

WIS

PROJECT ID:
WITH: N/A

6808-02-70

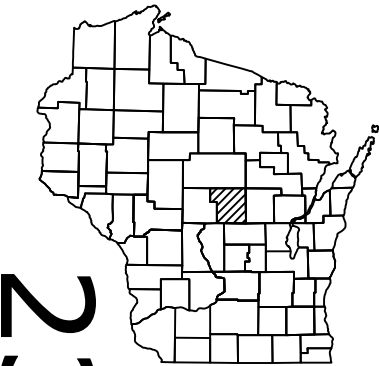
COUNTY:

PORTAGE

NOVEMBER 2025
ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 130



DESIGN DESIGNATION 6808-02-70

A.A.D.T.	2026	=	122
A.A.D.T.	2046	=	133
D.H.V.		=	15
D.D.		=	50/50
T.		=	3.0%
DESIGN SPEED		=	45 MPH
ESALS		=	7,300

CONVENTIONAL SYMBOLS

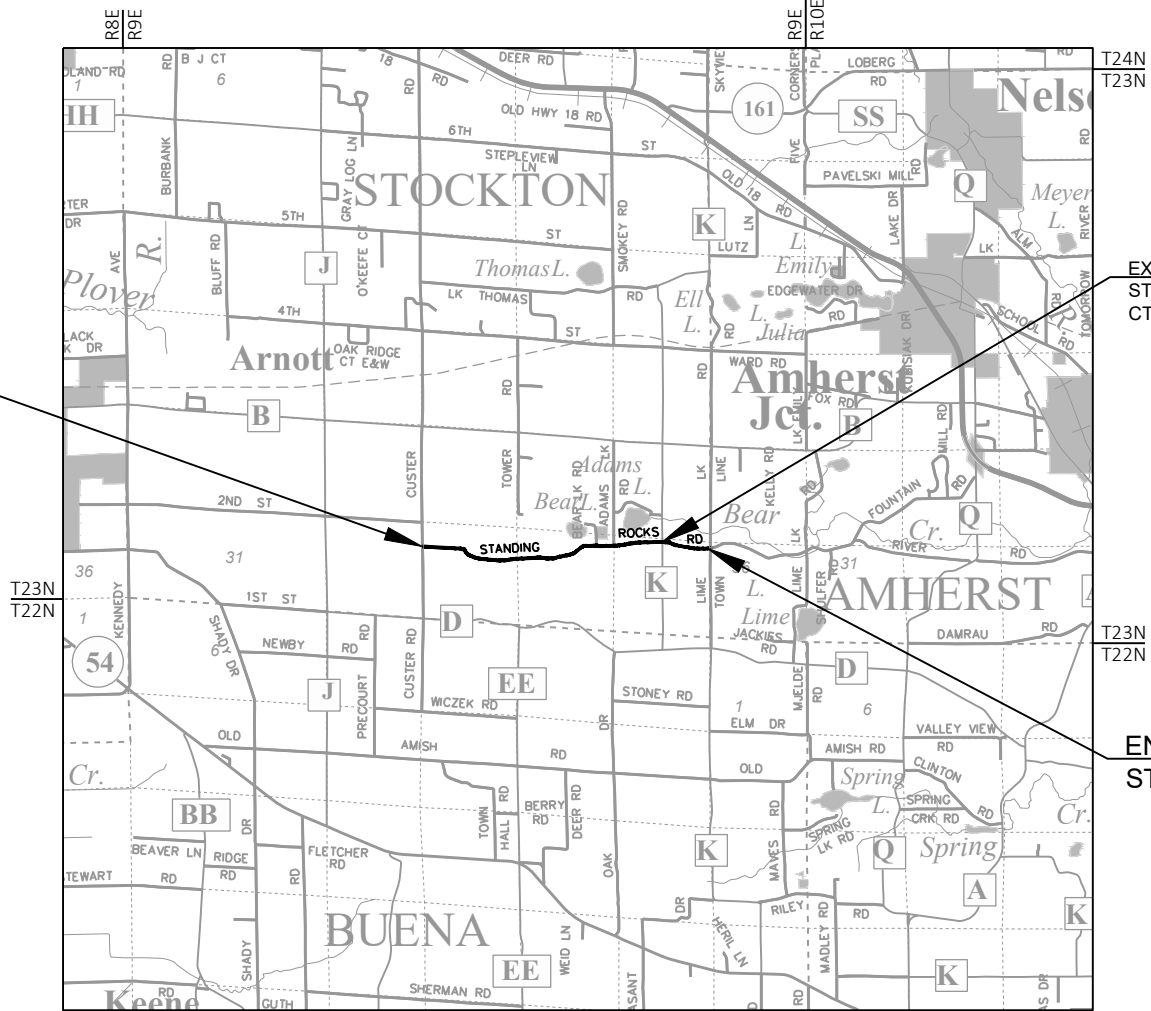
PLAN

CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE

GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

BEGIN PROJECT
STA 100+50



LAYOUT
SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 3.048 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), PORTAGE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

T STOCKTON, STANDING ROCKS ROAD

CUSTER ROAD TO TOWNLINE ROAD

LOCAL STREET
PORTAGE COUNTY

STATE PROJECT NUMBER
6808-02-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6808-02-70	WISC 2026059	1

ORIGINAL PLANS PREPARED BY

GREMMER & ASSOCIATES, INC.
CONSULTING ENGINEERS
Stevens Point • Fond du Lac
120 Wisconsin Boulevard North • Stevens Point, WI 54481
(715) 341-4363 • fax (715) 341-1056

WISCONSIN
DEXTER D. KAETTERHENRY
E-43966
PLOVER
WI
PROFESSIONAL ENGINEER

7/29/2025
DATE
DEXTER D. KAETTERHENRY, PE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor GREMMER & ASSOCIATES, INC.
Designer GREMMER & ASSOCIATES, INC.
Project Manager JASON SCHAEFFER
Regional Examiner WISDOT
Regional Supervisor DAN ERVA

APPROVED FOR THE DEPARTMENT
DATE: 7/29/2025
(Signature)

E

GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER. CLEARING AND GRUBBING LOCATIONS ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED. NO CLEARING IS NECESSARY IF TREES ARE OUTSIDE SLOPE INTERCEPT AND CUT/FILL SLOPES ARE 4:1 OR LESS.

SIGNING NOTES

UTILIZE ALL EXISTING SIGNS. MOVING SIGNS TYPE II AND POSTS WOOD 4x6-INCH X 12-FT REQ'D AT EACH LOCATION.

TOWN OF STOCKTON SHALL HANDLE ALL ROAD NAME POSTS AND SIGNS.

ORDER OF SECTION 2 SHEETS

GENERAL NOTES

PROJECT OVERVIEW

TYPICAL SECTIONS

CONSTRUCTION DETAILS

EROSION CONTROL

TRAFFIC CONTROL

ALIGNMENT DIAGRAM

DESIGN CONTACTS

DEPARTMENT OF NATURAL RESOURCES
ATTN: JAY SCHIEFFELBEIN
2984 SHAWANO AVE
GREEN BAY, WI 54313
OFFICE: 920.360.3784
EMAIL: jeremiah.schiefelbein@wisconsin.gov

UTILITIES

ALLIANT ENERGY - ELECTRICITY
ATTN: MARY MONTGOMERY
200 FIRST STREET
CEDAR RAPIDS, IA 52401
PHONE: 319.786.4768
EMAIL: marymontgomery@alliantenergy.com

AMHERST TELEPHONE COMPANY - COMMUNICATION LINE
ATTN: JACOB VAN DE VOORT
225 MAIN STREET
MOSINEE, WI 54455
PHONE: 715.824.0546
EMAIL: jvandevoort@amherstcomm.net

AT&T DISTRIBUTION - COMMUNICATION LINE
ATTN: CHARLES BARTELT
70 E DIVISION STREET
FOND DU LAC, WI 54935
PHONE: 920.929.1013
EMAIL: cb1461@att.com

WISCONSIN PUBLIC SERVICE - COMMUNICATION LINE
ATTN: DON LUTZOW
PO BOX 1166
WAUSAU, WI 54402
PHONE: 715.848-7487
EMAIL: donald.lutzow@wisconsinpublicservice.com

RUNOFF COEFFICIENT TABLE

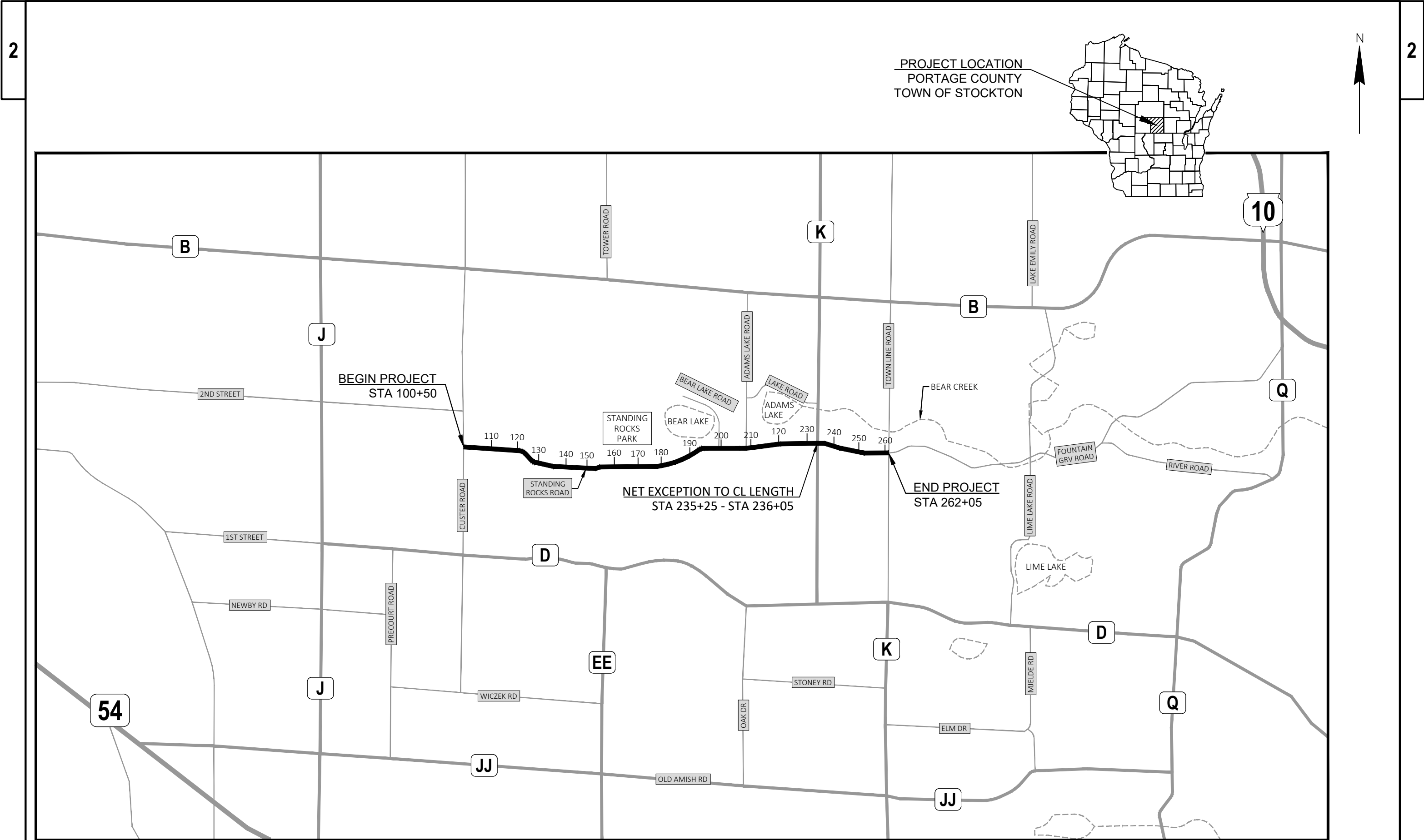
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIP- TURF	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPE- TURF			.25			.27			.28			.30
			.32			.34			.36			.38
PAVEMENT:												
ASPHALT						.70 - .95						
CONCRETE						.80 - .95						
BRICK						.70 - .80						
DRIVES, WALKS						.75 - .85						
ROOFS						.75 - .95						
GRAVEL ROADS, SHOULDERS						.40 - .60						

TOTAL PROJECT AREA = 53.85 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.38 ACRES

DIGGERSHOTLINE

Dial 811 or (800)242-8511

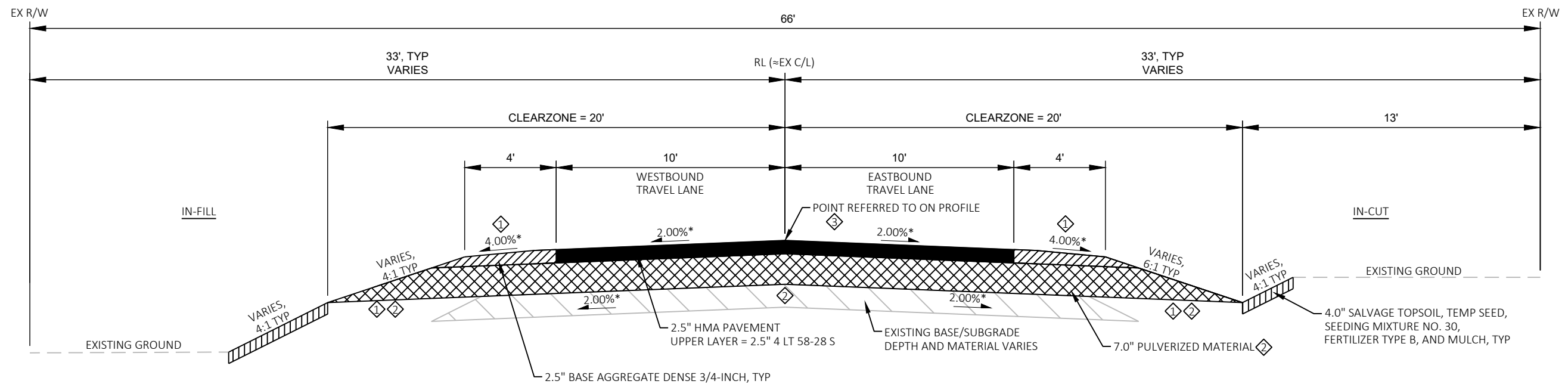
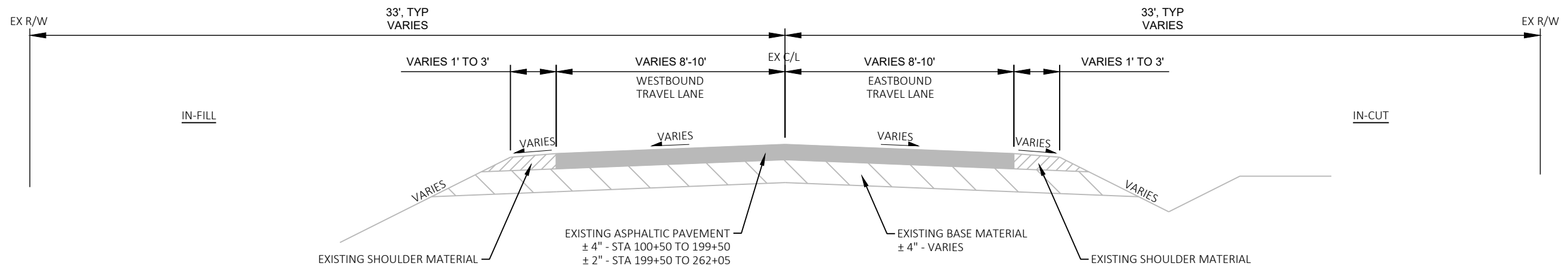
www.DiggersHotline.com



PROJECT LOCATION
PORTAGE COUNTY
TOWN OF STOCKTON



PROJECT NO: 6808-02-70	HWY: STANDING ROCKS ROAD	COUNTY: PORTAGE	PROJECT OVERVIEW	SHEET E
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* VARIES IN SUPERELEVATION AREA
- SEE SUPERELEVATION TABLE

FINISHED TYPICAL SECTION

STA 100+50 - STA 143+00
STA 145+58 - STA 147+00
STA 149+11 - STA 161+84
STA 165+34 - STA 186+00
STA 197+50 - STA 200+10
STA 205+60 - STA 217+34
STA 223+34 - STA 262+05

- ① REMOVE EXISTING UNSUITABLE MATERIAL AND TOPSOIL FROM EXISTING SHOULDERS OUT TO 20' LT AND RT OF EX CL (PRIOR TO PULVERIZING).
- ② PLACE 4" OF BASE AGGREGATE DENSE 1 1/4-INCH ON EXISTING ROADWAY PAVEMENT PRIOR TO PULVERIZING. PULVERIZE BASE, EXISTING PAVEMENT, AND 1"-2" OF EXISTING BASE. GRADE PULVERIZED MATERIAL OUT TO FILL VOID CREATED BY UNSUITABLE MATERIAL REMOVAL TO 20' LT AND RT AT 2.00% (TYP).
- ③ PROPOSED PROFILE AT RL IS APPROXIMATELY 6" HIGHER (TYP) THAN THE EXISTING CENTERLINE PROFILE.

PROJECT NO: 6808-02-70

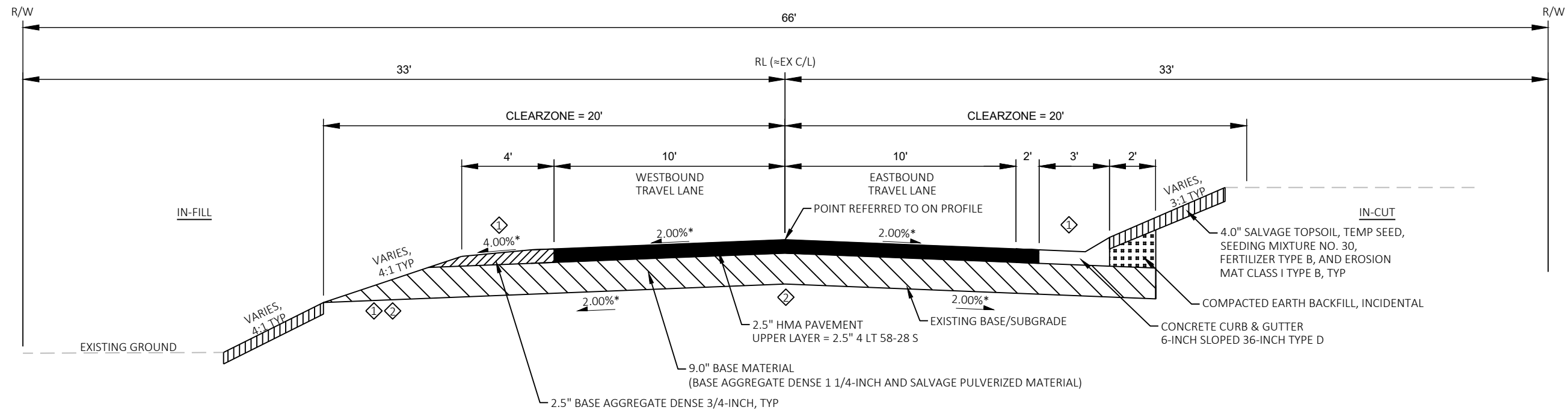
HWY: STANDING ROCKS ROAD

COUNTY: PORTAGE

TYPICAL SECTIONS

SHEET

E

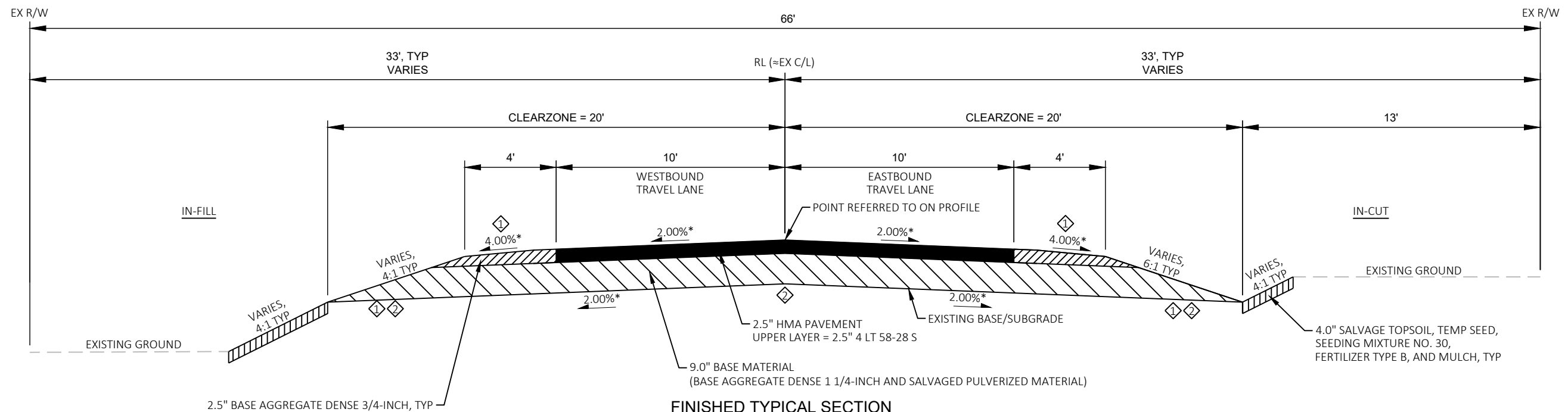


* VARIES IN SUPERELEVATION AREA
- SEE SUPERELEVATION TABLE

FINISHED TYPICAL SECTION

STA 192+50 - STA 196+00

- ① REMOVE EXISTING UNSUITABLE MATERIAL AND TOPSOIL FROM EXISTING SHOULDERS OUT TO 20' LT AND RT OF EX CL (PRIOR TO PULVERIZING).
- ② PLACE 4" OF BASE AGGREGATE DENSE 1 1/4-INCH ON EXISTING ROADWAY PAVEMENT PRIOR TO PULVERIZING. PULVERIZE BASE, EXISTING PAVEMENT, AND 1"-2" OF EXISTING BASE. CUT OR FILL SUBBASE TO MEET FINISHED CROSS SECTIONS. GRADE PULVERIZED MATERIAL OUT TO 20' LT AND RT AT 2.00% (TYP).



* VARIES IN SUPERELEVATION AREA
- SEE SUPERELEVATION TABLE

FINISHED TYPICAL SECTION

STA 143+00 - STA 145+58
STA 147+00 - STA 149+11
STA 161+84 - STA 165+34
STA 186+00 - STA 192+50
STA 196+00 - STA 197+50
STA 200+10 - STA 205+60
STA 217+34 - STA 223+34

- ① REMOVE EXISTING UNSUITABLE MATERIAL AND TOPSOIL FROM EXISTING SHOULDERS OUT TO 20' LT AND RT OF EX CL (PRIOR TO PULVERIZING).
- ② PLACE 4" OF BASE AGGREGATE DENSE 1 1/4-INCH ON EXISTING ROADWAY PAVEMENT PRIOR TO PULVERIZING. PULVERIZE BASE, EXISTING PAVEMENT, AND 1"-2" OF EXISTING BASE. CUT OR FILL SUBBASE TO MEET FINISHED CROSS SECTIONS. GRADE PULVERIZED MATERIAL OUT TO 20' LT AND RT AT 2.00% (TYP).

PROJECT NO: 6808-02-70

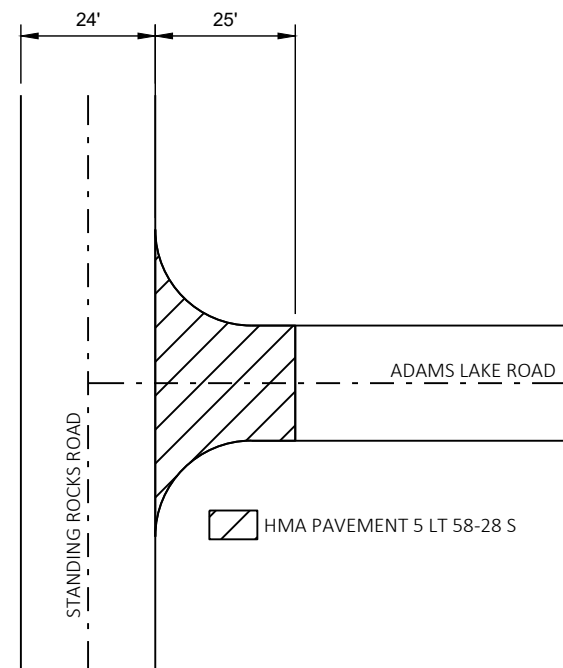
HWY: STANDING ROCKS ROAD

COUNTY: PORTAGE

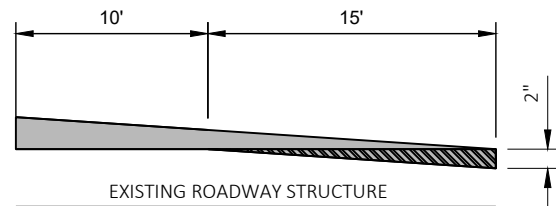
TYPICAL SECTIONS

SHEET

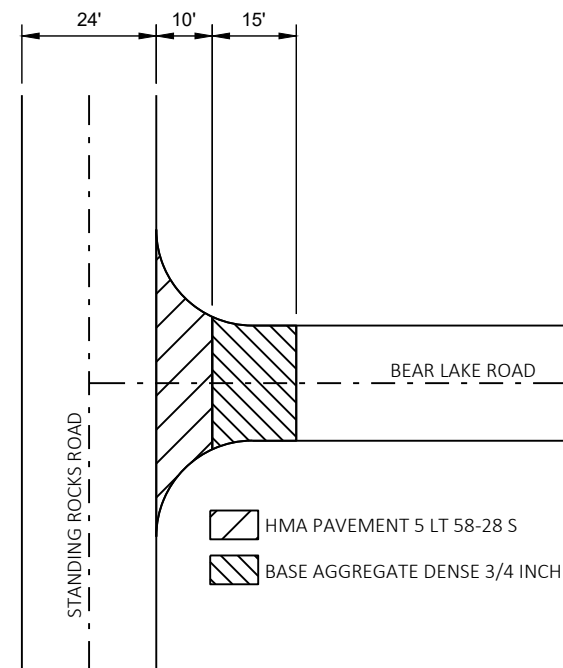
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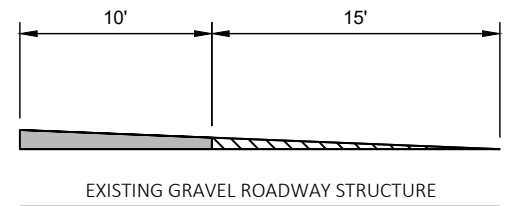
ADAMS LAKE ROAD



- REMOVING ASPHALTIC SURFACE BUTT JOINT
- HMA PAVEMENT (DEPTH VARIES)

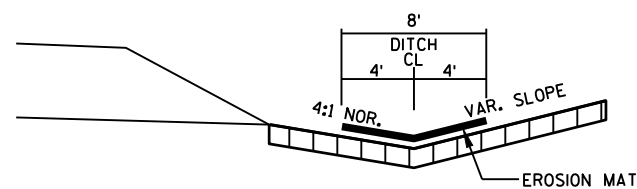


BEAR LAKE ROAD

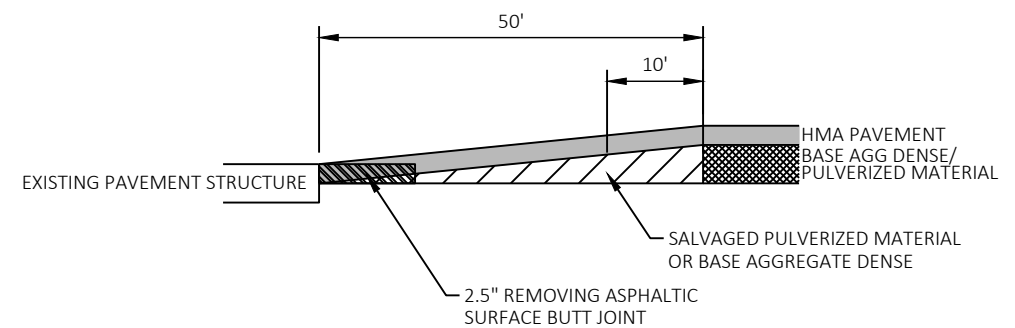


- BASE AGGREGATE DENSE 3/4 INCH
- HMA PAVEMENT (DEPTH VARIES)

SIDE ROAD DETAILS

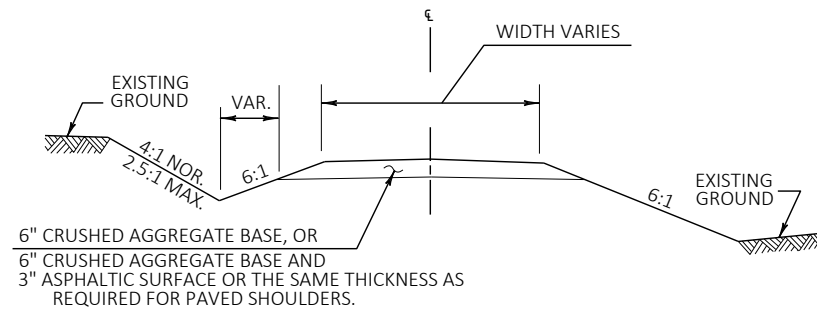


EROSION MAT DETAIL FOR DITCHES

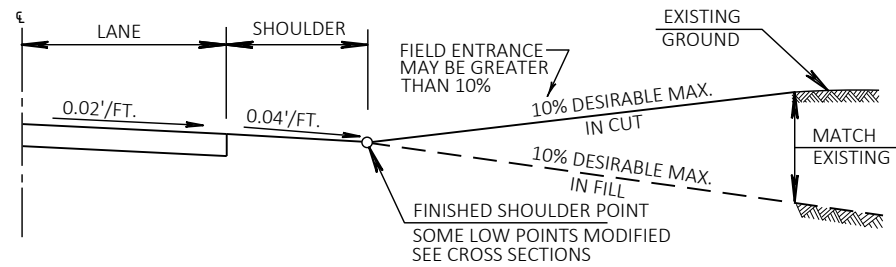


PROFILE TRANSITION DETAIL

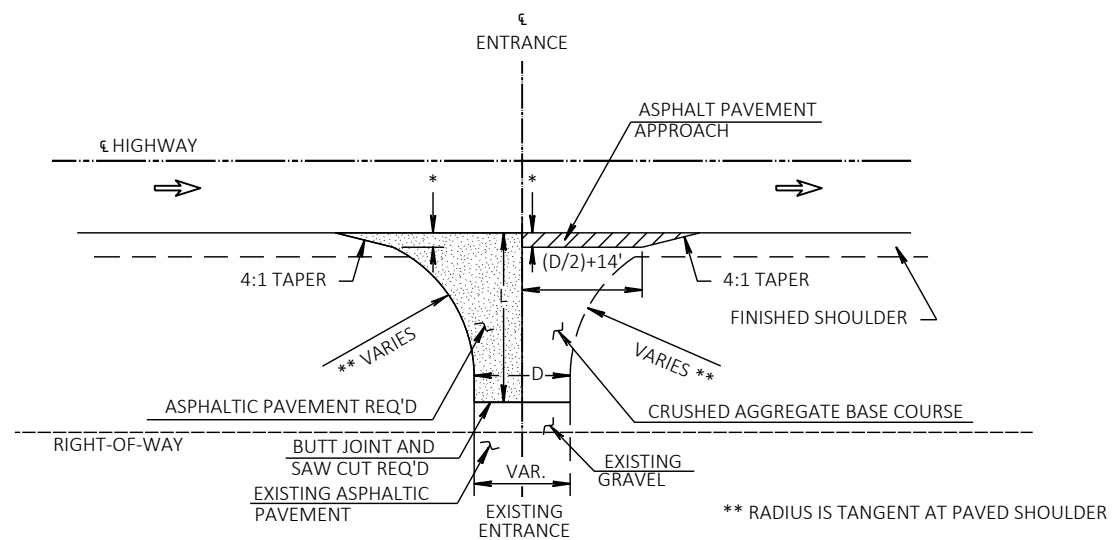
BEGIN PROJECT
CTH K
END PROJECT



TYPICAL CROSS SECTION



PROFILE VIEW

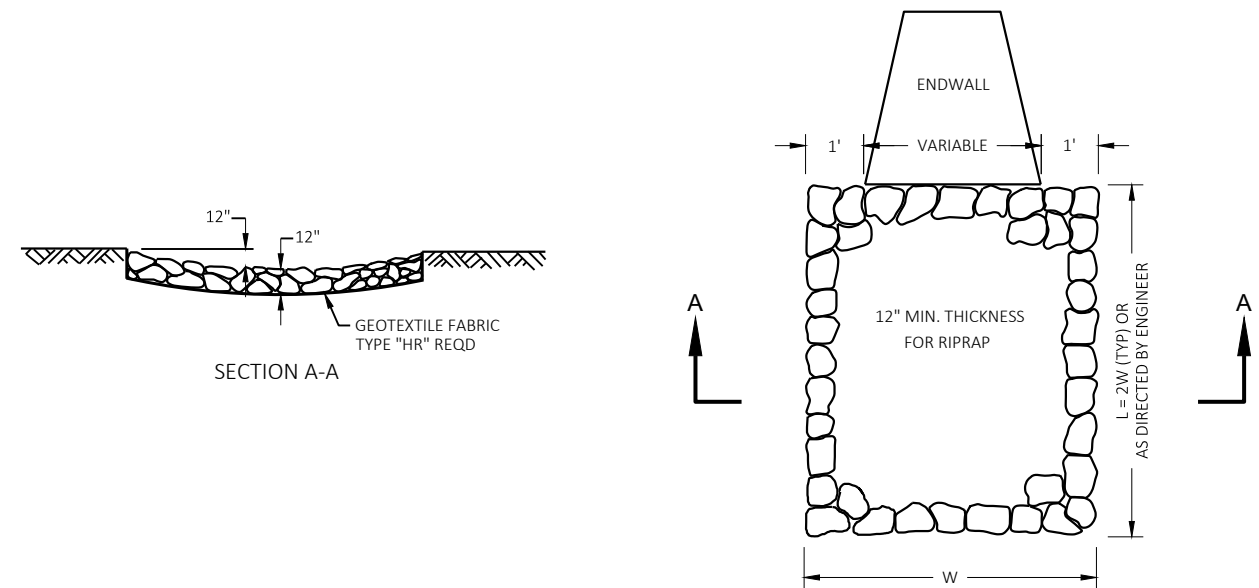


L=VARIABLE, EXACT LENGTH TO BE DETERMINED
IN THE FIELD BY THE ENGINEER.
BLEND BACK ON THE ENTRANCE FAR
ENOUGH TO GET A SMOOTH PROFILE.

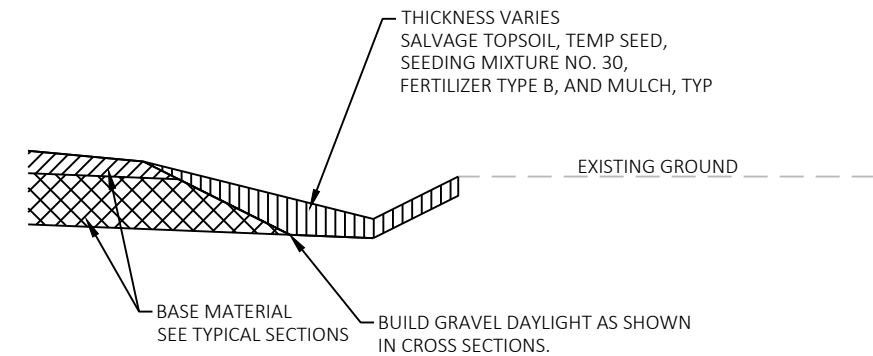
D=DRIVEWAY WIDTH

PLAN VIEW

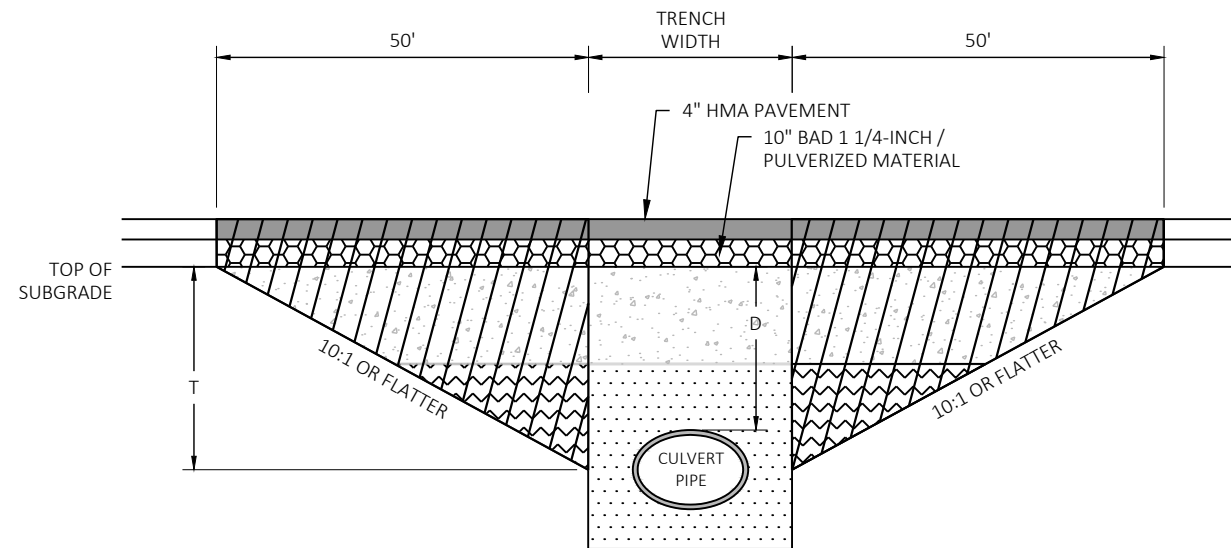
RURAL DRIVEWAY INTERSECTION DETAIL



RIPRAP TREATMENT AT CULVERTS



TOPSOIL ON GRAVEL SHOULDERS DETAIL

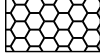
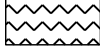
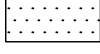


TRANSITION CUT DEPTH (T) = THE LESSER OF DEPTH TO CENTER OF PIPE OR 5 FT.
DO NOT EXTEND TRANSITION CUT BELOW HORIZONTAL CENTER OF PIPE.

DEPTH D < 6 FT

NOTES

TRANSITION CUT IS EXCAVATION COMMON.
TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT.
BACKFILL THE TRANSITION CUT AREAS WITH FOUNDATION AND TRENCH BACKFILL AS SPECIFIED IN STANDARD SPEC 520.

KEY	
	PROPOSED SURFACE
	PROPOSED BASE
	TRENCH BACKFILL
	TRENCH OR FOUNDATION BACKFILL
	FOUNDATION BACKFILL
	TRANSITION CUT

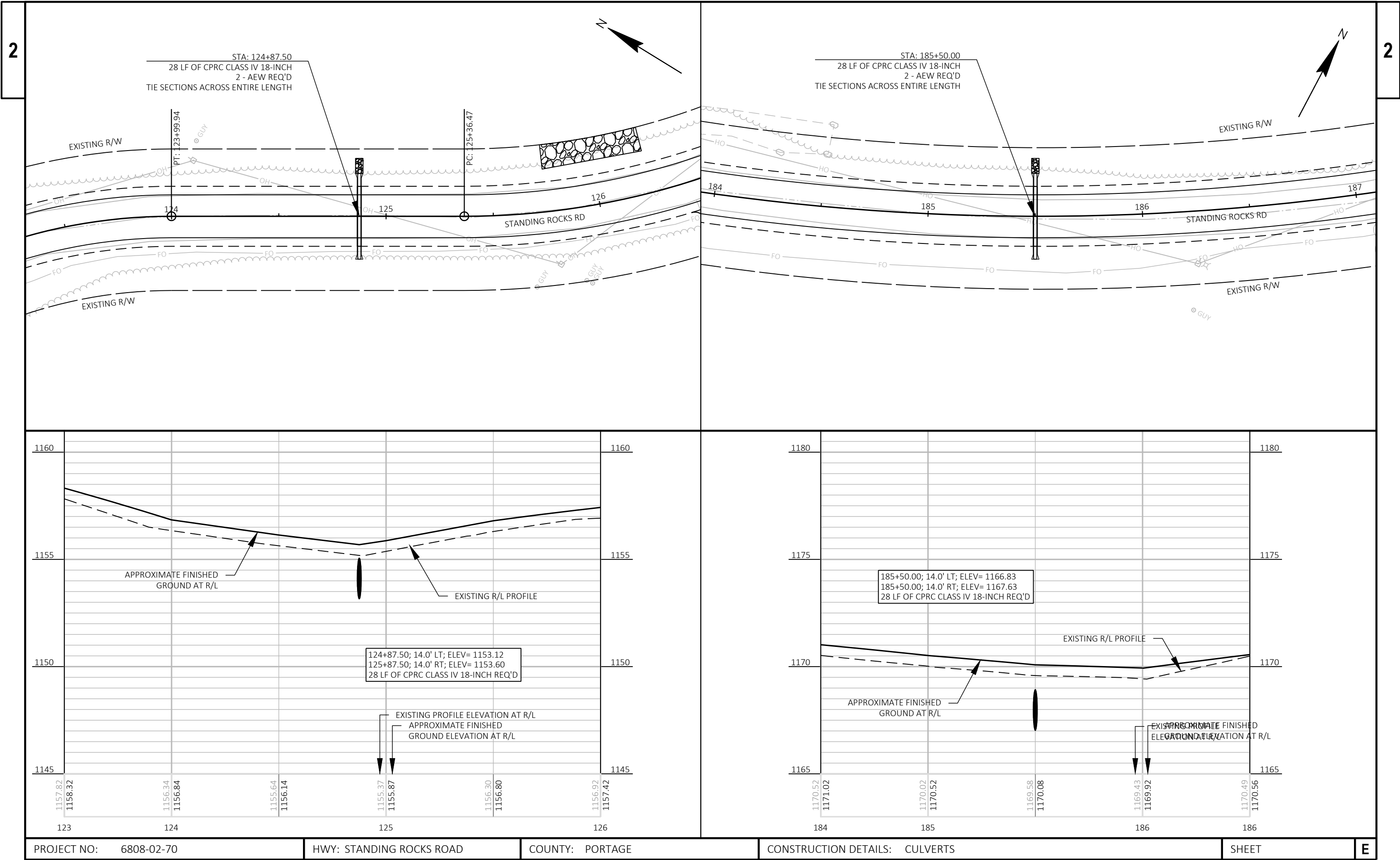
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CURVE #	STATION	DESCRIPTION	LT OUTSIDE SHLD	LT OUTSIDE LANE	RT OUTSIDE LANE	RT OUTSIDE SHLD
1	120+00.00'	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
1	120+58.00'	End Normal Crown	-2.00%	-2.00%	-2.00%	-4.00%
1	121+02.50'	Level Crown	0.00%	0.00%	-2.00%	-4.00%
1	121+47.00'	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
1	121+91.50'	Begin Full Super	2.00%	2.00%	-2.00%	-4.00%
1	123+70.28'	End Full Super	2.00%	2.00%	-2.00%	-4.00%
2	125+66.13'	Begin Full Super	-4.00%	-2.00%	2.00%	2.00%
2	127+31.21'	End Full Super	-4.00%	-2.00%	2.00%	2.00%
2	127+75.71'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
2	128+20.21'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
2	128+64.71'	Begin Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
2	128+64.71'	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
3	129+82.79'	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
3	129+82.79'	End Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
3	130+27.29'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
3	130+71.79'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
3	131+16.29'	Begin Full Super	-4.00%	-2.00%	2.00%	2.00%
3	132+47.49'	End Full Super	-4.00%	-2.00%	2.00%	2.00%
3	132+91.99'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
3	133+36.49'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
3	133+80.99'	Begin Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
3	133+80.99'	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
4	136+38.77'	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
4	136+38.77'	End Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
4	136+82.91'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
4	137+27.04'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
4	137+46.91'	Begin Full Super	-4.00%	-2.00%	2.00%	2.00%
4	137+92.85'	End Full Super	-4.00%	-2.00%	2.00%	2.00%
4	138+12.72'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
4	138+56.85'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
4	139+00.99'	Begin Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
4	139+00.99'	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
5	140+58.57'	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
5	140+58.57'	End Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
5	141+02.71'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
5	141+46.84'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
5	141+66.71'	Begin Full Super	-4.00%	-2.00%	2.00%	2.00%
5	141+88.71'	End Full Super	-4.00%	-2.00%	2.00%	2.00%
6	143+66.20'	Begin Full Super	-4.00%	-2.00%	2.00%	2.00%
6	144+57.33'	End Full Super	-4.00%	-2.00%	2.00%	2.00%
6	144+81.81'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
6	145+26.33'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
6	145+70.85'	Begin Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
6	145+70.85'	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
7	145+81.47'	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
7	145+81.47'	End Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
7	146+25.99'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
7	146+70.50'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
7	146+94.99'	Begin Full Super	-4.00%	-2.00%	2.00%	2.00%
7	148+09.63'	End Full Super	-4.00%	-2.00%	2.00%	2.00%
7	148+34.12'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
7	148+78.63'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
7	149+23.15'	Begin Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
7	149+23.15'	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%

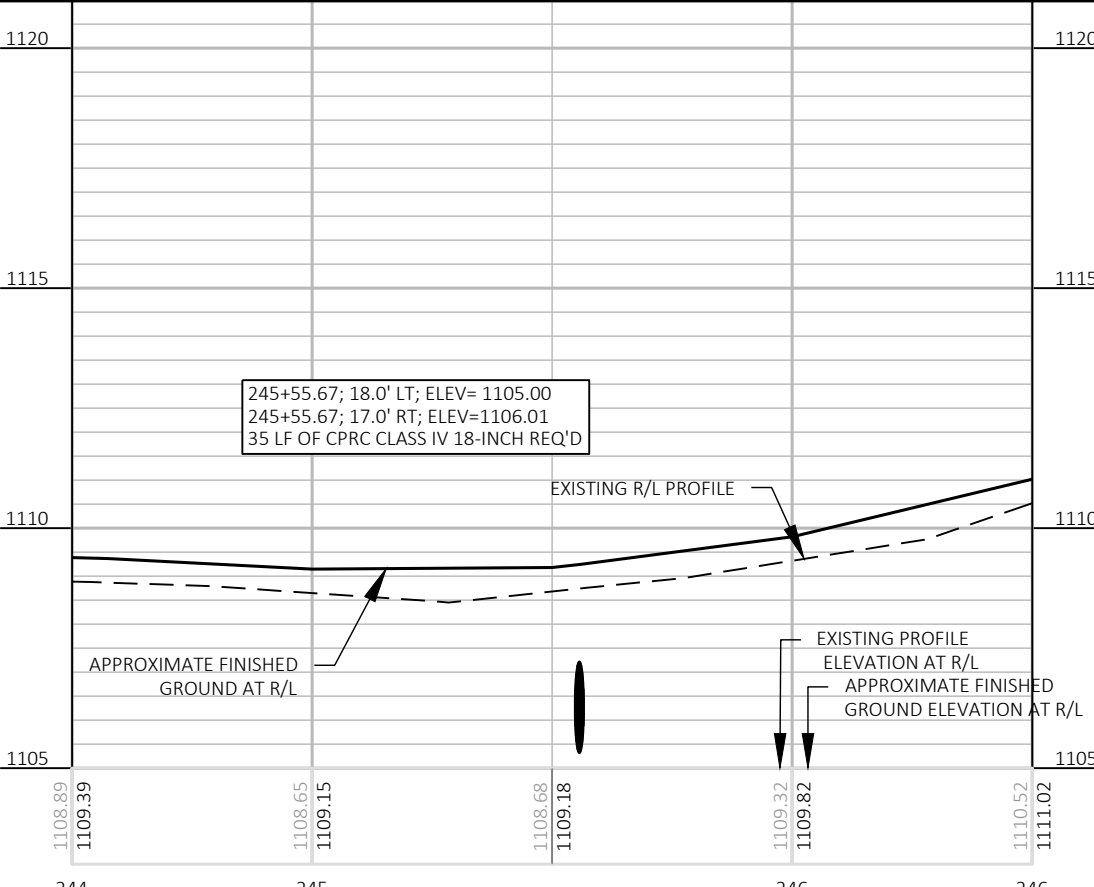
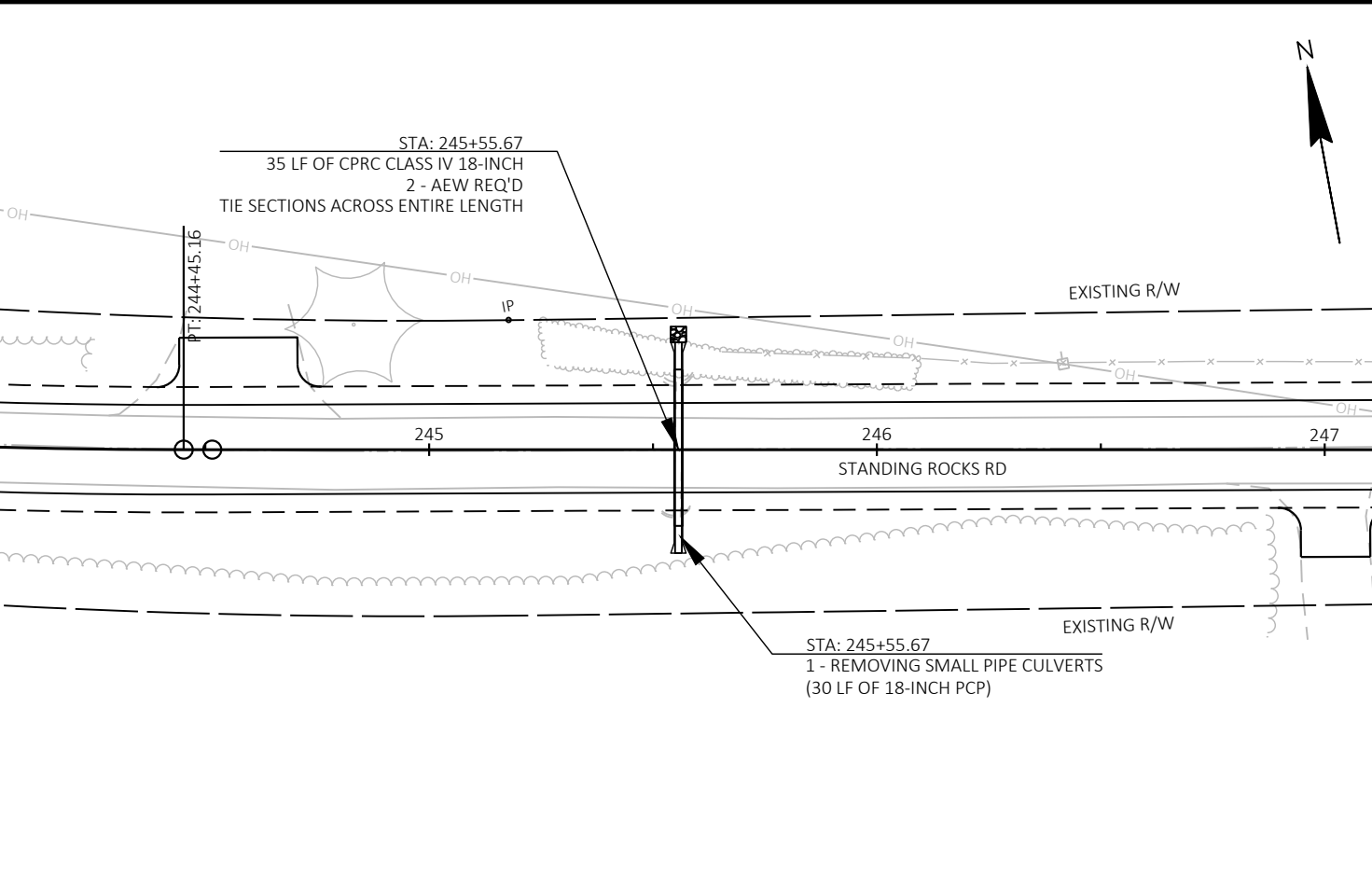
CURVE #	STATION	DESCRIPTION	LT OUTSIDE SHLD	LT OUTSIDE LANE	RT OUTSIDE LANE	RT OUTSIDE SHLD
8	150+00.00'	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
8	150+01.00'	Manual station	-4.00%	-2.00%	-2.00%	-4.00%
8	150+50.64'	End Normal Crown	-2.00%	-2.00%	-2.00%	-4.00%
8	150+94.78'	Level Crown	0.00%	0.00%	-2.00%	-4.00%
8	151+38.92'	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
8	151+58.78'	Begin Full Super	2.00%	2.00%	-2.00%	-4.00%
8	151+90.32'	End Full Super	2.00%	2.00%	-2.00%	-4.00%
8	152+10.18'	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
8	152+54.32'	Level Crown	0.00%	0.00%	-2.00%	-4.00%
8	152+98.46'	Begin Normal Crown	-2.00%	-2.00%	-2.00%	-4.00%
8	152+98.46'	Begin Normal Shoulder	-2.00%	-2.00%	-2.00%	-4.00%
9	153+57.93'	End Normal Shoulder	-2.00%	-2.00%	-2.00%	-4.00%
9	153+57.93'	End Normal Crown	-2.00%	-2.00%	-2.00%	-4.00%
9	154+02.48'	Level Crown	0.00%	0.00%	-2.00%	-4.00%
9	154+47.02'	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
9	154+51.48'	Begin Full Super	2.00%	2.00%	-2.00%	-4.00%
9	156+93.43'	End Full Super	2.00%	2.00%	-2.00%	-4.00%
10	158+43.37'	Begin Full Super	-4.00%	-2.00%	2.00%	2.00%
10	158+78.37'	End Full Super	-4.00%	-2.00%	2.00%	2.00%
10	159+07.13'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
10	159+51.37'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
10	159+95.62'	Begin Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
10	159+95.62'	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
11	162+80.00'	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
11	163+22.59'	End Normal Crown	-2.00%	-2.00%	-2.00%	-4.00%
11	163+66.83'	Level Crown	0.00%	0.00%	-2.00%	-4.00%
11	164+11.07'	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
11	164+39.83'	Begin Full Super	2.00%	2.00%	-2.00%	-4.00%
11	166+93.36'	End Full Super	2.00%	2.00%	-2.00%	-4.00%
11	167+22.12'	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
11	167+66.36'	Level Crown	0.00%	0.00%	-2.00%	-4.00%
11	168+10.60'	Begin Normal Crown	-2.00%	-2.00%	-2.00%	-4.00%
11	168+10.60'	Begin Normal Shoulder	-2.00%	-2.00%	-2.00%	-4.00%
12	168+34.72'	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
12	168+34.72'	End Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
12	168+79.39'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
12	169+24.06'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
12	169+46.39'	Begin Full Super	-4.00%	-2.00%	2.00%	3.00%
12	176+17.84'	End Full Super	-4.00%	-2.00%	2.00%	3.00%
13	176+54.83'	Begin Full Super	2.00%	2.00%	-2.00%	-4.00%
13	180+99.36'	End Full Super	2.00%	2.00%	-2.00%	-4.00%
13	180+99.36'	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
14	182+33.84'	Begin Full Super	-4.00%	-2.00%	2.00%	2.00%
14	188+49.30'	End Full Super	-4.00%	-2.00%	2.00%	2.00%
15	189+16.30'	Begin Full Super	2.00%	2.00%	-2.00%	-4.00%
15	194+40.92'	End Full Super	2.00%	2.00%	-2.00%	-4.00%
16	195+07.92'	Begin Full Super	-4.00%	-2.00%	2.00%	2.00%
16	196+47.92'	End Full Super	-4.00%	-2.00%	2.00%	2.00%
17	198+49.14'	Begin Full Super	2.00%	2.00%	-2.00%	-4.00%
17	199+45.42'	End Full Super	2.00%	2.00%	-2.00%	-4.00%

CURVE #	STATION	DESCRIPTION	LT OUTSIDE SHLD	LT OUTSIDE LANE	RT OUTSIDE LANE	RT OUTSIDE SHLD
18	201+94.25'	Begin Full Super	-4.00%	-2.00%	2.00%	2.00%
18	202+89.87'	End Full Super	-4.00%	-2.00%	2.00%	2.00%
18	203+29.66'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
18	203+73.87'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
18	204+18.08'	Begin Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
18	204+18.08'	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
19	209+46.76'	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
19	209+46.76'	End Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
19	209+91.33'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
19	210+35.90'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
19	210+69.33'	Begin Full Super	-4.00%	-2.00%	2.00%	2.00%
19	211+69.90'	End Full Super	-4.00%	-2.00%	2.00%	2.00%
19	212+03.33'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
19	212+47.90'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
19	212+92.47'	Begin Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
19	212+92.47'	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
20	218+90.00'	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
20	219+29.24'	End Normal Crown	-2.00%	-2.00%	-2.00%	-4.00%
20	219+73.41'	Level Crown	0.00%	0.00%	-2.00%	-4.00%
20	220+17.58'	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
20	220+26.41'	Begin Full Super	2.00%	2.00%	-2.00%	-4.00%
20	224+36.49'	End Full Super	2.00%	2.00%	-2.00%	-4.00%
20	224+45.33'	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
20	224+89.49'	Level Crown	0.00%	0.00%	-2.00%	-4.00%
20	225+33.66'	Begin Normal Crown	-2.00%	-2.00%	-2.00%	-4.00%
20	225+80.00'	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
21	236+60.00'	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
21	237+05.48'	End Normal Crown	-2.00%	-2.00%	-2.00%	-4.00%
21	237+49.98'	Level Crown	0.00%	0.00%	-2.00%	-4.00%
21	237+94.48'	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
21	238+38.98'	Begin Full Super	2.00%	2.00%	-2.00%	-4.00%
21	239+63.12'	End Full Super	2.00%	2.00%	-2.00%	-4.00%
22	240+43.04'	Begin Full Super	-4.00%	-2.00%	2.00%	2.00%
22	244+20.83'	End Full Super	-4.00%	-2.00%	2.00%	2.00%
22	244+49.59'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
22	244+93.83'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
22	245+38.08'	Begin Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
22	245+38.08'	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
23	252+38.63'	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
23	252+38.63'	End Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
23	252+83.25'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
23	253+27.86'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
23	253+41.25'	Begin Full Super	-4.00%	-2.00%	2.00%	2.00%
23	257+07.27'	End Full Super	-4.00%	-2.00%	2.00%	2.00%
23	257+20.65'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
23	257+65.27'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
23	258+09.88'	Begin Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
23	258+09.88'	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%

SUPERELEVATION DATA



2



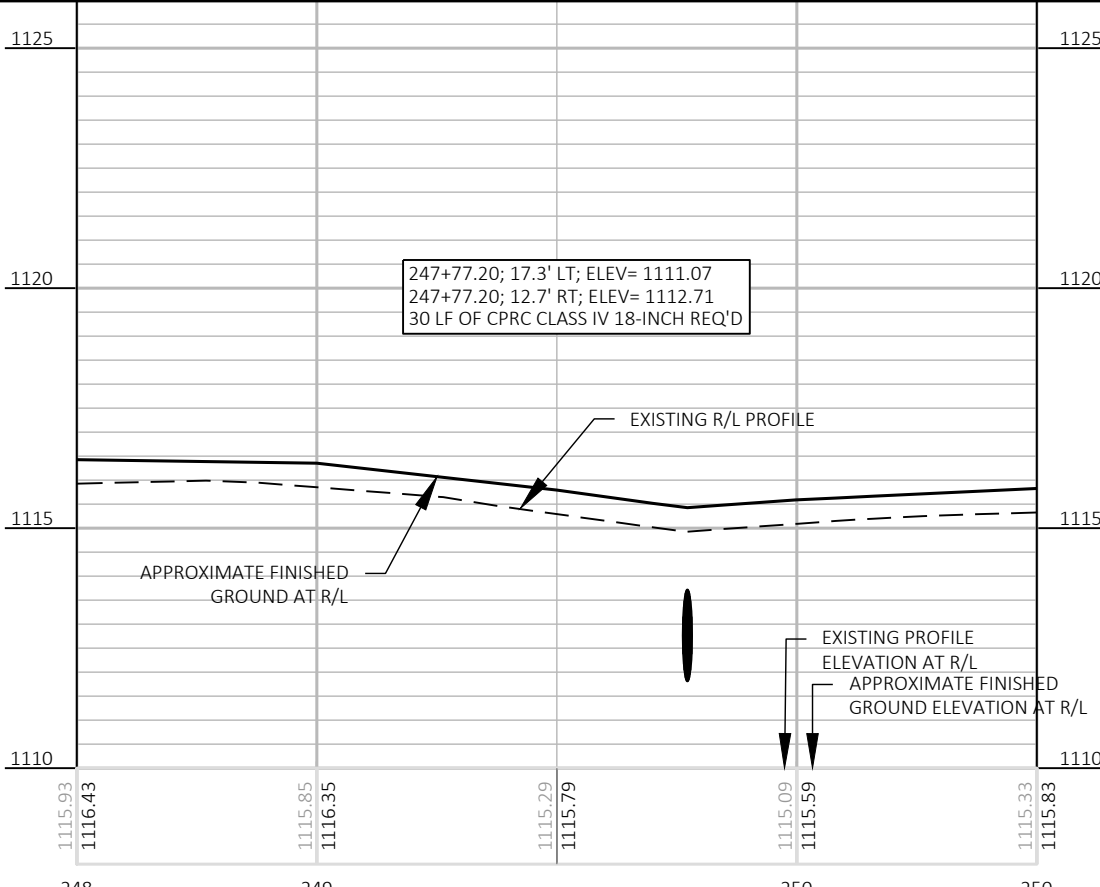
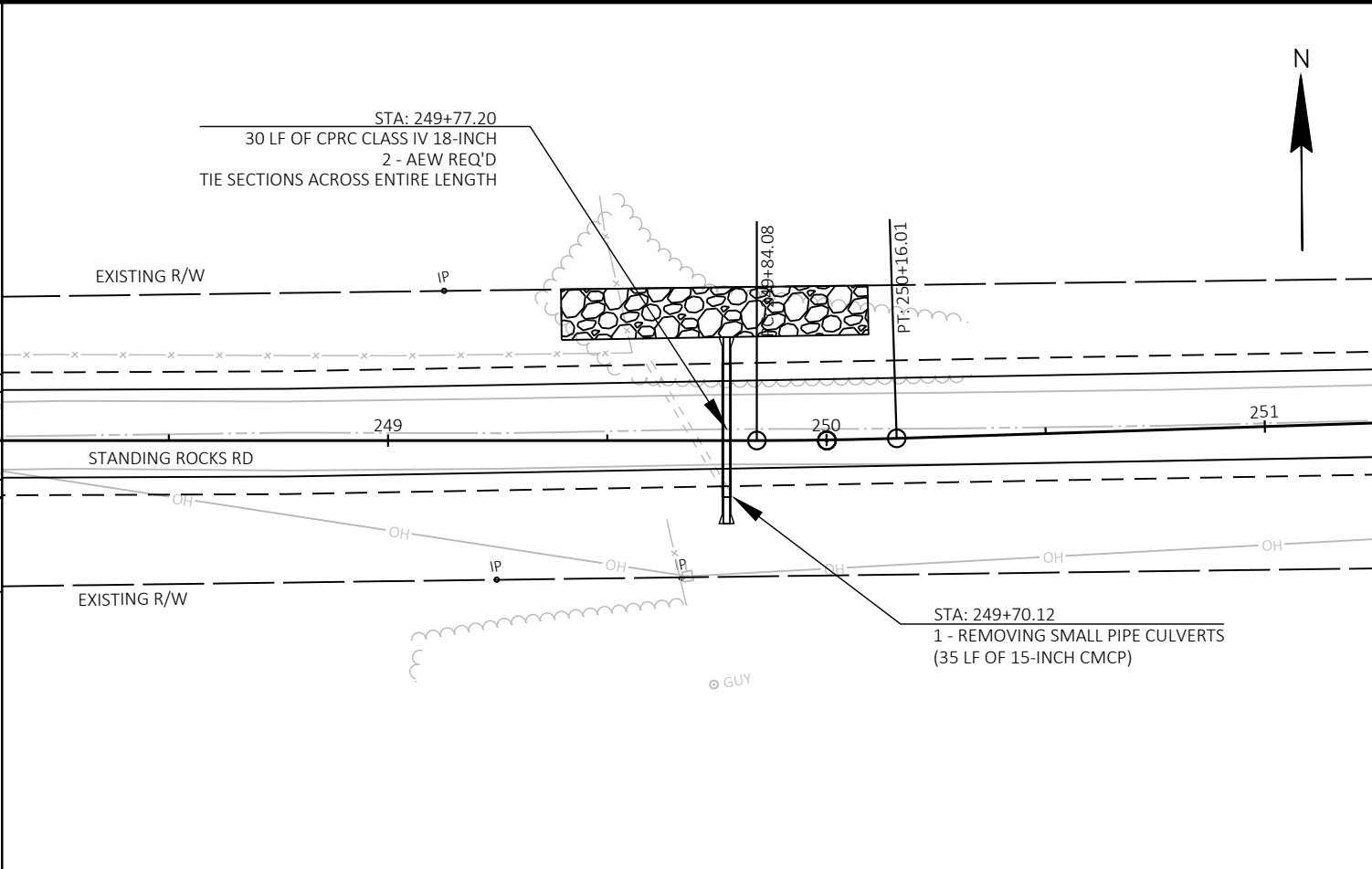
PROJECT NO:	6808-02-70
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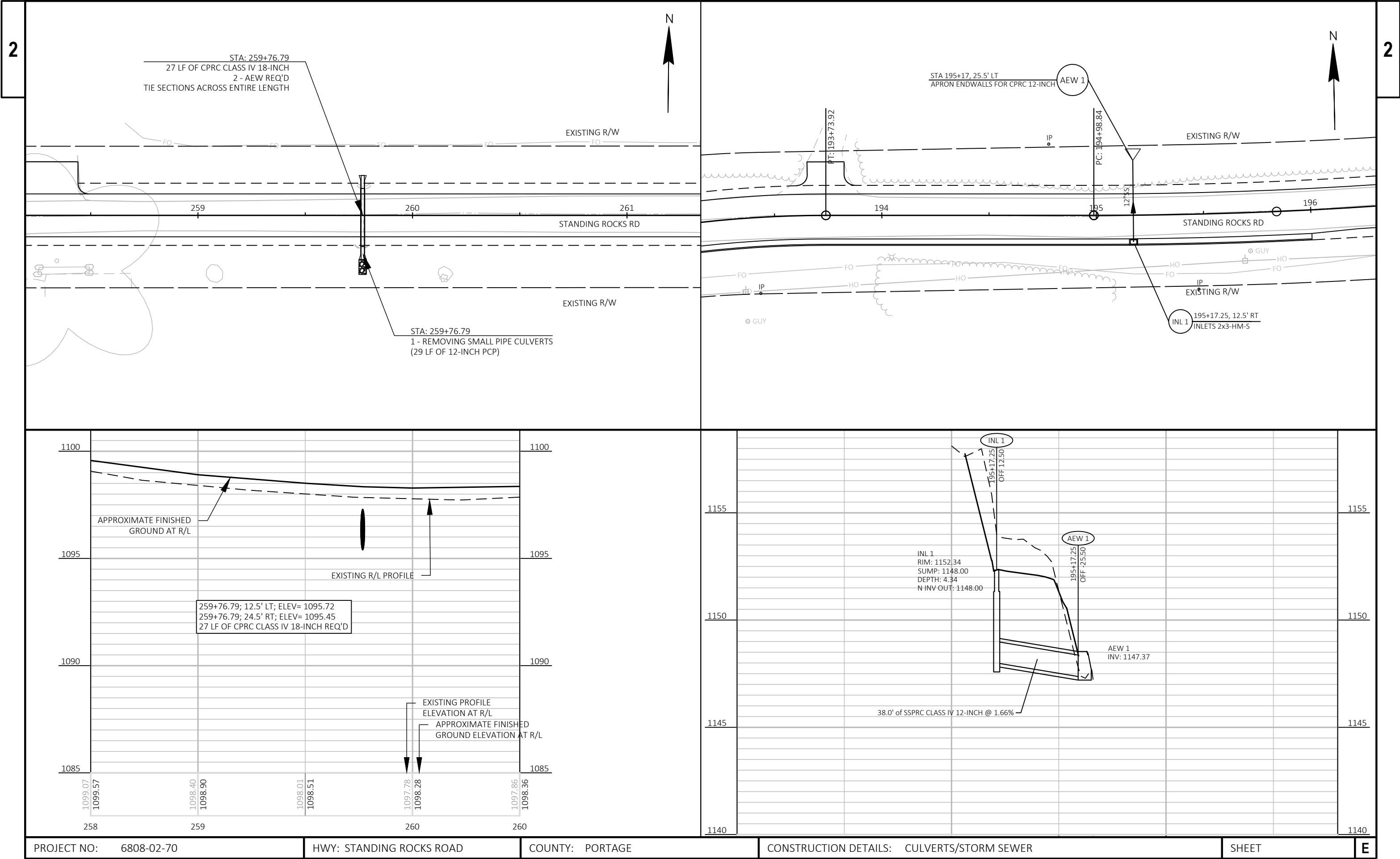
HWY: STANDING ROCKS ROAD

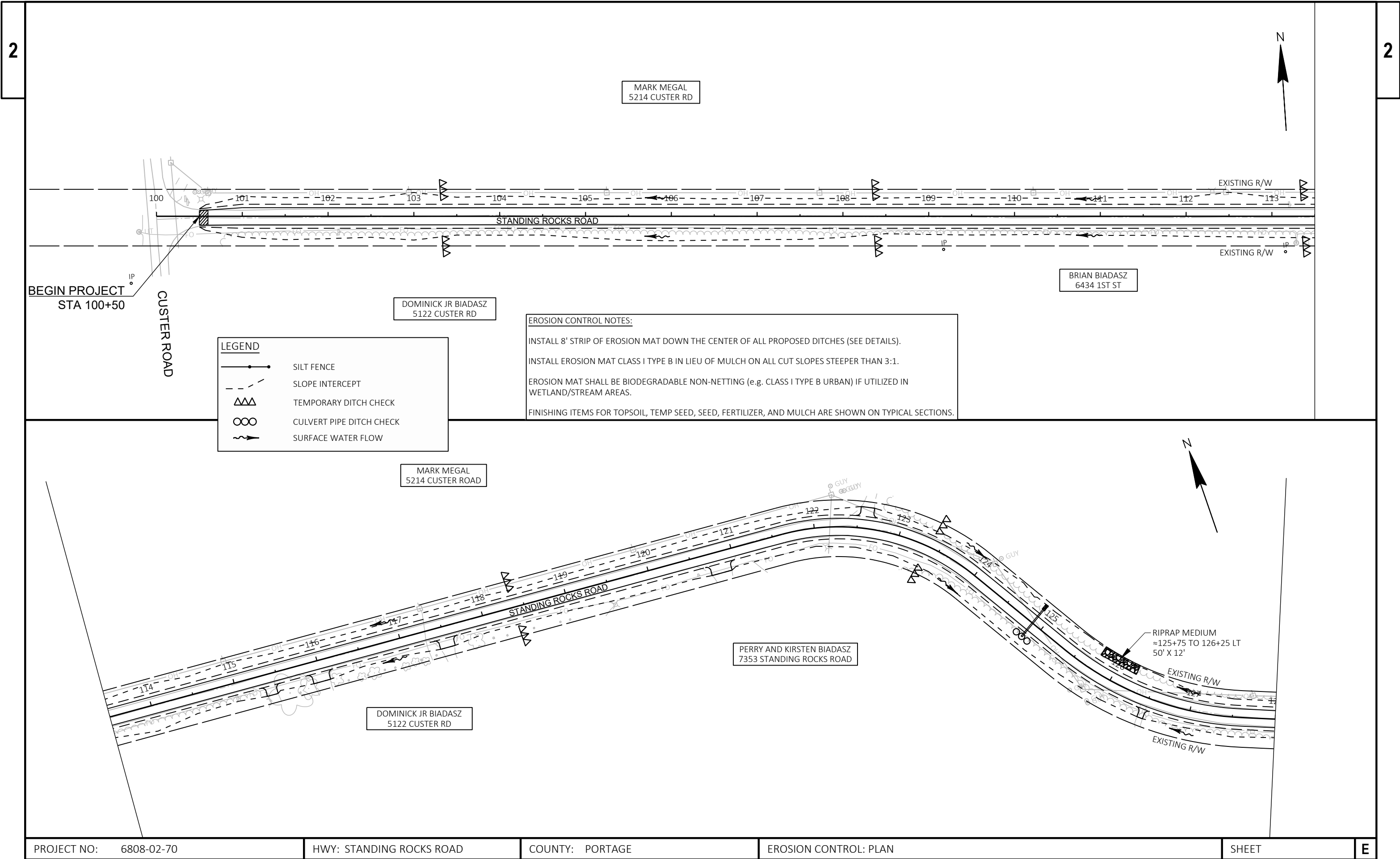
COUNTY: PORTAGE

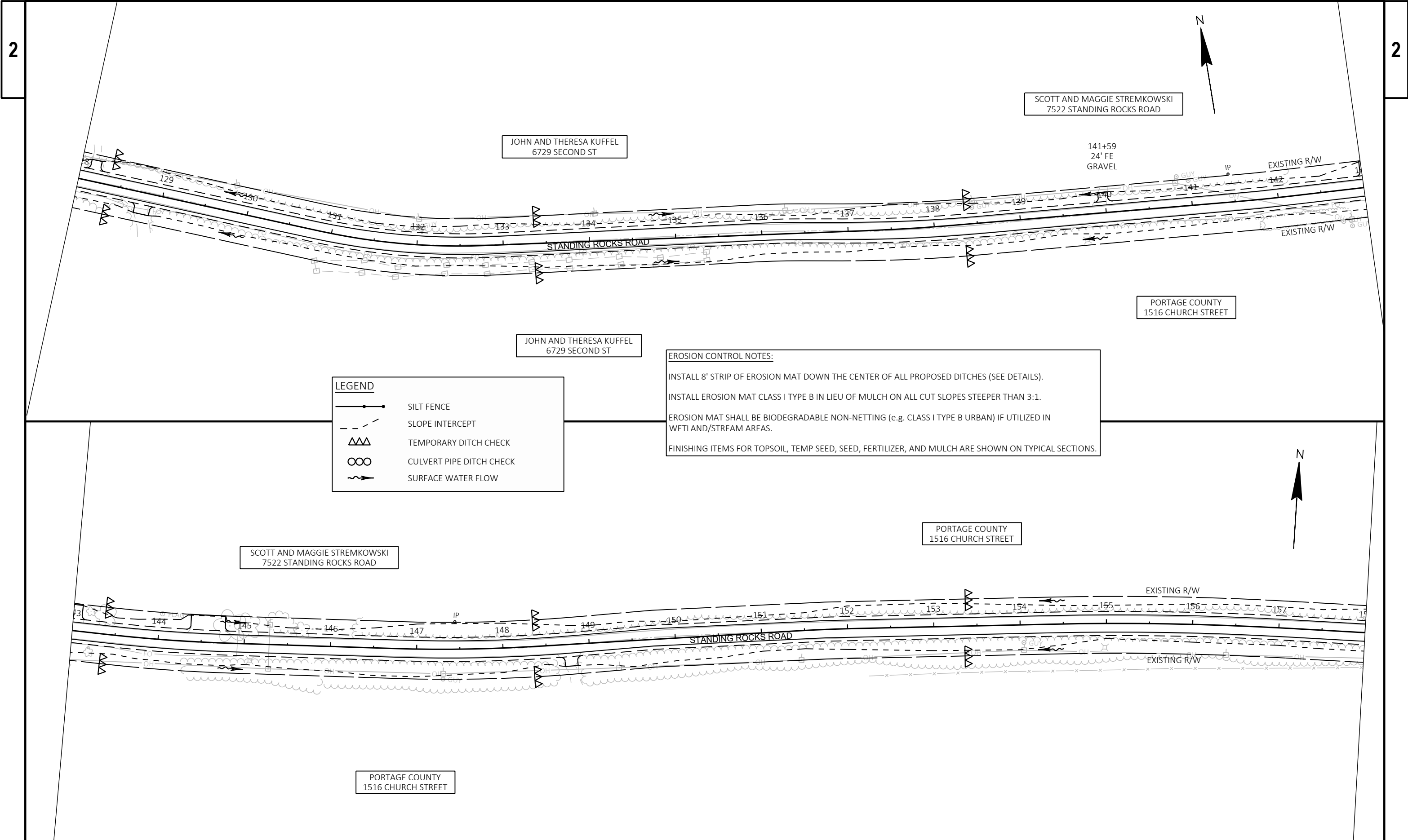
CONSTRUCTION DETAILS: CULVERTS

SHEET











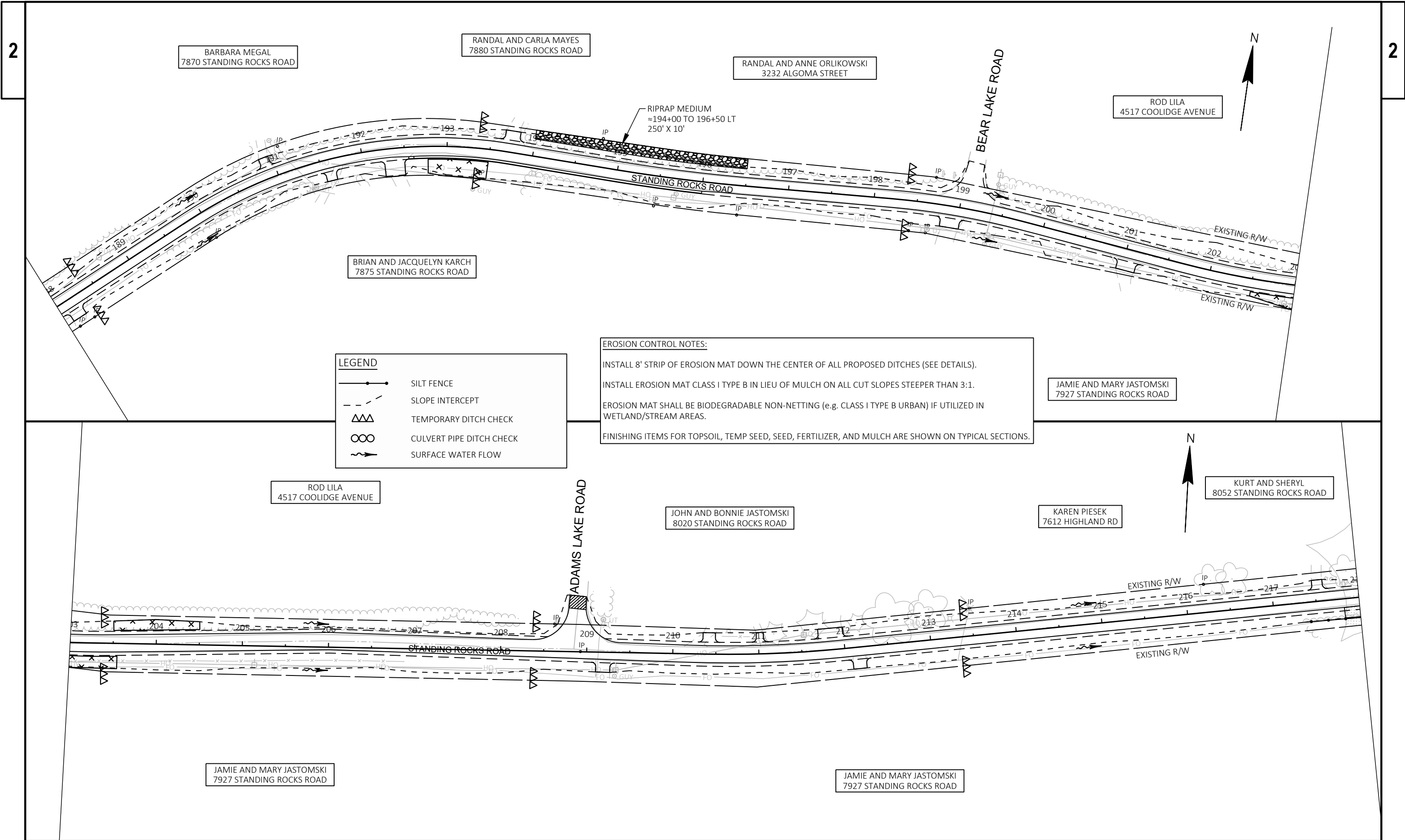
NATHAN AND JENNA OLSON
7705 STANDING ROCKS ROAD

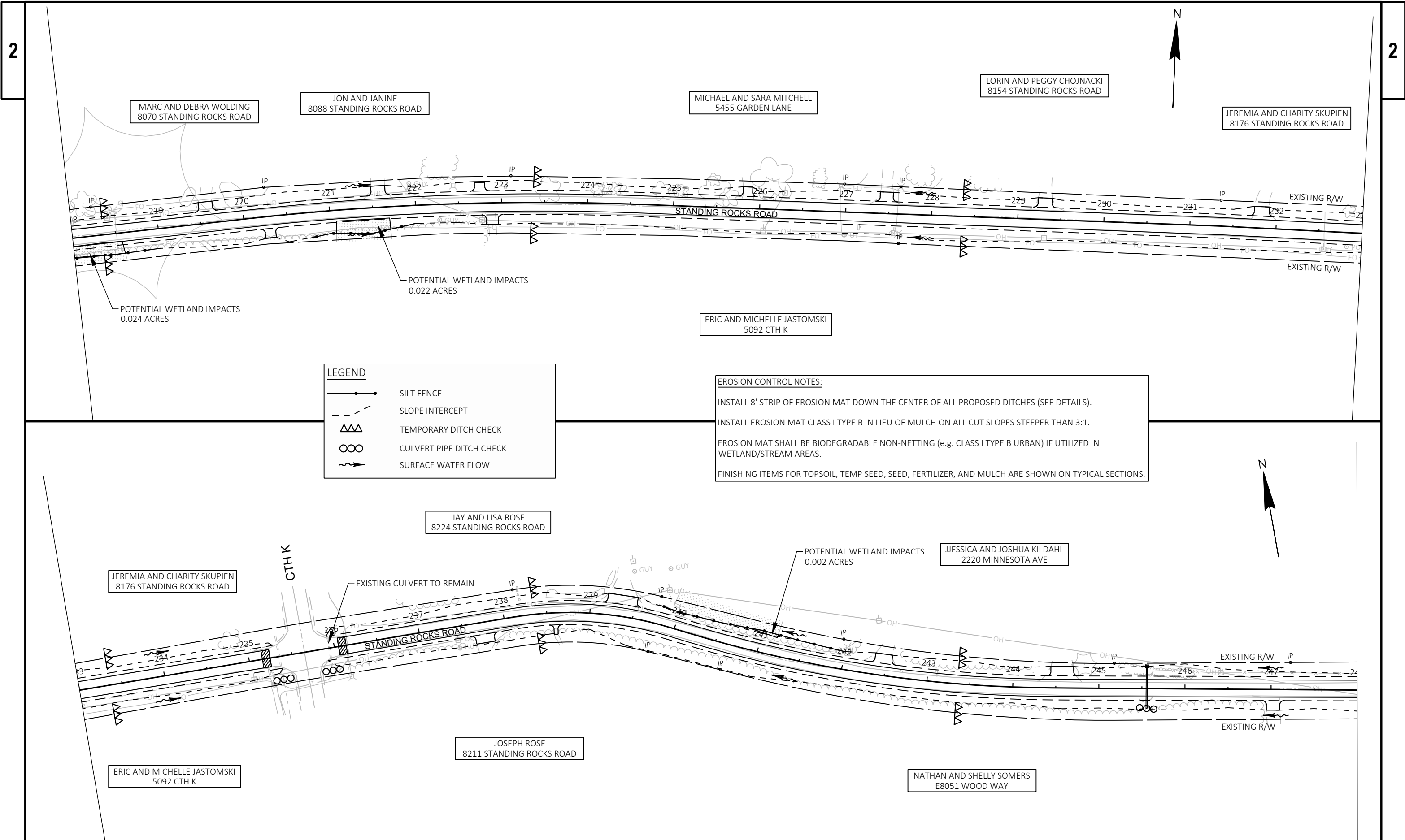
FINISHING ITEMS FOR TOPSOIL, TEMP SEED, SEED, FERTILIZER, AND MULCH ARE SHOWN ON TYPICAL SECTIONS.

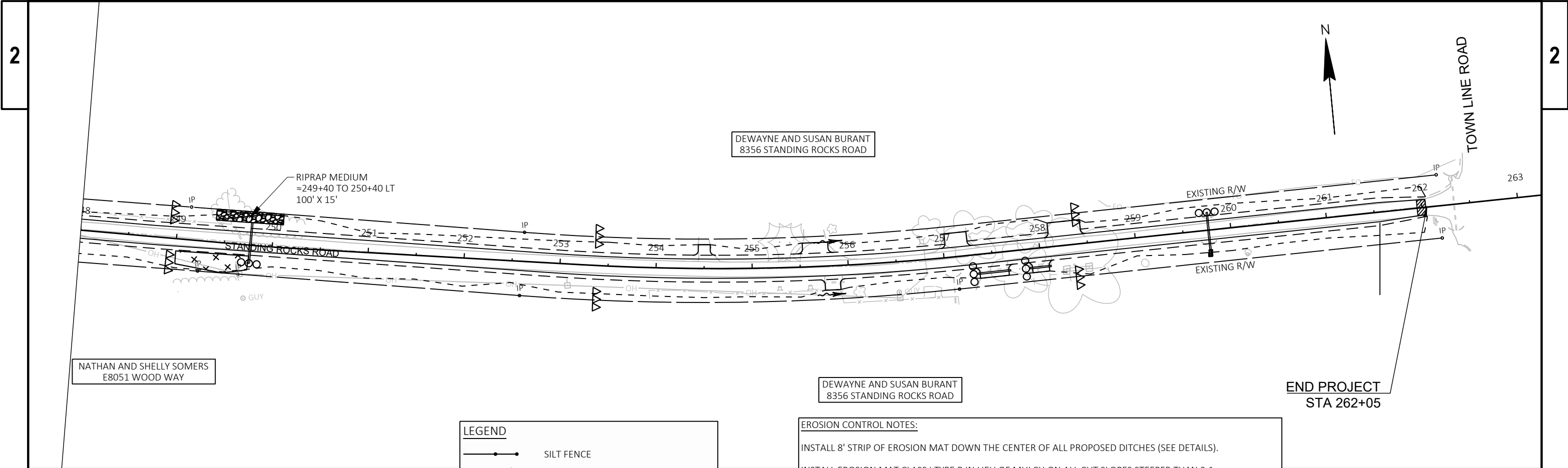
- (STANDING ROCKS PARK)
PORTAGE COUNTY
1516 CHURCH STREET



JEREMY AND ANGELA HINTZ
431 CROSSBOW DRIVE







LEGEND

SILT FENCE

SLOPE INTERCEPT

TEMPORARY DITCH CHECK

CULVERT PIPE DITCH CHECK

SURFACE WATER FLOW

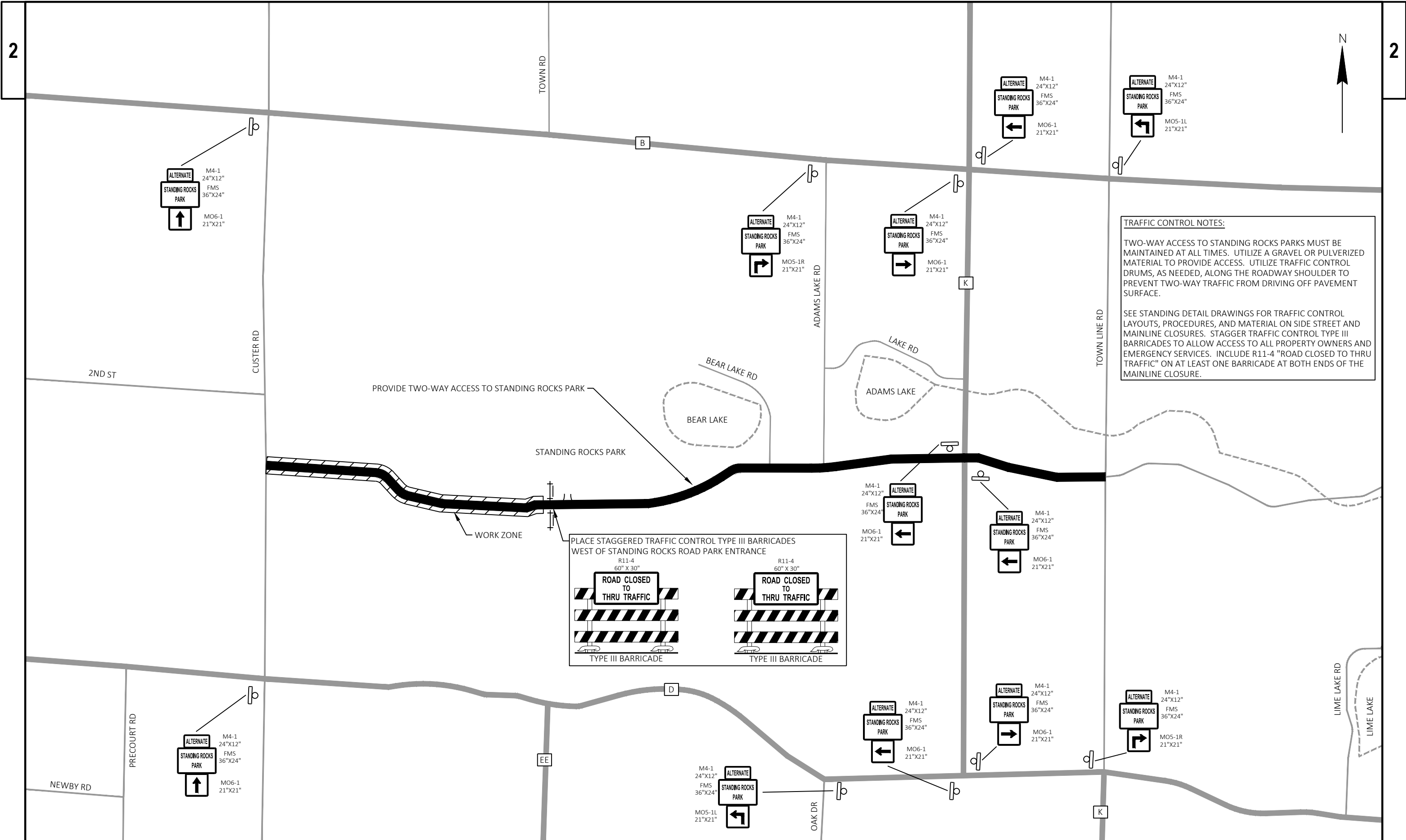
EROSION CONTROL NOTES:

INSTALL 8' STRIP OF EROSION MAT DOWN THE CENTER OF ALL PROPOSED DITCHES (SEE DETAILS).

INSTALL EROSION MAT CLASS I TYPE B IN LIEU OF MULCH ON ALL CUT SLOPES STEEPER THAN 3:1.

EROSION MAT SHALL BE BIODEGRADABLE NON-NETTING (e.g. CLASS I TYPE B URBAN) IF UTILIZED IN WETLAND/STREAM AREAS.

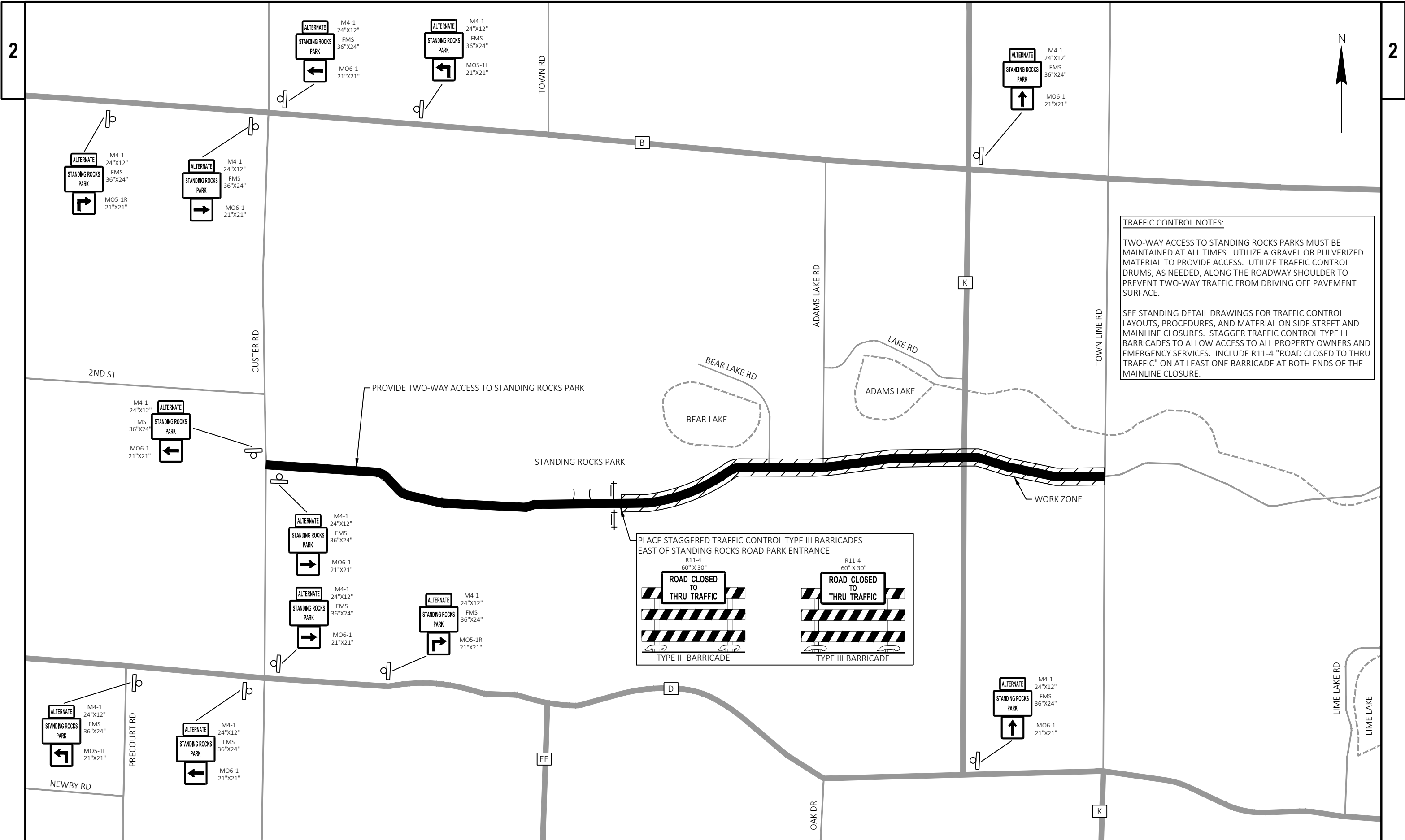
FINISHING ITEMS FOR TOPSOIL, TEMP SEED, SEED, FERTILIZER, AND MULCH ARE SHOWN ON TYPICAL SECTIONS.



TRAFFIC CONTROL NOTES:

TWO-WAY ACCESS TO STANDING ROCKS PARKS MUST BE MAINTAINED AT ALL TIMES. UTILIZE A GRAVEL OR PULVERIZED MATERIAL TO PROVIDE ACCESS. UTILIZE TRAFFIC CONTROL DRUMS, AS NEEDED, ALONG THE ROADWAY SHOULDER TO PREVENT TWO-WAY TRAFFIC FROM DRIVING OFF PAVEMENT SURFACE.

SEE STANDING DETAIL DRAWINGS FOR TRAFFIC CONTROL LAYOUTS, PROCEDURES, AND MATERIAL ON SIDE STREET AND MAINLINE CLOSURES. STAGGER TRAFFIC CONTROL TYPE III BARRICADES TO ALLOW ACCESS TO ALL PROPERTY OWNERS AND EMERGENCY SERVICES. INCLUDE R11-4 "ROAD CLOSED TO THRU TRAFFIC" ON AT LEAST ONE BARRICADE AT BOTH ENDS OF THE MAINLINE CLOSURE.



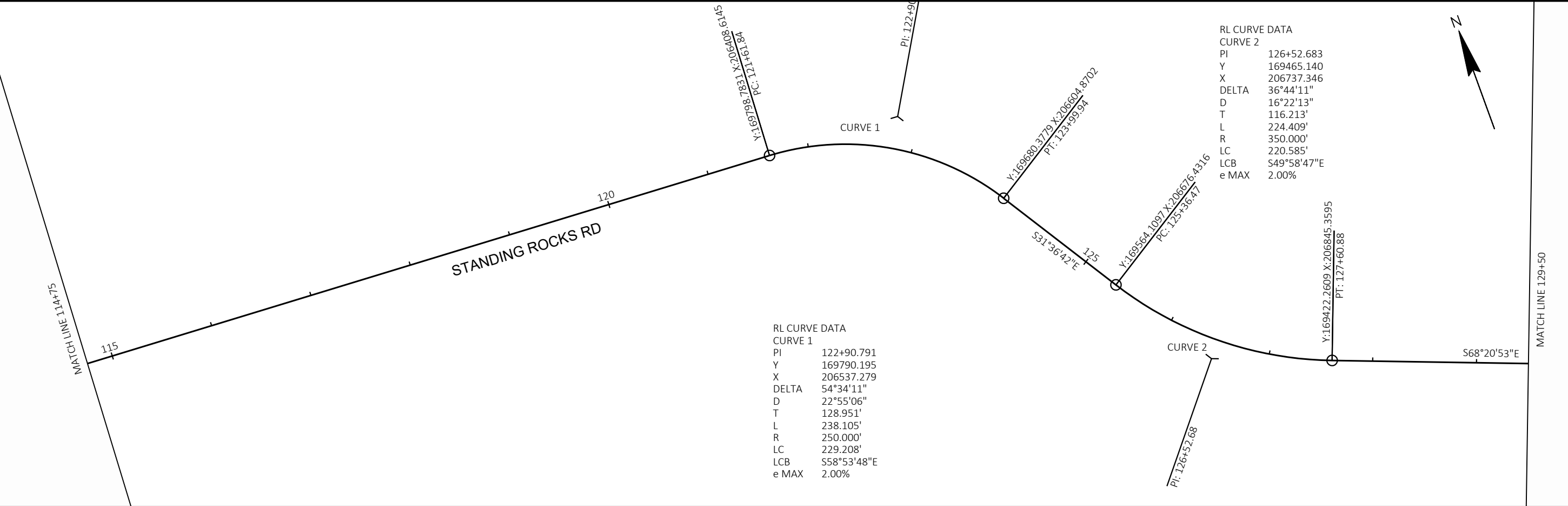
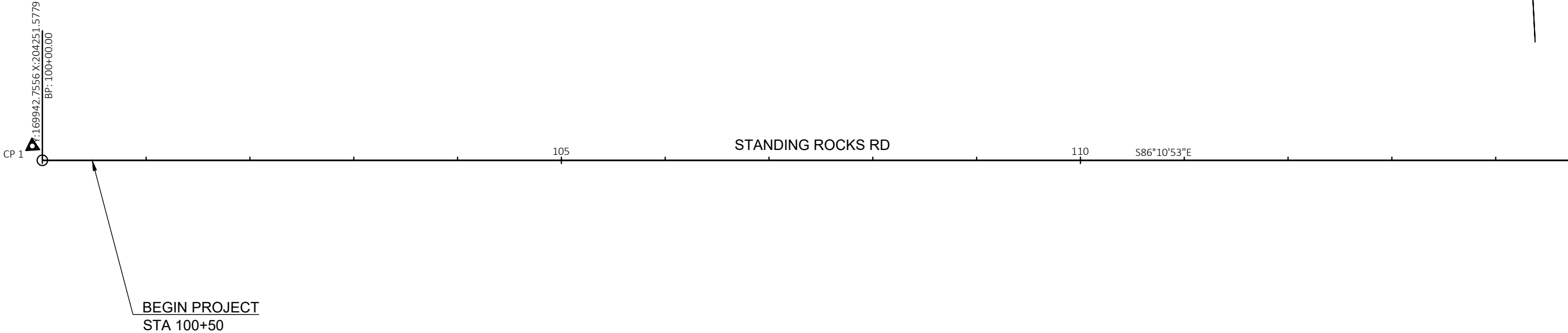
TRAFFIC CONTROL NOTES:

TWO-WAY ACCESS TO STANDING ROCKS PARKS MUST BE MAINTAINED AT ALL TIMES. UTILIZE A GRAVEL OR PULVERIZED MATERIAL TO PROVIDE ACCESS. UTILIZE TRAFFIC CONTROL DRUMS, AS NEEDED, ALONG THE ROADWAY SHOULDER TO PREVENT TWO-WAY TRAFFIC FROM DRIVING OFF PAVEMENT SURFACE.

SEE STANDING DETAIL DRAWINGS FOR TRAFFIC CONTROL LAYOUTS, PROCEDURES, AND MATERIAL ON SIDE STREET AND MAINLINE CLOSURES. STAGGER TRAFFIC CONTROL TYPE III BARRICADES TO ALLOW ACCESS TO ALL PROPERTY OWNERS AND EMERGENCY SERVICES. INCLUDE R11-4 "ROAD CLOSED TO THRU TRAFFIC" ON AT LEAST ONE BARRICADE AT BOTH ENDS OF THE MAINLINE CLOSURE.

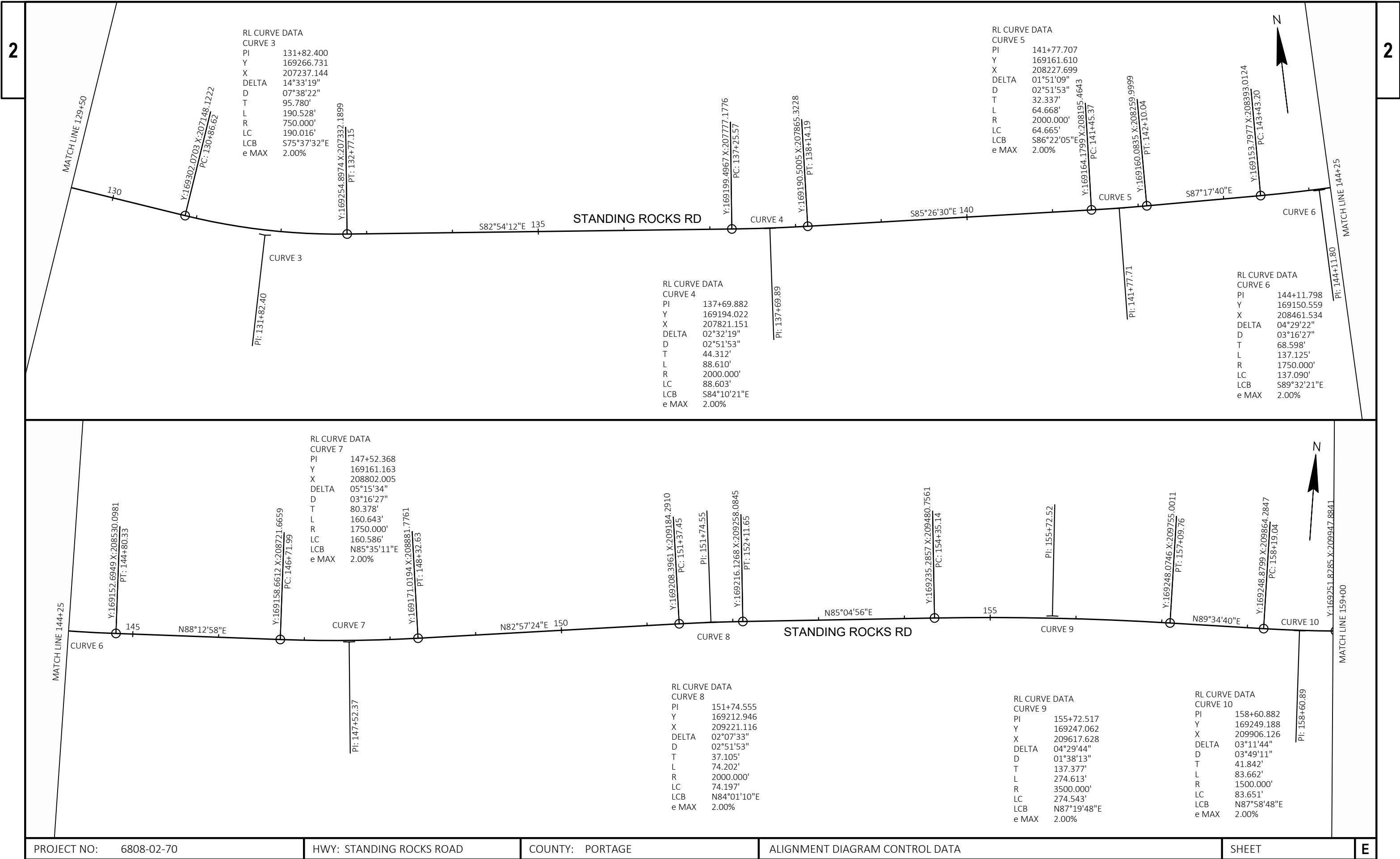
CONTROL POINTS

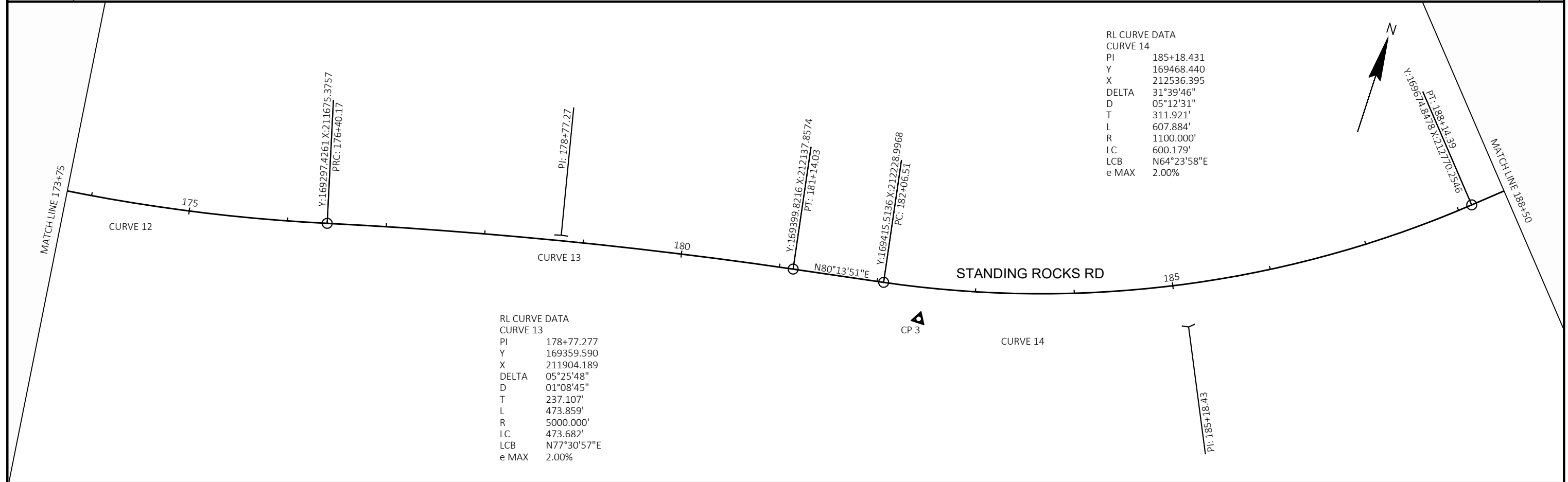
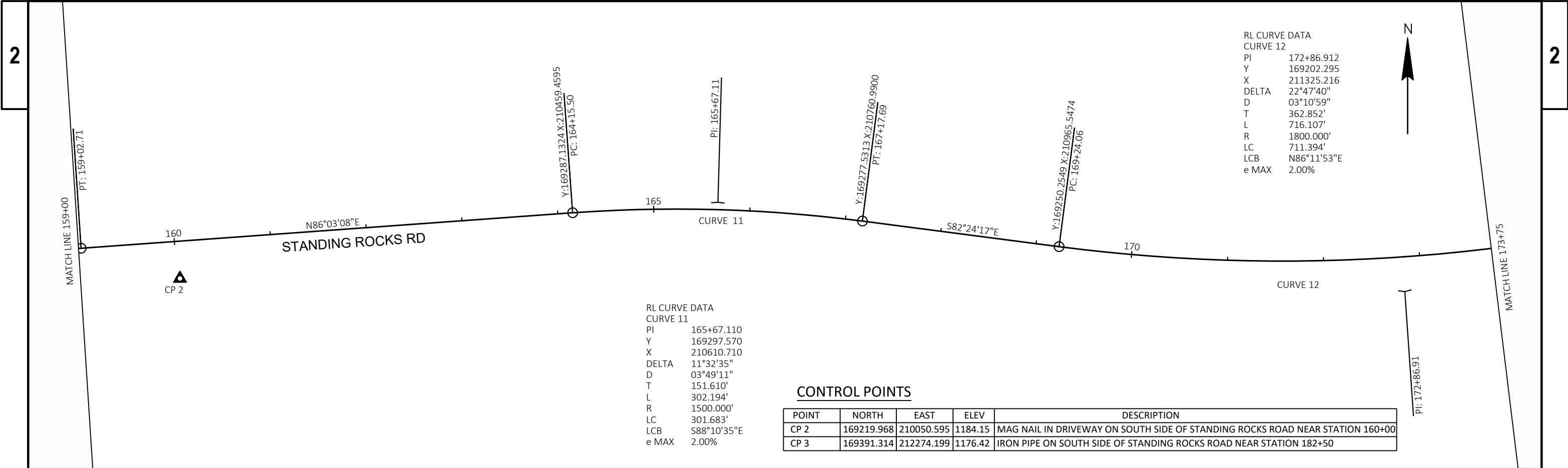
POINT	NORTH	EAST	ELEV	DESCRIPTION
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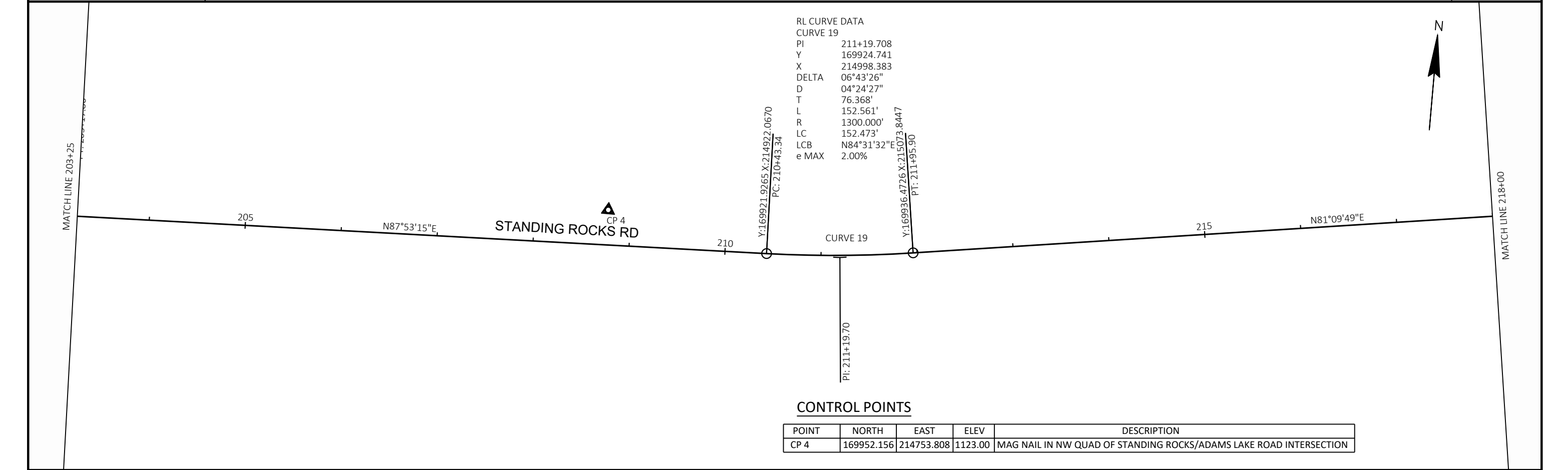
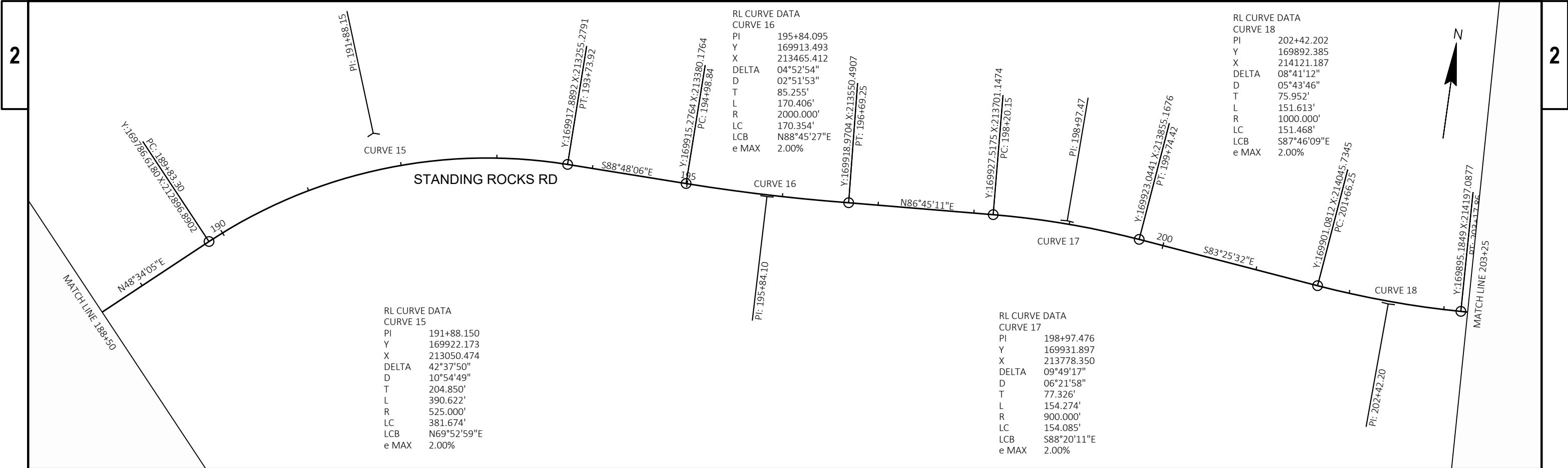
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CURVE 1
PI 122+90.791
Y 169790.195
X 206537.279
DELTA 54°34'11"
D 22°55'06"
T 128.951'
L 238.105'
R 250.000'
LC 229.208'
LCB S58°53'48"E
e MAX 2.00%

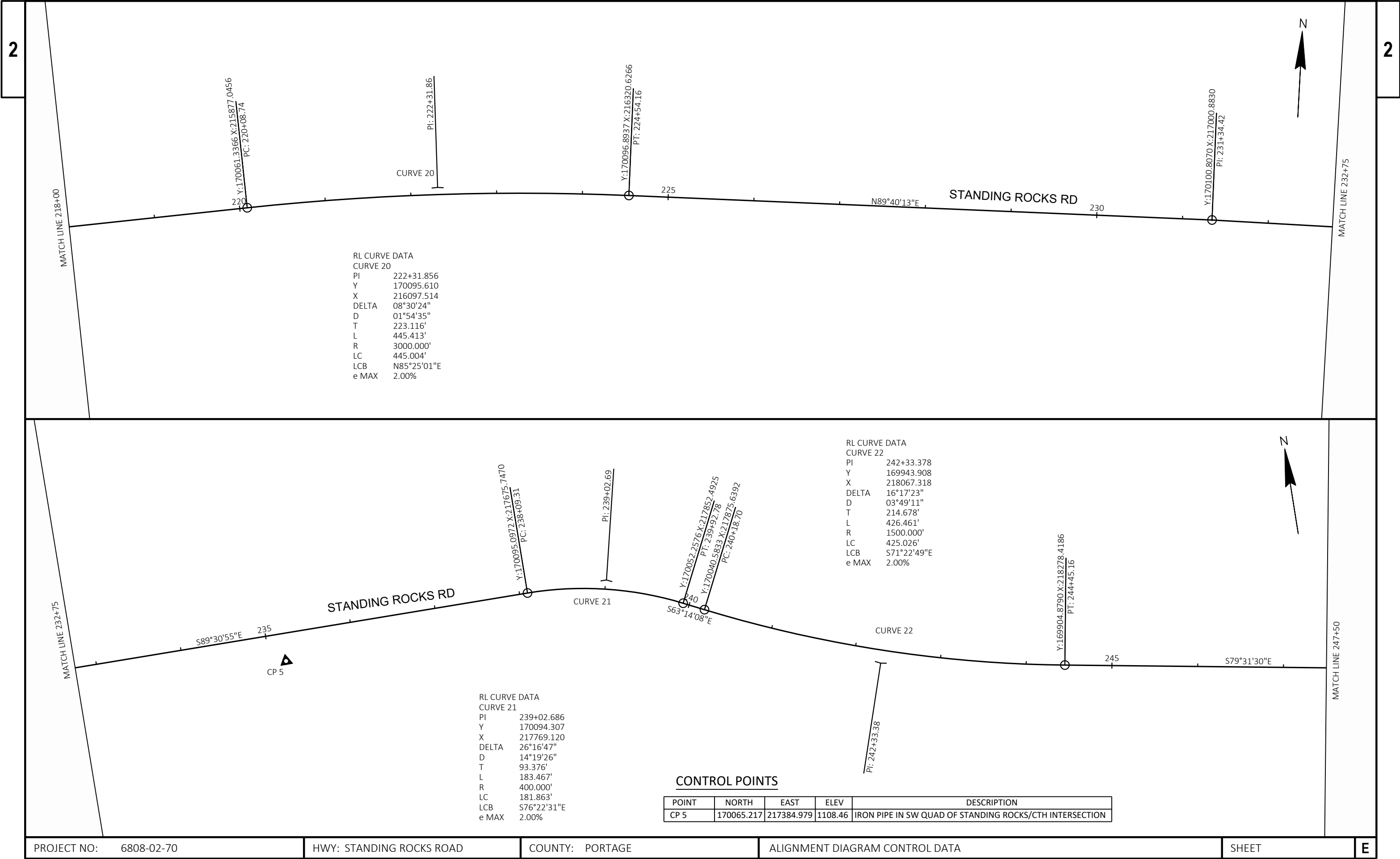
RL CURVE DATA
CURVE 2
PI 126+52.683
Y 169465.140
X 206737.346
DELTA 36°44'11"
D 16°22'13"
T 116.213'
L 224.409'
R 350.000'
LC 220.585'
LCB S49°58'47"E
e MAX 2.00%

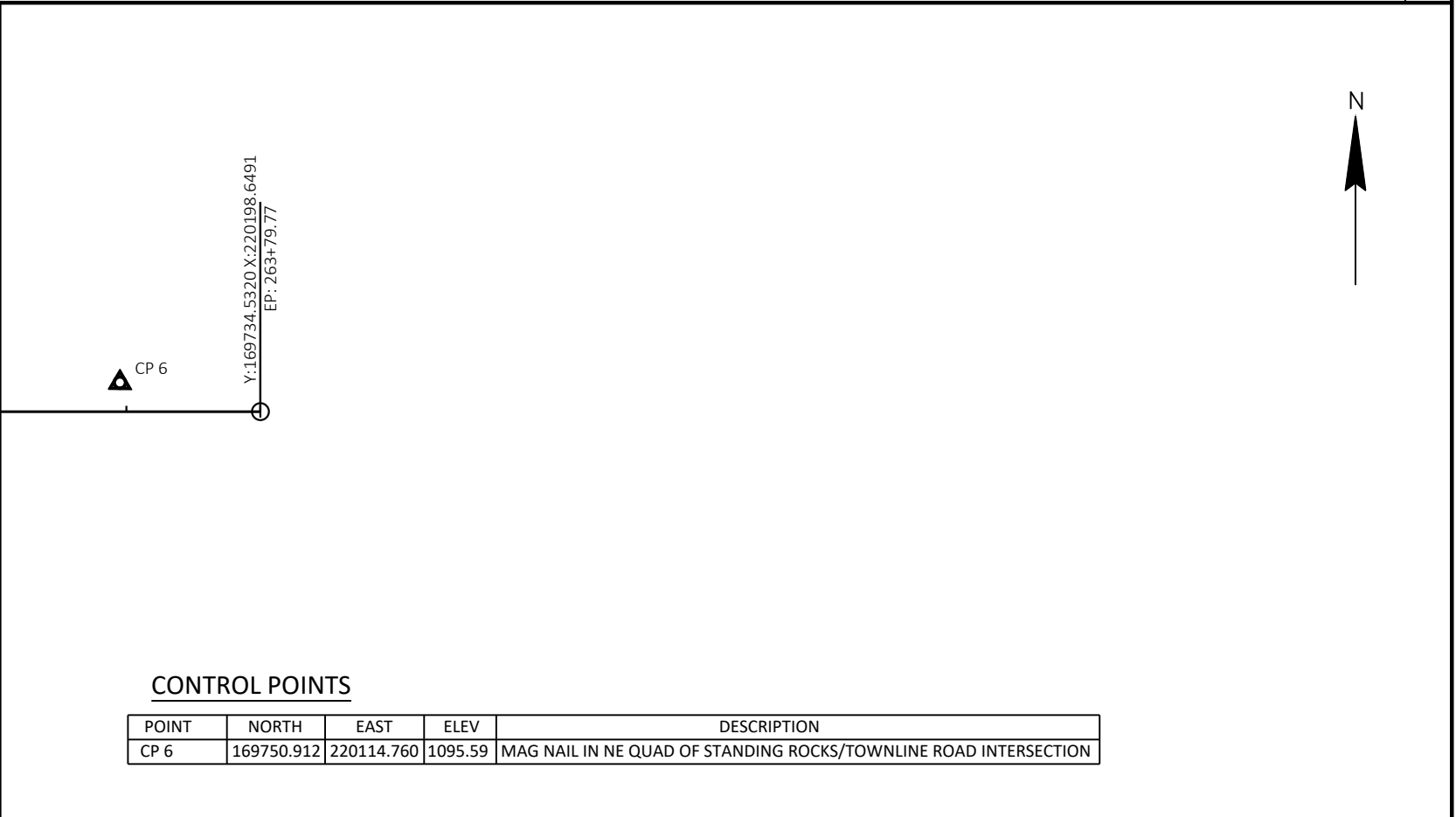
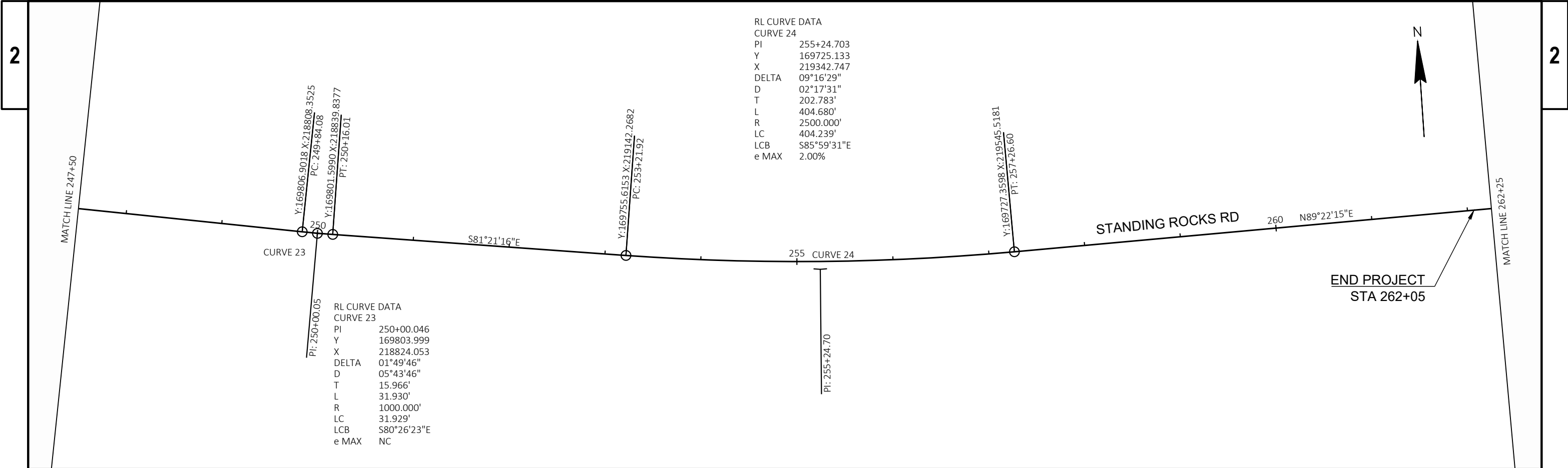




PROJECT NO: 6808-02-70	HWY: STANDING ROCKS ROAD	COUNTY: PORTAGE	ALIGNMENT DIAGRAM CONTROL DATA	SHEET	E
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Estimate Of Quantities

6808-02-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	70.000	70.000
0004	201.0205	Grubbing	STA	70.000	70.000
0006	203.0100	Removing Small Pipe Culverts	EACH	5.000	5.000
0008	204.0115	Removing Asphaltic Surface Butt Joints	SY	130.000	130.000
0010	205.0100	Excavation Common	CY	7,797.000	7,797.000
0012	205.0200	Excavation Rock	CY	10.000	10.000
0014	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 6808-02-70	EACH	1.000	1.000
0016	213.0100	Finishing Roadway (project) 01. 6808-02-70	EACH	1.000	1.000
0018	305.0110	Base Aggregate Dense 3/4-Inch	TON	2,300.000	2,300.000
0020	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	8,530.000	8,530.000
0022	325.0100	Pulverize and Relay	SY	21,550.000	21,550.000
0024	374.1020.S	QMP Pulverize and Relay Compaction	SY	28,900.000	28,900.000
0026	460.2000	Incentive Density HMA Pavement	DOL	3,520.000	3,520.000
0028	460.5224	HMA Pavement 4 LT 58-28 S	TON	5,500.000	5,500.000
0030	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	55.000	55.000
0032	520.1012	Apron Endwalls for Culvert Pipe 12-Inch	EACH	6.000	6.000
0034	520.3312	Culvert Pipe Class III-A 12-Inch	LF	78.000	78.000
0036	522.0418	Culvert Pipe Reinforced Concrete Class IV 18-Inch	LF	148.000	148.000
0038	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	1.000	1.000
0040	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	10.000	10.000
0042	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	350.000	350.000
0044	606.0200	Riprap Medium	CY	160.000	160.000
0046	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	38.000	38.000
0048	611.0636	Inlet Covers Type HM-S	EACH	1.000	1.000
0050	611.3230	Inlets 2x3-FT	EACH	1.000	1.000
0052	619.1000	Mobilization	EACH	1.000	1.000
0054	624.0100	Water	MGAL	440.000	440.000
0056	625.0500	Salvaged Topsoil	SY	35,150.000	35,150.000
0058	627.0200	Mulching	SY	31,150.000	31,150.000
0060	628.1504	Silt Fence	LF	500.000	500.000
0062	628.1520	Silt Fence Maintenance	LF	250.000	250.000
0064	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000
0066	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0068	628.2004	Erosion Mat Class I Type B	SY	2,500.000	2,500.000
0070	628.2008	Erosion Mat Urban Class I Type B	SY	1,500.000	1,500.000
0072	628.7504	Temporary Ditch Checks	LF	400.000	400.000
0074	628.7555	Culvert Pipe Checks	EACH	75.000	75.000
0076	629.0210	Fertilizer Type B	CWT	22.000	22.000
0078	630.0130	Seeding Mixture No. 30	LB	630.000	630.000
0080	630.0200	Seeding Temporary	LB	475.000	475.000
0082	630.0500	Seed Water	MGAL	880.000	880.000
0084	633.5200	Markers Culvert End	EACH	10.000	10.000
0086	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	16.000	16.000
0088	638.2102	Moving Signs Type II	EACH	16.000	16.000
0090	642.5001	Field Office Type B	EACH	1.000	1.000
0092	643.0300	Traffic Control Drums	DAY	3,000.000	3,000.000
0094	643.0420	Traffic Control Barricades Type III	DAY	930.000	930.000
0096	643.0900	Traffic Control Signs	DAY	930.000	930.000
0098	643.1000	Traffic Control Signs Fixed Message	SF	72.000	72.000

Estimate Of Quantities

6808-02-70

Line	Item	Item Description	Unit	Total	Qty
0100	643.5000	Traffic Control	EACH	1.000	1.000
0102	645.0120	Geotextile Type HR	SY	480.000	480.000
0104	650.4000	Construction Staking Storm Sewer	EACH	2.000	2.000
0106	650.4500	Construction Staking Subgrade	LF	3,120.000	3,120.000
0108	650.5000	Construction Staking Base	LF	16,155.000	16,155.000
0110	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	350.000	350.000
0112	650.6000	Construction Staking Pipe Culverts	EACH	8.000	8.000
0114	650.9911	Construction Staking Supplemental Control (project) 01. 6808-02-70	EACH	1.000	1.000
0116	650.9920	Construction Staking Slope Stakes	LF	16,155.000	16,155.000
0118	690.0150	Sawing Asphalt	LF	100.000	100.000
0120	740.0440	Incentive IRI Ride	DOL	12,176.000	12,176.000
0122	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0124	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0126	SPV.0180	Special 01. Pulverize, Salvage, and Relay	SY	7,350.000	7,350.000

3

CLEARING AND GRUBBING ITEMS

		201.0105	201.0205
STATION - STATION	LOCATION	CLEARING STA	GRUBBING STA
CATEGORY CODE 0010			
100+50 - 262+05	LT/RT	70	70
TOTALS		70	70

REMOVING SMALL PIPE CULVERTS

STATION - STATION		LOCATION	203.0100 EACH	COMMENTS
CATEGORY CODE 0010				
245+56		LT/RT	1	18-INCH PCP
249+70		LT/RT	1	15-INCH CMCP
257+51		RT	1	15-INCH CMCP
257+99		RT	1	15-INCH CMCP
259+77		LT/RT	1	12-INCH PCP
TOTALS			5	

REMOVING ASPHALTIC SURFACE BUTT JOINTS

STATION - STATION		LOCATION	204.0115	SY	COMMENTS
CATEGORY CODE 0010					
100+50		CL	22	BEGIN PROJECT	
208+90		LT	36	ADAMS LAKE ROAD	
235+25		CL	26	CTH K	
236+05		CL	26	CTH K	
262+05		CL	20	END PROJECT	
TOTAL			130		

EXCAVATION COMMON

		205.0100
		EXCAVATION
STATION	LOCATION	COMMON
CATEGORY CODE 0010		CY
100+50 - 262+05	PROJECT	7,700
TOTALS		7,700

BASE AGGREGATE DENSE AND BREAKER RUN ITEMS

STATION - STATION CATEGORY CODE 0010	LOCATION	305.0110	305.0120	COMMENTS
		BASE AGGREGATE	BASE AGGREGATE	
		DENSE	DENSE	
		3/4-INCH	1 1/4-INCH	
		TON	TON	
100+50 - 262+05	LT/RT/CL	1,685	5,980	PULVERIZE SECTIONS
100+50 - 262+05	LT/RT/CL	415	2,550	PROFILE CORRECTION SECTIONS
100+50 - 262+05	LT/RT	175	--	DRIVEWAYS
199+05	LT	25	--	BEAR LAKE ROAD
TOTALS		2,300	8,530	

PULVERIZE AND RELAY

STATION - STATION	LOCATION	325.0100	327.1020.S	SPV.0180.01
		QMP PULVERIZE AND RELAY COMPACTION	PULVERIZE, SALVAGE, AND RELAY	
CATEGORY CODE 0010		SY	SY	SY
100+50 - 262+05	CL	21,550	28,900	7,350
TOTALS		21,550	28,900	7,350

ASPHALTIC ITEMS

		460.5224	465.0120	
		HMA PAVEMENT	ASPHALTIC SURFACE	
		4 LT 58-28 S	DRIVEWAYS AND	
		FIELD ENTRANCES		
STATION - STATION	LOCATION	TON	TON	COMMENTS
CATEGORY CODE 0010				
100+50 - 262+50	CL	5,450	--	MAINLINE PAVING
100+50 - 262+50	CL	--	55	DRIVEWAYS
208+89	LT	50	--	ADAMS LAKE ROAD
TOTALS		5,500	55	

MISC. SHEET 1

3

3

CULVERT PIPE ITEMS						
		520.3312 CULVERT PIPE CLASS III-A 12-INCH*	522.0418 CULVERT PIPE REINFORCED CONCRETE CLASS IV 18-INCH	520.1012 APRON ENDWALLS FOR CULVERT PIPE 12-INCH	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	633.5200 MARKERS CULVERT END
STATION	LOCATION	LF	LF	EACH	EACH	EACH
CATEGORY CODE 0010						
124+88	LT/RT	--	28	--	2	2
183+29	RT	22	--	2	--	--
185+50	LT/RT	--	28	--	2	2
245+56	LT/RT	--	35	--	2	2
249+77	LT/RT	--	30	--	2	2
257+51	RT	34	--	2	--	--
257+99	RT	22	--	2	--	--
259+77	LT/RT	--	27	--	2	2
TOTALS		78	148	6	10	10
* MINIMUM WALL THICKNESS FOR CORRUGATED STEEL OPTION TO BE 0.064 INCHES						

CONCRETE ITEMS		
		601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPED
STATION - STATION	LOCATION	LF
CATEGORY CODE 0010		
192+50 - 196+00	RT	350
TOTALS		350

3

RIPRAP AND GEOTEXTILE FABRIC ITEMS

		606.0200 RIPRAP MEDIUM	645.0120 GEOTEXTILE FABRIC TYPE HR
STATION	LOCATION	CY	SY
CATEGORY CODE 0010			
124+88	LT	2	5
125+75 - 126+25	LT	22	68
185+50	LT	2	5
194+00 - 195+00	LT	74	224
245+56	LT	2	5
249+40 - 250+40	LT	56	168
259+77	RT	2	5
TOTALS		160	480

STORM SEWER ITMES

		522.1012 APRON ENDEALLS FOR CULVER PIPE REINFORCED CONCRETE 12-INCH	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	611.0636 INLET COVERS TYPE HM-S	611.3230 INLETS 2X3-FT	650.4000 CONSTRUCTION STAKING STORM SEWER
STATION - STATION	LOCATION	EACH	LF	EACH	EACH	EACH
CATEGORY CODE 0010						
194+68	12.5' RT	--	--	1	1	1
194+68	LT/CL/RT	--	38	--	--	--
194+68	25.5' LT	1	--	--	--	1
TOTAL		1	38	1	1	2

SILT FENCE ITEMS

		628.1504 SILT FENCE	628.1520 MAINTENANCE
STATION - STATION	LOCATION	LF	LF
CATEGORY CODE 0010			
100+50 - 262+05	PROJECT	500	250
TOTALS		500	250

LANDSCAPING ITEMS

		625.0500 SALVAGED TOPSOIL	627.0200 MULCHING	629.0210 FERTILIZER TYPE B	630.0130 SEED MIX NO. 30	630.0200 SEED TEMPORARY	630.0500 SEED WATER
STATION - STATION	LOCATION	SY	SY	CWT	LBS	LBS	MGAL
CATEGORY CODE 0010							
100+50 - 262+05	PROJECT	35,150	31,150	22.0	630	475	880
TOTALS		35,150	31,150	22.0	630	475	880

WATER

		624.0100 MGAL
STATION - STATION	LOCATION	
CATEGORY CODE 0010		
100+50 - 262+05	PROJECT	440
TOTAL		440

MISC. SHEET 2

3

DITCH CHECK ITEMS		
	628.7504 TEMPORARY	628.7555 CULVERT PIPE
LOCATION	LF	EACH
CATEGORY CODE 0010		
PROJECT	400	75
TOTAL	400	75

MOBILIZATIONS EROSION CONTROL			
		628.1905 MOBILIZATIONS EROSION CONTROL	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL
STATION	LOCATION	EACH	EACH
CATEGORY CODE 0010			
100+50 - 262+05	LT & RT	8	2
TOTALS		8	2

EROSION MAT ITEMS			
		628.2004 CLASS 1 TYPE B	628.2008 URBAN CLASS 1 TYPE B
STATION - STATION	LOCATION	SY	SY
CATEGORY CODE 0010			
100+50 - 262+05	PROJECT	2,500	1,500
TOTALS		2,500	1,500

3

SIGNING ITEMS			
		634.0612 POSTS WOOD 4X6-INCH X 12-FT	638.2102 MOVING SIGNS TYPE II
STATION - STATION	LOCATION	EACH	EACH
CATEGORY CODE 0010			
100+38	LT	--	1
102+14	RT	--	1
113+22	LT	--	1
115+01	RT	--	1
132+06	LT	--	1
159+89	LT	--	1
160+94	LT	--	1
175+63	RT	--	1
197+70	LT	--	1
208+65	LT	--	1
227+17	RT	--	1
233+00	LT	--	1
235+22	RT	--	1
236+04	LT	--	1
243+13	LT	--	1
262+13	RT	--	1
UNDISTRIBUTED	LT/RT	16	--
TOTAL		16	16

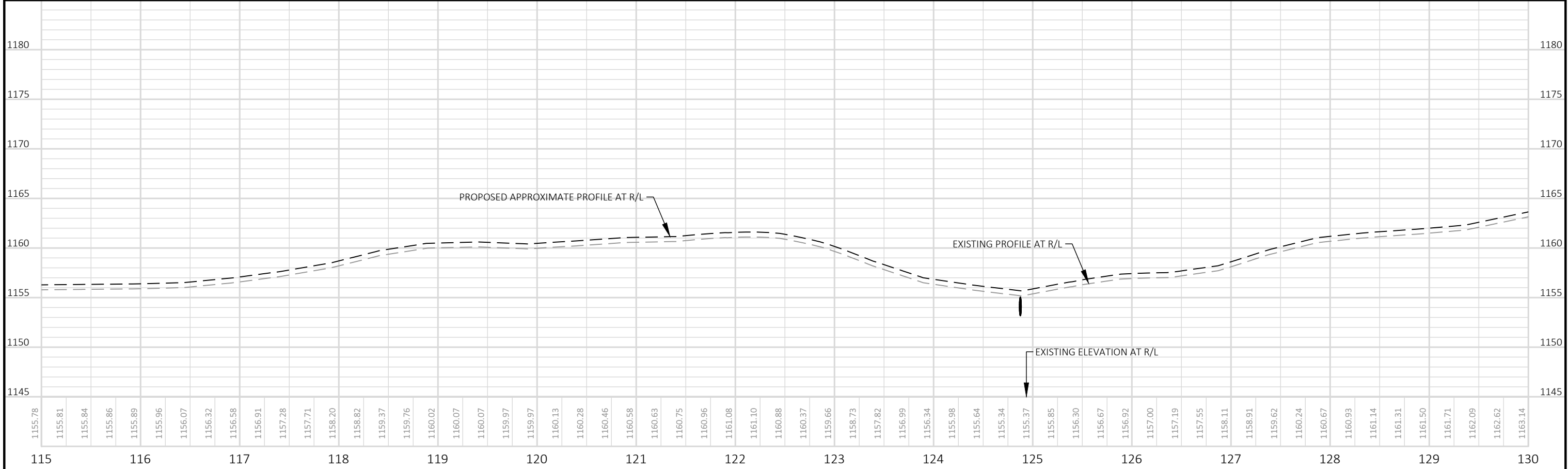
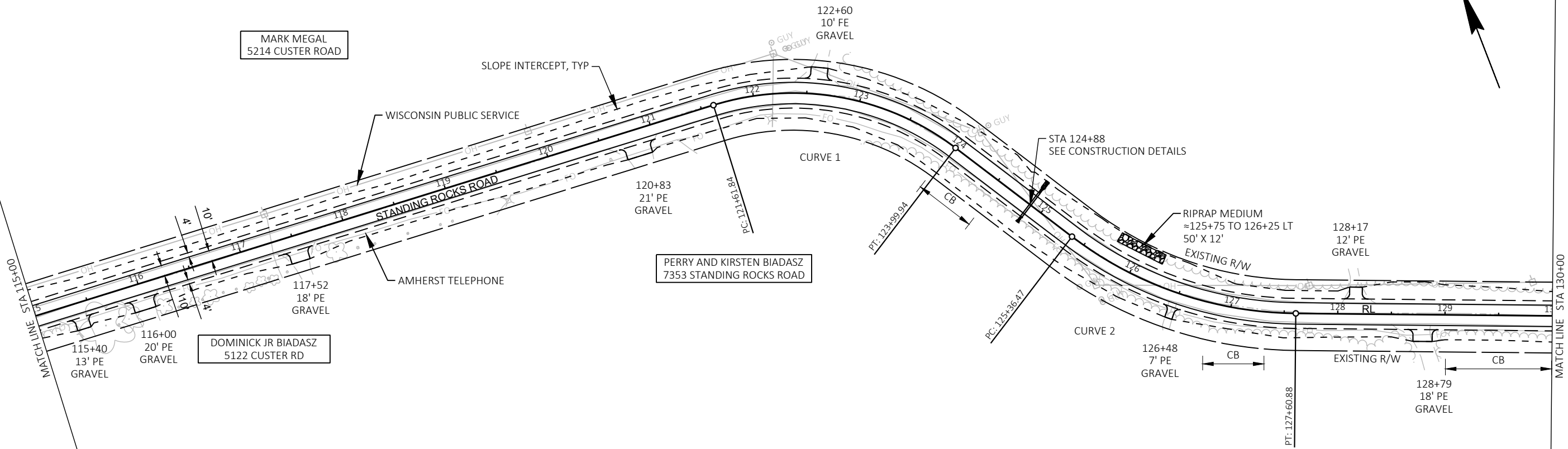
CONSTRUCTION STAKING ITEMS							
		650.4500 SUBGRADE	650.5000 BASE	650.5500 CURB GUTTER AND CURB & GUTTER	650.6000 PIPE CULVERTS	650.9911 SUPPLEMENTAL CONTROL	650.9920 SLOPE STAKES
STATION - STATION	LOCATION	LF	LF	LF	EACH	EACH	LF
CATEGORY CODE 0010							
100+50 + 262+05	PROJECT	3,120	16,155	350	8	1	16,155
TOTALS		3,120	16,155	350	8	1	16,155

TRAFFIC CONTROL ITEMS			
	643.0300 DRUMS	643.0420 BARRICADES TYPE III	643.0900 SIGNS
LOCATION	DAYS	DAYS	DAYS
CATEGORY CODE 0010			
100+50 - 262+05	3,000	930	930
TOTALS	3,000	930	930

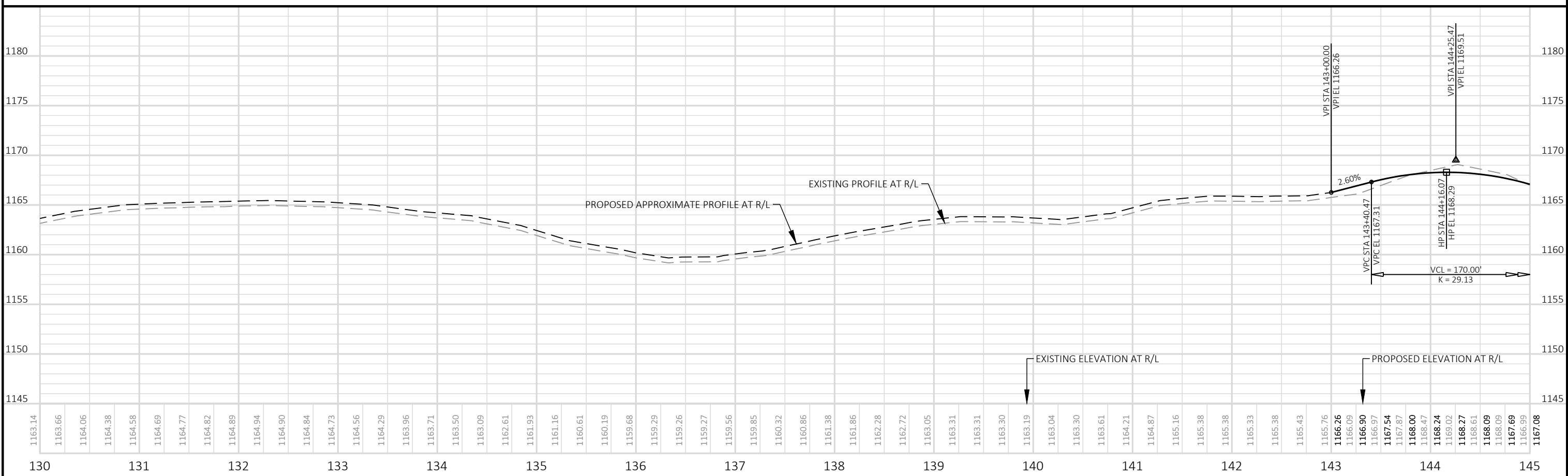
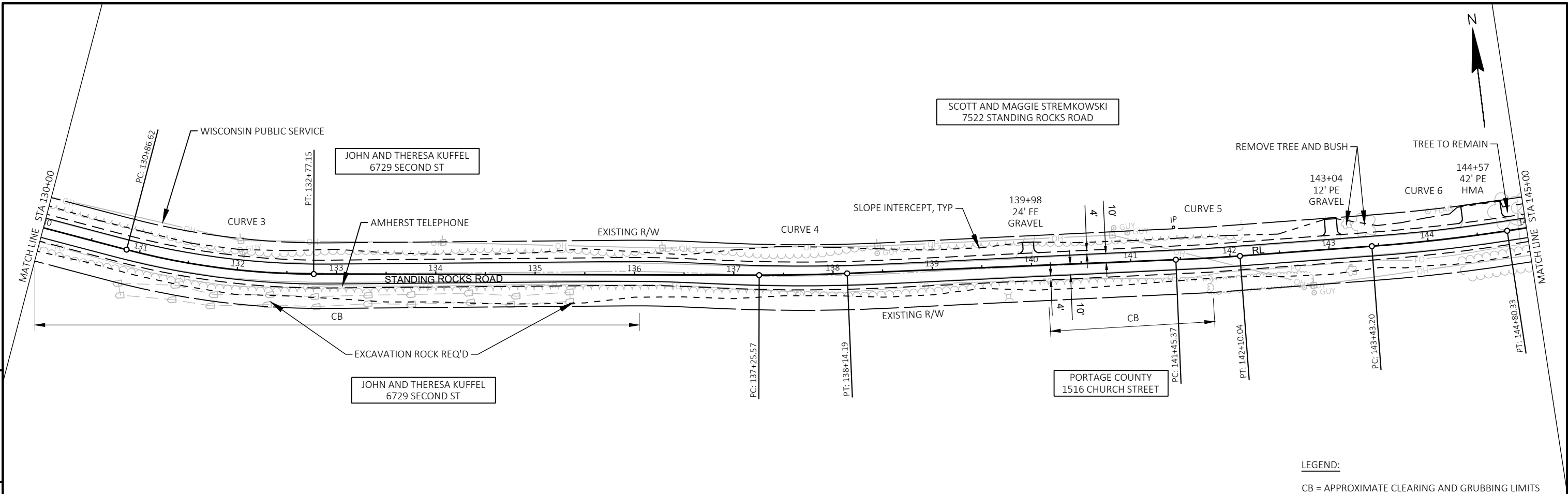
SAWING PAVEMENT ITEMS			
		690.0150 ASPHALT	
STATION - STATION	LOCATION	LF	COMMENTS
CATEGORY CODE 0010			
124+88	CL	20	CULVERT REPLACEMENT
185+50	CL	20	CULVERT REPLACEMENT
245+56	CL	20	CULVERT REPLACEMENT
249+70	CL	20	CULVERT REPLACEMENT
259+77	CL	20	CULVERT REPLACEMENT
TOTALS		100	

MISC. SHEET 3

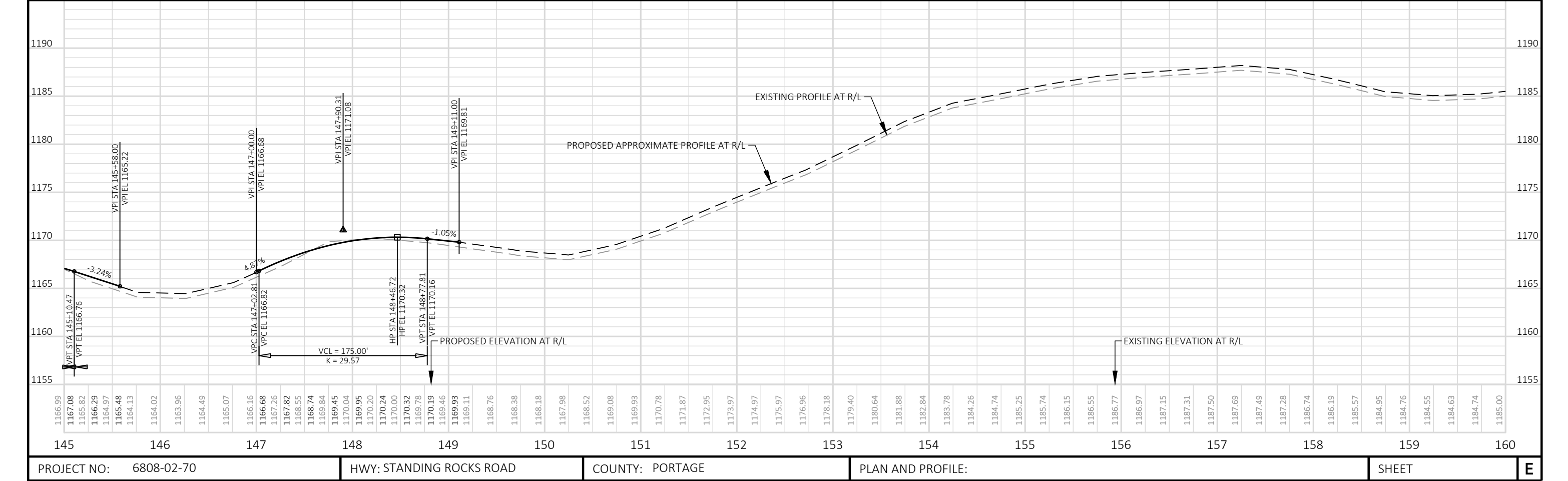
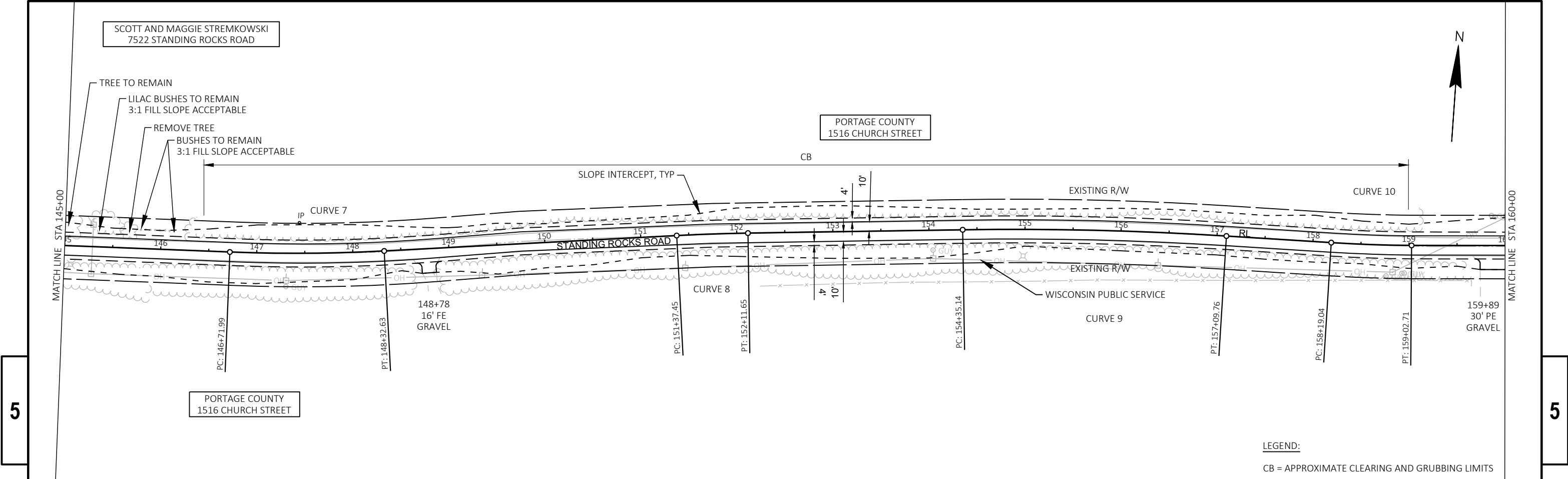
LEGEND:
CB = APPROXIMATE CLEARING AND GRUBBING LIMITS

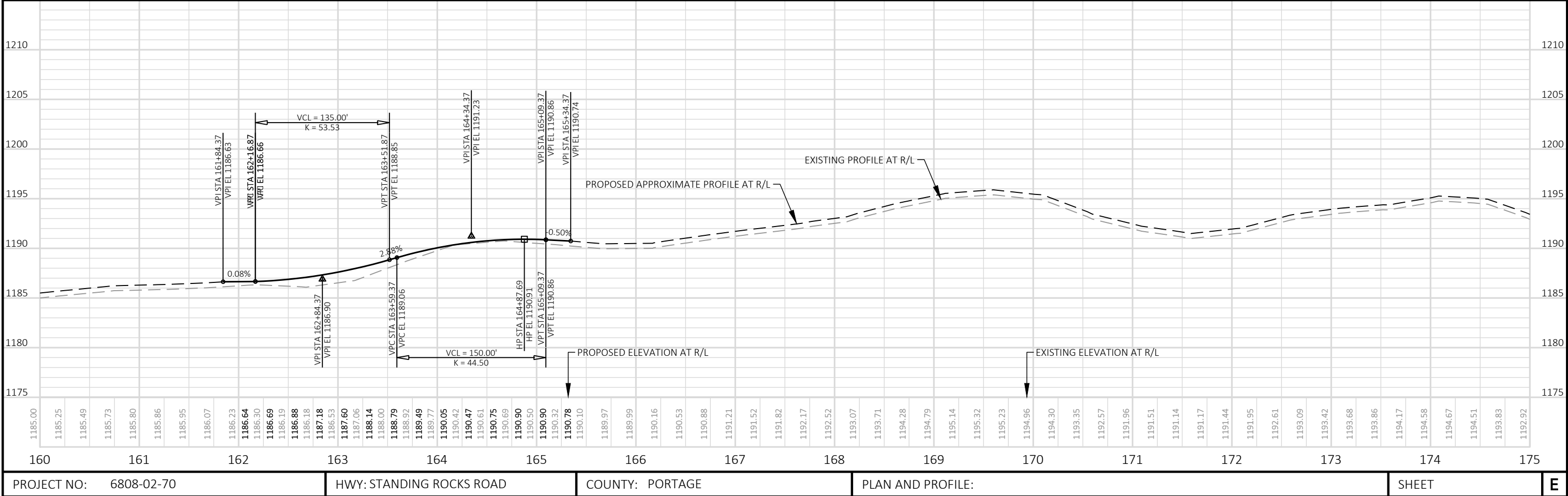
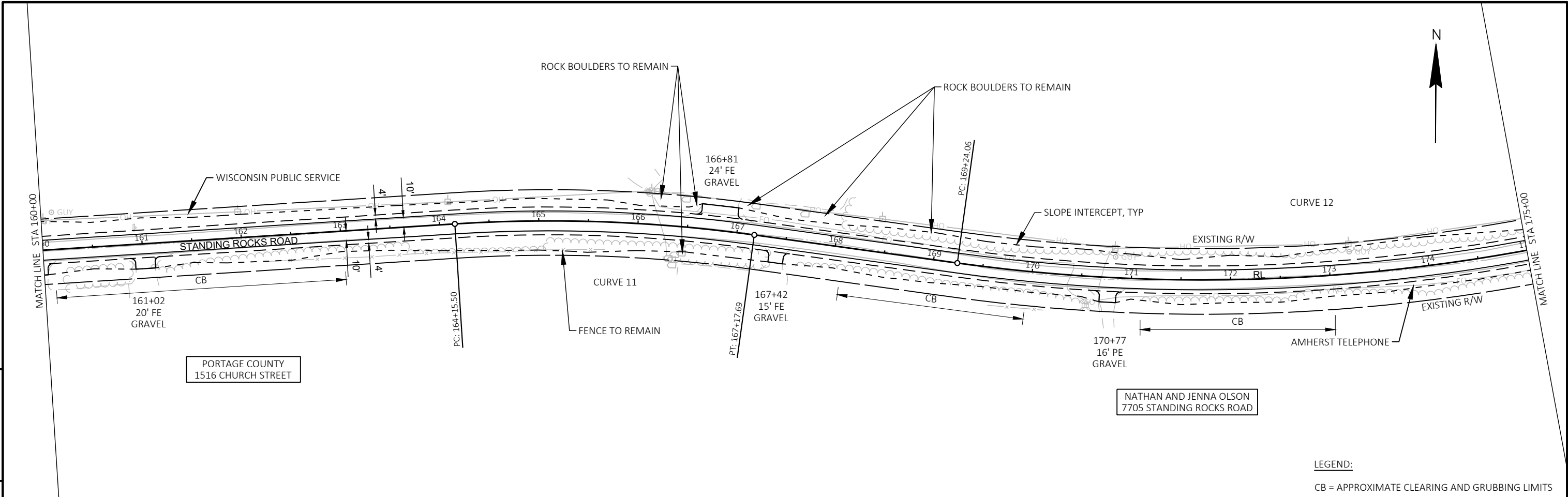


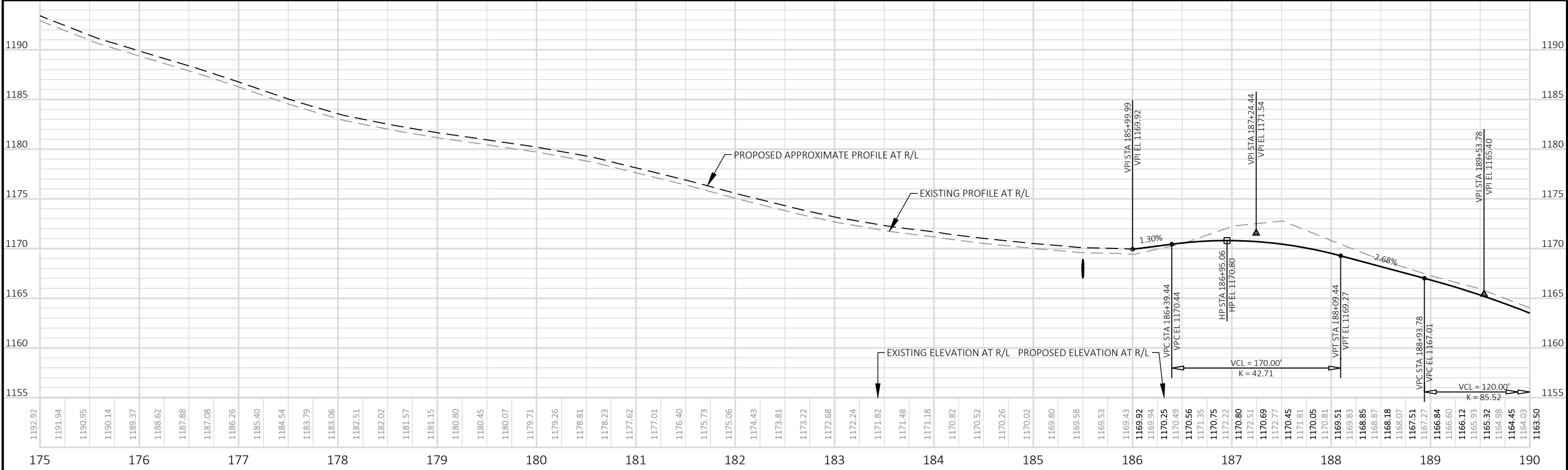
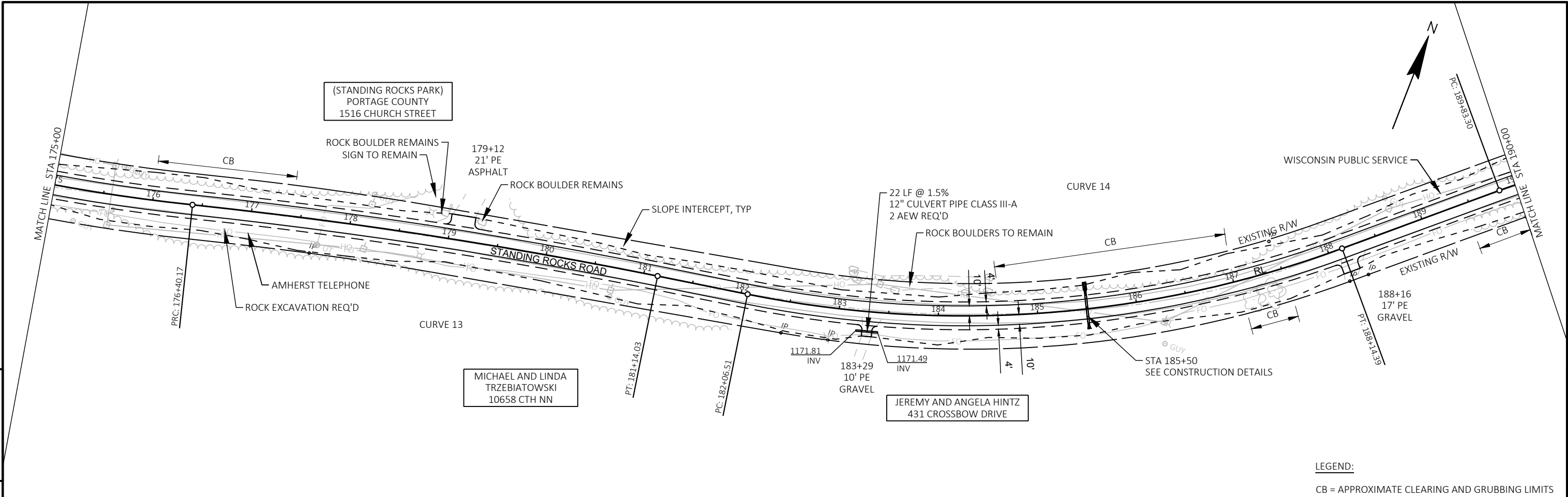
PROJECT NO: 6808-02-70	HWY: STANDING ROCKS ROAD	COUNTY: PORTAGE	PLAN AND PROFILE:	SHEET	E
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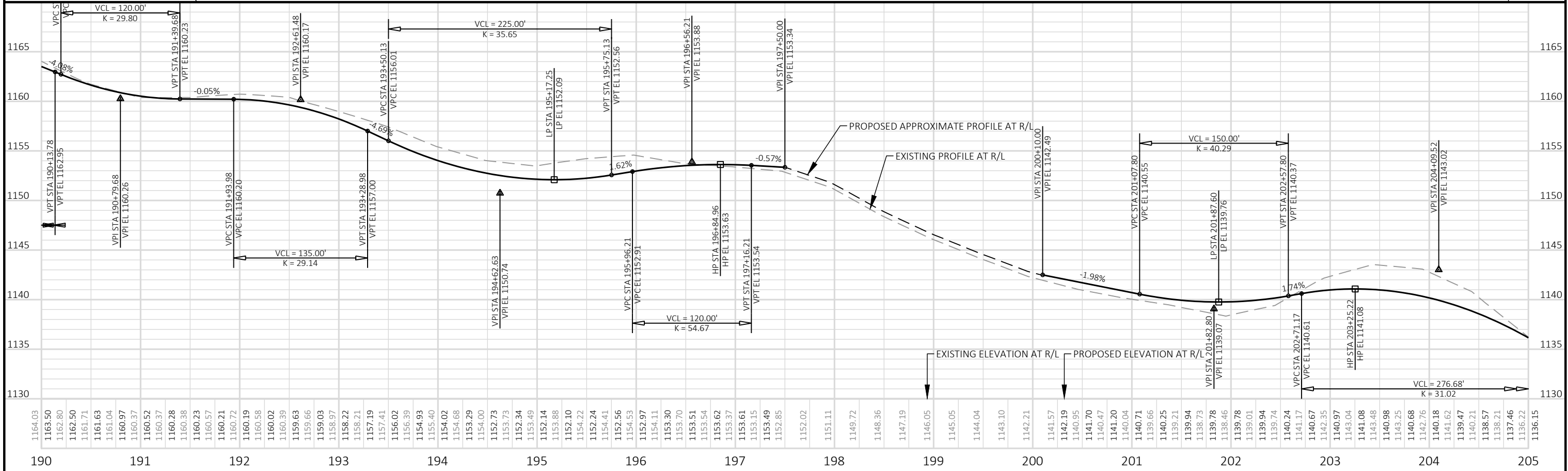
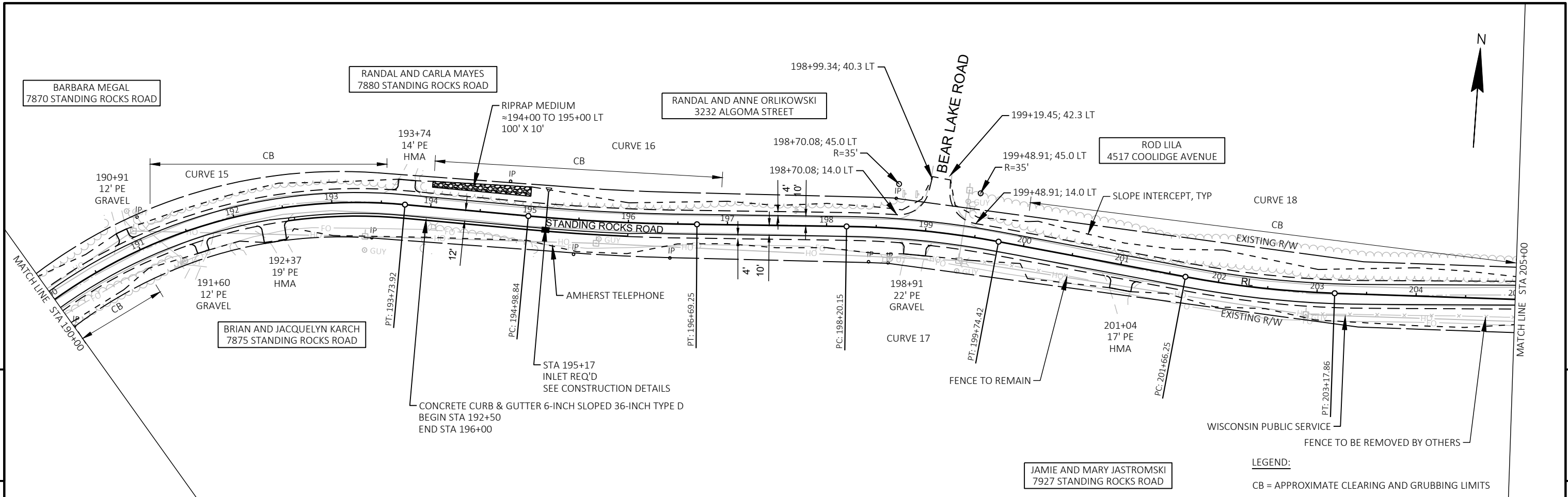
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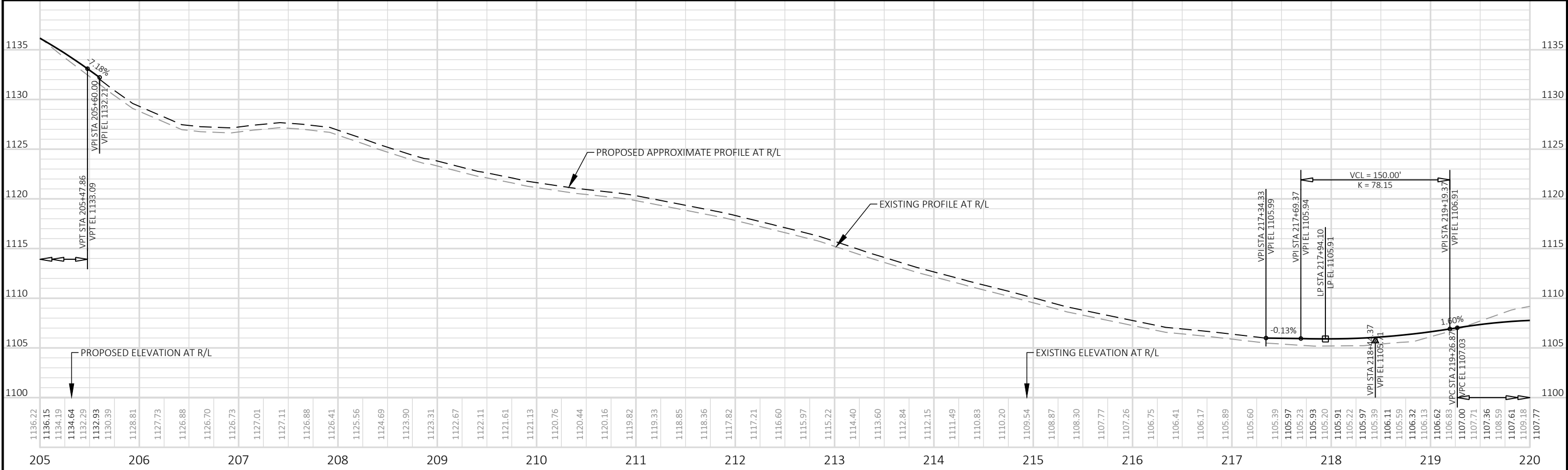
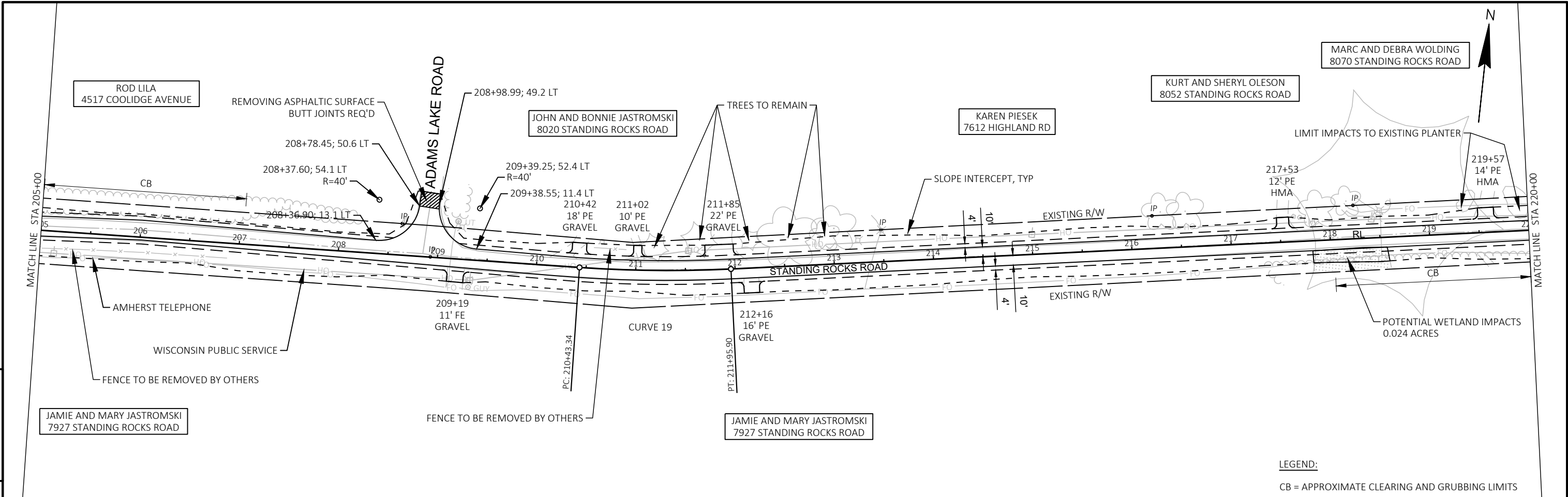




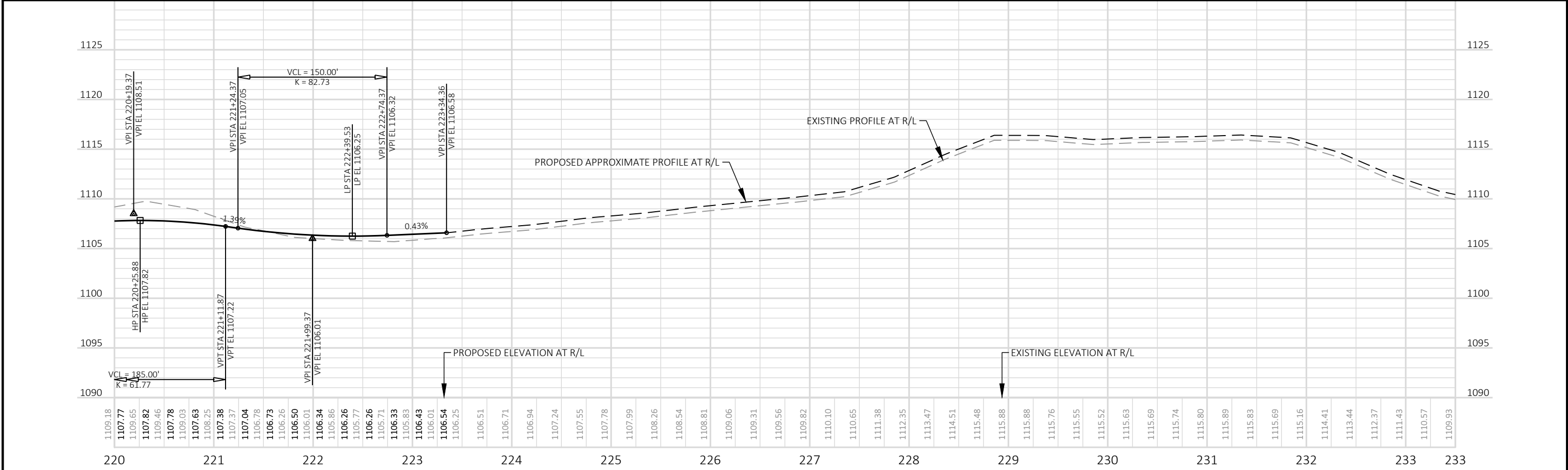
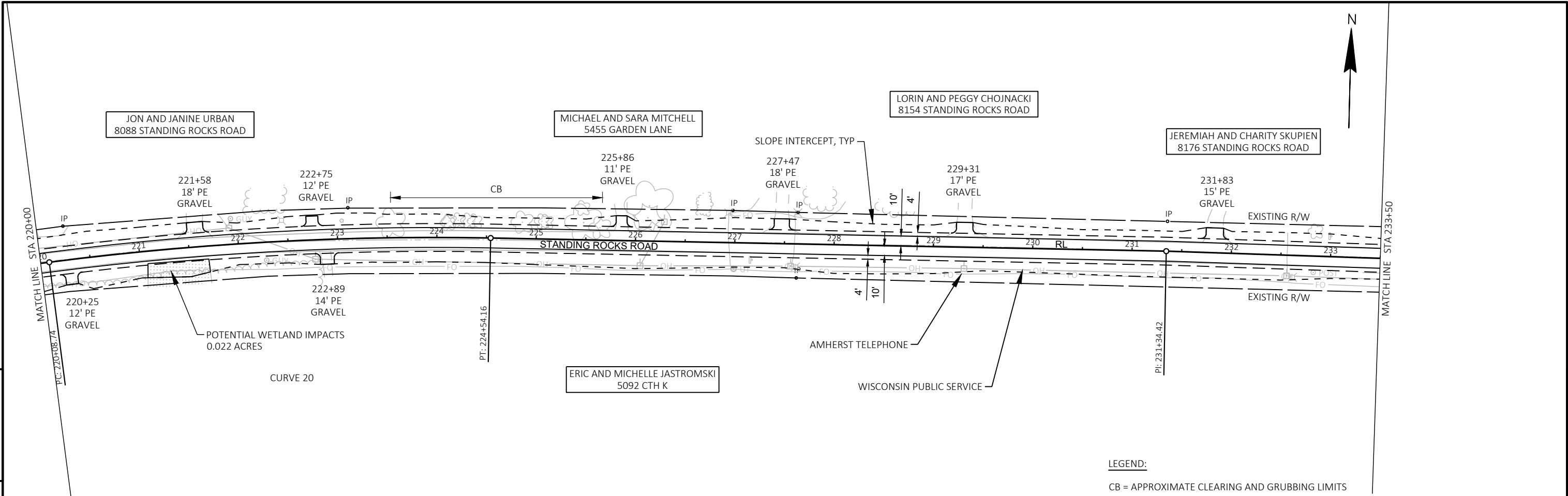
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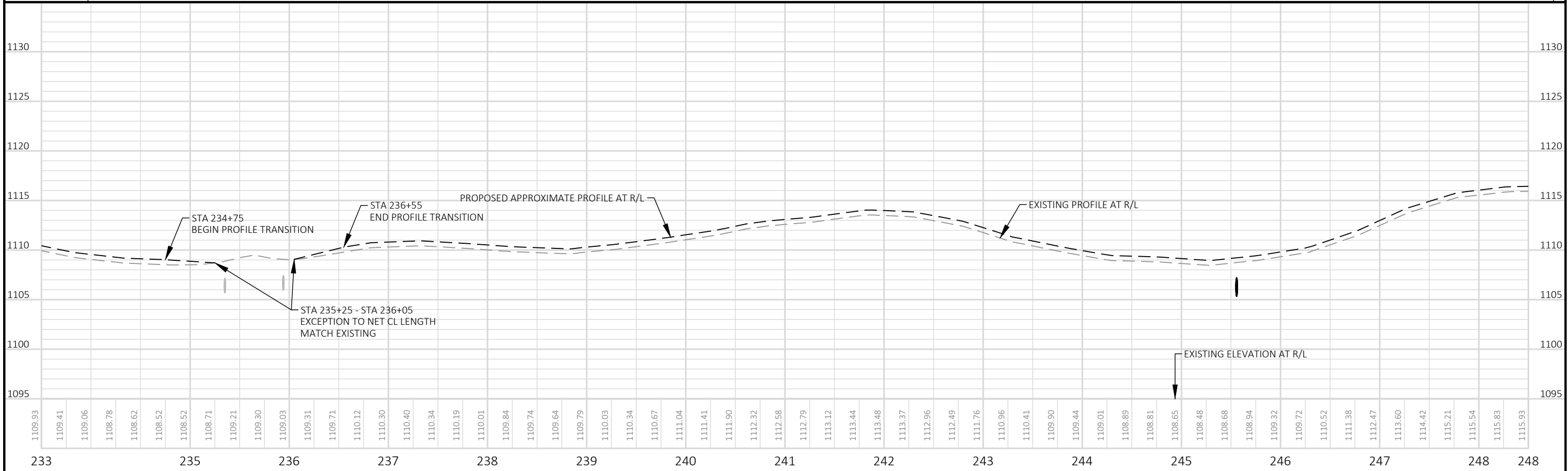
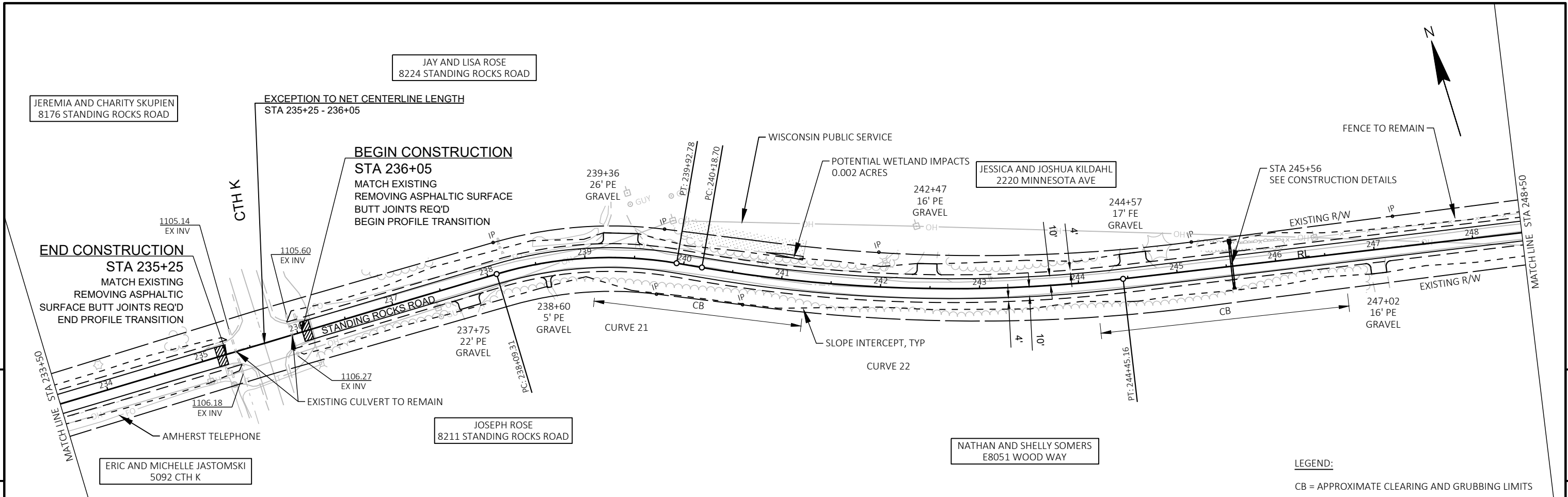
PROJECT NO:	6808-02-70	HWY:	STANDING ROCKS ROAD	COUNTY:	PORTAGE	PLAN AND PROFILE:	SHEET	E
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PROJECT NO: 6808-02-70	HWY: STANDING ROCKS ROAD	COUNTY: PORTAGE	PLAN AND PROFILE:	SHEET	E
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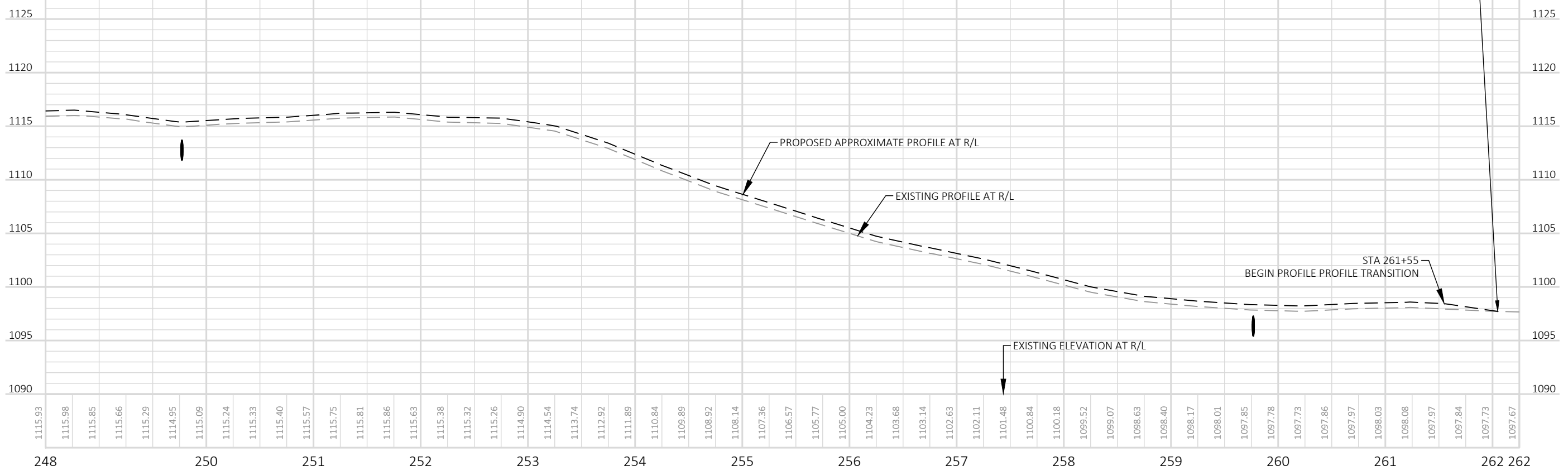
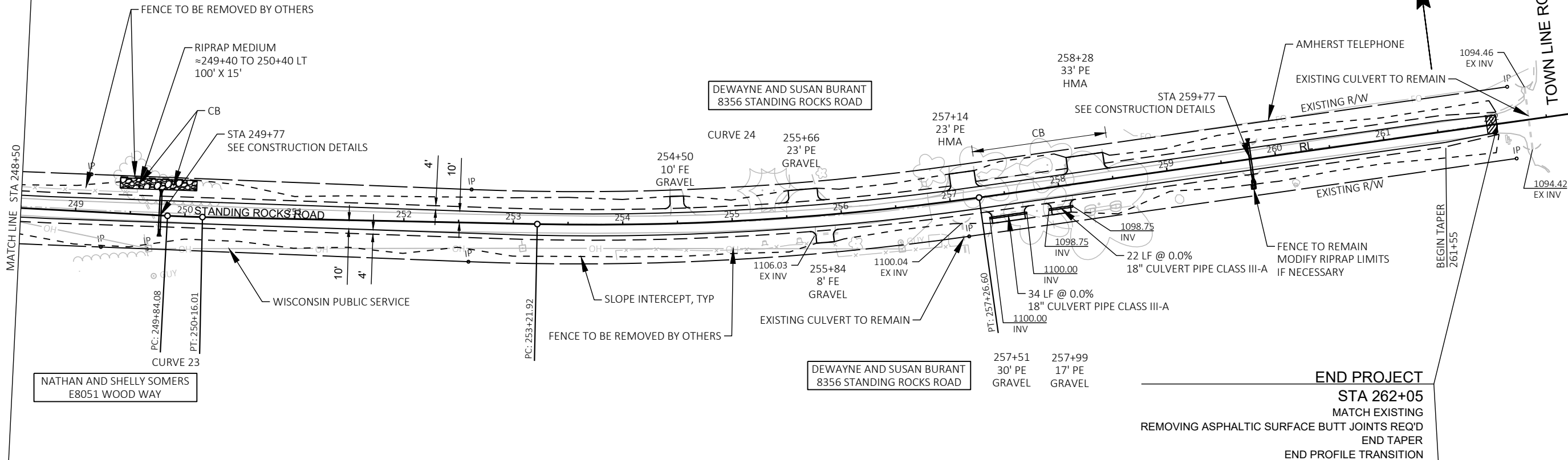
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PROJECT NO: 6808-02-70	HWY: STANDING ROCKS ROAD	COUNTY: PORTAGE	PLAN AND PROFILE:	SHEET	E
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LEGEND:

CB = APPROXIMATE CLEARING AND GRUBBING LIMITS



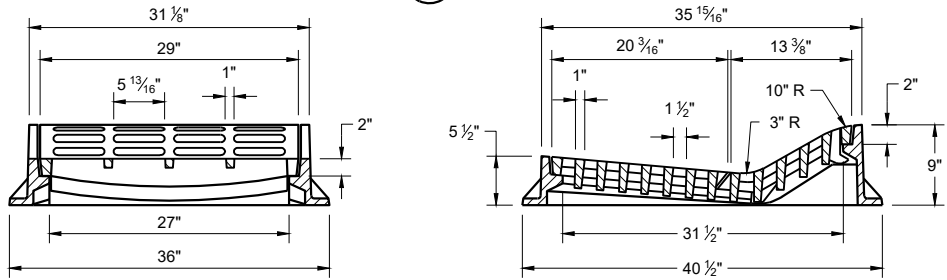
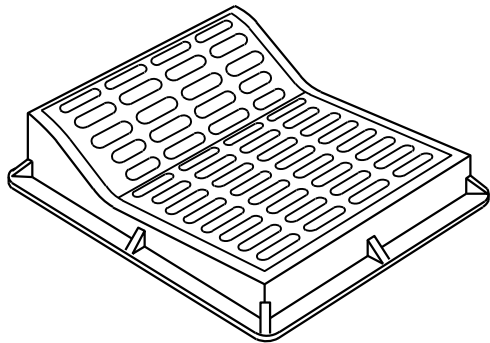
Standard Detail Drawing List

08A05-21C	INLET COVERS TYPE F, HM, HM-S, S, T, HM-GJ & HM-GJ-S
08C07-03	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT, 2.5X3-FT & 2X3.5-FT
08D01-24A	CONCRETE CURB & GUTTER
08D01-24B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13C19-03	HMA LONGITUDINAL JOINTS
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

GENERAL NOTES

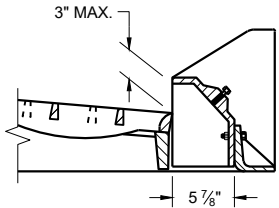
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



TYPE "F"

USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"

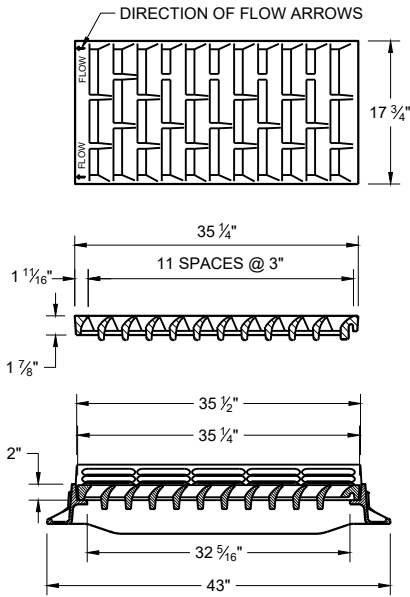


ALTERNATIVE CURB BOX
FOR TYPE "HM" COVER

USE WITH TYPES "G" AND "J" CONCRETE CURB AND GUTTER, 30 INCH
NOTED AS TYP "HM-GJ" ON DRAINAGE TABLE

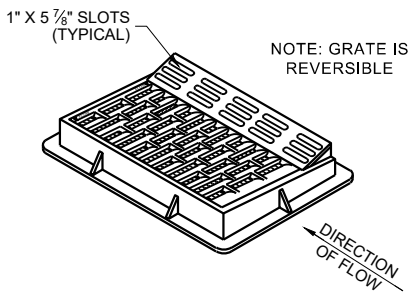
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.

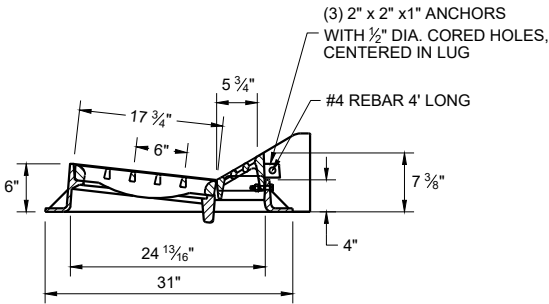


TYPE "HM"

USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"

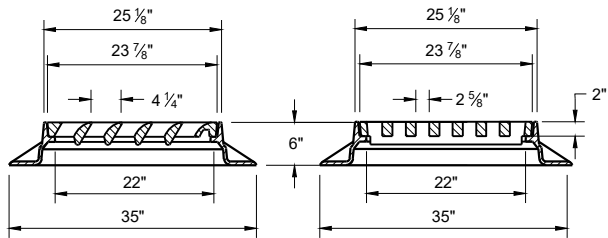
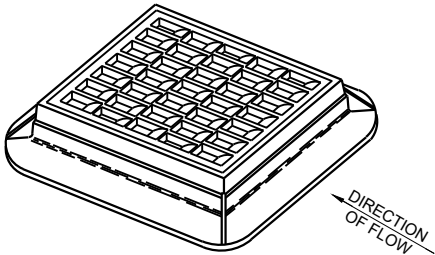


NOTE: GRATE IS REVERSIBLE

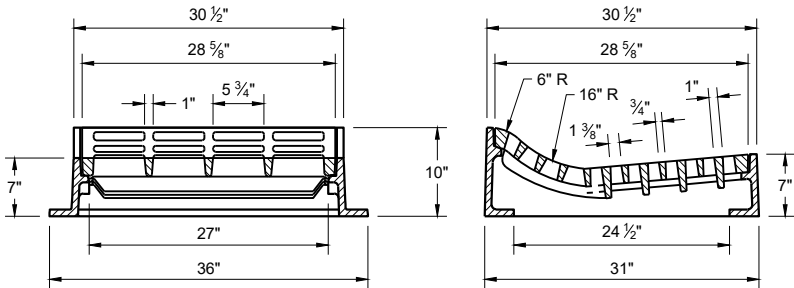
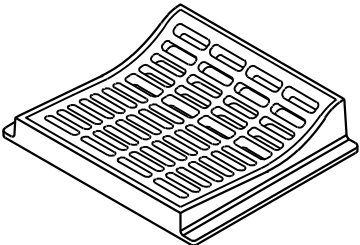


NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.



TYPE "S"



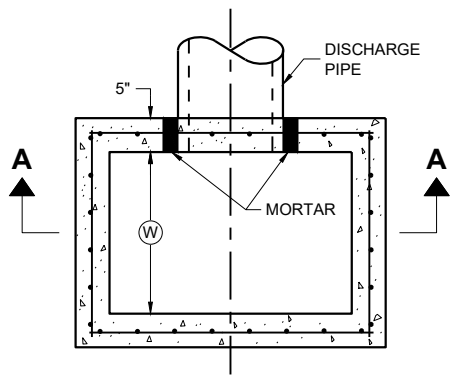
TYPE "T"

USE WITH TYPES "R" AND "T" CONCRETE CURB AND GUTTER, 36"

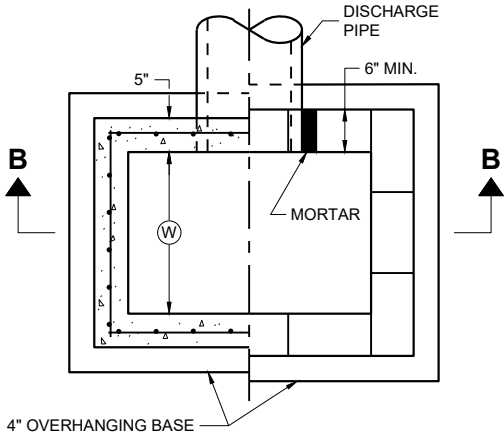
INLET COVERS
TYPES F, HM, HM-S, S, T,
HM-GJ AND HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

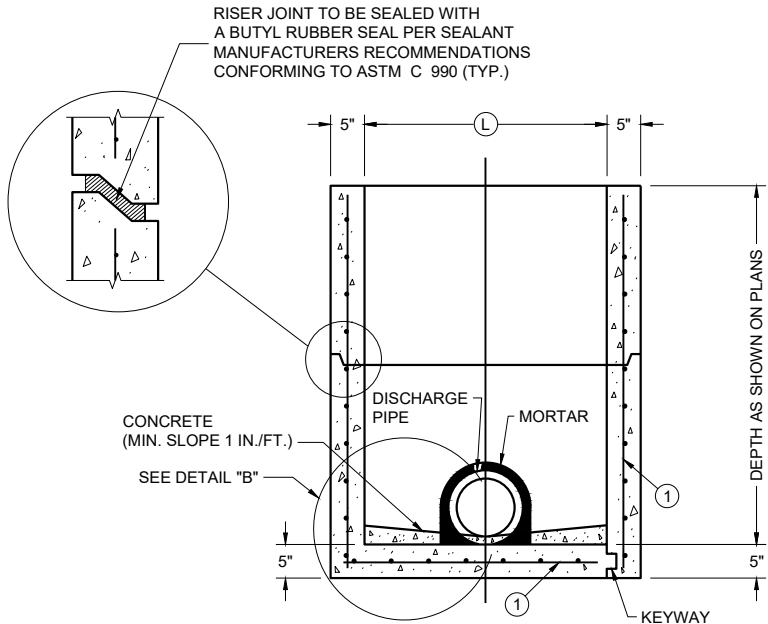
APPROVED
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



PLAN VIEW



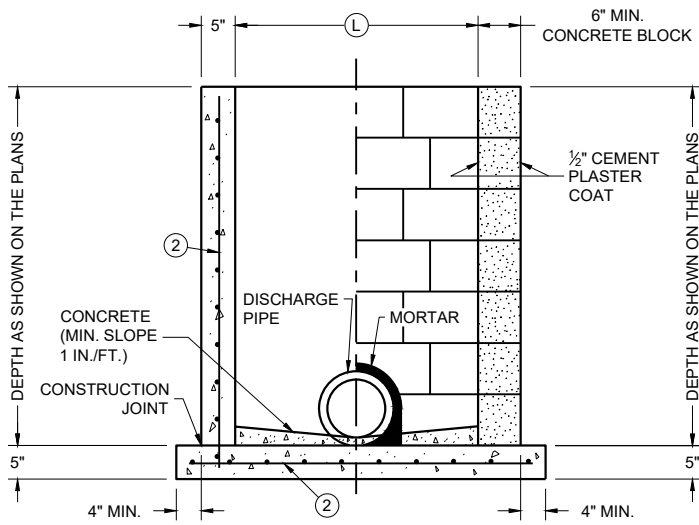
PLAN VIEW



PRECAST REINFORCED
CONCRETE WITH
MONOLITHIC BASE

PRECAST REINFORCED
CONCRETE WITH
INTEGRAL BASE

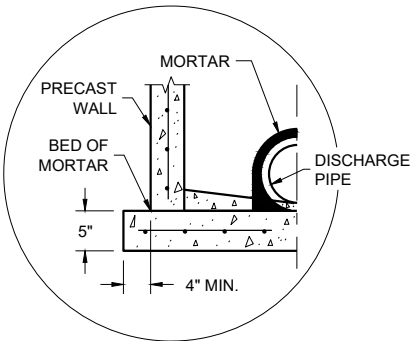
SECTION A - A



CAST IN PLACE
REINFORCED
CONCRETE

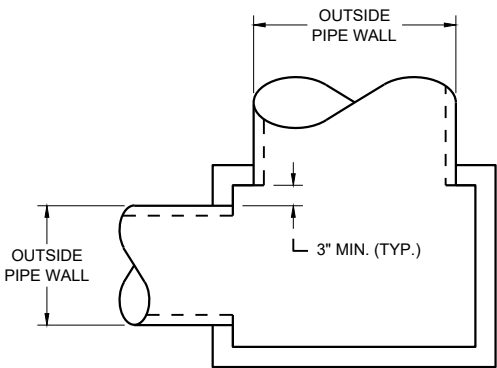
CONCRETE BLOCK WITH
CAST IN PLACE OR
PRECAST REINFORCED
CONCRETE BASE ①

SECTION B - B



SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION

DETAIL "B"



DETAIL "A"

INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2X3.5-FT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

- ① FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

CATCH BASIN COVER MATRIX

INLET SIZE	WIDTH (W) (FT.)	LENGTH (L) (FT.)	INLET COVER TYPE										
			ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM	V V-B	
2 X 2-FT	2	2	X	X				X					
2 X 2.5-FT	2	2.5			X			X	X	X	X		
2 X 3-FT	2	3					X						
2.5 X 3-FT	2.5	3				X							
2 X 3.5-FT	2	3.5										X	

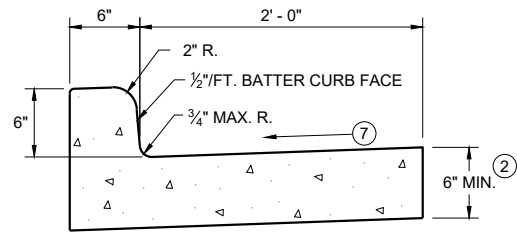
PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2 X 2-FT	12	12
2 X 2.5-FT	12	18
2 X 3-FT	12	24
2.5 X 3-FT	18	24
2 X 3.5-FT	12	30

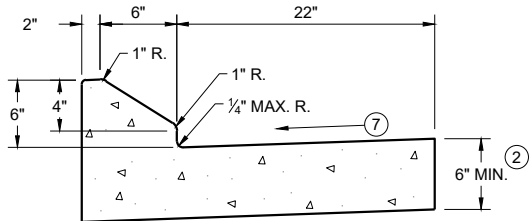
INLETS 2 X 2-FT, 2 X 2.5-FT,
2 X 3-FT, 2.5 X 3-FT
AND 2 X 3.5-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

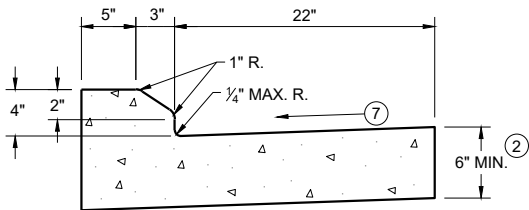
APPROVED
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



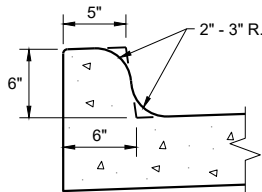
TYPES A^① & D



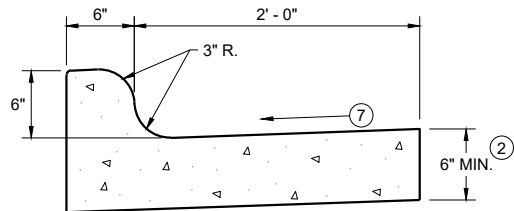
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

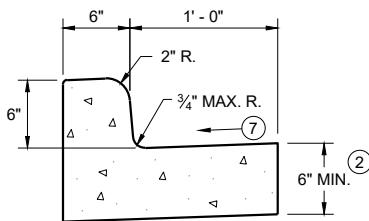


TYPES K^① & L
(OPTIONAL CURB SHAPE)



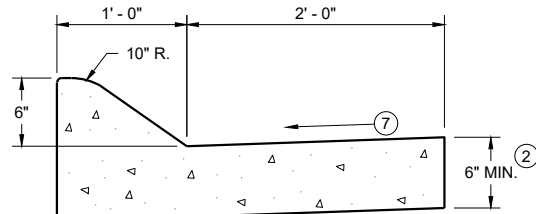
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

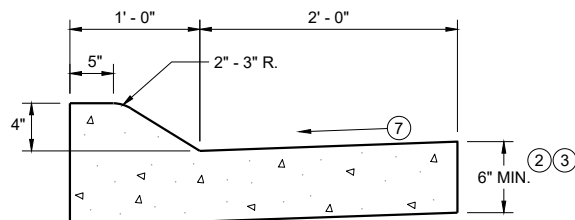


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

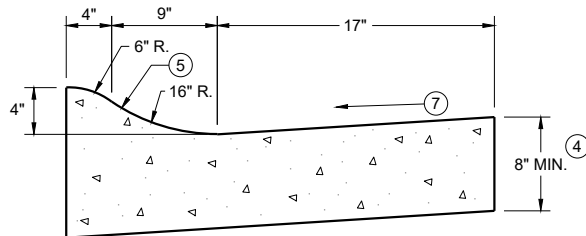


6" SLOPED CURB TYPES A^① & D



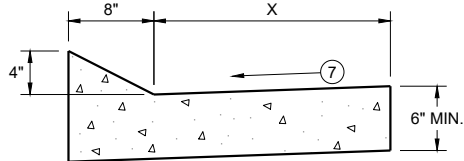
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T
CONCRETE CURB AND GUTTER 30"

TBT & TBTT	X
30"	22"
36"	28"

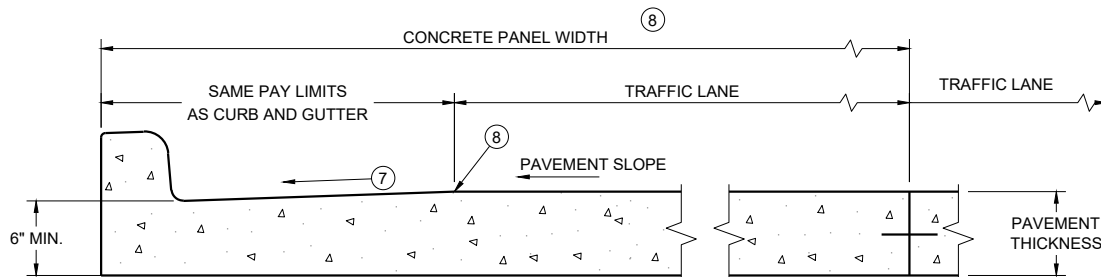


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

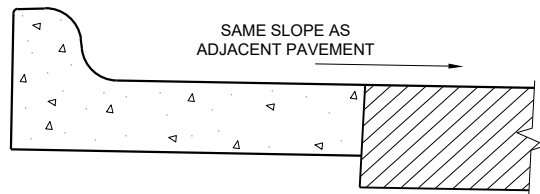
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'

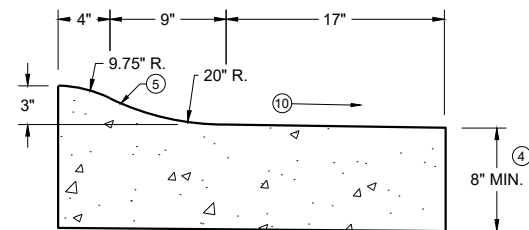


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER^⑥
(TYPICAL FOR ALL CURB & GUTTER TYPES)



3" SLOPED CURB TYPES R^① & T

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

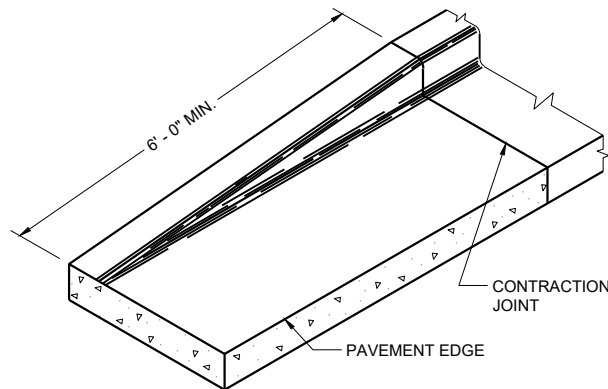
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

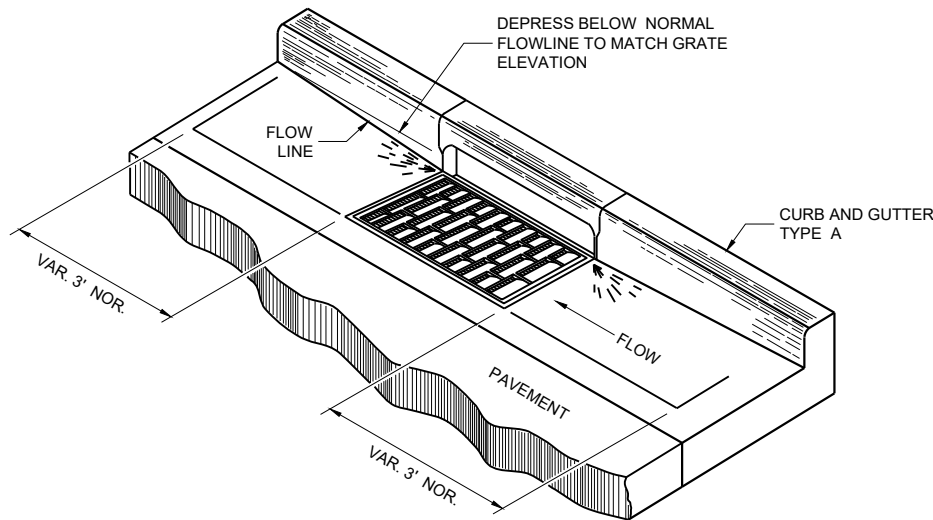
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ SLOPE TO BE REVERSE SLOPE MATCHING THE SLOPE OF THE PAVEMENT AND THE CIRCULATORY ROADWAY

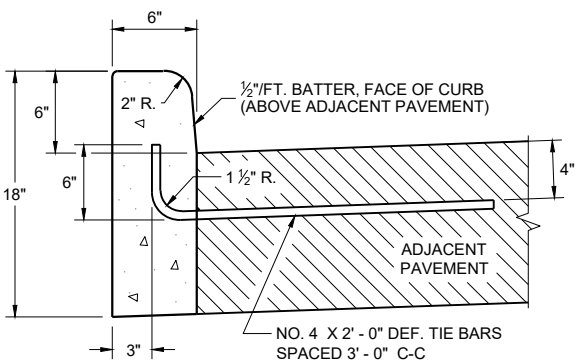


END SECTION CURB AND GUTTER

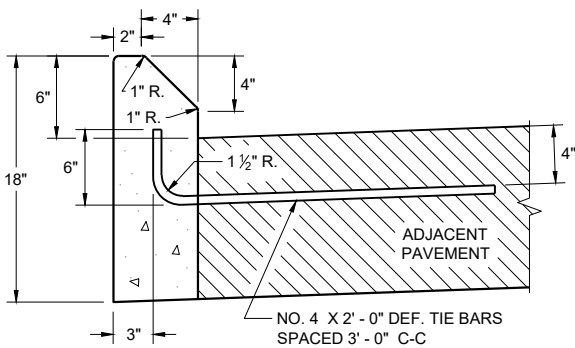


DETAIL OF CURB AND GUTTER AT INLETS

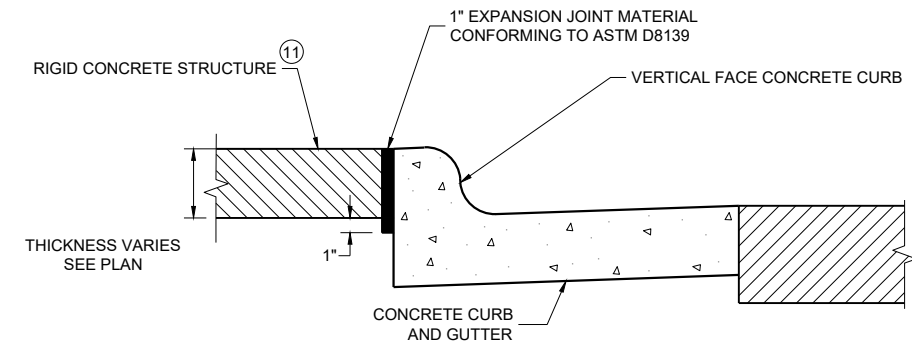
(TYPICAL H INLET COVER SHOWN)



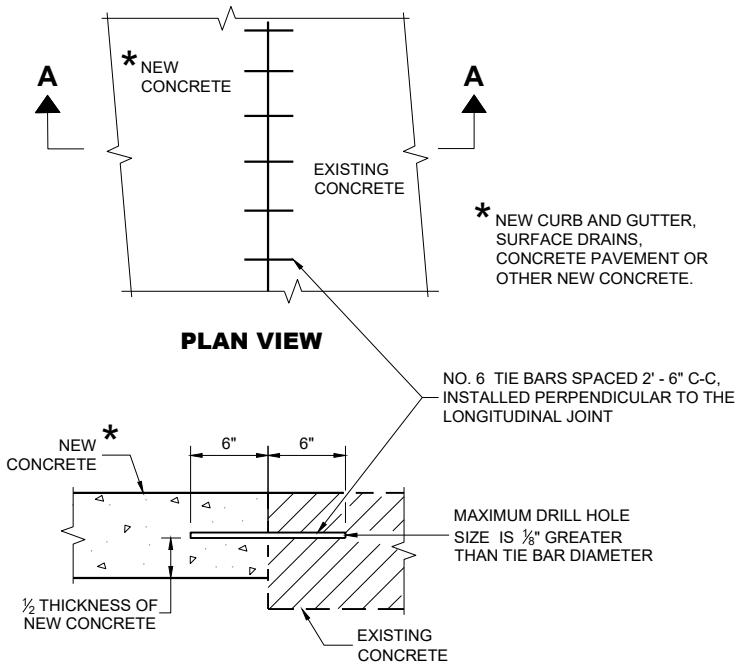
TYPES A^① & D



TYPES G^① & J
CONCRETE CURB



EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE^⑪



SECTION A - A
TIE BARS DRILLED INTO EXISTING PAVEMENT

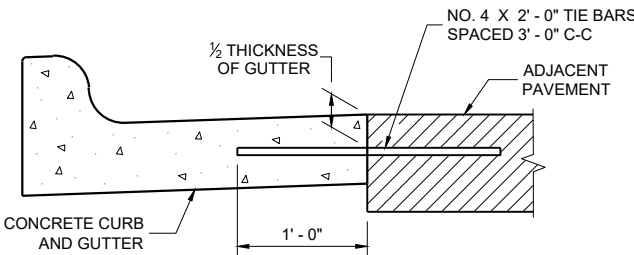
GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

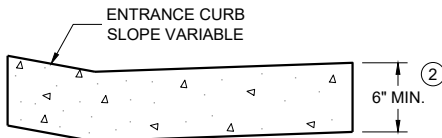
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑩ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.
- ⑪ PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.



TYPICAL TIE BAR LOCATION^①



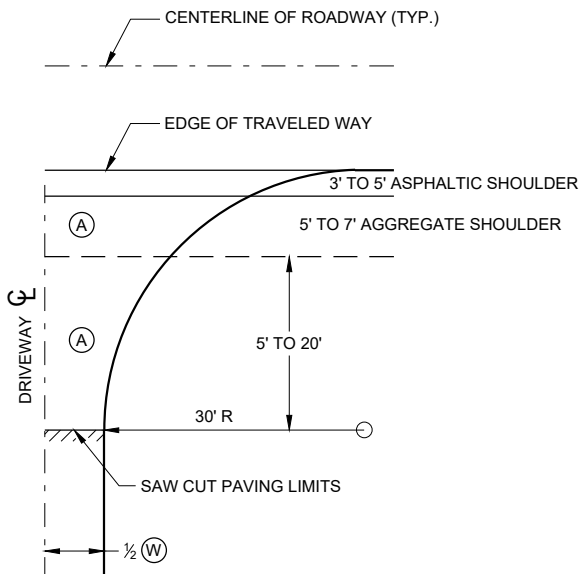
DRIVEWAY ENTRANCE CURB^⑩
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES
AND CURB AND GUTTER
APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

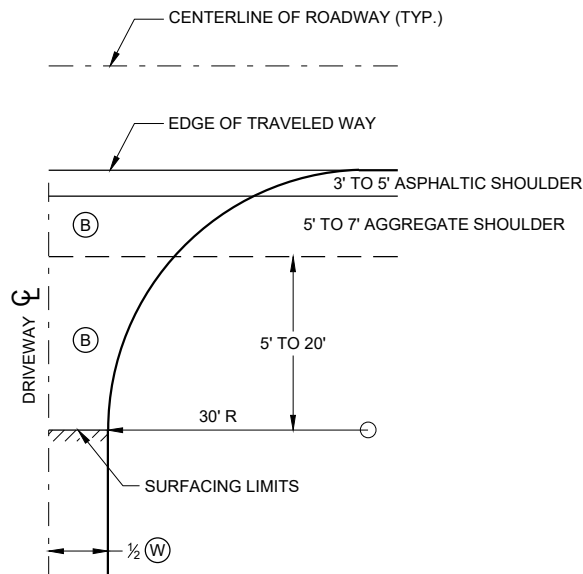
APPROVED
February 2025 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

FHWA

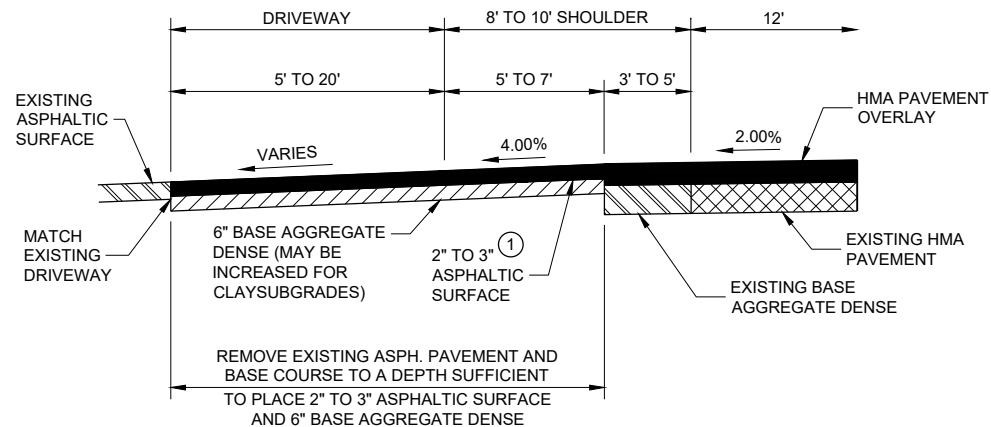


**PLAN VIEW
HALF SECTION**

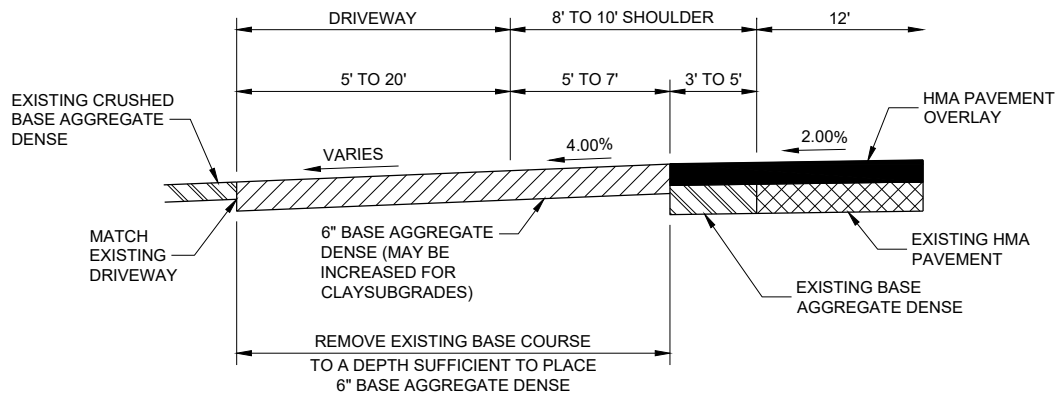
- (A) : PAID FOR AS ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES. (TON)
- (B) : PAID FOR AS BASE AGGREGATE DENSE 1 1/4" (TON)
- (W) : DRIVEWAY WIDTH 16' MIN. - 24' MAX.



**PLAN VIEW
HALF SECTION**



**PROFILE VIEW
RURAL ENTRANCE
WITH ASPHALTIC SURFACE
RESURFACING PROJECTS**



**PROFILE VIEW
RURAL ENTRANCE
WITH AGGREGATE SURFACE
6" BASE AGGREGATE DENSE
RESURFACING PROJECTS**

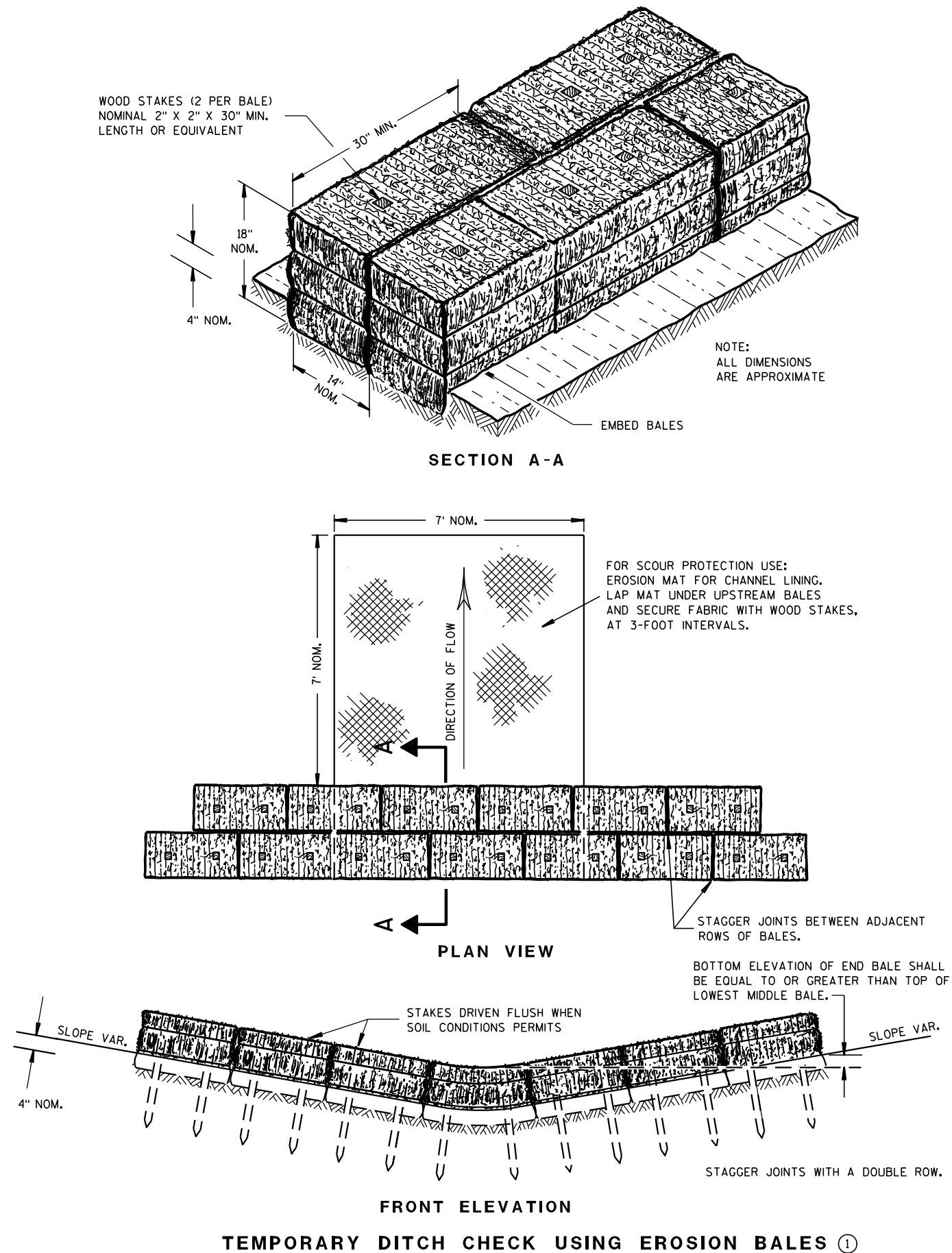
GENERAL NOTES

- ① DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS
BASED ON TYPE OF USAGE AND LOADINGS.

**DRIVEWAYS WITHOUT CURB
AND GUTTER RESURFACING
PROJECTS RURAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

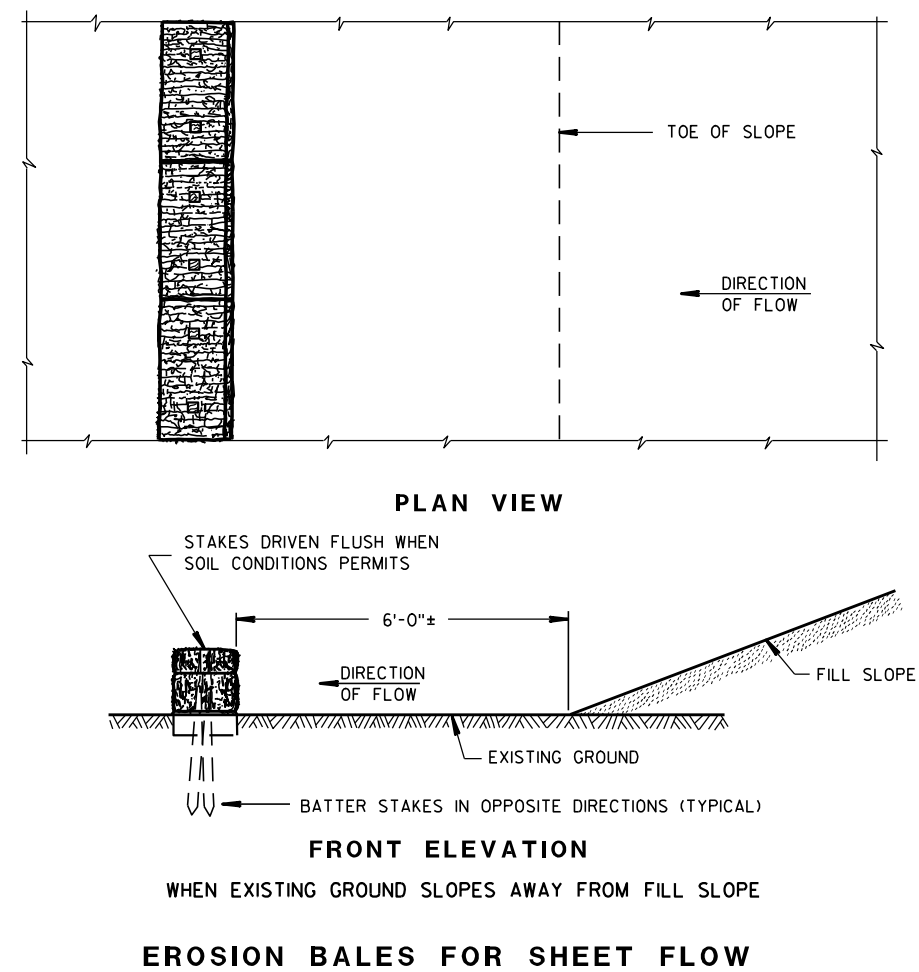
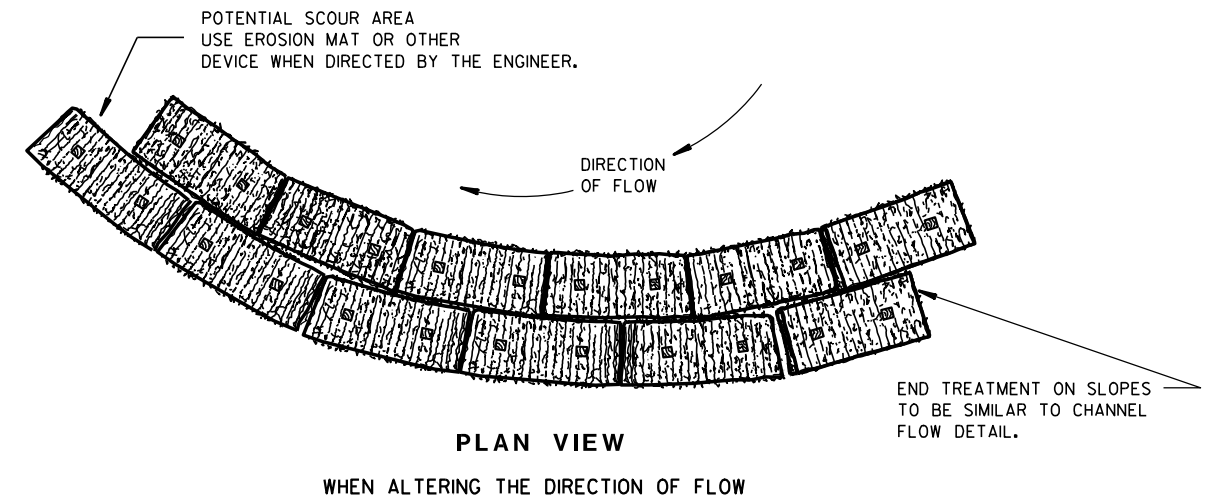
APPROVED
December 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

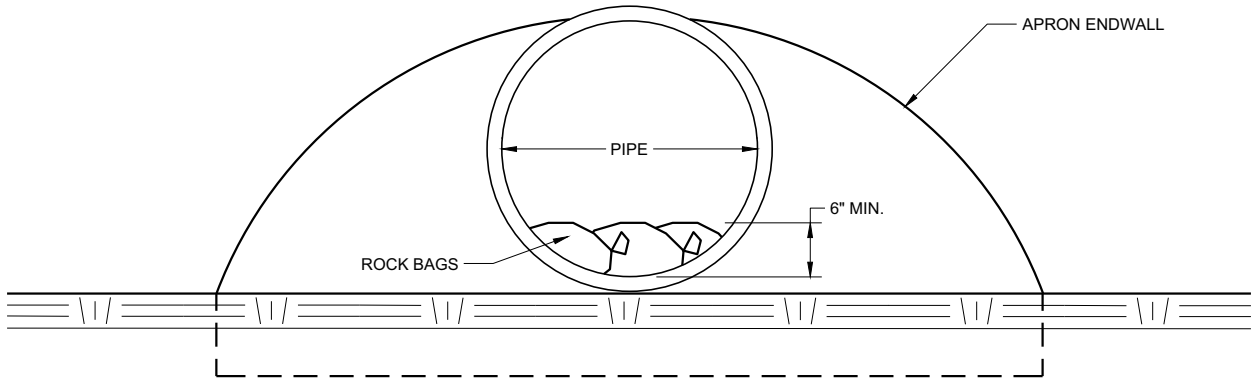
FHWA



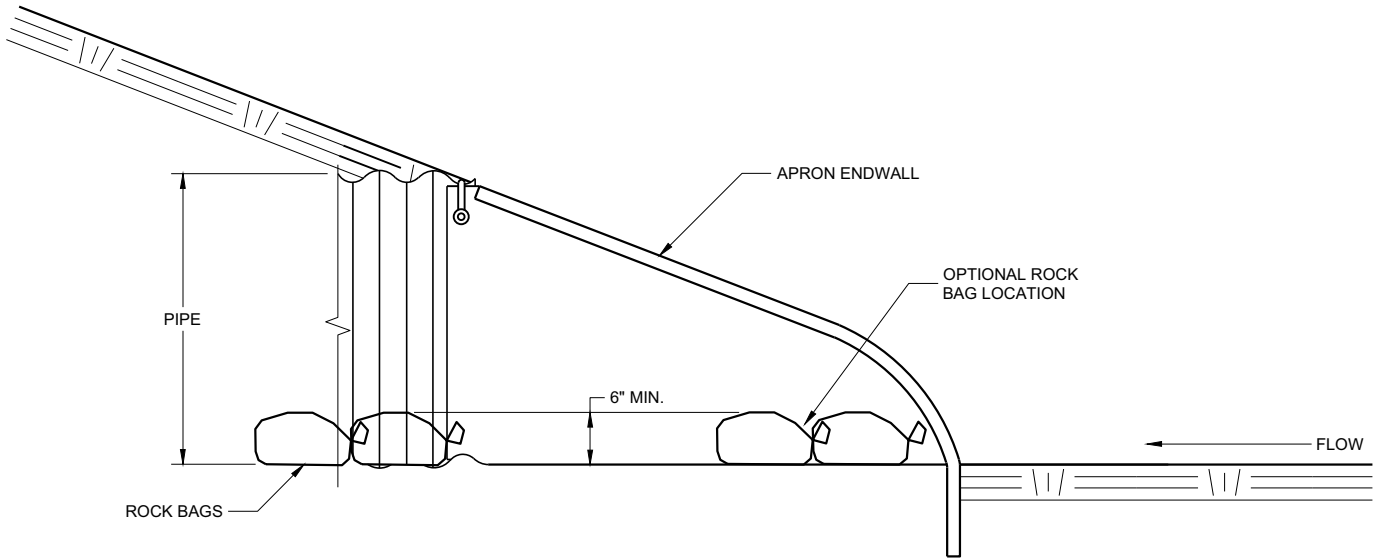
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1½" X 1½" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/s/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER



END VIEW



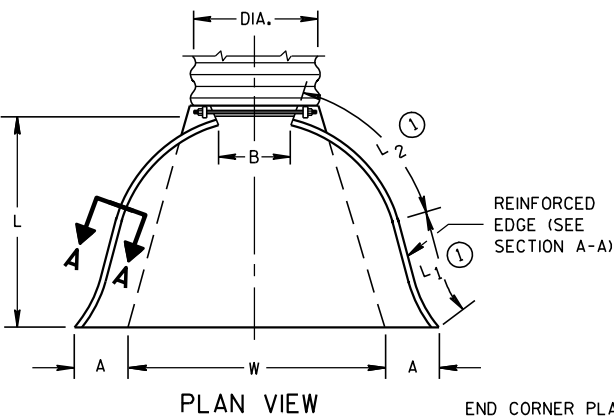
SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

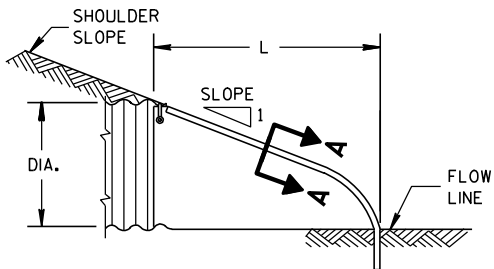
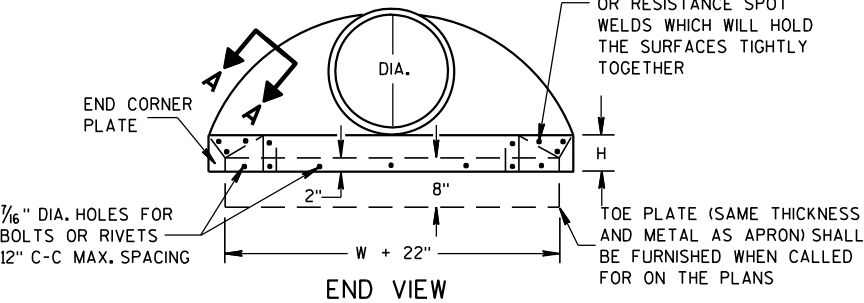
CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGINEER
FHWA	

METAL APRON ENDWALLS												
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE		BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")			
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3	3 Pc.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES



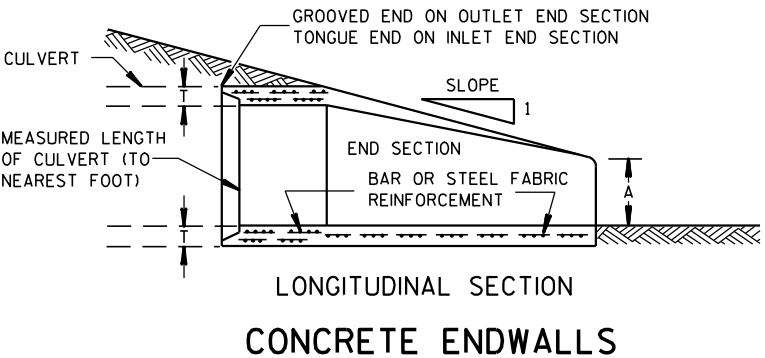
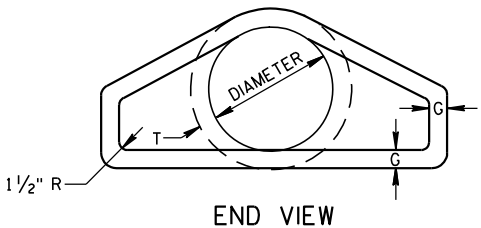
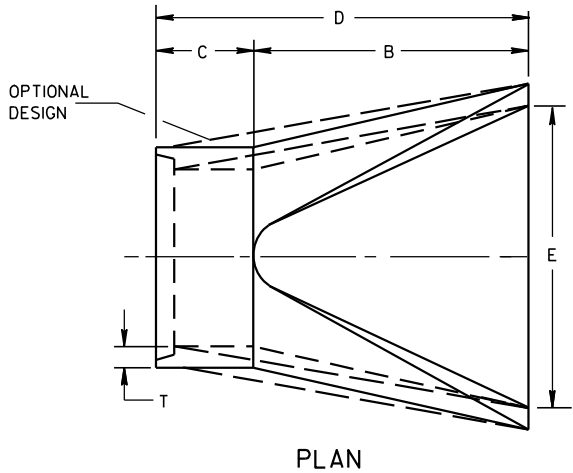
END CORNER PLATES MAY
BE FASTENED TO APRON
PROPER BY BOLTS, RIVETS,
OR RESISTANCE SPOT
WELDS WHICH WILL HOLD
THE SURFACES TIGHTLY
TOGETHER



SIDE ELEVATION
METAL ENDWALLS

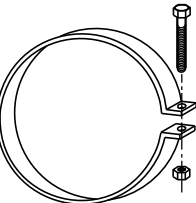
REINFORCED CONCRETE APRON ENDWALLS												
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE				
	T	A	B	C	D	E	G					
12	2	4	24	48 7/8	72 7/8	24	2	3 to 1				
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1				
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1				
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1				
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1				
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1				
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1				
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1				
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1				
48	5	24	72	26	98	84	5	3 to 1				
54	5 1/2	27	65	33 1/4-35	98 1/4-100	90	5 1/2	2 2/5 to 1				
60	6	30-35	60	39	99	96	5	2 to 1				
66	6 1/2	24-30	72-78	21-27	99	102	5 1/2	2 to 1				
72	7	24-36	78	21	99	108	6	2 to 1				
78	7 1/2	24-36	78	21	99	114	6 1/2	2 to 1				
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1				
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1				

* MINIMUM
** MAXIMUM

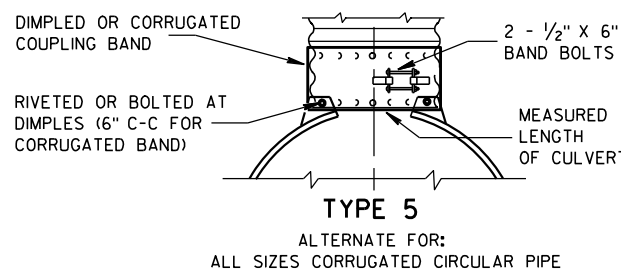
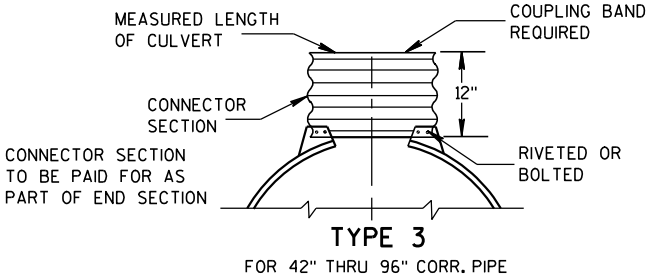
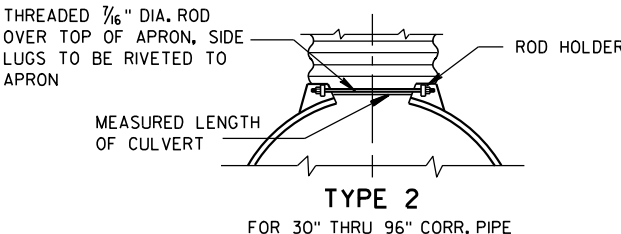
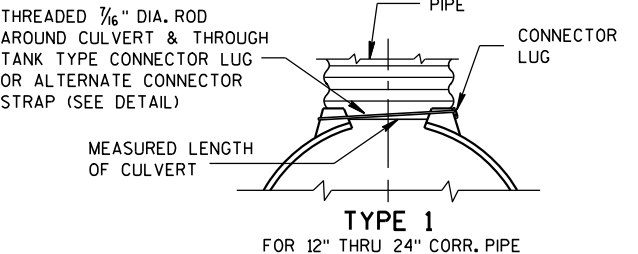


LONGITUDINAL SECTION
CONCRETE ENDWALLS

1" WIDE, 12 GA. (0.109"
THICK) GALVANIZED STRAP
WITH STANDARD 6" X 1/2"
BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



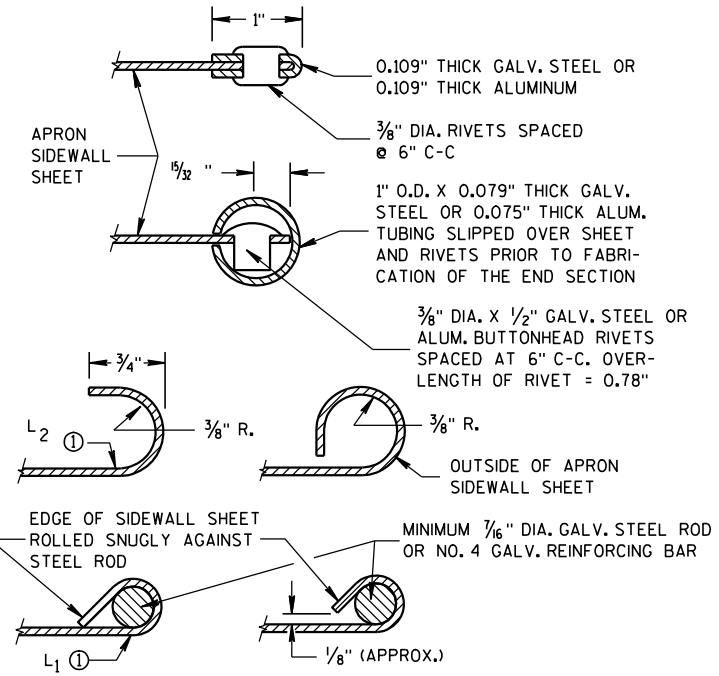
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL,
AND CORRUGATED BAND FITS INSIDE ENDWALL.
DIMPLED BAND MAY BE USED WITH HELICALLY
CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE
ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5
AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL
CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO
CIRCUMFERENTIAL CORRUGATIONS AT EACH END
USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON
THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE
STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL
OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR
ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE
OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND
LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL
THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND
LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH
OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE
PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS
FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS.
FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED
EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH
GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE
ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM
NUTS AND BOLTS FOR ALUMINUM UNITS.

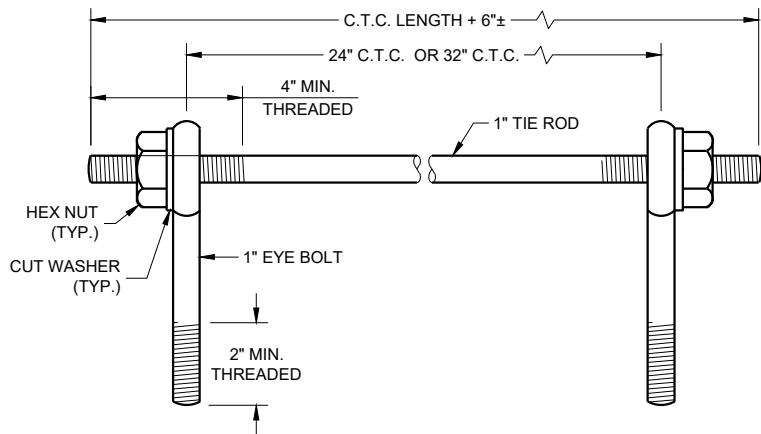
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT
TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT
TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED
INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR
CULVERT PIPE

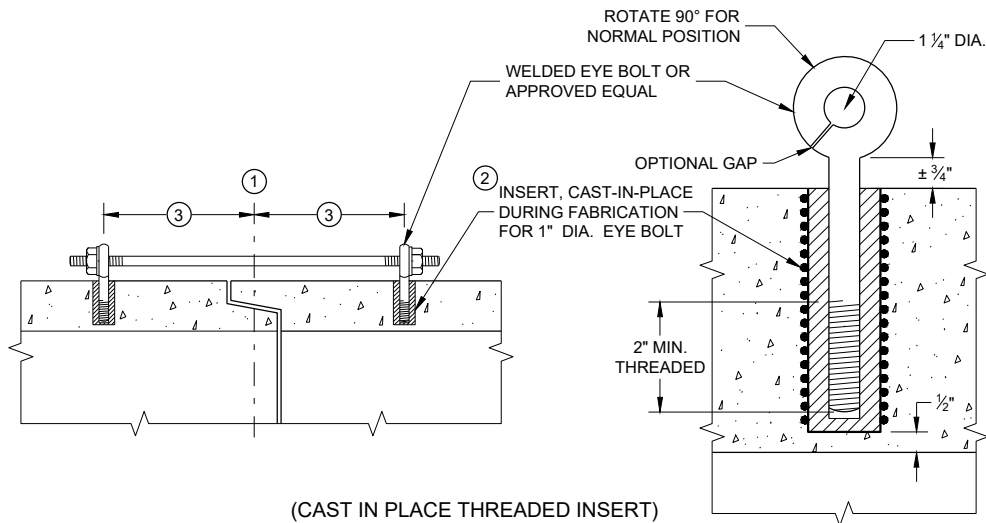
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94
DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



EYE BOLTS AND TIE ROD

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

GENERAL NOTES

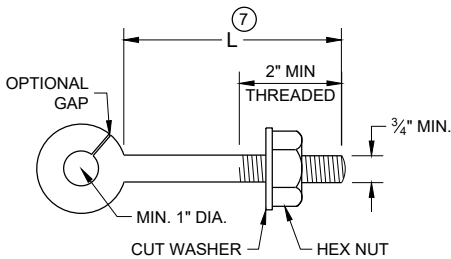
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

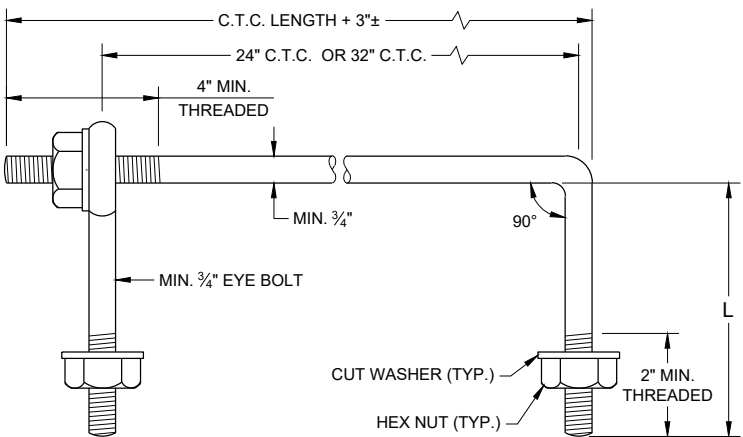
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- 1 CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- 2 THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- 3 HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- 4 BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- 5 OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- 6 LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.
- 7 EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

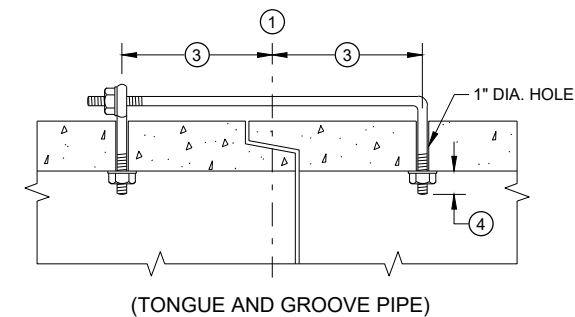


EYE BOLT 7

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

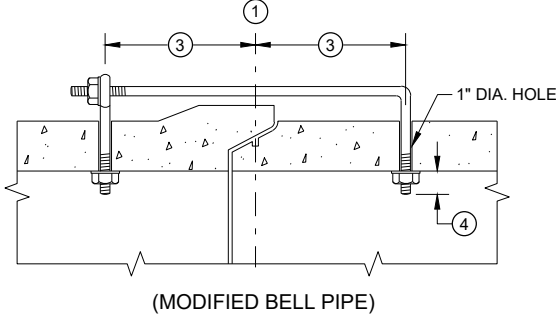


(TONGUE AND GROOVE PIPE)

LONGITUDINAL SECTION

(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

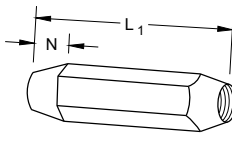


(MODIFIED BELL PIPE)

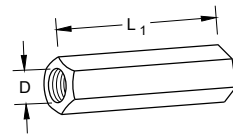
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L ₁	N
12 - 60	5/8	5/8	5	1/2
66 - 84	3/4	3/4	5	1/2
90 - 144	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES

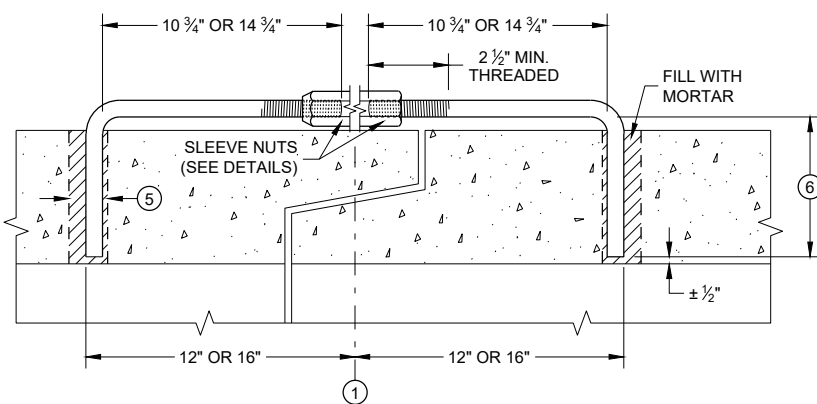


TAPERED



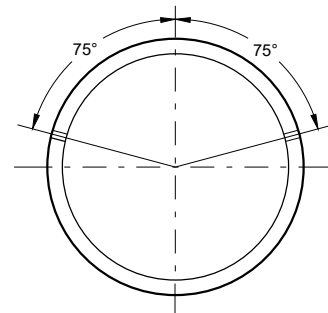
PLAIN

RIGHT AND LEFT THREADS
SLEEVE NUTS



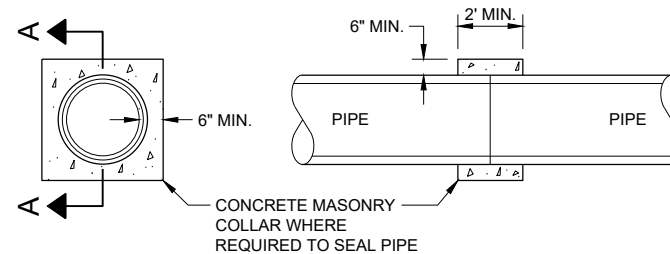
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



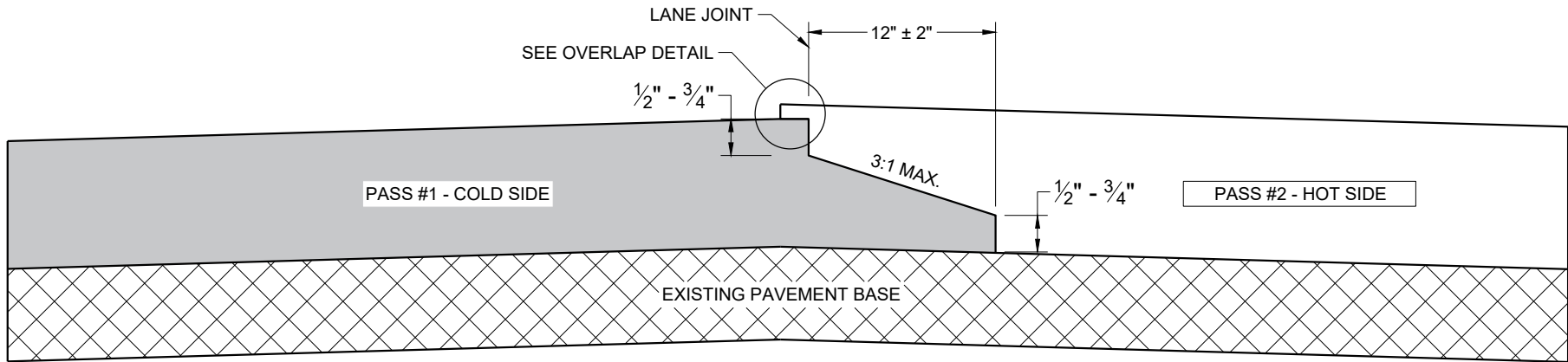
SECTION A - A

CONCRETE COLLAR DETAIL

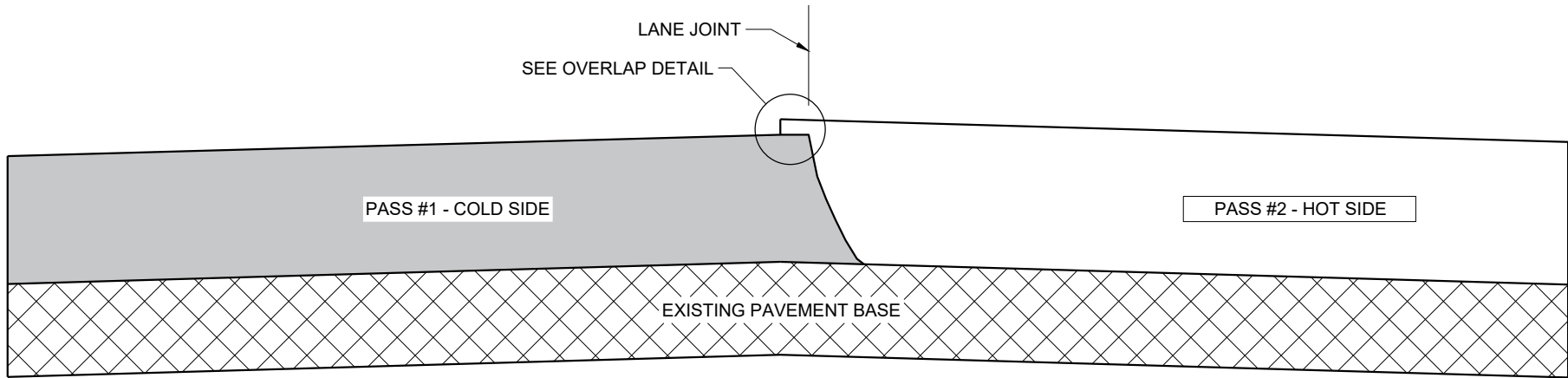
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

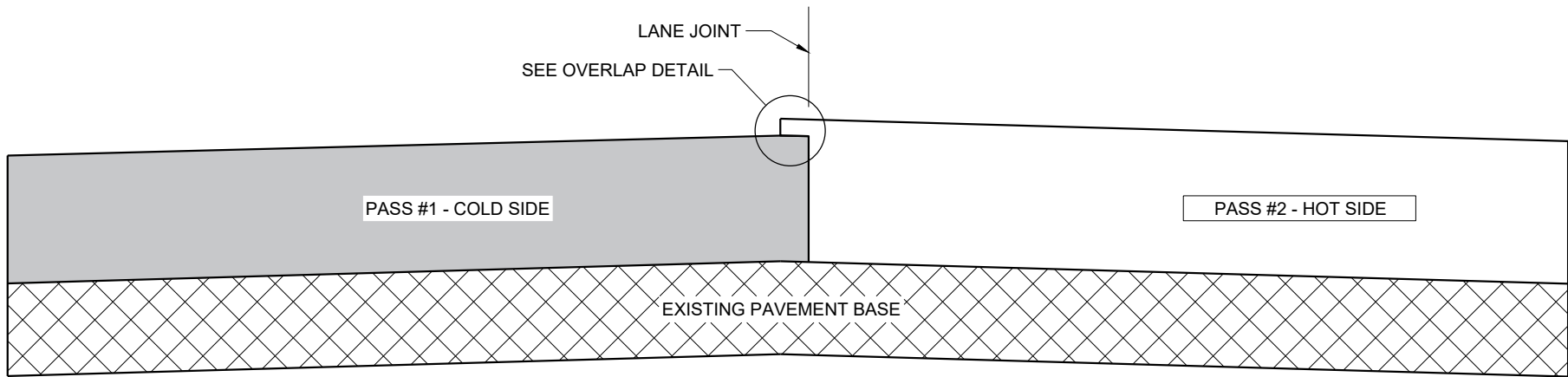
APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA ENGINEER



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

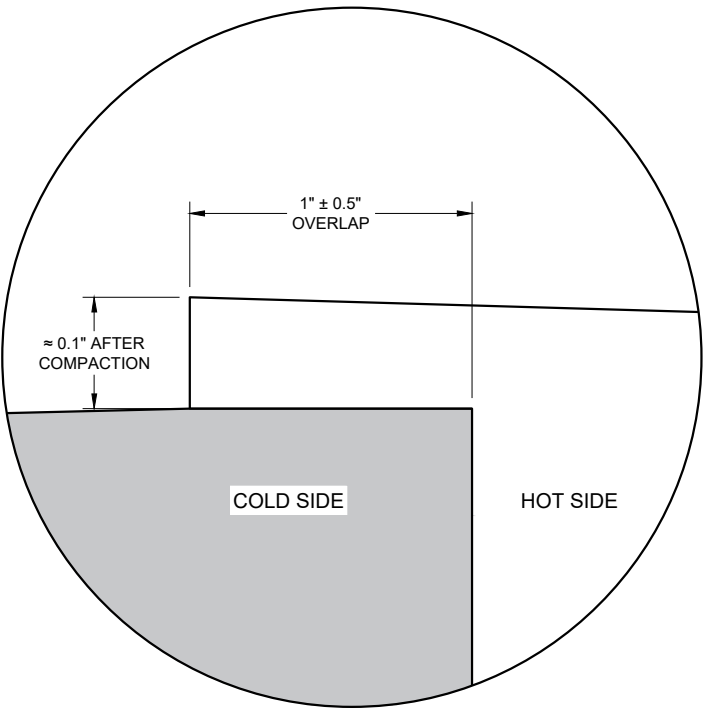
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY $1" \pm 0.5"$ AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY $0.1"$ AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO $2"$ FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.

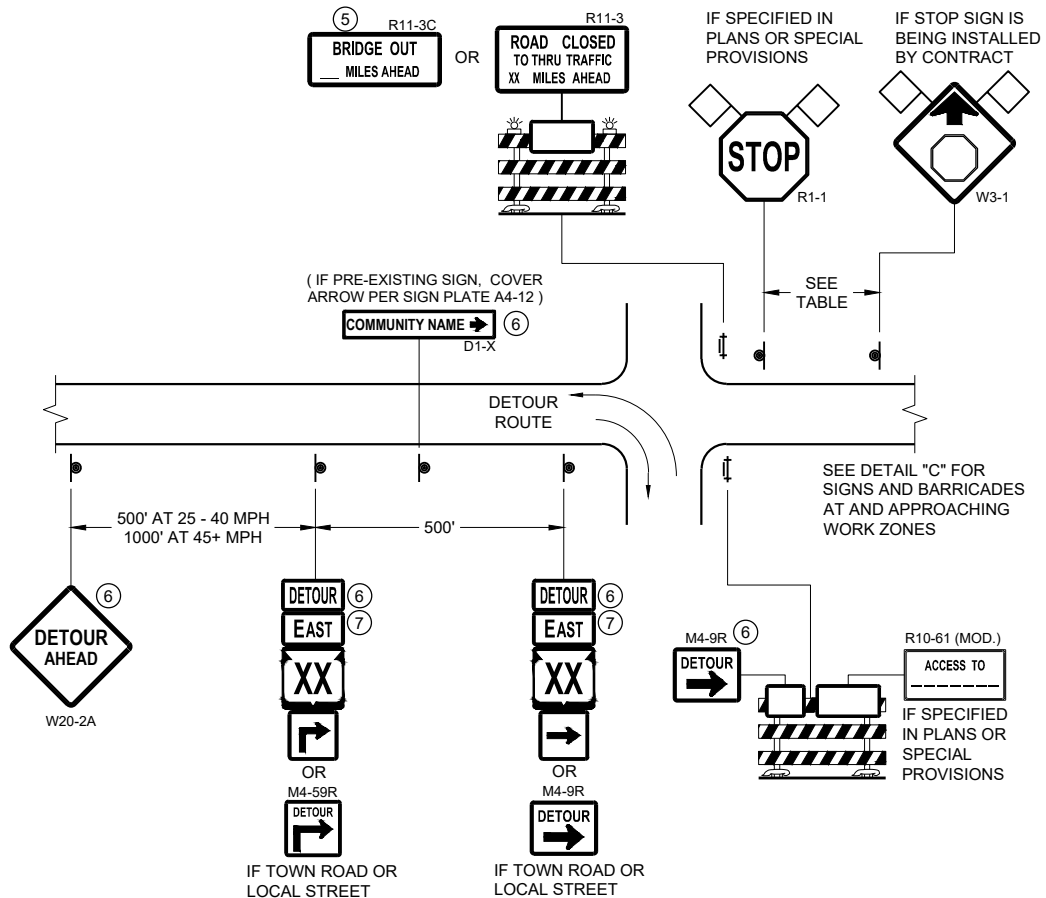


OVERLAP DETAIL (TYPICAL)

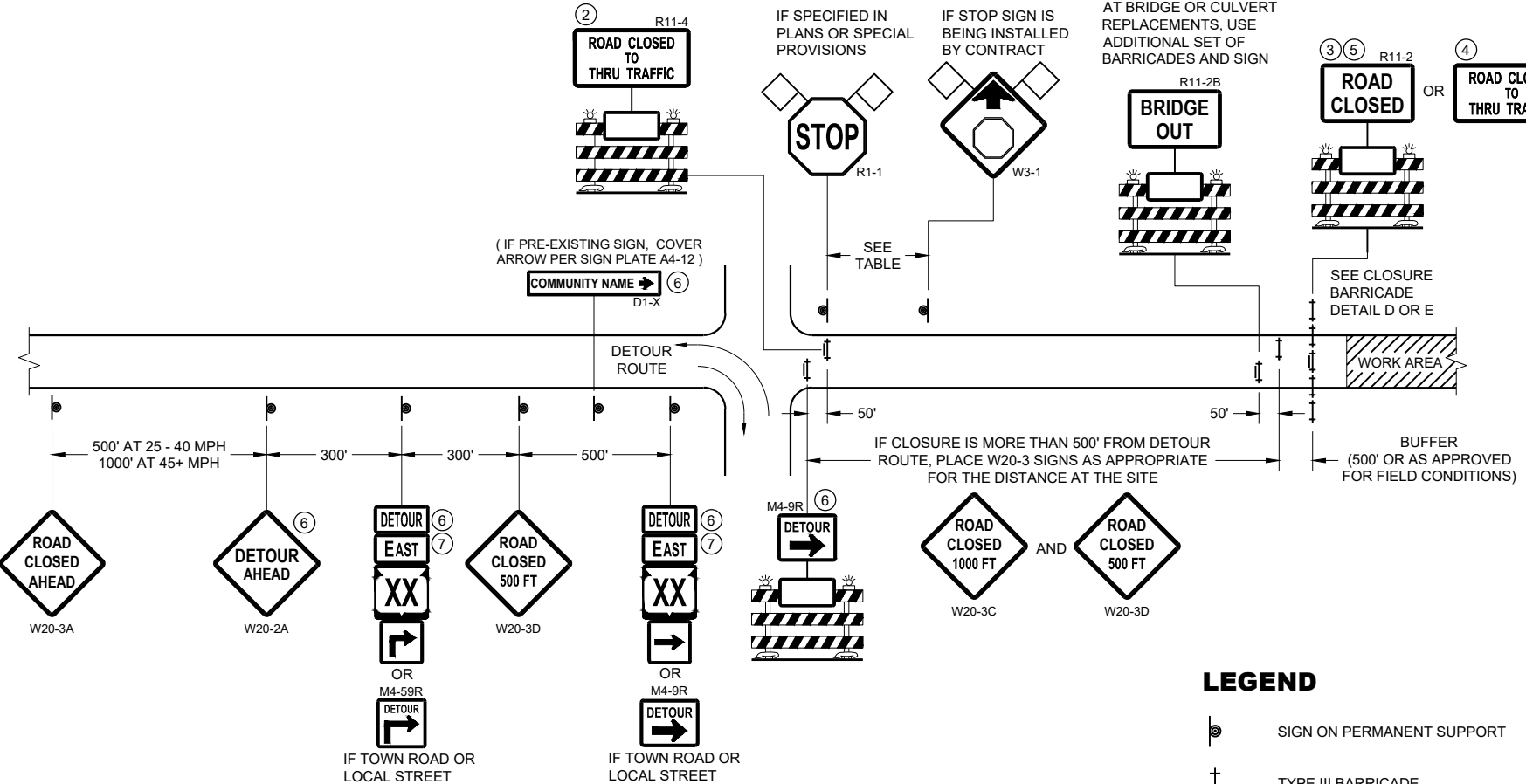
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

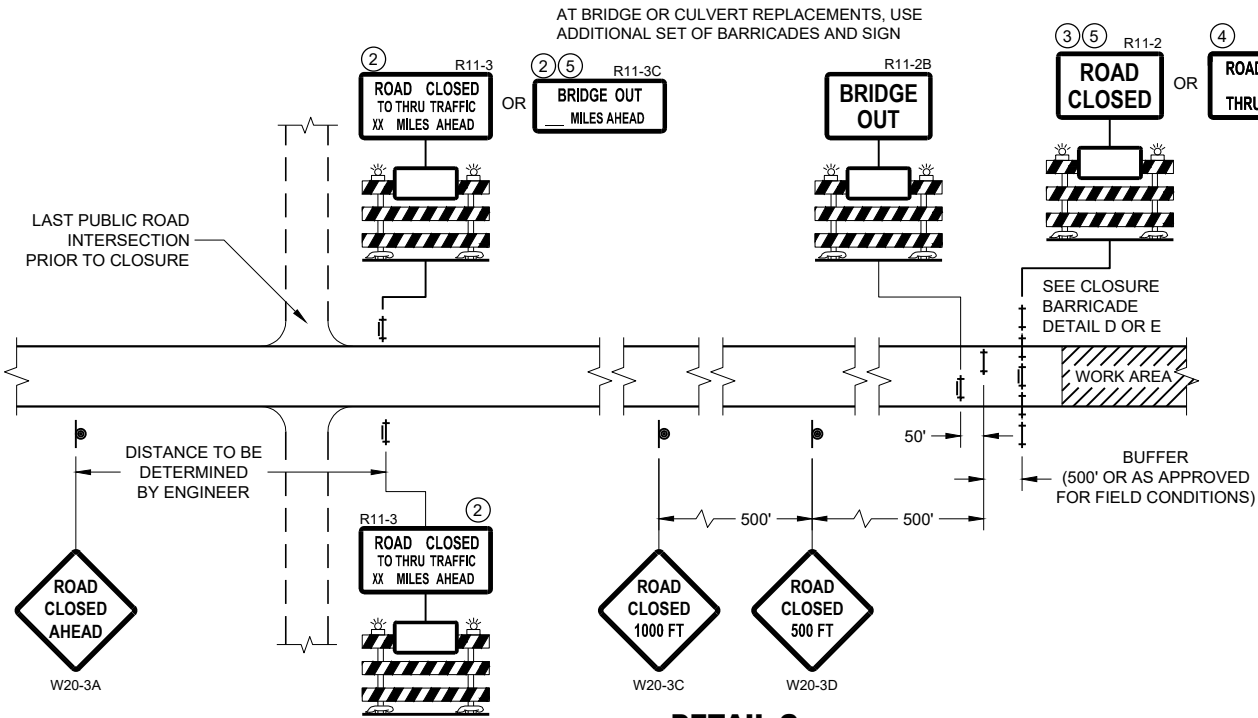
APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGINEER
FHWA



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

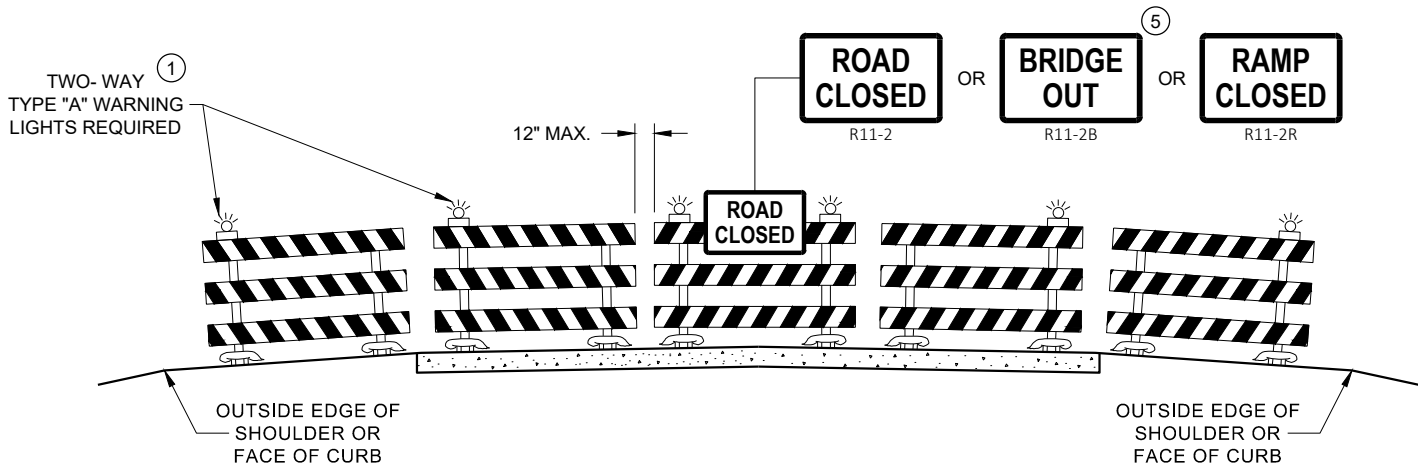
LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)
- DETOUR M4 - 8
- EAST M3 - X
- XX M1 - 4 OR XX M1 - 6 OR COUNTY M1 - 5A
- OR M05 - 1 OR M06 - 1

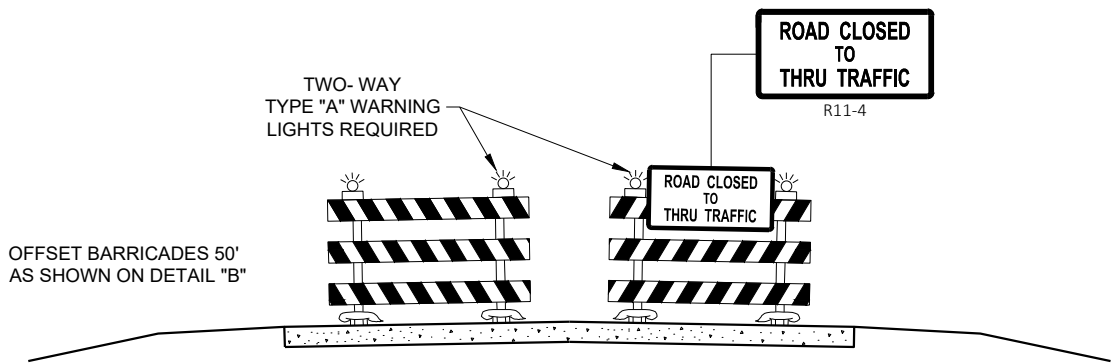
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

"WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

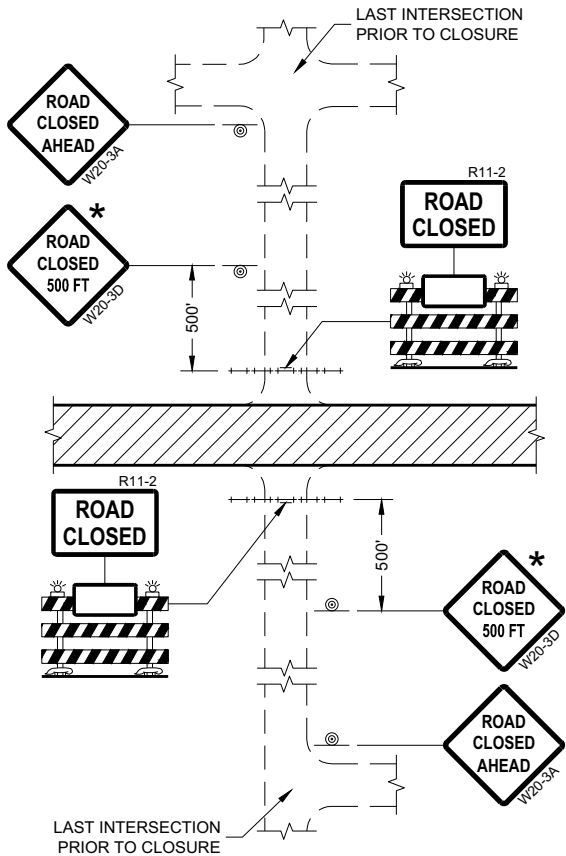
- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- 3 FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- 4 FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- 5 FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- 6 INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- 7 "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES

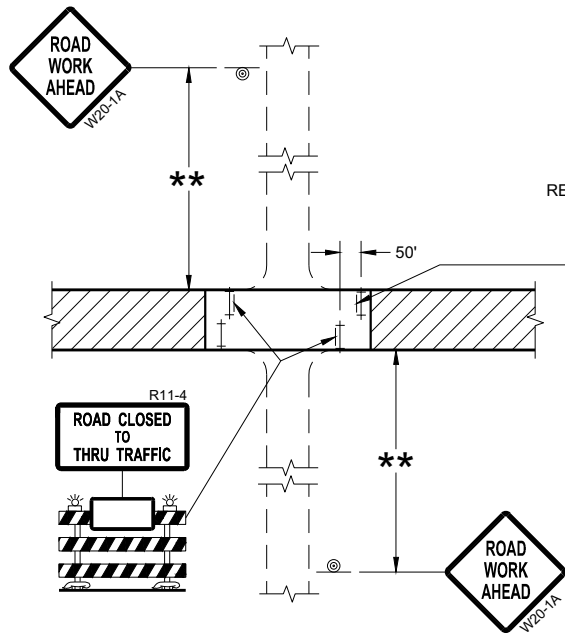
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

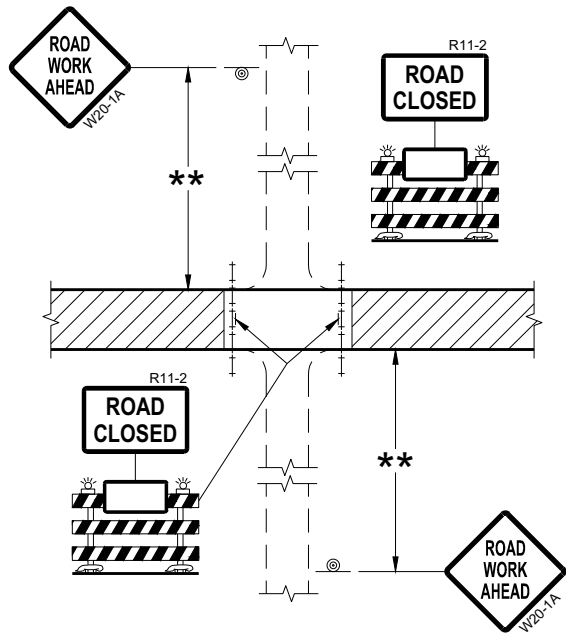
FHWA



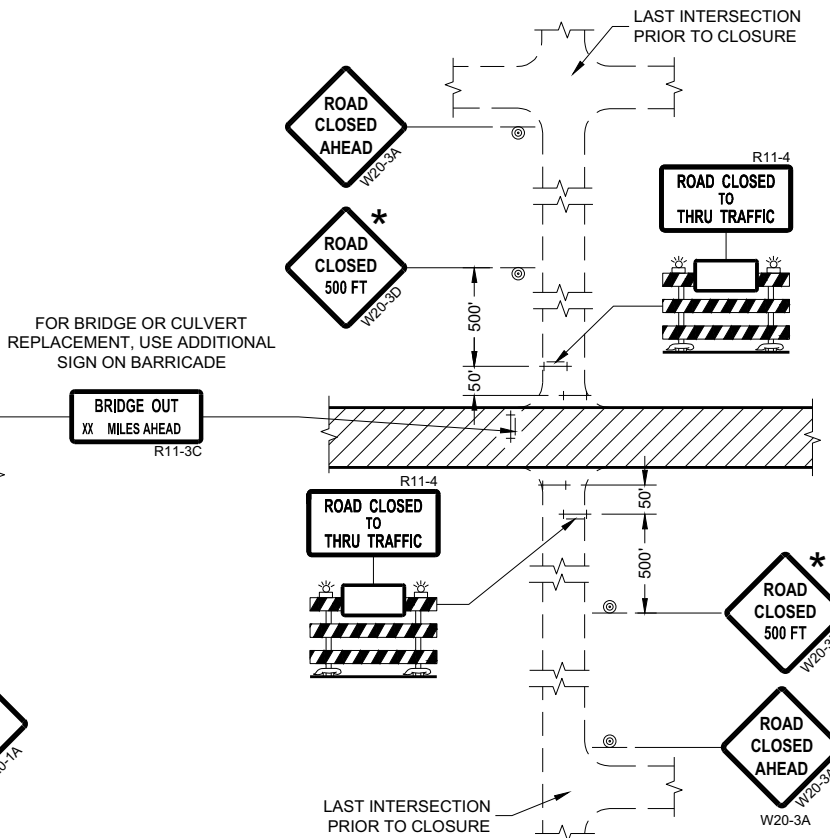
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

- * OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.
- ** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

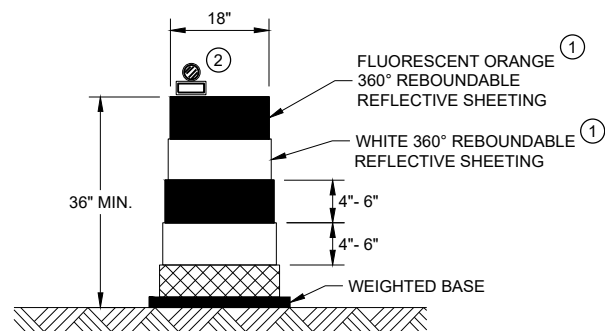
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

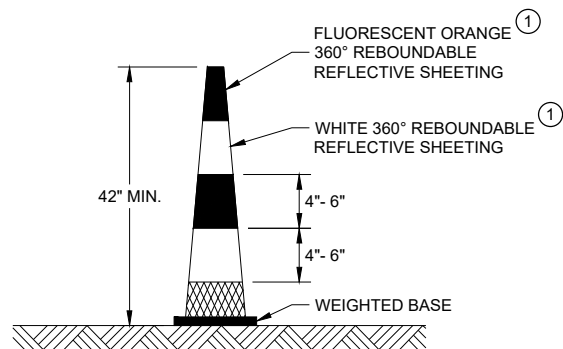
APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



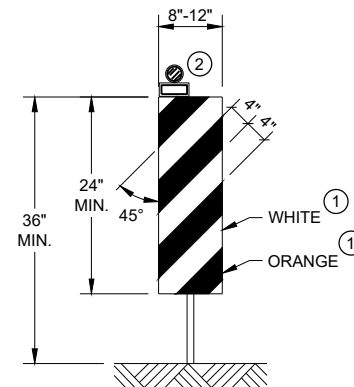
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



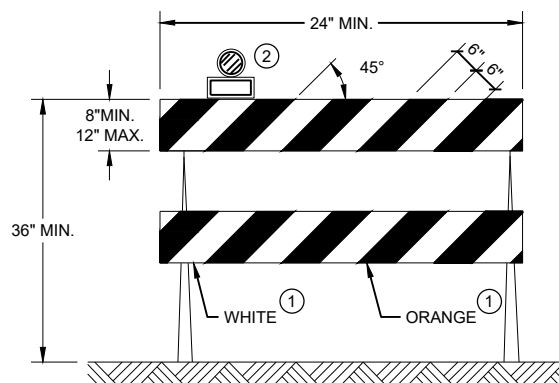
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"



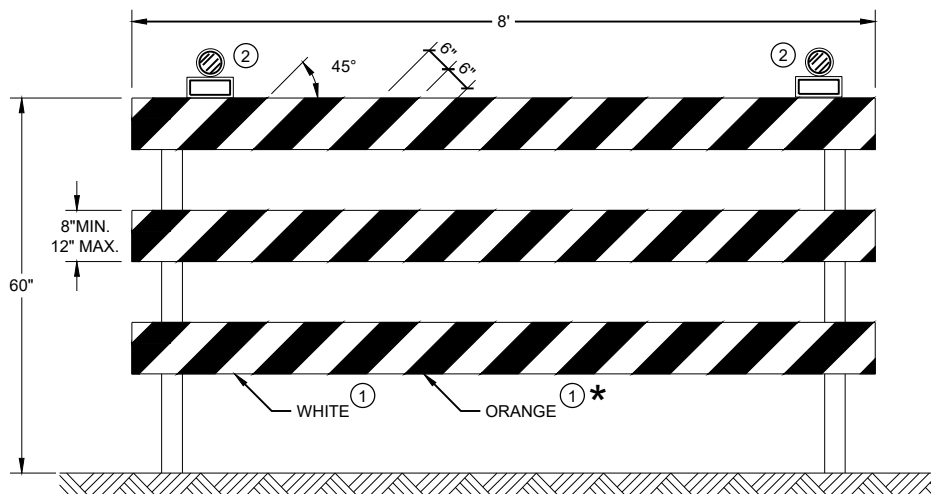
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

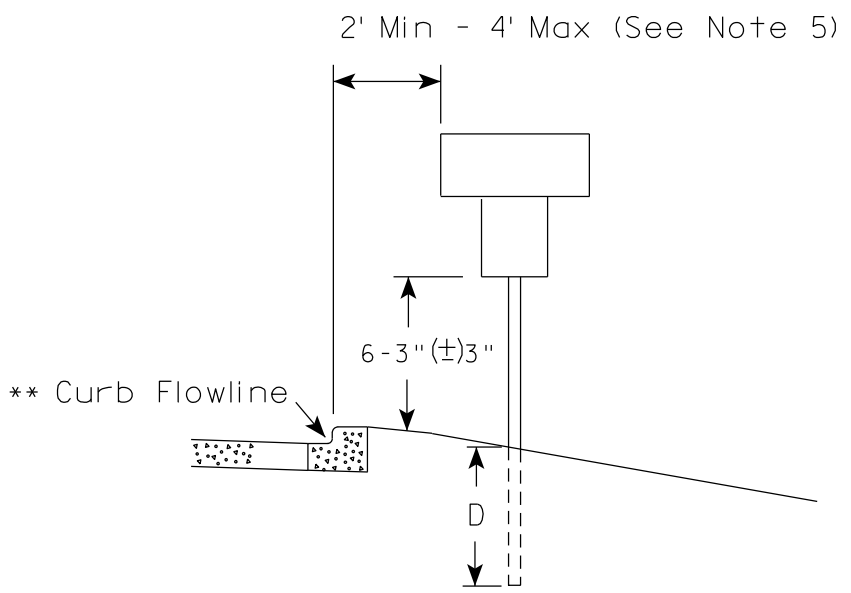
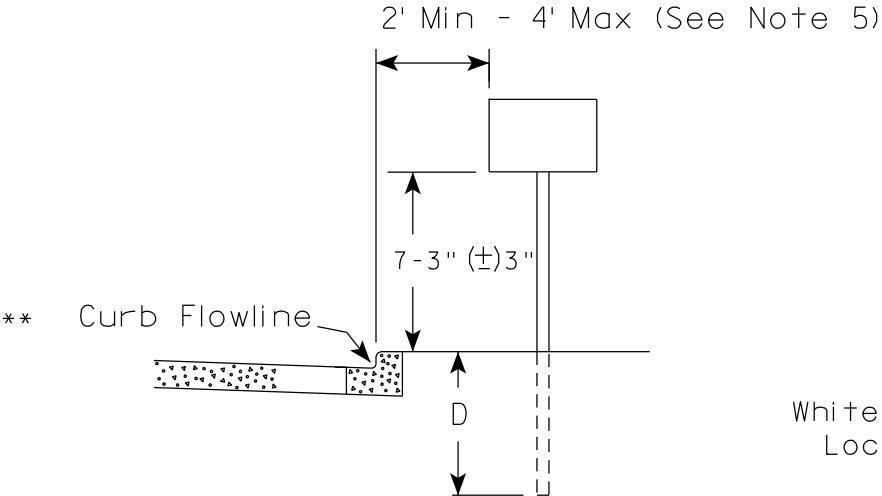
**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

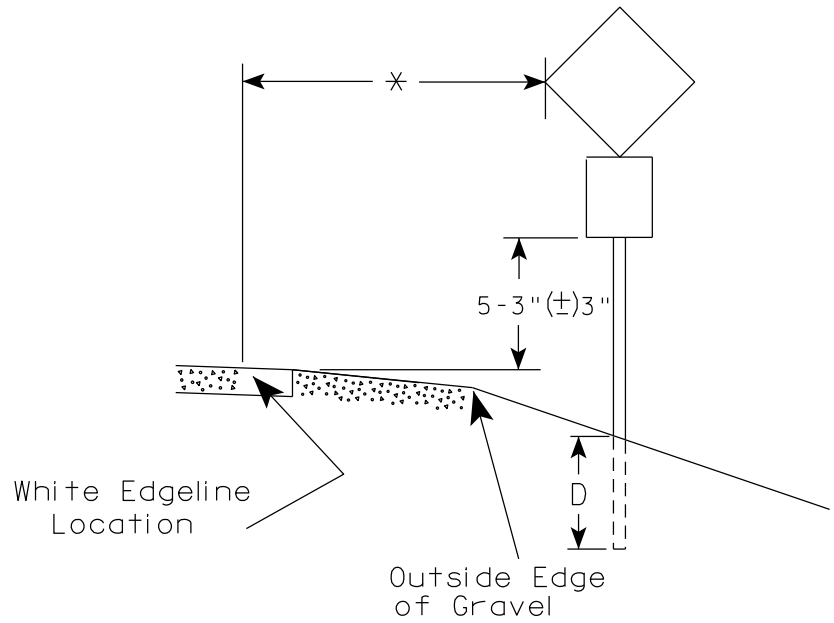
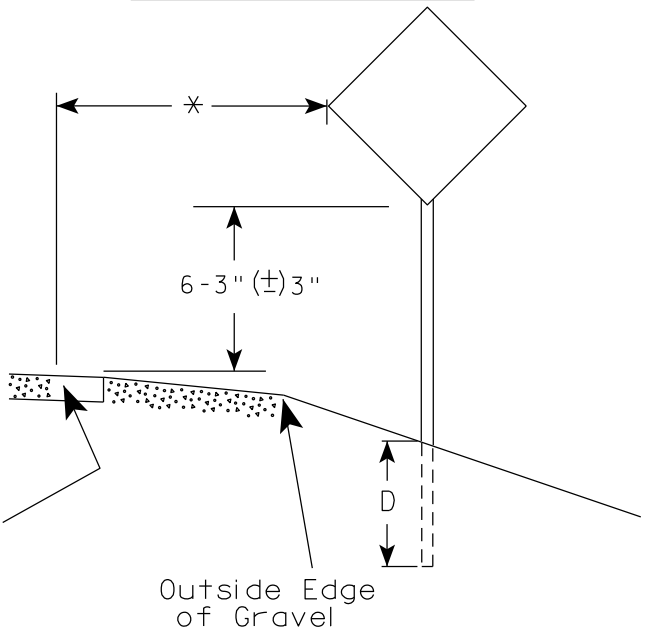
APPROVED
November 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±) 3".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the Engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

* * The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

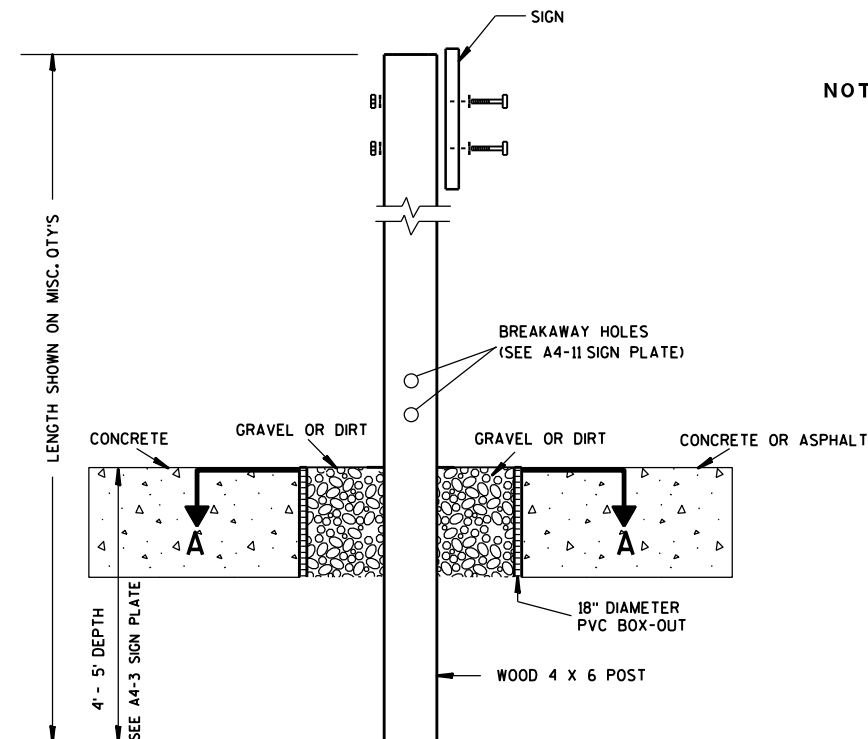
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

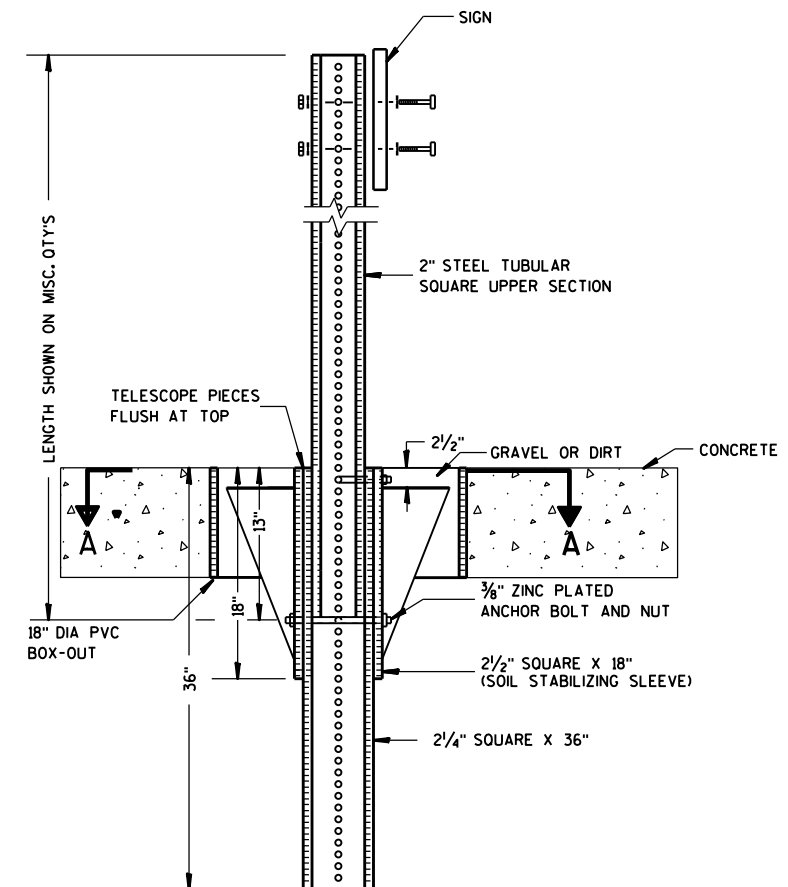
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

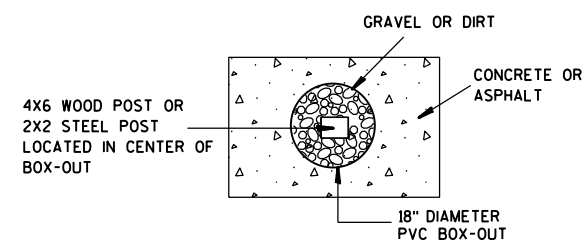
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES:**
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
 2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
 3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

**SIGN POST
BOX-OUTS
A4-3B**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:

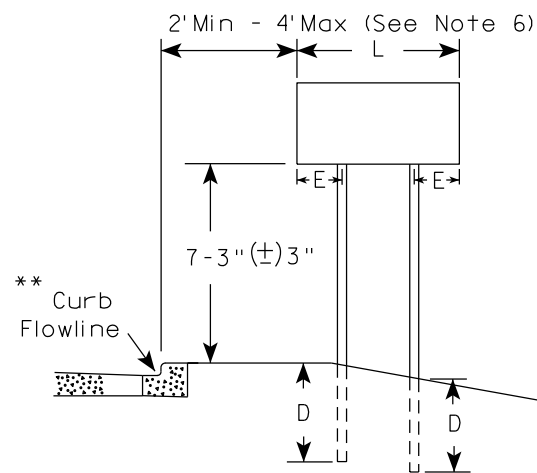
HWY:

COUNTY:

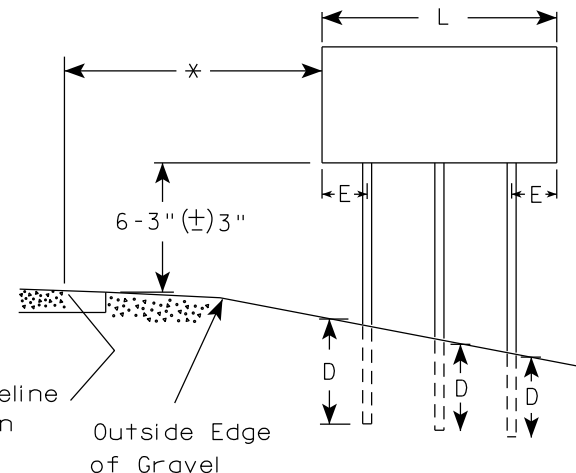
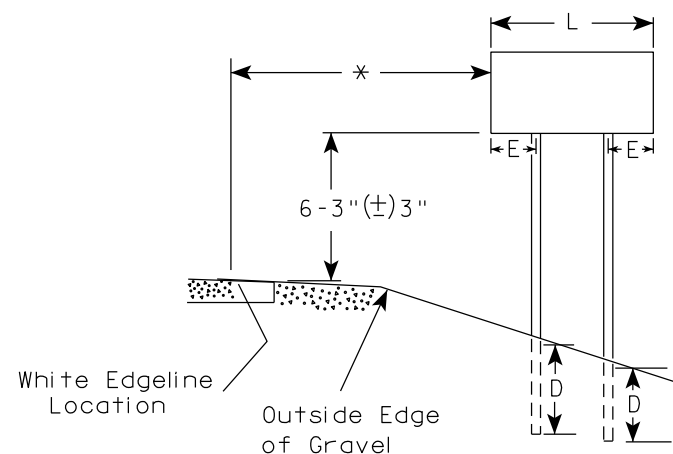
SHEET NO:

E

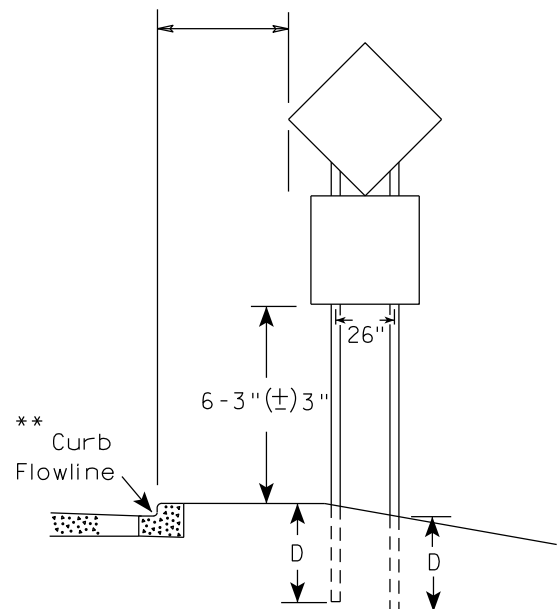
URBAN AREA



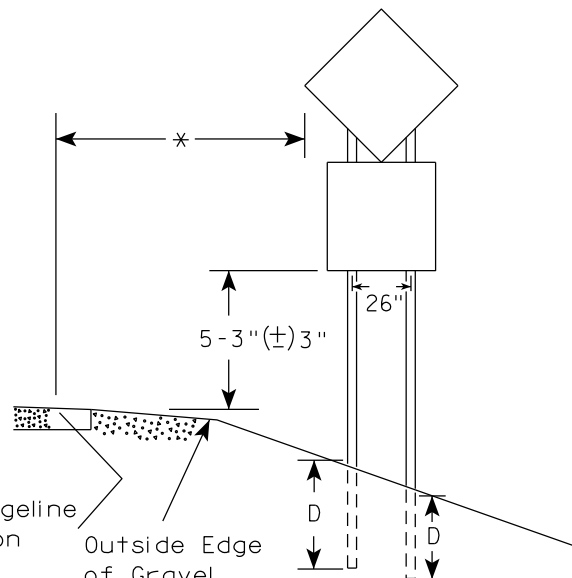
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

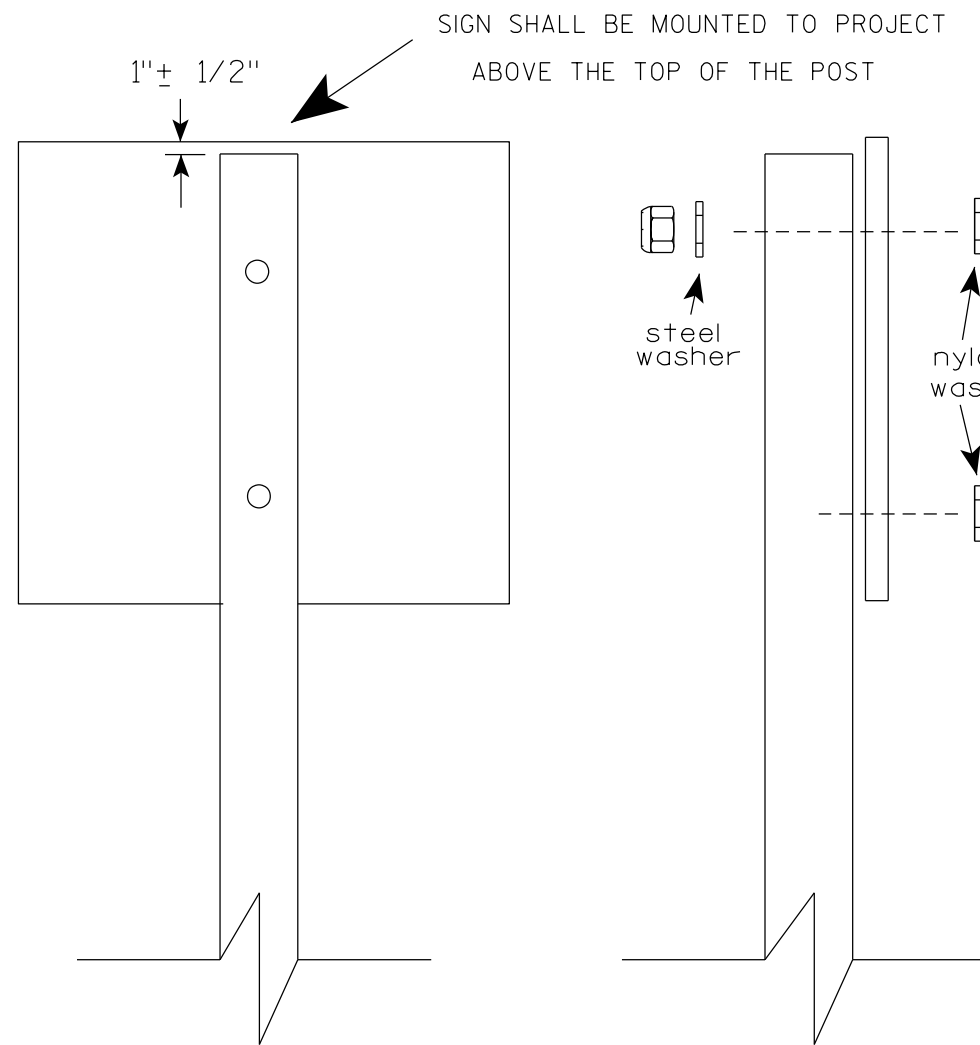
GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±) 3".

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

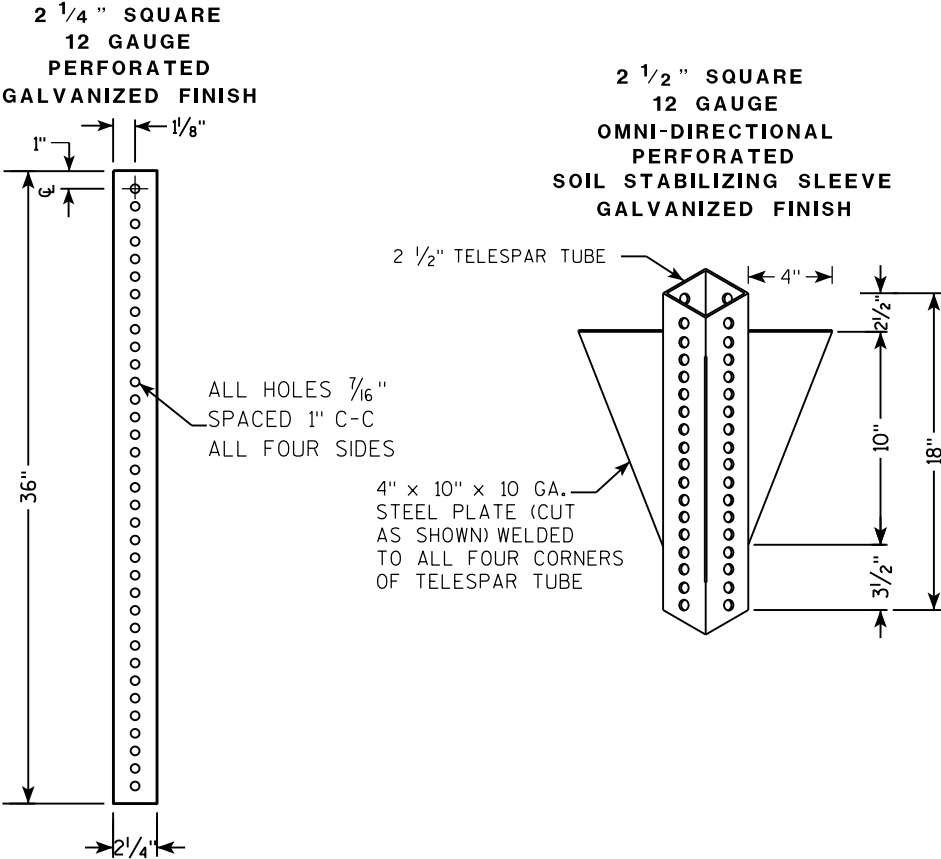
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

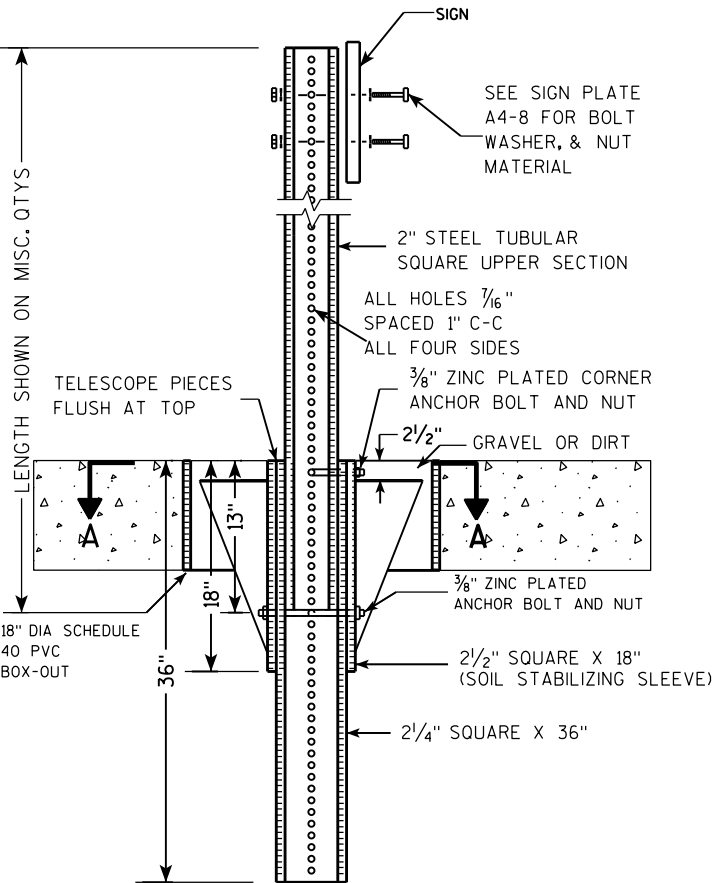
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

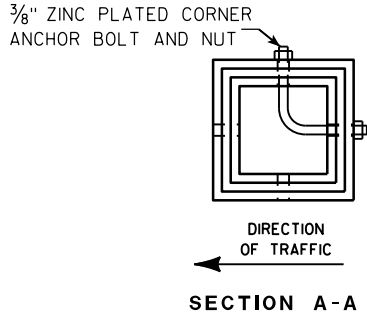
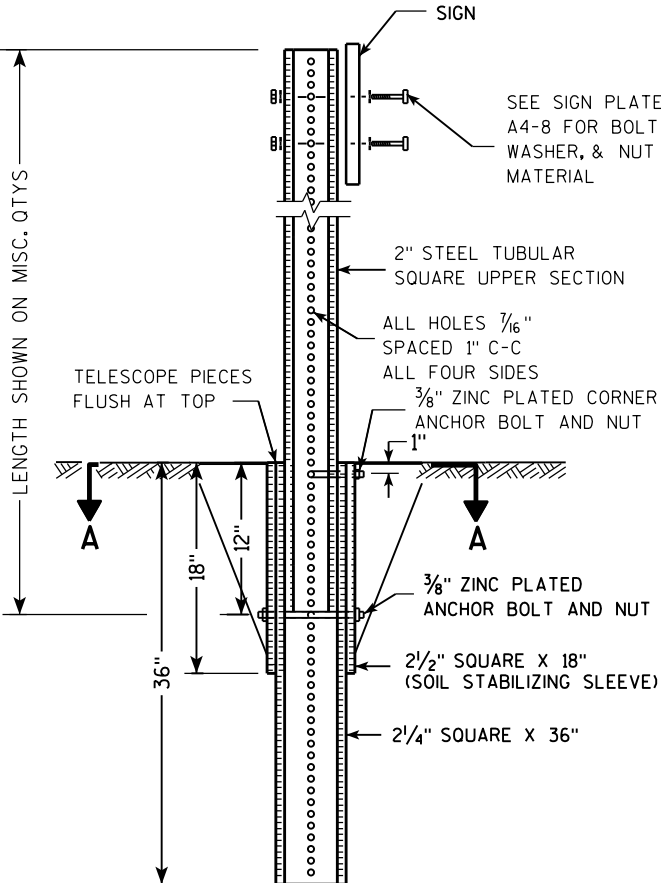
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)



Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

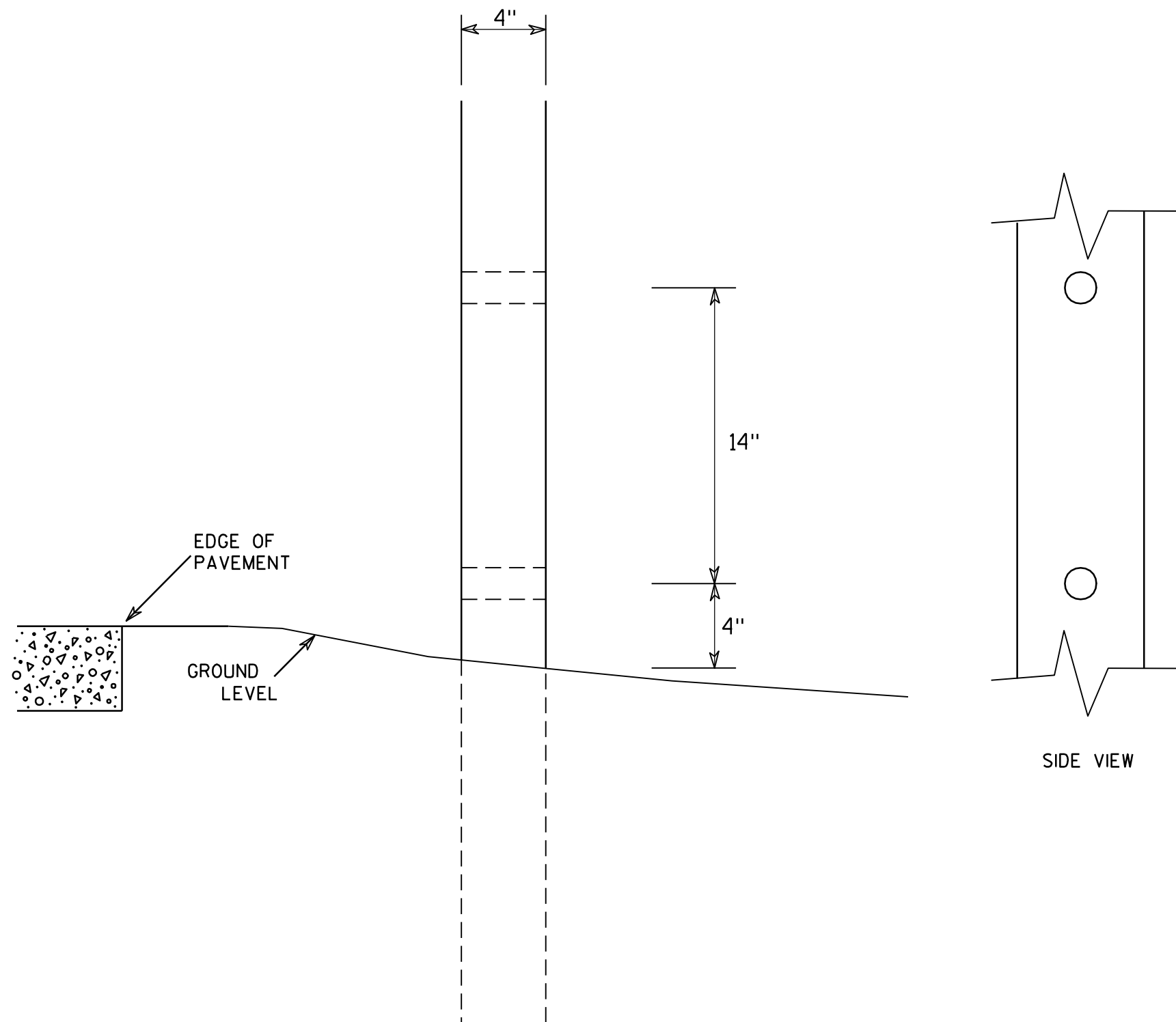
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

7

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

**4 X 6 WOOD POST
MODIFICATIONS**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

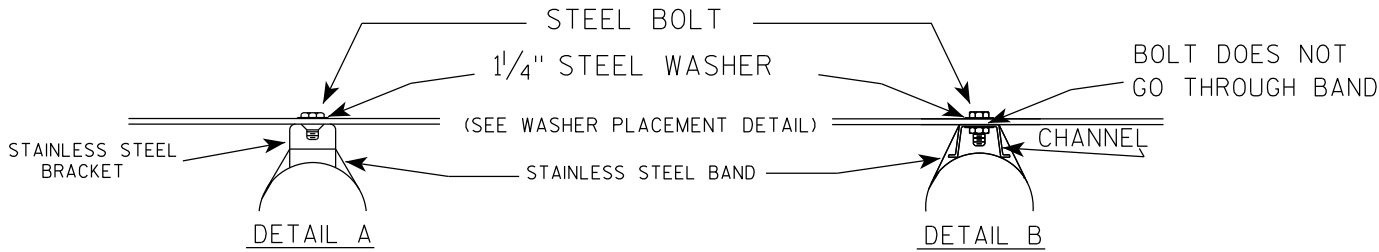
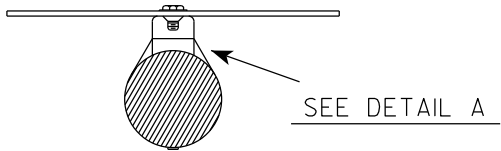
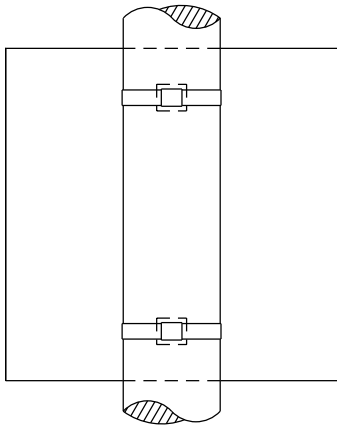
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SHEET NO:

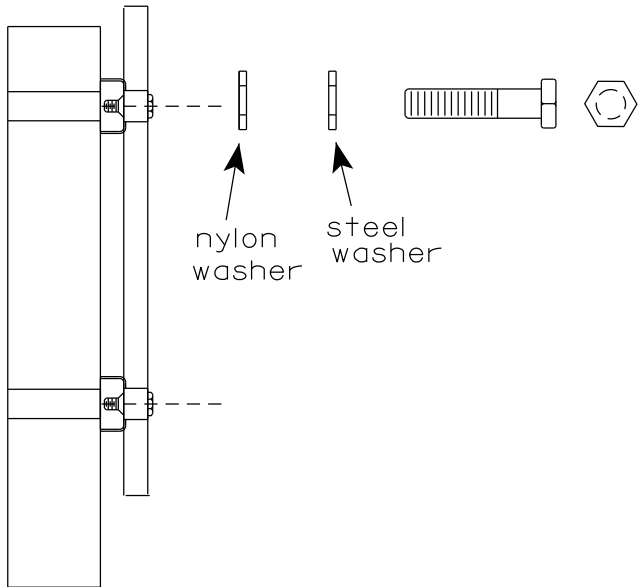
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

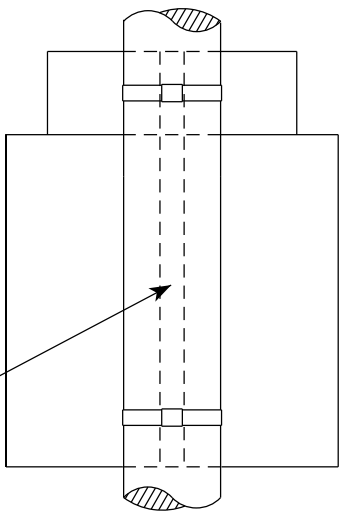


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

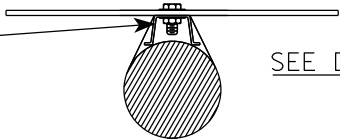
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



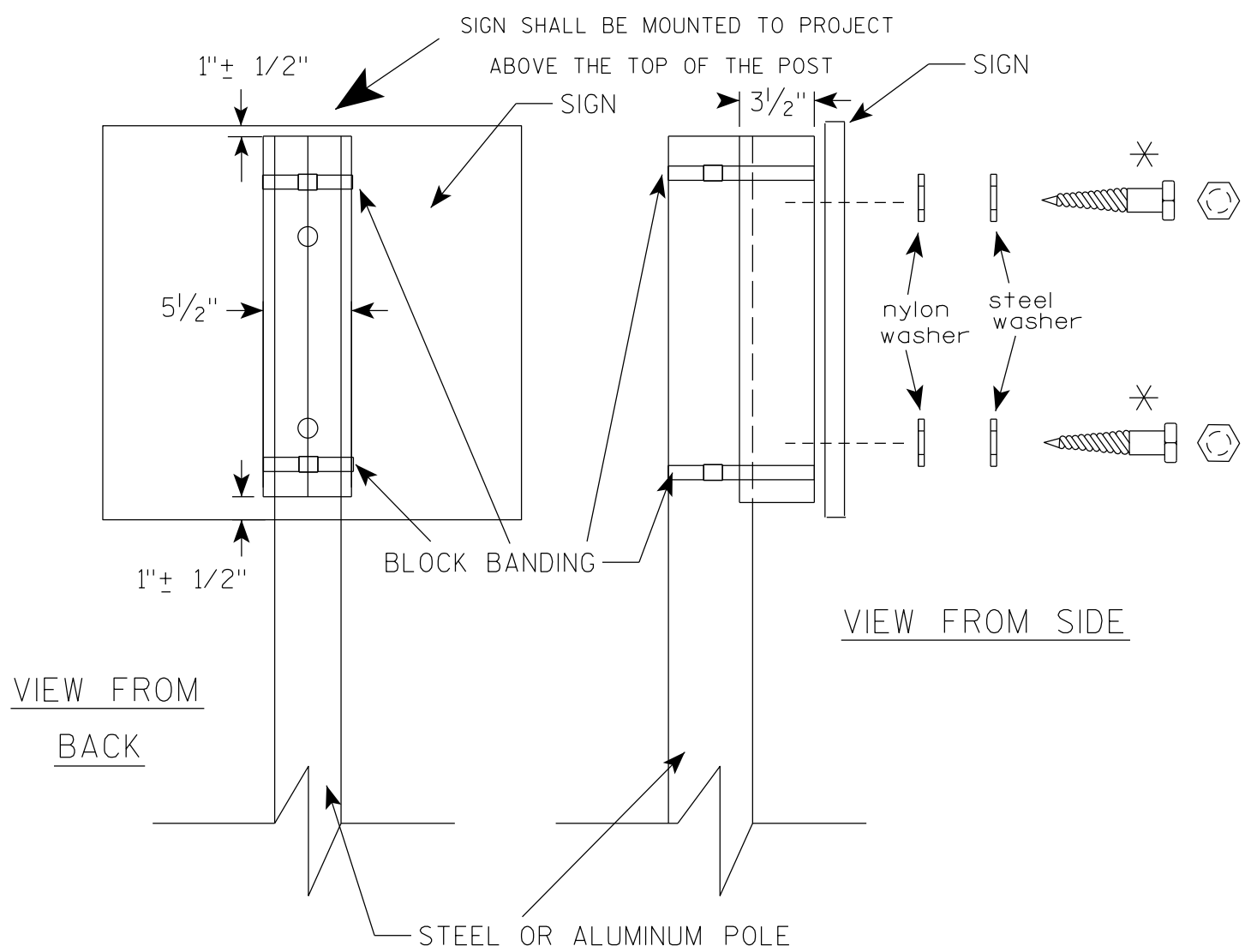
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



STANDARD SIGN
SIGN BANDING DETAILS

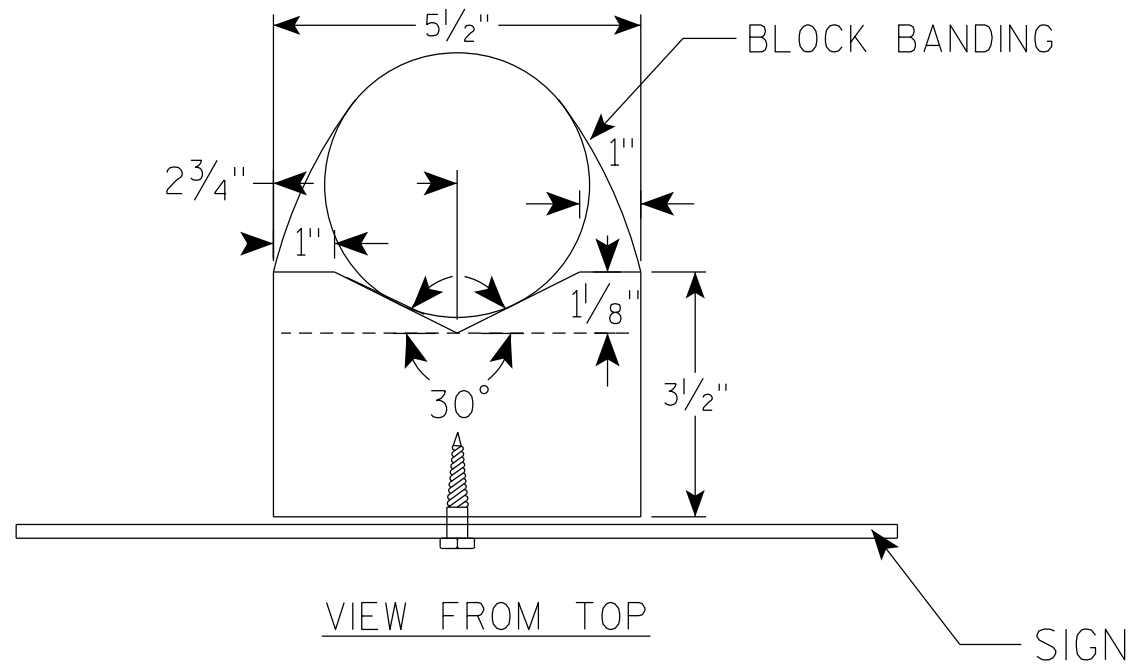
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4



VIEW FROM
BACK

VIEW FROM SIDE



VIEW FROM TOP

GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO:

E

NOTES

1. Sign is Type II - Type H Reflective except as Shown
2. Color:

Background - See Note 5

Message - See note 5
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-1

Background - White

Message - Black

MB4-1

Background - Blue

Message - White

M04-1

Background - Orange - Type F Reflective

Message - Black
-
- M4 - 1
M04 - 1
-
- MB4 - 1
- | SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area
sq. ft. |
|------|----|----|-------|-----|-----|---|-------|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 24 | 12 | 1 1/2 | 3/8 | 3/8 | 4 | 4 | 9 3/4 | 9 1/2 | | | | | | | | | | | | | | | | | | 2.00 |
| 2M | 24 | 12 | 1 1/2 | 3/8 | 3/8 | 4 | 4 | 9 3/4 | 9 1/2 | | | | | | | | | | | | | | | | | | 2.00 |
| 3 | 36 | 18 | 1 1/2 | 3/8 | 1/2 | 7 | 5 1/2 | 16 3/8 | 16 1/2 | | | | | | | | | | | | | | | | | | 4.5 |
| 4 | 36 | 18 | 1 1/2 | 3/8 | 1/2 | 7 | 5 1/2 | 16 3/8 | 16 1/2 | | | | | | | | | | | | | | | | | | 4.5 |
| 5 | 36 | 18 | 1 1/2 | 3/8 | 1/2 | 7 | 5 1/2 | 16 3/8 | 16 1/2 | | | | | | | | | | | | | | | | | | 4.5 |
- STANDARD SIGN
M4 - 1
- WISCONSIN DEPT OF TRANSPORTATION
- APPROVED
Matthew R. Rauch
for State Traffic Engineer
- DATE 2/8/2023 PLATE NO. M4-1.10
- PROJECT NO:

HWY:

COUNTY:

SHEET NO:

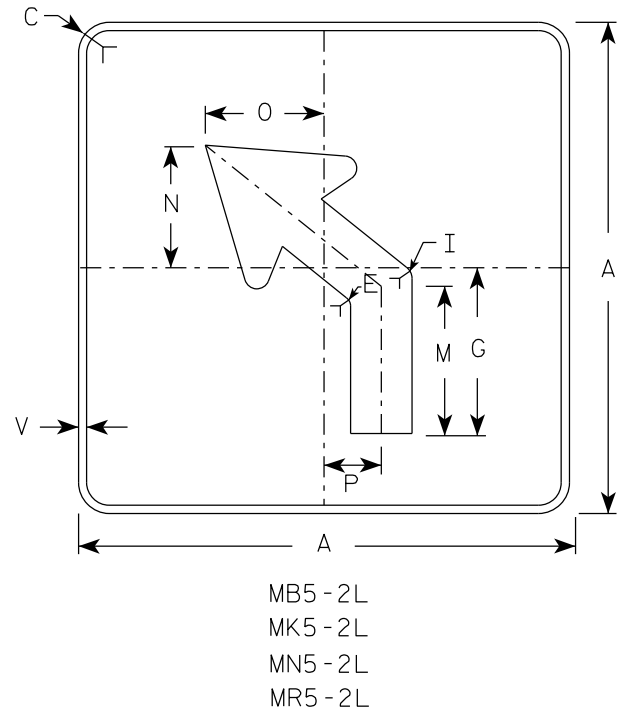
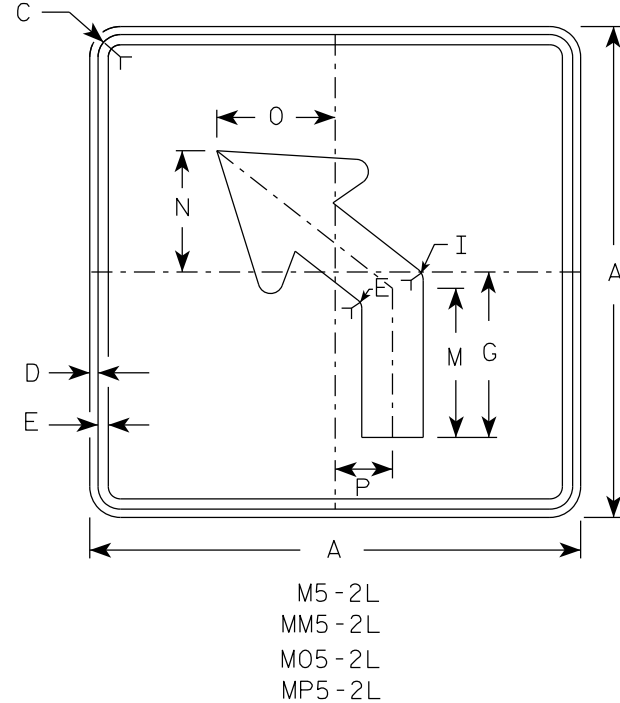
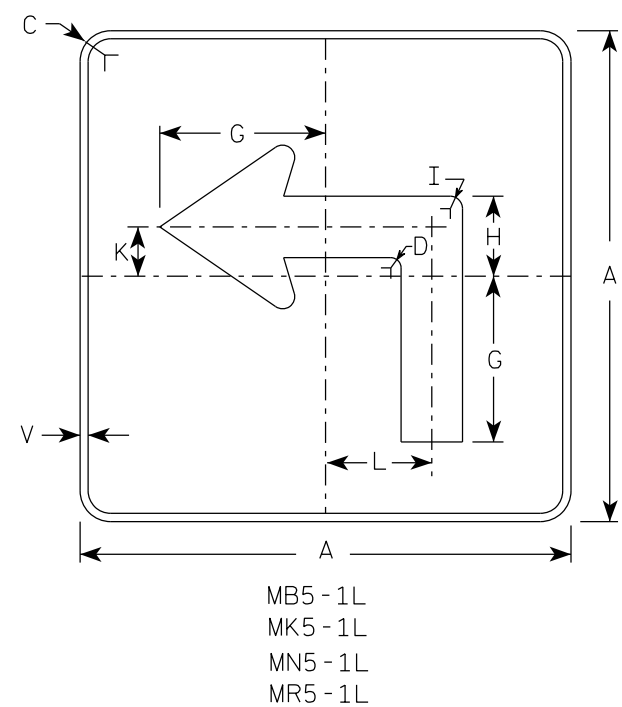
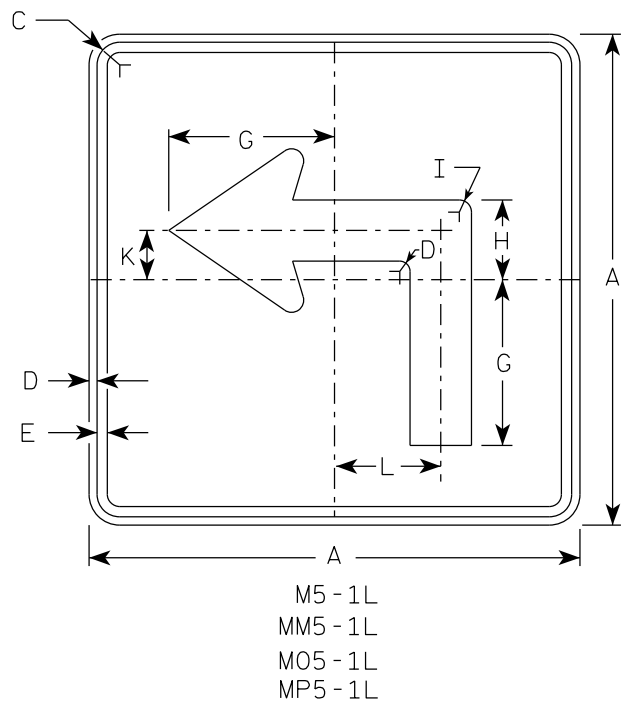
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PLOT DATE : 8-FEB 2023 1:25

PLOT BY : dotc4c

PLOT NAME :

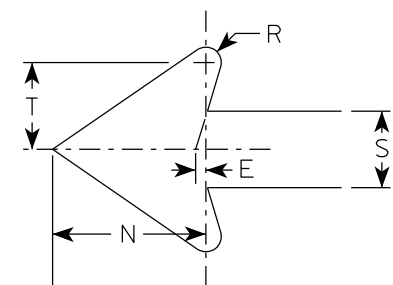
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- 1



NOTES

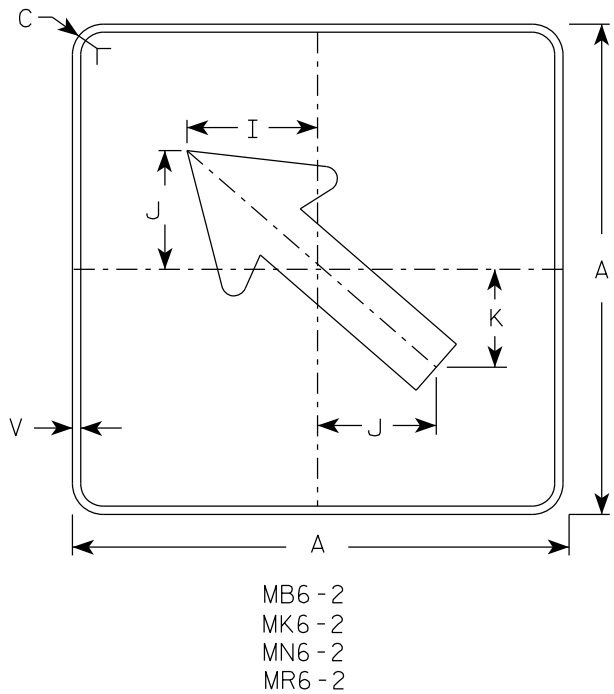
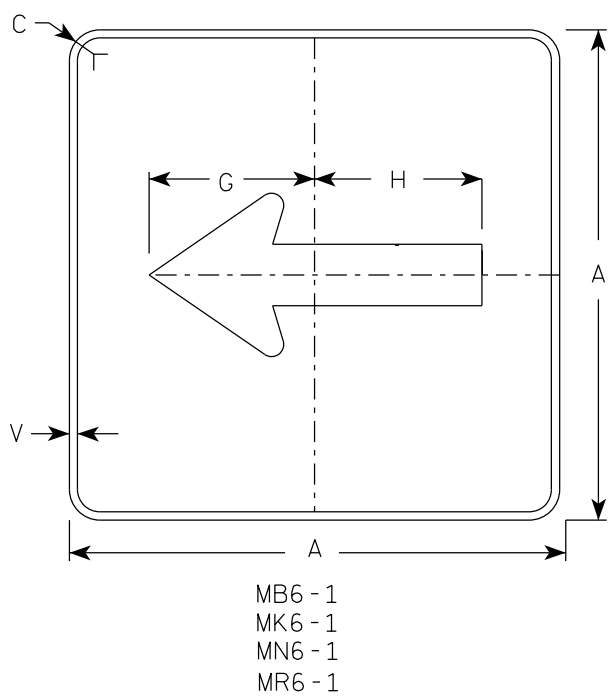
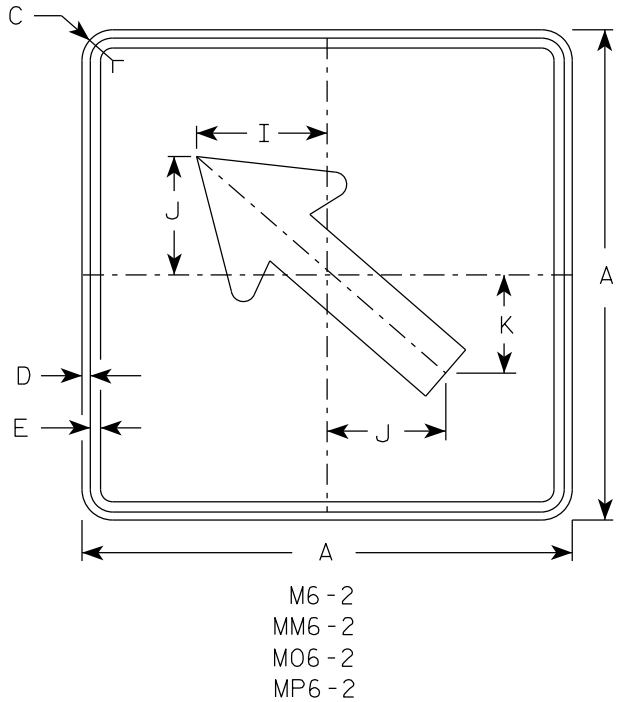
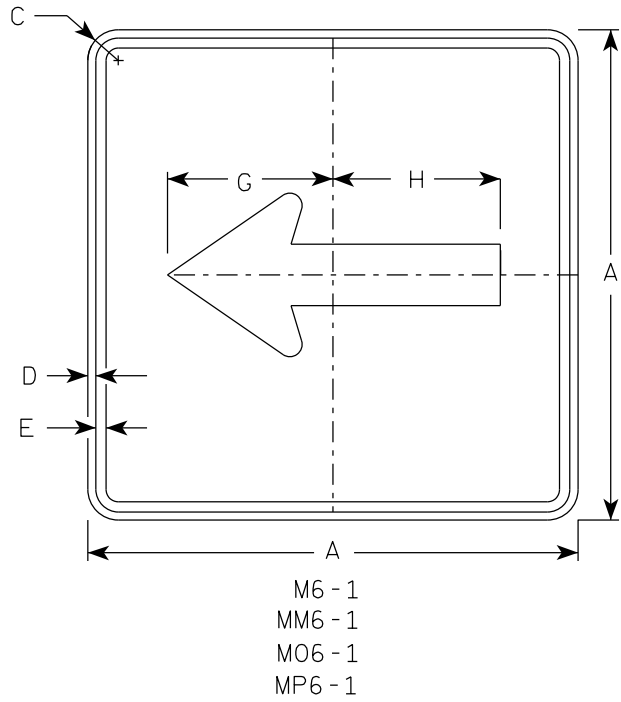
- Signs are Type II - Type H reflective except as shown
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- | | | |
|-----------|-------|---|
| M5-1 and | M5-2 | Background - White |
| | | Message - Black |
| MB5-1 and | MB5-2 | Background - Blue |
| | | Message - White |
| MK5-1 and | MK5-2 | Background - Green |
| | | Message - White |
| MM5-1 and | MM5-2 | Background - White |
| | | Message - Green |
| MN5-1 and | MN5-2 | Background - Brown |
| | | Message - White |
| M05-1 and | M05-2 | Background - Orange - Type F Reflective |
| | | Message - Black |
| MP5-1 and | MP5-2 | Background - White |
| | | Message - Blue |
| MR5-1 and | MR5-2 | Background - Brown |
| | | Message - Yellow |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

ARROW DETAIL

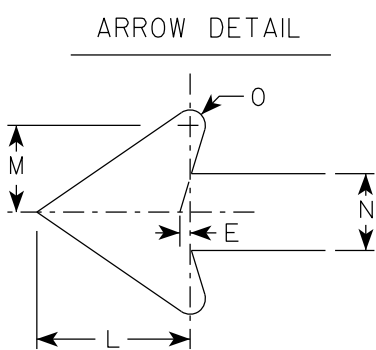


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
2M	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
3	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
4	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
5	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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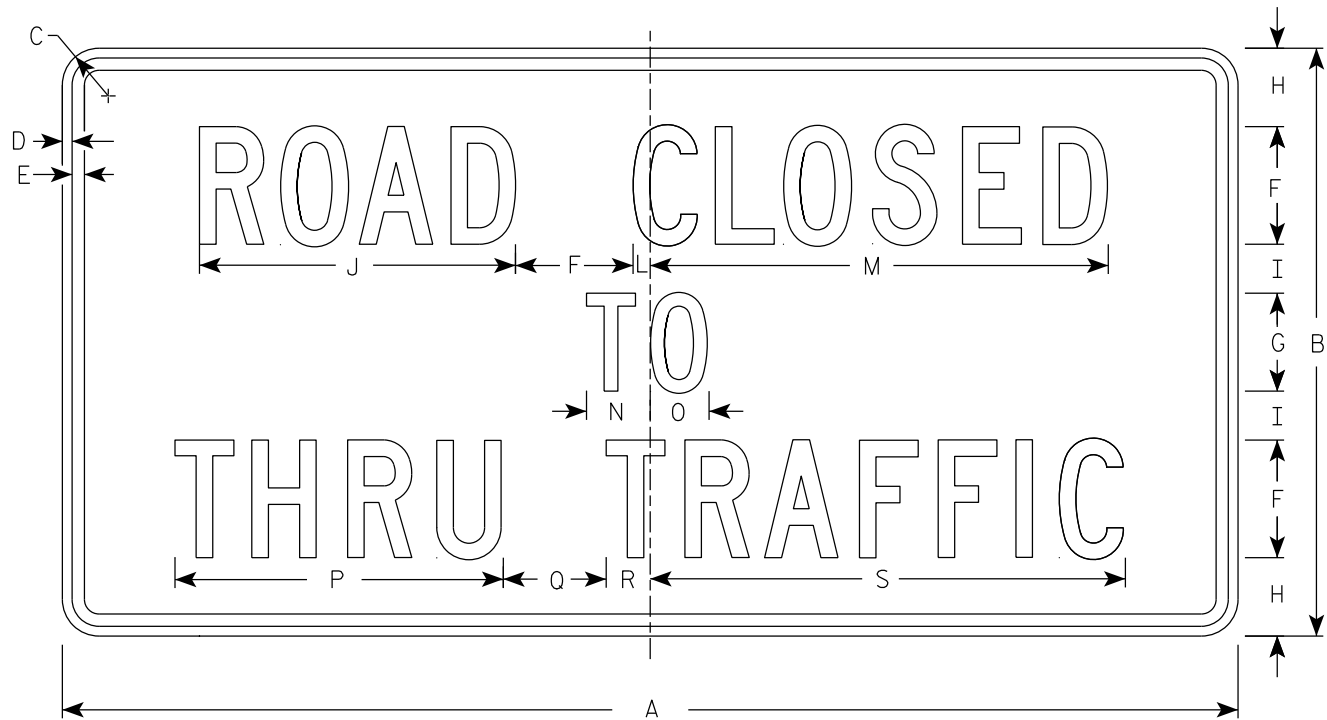


- NOTES**
- Signs are Type II - Type H Reflective except as Shown
 - Color:
Background - See note 4
Message - See note 4
 - Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 - M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
2M	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
3	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
4	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
5	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25

7



R11-4

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDNATE
					NOTE 1	NOTE 2	NOTE 1	1.25	
100+50.00	10050.00	0.00	15.76	0.00	0	0	0	0	0
101+00.00	10100.00	50.00	14.61	0.00	28	0	28	0	28
102+00.00	10200.00	100.00	10.72	0.66	47	1	75	1	74
103+00.00	10300.00	100.00	14.18	4.60	46	10	121	14	107
104+00.00	10400.00	100.00	9.34	0.38	44	9	165	25	140
105+00.00	10500.00	100.00	7.77	1.82	32	4	197	30	167
106+00.00	10600.00	100.00	19.53	0.63	51	5	248	36	212
107+00.00	10700.00	100.00	14.70	0.47	63	2	311	39	272
108+00.00	10800.00	100.00	7.10	2.61	40	6	351	46	305
109+00.00	10900.00	100.00	6.28	0.55	25	6	376	54	322
110+00.00	11000.00	100.00	4.72	3.43	20	7	396	63	334
111+00.00	11100.00	100.00	5.72	0.40	19	7	415	71	344
112+00.00	11200.00	100.00	7.64	0.02	25	1	440	73	368
113+00.00	11300.00	100.00	9.99	1.68	33	3	473	76	397
114+00.00	11400.00	100.00	17.86	3.43	52	9	525	88	438
115+00.00	11500.00	100.00	8.74	1.81	49	10	574	100	474
116+00.00	11600.00	100.00	4.84	9.92	25	22	599	128	472
117+00.00	11700.00	100.00	3.61	5.57	16	29	615	164	451
118+00.00	11800.00	100.00	3.85	10.06	14	29	629	200	429
119+00.00	11900.00	100.00	4.69	3.50	16	25	645	231	414
120+00.00	12000.00	100.00	10.87	1.93	29	10	674	244	430
121+00.00	12100.00	100.00	10.85	0.13	40	4	714	249	465
122+00.00	12200.00	100.00	2.49	4.26	25	8	739	259	480
123+00.00	12300.00	100.00	17.13	0.00	36	8	775	269	506
124+00.00	12400.00	100.00	21.05	13.75	71	25	846	300	546
125+00.00	12500.00	100.00	18.53	14.70	73	53	919	366	553
125+50.00	12550.00	50.00	9.38	24.85	26	37	945	413	533
126+00.00	12600.00	50.00	6.67	19.38	15	41	960	464	496
126+50.00	12650.00	50.00	4.92	19.69	11	36	971	509	462
127+00.00	12700.00	50.00	4.17	8.31	8	26	979	541	438
128+00.00	12800.00	100.00	3.67	5.02	15	25	994	573	422
129+00.00	12900.00	100.00	20.60	1.03	45	11	1039	586	453
130+00.00	13000.00	100.00	9.55	3.79	56	9	1095	598	498
131+00.00	13100.00	100.00	5.66	5.81	28	18	1123	620	503
132+00.00	13200.00	100.00	6.47	9.76	22	29	1145	656	489
133+00.00	13300.00	100.00	9.19	5.81	29	29	1174	693	482
134+00.00	13400.00	100.00	16.72	11.42	48	32	1222	733	490
135+00.00	13500.00	100.00	15.92	9.92	60	40	1282	783	500
136+00.00	13600.00	100.00	16.09	2.01	59	22	1341	810	531
136+50.00	13650.00	50.00	4.02	12.20	19	13	1360	826	534
137+00.00	13700.00	50.00	4.53	12.51	8	23	1368	855	513
138+00.00	13800.00	100.00	3.07	15.06	14	51	1382	919	463
139+00.00	13900.00	100.00	11.41	5.59	27	38	1409	966	443
140+00.00	14000.00	100.00	6.20	15.96	33	40	1442	1016	426
141+00.00	14100.00	100.00	5.43	11.29	22	50	1464	1079	385
142+00.00	14200.00	100.00	2.47	6.36	15	33	1479	1120	359
143+00.00	14300.00	100.00	7.57	11.10	19	32	1498	1160	338
144+00.00	14400.00	100.00	32.83	0.00	75	21	1573	1186	387
145+00.00	14500.00	100.00	22.21	0.00	102	0	1675	1186	489
146+00.00	14600.00	100.00	15.92	4.18	71	8	1746	1196	550
147+00.00	14700.00	100.00	22.88	15.53	72	37	1818	1243	576
148+00.00	14800.00	100.00	40.25	4.97	117	38	1935	1290	645
149+00.00	14900.00	100.00	3.97	5.44	82	19	2017	1314	703
150+00.00	15000.00	100.00	3.76	15.41	14	39	2031	1363	669
151+00.00	15100.00	100.00	2.89	9.35	12	46	2043	1420	623

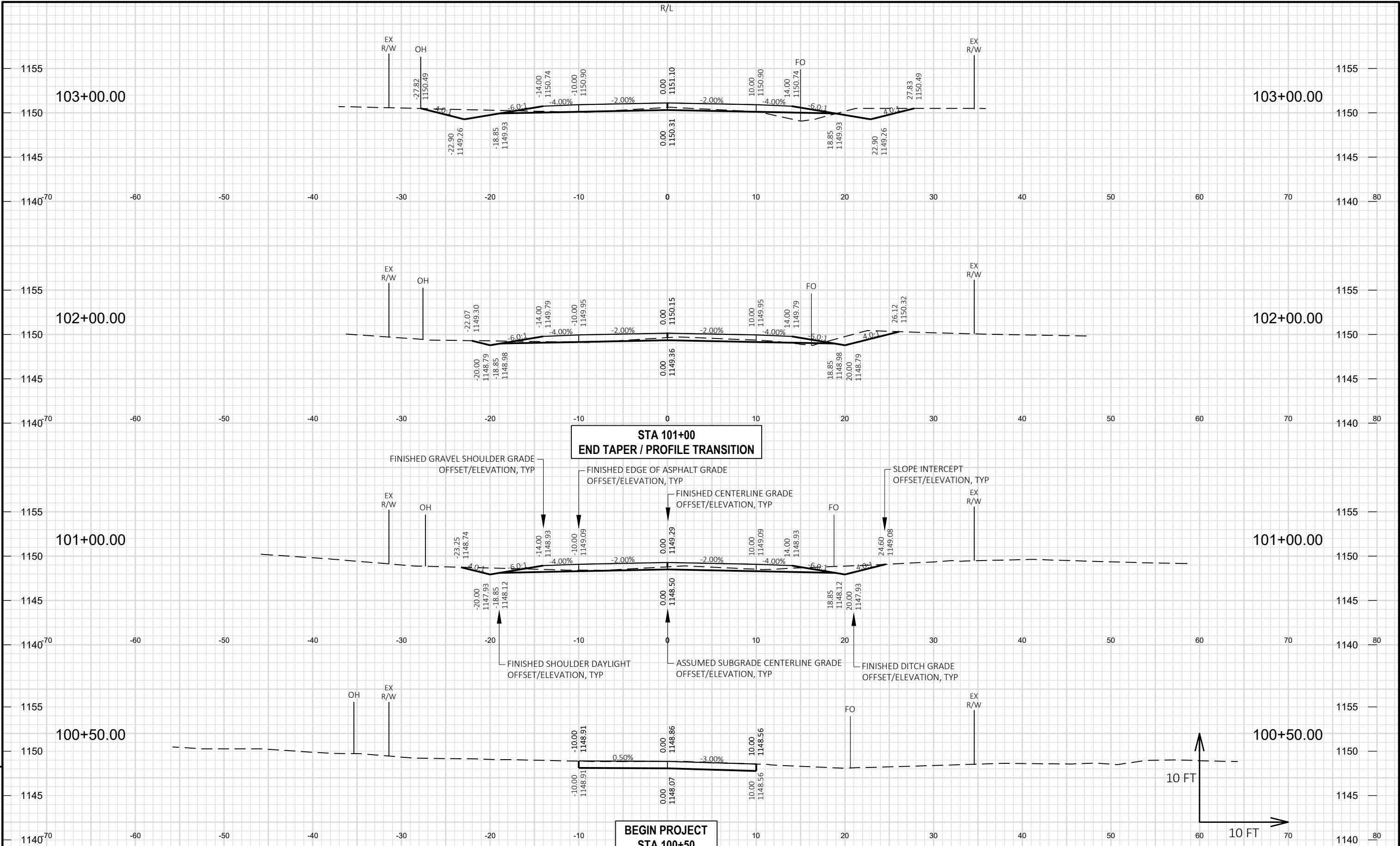
STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDNATE
					NOTE 1	NOTE 2	NOTE 1	1.25	
152+00.00	15200.00	100.00	19.90	2.74	42	22	2085	1448	638
153+00.00	15300.00	100.00	49.40	1.58	128	8	2213	1458	756
154+00.00	15400.00	100.00	36.04	1.74	158	6	2371	1465	906
155+00.00	15500.00	100.00	2.30	7.80	71	18	2442	1488	955
156+00.00	15600.00	100.00	7.59	6.73	18	27	2460	1521	939
157+00.00	15700.00	100.00	6.75	8.42	27	28	2487	1556	931
158+00.00	15800.00	100.00	13.03	10.57	37	35	2524	1600	924
159+00.00	15900.00	100.00	4.32	13.70	32	45	2556	1656	900
160+00.00	16000.00	100.00	15.80	9.54	37	43	2593	1710	883
161+00.00	16100.00	100.00	16.67	7.05	60	31	2653	1749	904
162+00.00	16200.00	100.00	21.02	0.00	70	13	2723	1765	958
163+00.00	16300.00	100.00	4.23	9.81	47	18	2770	1788	983
164+00.00	16400.00	100.00	25.25	0.00	55	18	2825	1810	1015
165+00.00	16500.00	100.00	20.33	10.00	84	19	2909	1834	1075
166+00.00	16600.00	100.00	11.30	3.99	59	26	2968	1866	1102
167+00.00	16700.00	100.00	11.29	2.05	42	11	3010	1880	1130
168+00.00	16800.00	100.00	10.84	0.10	41	4	3051	1885	1166
169+00.00	16900.00	100.00	25.23	0.00	67	0	3118	1885	1233
170+00.00	17000.00	100.00	13.10	3.21	71	6	3189	1893	1297
171+00.00	17100.00	100.00	3.63	15.14	31	34	3220	1935	1285
172+00.00	17200.00	100.00	10.32	11.92	26	50	3246	1998	1249
173+00.00	17300.00	100.00	5.53	13.55	29	47	3275	2056	1219
174+00.00	17400.00	100.00	3.26	13.64	16	50	3291	2119	1172
175+00.00	17500.00	100.00	2.55	8.12	11	40	3302	2169	1133
176+00.00	17600.00	100.00	9.17	27.44	22	66	3324	2251	1073
177+00.00	17700.00	100.00	13.56	13.75	42	76	3366	2346	1020
178+00.00	17800.00	100.00	37.54	5.38	95	35	3461	2390	1071
179+00.00	17900.00	100.00	4.20	9.08	77	27	3538	2424	1114
180+00.00	18000.00	100.00	10.31	14.61	27	44	3565	2479	1086
181+00.00	18100.00	100.00	28.84	7.60	73	41	3638	2530	1108
182+00.00	18200.00	100.00	3.32	13.86	60	40	3698	2580	1118
183+00.00	18300.00	100.00	16.45	5.24	37	35	3735	2624	1111
184+00.00	18400.00	100.00	13.16	4.36	55	18	3790	2646	1144
185+00.00	18500.00	100.00	5.01	13.83	34	34	3824	2689	1135
185+50.00	18550.00	50.00	9.75	6.06	14	18	3838	2711	1127
186+00.00	18600.00	50.00	2.95	22.99	12	27	3850	2745	1105
186+50.00	18650.00	50.00	24.25	0.31	25	22	3875	2773	1103
187+00.00	18700.00	50.00	127.44	0.00	140	0	4015	2773	1243
188+00.00	18800.00	100.00	54.57	0.27	337	0	4352	2773	1580
189+00.00	18900.00	100.00	30.33	2.39	157	5	4509	2779	1730
190+00.00	19000.00	100.00	57.64	0.00	163	4	4672	2784	1888
191+00.00	19100.00	100.00	22.40	0.00	148	0	4820	2784	2036
192+00.00	19200.00	100.00	51.34	0.00	137	0	4957	2784	2173
192+50.00	19250.00	50.00	58.22	0.00	101	0	5058	2784	2274
193+00.00	19300.00	50.00	56.91	0.00	107	0	5165	2784	2381
193+50.00	19350.00	50.00	74.85	0.00	122	0	5287	2784	2503
194+00.00	19400.00	50.00	67.29	2.74	132	3	5419	2788	2632
194+50.00	19450.00	50.00	43.25	23.61	102	24	5521	2818	2704
195+00.00	19500.00	50.00	80.34	8.51	114	30	5635	2855	2780
195+50.00	19550.00	50.00	126.61	0.00	192	8	5827	2865	2962
196+00.00	19600.00	50.00	84.60	0.00	196	0	6023	2865	3158
196+50.00	19650.00	50.00	27.99	7.47	104	7	6127	2874	3253
197+00.00	19700.00	50.00	11.84	1.32	37	8	6164	2884	3280
198+00.00	19800.00	100.00	2.66	5.24	27	12	6191	2899	3292
199+00.00	19900.00	100.00	4.16	2.69	13	15	6204	2918	3287

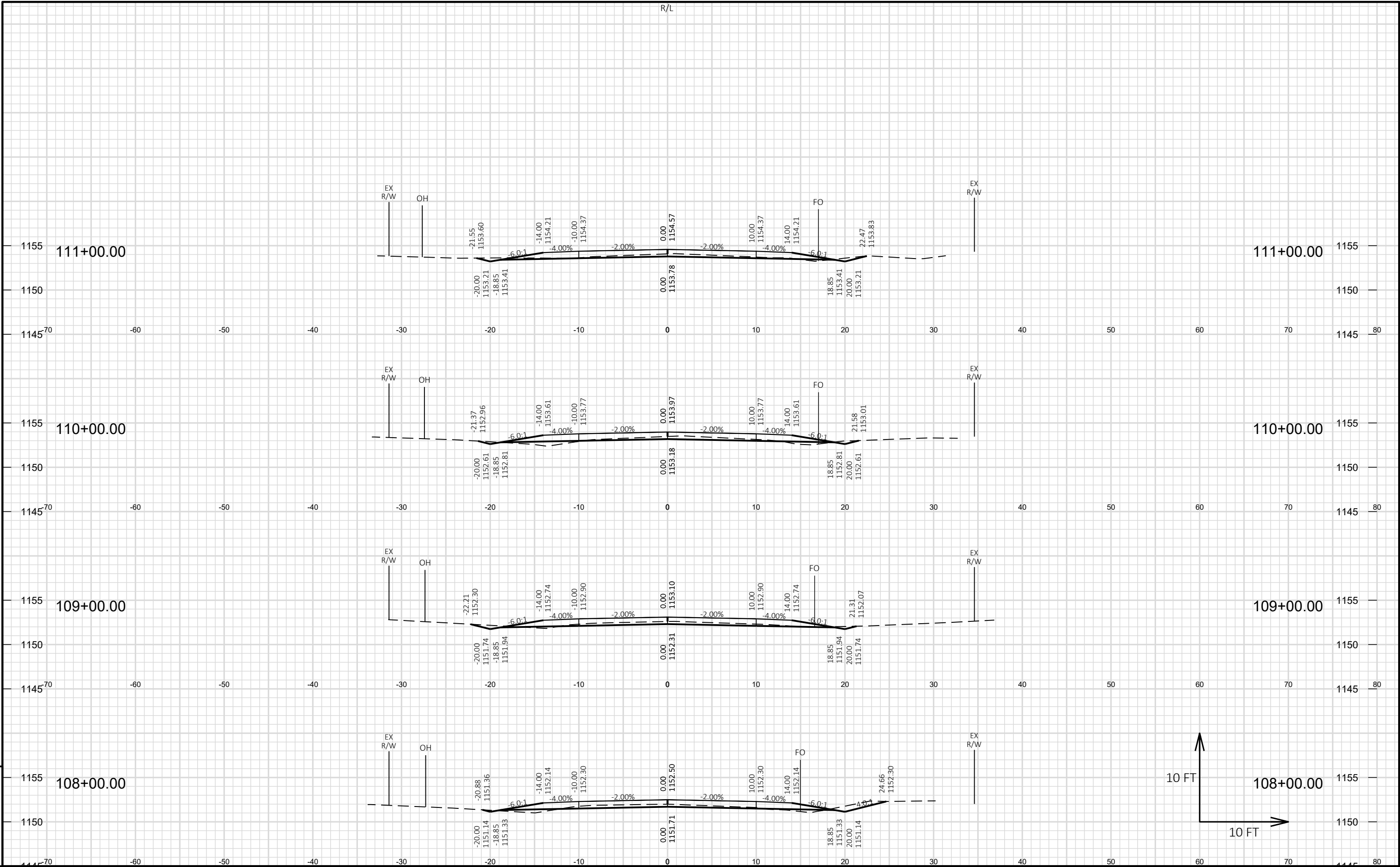
STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
					NOTE 1	NOTE 2	NOTE 1	1.00	1.25
200+00.00	20000.00	100.00	2.24	6.21	12	16	6216	2938	3279
201+00.00	20100.00	100.00	5.32	12.33	14	34	6230	2980	3250
202+00.00	20200.00	100.00	0.00	62.21	10	138	6240	3153	3088
203+00.00	20300.00	100.00	90.93	0.00	168	115	6408	3296	3112
204+00.00	20400.00	100.00	153.94	0.00	453	0	6861	3296	3565
205+00.00	20500.00	100.00	47.66	0.00	373	0	7234	3296	3938
206+00.00	20600.00	100.00	14.48	23.31	115	43	7349	3350	3999
207+00.00	20700.00	100.00	32.02	0.79	86	45	7435	3406	4029
208+00.00	20800.00	100.00	20.76	0.33	98	2	7533	3409	4124
209+00.00	20900.00	100.00	8.69	4.93	55	10	7588	3421	4167
210+00.00	21000.00	100.00	4.50	1.24	24	11	7612	3435	4177
211+00.00	21100.00	100.00	5.70	2.34	19	7	7631	3444	4187
212+00.00	21200.00	100.00	21.61	0.44	51	5	7682	3450	4232
213+00.00	21300.00	100.00	27.15	0.00	90	1	7772	3451	4321
214+00.00	21400.00	100.00	16.26	0.22	80	0	7852	3451	4401
215+00.00	21500.00	100.00	7.53	1.95	44	4	7896	3456	4440
216+00.00	21600.00	100.00	15.26	0.68	42	5	7938	3463	4476
217+00.00	21700.00	100.00	9.68	3.80	46	8	7984	3473	4512
218+00.00	21800.00	100.00	2.25	5.50	22	17	8006	3494	4512
219+00.00	21900.00	100.00	10.02	0.25	23	11	8029	3508	4522
220+00.00	22000.00	100.00	96.95	0.00	198	0	8227	3508	4720
221+00.00	22100.00	100.00	59.07	0.00	289	0	8516	3508	5009
222+00.00	22200.00	100.00	5.90	1.98	120	4	8636	3513	5124
223+00.00	22300.00	100.00	6.88	16.44	24	34	8660	3555	5105
224+00.00	22400.00	100.00	9.55	12.45	30	54	8690	3623	5068
225+00.00	22500.00	100.00	12.65	4.05	41	31	8731	3661	5070
226+00.00	22600.00	100.00	17.71	1.87	56	11	8787	3675	5112
227+00.00	22700.00	100.00	16.63	0.05	64	4	8851	3680	5171
228+00.00	22800.00	100.00	22.87	0.08	73	0	8924	3680	5244
229+00.00	22900.00	100.00	17.66	3.57	75	7	8999	3689	5310
230+00.00	23000.00	100.00	11.48	3.05	54	12	9053	3704	5349
231+00.00	23100.00	100.00	11.08	1.66	42	9	9095	3715	5380
232+00.00	23200.00	100.00	11.56	0.64	42	4	9137	3720	5417
233+00.00	23300.00	100.00	7.62	4.04	36	9	9173	3731	5442
234+00.00	23400.00	100.00	3.48	2.59	21	12	9194	3746	5448
235+00.00	23500.00	100.00	7.86	3.10	21	11	9215	3760	5455
235+25.00	23525.00	25.00	4.11	4.20	6	3	9221	3764	5457

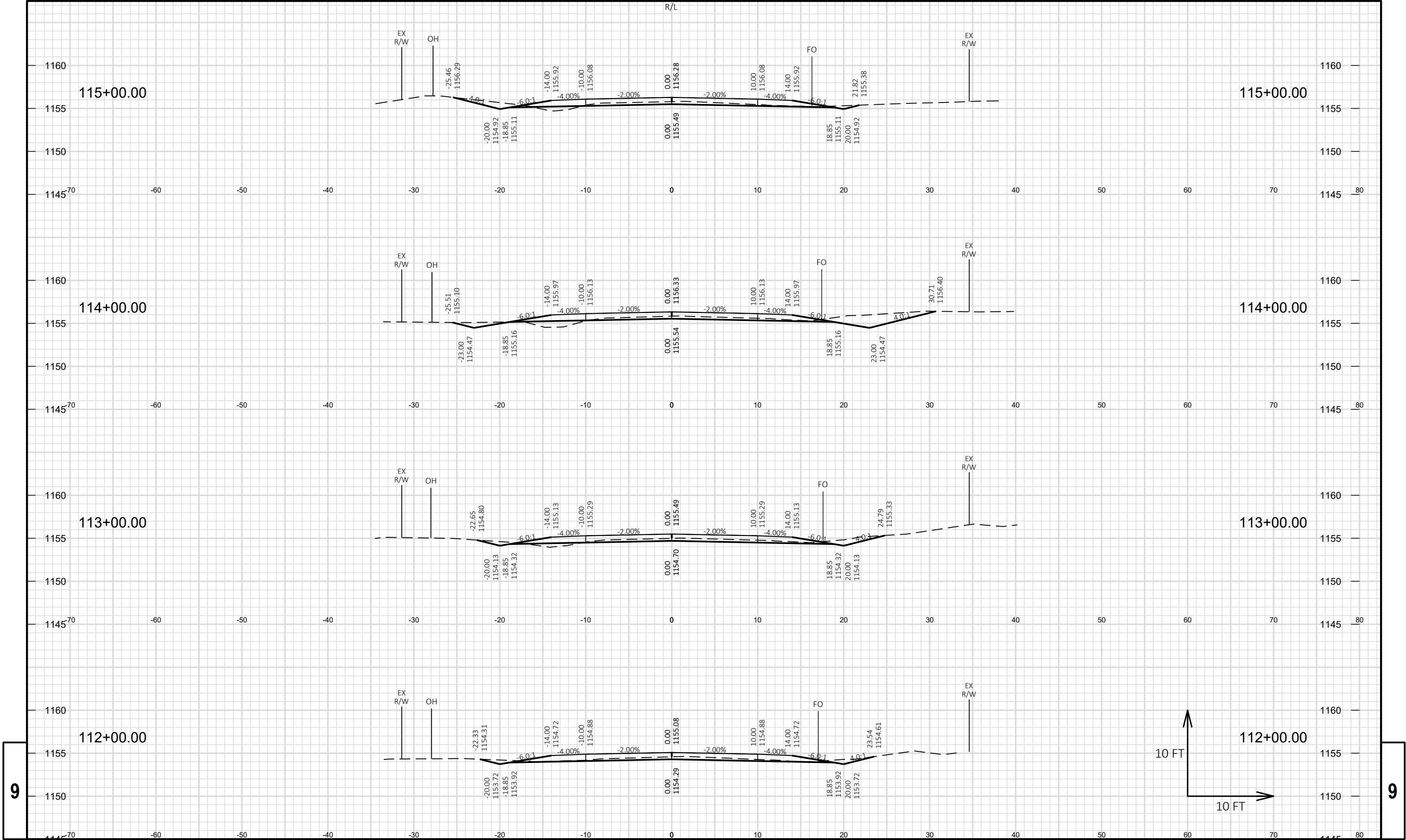
NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

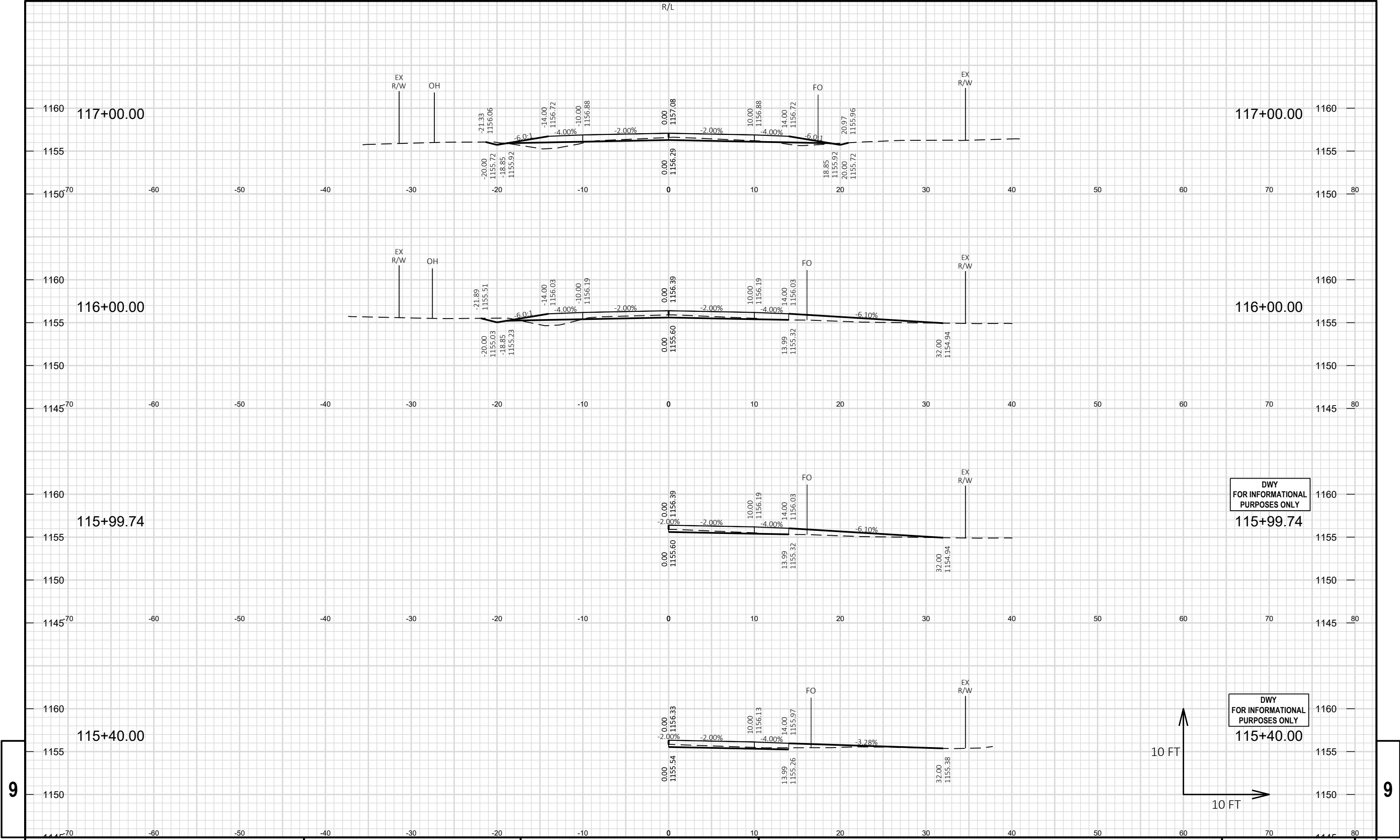
STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
					NOTE 1	NOTE 2	NOTE 1	1.00	1.25
236+05.00	23605.00	0.00	11.79	3.18	0	0	9221	3764	5457
237+00.00	23700.00	95.00	9.97	5.63	38	15	9259	3783	5477
238+00.00	23800.00	100.00	17.85	12.39	52	33	9311	3824	5487
239+00.00	23900.00	100.00	3.67	2.88	40	28	9351	3859	5492
240+00.00	24000.00	100.00	2.65	33.90	12	68	9363	3944	5419
241+00.00	24100.00	100.00	2.08	16.59	9	94	9372	4061	5311
242+00.00	24200.00	100.00	1.62	4.89	7	40	9379	4111	5268
243+00.00	24300.00	100.00	2.50	20.91	8	48	9387	4171	5216
244+00.00	24400.00	100.00	1.43	6.42	7	51	9394	4235	5159
245+00.00	24500.00	100.00	3.74	17.67	10	45	9404	4291	5113
246+00.00	24600.00	100.00	4.85	34.62	16	97	9420	4413	5008
247+00.00	24700.00	100.00	5.11	8.90	18	81	9438	4514	4924
248+00.00	24800.00	100.00	12.03	3.18	32	22	9470	4541	4929
249+00.00	24900.00	100.00	31.42	5.22	80	16	9550	4561	4989
249+50.00	24950.00	50.00	29.51	25.72	56	29	9606	4598	5009
250+00.00	25000.00	50.00	9.58	31.68	36	53	9642	4664	4978
250+50.00	25050.00	50.00	10.77	27.04	19	54	9661	4731	4930
251+00.00	25100.00	50.00	17.94	3.86	27	29	9688	4768	4921
252+00.00	25200.00	100.00	17.44	6.95	66	20	9754	4793	4962
253+00.00	25300.00	100.00	17.27	11.14	64	34	9818	4835	4983
254+00.00	25400.00	100.00	10.71	13.35	52	45	9870	4891	4979
255+00.00	25500.00	100.00	13.53	7.62	45	39	9915	4940	4975
256+00.00	25600.00	100.00	7.40	0.71	39	15	9954	4959	4995
257+00.00	25700.00	100.00	8.46	0.48	29	2	9983	4961	5022
258+00.00	25800.00	100.00	30.44	0.00	72	1	10055	4963	5093
259+00.00	25900.00	100.00	6.45	5.73	68	11	10123	4976	5147
260+00.00	26000.00	100.00	5.39	20.94	22	49	10145	5038	5108
261+00.00	26100.00	100.00	7.85	3.87	25	46	10170	5095	5075
262+00.00	26200.00	100.00	21.98	0.00	55	7	10225	5104	5121
262+05.00	26205.00	5.00	23.20	0.98	4	0	10229	5104	5125

EARTHWORK SUMMARY	
LOCATION	EXCAVATION COMMON (CY)
STANDING ROCKS ROAD	10229
PULVERIZE AND RELAY	-2432
TOTAL	7797



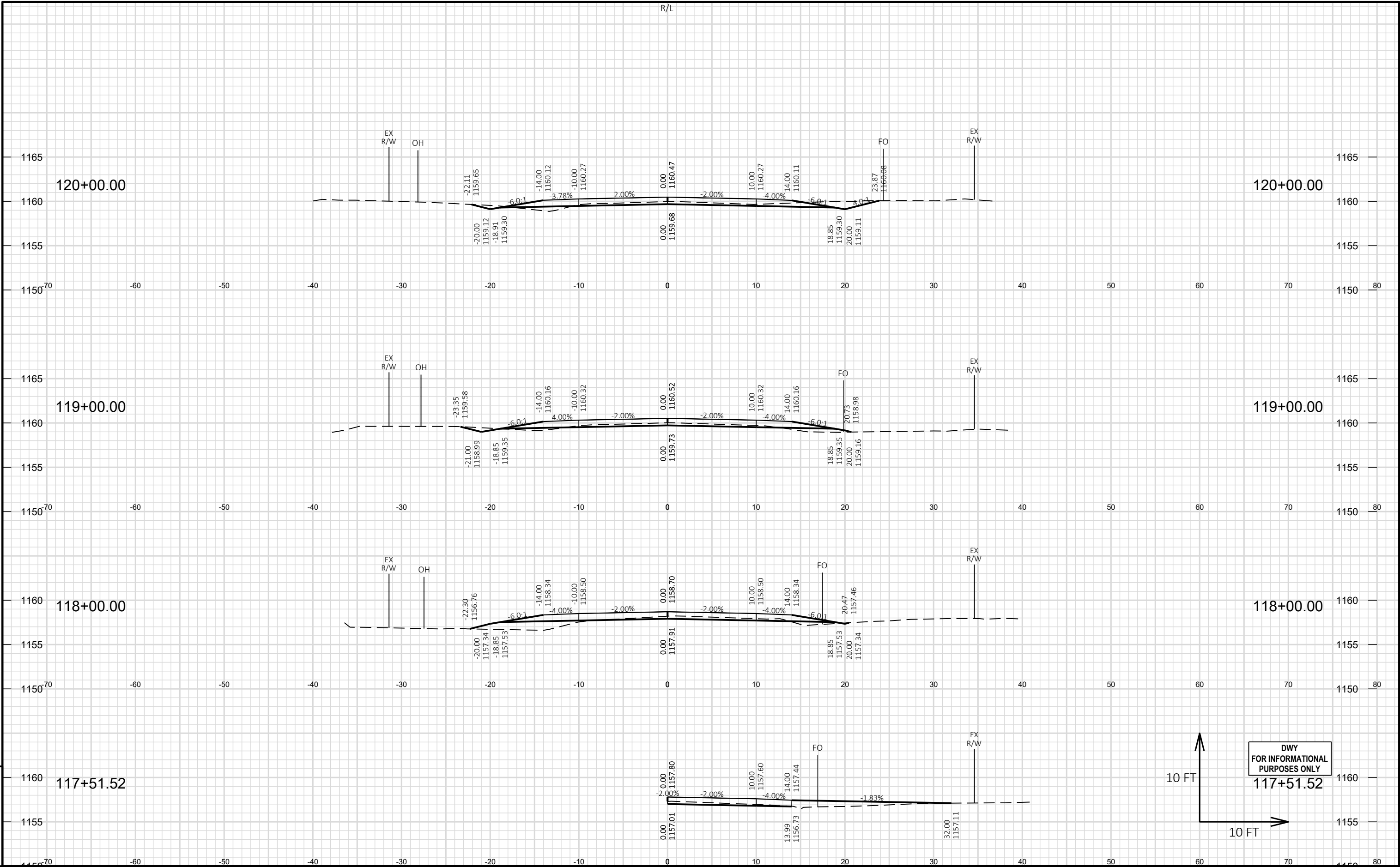


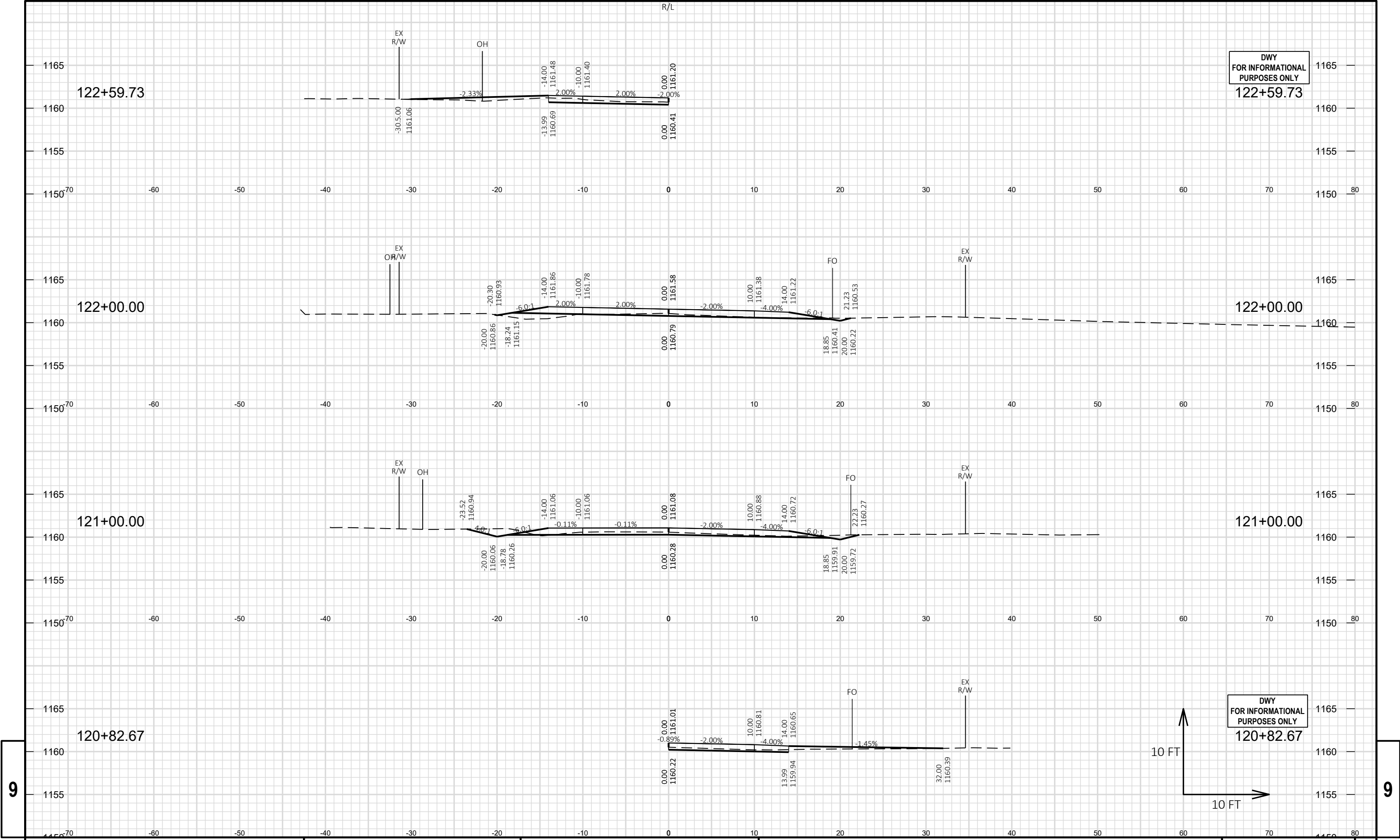




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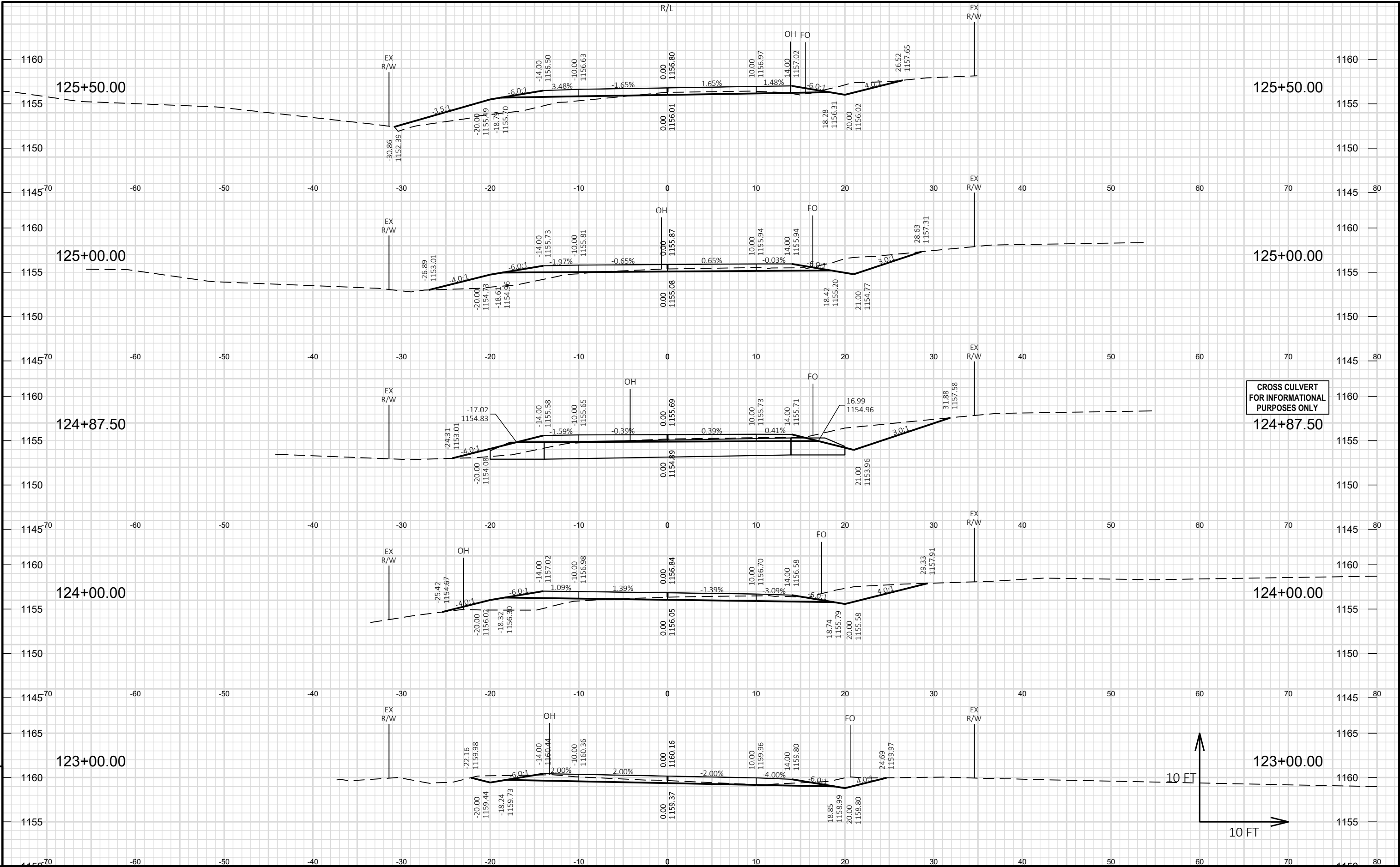
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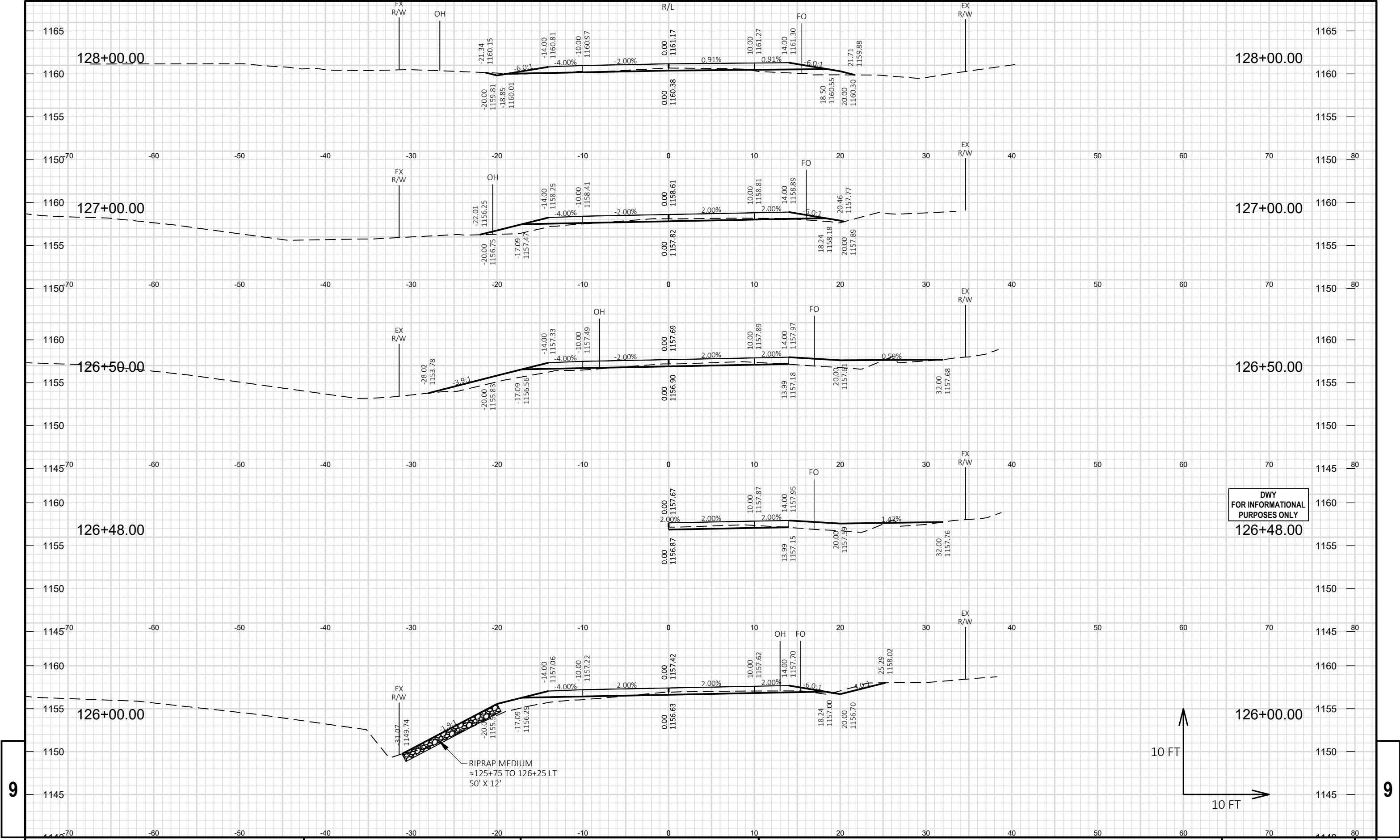




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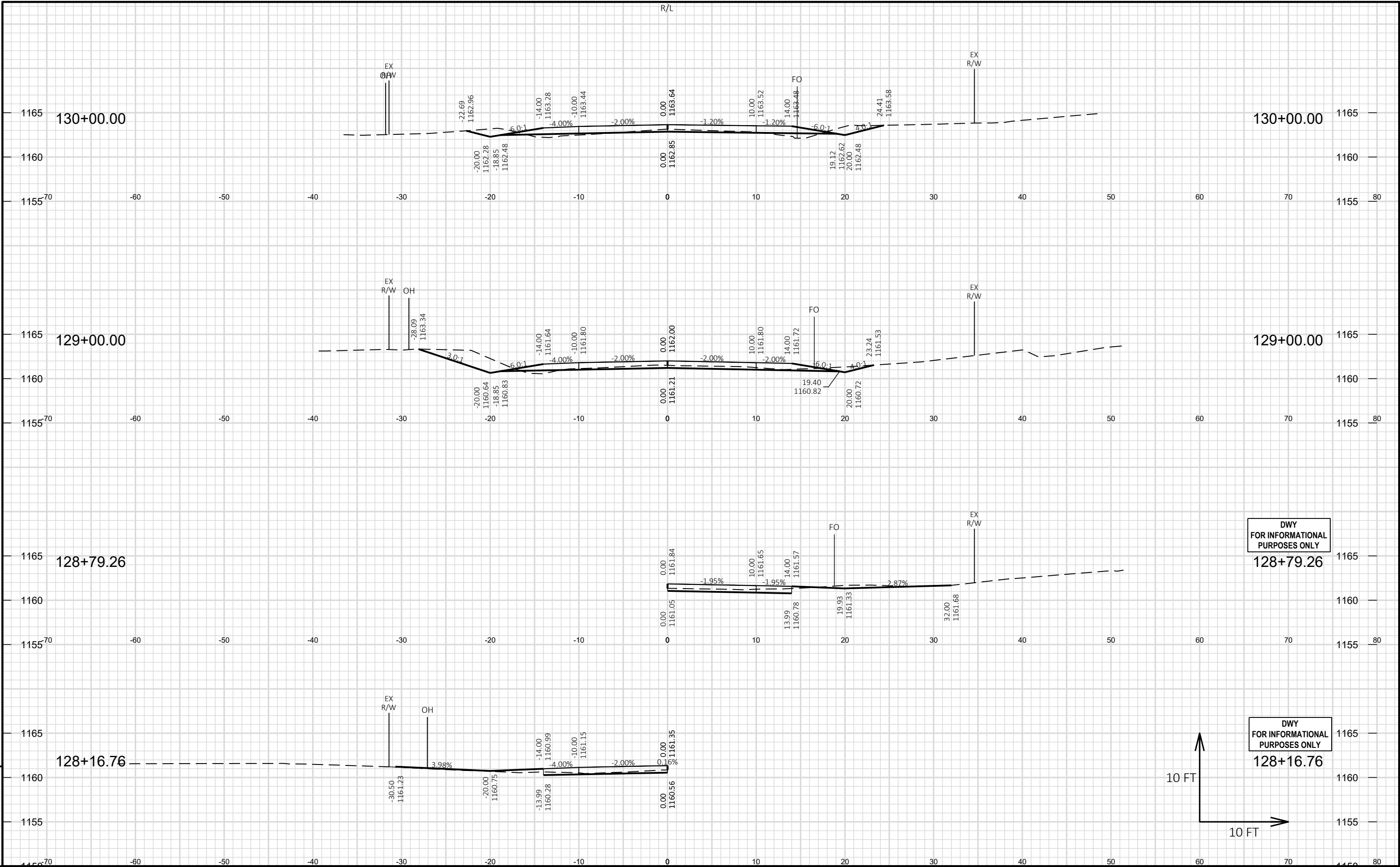
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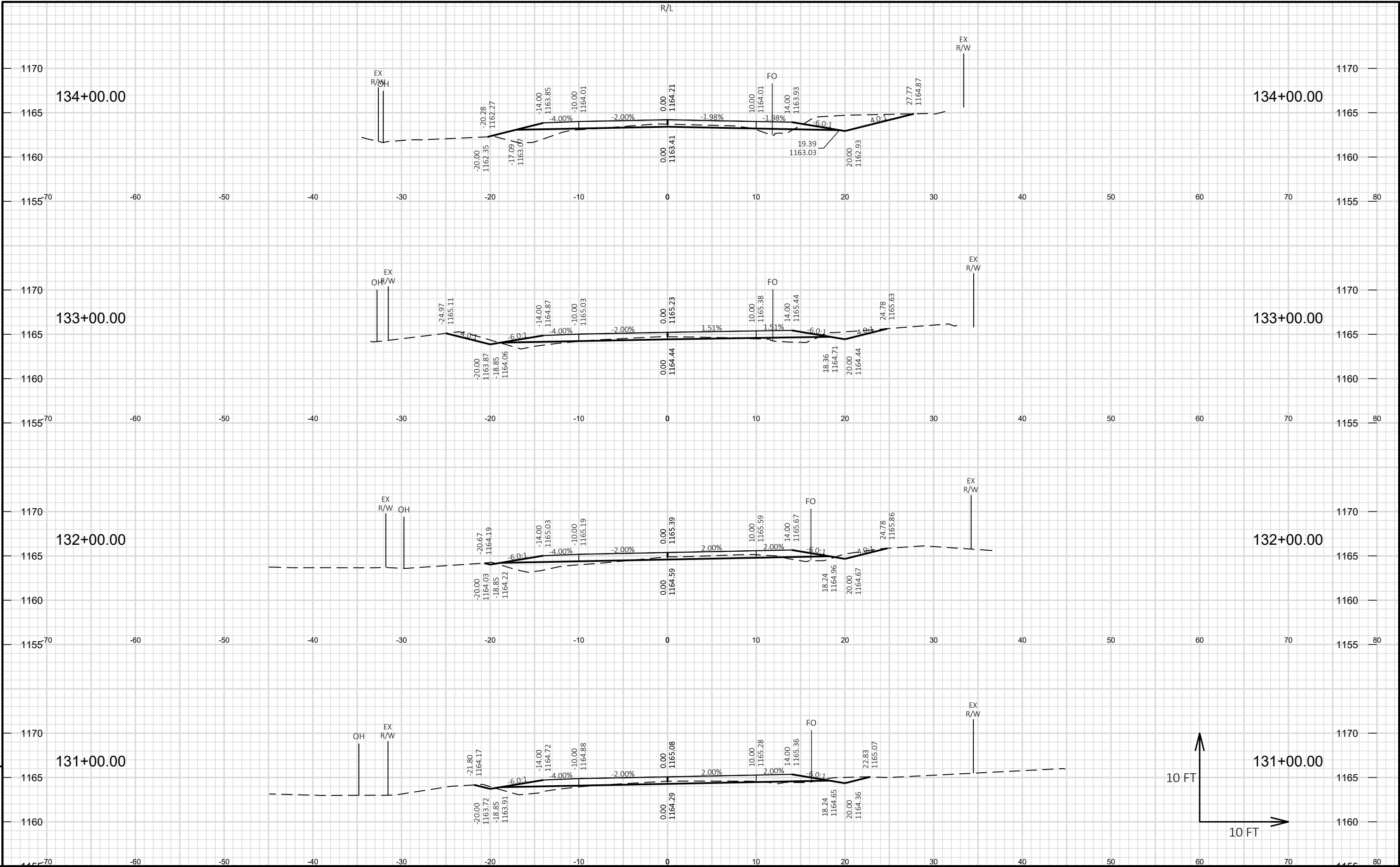


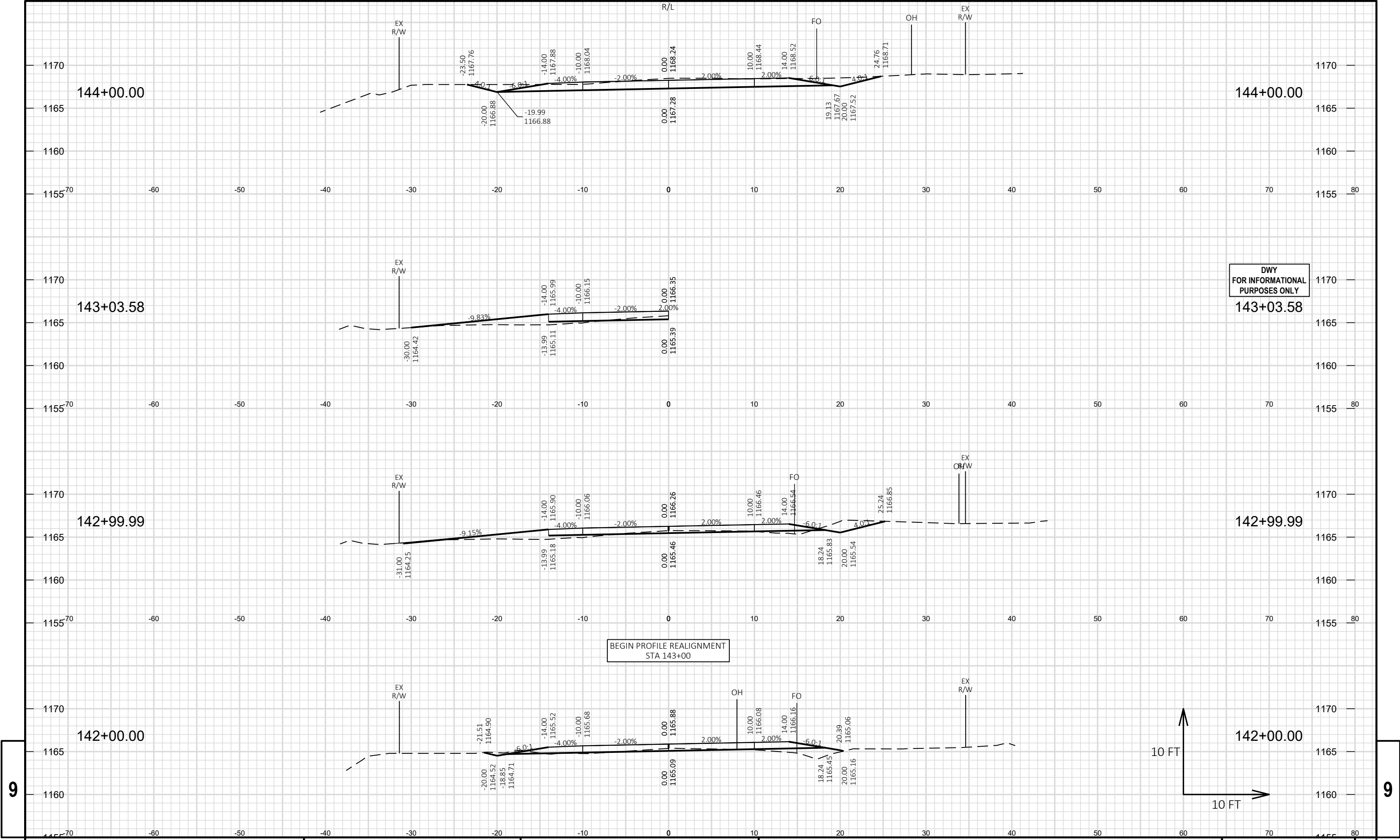
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128+79.26

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PURPOSES ONLY

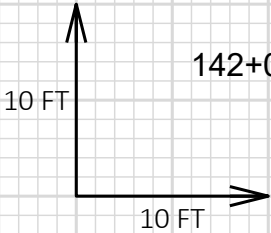
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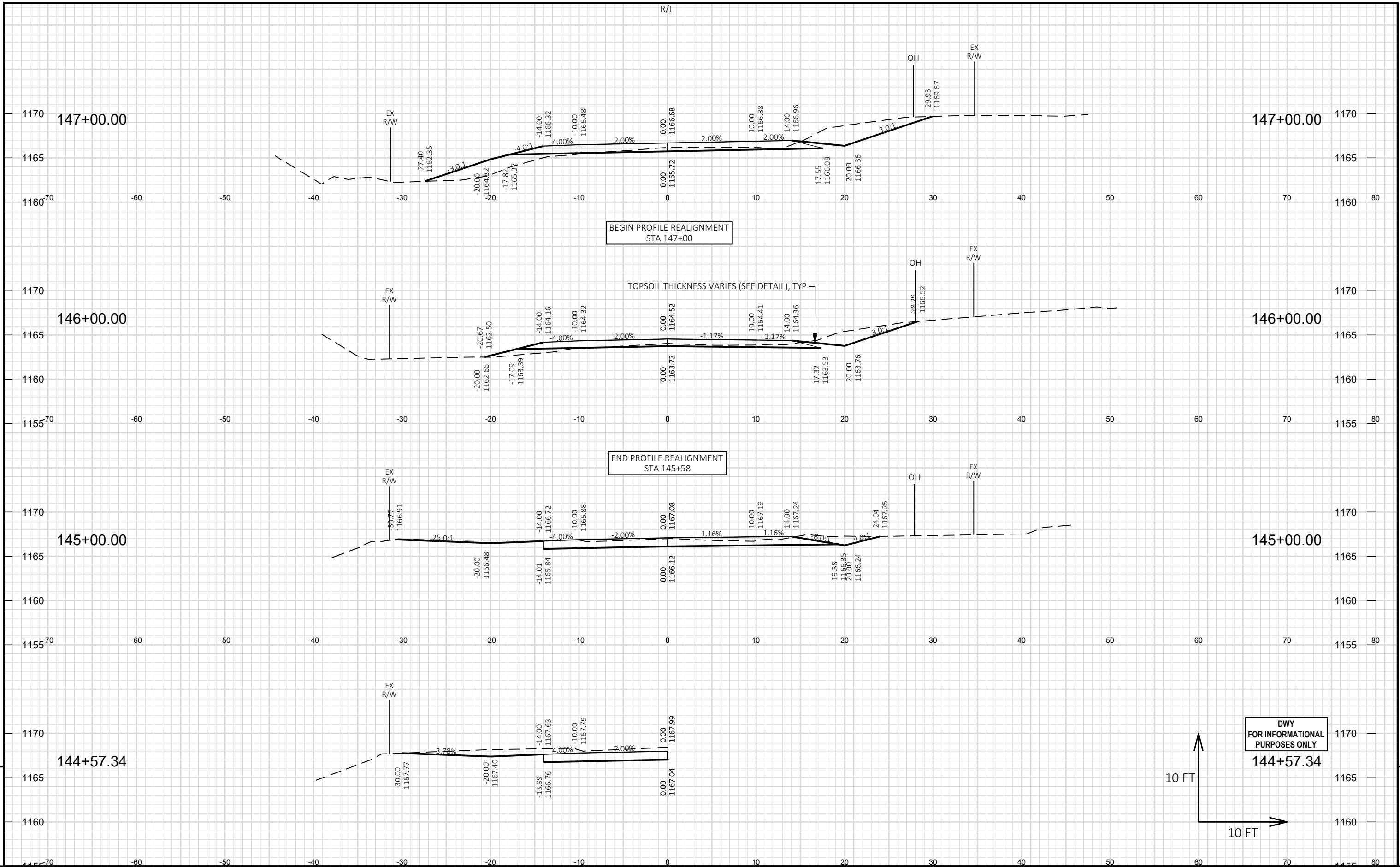


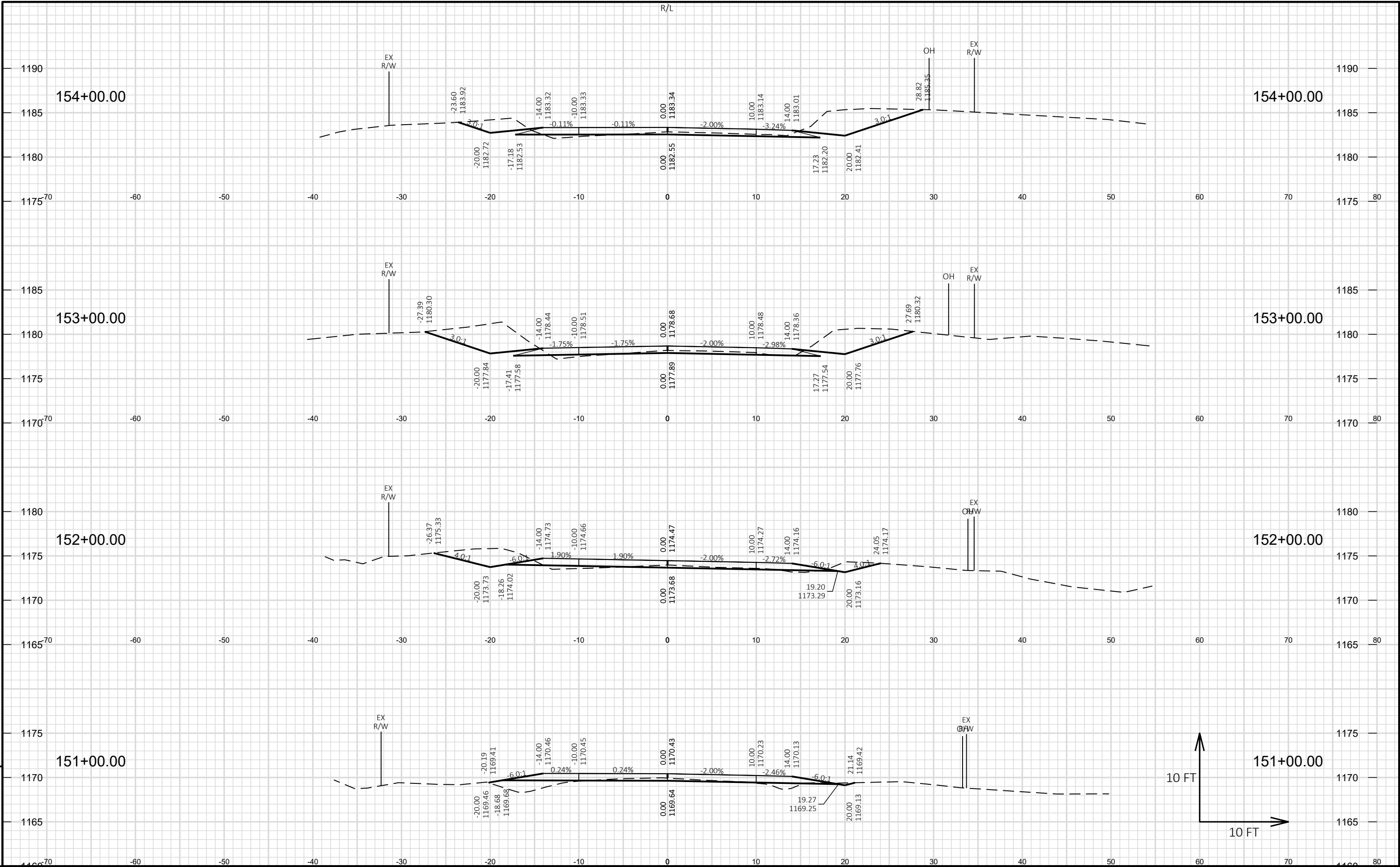


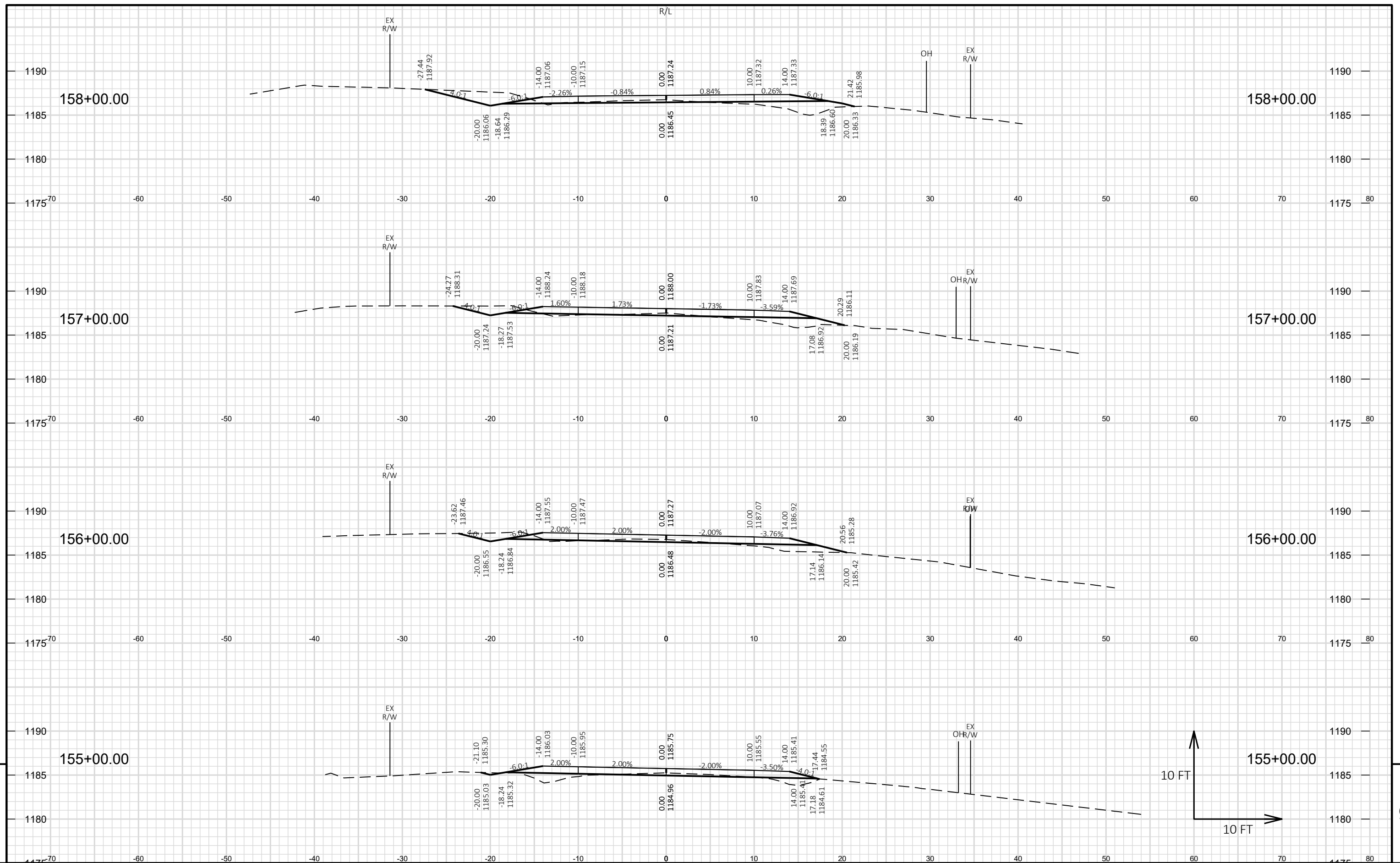
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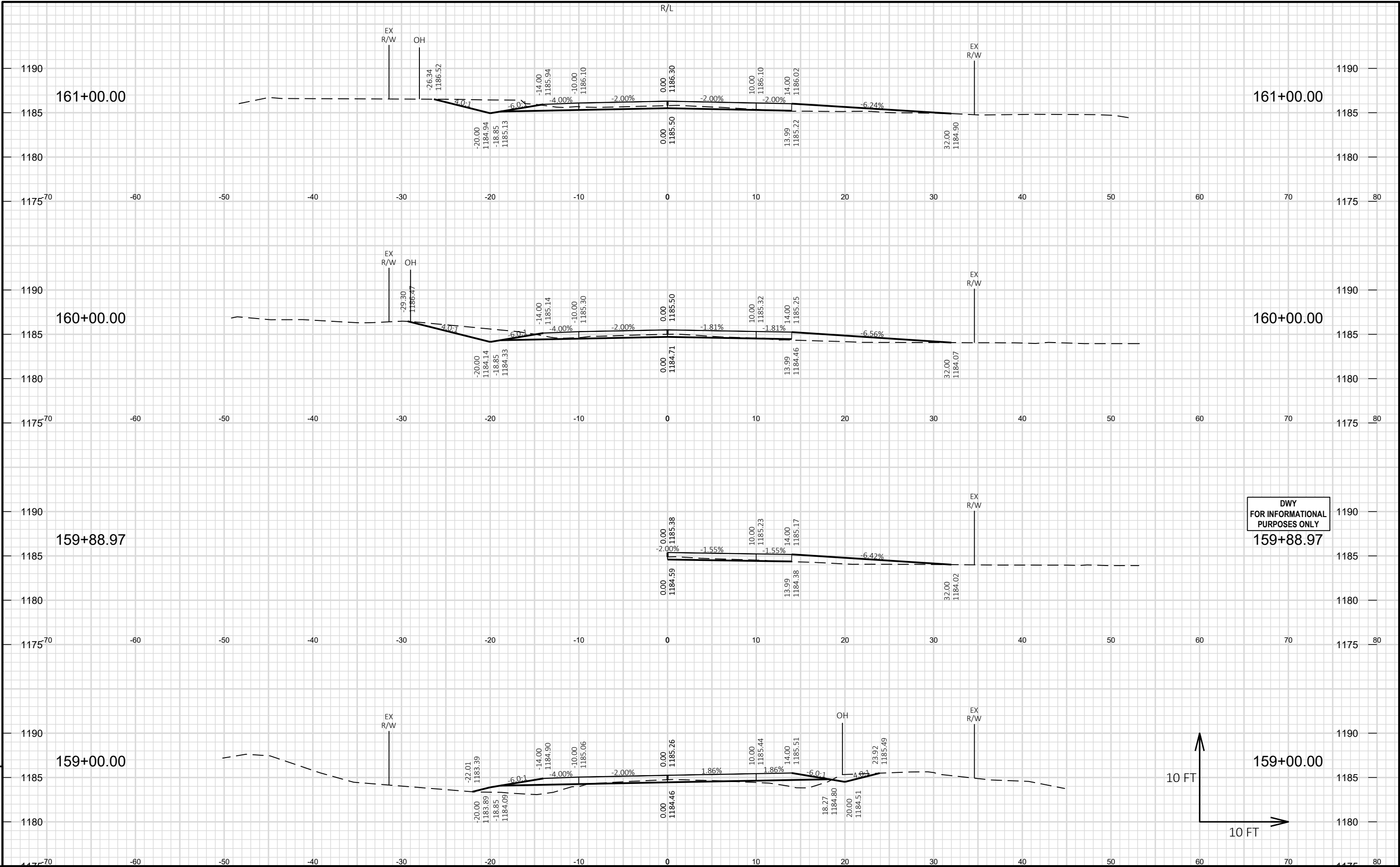
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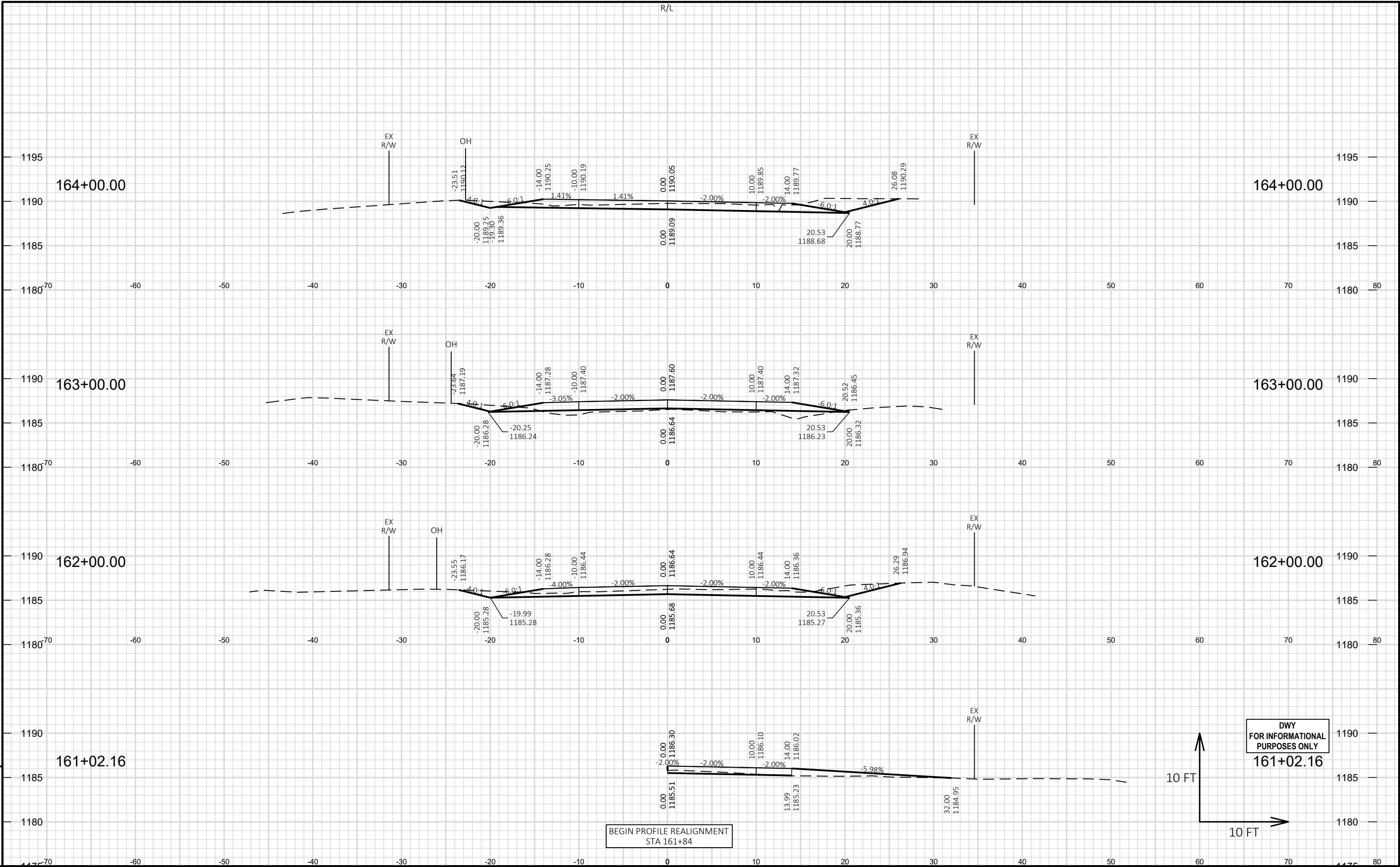


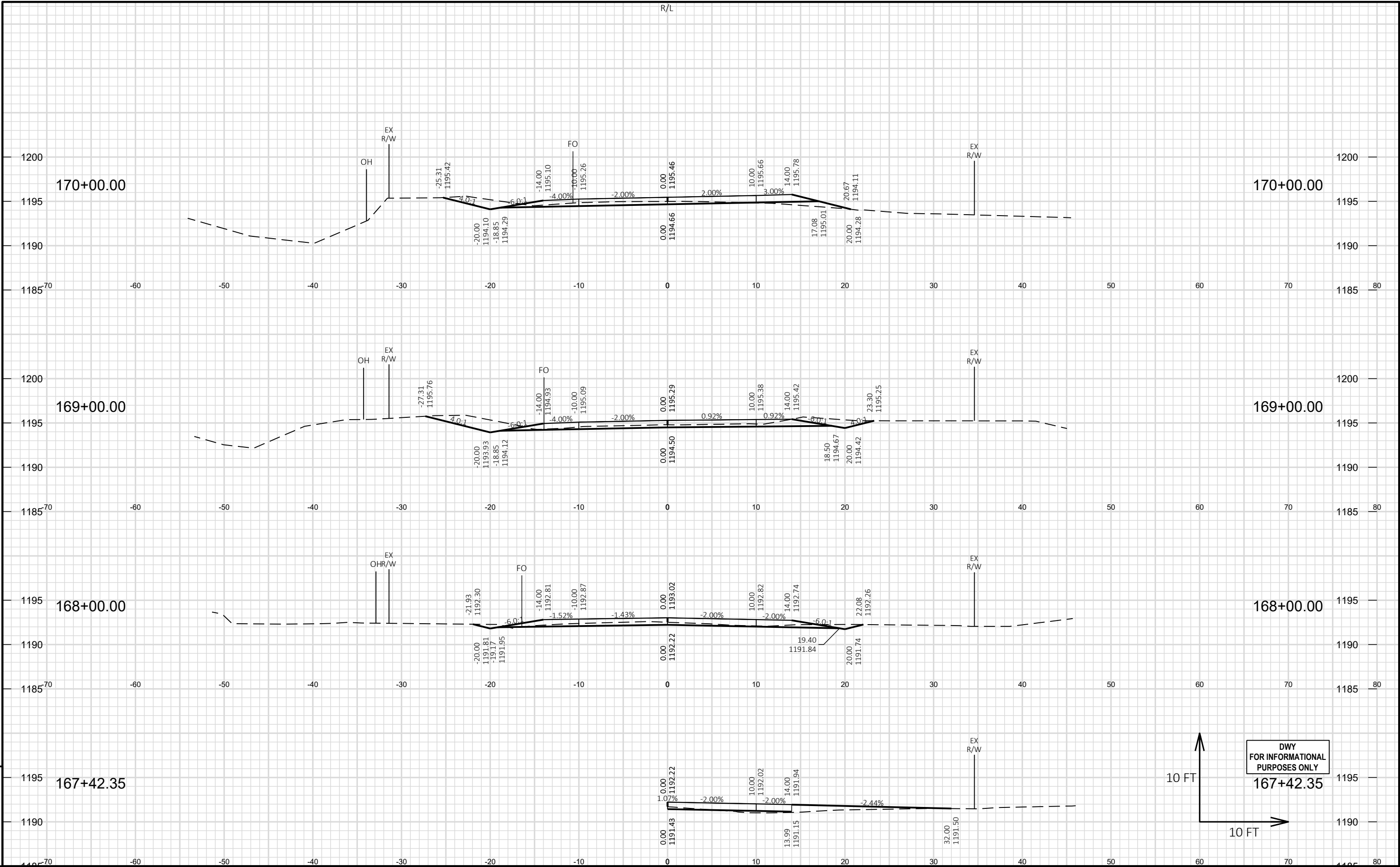


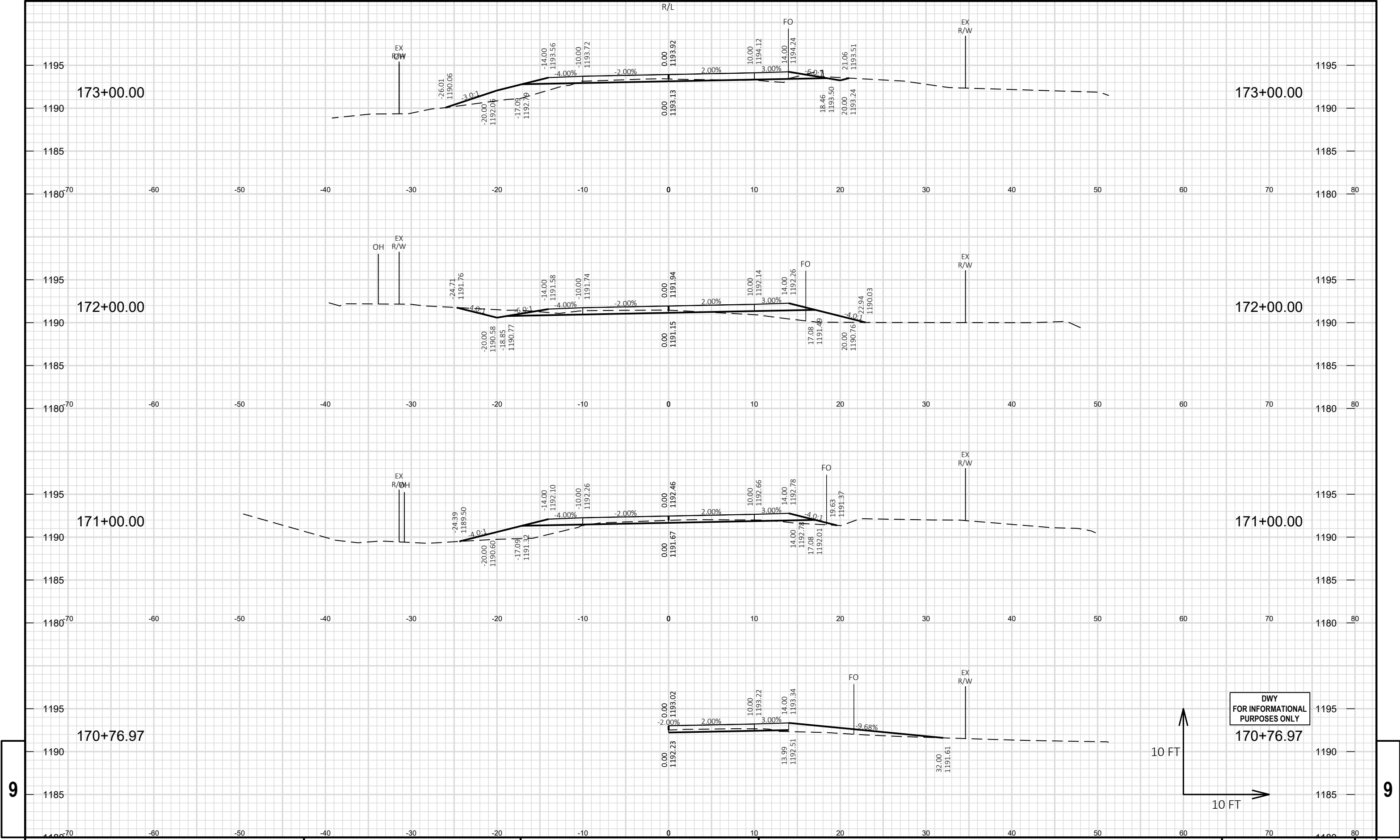




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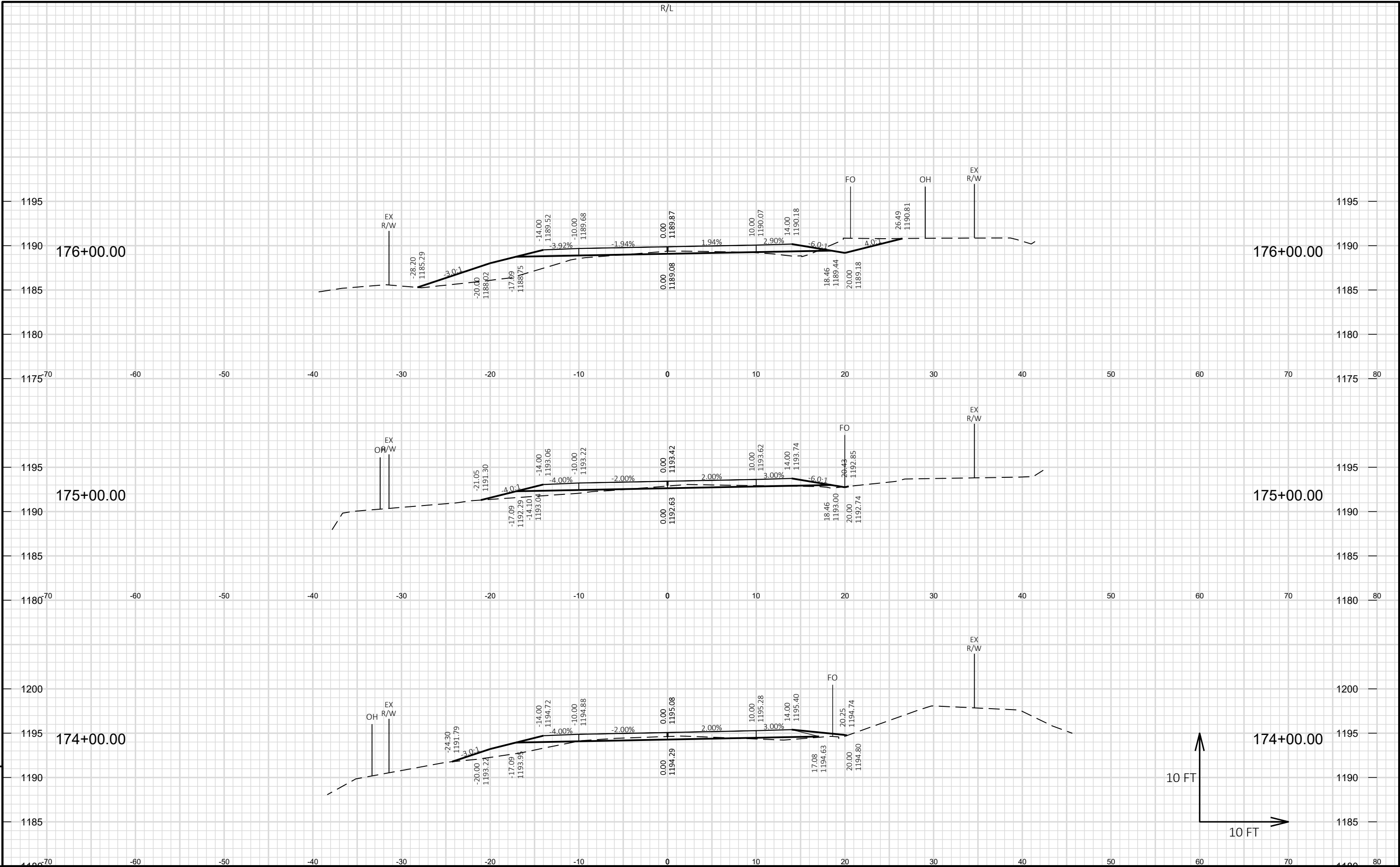


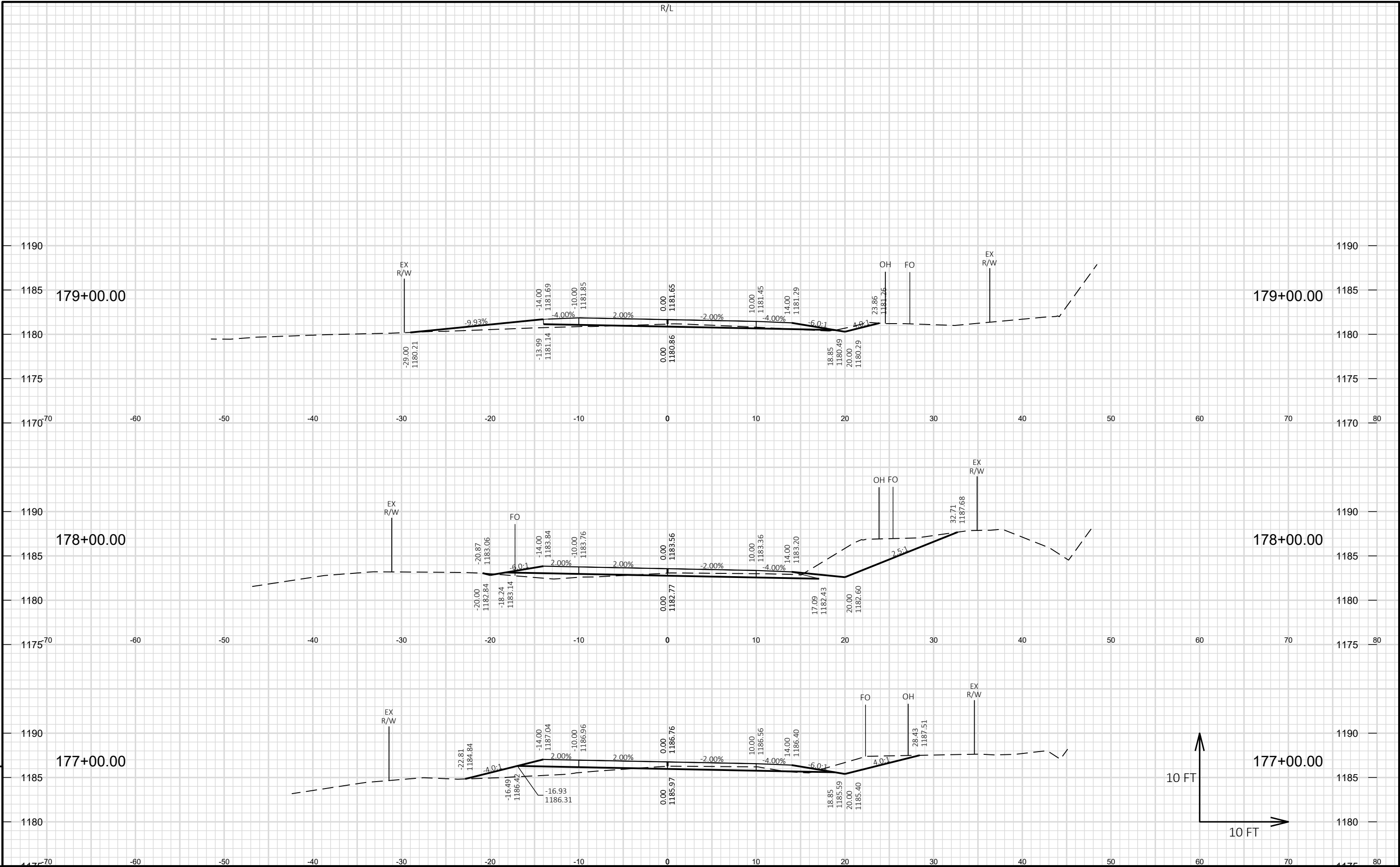


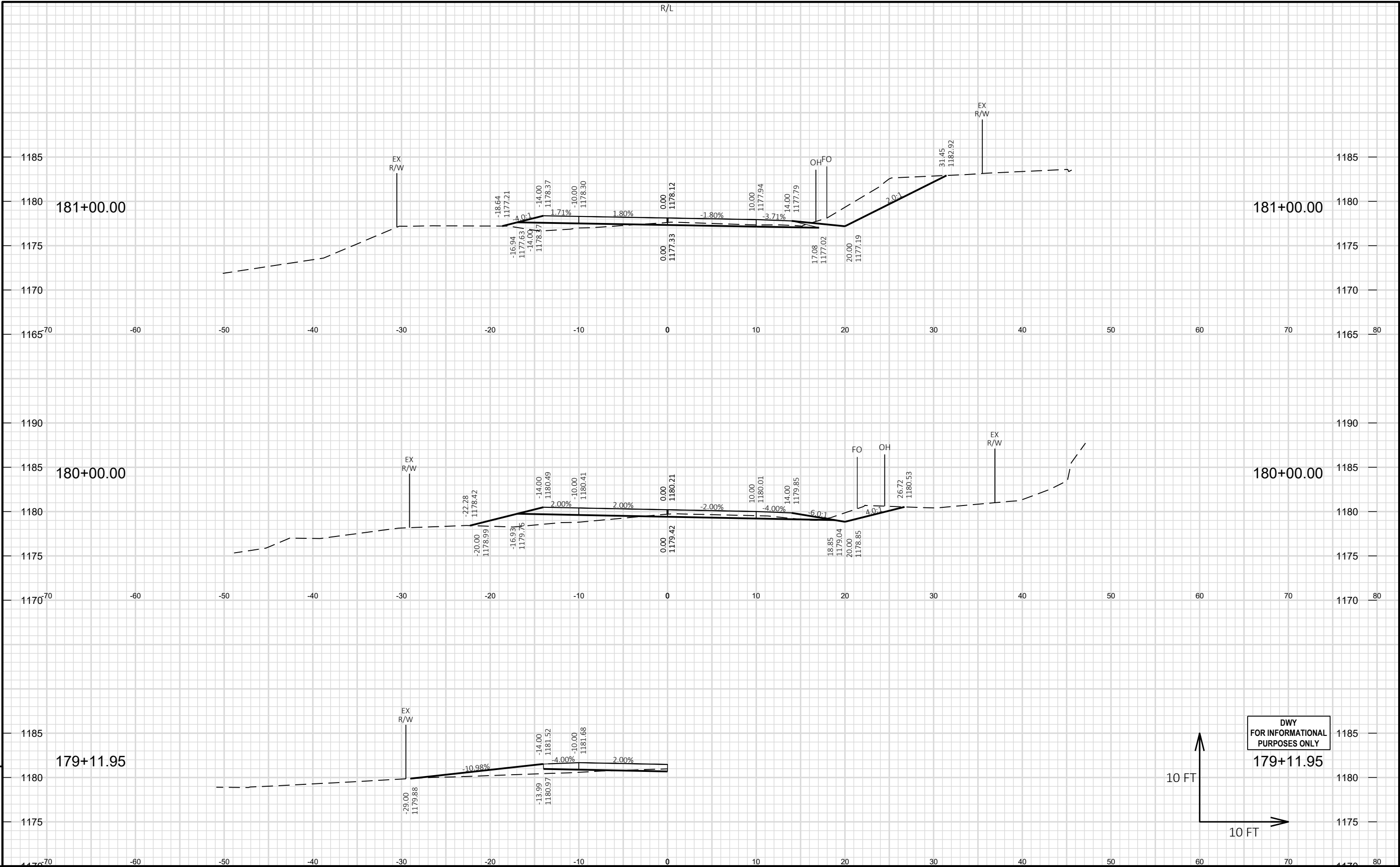


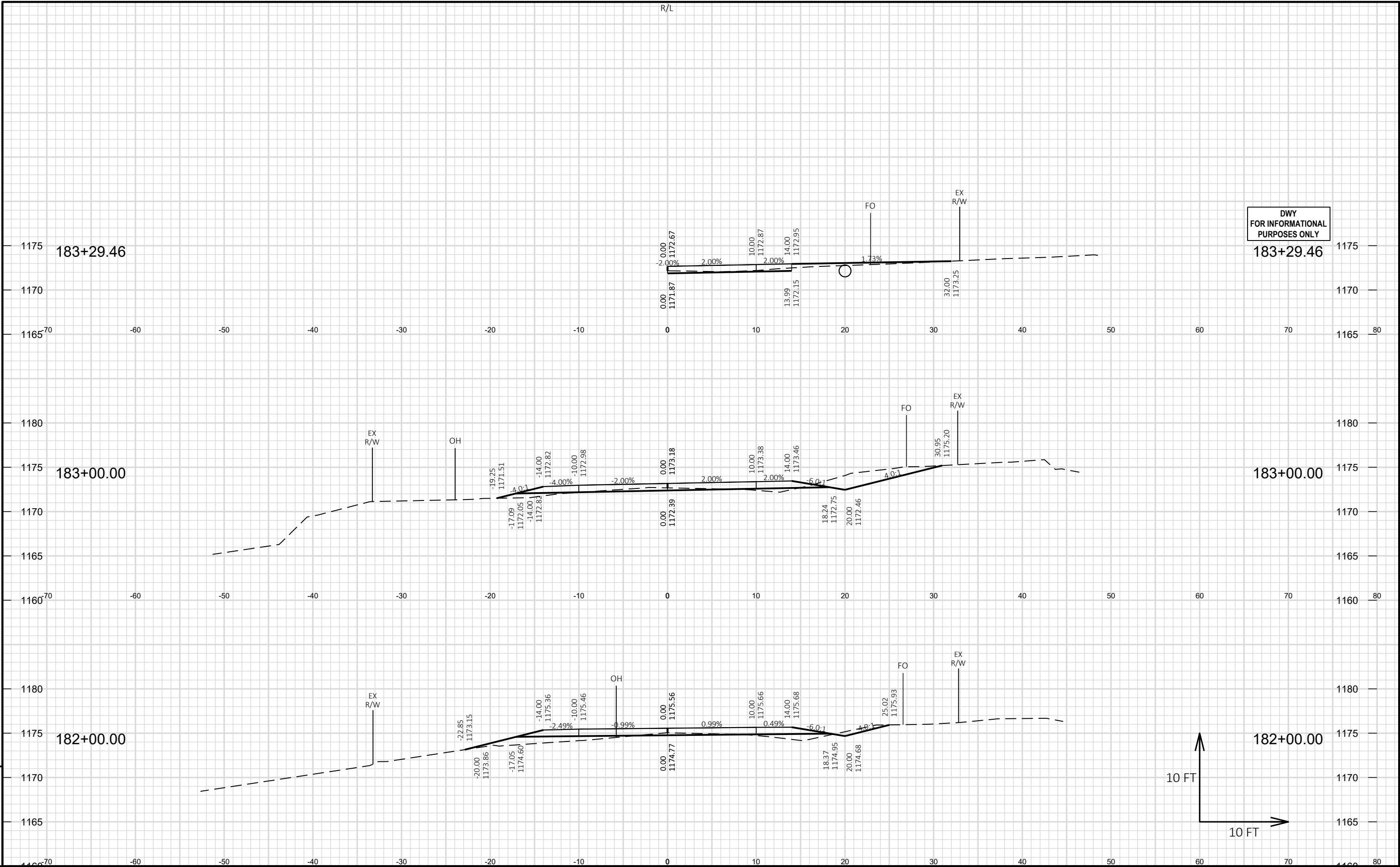
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10 FT

10 FT

PROJECT NO: 6808-02-70

HWY: STANDING ROCKS ROAD

COUNTY: PORTAGE

CROSS SECTIONS: STANDING ROCKS ROAD

SHEET

E

FILE NAME : P:\PROJECTS_CURRENT\PORTAGE\STOCKTON, TOWN OF\STANDING ROCKS ROAD - 2023\ACAD\DESIGN\CORRIDOR\STANDINGROCKSRD_ALTDDK.DWG
LAYOUT NAME - 159

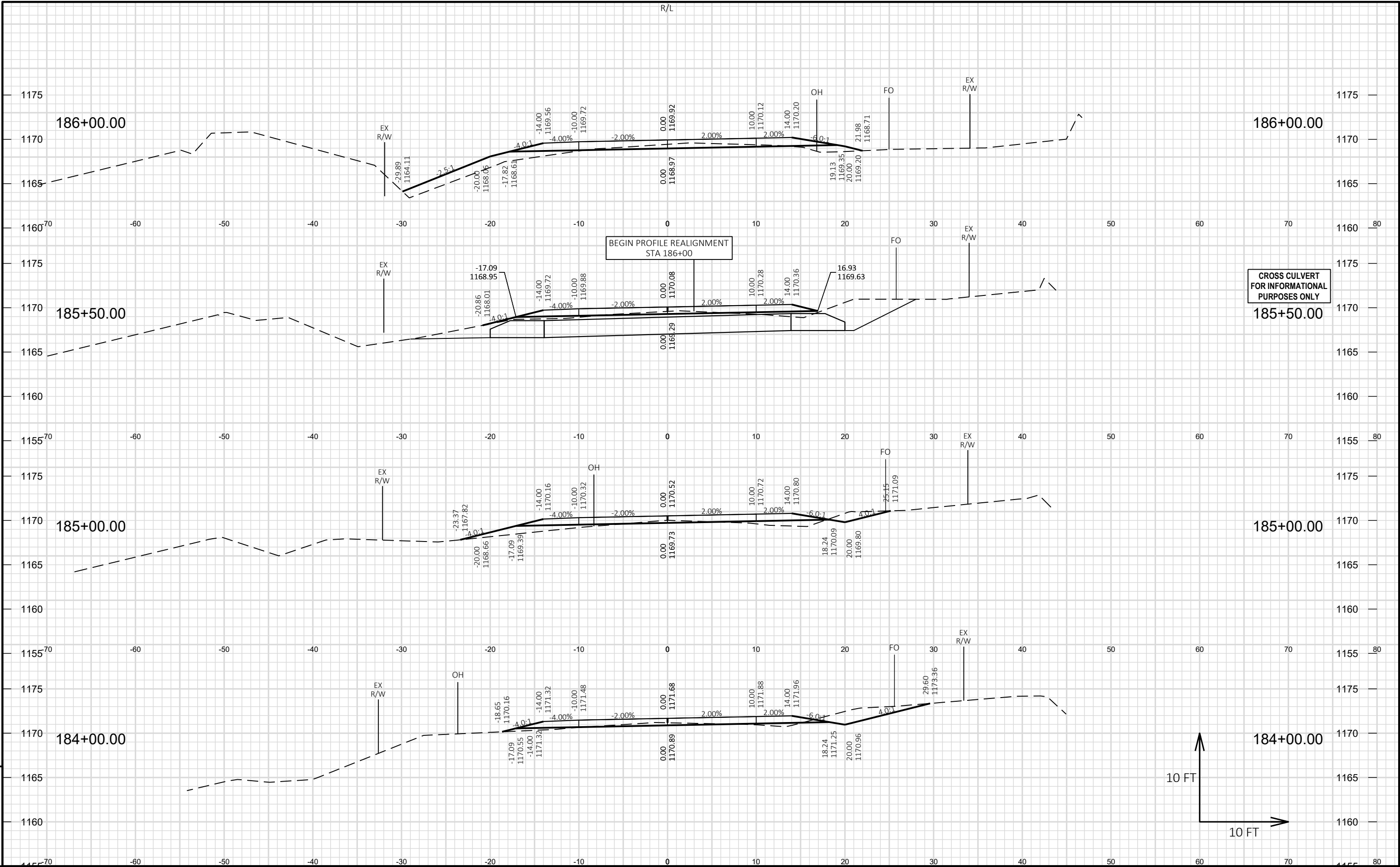
PLOT DATE : 7/23/2025 10:29 AM

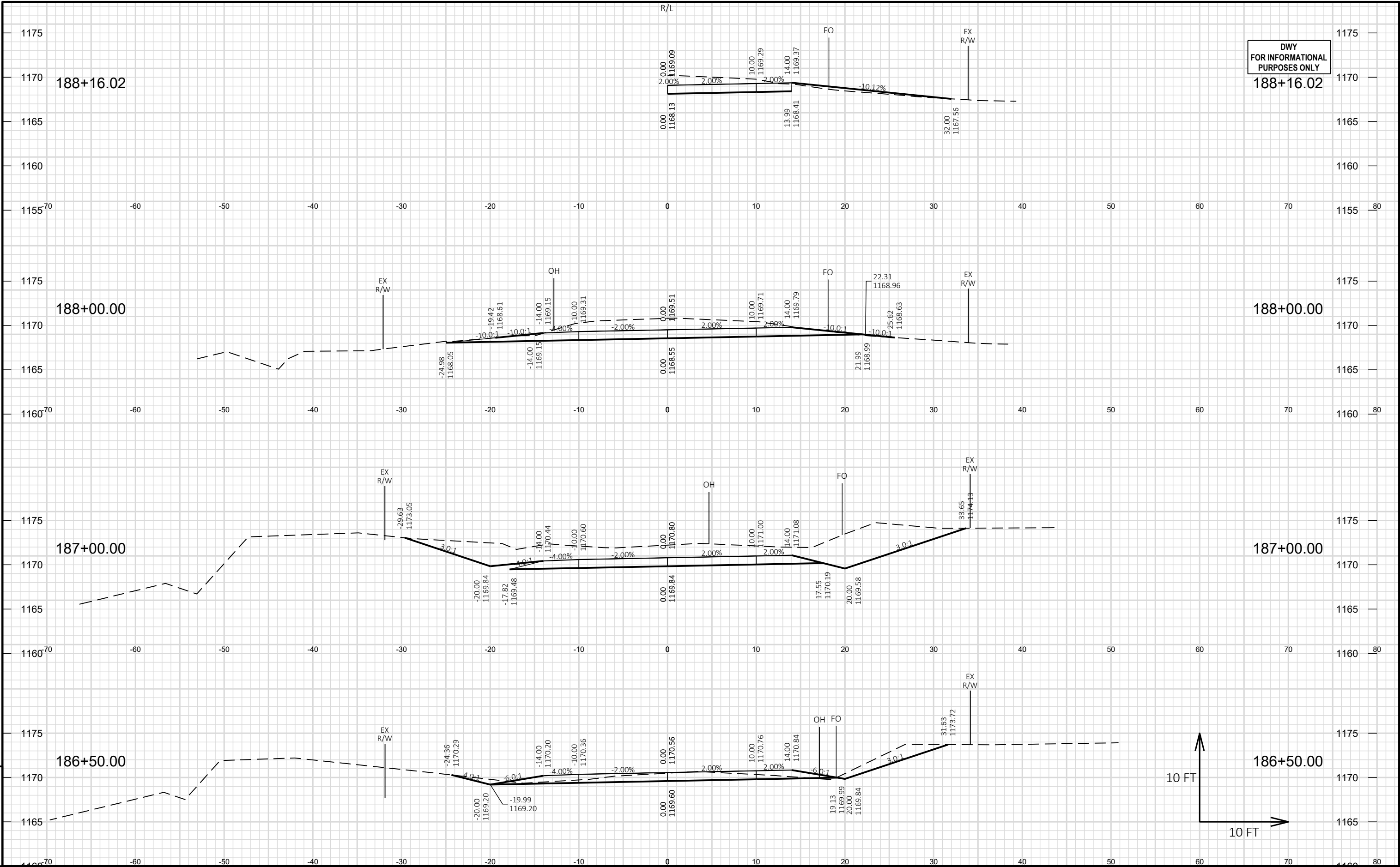
PLOT BY : DEXTER KAETTERHENRY

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDs SHEET 49

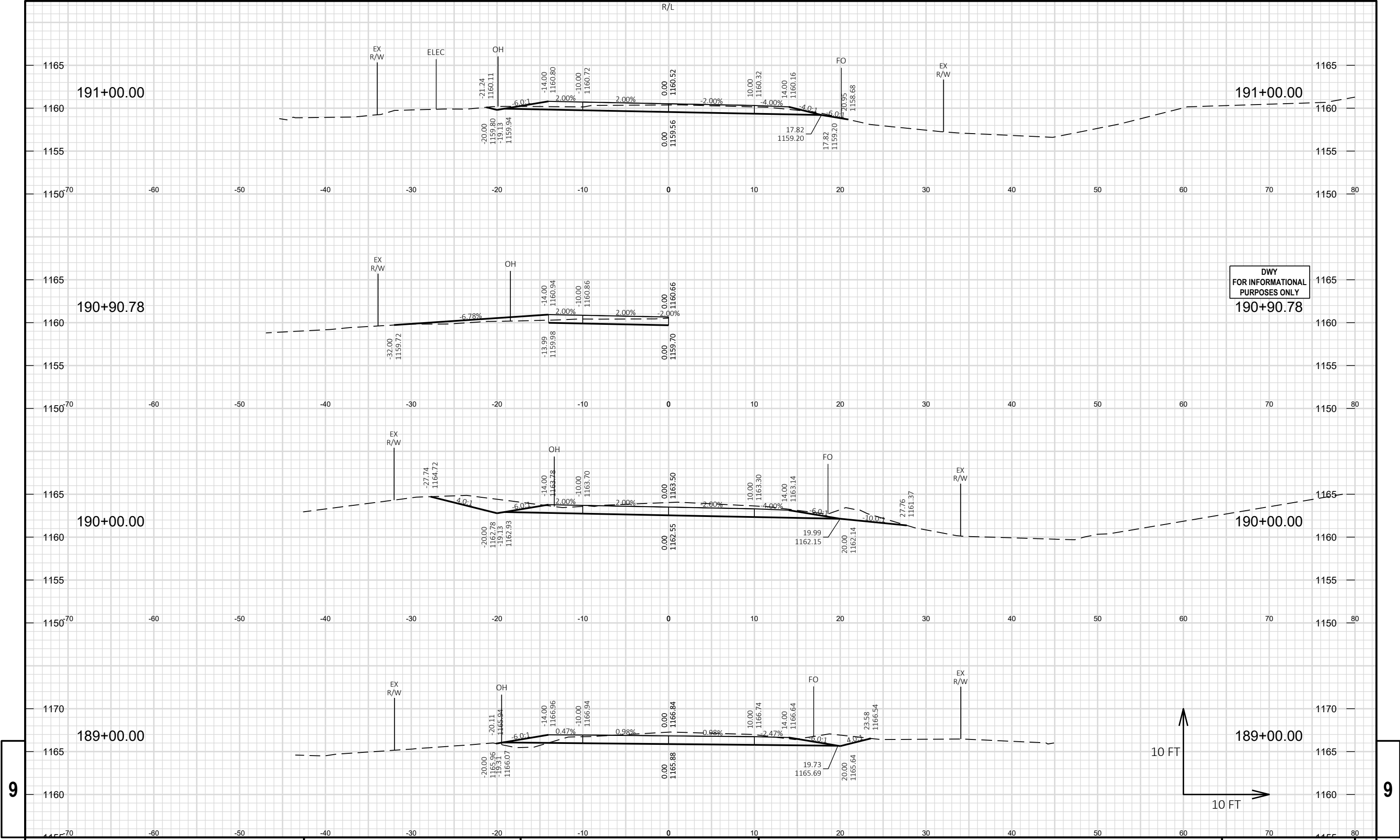


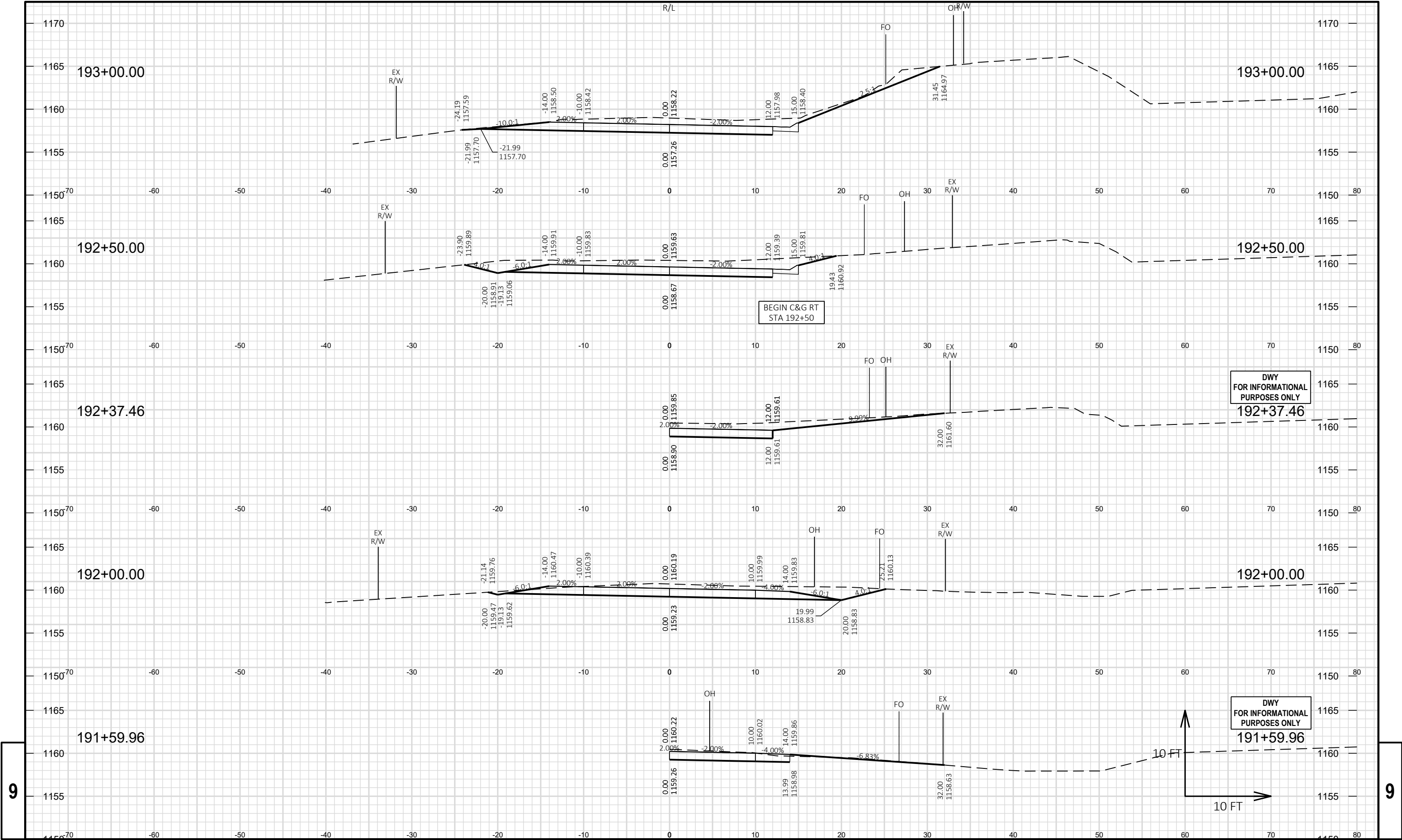


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188+16.02

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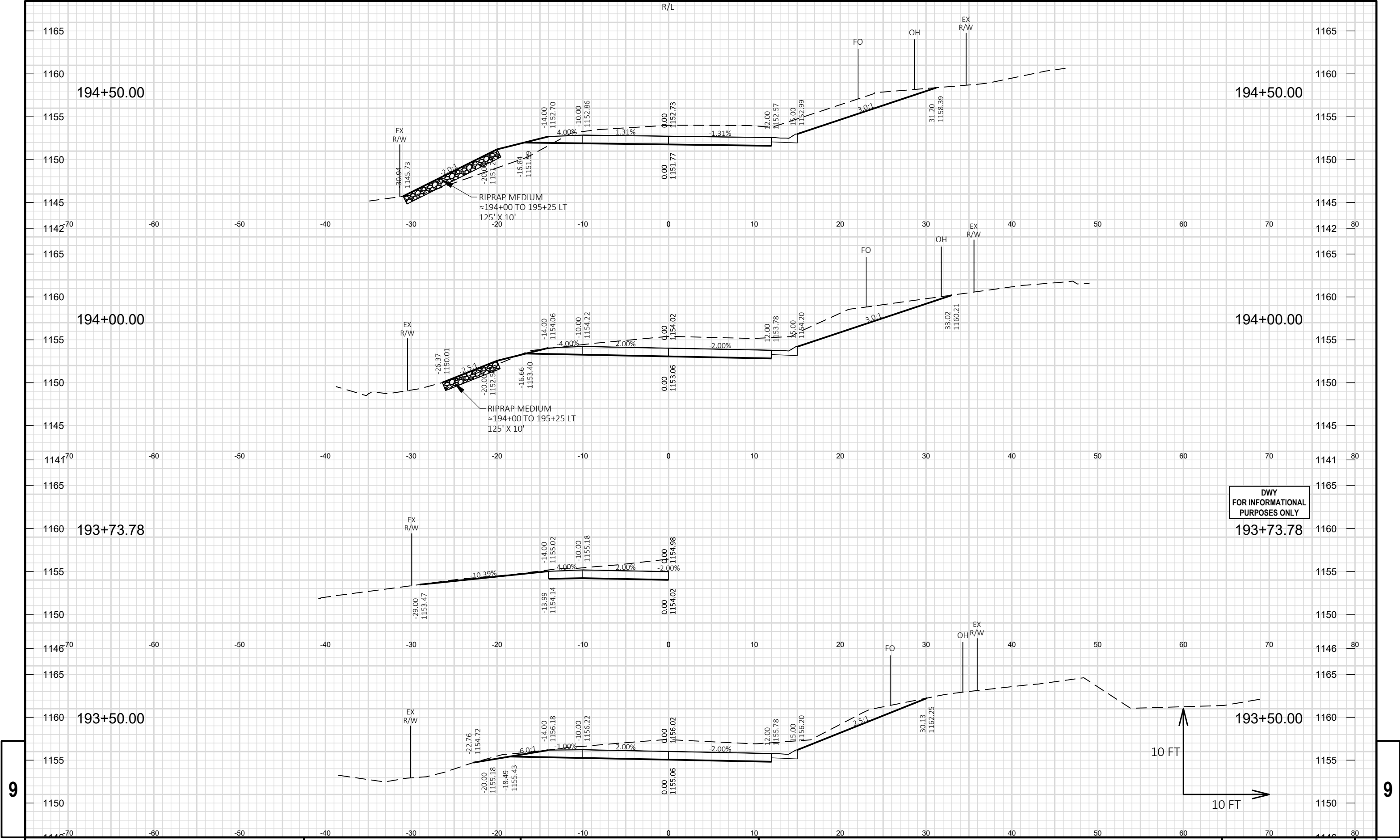




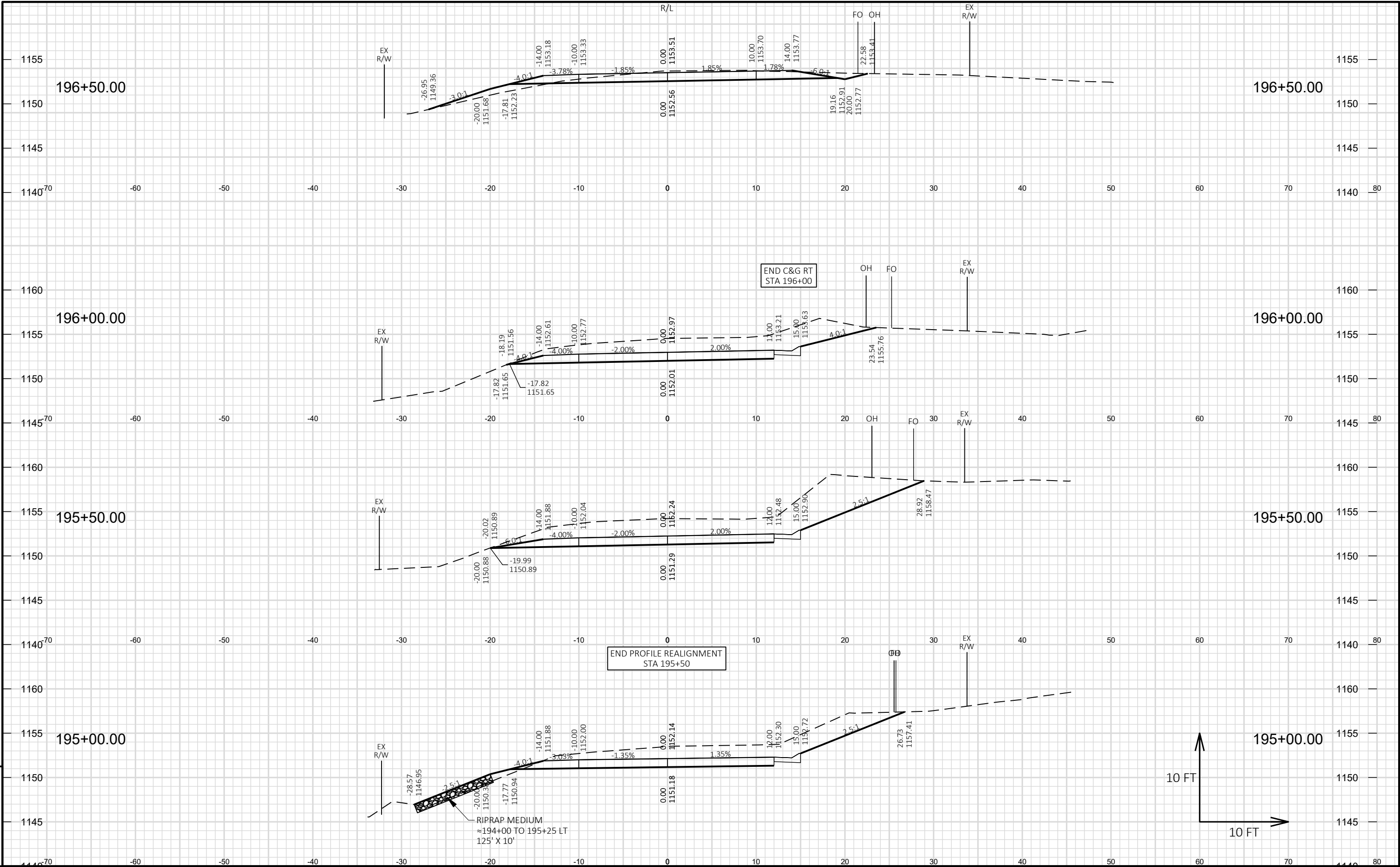
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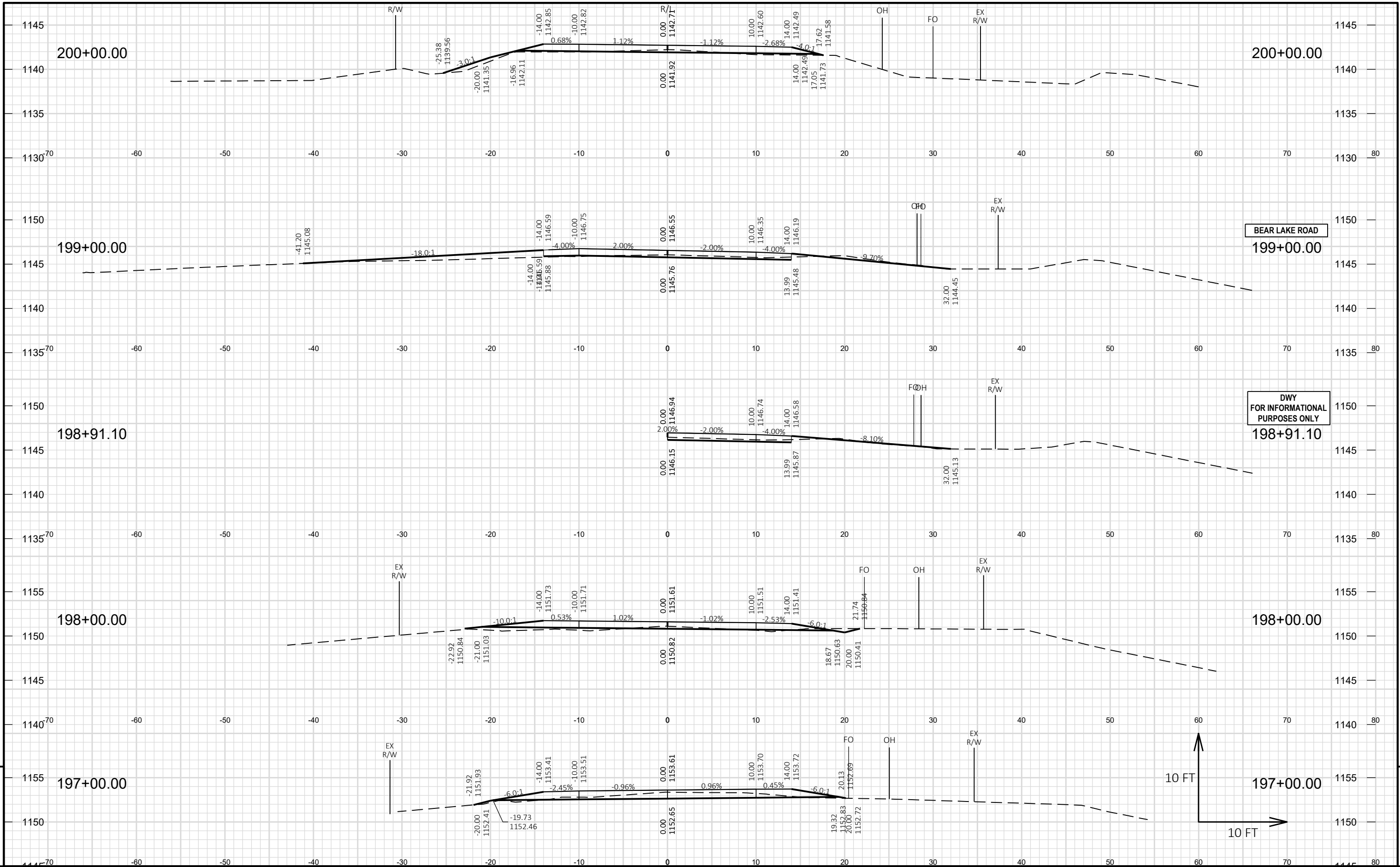
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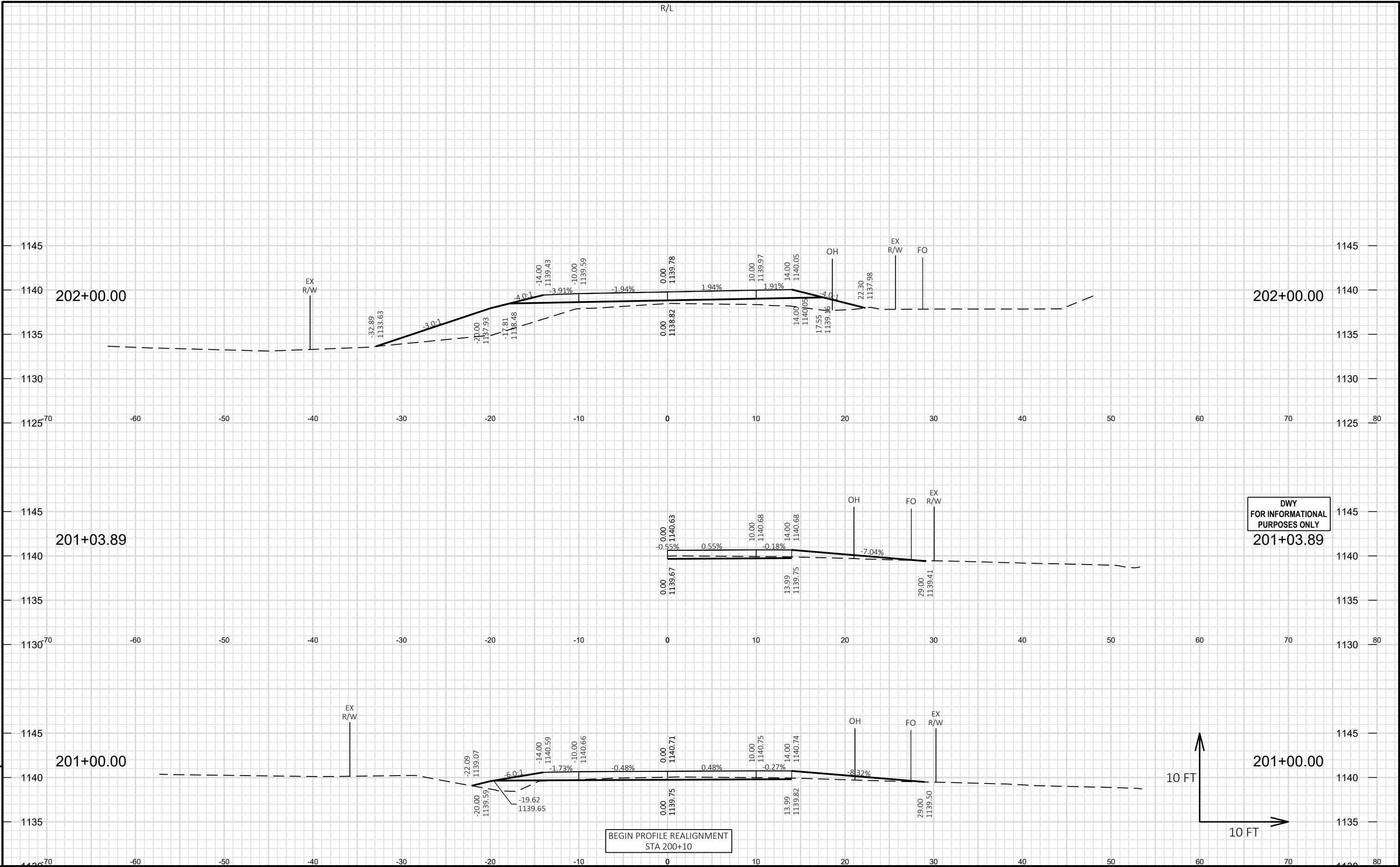
PROJECT NO: 6808-02-70	HWY: STANDING ROCKS ROAD	COUNTY: PORTAGE	CROSS SECTIONS: STANDING ROCKS ROAD	SHEET E
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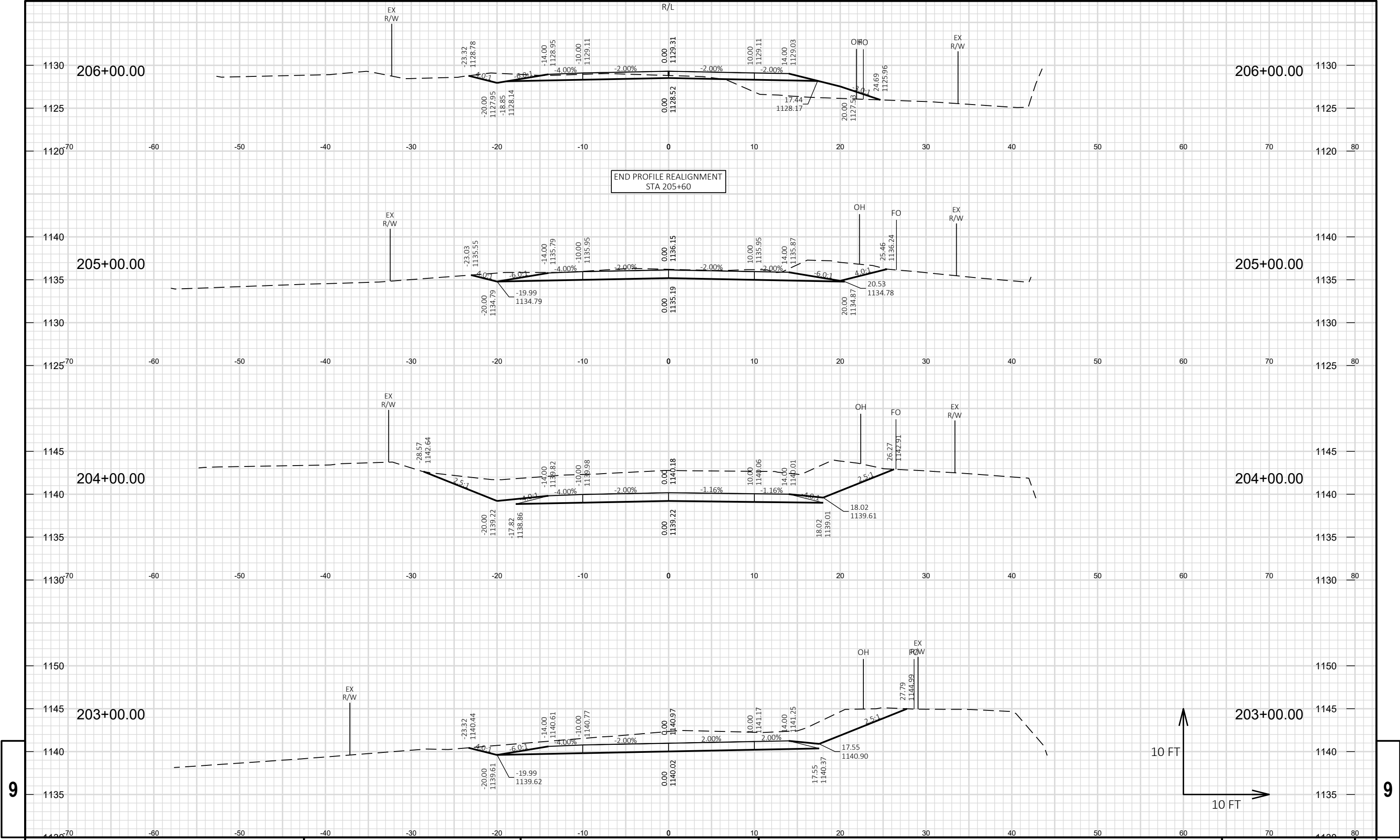


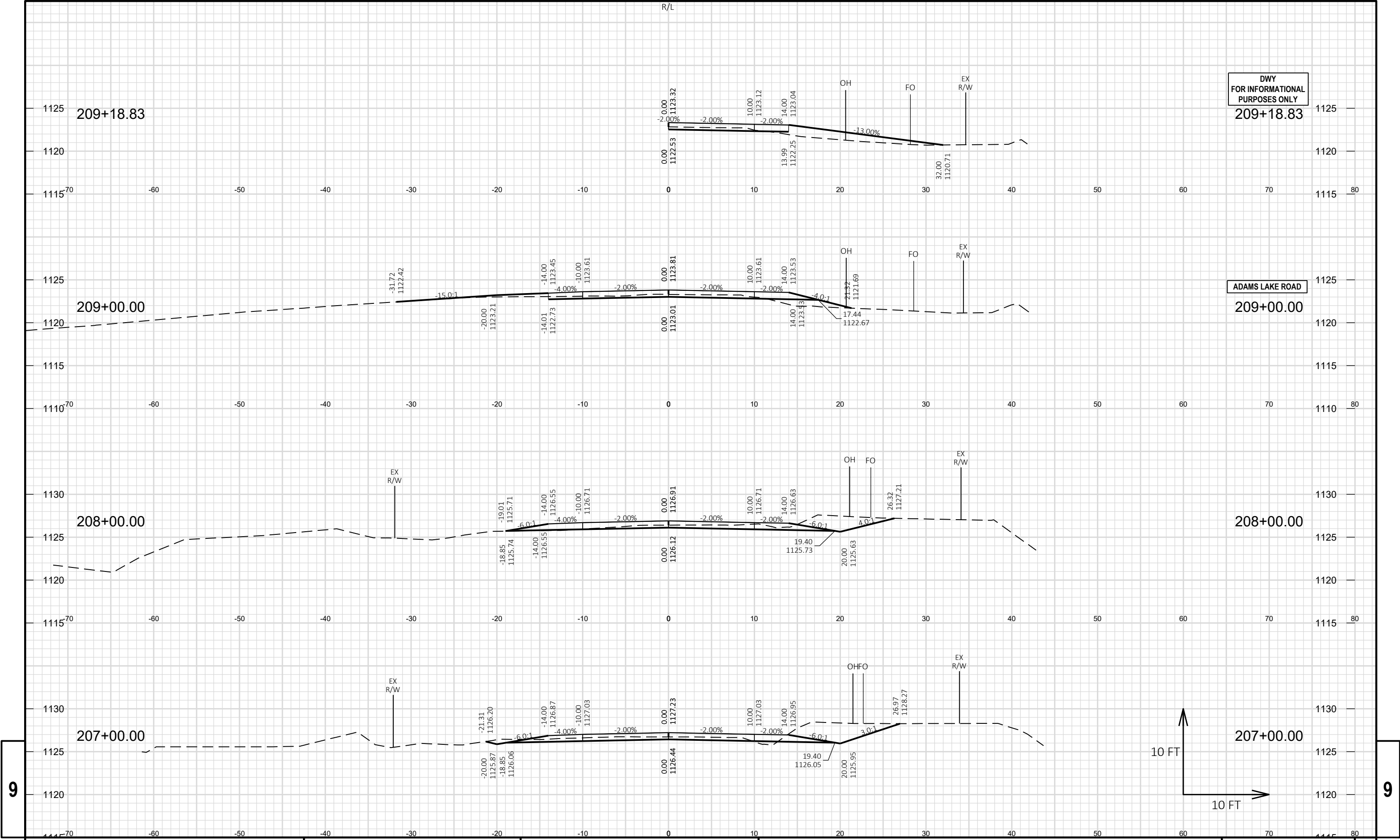
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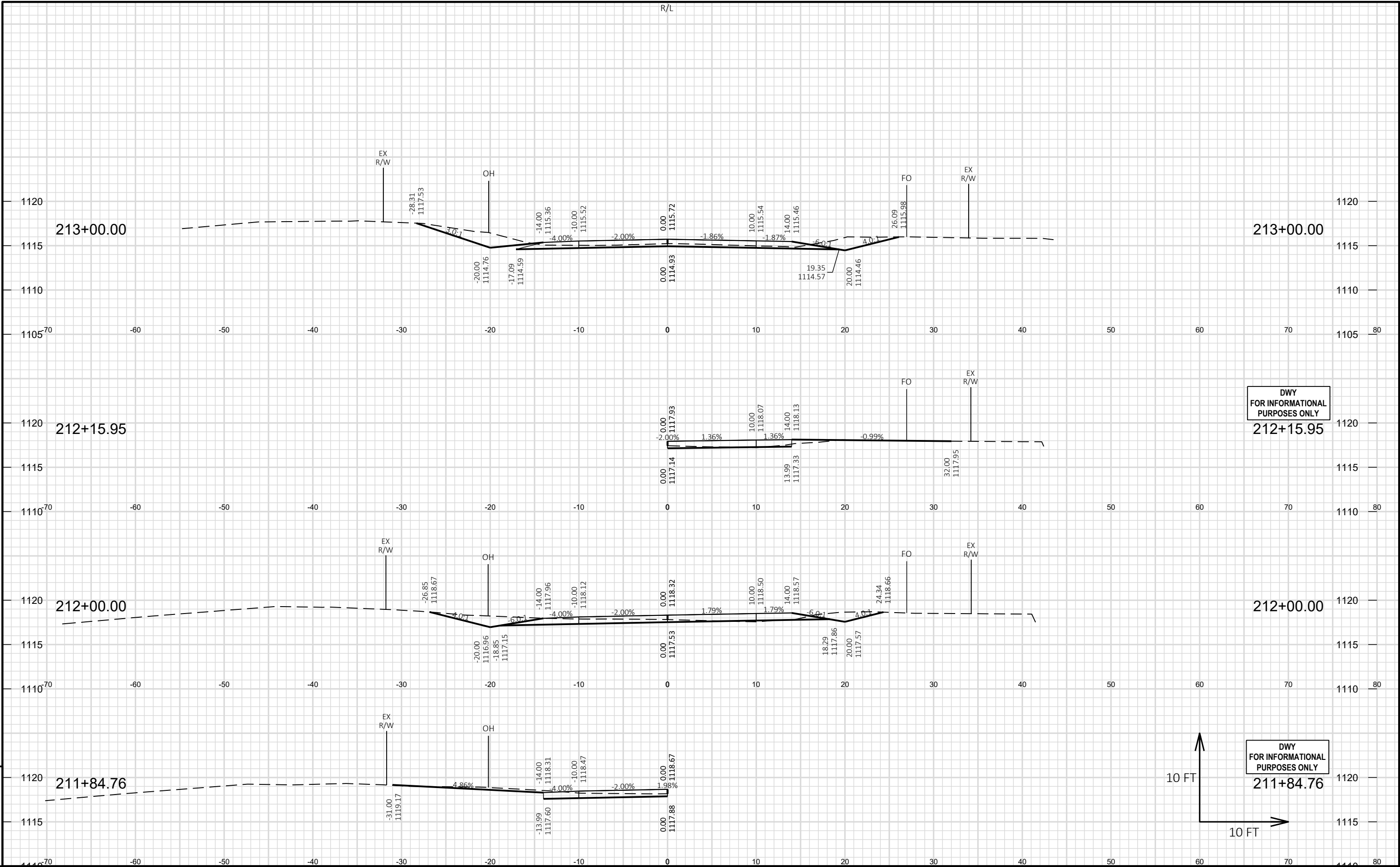
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PURPOSES ONLY

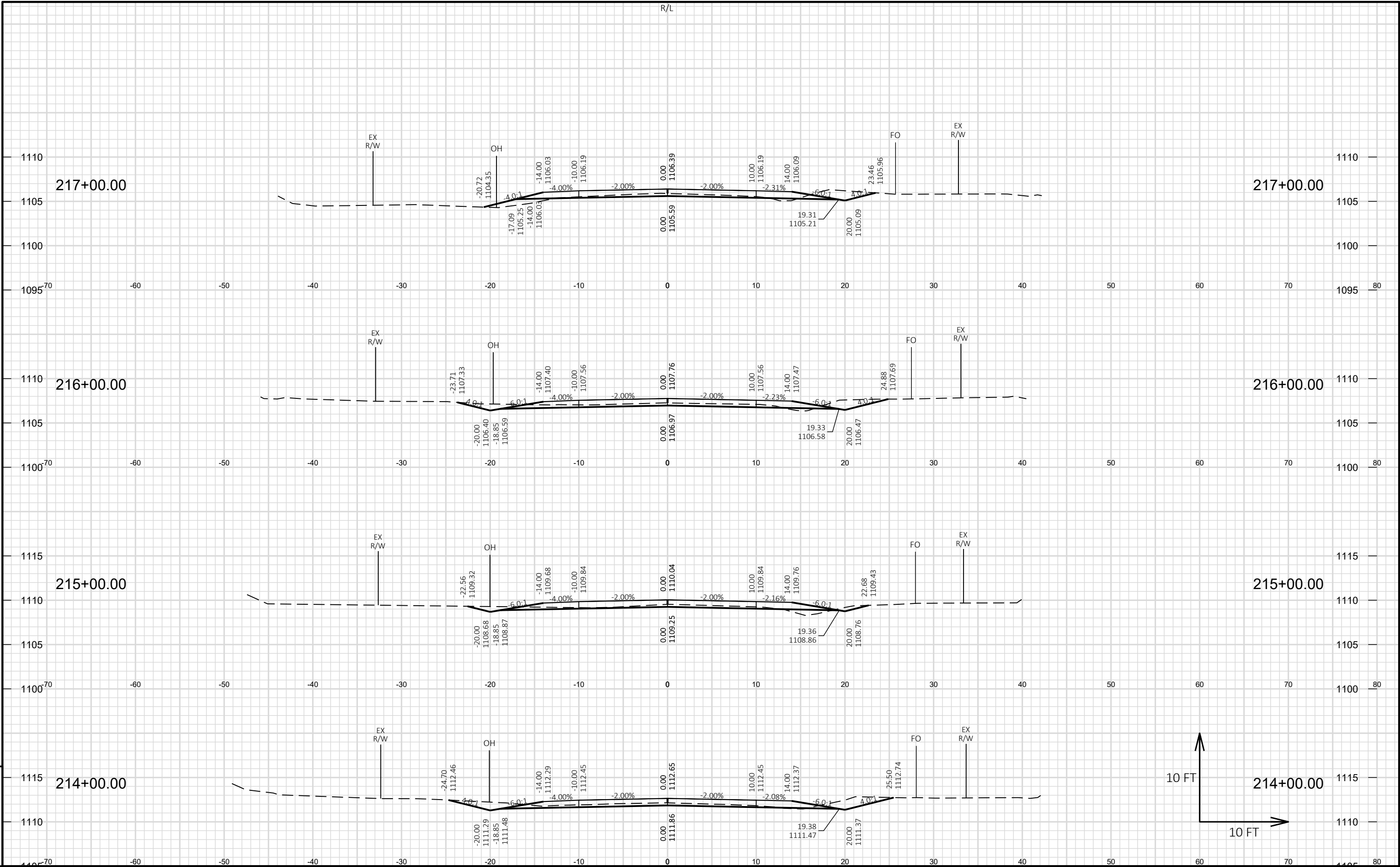
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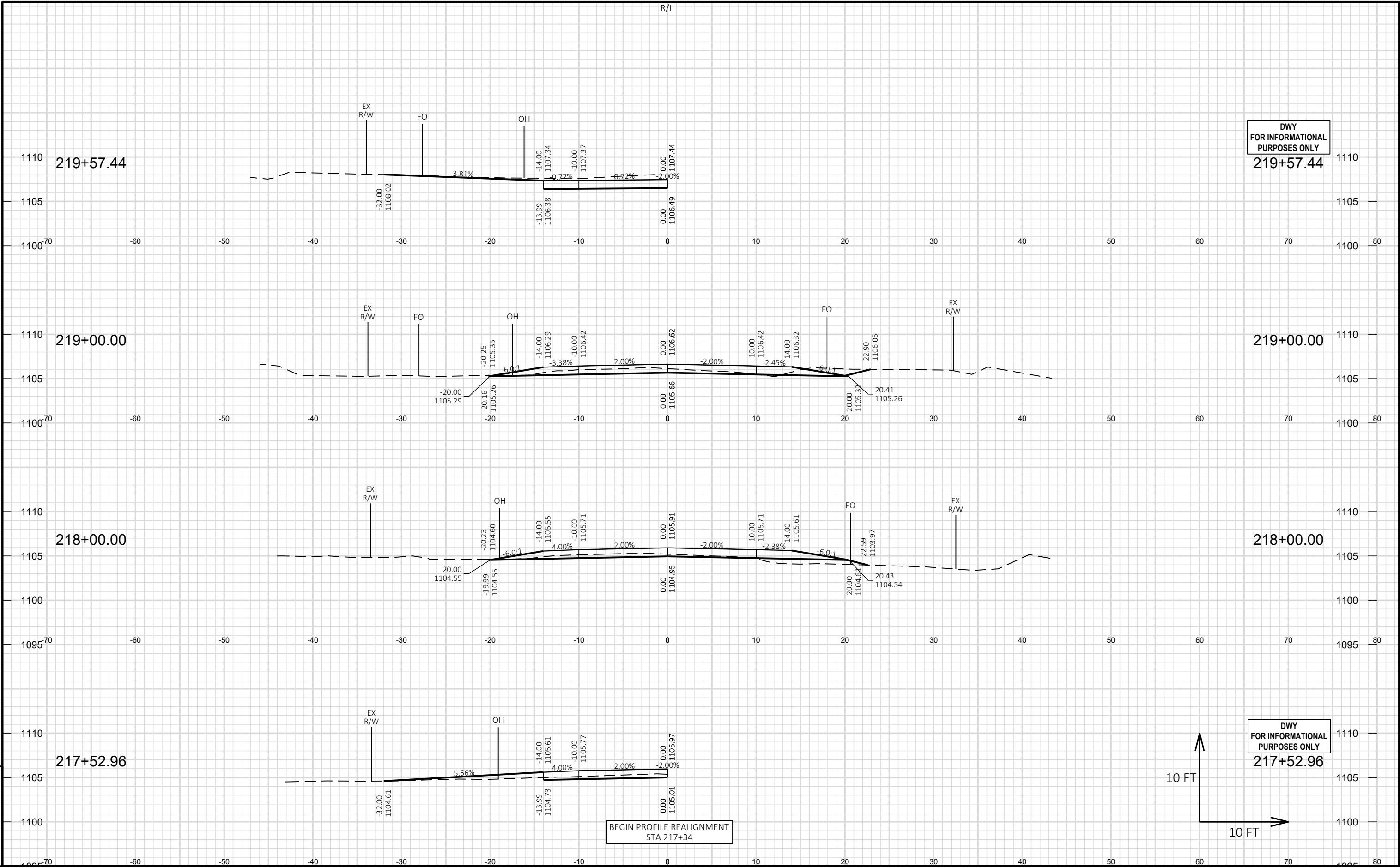
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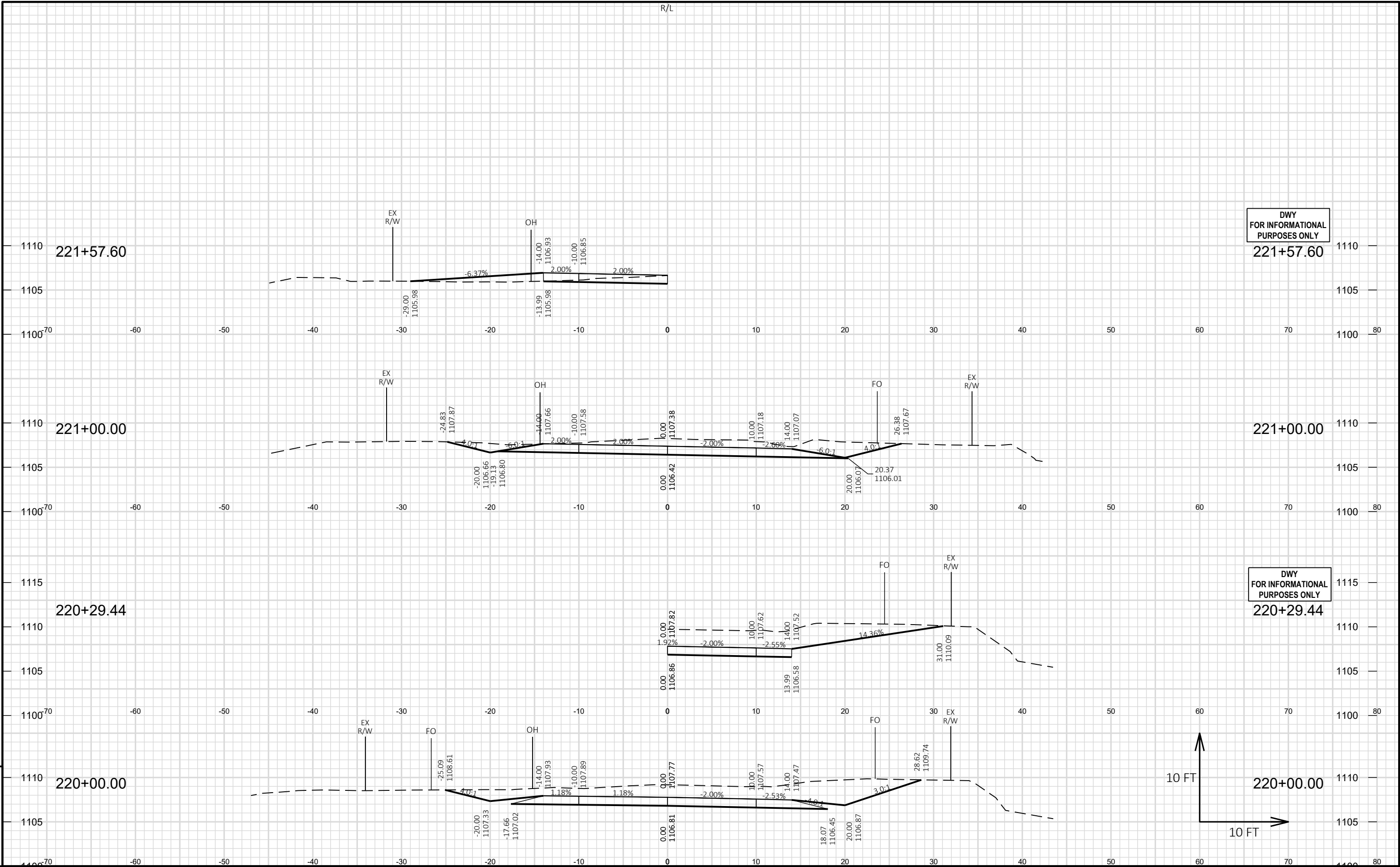
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PROJECT NO: 6808-02-70	HWY: STANDING ROCKS ROAD	COUNTY: PORTAGE	CROSS SECTIONS: STANDING ROCKS ROAD	SHEET
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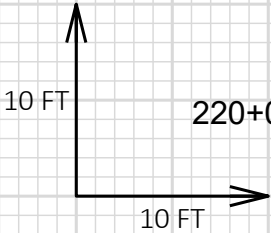


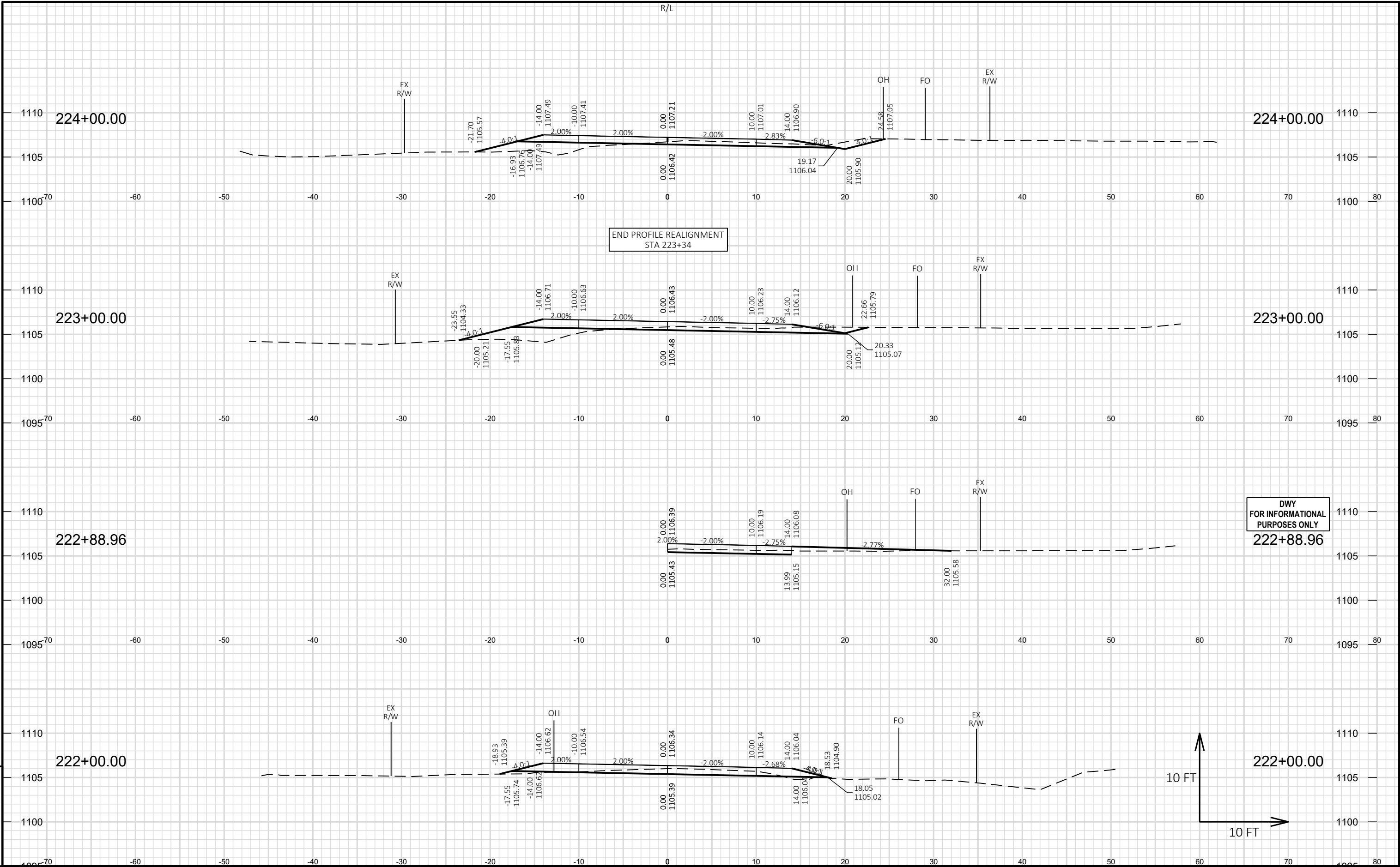


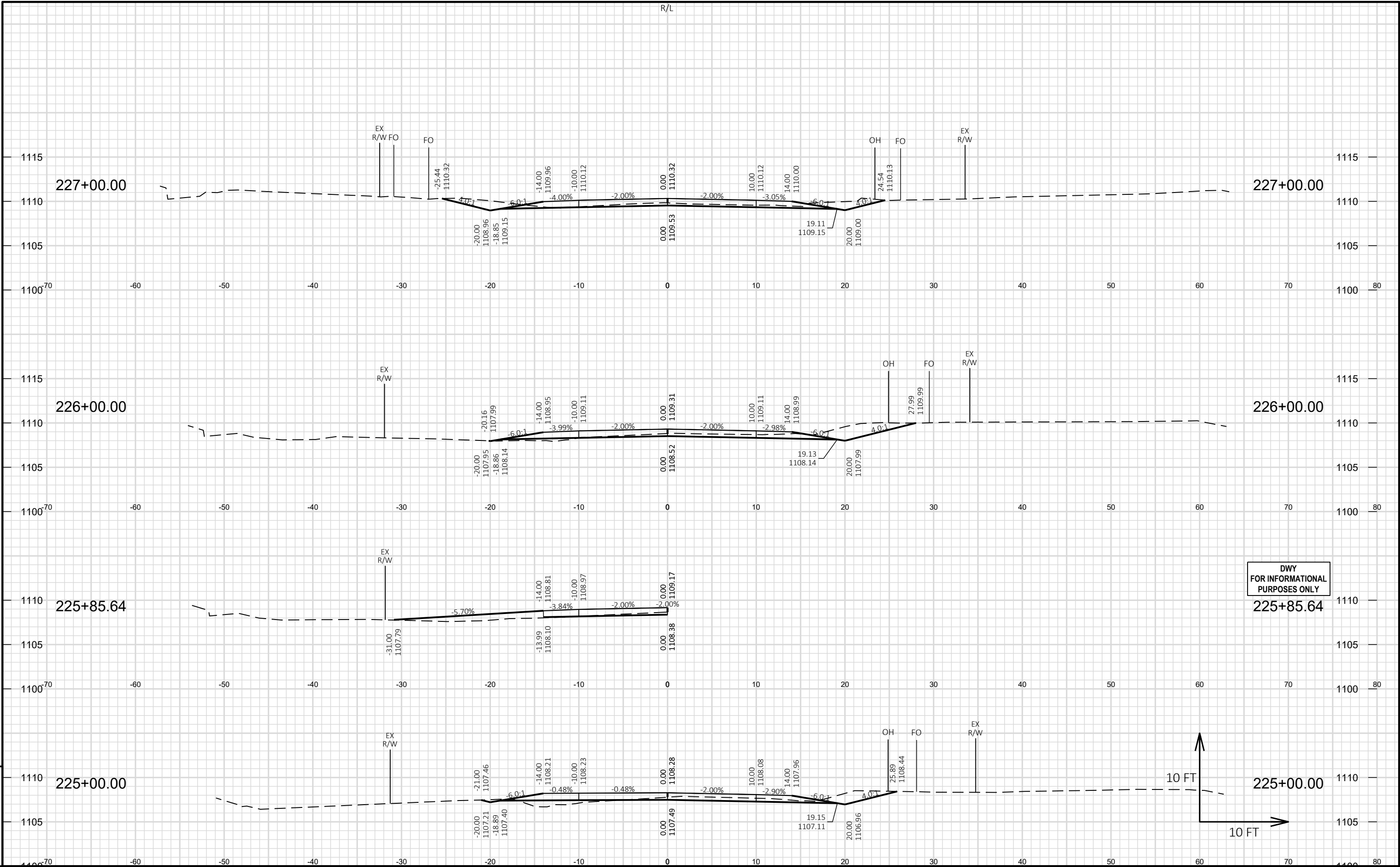


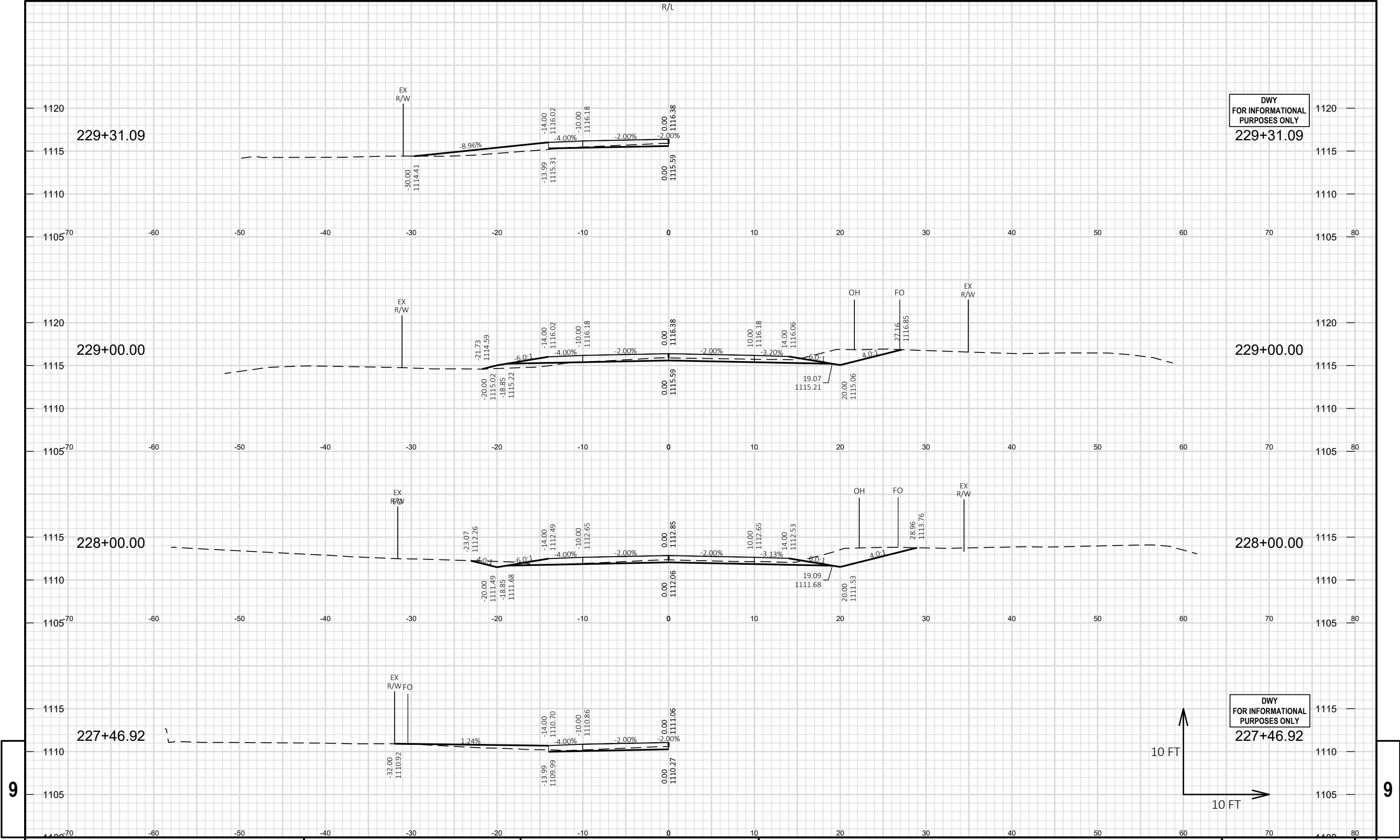
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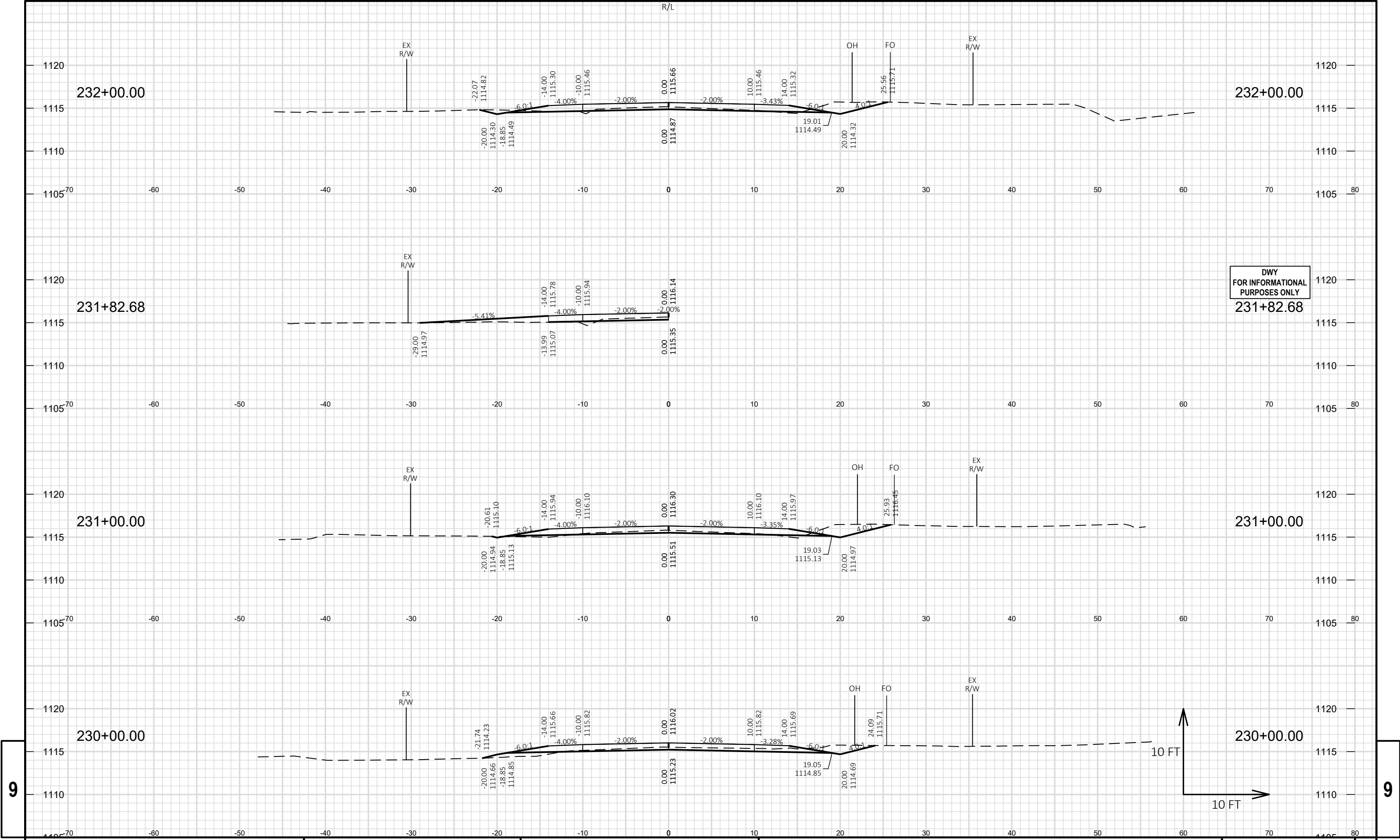






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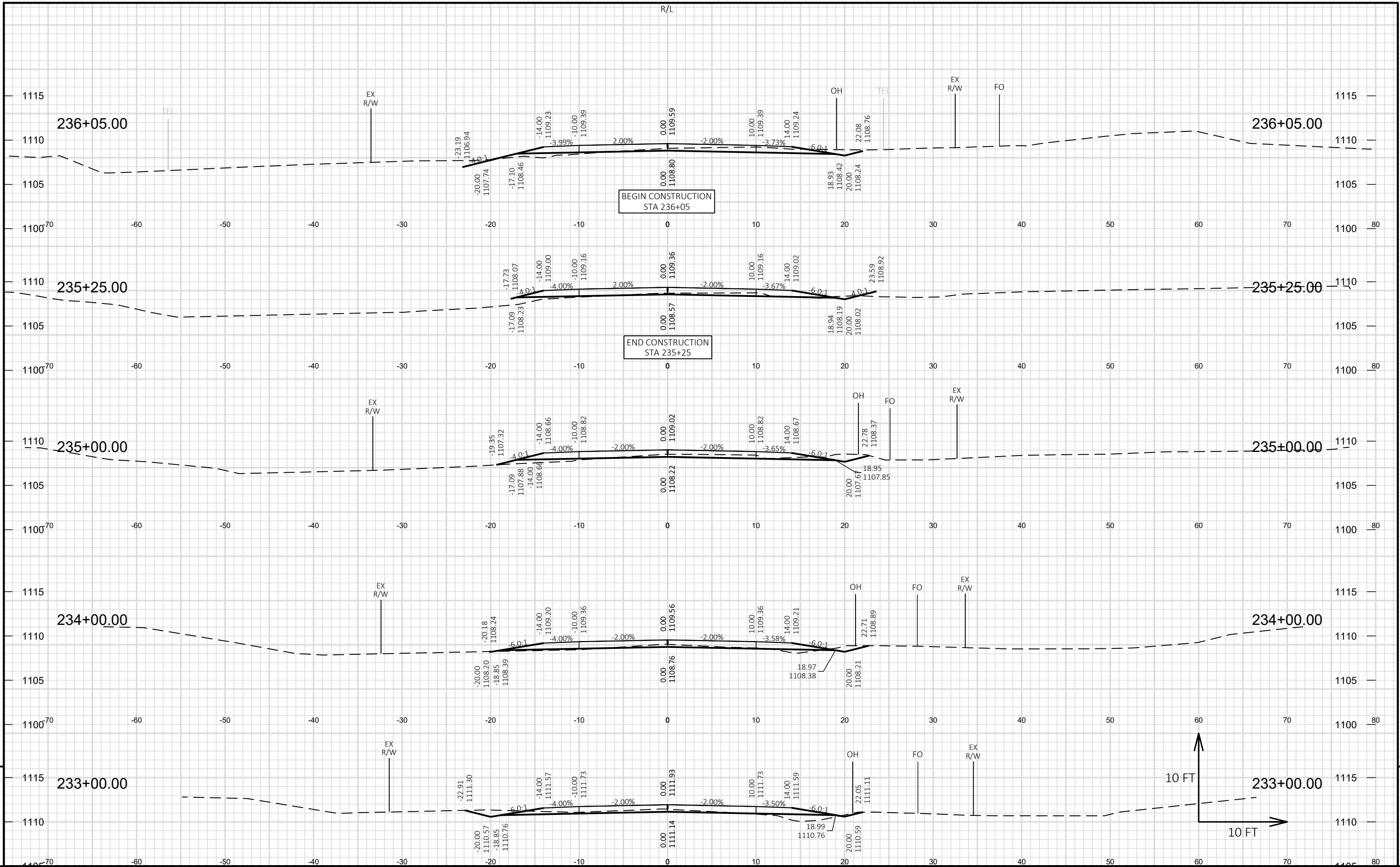


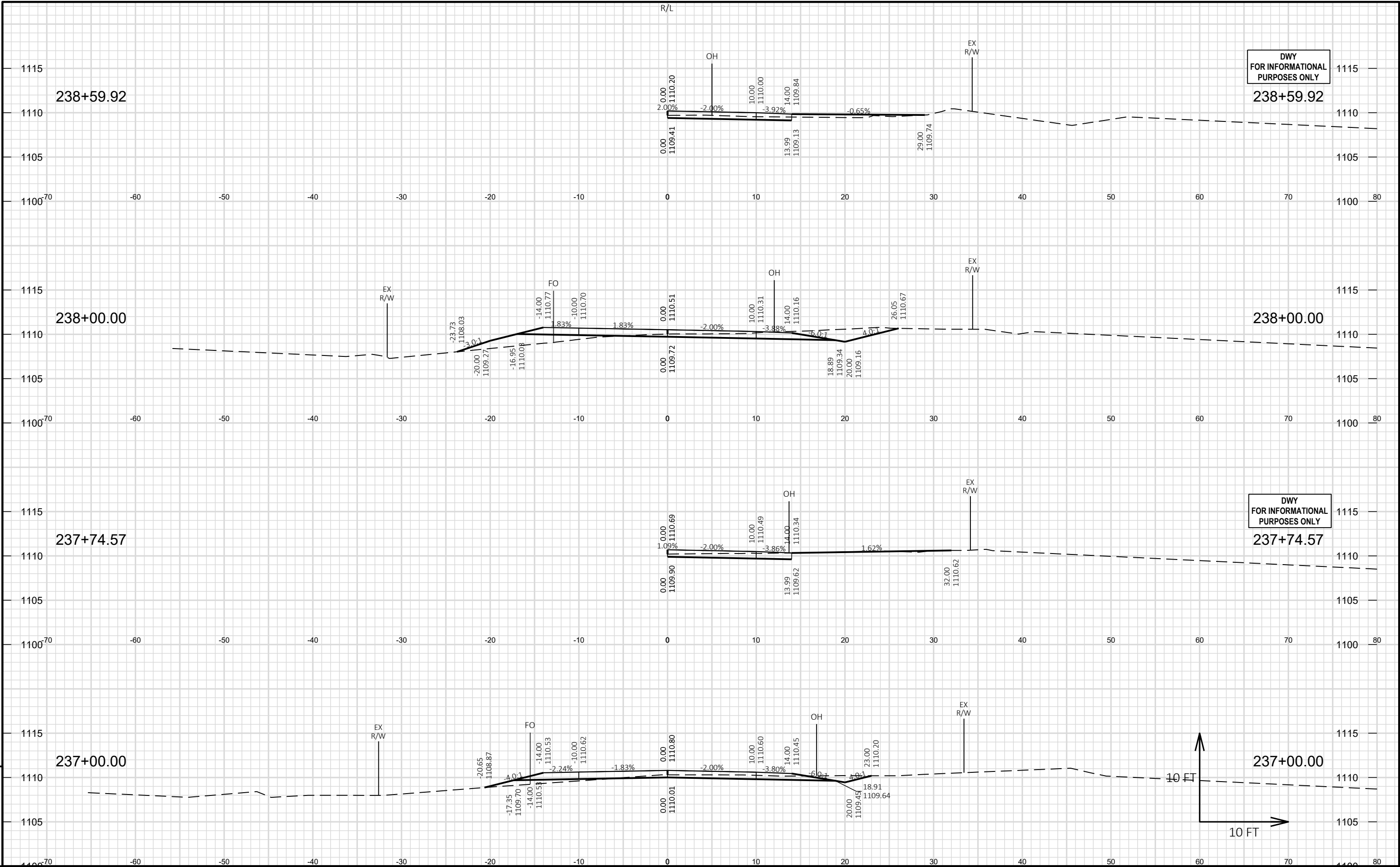
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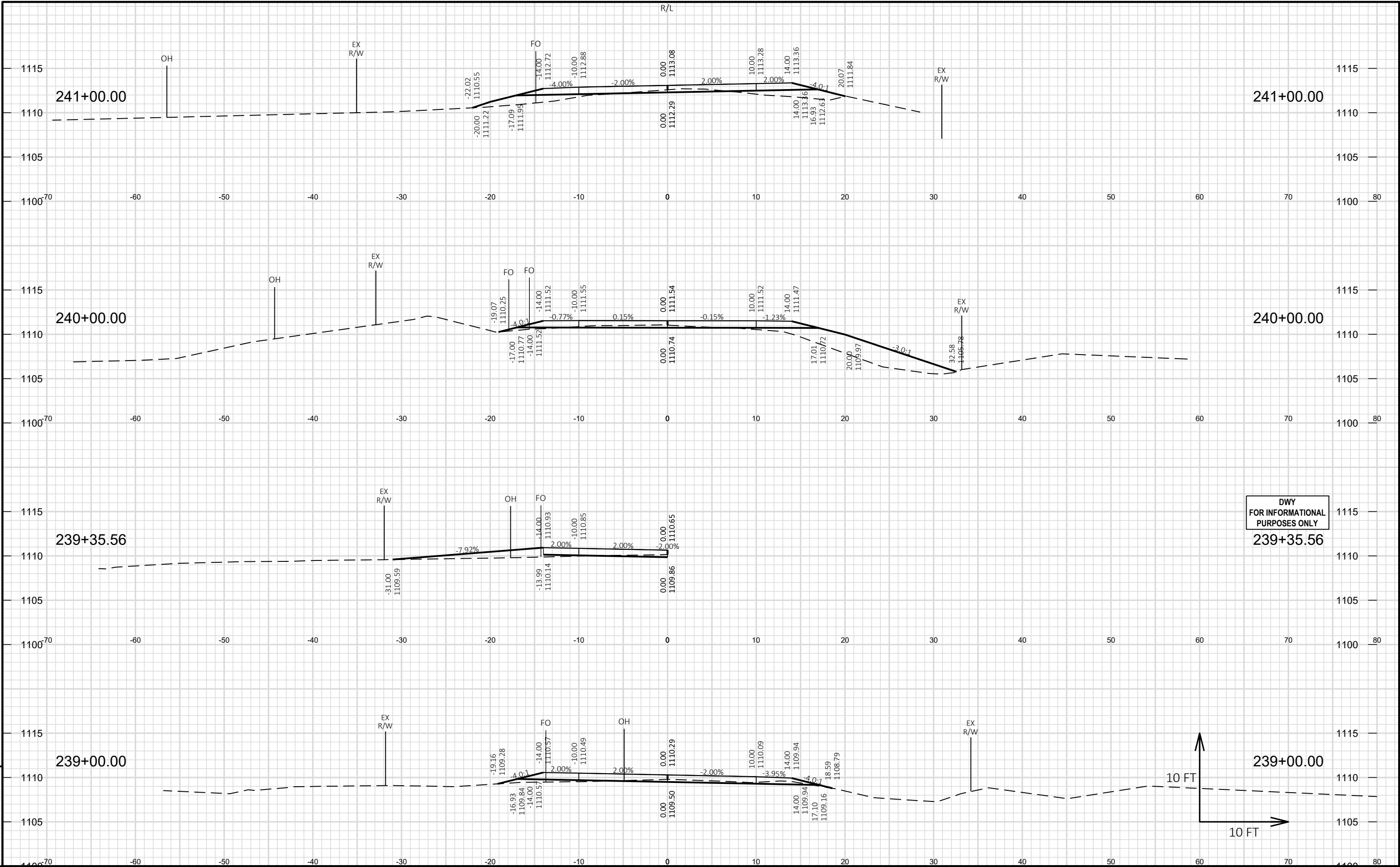
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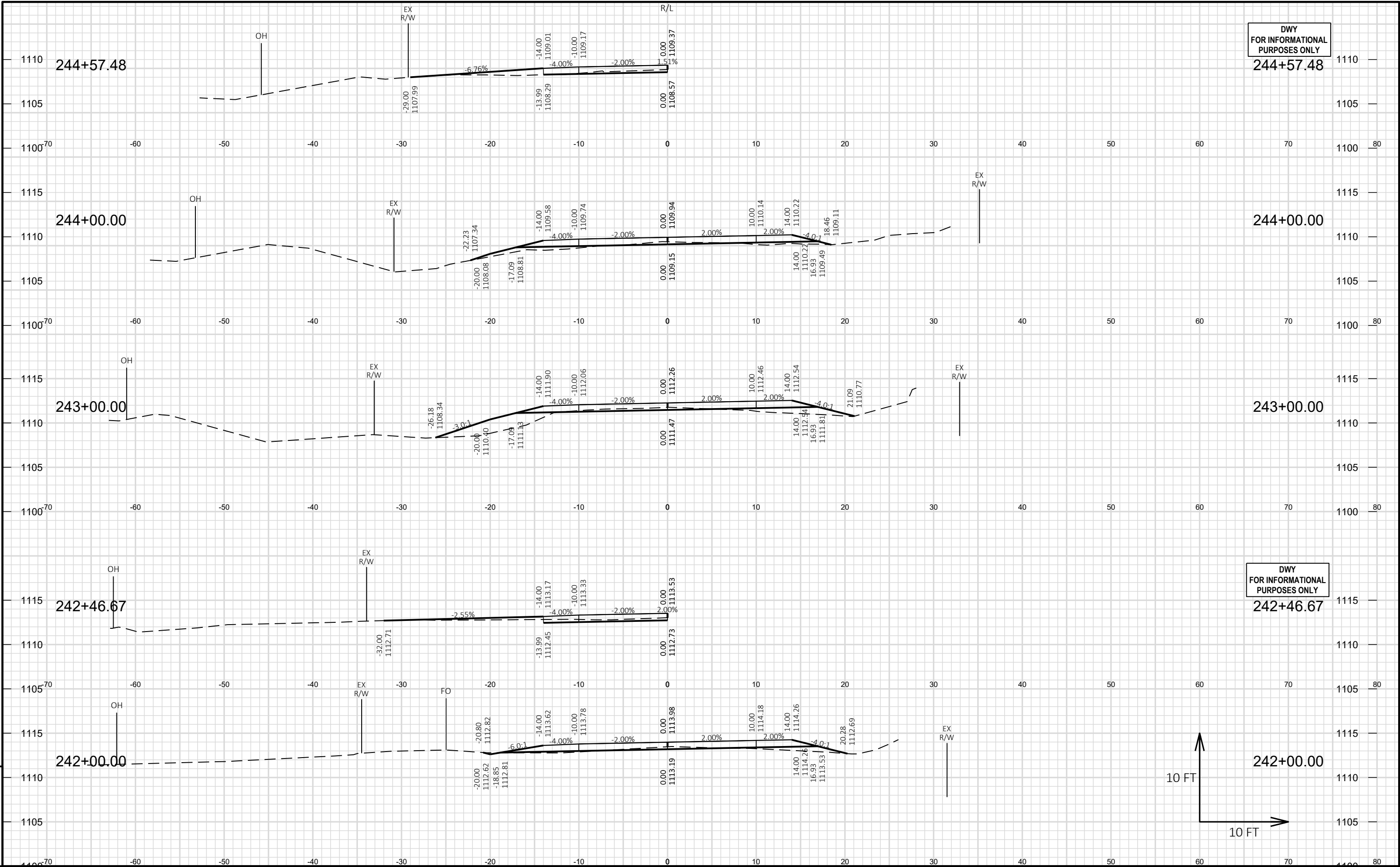
PROJECT NO: 6808-02-70	HWY: STANDING ROCKS ROAD	COUNTY: PORTAGE	CROSS SECTIONS: STANDING ROCKS ROAD	SHEET
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244+57.48

244+00.00

243+00.00

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242+46.67

242+00.00

PROJECT NO: 6808-02-70

HWY: STANDING ROCKS ROAD

COUNTY: PORTAGE

CROSS SECTIONS: STANDING ROCKS ROAD

SHEET

E

FILE NAME : P:\PROJECTS_CURRENT\PORTAGE\STOCKTON, TOWN OF\STANDING ROCKS ROAD - 2023\ACAD\DESIGN\CORRIDOR\STANDINGROCKSRD_ALTDDK.DWG
LAYOUT NAME - 182

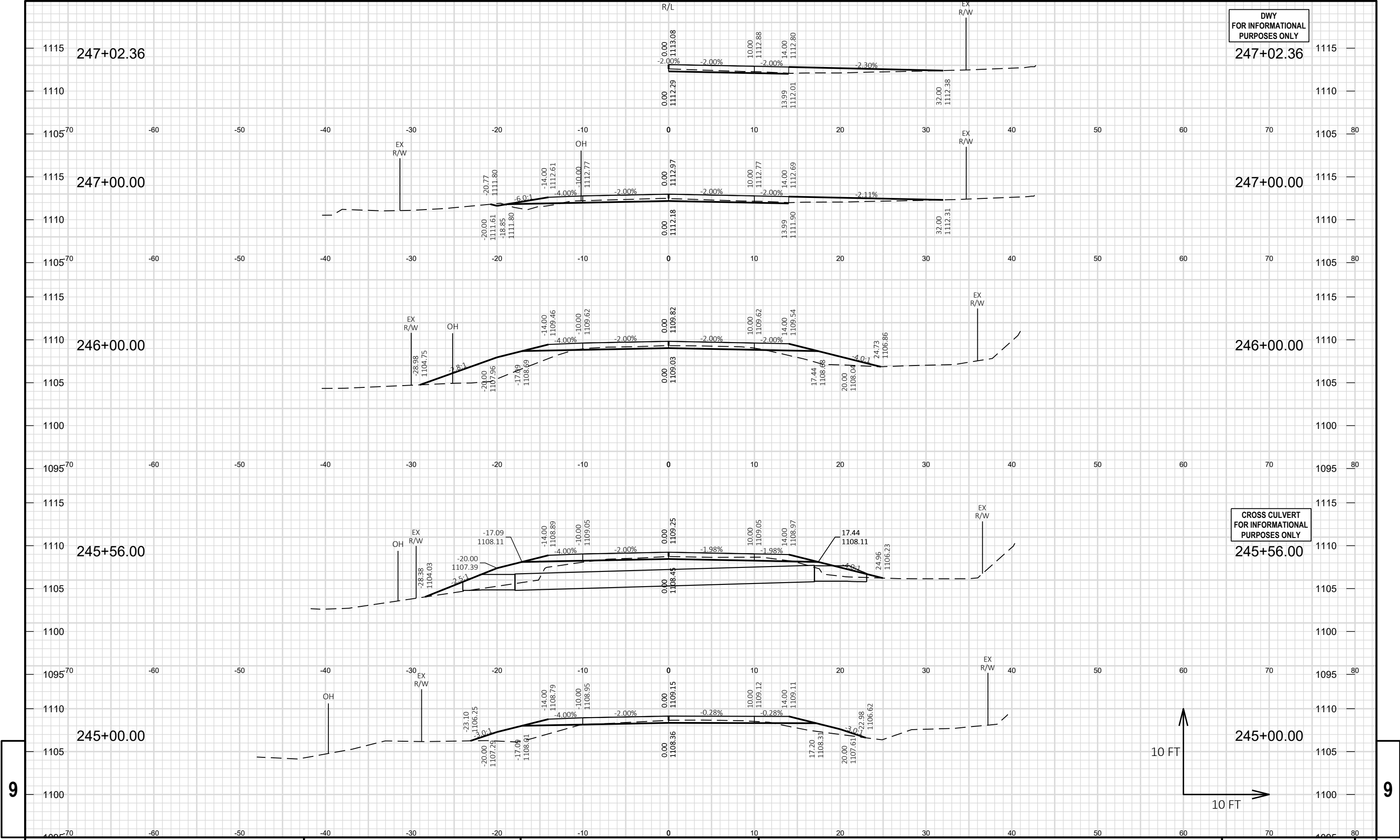
PLOT DATE : 7/23/2025 10:33 AM

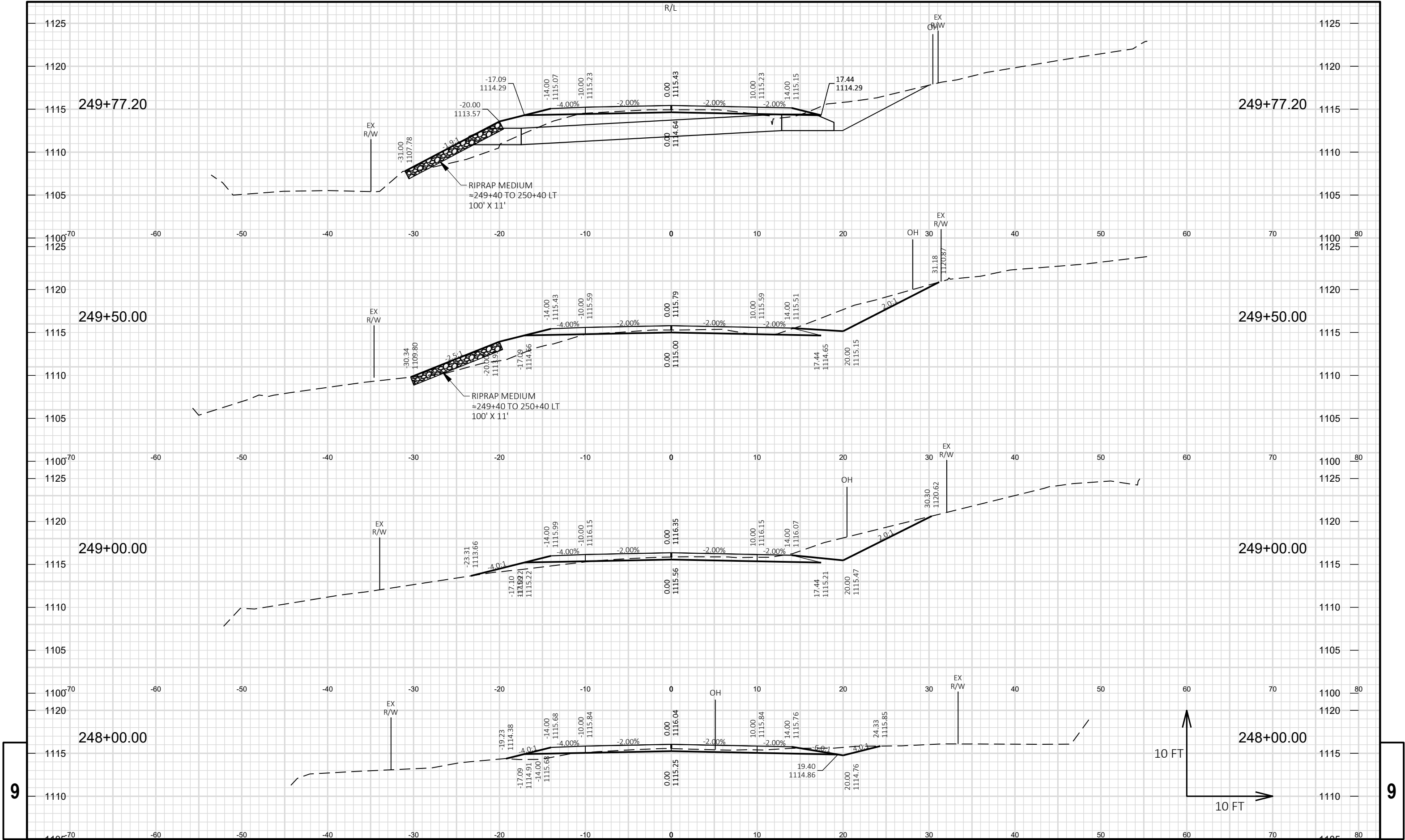
PLOT BY : DEXTER KAETTERHENRY

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDs SHEET 49





PROJECT NO: 6808-02-70

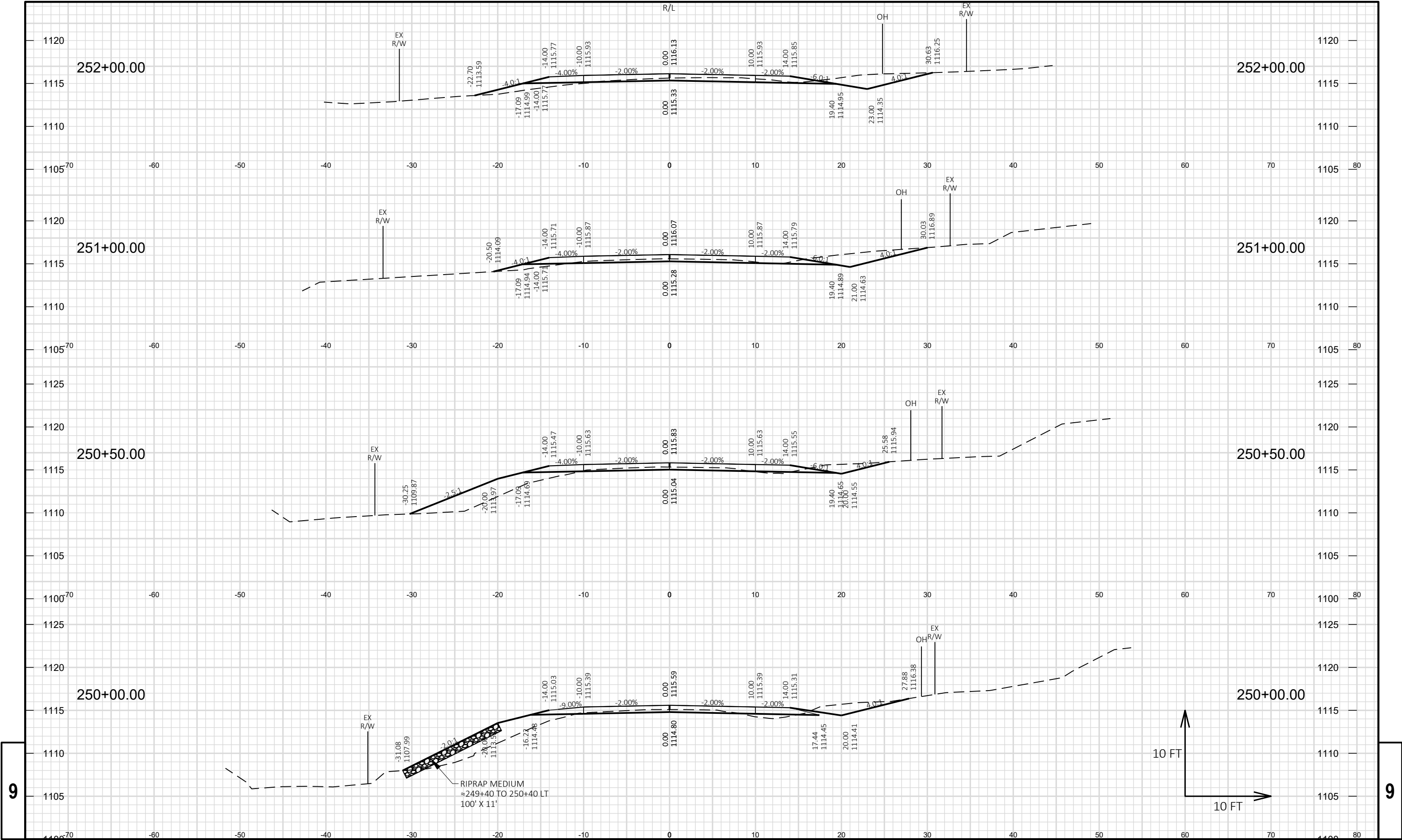
HWY: STANDING ROCKS ROAD

COUNTY: PORTAGE

CROSS SECTIONS: STANDING ROCKS ROAD

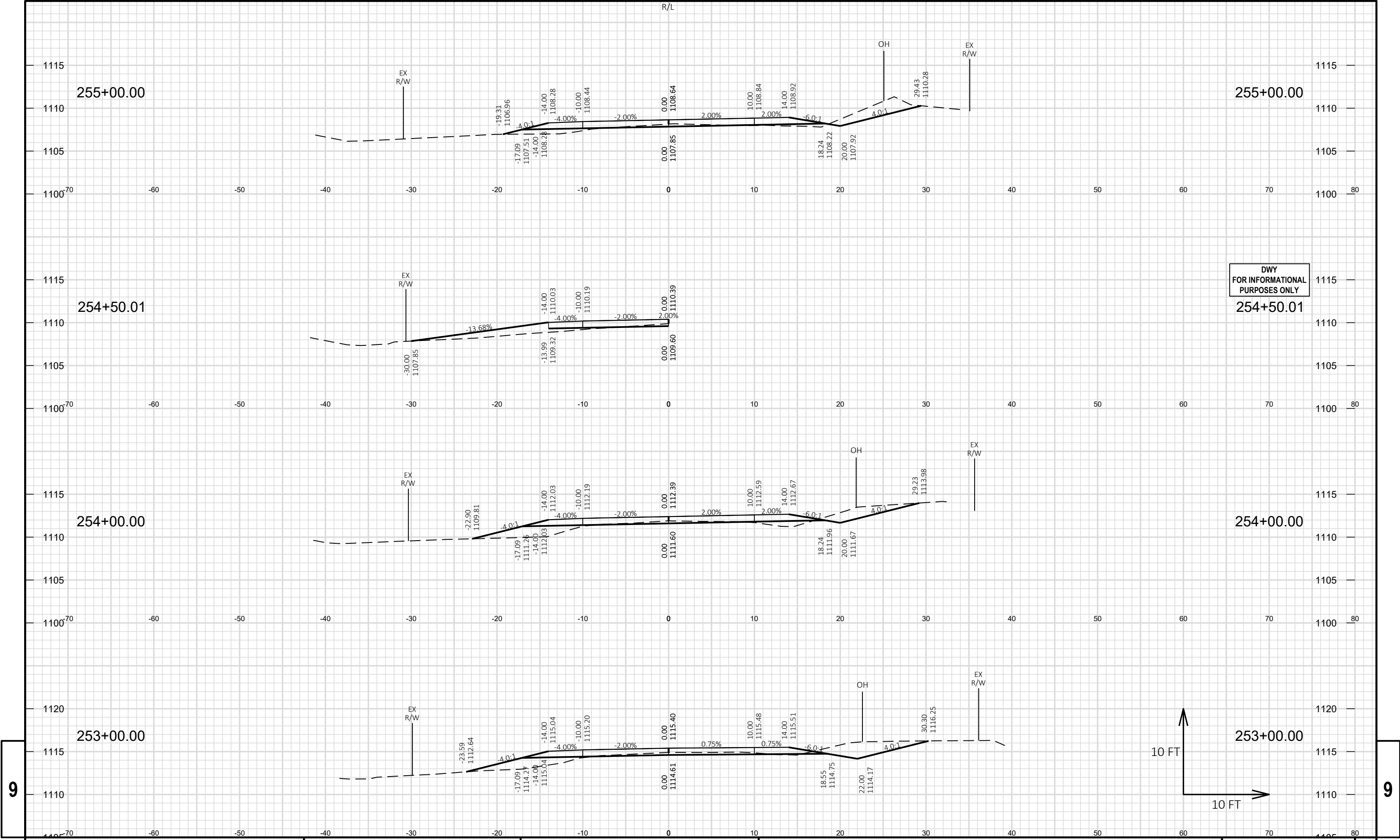
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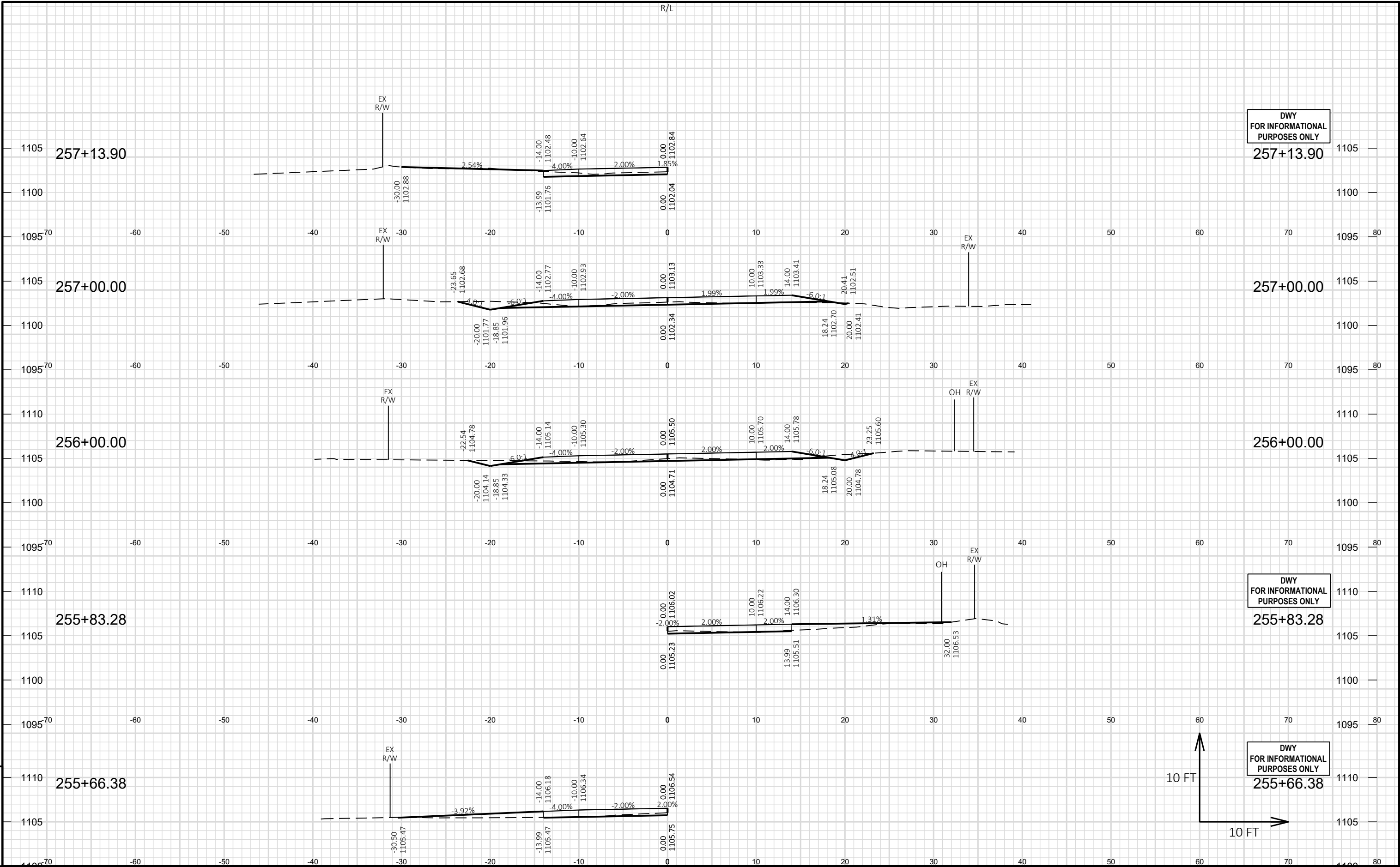


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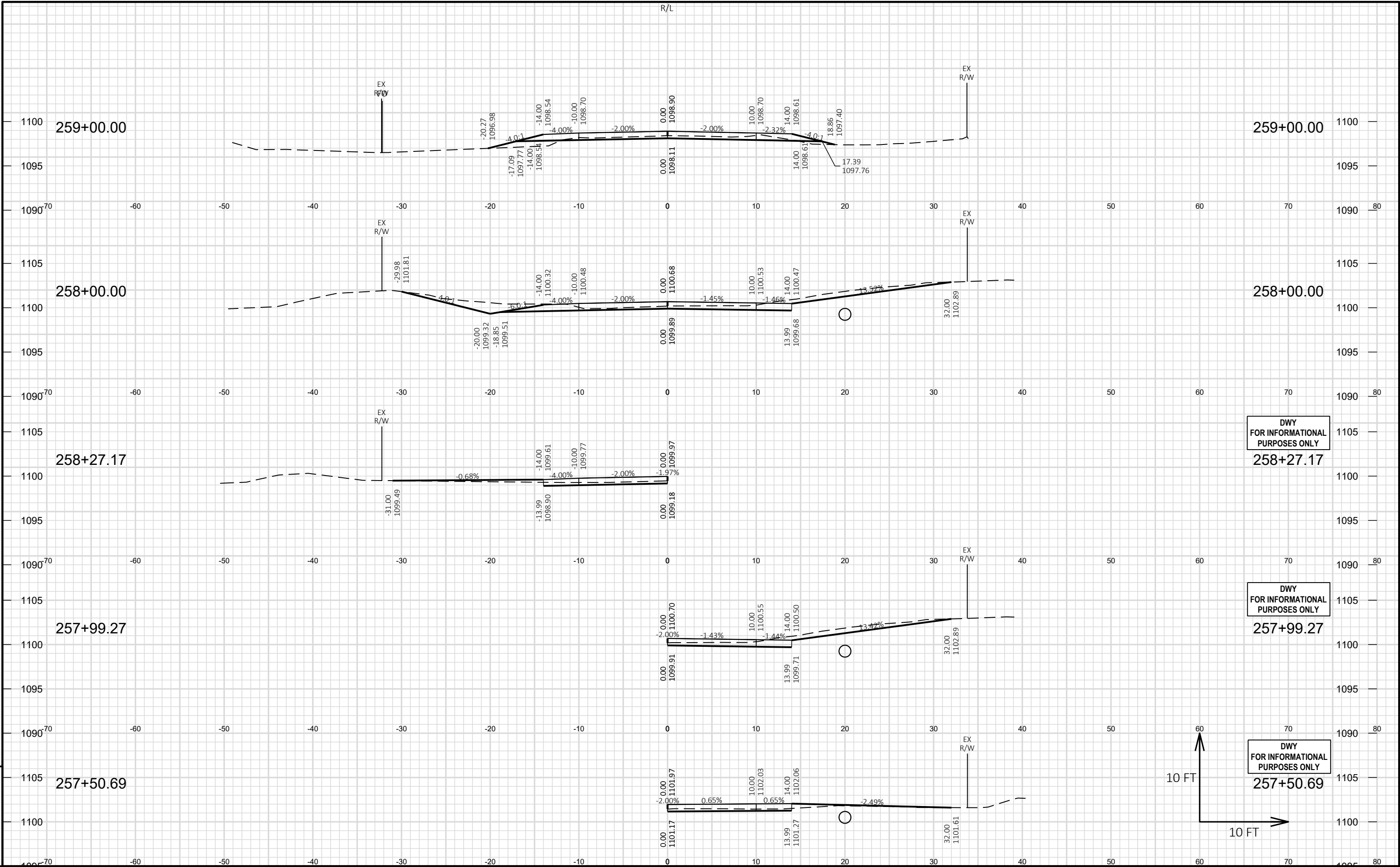


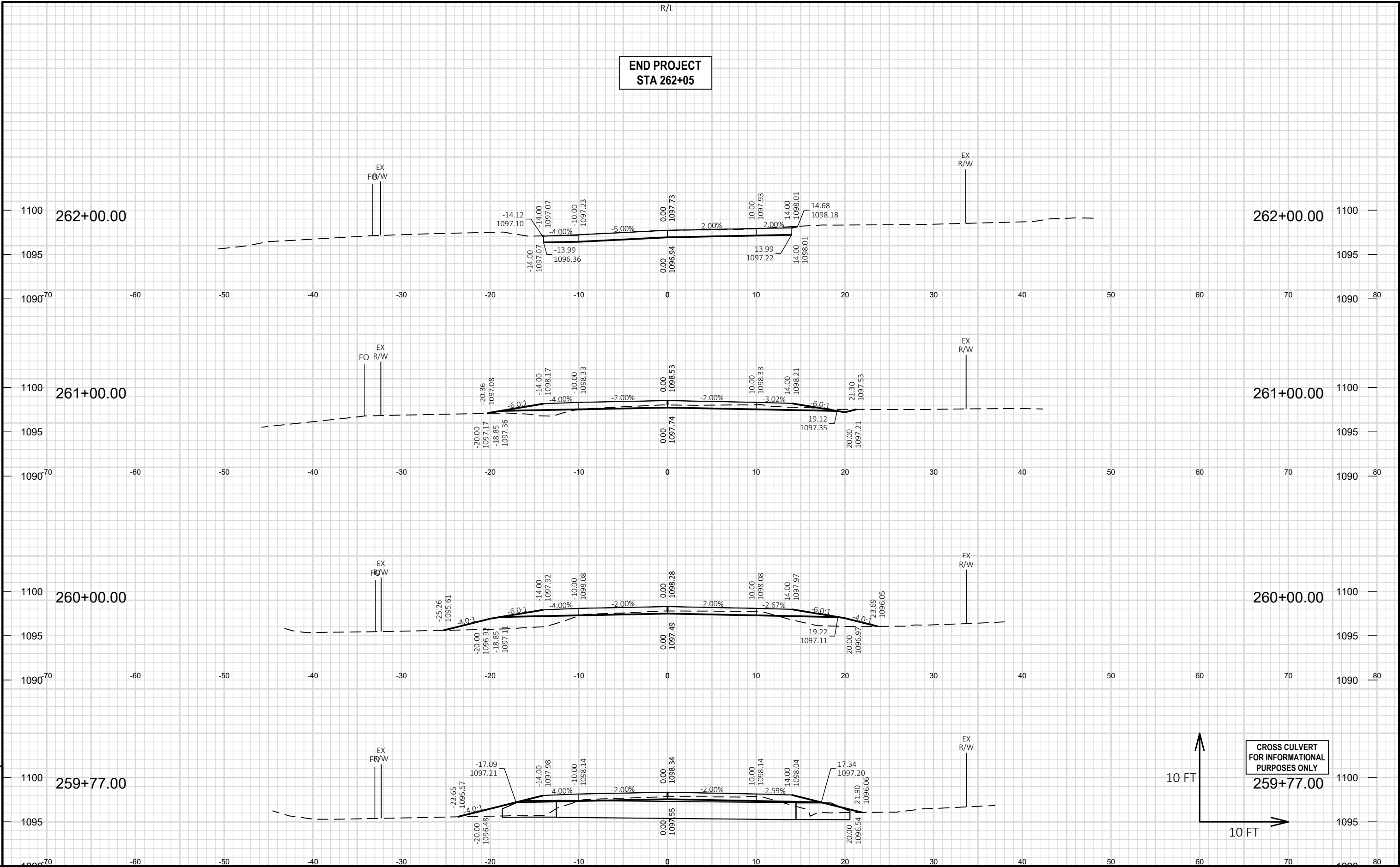
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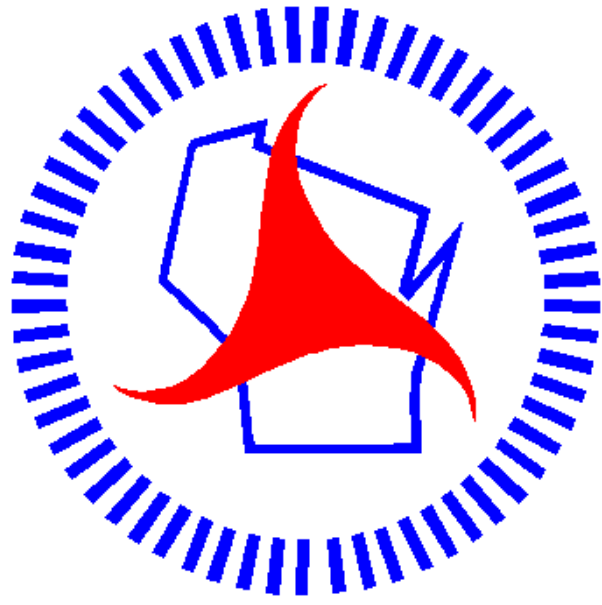
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