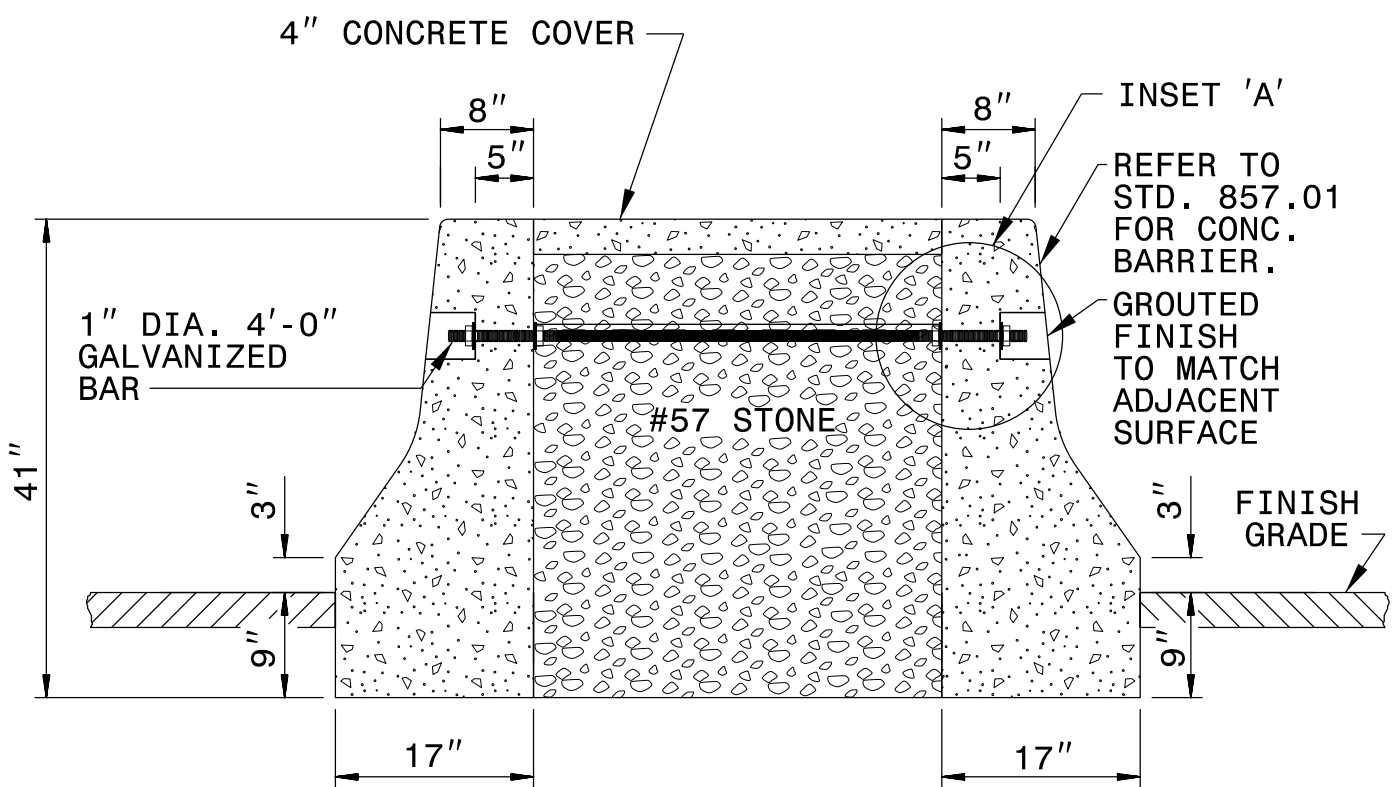
ORIGINAL BY:	DATE:
MODIFIED BY: R. HENNEIN	DATE: 12/29/25
CHECKED BY: M. FERGUSON	DATE: 01/27/26
FILE SPEC.:	

PROJECT REFERENCE NO.	SHEET NO.
BR-0140	2B-6
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

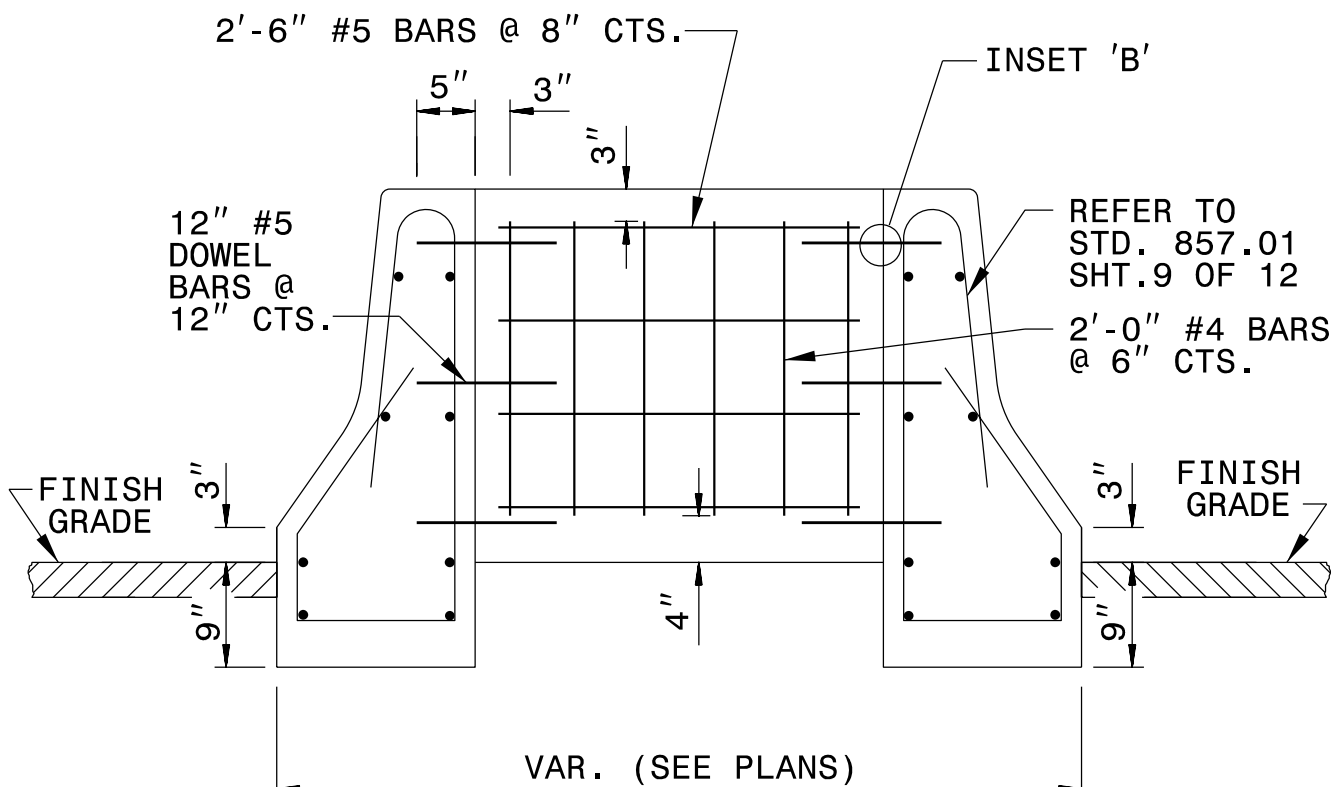
* DRAWING NOT TO SCALE



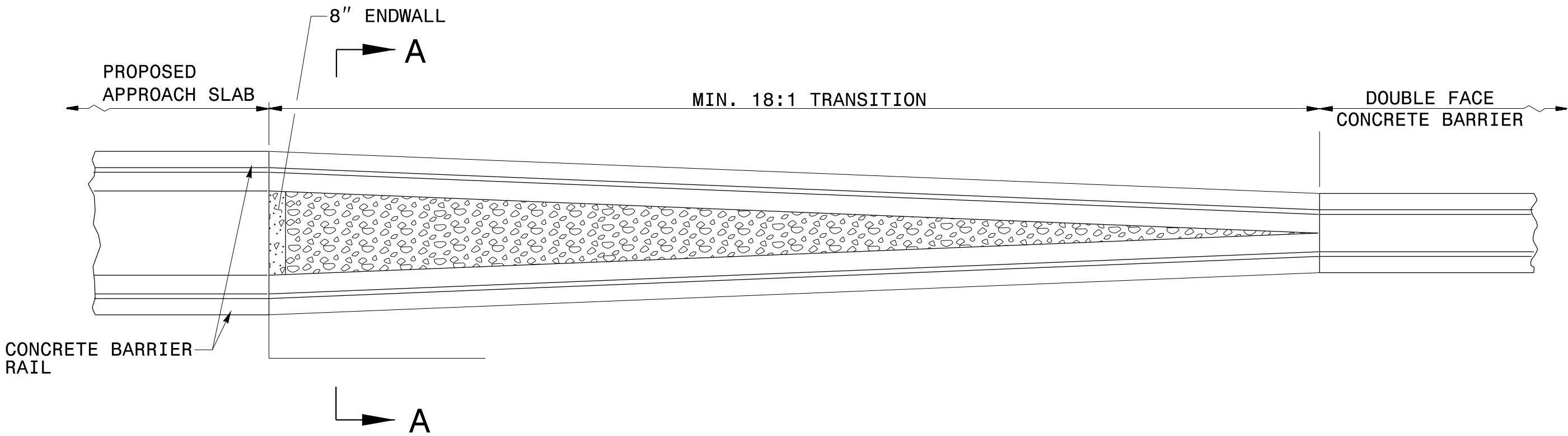
ELEVATION



SECTION 'A-A'



ENDWALL



TRANSITION FROM CONCRETE BARRIER RAIL
TO DOUBLE FACE CONCRETE MEDIAN BARRIER

GENERAL NOTES:

USE CLASS 'AA' CONCRETE TO CONSTRUCT CONCRETE BARRIER TRANSITION.

USE CLASS 'B' CONCRETE TO CONSTRUCT CONCRETE COVER.

SEAL ALL EXPANSION JOINTS WITH JOINT FILLER (SEE SECTION 1028 OF THE SPECIFICATIONS).

SUBMIT ALTERNATIVE METHODS FOR STEEL FABRICATION FOR REVIEW.

REFER TO PLANS AND TYPICAL SECTION FOR CONCRETE COVER LOCATIONS.

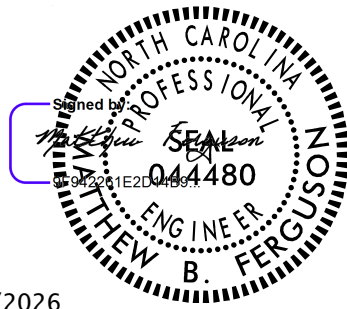
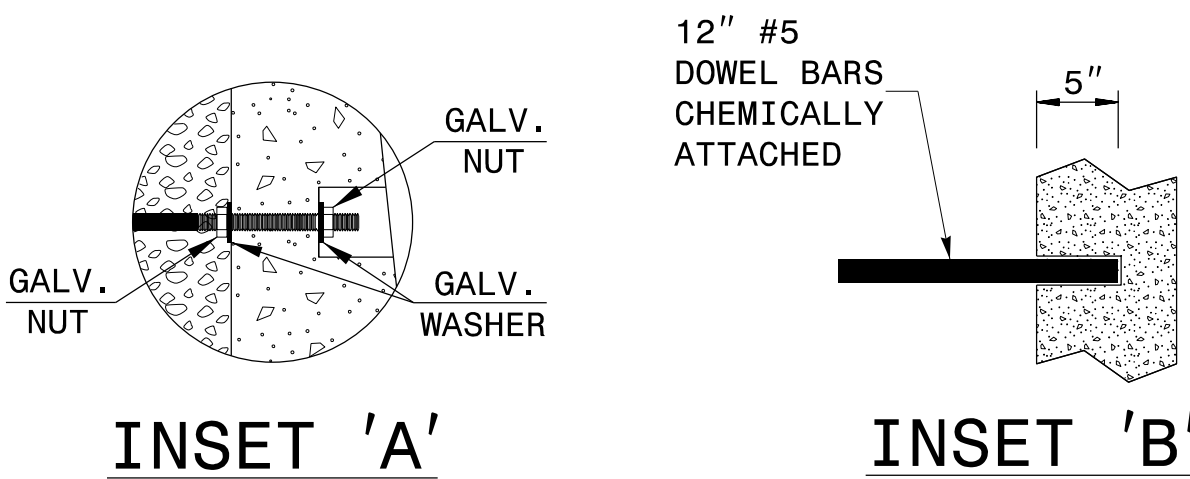
USE AN APPROVED BONDING SYSTEM IN ACCORDANCE WITH SECTION 1081-1, TYPE 3A OF THE STANDARD SPECIFICATIONS.

DRILL ANCHOR HOLES WITH A PNEUMATIC DRILL UNLESS OTHERWISE APPROVED BY THE ENGINEER.

DRILL ANCHOR HOLES IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

REMOVE ALL DEBRIS, CHIPS, DUST, GREASE, OIL AND OTHER FOREIGN MATTER FROM THE ANCHOR HOLES PRIOR TO THE APPLICATION OF THE ADHEIVE BONDING SYSTEM.

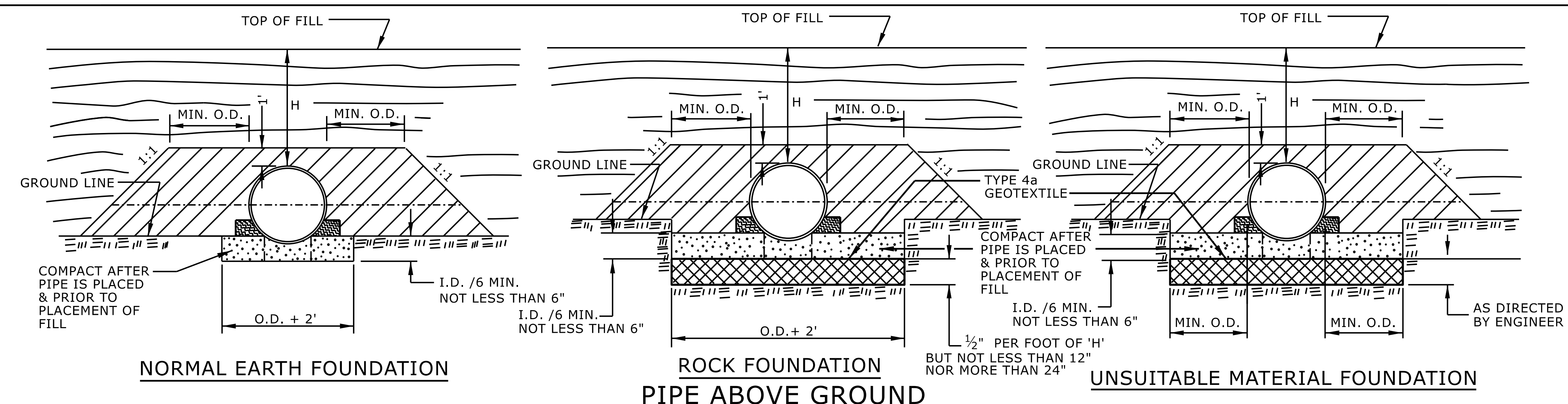
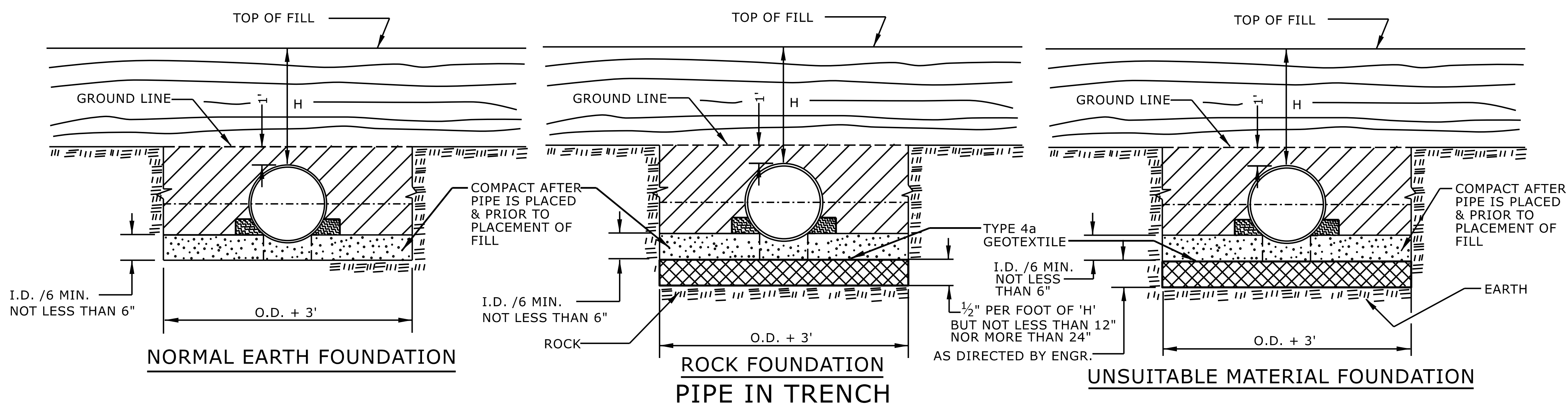
BARRIER TRANSITION LOCATED AS FIELD CONDITIONS DICTATE AND AS DIRECTED BY THE ENGINEER.



2/9/2026

DETAIL OF CONCRETE
BARRIER TRANSITION
FILLED WITH #57 STONE
WITH 4" CONCRETE COVER

ORIGINAL BY:	DATE:
MODIFIED BY: R. HENNEIN	DATE: 12/29/25
CHECKED BY: M. FERGUSON	DATE: 01/27/26
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.

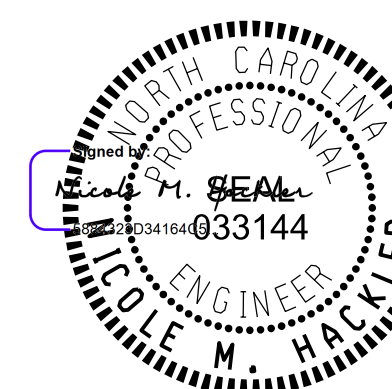
REFER TO NCDOT PIPE MATERIAL SELECTION GUIDE AND STANDARD SPECIFICATIONS
FOR ALLOWABLE PIPE FILL HEIGHTS AND PIPE SPECIFICATIONS.

	SPRINGLINE OF PIPE
	SELECT BACKFILL MATERIAL CLASS III OR CLASS II, 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.

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR METHOD OF PIPE INSTALLATION FLEXIBLE PIPE

SHEET 1 OF 2
300.01



9/1/2026

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**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**
919-707-6950 FAX 919-250-4

SEE TITLE BLOCK

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

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
METHOD OF PIPE INSTALLATION
RIGID PIPE

SHEET 2 OF 2
300.01

TOP OF FILL

GROUND LINE

H

I.D. /6 MIN.
NOT LESS THAN 6"

O.D. + 3'

NORMAL EARTH FOUNDATION

TOP OF FILL

GROUND LINE

H

I.D. /6 MIN.
NOT LESS THAN 6"

ROCK

O.D. + 3'

**ROCK FOUNDATION
PIPE IN TRENCH**

TOP OF FILL

GROUND LINE

H

TYPE 4a
GEOTEXTILE

I.D. /6 MIN.
NOT LESS
THAN 6"

1/2" PER FOOT OF 'H'
BUT NOT LESS THAN 12"
NOR MORE THAN 24"
AS DIRECTED BY ENGR.

O.D. + 3'

UNSUITABLE MATERIAL FOUNDATION

TOP OF FILL

GROUND LINE

H

MIN. O.D.

MIN. O.D.

I.D. /6 MIN.
NOT LESS THAN 6"

O.D. + 2'

NORMAL EARTH FOUNDATION

TOP OF FILL

GROUND LINE

H

MIN. O.D.

MIN. O.D.

I.D. /6 MIN.
NOT LESS THAN 6"

O.D. + 2'

**ROCK FOUNDATION
PIPE ABOVE GROUND**

TOP OF FILL

GROUND LINE

H

MIN. O.D.

MIN. O.D.

TYPE 4a
GEOTEXTILE

COMPACT AFTER
PIPE IS PLACED
& PRIOR TO
PLACEMENT OF
FILL

I.D. /6 MIN.
NOT LESS THAN 6"

1/2" PER FOOT OF 'H'
BUT NOT LESS THAN 12"
NOR MORE THAN 24"
AS DIRECTED BY ENGINEER

MIN. O.D.

MIN. O.D.

UNSUITABLE MATERIAL FOUNDATION

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.

9/1/2026

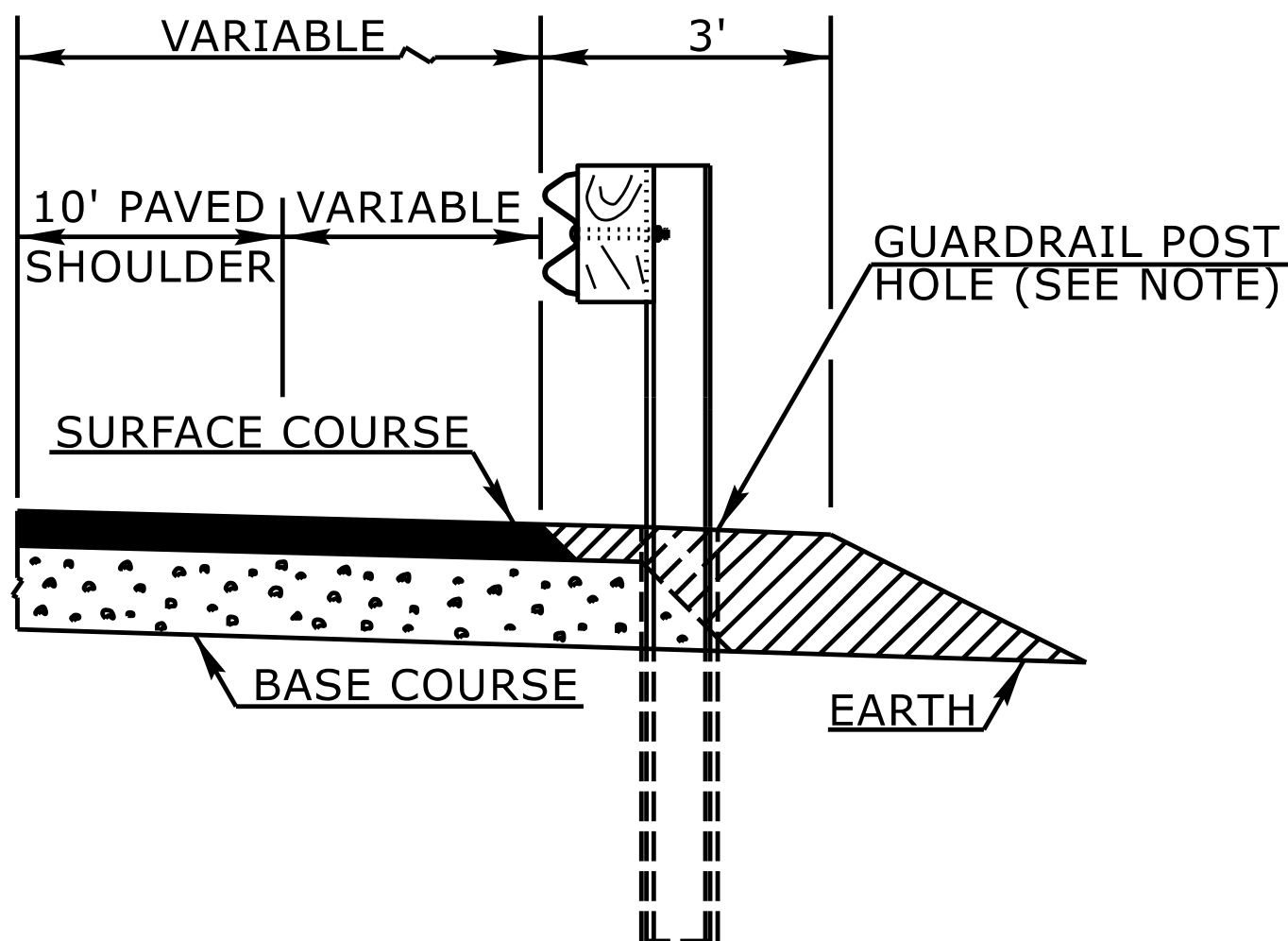
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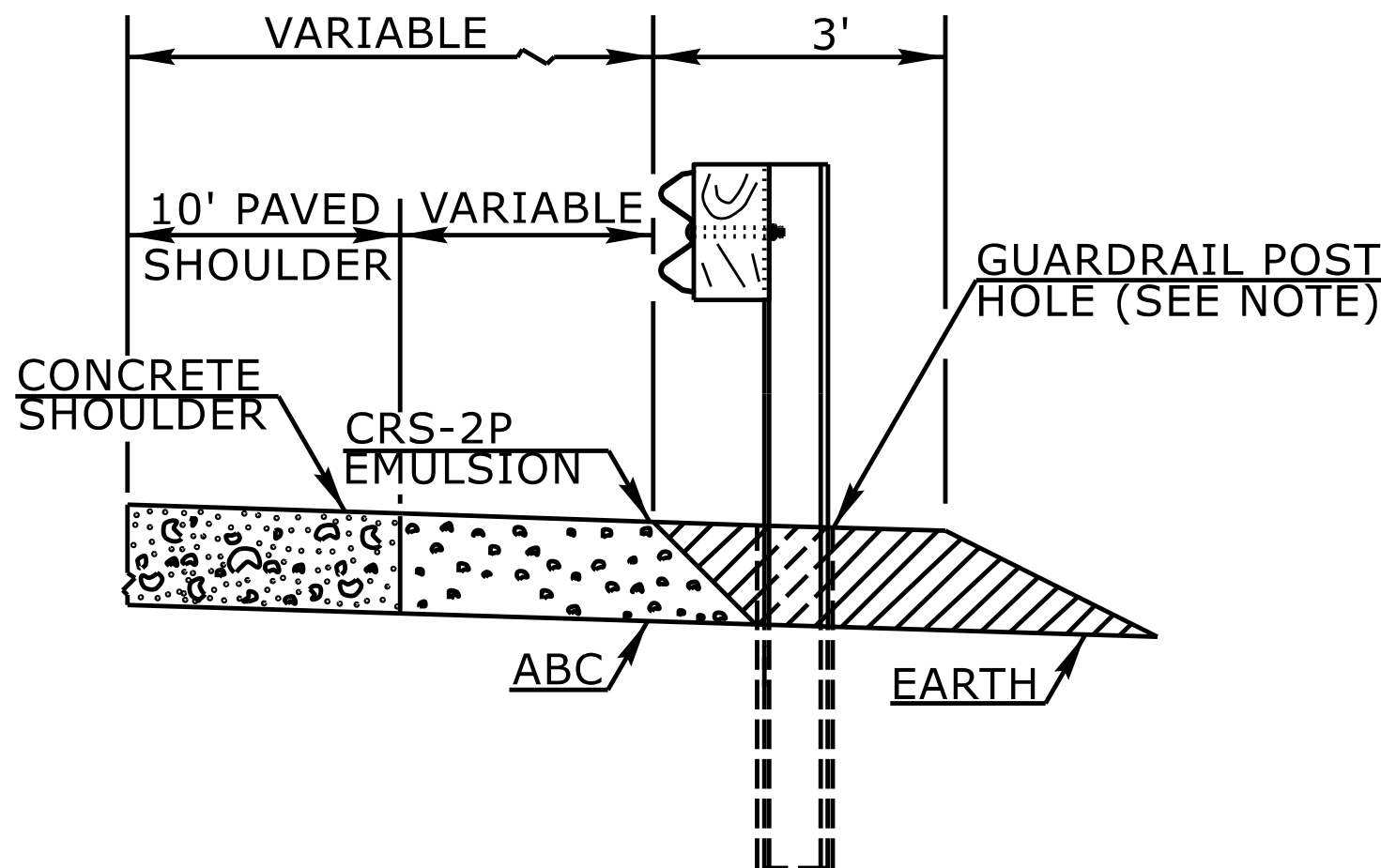
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MODIFIED BY:		DATE:	
CHECKED BY:		DATE:	
FILE SPEC.:			

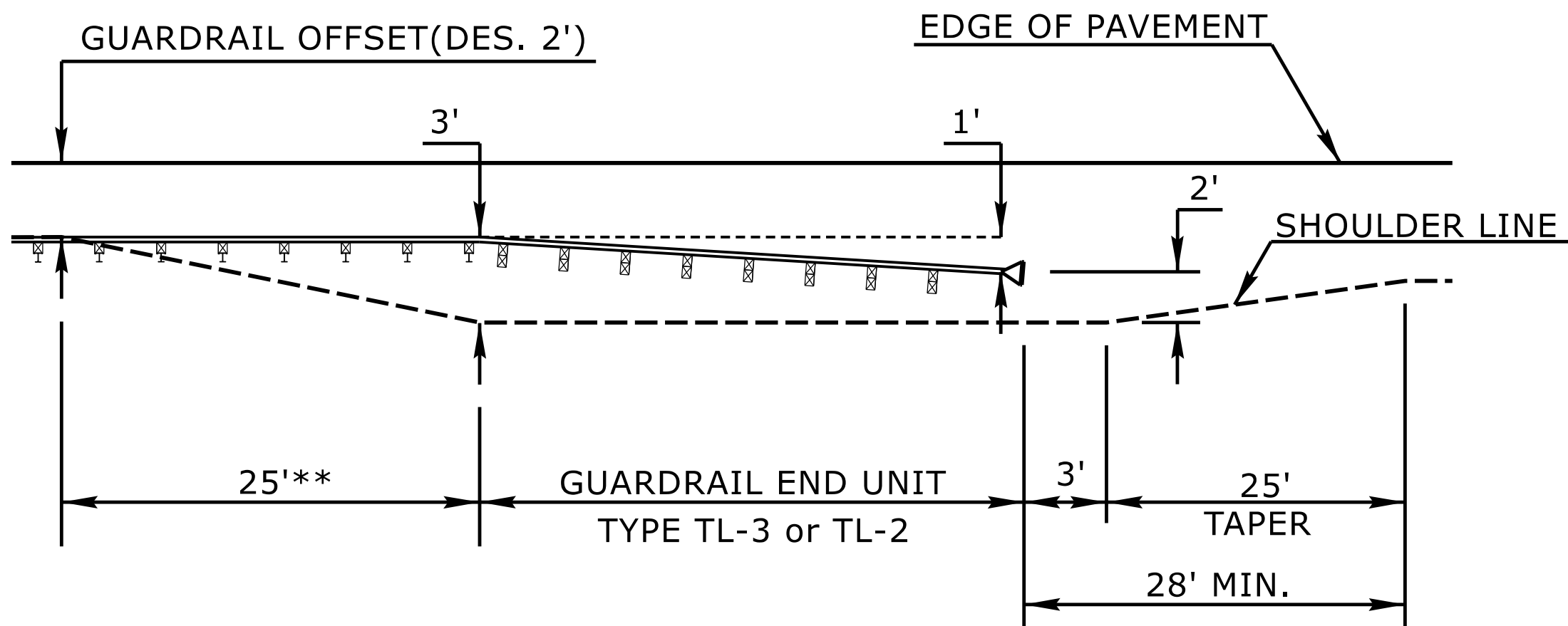
PROJECT REFERENCE NO.	SHEET NO.
BR-0140	2C-3



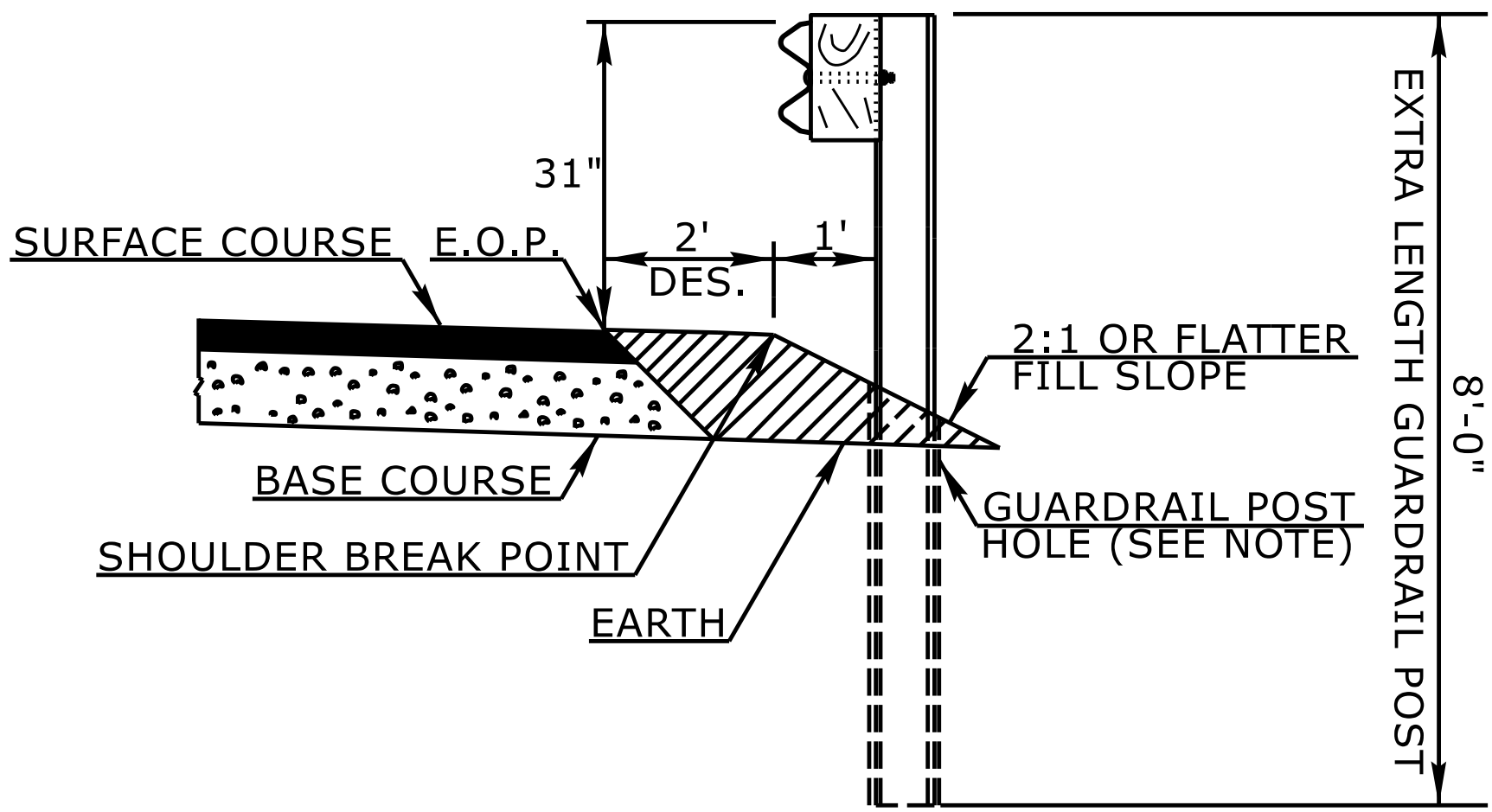
FLEXIBLE PAVED SHOULDER



CONCRETE PAVED SHOULDER



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



8' GUARDRAIL POST ON 2:1 SLOPE*

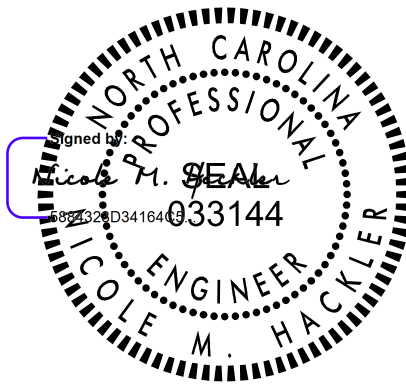
* THE 8' GUARDRAIL POST ON 2:1 SLOPE DETAIL IS INTENDED FOR USE ONLY IN SEVERELY CONSTRAINED AREAS WITH A POSTED SPEED $\leq$ 60 MPH. GUARDRAIL END UNITS MAY NOT BE PLACED ON THE 2:1 SLOPE AND MUST TRANSITION TO THE SHOULDER.
** 8' GUARDRAIL POST SHOULD BE USED IN THIS RANGE

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

SHEET 11 OF 15
862D01



9/1/2026

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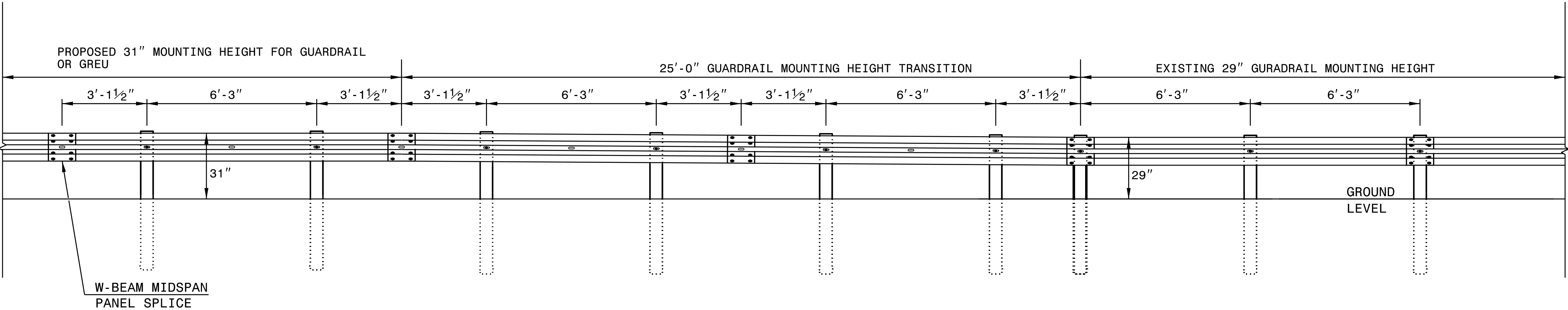
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PROJECT REFERENCE NO.	SHEET NO.
BR-0140	2C-4

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

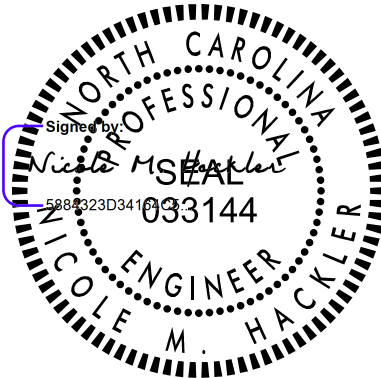
TRANSITION FROM 29" TO 31" W-BEAM GUARDRAIL MOUNTING HEIGHT

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ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION

SHEET 5 OF 9

862D02



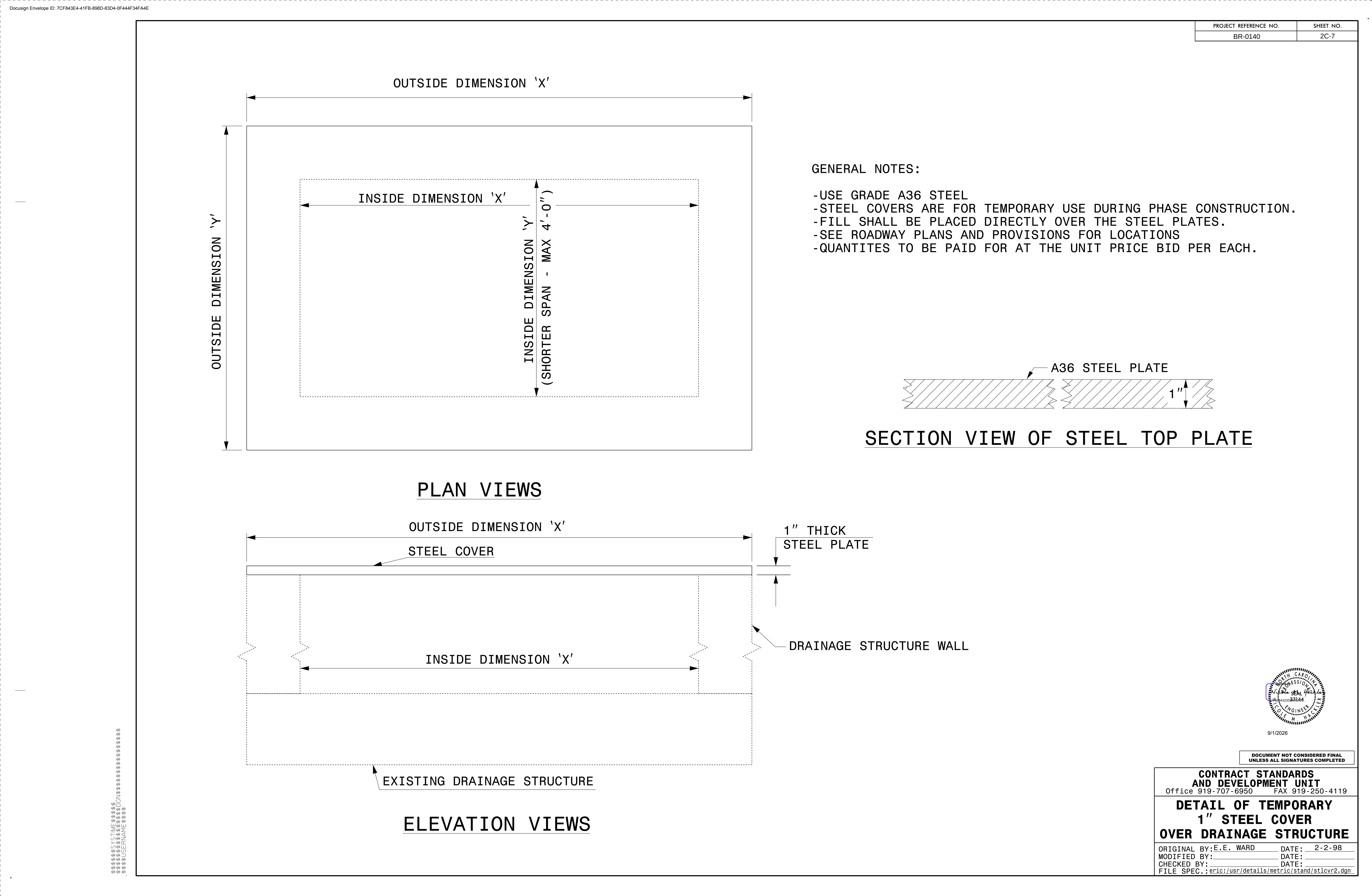
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ORIGINAL BY: K. Aldridge DATE: 02-25
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.:



ESTIMATED QUANTITIES	
1,645	SQUARE YDS

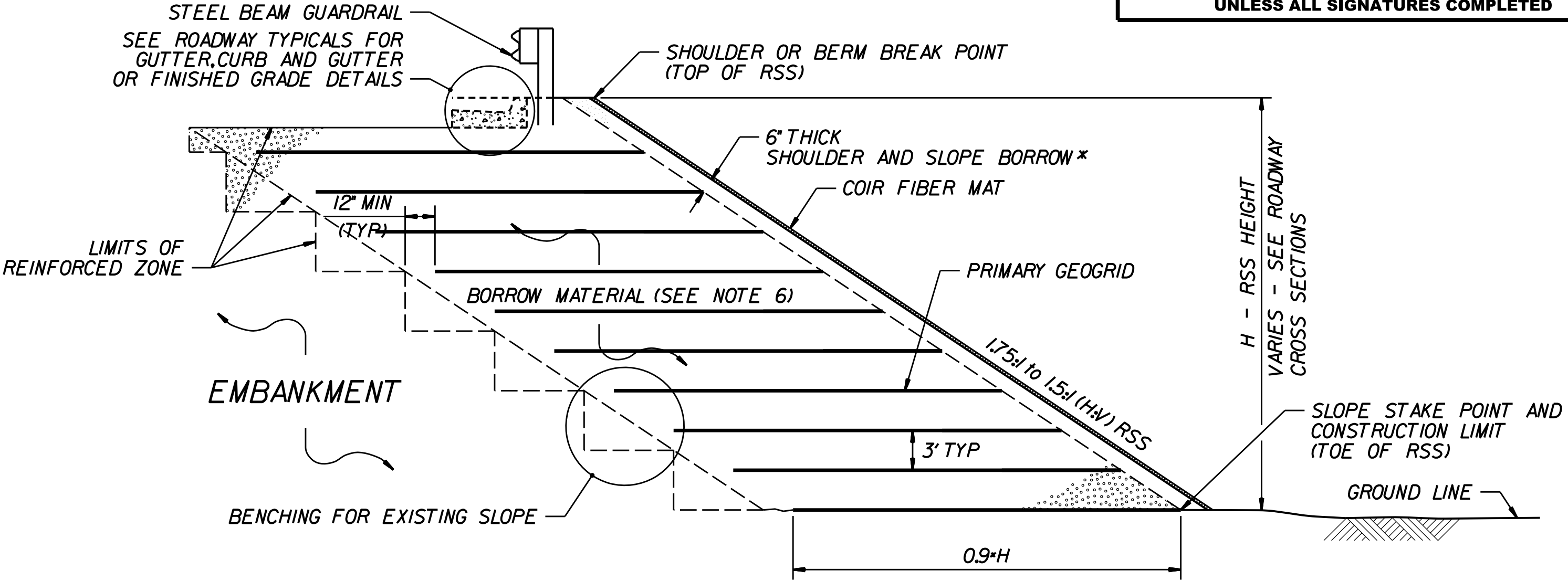
MIN.ULTIMATE TENSILE STRENGTH (PLF)	PRIMARY GEOGRID LENGTH (FT)	PRIMARY GEOGRID SPACING (FT)
1000	0.9*H	3

LTDS – MINIMUM REQUIRED LONG-TERM DESIGN STRENGTH (LB/FT)
(LTDS IS BASED ON 100% COVERAGE FOR PRIMARY GEOGRID.
SEE NOTE 9 FOR LESS THAN 100% COVERAGE.)

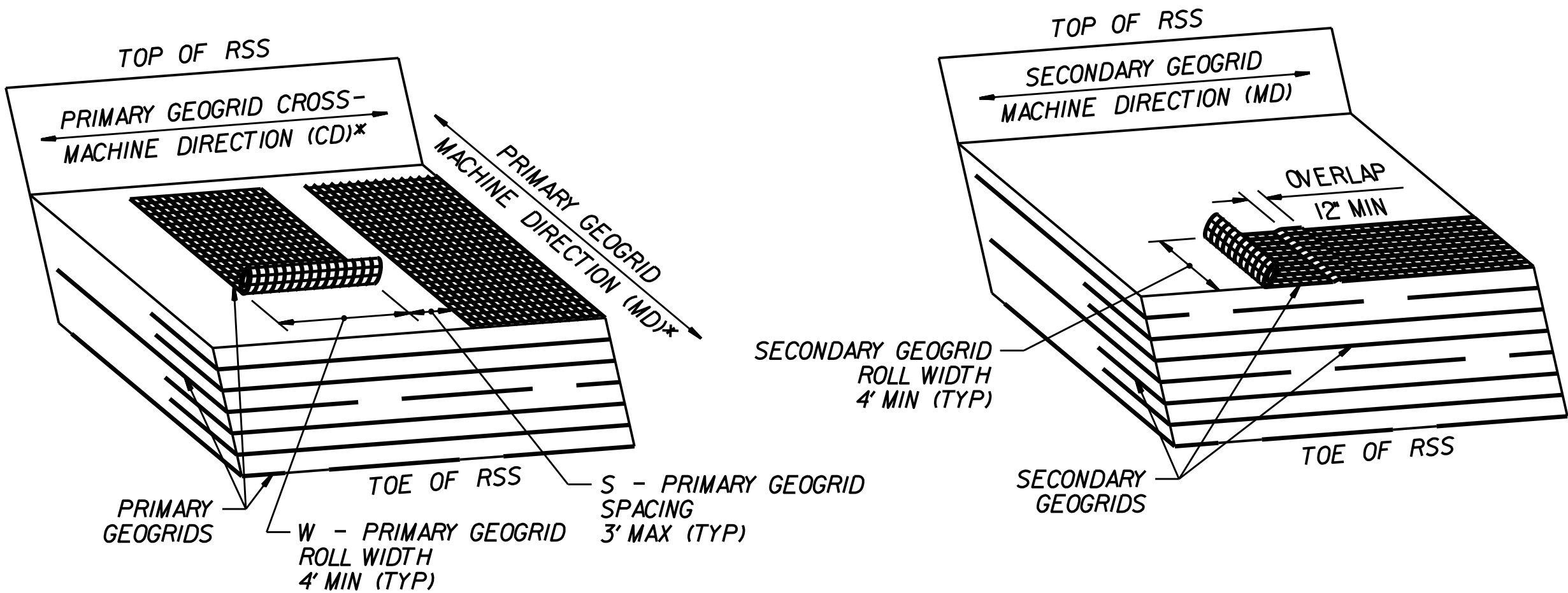
NOTES:

- SEE EROSION CONTROL AND ROADWAY PLANS AND SUMMARY SHEETS FOR REINFORCED SOIL SLOPE (RSS) AND SLOPE EROSION CONTROL LOCATIONS.
- FOR REINFORCED SOIL SLOPES,SEE REINFORCED SOIL SLOPES PROVISION. FOR STEEL BEAM GUARDRAIL,SEE SECTION 862 OF THE STANDARD SPECIFICATIONS.
- FOR SHOULDER AND SLOPE BORROW,SEE ARTICLE 1019-2 OF THE STANDARD SPECIFICATIONS. FOR COIR FIBER MAT,MATting FOR EROSION CONTROL AND COMPOST BLANKET,SEE EROSION CONTROL PROVISIONS,SECTION 1631 OF THE STANDARD SPECIFICATIONS AND ROADWAY STANDARD DRAWING NO.1631.01.
- RSS SLOPE DESIGNS ARE BASED ON THE FOLLOWING IN-SITU ASSUMED SOIL PARAMETERS:
UNIT WEIGHT, γ = 120 PCF
FRICTION ANGLE, ϕ = 32 DEGREES
COHESION, c = 50 PSF
- GEOGRIDS ARE TYPICALLY APPROVED FOR ULTIMATE TENSILE STRENGTHS IN THE MACHINE DIRECTION (MD) AND CROSS-MACHINE DIRECTION (CD) OR LONG-TERM DESIGN STRENGTHS FOR A 75-YEAR DESIGN LIFE IN THE MD BASED ON MATERIAL TYPE.THE LIST OF APPROVED GEOGRIDS WITH DESIGN STRENGTHS IS AVAILABLE FROM: connect.ncdot.gov/resources/Materials/Pages/Materials-Manual-by-Material.aspx
- CONSTRUCT EMBANKMENT SLOPES WITH BORROW MATERIALS MEETING CLASS I,II,OR III SELECT MATERIAL CRITERIA AS DEFINED IN CURRENT ISSUE OF THE ROADWAY STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
- IF THE WEBSITE DOES NOT LIST A LONG-TERM DESIGN STRENGTH FOR AN APPROVED GEOGRID IN THE MD,DO NOT USE THE GEOGRID FOR PRIMARY GEOGRID. IF THE WEBSITE DOES NOT LIST A LONG-TERM DESIGN STRENGTH FOR AN APPROVED GEOGRID IN THE CD,USE A LONG-TERM DESIGN STRENGTH EQUAL TO THE ULTIMATE TENSILE STRENGTH DIVIDED BY 7 FOR THE SECONDARY GEOGRID.
- DO NOT OVERLAP PRIMARY GEOGRIDS IN THE MD SO OVERLAPS ARE PARALLEL TO THE TOE OF RSS. POLYOLEFIN (e.g.,HDPE OR PP) GEOGRIDS MAY BE SPLICED ONCE PER PRIMARY GEOGRID LENGTH IN ACCORDANCE WITH THE GEOGRID MANUFACTURER'S INSTRUCTIONS. USE POLYOLEFIN GEOGRID PIECES AT LEAST 4' LONG.DO NOT SPLICE POLYESTER TYPE (PET) GEOGRIDS.
- FOR PRIMARY GEOGRIDS WITH 100% COVERAGE,PLACE PRIMARY GEOGRIDS SO GEOGRIDS ARE ADJACENT TO EACH OTHER IN THE CD.FOR PRIMARY GEOGRIDS WITH 75% TO LESS THAN 100% COVERAGE,

MINIMUM REQUIRED LONG-TERM DESIGN STRENGTH = LTDS BASED ON 100% COVERAGE x (W + S) / W
- SEE TABLE FOR LTDS BASED ON 100% COVERAGE AND GEOGRID PLACEMENT DETAILS FOR PRIMARY GEOGRID ROLL WIDTH (W) AND SPACING (S). FOR PRIMARY GEOGRIDS WITH LESS THAN 100% COVERAGE,STAGGER PRIMARY GEOGRIDS SO GEOGRIDS ARE CENTERED OVER GAPS IN THE PRIMARY GEOGRID LAYER BELOW.DO NOT USE LESS THAN 75% COVERAGE FOR PRIMARY GEOGRIDS.
- DO NOT PLACE ANY GEOGRIDS UNTIL EXCAVATION DIMENSIONS AND IN-SITU MATERIAL ARE APPROVED.
- FOR SLOPE EROSION CONTROL,USE COIR FIBER MATTING ON SLOPE FACES OF RSS AS SHOWN IN THE DETAILS.



MATting WITH SHOULDER AND SLOPE BORROW



GEOGRID PLACEMENT DETAILS

(% COVERAGE = $\frac{W}{W+S} \times 100 \geq 75\%$)

*SEE NOTES 8 AND 9.



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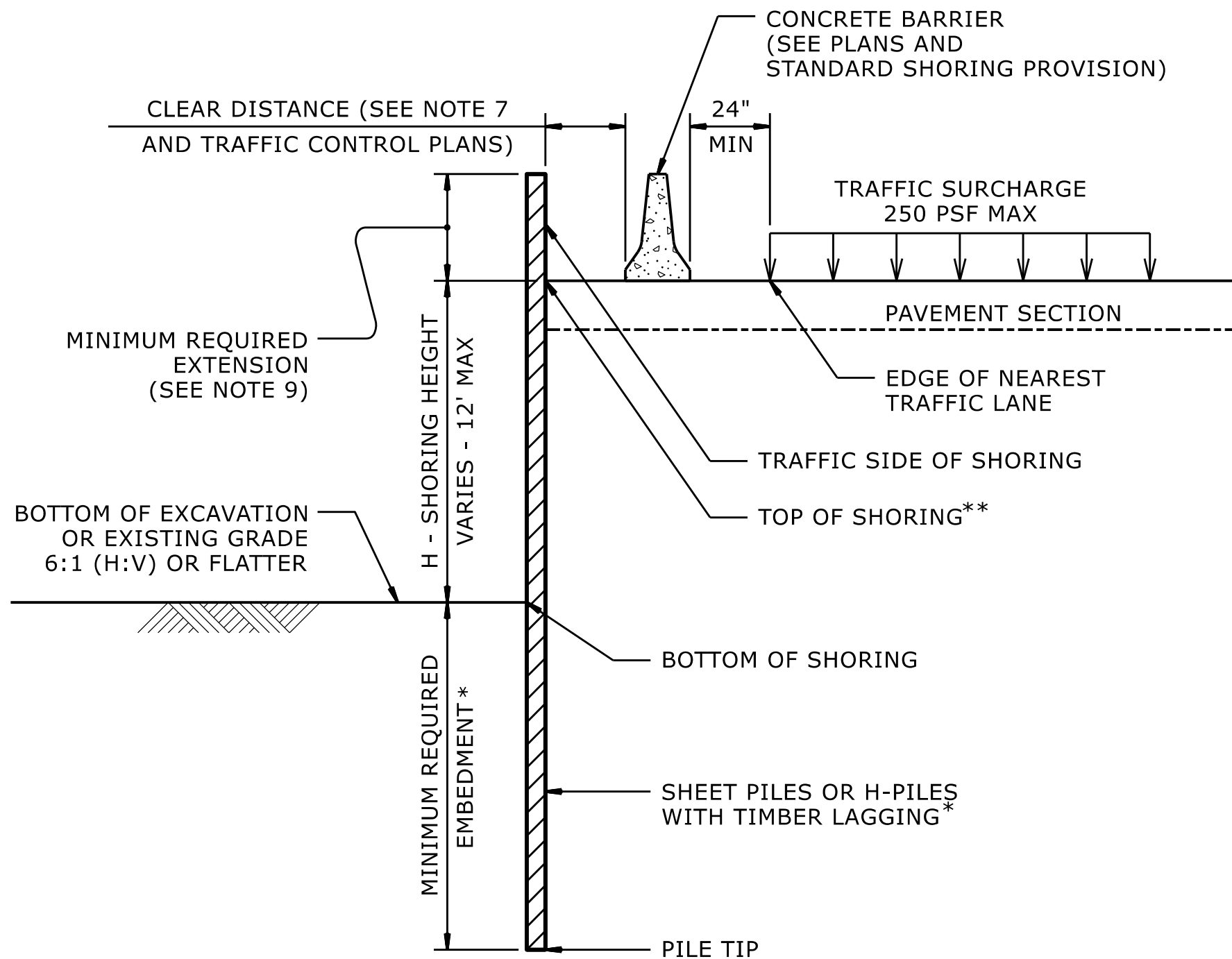
REINFORCED SOIL
SLOPE (RSS)

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

GROUNDWATER CONDITION (SEE NOTE 6)	H SHORING HEIGHT (FT)	SLOPE OR SURCHARGE CASE WITH NO TRAFFIC IMPACT					SURCHARGE CASE WITH TRAFFIC IMPACT				
		SHEET PILES		H-PILES WITH TIMBER LAGGING			SHEET PILES		H-PILES WITH TIMBER LAGGING		
		MINIMUM REQUIRED EMBEDMENT (FT)	MINIMUM REQUIRED SECTION MODULUS (IN ⁴ /FT)	MINIMUM REQUIRED EMBEDMENT * (FT) (SEE NOTE 10)			MINIMUM REQUIRED EMBEDMENT (FT)	MINIMUM REQUIRED SECTION MODULUS (IN ⁴ /FT)	MINIMUM REQUIRED EMBEDMENT * (FT) (SEE NOTE 10)		
				HP 10x42	HP 12x53	HP 14x73			HP 10x42	HP 12x53	HP 14x73
GROUNDWATER ELEVATION BETWEEN BOTTOM OF SHORING AND PILE TIP	< 6	11.5	4.5	11.5	11.5	11.5	16.0	12.0	13.0	13.0	13.0
	7	13.0	7.0	13.0	13.0	13.0	17.0	14.5	14.5	14.5	14.5
	8	15.0	10.0	--	15.0	15.0	18.0	17.0	--	15.5	15.5
	9	17.0	14.0	--	17.0	17.0	19.0	20.0	--	17.0	17.0
	10	18.5	19.5	--	--	18.5	20.0	23.5	--	--	18.5
	11	20.5	26.0	--	--	--	21.0	28.0	--	--	20.0
	12	22.5	33.0	--	--	--	22.0	33.0	--	--	21.5
GROUNDWATER ELEVATION BELOW PILE TIP	< 6	7.5	3.0	8.0	8.0	8.0	11.0	10.0	9.5	9.5	9.5
	7	8.5	4.5	9.5	9.5	9.5	12.0	12.0	10.5	10.5	10.5
	8	10.0	6.5	10.5	10.5	10.5	12.5	14.0	11.5	11.5	11.5
	9	11.0	9.5	--	12.0	12.0	13.5	16.5	--	12.5	12.5
	10	12.5	13.0	--	--	13.5	14.0	19.5	--	13.5	13.5
	11	13.5	17.0	--	--	14.5	15.0	22.5	--	--	14.5
	12	15.0	21.5	--	--	16.0	16.0	25.5	--	--	15.5

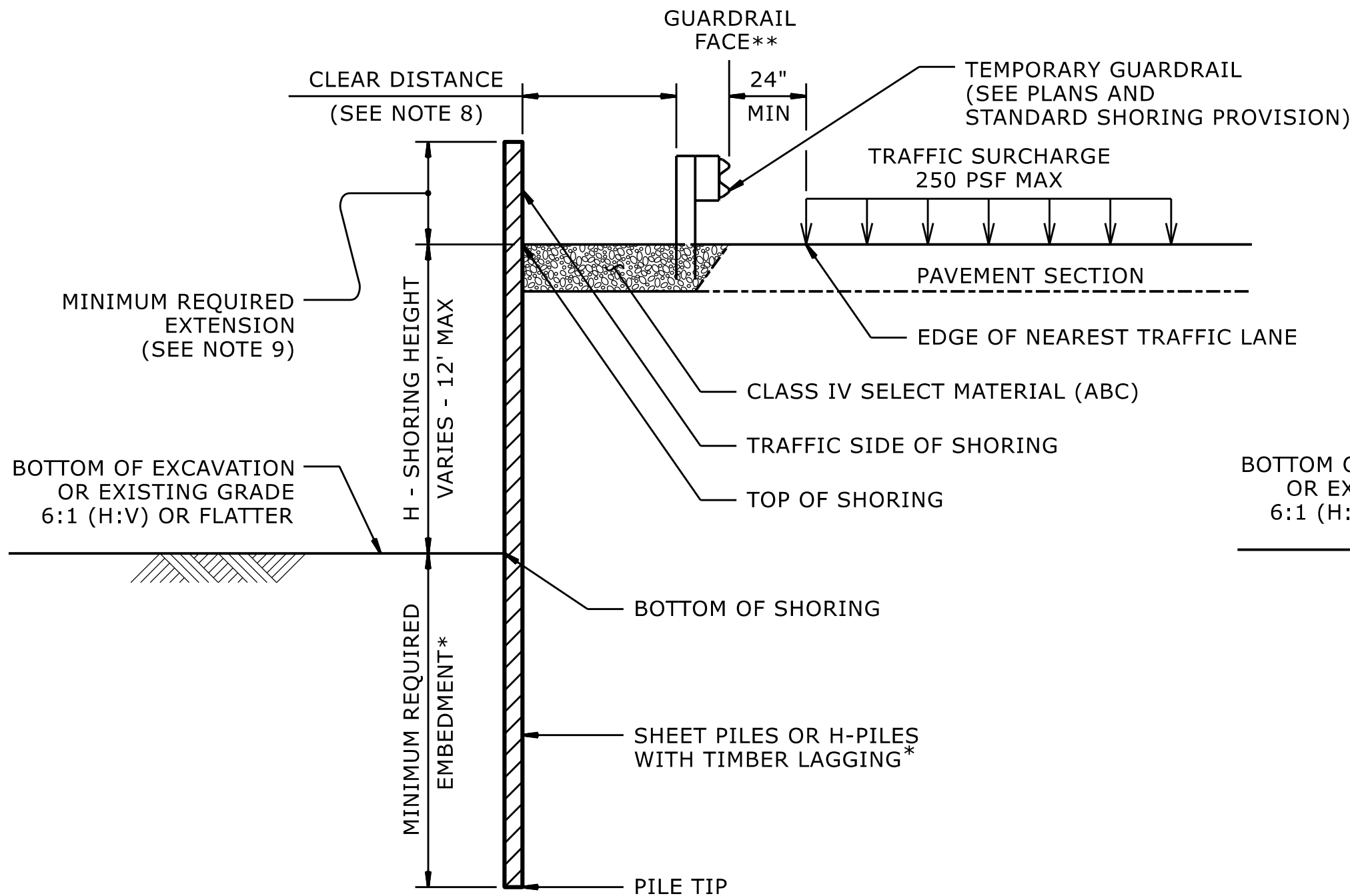
MINIMUM REQUIRED EMBEDMENT AND SECTION MODULUS

*DO NOT USE H-PILES WITH TIMBER LAGGING FOR GROUNDWATER CONDITION, SHORING HEIGHT AND H-PILE SIZE SHOWN IF MINIMUM REQUIRED EMBEDMENT IS "---".



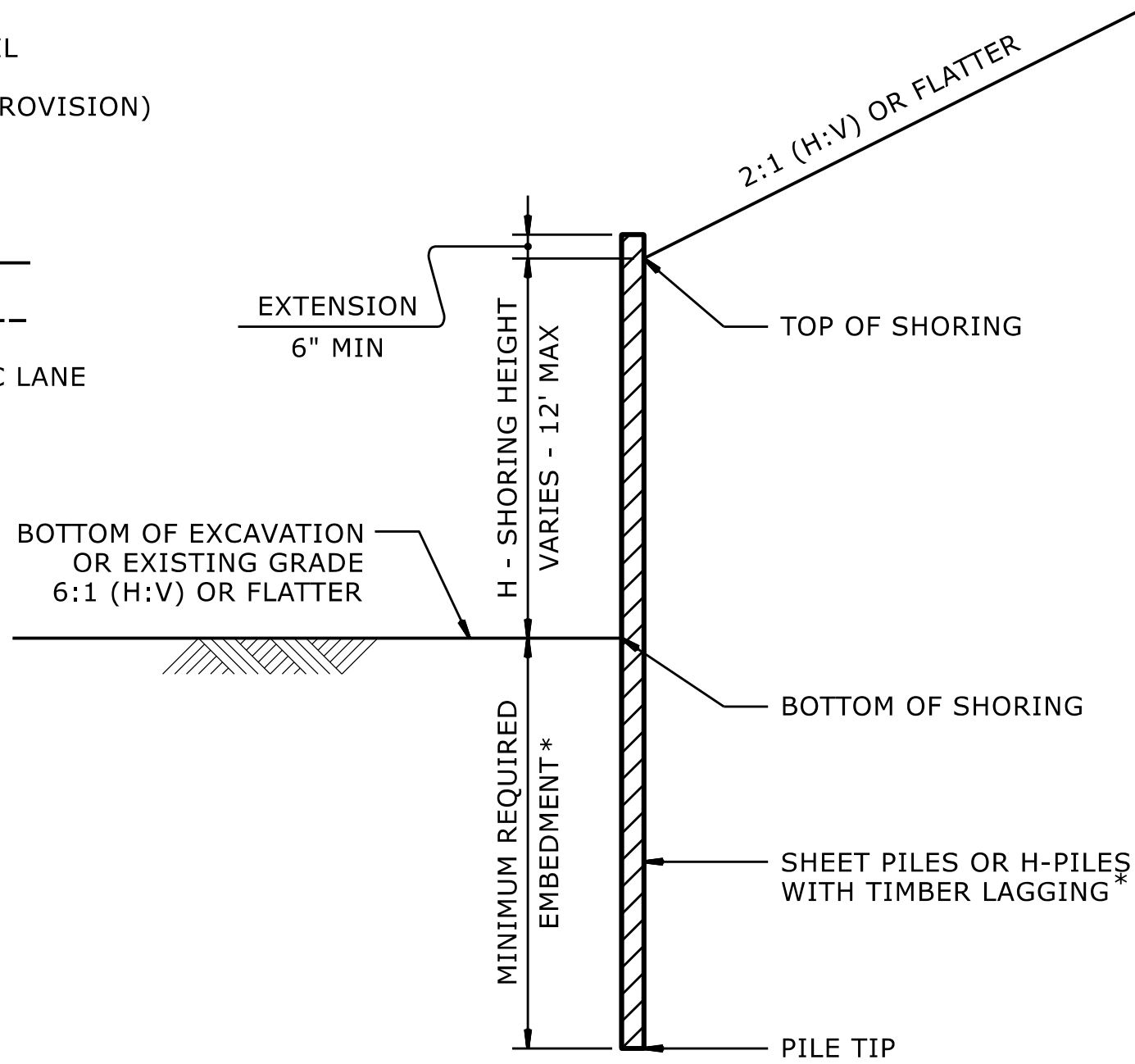
CONCRETE BARRIER

**TOP OF SHORING =
EDGE OF PAVEMENT



TEMPORARY GUARDRAIL

**GUARDRAIL FACE =
EDGE OF PAVEMENT



STANDARD TEMPORARY SHORING

(SLOPE CASE)
*SEE TABLE ABOVE.

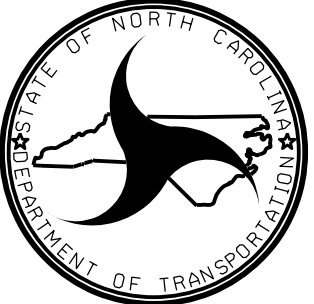
NOTES:

1. AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING AS NOTED IN THE PLANS.
2. FOR STANDARD TEMPORARY SHORING, SEE STANDARD SHORING PROVISION.
3. STANDARD TEMPORARY SHORING IS BASED ON THE FOLLOWING IN-SITU ASSUMED SOIL PARAMETERS:
UNIT WEIGHT, γ = 120 PCF
FRICTION ANGLE, ϕ = 30 DEGREES
COHESION, c = 0 PSF
4. DO NOT USE STANDARD TEMPORARY SHORING IF ASSUMED SOIL PARAMETERS ARE NOT APPLICABLE.
5. DO NOT USE STANDARD TEMPORARY SHORING WHEN VERY LOOSE OR SOFT SOIL OR MUCK IS WITHIN THE EMBEDMENT DEPTH.
6. USE GROUNDWATER ELEVATION NOTED IN THE PLANS. IF NO GROUNDWATER ELEVATION IS SHOWN IN THE PLANS, USE "GROUNDWATER ELEVATION BETWEEN BOTTOM OF SHORING AND PILE TIP" FOR GROUNDWATER CONDITION. DO NOT USE STANDARD TEMPORARY SHORING IF GROUNDWATER IS ABOVE BOTTOM OF SHORING.
7. AT THE CONTRACTOR'S OPTION OR IF AVAILABLE CLEAR DISTANCE IS LESS THAN THE MINIMUM REQUIRED FOR CONCRETE BARRIER, SET BARRIER NEXT TO AND UP AGAINST TRAFFIC SIDE OF PILES AND USE "SURCHARGE CASE WITH TRAFFIC IMPACT".
8. AT THE CONTRACTOR'S OPTION OR IF AVAILABLE CLEAR DISTANCE IS LESS THAN 4' FOR TEMPORARY GUARDRAIL, ATTACH GUARDRAIL TO TRAFFIC SIDE OF PILES AS SHOWN IN THE PLANS AND USE "SURCHARGE CASE WITH TRAFFIC IMPACT".
9. MINIMUM REQUIRED EXTENSION IS 6" FOR "SLOPE OR SURCHARGE CASE WITH NO TRAFFIC IMPACT" AND 32" FOR "SURCHARGE CASE WITH TRAFFIC IMPACT".
10. MINIMUM REQUIRED EMBEDMENT FOR H-PILES WITH TIMBER LAGGING IS BASED ON DRIVEN H-PILES AT MAXIMUM 6' SPACING. AT THE CONTRACTOR'S OPTION, EMBEDMENT DEPTHS MAY BE REDUCED BY 25% FOR DRILLED-IN H-PILES.
11. SUBMIT A "STANDARD TEMPORARY SHORING SELECTION FORM" AT LEAST 7 DAYS BEFORE STARTING TEMPORARY SHORING CONSTRUCTION. UP TO 3 SHORING LOCATIONS MAY BE INCLUDED ON EACH FORM. STANDARD SHORING SELECTION FORMS ARE AVAILABLE FROM:
connect.ncdot.gov/resources/Geological/Pages/Geotech_Forms_Details.aspx
12. CONTACT THE ENGINEER IF PILES DO NOT ATTAIN THE MINIMUM REQUIRED EMBEDMENT.

BR-0140

2G-2 -

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GEOTECHNICAL
ENGINEER

Scott A. Hidden
09/2026
F7806


SCOTT A. HIDDEN
ENGINEER
NO. 022246

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STANDARD
DETAIL NO. 1801.01

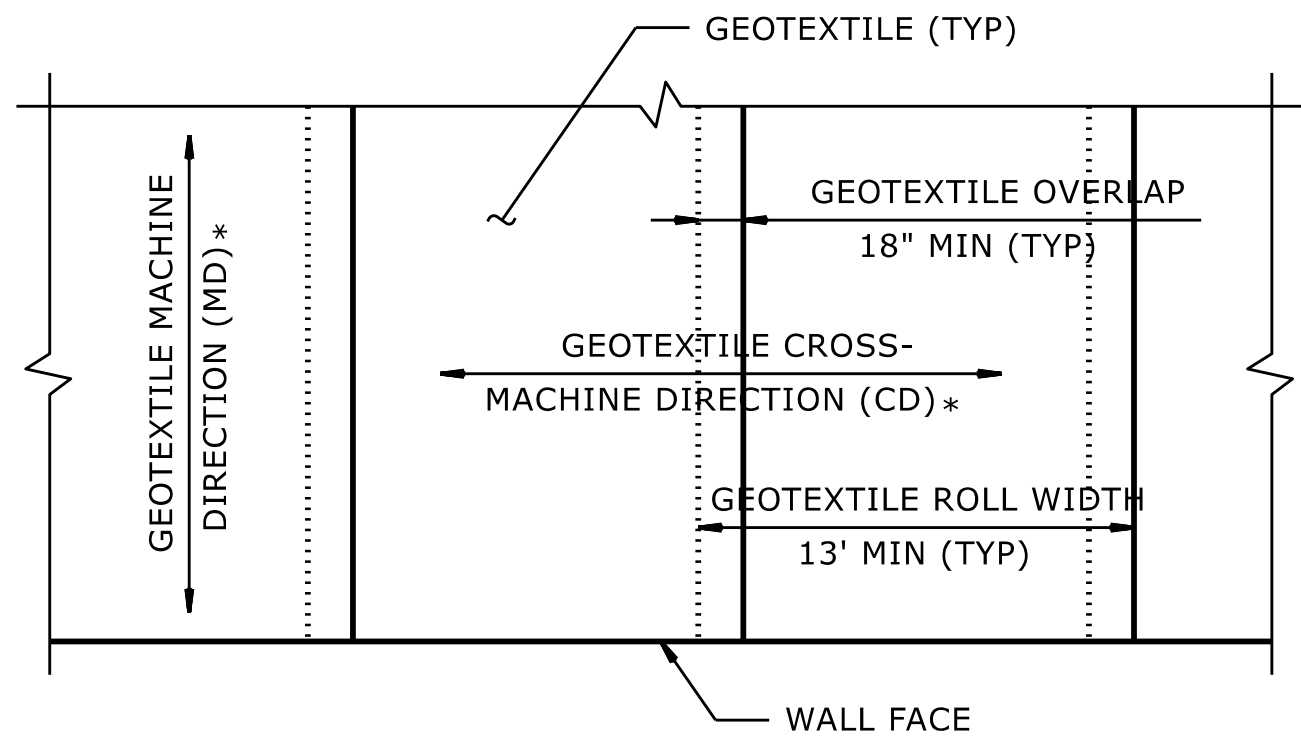
GEOTECHNICAL STANDARD DETAIL FOR
TEMPORARY SHORING



STANDARD TEMPORARY WALL - PARTIAL ELEVATION

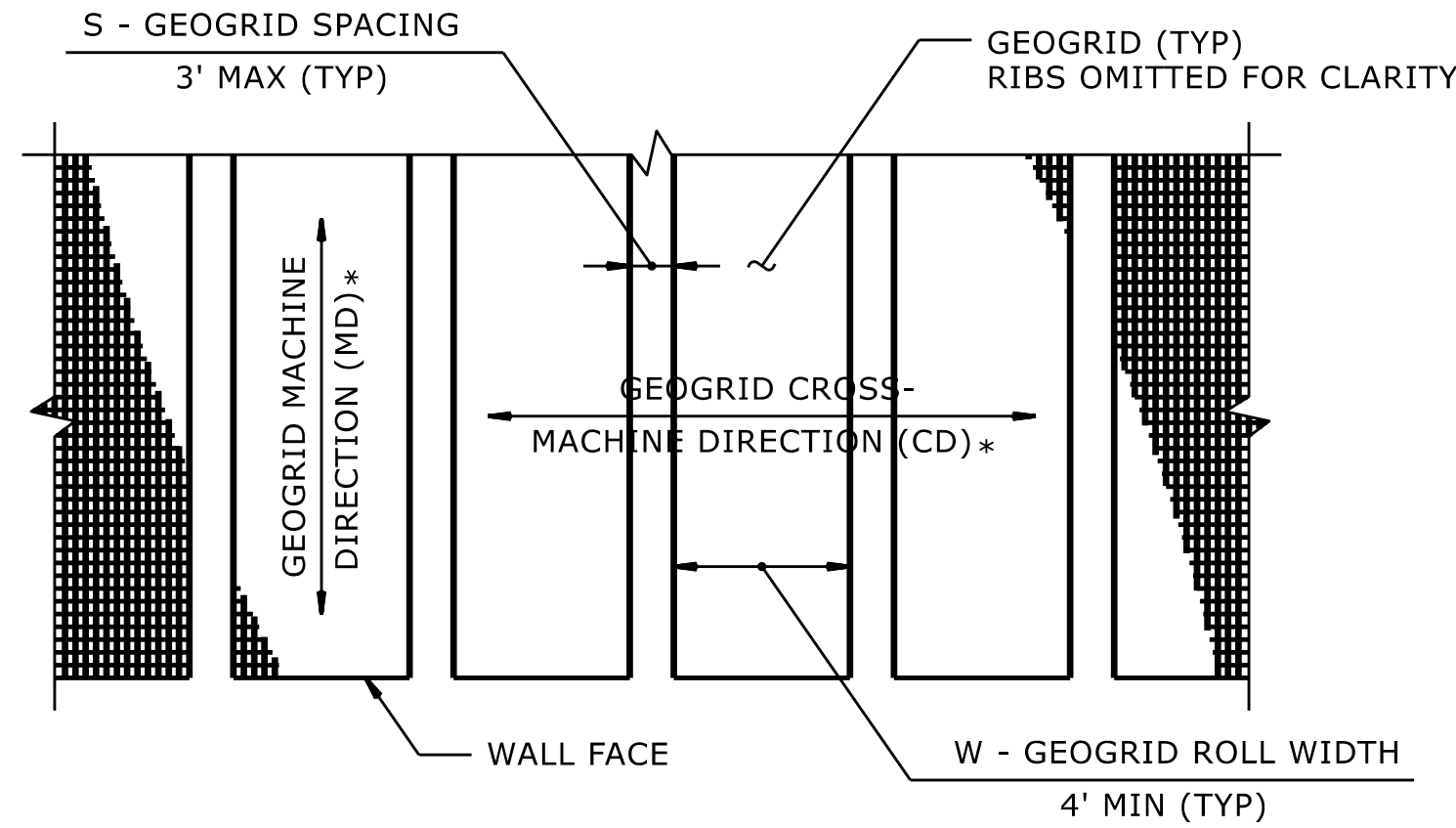
*SEE GEOSYNTHETIC PLACEMENT DETAILS ON SHEET 2.
**SEE REINFORCEMENT TABLES ON SHEET 3.

GEOTECHNICAL STANDARD DETAIL FOR
TEMPORARY WALL (SHEET 1 OF 3)



GEOTEXTILE PLACEMENT

(100% COVERAGE MIN FOR GEOTEXTILE REINFORCEMENT)

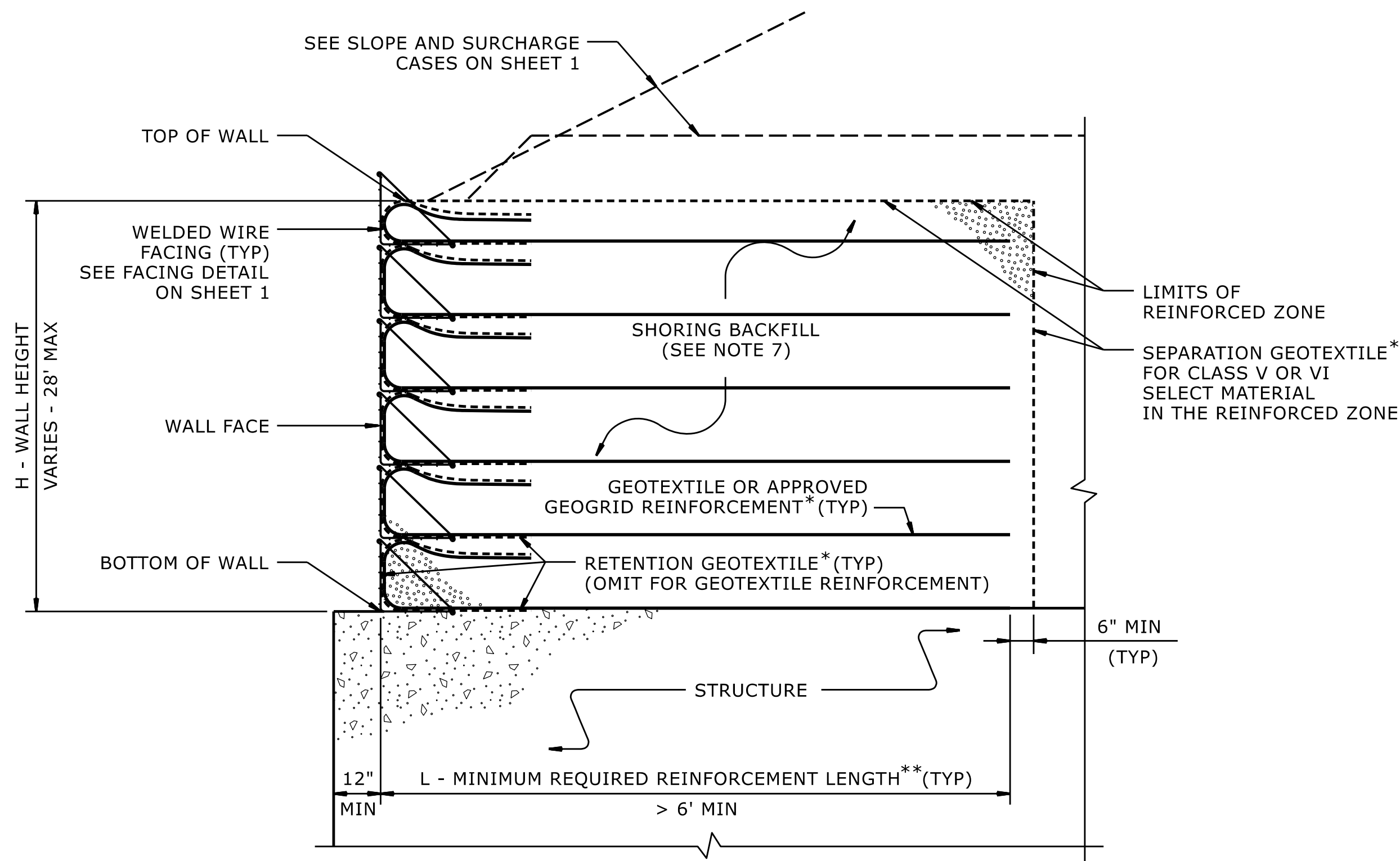


GEOGRID PLACEMENT

(80% COVERAGE MIN FOR GEOGRID REINFORCEMENT - $\frac{W}{W+S} \times 100 \geq 80\%$, SEE NOTE 11)

GEOSYNTHETIC PLACEMENT DETAILS

(PLAN VIEW)
*SEE NOTE 12.



TEMPORARY WALL ON STRUCTURE DETAIL

*SEE GEOSYNTHETIC PLACEMENT DETAILS.
**SEE REINFORCEMENT TABLES ON SHEET 3.

NOTES:

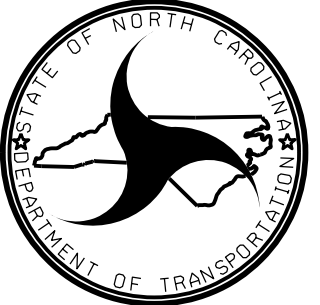
- AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY WALLS AS NOTED IN THE PLANS.
- FOR STANDARD TEMPORARY WALLS, SEE STANDARD SHORING PROVISION.
- STANDARD TEMPORARY WALLS ARE BASED ON THE FOLLOWING IN-SITU ASSUMED SOIL PARAMETERS:
UNIT WEIGHT, $\gamma = 120$ PCF
FRICTION ANGLE, $\phi = 30$ DEGREES
COHESION, $c = 0$ PSF
- DO NOT USE STANDARD TEMPORARY WALLS IF ASSUMED SOIL PARAMETERS ARE NOT APPLICABLE.
- DO NOT USE STANDARD TEMPORARY WALLS WHEN VERY LOOSE OR SOFT SOIL OR MUCK IS BELOW TEMPORARY WALLS.
- USE GROUNDWATER ELEVATION NOTED IN THE PLANS. IF NO GROUNDWATER ELEVATION IS SHOWN IN THE PLANS, ASSUME GROUNDWATER DEPTH IS LESS THAN 7' BELOW BOTTOM OF REINFORCED ZONE. DO NOT USE STANDARD TEMPORARY WALLS IF GROUNDWATER OR FLOOD ELEVATION IS ABOVE BOTTOM OF REINFORCED ZONE.
- DO NOT USE A-2-4 SOIL FOR STANDARD TEMPORARY WALLS AROUND CULVERTS OR IN THE REINFORCED ZONE OF STANDARD TEMPORARY WALLS FOR CLASS V SELECT MATERIAL IN THE REINFORCED ZONE OF STANDARD TEMPORARY WALLS WITH GEOTEXTILE REINFORCEMENT.
- WALL EMBEDMENT IS NOT REQUIRED FOR STANDARD TEMPORARY WALLS ON STRUCTURES OR ROCK AS DETERMINED BY THE ENGINEER.
- DO NOT USE MORE THAN 4 DIFFERENT REINFORCEMENT STRENGTHS FOR EACH STANDARD TEMPORARY WALL.
- GEOGRIDS FOR GEOGRID REINFORCEMENT ARE APPROVED FOR SHORT TERM DESIGN STRENGTHS (3-YEAR DESIGN LIFE) IN THE MD AND CD BASED ON MATERIAL TYPE. THE LIST OF APPROVED GEOGRIDS WITH DESIGN STRENGTHS IS AVAILABLE FROM: connect.ncdot.gov/resources/Geological/Pages/Products.aspx. DEFINE MATERIAL TYPE FROM THE WEBSITE ABOVE FOR SHORING BACKFILL AS FOLLOWS:

MATERIAL TYPE	SHORING BACKFILL
BORROW	A-2-4 SOIL
FINE AGGREGATE	CLASS II, TYPE 1 OR CLASS III SELECT MATERIAL
COARSE AGGREGATE	CLASS V OR VI SELECT MATERIAL
- FOR GEOGRID REINFORCEMENT WITH LESS THAN 100% COVERAGE, STAGGER REINFORCEMENT SO GEOGRIDS ARE CENTERED OVER GAPS IN THE REINFORCEMENT LAYER BELOW.
- AT THE CONTRACTOR'S OPTION, REINFORCEMENT MAY BE INSTALLED WITH THE MD PARALLEL TO THE WALL FACE IF BOTH OF THE FOLLOWING CONDITIONS OCCUR:
- W (REINFORCEMENT ROLL WIDTH) > (MINIMUM REQUIRED REINFORCEMENT LENGTH) + 4.5' AND
- REINFORCEMENT STRENGTH IN CD > MINIMUM REQUIRED REINFORCEMENT STRENGTH IN MD.
- SUBMIT A "STANDARD TEMPORARY WALL SELECTION FORM" AT LEAST 7 DAYS BEFORE STARTING TEMPORARY WALL CONSTRUCTION. STANDARD SHORING SELECTION FORMS ARE AVAILABLE FROM: connect.ncdot.gov/resources/Geological/Pages/Geotech_Forms_Details.aspx
- DO NOT PLACE SHORING BACKFILL OR REINFORCEMENT UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.
- FOR STANDARD TEMPORARY WALLS WITH PILE FOUNDATIONS IN THE REINFORCED ZONE, DRIVE PILES THROUGH REINFORCEMENT AFTER CONSTRUCTING TEMPORARY WALLS.
- DO NOT SPLICE OR OVERLAP REINFORCEMENT SO SEAMS ARE PARALLEL TO THE WALL FACE.
- CONTACT THE ENGINEER WHEN EXISTING OR FUTURE OBSTRUCTIONS SUCH AS FOUNDATIONS, PAVEMENTS, PIPES, INLETS OR UTILITIES WILL INTERFERE WITH REINFORCEMENT.
- FOR STANDARD TEMPORARY WALLS WITH INTERIOR ANGLES LESS THAN 90 DEGREES, WRAP GEOSYNTHETICS AT ACUTE CORNERS AS DIRECTED BY THE ENGINEER.
- FOR STANDARD TEMPORARY WALLS WITH TOP OF WALL WITHIN 5' OF FINISHED GRADE, REMOVE TOP FACING AND INCORPORATE TOP REINFORCEMENT LAYER INTO FILL WHEN PLACING FILL IN FRONT OF WALL.

BR-0140

2G-4 -

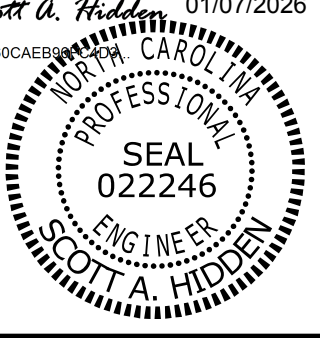
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GEOTECHNICAL
ENGINEER

Scott A. Hiddle
01/07/2026
F760CAEB



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STANDARD
DETAIL NO. 1801.02

SLOPE OR SURCHARGE CASE	GROUNDWATER DEPTH BELOW BOTTOM OF REINFORCED ZONE (SEE NOTE 6 ON SHEET 2) (FT)	SHORING BACKFILL TYPE IN THE REINFORCED ZONE (SEE NOTE 7 ON SHEET 2)	H - WALL HEIGHT (FT)																									
			< 4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
SLOPE CASE	> 0	CLASS II, TYPE 1, CLASS III, CLASS V OR CLASS VI SELECT MATERIAL	6	6	7	8	9	11	12	13	13	14	15	16	17	18	19	20	21	22	23	24	24	25	26	27	27	
SURCHARGE CASE	> 0 TO 7 FOR H < 20' > 0 TO 10 FOR H > 20'	ALL SHORING BACKFILL TYPES	6	7	7	8	8	9	9	10	11	11	12	12	13	14	14	15	16	17	17	18	19	19	20	21	22	
	> 7 FOR H < 20' > 10 FOR H > 20'	A-2-4 SOIL	6	6	7	8	8	9	9	10	11	11	12	12	13	14	14	15	16	16	17	18	18	19	20	20	21	
		CLASS II, TYPE 1 OR CLASS III SELECT MATERIAL	6	6	7	7	8	8	9	10	10	11	11	12	12	13	14	15	15	16	16	17	17	18	18	19	20	
		CLASS V OR CLASS VI SELECT MATERIAL	6	6	7	7	7	8	8	9	9	10	10	11	12	13	13	14	14	15	15	16	17	17	18	19	19	

L - MINIMUM REQUIRED REINFORCEMENT LENGTH (FT)
(FOR ALL REINFORCEMENT TYPES)

WALL HEIGHT (H) + WALL EMBEDMENT (FT)	NUMBER OF REINFORCEMENT LAYERS*
2.5 - 4	3
4 - 5.5	4
5.5 - 7	5
7 - 8.5	6
8.5 - 10	7
10 - 11.5	8
11.5 - 13	9
13 - 14.5	10
14.5 - 16	11
16 - 17.5	12
17.5 - 19	13
19 - 20.5	14
20.5 - 22	15
22 - 23.5	16
23.5 - 25	17
25 - 26.5	18
26.5 - 28	19
28 - 29.5	20

*BASED ON VERTICAL REINFORCEMENT SPACING SHOWN ON SHEET 1.

REINFORCEMENT LAYER NUMBER *	SHORING BACKFILL TYPE IN THE REINFORCED ZONE (SEE NOTE 7 ON SHEET 2)				
	SLOPE CASE		SURCHARGE CASE		
	CLASS II, TYPE 1 OR CLASS III SELECT MATERIAL	CLASS V SELECT MATERIAL	A-2-4 SOIL	CLASS II, TYPE 1 OR CLASS III SELECT MATERIAL	CLASS V SELECT MATERIAL
1	2400	2400	2400	2400	2400
2	2400	2400	2400	2400	2400
3	2400	2400	2400	2400	2400
4	2400	2400	2500	2400	2400
5	2500	2400	3000	2400	2400
6	3000	2400	3500	2800	2400
7	3500	2700	4000	3200	2600
8	4000	3100	4500	3600	2900
9	4500	3500	5000	4000	3200
10	5000	3900	5500	4400	3500
11	5500	4300	6000	4800	3800
12	6000	4700	6500	5200	4100
13	6500	5100	7000	5600	4400
14	7000	5400	7500	6000	4700
15	7500	5800	8000	6400	5000
16	8000	6200	8500	6800	5300
17	8500	6600	9000	7200	5600
18	9000	7000	9500	7600	5900
19	9500	7400	10000	8000	6200
20	10000	7800	10500	8400	6500

GEOTEXTILE REINFORCEMENT
ULTIMATE TENSILE STRENGTH (LB/FT)

MINIMUM REQUIRED REINFORCEMENT STRENGTH IN MD

(SEE NOTE 9 ON SHEET 2.)
*SEE PARTIAL ELEVATION ON SHEET 1 FOR REINFORCEMENT LAYER NUMBERING.

REINFORCEMENT LAYER NUMBER*	SHORING BACKFILL TYPE IN THE REINFORCED ZONE (SEE NOTE 7 ON SHEET 2)				
	SLOPE CASE		SURCHARGE CASE		
	CLASS II, TYPE 1 OR CLASS III SELECT MATERIAL	CLASS V OR CLASS VI SELECT MATERIAL	A-2-4 SOIL	CLASS II, TYPE 1 OR CLASS III SELECT MATERIAL	CLASS V OR CLASS VI SELECT MATERIAL
1	240	200	340	290	240
2	380	310	520	430	350
3	530	420	700	570	460
4	690	550	870	720	570
5	860	690	1050	860	680
6	1030	830	1220	1000	790
7	1200	970	1400	1150	900
8	1370	1110	1580	1290	1010
9	1550	1240	1750	1430	1120
10	1720	1380	1930	1580	1230
11	1890	1520	2100	1720	1340
12	2060	1660	2280	1860	1450
13	2240	1800	2450	2010	1560
14	2410	1940	2630	2150	1670
15	2580	2080	2800	2290	1780
16	2750	2220	2980	2440	1890
17	2930	2360	3160	2580	2000
18	3100	2500	3330	2720	2110
19	3270	2640	3510	2860	2220
20	3440	2780	3690	3000	2330

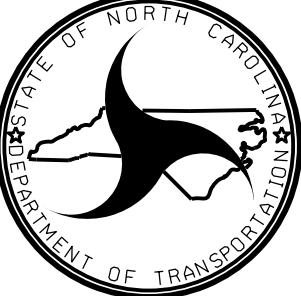
GEOGRID REINFORCEMENT
SHORT-TERM DESIGN STRENGTH (LB/FT)

(SEE NOTE 10 ON SHEET 2.)

BR-0140

2G-5- -

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION



GEOTECHNICAL ENGINEERING UNIT

GEOTECHNICAL ENGINEER

DocuSigned by:
Scott A. Hidden
11/07/2026



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STANDARD
DETAIL NO. 1801.02

GEOTECHNICAL STANDARD DETAIL FOR
TEMPORARY WALL (SHEET 3 OF 3)

SHOULDER BERM GUTTER SUMMARY

IN LINEAR FEET

SURVEY LINE	LOCATION	STATION	STATION	LENGTH (LF)
-L-	RT	30+62	38+17	755'
-L-	LT	32+55	38+54	599'
-L-	LT	41+22	46+50	528'
			TOTAL:	1882'
			SAY:	1890'

"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
NG = NON-GATING IMPACT ATTENUATOR

PAVEMENT REMOVAL SUMMARY

IN SQUARE YARDS

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	ASPHALT REMOVAL	ASPHALT BREAKUP	CONCRETE REMOVAL	CONCRETE BREAKUP
-L-	34+00.00	39+07.00	LT/RT	4429.56		4429.56	
-L-	40+18.00	52+89.00	LT/RT	4570.89		4570.89	
-PHASE2_MEDX-	28+76.91	38+89.05	LT/RT	2433.65			
-PHASE3_MEDX	29+63.69	32+73.45	LT/RT	480.78			
			TOTAL:	11914.88		9000.45	
			SAY:	11920		9010	

VARIABLE HEIGHT CONCRETE BARRIER, TYPE III

SURVEY LINE	LOCATION	STATION	STATION	LENGTH (LF)
-L-	CL	30+48.21	37+25.90	678'
-L-	CL	42+14.01	49+66.59	753'
			TOTAL:	1430.30'
			SAY:	1440'

GUARDRAIL SUMMARY

[illegible]

TEMPORARY GUARDRAIL SUMMARY

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		RE-LAPPING OF EXISTING GUARDRAIL (LF)	REMOVE EXISTING GUARDRAIL (LF)	REMARKS
				STRAIGHT (LF)	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	TYPE III	B-77	GREU TL-2	GREU TL-3	CAT-1	MOD B-77	THRIE BEAM GUARDRAIL	G	NG			
-L-	30+11.00	30+11.00	LT																							SEE SHEET TMP-4
-L-	30+11.00	30+11.00	RT																							SEE SHEET TMP-4
-L-	36+30.00	36+30.00	LT																							SEE SHEET TMP-4
-L-	36+30.00	36+30.00	RT																							SEE SHEET TMP-4
-L-	30+11.00	30+11.00	LT																							SEE SHEET TMP-6
-L-	30+11.00	30+11.00	RT																							SEE SHEET TMP-6
-L-	37+75.81	38+87.48	RT																							SEE SHEET TMP-6
-L-	40+29.50	46+50.00	RT																							SEE SHEET TMP-6 THRU TMP-7
-L-	38+53.35	38+87.48	RT																							SEE SHEET TMP-9
-L-	40+29.50	46+50.00	RT																							SEE SHEET TMP-9 THRU TMP-10
-L-	46+50.00	46+50.00	RT																							SEE SHEET TMP-13
																				TOTAL						
																				SAY =						

SUMMARY OF EARTHWORK
(IN CUBIC YARDS)

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT +/-%	BORROW	WASTE
PHASE I					
-PHASE 2_MEDX- 29+73.98 TO 38+89.05	429				429
SUBTOTAL	429				429
PHASE II					
-L- LT 30+62.00 TO 38+64.27	54		2,891	2,837	
-L- LT 40+83.77 TO 50+70.00	159		4,036	3,877	
-L- MED 35+50.00 TO 40+00.00			973	973	
-L- MED 40+00.00 TO 46+50.00	5		1,970	1,965	
SUBTOTAL	218		9,870	9,652	
PHASE II-A					
-PHASE 3_MEDX- 10+12.26 TO 14+89.10	86		102	16	
-PHASE 3_MEDX- 26+48.11 TO 32+73.45	173		12		161
SUBTOTAL	259		114	16	161
PHASE III					
-L- RT 30+62.00 TO 38+55.16	121		821	700	
-L- RT 40+74.66 TO 52+88.75	1,345		4,206	2,861	
SUBTOTAL	1,466		5,027	3,561	
PHASE IV					
-L- MED 30+62.00 TO 35+50.00	82		724	642	
-L- MED 46+50.00 TO 50+70.00	186		24		162
SUBTOTAL	268		748	642	162
TOTAL	2,640		15,759	13,871	752
MATERIAL FOR SHOULDER CONSTRUCTION			576	576	
LOSS DUE TO CLEARING & GRUBBING	-700			700	
WASTE IN LIEU OF BORROW					
PROJECT TOTAL	1,940		16,335	15,147	752
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				757	
GRAND TOTAL	1,940		16,335	15,904	752
SAY	2,000			16,000	

EST. SHALLOW UNDERCUT = 100 CY
CLASS IV SUBGRADE STABILIZATION = 200 TONS
PER GEOTECH RECOMMENDATION, ESTIMATED 425 CUBIC YARDS OF UNDER CUT TO BE USED IN THE DISCRETION
OF THE RESIDENT ENGINEER
DDE = 10 CY

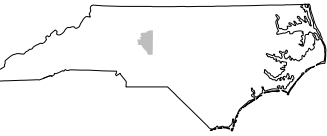
EARTHWORK QUANTITIES ARE CALCULATED BY THE ENGINEER.
THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA
PROVIDED BY THE GEOTECHNICAL ENGINEERING UNIT.

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

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DAVIDSON COUNTY

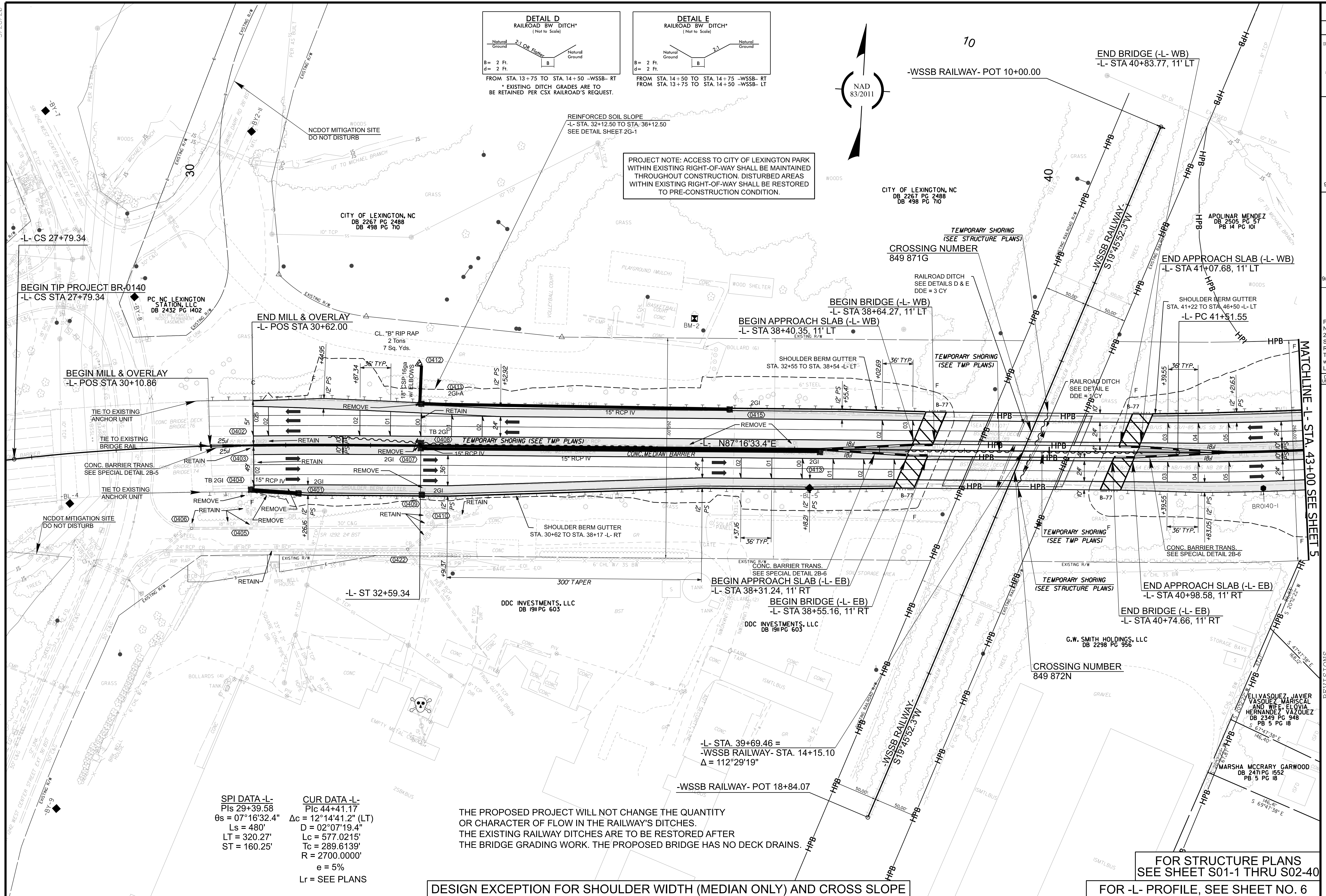


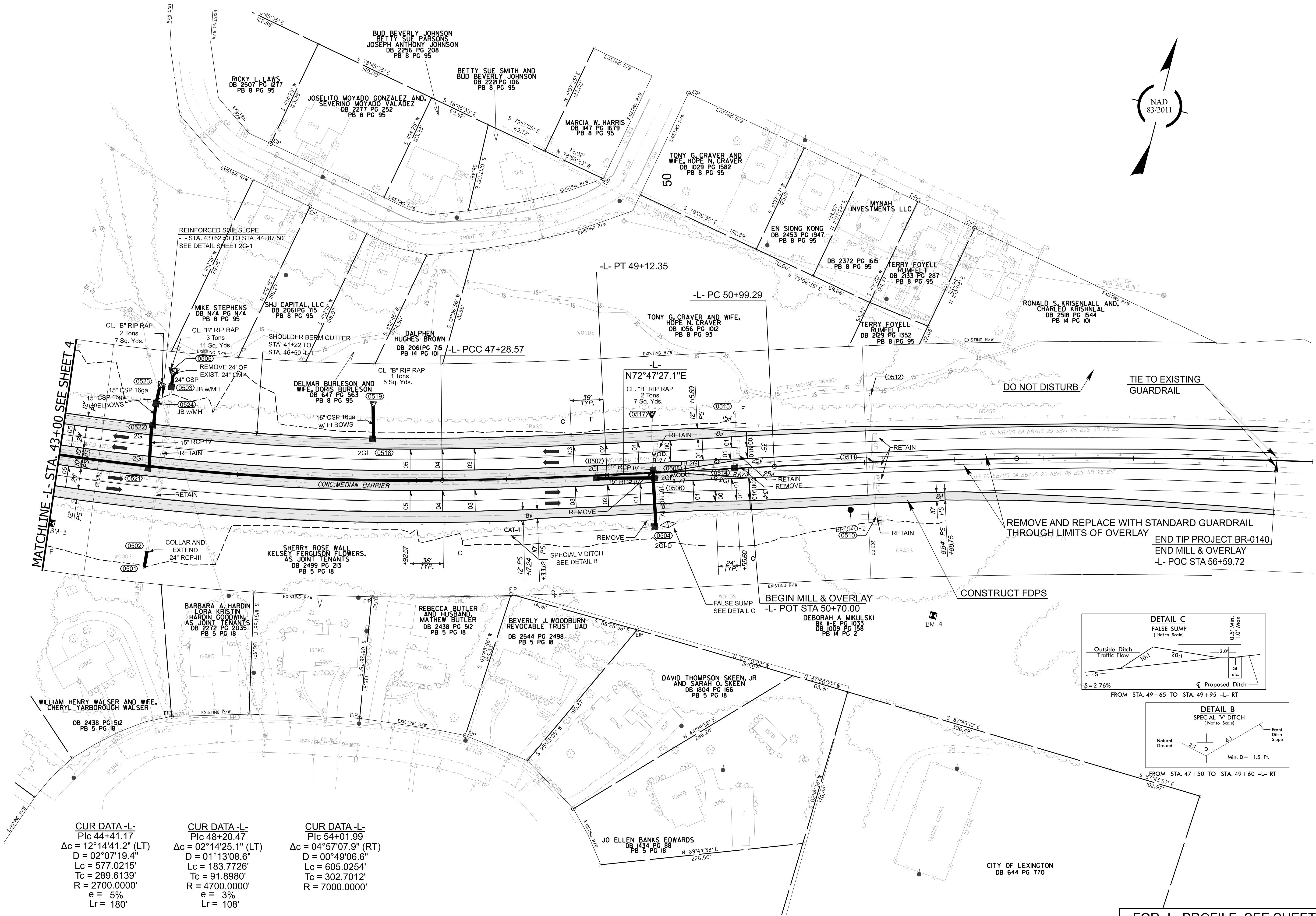
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PROJECT TOTALS





FOR -L- PROFILE, SEE SHEET NO. 7

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ROADWAY DESIGN
ENGINEER

SEAL
038827
Professional Engineer
Davidson County, NC

9/17/2026

HYDRAULICS
ENGINEER

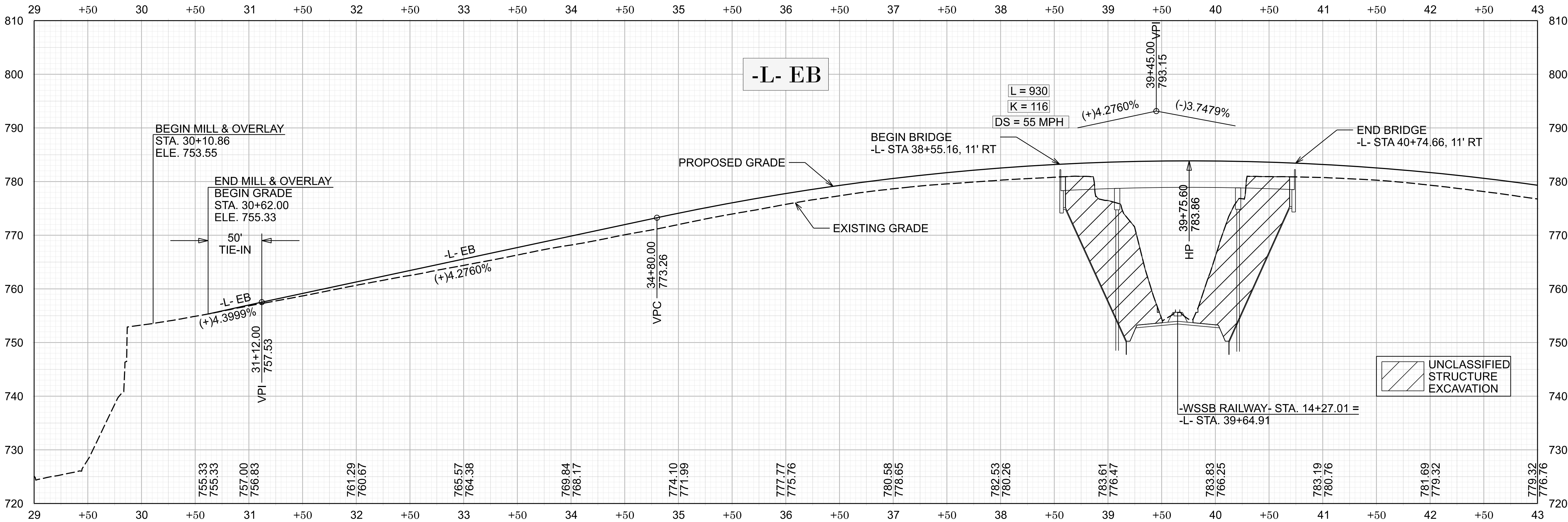
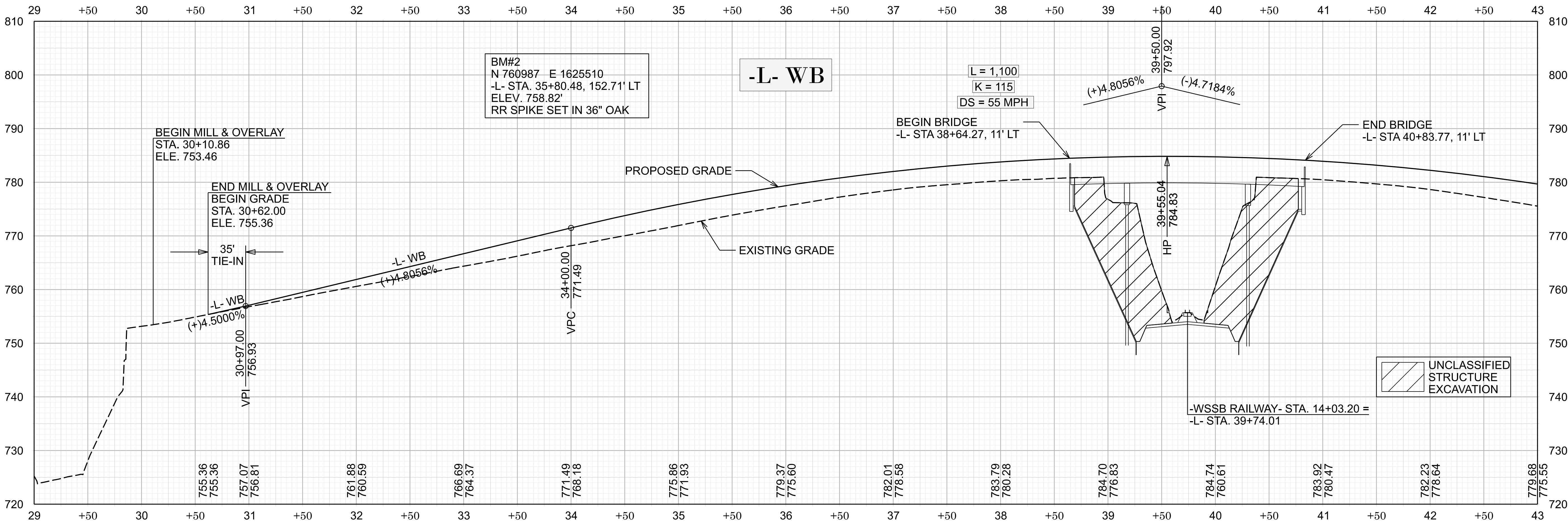
SEAL
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Professional Engineer
Davidson County, NC

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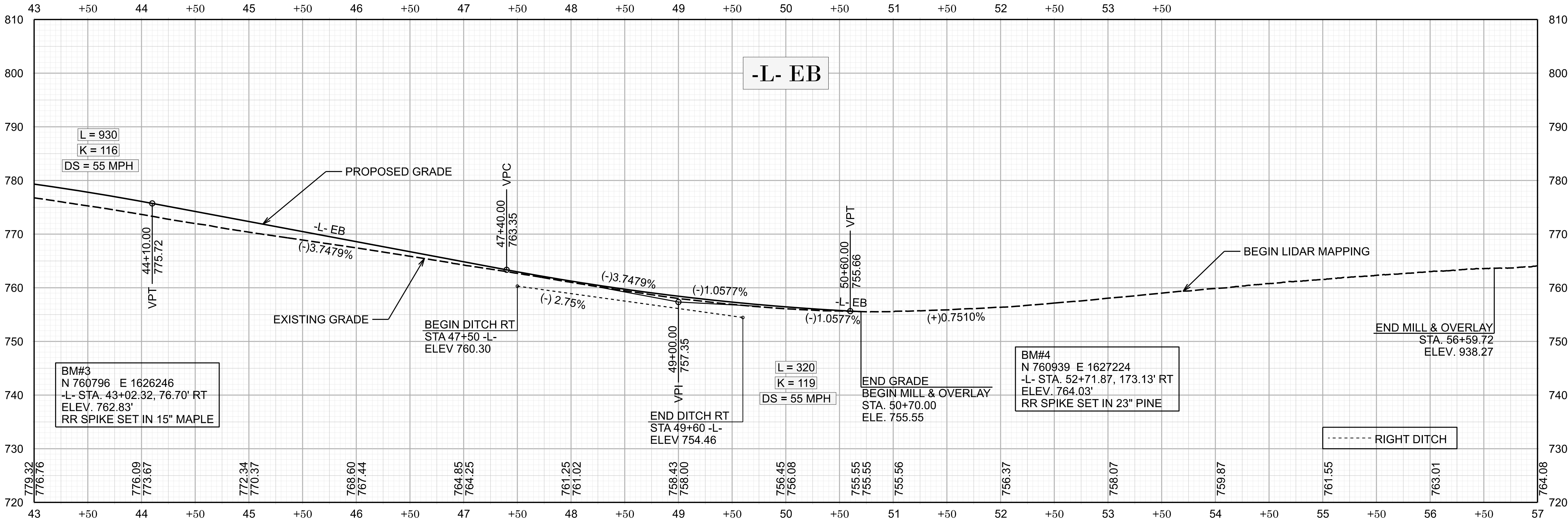
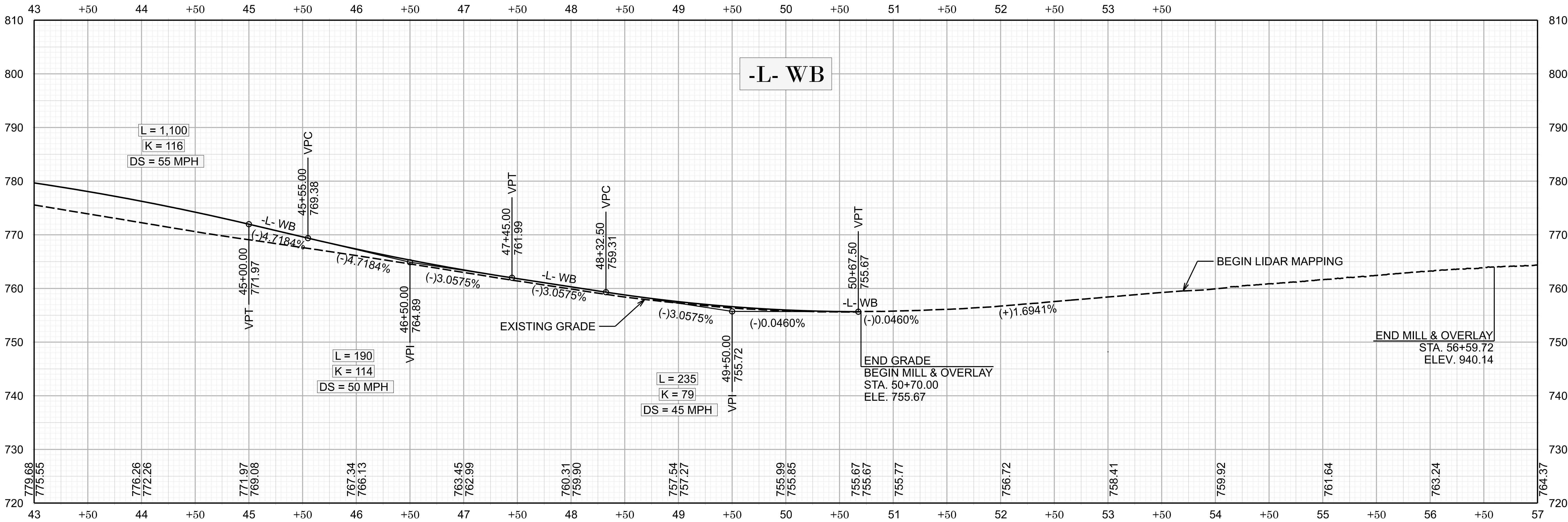
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