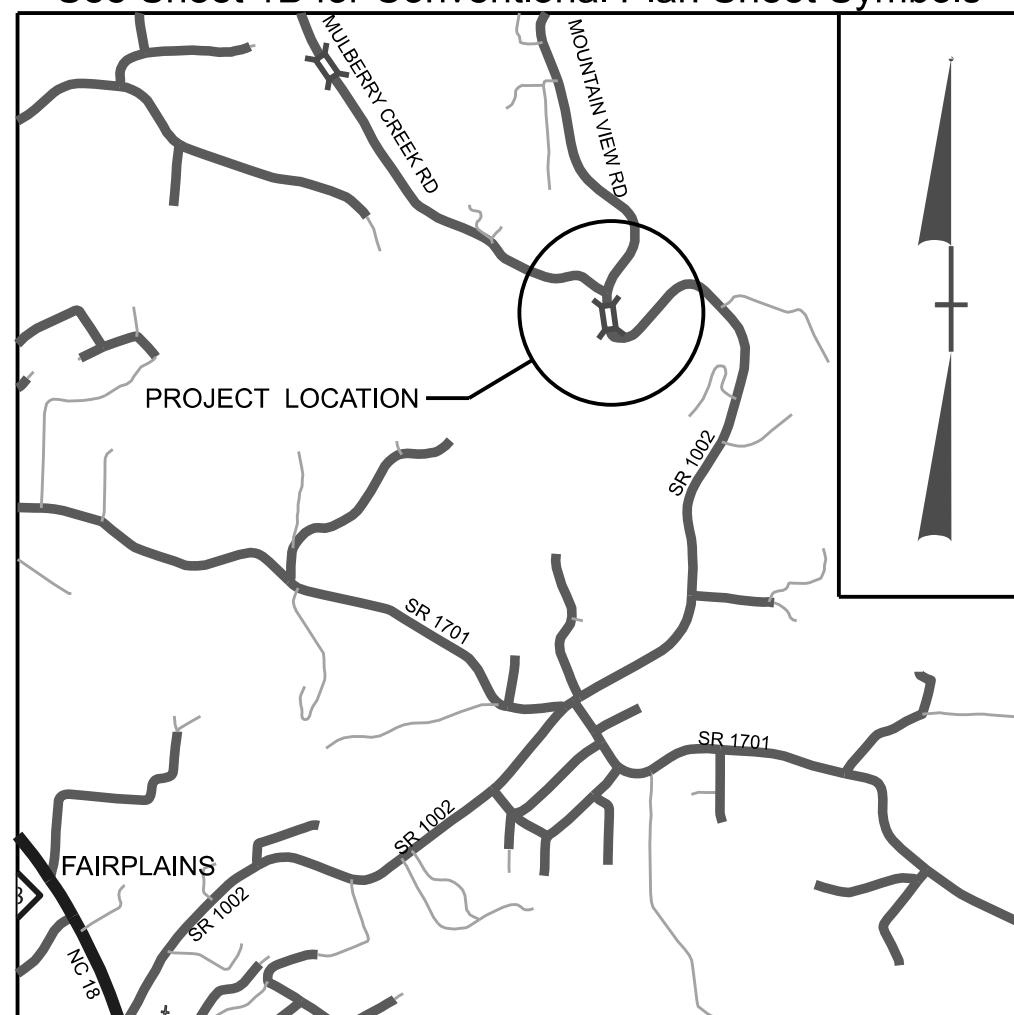


PROJECT: 17BP.11.R.163

CONTRACT: DK00347

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

## WILKES COUNTY

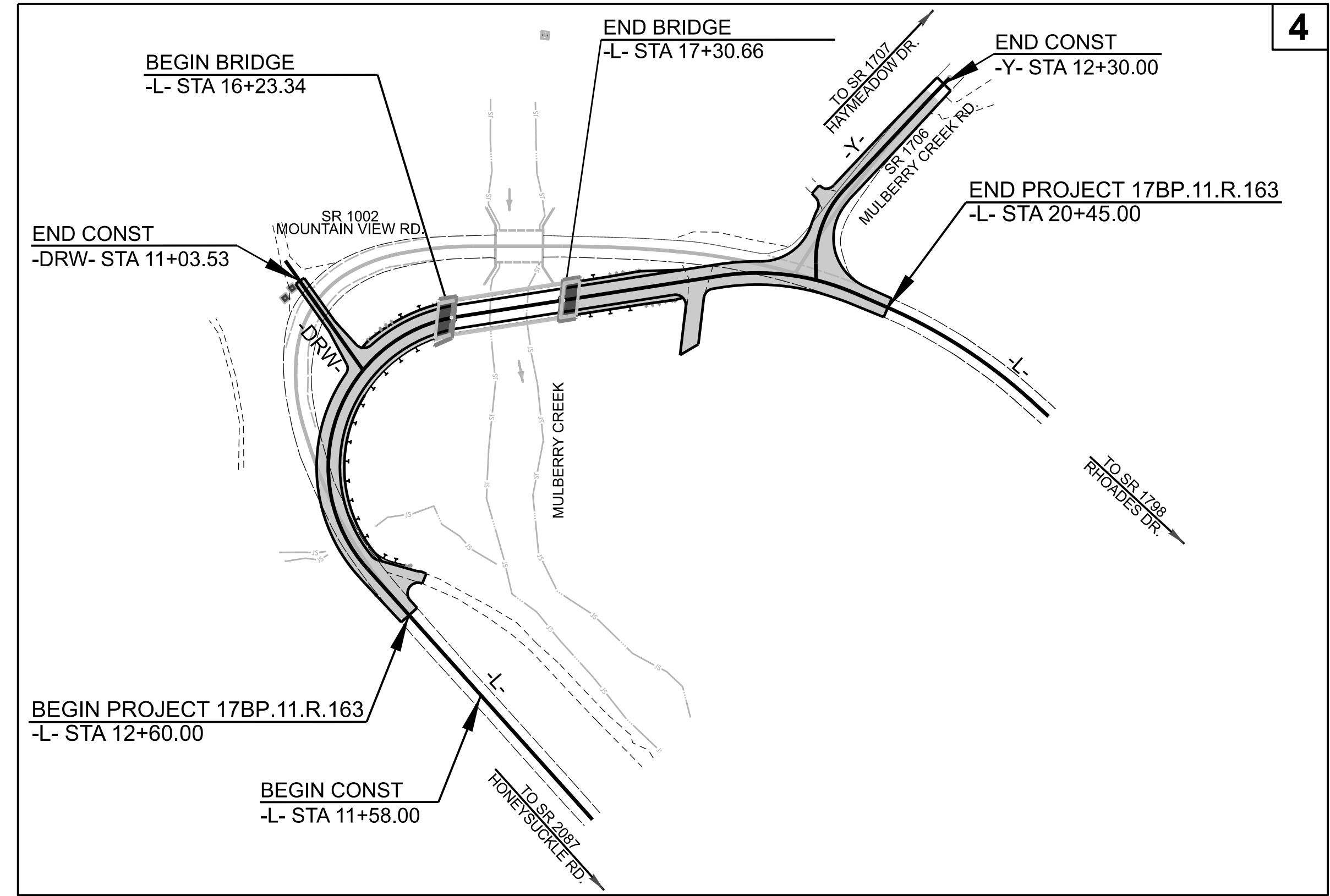
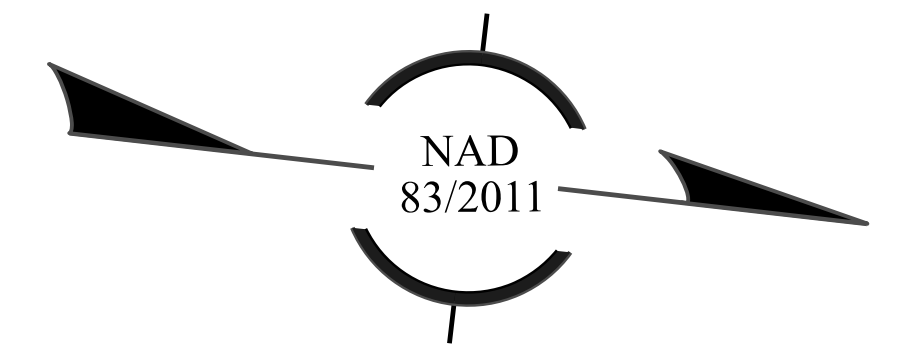
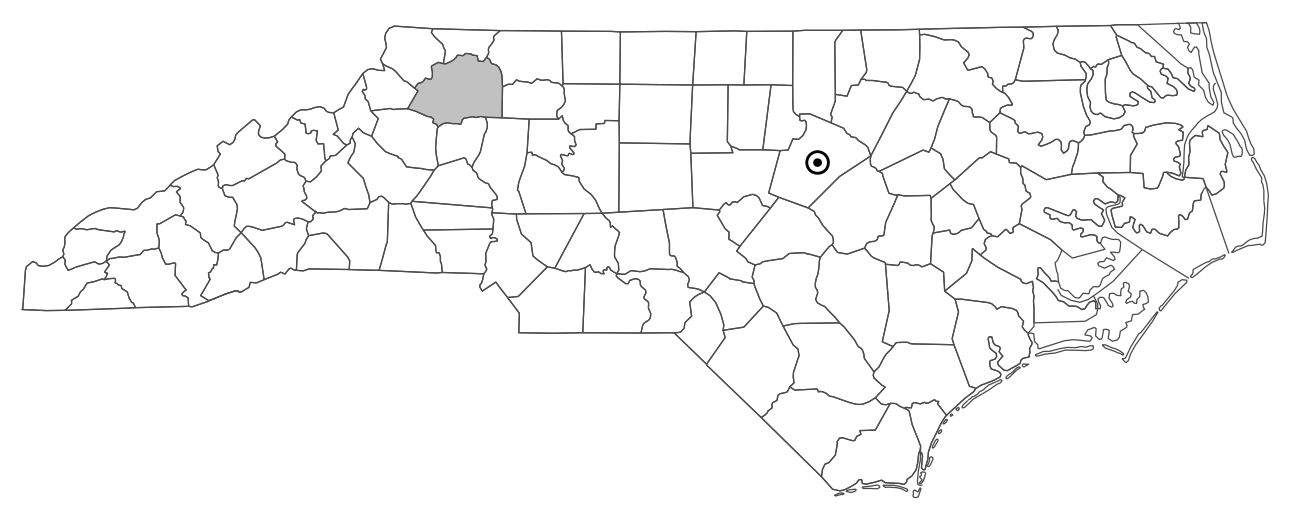
LOCATION: *BRIDGE NO. 960136 ON SR 1002 (MOUNTAIN VIEW RD) OVER MULBERRY CREEK*

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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.11.R.163	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
17BP.11.PE.163	N/A	PE	
17BP.11.ROW.163	N/A	RW, UTILITIES	
17BP.11.R.163	N/A	CONSTRUCTION	

STAGE 4 PLANS  
(4RD) FINAL PLANS

Plans Developed with  
OpenRoads



**\*\* DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED  
THIS IS NOT A CONTROL OF ACCESS PROJECT.**

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

<p><b>GRAPHIC SCALES</b></p>	<p><b>DESIGN DATA</b></p> <p>ADT 2025 = 2,900 ADT 2045 = -</p> <p>K = N/A % D = N/A % T = 7 % * V = 25 MPH**</p> <p>* TTST = 3.5% DUAL = 3.5% FUNC CLASS = RURAL LOCAL SUB-REGIONAL TIER</p>	<p style="text-align: center;"><b>PROJECT LENGTH</b></p> <p>LENGTH OF ROADWAY PROJECT 17BP.11.R.163 = 0.129 MILES LENGTH OF STRUCTURES PROJECT 17BP.11.R.163 = 0.020 MILES TOTAL LENGTH PROJECT 17BP.11.R.163 = 0.149 MILES</p>	<p>NCDOT Contact: <b>ROB N. WEISZ, P.E.</b></p> <p>Prepared in the Office of: <b>KCA</b> <small>KSINGER CAMPO &amp; ASSOCIATES</small></p> <p>NC FIRM LICENSE No: C-1506 301 Fayetteville St., Suite 1500 Raleigh, NC 27601 (919) 882-7839</p> <hr/> <p><b>2024 STANDARD SPECIFICATIONS</b></p> <p><b>RIGHT OF WAY DATE:</b> 12/16/2022</p> <p><b>LETTING DATE:</b> 02/20/2025</p>	<p><b>HYDRAULICS ENGINEER</b></p> <p>12/19/2024</p> <p>Signed by: <u>Erik P. Radland</u> P.E. SIGNATURE:</p> <p><b>ROADWAY DESIGN ENGINEER</b></p> <p>12/19/2024</p> <p>Signed by: <u>Jacob Duke</u> P.E. SIGNATURE:</p>	
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INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1 THRU 2A-2	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2C-1	SPECIAL DETAILS
3B-1	ROADWAY SUMMARIES
3D-1	DRAINAGE SUMMARIES
3G-1	GEOTECHNICAL SUMMARIES
4	PLAN SHEET
5	PROFILE SHEET
RW-1 THRU RW-4	SURVEY CONTROL SHEETS
TMP-1 THRU TMP-9	TRAFFIC MANAGEMENT PLANS
PMP-1	PAVEMENT MARKING PLANS
EC-1 THRU EC-6	EROSION CONTROL PLANS
UC-1 THRU UC-5	UTILITIES CONSTRUCTION PLANS
UO-1 THRU UO-2	UTILITIES BY OTHERS PLANS
X-1 THRU X-12	CROSS-SECTIONS
S-1 THRU S-20	STRUCTURE PLANS

EFF. 01-16-2024  
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
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
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 8 - INCIDENTALS	
815.02	Subsurface Drain
838.01	Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.29	Frames and Narrow Slot Flat Grates
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.46	Traffic Bearing Precast Drainage Structure
846.01	Concrete Curb, Gutter and Curb & Gutter
846.04	Drop Inlet Installation in Shoulder Berm Gutter
862.01	Guardrail Placement
862.02	Guardrail Installation
862.03	Structure Anchor Units
876.01	Rip Rap in Channels and Ditches
876.02	Guide for Rip Rap at Pipe Outlets

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:

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS. 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.

SUBSURFACE PLANS:

ONLY STRUCTURES SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

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

BLUE RIDGE WATER ASSOCIATION

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

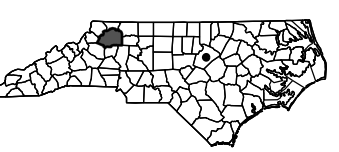
RIGHT-OF-WAY MARKERS:

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

17BP.11.R.163

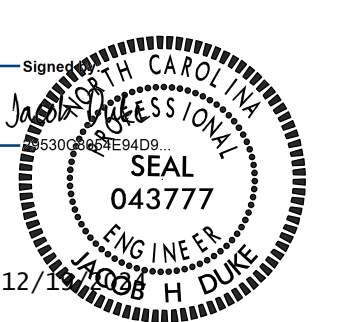
4RD1 IA

NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
WILKES COUNTY

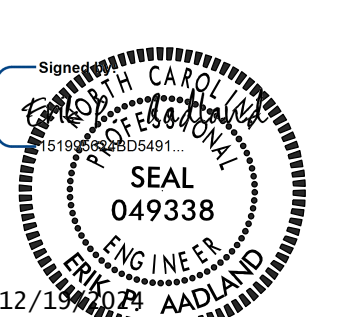


HIGHWAY DIVISION 11

ROADWAY DESIGN  
ENGINEER



HYDRAULICS  
ENGINEER



PREPARED BY

**KCA**  
KISINGER CAMPO  
& ASSOCIATES  
NC FIRM LICENSE No: C-1506  
301 Fayetteville Street,  
Suite 1500  
Raleigh, NC 27601  
(919) 862-7839

REVISIONS

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

Note: Not to Scale

### BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin (EIP)	----- ○ EIP
Computed Property Corner	----- X
Existing Concrete Monument (ECM)	----- □ ECM
Parcel / Sequence Number	----- (23)
Existing Fence Line	----- -x-x-x-
Proposed Woven Wire Fence	----- ○
Proposed Chain Link Fence	----- □
Proposed Barbed Wire Fence	----- ◇
Existing Wetland Boundary	----- -MLB-
Proposed Wetland Boundary	----- MLB
Existing Endangered Animal Boundary	----- -EAB-
Existing Endangered Plant Boundary	----- -EPB-
Existing Historic Property Boundary	----- -HPB-

Known Contamination Area: Soil	----- -s-s-
Potential Contamination Area: Soil	----- -s-s-
Known Contamination Area: Water	----- -w-w-
Potential Contamination Area: Water	----- -w-w-
Contaminated Site: Known or Potential	----- ☠ ☡

### BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	----- ○
Sign	----- ○
Well	----- ♀
Small Mine	----- X
Foundation	----- □
Area Outline	----- □
Cemetery	----- □ †
Building	----- □
School	----- □
Church	----- □
Dam	----- ▬

### HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	----- □
Jurisdictional Stream	----- JS
Buffer Zone 1	----- BZ 1
Buffer Zone 2	----- BZ 2
Flow Arrow	----- ←
Disappearing Stream	----- >
Spring	----- ○
Wetland	----- ↓
Proposed Lateral, Tail, Head Ditch	----- ▬
False Sump	----- ▽

### RAILROADS:

Standard Gauge	-----
RR Signal Milepost	----- ○ 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	----- (C/A)
Proposed Control of Access Line	----- (C/A)
Proposed ROW and CA Line	----- ▬
Existing Easement Line	----- E
Proposed Temporary Construction Easement	----- E
Proposed Temporary Drainage Easement	----- TDE
Proposed Permanent Drainage Easement	----- PDE
Proposed Permanent Drainage/Utility Easement	----- DUE
Proposed Permanent Utility Easement	----- PUE
Proposed Temporary Utility Easement	----- TUE
Proposed Aerial Utility Easement	----- AUE

### ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	----- C
Proposed Slope Stakes Fill	----- F
Proposed Curb Ramp	----- CR
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	----- CONC
Bridge Wing Wall, Head Wall and End Wall	----- ) CONC WW (
MINOR:	
Head and End Wall	----- CONC HW
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	----- □ CB
Paved Ditch Gutter	-----
Storm Sewer Manhole	----- ⊙
Storm Sewer	----- s

### 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)*	----- P
U/G Power Line (SUE - LOS C)*	----- P
U/G Power Line (SUE - LOS D)*	----- P

### 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)*	----- T
U/G Telephone Cable (SUE - LOS C)*	----- T
U/G Telephone Cable (SUE - LOS D)*	----- T
U/G Telephone Conduit (SUE - LOS B)*	----- TC
U/G Telephone Conduit (SUE - LOS C)*	----- TC
U/G Telephone Conduit (SUE - LOS D)*	----- TC
U/G Fiber Optics Cable (SUE - LOS B)*	----- T FO
U/G Fiber Optics Cable (SUE - LOS C)*	----- T FO
U/G Fiber Optics Cable (SUE - LOS D)*	----- T FO

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)*	----- 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

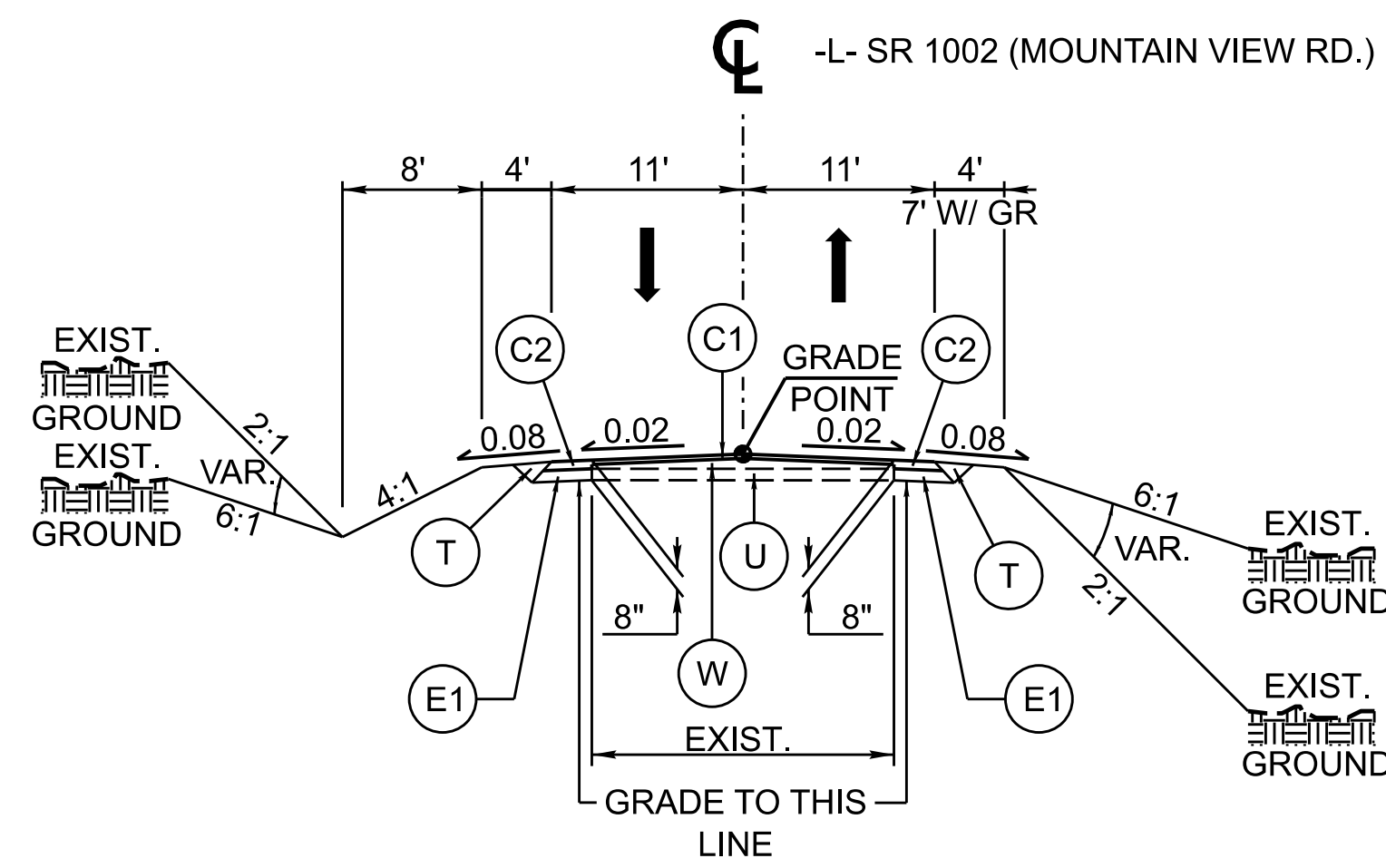
SANITARY SEWER:	
Sanitary Sewer Manhole	----- ⊙
Sanitary Sewer Cleanout	----- ⊕
U/G Sanitary Sewer Line	----- SS
Above Ground Sanitary Sewer	----- A/G Sanitary Sewer
SS Force Main Line Test Hole (SUE - LOS A)*	----- ⊙
SS Force Main Line (SUE - LOS B)*	----- FSS
SS Force Main Line (SUE - LOS C)*	----- 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)*	----- TUL
U/G Tank; Water, Gas, Oil	----- □
Underground Storage Tank, Approx. Loc.	----- UST
A/G Tank; Water, Gas, Oil	----- □
Geoenvironmental Boring	----- ⊕
Abandoned According to Utility Records	----- AATUR
End of Information	----- E.O.I.



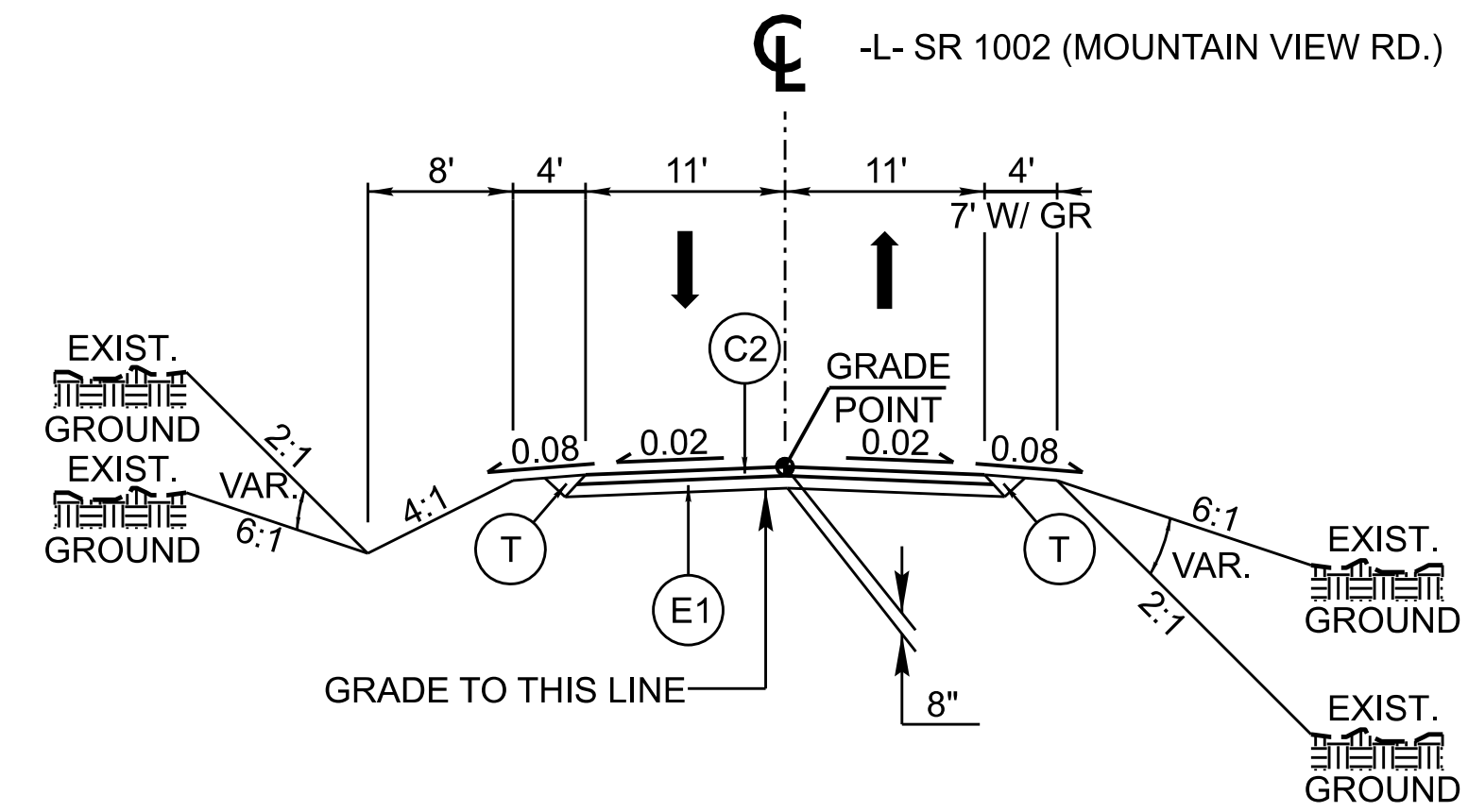
PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF THE TWO LAYERS.
C3	PROP. VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110.0 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 1" OR TO EXCEED 1.5" IN DEPTH.
E1	PROP. APPROX. 5.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS PER SQ. YD.
E2	PROP. VARIABLE DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114.0 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. APPROX. 8" AGGREGATE BASE COURSE.
R1	SHOULDER BERM GUTTER
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	VARIABLE MILLING BITUMINOUS PAVEMENT (SEE MILLING DETAIL)
V1	1.5" MILLING BITUMINOUS PAVEMENT (SEE MILLING DETAIL)
W	WEDGING (SEE WEDGING DETAIL).

NOTE: PAVEMENT EDGE SLOPES AND TRENCH SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



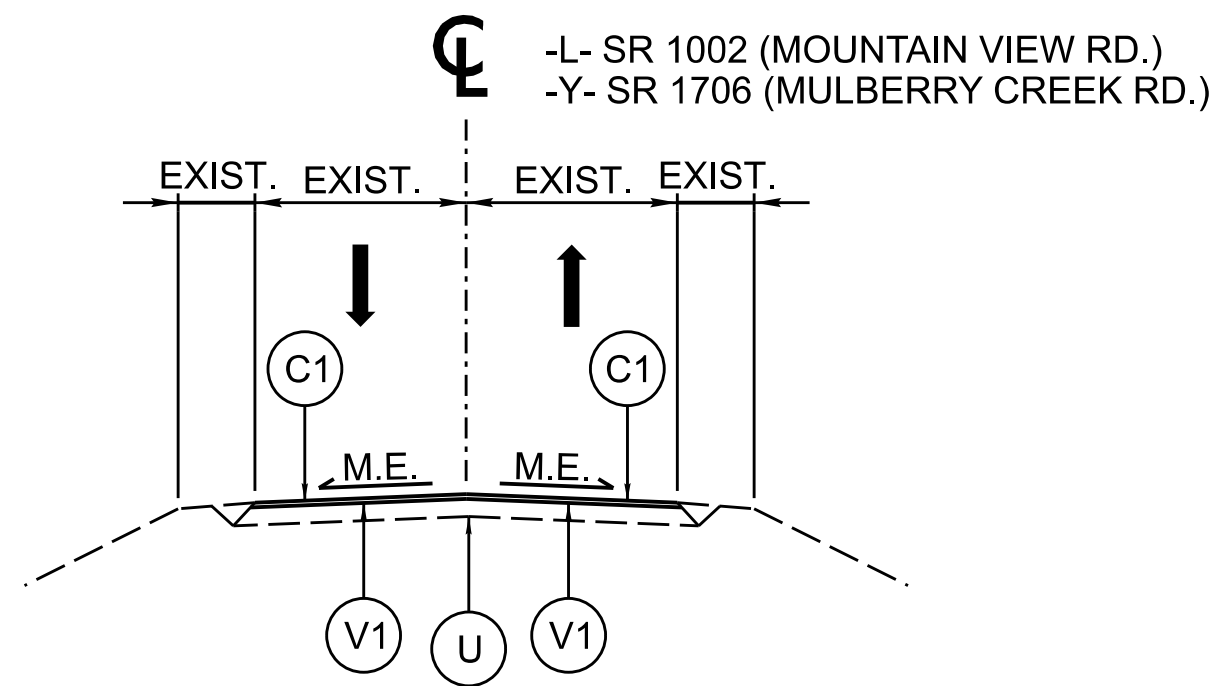
TYPICAL SECTION NO. 1

-L- STA. 12+60.00 TO STA. 14+00.00  
-L- STA. 19+25.00 TO STA. 20+32.82



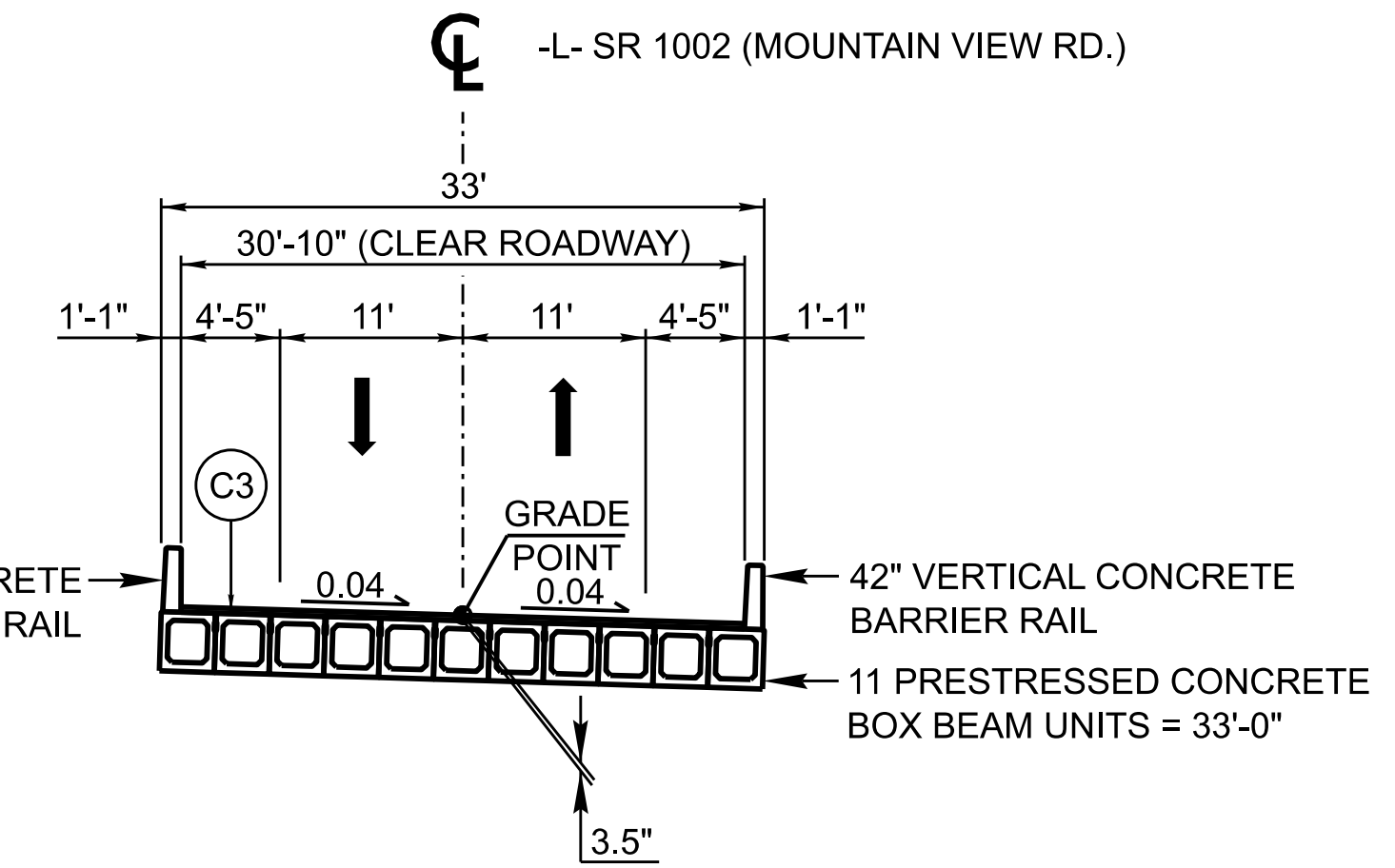
TYPICAL SECTION NO. 2

-L- STA. 14+00.00 TO STA. 16+23.34 (BEGIN BRIDGE)  
-L- STA. 17+30.66 (END BRIDGE) TO STA. 19+25.00



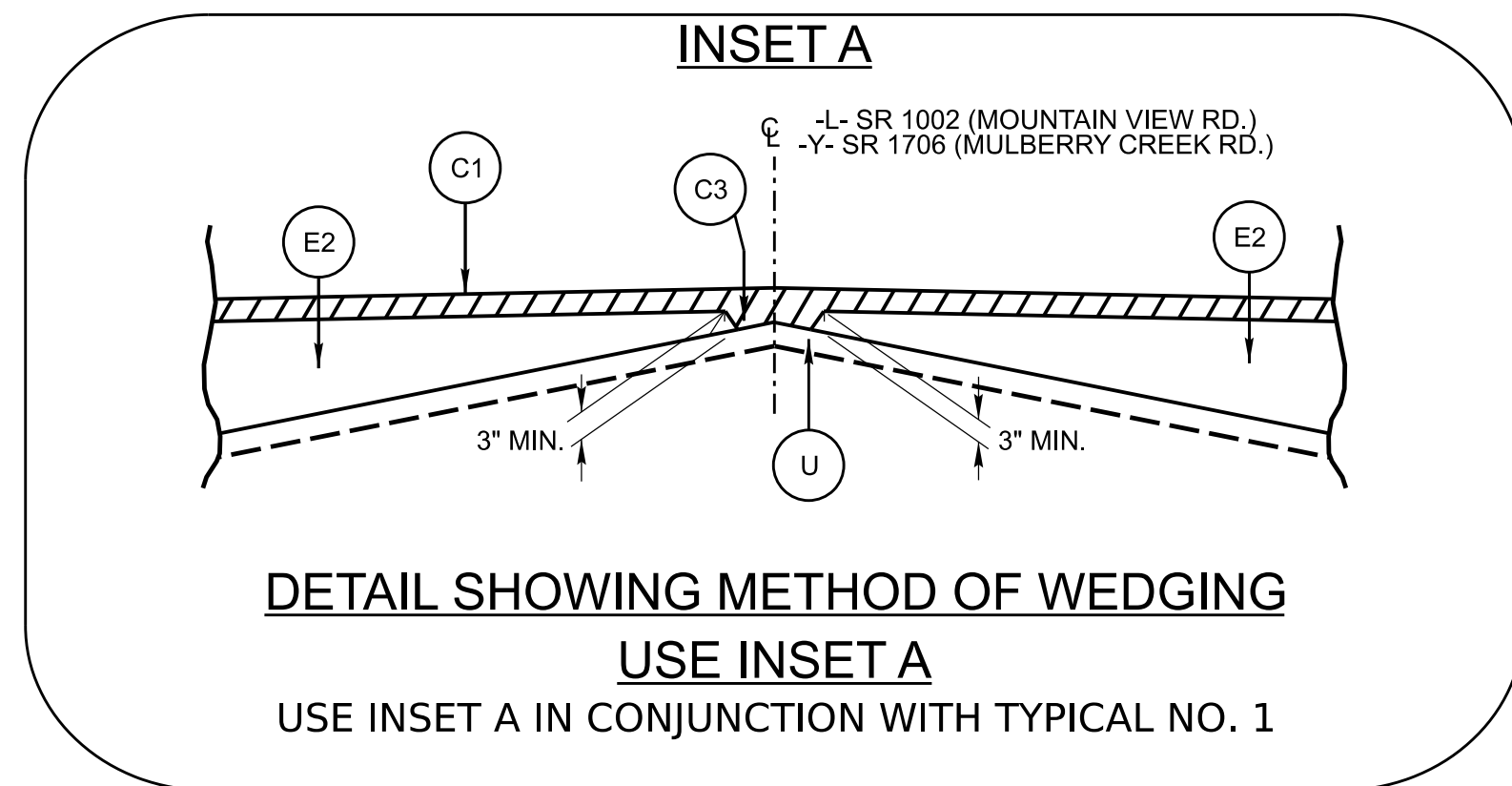
TYPICAL SECTION NO. 3

-L- STA. 20+32.82 TO STA. 20+45.00  
-Y- STA. 12+07.75 TO STA. 12+30.00

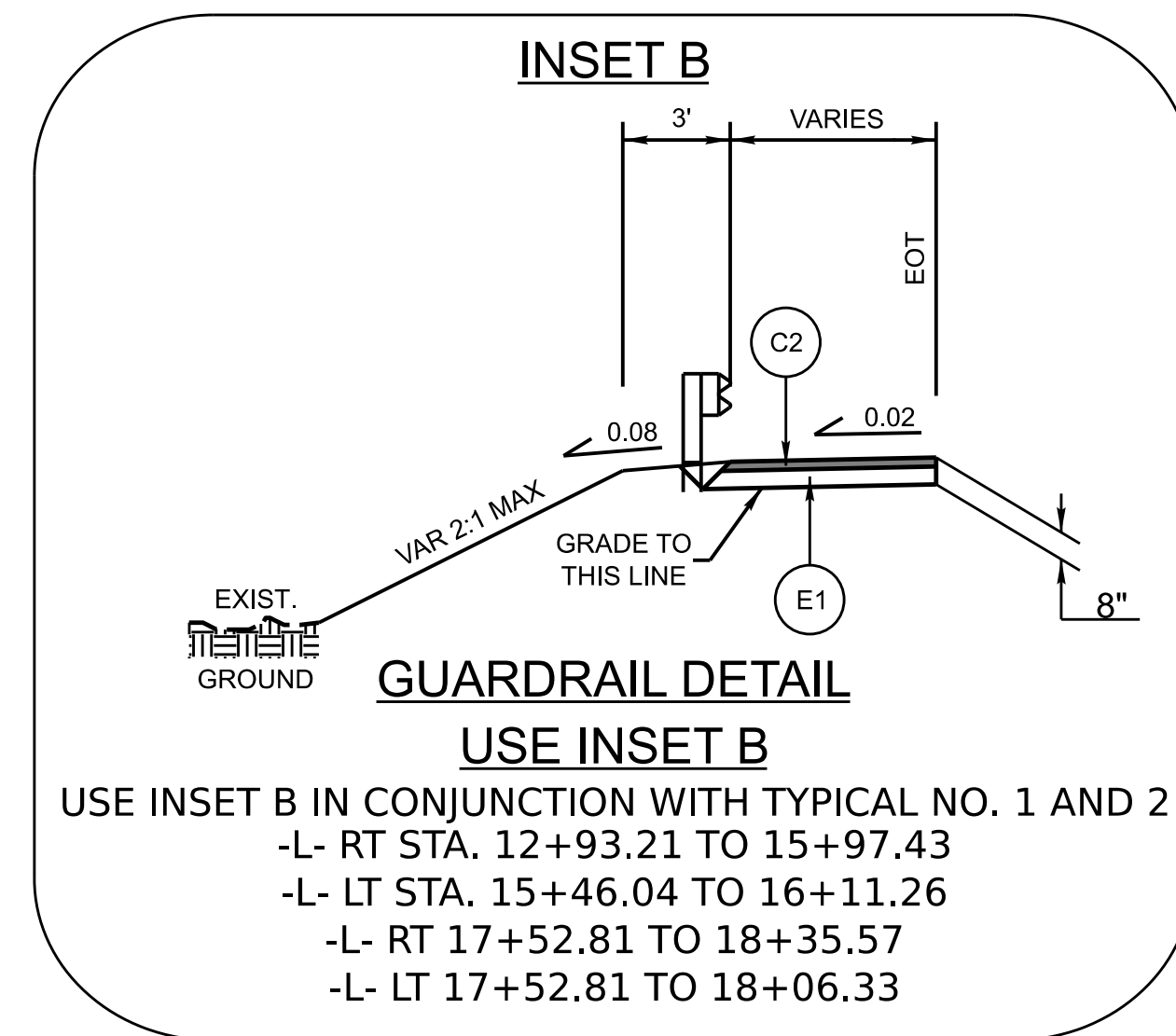


BRIDGE TYPICAL SECTION

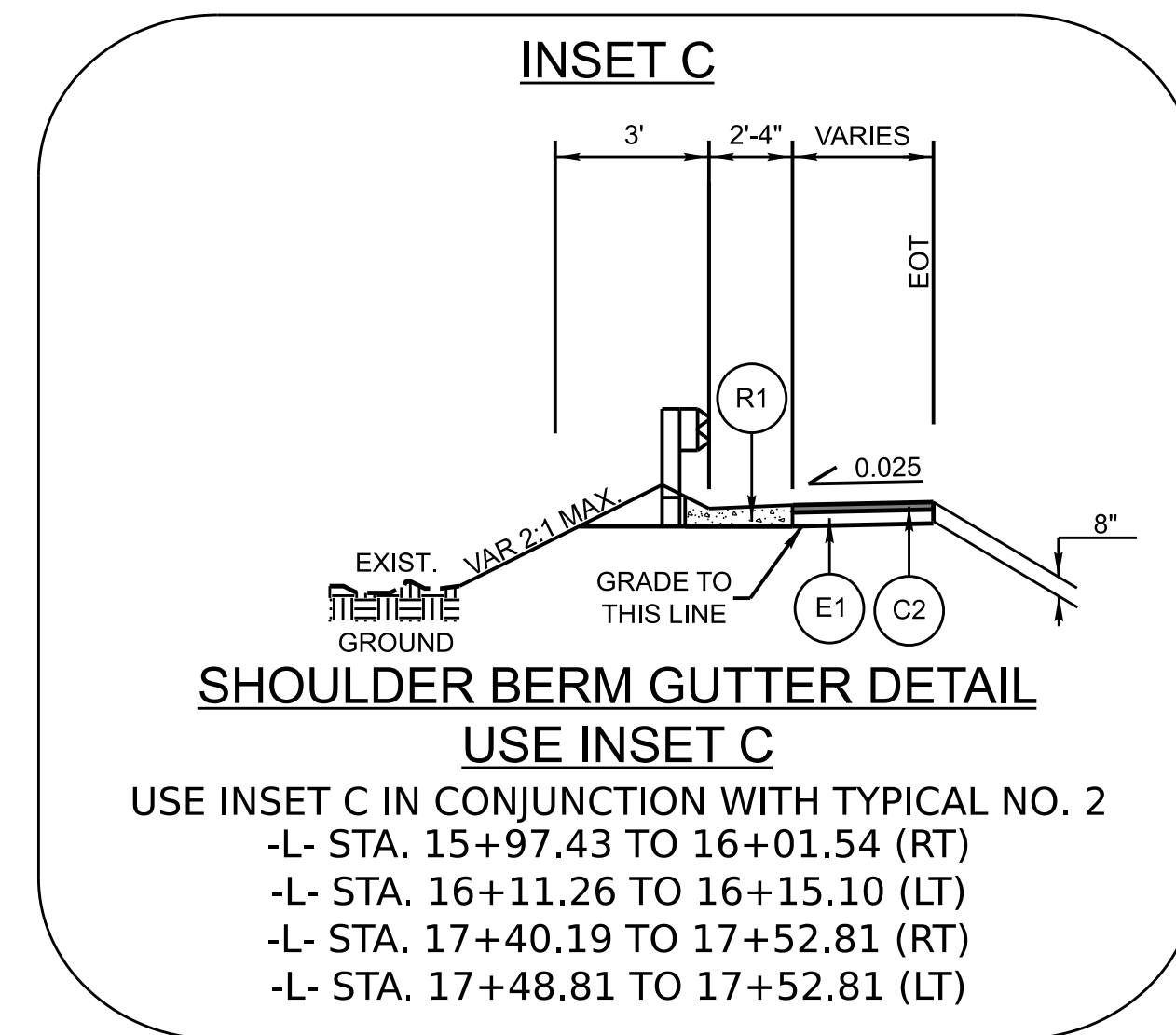
-L- STA. 16+23.34 (BEGIN BRIDGE) TO STA. 17+30.66 (END BRIDGE)



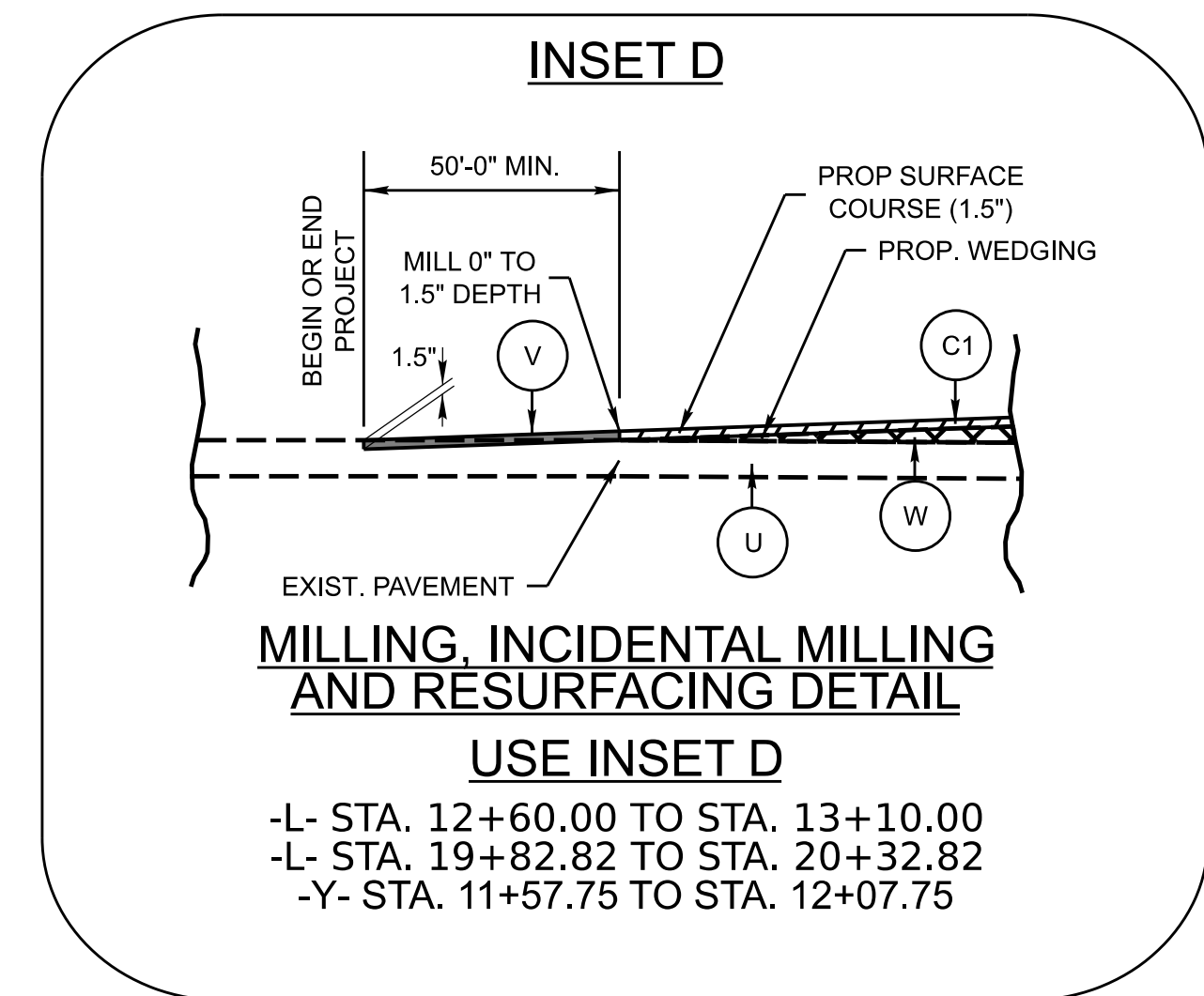
DETAIL SHOWING METHOD OF WEDGING  
USE INSET A  
USE INSET A IN CONJUNCTION WITH TYPICAL NO. 1



GUARDRAIL DETAIL  
USE INSET B  
USE INSET B IN CONJUNCTION WITH TYPICAL NO. 1 AND 2  
-L- RT STA. 12+93.21 TO 15+97.43  
-L- LT STA. 15+46.04 TO 16+11.26  
-L- RT 17+52.81 TO 18+35.57  
-L- LT 17+52.81 TO 18+06.33



SHOULDER BERM GUTTER DETAIL  
USE INSET C  
USE INSET C IN CONJUNCTION WITH TYPICAL NO. 2  
-L- STA. 15+97.43 TO 16+01.54 (RT)  
-L- STA. 16+11.26 TO 16+15.10 (LT)  
-L- STA. 17+40.19 TO 17+52.81 (RT)  
-L- STA. 17+48.81 TO 17+52.81 (LT)



MILLING, INCIDENTAL MILLING AND RESURFACING DETAIL  
USE INSET D  
-L- STA. 12+60.00 TO STA. 13+10.00  
-L- STA. 19+82.82 TO STA. 20+32.82  
-Y- STA. 11+57.75 TO STA. 12+07.75

17BP.11.R.163  
4RD1 2A-1  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WILKES COUNTY  
HIGHWAY DIVISION 11  
ROADWAY DESIGN ENGINEER  
Professional Engineer Seal: JACOB H. DUNE, ENGINEER, No. 043777, 12/20/2019  
Professional Engineer Seal: P. ADLAND, ENGINEER, No. 049338, 12/20/2019  
HYDRAULICS ENGINEER  
PREPARED BY  
**KCA**  
KISINGER CAMPO & ASSOCIATES  
NC FIRM LICENSE No. C-1306  
301 Fayetteville Street, Suite 1500  
Raleigh, NC 27601  
(919) 882-7839

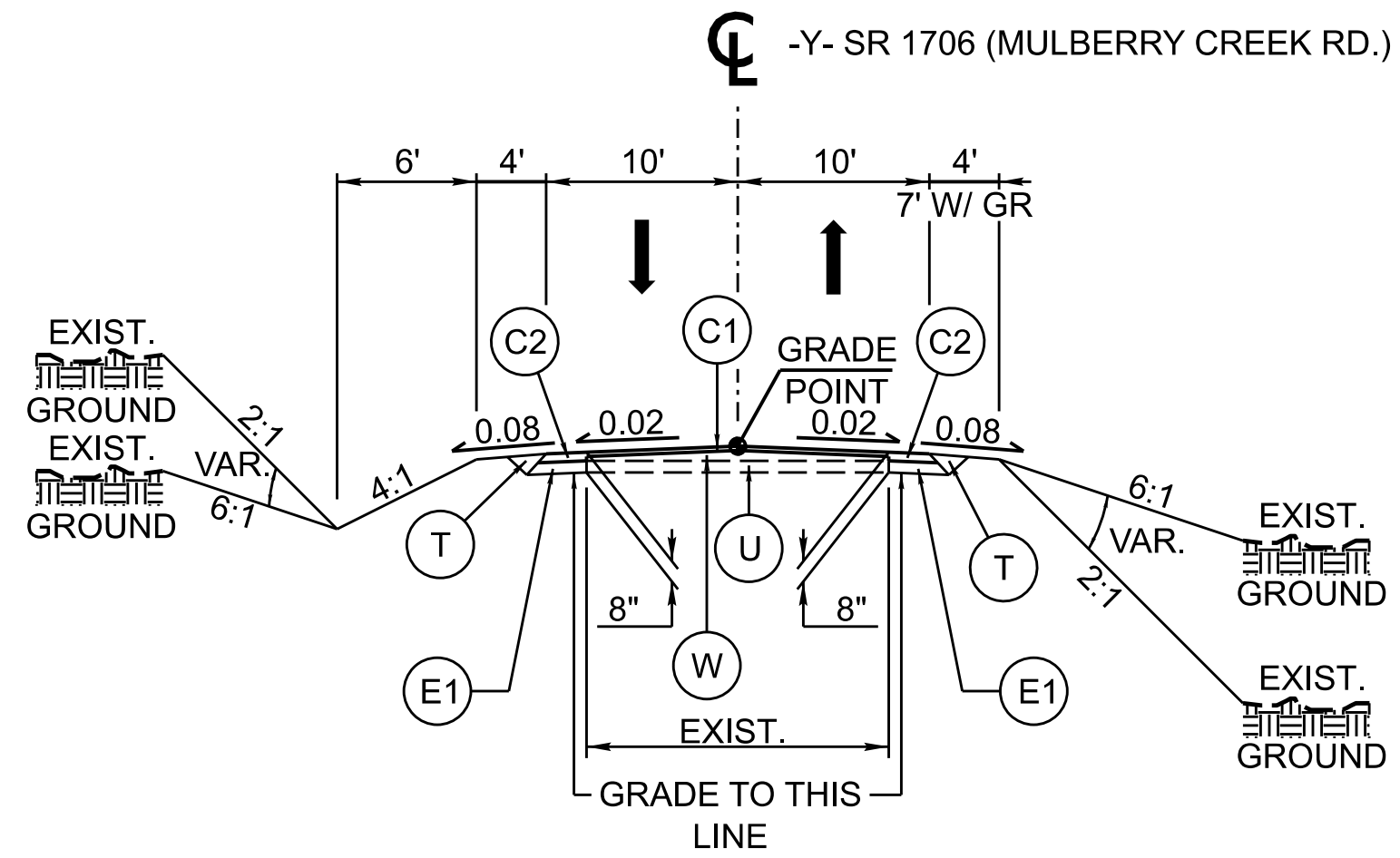
REVISIONS  
1. DESIGN REV. 05/08/2023 - Revised SFG Detail based on STR Plans



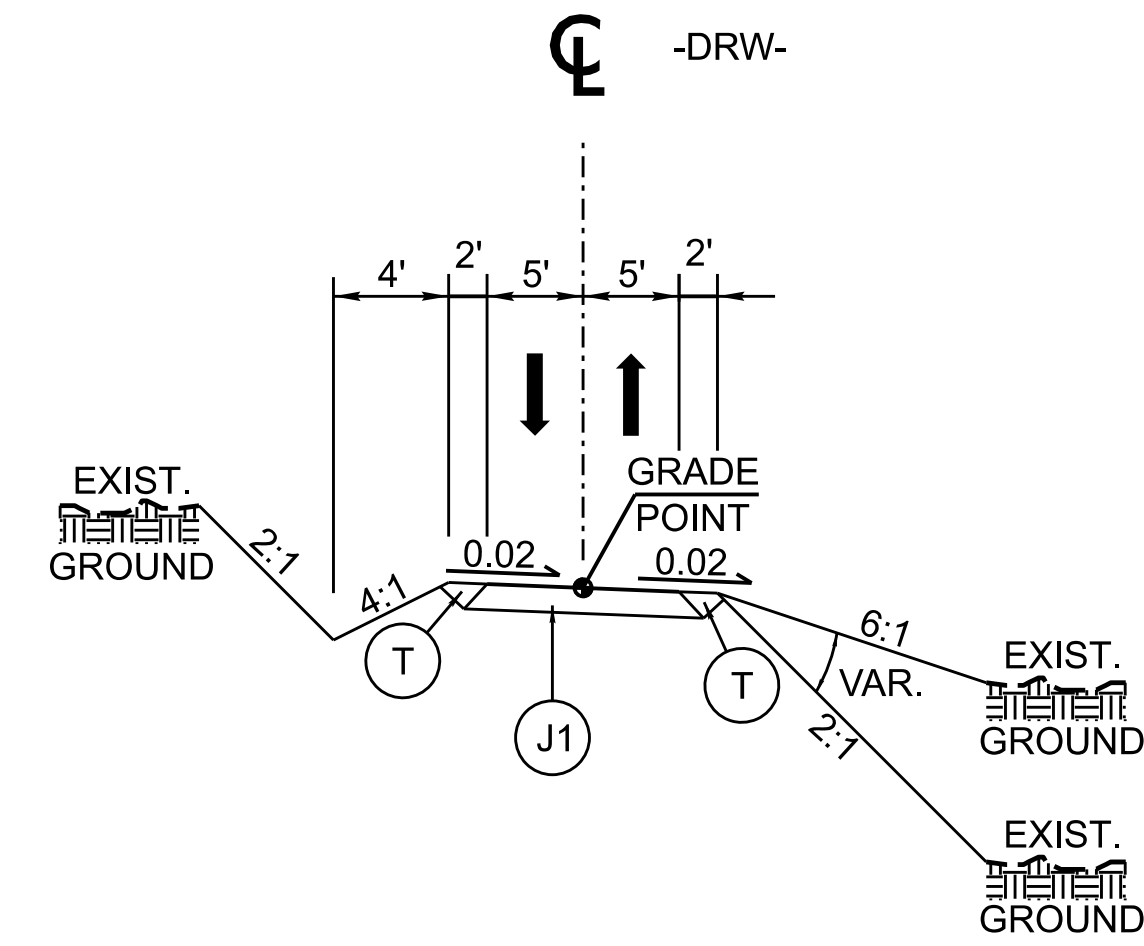
PAVEMENT SCHEDULE

C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF THE TWO LAYERS.
C3	PROP. VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110.0 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 1" OR TO EXCEED 1.5" IN DEPTH.
E1	PROP. APPROX. 5.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS PER SQ. YD.
E2	PROP. VARIABLE DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114.0 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. APPROX. 8" AGGREGATE BASE COURSE.
R1	SHOULDER BERM GUTTER
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	VARIABLE MILLING BITUMINOUS PAVEMENT (SEE MILLING DETAIL)
V1	1.5" MILLING BITUMINOUS PAVEMENT (SEE MILLING DETAIL)
W	WEDGING (SEE WEDGING DETAIL).

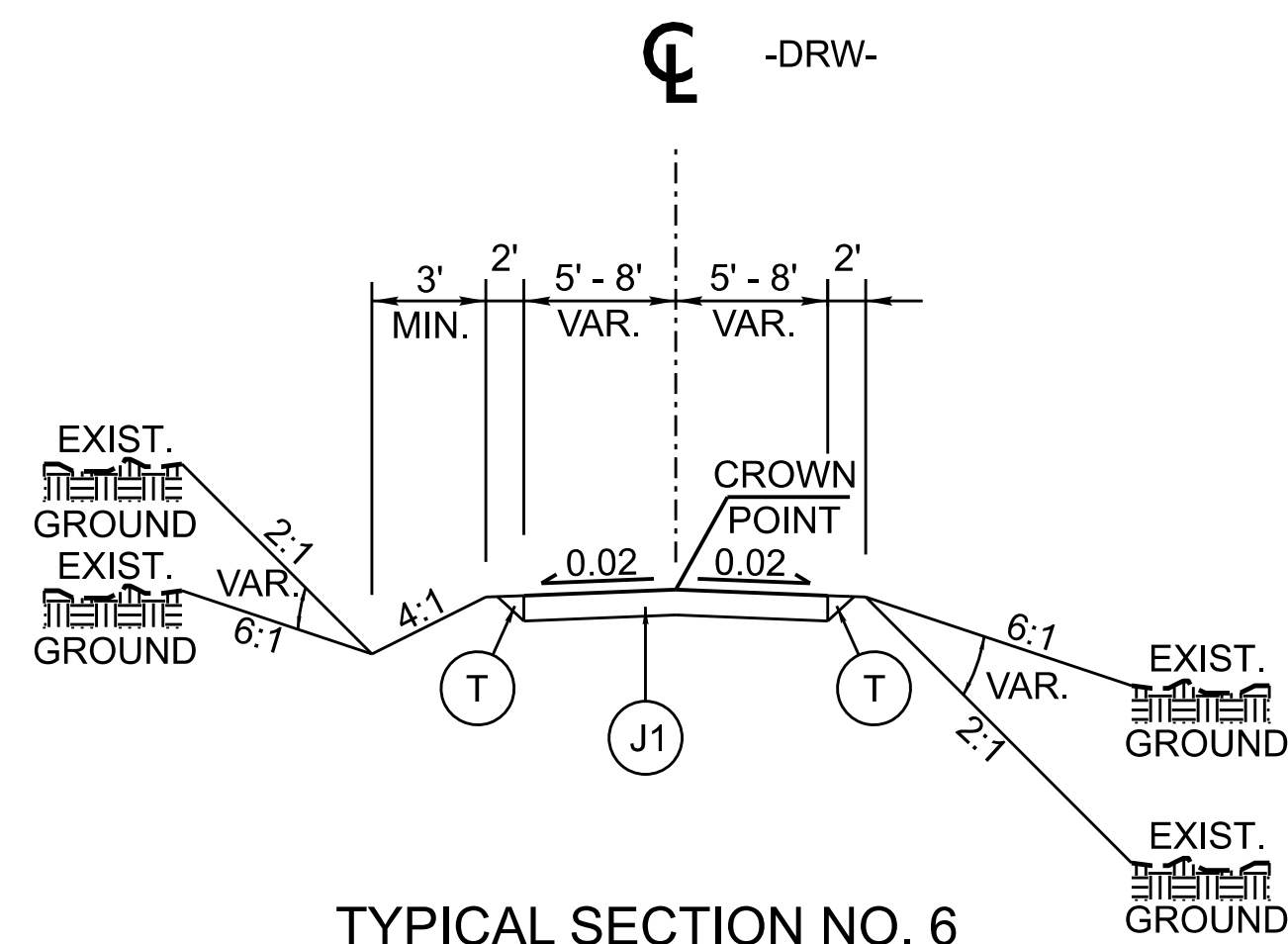
NOTE: PAVEMENT EDGE SLOPES AND TRENCH SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



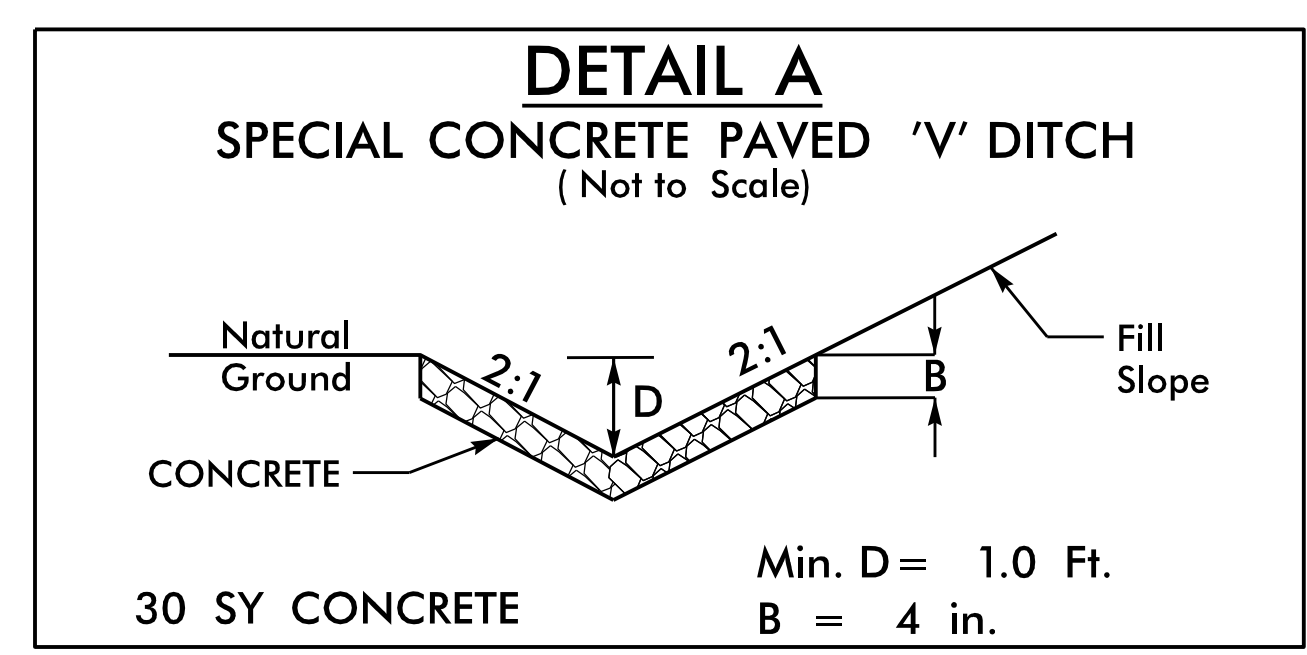
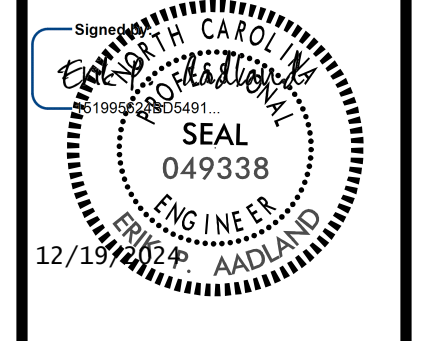
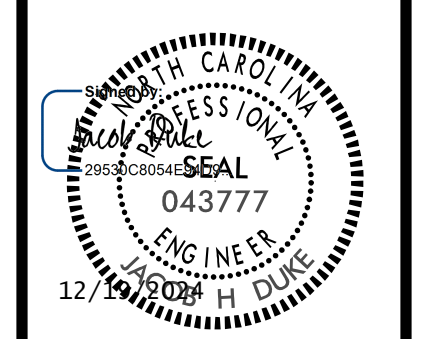
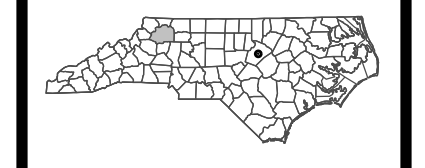
TYPICAL SECTION NO. 4  
-Y- STA. 10+11.37 TO STA. 12+07.75



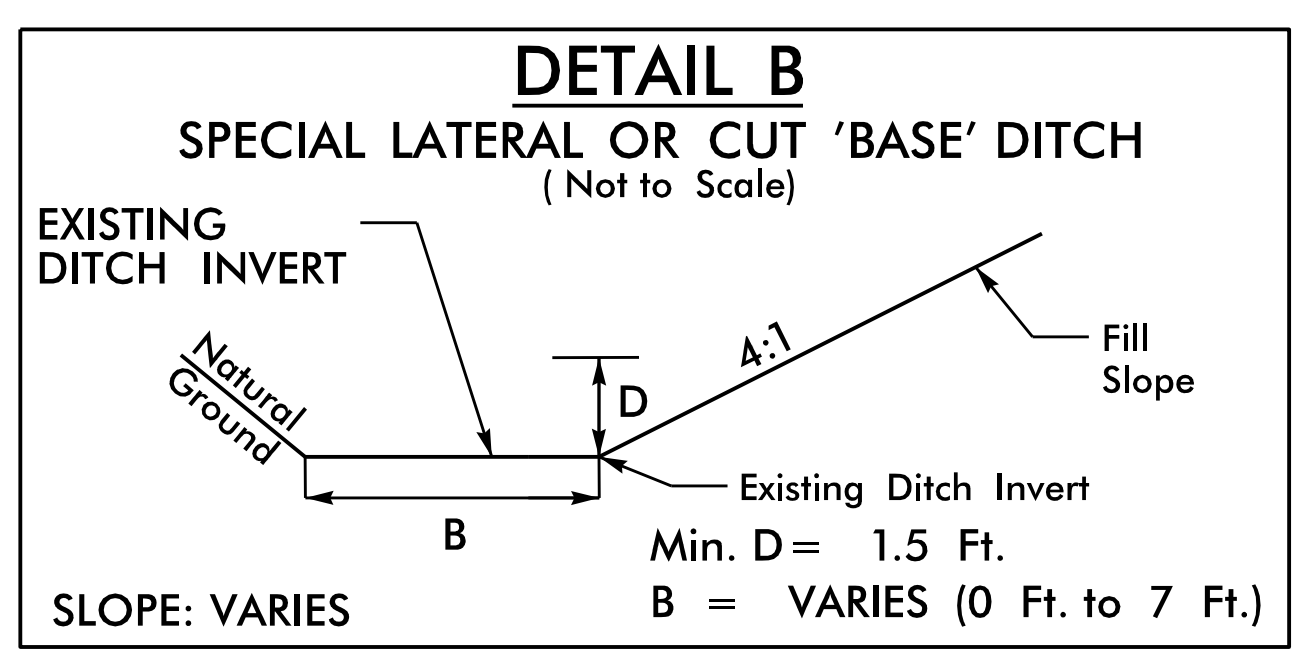
TYPICAL SECTION NO. 5  
-DRW- STA. 10+11.36 TO STA. 11+03.53



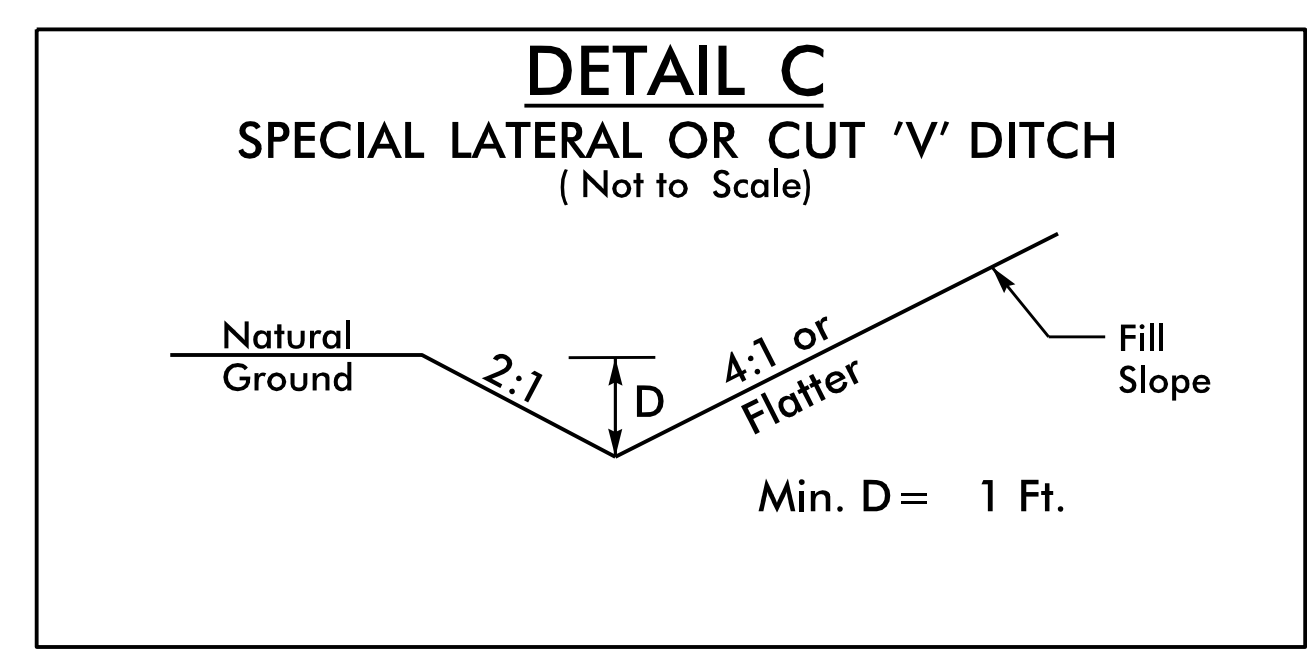
TYPICAL SECTION NO. 6  
DRW AT -L- STA. 13+29.00 RT  
DRW AT -L- STA. 18+59.00 RT  
DRW AT -Y- STA. 10+77.28 LT



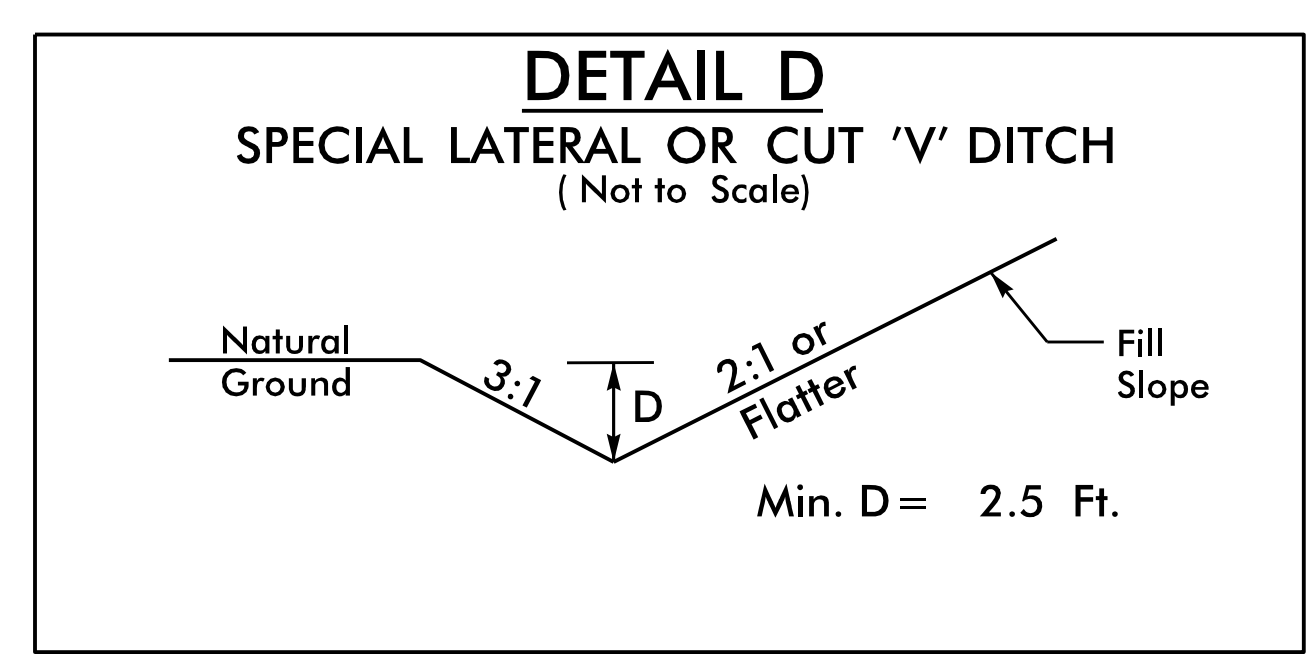
FROM -L- STA. 13+00 TO STA. 13+30 -LT-  
-L- STA. 13+72 TO STA. 13+90 -LT-



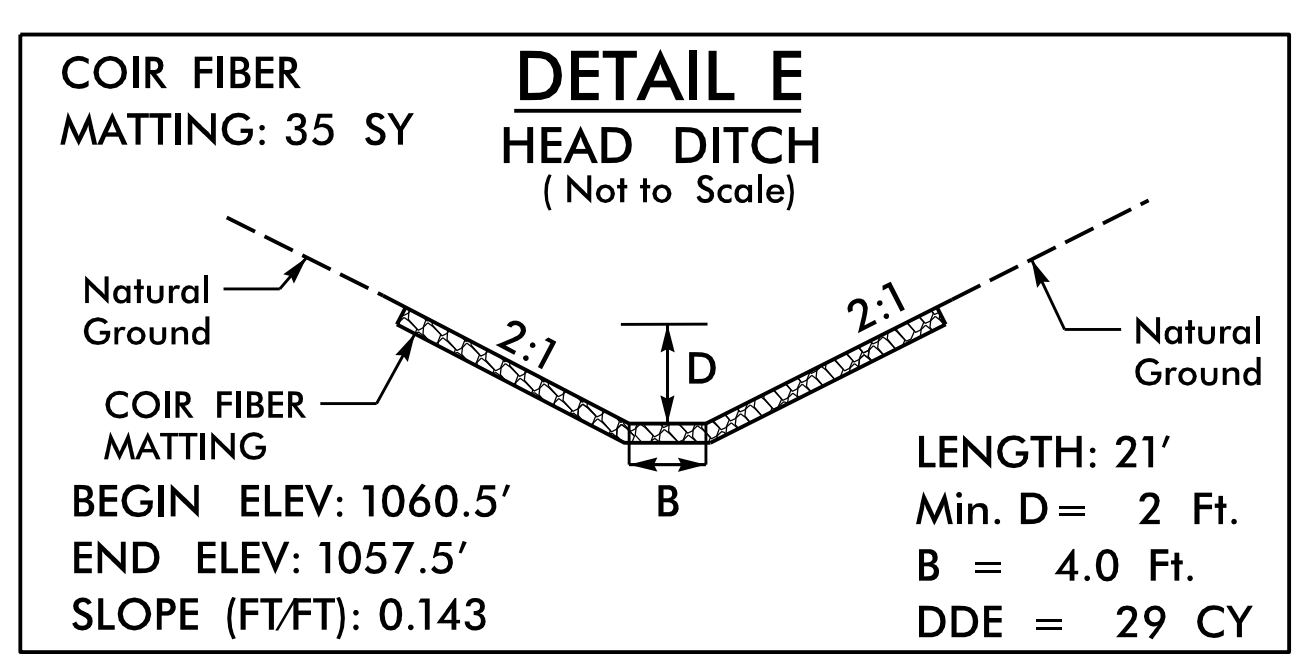
FROM -Y- STA. 10+86 TO STA. 11+36 -RT-



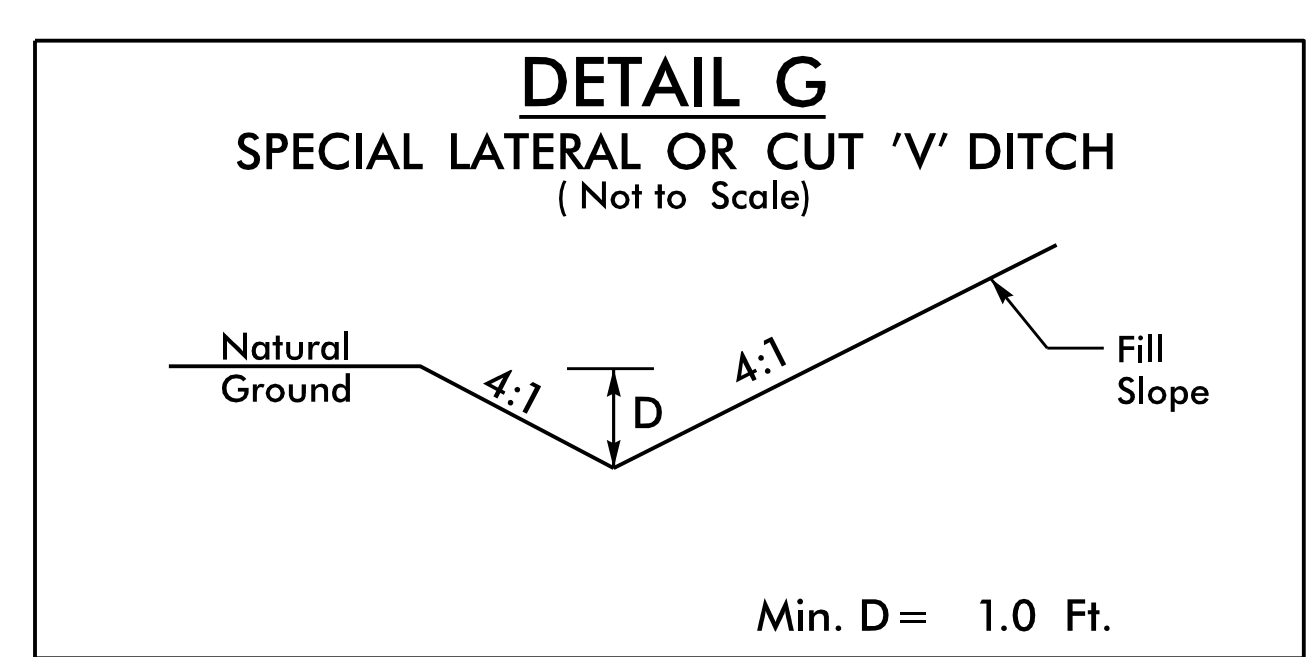
FROM -Y- STA. 10+85 TO STA. 12+07 -LT-



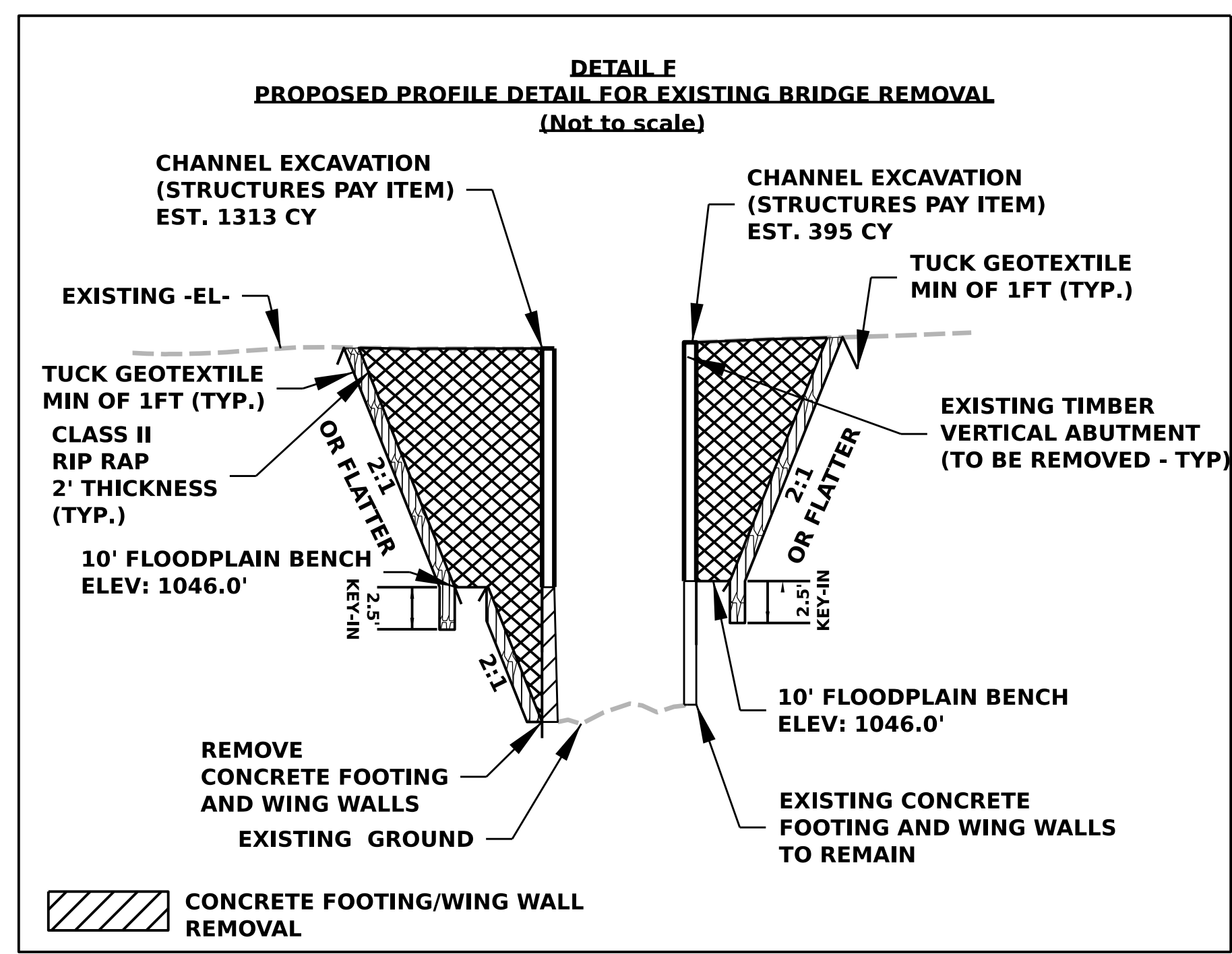
FROM -L- STA. 15+58 TO STA. 15+93 -LT-



FROM -L- STA. 13+51 TO STA. 13+58 -LT-



FROM -DRW- STA. 10+40 TO STA. 11+04 -LT-  
-DRW- STA. 10+80 TO STA. 11+04 -RT-



REVISIONS  
1. DESIGN REV. 05/08/2023 - Revised Detail A Ditch Geometry to Reduce Impacts from Large Boulders  
2. DESIGN REV. 11/21/2023 - Detail A Square Yards of Concrete Calculation Revised



### SUMMARY OF EARTHWORK IN CUBIC YARDS

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L- 12+60.00	-L- 16+23.00	91	4759	4668	
-L- 17+30.00	-L- 20+32.82	80	3285	3205	
<b>SUBTOTAL</b>		<b>171</b>	<b>8044</b>	<b>7873</b>	
-Y- 10+11.37	-Y- 12+07.75	145	150	5	
-DRW- 10+11.36	-DRW- 11+03.53	35	712	677	
<b>SUBTOTAL</b>		<b>180</b>	<b>862</b>	<b>682</b>	
<b>PROJECT TOTALS:</b>		<b>351</b>	<b>8906</b>	<b>8555</b>	
<b>Waste in Lieu of Borrow</b>					
<b>Replace Topsoil on Borrow Pit (5%)</b>				<b>428</b>	
<b>GRAND TOTALS:</b>		<b>351</b>	<b>8906</b>	<b>8983</b>	
<b>SAY:</b>		<b>360</b>		<b>9000</b>	

**NOTE:**

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

ALL EARTHWORK QUANTITIES WERE DERIVED FROM ORD QUANTITIES BY NAMED BOUNDARY REPORT(S) AS DESCRIBED IN THE ORD QUICKSTART TRAINING.

GEOTECHNICAL RECOMMENDATIONS HAVE NOT BEEN RECEIVED AT THIS TIME.

### RIGHT OF WAY AREA DATA

PARCEL NO.	PROPERTY OWNER NAMES	TOTAL ACREAGE	AREA TAKEN	AREA REMAINING	RW	CONST. EASE.	DRAIN. UTIL. EASE.	PERM. DRAIN. EASE.	TEMP. UTIL. EASE.	PERM. UTIL. EASE.
1	BENNY S. ALEXANDER VIRGINIA S. ALEXANDER		0.3563		0.3273	0.2568		0.0290	0.1318	
2	PERRY L. PARKS		0.0021		0.0021	0.0360			0.0205	
3	CHARLES R. ALEXANDER, JR.		0.0246		0.0246	0.1568				
4	SETH M. CHURCH		0.0511		0.0511					
5	JAMES H. CHURCH NELTA S. CHURCH		0.6497		0.3703		0.0191		0.0172	0.2603
6	JUDY M. TRIPPLETT		0.5110		0.3143	0.0304	0.0231			0.1736

### SHOULDER BERM GUTTER SUMMARY IN LINEAR FEET

LINE	STATION	STATION	LENGTH
-L- (RT)	15+97.43	16+01.54	4.11
-L- (LT)	16+11.26	16+15.10	3.84
-L- (RT)	17+40.19	17+52.81	12.62
-L- (LT)	17+48.81	17+52.81	4.00
<b>TOTAL:</b>			<b>24.57</b>
<b>SAY:</b>			<b>25.00</b>

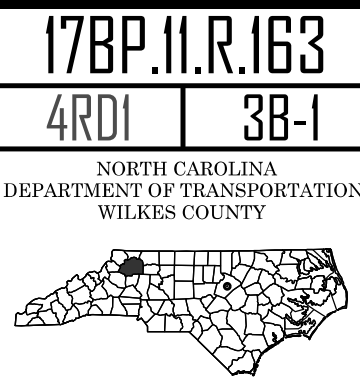
### PAVEMENT REMOVAL SUMMARY IN SQUARE YARDS

SURVEY LINE	Station	Station	LOCATION LT/RT/CL	ASPHALT REMOVAL	ASPHALT BREAKUP	CONCRETE REMOVAL	CONCRETE BREAKUP
-L-	13+10.24	16+01.90	RT	85.26			
-L-	14+11.04	14+18.21	LT	0.63			
-L-	14+23.90	15+34.13	LT	318.82			
-L-	15+43.30	16+76.60	LT	480.07			
-L-	17+17.63	19+39.93	LT	369.13			
-L-	14+00.00	14+95.76	LT	175.19			
-L-	15+22.93	15+46.77	LT	80.31			
-L-	18+08.98	19+25.00	LT	110.76			
-L-	18+35.57	20+45.00	RT	85.04			
<b>TOTAL:</b>				<b>1705.21</b>			
<b>SAY:</b>				<b>1710.00</b>			

### 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

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOULDER WIDTH	FLARE LENGTH		W		ANCHORS								ADDITIONAL GUARDRAIL POSTS	IMPACT ATTENUATOR TYPE 350		SINGLE FACED CONCRETE BARRIER	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	XI MOD	XI	GREU TL-2	M-350	TYPE III	CAT-1	VI MOD	BIC		AT-1	G					NG	
-L-	15+47.38	16+28.63	LT		81.25			15+50.00	4	7		50																		Shop Curved TYPE-III and TL-2, See Special Details	
-L-	13+25.64	16+19.39	RT		268.75			13+60.00	4	7		50																	Shop Curved TYPE-III, See Special Details		
-L-	17+33.63	18+02.38	LT		68.75			17+33.63	4	7		50																			
-L-	17+25.37	18+31.62	RT		106.25			18+20.00	4	7		50																			
-L-	15+54.54	16+78.04	LT																						187.50						
-L-	17+22.36	18+47.71	LT																						137.50						
<b>SUBTOTAL:</b>					525.00																										
<b>PROJECT TOTALS:</b>					368.75																										
<b>SAY:</b>					375																										



4RD1 3B-1  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WILKES COUNTY  
HIGHWAY DIVISION 11  
PREPARED BY

**KCA**  
KISINGER CAMPO & ASSOCIATES  
NC FIRM LICENSE No: C-1506  
301 Fayetteville Street,  
Suite 1500  
Raleigh, NC 27601  
(919)882-7839

REVISIONS  
 1. ROW REV. 05/08/2023 - Parcel 1 - Added Temporary Utility Easement and Changed Permanent Utility Easement to Temporary Utility Easement; Adjusted Temporary Construction Easement  
 Parcel 2 - Added Temporary Utility Easement  
 2. DESIGN REV. 05/08/2023 - Revised Detail A Ditch Geometry to Reduce Impact from Large Boulders from STA. 12+60 -L- to STA. 14+00 -L-; Earthwork Updated; S&B Table Updated based on STR Plans  
 3. ROW REV. 11/20/2023 - PARCEL 4 - NAME CHANGE TO SETH M. CHURCH  
 PARCEL 5 - NAME CHANGE TO JUDY M. TRIPPLETT  
 4. PAVEMENT REMOVAL REV. 04/02/2024 - Added Pavement Removal to Account for Removal of Temporary Pavement Needed for Traffic Control.



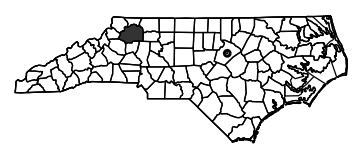


COMPUTED BY: DMM DATE: 2/1/2023  
 CHECKED BY: DCE DATE: 2/2/2023

PROJECT NO. SHEET NO.  
 17BP.11.R.163 3G-1

(2-3-23)

**STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS**

17BP.11.R.163  
 4RD1 3G-1  
 NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 WILKES COUNTY  
  
 HIGHWAY DIVISION 11  
 PREPARED BY  
**KCA**  
 KISINGER CAMPO  
 & ASSOCIATES  
 NC FIRM LICENSE No: C-1506  
 301 Fayetteville Street,  
 Suite 1500  
 Raleigh, NC 27601  
 (919) 882-7839

**SUMMARY OF SUBSURFACE DRAINAGE**

LINE	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	LF
			CONTINGENCY	SD	200
				TOTAL LF:	200

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

**SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION**

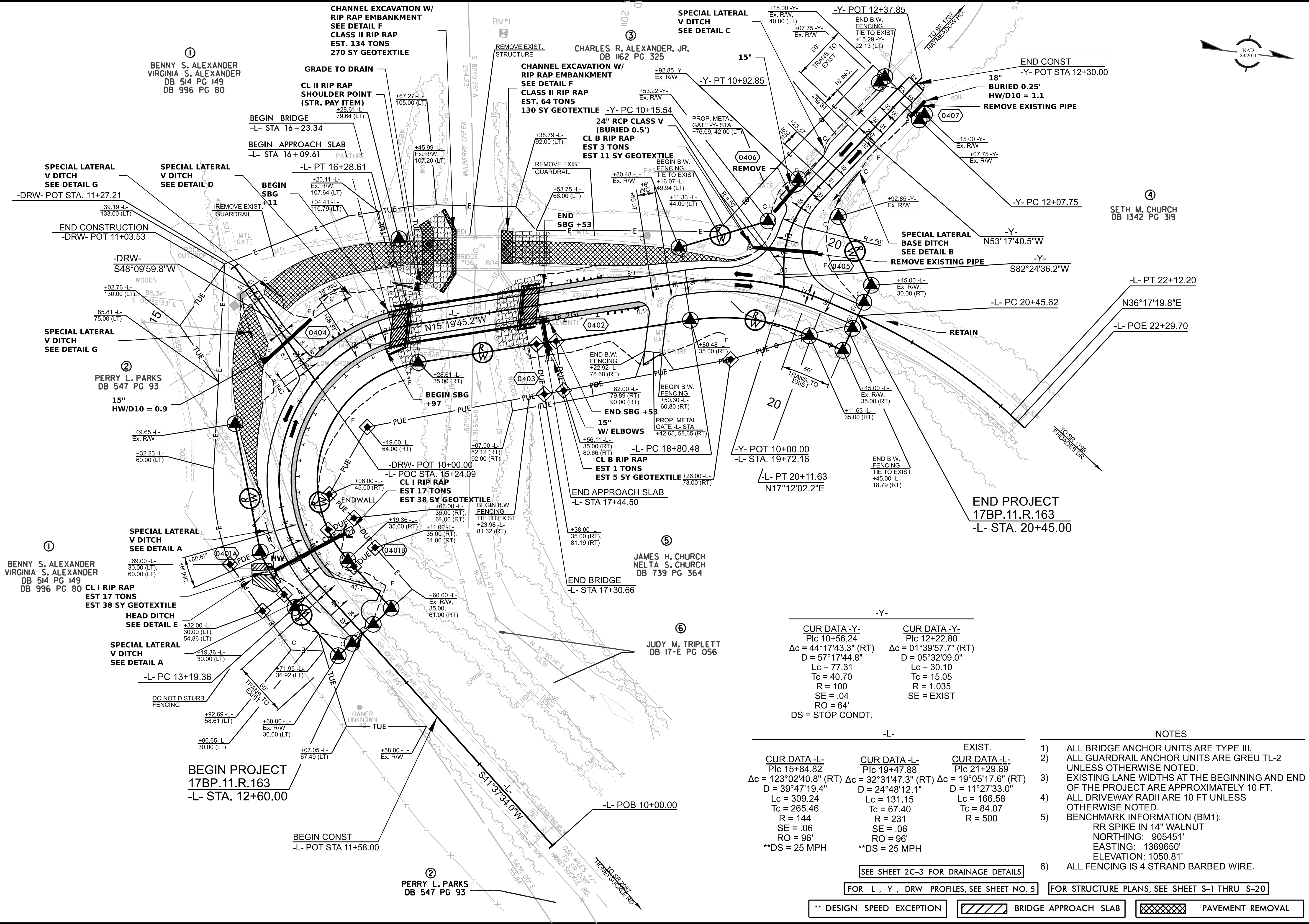
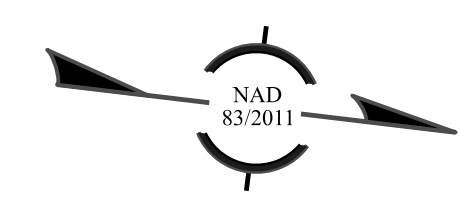
LINE	Station	Station	Aggregate Type* ASU(1/2)/ AST	Aggregate Thickness INCHES [8" for ASU(2)]	Shallow Undercut CY	Class IV Subgrade Stabilization TONS	Geotextile for Subgrade Stabilization SY	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS
			CONTINGENCY	1	100	200	300		
				TOTAL CY/TONS/SY:	100	200**	300**	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.

REVISIONS



**17BP.11.R.163**  
 4RD1 04  
 NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 WILKES COUNTY  
 HIGHWAY DIVISION 11  
 ROADWAY DESIGN  
 ENGINEER  
 SEAL 043777  
 JACOB H. DUNE  
 12/20/2018  
 HYDRAULICS  
 ENGINEER  
 SEAL 049338  
 JAMES P. ADLAND  
 12/20/2018  
 PREPARED BY  
**KCA**  
 KISINGER CAMPO  
 & ASSOCIATES  
 NC FIRM LICENSE NO. C-1506  
 301 Fayetteville Street,  
 Suite 1500  
 Raleigh, NC 27601  
 (919)882-7839



-Y-	
<b>CUR DATA -Y-</b> Plc 10+56.24 Δc = 44°17'43.3" (RT) D = 57°17'44.8" Lc = 77.31 Tc = 40.70 R = 100 SE = .04 RO = 64' DS = STOP CONDT.	<b>CUR DATA -Y-</b> Plc 12+22.80 Δc = 01°39'57.7" (RT) D = 05°32'09.0" Lc = 30.10 Tc = 15.05 R = 1,035 SE = EXIST

-L-		EXIST.
<b>CUR DATA -L-</b> Plc 15+84.82 Δc = 123°02'40.8" (RT) D = 39°47'19.4" Lc = 309.24 Tc = 265.46 R = 144 SE = .06 RO = 96' **DS = 25 MPH	<b>CUR DATA -L-</b> Plc 19+47.88 Δc = 32°31'47.3" (RT) D = 24°48'12.1" Lc = 131.15 Tc = 67.40 R = 231 SE = .06 RO = 96' **DS = 25 MPH	<b>CUR DATA -L-</b> Plc 21+29.69 Δc = 19°05'17.6" (RT) D = 11°27'33.0" Lc = 166.58 Tc = 84.07 R = 500

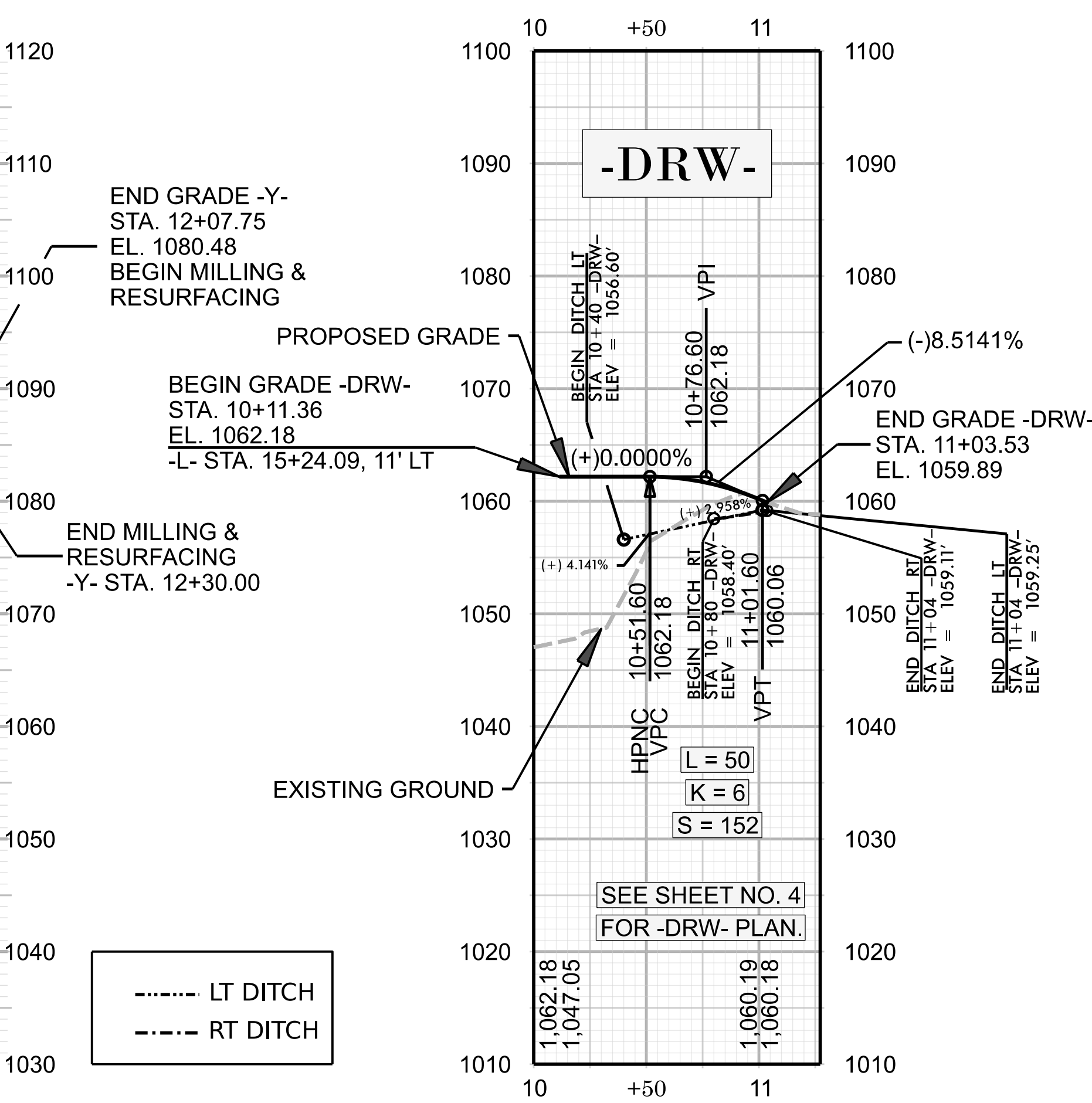
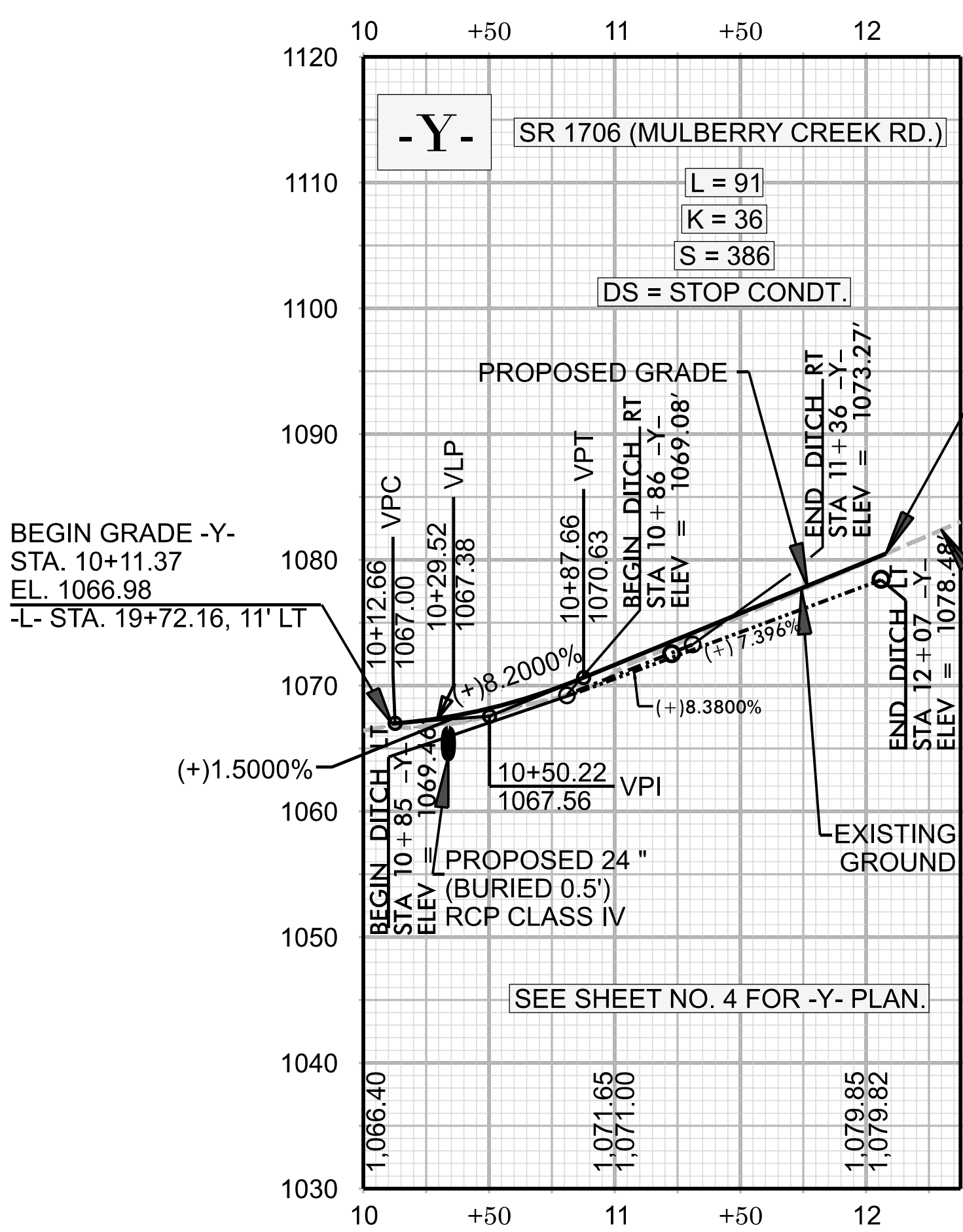
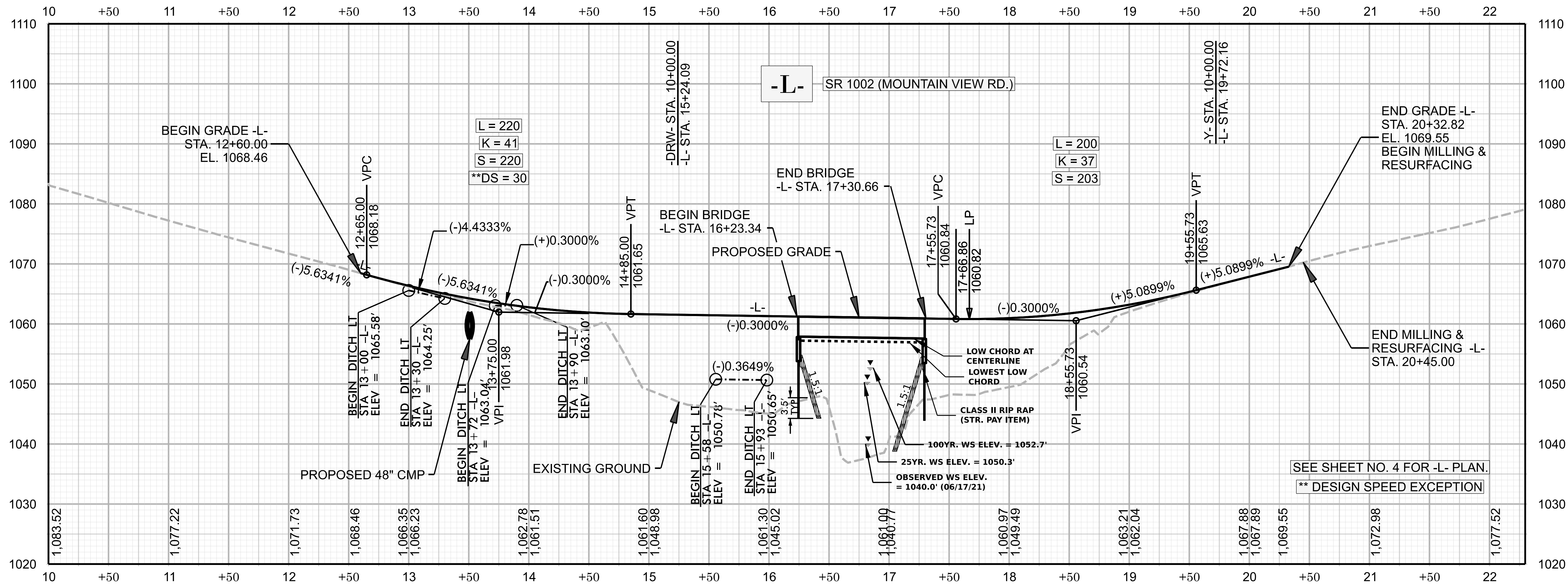
- NOTES**
- 1) ALL BRIDGE ANCHOR UNITS ARE TYPE III.
  - 2) ALL GUARDRAIL ANCHOR UNITS ARE GREU TL-2 UNLESS OTHERWISE NOTED.
  - 3) EXISTING LANE WIDTHS AT THE BEGINNING AND END OF THE PROJECT ARE APPROXIMATELY 10 FT.
  - 4) ALL DRIVEWAY RADII ARE 10 FT UNLESS OTHERWISE NOTED.
  - 5) BENCHMARK INFORMATION (BM1):  
RR SPIKE IN 14" WALNUT  
NORTHING: 905451'  
EASTING: 1369650'  
ELEVATION: 1050.81'
  - 6) ALL FENCING IS 4 STRAND BARBED WIRE.

SEE SHEET 2C-3 FOR DRAINAGE DETAILS  
 FOR -L-, -Y-, -DRW- PROFILES, SEE SHEET NO. 5  
 FOR STRUCTURE PLANS, SEE SHEET S-1 THRU S-20

\*\* DESIGN SPEED EXCEPTION BRIDGE APPROACH SLAB PAVEMENT REMOVAL

REVISIONS  
 1. ROW REV. 05/08/2023 - Parcel 1 - Added Temporary Utility Easement and Changed Permanent Utility Easement to Temporary Utility Easement;  
 Adjusted Temporary Construction Easement  
 Parcel 2 - Added Temporary Utility Easement  
 2. DESIGN REV. 05/08/2023 - Revised Detail A Ditch Geometry to Reduce Impacts from Large Boulders  
 3. ROW REV. 11/20/2023 - Parcel 4 - Name Change to Seth M. Church  
 Parcel 6 - Name Change to Judy M. Triplett





**BRIDGE HYDRAULIC DATA**

DESIGN DISCHARGE	= 5400 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 1050.3 FT
BASE DISCHARGE	= 7500 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 1052.7 FT
OVERTOPPING DISCHARGE	= 18300 CFS
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING HW ELEVATION	= 1061.2 FT

**PIPE HYDRAULIC DATA -Y- 10+34**

DESIGN DISCHARGE	= 10.0 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 1066.7 FT
BASE DISCHARGE	= 11.0 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 1066.9 FT
OVERTOPPING DISCHARGE	= 13 CFS
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING HW ELEVATION	= 1067.9 FT

**PIPE HYDRAULIC DATA -L- 13+51**

DESIGN DISCHARGE	= 26 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 1059.4 FT
BASE DISCHARGE	= 30 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 1059.5 FT
OVERTOPPING DISCHARGE	= 140 CFS
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING HW ELEVATION	= 1064.3 FT

**178P.11.R.163**

4RD1 05

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WILKES COUNTY

HIGHWAY DIVISION 11  
ROADWAY DESIGN ENGINEER

Seal: JACOB H. DUNE, ENGINEER, SEAL 043777, 12/13

Seal: JACOB H. DUNE, ENGINEER, SEAL 049338, 12/13

HYDRAULICS ENGINEER

Seal: JACOB H. DUNE, ENGINEER, SEAL 049338, 12/13


PREPARED BY  
**KCA**  
KISINGER CAMPO & ASSOCIATES  
NC Firm License No: C-1306  
301 Fayetteville Street, Suite 1500  
Raleigh, NC 27601  
(919)882-7839

REVISED: 05/08/2023 - Revised Detail A Ditch Geometry to Reduce Impacts from Large Boulders from STA. 12+60 -L- to STA. 14+00 -L-

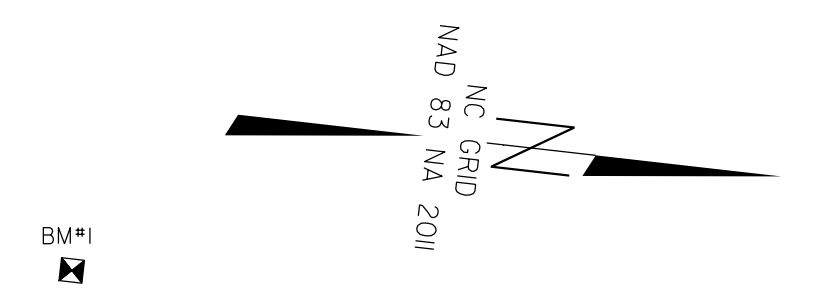


# SURVEY CONTROL SHEET

## W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO. 96-0136 (B-5826)	SHEET NO. RW2C-1
<b>Location and Surveys</b>	
ALLIED ASSOCIATES, PA 4720 KESTER MILL ROAD WINSTON-SALEM, NC, 27106 (336) 765-2377 C-2198	
PROJECT SURVEYOR 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

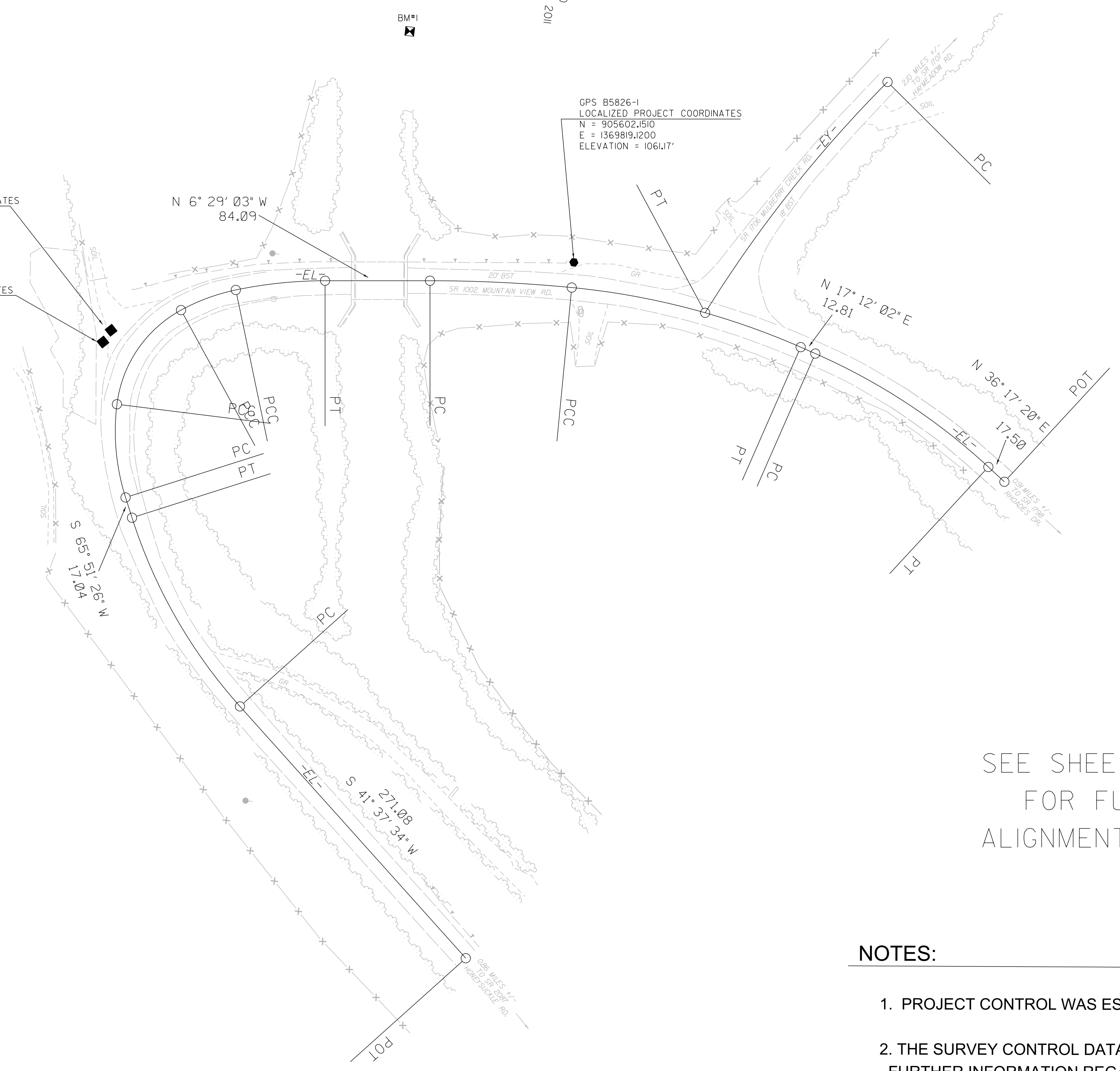
GPS B5826-2  
 LOCALIZED PROJECT COORDINATES  
 N = 905844.3900  
 E = 1369348.9700  
 ELEVATION = 1103.25'



GPS B5826-1  
 LOCALIZED PROJECT COORDINATES  
 N = 905602.1510  
 E = 1369819.1200  
 ELEVATION = 1061.17'

BL-4  
 LOCALIZED PROJECT COORDINATES  
 N = 905239.7400  
 E = 1369915.0109  
 ELEVATION = 1060.02'

BL-3 (DISTURBED/ABANDONED)  
 LOCALIZED PROJECT COORDINATES  
 N = 905234.3087  
 E = 1369925.1327  
 ELEVATION = 1060.17'



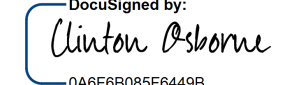
SEE SHEET RW2C-3  
 FOR FURTHER  
 ALIGNMENT DETAILS

### NOTES:

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
2. THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

I, Clinton B. Osborne, PLS, certify that the Baseline Control for this project was verified under my direct and responsible charge from an actual survey made under my supervision; that all horizontal closures had a minimum ratio of precision of 1:20,000 (Class AA) and Vertical accuracy to Class A. Field work was performed from 3/17/21 to 3/18/21, and all coordinates are based on NAD 83/2011 and all elevations are based on NAVD 88; that this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 22 day of March, 2021.


  
 Clinton Osborne

Professional Land Surveyor L-3834



# SURVEY CONTROL SHEET

*W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION*

PROJECT REFERENCE NO. 96-0136 (B-5826)	SHEET NO. RW2C-2
Location and Surveys	
ALLIED ASSOCIATES, PA 4720 KESTER MILL ROAD WINSTON-SALEM, NC 27106 (336) 765-2377 C-2198	
PROJECT SURVEYOR	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

DocuSigned by:  
*Clinton Osborne*  
0A6F6B085F04408...

BL	POINT	DESC.	NORTH	EAST	ELEVATION
4		BL -4	905239.7400	1369915.0109	1060.02
1		B5826-1	905602.1510	1369819.1200	1061.17
2		B5826-2	905844.3900	1369348.9700	1103.25

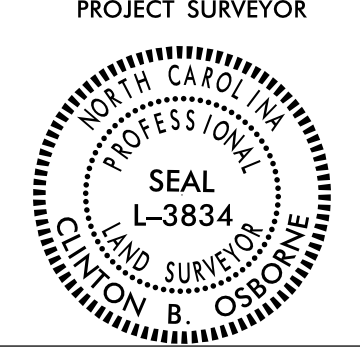
.....  
 BM1      ELEVATION = 1050.81  
 N 905451      E 1369650  
 BL STATION 7+72.00 202 LEFT  
 RR SPIKE IN 14" WALNUT  
 .....

**NOTES:**

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
2. THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

# SURVEY CONTROL SHEET

## W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO. 96-0136 (B-5826)	SHEET NO. RW2C-3
<b>Location and Surveys</b>	
ALLIED ASSOCIATES, PA 4720 KESTER MILL ROAD WINSTON-SALEM, NC 27106 (336) 765-2377 C-2198	
PROJECT SURVEYOR	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

DocuSigned by:  
*Clinton Osborne*  
0A9F8B08F64498

EL		N	E	BEARING	DIST	DELTA	D	L	T	R
POT	905579.044	1370382.944								
LINE				S 41°37'34.0" W	271.08					
PC	905376.416	1370202.877								
CURVE				S 53°44'30.0" W	174.20	24°13'52.0"(RT)	13°48'22.4"	175.51	89.09	415.00
PT	905273.387	1370062.407								
LINE				S 65°51'26.0" W	17.04					
PC	905266.419	1370046.860								
CURVE				S 78°14'03.5" W	75.02	24°45'14.9"(RT)	32°44'25.6"	75.61	38.40	175.00
PCC	905251.122	1369973.416								
CURVE				N 62°14'16.8" W	91.27	54°18'04.5"(RT)	57°17'44.8"	94.77	51.28	100.00
PCC	905293.633	1369892.655								
CURVE				N 26°40'58.6" W	46.77	16°48'31.9"(RT)	35°48'35.5"	46.94	23.64	160.00
PCC	905335.424	1369871.653								
CURVE				N 12°22'52.9" W	71.92	11°47'39.5"(RT)	16°22'12.8"	72.05	36.15	350.00
PT	905405.671	1369856.232								
LINE				N 06°29'03.2" W	84.09					
PC	905489.223	1369846.735								
CURVE				N 03°44'01.2" W	113.73	05°30'04.0"(RT)	04°50'06.3"	113.77	56.93	1185.00
PCC	905602.713	1369839.329								
CURVE				N 08°06'31.5" E	189.62	18°11'01.3"(RT)	09°32'57.5"	190.42	96.02	600.00
PT	905790.438	1369866.076								
LINE				N 17°12'02.2" E	12.81					
PC	905802.673	1369869.863								
CURVE				N 26°44'41.0" E	165.81	19°05'17.6"(RT)	11°27'33.0"	166.58	84.07	500.00
PT	905950.742	1369944.479								
LINE				N 36°17'19.8" E	17.50					
POT	905964.848	1369954.837								

EY		N	E	BEARING	DIST	DELTA	D	L	T	R
PC	905835.599	1369647.044								
CURVE				S 58°10'05.4" E	235.75	13°04'45.3"(LT)	05°32'09.0"	236.27	118.65	1035.00
PT	905711.256	1369847.340								

### NOTES:

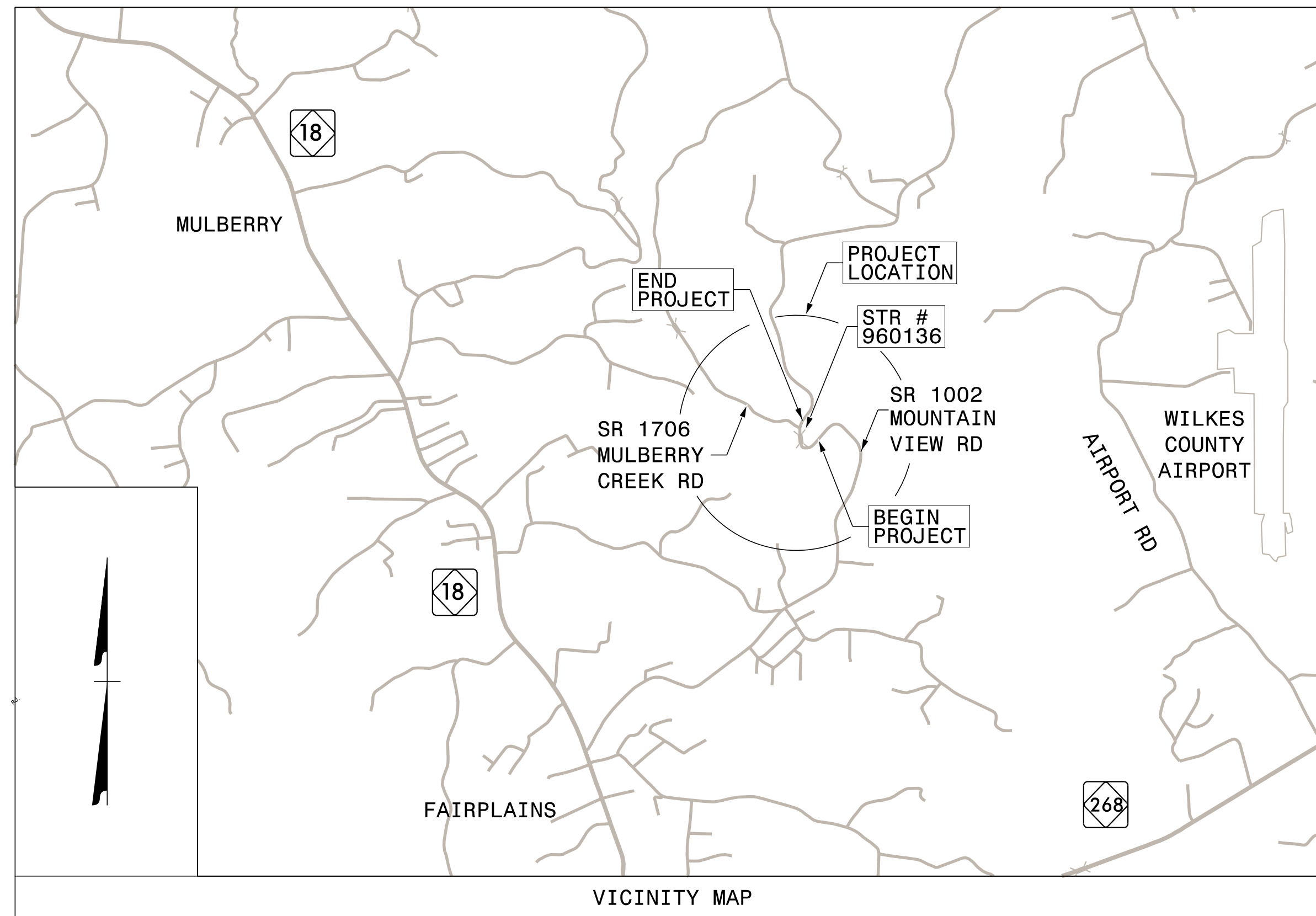
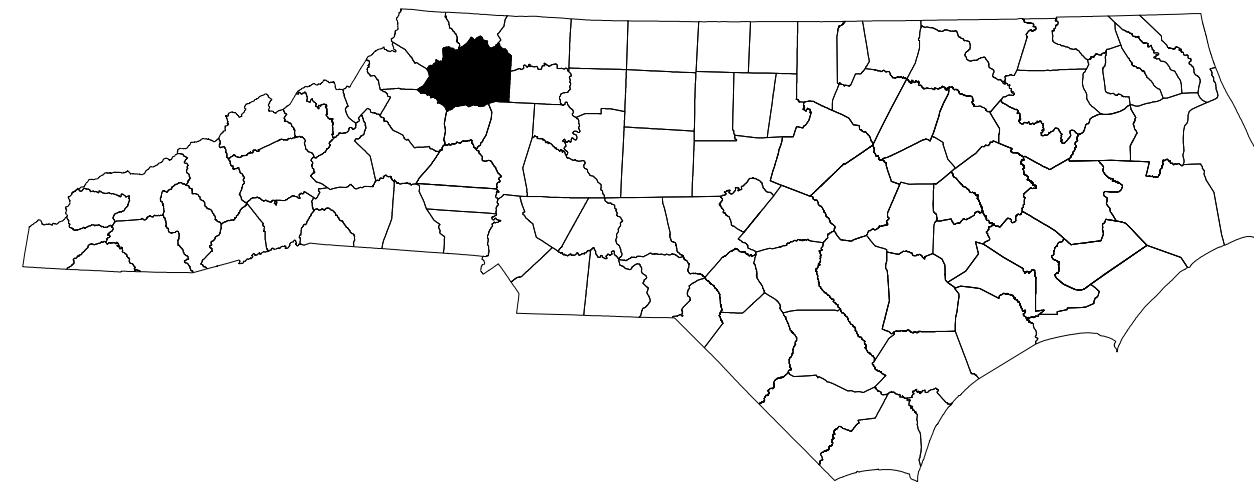
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STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**TRANSPORTATION MANAGEMENT PLAN**

**WILKES COUNTY**



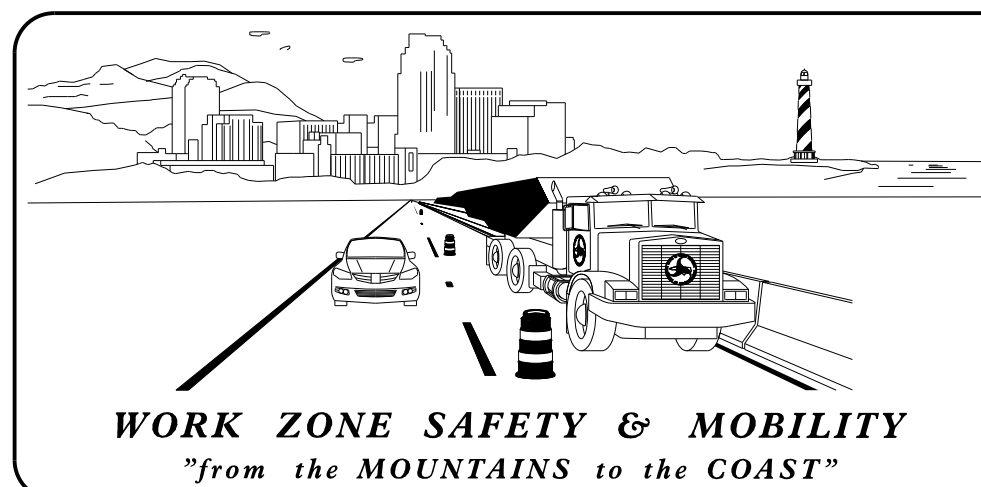
SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	ROADWAY STANDARD DRAWINGS AND LEGEND
TMP-1B	GENERAL NOTES
TMP-1C	PHASING NOTES
TMP-2A	MULBERRY CREEK RD SIGN DESIGN
TMP-2B	MOUNTAIN VIEW RD SIGN DESIGN
TMP-3	MOUNTAIN VIEW RD OFFSITE DETOUR
TMP-4	PHASE 1 WORK AREA
TMP-5	PHASE 2 WORK AREA
TMP-6	MULBERRY CREEK RD OFFSITE DETOUR
TMP-7	PHASE 3 WORK AREA
TMP-8	PHASE 4 WORK AREA
TMP-9	PHASE 6 WORK AREA

SHEET NO.  
TMP-1

**17BP.11.R.163**

**PROJECT:**

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UNLESS ALL SIGNATURES COMPLETED



**PLANS PREPARED BY:**  
Jacob H. Duke, P.E.  
WZTC PROJECT ENGINEER  
Jason M. DeBone  
WZTC PROJECT DESIGN ENGINEER

**NCDOT CONTACTS:**  
ROB N. WEISZ, P.E.  
PROJECT MANAGER



**KCA**  
KISINGER CAMPO & ASSOCIATES  
301 FAYETTEVILLE STREET  
SUITE 1500  
RALEIGH, NC 27601  
(919) 882-7839  
NC FIRM LICENSE: C-1506

**APPROVED:** *Jacob H. Duke*  
**DATE:** 4/10/2024  
**SEAL**

4/10/2024 17BP.11.R.163.TC.TMP-01.Tsh.dgn User: JDeBone

# ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.06	WARNING SIGNS FOR BLASTING ZONES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES - TYPE III
1150.01	FLAGGINGERS
1160.01	TEMPORARY CRASH CUSHION - REFLECTIVE END TREATMENT
1165.01	TRUCK MOUNTED ATTENUATOR
1170.01	PORTABLE CONCRETE BARRIER
1180.01	SKINNY DRUMS
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.10	PAVEMENT MARKINGS - SCHOOL AREAS
1205.11	PAVEMENT MARKINGS - RAILROAD CROSSINGS
1205.12	PAVEMENT MARKINGS - BRIDGES
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS
1205.14	PAVEMENT MARKINGS - ROUNDABOUTS
1205.15	PAVEMENT MARKINGS - REDUCED CONFLICT INTERSECTIONS
1205.16	BICYCLE FACILITIES
1205.17	PAVEMENT MARKINGS - SIDE-BY-SIDE/ADJACENT ON/OFF RAMP PVMT. MARKING LANE TREATMENT
1250.01	RAISED PAVEMENT MARKERS INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION
1264.01	OBJECT MARKERS - TYPES
1264.02	OBJECT MARKERS - INSTALLATION
1266.01	RAISED PAVEMENT MARKERS - TUBULAR MARKERS
1267.01	FLEXIBLE DELINEATORS - INSTALLATION
1267.02	FLEXIBLE DELINEATORS - SPACING TABLES
1267.03	FLEXIBLE DELINEATORS - INTERCHANGE PLACEMENT

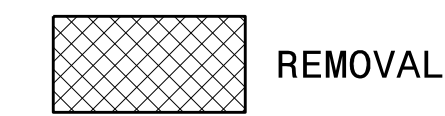
# LEGEND

## GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- TEMP. SHORING (LOCATION PURPOSES ONLY)



WORK AREA



REMOVAL



TEMPORARY PAVEMENT

## SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

## PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

## TEMPORARY PAVEMENT MARKING

- P1 WHITE EDGELINE (4") 900 LF
- P13 YELLOW DOUBLE CENTER (4") 900 LF

## TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM
- SKINNY DRUM
- TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW BOARD
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN

## TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

## PAVEMENT MARKERS

- CRYSTAL/CRYSTAL
- CRYSTAL/RED
- YELLOW/YELLOW

## PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

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17BP.11.R.163.TC\_TMP\_OIA\_INDX.dgn  
User: jhedeone

APPROVED: DATE: 4/10/2024  SEAL  		ROADWAY STANDARD DRAWINGS & LEGEND
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## GENERAL NOTES

PROJ. REFERENCE NO.	SHEET NO.
17BP.11.R.163	TMP-1B



CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

### LANE AND SHOULDER CLOSURE REQUIREMENTS

A) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.

B) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

C) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

### PAVEMENT EDGE DROP OFF REQUIREMENTS

D) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

E) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 300 IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

### TRAFFIC PATTERN ALTERATIONS

F) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

### SIGNING

G) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

H) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.

PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.

I) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

J) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

L) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 300 IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

### TRAFFIC CONTROL DEVICES

K) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

### PAVEMENT MARKINGS AND MARKERS

L) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
MOUNTAIN VIEW RD	PAINT	NONE
MULBERRY CREEK RD	PAINT	NONE

M) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.

N) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

### MISCELLANEOUS

O) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 300 AND 300 RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

### LOCAL

P) NCDOT WILL CONTACT THE WILKES COUNTY EMERGENCY MEDICAL SERVICES DIRECTOR AT LEAST ONE (1) MONTH PRIOR TO CONSTRUCTION TO ALLOW PROPER PLANNING IN ADVANCE OF THIS ROAD CLOSURE (CONTACT: TIMOTHY PENNINGTON, WILKES COUNTY EMS DIRECTOR, TPENNINGTON@WILKESCOUNTY.NET, 336-651-7363).

Q) ALTHOUGH ROAD CLOSURE DURING A WEEKEND IS NOT ANTICIPATED TO DISRUPT SCHOOL BUS ROUTES, NCDOT WILL CONTACT THE WILKES COUNTY SCHOOLS TRANSPORTATION DIRECTOR PRIOR TO CONSTRUCTION TO ENSURE PROPER COORDINATION (CONTACT: ERIC BARKER, WILKES COUNTY SCHOOLS DIRECTOR OF TRANSPORTATION, BARKERE@WILKES.K12.NC.US, 336-667-1126).

4/10/2024 17:06:17 17BP.11.R.163.TC\_TMP\_OIB\_General\_Notes.dgn User: jidebone

<p>APPROVED: _____ <i>Jacob H. Duke</i></p> <p>DATE: 4/10/2024</p> <p style="text-align: center;">SEAL</p>			<h2 style="margin: 0;">GENERAL NOTES</h2>
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# PHASING NOTES

PROJ. REFERENCE NO.	SHEET NO.
17BP.11.R.163	TMP-1C



*PRIOR TO ANY CONSTRUCTION, INSTALL WORK ZONE ADVANCE WARNING SIGNS USING NCDOT RSD 1101.01 SHEETS 1 THRU 3. CONTRACTOR MAY WORK ON MULTIPLE LOCATIONS SIMULTANEOUSLY IF APPROVED BY ENGINEER.*

**WORK ITEM 1:** SEE ICT-1 FOR ALLOWABLE CLOSURE TIMES OF MOUNTAIN VIEW RD (SR 1002).

USE TMP-3 TO PLACE SIGNS AND DEVICES TO CLOSE MOUNTAIN VIEW RD (SR 1002) TO INSTALL 48 INCH CMP AT -L- STA. 13+50.00 PER ROADWAY AND EROSION CONTROL PLANS. AT THE END OF THE WORK PERIOD REOPEN THE ROADWAY TO TRAFFIC.

## PHASE 1

**STEP 1:** USE TMP-4 TO DENOTE WORK AREA, RSD 1101.02 SHEET 1 OF 19 AND TMP-4 TO PLACE SIGNS AND DEVICES ALONG -L- SR 1002 (MOUNTAIN VIEW RD). MAINTAIN 2-LANE 2-WAY TRAFFIC ON EXISTING -L- SR 1002 (MOUNTAIN VIEW RD.)

**STEP 2:** PERFORM WORK TO CONSTRUCT NEW STRUCTURE, APPROACHES, DRIVEWAYS AND TIE-INS UP TO BUT NOT INCLUDED THE FINAL SURFACE LAYER UP TO THE EXISTING EDGE OF PAVEMENT IN WORK AREAS SHOWN ON TMP-4 PER ROADWAY, STRUCTURE, AND DRAINAGE PLANS. PLACE TEMPORARY PAINT MARKINGS PER TMP-4.

## PHASE 2

**STEP 1:** USE TMP-6 TO PLACE SIGNS AND DEVICES TO CLOSE -Y- SR 1706 (MULBERRY CREEK RD) AND PLACE TRAFFIC ON OFFSITE DETOUR.

**STEP 2:** USE TMP-5 TO DENOTE WORK AREA. PERFORM WORK UP TO BUT NOT INCLUDING THE FINAL SURFACE LAYER ON -Y- SR 1706 (MULBERRY CREEK RD) PER ROADWAY AND EROSION CONTROL PLANS UP UNTIL THE TIE-IN WITH -L- SR 1002 (MOUNTAIN VIEW RD).

-Y- SR 1706 (MULBERRY CREEK RD) SHOULD REMAIN CLOSED UNTIL ALL WORK IS COMPLETED IN PHASE 4 STEP 1.

## PHASE 3

**STEP 1:** USE RSD 1101.02 SHEET 1 OF 19 AND TMP-7 TO PLACE SIGNS AND DEVICES AND TO DENOTE WORK AREA. THIS WILL KEEP TRAFFIC IN A SINGLE LANE ON THE EXISTING CONDITION. PERFORM TIE-INS PER ROADWAY PLANS. AT THE END OF EACH WORK PERIOD REOPEN THE ROADWAY TO TRAFFIC.

## PHASE 4

**STEP 1:** USE RSD 1101.02 SHEET 1 OF 19 AND TMP-8 TO PLACE SIGNS AND DEVICES AND TO DENOTE WORK AREA. THIS WILL SHIFT TRAFFIC TO A SINGLE LANE ON THE FINAL CONDITION. PERFORM TIE-INS AND GRADING TO THE SLOPE STAKE LIMITS PER ROADWAY PLANS. AT THE END OF EACH WORK PERIOD REOPEN THE ROADWAY TO TRAFFIC. ONCE ALL WORK IS COMPLETE REMOVE DETOUR SIGNS AND DEVICES AND OPEN -Y- SR 1706 (MULBERRY CREEK RD) TO TRAFFIC.

## PHASE 5

**STEP 1:** USE RSD 1101.02 SHEET 1 OF 19 TO PLACE SIGNS AND DEVICES. REMOVE TEMPORARY PAVEMENT, REGRADE SHOULDER, AND INSTALL GUARDRAIL PER ROADWAY PLANS. ONCE ALL WORK IS COMPLETE REMOVE SIGNS AND DEVICES AND REOPEN THE ROADWAY TO NORMAL TRAFFIC OPERATIONS.

## PHASE 6

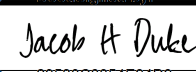
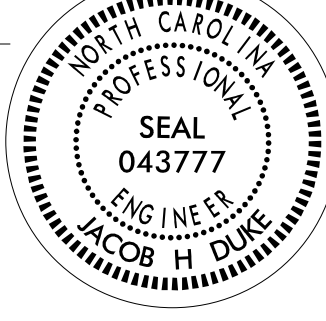
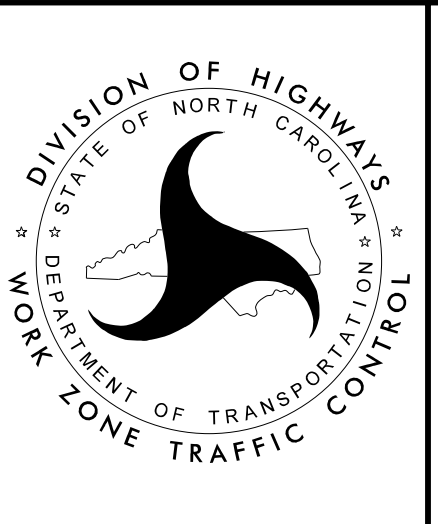
**STEP 1:** USE TMP-9 TO DENOTE WORK AREA. REMOVE EXISTING ROADWAY, EXISTING STRUCTURE, AND EXISTING GUARDRAIL PER ROADWAY, STRUCTURE, PLANS AND "PROPOSED PROFILE DETAIL FOR EXISTING BRIDGE REMOVAL" (DETAIL F IN ROADWAY PLANS).

**STEP 2:** USE RSD 1101.02 SHEET 1 OF 19 AND MILL ASPHALT PAVEMENT PER ROADWAY PLANS.

**STEP 3:** USE RSD 1101.02 SHEET 1 OF 19 TO PLACE FINAL SURFACE LAYER OF PAVEMENT PER ROADWAY PLANS.

**STEP 4:** USE RSD 1205.01, 1205.02, 1205.12, 1250.01, AND PAVEMENT MARKING PLANS TO PLACE FINAL PAVEMENT MARKINGS. REMOVE ALL SIGNS AND DEVICES TO KEEP -L- SR 1002 (MOUNTAIN VIEW RD) AND -Y- SR 1706 (MULBERRY CREEK RD) OPEN TO TRAFFIC.

4/10/2024 17BP.11.R.163.TC.TMP\_OIC\_Phasing\_Notes.dgn User: jidebone

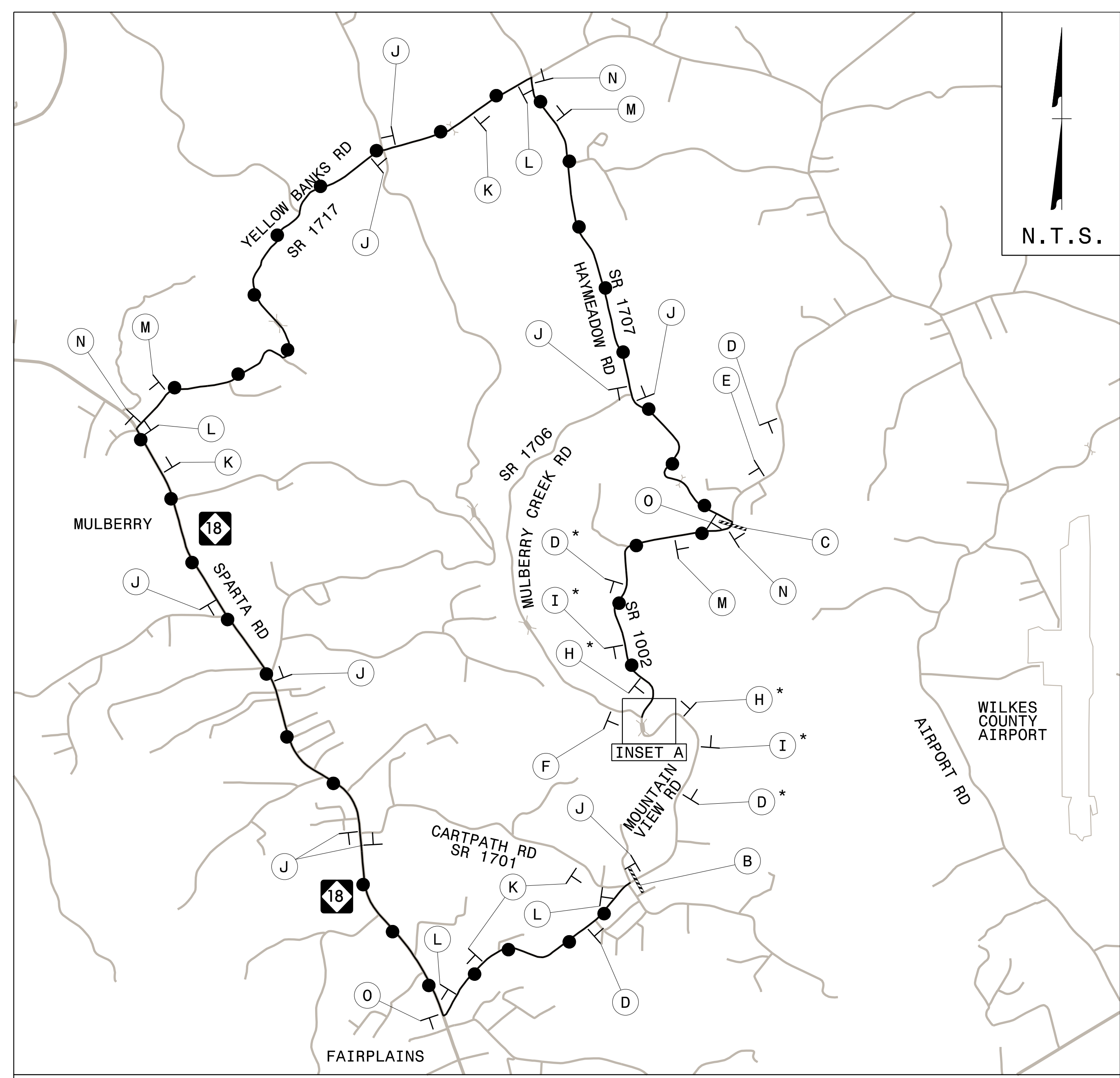
APPROVED:  DATE: 4/10/2024  SEAL 		<h1>PHASING NOTES</h1>
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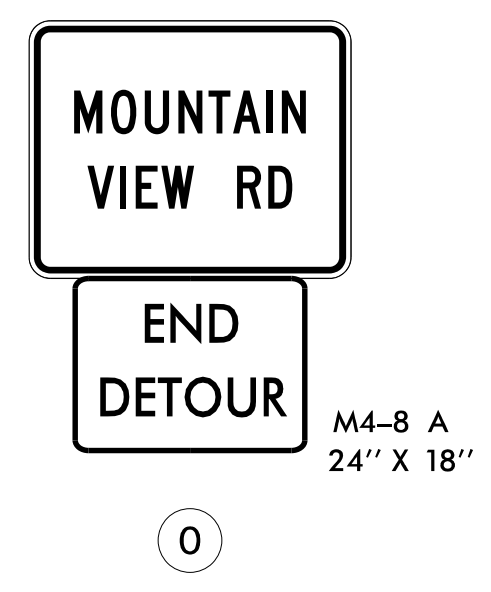
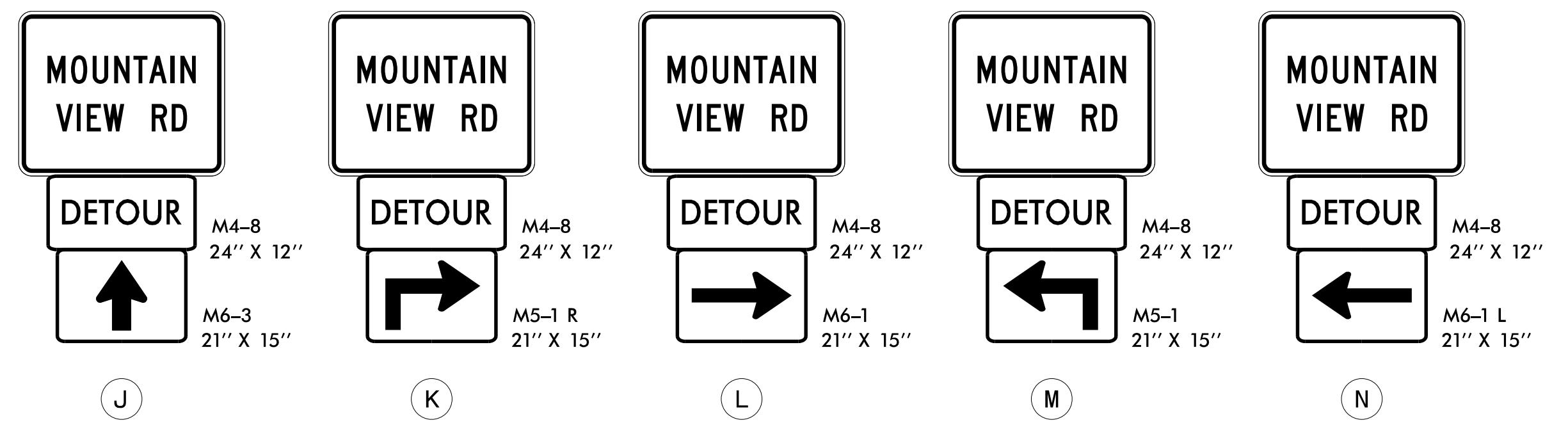
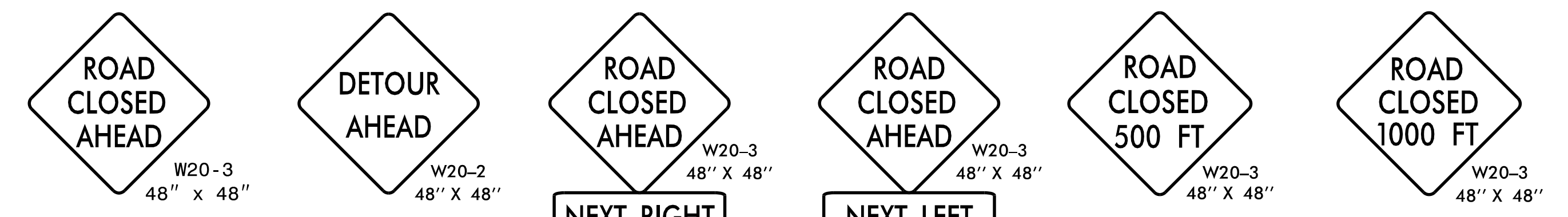
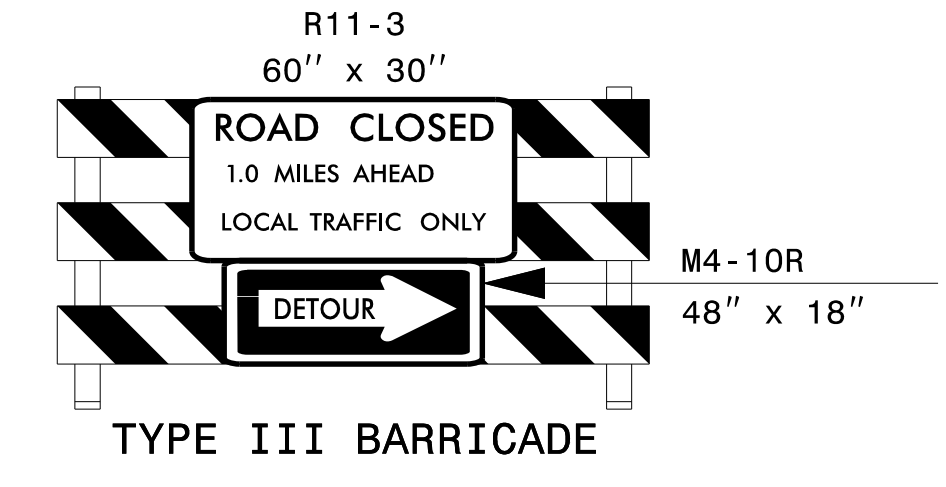
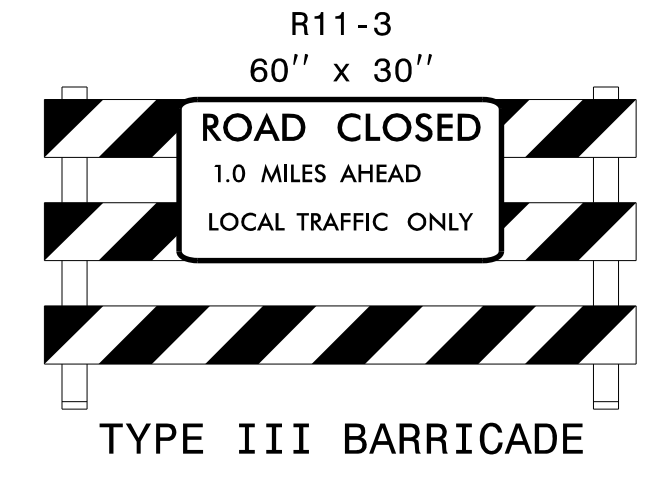
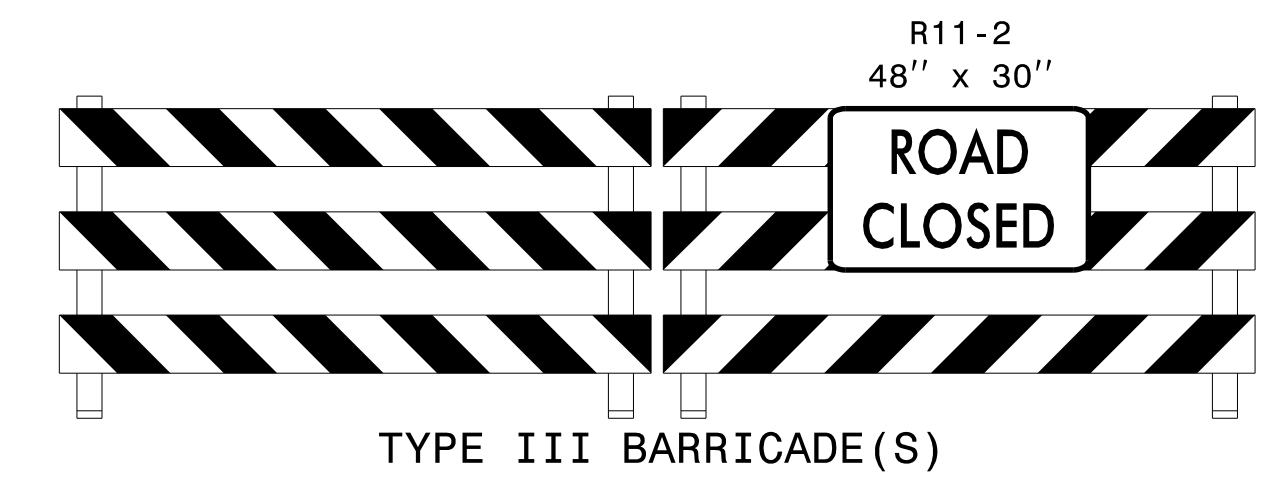
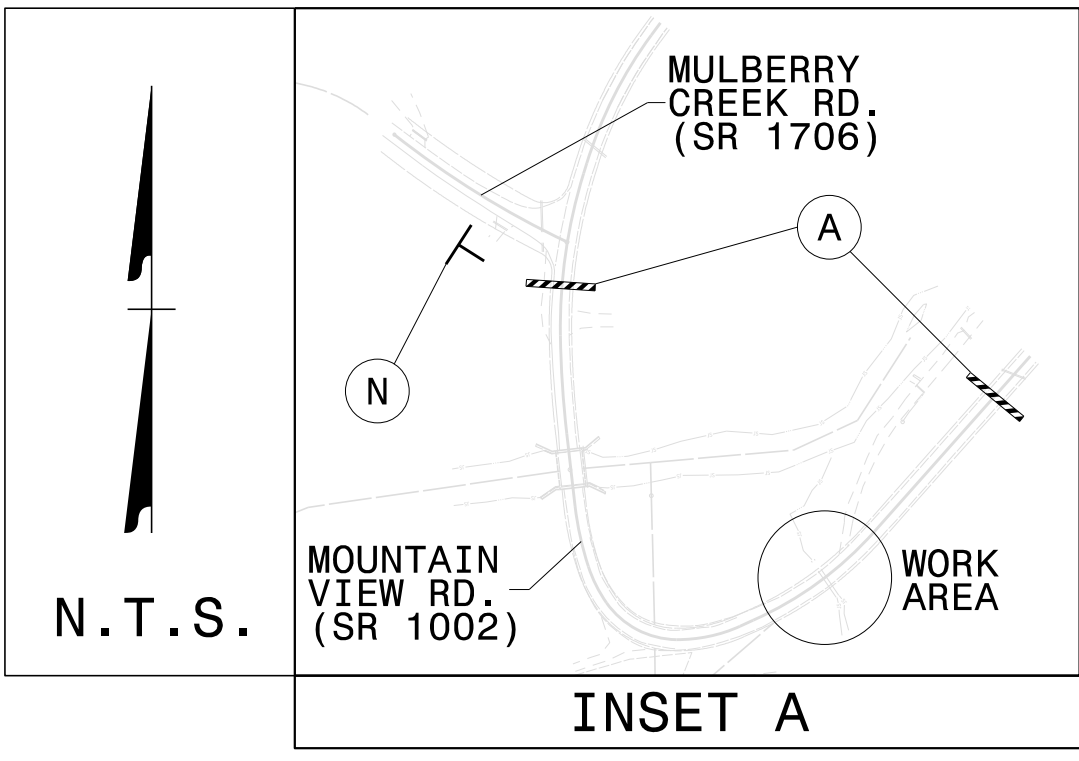
**DETOUR DESCRIPTION:**

**SOUTH:** MOUNTAIN VIEW RD (SR 1002) TO SPARTA RD (NC18) TO YELLOW BANKS RD (SR 1717) TO HAYMEADOW RD (SR 1707) TO MOUNTAIN VIEW RD (SR 1002)

**NORTH:** MOUNTAIN VIEW RD (SR 1002) TO HAYMEADOW RD (SR 1707) TO YELLOW BANKS RD (SR 1717) TO SPARTA RD (NC18) TO MOUNTAIN VIEW RD (SR 1002)

**NOTES:**

1. TRAFFIC CONTROL DEVICES (A) THRU (O) SHALL BE INSTALLED PER ENGINEER'S INSTRUCTIONS.
2. ALL SIGNAGE IS SPACED AT 500 FOOT INTERVALS EXCEPT SIGN (J).
3. USE THIS SHEET IN CONJUNCTION WITH RSD 1101.01 SHEET 3 OF 3 AND ICT #1.

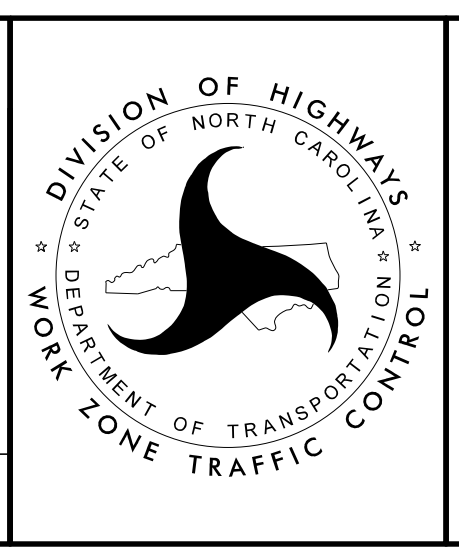


\* SIGNS (D) (H) (I) SHOULD BE PLACED ON BOTH SIDES OF THE -L- SR 1002 (MOUNTAIN VIEW RD).

APPROVED:   
DATE: 4/10/2024

SEAL

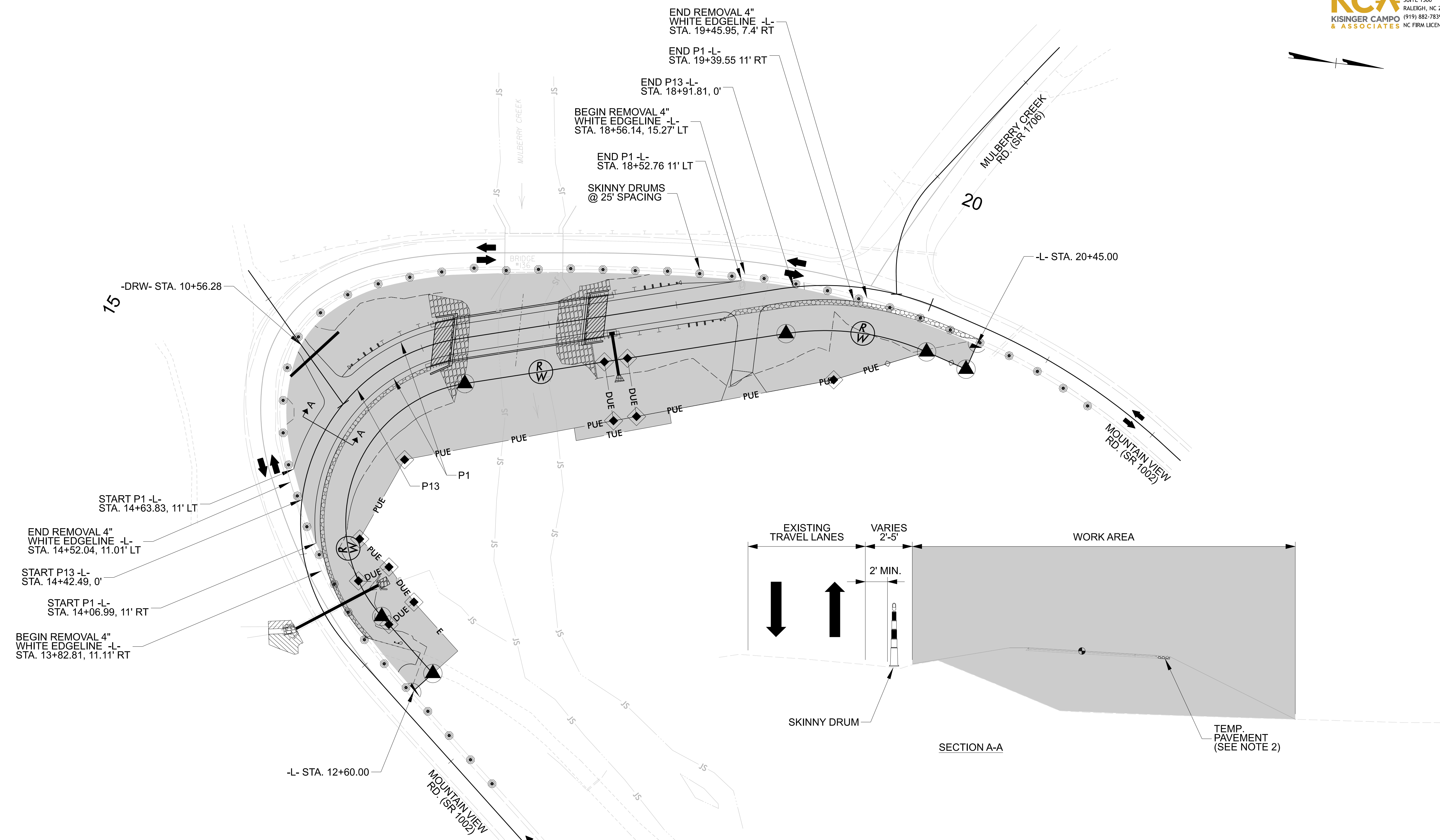
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
WORK ZONE TRAFFIC CONTROL

**MOUNTAIN VIEW RD  
OFFSITE DETOUR**

4/10/2024 17BP.11.R.163.TC.TMP-MountainViewRd\_Offsite\_Detour.dgn User: jidebone



**NOTES:**

1. TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PER ENGINEER'S INSTRUCTION.
2. PLACE TEMPORARY PAVEMENT TO THE LIMITS OF THE PROPOSED GRASS SHOULDER.

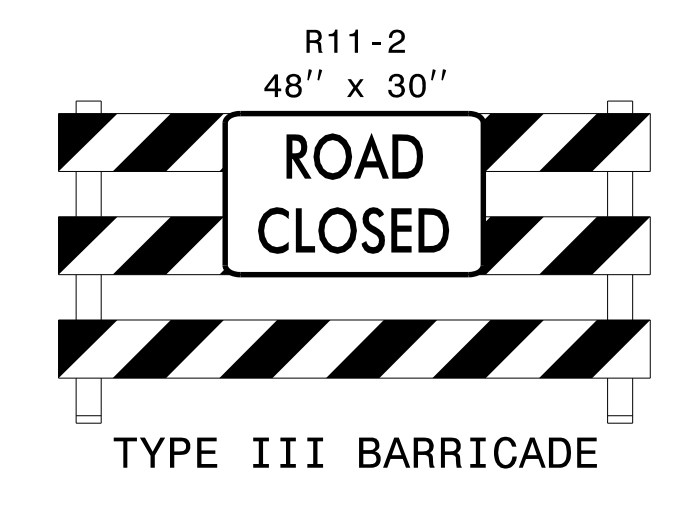
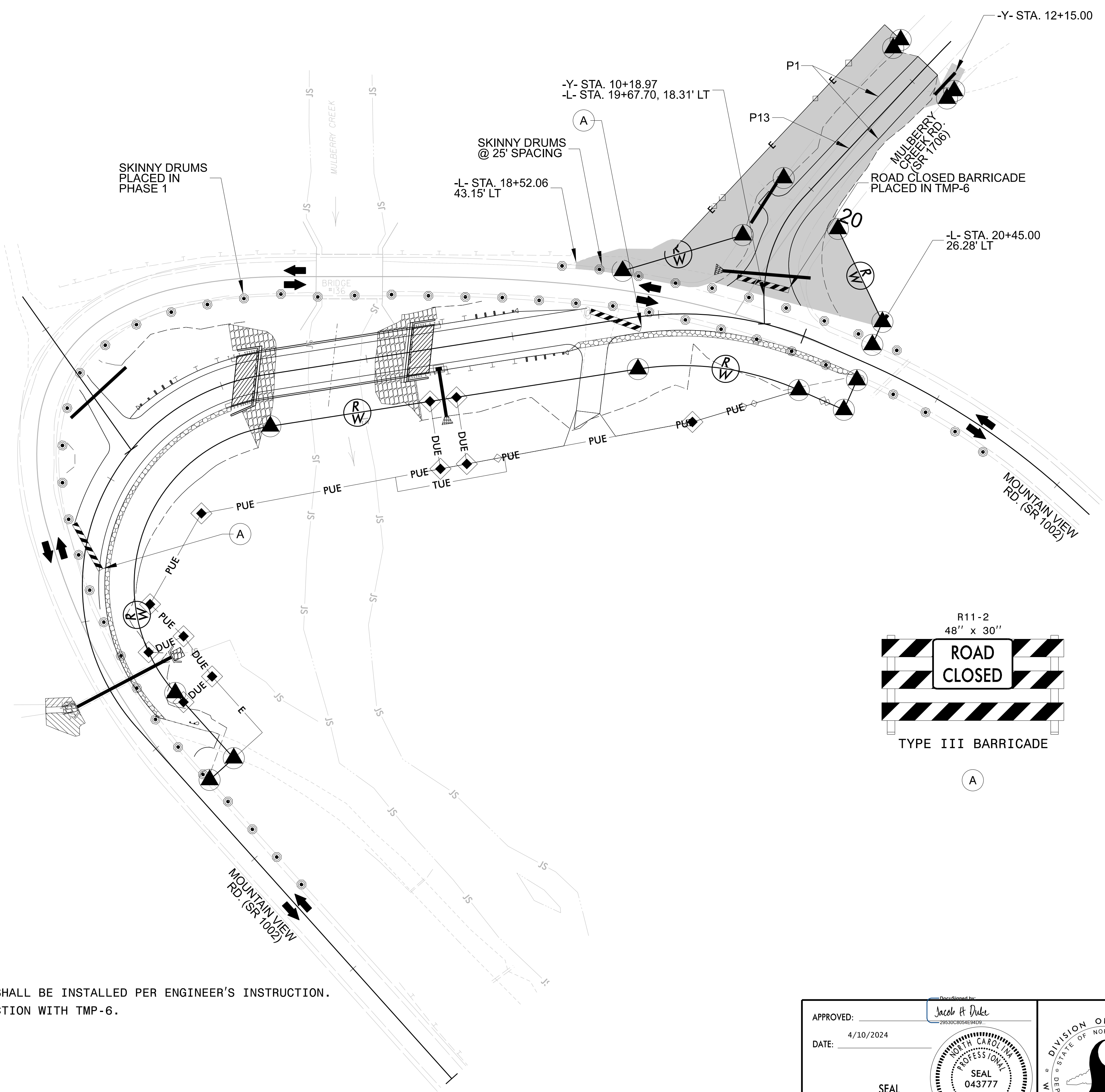
4/10/2024  
 17BP.11.R.163.TC\_TMP\_PHASE1.dgn  
 User: jdebene

APPROVED: <i>Jacob H. Duke</i> DATE: 4/10/2024 SEAL			<p style="text-align: center;"><b>PHASE 1 WORK AREA</b></p>
<p><b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b></p>			





75



**NOTES:**

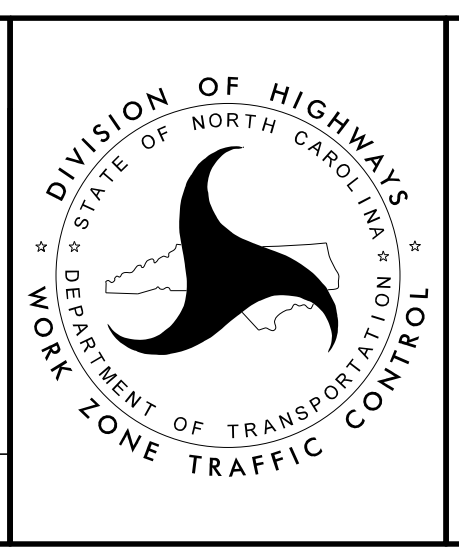
1. TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PER ENGINEER'S INSTRUCTION.
2. USE THIS SHEET IN CONJUNCTION WITH TMP-6.

4/10/2024  
 17BP.11.R.163.TC\_TMP\_PHASE\_2.dgn  
 User: jidebone

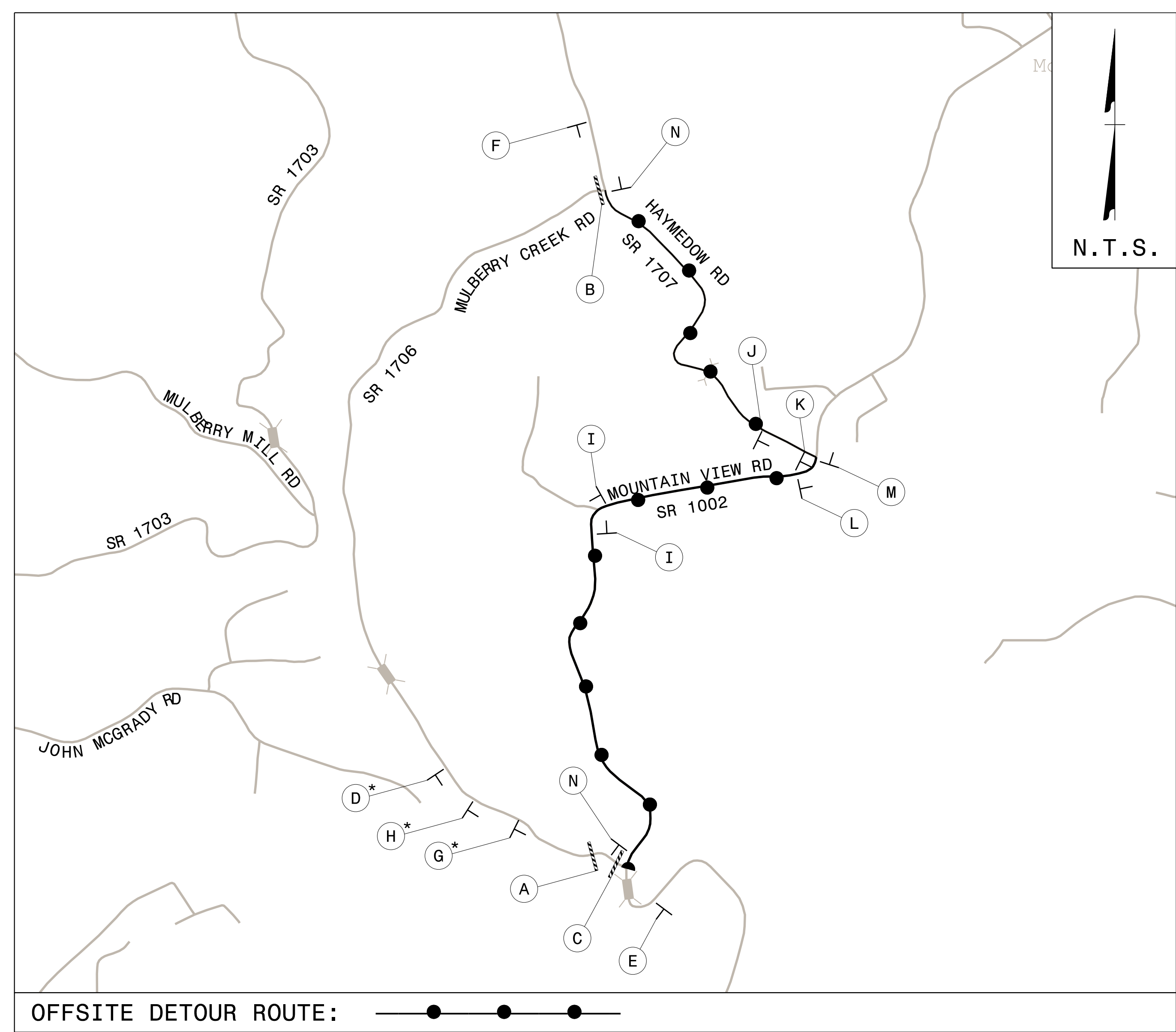
APPROVED: *Jacob H. Duke*  
 DATE: 4/10/2024

SEAL

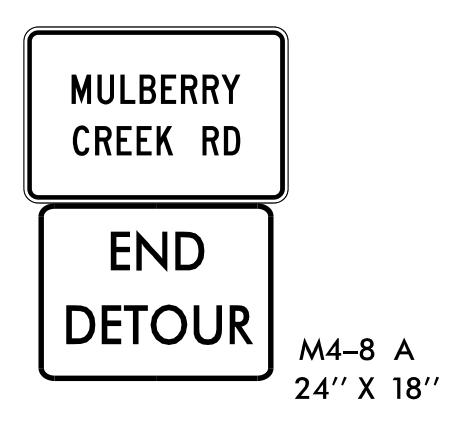
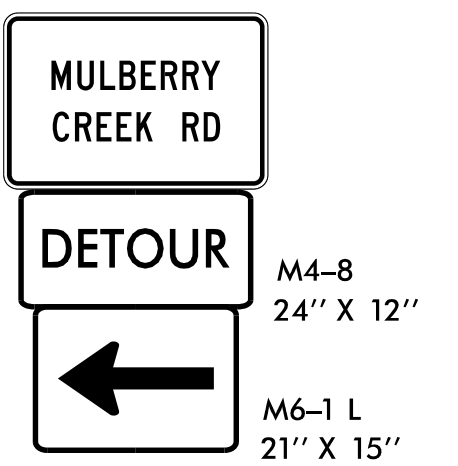
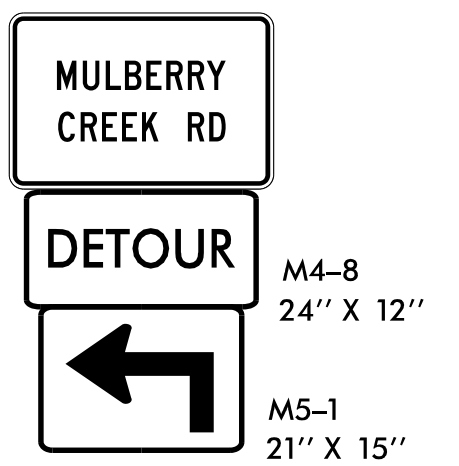
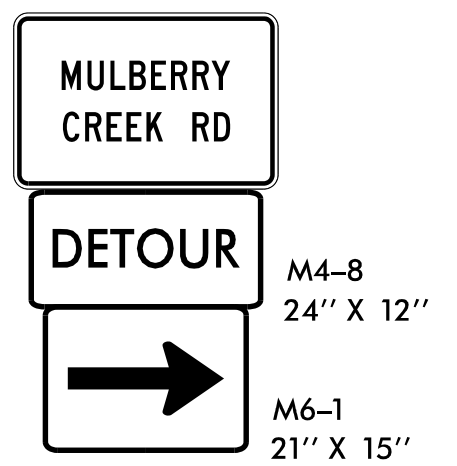
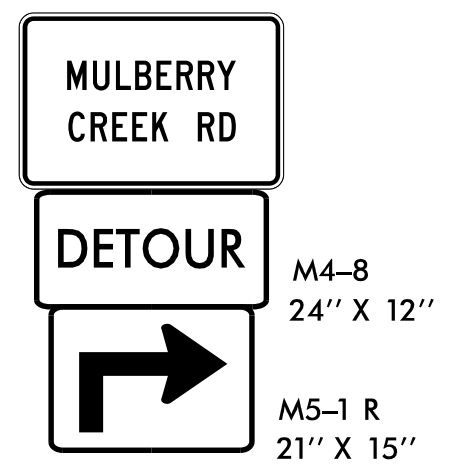
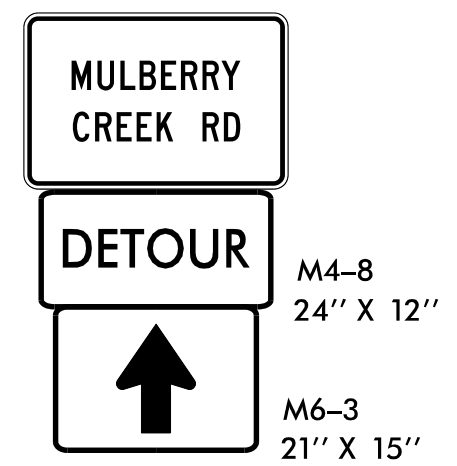
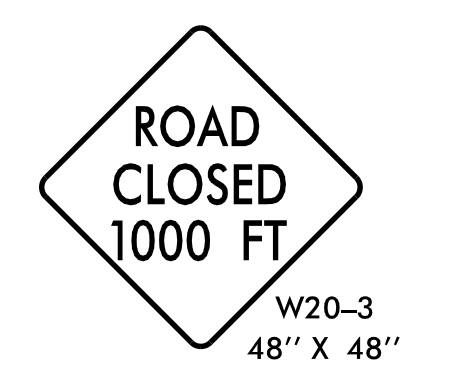
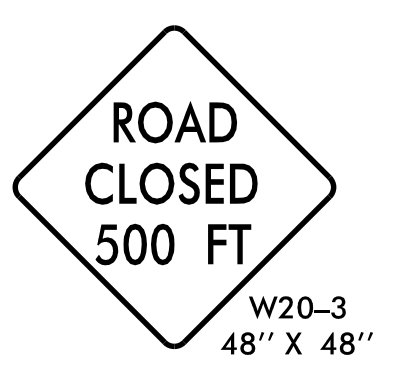
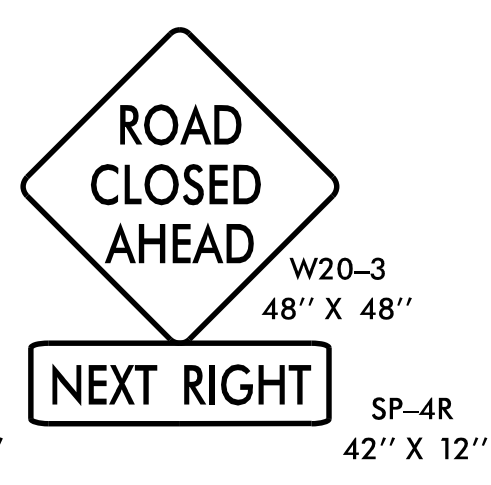
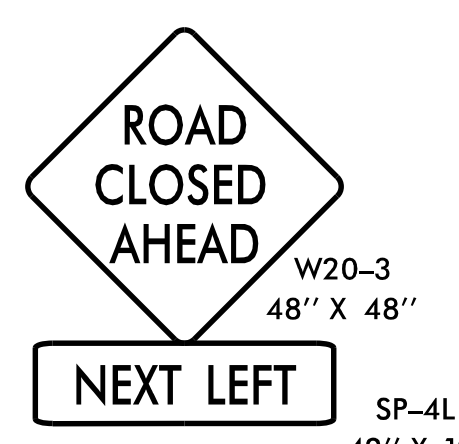
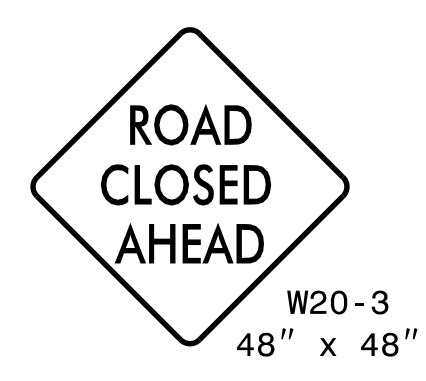
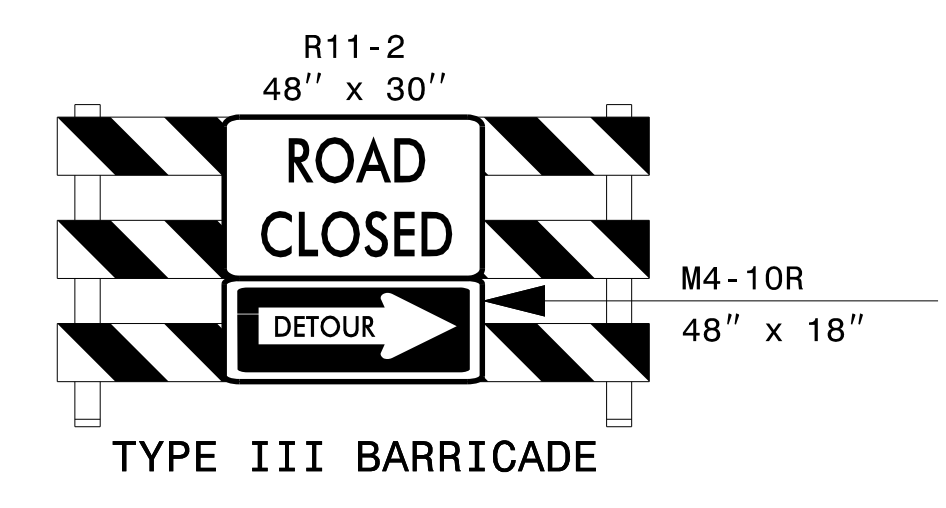
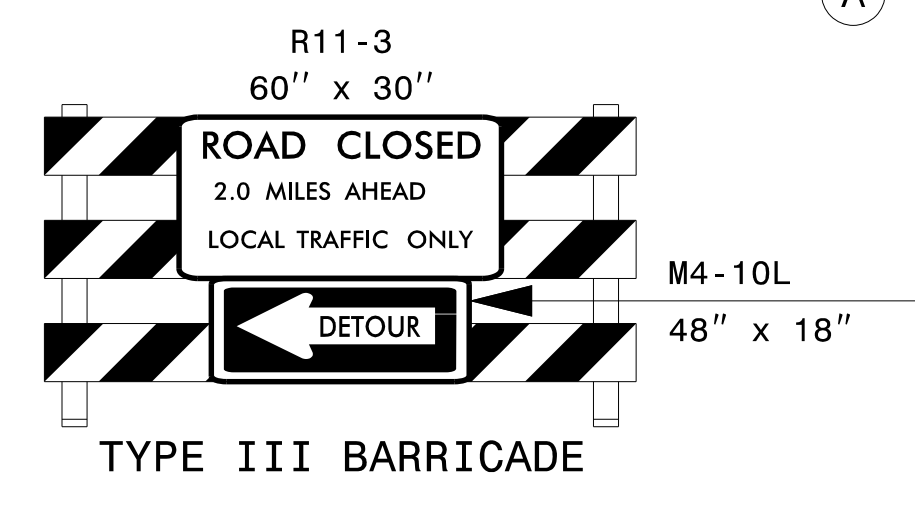
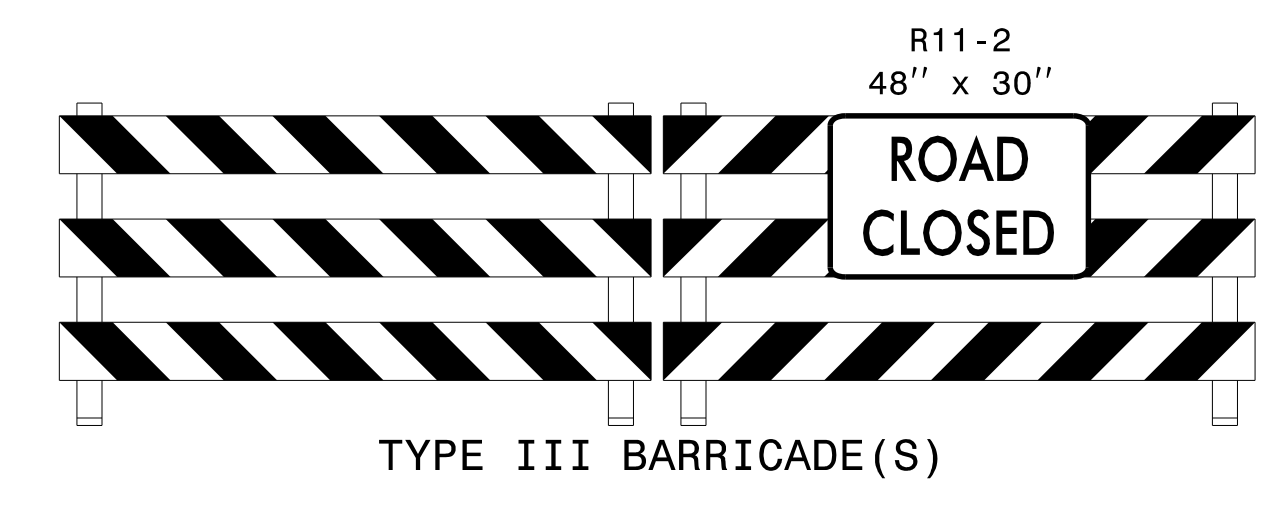
**DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED**



**PHASE 2  
 WORK AREA**



OFFSITE DETOUR ROUTE: —●—●—●—



\* SIGNS (D) (G) (H) SHOULD BE PLACED ON BOTH SIDES OF THE -Y- SR 1706 (MULBERRY CREEK RD.)

**DETOUR DESCRIPTION:**  
 HAYMEADOW RD (SR 1707) TO MOUNTAIN VIEW RD (SR 1002)

- NOTES:**
1. TRAFFIC CONTROL DEVICES (A) THRU (N) SHALL BE INSTALLED PER ENGINEER'S INSTRUCTIONS.
  2. ALL SIGNAGE IS SPACED AT 500 FOOT INTERVALS EXCEPT SIGN (I).
  3. USE THIS SHEET IN CONJUNCTION WITH RSD 1101.01 SHEET 3 OF 3, TMP-5, TMP-7, AND TMP-8.

APPROVED: Jacob H. Duke  
 DATE: 4/10/2024

SEAL

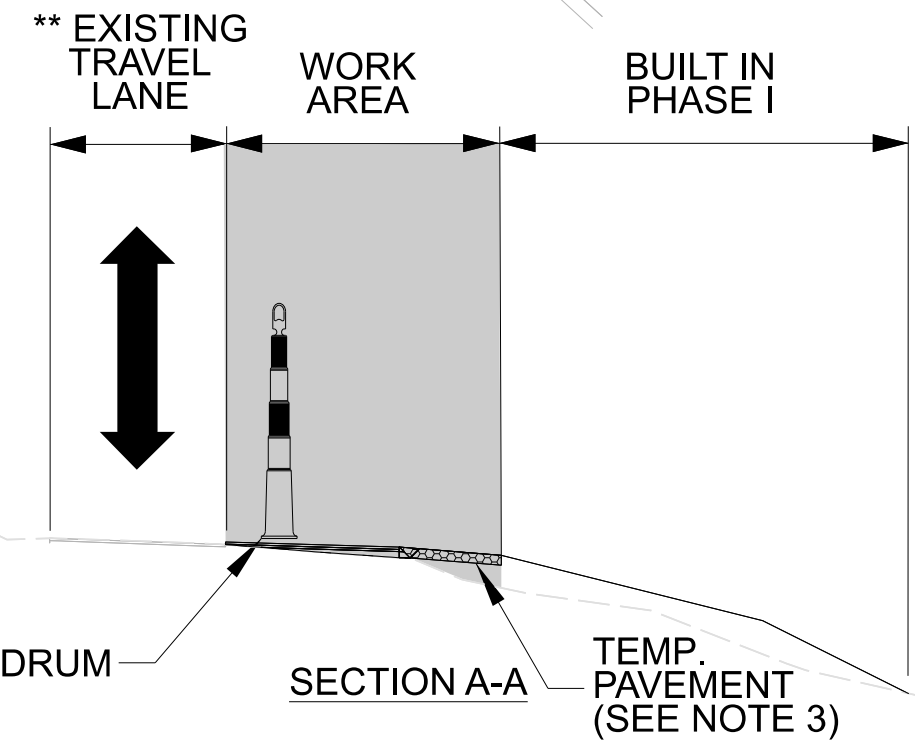
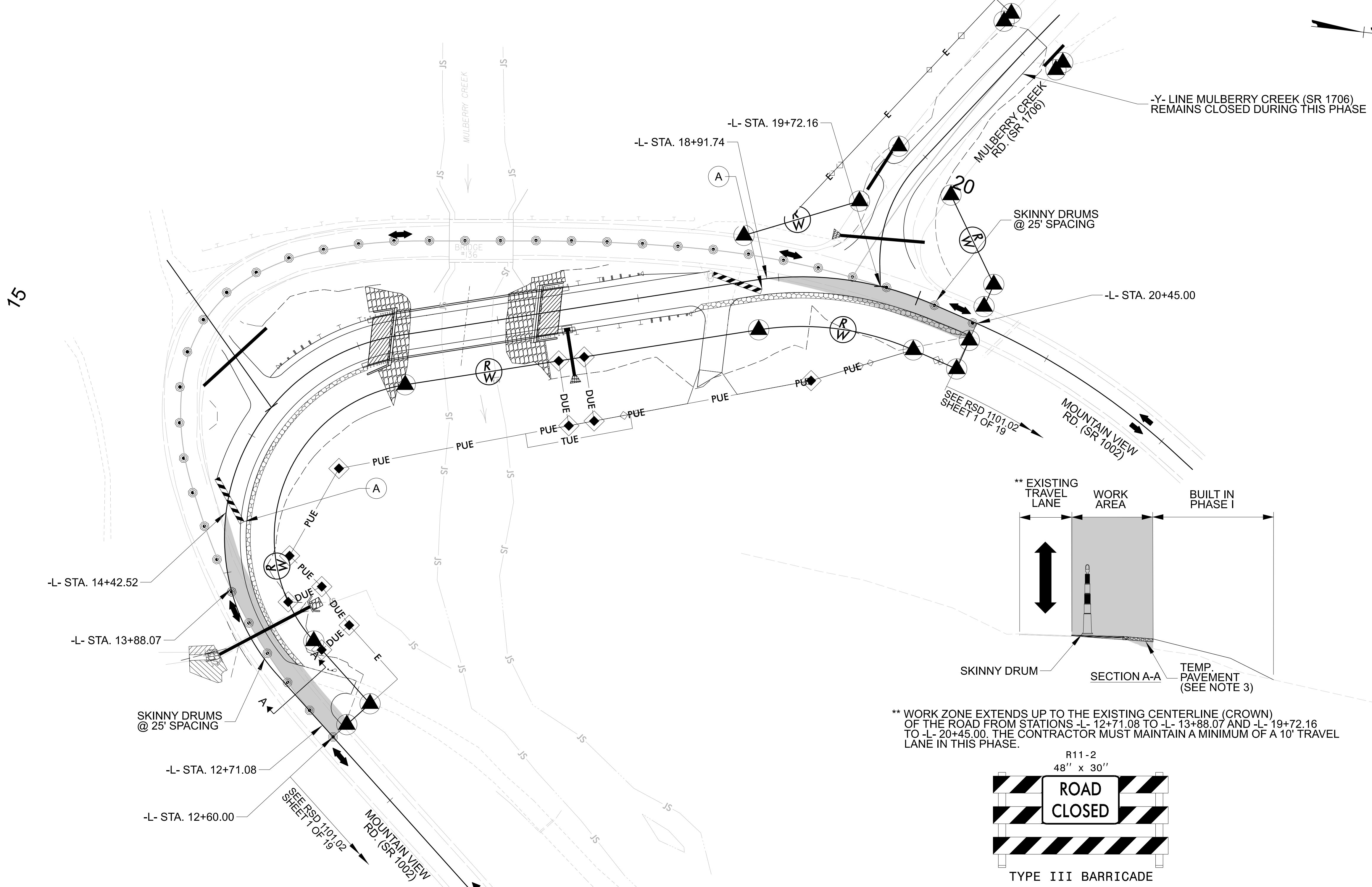
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DIVISION OF HIGHWAYS  
 STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 WORK ZONE TRAFFIC CONTROL

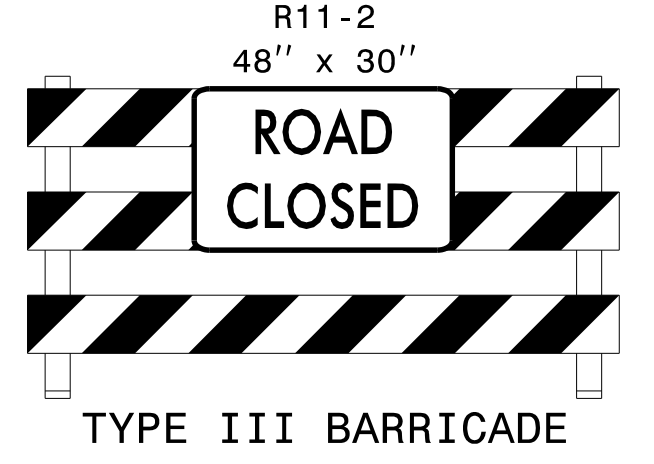
MULBERRY CREEK RD  
 OFFSITE DETOUR

4/10/2024  
 17BP.11.R.163.TC-TMP-OFFSITE-DETOUR.dgn  
 User: jidebone




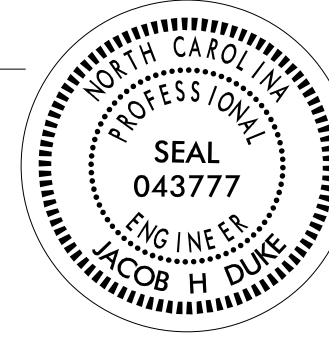
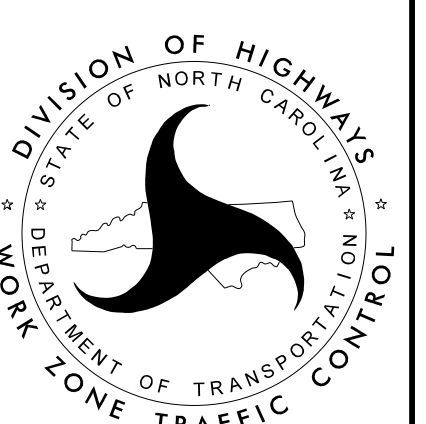


\*\* WORK ZONE EXTENDS UP TO THE EXISTING CENTERLINE (CROWN) OF THE ROAD FROM STATIONS -L- 12+71.08 TO -L- 13+88.07 AND -L- 19+72.16 TO -L- 20+45.00. THE CONTRACTOR MUST MAINTAIN A MINIMUM OF A 10' TRAVEL LANE IN THIS PHASE.

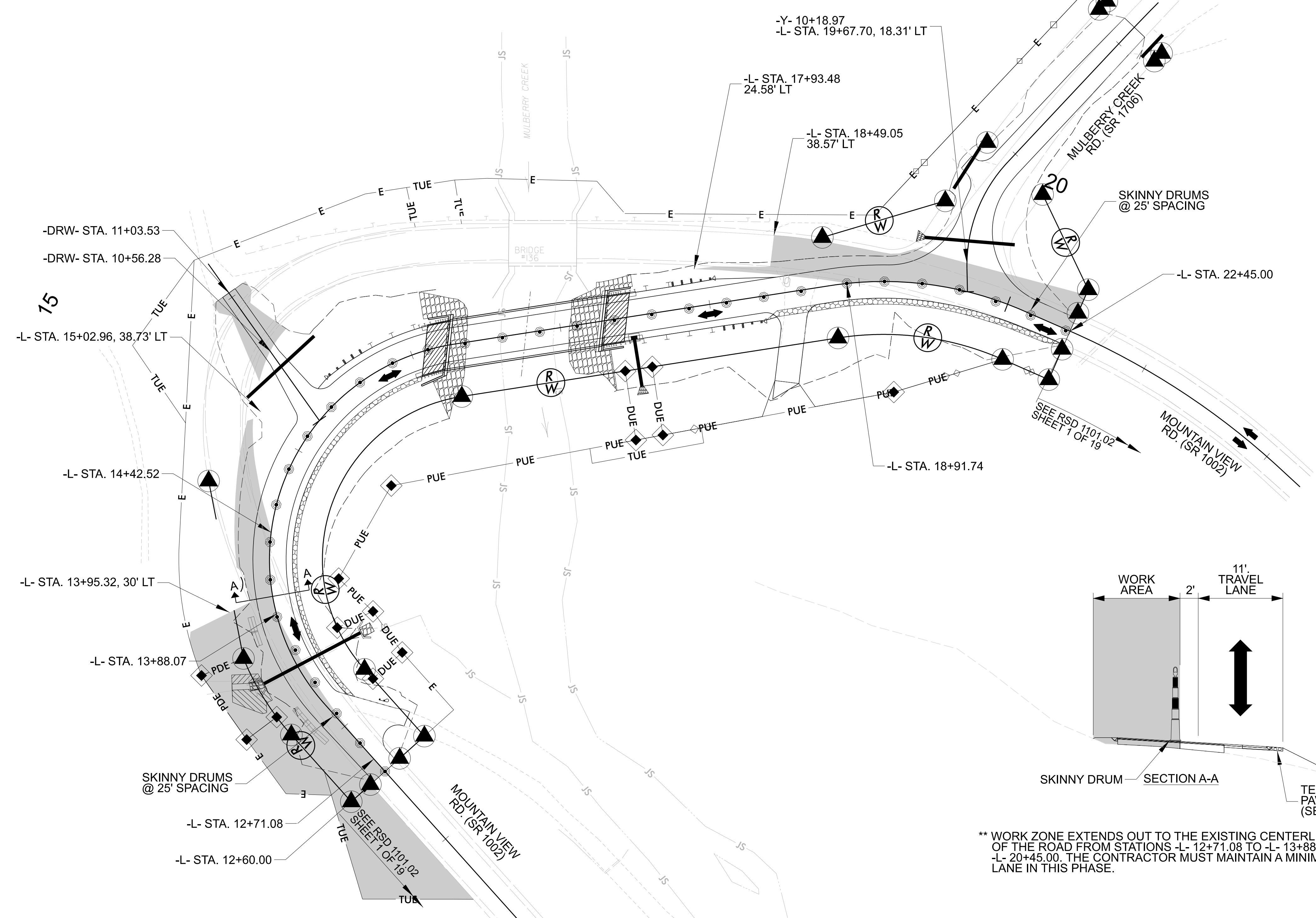


- NOTES:**
1. TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PER ENGINEER'S INSTRUCTION.
  2. USE THIS SHEET IN CONJUNCTION WITH RSD 1101.02 SHEET 1 OF 19 AND TMP-6.
  3. PLACE TEMPORARY PAVEMENT TO THE LIMITS OF THE PROPOSED GRASS SHOULDER.

4/10/2024  
 17BP.11.R.163.TC.TMP.PHASE.3.dgn  
 User: jidebone

APPROVED:  DATE: 4/10/2024 SEAL: 		<p style="text-align: center;"><b>PHASE 3 WORK AREA</b></p>
<p><b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b></p>		





\*\* WORK ZONE EXTENDS OUT TO THE EXISTING CENTERLINE (CROWN) OF THE ROAD FROM STATIONS -L- 12+71.08 TO -L- 13+88.07 AND -L- 18+91.74 TO -L- 20+45.00. THE CONTRACTOR MUST MAINTAIN A MINIMUM OF A 10' TRAVEL LANE IN THIS PHASE.

**NOTES:**

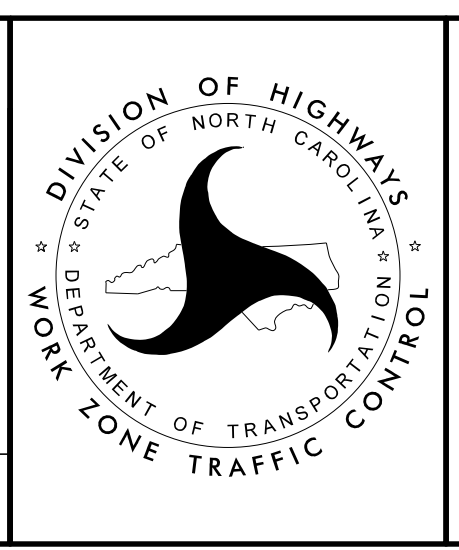
1. USE THIS SHEET IN CONJUNCTION WITH RSD 1101.02 SHEET 1 OF 19 AND TMP-6.
2. PLACE TEMPORARY PAVEMENT TO THE LIMITS OF THE PROPOSED GRASS SHOULDER.

4/10/2024  
 17BP.11.R.163.TC\_TMP\_PHASE-4.dgn  
 User: jidebone

APPROVED: *Jacob H. Duke*  
 DATE: 4/10/2024

SEAL

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

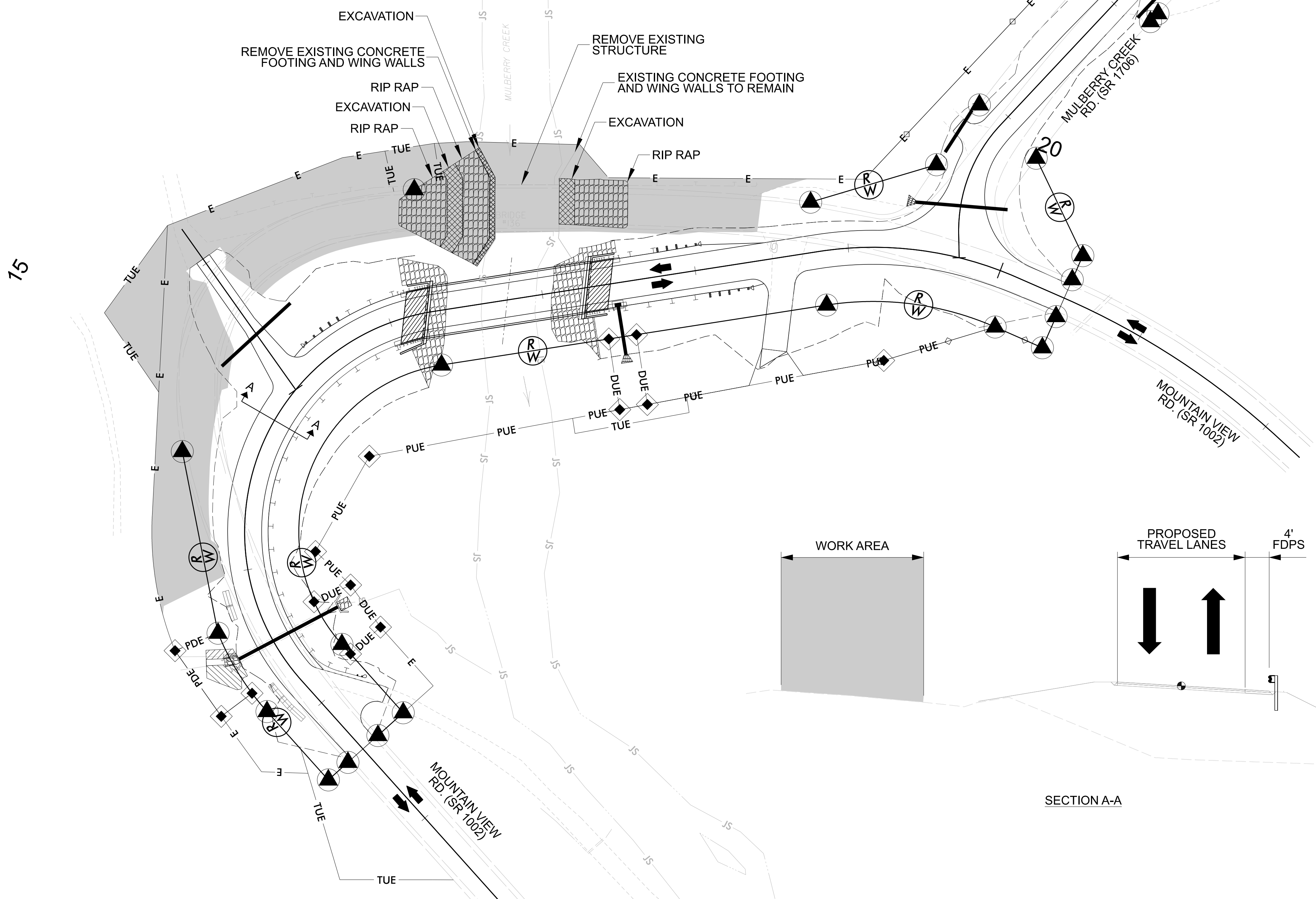
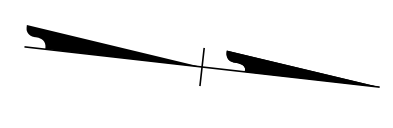


DIVISION OF HIGHWAYS  
 STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION

WORK ZONE TRAFFIC CONTROL

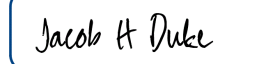
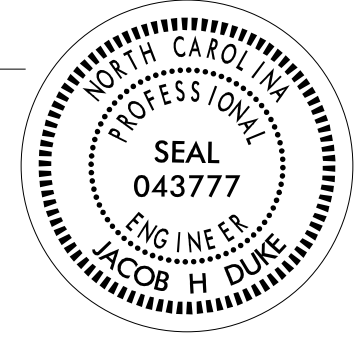
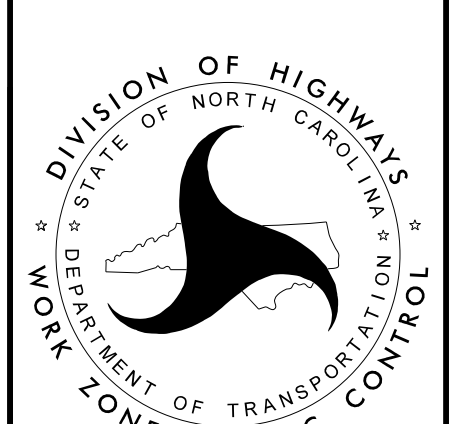
**PHASE 4  
 WORK AREA**





SECTION A-A


4/10/2024  
 17BP.11.R.163.TC\_TMP\_PHASE\_6.dgn  
 User: jdebbono

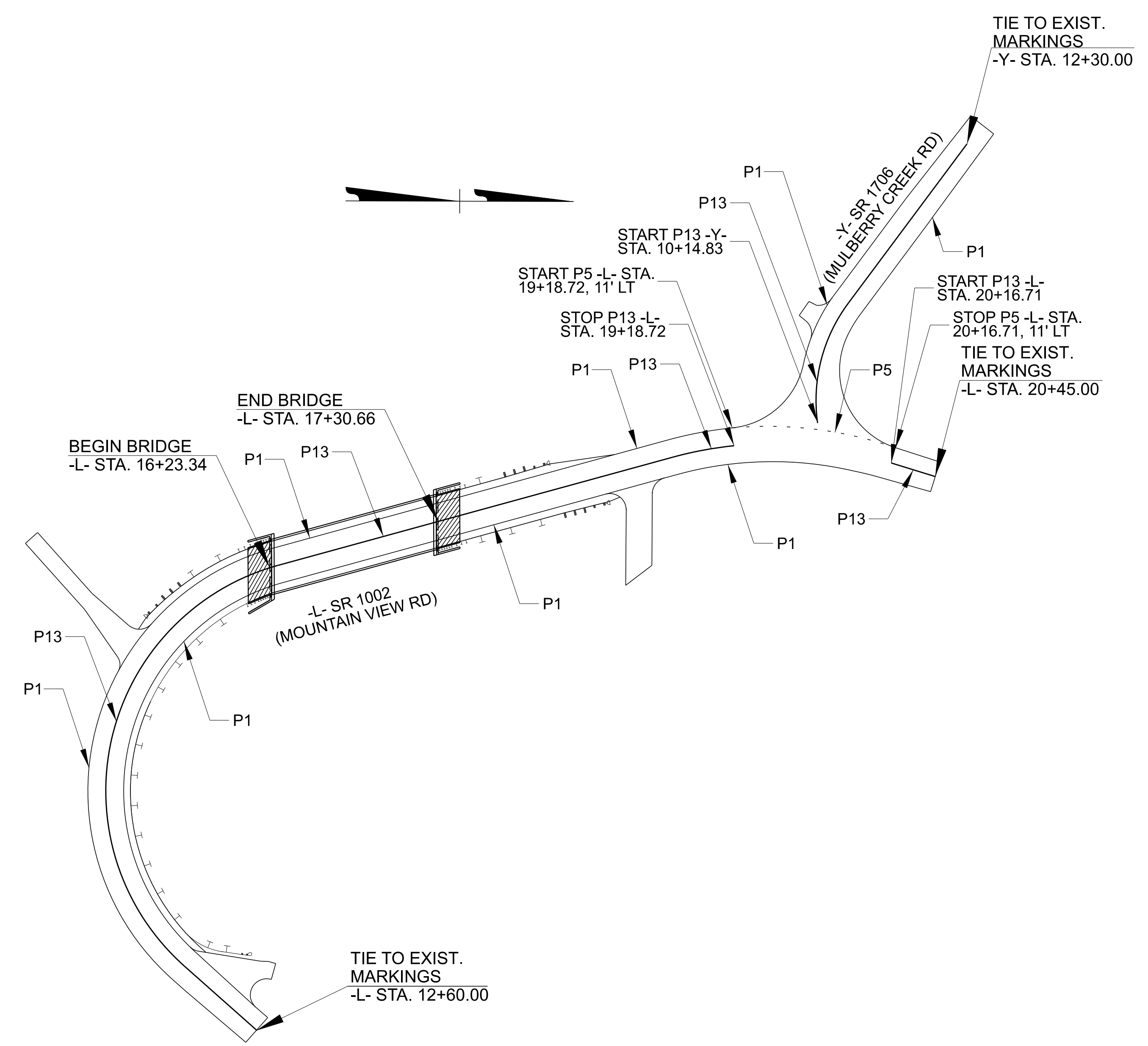
APPROVED:  DATE: 4/10/2024 SEAL			<p style="text-align: center;"><b>PHASE 6 WORK AREA</b></p>
<p><b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b></p>			

**PROJECT: 17BP.11.R.163**

**STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN  
WILKES COUNTY**

PROJECT NO. <b>17BP.11.R.163</b>	SHEET NO. <b>PMP-1</b>
APPROVED: <i>Jacob Duke</i> <small>285303054E94D9...</small>	
DATE: 12/19/2024	
	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



**ROADWAY STANDARD DRAWING**

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - IPERMANENT AND TEMPORARY
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

**GENERAL NOTES**

- THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.
- A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME	MARKING	MARKER
MOUNTAIN VIEW RD (SR 1002)	PAINT	SNOWPLOWABLE
MULBERRY CREEK RD (SR 1706)	PAINT	NONE
  - B) PLACE TWO APPLICATIONS OF PAINT PAVEMENT MARKINGS ON THE FINAL WEARING SURFACE. PLACE THE SECOND APPLICATION OF PAINT UPON SUFFICIENT DRYING TIME OF THE FIRST.
  - C) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
  - D) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.

**PAVEMENT MARKING SCHEDULE**

SYMBOL	DESCRIPTION	QUANTITY
<b>PAINT</b>		
P1	WHITE EDGELINE (4")	3806 LF
P5	2FT. -6FT. /SP WHITE MINISKIP (4")	50 LF
P13	YELLOW DOUBLE CENTER (4")	3610 LF
ME	SNOWPLOWABLE MARKER (YELLOW & YELLOW)	26 EA

**PLAN PREPARED BY: KISINGER CAMPO & ASSOCIATES**

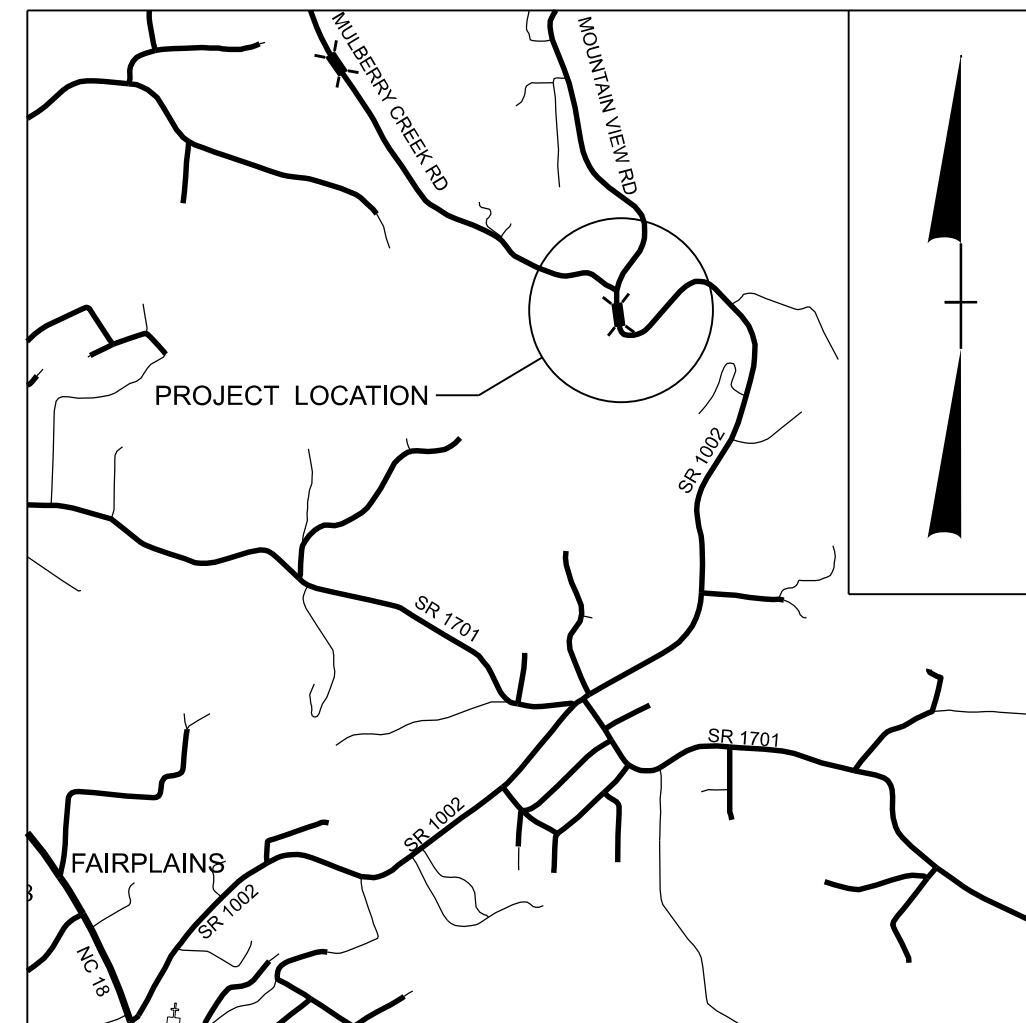
**JACOB H. DUKE, PE** PROJECT ENGINEER  
**JASON M. DEBONE** PROJECT DESIGNER

**KCA**  
KISINGER CAMPO & ASSOCIATES

NC FIRM LICENSE No: C-1506  
301 Fayetteville St.,  
Suite 1500  
Raleigh, NC 27601  
(919)882-7839



**TIP PROJECT: 17BP.11.R.163**

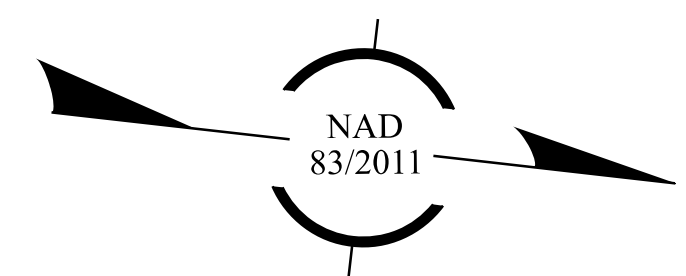
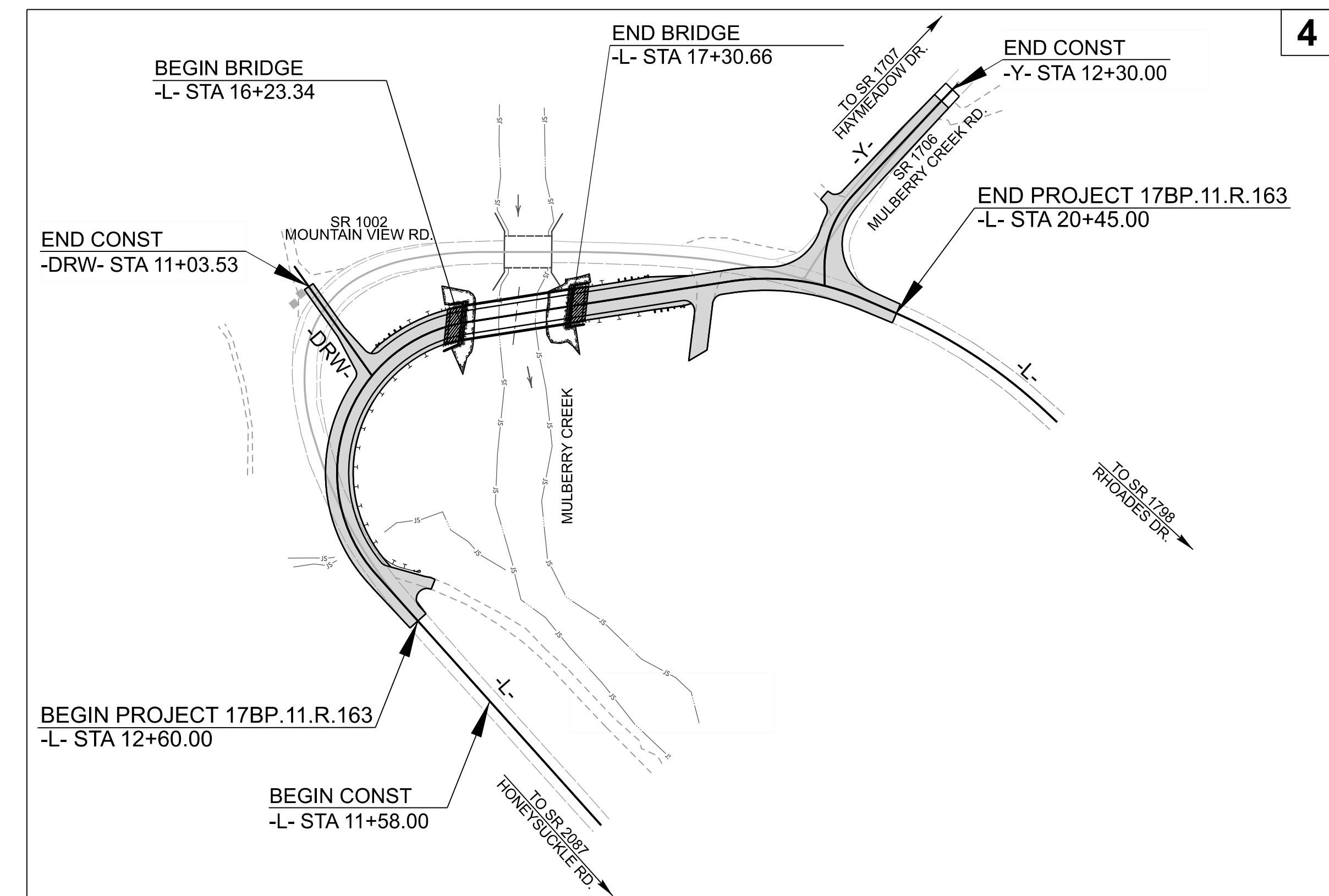


VICINITY MAP (NTS)

STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS  
 PLAN FOR PROPOSED  
 HIGHWAY EROSION CONTROL  
 WILKES COUNTY

LOCATION: *BRIDGE NO. 960136 ON SR 1002 (MOUNTAIN VIEW RD) OVER MULBERRY CREEK*

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

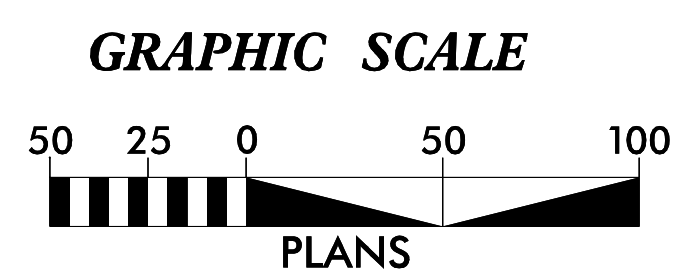


STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.11.R.163	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
17BP.11.PE.163	N/A	PE	
17BP.11.ROW.163	N/A	RW, UTILITIES	
17BP.11.R.163	N/A	CONSTRUCTION	

**EROSION AND SEDIMENT CONTROL MEASURES**

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	III III III
1606.01	Special Sediment Control Fence	▲▲▲▲▲
1622.01	Temporary Berms and Slope Drains	—
1620.02	Silt Basin Type B	▨
1633.01	Temporary Rock Silt Check Type-A	▩
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	▩
1633.02	Temporary Rock Silt Check Type-B	▩
	Wattle/Coir Fiber Wattle	—
	Wattle/Coir Fiber Wattle with Polyacrylamide (PAM)	—
1634.01	Temporary Rock Sediment Dam Type-A	▩
1634.02	Temporary Rock Sediment Dam Type-B	▩
1635.01	Rock Pipe Inlet Sediment Trap Type-A	⊕
1635.02	Rock Pipe Inlet Sediment Trap Type-B	⊕
1630.04	Stilling Basin	▭
1630.06	Special Stilling Basin	▭
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	▭
	Tiered Skimmer Basin	▭
	Infiltration Basin	▭

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



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



Prepared In the Office of:  
**NC FIRM LICENSE No: C-1506**  
 301 Fayetteville St.,  
 Suite 1500  
 Raleigh, NC 27601  
 (919)882-7839

Designed by:  
**JOHN MCNULTY** 4263  
 NAME LEVEL III CERTIFICATION NO.

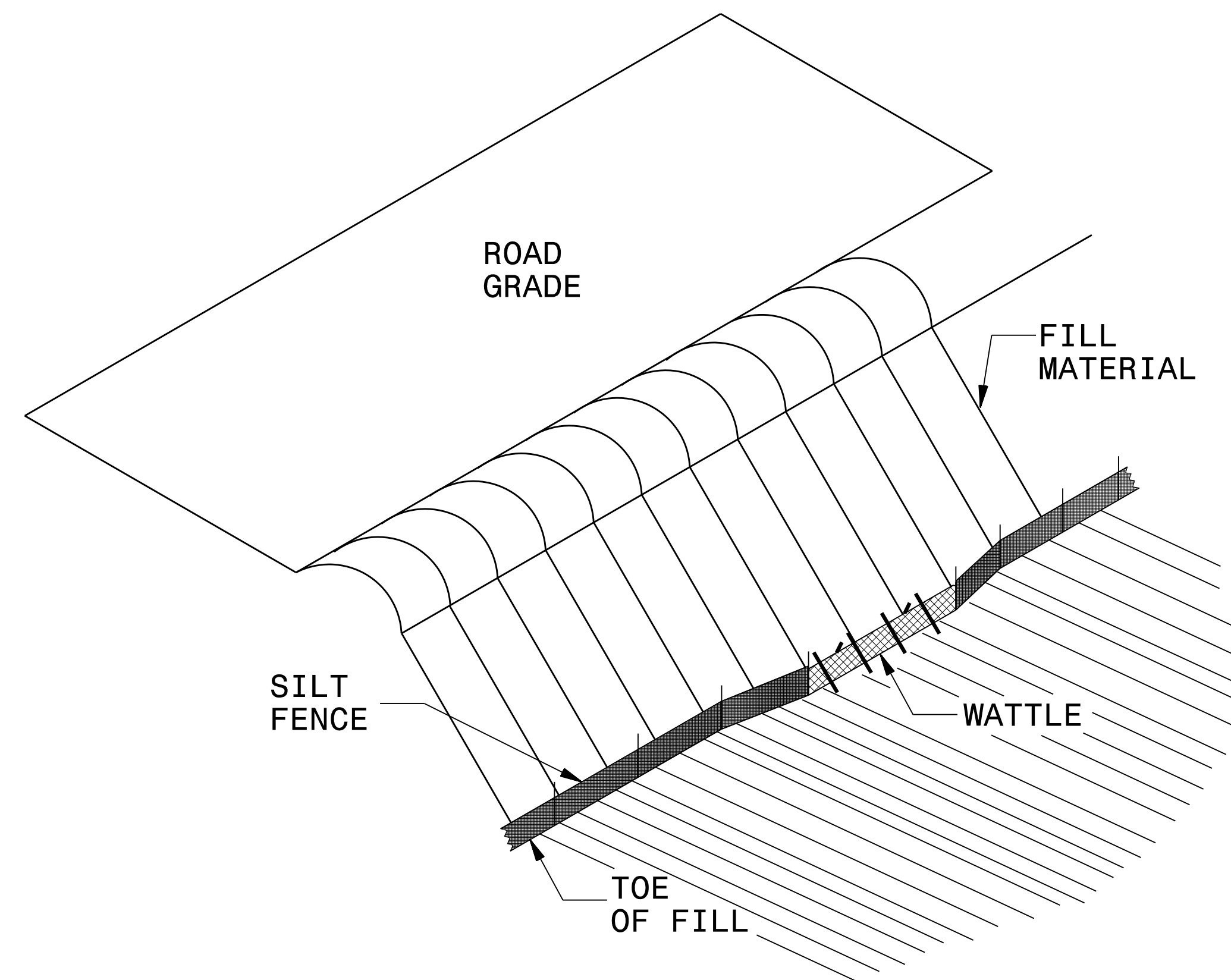
Roadway Standard Drawings

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

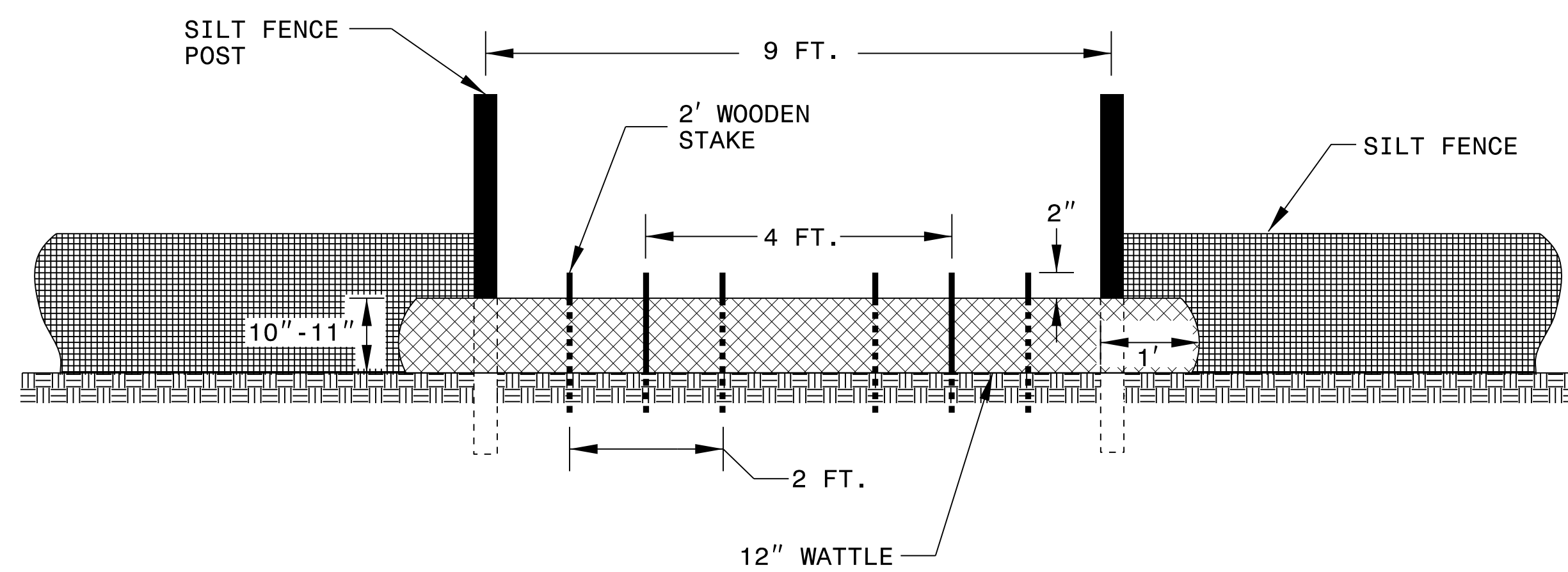
1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type B
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type B	1634.02 Temporary Rock Sediment Dam Type B
1630.03 Temporary Silt Ditch	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Stilling Basin	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Temporary Diversion	1640.01 Coir Fiber Baffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

# SILT FENCE COIR FIBER WATTLE BREAK DETAIL

PROJECT REFERENCE NO. 17BP.II.R.163	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



**ISOMETRIC VIEW**



**VIEW FROM SLOPE**

**NOTES:**

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE AND LENGTH OF 10 FT.

EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.

DO NOT PLACE WATTLE ON TOE OF SLOPE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.

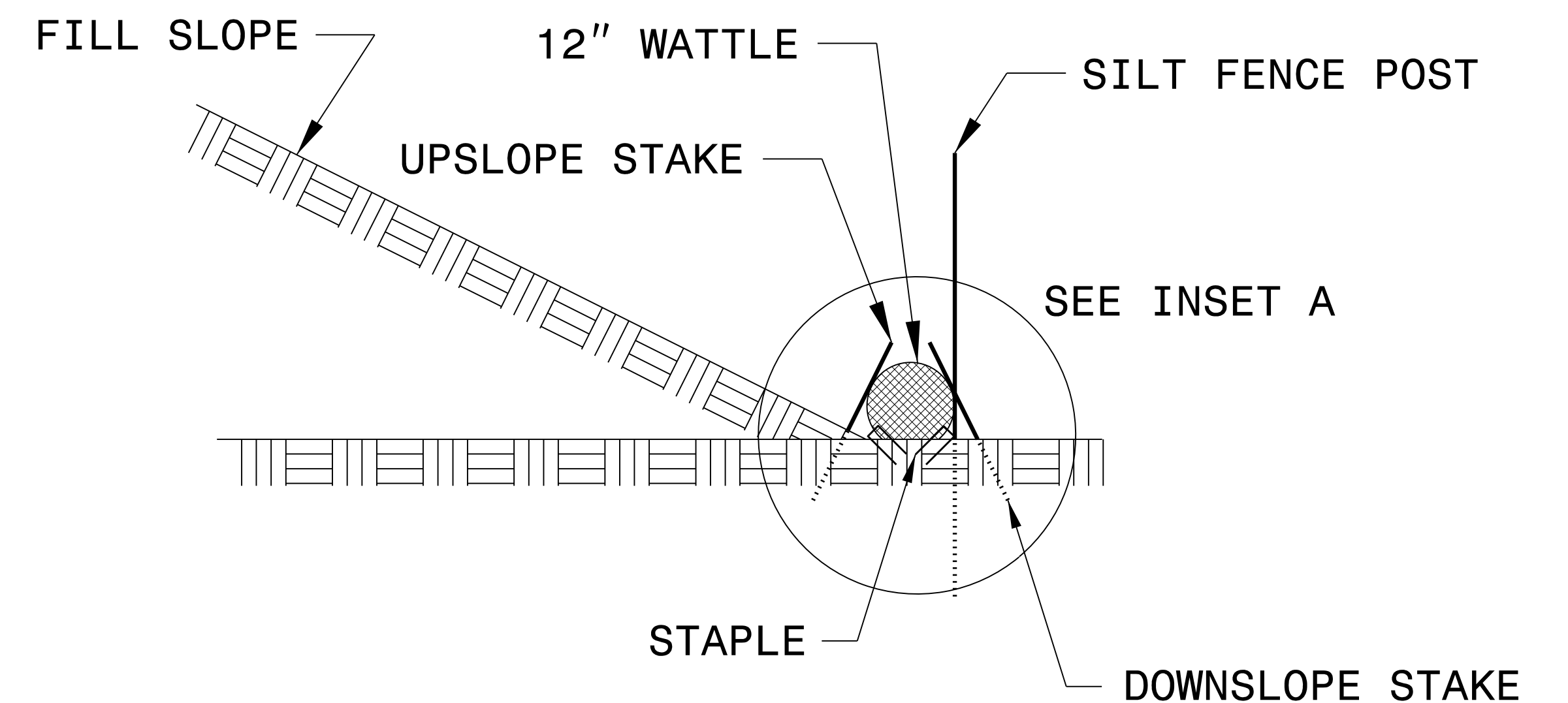
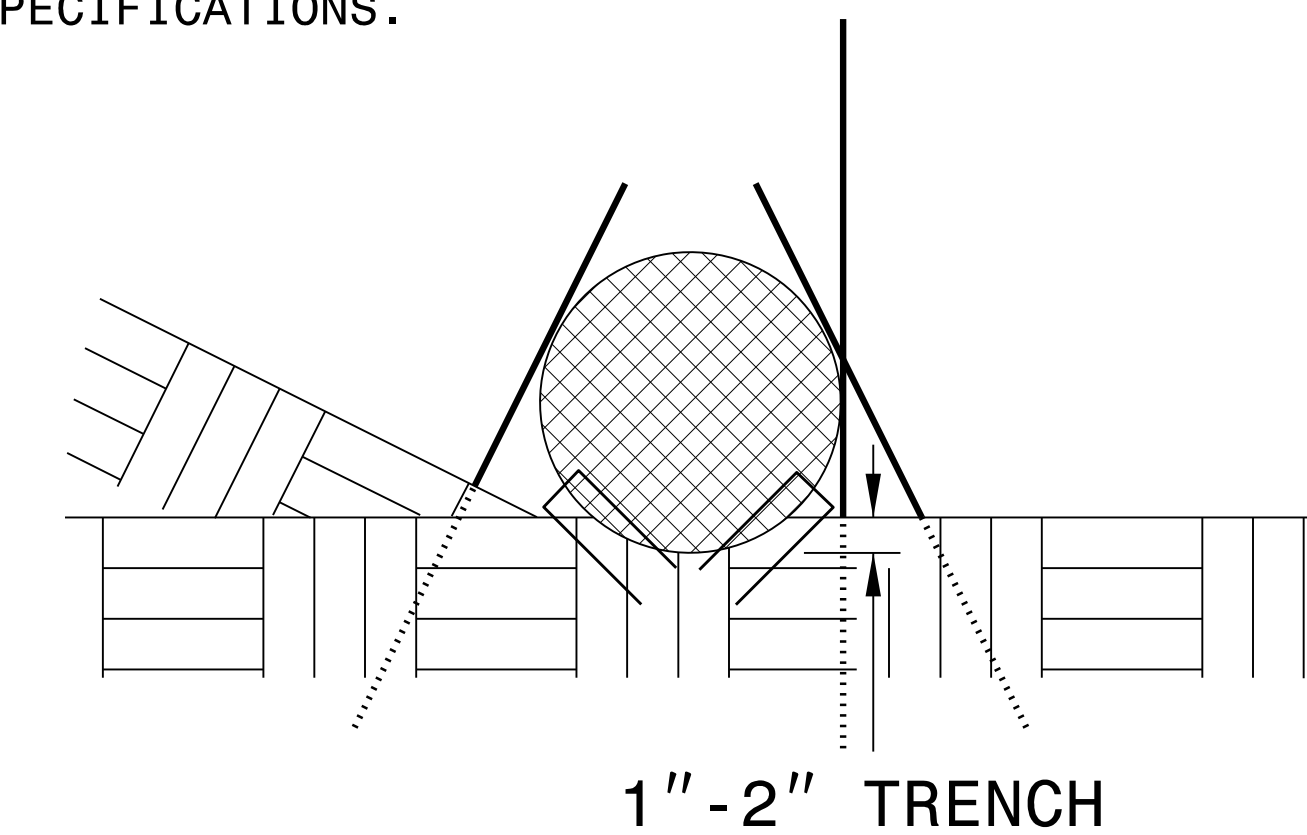
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.

INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.

**INSET A**

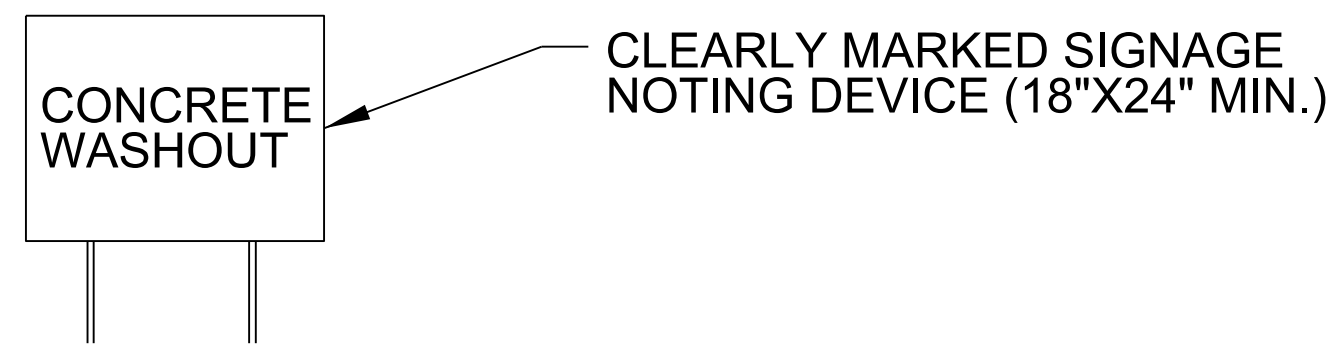
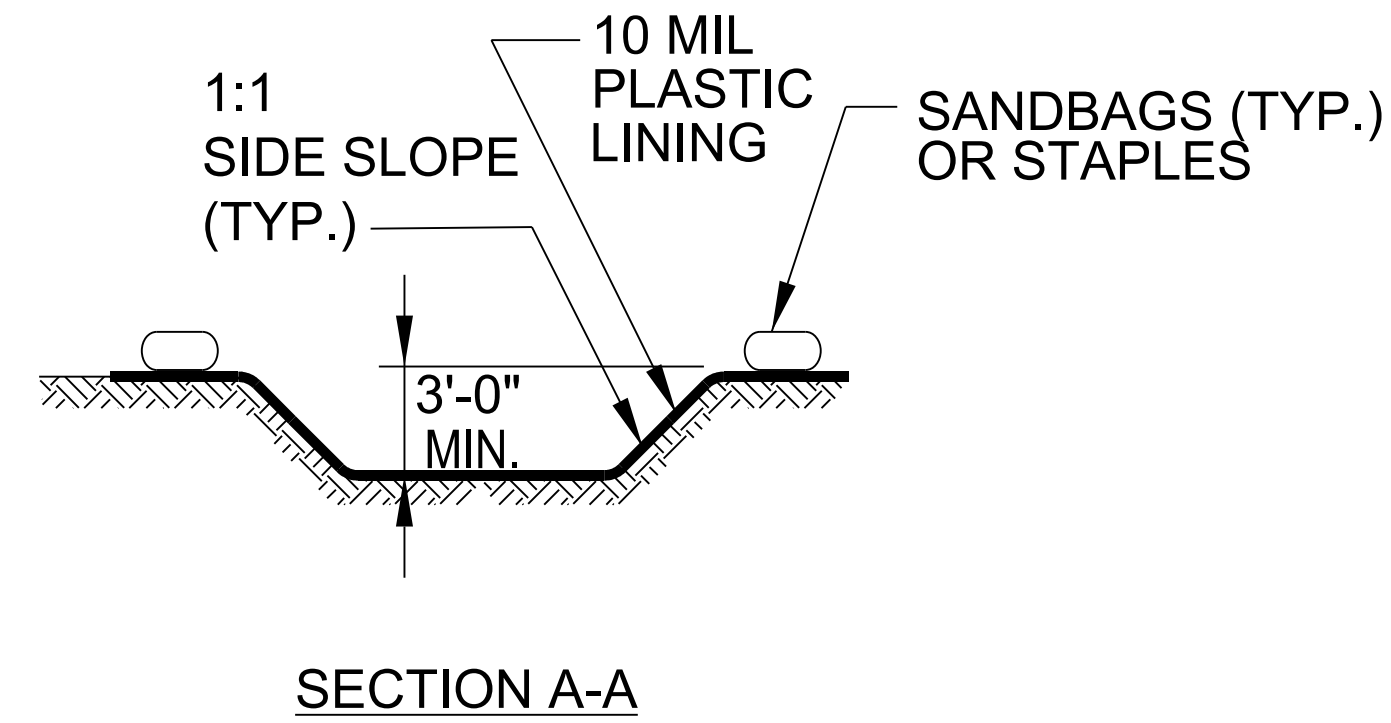
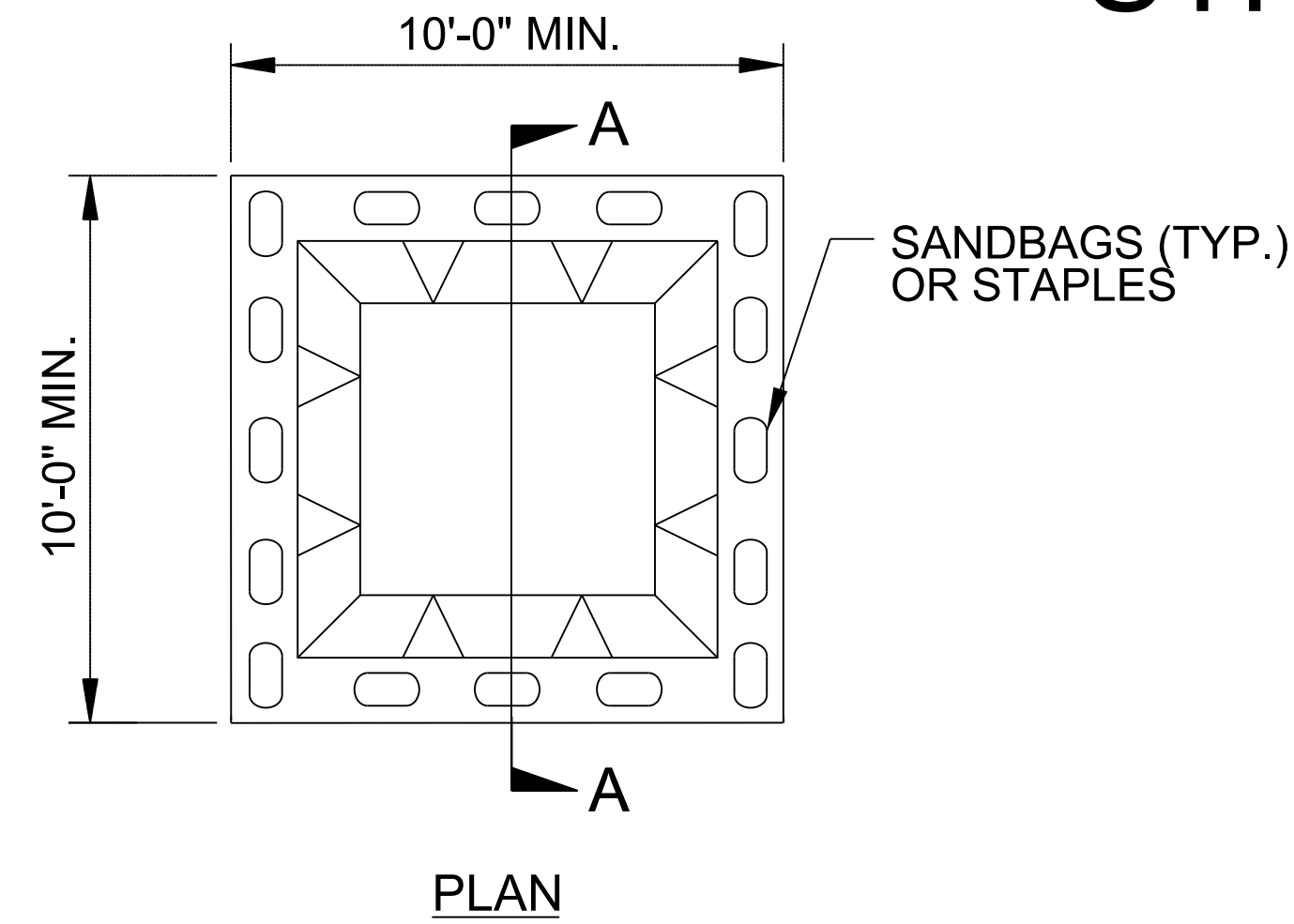


**SIDE VIEW**



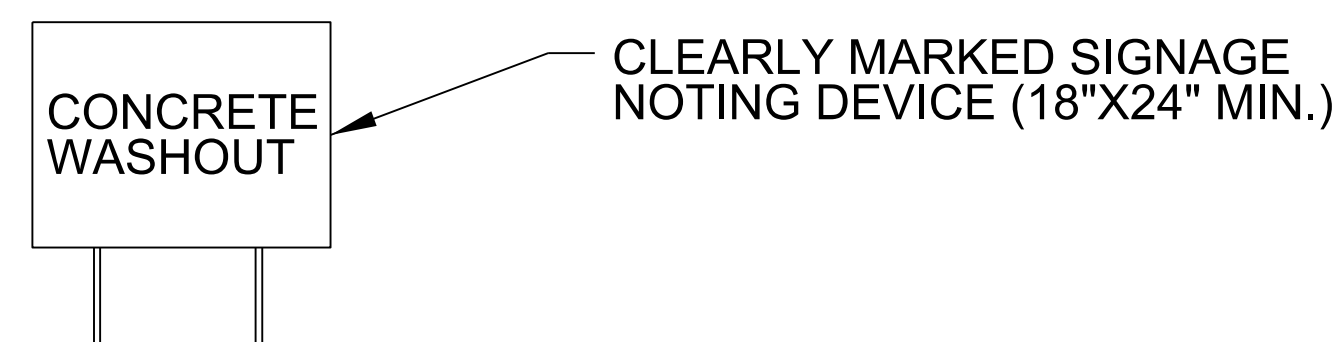
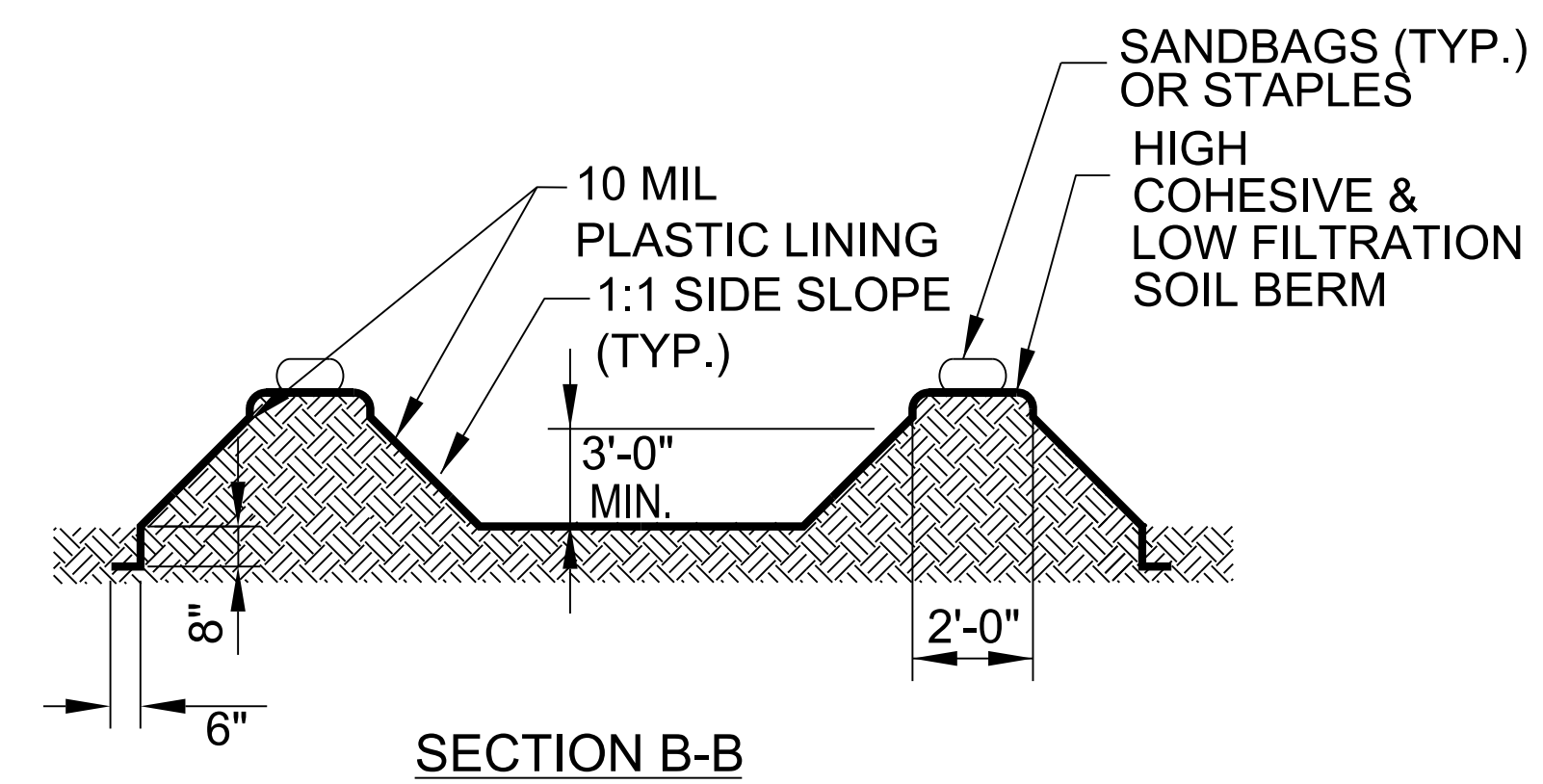
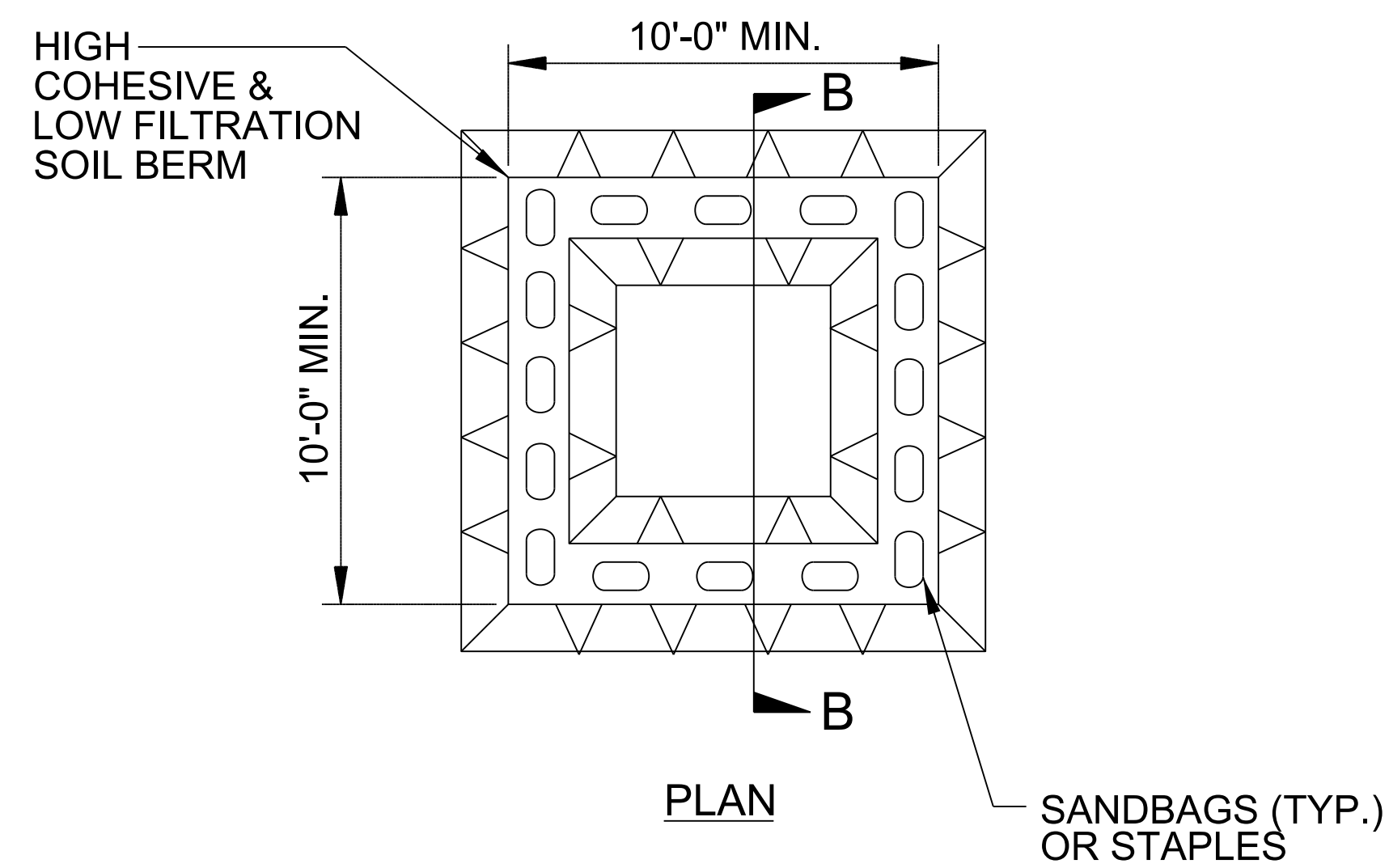
PROJECT REFERENCE NO. 17BP.11.R.163	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



**BELOW GRADE WASHOUT STRUCTURE**  
NOT TO SCALE

- NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
  2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
  3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.



**ABOVE GRADE WASHOUT STRUCTURE**  
NOT TO SCALE

- NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
  2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
  3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.





DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

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PROJECT REFERENCE NO. <i>17BP.11.R.163</i>	SHEET NO. <i>EC-3B</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

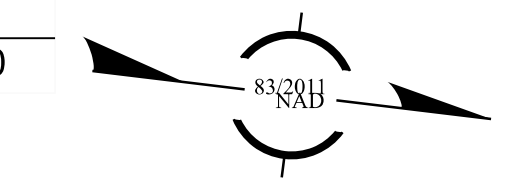
# ***SOIL STABILIZATION TIMEFRAMES***

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



①  
 BENNY S. ALEXANDER  
 VIRGINIA S. ALEXANDER  
 DB 514 PG 149  
 DB 996 PG 80

③  
 CHARLES R. ALEXANDER, JR.  
 DB 1162 PG 325



END CONST -Y-  
 POT STA 12+30.00

18"  
 BURIED 0.25'  
 HW/D10 = 1.1

BEGIN BRIDGE  
 -L- STA 16+23.34  
 BEGIN APPROACH SLAB  
 -L- STA 16+12.57

24" RCP CLASS V  
 (BURIED 0.5')

IMPERVIOUS DIKE

-DRW- POT STA. 11+27.21

④  
 JUDY N. SLOAN  
 PAUL S. ALEXANDER  
 DB 1200 PG 400  
 DB 809 PG 73

②  
 PERRY L. PARKS  
 DB 547 PG 93  
 15"  
 HW/D10 = 0.8

-DRW- POT 10+00.00  
 -L- POC STA. 15+24.09

15"  
 W/ ELBOWS

-Y- POT 10+00.00  
 -L- STA. 19+72.16

END PROJECT  
 17BP.11.R.163  
 -L- STA. 20+45.00

END BRIDGE  
 -L- STA 17+30.66

END APPROACH SLAB  
 -L- STA 17+41.50

⑤  
 JAMES H. CHURCH  
 NELTA S. CHURCH  
 DB 739 PG 364

⑥  
 J.G. (JAY) MAYBERRY  
 ESTELLE B. MAYBERRY  
 DB 747 PG 524

①  
 BENNY S. ALEXANDER  
 VIRGINIA S. ALEXANDER  
 DB 514 PG 149  
 DB 996 PG 80

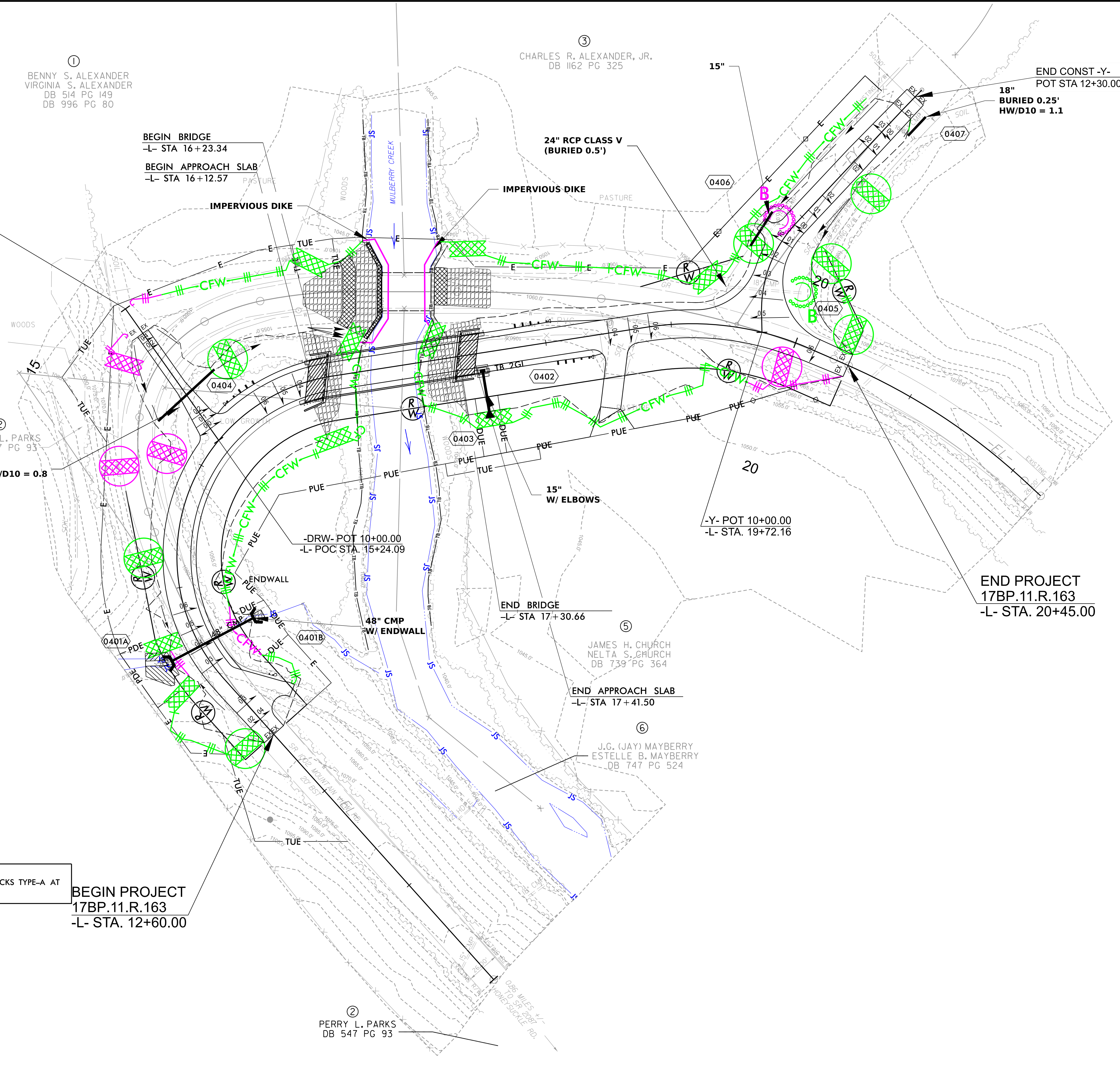
UTILIZE TEMPORARY SEDIMENT BASIN  
 OR SPECIAL STILLING BASIN(S) AS  
 NEEDED DURING BRIDGE  
 CONSTRUCTION

CLEARING AND GRUBBING  
 EROSION CONTROL FOR  
 CONSTRUCTION SHEET 4

NOTE:  
 PLACE TEMPORARY ROCK SILT CHECKS TYPE-A AT  
 DRAINAGE OUTLETS

BEGIN PROJECT  
 17BP.11.R.163  
 -L- STA. 12+60.00

②  
 PERRY L. PARKS  
 DB 547 PG 93

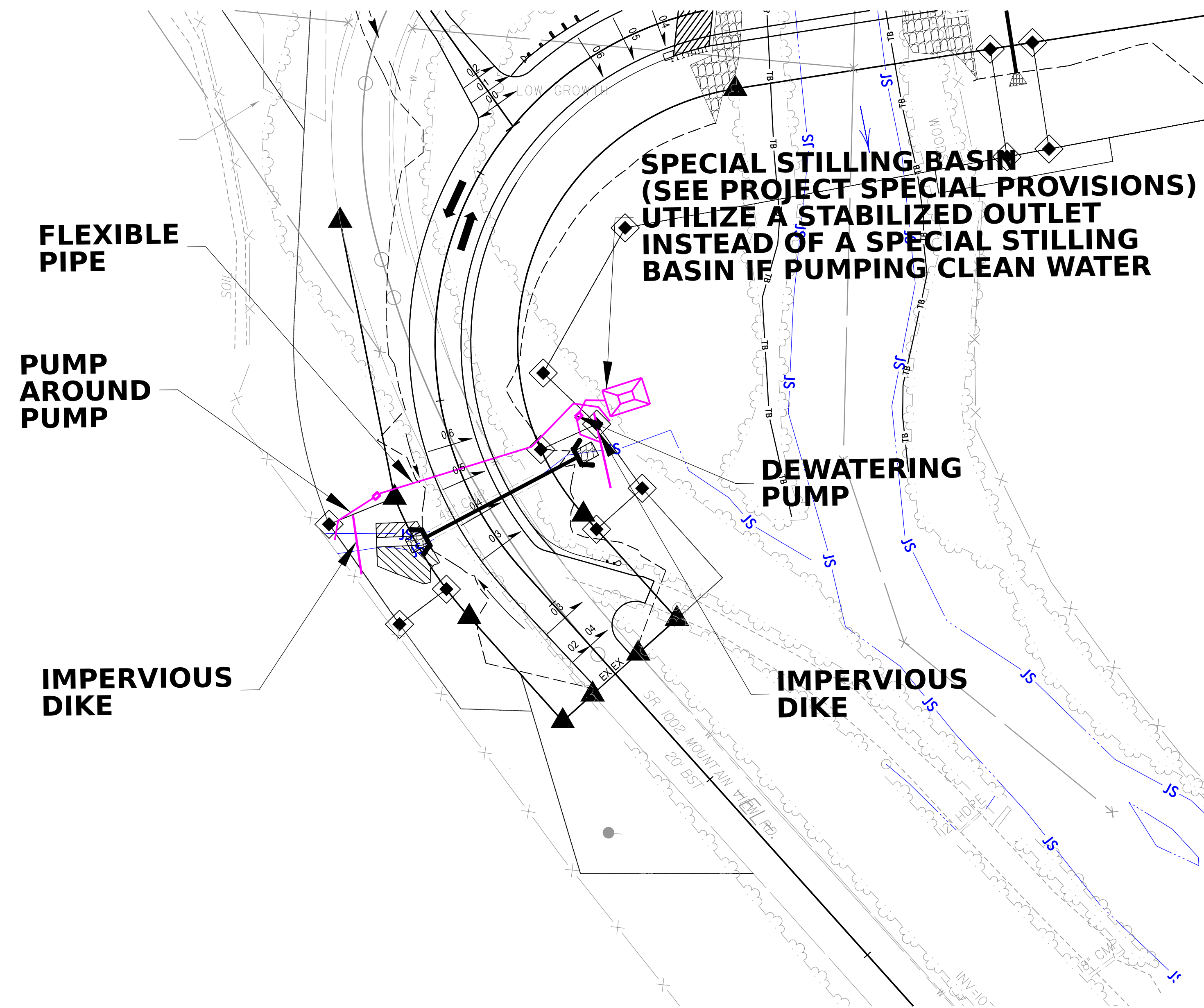




# CULVERT CONSTRUCTION SEQUENCE

## APPROX. -L- 13+50

PROJECT REFERENCE NO.	SHEET NO.
17BP.11.RJ63	EC-5/CONST.4
RW SHEET NO.	



### SEQUENCE FOR CULVERT CONSTRUCTION:

1. INSTALL TEMPORARY FLEXIBLE HOSE AND PUMP AROUND PUMP
2. PLACE UPSTREAM IMPERVIOUS DIKE AND BEGIN PUMPING OPERATIONS, DIVERT FLOW TO STABILIZED OUTFALL
3. PLACE DOWNSTREAM DEWATERING PUMP, SPECIAL STILLING BASIN, AND IMPERVIOUS DIKE. DEWATER.
4. REMOVE EXISTING CULVERT IN ACCORDANCE TO THE PLANS. INSTALL PROPOSED CULVERT, AND PROPOSED CULVERT ENDWALLS IN ACCORDANCE TO THE PLANS.
5. REMOVE IMPERVIOUS DIKES, PUMPS, TEMPORARY HOSE AND PIPE. (DOWNSTREAM FIRST)
6. REMOVE SPECIAL STILLING BASIN(S) AND STABILIZE AREA.
7. RESET SILT FENCE AS NEEDED TO MAINTAIN PROPER EROSION CONTROL.

### CULVERT SEQUENCING NOTES:

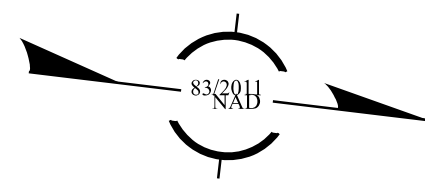
1. ALL EXCAVATION SHALL BE PERFORMED IN ONLY DRY OR ISOLATED AREAS OF THE WORK ZONE.
2. IMPERVIOUS DIKES ARE TO BE USED TO ISOLATE THE WORK FROM STREAM FLOW WHEN NECESSARY.
3. MAINTENANCE OF STREAM FLOW OPERATIONS SHALL BE INCIDENTAL TO THE WORK. THIS INCLUDES DIVERSION PIPES, PUMPS, AND HOSES.
4. PUMPS AND HOSES SHALL BE OF SUFFICIENT SIZE TO DEWATER THE WORK AREA.



①  
BENNY S. ALEXANDER  
VIRGINIA S. ALEXANDER  
DB 514 PG 149  
DB 996 PG 80

③  
CHARLES R. ALEXANDER, JR.  
DB 1162 PG 325

END CONST.-Y-  
POT STA 12+30.00  
18" BURIED 0.25'  
HW/D10 = 1.1



④  
JUDY N. SLOAN  
PAUL S. ALEXANDER  
DB 1200 PG 400  
DB 809 PG 73

-DRW- POT STA. 11+27.21

BEGIN BRIDGE  
-L- STA 16+23.34  
BEGIN APPROACH SLAB  
-L- STA 16+12.57

24" RCP CLASS V  
(BURIED 0.5')

②  
PERRY L. PARKS  
DB 547 PG 93  
15" HW/D10 = 0.8

-DRW- POT 10+00.00  
-L- POC STA. 15+24.09

15" W/ ELBOWS

-Y- POT 10+00.00  
-L- STA. 19+72.16

END PROJECT  
17BP.11.R.163  
-L- STA. 20+45.00

①  
BENNY S. ALEXANDER  
VIRGINIA S. ALEXANDER  
DB 514 PG 149  
DB 996 PG 80

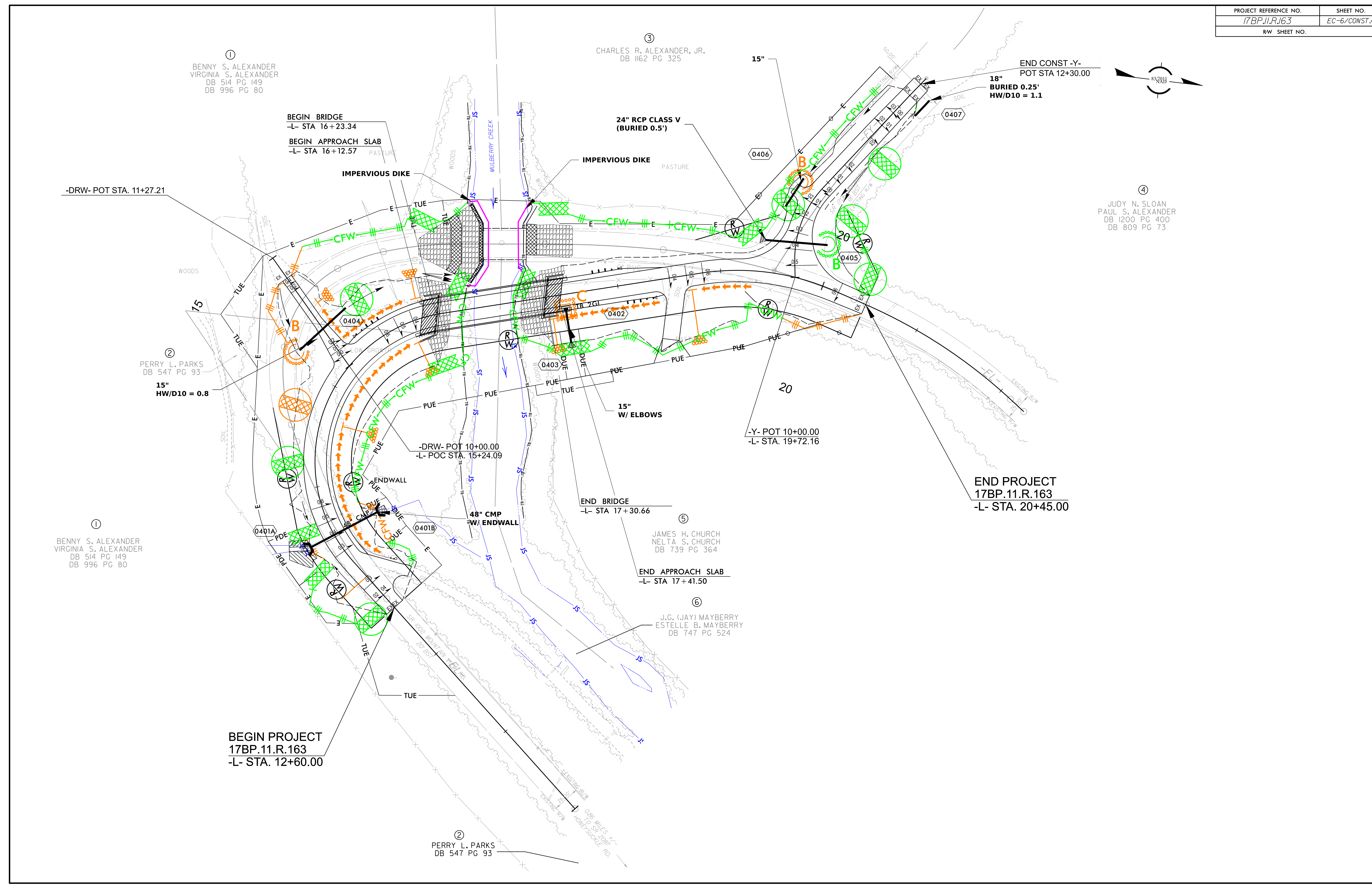
END BRIDGE  
-L- STA 17+30.66

END APPROACH SLAB  
-L- STA 17+41.50

⑥  
J.G. (JAY) MAYBERRY  
ESTELLE B. MAYBERRY  
DB 747 PG 524

BEGIN PROJECT  
17BP.11.R.163  
-L- STA. 12+60.00

②  
PERRY L. PARKS  
DB 547 PG 93

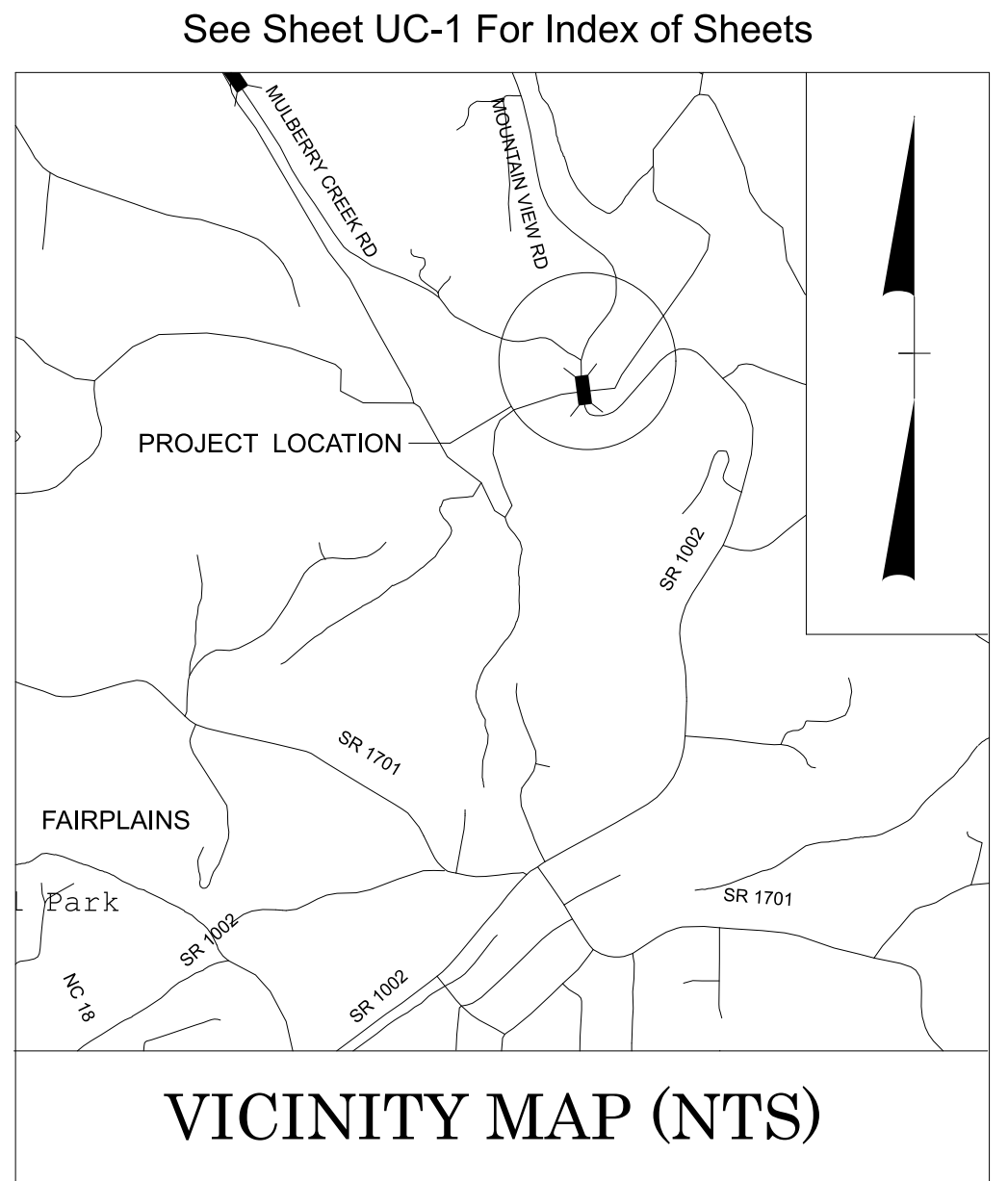




11/21/2023  
\\stvgroup.stvinc.com\3\DGPA\Vol3\Projects\4021950\50\_Deliverables & Submittals\17BP.11.R.163\Utilities\Engineering\UC\Proj\Design\Sheets\17BP11R163\_ut\_UC1.dgn  
09\_08/2019

PROJECT: 17BP.11.R.163

CONTRACT:



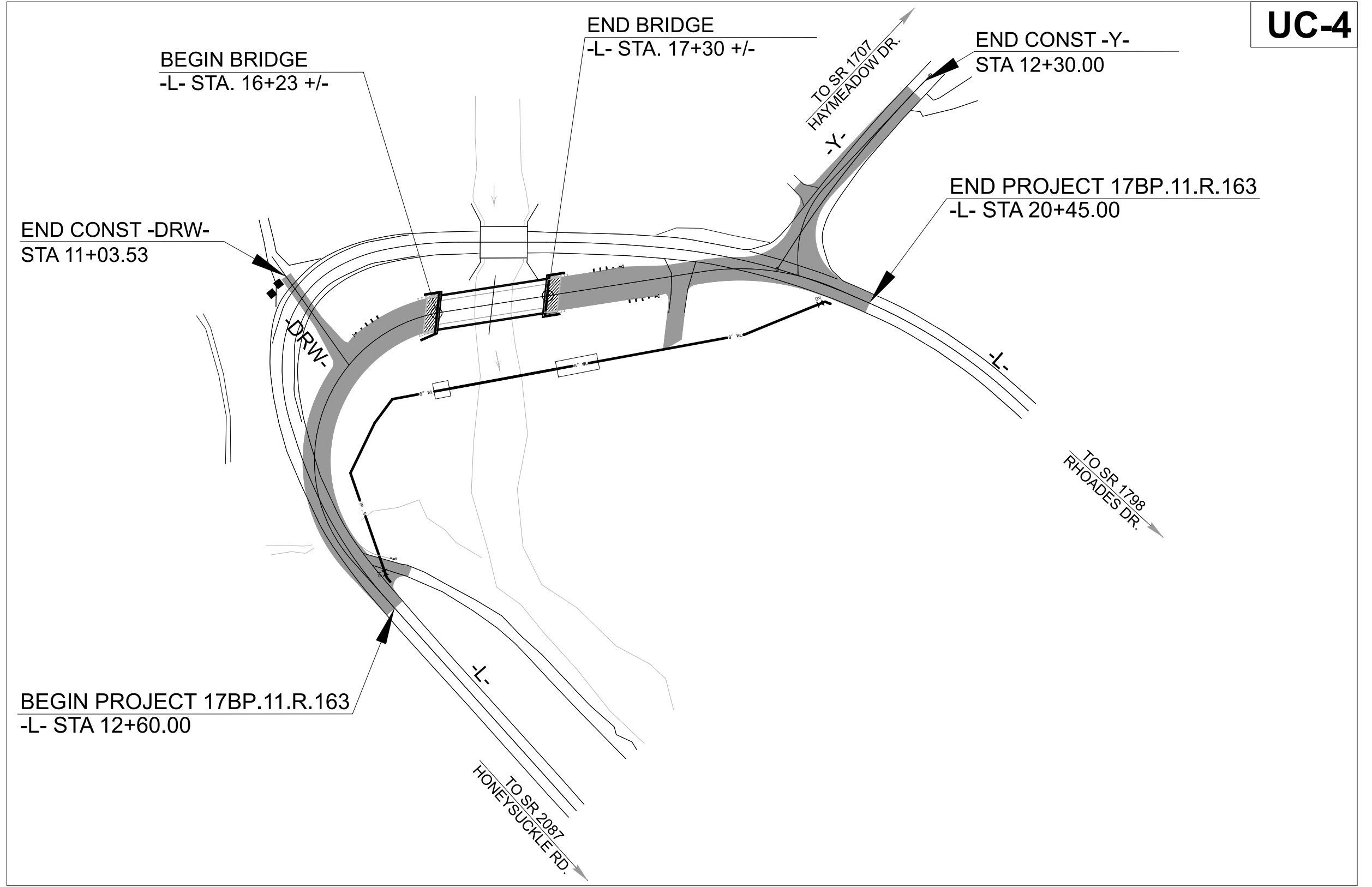
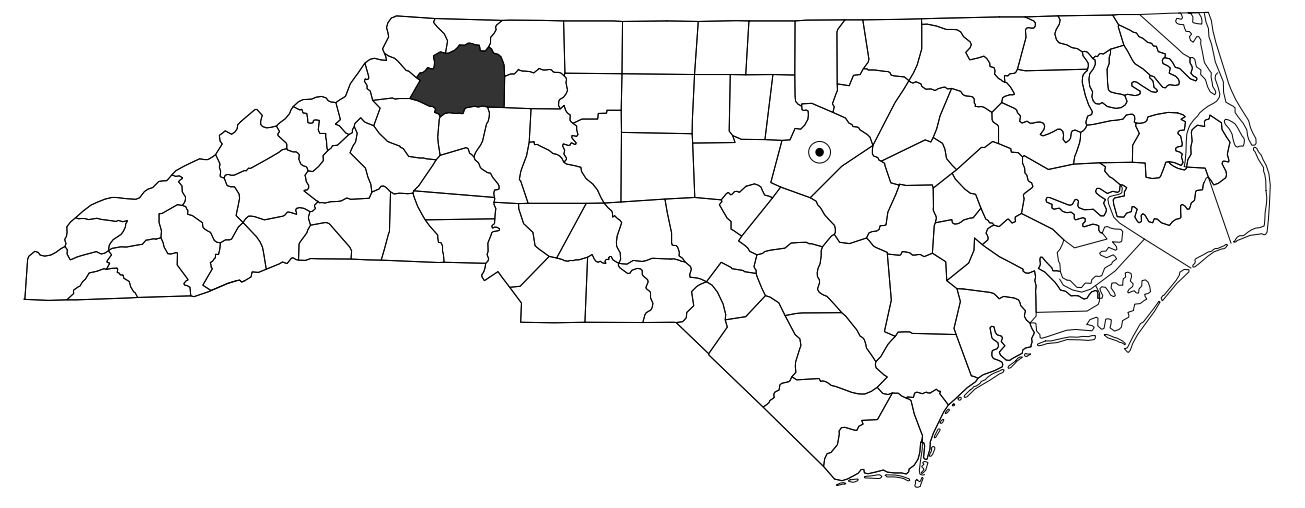
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# UTILITY CONSTRUCTION PLANS WILKES COUNTY

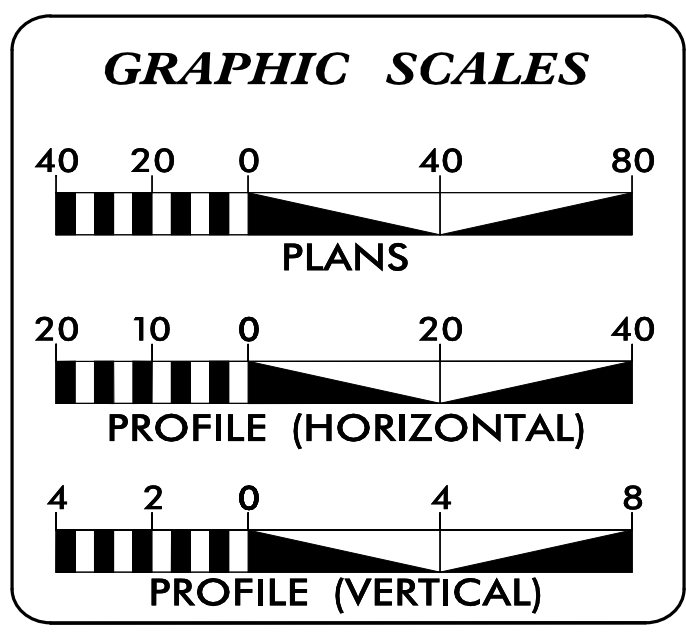
LOCATION: BRIDGE NO. 960136 ON SR 1002 (MOUNTAIN VIEW RD) OVER MULBERRY CREEK  
TYPE OF WORK: WATER LINE RELOCATION

T.I.P. NO.	SHEET NO.
17BP.11.R.163	UC-1

Plans Developed with  
OpenRoads



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INDEX OF SHEETS

SHEET NO.:	DESCRIPTION:
UC-1	TITLE SHEET
UC-2	UTILITY SYMBOLOGY
UC-3	NOTES
UC-3A	DETAILS
UC-4	UTILITY CONSTRUCTION SHEET
UC-5	UTILITY PROFILE SHEET

WATER AND SEWER OWNERS ON PROJECT

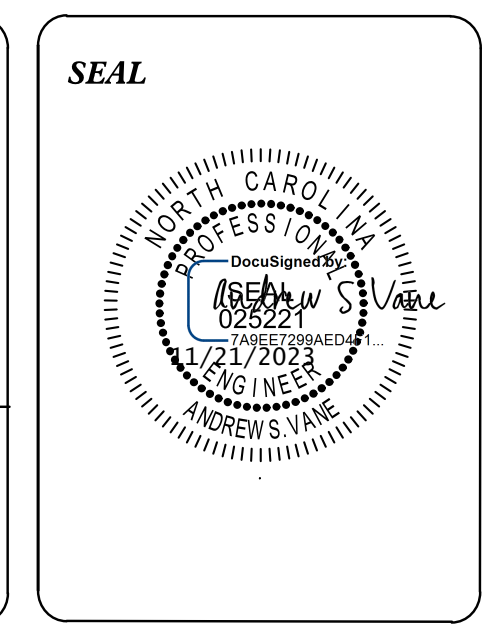
(A) WATER - BLUE RIDGE WATER ASSOCIATION

GREG REAVIS	OWNER CONTACT #1
LUKE COIHREN	OWNER CONTACT #2
-	OWNER CONTACT #3

PREPARED IN THE OFFICE OF

STV Engineers, Inc.  
900 West Trade St., Suite 715  
Charlotte, NC 28202  
NC License Number F-0991  
Phone: (704) 372-1885  
Fax: (704) 372-3393

ANDREW VANE, PE	CONSULTANT CONTACT #1
NATHAN ADKINS, EI	CONSULTANT CONTACT #2
-	CONSULTANT CONTACT #3

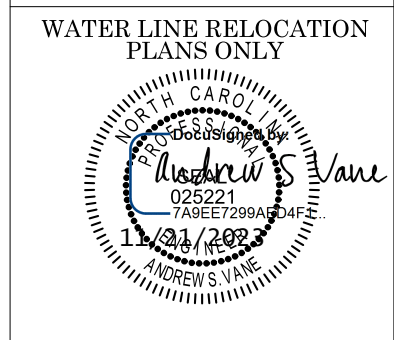


DIVISION OF HIGHWAYS  
UTILITIES UNIT  
801 STATESVILLE ROAD  
NORTH WILKESBORO 28659  
PHONE (336) 903-9101  
FAX (336) 667-4549

DONALD E. HAMPTON	UTILITIES REGIONAL ENGINEER
BRANDON GREER	UTILITIES ENGINEER
-	UTILITIES AREA COORDINATOR
SUSAN HUFFMAN	UTILITIES COORDINATOR

# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

## UTILITIES PLAN SHEET SYMBOLS



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DRAWN BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
APPROVED BY: \_\_\_\_\_  
REVISED: \_\_\_\_\_

UTILITIES ENGINEERING SEC.  
PHONE: (336)903-9101  
FAX: (336)967-4549

### PROPOSED WATER SYMBOLS

Water Line (Sized as Shown)	
11 1/4 Degree Bend	
22 1/2 Degree Bend	
45 Degree Bend	
90 Degree Bend	
Plug	
Tee	
Cross	
Reducer	
Gate Valve	
Butterfly Valve	
Tapping Valve	
Line Stop	
Line Stop with Bypass	
Blow Off	
Fire Hydrant	
Relocate Fire Hydrant	
Remove Fire Hydrant	REM FH
Water Meter	
Relocate Water Meter	
Remove Water Meter	REM WM
Water Pump Station	
RPZ Backflow Preventer	
DCV Backflow Preventer	
Relocate RPZ Backflow Preventer	
Relocate DCV Backflow Preventer	

### PROPOSED SEWER SYMBOLS

Gravity Sewer Line (Sized as Shown)	
Force Main Sewer Line (Sized as Shown)	
Manhole (Sized per Note)	
Sewer Pump Station	

### PROPOSED MISCELLANEOUS UTILITIES SYMBOLS

Power Pole	
Telephone Pole	
Joint Use Pole	
Telephone Pedestal	
Utility Line by Others (Type as Shown)	
Trenchless Installation	
Encasement by Open Cut	
Encasement	

Thrust Block	
Air Release Valve	
Utility Vault	
Concrete Pier	
Steel Pier	
Plan Note	
Pay Item Note	

NOTE  
PAY ITEM

### EXISTING UTILITIES SYMBOLS

Power Pole	
Telephone Pole	
Joint Use Pole	
Utility Pole	
Utility Pole with Base	
H-Frame Pole	
Power Transmission Line Tower	
Water Manhole	
Power Manhole	
Telephone Manhole	
Sanitary Sewer Manhole	
Hand Hole for Cable	
Power Transformer	
Telephone Pedestal	
CATV Pedestal	
Gas Valve	
Gas Meter	
Located Miscellaneous Utility Object	
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

*Underground Power Line	
*Underground Telephone Cable	
*Underground Telephone Conduit	
*Underground Fiber Optics Telephone Cable	
*Underground TV Cable	
*Underground Fiber Optics TV Cable	
*Underground Gas Pipeline	
Aboveground Gas Pipeline	
*Underground Water Line	
Aboveground Water Line	
*Underground Gravity Sanitary Sewer Line	
Aboveground Gravity Sanitary Sewer Line	
*Underground SS Forced Main Line	
Underground Unknown Utility Line	
SUE Test Hole	
Water Meter	
Water Valve	
Fire Hydrant	
Sanitary Sewer Cleanout	

\*For Existing Utilities  
Utility Line Drawn from Record \_\_\_\_\_  
(Type as Shown)  
Designated Utility Line \_\_\_\_\_  
(Type as Shown)

REVISIONS



# UTILITY CONSTRUCTION

## GENERAL NOTES:

1. THE PROPOSED UTILITY CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF THE NC DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2024.

2. THE EXISTING UTILITIES BELONG TO BLUE RIDGE WATER ASSOCIATION

3. ALL WATER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER RESOURCES, PUBLIC WATER SUPPLY SECTION. PERFORM ALL WORK IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODES.

4. THE UTILITY OWNER OWNS THE EXISTING UTILITY FACILITIES AND WILL OWN THE NEW UTILITY FACILITIES AFTER ACCEPTANCE BY THE DEPARTMENT. THE DEPARTMENT OWNS THE CONSTRUCTION CONTRACT AND HAS ADMINISTRATIVE AUTHORITY. COMMUNICATIONS AND DECISIONS BETWEEN THE CONTRACTOR AND UTILITY OWNER ARE NOT BINDING UPON THE DEPARTMENT OR THIS CONTRACT UNLESS AUTHORIZED BY THE ENGINEER. AGREEMENTS BETWEEN THE UTILITY OWNER AND CONTRACTOR FOR THE WORK THAT IS NOT PART OF THIS CONTRACT OR IS SECONDARY TO THIS CONTRACT ARE ALLOWED, BUT ARE NOT BINDING UPON THE DEPARTMENT.

5. PROVIDE ACCESS FOR THE DEPARTMENT PERSONNEL AND THE OWNER'S REPRESENTATIVES TO ALL PHASES OF CONSTRUCTION. NOTIFY DEPARTMENT PERSONNEL AND THE UTILITY OWNER TWO WEEKS PRIOR TO COMMENCEMENT OF ANY WORK AND ONE WEEK PRIOR TO SERVICE INTERRUPTION. KEEP UTILITY OWNERS' REPRESENTATIVES INFORMED OF WORK PROGRESS AND PROVIDE OPPORTUNITY FOR INSPECTION OF CONSTRUCTION AND TESTING.

6. THE PLANS DEPICT THE BEST AVAILABLE INFORMATION FOR THE LOCATION, SIZE, AND TYPE OF MATERIAL FOR ALL EXISTING UTILITIES. MAKE INVESTIGATIONS FOR DETERMINING THE EXACT LOCATION, SIZE, AND TYPE MATERIAL OF THE EXISTING FACILITIES AS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED UTILITIES AND FOR AVOIDING DAMAGE TO EXISTING FACILITIES. REPAIR ANY DAMAGE INCURRED TO EXISTING FACILITIES TO THE ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE DEPARTMENT.

7. MAKE FINAL CONNECTIONS OF THE NEW WORK TO THE EXISTING SYSTEM WHERE INDICATED ON THE PLANS, AS REQUIRED TO FIT THE ACTUAL CONDITIONS, OR AS DIRECTED.

8. MAKE CONNECTIONS BETWEEN EXISTING AND PROPOSED UTILITIES AT TIMES MOST CONVENIENT TO THE PUBLIC, WITHOUT ENDANGERING THE UTILITY SERVICE, AND IN ACCORDANCE WITH THE UTILITY OWNER'S REQUIREMENTS. MAKE CONNECTIONS ON WEEKENDS, AT NIGHT, AND ON HOLIDAYS IF NECESSARY.

9. ALL UTILITY MATERIALS SHALL BE APPROVED PRIOR TO DELIVERY TO THE PROJECT. SEE 1500-7, " SUBMITTALS AND RECORDS" IN SECTION 1500 OF THE STANDARD SPECIFICATIONS.

## PROJECT SPECIFIC NOTES:

1. PROPOSED 8" WATER LINE FROM -WL1- LINE STATION 10+00.00 TO -WL1- LINE STATION 16+22.09 SHALL BE RESTRAINED JOINT PRESSURE CLASS 350 DUCTILE IRON PIPE.

2. IN ADVANCE OF BEGINNING UTILITY WORK, SOFT DIGS SHALL BE PERFORMED BY CONTRACTOR TO VERIFY ACTUAL WATER LINE DEPTH AND LOCATION AT PROPOSED TIE-IN LOCATIONS.

3. LAY PIPE STRAIGHT IN ALIGNMENT AND GRADIENT OR FOLLOW TRUE CURVES AS NEARLY AS POSSIBLE. DO NOT DEFLECT ANY JOINT MORE THAN THE MAXIMUM DEFLECTION RECOMMENDED BY THE MANUFACTURER.

4. CONTRACTOR SHALL ADHERE TO SECTION 1530 "ABANDON OR REMOVE UTILITIES" FOR ABANDONMENT OF EXISTING WATER LINES.

5. GREG REAVIS, GENERAL MANAGER FOR BLUE RIDGE WATER ASSOCIATION, WILL SERVE AS THE UTILITY OWNER CONTACT ON THIS PROJECT. CONTRACTOR, AS REQUIRED BY STANDARD SPECIFICATION SECTION 1500-2, SHALL CONTACT HIM AT (336)-957-1078.

6. NO INTERRUPTION OF EXISTING WATER SERVICE SHALL BE MADE DURING CONSTRUCTION UNTIL AUTHORIZED BY THE BLUE RIDGE WATER ASSOCIATION. BLUE RIDGE WATER ASSOCIATION WILL BE COPIED ON BOTH WATER MAIN PRESSURE TEST REPORT AND THE WATER MAIN CHLORINATION TEST REPORT.

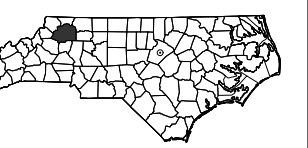
7. NO INTERRUPTION TO EXISTING SERVICE SHALL TAKE PLACE UNTIL ALL CUSTOMERS HAVE BEEN NOTIFIED A MINIMUM OF 48 HOURS IN ADVANCE. NOTICE OF INTERRUPTION SHALL BE PREPARED BY THE PUBLIC WORKS OFFICE ON OFFICIAL LETTERHEAD. DISTRIBUTION TO EACH CUSTOMER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNDER THE DIRECTION OF THE PUBLIC WORKS OFFICE.

8. CONTRACTOR SHALL MINIMIZE SHUT-DOWN TO 8" WATER LINE. TIE-INS TO OCCUR DURING 6-HOUR PERIOD AT NIGHT. CONTRACTOR SHALL MINIMIZE SHUT-DOWN TO 8" WATER LINE TO 48 HOURS OR LESS.

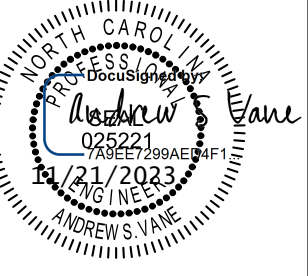
178P.11.R.163

UC 3

NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
WILKES COUNTY



WATER LINE RELOCATION  
PLANS ONLY



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CHECKED BY:

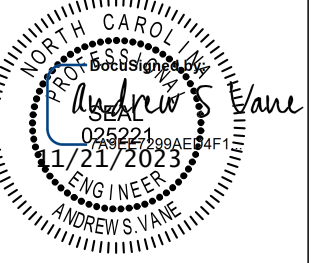
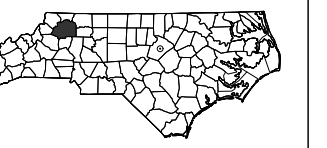
APPROVED BY:

REVISED:

UTILITIES ENGINEERING SEC.  
PHONE: (336)903-9101  
FAX: (336)957-4549

REVISIONS

# PROJECT TYPICAL DETAILS



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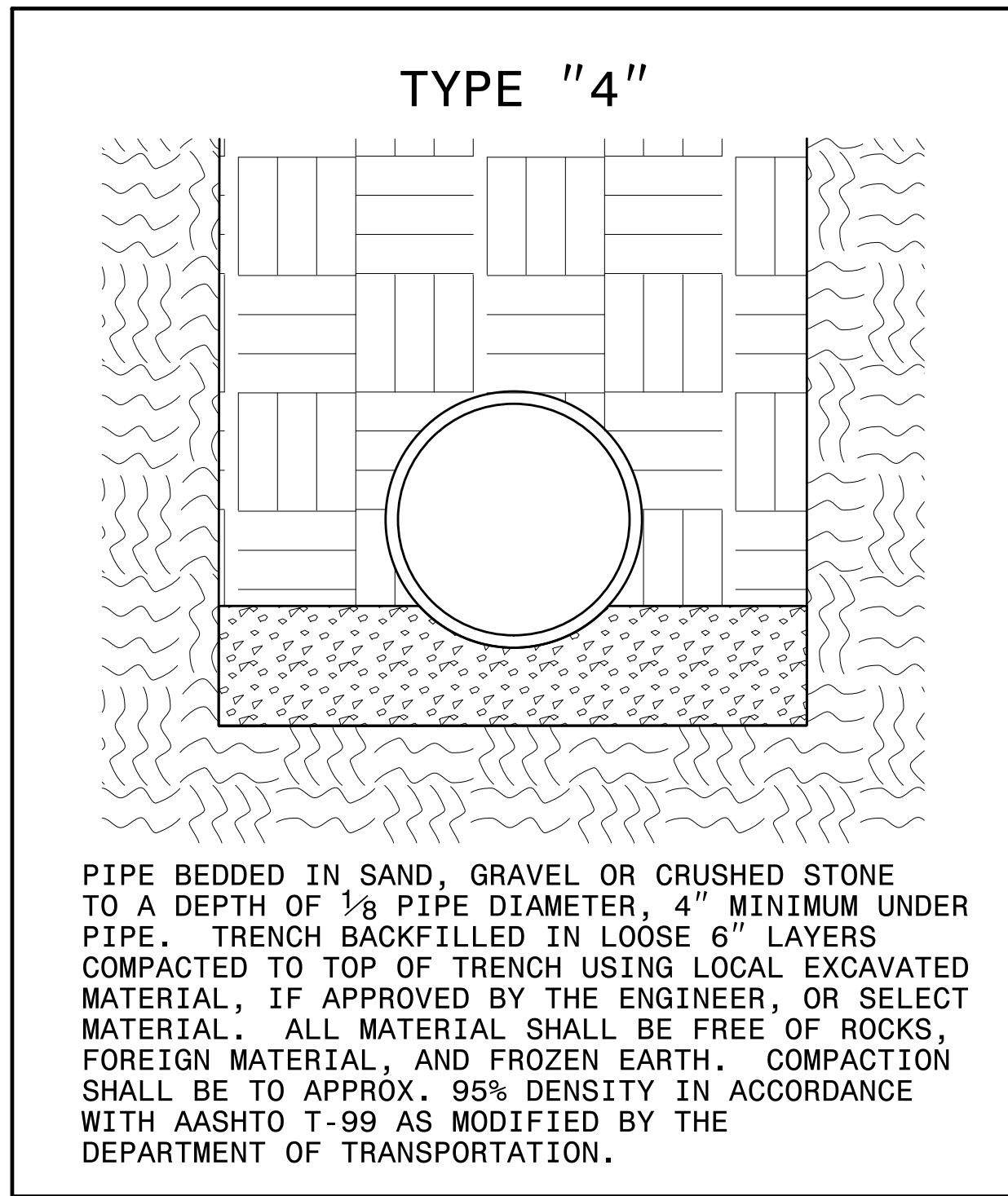
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APPROVED BY:

REVISED:

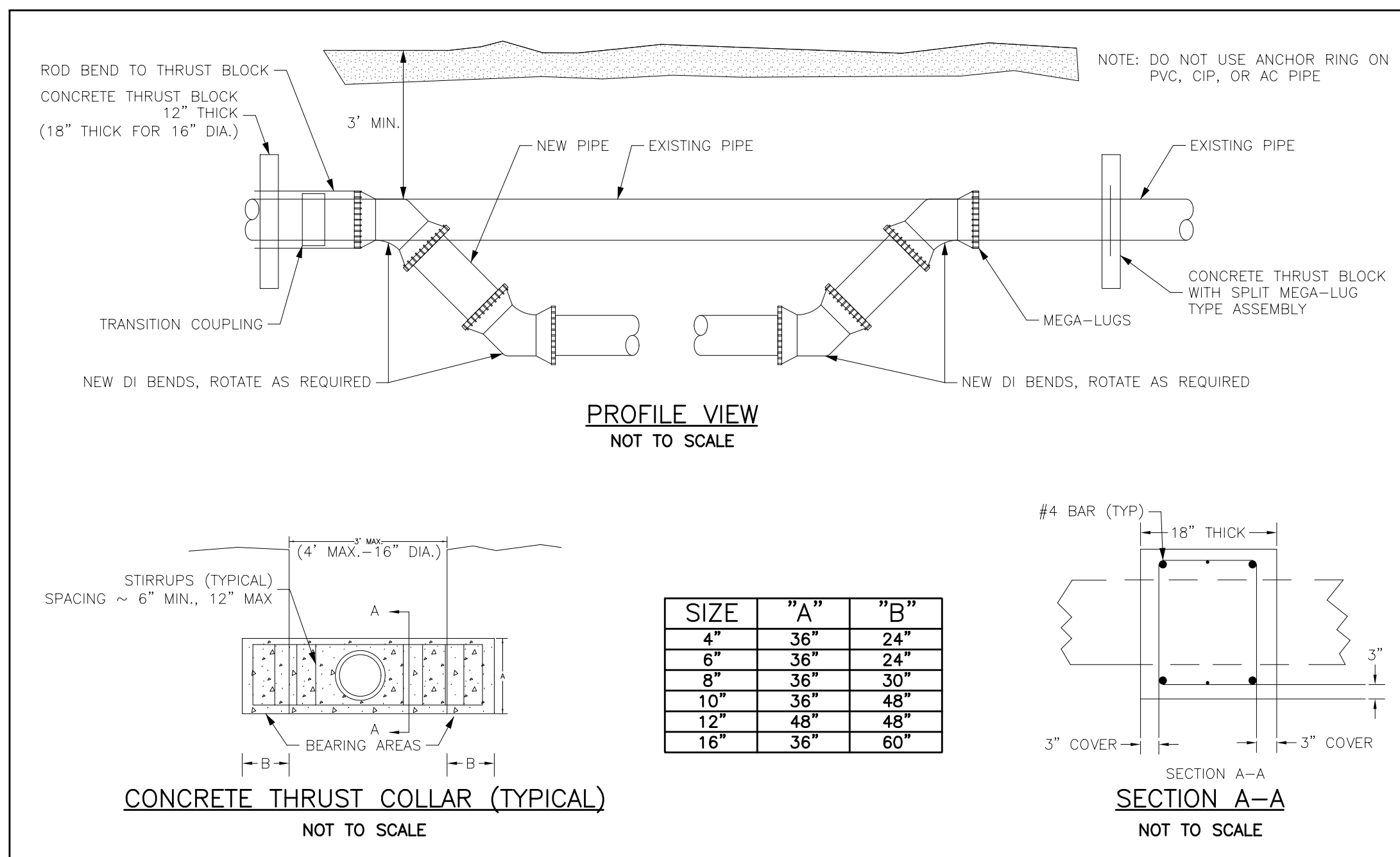
UTILITIES ENGINEERING SEC.  
PHONE: (336) 903-9101  
FAX: (336) 967-4549



**MAXIMUM TRENCH WIDTH  
AT TOP OF PIPE**

NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)	NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)
4	28	20	44
6	30	24	48
8	32	30	54
10	34	36	60
12	36	42	66
14	38	48	72
16	40	54	78
18	42		

## WATER MAIN CONCRETE THRUST BLOCKING

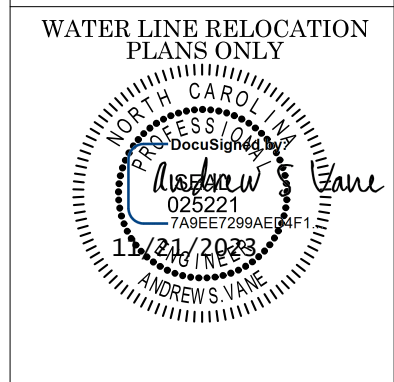
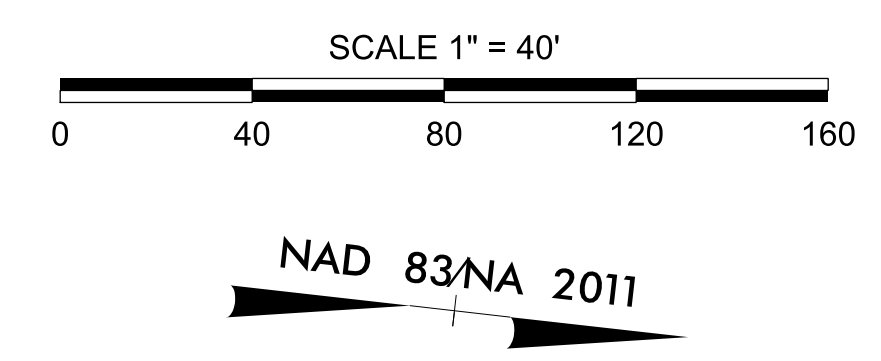


REVISIONS



NOTES:

1. CONNECT PROPOSED DIP WATER LINES TO EXISTING WATER LINES USING NECESSARY FITTINGS AND TRANSITION COUPLINGS RECOMMENDED BY PIPE MANUFACTURERS. CONTRACTOR TO SCHEDULE SHUT DOWN AND CONNECTION TO EXISTING WATER LINE WITH UTILITY OWNER. CONTRACTOR TO FIELD VERIFY EXISTING PIPE MATERIAL AND DEPTHS AT TIE-IN POINTS.
2. CONTRACTOR SHALL RESTRAIN THE TRANSITION CONNECTION. REFER TO SHEET UC-3A FOR CONCRETE THRUST COLLAR DETAILS.



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 APPROVED BY:  
 REVISIONS:

UTILITIES ENGINEERING SEC.  
 PHONE: (336)903-9101  
 FAX: (336)967-4549

ABANDON 133.0 LF 6" UTILITY PIPE

ABANDON 407.3 LF 8" UTILITY PIPE

ABANDON 243.1 LF 8" UTILITY PIPE

- 45° BEND (HORZ.)  
-WL1- STA. 11+92.20
- 11.25° BEND (HORZ.)  
-WL1- STA. 11+63.88
- 45° BEND (HORZ.)  
-WL1- STA. 11+10.75
- 11.25° BEND (VERT.)  
-WL1- STA. 10+61.67
- 8" GATE VALVE  
-WL1- STA. 10+10.00
- 22.5° BEND (HORZ.)  
-WL1- STA. 10+05.00
- 11.25° BEND (VERT.)  
-WL1- STA. 10+00.00
- L- STA. 12+80.36 (13.34' RT.)  
TIE-IN TO EXIST. 8" WATER LINE  
W/ LONG PATTERN SLEEVE & CONCRETE  
THRUST COLLAR (SEE NOTE 2)

- 11.25° BEND (VERT.)  
-WL1- STA. 16+22.09
- L- STA. 20+10.06 (15.39' RT.)  
TIE-IN TO EXIST. 8" WATER LINE  
W/ LONG PATTERN SLEEVE & CONCRETE  
THRUST COLLAR (SEE NOTE 2)
- 45° BEND (HORZ.)  
-WL1- STA. 16+17.09

- 8" GATE VALVE  
-WL1- STA. 16+12.09
- 11.25° BEND (HORZ.)  
-WL1- STA. 15+33.96
- 11.25° BEND (VERT.)  
-WL1- STA. 15+25.60

- 270.2 LF 8" WATER LINE  
(DIP, CL350)
- 45° BEND (VERT.)  
-WL1- STA. 13+64.96
- 45° BEND (VERT.)  
-WL1- STA. 13+53.89

104.29 LF 16" ENCASEMENT PIPE  
 104.29 LF JACK AND BORE OF 16"  
 (STEEL, 0.250" WALL THICKNESS)

- 104.3 LF 8" WATER LINE  
(DIP, CL350)
- 45° BEND (VERT.)  
-WL1- STA. 12+45.60
- 45° BEND (VERT.)  
-WL1- STA. 12+34.92

247.6 LF 8" WATER LINE  
(DIP, CL350)

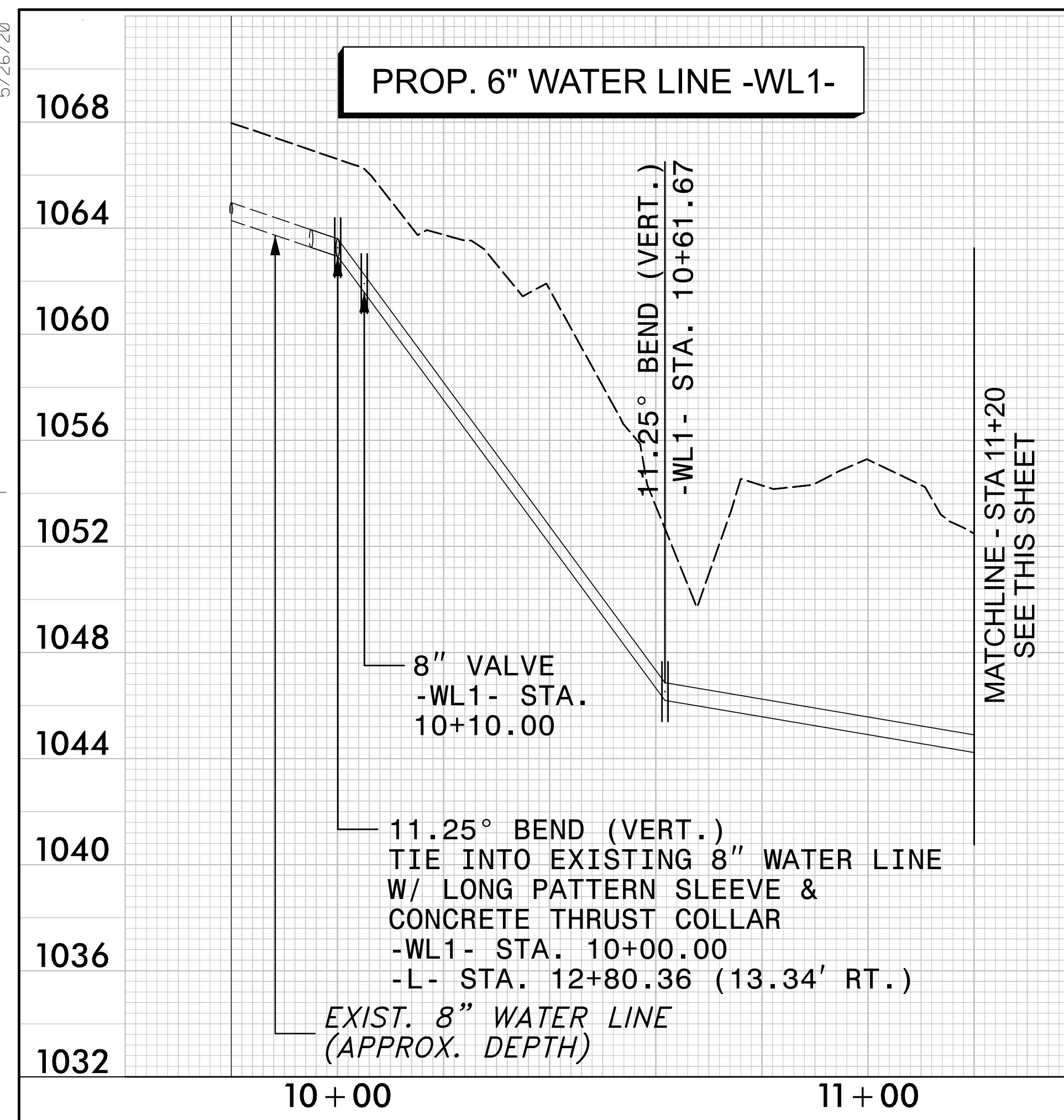
SEE SHEET UC-5 FOR -WL1- PROFILE

THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 1710 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

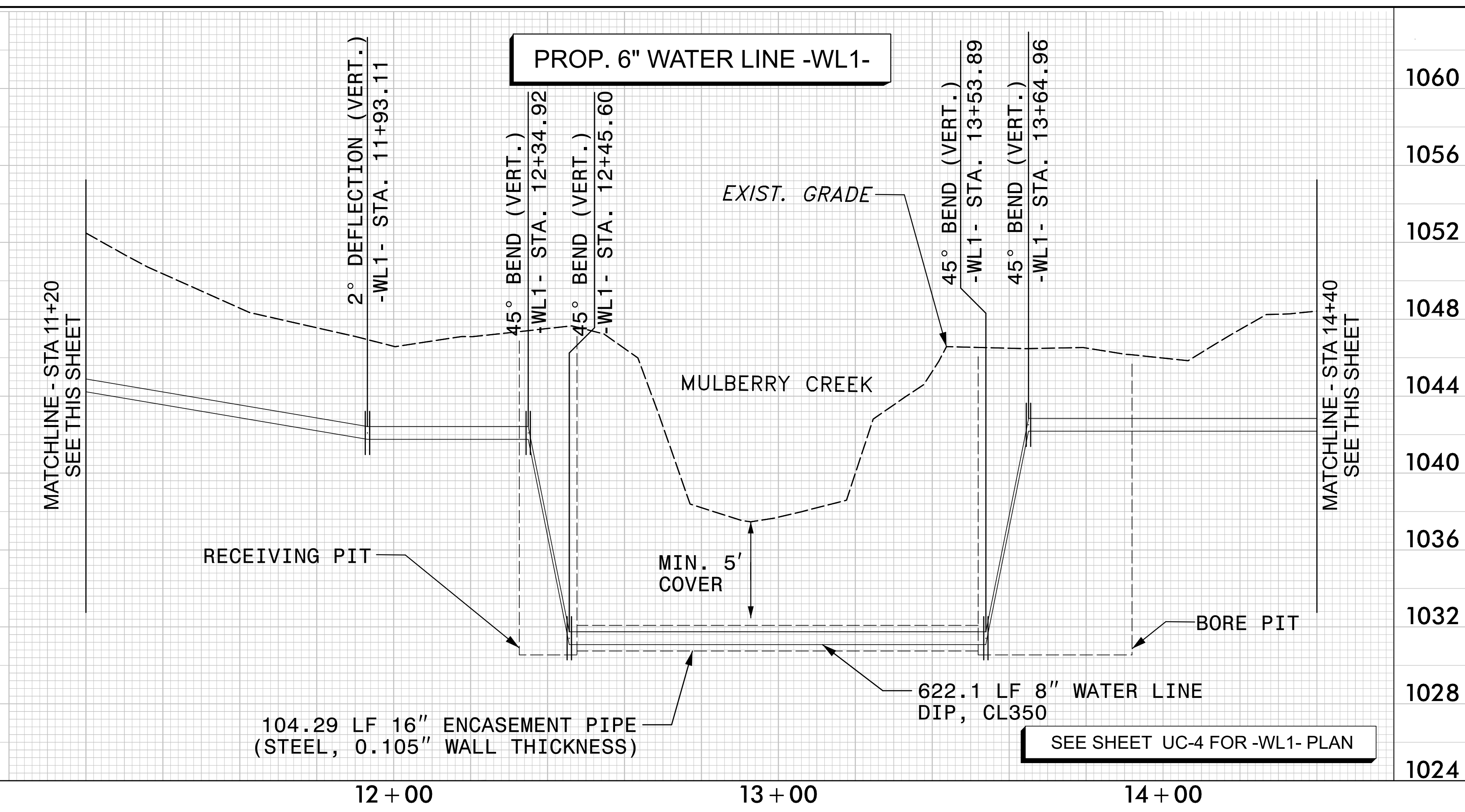
REVISIONS



5/26/20

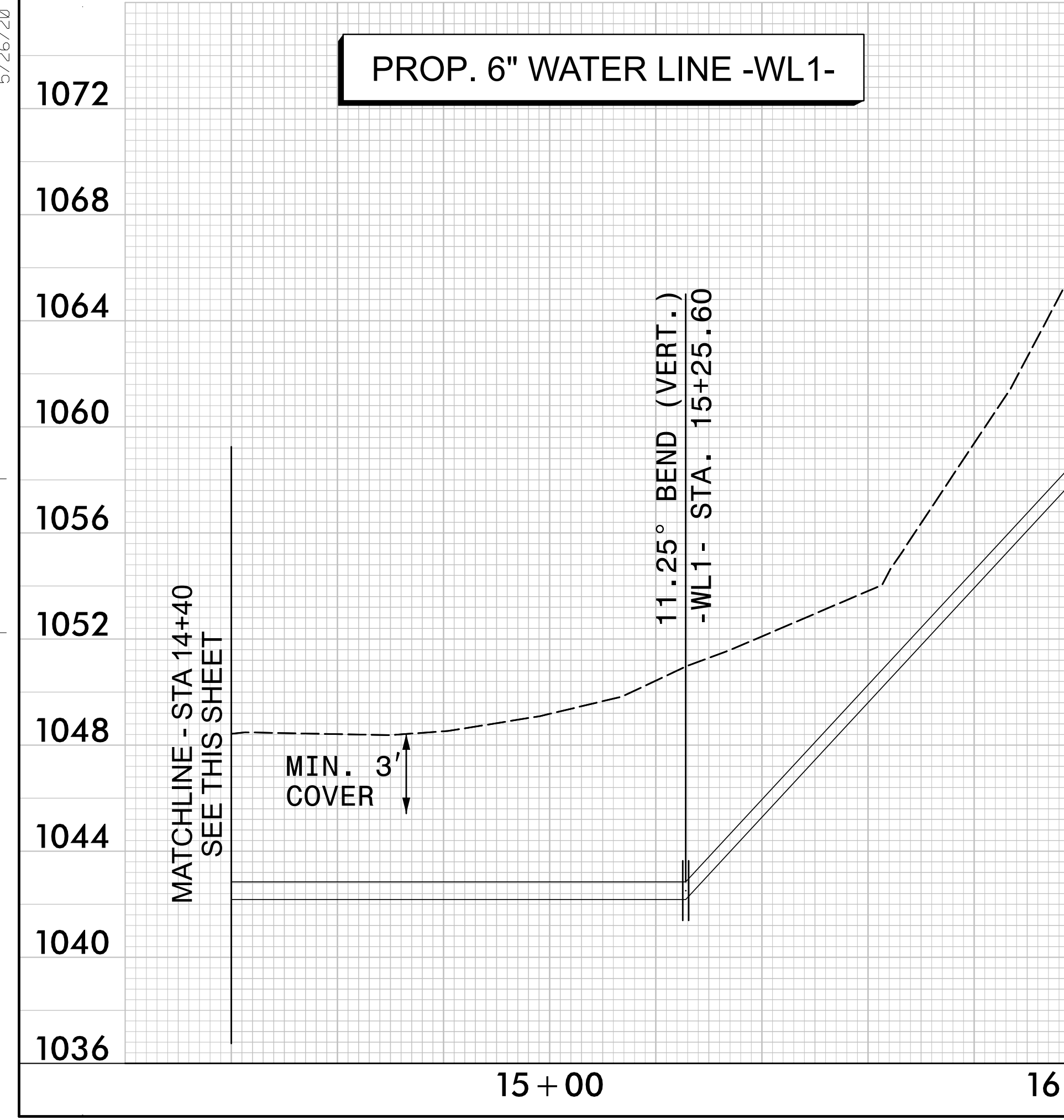


1068	1060
1064	1056
1060	1052
1056	1048
1052	1044
1048	1040
1044	1036
1040	1032
1036	1028
1032	1024

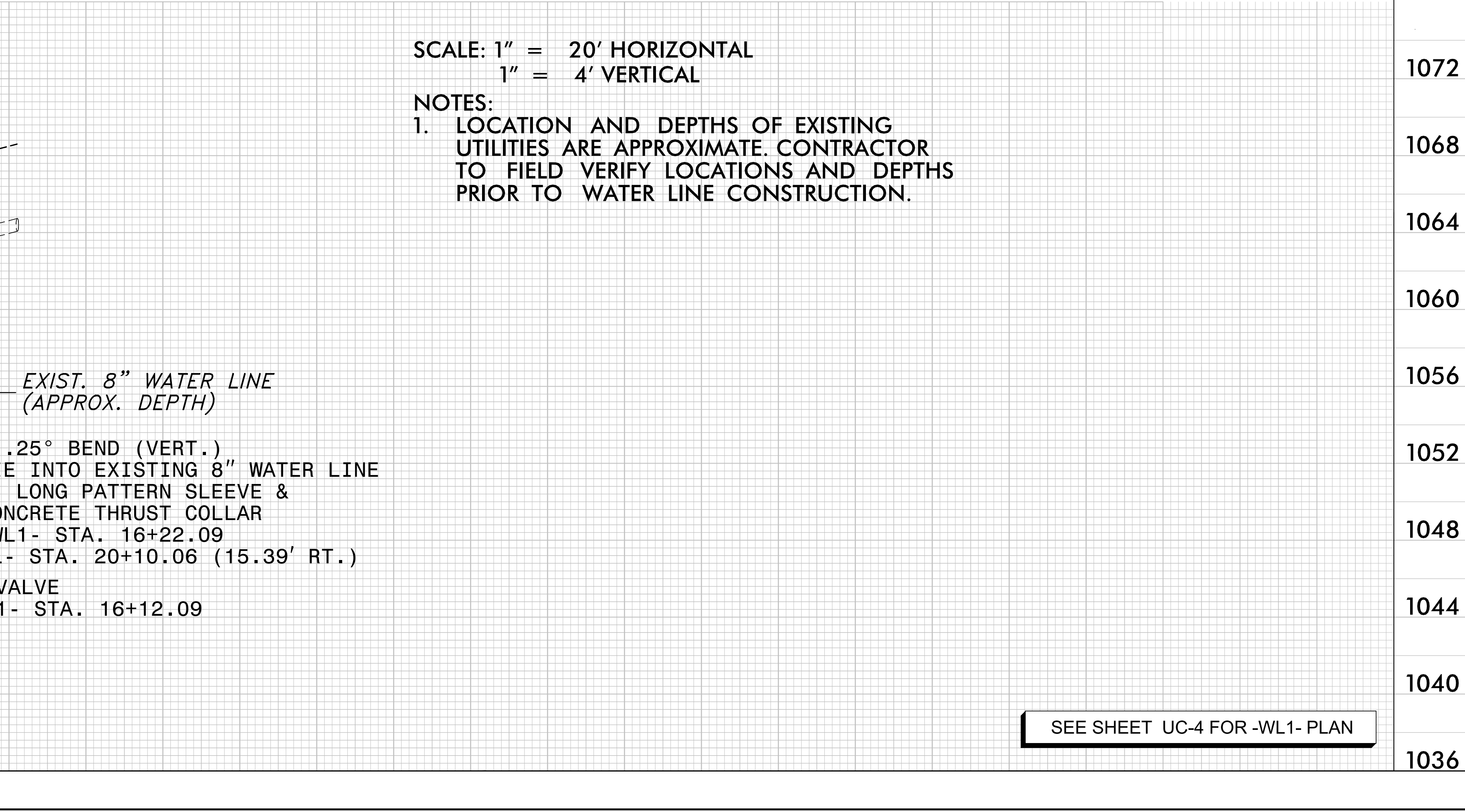


1060	1060
1056	1056
1052	1052
1048	1048
1044	1044
1040	1040
1036	1036
1032	1032
1028	1028
1024	1024

5/26/20



1072	1072
1068	1068
1064	1064
1060	1060
1056	1056
1052	1052
1048	1048
1044	1044
1040	1040
1036	1036



1072	1072
1068	1068
1064	1064
1060	1060
1056	1056
1052	1052
1048	1048
1044	1044
1040	1040
1036	1036

178P.11.R.163  
 UC 5  
 NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 WILKES COUNTY

WATER LINE RELOCATION  
 PLANS ONLY

DESIGNED BY:  
 DRAWN BY:  
 CHECKED BY:  
 APPROVED BY:  
 REVISED:  
 UTILITIES ENGINEERING SEC.  
 PHONE: (336) 903-8191  
 FAX: (336) 667-4549

SCALE: 1" = 20' HORIZONTAL  
 1" = 4' VERTICAL

- NOTES:  
 1. LOCATION AND DEPTHS OF EXISTING UTILITIES ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATIONS AND DEPTHS PRIOR TO WATER LINE CONSTRUCTION.

SEE SHEET UC-4 FOR -WL1- PLAN

SEE SHEET UC-4 FOR -WL1- PLAN



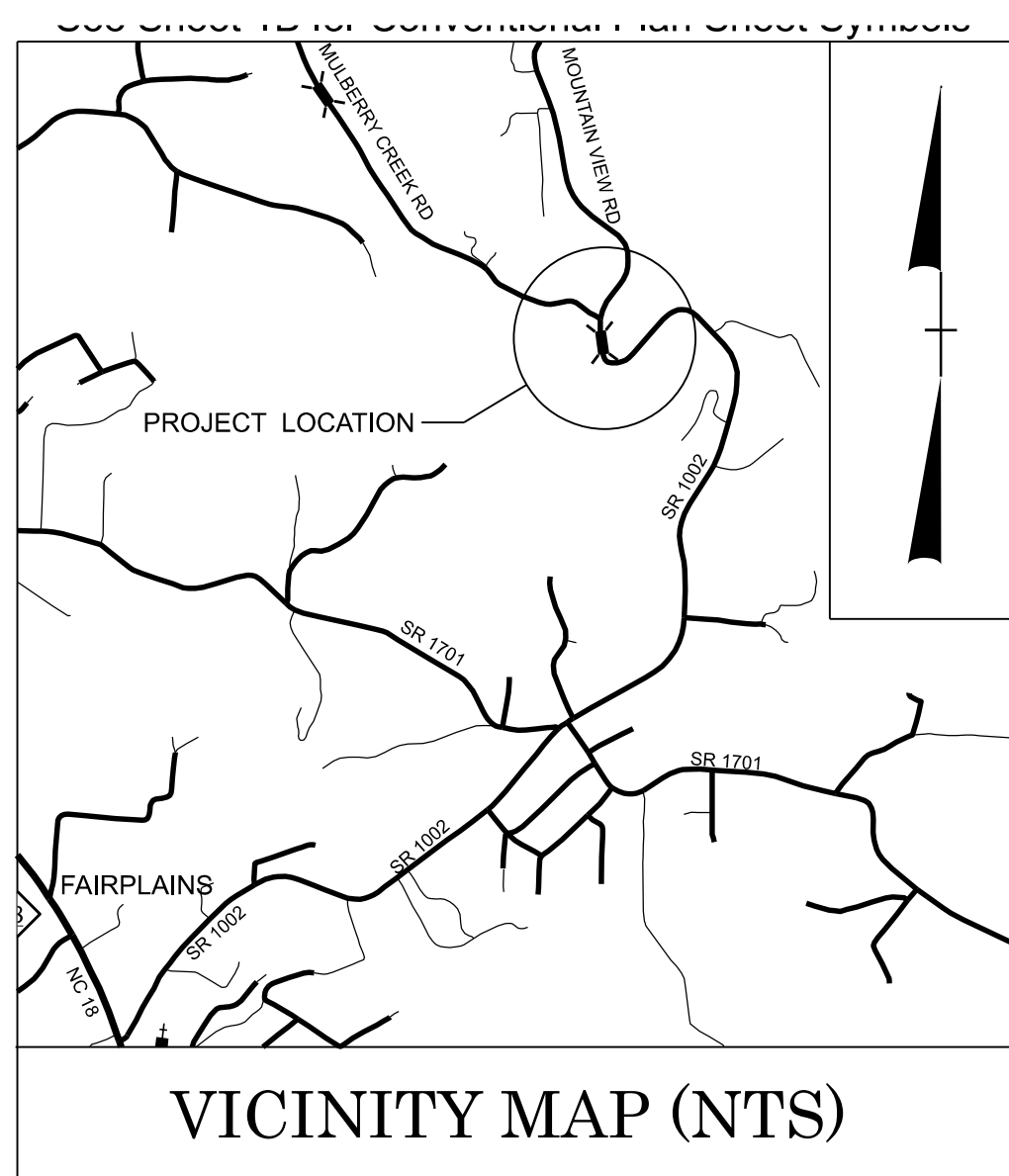
PROJECT: 17BP.11.R.163

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**UTILITIES BY OTHERS PLANS  
WILKES COUNTY**

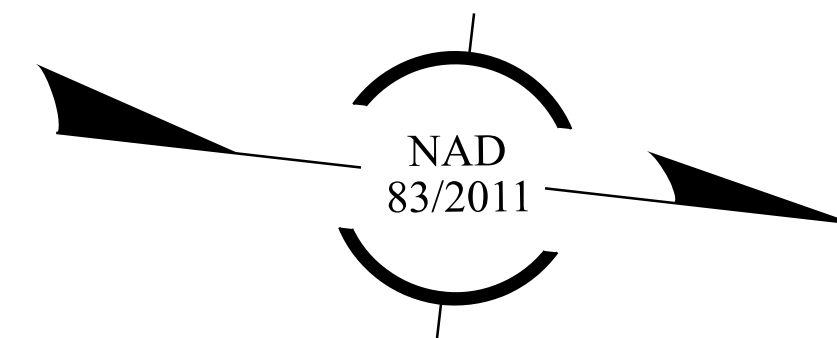
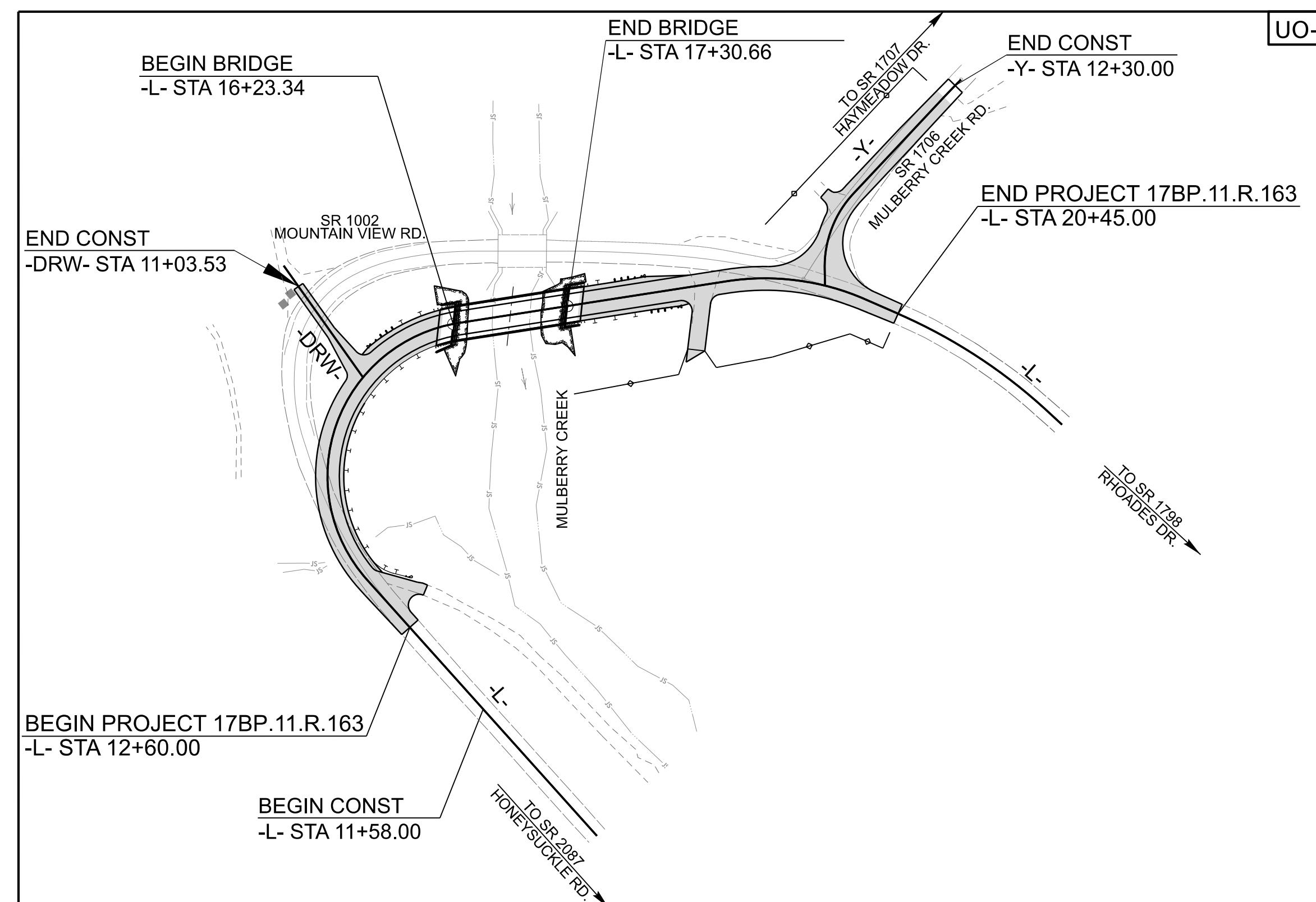
T.I.P. NO.	SHEET NO.
17BP.11.R.163	UO-1

NOTE:  
ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.

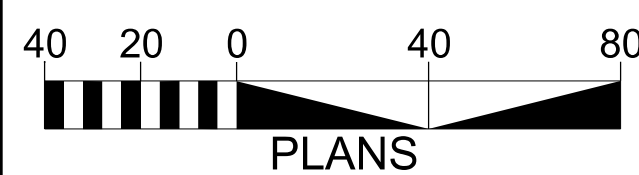


**LOCATION: BRIDGE NO. 960136 ON SR 1002 (MOUNTAIN VIEW RD.)  
OVER MULBERRY CREEK**

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



GRAPHIC SCALES



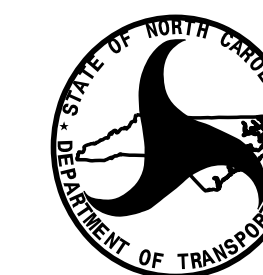
INDEX OF SHEETS

SHEET NO.:	DESCRIPTION:
UO-1	TITLE SHEET
UO-2	UBO PLAN SHEET

UTILITY OWNERS WITH CONFLICTS

(A) POWER - DUKE ENERGY

PREPARED IN THE OFFICE OF  
**KCA**  
KISINGER CAMPO & ASSOCIATES  
301 FAYETTEVILLE ST., SUITE 1500  
RALEIGH, NC 27601 (919) 882-7839  
NC FIRM LICENSE: C-1506



DIVISION OF HIGHWAYS  
DIVISION II  
801 STATESVILLE ROAD  
NORTH WILKESBORO NC 28659  
PHONE (336) 903-9101  
FAX (336) 667-4549

SAMUEL CULLUM P.E. CONSULTANT CONTACT #1  
JEFF BALOGA CONSULTANT CONTACT #2  
STEPHEN CHAMBERS CONSULTANT CONTACT #3

AMY YORK UTILITIES REGIONAL ENGINEER  
BRANDON GREER UTILITIES ENGINEER  
UTILITIES AREA COORDINATOR  
UTILITIES COORDINATOR



①  
BENNY S. ALEXANDER  
VIRGINIA S. ALEXANDER  
DB 514 PG 149  
DB 996 PG 80

DUKE ENERGY  
EXISTING OH LINE  
TO REMAIN

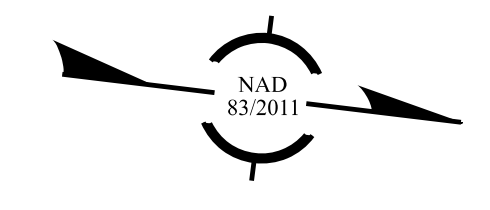
CHARLES R. ALEXANDER, JR.  
DB 1162 PG 325

DUKE ENERGY  
REMOVE EXISTING OH LINE  
PERMANENT OH LINE

EXISTING WATER LINE  
TO BE RELOCATED  
(SEE UC PLANS)

### UTILITIES BY OTHERS

THIS SHEET CORRESPONDS TO RDY PSH 04



17BP.11.R.163

NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
WILKES COUNTY

DIVISION 11  
UTILITY CONSTRUCTION  
PLANS ONLY

ALL PROPOSED UTILITY  
WORK SHOWN ON THIS  
SHEET WILL BE DONE  
BY OTHERS. NO PAYMENT  
WILL BE MADE TO THE  
CONTRACTOR FOR  
UTILITY WORK SHOWN ON  
THIS SHEET.

DESIGNED BY: DUKE ENERGY

DRAWN BY: SLC

CHECKED BY: DAA

APPROVED BY: SC

REVISED:  
DIVISION 11  
PHONE:(336) 903-9101  
FAX:(336) 667-4549

REVISIONS

BL-4  
LOCALIZED PROJECT COORDINATES  
N = 905239.740  
E = 1369915.0109  
ELEVATION = 1060.02'

DUKE ENERGY  
PROPOSED OH LINE

DUKE ENERGY  
TEMPORARY POWER  
POLE AND GUY WIRE

②  
PERRY L. PARKS  
DB 547 PG 93

DUKE ENERGY  
PERMANENT POWER POLE

DUKE ENERGY  
REMOVE EXISTING OH LINE  
PERMANENT OH LINE

END PROJECT  
17BP.11.R.163  
-L- STA. 20+45.00

①  
BENNY S. ALEXANDER  
VIRGINIA S. ALEXANDER  
DB 514 PG 149  
DB 996 PG 80

⑤  
JAMES H. CHURCH  
NELTA S. CHURCH  
DB 739 PG 364

⑥  
JUDY M. TRIPLETT  
DB 17-E PG 056

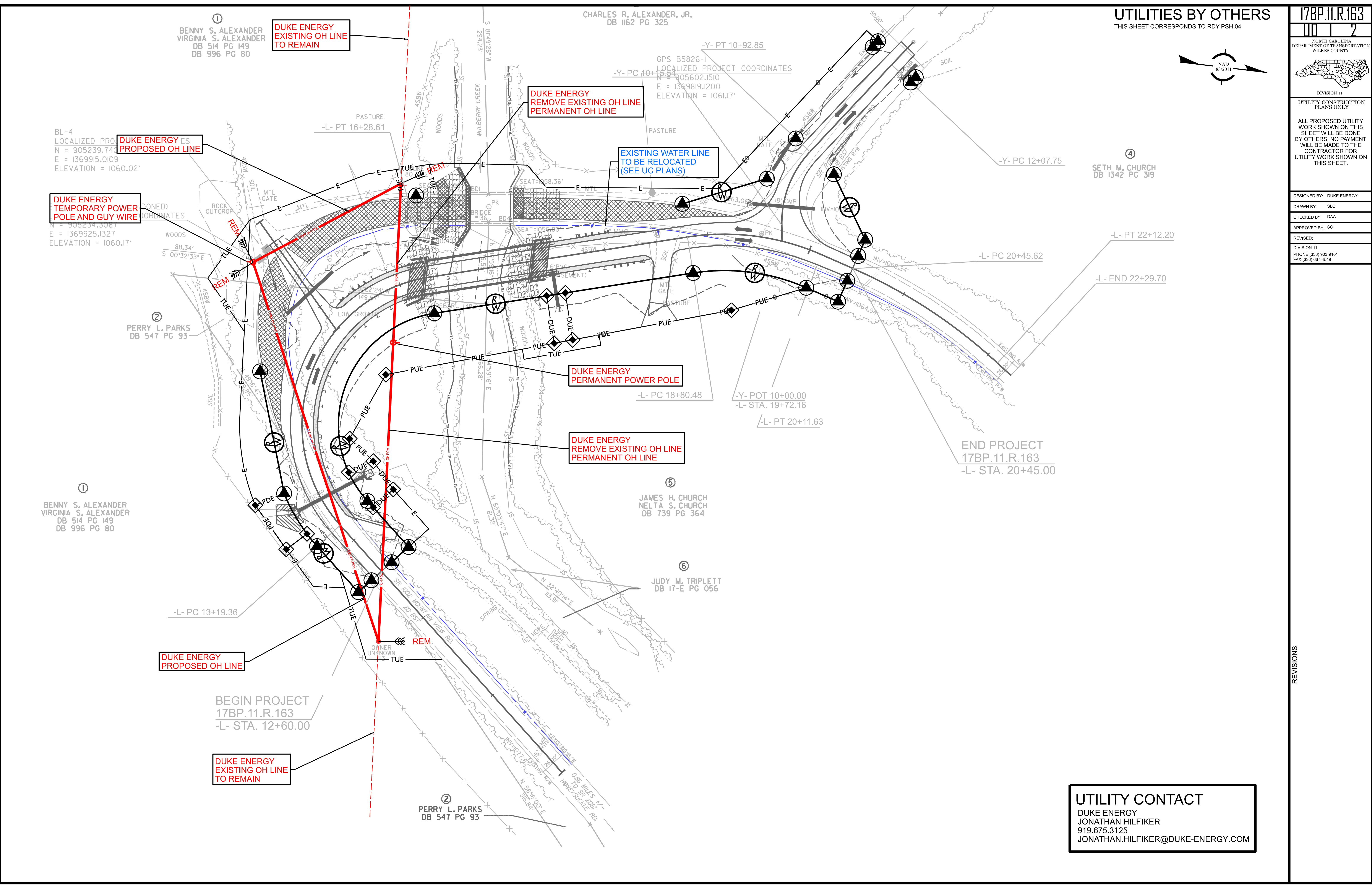
DUKE ENERGY  
PROPOSED OH LINE

BEGIN PROJECT  
17BP.11.R.163  
-L- STA. 12+60.00

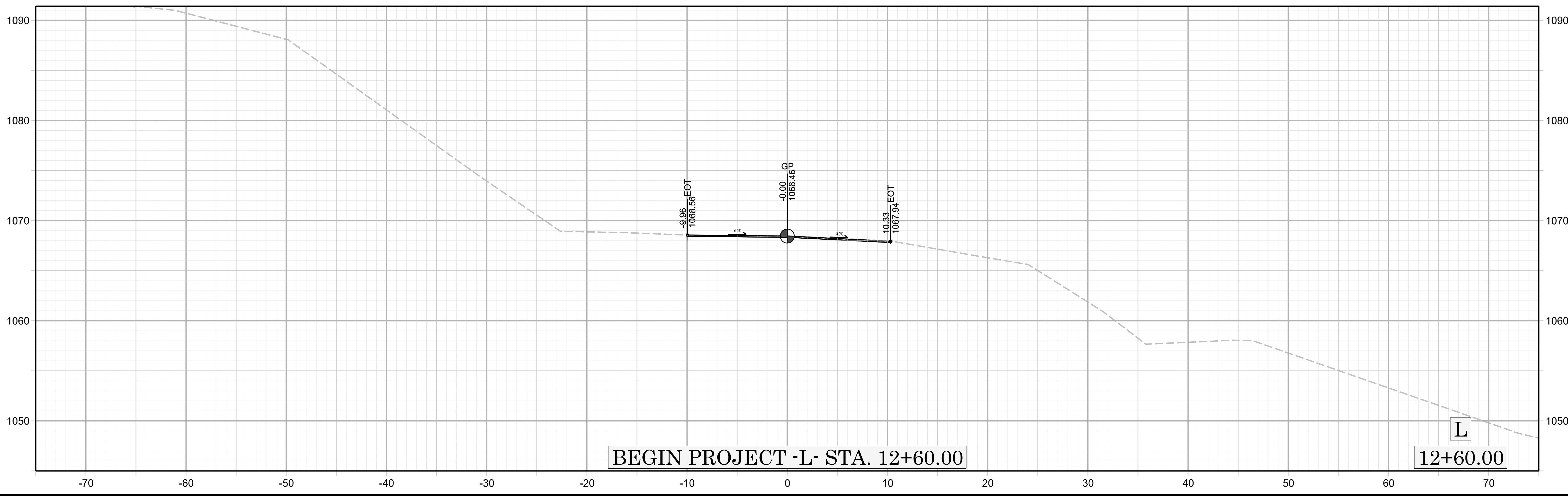
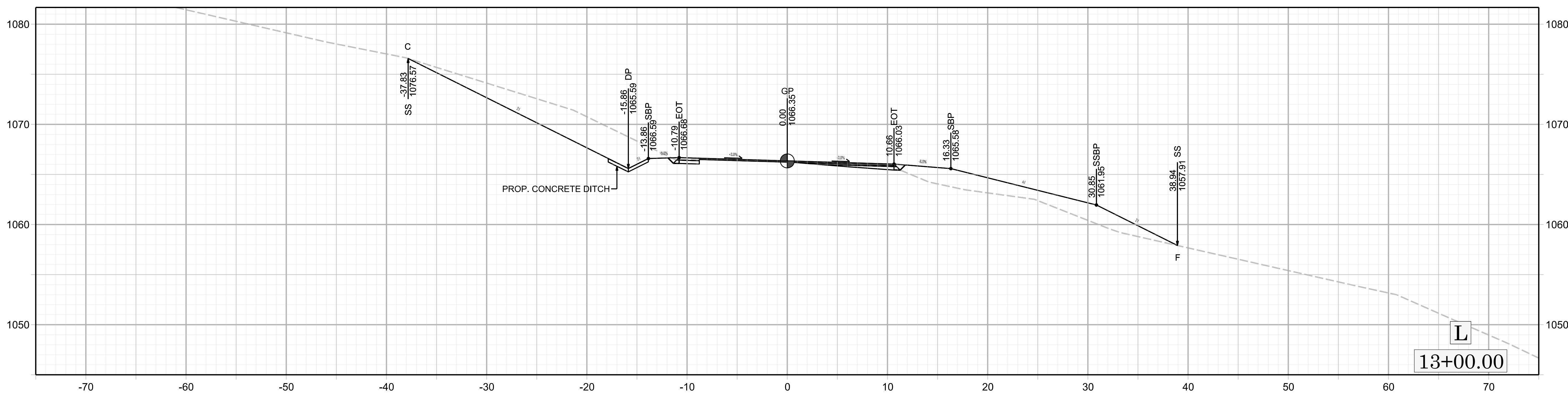
DUKE ENERGY  
EXISTING OH LINE  
TO REMAIN

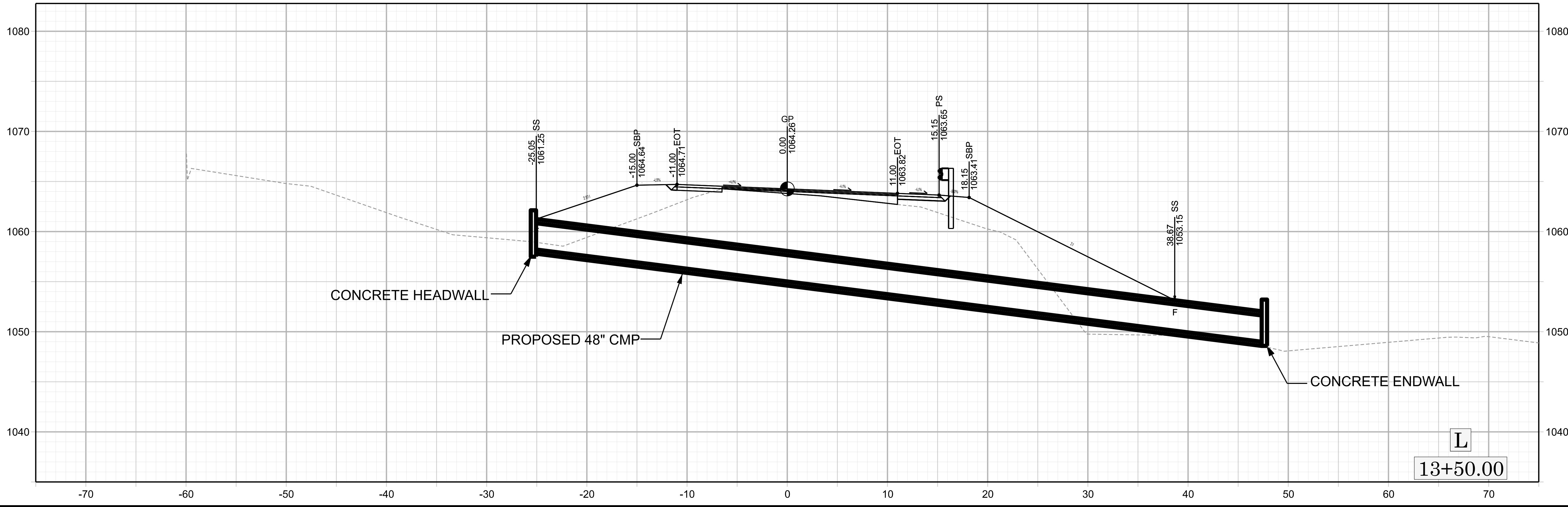
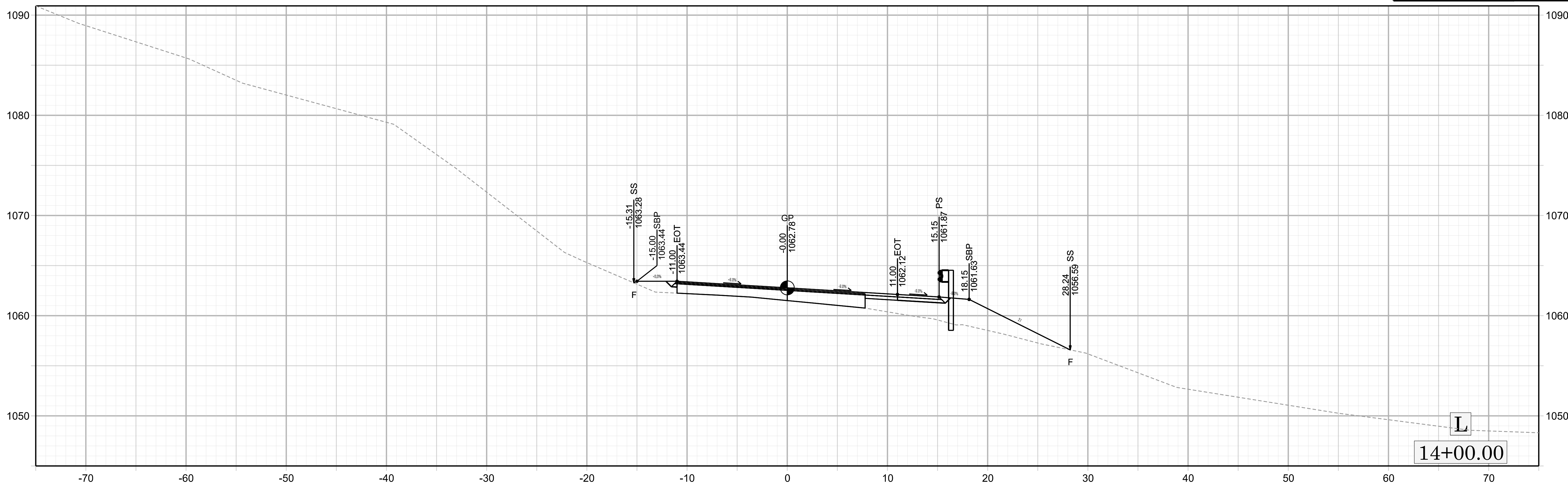
②  
PERRY L. PARKS  
DB 547 PG 93

**UTILITY CONTACT**  
DUKE ENERGY  
JONATHAN HILFIKER  
919.675.3125  
JONATHAN.HILFIKER@DUKE-ENERGY.COM

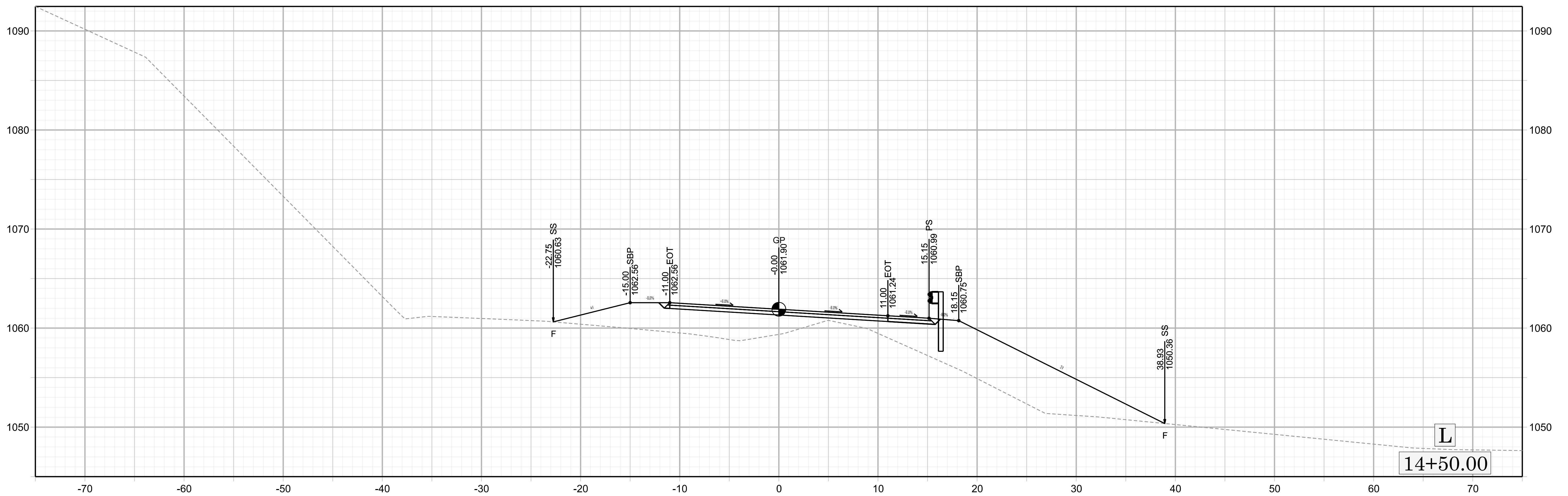
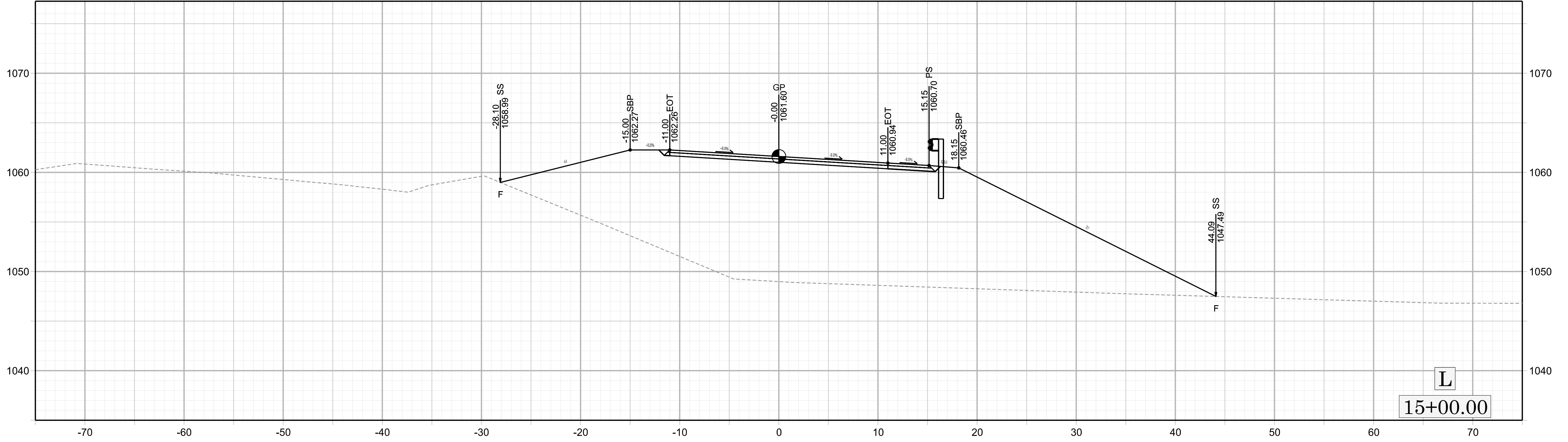


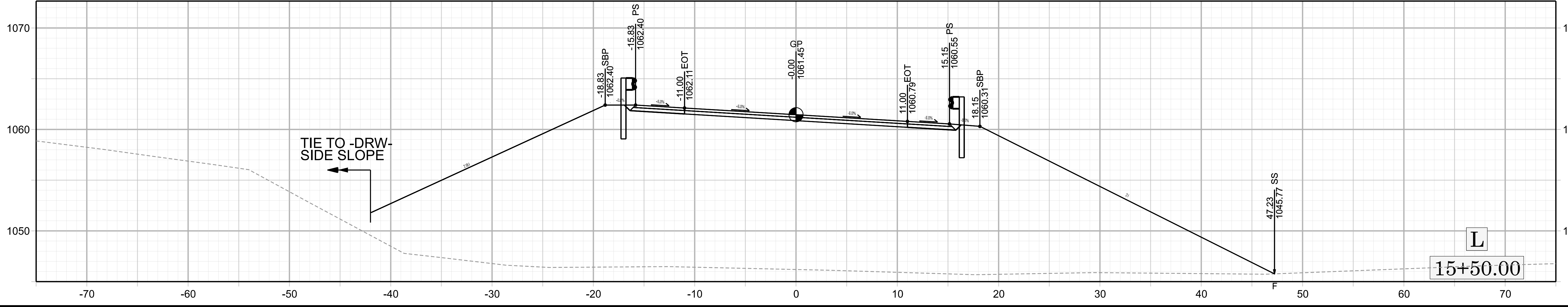
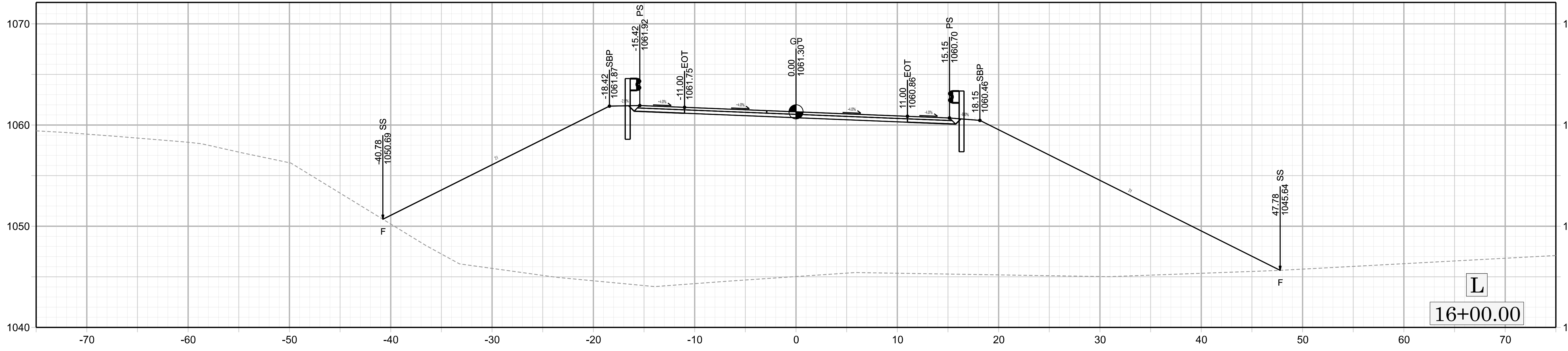
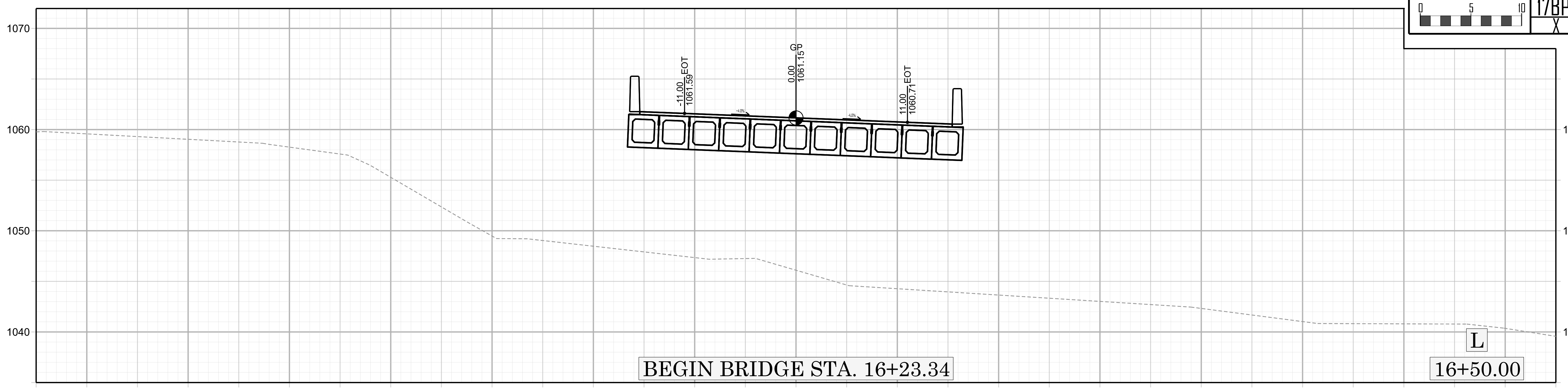




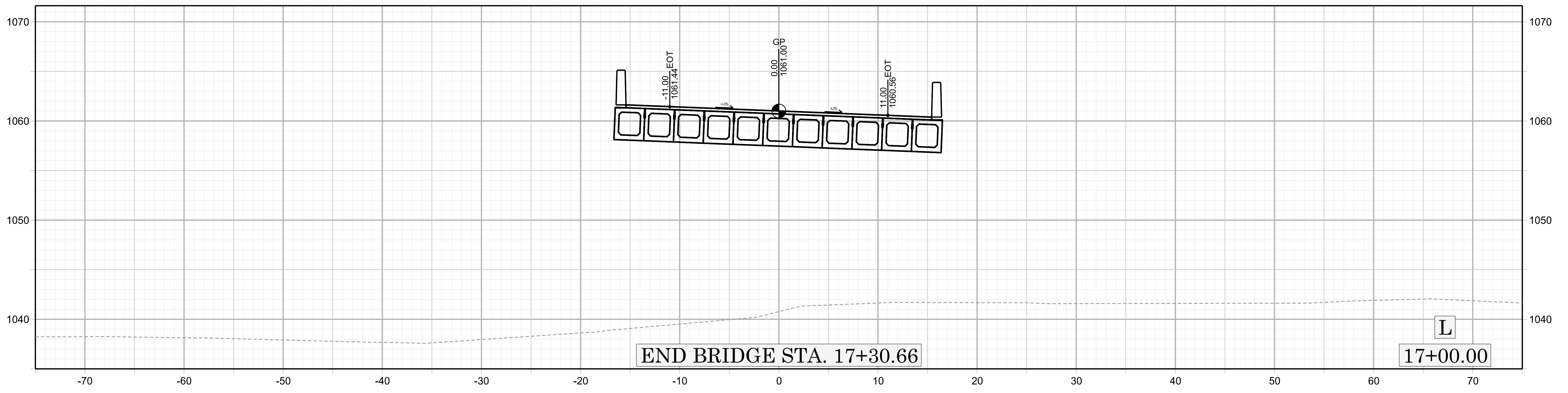
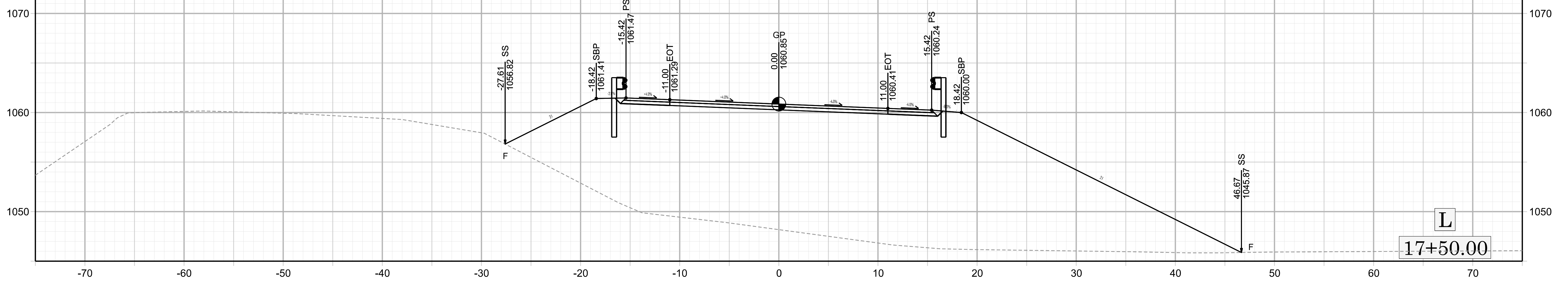
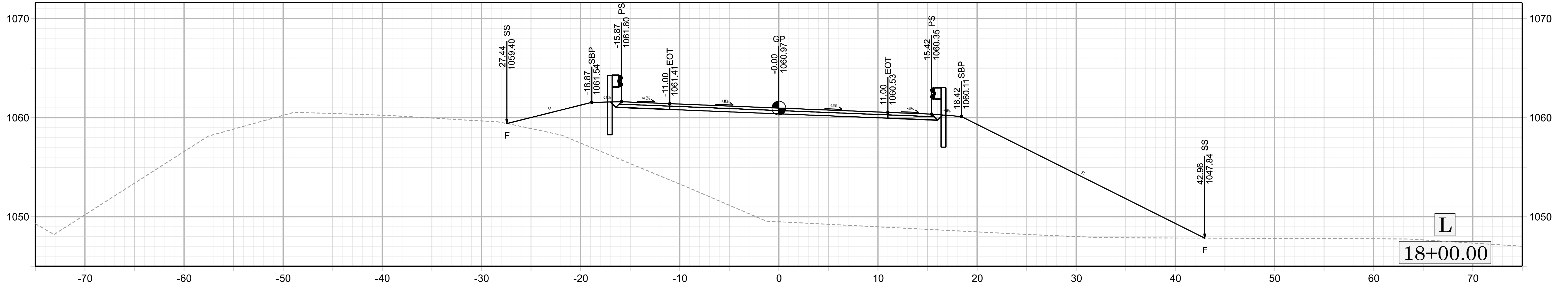


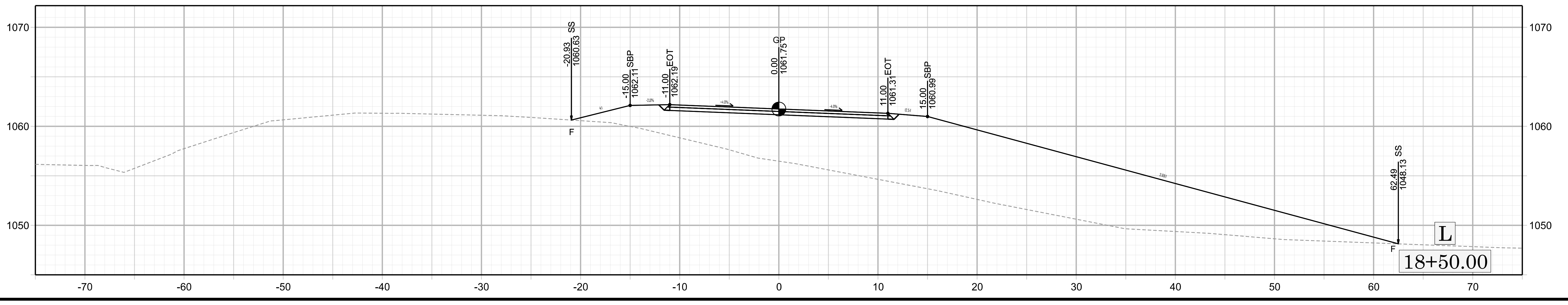
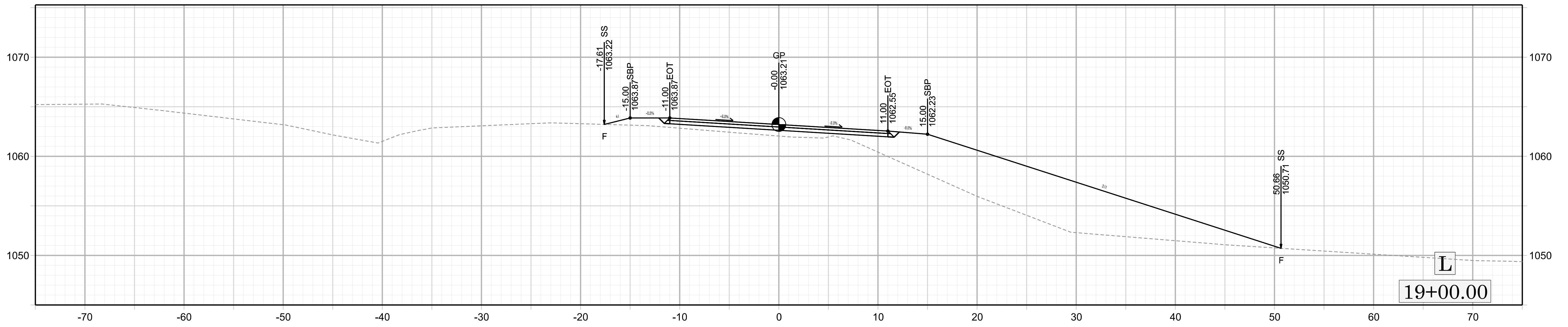
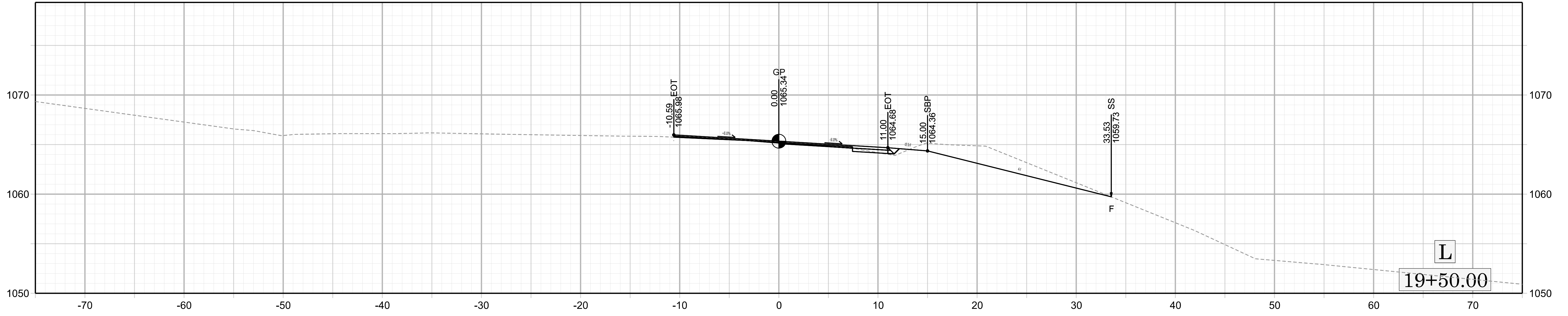






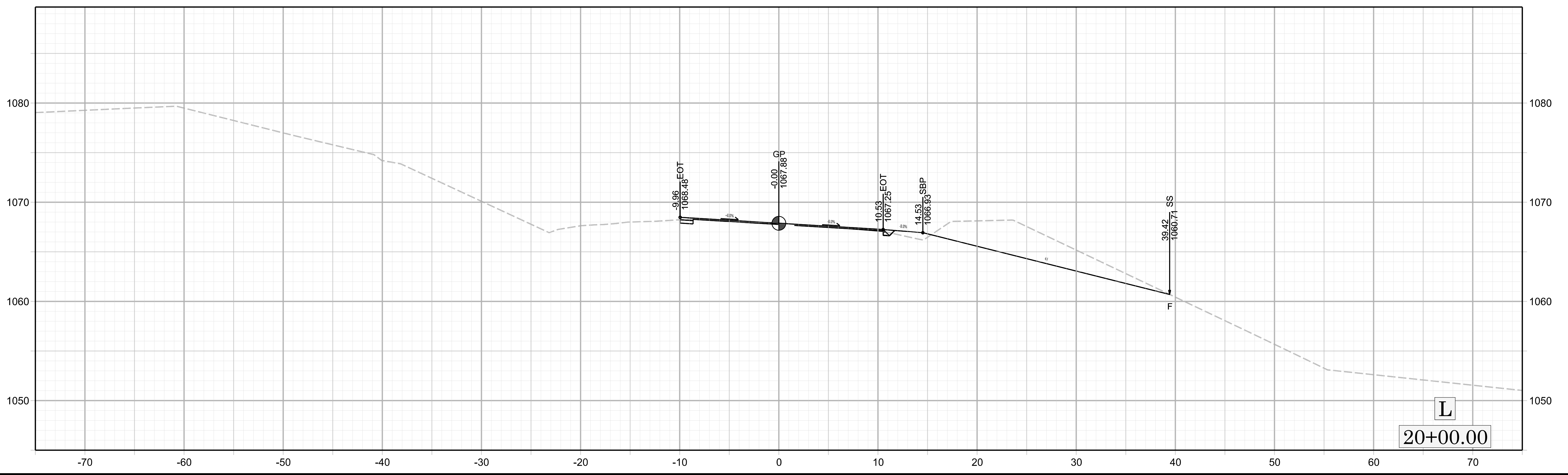


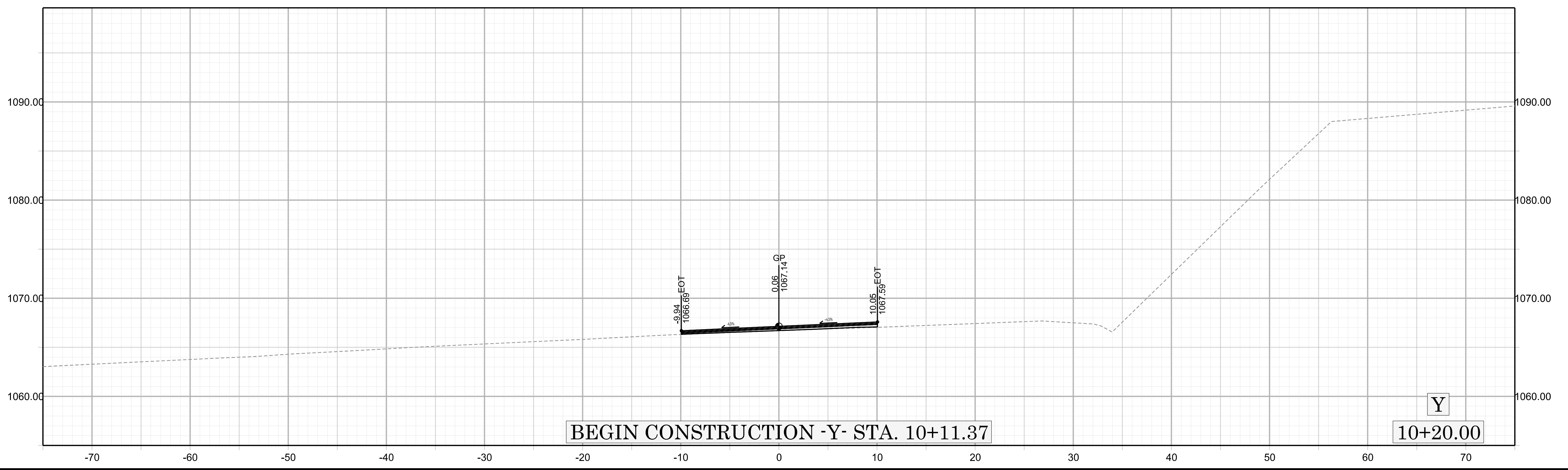
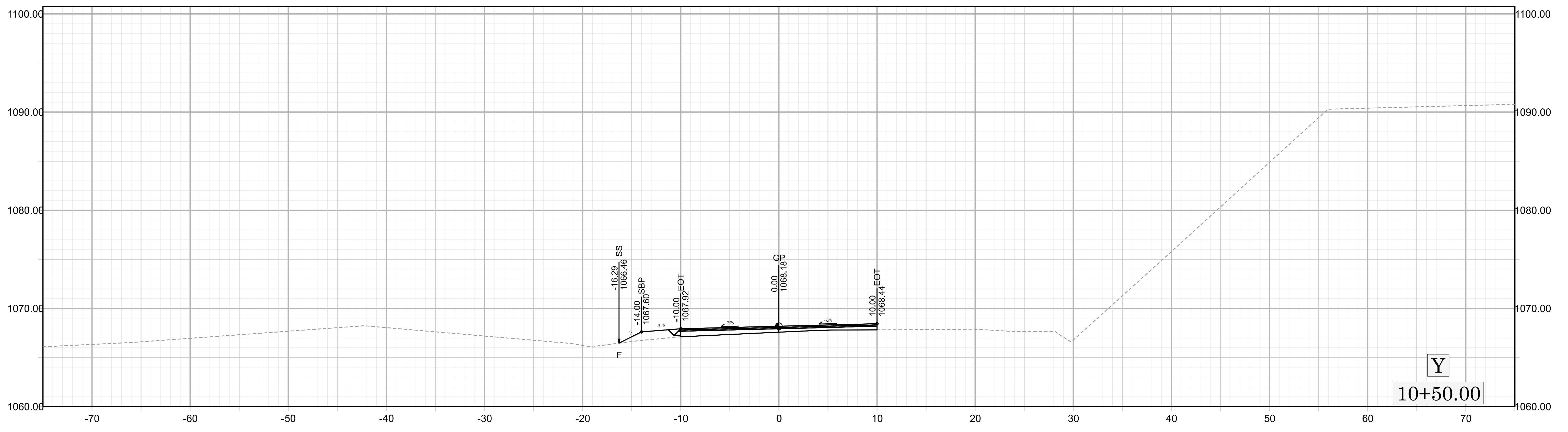




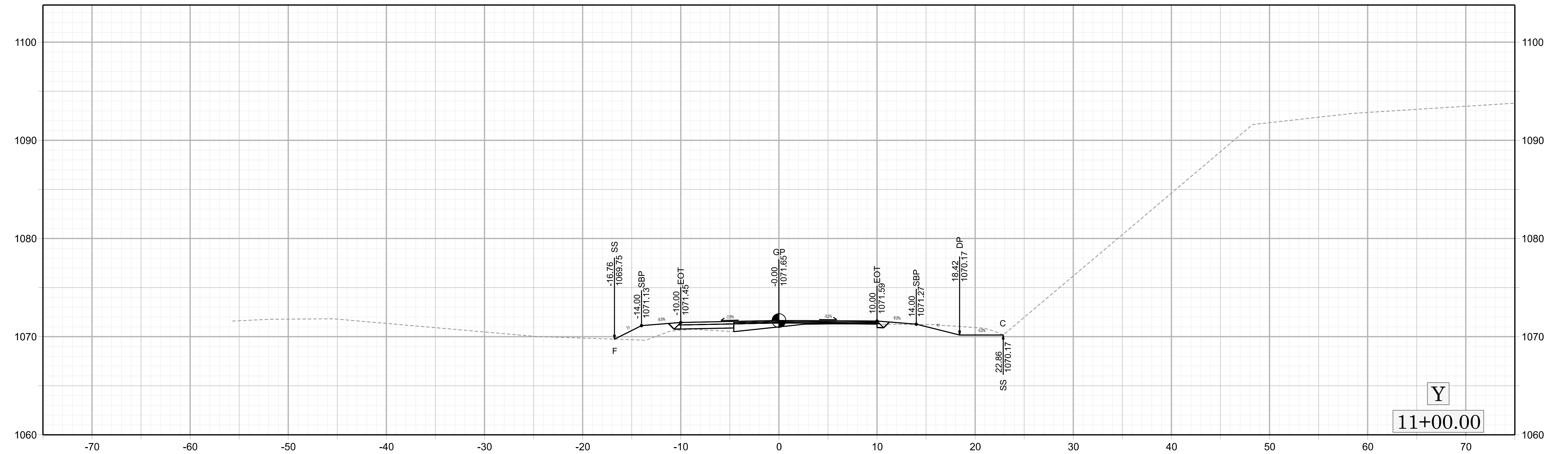
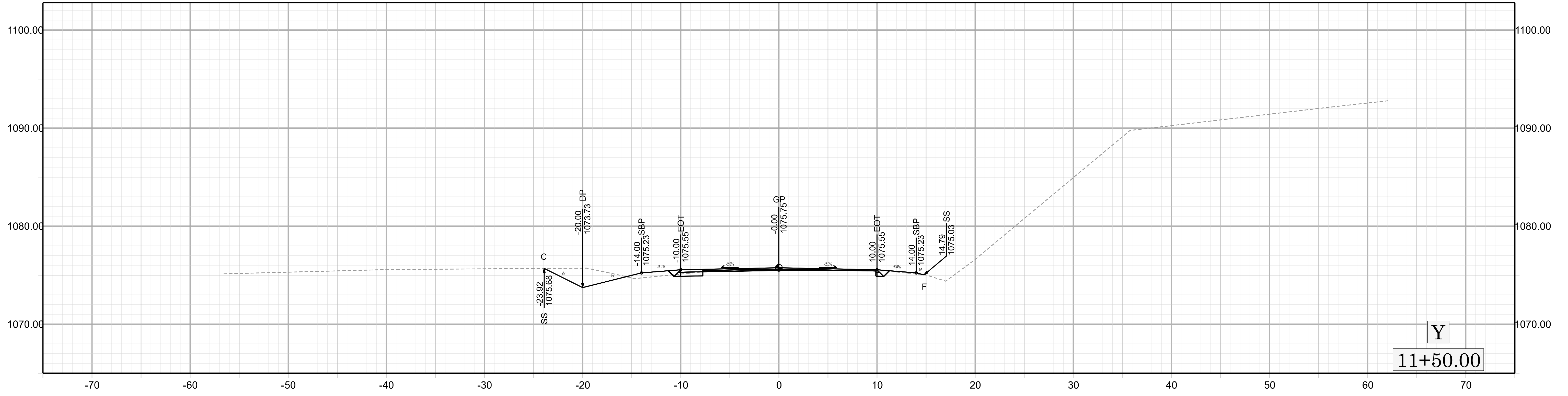


END PROJECT -L- STA. 20+45.00

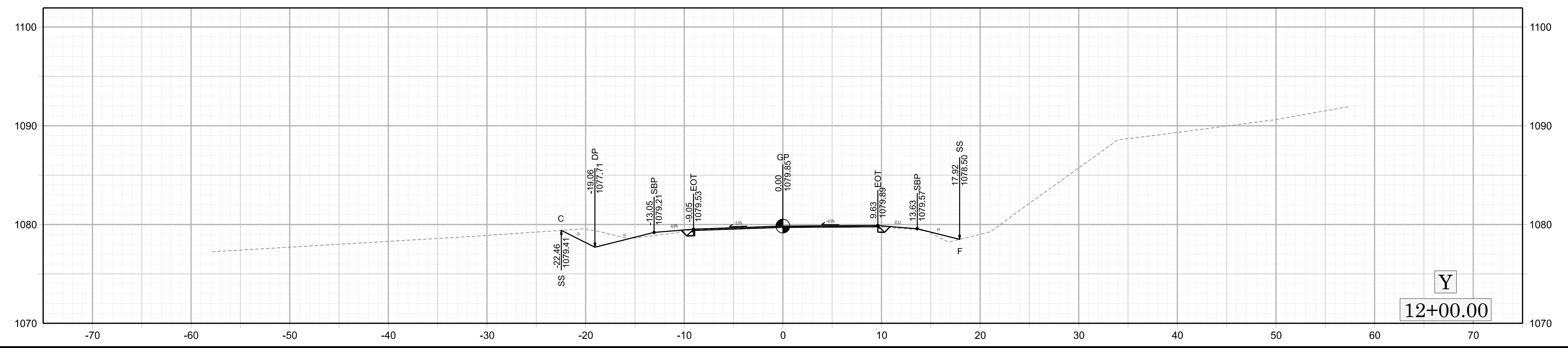
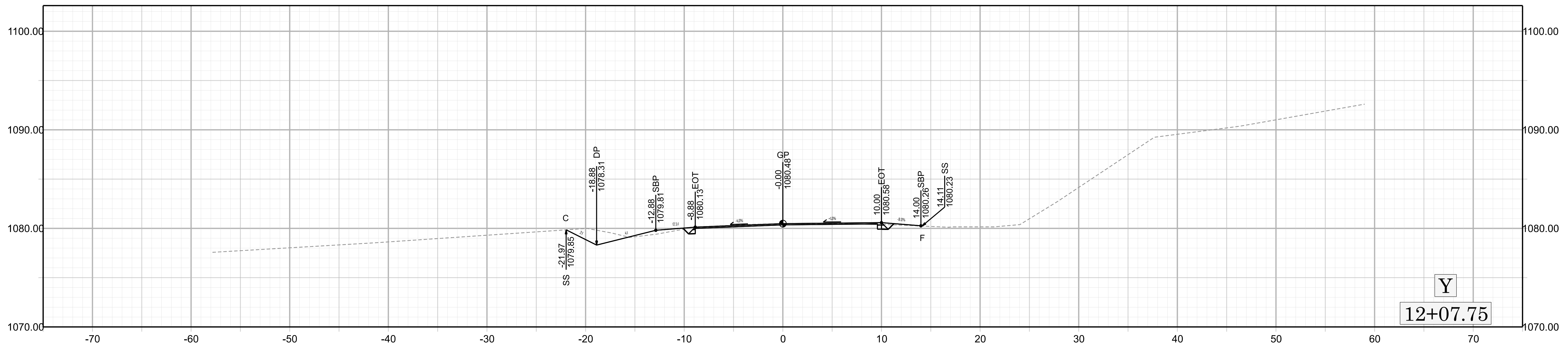




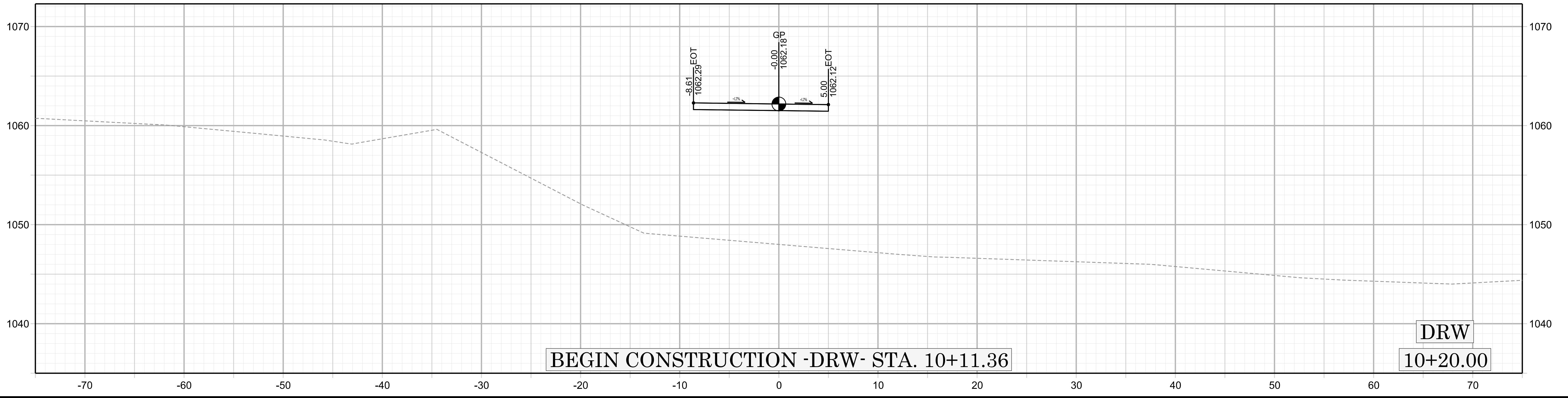
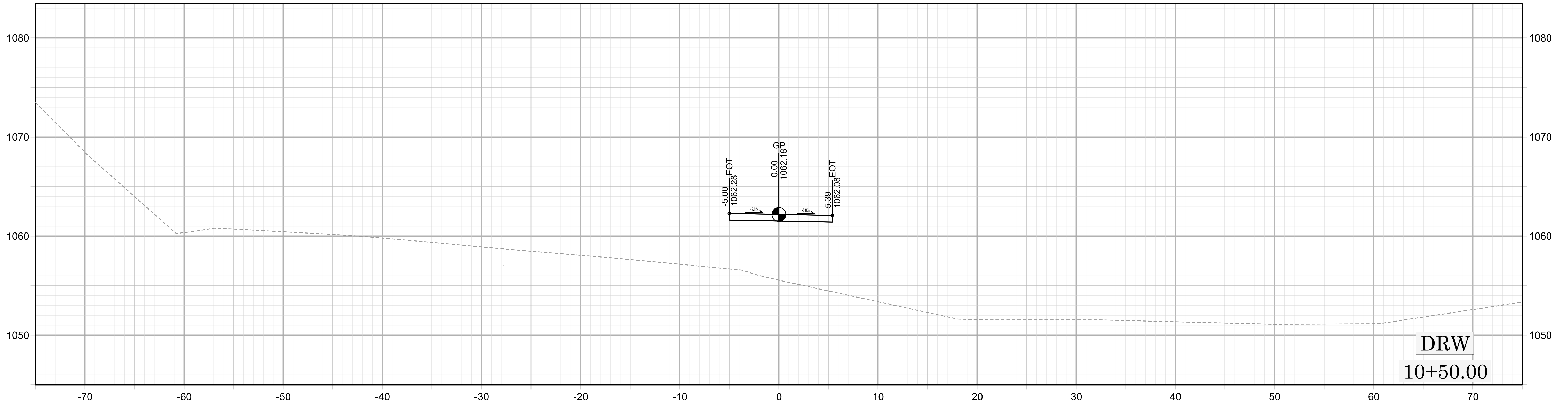




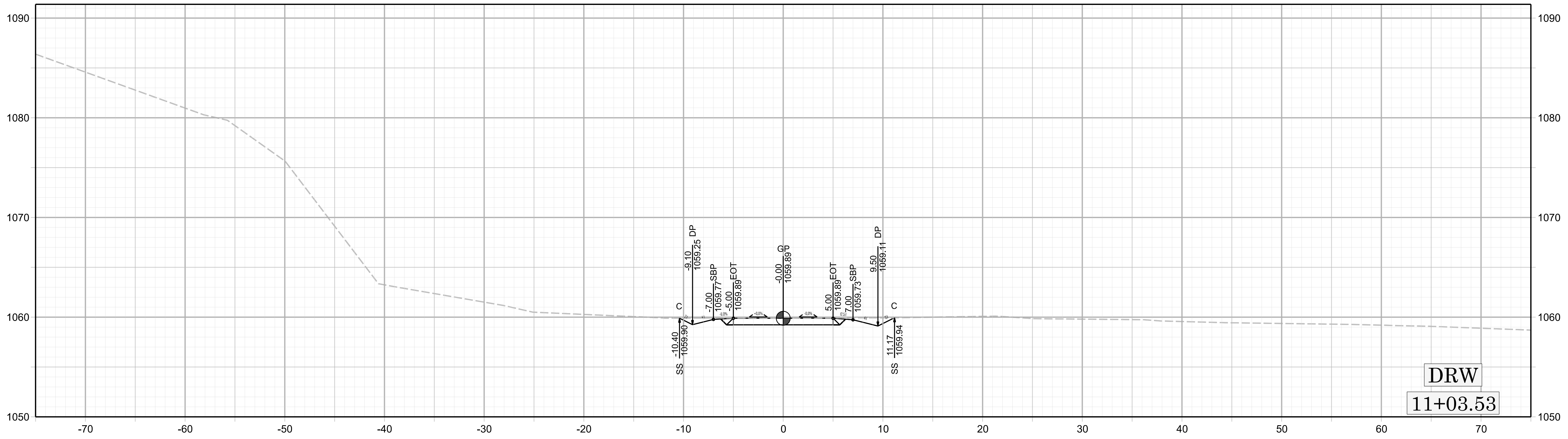
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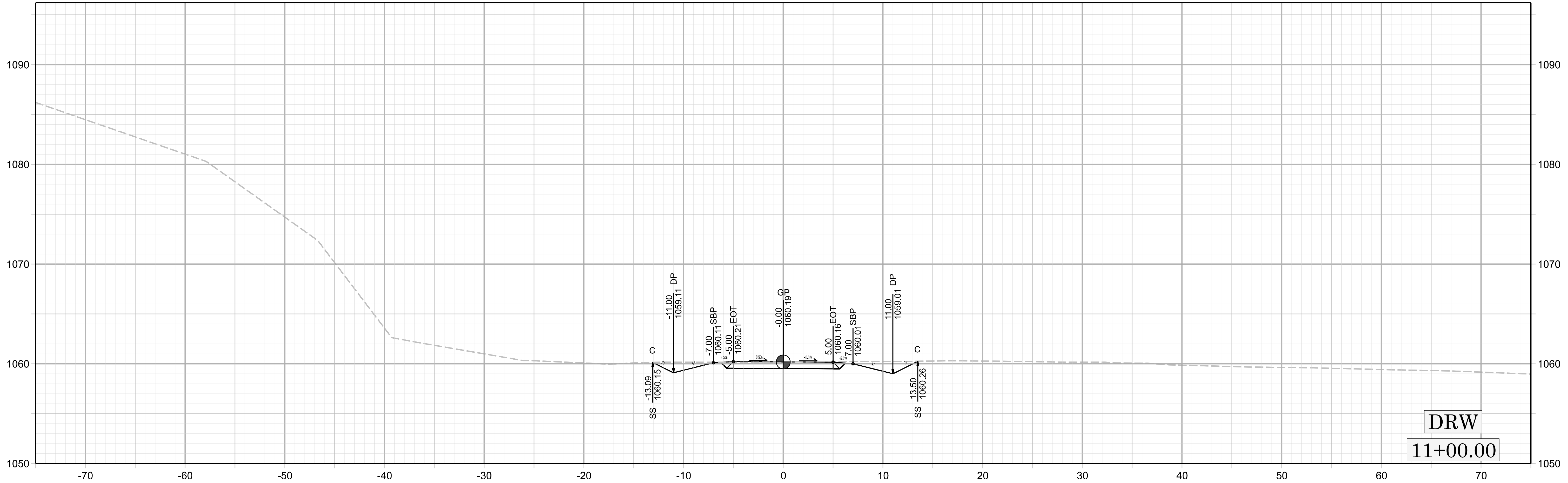




END CONSTRUCTION -DRW- STA. 11+03.53



DRW  
11+03.53



DRW  
11+00.00