

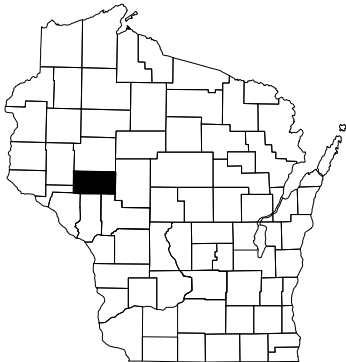
PROJECT ID: 1021-03-74

COUNTY: EAU CLAIRE

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 =



DESIGN DESIGNATION 1021-03-04

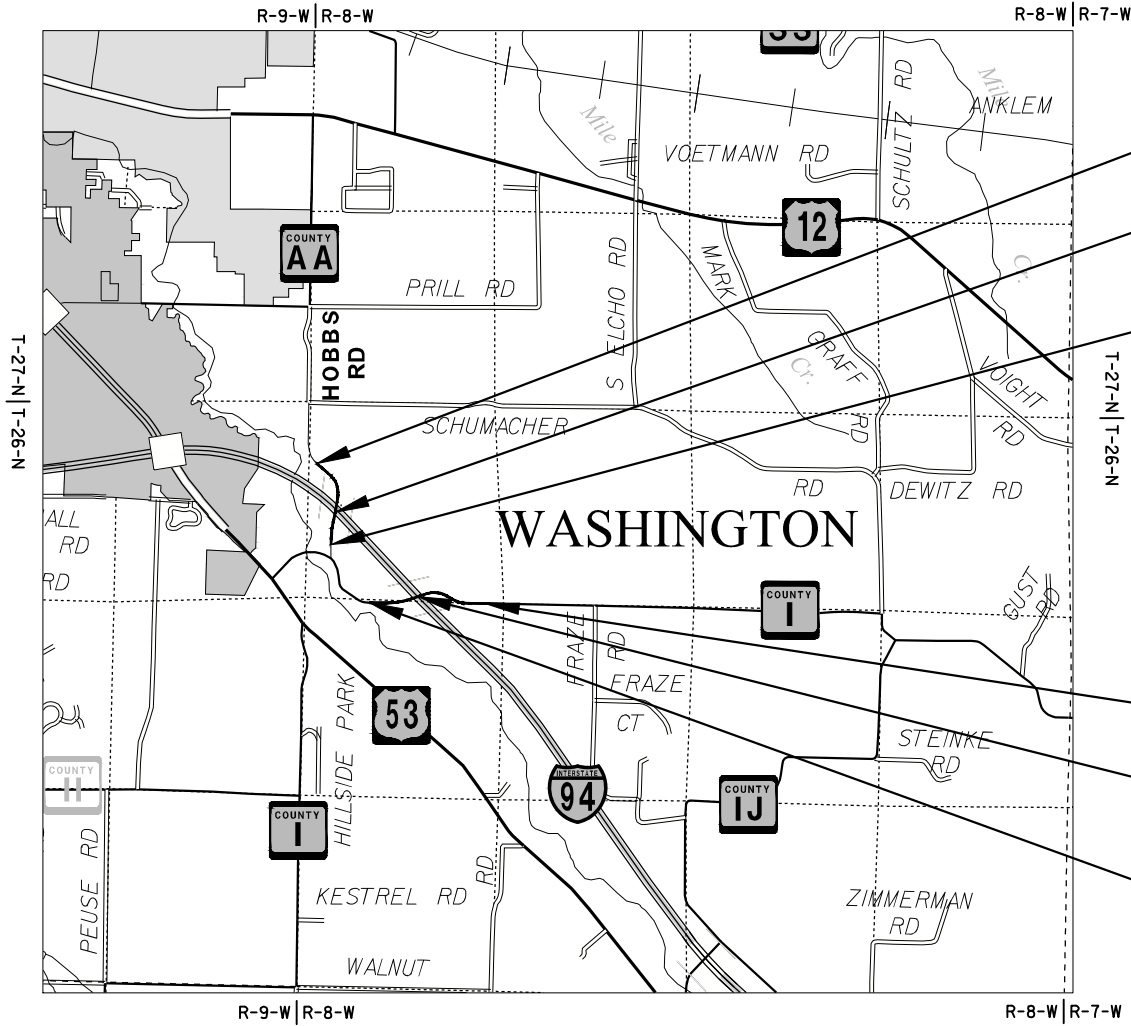
			Hobbs Rd	CTH I	IH 94
A.A.D.T.	2018	=	430	335	26,800
A.A.D.T.	2042	=	530	410	29,900
D.H.V.		=	N/A	N/A	7,270
D.D.		=	N/A	N/A	58/42
T.		=	6.0%	6.0%	32.2%
DESIGN SPEED		=	45 MPH	45 MPH	70 MPH
ESALS		=	52,000	52,000	N/A

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	
OVERHEAD UTILITY	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

	ROCK
	LABEL
	95.36
	E
	OH
	FO
	G
	SAN
	SS
	T
	W



LAYOUT
SCALE 0 2 MILES

TOTAL NET LENGTH OF CENTERLINE = 0.672 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, EAU CLAIRE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE PROJECT NUMBER
1021-03-74

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1021-03-74		

END PROJECT
STA. 23'H+75.00

HOBBS RD BRIDGE
STRUCTURE B-18-210
R-18-47 & R-18-48

BEGIN PROJECT
STA. 11'H+00
Y = 260605.72
X = 364009.08

END PROJECT
STA. 36'I+39.33

CTH I BRIDGE
STRUCTURE B-18-232
R-18-49 & R-18-50

BEGIN PROJECT
STA. 13'I+66.37
Y = 258503.23
X = 365733.81

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	NW REGION
Designer	LUCAS BUDDEN
Project Manager	MATTHEW THORSEN
Regional Examiner	TOU YANG
Regional Supervisor	TARA WEISS
APPROVED FOR THE DEPARTMENT	
DATE:	(Signature)

E

UTILITIES

COMMUNICATIONS LINE

AT&T LEGACY
MR. WILLIAM KOENIG
110 N. MAIN ST.
CULVER, IN 46511
PHONE: (608) 628-0575
Jmc140@myfrontiermall.com

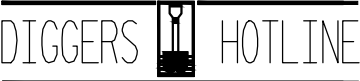
WINDSTREAM KDL, INC.
MR. JIM KOSTUCH
13935 BISHOPS DR.
BROOKFIELD, WI 53005
PHONE: (262) 792-7938
UTILITY REPRESENTATIVE
DENNIS RUESS
PHONE: (608) 512-5587
dennis.ruess@windstream.com

ELECTRICITY - DISTRIBUTION

EAU CLAIRE ENERGY COOPERATIVE
MR. GARY BRECKA
8214 U.S. HWY 12
FALL CREEK, WI 54742-0368
PHONE: (715) 832-1603

DNR

DNR WEST CENTRAL REGION HEADQUARTERS
CHRIS WILLGER
1300 W. CLAIREMONT AVE.
EAU CLAIRE, WI 54701
PHONE: (715) 839-1609
christopherj.willger@wisconsin.gov



Dial 811 or (800)242-8511

www.DiggersHotline.com

GENERAL NOTES

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED AND MULCHED. ALL OTHER DISTURBED AREAS ARE TO BE SEEDED, FERTILIZED AND MULCHED AT THE CONTRACTORS EXPENSE.

THE EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND APPROVED BY THE ENGINEER IN CONSULTATION WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES.

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

LOCATIONS FOR PERMANENT SIGNS SHOWN ON THE PLAN ARE APPROXIMATE. ACTUAL LOCATIONS OF PERMANENT SIGNS ARE TO BE COORDINATED IN THE FIELD BY THE ENGINEER.

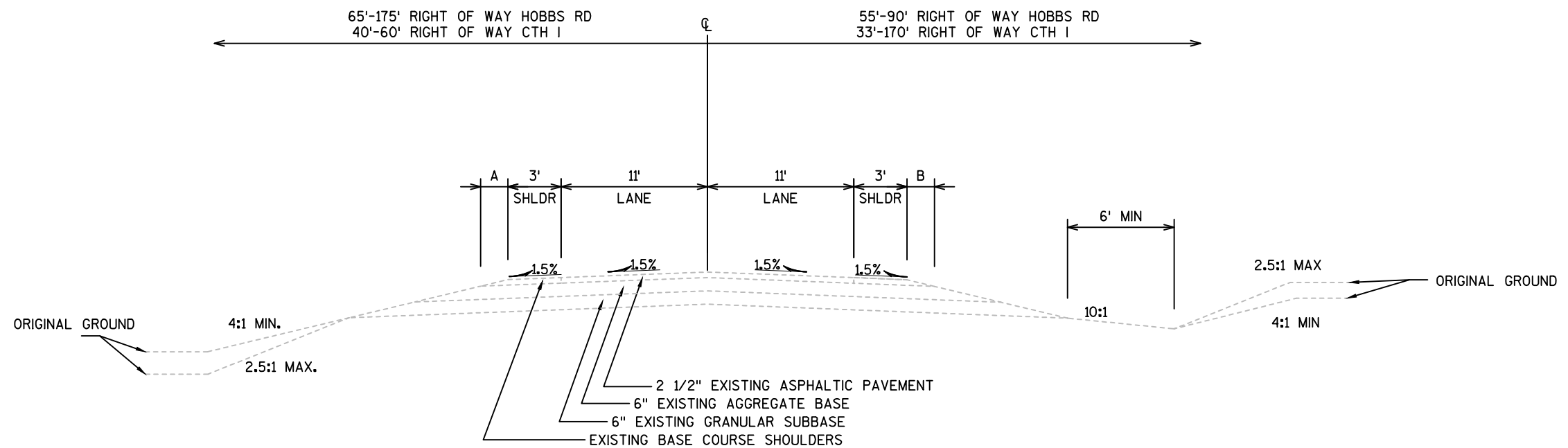
DETAILS OF INSTALLATION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS PLAN SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, SPECIAL PROVISIONS, STANDARD DETAILS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

TYPICAL FINISHED SECTION SHOWS THE GENERAL ROADWAY FEATURES THROUGHOUT THE PROJECT. PAVEMENT, SLOPES, BORDER SLOPES, ETC., MAY VARY WITHIN THE STATION LIMITS OF THE STATION SECTION.

ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH A 2.5" LOWER LAYER AND A 2.0" UPPER LAYER.

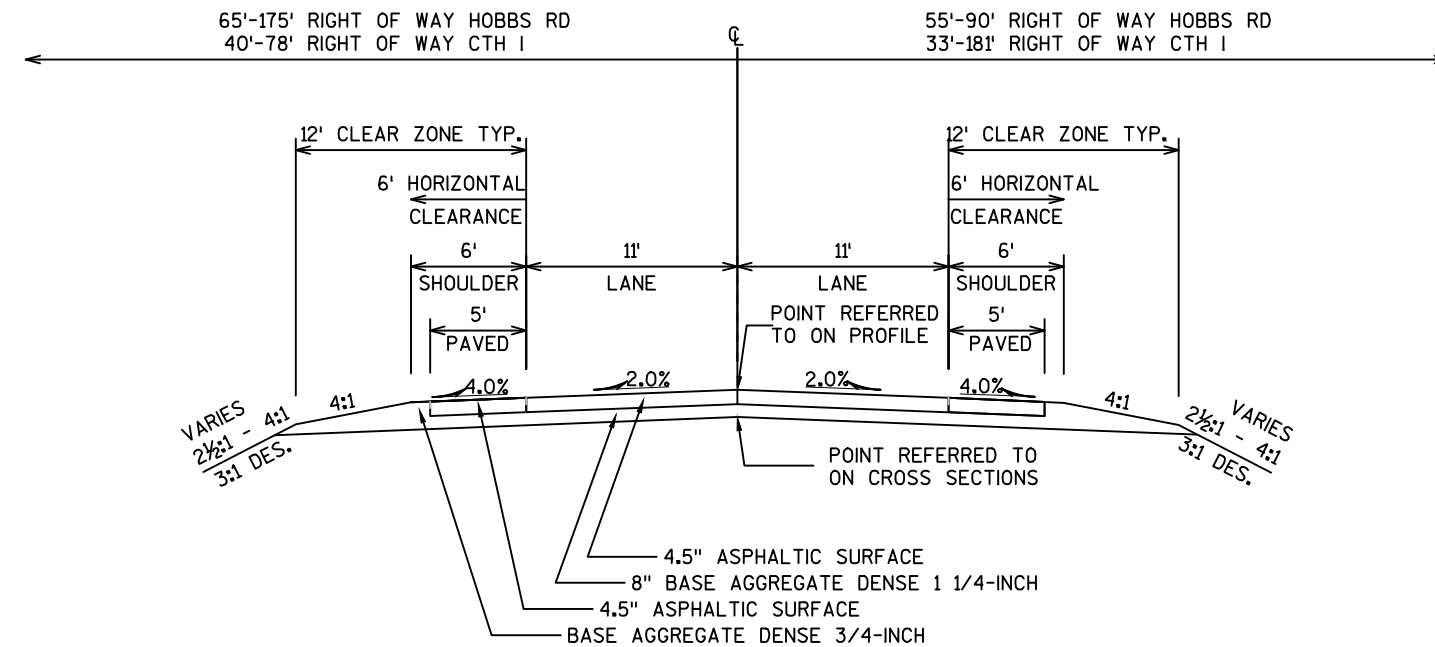
LIST OF STANDARD ABBREVIATIONS

ABUT.	ABUTMENT
AGG.	AGGREGATE
AH.	AHEAD
APPROX.	APPROXIMATE
A.E.W.	APRON ENDWALL
ASPH.	ASPHALTIC
A.D.T.	AVERAGE DAILY TRAFFIC
AZ.	AZIMUTH
BK.	BACK
BEG.	BEGIN
B.M.	BENCH MARK
C/L	CENTER LINE
CONC.	CONCRETE
CONST.	CONSTRUCTION
CO.	COUNTY
C.T.H.	COUNTY TRUNK HIGHWAY
X-SEC.	CROSS SECTION
CR.	CRUSHED
CFS	CUBIC FEET/SECOND
C.Y., CU. YD.	CUBIC YARD
CULV.	CULVERT
C.P.	CULVERT PIPE
D.O.T.	DEPARTMENT OF TRANSPORTATION
D.H.V.	DESIGN HOUR VOLUME
DIA.	DIAMETER
D.	DIRECTIONAL DISTRIBUTION
DISCH. OR DIS.	DISCHARGE
EA.	EACH
ELECT.	ELECTRIC
EL. OR ELEV.	ELEVATION
EMB.	EMBANKMENT
E.B.S.	EXCAVATION BELOW SUBGRADE
EXIST.	EXISTING
FERT.	FERTILIZE
F.E.	FIELD ENTRANCE
FIN.	FINISHED
FT.	FOOT
F.L.	FLOW LINE
GA.	GAUGE
HORIZ.	HORIZONTAL
CWT.	HUNDREDWEIGHT
INL.	INLET
LT.	LEFT
L.H.F.	LEFT-HAND FORWARD
LIN.	LINEAR
LIN. FT.	LINEAR FOOT
L.S.	LUMP SUM
MAX.	MAXIMUM
MI.	MILE
MISC.	MISCELLANEOUS
N.E.	NORTH EAST
N.W.	NORTH WEST
PAV'T	PAVEMENT
P.C.	POINT OF CURVATURE
P.I.	POINT OF INTERSECTION
P.T.	POINT OF TANGENCY
P.O.T.	POINT ON TANGENT
LB.	POUND
P.E.	PRIVATE ENTRANCE
PROJ.	PROJECT
R.	RANGE
REQ'D	REQUIRED
RT.	RIGHT
R.H.F.	RIGHT-HAND FORWARD
R/W	RIGHT OF WAY
RD.	ROAD
SHR.	SHRINKAGE
SL.	SLOPE
STD.	STANDARD
S.D.D.	STANDARD DETAIL DRAWINGS
S.T.H.	STATE TRUNK HIGHWAY
STA.	STATION
S.P.P.A.	STRUCTURAL PLATE PIPE ARCH
STRUCT.	STRUCTURE
SURF.	SURFACE
TEL.	TELEPHONE
TN.	TOWN
T.	TRUCKS (PERCENT OF)
UNCL.	UNCLASSIFIED
U.G.	UNDERGROUND
V.	VELOCITY OR DESIGN SPEED
V.C.	VERTICAL CURVE



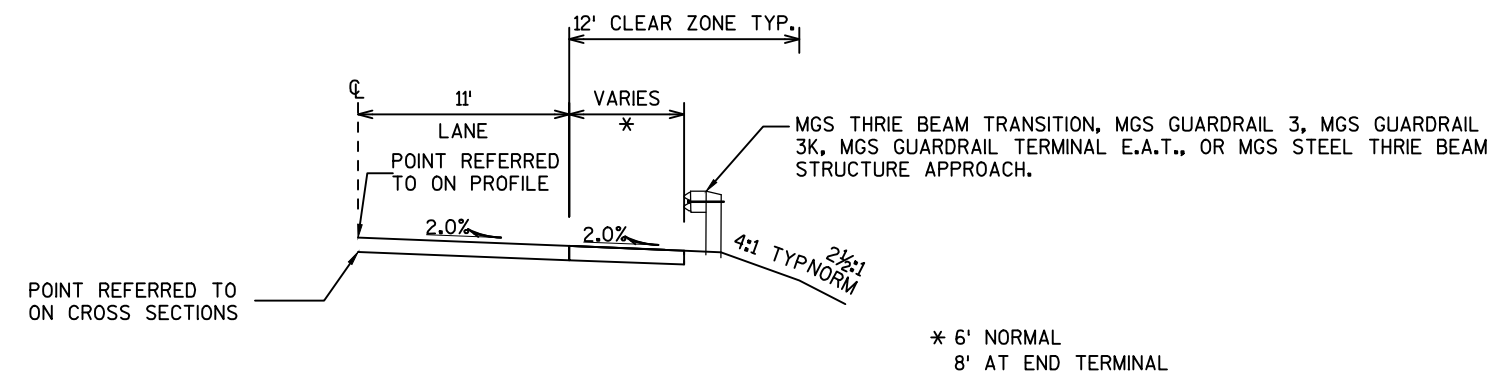
TYPICAL EXISTING SECTION
HOBBS ROAD STA 11'H+00 - STA 14'H+28.02
HOBBS ROAD STA 16'H+50.63 - STA 23'H+75.00
CTH I STA 13'I+66.37 - STA 19'I+29.38
CTH I STA 21'I+32.85 - STA 36'I+39.33

DEG. OF CURVE	SUPER.	A	B
TAN.	.015' /, NC	0.55	0.55
5°00' LT	.06' /, FT	1.10	0.67
7°00' RT	.06' /, FT	0.67	11.10
7°00' LT	.06' /, FT	1.10	0.67
8°00' RT	.06' /, FT	0.67	1.10

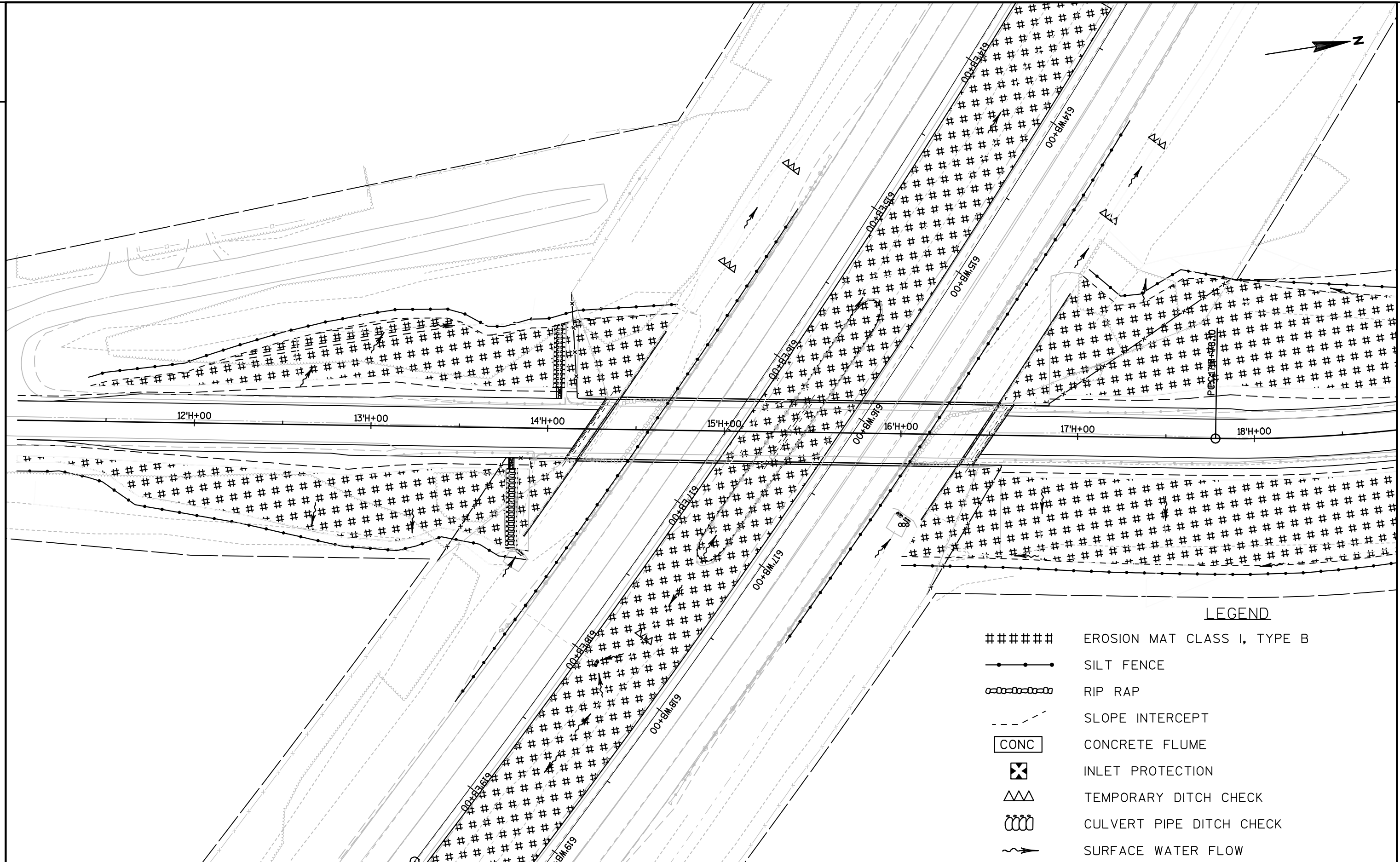


TYPICAL FINISHED SECTION

HOBBS ROAD STA 11'H+00 - STA 14'H+21.31
HOBBS ROAD STA 16'H+52.31 - STA 23'H+75.00
CTH I STA 13'I+66.17 - STA 19'I+15.63
CTH I STA 21'I+28.38 - STA 36'I+39.33



TYPICAL FINISHED HALF SECTION WITH BEAM GUARD

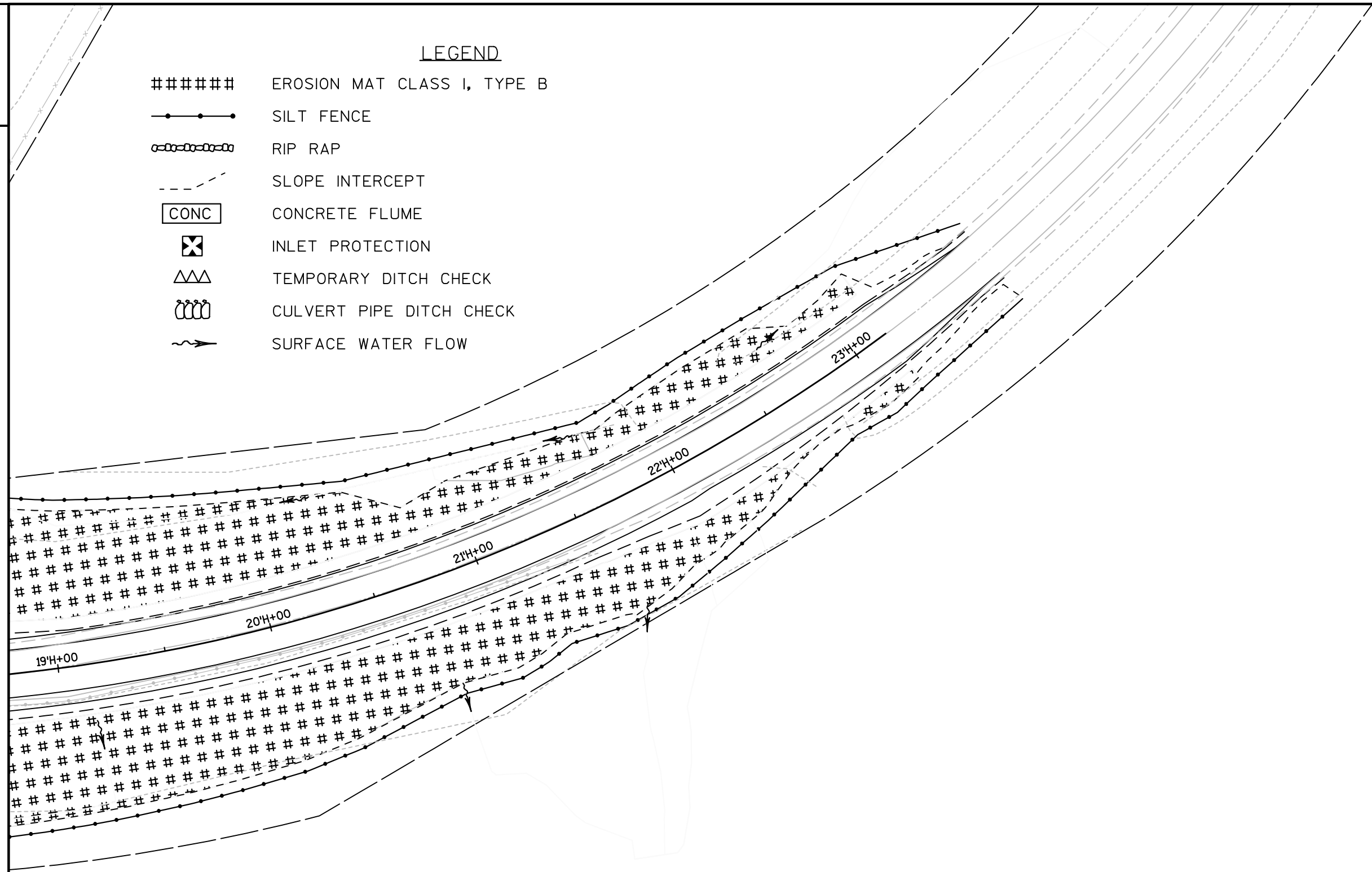


LEGEND

- ##### EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIP RAP
- - - SLOPE INTERCEPT
- [CONC] CONCRETE FLUME
- ⊗ INLET PROTECTION
- △△△ TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- ~> SURFACE WATER FLOW

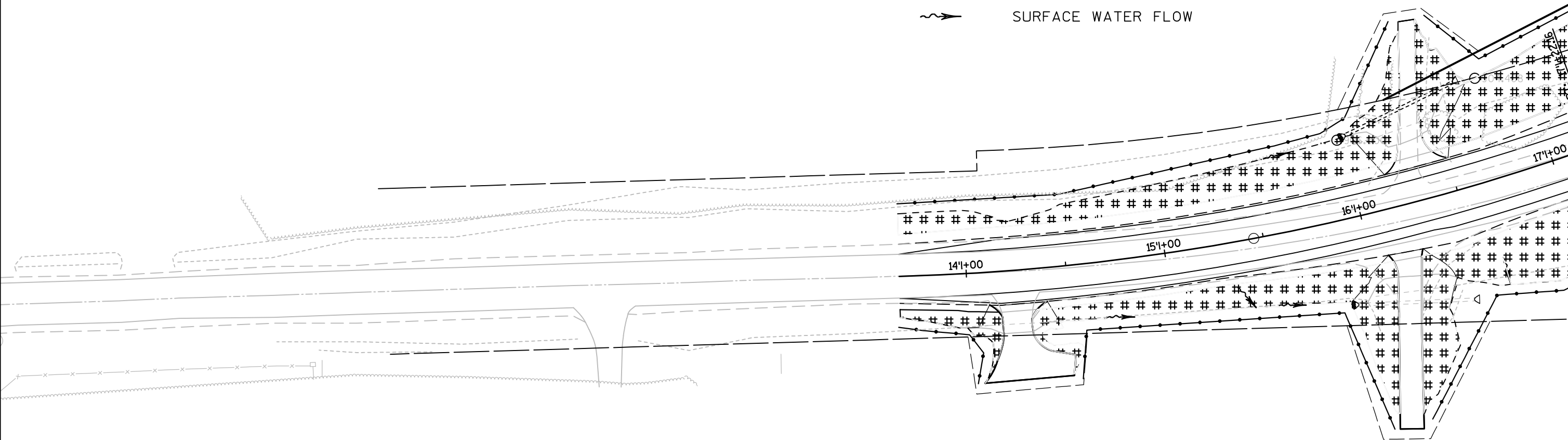
LEGEND

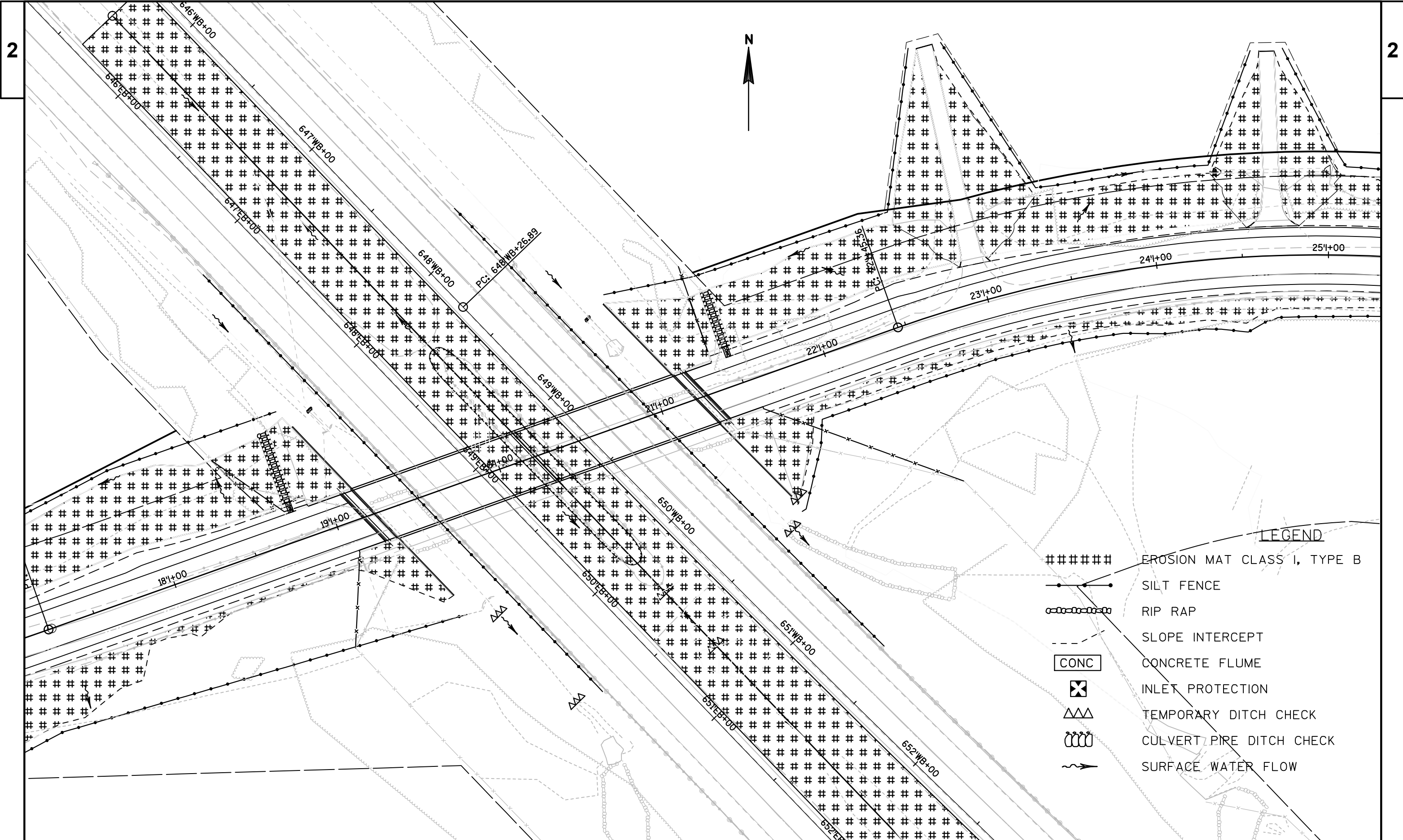
- ##### EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIP RAP
- - - SLOPE INTERCEPT
- CONC CONCRETE FLUME
- ⊗ INLET PROTECTION
- △△△ TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- ~> SURFACE WATER FLOW



LEGEND

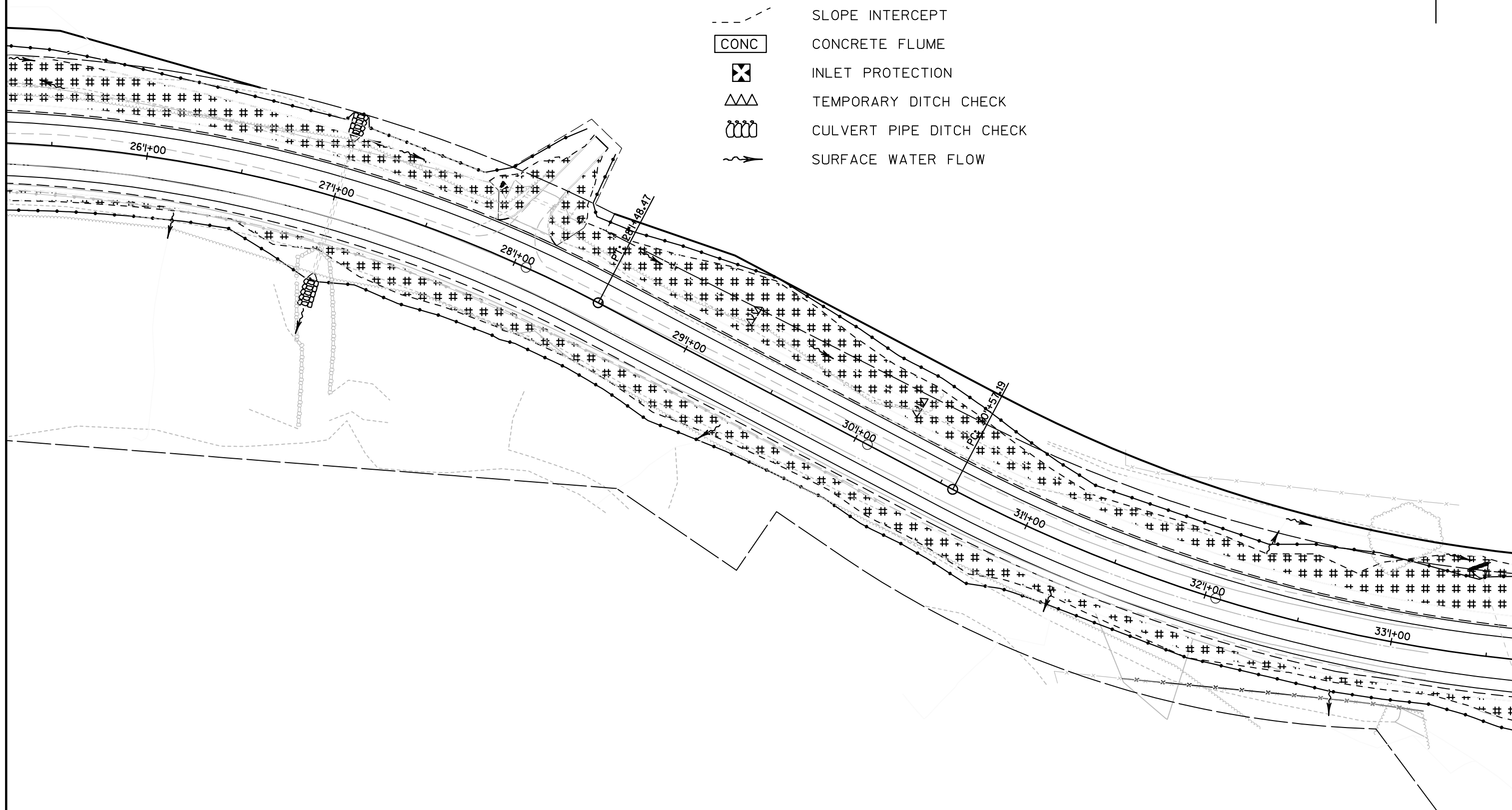
- ##### EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIP RAP
- - - SLOPE INTERCEPT
- CONC CONCRETE FLUME
- ⊗ INLET PROTECTION
- △△△ TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- ~> SURFACE WATER FLOW

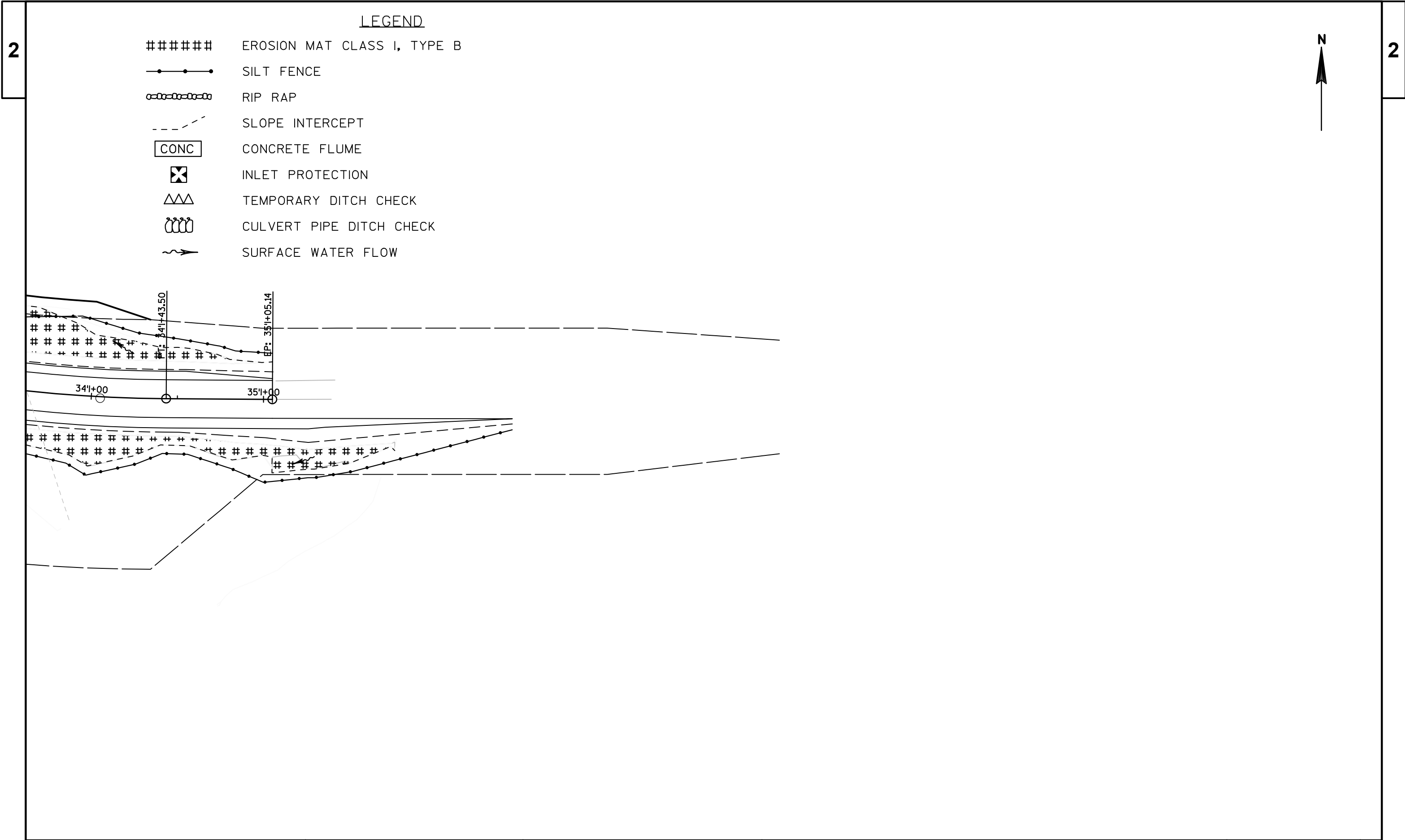


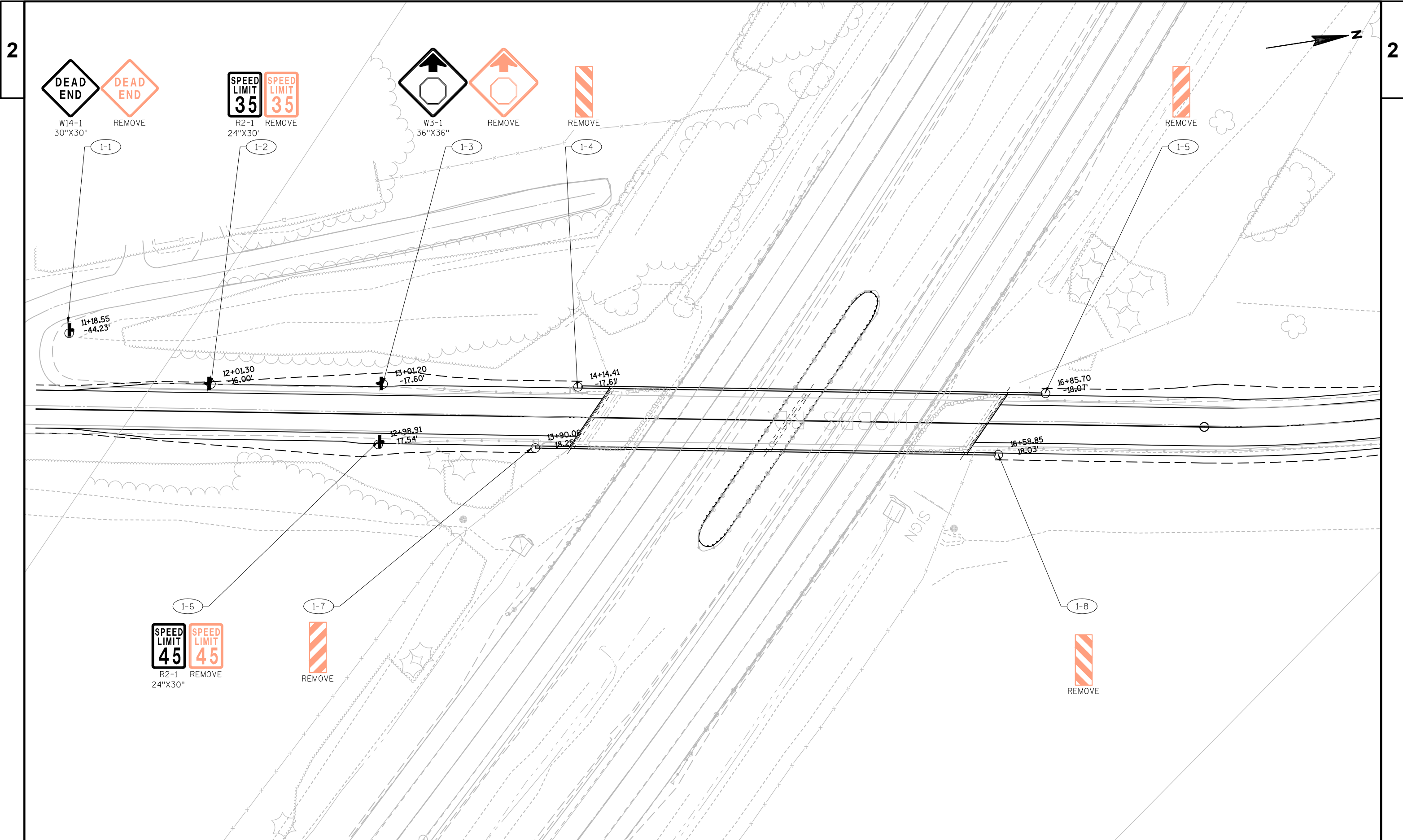


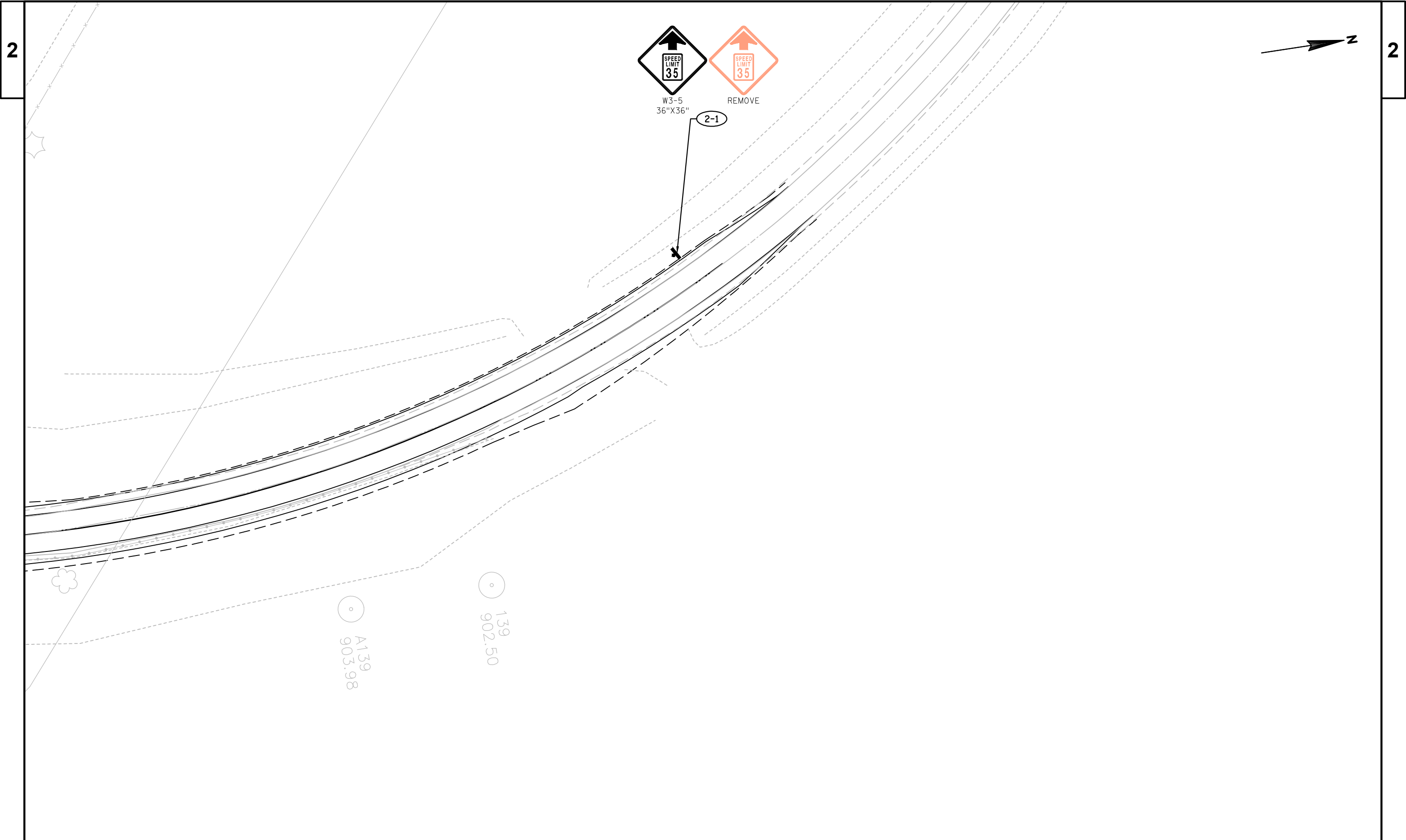
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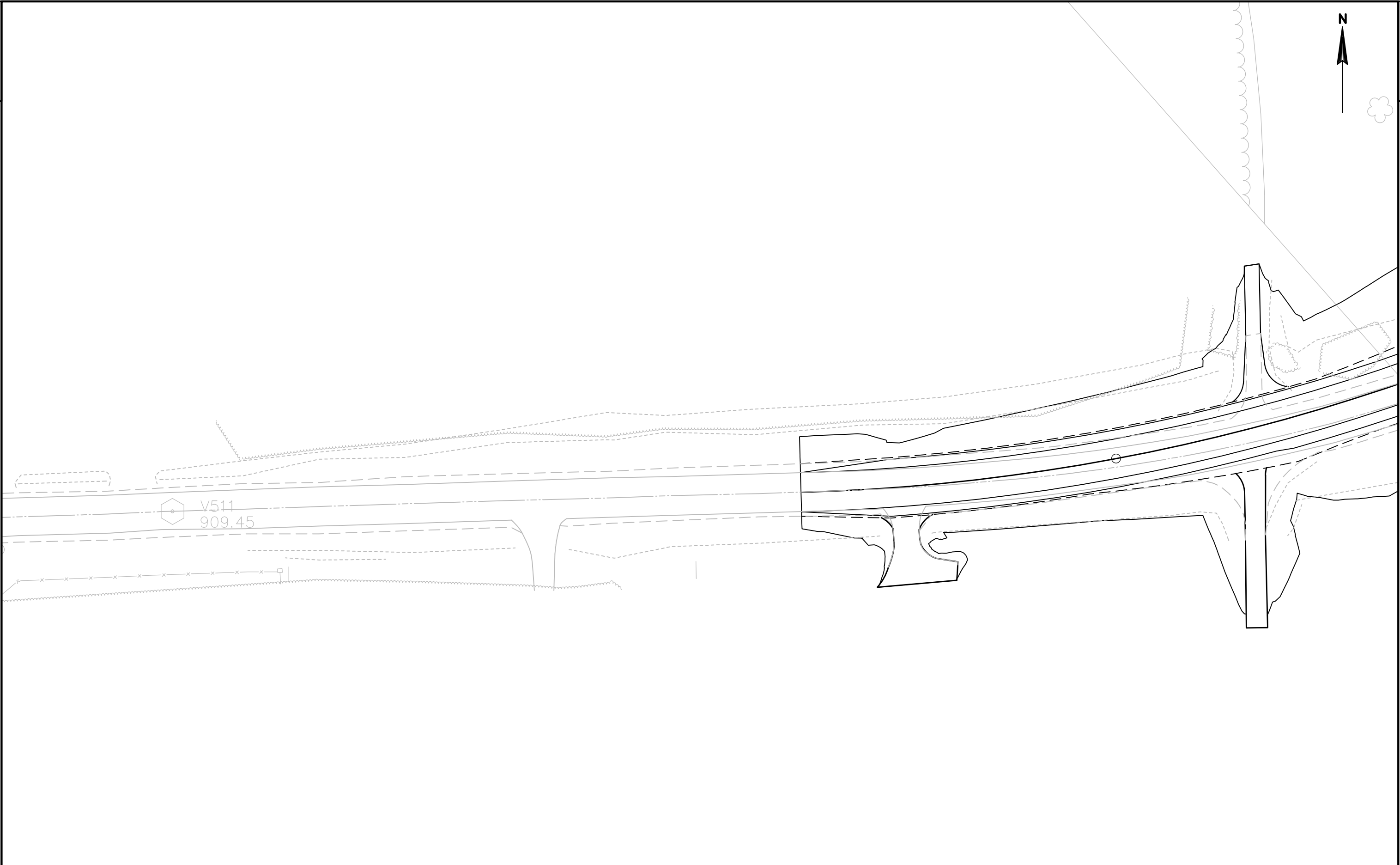
- ##### EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIP RAP
- - - SLOPE INTERCEPT
- CONC CONCRETE FLUME
- ⊗ INLET PROTECTION
- △△△ TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- ~> SURFACE WATER FLOW











PROJECT NO:1021-03-74	HWY:IH 94	COUNTY:EAU CLAIRE	PERMANENT SIGNING	SHEET	E
-----------------------	-----------	-------------------	-------------------	-------	---

REMOVE
R4-3
48"X60"

Hwy 1
REMOVE
Hwy 1
M1-94
54"X21"

REMOVE
3-1

3-4



REMOVE



REMOVE

3-2

W1-6
48"X24"



REMOVE

REMOVE

3-5

Hwy I
M1-94
54"X21"

Hwy 1
REMOVE

MOVING SIGNS
REMOVING STRUCTURAL STEEL SIGN SUPPORTS
INSTALL NEW POSTS / BASES

PROJECT NO:1021-03-74

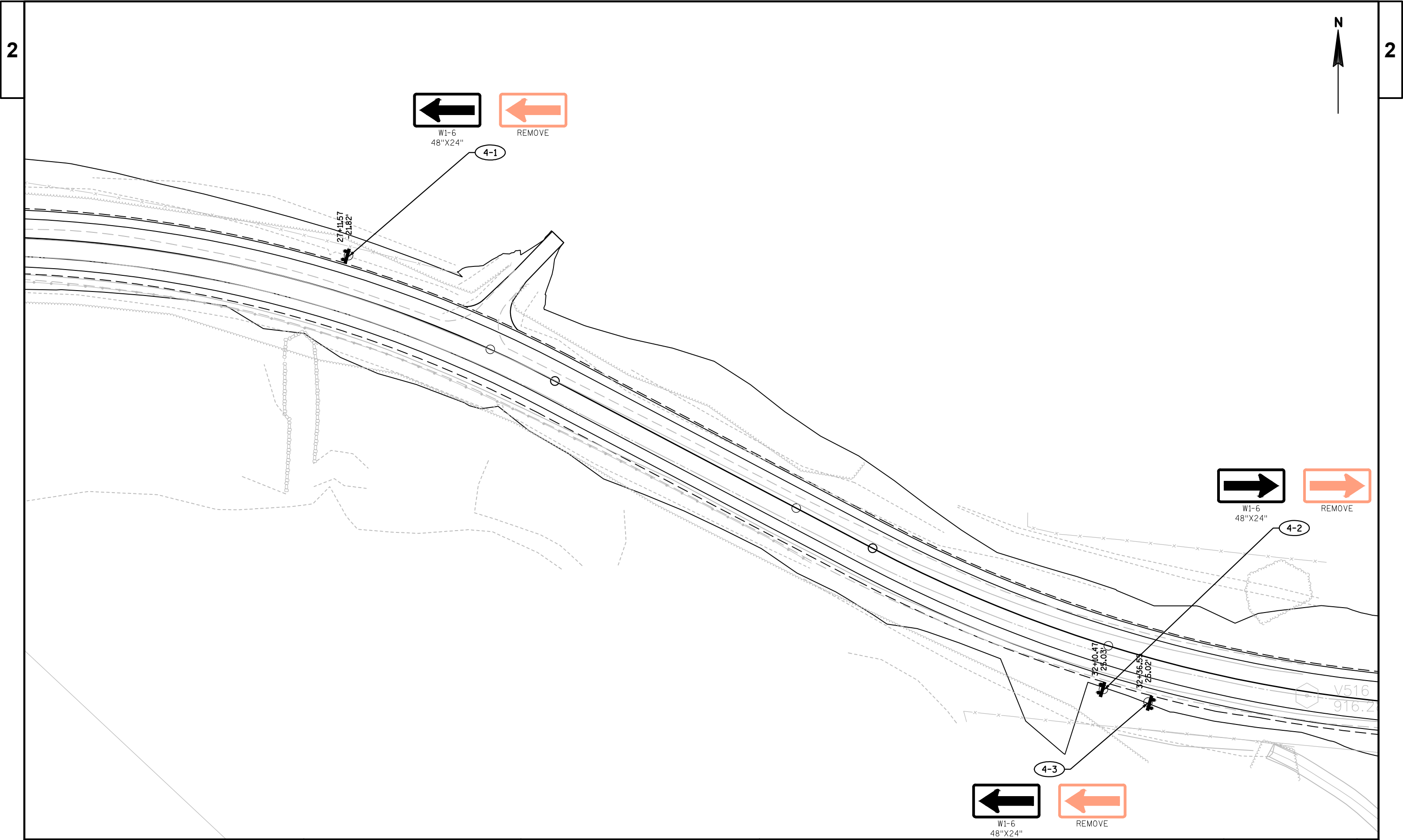
HWY: IH 94

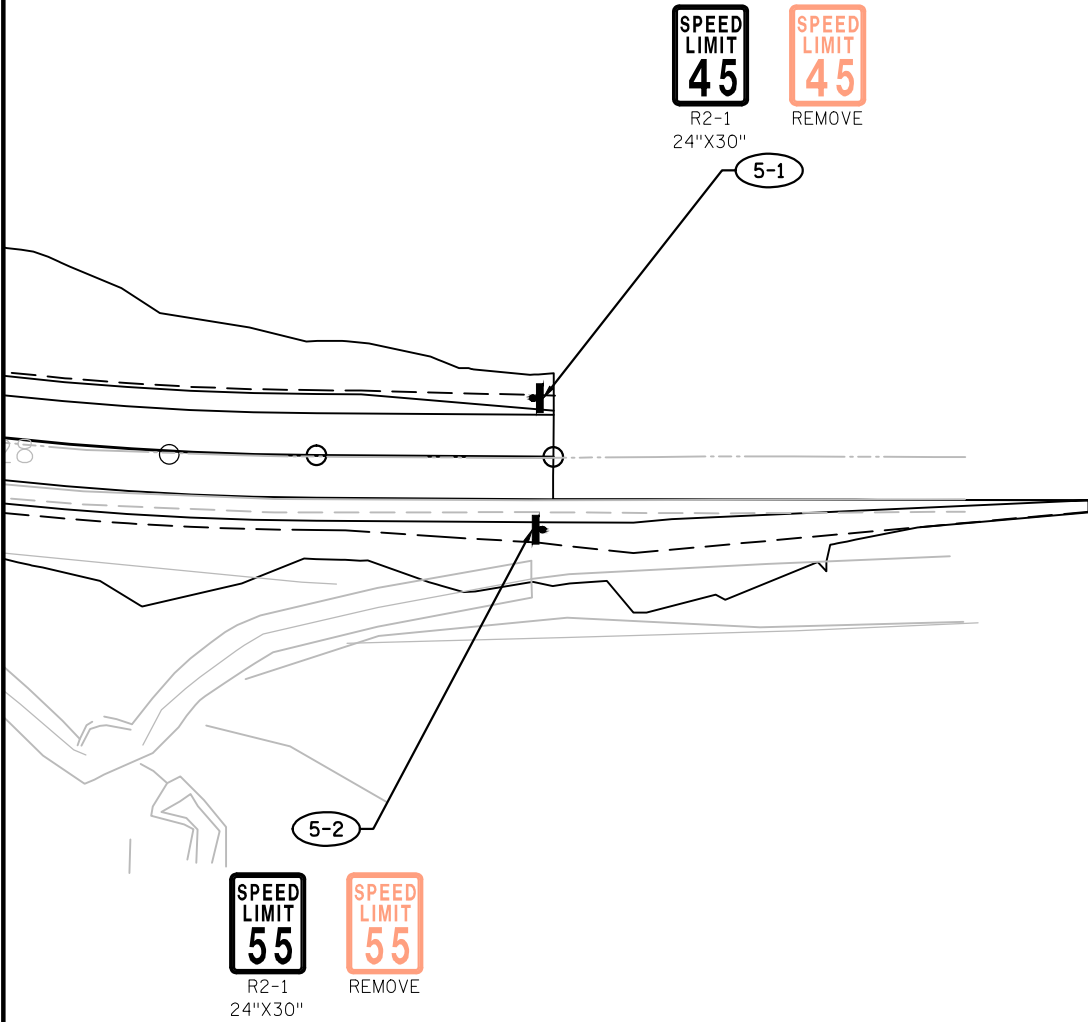
COUNTY:EAU CLAIRE

PERMANENT SIGNING

SHEET

E



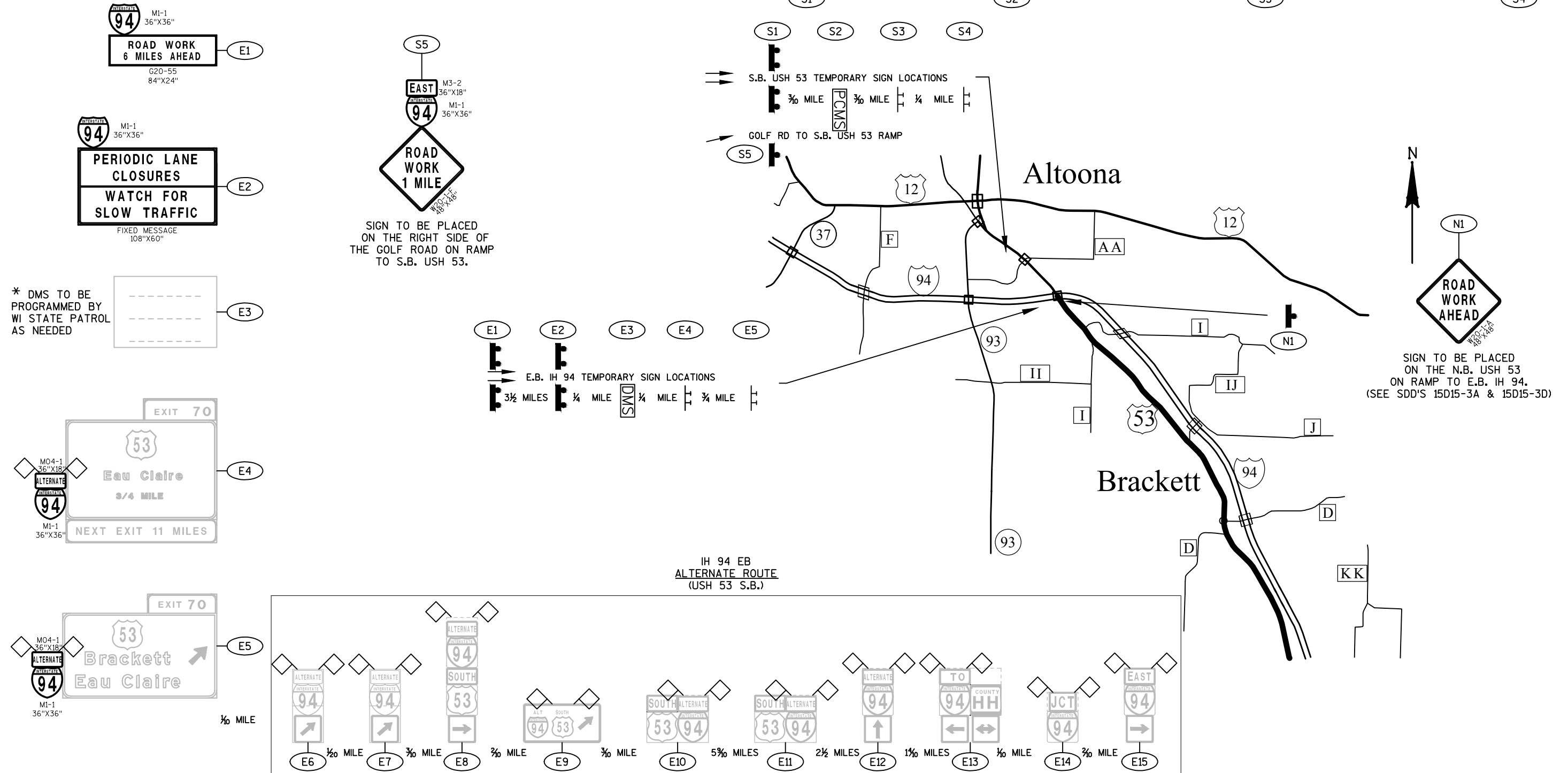


A117
919.89

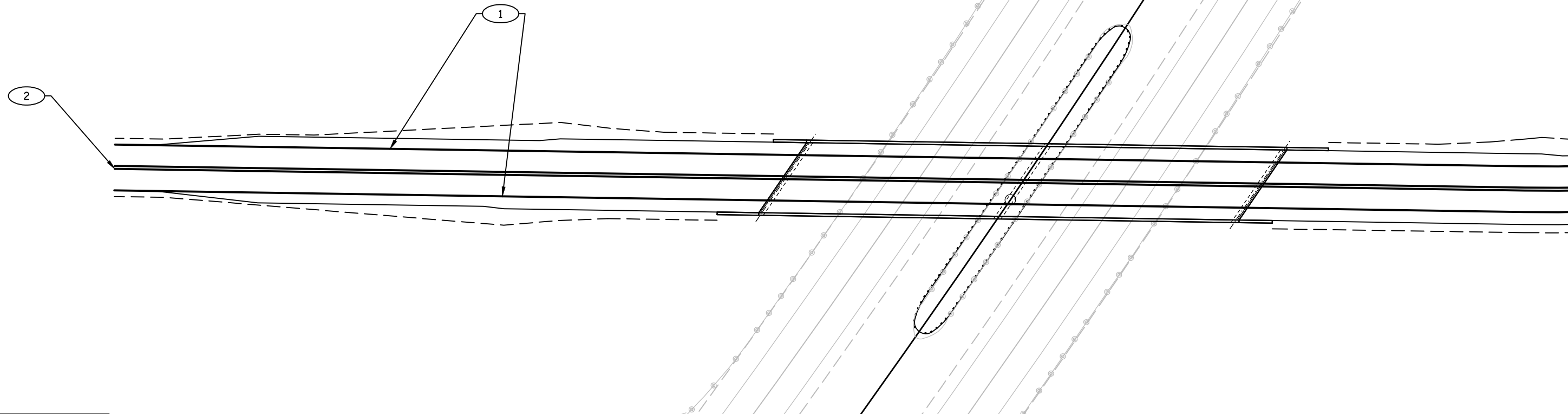
117
914.65

LEGEND

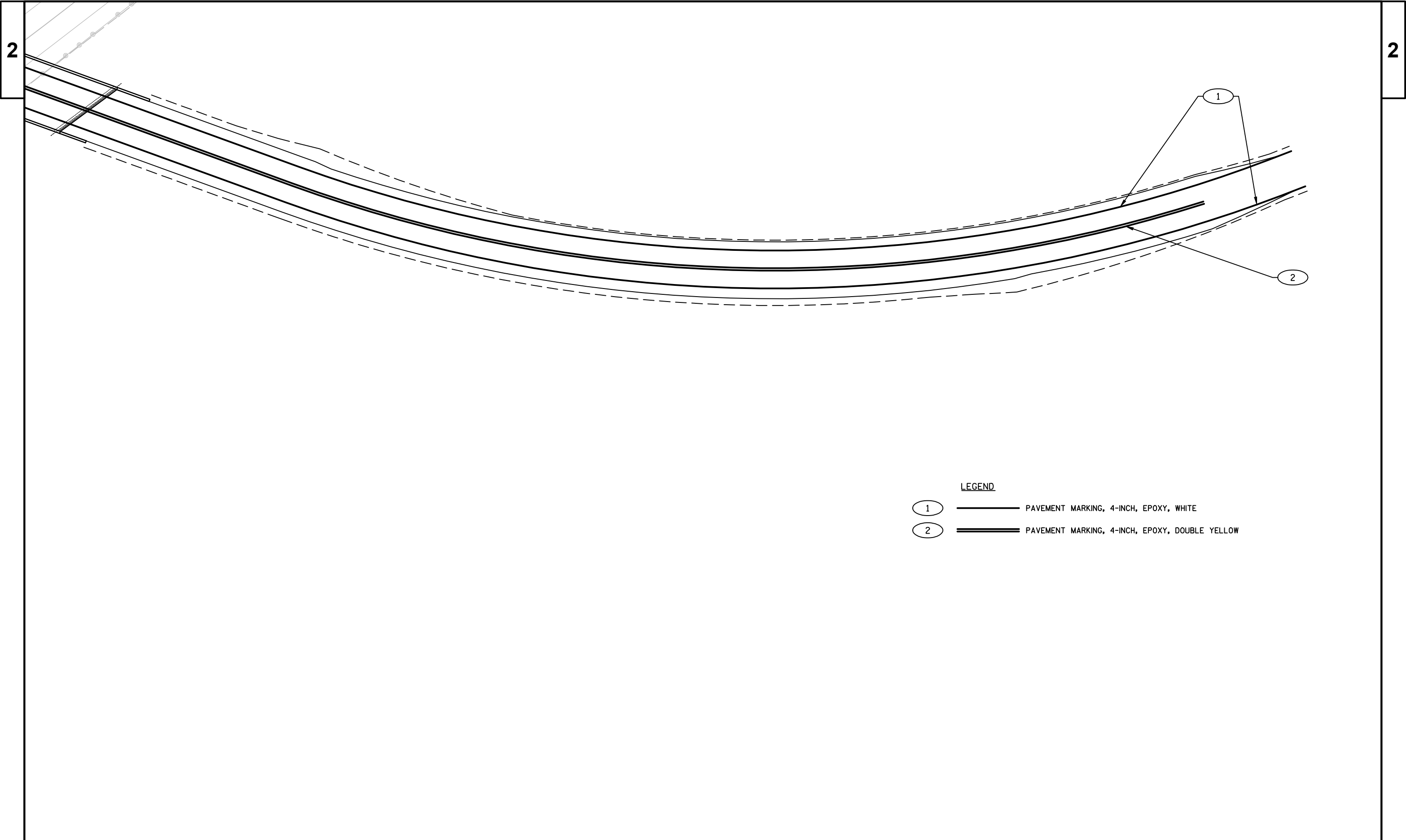
(EXIST) DYNAMIC MESSAGE SIGN	FLAGS, 16" x 16" MIN., ORANGE (INCIDENTAL TO TRAFFIC CONTROL)
T.C. SIGNS PORTABLE CHANGEABLE MESSAGE	PROPOSED TRAFFIC CONTROL SIGNS
SIGN ON MULTIPLE POSTS **	EXISTING SIGNS TO REMAIN
SIGN ON SINGLE POST	ALTERNATE ROUTE
(EXIST) TYPE I SIGN	SIGN GROUP NUMBER

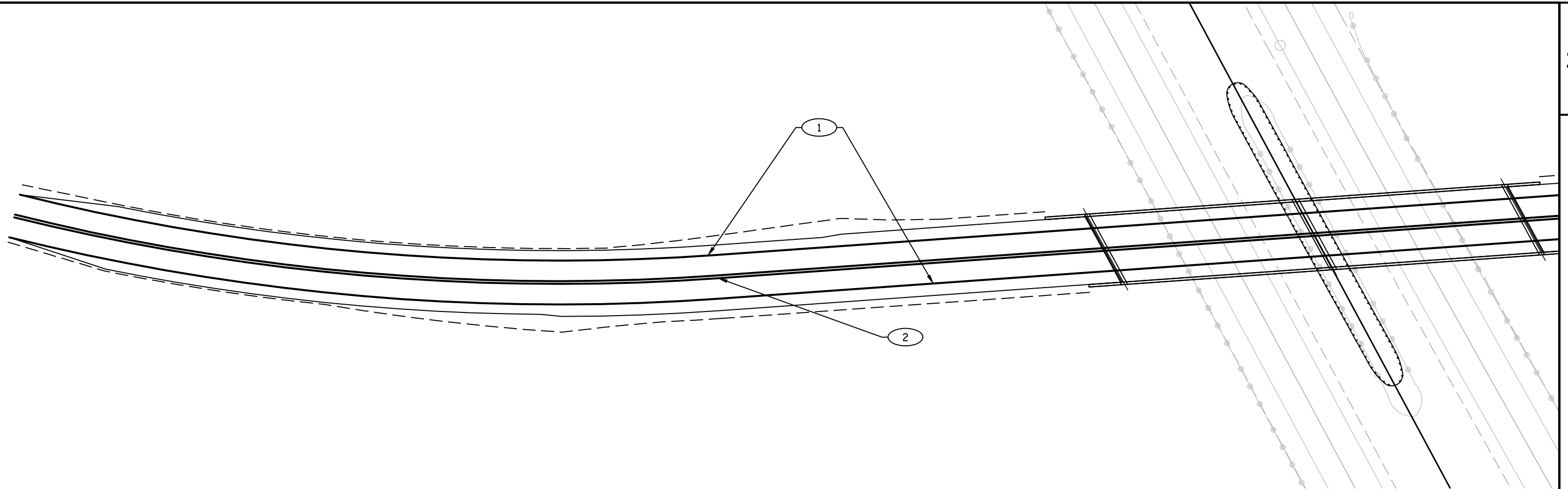




**LEGEND**

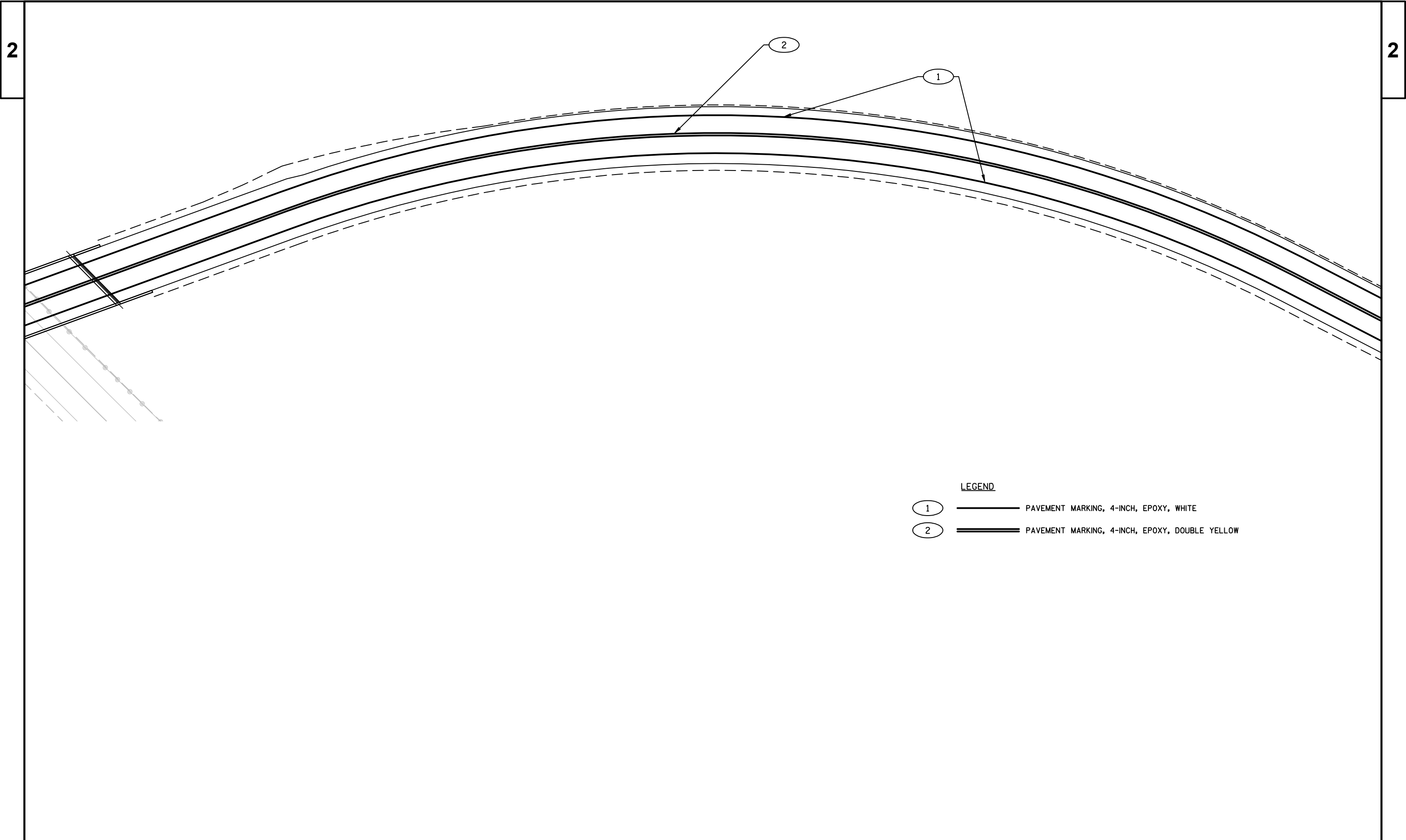
- 1 PAVEMENT MARKING, 4-INCH, EPOXY, WHITE
- 2 PAVEMENT MARKING, 4-INCH, EPOXY, DOUBLE YELLOW

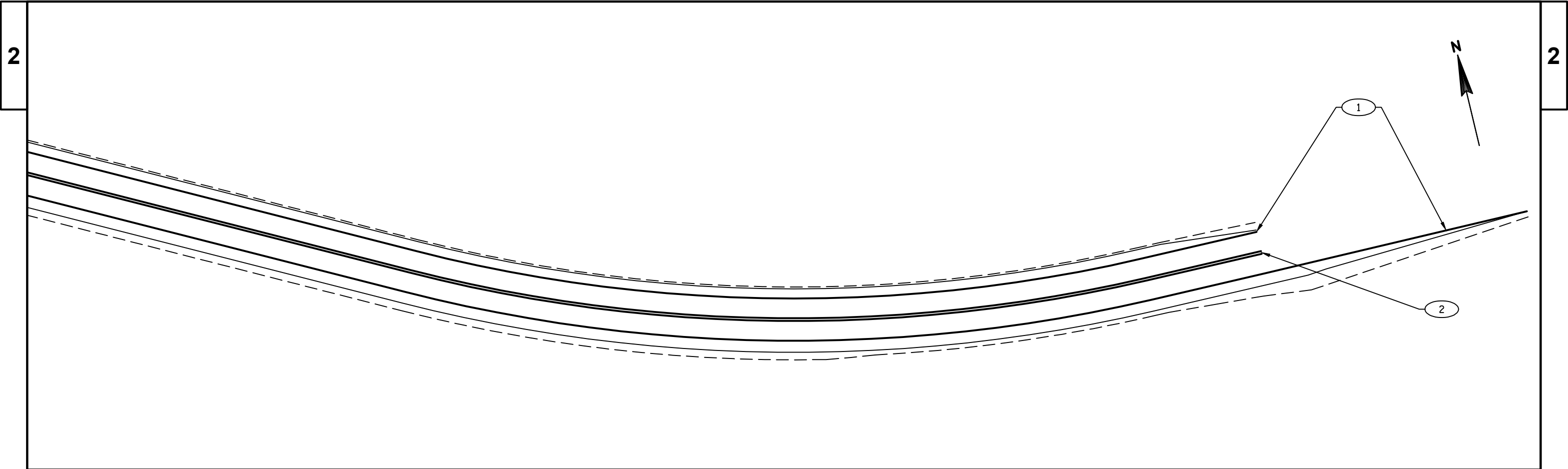




LEGEND

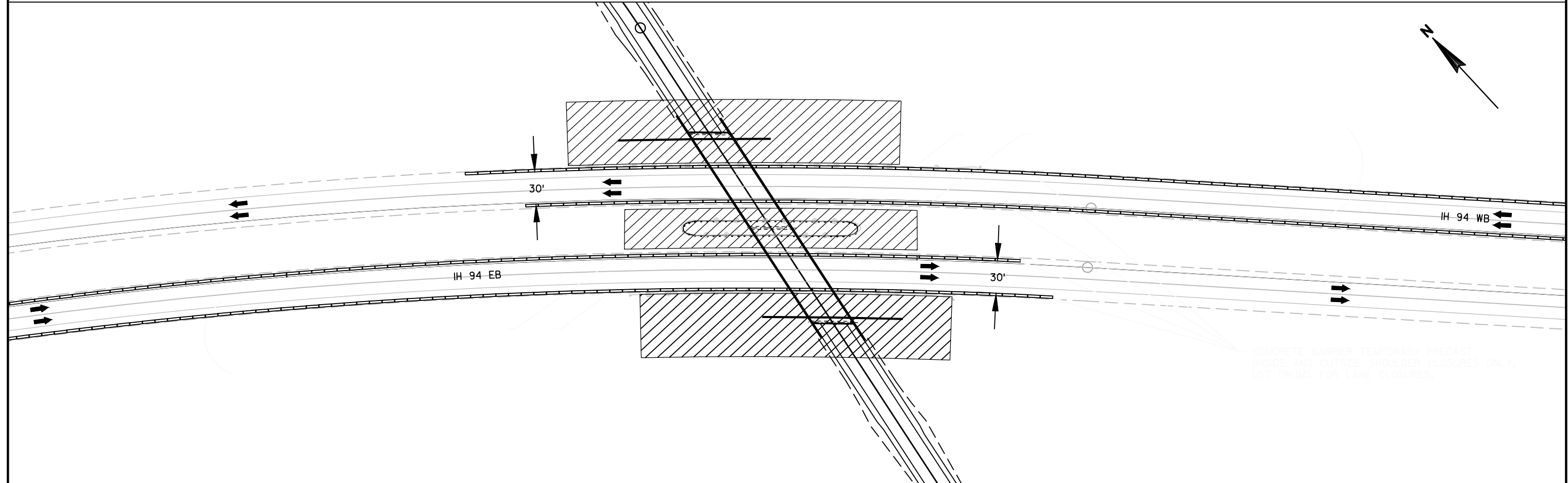
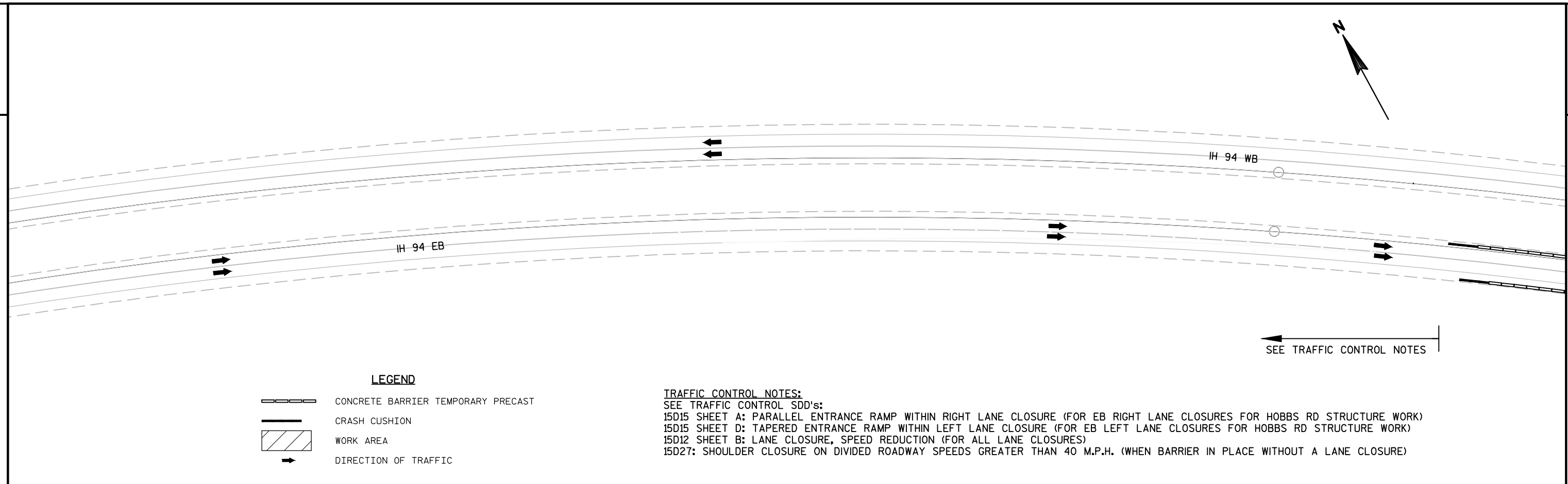
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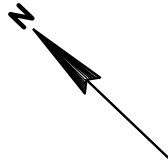




LEGEND





- 1 PAVEMENT MARKING, 4-INCH, EPOXY, WHITE
- 2 PAVEMENT MARKING, 4-INCH, EPOXY, DOUBLE YELLOW

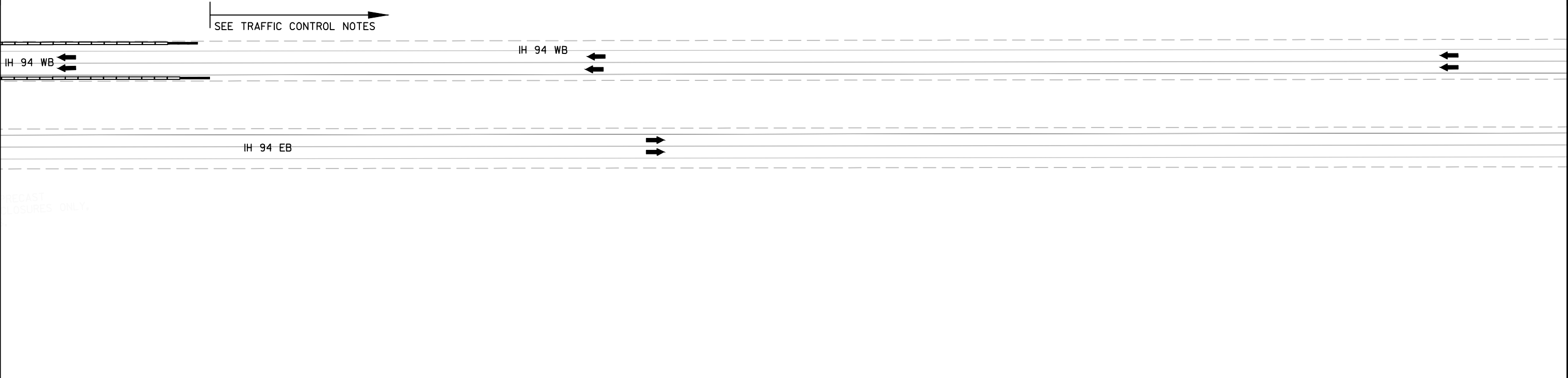


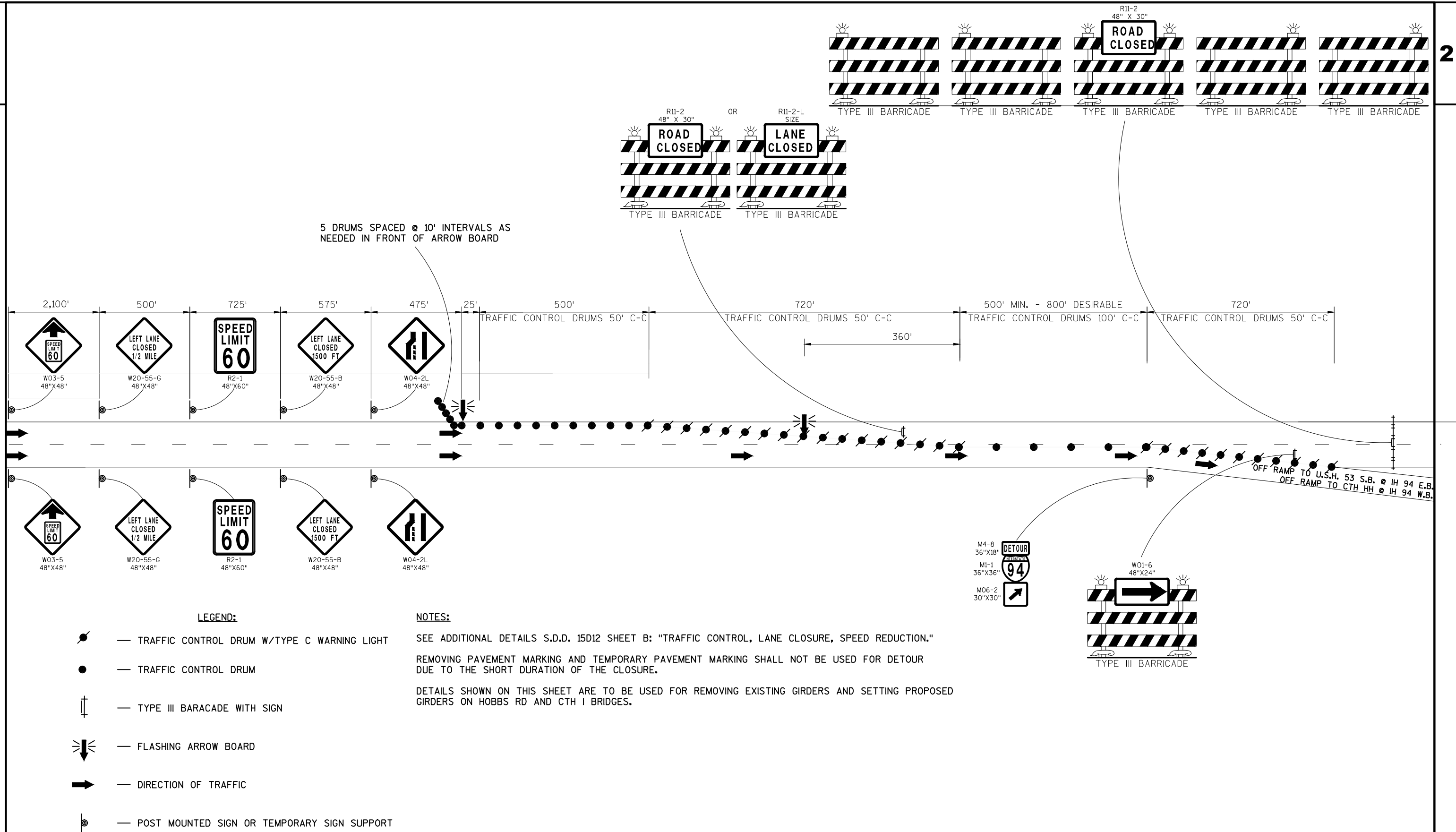


TRAFFIC CONTROL NOTES:
SEE TRAFFIC CONTROL SDD's:
15D15 SHEET A: PARALLEL ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE (FOR EB RIGHT LANE CLOSURES FOR HOBBS RD STRUCTURE WORK)
15D15 SHEET D: TAPERED ENTRANCE RAMP WITHIN LEFT LANE CLOSURE (FOR EB LEFT LANE CLOSURES FOR HOBBS RD STRUCTURE WORK)
15D12 SHEET B: LANE CLOSURE, SPEED REDUCTION (FOR ALL LANE CLOSURES)
15D27: SHOULDER CLOSURE ON DIVIDED ROADWAY SPEEDS GREATER THAN 40 M.P.H. (WHEN BARRIER IN PLACE WITHOUT A LANE CLOSURE)

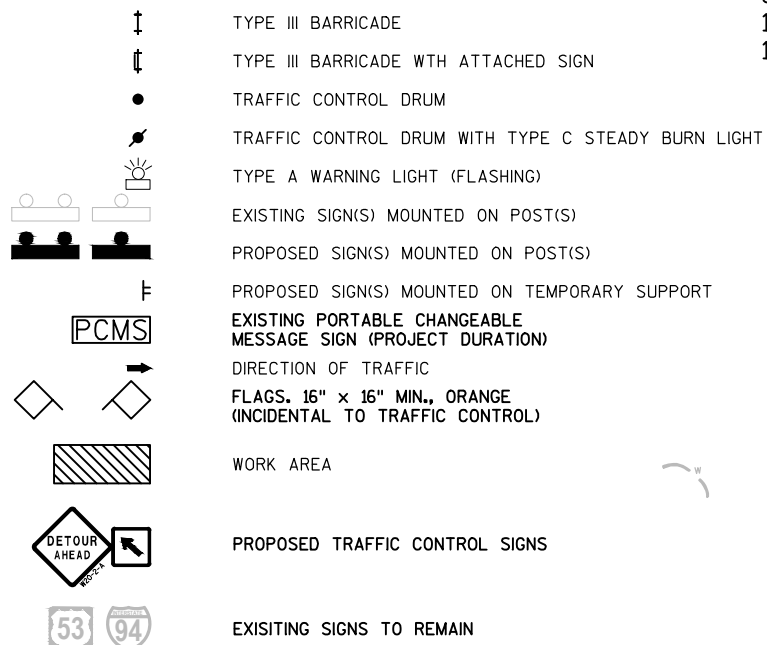
LEGEND

-  CONCRETE BARRIER TEMPORARY PRECAST
-  CRASH CUSHION
-  WORK AREA
-  DIRECTION OF TRAFFIC

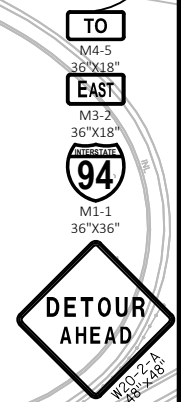
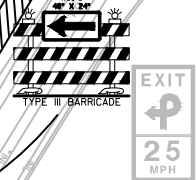
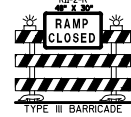
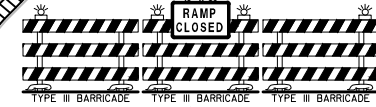
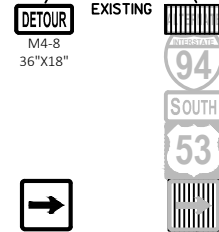
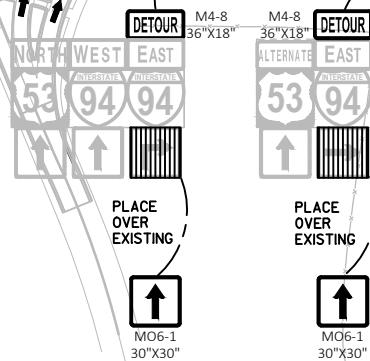
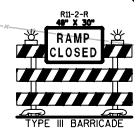
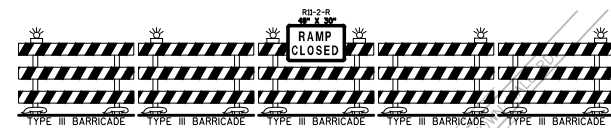


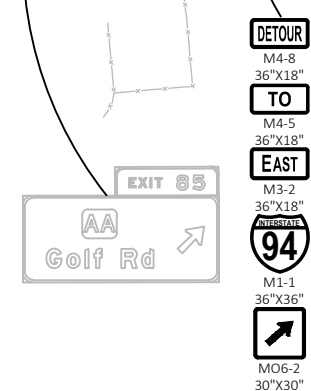
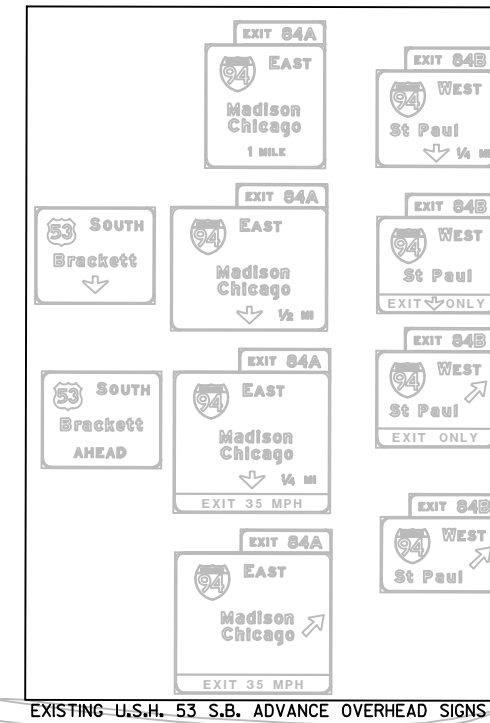


LEGEND



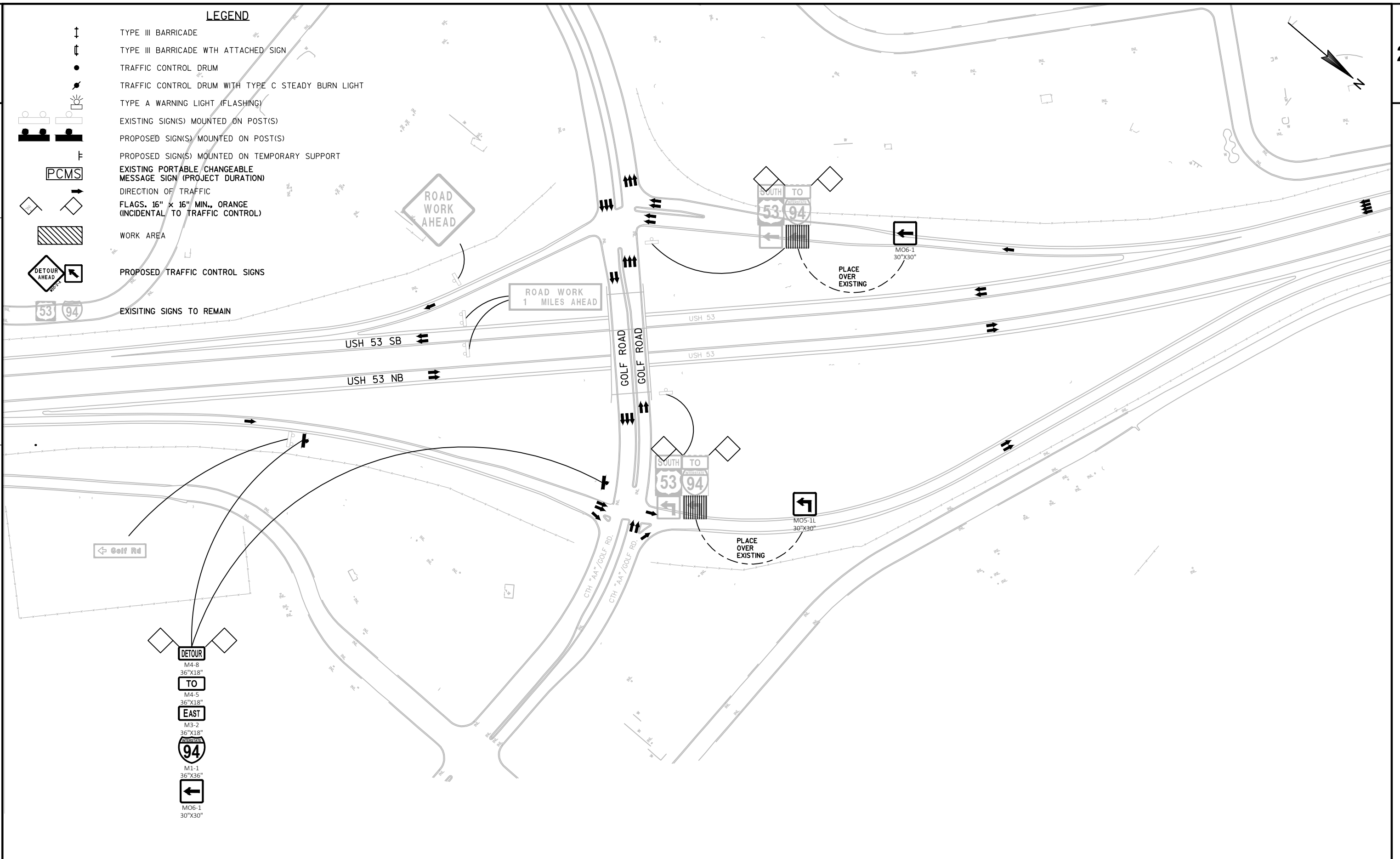
SEE TRAFFIC CONTROL S.D.D.'s:
15D16: TRAFFIC CONTROL, EXIT RAMP CLOSURE
15C2 SHEETS A-C: BARRICADES AND SIGNS FOR MAINLINE CLOSURES





LEGEND

- ↑ TYPE III BARRICADE
↑ TYPE III BARRICADE WITH ATTACHED SIGN
● TRAFFIC CONTROL DRUM
☼ TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
☼ TYPE A WARNING LIGHT (FLASHING)
EXISTING SIGN(S) MOUNTED ON POST(S)
PROPOSED SIGN(S) MOUNTED ON POST(S)
F PROPOSED SIGN(S) MOUNTED ON TEMPORARY SUPPORT
PCMS EXISTING PORTABLE / CHANGEABLE MESSAGE SIGN (PROJECT DURATION)
→ DIRECTION OF TRAFFIC
◇ FLAGS, 16" X 16" MIN., ORANGE (INCIDENTAL TO TRAFFIC CONTROL)
▨ WORK AREA
◇ DETOUR AHEAD
EXISTING SIGNS TO REMAIN
- ROAD WORK AHEAD
ROAD WORK 1 MILES AHEAD
US 53 SB
US 53 NB
GOLF ROAD
CTH "AA" / GOLF RD.
CTH "AA" / GOLF RD.
SOUTH TO 53 94
SOUTH TO 53 94
PLACE OVER EXISTING
MO6-1 30"X30"
MO5-1L 30"X30"
PLACE OVER EXISTING
DETOUR
M4-8 36"X18"
TO
M4-5 36"X18"
EAST
M3-2 36"X18"
94
M1-1 36"X36"
MO6-1 30"X30"



3

3

CLEARING AND GRUBBING							REMOVING GUARDRAIL							REMOVING SURFACE DRAINS					
CATEGORY	STATION	TO	STATION	LOCATION	CLEARING	GRUBBING	REMARKS	CATEGORY	STATION	TO	STATION	LOCATION	204.0165	REMARKS	CATEGORY	STATION	LOCATION	204.0190	REMARKS
					201.0105	201.0205							LF					EACH	
0010	11'H+00	-	15'H+00	LT	4	4		0010	13'H+28	-	14'H+20	LT	92		0010	14'H+10	LT	1	
0010	11'H+00	-	14'H+00	RT	3	3		0010	13'H+09	-	14'H+02	RT	93		0010	13'H+93	RT	1	
0010	16'H+00	-	19'H+00	LT	3	3		0010	16'H+77	-	17'H+73	LT	97		0010	18'I+96	LT	1	
0010	22'H+00	-	23'H+00	LT	1	1		0010	16'H+58	-	21'H+52	RT	493		0010	19'I+08	RT	1	
0010	18'H+00	-	23'H+00	RT	5	5		0010	615'EB+42	-	617'EB+22	MEDIAN	376						
0010			CTH I		10	10		0010	18'I+07	-	19'I+04	LT	97				TOTAL 0010	4	
								0010	17'I+27	-	19'I+17	RT	190						
								0010	21'I+42	-	22'I+42	LT	100						
								0010	21'I+55	-	30'I+30	RT	875						
								0010	648'EB+41	-	650'EB+23	MEDIAN	376						

REMOVING SMALL PIPE CULVERTS					REMOVING FENCE						REMOVING ASPHALTIC SURFACE							
203.0100					204.0170						204.0110							
CATEGORY	STATION	LOCATION	EACH	REMARKS	CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS	CATEGORY	STATION	TO	STATION	SY	REMARKS	
0010	14'H+10	LT	1	Existing Surface Drain	0010	14'H+12	-	14'H+35	LT	67		0010	11'H+00	-	14'H+35.97	858		
0010	13'H+93	RT	1	Existing Surface Drain	0010	13'H+39	-	14'H+12	RT	97		0010	16'H+43	-	23'H+17	1755		
0010	14'I+24	RT	1	PE1	0010	16'H+70	-	17'H+86	LT	138		0010	13'I+66	-	19'I+32	1383		
0010	16'I+14	RT	1	PE2	0010	16'H+16	-	16'H+45	RT	83		0010	21'I+26	-	35'I+05	3379		
0010	16'I+38	LT	1	PE3	0010	18'I+44	-	19'I+18	LT	96		0010	14'I+12	-	14'I+50	117	DRIVEWAY	
0010	18'I+96	LT	1	Existing Surface Drain	0010	21'I+28	-	21'I+51	LT	62								
0010	19'I+08	RT	1	Existing Surface Drain	0010	25'I+00	-	27'I+74	LT	292		TOTAL 0010					7492	
0010	24'I+68	LT	1	PE5	0010	21'I+41	-	21'I+74	RT	39								
0010	27'I+01	-	1	CROSSING	0010	31'I+42	-	34'I+49	RT	332								
0010	27'I+97	LT	1	PE6						TOTAL 0010	1206							
TOTAL 0010			10															

REMOVING DELINEATORS AND MARKERS				REMOVING (01. MASONRY RUBBLE ENDWALLS)				
		204.0180		204.9060.S.01				
CATEGORY	LOCATION	EACH	REMARKS	CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	IH 94 CULVERTS	16		0010	33'I+62	LT	1	
0010	CTH I	4						
0010	EB, RT AT HOBBS RD	3				TOTAL 0010	1	
0010	WB, LT AT HOBBS RD	3						
0010	EB, RT AT CTH I	3						
0010	WB, LT AT CTH I	3						
	TOTAL 0010	32						

EXCAVATION COMMON

CATEGORY	STATION	TO	STATION	LOCATION	205.0100 CY	REMARKS
0010				HOBBS RD	607	
0010				CTH I	1495	
0010					500	
0010					500	
TOTAL 0010					3102	

BORROW

CATEGORY	STATION	TO	STATION	LOCATION	208.0100 CY	REMARKS
0010					9428	
0010					13183	
TOTAL 0010					22611	

BASE AGGREGATE DENSE 3/4-INCH

305.0110					
CATEGORY	STATION TO	STATION	LOCATION	TON	REMARKS
0010			IH 94 EB @ HOBBS RD	300	
0010			IH 94 WB @ HOBBS RD	300	
0010	11'H+00 -	14'H+00	LT SHOULDER	28	
0010	11'H+00 -	14'H+00	RT SHOULDER	33	
0010	16'H+74 -	23'H+75	LT SHOULDER	66	
0010	16'H+74 -	23'H+75	RT SHOULDER	101	
0010			IH 94 EB @ CTH I	300	
0010			IH 94 WB @ CTH I	300	
0010	13'I+66 -	18'I+96	LT SHOULDER	56	
0010	13'I+66 -	18'I+96	RT SHOULDER	65	
0010	21'I+48 -	35'I+05	LT SHOULDER	103	
0010	21'I+48 -	36'I+45	RT SHOULDER	196	
TOTAL 0010				1848	

BASE AGGREGATE DENSE 1 1/4-INCH

305.0120					
CATEGORY	STATION TO	STATION	LOCATION	TON	REMARKS
0010	11'H+00 -	14'H+00	MAINLINE	367	
0010	16'H+74 -	23'H+17	MAINLINE	786	
0010	11'H+19 -	14'H+00	LT SHOULDER	166	
0010	11'H+19 -	14'H+00	RT SHOULDER	166	
0010	16'H+74 -	23'H+68	LT SHOULDER	444	
0010	16'H+74 -	23'H+69	RT SHOULDER	444	
0010	13'I+66 -	18'I+96	MAINLINE	648	
0010	21'I+48 -	35'I+05	MAINLINE	1659	
0010	13'I+66 -	18'I+96	LT SHOULDER	307	
0010	13'I+66 -	18'I+96	RT SHOULDER	307	
0010	21'I+48 -	35'I+05	LT SHOULDER	811	
0010	21'I+48 -	36'I+39	RT SHOULDER	811	
0010	-	-	CTH I Driveways	250	
TOTAL 0010				7166	

CONCRETE PAVEMENT 6-INCH

415.0060					
CATEGORY	STATION TO	STATION	LOCATION	SY	REMARKS
0010	14'H+00 -	14'H+29	LT	21	
0010	14'H+00 -	14'H+15	RT	9	
0010	16'H+59 -	16'H+74	LT	9	
0010	16'H+44 -	16'H+74	RT	21	
0010	18'I+96 -	19'I+11	LT	9	
0010	18'I+96 -	19'I+21	RT	18	
0010	21'I+23 -	21'I+48	LT	18	
0010	21'I+33 -	21'I+48	RT	9	
TOTAL 0010				114	

CONCRETE PAVEMENT APPROACH SLAB

415.0410					
CATEGORY	STATION TO	STATION	LOCATION	SY	REMARKS
0010	14'H+00 -	14'H+29	LT	55	SEE S.D.D.
0010	16'H+44 -	16'H+74	LT	55	SEE S.D.D.
0010	18'I+96 -	19'I+21	RT	49	SEE S.D.D.
0010	21'I+23 -	21'I+48	RT	49	SEE S.D.D.
TOTAL 0010				208	

CONCRETE SURFACE DRAINS

416.1010			
CATEGORY	LOCATION	CY	REMARKS
0010	B-18-210 WING 1	3	SEE S.D.D.
0010	B-18-210 WING 2	3	SEE S.D.D.
0010	B-18-232 WING 1	3	SEE S.D.D.
0010	B-18-232 WING 4	3	SEE S.D.D.
TOTAL 0010		12	

ASPHALT PAVING

				TACK COAT 455.0605 GAL	ASPHALTIC SURFACE 465.0105 TON	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES 465.0120 TON	REMARKS
CATEGORY	STATION TO	STATION	LOCATION				
0010	11'H+00 -	14'H+00	MAINLINE	37	185	-	
0010	16'H+74 -	23'H+17	MAINLINE	79	396	-	
0010	11'H+19 -	14'H+00	LT SHOULDER	8	39	-	
0010	11'H+19 -	14'H+00	RT SHOULDER	8	39	-	
0010	16'H+74 -	23'H+68	LT SHOULDER	19	96	-	
0010	16'H+74 -	23'H+69	RT SHOULDER	22	110	-	
0010	13'I+66 -	18'I+96	MAINLINE	65	327	-	
0010	21'I+48 -	35'I+05	MAINLINE	166	837	-	
0010	13'I+66 -	18'I+96	LT SHOULDER	15	74	-	
0010	13'I+66 -	18'I+96	RT SHOULDER	16	79	-	
0010	21'I+48 -	35'I+05	LT SHOULDER	38	191	-	
0010	21'I+48 -	36'I+39	RT SHOULDER	48	241	-	
0010	-	-	CTH I DRIVEWAY	-	-	20	
TOTAL 0010				521	2614	20	

CATEGORY	STATION	LOCATION	APRON ENDWALLS FOR CULVERT PIPE		CULVERT PIPE CLASS III-A NON-METAL		APRON ENDWALLS FOR CULVERT PIPE STEEL	CULVERT PIPE REINFORCED CONCRETE CLASS III		APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE		CULVERT PIPE CORRUGATED STEEL ALUMINUM COATED	(INFO ONLY) JOINT TIES FOR CONCRETE PIPE EACH	REMARKS
			18-INCH 520.1018 EACH	24-INCH 520.1024 EACH	18-INCH 520.3418 LF	24-INCH 520.3424 LF	18-INCH 521.1018 EACH	24-INCH 522.0124 LF	36-INCH 522.0136 LF	24-INCH 522.1024 EACH	36-INCH 522.1036 EACH	18-INCH 529.0118 LF		
0010	614' WB+83	49.5' LT	-	-	-	-	-	-	8	-	1	-	4	MIN. THICKNESS = 0.064"
0010	614' WB+83	55' LT	-	-	-	-	-	-	8	-	1	-	4	
0010	648' EB+23	46' RT	-	-	-	-	-	16	-	1	-	-	6	
0010	649' WB+09	47.5' LT	-	-	-	-	-	28	-	1	-	-	10	
0010	16' I+18	RT, PE2	2	-	58	-	-	-	-	-	-	-	-	
0010	16' I+34	LT, PE3	2	-	60	-	-	-	-	-	-	-	-	
0010	24' I+69	LT, PE5	-	2	-	60	-	-	-	-	-	-	-	
0010	27' I+01	CROSSING	-	2	-	72	-	-	-	-	-	-	-	
0010	28' I+01	LT, PE6	-	-	-	-	2	-	-	-	-	40	-	
0010	33' I+44	LT	-	-	-	-	-	-	-	-	-	-	-	
TOTAL 0010			4	4	118	132	2	44	16	2	2	40	24	

CONCRETE BARRIER TEMPORARY

ASPHALTIC SHOULDER RUMBLE STRIPS

CATEGORY	STATION TO	STATION	LOCATION	465.0400	REMARKS
				LF	
0010	11'H+69 -	14'H+00	LT	231	
0010	11'H+69 -	14'H+00	RT	231	
0010	16'H+74 -	23'H+17	LT	643	
0010	16'H+74 -	23'H+17	RT	643	
0010	14'I+16 -	18'I+96	LT	480	
0010	14'I+16 -	18'I+96	RT	480	
0010	21'I+48 -	34'I+55	LT	1308	
0010	21'I+48 -	35'I+36	RT	1389	
TOTAL 0010				5405	

CATEGORY	STATION TO	STATION	LOCATION	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED 603.8000	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED 603.8125	REMARKS
				LF	LF	
0010	607' EB+84 -	618' EB+84	LT AT HOBBS RD	1101	1101	
0010	607' EB+99 -	619' EB+19	RT AT HOBBS RD	1114	1114	
0010	613' WB+21 -	624' WB+69	LT AT HOBBS RD	1152	1152	
0010	613' WB+81 -	624' WB+81	RT AT HOBBS RD	1101	1101	
0010	640' EB+73 -	651' EB+99	LT AT CTH I	1127	1127	
0010	639' EB+25 -	651' EB+28	RT AT CTH I	1204	1204	
0010	647' WB+25 -	658' WB+92	LT AT CTH I	1165	1165	
0010	646' WB+73 -	657' WB+86	RT AT CTH I	1114	1114	
TOTAL 0010				9078	9078	

RIPRAP AND GEOTEXTILE

CATEGORY	STATION	LOCATION	RIPRAP MEDIUM 606.0200 CY	GEOTEXTILE FABRIC TYPE HR 645.0120 SY	REMARKS
0010	14'H+06	LT	12	32	SURFACE DRAIN
0010	13'H+80	RT	15	40	SURFACE DRAIN
0010	18'I+78	LT	14	37	SURFACE DRAIN
0010	21'I+47	LT	11	30	SURFACE DRAIN
0010	27'I+01	LT & RT	7	33	ENDWALLS
TOTAL 0010			59	172	

MGS GUARDRAIL SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	MGS GUARDRAIL 3 614.2300 LF	MGS GUARDRAIL 3 K 614.2330 LF	MGS THRIE BEAM TRANSITION 614.2500 LF	MGS GUARDRAIL TERMINAL EAT 614.2610 EACH	REMARKS
0010	13'H+14	-	14'H+17	LT	13	-	39.4	1	SEE S.D.D.
0010	12'H+88	-	13'H+90	RT	13	-	39.4	1	SEE S.D.D.
0010	16'H+84	-	17'H+86	LT	13	-	39.4	1	SEE S.D.D.
0010	16'H+57	-	22'H+01	RT	451	-	39.4	1	SEE S.D.D.
0010	17'I+85	-	18'I+88	LT	13	-	39.4	1	SEE S.D.D.
0010	16'I+44	-	19'I+07	RT	171	-	39.4	1	SEE S.D.D.
0010	21'I+37	-	22'I+51	LT	25	-	39.4	1	SEE S.D.D.
0010	21'I+56	-	32'I+75	RT	1072	-	39.4	-	SEE S.D.D.
0010	32'I+75	-	34'I+76	RT	-	201	-	-	SEE S.D.D.
0010	34'I+76	-	35'I+21	RT	-	-	-	1	SEE S.D.D.
TOTAL 0010					1769	201	315.2	8	

FENCE WOVEN WIRE (01. 4-FT)

CATEGORY	STATION	TO	STATION	LOCATION	STEEL THRIE BEAM BULLNOSE TERMINAL 614.0220 EACH	STEEL THRIE BEAM 614.0230 LF	REMARKS
0010	615'EB+45	-	617'EB+21	MEDIAN	2	140	SEE S.D.D.
0010	648'EB+69	-	650'EB+40	MEDIAN	2	140	SEE S.D.D.
TOTAL 0010					4	280	

CATEGORY	STATION	TO	STATION	LOCATION	616.0100 LF	REMARKS
0010	14'H+12	-	14'H+12	LT	60	
0010	13'H+39	-	13'H+90	RT	90	
0010	16'H+84	-	17'H+86	LT	130	
0010	16'H+16	-	16'H+57	RT	90	
0010	18'I+44	-	18'I+88	LT	75	
0010	18'I+86	-	19'I+07	RT	60	
0010	21'I+37	-	21'I+37	LT	60	
0010	21'I+56	-	22'I+53	RT	125	
0010	31'I+74	-	33'I+22	RT	160	
TOTAL 0010					850	

CRASH CUSHIONS TEMPORARY

CATEGORY	LOCATION	614.0905 EACH	REMARKS
0010	HOBBS RD & IH 94	4	
0010	CTH I & IH 94	4	
TOTAL 0010		8	

WATER

CATEGORY	LOCATION	624.0100 MGAL	REMARKS
0010	PROJECT	156	BASE AGGREGATE
0010	PROJECT	156	DUST CONTROL
TOTAL 0010		312	

SALVAGED TOPSOIL, MULCHING, EROSION MAT, FERTILIZING, & SEEDING

CATEGORY	STATION	TO	STATION	LOCATION	SALVAGED	MULCHING	EROSION	FERTILIZER	SEEDING	SEEDING	SEEDING	REMARKS
					TOPSOIL	627.0200	MAT	TYPE B	MIXTURE	TEMPORARY	BORROW	
					625.0500	SY	CLASS I	TYPE B	NO. 30	630.0200	PIT	
					SY		TYPE B	629.0210	630.0130	LB	630.0300	
							SY	CWT	LB	LB	LB	
0010	11'H+41	-	14'H+17	LT	750	-	750	0.5	14	21	-	
0010	11'H+00	-	13'H+90	RT	910	-	910	0.6	17	25	-	
0010	16'H+84	-	23'H+17	LT	2470	-	2470	1.6	45	67	-	
0010	16'H+57	-	23'H+17	RT	2770	-	2770	1.7	50	75	-	
0010	613'EB+34	-	619'EB+54	MEDIAN	3440	-	3440	2.2	62	93	-	
0010	13'I+66	-	18'I+88	LT	1610	-	1610	1.0	29	44	-	
0010	13'I+66	-	19'I+07	RT	1140	-	1140	0.7	21	31	-	
0010	21'I+37	-	35'I+05	LT	4320	-	4320	2.7	78	117	-	
0010	21'I+56	-	36'I+44	RT	1440	-	1440	0.9	26	39	-	
0010	645'EB+64	-	653'EB+66	MEDIAN	4460	-	4460	2.8	81	121	-	
0010	-	-	-	BORROW PIT	-	6790	-	4.3	-	184	92	
0010	-	-	-	UNDISTRIBUTED	-	1700	-	5.0	105	204	23	
TOTAL 0010					23310	8490	23310	24.0	528	1021	115	

SILT FENCE

CATEGORY	STATION	TO	STATION	LOCATION	SILT	SILT	REMARKS
					FENCE	FENCE	
					628.1504	628.1520	
					LF	LF	
0010	11'H+00	-	14'H+72	LT	342	171	
0010	11'H+00	-	13'H+89	RT	300	150	
0010	17'H+05	-	23'H+75	LT	655	328	
0010	16'H+02	-	23'H+75	RT	825	413	
0010	13'I+66	-	16'I+39	LT	286	143	
0010	16'I+59	-	18'I+91	LT	256	128	
0010	13'I+66	-	14'I+02	RT	61	31	
0010	14'I+53	-	15'I+95	RT	229	115	
0010	16'I+11	-	19'I+51	RT	416	208	
0010	20'I+89	-	22'I+95	LT	270	135	
0010	23'I+11	-	24'I+60	LT	271	136	
0010	24'I+76	-	28'I+06	LT	414	207	
0010	28'I+23	-	35'I+05	LT	706	353	
0010	21'I+55	-	36'I+45	RT	1560	780	
0010	615'EB+24	-	618'EB+66	RT	342	171	
0010	613'WB+76	-	617'WB+28	LT	352	176	
0010	647'EB+09	-	650'EB+44	RT	335	168	
0010	647'WB+82	-	651'WB+39	LT	358	179	
TOTAL 0010					7978	3989	

INLET PROTECTION TYPE A

CATEGORY	STATION	LOCATION	628.7005	REMARKS
			EACH	
0010	618'EB+01	IH 94 MEDIAN @ HOBBS RD	1	
0010	647'EB+15	IH 94 MEDIAN @ CTH I	1	
0010	651'EB+50	IH 94 MEDIAN @ CTH I	1	
TOTAL 0010			3	

TEMPORARY DITCH CHECKS

			628.7504	
CATEGORY	STATION	LOCATION	LF	REMARKS
0010	29' I+25	LT	12	
0010	30' I+25	LT	12	
0010	617' EB+71	LT	12	
0010	615' EB+07	RT	12	
0010	615' EB+74	RT	12	
0010	613' WB+85	LT	12	
0010	614' WB+35	LT	12	
0010	650' EB+28	LT	12	
0010	650' EB+71	LT	12	
0010	649' EB+71	RT	12	
0010	650' EB+39	RT	12	
0010	650' WB+54	LT	12	
0010	UNDISTRIBUTED		36	
TOTAL 0010			180	

CULVERT PIPE CHECKS				
628.7555				
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	617'EB+76	RT	5	30" CONCRETE
0010	616'WB+33	LT	7	36" CONCRETE
0010	616'WB+33	LT	7	36" CONCRETE
0010	15'I+99	LT	2	18"
0010	15'I+87	RT	2	18"
0010	24'I+38	LT	3	24"
0010	27'I+01	LT	3	24"
0010	27'I+79	LT	2	18"
0010	33'I+40	LT	10	48"
0010	648'EB+09	RT	3	24" CONCRETE
0010	648'WB+82	LT	3	24" CONCRETE
TOTAL 0010			47	

DELINEATORS				
DELINEATOR				
POSTS				
STEEL				
633.0100				
CATEGORY	LOCATION	EACH	DELINEATOR REFLECTORS 633.0500	REMARKS
0010	EB, RT AT HOBBS RD	3	3	
0010	WB, LT AT HOBBS RD	3	3	
0010	EB, RT AT CTH I	3	3	
0010	WB, LT AT CTH I	3	3	
TOTAL 0010		12	12	

SIGNS TYPE I								
SIGN								
SUPPORTS								
STRUCTURAL								
STEEL HS								
635.0200								
LB								
CATEGORY	STATION	LOCATION	SIGN SUPPORTS CONCRETE MASONRY 636.0100	SIGN SUPPORTS STEEL REINFORCEMENT 636.0500	MOVING SIGNS TYPE I 638.2101	REMOVING STRUCTURAL STEEL SIGN SUPPORTS 638.3100	REMARKS	
0010	650'WB+44	LT	-	-	1	1	OLD LOCATION	
0010	652'WB+00	LT	902	1.6	-	-	APPROXIMATE NEW LOCATION	
TOTAL 0010			902	1.6	1	1		

MARKERS CULVERT END				
633.5200				
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	615'EB+00	MEDIAN	1	
0010	616'EB+07	RT	1	
0010	617+77'EB	RT	1	
0010	614'WB+83	LT	1	2 PIPES
0010	616'WB+32	LT	1	2 PIPES
0010	618'EB+01	MEDIAN	1	
0010	647'EB+13	MEDIAN	1	
0010	648'EB+00	MEDIAN	1	
0010	648'EB+02	RT	1	
0010	648'EB+09	RT	1	
0010	649'EB+60	RT	1	
0010	650'EB+75	RT	1	
0010	650'EB+75	MEDIAN	1	
0010	651'EB+50	MEDIAN	1	
0010	648'WB+82	LT	1	
0010	650'WB+50	LT	1	
0010	27'I+01	LT, RT	2	
0010	33'I+43	LT	1	
0010	33'I+92	RT	1	
TOTAL 0010			20	

PERMANENT SIGNING							
APPROX. STATION LOCATION	SIGN GROUP NUMBER	SIGN CODE	SIGN MESSAGE	SIGN SIZE W X H (INCHES)	637.2210	637.2230	634.0616
					SIGNS TYPE II REFLECTIVE H	SIGNS TYPE II REFLECTIVE F	POSTS WOOD 4x6-INCH X 16-FT EACH
11'H+19, LT	1-1	W14-1	DEAD END	30 x 30	-	6.25	1
12'H+00, LT	1-2	R2-1	SPEED LIMIT_35	24 x 30	5.00	-	1
13'H+00, LT	1-3	W3-1	STOP AHEAD	36 x 36	-	9.00	1
13'H+00, RT	1-6	R2-1	SPEED LIMIT_45	24 x 30	5.00	-	1
23'H+00, LT	2-1	W3-5	SPEED LIMIT 35 AHEAD (UA)	36 x 36	-	9.00	1
24'I+36, LT	3-3	W1-6	NIGHT ARROW (SINGLE)	48 x 24	-	8.00	2
646'EB+00, LT	3-6	R4-3	SLOWER TRAFFIC KEEP RIGHT	48 x 60	20.00	-	2
648'EB+60, RT	3-7	M1-94	CTH I	54 x 21	7.88	-	2
649'WB+84, LT	3-8	M1-94	CTH I	54 x 21	7.88	-	2
27'I+12, LT	4-1	W1-6	NIGHT ARROW (SINGLE)	48 x 24	-	8.00	2
32'I+10, RT	4-2	W1-6	NIGHT ARROW (SINGLE)	48 x 24	-	8.00	2
32'I+37, RT	4-3	W1-6	NIGHT ARROW (SINGLE)	48 x 24	-	8.00	2
35'I+00, LT	5-1	R2-1	SPEED LIMIT_45	24 x 30	5.00	-	1
35'I+00, RT	5-2	R2-1	SPEED LIMIT_55	24 x 30	5.00	-	1
TOTAL 0010					55.75	56.25	21

SIGNING REMOVALS					
APPROX. STATION LOCATION	SIGN GROUP NUMBER	SIGN CODE	638.2602	638.3000	REMARKS
			REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
11'H+19, LT	1-1	W14-1	1	1	
12'H+01, LT	1-2	R2-1	1	1	
13'H+01, LT	1-3	W3-1	1	1	
14'H+14, LT	1-4	W5-52L	1	1	
16'H+86, LT	1-5	W5-52R	1	1	
13'H+00, RT	1-6	R2-1	1	1	
13'H+90, RT	1-7	W5-52R	1	1	
16'H+60, RT	1-8	W5-52L	1	1	
23'H+00, LT	2-1	W3-5	1	1	
18'I+95, LT	3-1	W5-52L	1	1	
21'I+45, LT	3-2	W5-52R	1	1	
24'I+36, LT	3-3	W1-6	1	1	
19'I+03, RT	3-4	W5-52R	1	1	
21'I+60, RT	3-5	W5-52L	1	1	
646'EB+00, LT	3-6	R4-3	1	2	
648'EB+60, RT	3-7	M1-94	1	1	
649'WB+84, LT	3-8	M1-94	1	1	
27'I+12, LT	4-1	W1-6	1	1	
32'I+10, RT	4-2	W1-6	1	1	
32'I+37, RT	4-3	W1-6	1	1	
35'I+00, LT	5-1	R2-1	1	1	
35'I+00, RT	5-2	R2-1	1	1	
TOTAL 0010			22	23	

TRAFFIC CONTROL ITEMS

		TRAFFIC CONTROL (01. 1021-03-74) 643.0100 EACH	TRAFFIC CONTROL DRUMS 643.0300 DAY	TRAFFIC CONTROL BARRICADES TYPE III 643.0420 DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A 643.0705 DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE C 643.0715 DAY	TRAFFIC CONTROL ARROW BOARDS 643.0800 DAY	TRAFFIC CONTROL SIGN 643.0900 DAY	TRAFFIC CONTROL COVERING SIGN TYPE II 643.0920 EACH	TRAFFIC CONTROL SIGN FIXED MESSAGE 643.1000 SF	TRAFFIC CONTROL SIGN PCMS WITH CELLULAR COMMUNICATIONS 643.1051 DAY	REMARKS
0010	IH 94 EB AT HOBBS RD	-	752	24	48	176	16	160	-	-	-	LEFT LANE CLOSURE
0010	IH 94 EB AT HOBBS RD	-	896	24	48	216	16	152	-	-	-	RIGHT LANE CLOSURE
0010	IH 94 WB AT HOBBS RD	-	328	16	32	120	16	128	-	-	-	LEFT LANE CLOSURE
0010	IH 94 WB AT HOBBS RD	-	328	16	32	120	16	128	-	-	-	RIGHT LANE CLOSURE
0010	IH 94 EB AT CTH I	-	328	16	32	120	16	128	-	-	-	LEFT LANE CLOSURE
0010	IH 94 EB AT CTH I	-	328	16	32	120	16	128	8	-	-	RIGHT LANE CLOSURE
0010	IH 94 WB AT CTH I	-	328	16	32	120	16	128	-	-	-	LEFT LANE CLOSURE
0010	IH 94 WB AT CTH I	-	328	16	32	120	16	128	-	-	-	RIGHT LANE CLOSURE
0010	HOBBS RD	0.5	-	784	1568	-	-	784	-	-	-	BRIDGE CLOSURE
0010	CTH I	0.5	-	840	1680	-	-	840	-	-	-	BRIDGE CLOSURE
0010	EB, U.S.H. 53 S.B., & U.S.H. 53 N.	-	-	-	-	-	-	1980	-	90	220	ALTERNATE ROUTE
0010	IH 94 WB	-	-	-	-	-	-	1430	-	90	110	ALTERNATE ROUTE
0010	EB, U.S.H. 53 S.B., & U.S.H. 53 N.	-	664	176	256	456	16	584	8	-	-	FULL CLOSURE
0010	IH 94 WB	-	384	96	128	216	16	136	-	-	-	FULL CLOSURE
0010	IH 94 SHOULDERS	-	-	-	-	-	-	440	-	-	-	PROJECT DURATION (SPEED LIMIT 70)
0010	IH 94 SHOULDERS	-	-	-	-	-	-	440	-	-	-	PROJECT DURATION (END ROAD WORK)
0010	IH 94 SHOULDERS	-	-	-	-	-	-	440	-	-	-	PROJECT DURATION (ROAD WORK 1 MILE
0010	SHOULDER CLOSURES	-	-	-	-	-	-	880	-	-	-	SHOULDER CLOSURES
TOTAL 0010		1	4664	2040	3920	1784	160	9034	16	180	330	

PAVEMENT MARKING EPOXY 4-INCH

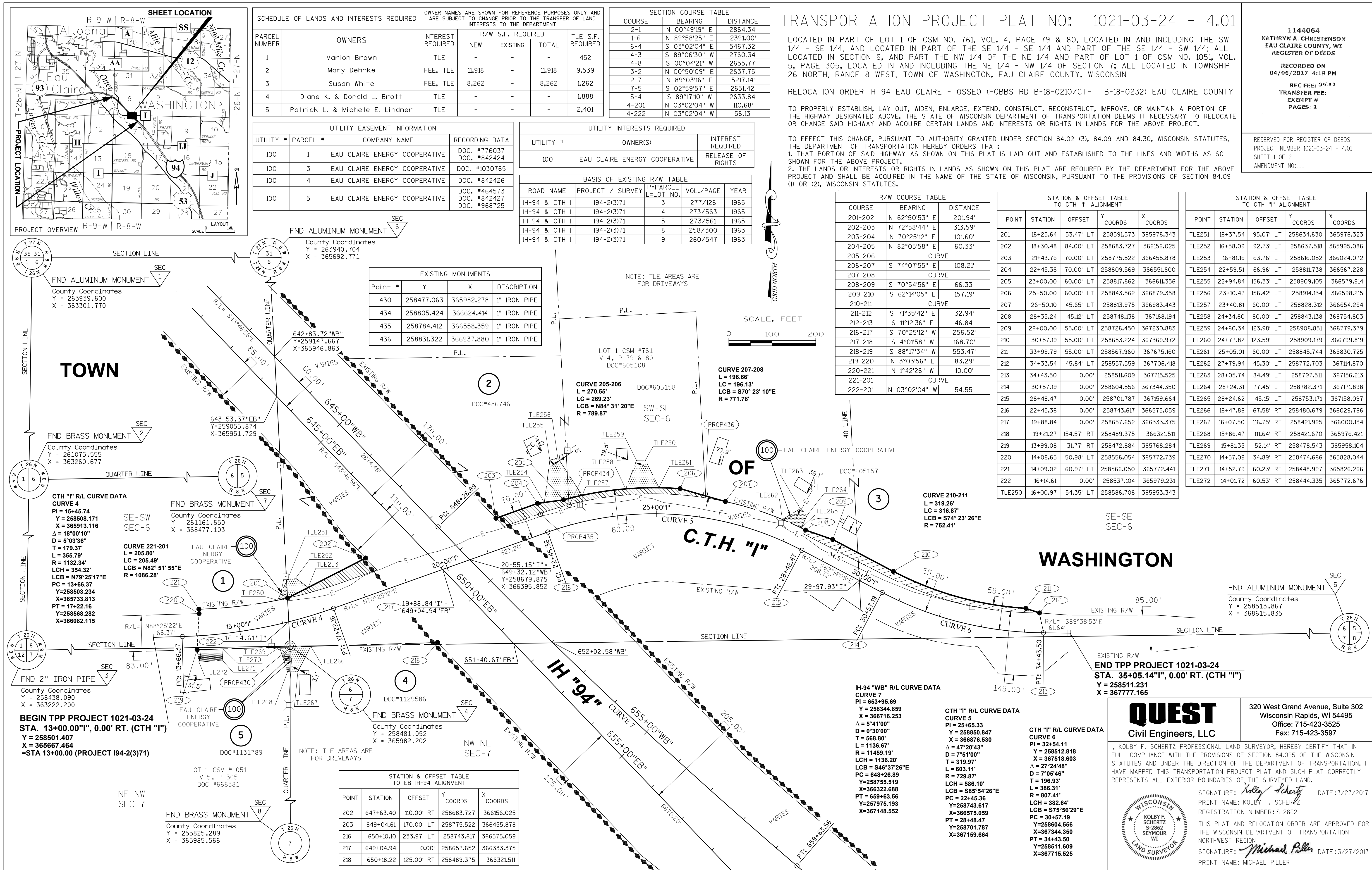
CATEGORY	STATION TO	STATION	646.0106 LF	REMARKS
0010	11'H+00	- 23'H+75	1275	LEFT EDGELINE
0010	11'H+00	- 23'H+75	2550	DOUBLE YELLOW
0010	11'H+00	- 23'H+75	1275	RIGHT EDGELINE
0010	13'I+66	- 36'I+39	2273	LEFT EDGELINE
0010	13'I+66	- 36'I+39	4546	DOUBLE YELLOW
0010	13'I+66	- 36'I+39	2273	RIGHT EDGELINE
TOTAL 0010			14192	

SAWING ASPHALT

CATEGORY	STATION TO	STATION	LOCATION	690.0150 LF	REMARKS
0010		11'H+00	HOBBS RD	22	
0010	11'H+00	- 11'H+14	HOBBS RD, LT	14	
0010		23'H+17	HOBBS RD	22	
0010		13'I+66	CTH I	22	
0010		35'I+05	CTH I	22	
TOTAL 0010				102	

SPECIAL (02. SALVAGE AND REINSTALL BEAM GUARD)

CATEGORY	STATION TO	STATION	LOCATION	SPV.0090.02 LF	REMARKS
0010	614'EB+89	- 618'EB+19	RT	331	
0010	614'WB+25	- 617'WB+28	LT	302	
0010	647'EB+09	- 650'EB+44	RT	335	
0010	648'WB+29	- 651'WB+39	LT	310	
TOTAL 0010				1278	





STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
PROJECT NO. 1021-03-24
TOWN OF WASHINGTON
EAU CLAIRE - OSSEO
IH 94
EAU CLAIRE COUNTY

CONVENTIONAL SYMBOLS

SECTION LINE	----	SECTION CORNER		R/W MONUMENT	●
QUARTER LINE	----			NON-MONUMENTED R/W POINT	⊗
SIXTEENTH LINE	----	NOTATION FOR COMBUSTIBLE FLUIDS		FOUND IRON MON.	○
NEW REFERENCE LINE	----			VALVE (GAS, WATER, ETC.)	⊙ (TYPE)
NEW R/W LINE	----	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES		SIGN	
EXISTING R/W LINE	----			OFF-PREMISE SIGN	
PROPERTY LINE	----				
LOT, TIE & OTHER MINOR LINES	----				
CORPORATE LIMITS	////				
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)	W (TYPE)	ELECTRIC POLE		COMPENSABLE	
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)		TELEPHONE POLE		NON-COMPENSABLE	
TEMPORARY LIMITED EASEMENT AREA		PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)			
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)					
TRANSMISSION STRUCTURES		ACCESS CONTROLLED BY ACQUISITION			
BUILDING		NO ACCESS (BY STATUTORY AUTHORITY)			
NATIONAL GEODETIC SURVEY MONUMENT		ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)			
SIXTEENTH CORNER MONUMENT				PARCEL NUMBER	
RIGHT OF WAY GUARD POST				UTILITY NUMBER	
		EXISTING MONUMENT NUMBER			
		R/W BOUNDARY POINT NUMBER			

CONVENTIONAL ABBREVIATIONS

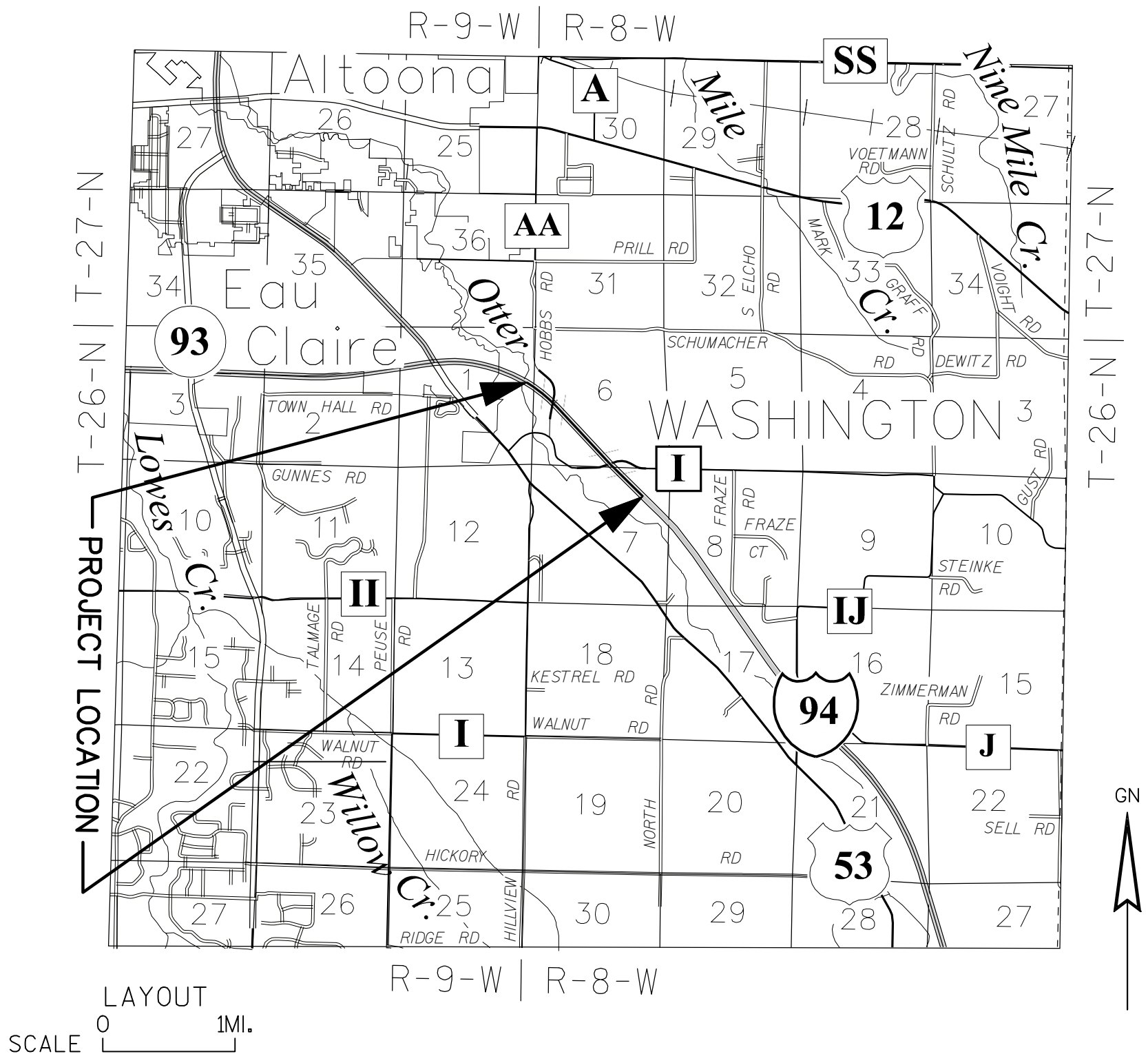
ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RIGHT	RT
CENTERLINE	C/L	RIGHT OF WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC
CONCRETE	CONC	SEPTIC VENT	SEPV
COUNTY	CO	SQUARE FEET	SF
COUNTY TRUNK HIGHWAY	CTH	STATE TRUNK HIGHWAY	STH
DISTANCE	DIST	STATION	STA
CORNER	COR	SUBDIVISION	SUBD
DOCUMENT NUMBER	DOC	TANGENT	TAN
EASEMENT	EASE	TELEPHONE PEDESTAL	TP
EXISTING	EX	TEMPORARY LIMITED	TLE
GAS VALVE	GV	EASEMENT	
GRID NORTH	GN	TRANSPORTATION PROJECT	TPP
HIGHWAY EASEMENT	HE	PLAT	
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		

CURVE DATA

LONG CHORD	LC
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	Δ
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

WATER	—W—
GAS	—G—
TELEPHONE	—T—
OVERHEAD	—OH—
TRANSMISSION LINES	
ELECTRIC	—E—
CABLE TELEVISION	—TV—
FIBER OPTIC	—FO—
SANITARY SEWER	—SAN—
STORM SEWER	—SS—



NOTES:
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, EAU CLAIRE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 1" X 24" IRON PIPES), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN EAU CLAIRE, WI.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE EAU CLAIRE COUNTY HIGHWAY DEPARTMENT FOR DRIVEWAYS ON C.T.H. "I".

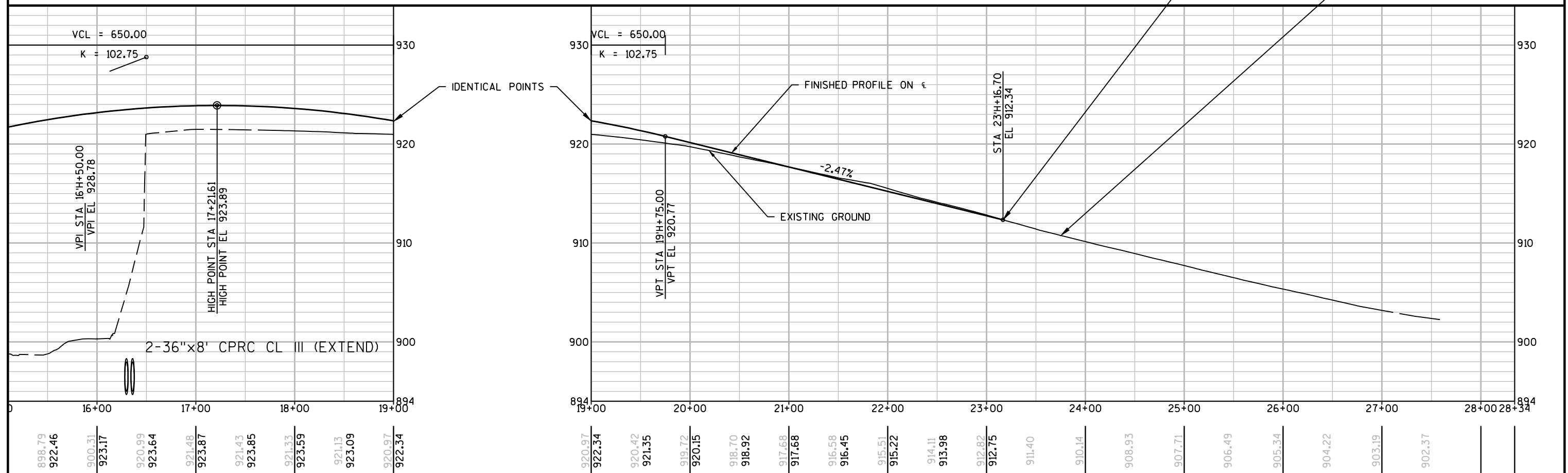
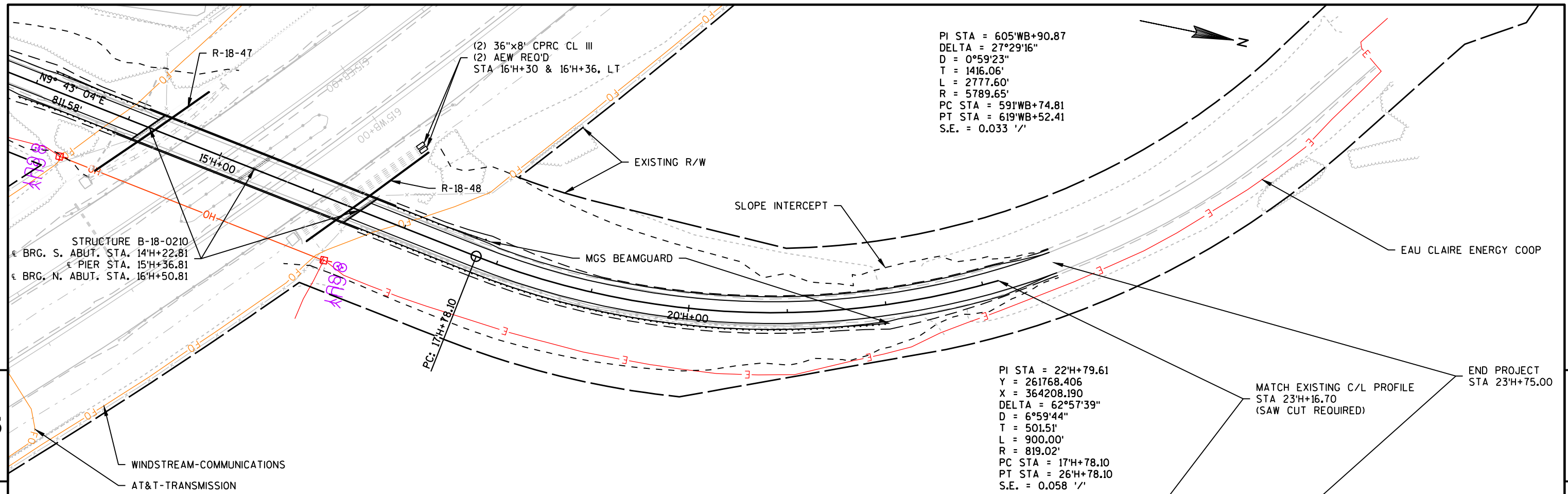
PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

EXISTING ACCESS CONTROL ALONG IH-94 AND C.T.H. "I" HAS BEEN ESTABLISHED FROM PREVIOUS PROJECT I-94-2(3)71
EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR IH-94 AND C.T.H. "I" ESTABLISHED FROM PREVIOUS PROJECT I-94-2(3)71

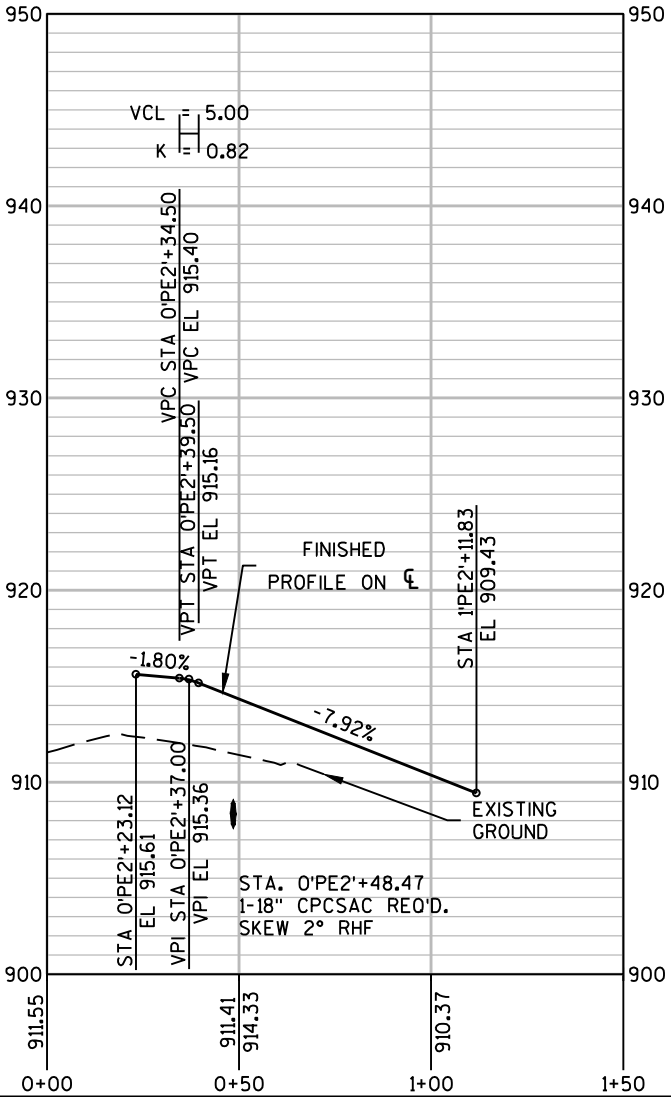
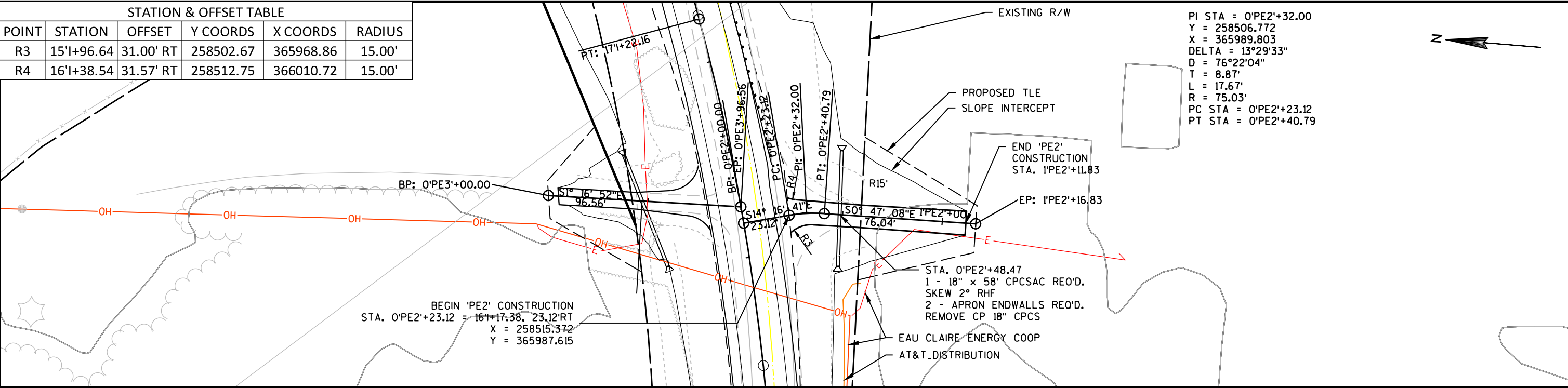
RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1021-03-24 - 4.01
SHEET 2 OF 2
AMENDMENT NO:

5

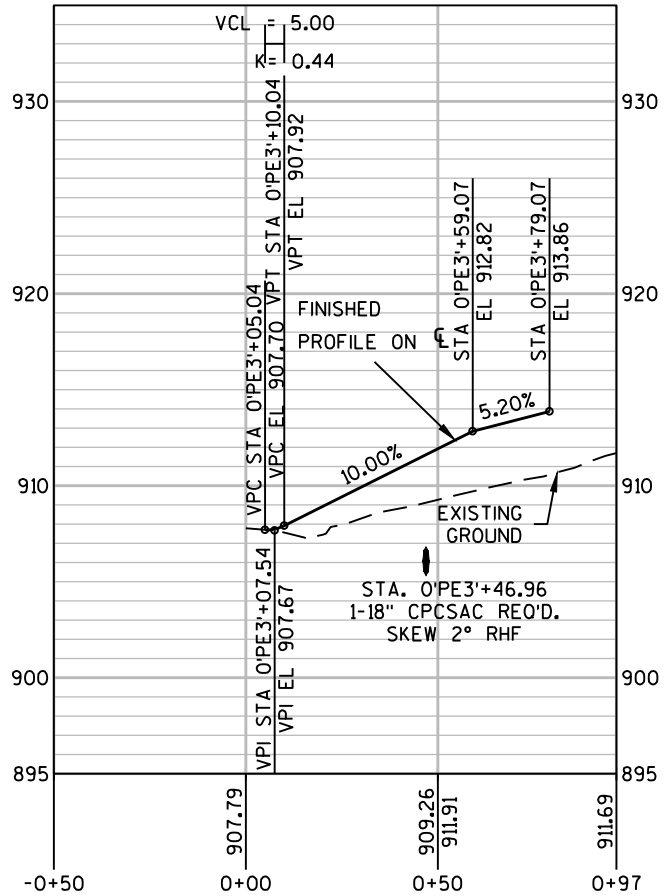
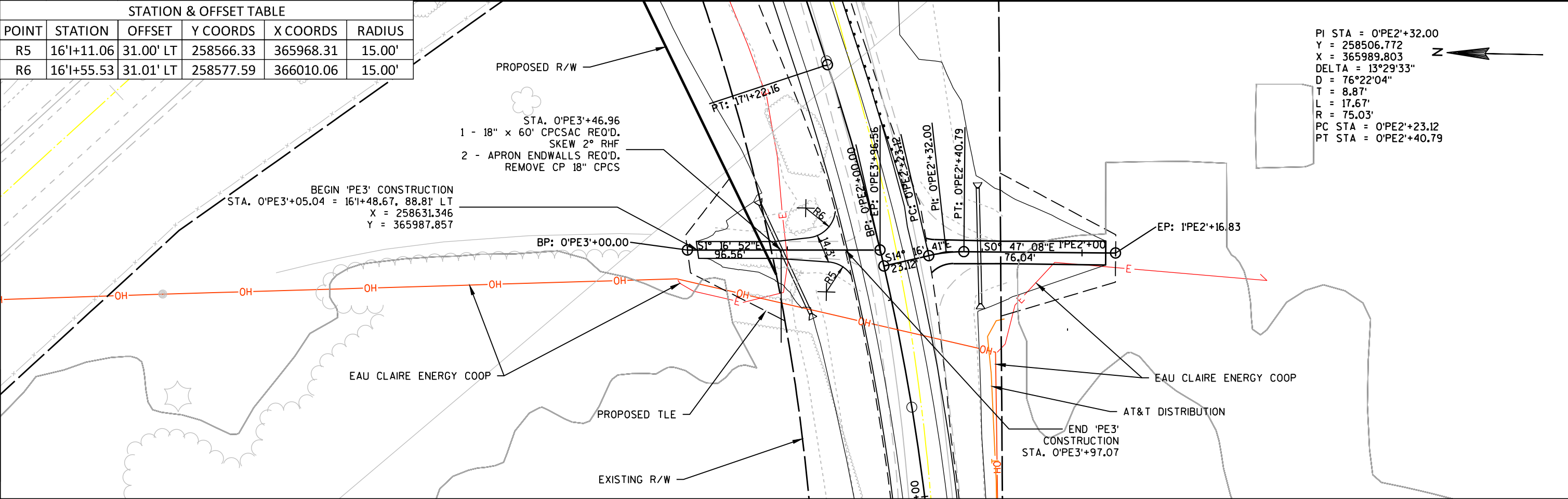




STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
R3	15'+96.64	31.00' RT	258502.67	365968.86	15.00'
R4	16'+38.54	31.57' RT	258512.75	366010.72	15.00'



STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
R5	16'I+11.06	31.00' LT	258566.33	365968.31	15.00'
R6	16'I+55.53	31.01' LT	258577.59	366010.06	15.00'



PROJECT NO:1021-03-74

HWY:IH 94

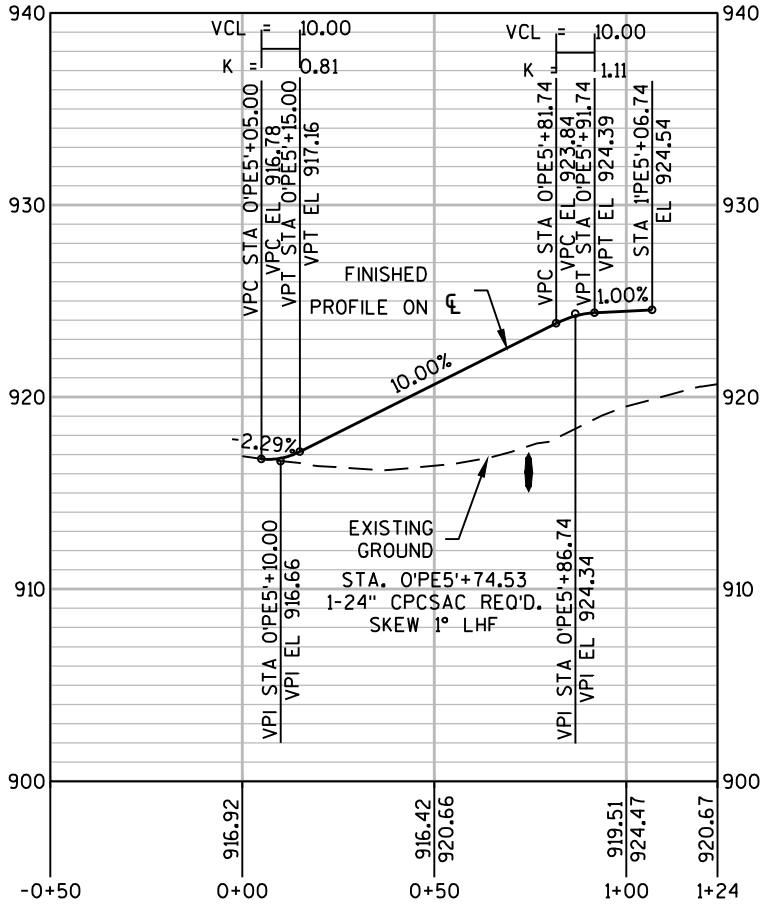
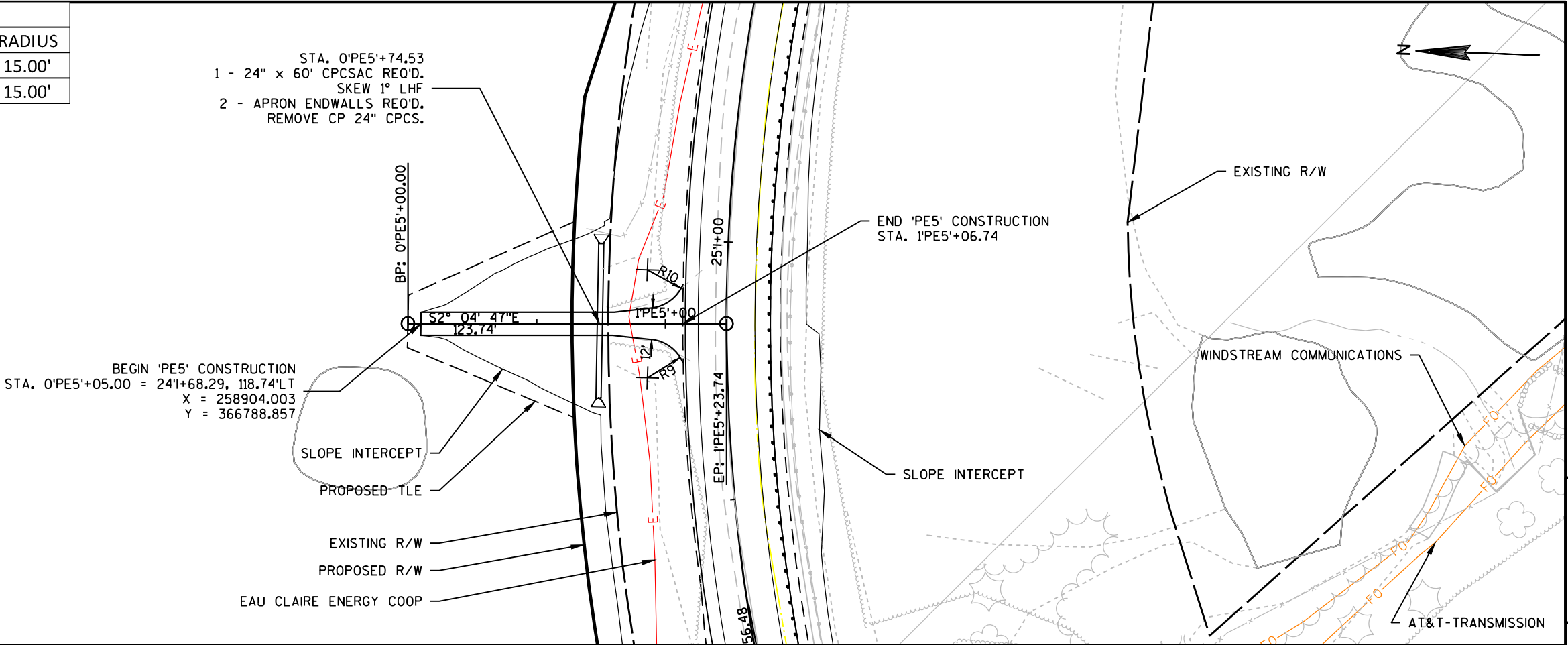
COUNTY:EAU CLAIRE

PLAN AND PROFILE: 'PE3'

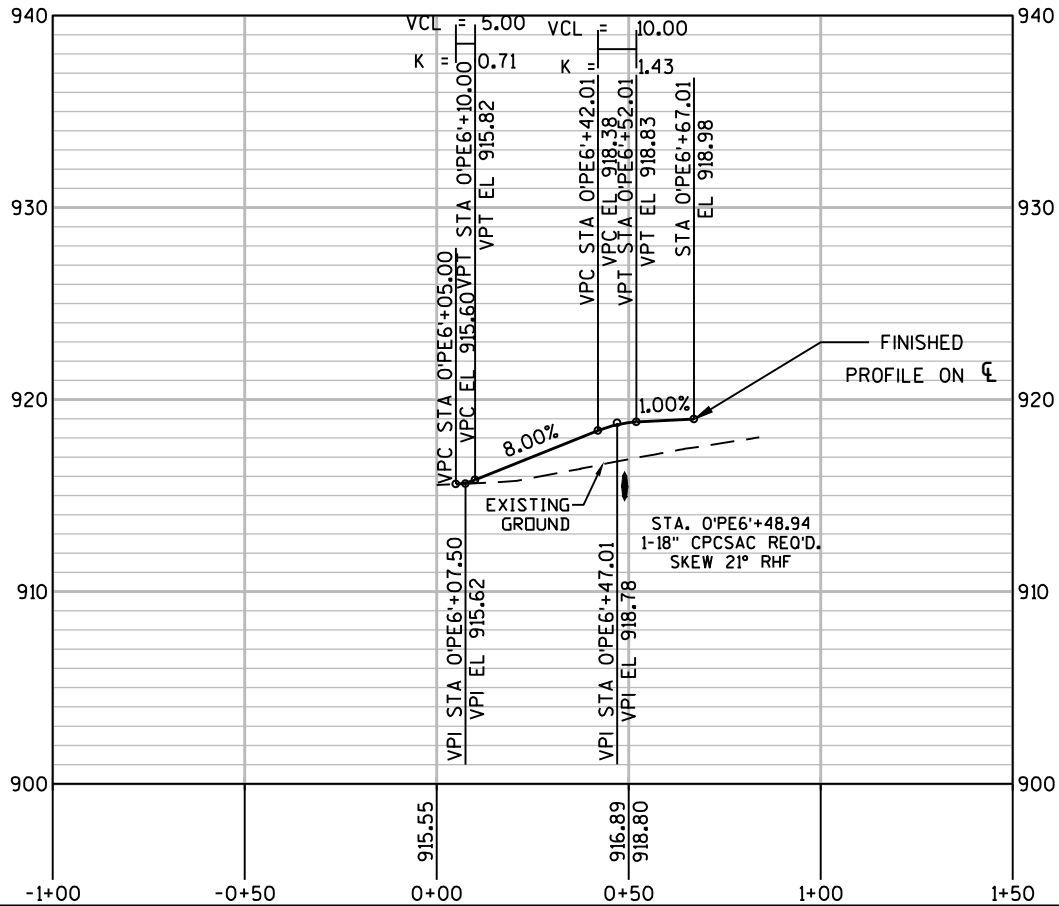
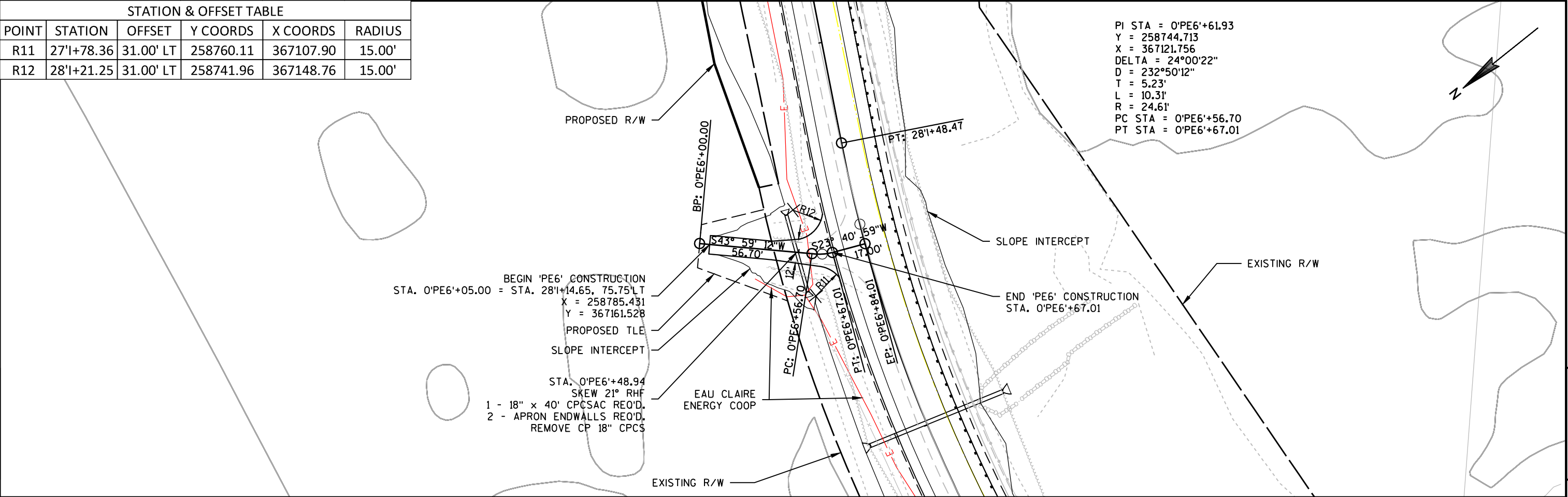
SHEET

E

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
R9	24'I+48.14	31.00' LT	258815.27	366771.07	15.00'
R10	24'I+88.43	31.02' LT	258816.82	366813.04	15.00'

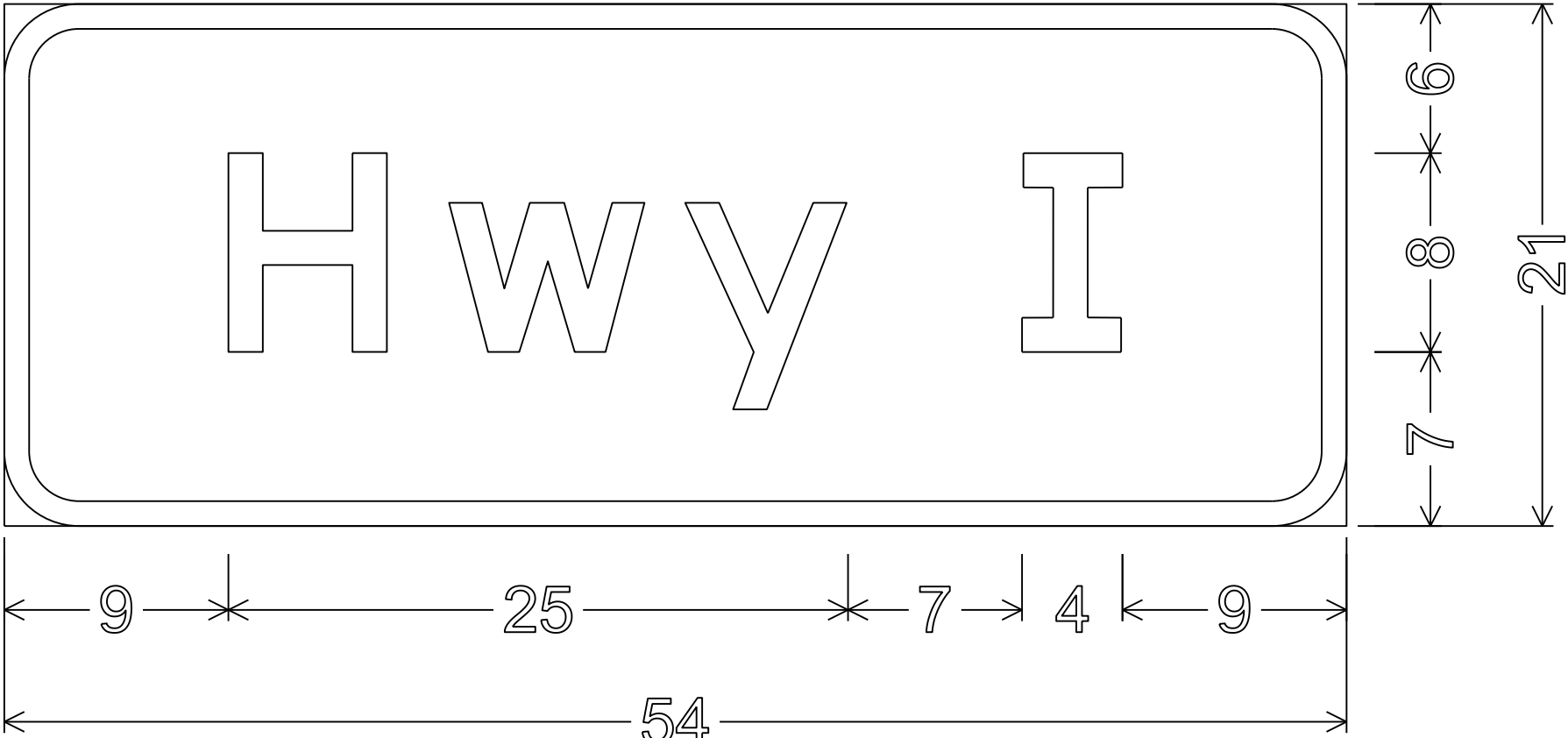


STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
R11	27'I+78.36	31.00' LT	258760.11	367107.90	15.00'
R12	28'I+21.25	31.00' LT	258741.96	367148.76	15.00'



NOTES

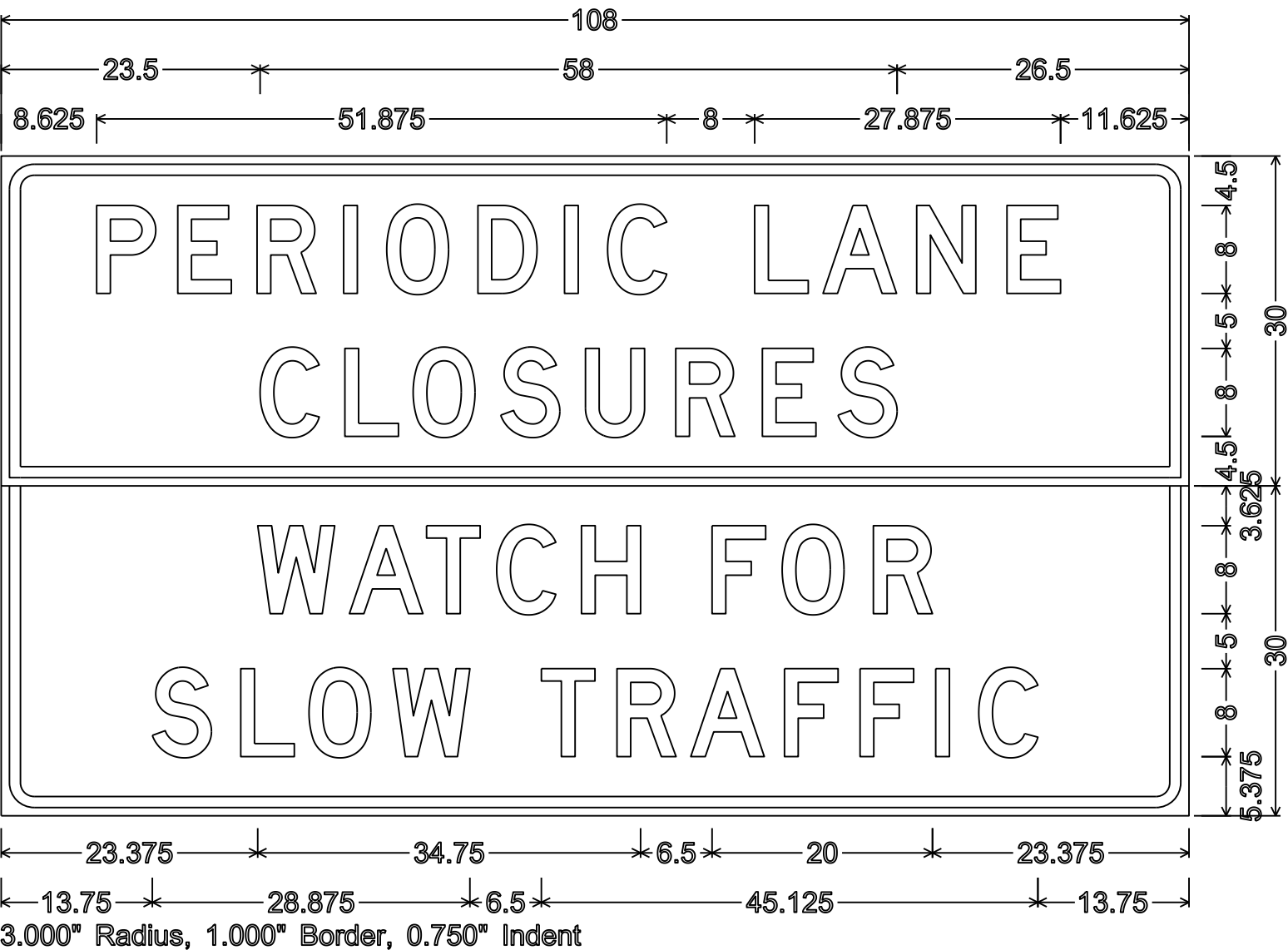
- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - Green
 - Message - White
- 3. Message Series - E

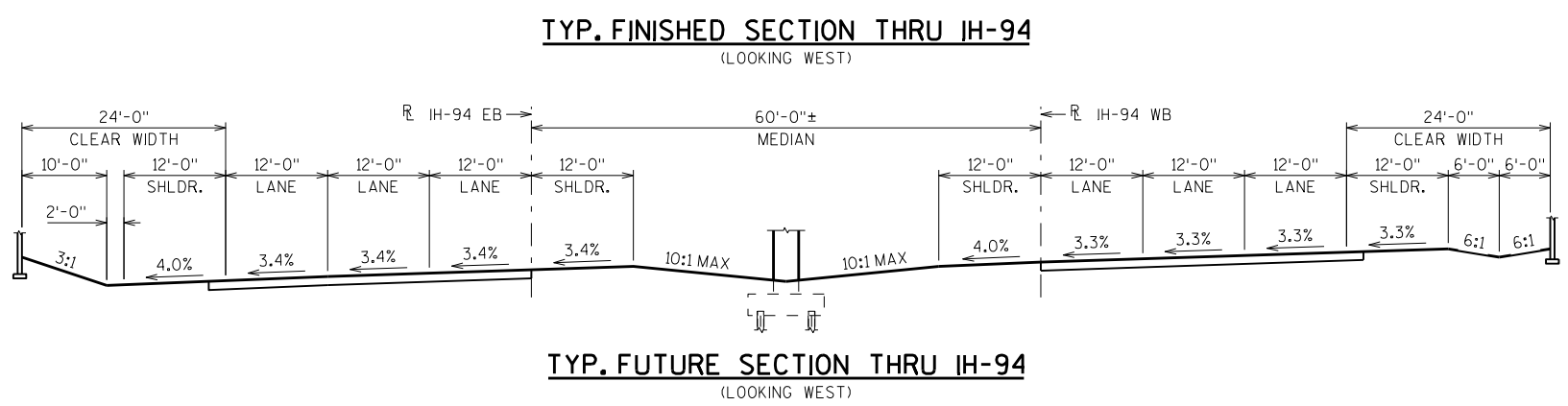
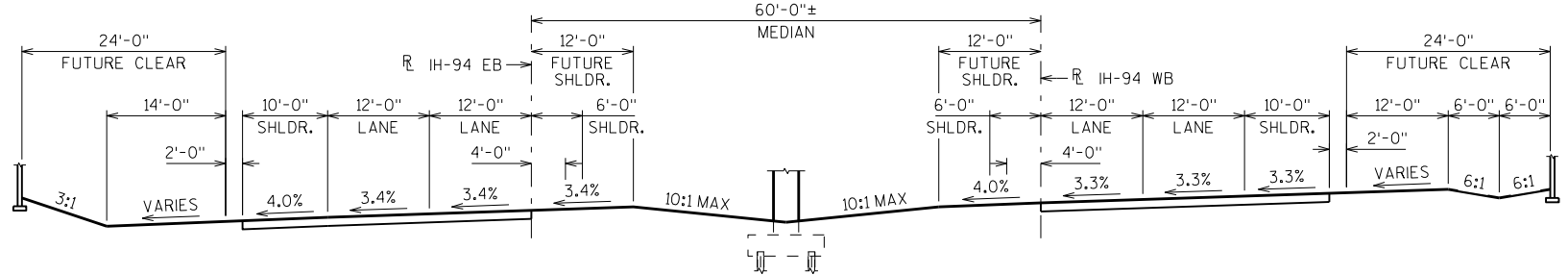
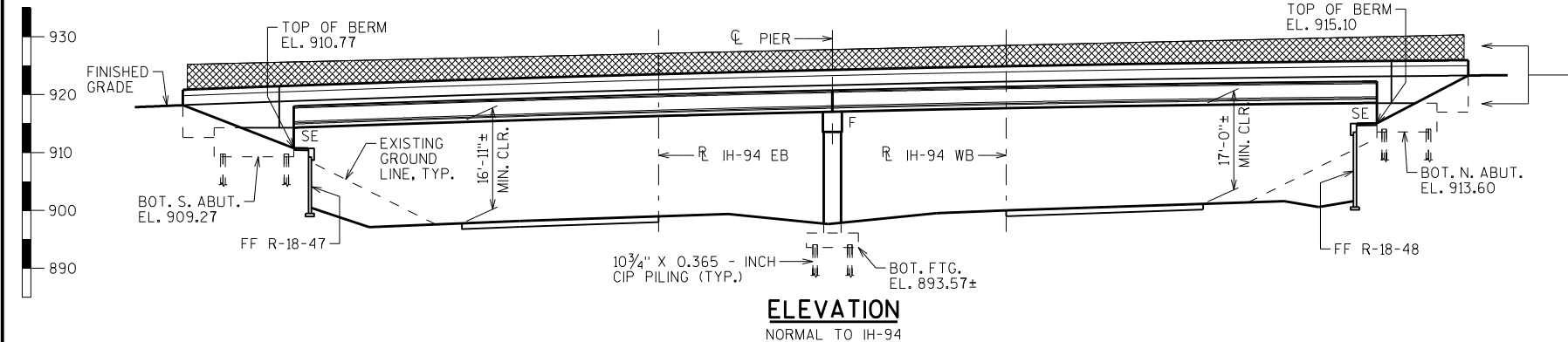
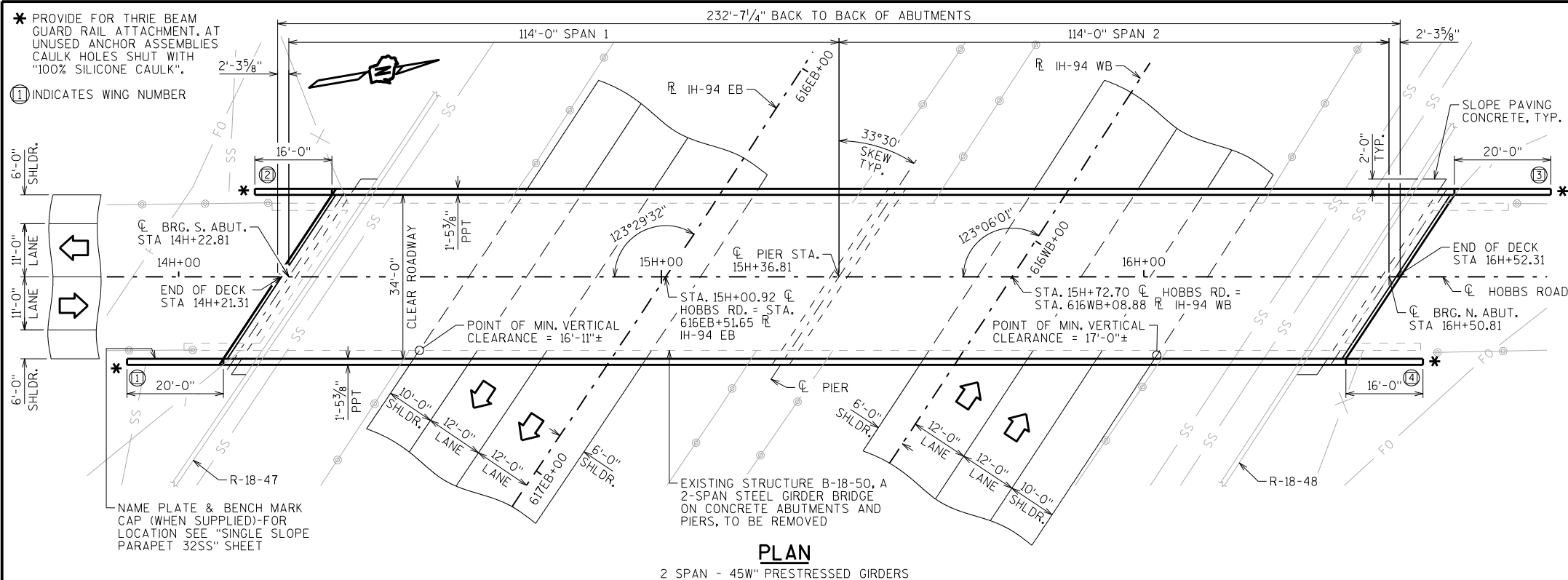


M1-94;
3.000" Radius, 1.000" Border

NOTES

- 1. All Signs are Type II - Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - D





DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.08
OPERATING RATING FACTOR: RF = 1.43
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250(KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:
CONCRETE MASONRY:
DECK, DIAPHRAGMS, AND PARAPETS $f'_c = 4,000$ P.S.I.
ALL OTHER $f'_c = 3,500$ P.S.I.

BAR STEEL REINFORCEMENT: $f_y = 60,000$ P.S.I.
GRADE 60

45W" PRESTRESSED GIRDERS:
CONCRETE MASONRY $f'_c = 8,000$ P.S.I.
STRANDS: 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON 10 3/4" X .365-INCH CIP PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 85' LONG AT BOTH ABUTMENTS.

PIER TO BE SUPPORTED ON 10 3/4" X .365-INCH CIP PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 95' LONG.

** THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC VOLUME

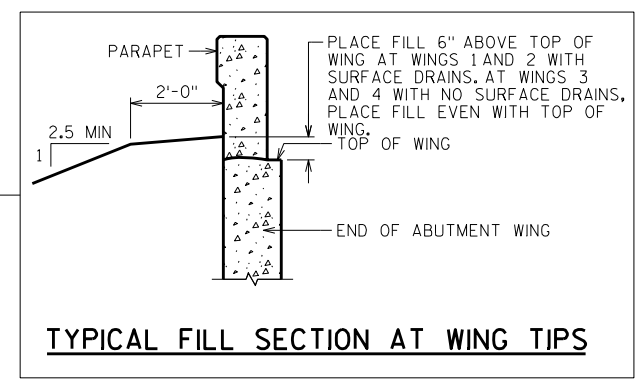
HOBBS ROAD
ADT = 575 (2038)
R.D.S. = 45 M.P.H.

IH-94
ADT = 35,300 (2042)
R.D.S. = 70 M.P.H.

CURVE DATA

IH-94 EB
P.I. = 606EB+04.99
 $\Delta = 27^\circ 29' 16''$
D = 1°00'00"
T = 1401.39'
L = 2748.81'
R = 5729.65'
S.E. = 3.40%
P.C. = 592EB+03.60
P.T. = 619EB+52.41

IH-94 WB
P.I. = 605WB+90.87
 $\Delta = 27^\circ 29' 16''$
D = 0°59'23"
T = 1416.06'
L = 2777.60'
R = 5789.65'
S.E. = 3.30%
P.C. = 591WB+74.81
P.T. = 619WB+52.41

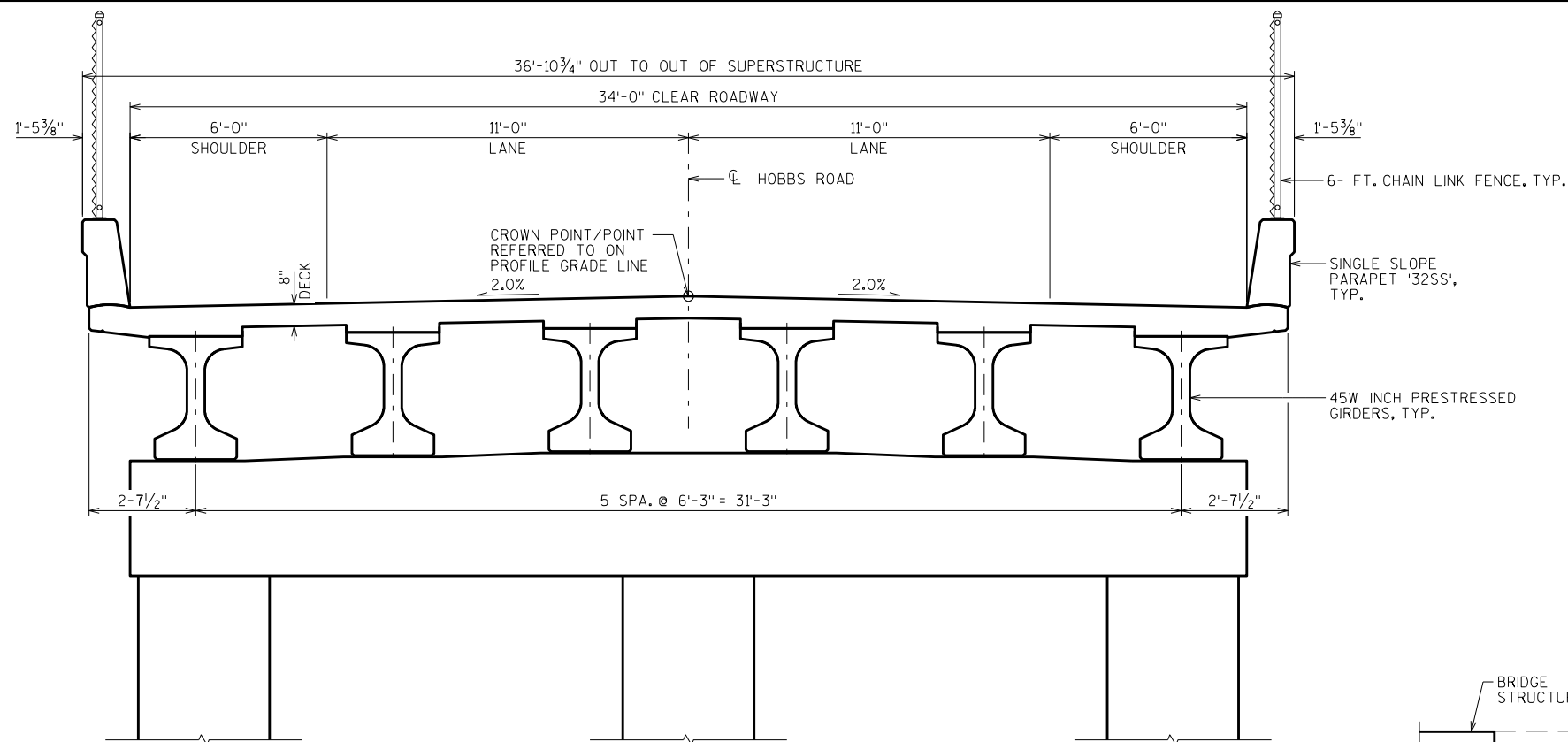


STRUCTURE DESIGN CONTACTS:
DANIELLE DE TENNIS (608) 266-8689
LAURA SHADEWALD (608) 267-9592

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT DETAILS
6. NORTH ABUTMENT
7. NORTH ABUTMENT DETAILS
8. PIER
9. PIER DETAILS
10. 45W" PRESTRESSED GIRDER DETAILS 1
11. 45W" PRESTRESSED GIRDER DETAILS 2
12. STEEL DIAPHRAGM
13. SUPERSTRUCTURE
14. SUPERSTRUCTURE DETAILS 1
15. SUPERSTRUCTURE DETAILS 2
16. SINGLE SLOPE PARAPET 32SS
17. FENCING DETAILS
18. SLOPE PAVING CONCRETE

NO.	DATE	REVISION	BY
ACCEPTED _____ CHIEF STRUCTURES DESIGN ENGINEER DATE _____			
STRUCTURE B-18-210			
HOBBS ROAD OVER IH-94			
COUNTY	EAU CLAIRE	TOWN	WASHINGTON
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	DFD	DESIGNED CK'D.	DLM
DRAWN BY	JDM	PLANS CK'D.	
GENERAL PLAN			SHEET 1 OF 18



CROSS SECTION THRU ROADWAY

LOOKING NORTH

GENERAL NOTES

STATE PROJECT NUMBER

1021-03-74

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.

AT THE BACK FACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE
ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE
BACKFILLED WITH STRUCTURE BACKFILL.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAILS SHOWN
IN THE PLANS

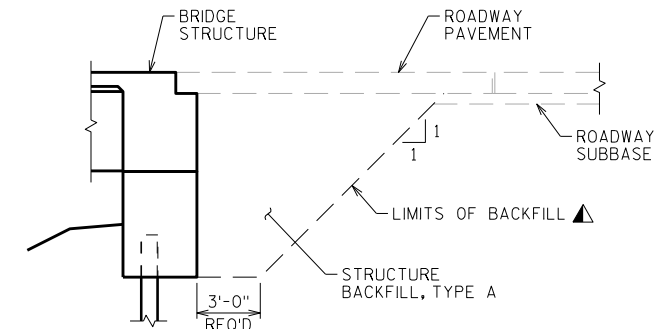
PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK SURFACE.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS, INCLUDING PARAPETS ON WINGS.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON SHEET 18 AND THE ABUTMENT DETAILS.

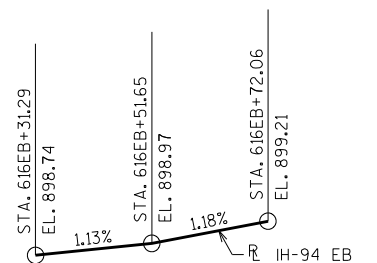
THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE "45W
PRESTRESSED GIRDER DETAILS 2" SHEET.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIERS.



TYPICAL SECTION
THRU ABUTMENT

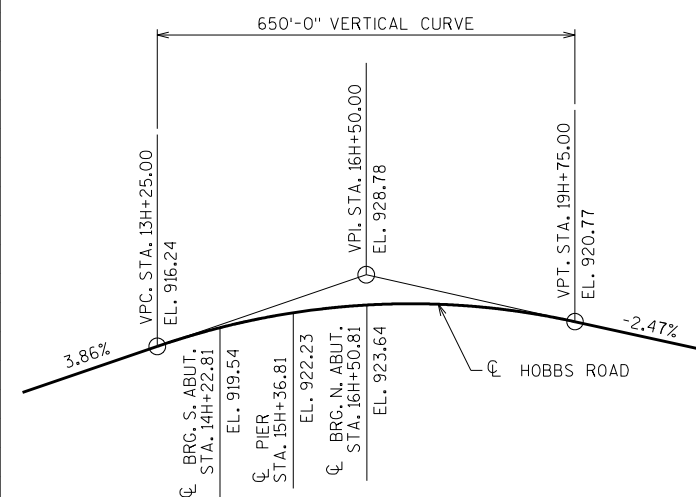
▲ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.



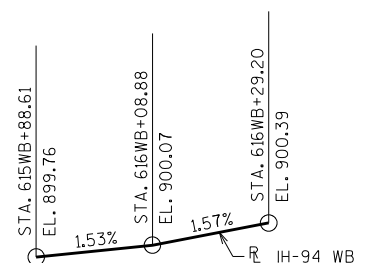
PROFILE GRADE LINE - IH-94 EB

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	PIER	NORTH ABUT.	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 15H+37	LS	—	—	—	—	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-18-210	LS	—	—	—	—	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	—	219		210	429
502.0100	CONCRETE MASONRY BRIDGES	CY	348	54	76	53	531
502.3200	PROTECTIVE SURFACE TREATMENT	SY	873	—	—	—	873
502.3210	PIGMENTED SURFACE SEALER	SY	188	15	—	15	218
503.0146	PRESTRESSED GIRDER TYPE I 45W-INCH	LF	1,373	—	—	—	1,373
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB		3,250	1,580	3,100	7,930
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	71,420	2,360	11,370	3,260	88,410
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	24	—	—	—	24
506.4000	STEEL DIAPHRAGMS B-18-210	EACH	20	—	—	—	20
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	—	11	—	11	22
550.2106	PILING CIP CONCRETE 10 3/4" X 0.365-INCH	LF	—	1,105	3,420	1,105	5,630
604.0400	SLOPE PAVING CONCRETE	SY	—	14	—	14	28
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	—	84	—	84	168
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	—	2	—	2	4
SPV.0090	FENCE CHAIN LINK POLYMER COATED 6-FT.	LF	465	35	—	35	535
	NON-BID ITEMS						
	FILLER	SIZE	—	—	—	—	1/2", 3/4", 1 1/2"



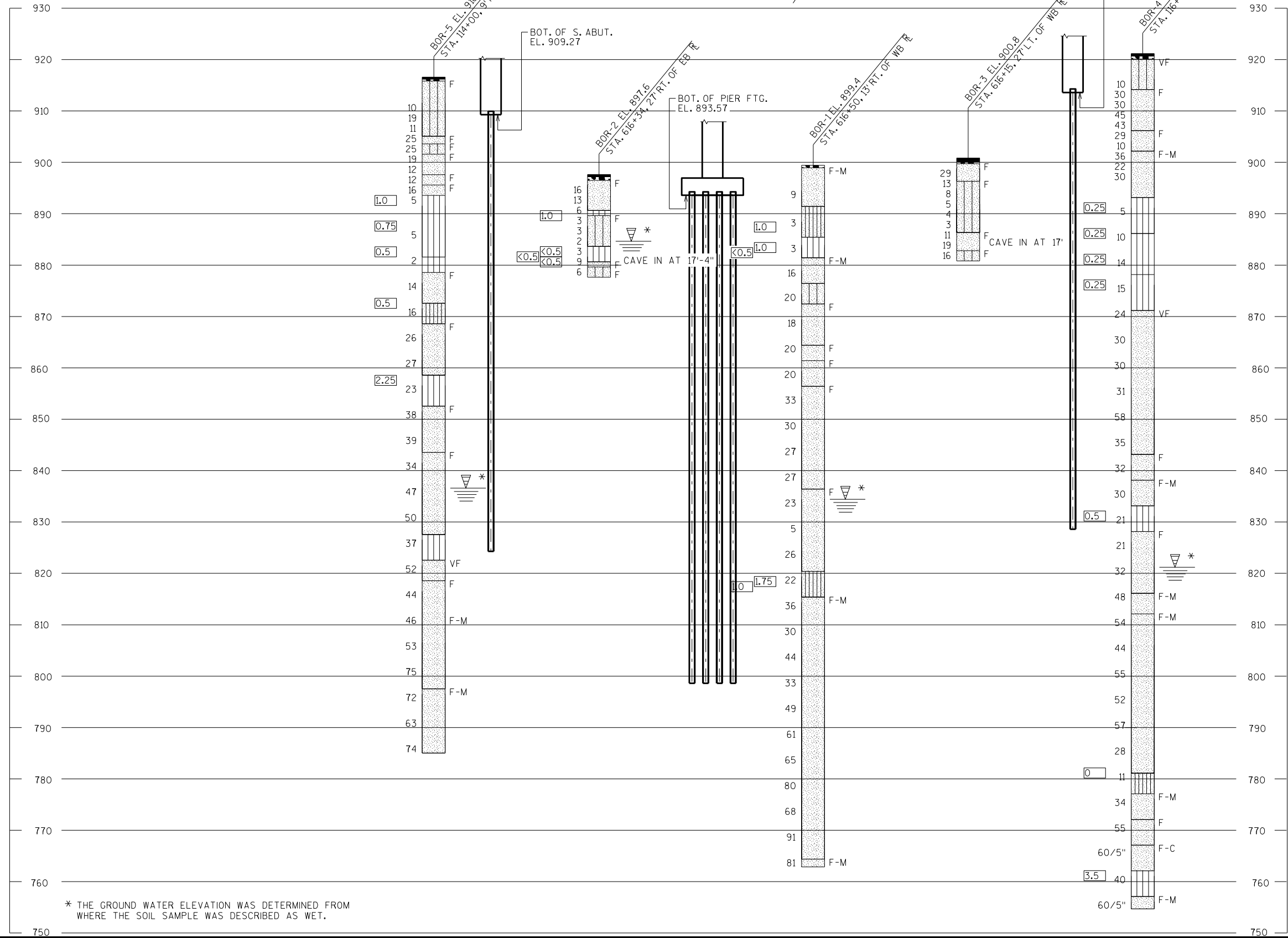
PROFILE GRADE LINE - HOBBS ROAD



PROFILE GRADE LINE - IH-94 WB

NO.	DATE	REVISION			BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION					
STRUCTURE B-18-210					
DRAWN BY			JDM	PLANS CK'D.	
CROSS SECTION & QUANTITIES				SHEET 2	

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	11/09/2016	261038.116	364105.912
2	11/10/2016	260996.410	364049.162
3	11/10/2016	261089.418	364110.849
4	11/16/2016	261167.349	364097.472
5	11/15/2016	260914.553	364067.552
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) EAU CLAIRE COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			



STATE PROJECT NUMBER
1021-03-74

MATERIAL SYMBOLS

ASPHALT

CONCRETE

SAND

BOULDERS OR COBBLES

SHALE

TOPSOIL

FILL

CLAY

LIMESTONE

SANDSTONE

PEAT

GRAVEL

SILT

BEDROCK (UNKNOWN)

IGNEOUS/META

LEGEND OF BORING

BORING # EL.
STA. OFF-SET

ST

(1) (2)

17

▽

F-C

COBBLE OR BOULDER

WEATHERED LIMESTONE

CORE RUN #1 - 24'-29'

REC=80%, ROD=72%

(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING

▽ END OF DRILLING

▽ AFTER DRILLING

ABBREVIATIONS

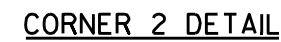
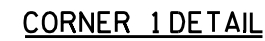
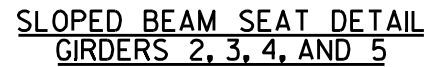
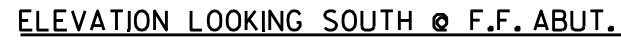
F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-210			
DRAWN BY JDM/		PLANS CK'D.	
SUBSURFACE EXPLORATION		SHEET 3	

SCALE = 75.00



THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



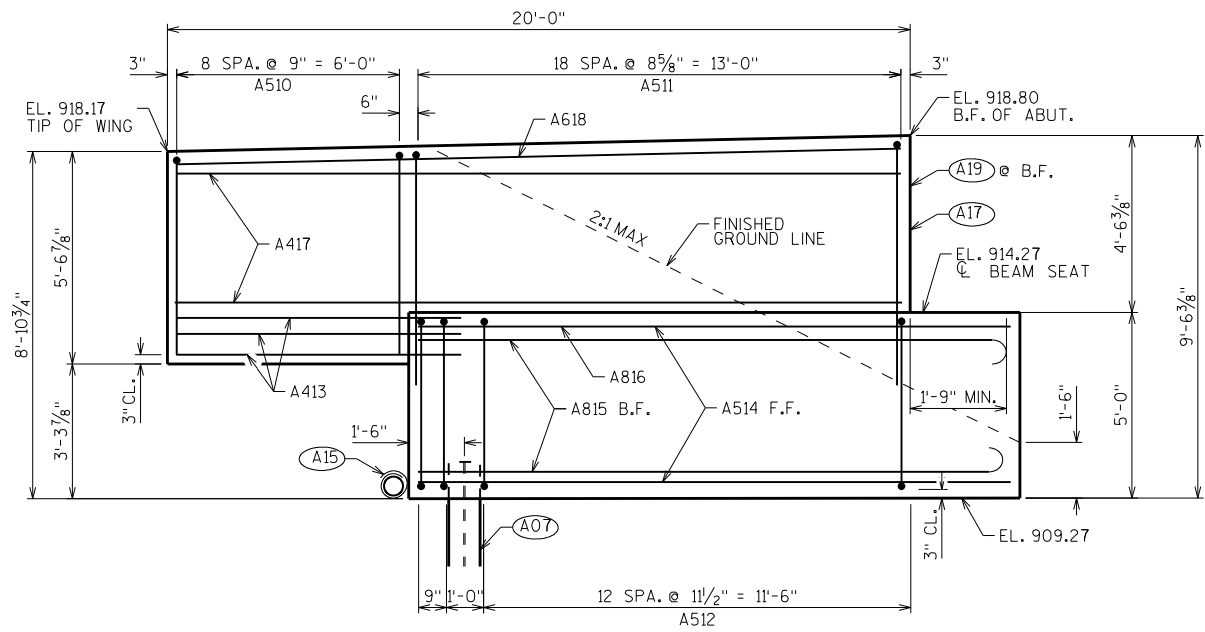
(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING
SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-210			
DRAWN BY		JDM	PLANS CK'D.
SOUTH ABUTMENT		SHEET 4	

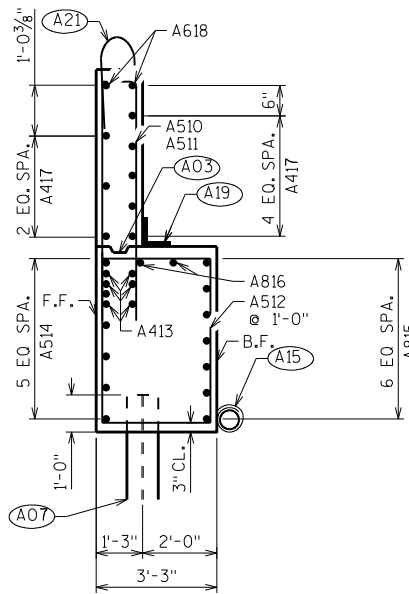
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

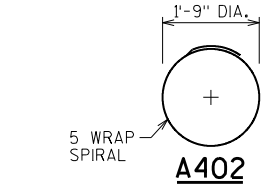
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501		56	15'-3"	X		BODY-STIRRUP
A402		11	28'-0"	X		BODY-1 PER BODY PILE
A403		22	2'-3"			BODY- 2 PER BODY PILE-VERT.
A904		7	45'-10"	X		BODY-HORIZ.-B.F.
A605		11	43'-5"			BODY-HORIZ.
A506		28	6'-1"	X		BODY-VERT.-TOP-UNDER G1-G4
A407		3	27'-0"			BODY-HORIZ.-TOP-UNDER G1-G4
A408		15	4'-1"	X		BODY-VERT.-TOP-BTWN. BEAM SEATS
A409		10	5'-3"			BODY-HORIZ.-TOP-BTWN. BEAM SEATS
A510	X	9	11'-0"	X		WING 1-VERT.
A511	X	19	12'-6"	X		WING 1-VERT.
A512	X	15	15'-8"	X		WING 1-STIRRUP
A413	X	12	7'-8"			WING 1& 2-HORIZ.-F.F. & B.F.
A514	X	6	16'-0"			WING 1-HORIZ.-F.F.
A815	X	7	17'-5"	X		WING 1-HORIZ.-B.F.
A816	X	2	16'-9"	X		WING 1-HORIZ.
A417	X	8	19'-6"			WING 1-HORIZ.-F.F. & B.F.
A618	X	2	19'-6"			WING 1-HORIZ.-TOP-F.F. & B.F.
A519	X	13	12'-6"	X		WING 2-VERT.
A520	X	9	12'-4"	X		WING 2-VERT.
A521	X	11	16'-10"	X		WING-2-STIRRUP
A522	X	7	13'-9"			WING 2-HORIZ.-F.F.
A723	X	7	10'-9"	X		WING 2-HORIZ.-B.F.
A724	X	2	11'-6"	X		WING 2-HORIZ.
A425	X	9	15'-6"			WING 2-HORIZ.-B.F. & F.F.
A626	X	2	15'-6"			WING 2-HORIZ.-TOP-B.F. & F.F.



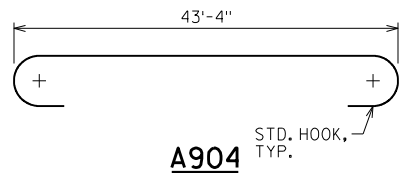
WING 1 ELEVATION



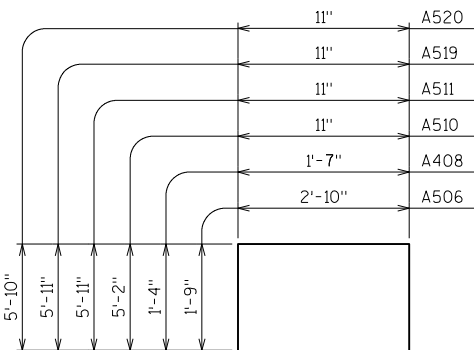
WING 1 SECTION



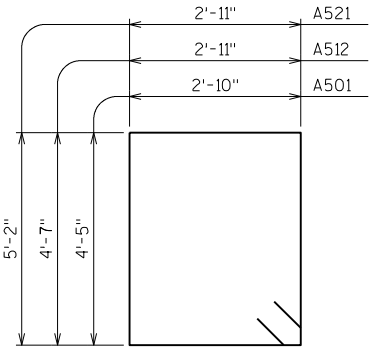
A815, A816, A723, A724



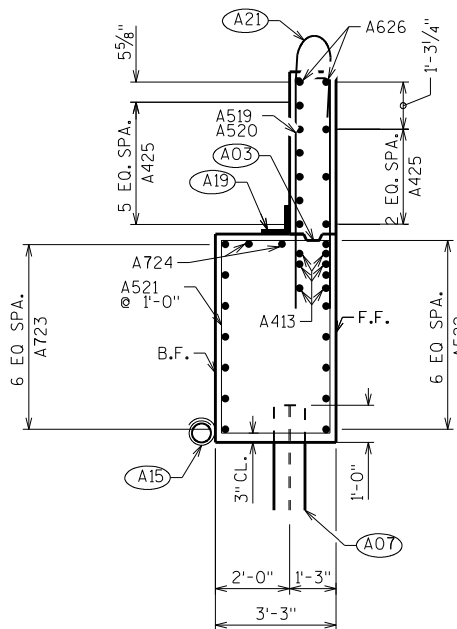
A904



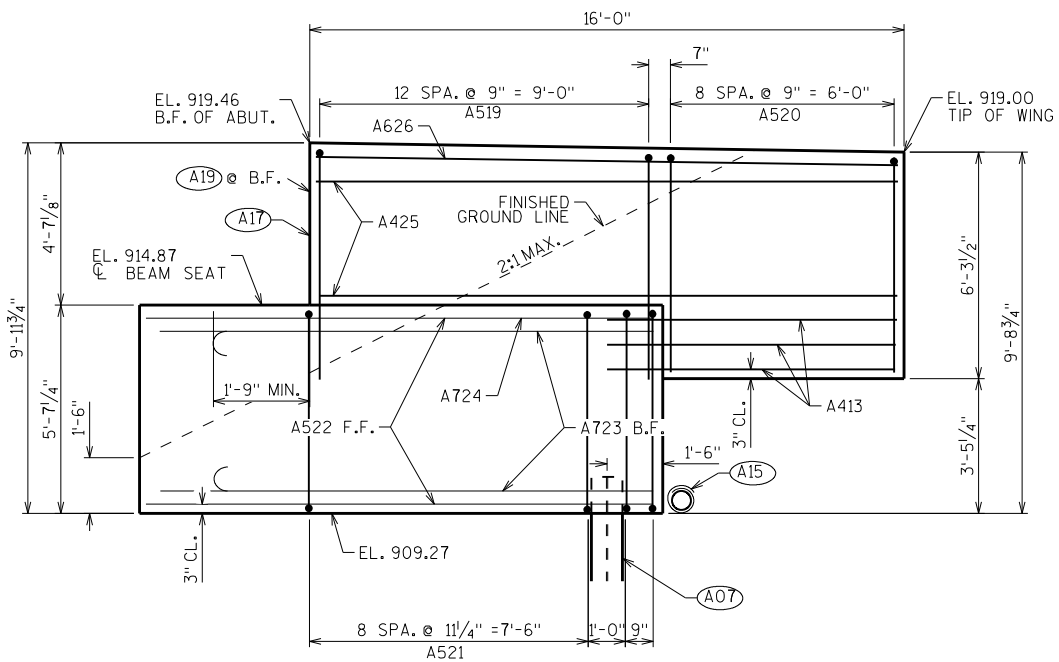
A506, A408, A510, A511, A519, A520



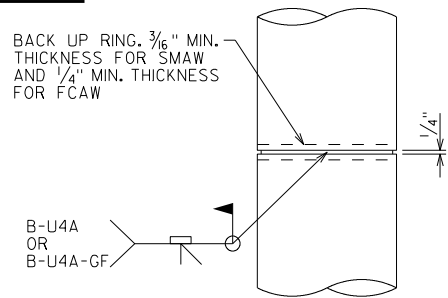
A501, A512, A521



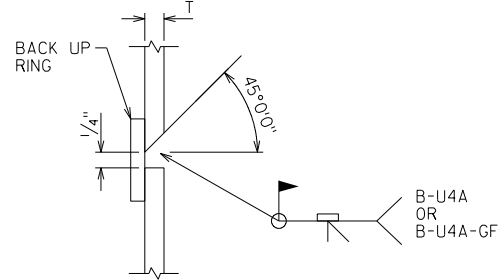
WING 2 SECTION



WING 2 ELEVATION



CAST-IN-PLACE 'PIPE PILE'



C.I.P. PILE WELD DETAIL

PILE DETAILS

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2X6 (18" RMW @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(A07) SUPPORTED ABUTMENT ON 10 3/4" X 0.365 - INCH CIP PILING, ESTIMATED 85'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE.

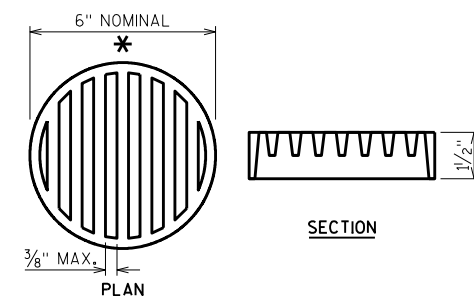
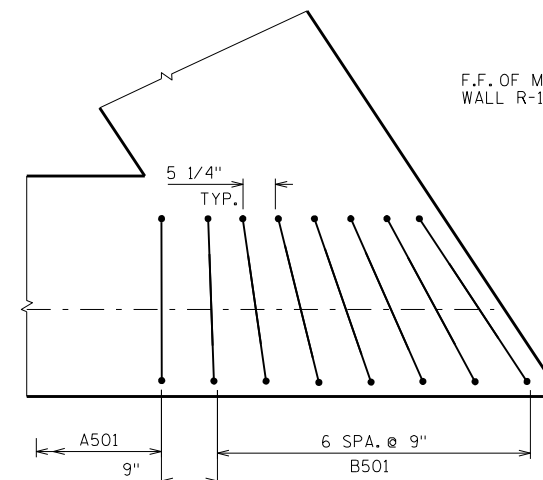
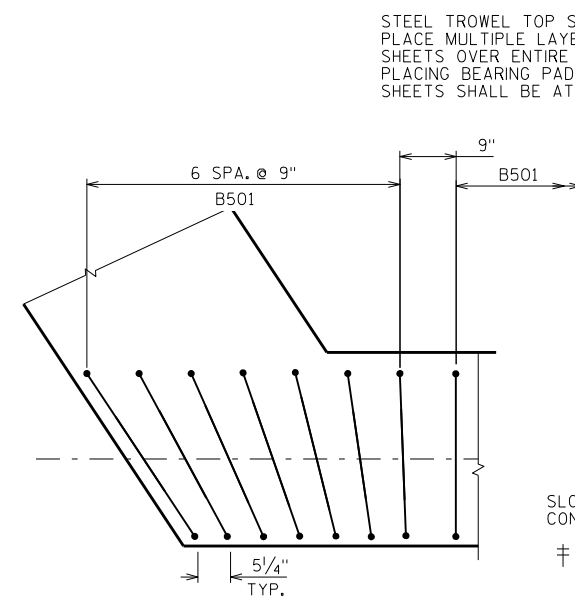
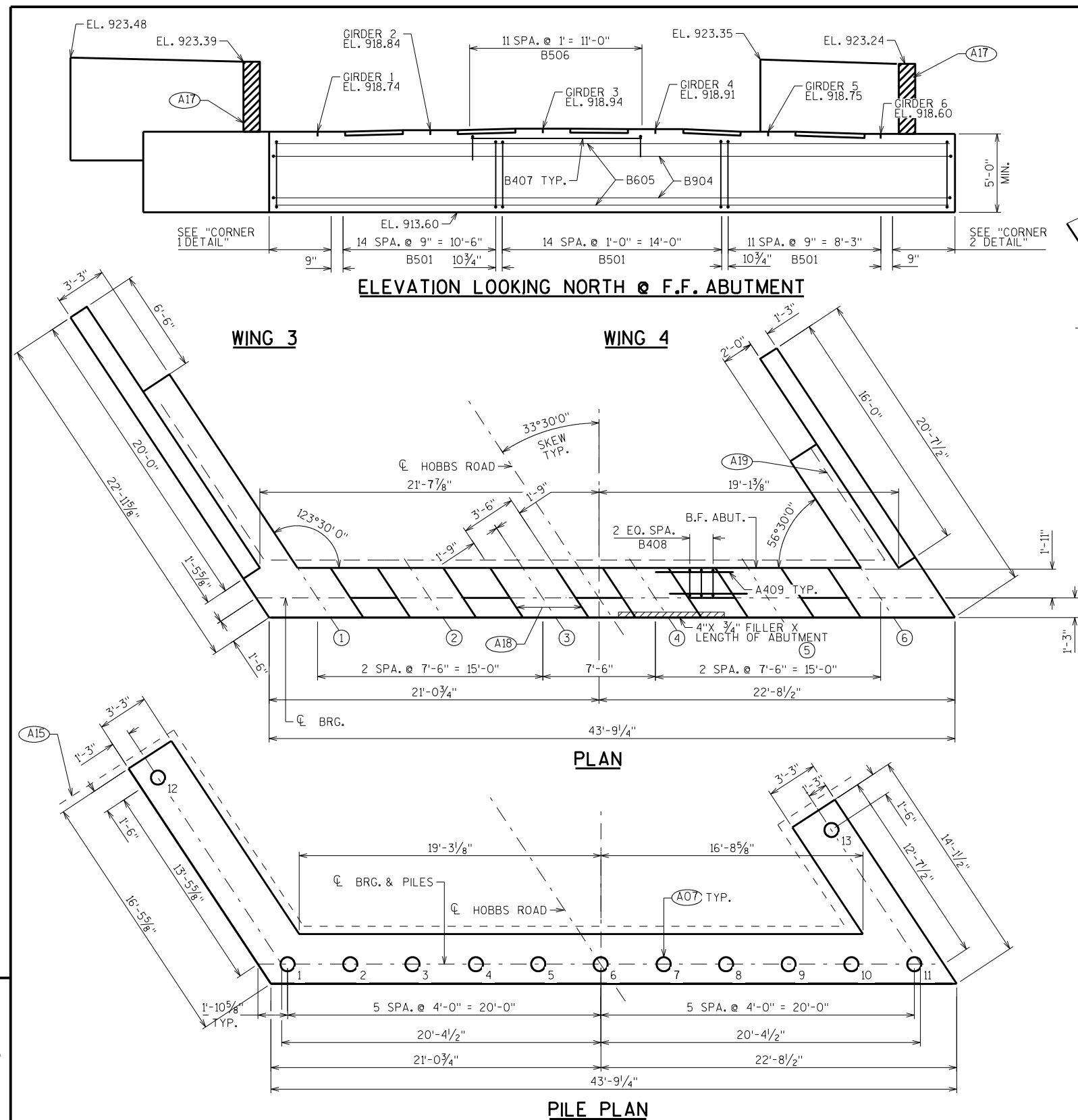
(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% , MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

(A21) FOR PPT. BARS, & DIMENSIONS SEE "SINGLE SLOPE PARAPET 32SS" SHEET.

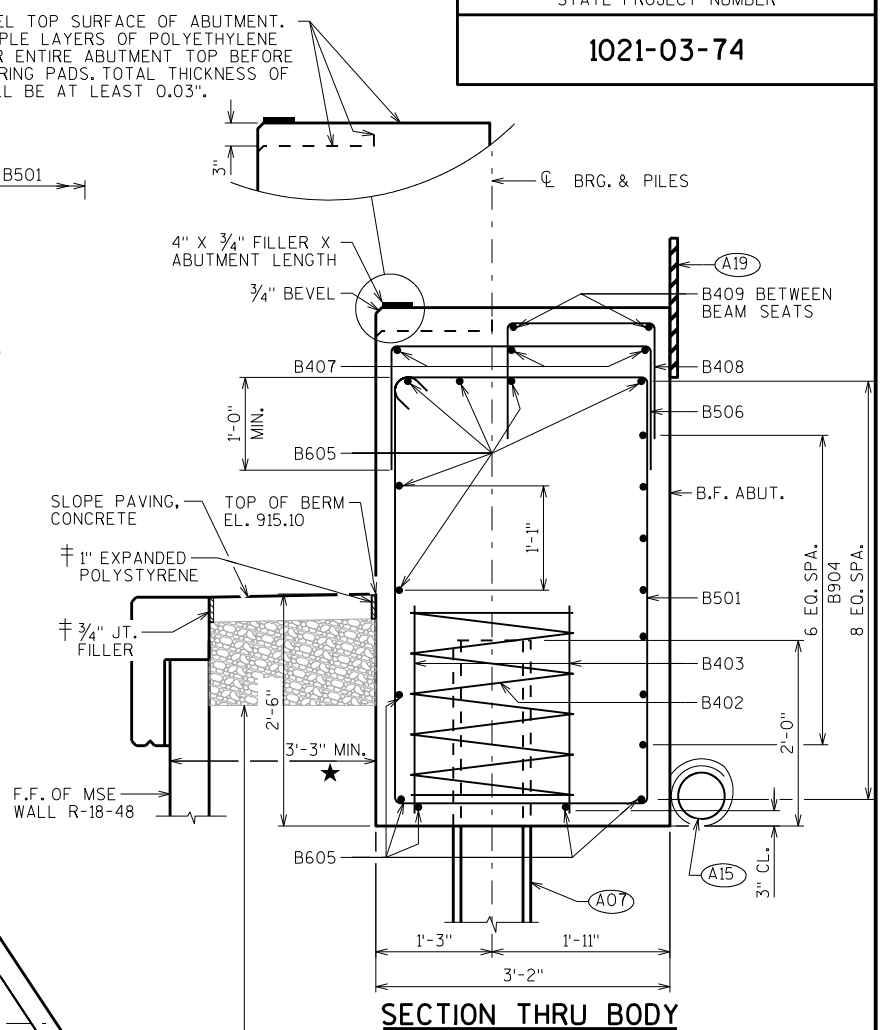
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-210			
DRAWN BY JDM		PLANS CK'D.	
SOUTH ABUTMENT DETAILS			SHEET 5



* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



SIZE 2 COARSE AGGREGATE.
COST INCIDENTAL TO BID ITEM
"SLOPE PAVING CONCRETE"

‡ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONC.)

★ DIMENSION NOTED BASED ON ASSUMED MSE WALL PANEL THICKNESS OF 9".

(A07) SUPPORT ABUTMENT ON 10 $\frac{3}{4}$ " X 0.365 INCH CIP PILING, ESTIMATED 85'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A18) 3/4" CORK FILLER UP VERT. BEAM SEAT FACES
THAT RUN PARALLEL WITH GIRDER.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING
SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

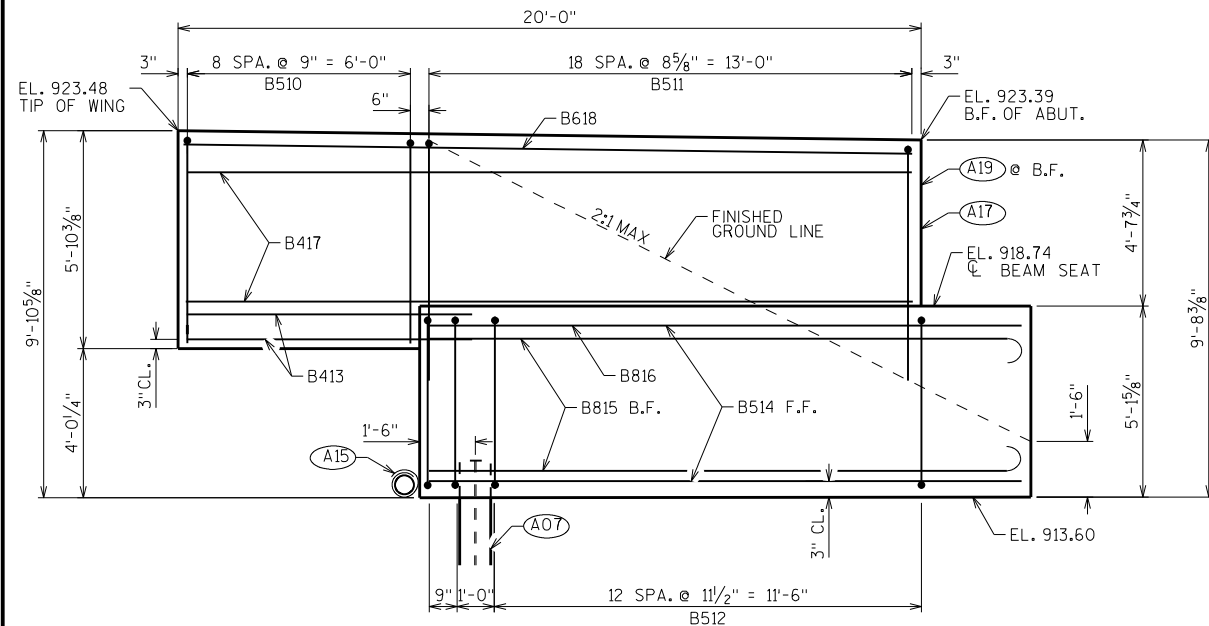
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-210			
DRAWN BY		JDM	PLANS CK'D.
NORTH ABUTMENT		SHEET 6	

SCALE = 4.00

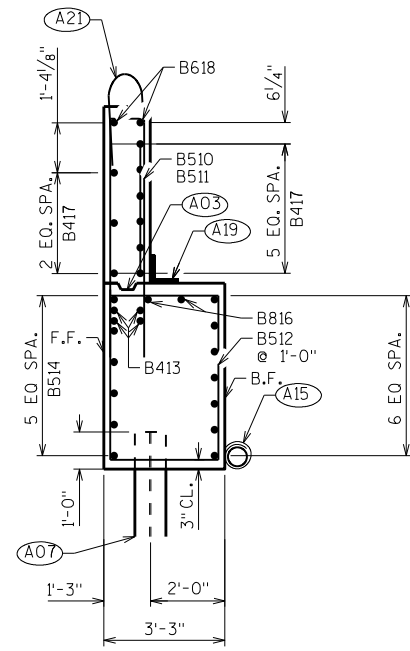
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

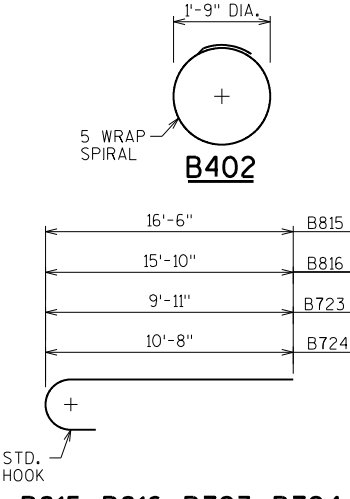
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		56	15'-2"	X		BODY-STIRRUP
B402		11	28'-0"	X		BODY-1 PER BODY PILE
B403		22	2'-3"			BODY- 2 PER BODY PILE-VERT.
B904		7	45'-10"			BODY-HORIZ.-B.F.
B605		11	43'-5"			BODY-HORIZ.
B506		12	6'-1"	X		BODY-VERT.-TOP-UNDER G1-G5
B407		3	11'-0"			BODY-HORIZ.-TOP-UNDER G1-G5
B408		13	4'-1"	X		BODY-VERT.-TOP-BTWN. BEAM SEATS
B409		10	5'-3"			BODY-HORIZ.-TOP-BTWN. BEAM SEATS
B510	X	9	11'-0"	X		WING 3-VERT.
B511	X	19	13'-4"	X		WING 3-VERT.
B512	X	15	16'-4"	X		WING 3-STIRRUP
B413	X	8	7'-8"			WING 3& 4-HORIZ.-F.F.& B.F.
B514	X	6	16'-0"			WING 3-HORIZ.-F.F.
B815	X	7	17'-5"	X		WING 3-HORIZ.-B.F.
B816	X	2	16'-9"	X		WING 3-HORIZ.
B417	X	9	19'-6"			WING 3-HORIZ.-F.F. & B.F.
B618	X	2	19'-6"			WING 3-HORIZ.-TOP-F.F. & B.F.
B519	X	13	13'-2"	X		WING 4-VERT.
B520	X	9	12'-0"	X		WING 4-VERT.
B521	X	11	15'-8"	X		WING-4-STIRRUP
B522	X	6	13'-9"			WING 4-HORIZ.-F.F.
B723	X	7	10'-9"	X		WING 4-HORIZ.-B.F.
B724	X	2	11'-6"	X		WING 4-HORIZ.
B425	X	10	15'-6"			WING 4-HORIZ.-B.F. & F.F.
B626	X	2	15'-6"			WING 4-HORIZ.-TOP-B.F. & F.F.



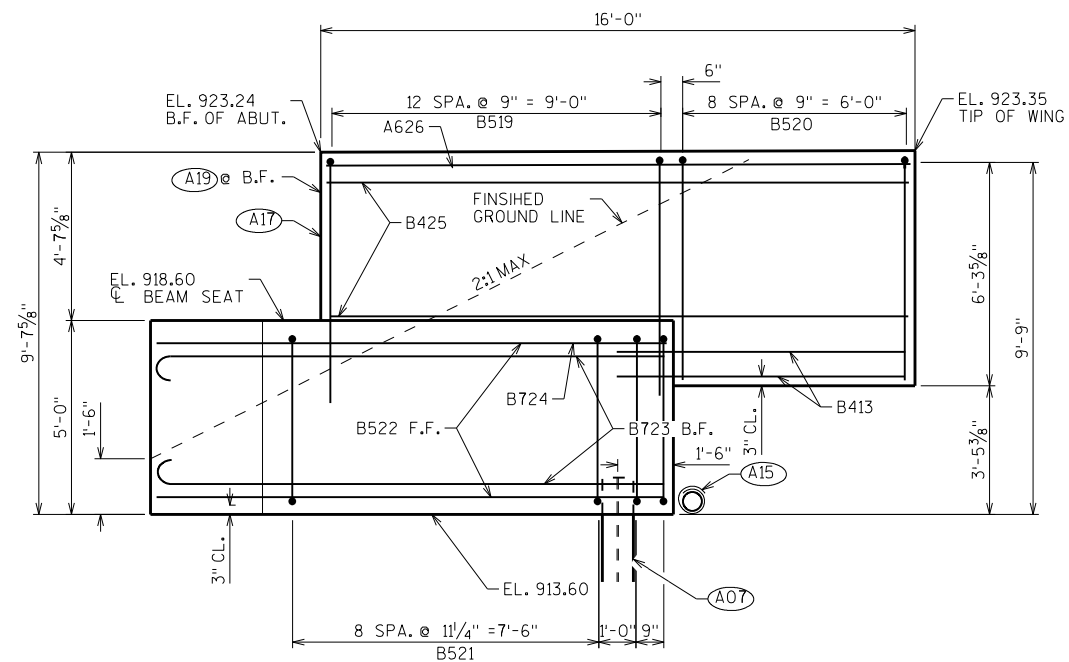
WING 3 ELEVATION



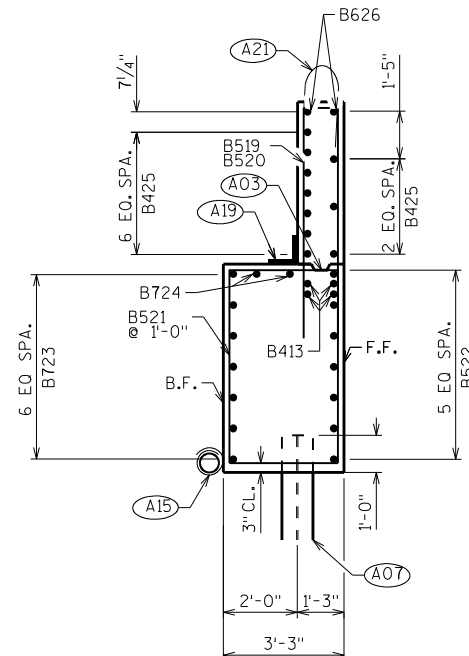
WING 3 SECTION



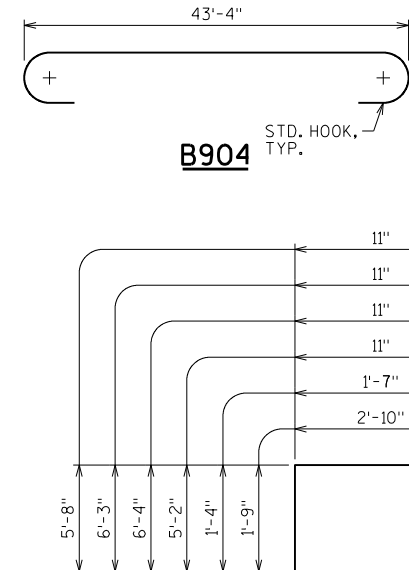
B815, B816, B723, B724



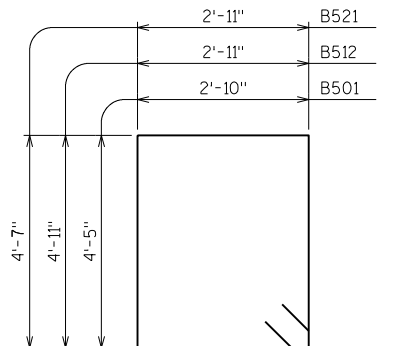
WING 4 ELEVATION



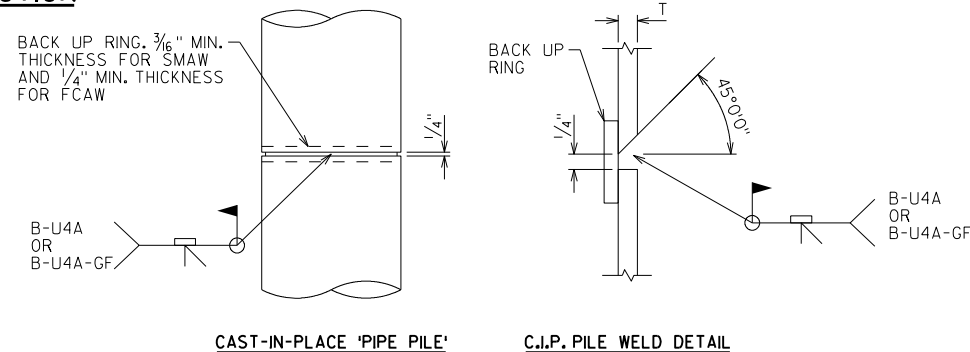
WING 4 SECTION



B506, B408, B510, B511, B519, B520



B501, B512, B521



CAST-IN-PLACE 'PIPE PILE'

C.I.P. PILE WELD DETAIL

PILE DETAILS

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2X6, (18" RMW @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(A07) SUPPORTED ABUTMENT ON 10 3/4" X 0.365 - INCH CIP PILING, ESTIMATED 85'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPE 0.5% , MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

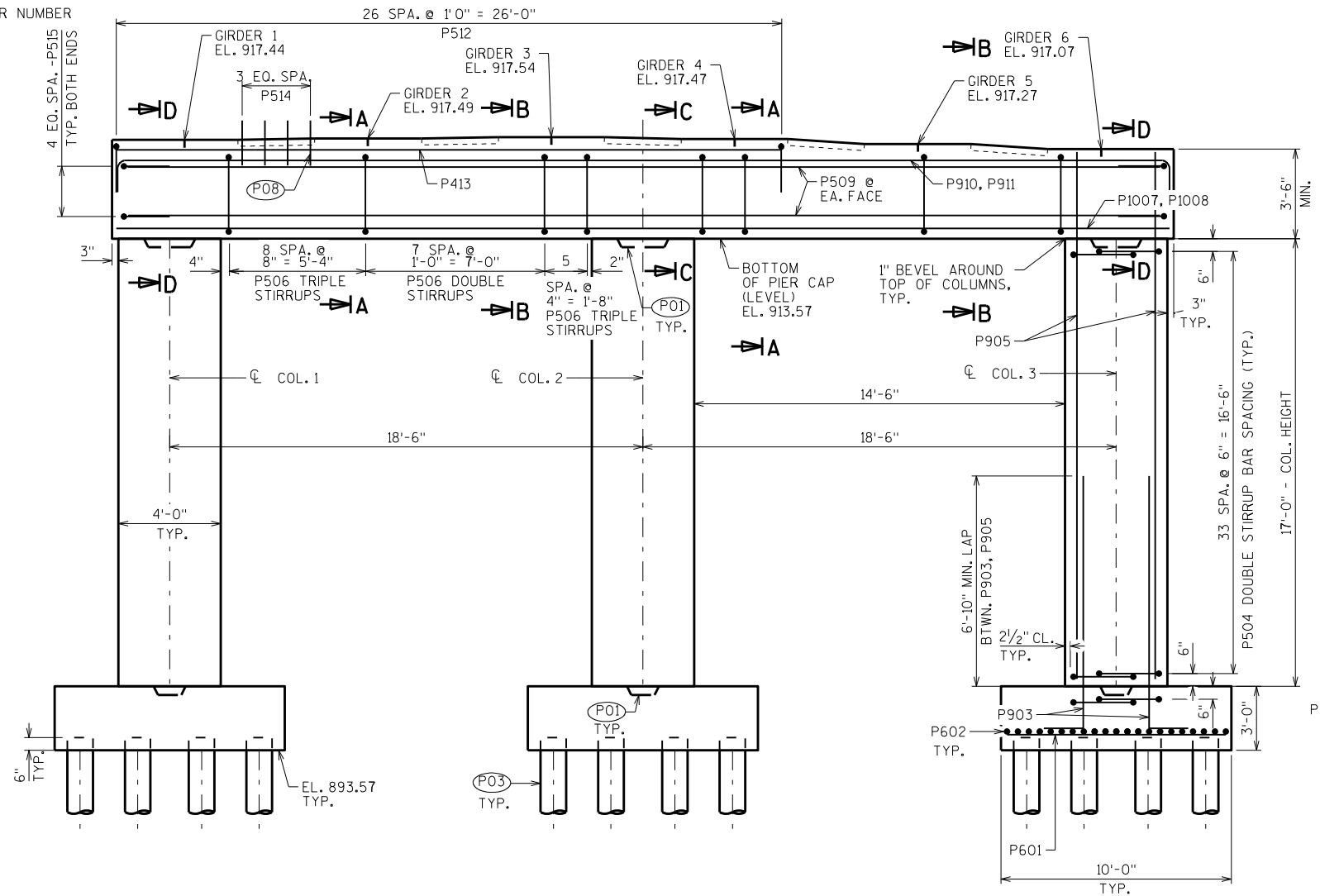
(A21) FOR PPT. BARS. & DIMENSIONS SEE "SINGLE SLOPE PARAPET 32SS" SHEET.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-210			
DRAWN BY		JDM	PLANS CK'D.
NORTH ABUTMENT DETAILS		SHEET 7	

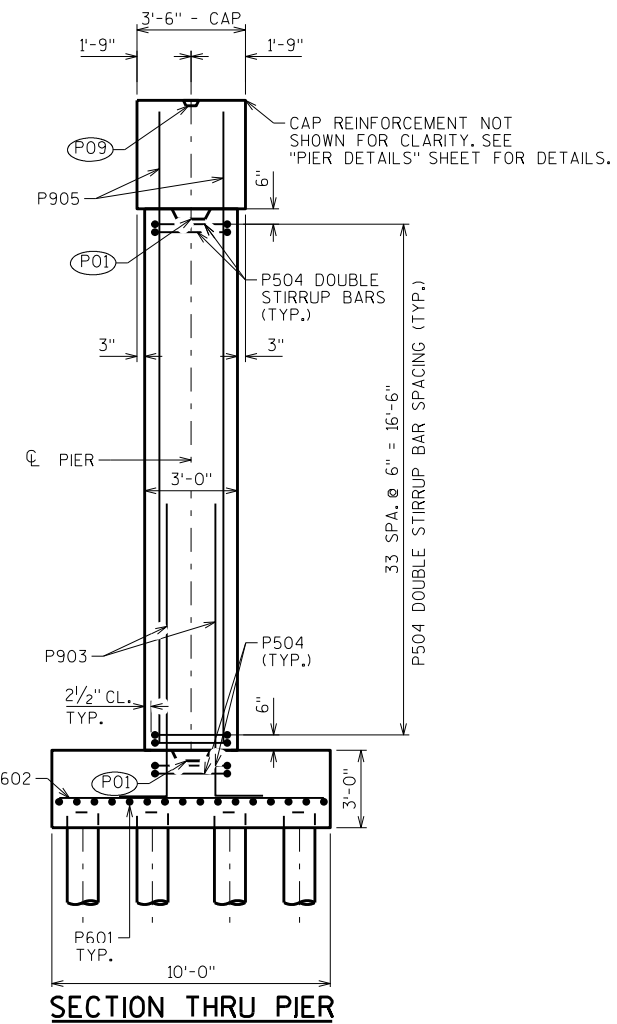
○ INDICATES GIRDER NUMBER

STATE PROJECT NUMBER

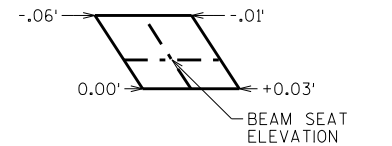
1021-03-74



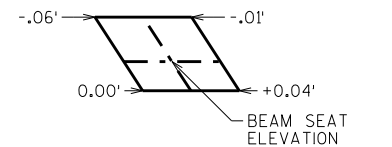
ELEVATION LOOKING NORTH



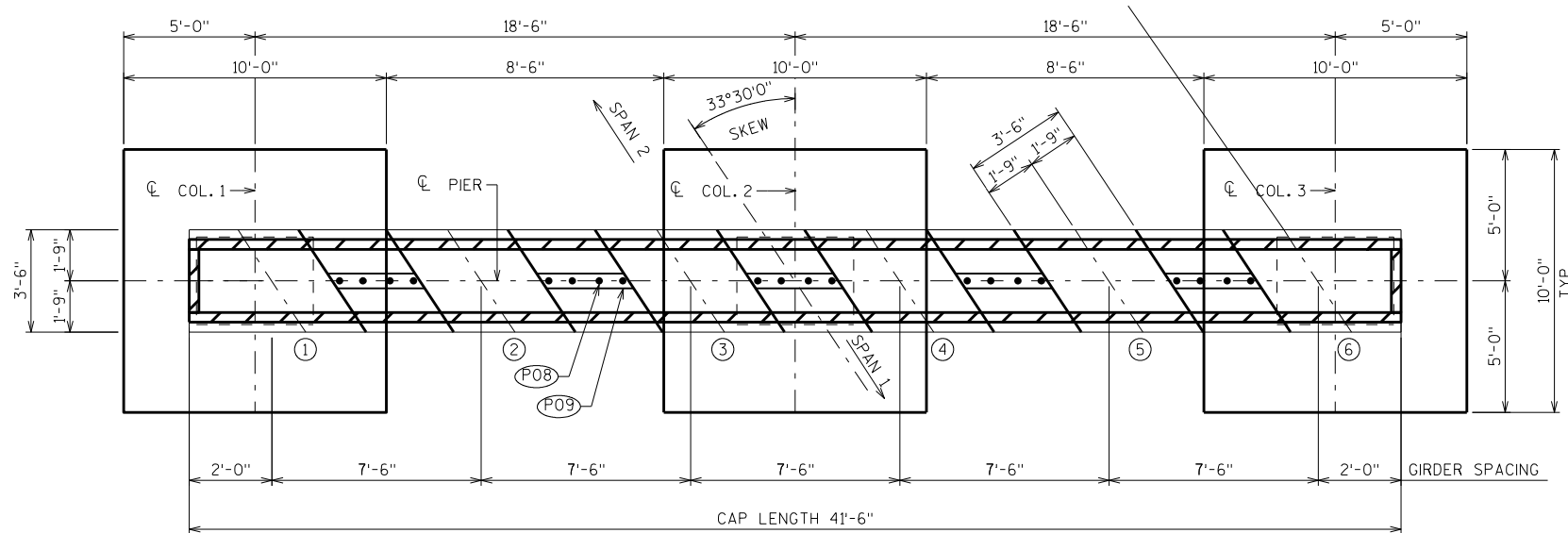
SECTION THRU PIER



SLOPED BEAM SEAT DETAIL
GIRDERS 1, 2, 3, 4 AND 5



SLOPED BEAM SEAT DETAIL
GIRDER 6



PLAN

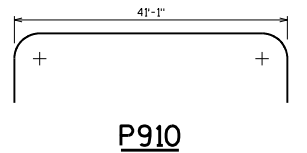
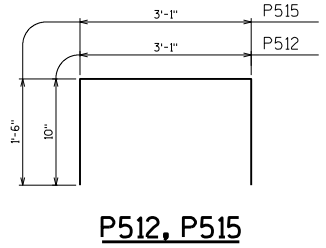
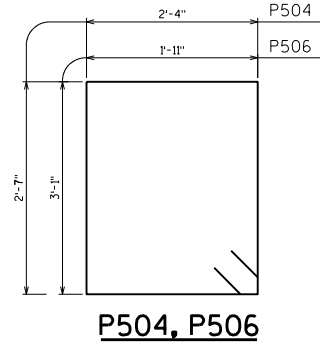
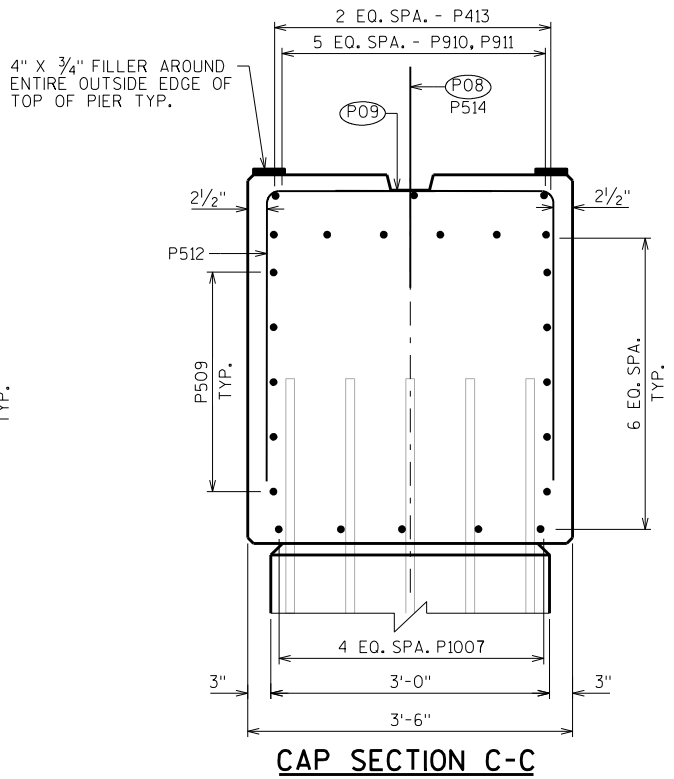
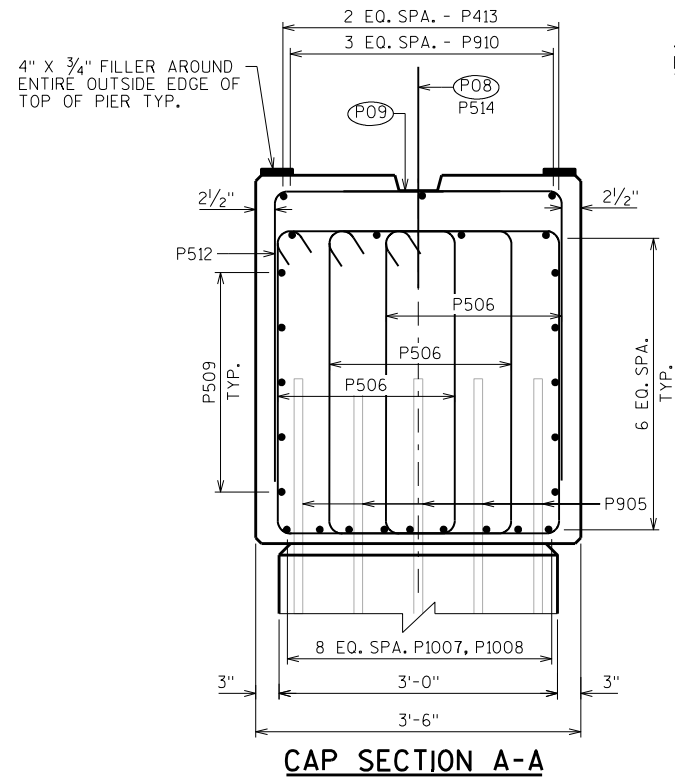
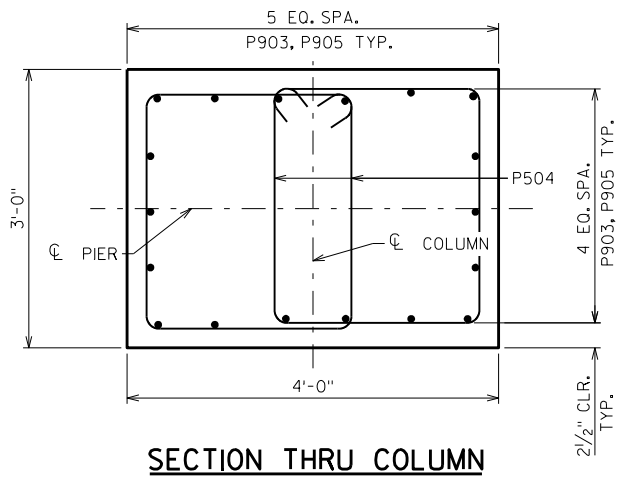
- (P01) 1'-3" X 2'-0" X 4" CONST. JOINT FORMED BY BEVELED KEYWAY.
- (P03) SUPPORT PIER ON 10 $\frac{3}{4}$ " X 0.365" - INCH CIP PILING CASING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS, ESTIMATED 95' LONG.
- (P08) P514 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONG.)
- (P09) KEYED CONST. JOINT-FORMED BY BEVELED 2 X 6 BETWEEN BEAM SEATS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-210			
DRAWN BY JDM		PLANS CK'D.	
PIER		SHEET 8	

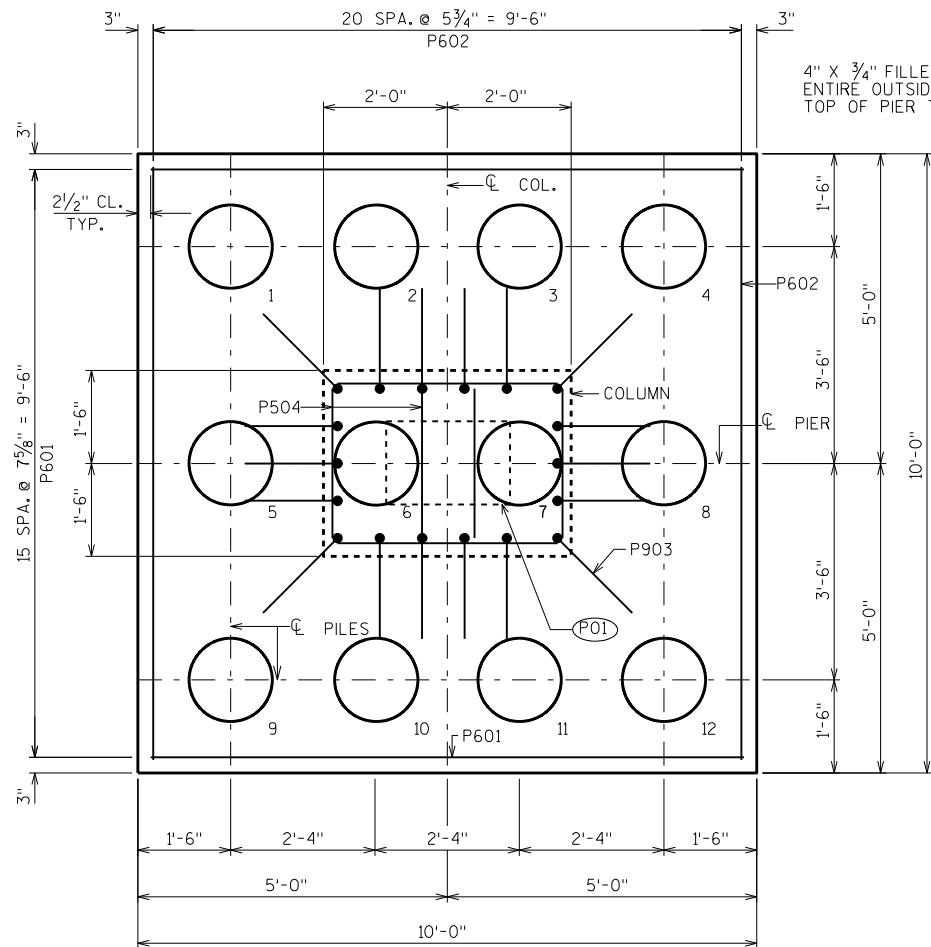
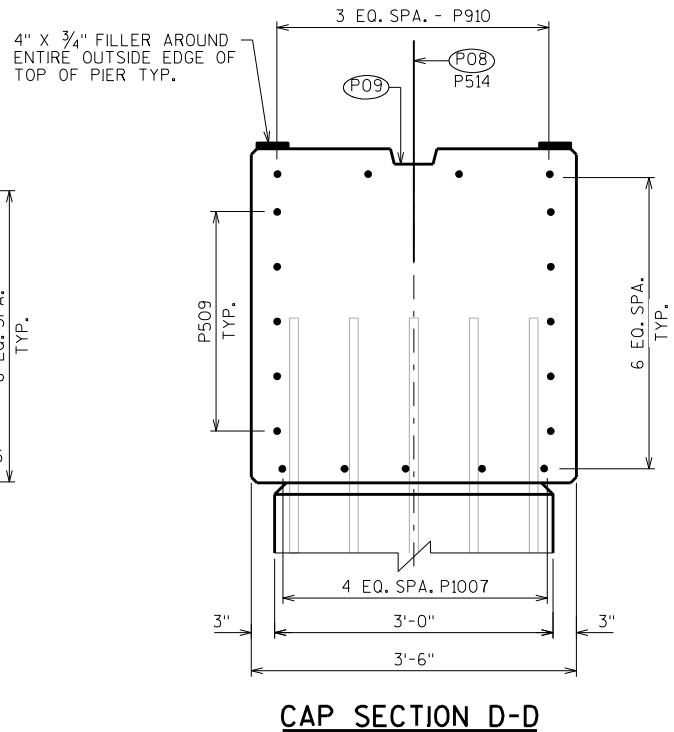
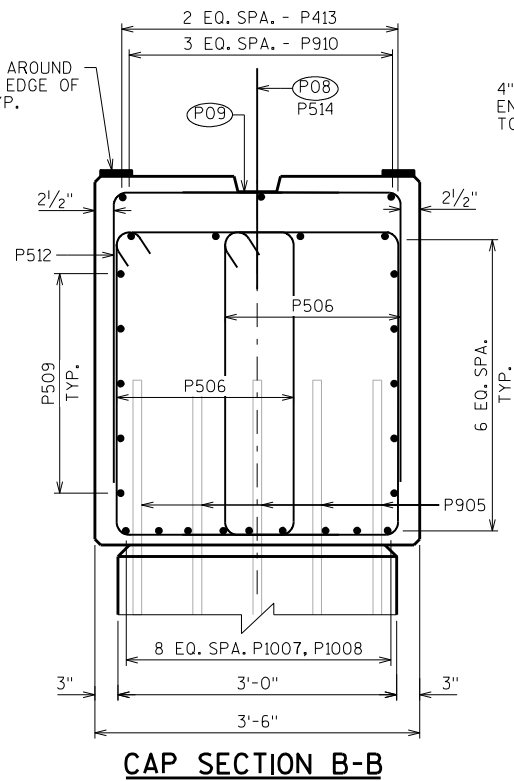
SCALE = 3.00

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE
BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
P601		48	9'-6"			FOOTINGS-BOT.-HORIZ.-LONGIT.
P602		63	9'-6"			FOOTINGS-BOT.-HORIZ.-TRANS.
P903	X	54	8'-4"	X		FOOTINGS-COLUMNS-VERT.-ALL FACES
P504	X	210	9'-8"	X		COLUMNS-HORIZ.-STIRRUPS
P905	X	54	20'-0"			COLUMNS-VERT.-ALL FACES
P506	X	112	10'-8"	X		CAP-VERT.- STIRRUPS
P1007	X	5	41'-1"			CAP-HORIZ.-BOT.-LONGIT.
P1008	X	8	14'-6"			CAP-HORIZ.-BOT.-LONGIT.-BTWN COLUMNS
P509	X	10	41'-1"			CAP-HORIZ.-LONGIT.-BOTH FACES
P910	X	4	43'-9"	X		CAP-HORIZ.-LONGIT.-TOP
P911	X	2	16'-6"			CAP-HORIZ.-LONGIT.-TOP-OVER COL. 2
P512	X	27	4'-6"	X		CAP-TOP-VERT.-TRANSVERSE-BELOW G1-G4
P413	X	3	26'-0"			CAP-TOP-HORIZ.-LONGIT.-BELOW G1-G4
P514	X	20	2'-0"			CAP-DOWELS
P515	X	10	5'-10"	X		CAP-HORIZ.-AT ENDS



- (P01) 1'-3" X 2'-0" X 4" CONST.
JOINT FORMED BY BEVELED KEYWAY.
- (P05) SUPPORT PIER ON 10³/₄" X 0.365 - INCH CIP
PILING, ESTIMATED 95'-0" LONG
WITH A REQUIRED DRIVING RESISTANCE OF
150 TONS PER PILE.
- (P08) P514 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS.
MAY BE PLACED AFTER CONCRETE IS POURED
BUT BEFORE INITIAL SET HAS TAKEN PLACE.
(EMBED 1'-0" INTO CONC.)
- (P09) KEYED CONST. JOINT-FORMED BY
BEVELED 2 X 6 BETWEEN BEAM SEATS.



SPAN 1 DIAPHRAGM HOLE LOCATIONS

GIRDER	"D"	"E"	"F"	"G"	"H"
1	36'-0 5/8"		38'-11 1/2"		40'-2 3/8"
2	36'-0 5/8"	4'-15/8"	38'-11 1/2"	4'-15/8"	36'-0 5/8"
3	36'-0 5/8"	4'-15/8"	38'-11 1/2"	4'-15/8"	36'-0 5/8"
4	36'-0 5/8"	4'-15/8"	38'-11 1/2"	4'-15/8"	36'-0 5/8"
5	36'-0 5/8"	4'-15/8"	38'-11 1/2"	4'-15/8"	36'-0 5/8"
6	40'-2 3/8"		38'-11 1/2"		36'-0 5/8"

SPAN 2 DIAPHRAGM HOLE LOCATIONS

GIRDER	"D"	"E"	"F"	"G"	"H"
1	36'-0 5/8"		38'-11 1/2"		40'-2 3/8"
2	36'-0 5/8"	4'-15/8"	38'-11 1/2"	4'-15/8"	36'-0 5/8"
3	36'-0 5/8"	4'-15/8"	38'-11 1/2"	4'-15/8"	36'-0 5/8"
4	36'-0 5/8"	4'-15/8"	38'-11 1/2"	4'-15/8"	36'-0 5/8"
5	36'-0 5/8"	4'-15/8"	38'-11 1/2"	4'-15/8"	36'-0 5/8"
6	40'-2 3/8"		38'-11 1/2"		36'-0 5/8"

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER OR EPOXY TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECT. 503.3.3 OF STANDARD SPECIFICATIONS FOR GUIDANCE.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

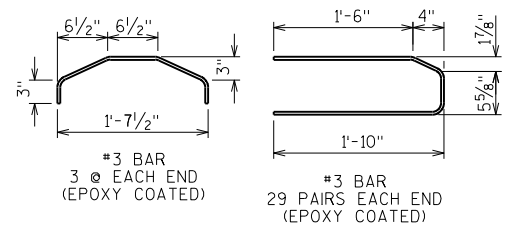
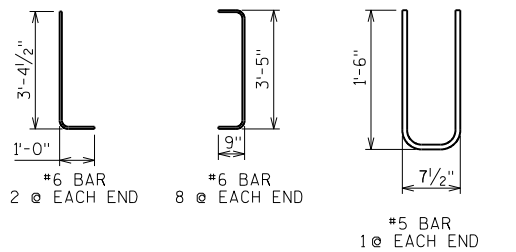
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE (.06" DIA.)-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.



SIDE VIEW & TYPICAL SECTION IN SPAN

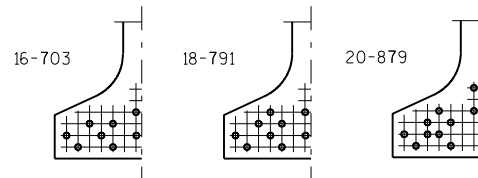
- (A) DETAIL TYP. AT EACH END
(B) 6 #4 BARS, FULL LENGTH, MIN. LAP = 1'-11"

* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

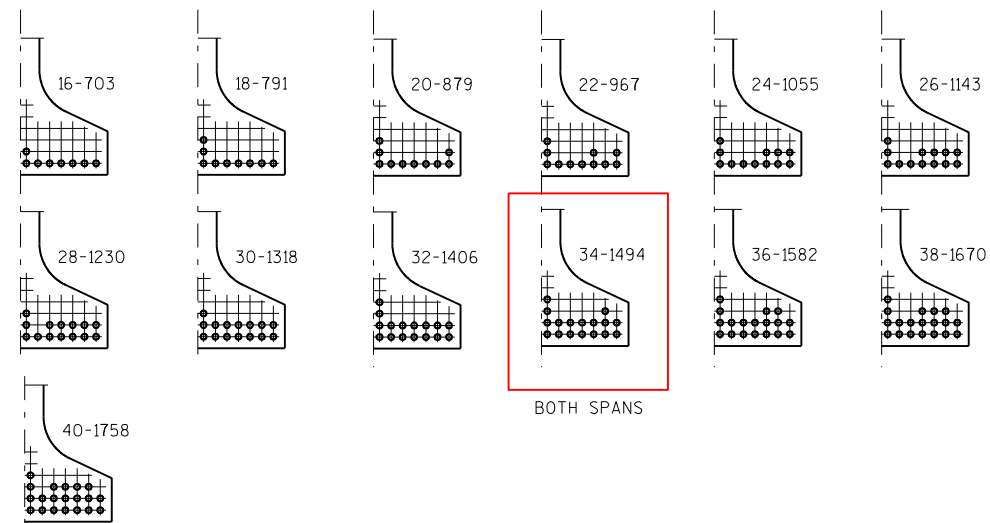
GIRDER DATA

GIRDER DATA																								
SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEF. (IN.)									CONC. STRGTH. f'c (p.s.i.)	"P" 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN					UNDRAPED PATTERN		
			1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10						TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	(IN.)				TOTAL NO. OF STRANDS	f'ci (P.S.I.) *
																		"A"	"B" MIN.	"B" MAX.	"C"			
1	1-6	114.38	0.8	1.5	2.1	2.5	2.6	2.4	2.1	1.5	0.8	8000	7	7	7	0.6	34	6400	40	13.75	16.75	5		
2	1-6	114.38	0.8	1.5	2.1	2.4	2.6	2.5	2.1	1.5	0.8	8000	7	7	7	0.6	34	6400	40	13.75	16.75	5		

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-210			
DRAWN BY JDM		PLANS CK'D.	
45W" PRESTRESSED GIRDER DETAILS 1		SHEET 10	

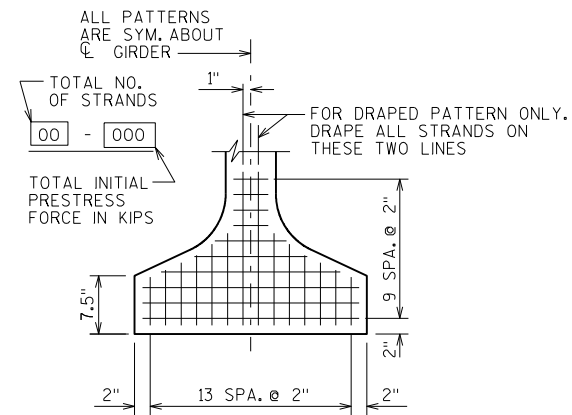


STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

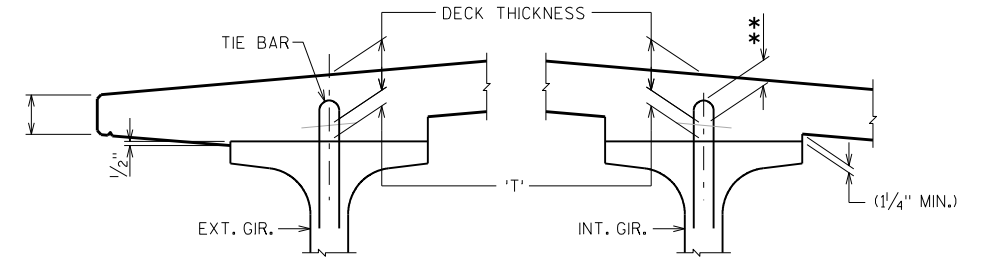
0.6" ϕ STRANDS

BOTH SPANS

ARRANGEMENT AT ϕ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6" ϕ STRANDS

TYP. STRAND PATTERN



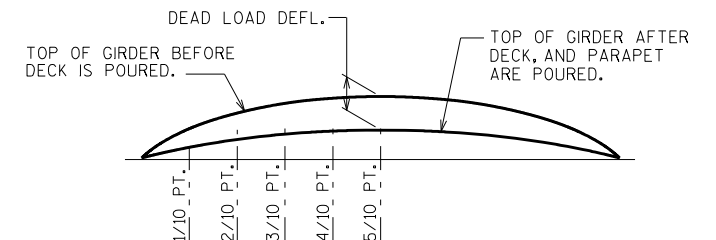
DECK HAUNCH DETAIL

IF 1/4" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN 1/2" OR, ** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

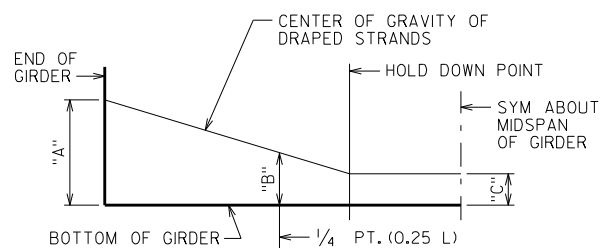
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ϕ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 2 3/4" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM



DRAPED STRAND PROFILE

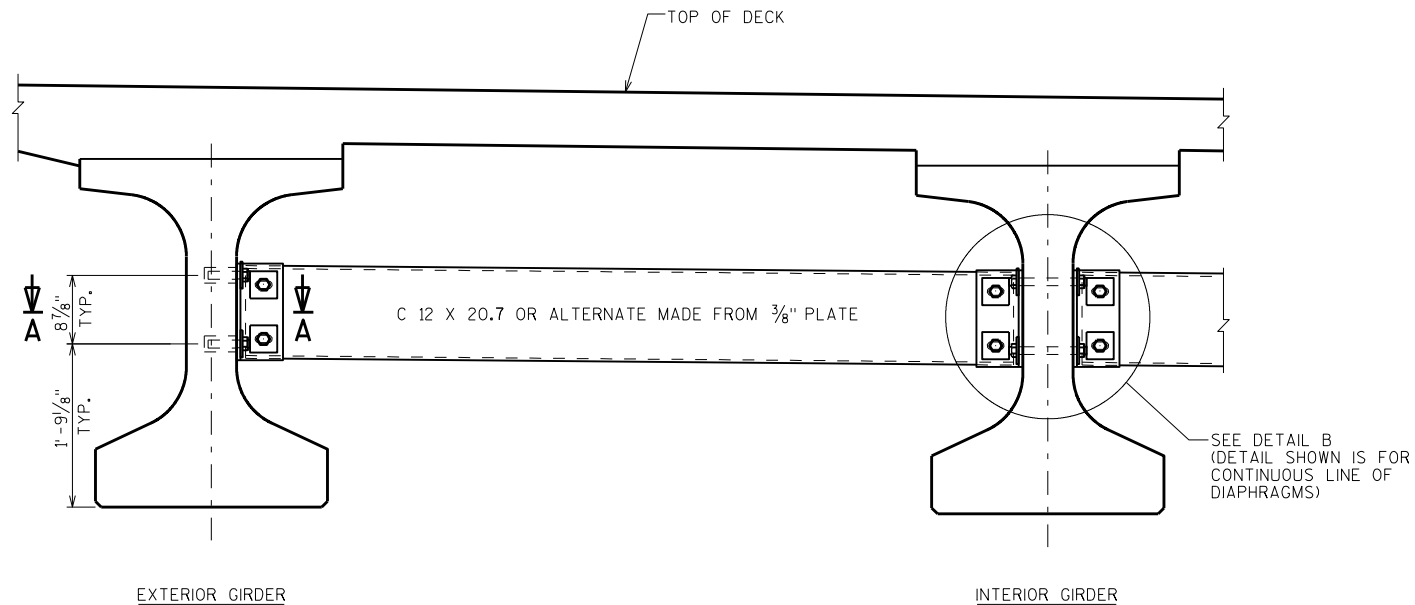
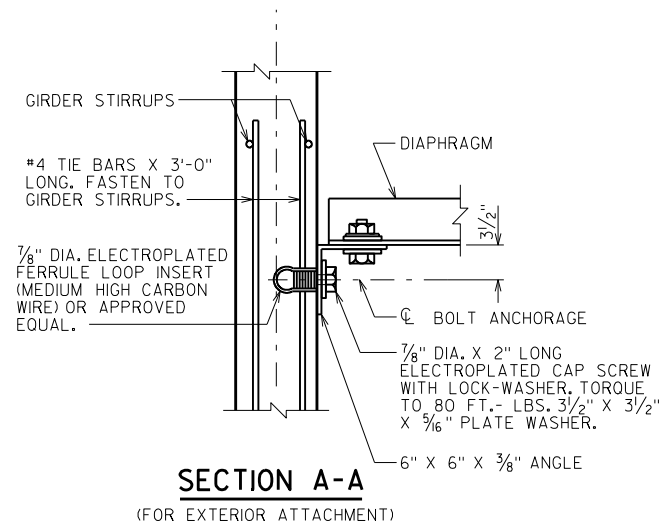
*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	3.75
2	3.75

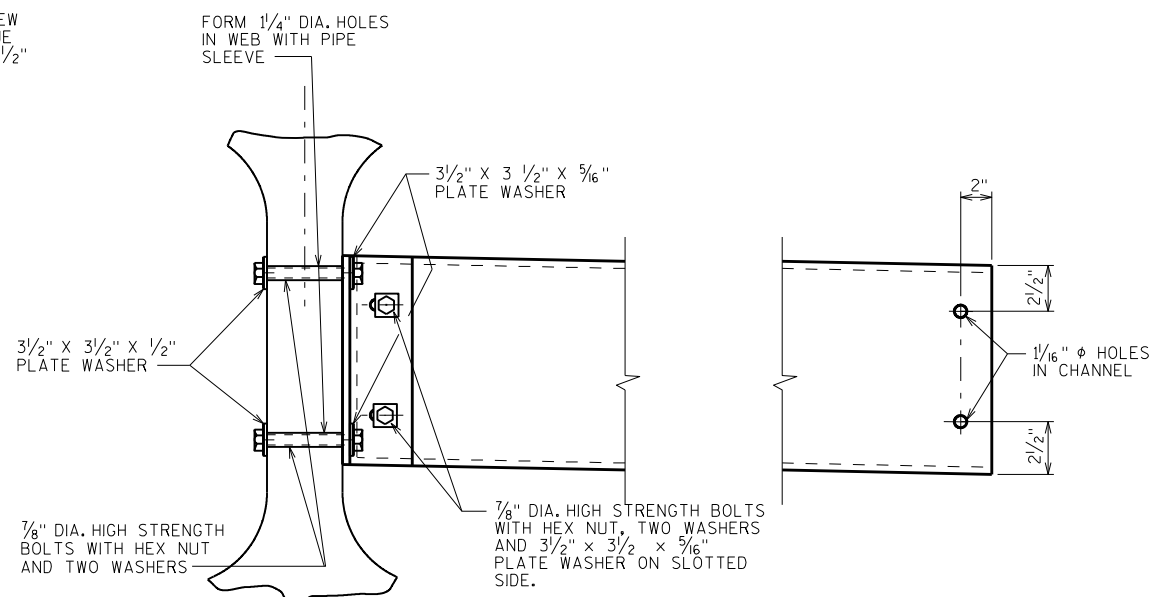
THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-210			
DRAWN BY JDM		PLANS CK'D.	
45W" PRESTRESSED GIRDER DETAILS 2		SHEET 11	

**PART TRANSVERSE SECTION AT DIAPHRAGM****SECTION A-A**

(FOR EXTERIOR ATTACHMENT)

**DETAIL B****NOTES**

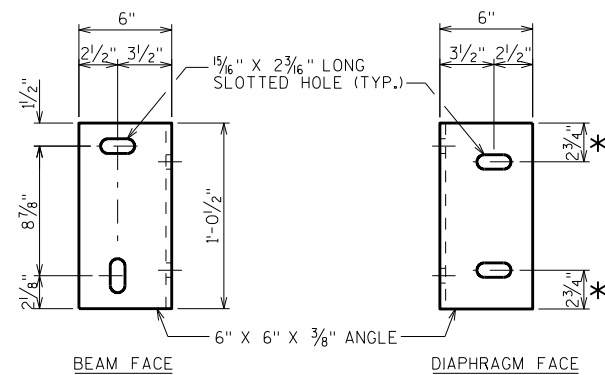
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-18-210", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

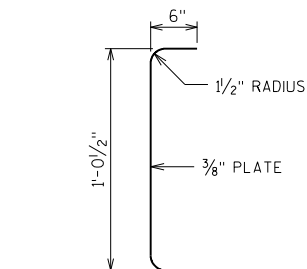
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

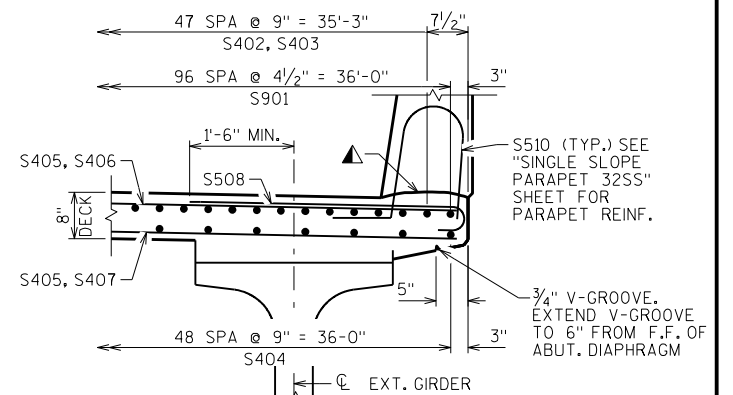
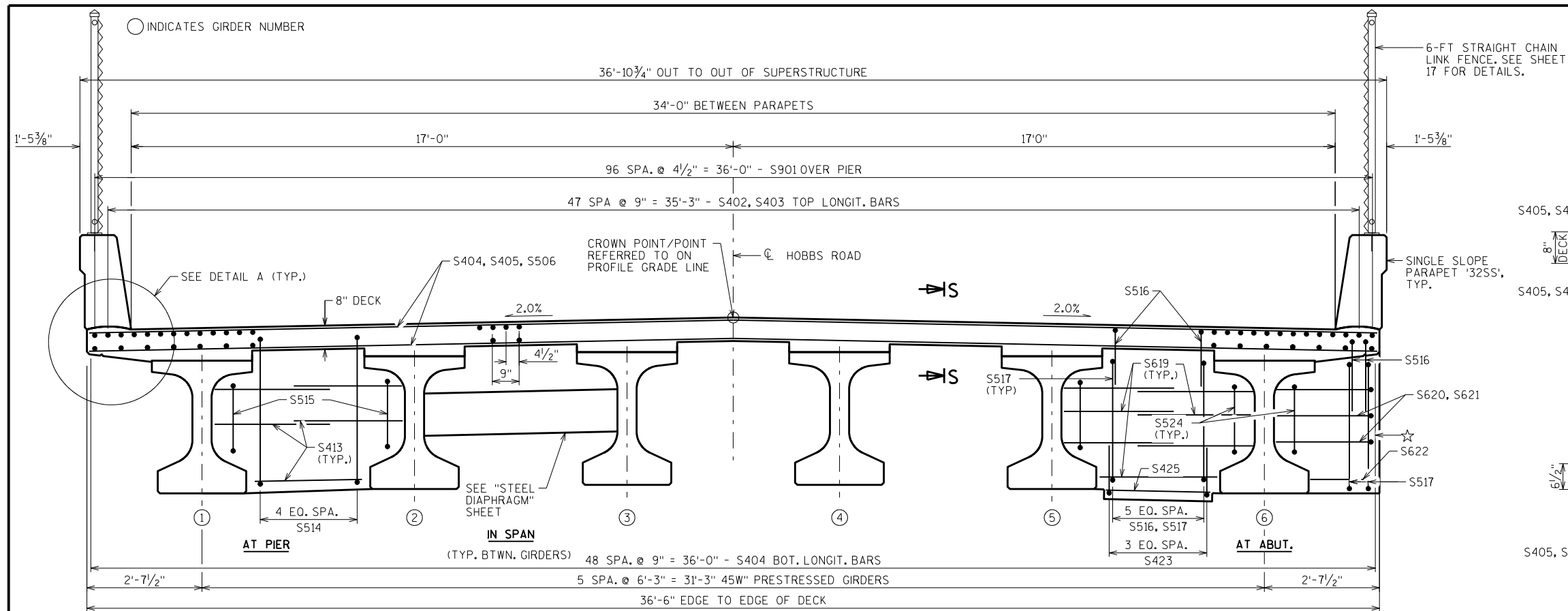
STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS 1/4 TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.

**DIAPHRAGM SUPPORT**

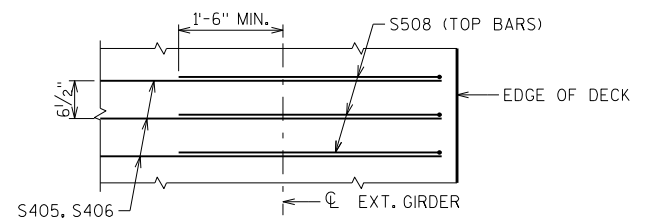
* 2 1/2" FOR ALTERNATE PLATE DIAPHRAGM

**SECTION THRU
ALTERNATE DIAPHRAGM**

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-210			
DRAWN BY JDM		PLANS CK'D.	
STEEL DIAPHRAGM			SHEET 12

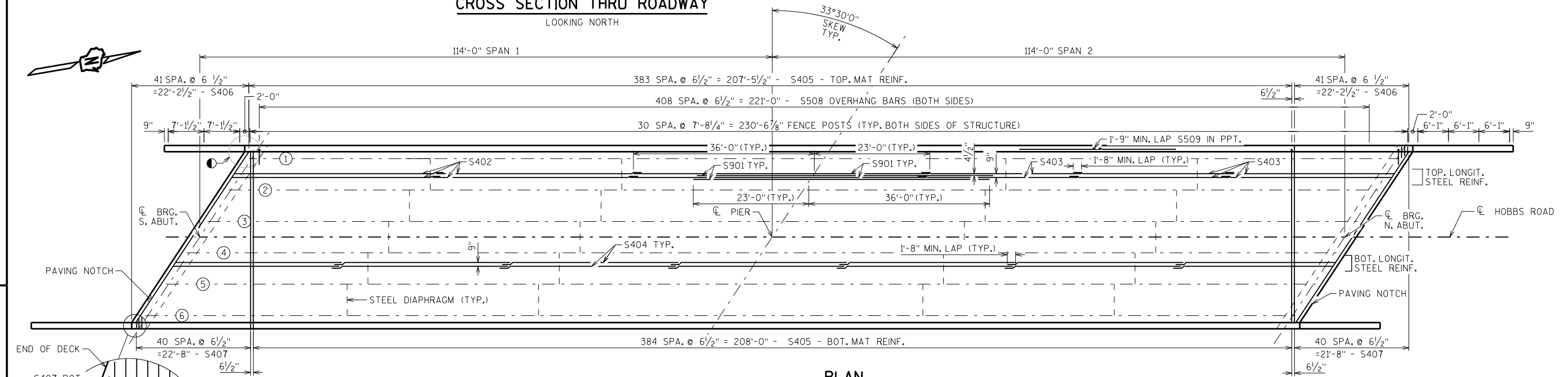


DETAIL A

ADDITIONAL REINF. DETAIL
(TYP. AT BOTH SIDES OF DECK)

CROSS SECTION THRU ROADWAY

LOOKING NORTH

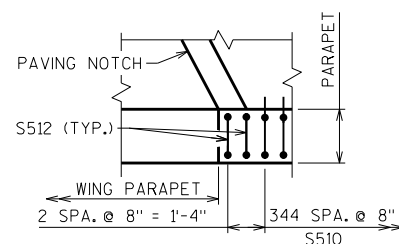


PLAN

- ▲ HORIZONTAL CONSTRUCTION JOINT-STRIKE OFF AND LEAVE ROUGH AS SHOWN.
- ☆ 2 - S426 BARS. PLACE AT ENDS INSIDE OF U-BARS.
- SEE DETAIL B THIS SHEET FOR PARAPET DETAIL SEE SHEET 14 FOR DIAPHRAGM BAR DETAIL

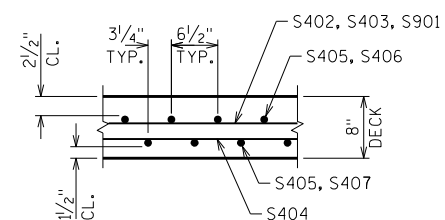
CORNER DETAIL

TYP. WINGS 1 AND 3



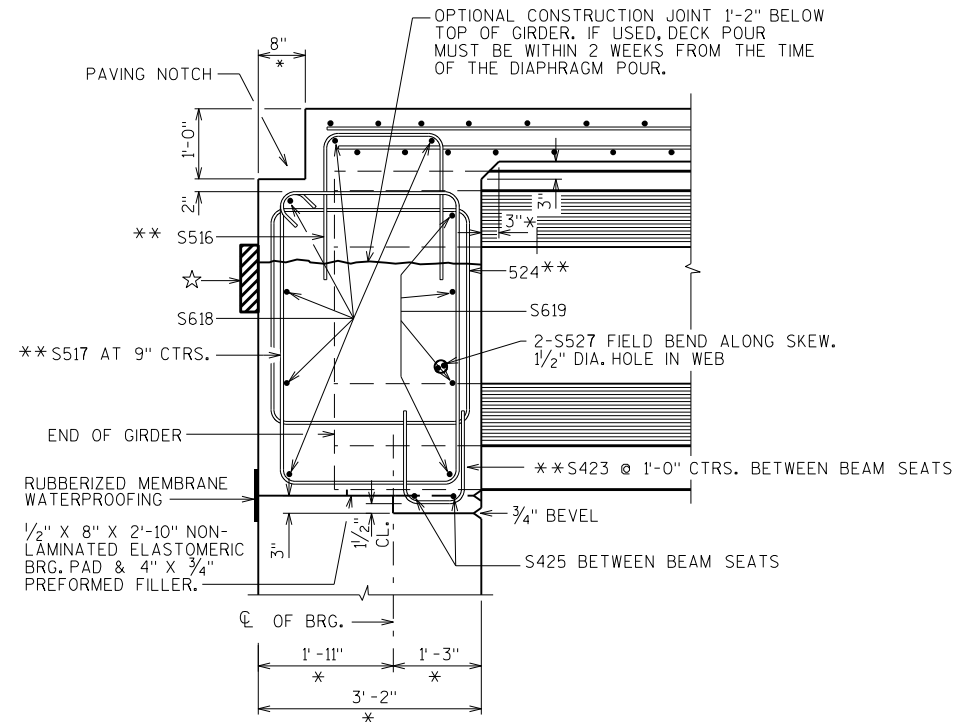
DETAIL B

WING 1 SHOWN. OTHERS SIMILAR

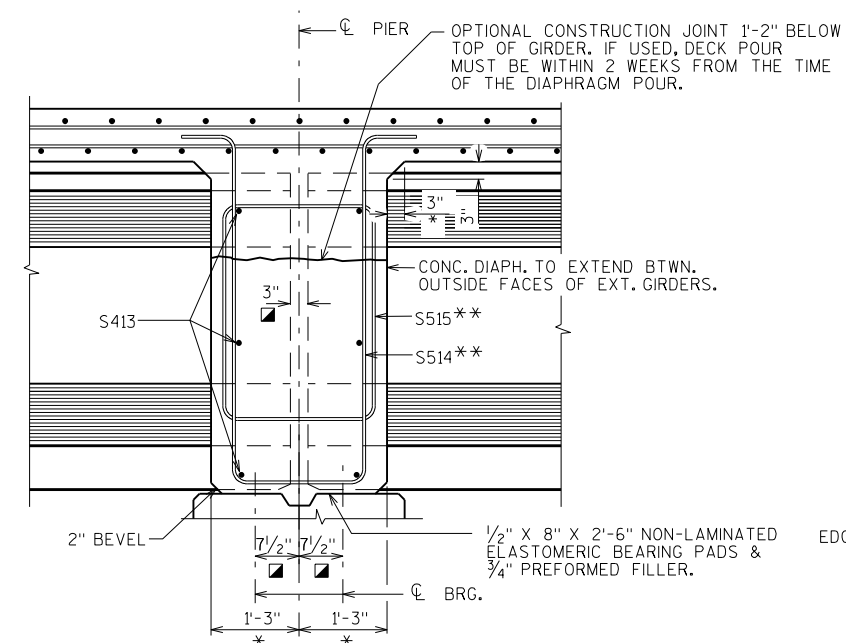


SECTION S-S

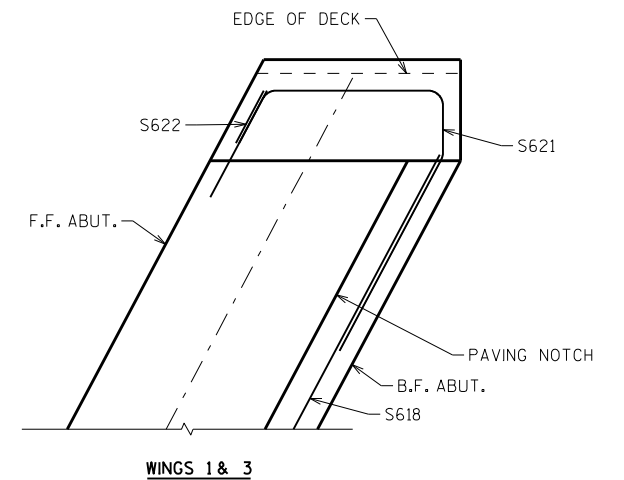
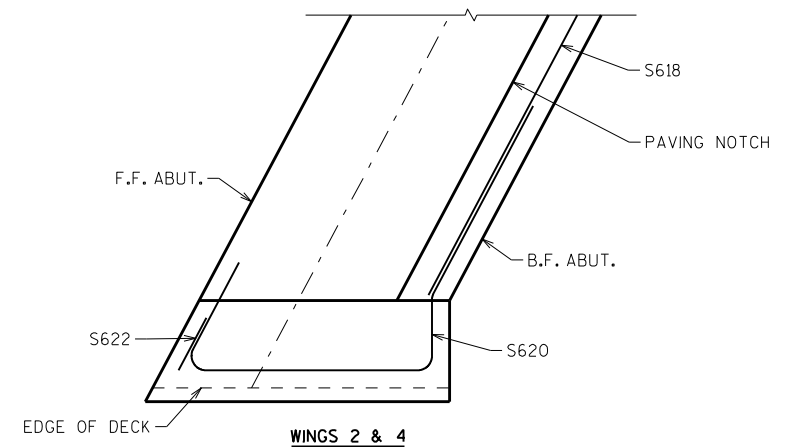
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-210			
DRAWN BY JDM		PLANS CK'D.	
SUPERSTRUCTURE		SHEET 13	



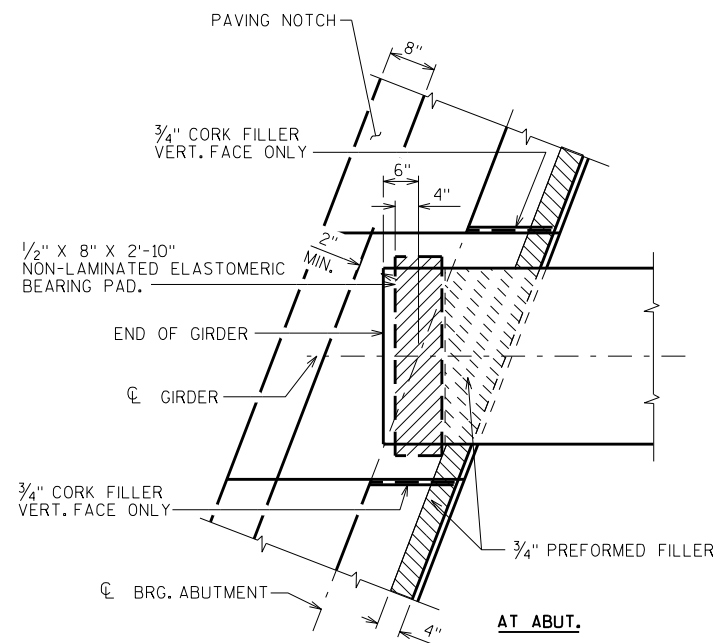
**CROSS SECTION THRU ABUTMENT
DIAPHRAGM BTWN. EXTERIOR GIRDERS**



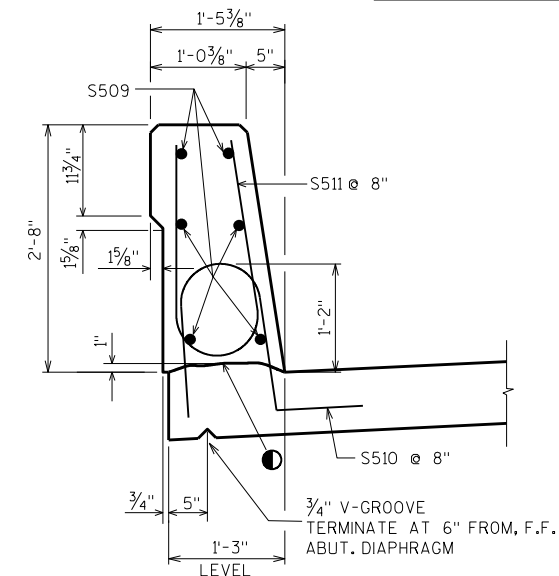
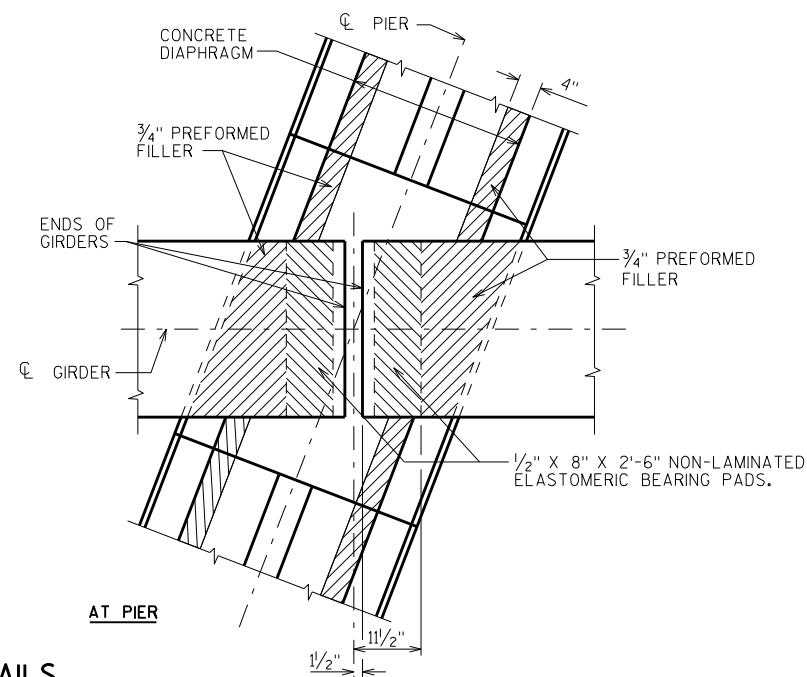
CROSS SECTION THRU PIER DIAPHRAGM



ABUTMENT DIAPHRAGM CORNER DETAILS



BEARING PAD DETAILS

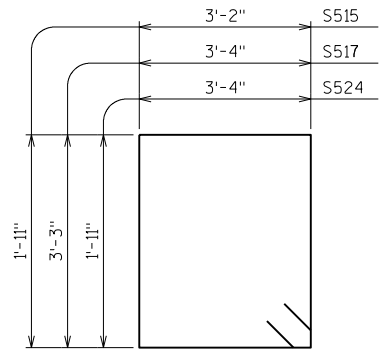


SECTION THRU PARAPET ON BRIDGE

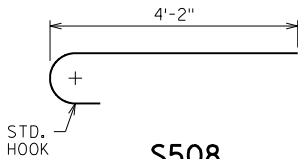
- * DIMENSION IS TAKEN NORMAL TO CL SUBSTRUCTURE UNITS.
- ** BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO CL GIRDERS
- DIMENSION IS TAKEN PARALLEL TO CL OF GIRDER
- ☆ RUBBERIZED MEMBRANE WATERPROOFING IF CONST. JOINT IS USED. COST INCLUDED WITH "CONCRETE MASONRY BRIDGES."

● CONST. JOINT - STRIKE OFF AS SHOWN

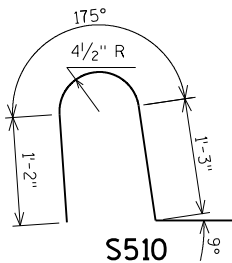
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-210			
DRAWN BY JDM		PLANS CK'D.	
SUPERSTRUCTURE DETAILS 1			SHEET 14



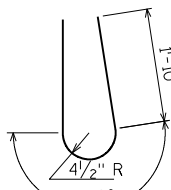
S515, S517, S524



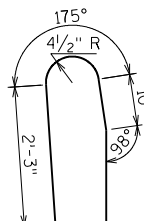
S508



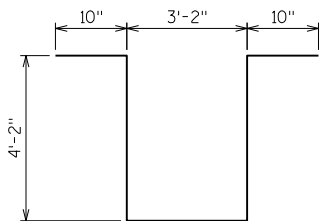
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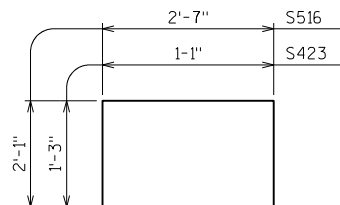
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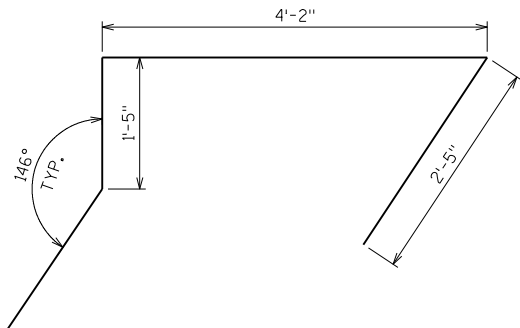
S512



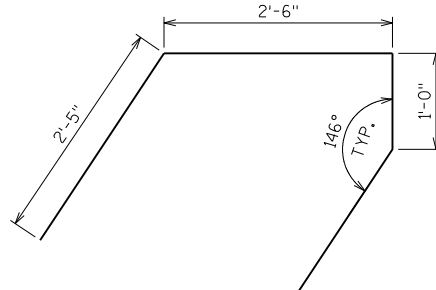
S514



S516, S423



S620



S621

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S901	X	97	59'-0"			DECK-LONGIT.-CONTINUITY-OVER PIER
S402	X	96	41'-4"			DECK-LONGIT.-TOP-SPAN 1
S403	X	144	32'-5"			DECK-LONGIT.-BOT.-SPAN 2
S404	X	343	34'-5"			DECK-LONGIT.-BOT.
S405	X	769	36'-2"			DECK-TRANSVERSE-TOP & BOT.
S406	X	84	17'-10"	▲		DECK-TRANSVERSE-TOP
S407	X	82	17'-9"	▲		DECK-TRANSVERSE-BOT.
S508	X	818	4'-9"	X		DECK-TRANSVERSE-OVERHANG
S509	X	48	59'-5"			PARAPET-HORIZ.
S510	X	688	4'-5"	X		DECK & PARAPET-VERT.
S511	X	696	5'-0"	X		PARAPET-VERT.
S512	X	8	5'-10"	X		DECK & PARAPET-VERT. AT PAVING NOTCH
S413	X	50	3'-5"			PIER DIAPHRAGM-HORIZ.
S514	X	25	12'-8"	X		PIER DIAPHRAGM-VERT.-BTWN. GIRDERS
S515	X	10	10'-10"	X		PIER DIAPHRAGM-VERT.- UNDER FLANGES
S516	X	68	6'-6"	X		ABUT. DIAPHRAGM & DECK-VERT.
S517	X	68	13'-10"	X		ABUT. DIAPHRAGM-VERT.-BTWN. GIRDERS
S618	X	12	43'-5"			ABUT. DIAPH. HORIZ.-B.F. ABUT
S619	X	70	3'-5"			ABUT. DIAPH. HORIZ.-F.F. ABUT. BTWN GIRDERS
S620	X	6	9'-6"	X		ABUT. DIAPH. HORIZ.-ENDS-WINGS 1 & 3
S621	X	6	7'-4"	X		ABUT. DIAPH. HORIZ.-ENDS-WINGS 2 & 4
S622	X	4	1'-0"			ABUT. DIAPH. HORIZ.-ENDS-BOT.
S423	X	40	3'-5"	X		ABUT. DIAPH. VERT.-BTWN. BEAM SEATS
S524	X	24	11'-2"	X		ABUT. DIAPH. VERT.-UNDER FLANGES
S425	X	20	2'-11"			ABUT. DIAPH. HORIZ.-BTWN. BEAM SEATS
S426	X	8	3'-8"			ABUT. DIAPH. VERT.-ENDS
S527	X	24	6'-0"			ABUT. DIAPH. HORIZ.-THRU GIRDER WEBS

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
S406	2 SERIES OF 42	1'-1" TO 34'-8"
S407	2 SERIES OF 41	1'-4" TO 34'-3"

BUNDLE AND TAG EACH SERIES SEPARATELY.

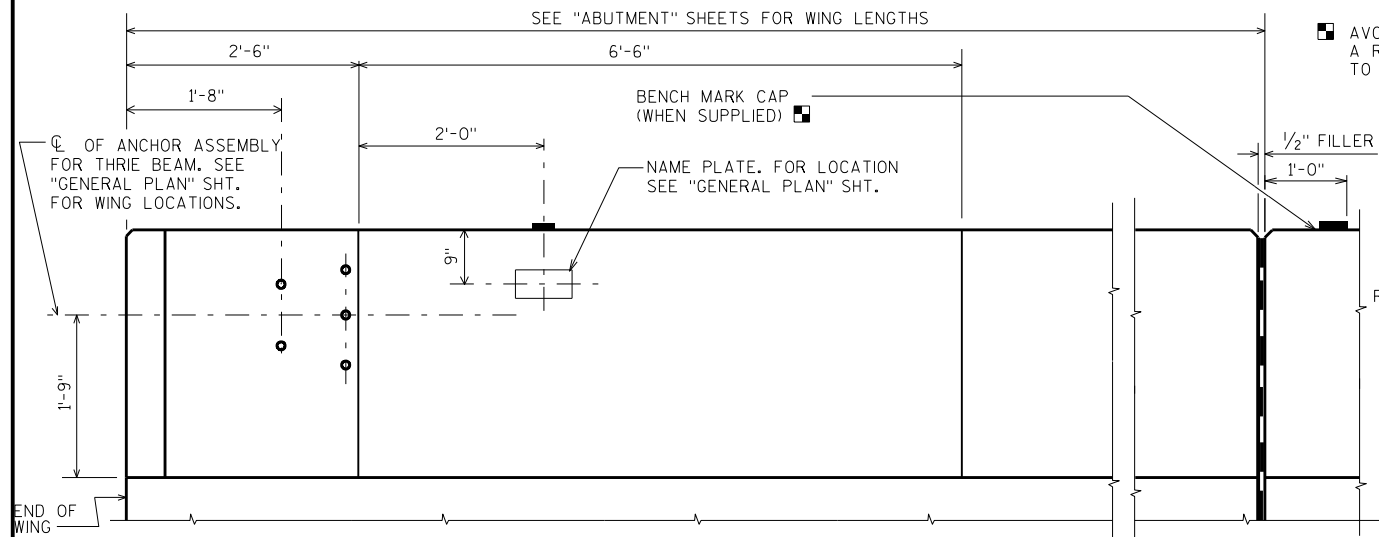
TOP OF DECK ELEVATIONS

	CL BRG. S ABUT.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	CL BRG. PIER 1	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	CL BRG. N ABUT.
L EOD	919.53	919.84	920.14	920.43	920.70	920.96	921.21	921.45	921.67	921.88	922.08	922.27	922.44	922.60	922.75	922.89	923.01	923.12	923.22	923.30	923.37
GIRDER 1	919.53	919.84	920.14	920.43	920.71	920.97	921.22	921.46	921.68	921.89	922.09	922.28	922.46	922.62	922.77	922.90	923.03	923.14	923.24	923.32	923.40
GIRDER 2	919.54	919.85	920.16	920.45	920.73	921.00	921.26	921.50	921.73	921.94	922.15	922.34	922.52	922.69	922.84	922.98	923.11	923.22	923.33	923.42	923.50
GIRDER 3	919.54	919.86	920.18	920.47	920.76	921.03	921.29	921.54	921.77	921.99	922.20	922.40	922.58	922.75	922.91	923.06	923.19	923.31	923.42	923.51	923.59
GIRDER 4	919.42	919.75	920.06	920.37	920.66	920.93	921.20	921.45	921.69	921.91	922.13	922.33	922.52	922.69	922.85	923.00	923.14	923.27	923.38	923.48	923.57
GIRDER 5	919.17	919.51	919.83	920.13	920.43	920.71	920.98	921.23	921.48	921.71	921.93	922.13	922.32	922.50	922.67	922.83	922.97	923.10	923.21	923.32	923.41
GIRDER 6	918.93	919.26	919.59	919.90	920.20	920.48	920.76	921.02	921.26	921.50	921.72	921.93	922.13	922.31	922.49	922.65	922.79	922.93	923.05	923.16	923.25
R EOD	918.87	919.21	919.53	919.85	920.15	920.43	920.71	920.97	921.22	921.45	921.68	921.89	922.09	922.27	922.45	922.61	922.75	922.89	923.01	923.12	923.22

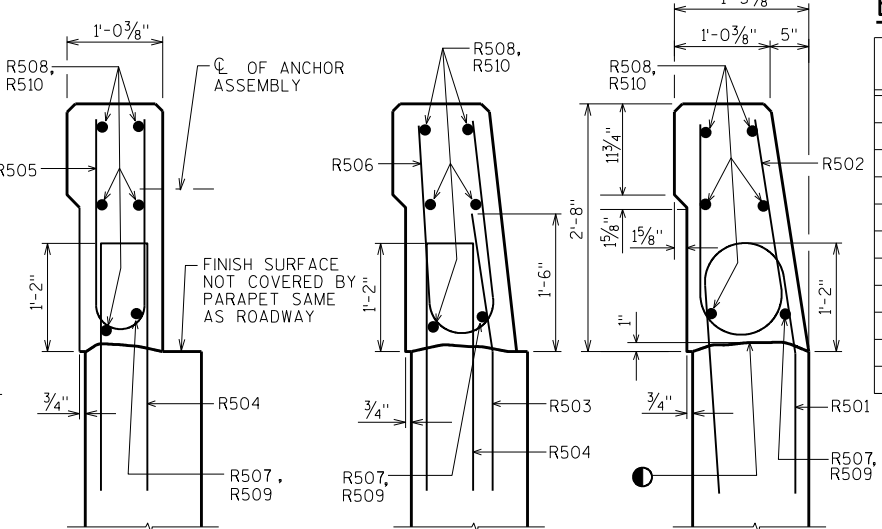
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-210			
DRAWN BY JDM		PLANS CK'D.	
SUPERSTRUCTURE DETAILS 2			SHEET 15

BILL OF BARS

BAR MARK	COAT	S ABUT.	N ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	28	28	5'-10"	X		PARAPET VERT.
R502	X	28	28	5'-0"	X		PARAPET VERT.
R503	X	24	24	3'-0"	X		PARAPET VERT.
R504	X	34	34	5'-7"	X		PARAPET VERT.
R505	X	22	22	4'-9"	X		PARAPET VERT.
R506	X	12	12	4'-10"	X		PARAPET VERT.
R507	X	1	1	15'-6"	X		PARAPET HORIZ.-WING 2 & 4
R508	X	5	5	15'-6"			PARAPET HORIZ.-WING 2 & 4
R509	X	1	1	19'-6"	X		PARAPET HORIZ.-WING 1 & 3
R510	X	5	5	19'-6"			PARAPET HORIZ.-WING 1 & 3



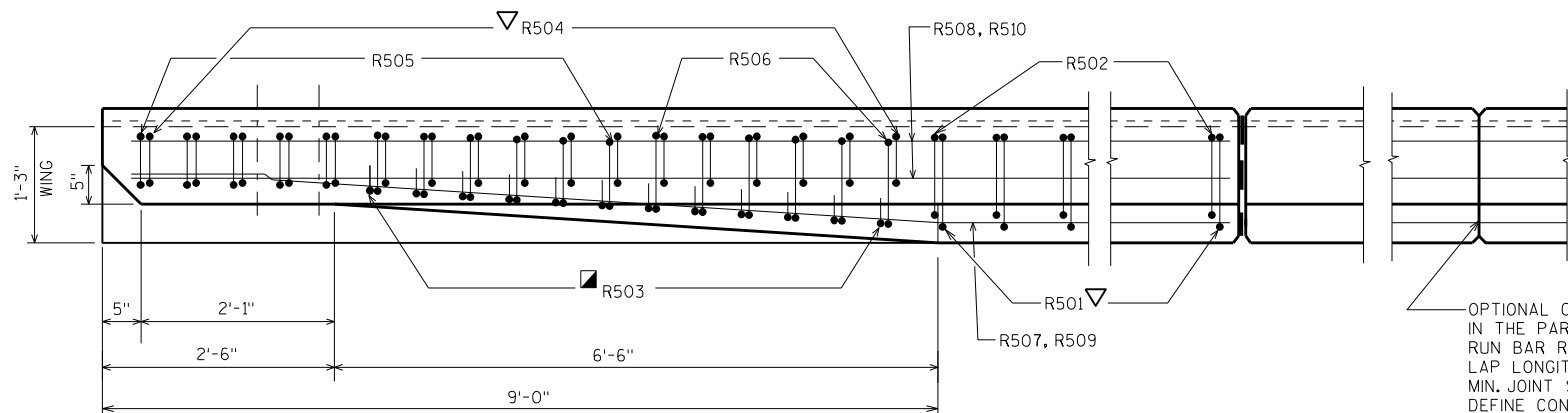
INSIDE ELEVATION



SECTION A

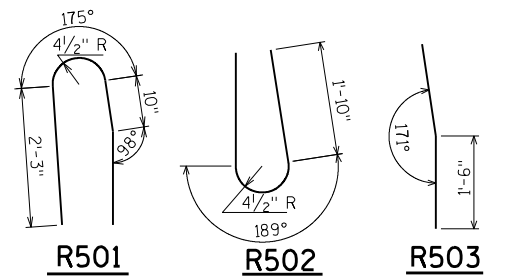
SECTION B

SECTION C



PLAN

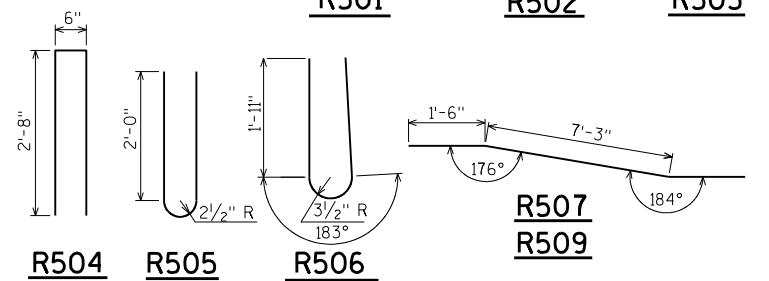
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A 3/4" - 'V' GROOVE.



R501

R502

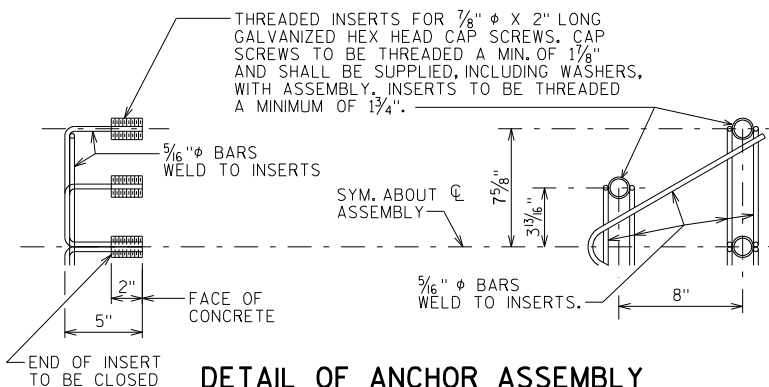
R503



R504

R505

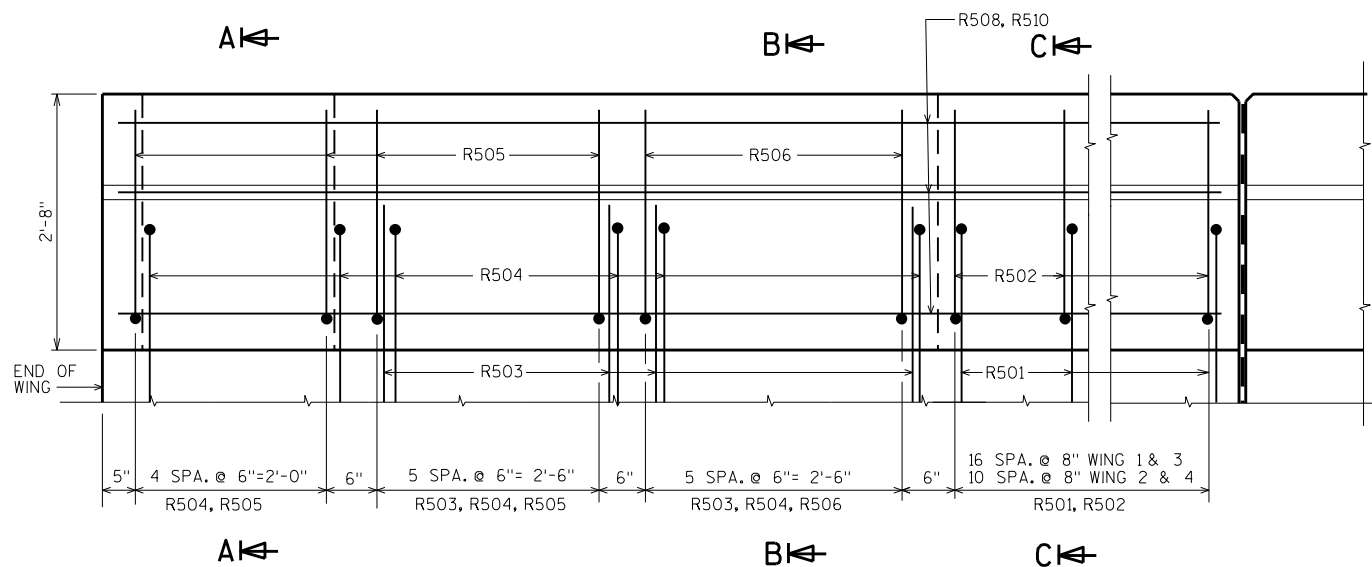
R506

R507
R509

DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.



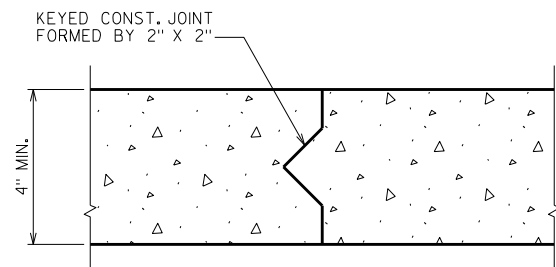
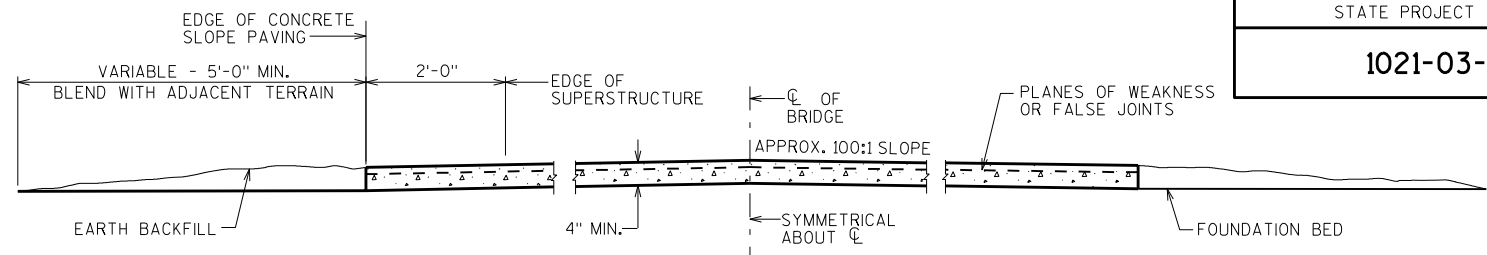
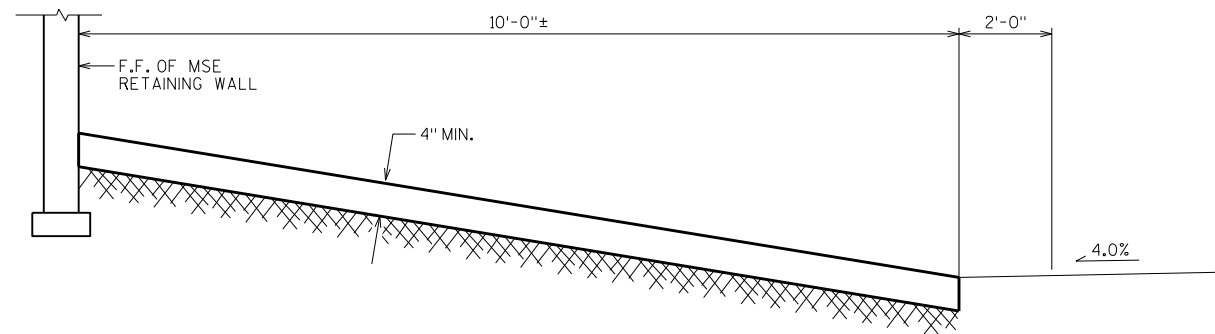
OUTSIDE ELEVATION

● CONST. JOINT - STRIKE OFF AS SHOWN.

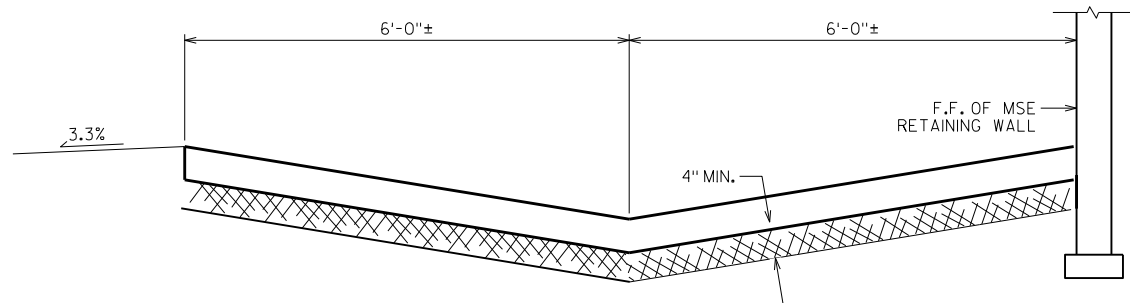
■ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

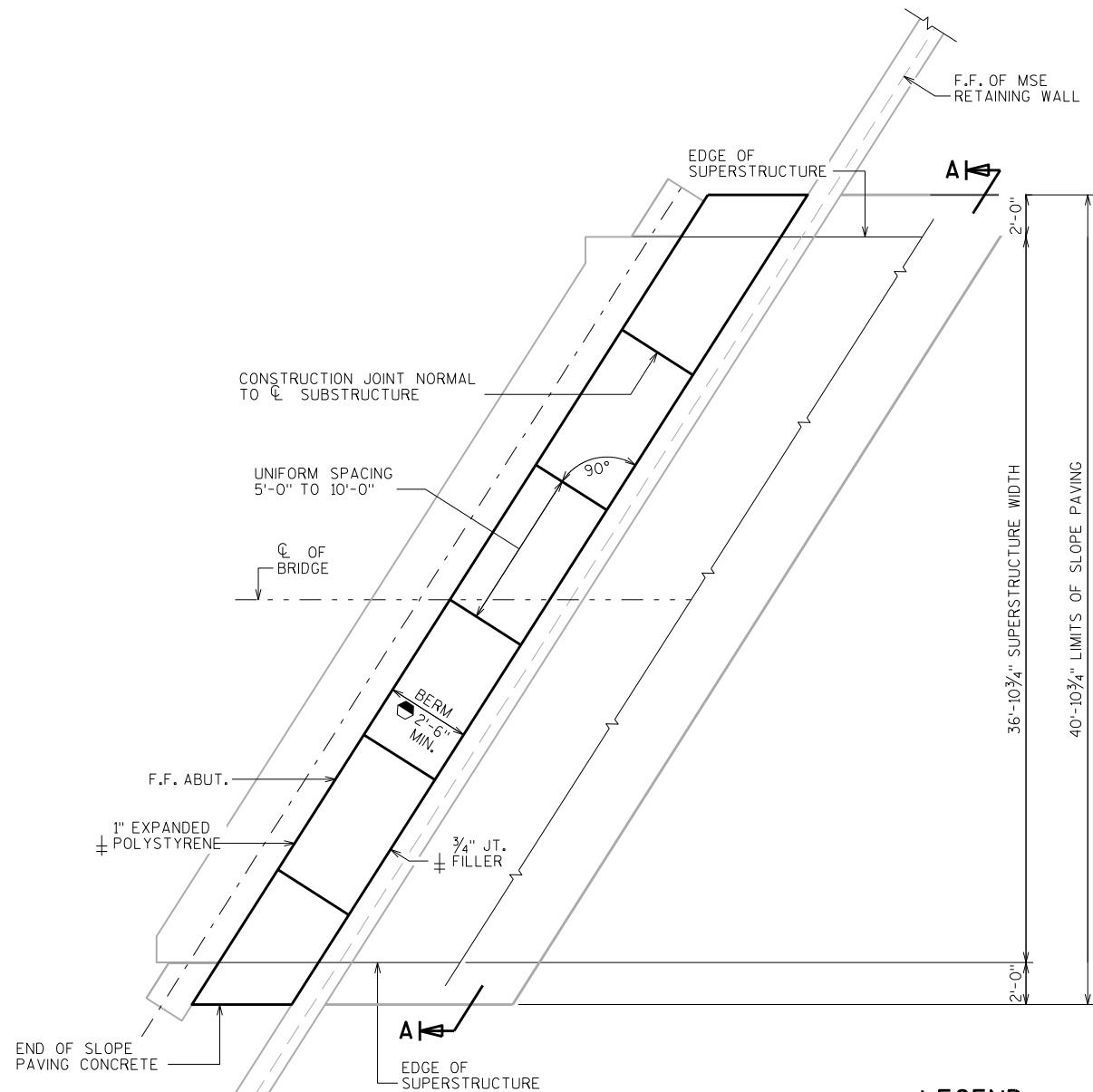
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-210			
DRAWN BY JDM		PLANS CK'D.	
SINGLE SLOPE PARAPET 32SS			SHEET 16

**CONSTRUCTION JOINT****SECTION A-A****SOUTH CROSS SECTION SLOPE PAVING**

(NORMAL TO MSE RETAINING WALL)

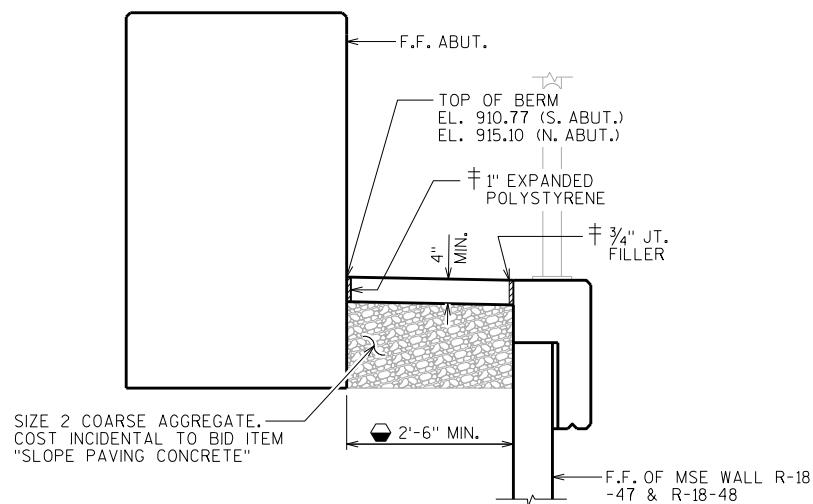
**NORTH CROSS SECTION SLOPE PAVING**

(NORMAL TO MSE RETAINING WALL)

**PLAN****LEGEND**

† SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER & EXPANDED POLYSTYRENE WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONC.)

● BERM WIDTH SHOWN BASED ON ASSUMED MSE WALL PANEL THICKNESS OF 9".

**TYPICAL SECTION SLOPE PAVING CONCRETE****GENERAL NOTES**

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

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-210			
DRAWN BY JDM		PLANS CK'D.	
SLOPE PAVING			SHEET 18

1021-03-74

LIVE LOAD:

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

BAR STEEL REINFORCEMENT:
GRADE 60 _____ $f_y = 60,000$ P.S.I.

45W" PRESTRESSED GIRDERS:
CONCRETE MASONRY _____ $f'_c = 8000$ P.S.I.
STRANDS: 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

ABUTMENTS TO BE SUPPORTED ON HP 10 X 42 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
ESTIMATED 135' LONG ON W. ABUTMENT AND 130' ON E. ABUTMENT.

PIER TO BE SUPPORTED ON HP 10 X 42 PILING DRIVEN TO A
REQUIRED DRIVING RESISTANCE OF 180 TONS ** PER PILE AS
DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
ESTIMATED 100' LONG.

* THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

CTH I

ADT = 450 (2038)
R.D.S. = 45 M.P.H.

IH-94
ADT = 35,300 (2042)
R.D.S. = 70 M.P.H.

IH-94 WB

P.I. = 653WB+95.69
 $\Delta = 5^{\circ}41'00''$
 $D = 0^{\circ}30'00''$
 $T = 568.80'$
 $L = 1136.67'$
 $R = 11459.19'$
 $S.E. = 2.00\%$
 $P.C. = 648WB+26.89$
 $P.T. = 659WB+63.56$

STRUCTURE DESIGN CONTACTS:

LAURA SHADEWALD	(608) 267-9592
DANIELLE DE TENNIS	(608) 266-8689

NO.	DATE	REVISION	BY



ACCEPTED _____
CHIEF STRUCTURES DESIGN ENGINEER DATE _____

STRUCTURE B-18-232

CTH 10VER IH-94

COUNTY	EAU CLAIRE	TOWN/CITY/VILLAGE	WASHINGTON
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DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY DFD	DESIGNED CK'D. DLM	DRAWN BY MJH	PLANS CK'D. MWB
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GENERAL PLAN

SHEET 1 OF 17

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. WEST ABUTMENT
5. WEST ABUTMENT DETAILS
6. EAST ABUTMENT
7. EAST ABUTMENT DETAILS
8. PIER
9. 45W" PRESTRESSED GIRDER DETAILS 1
10. 45W" PRESTRESSED GIRDER DETAILS 2
11. STEEL DIAPHRAGM
12. SUPERSTRUCTURE
13. SUPERSTRUCTURE DETAILS
14. SINGLE SLOPE PARAPET 32SS
15. FENCING DETAILS
16. SLOPE PAVING (CONCRETE CAST-IN-PLACE)

I.D. 1021-03-04B

DATE: MAY 2017

SCALE = 14.00

8



BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	WEST ABUT.	PIER 1	EAST ABUT.	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 211'+24	LS	—	—	—	—	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-18-232	LS	—	—	—	—	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	—	196	—	189	385
502.0100	CONCRETE MASONRY BRIDGES	CY	317	50	70	50	487
502.3200	PROTECTIVE SURFACE TREATMENT	SY	810	—	—	—	810
502.3210	PIGMENTED SURFACE SEALER	SY	174	13	—	—	200
503.0146	PRESTRESSED GIRDER TYPE I 45W-INCH	LF	1054	—	—	—	1054
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	—	2343	1579	2343	6265
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	52,881	4148	11545	4148	72722
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	20	—	—	—	20
506.4000	STEEL DIAPHRAGMS B-18-232	EACH	16	—	—	—	16
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	—	10	—	10	20
550.1100	PIILING STEEL HP 10-INCH X 42 LB	LF	—	1350	2700	1300	5350
604.0400	SLOPE PAVING CONCRETE	SY	—	11	—	11	22
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	—	72	—	72	144
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	—	2	—	2	4
SPV.0090	FENCE CHAIN LINK POLYMER-COATED 6-FT.	LF	432	31	—	31	493
	NON-BID ITEMS						
	FILLER	SIZE	—	—	—	—	1/2", 3/4", 1 1/2"

BRIDGE STRUCTURE

ROADWAY PAVEMENT

ROADWAY SUBBASE

1:1

LIMITS OF BACKFILL ▲

STRUCTURE BACKFILL, TYPE A

3'-0" REQ'D

▲ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

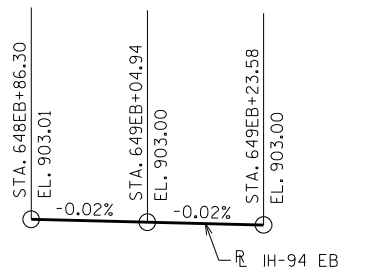


Diagram of a three-span continuous beam with equal spans of 100.459 ft. The beam is supported by three vertical columns. The left span is labeled STA. 649WB+13.41 and EL. 904.59. The middle span is labeled STA. 649WB+32.12 and EL. 904.54. The right span is labeled STA. 649WB+50.84 and EL. 904.49. The beam is labeled R IH-94 WB. The spans are marked with -0.27% slopes.

PROFILE GRADE LINE - CTH 1

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-232			
DRAWN BY		MJH	PLANS CK'D. MWB
CROSS SECTION & QUANTITIES		SHEET 2	

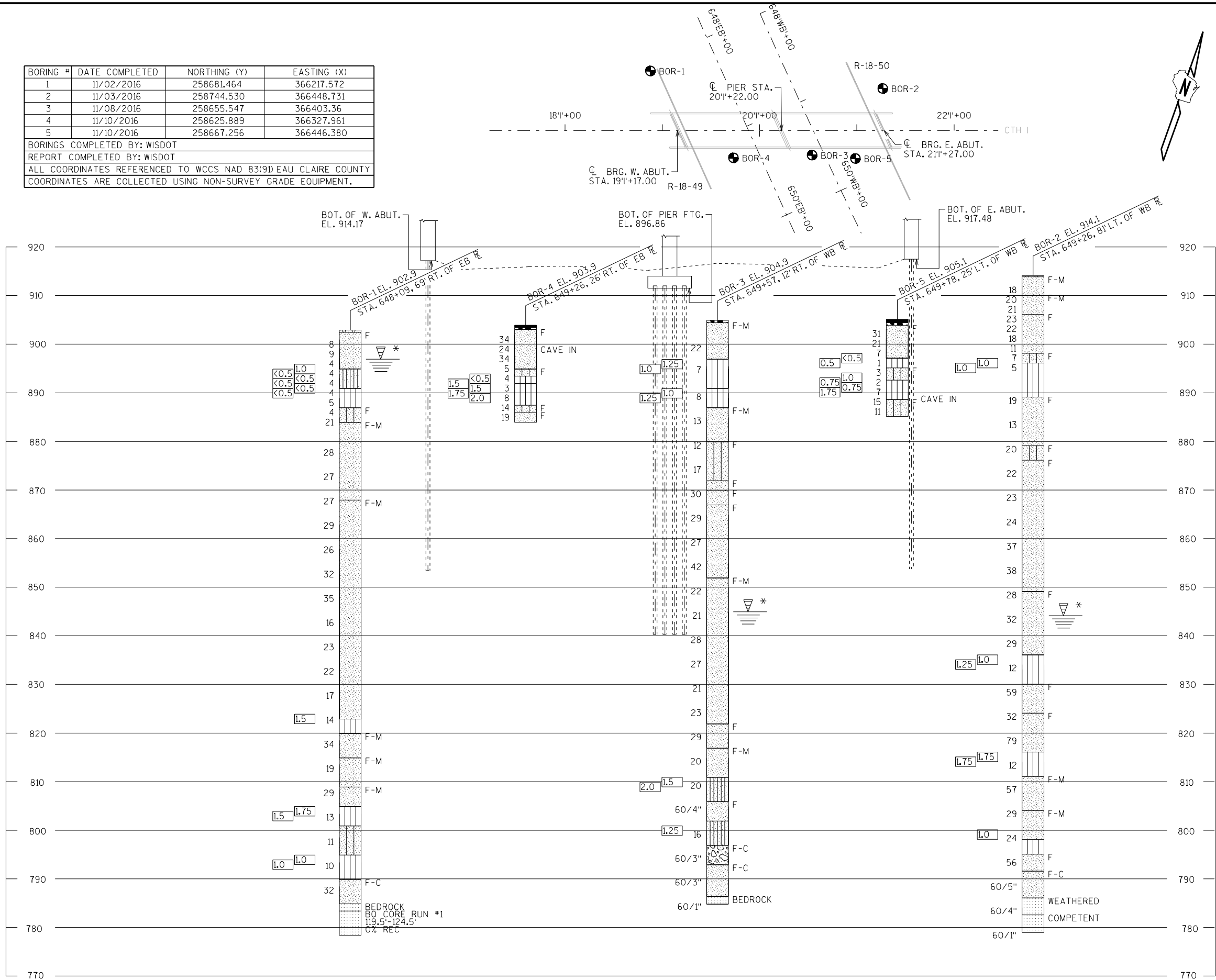
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	11/02/2016	258681.464	366217.572
2	11/03/2016	258744.530	366448.731
3	11/08/2016	258655.547	366403.36
4	11/10/2016	258625.889	366327.961
5	11/10/2016	258667.256	366446.380

BORINGS COMPLETED BY: WISDOT

REPORT COMPLETED BY: WISDOT

ALL COORDINATES REFERENCED TO WCCS NAD 83(91) EAU CLAIRE COUNTY

COORDINATES ARE COLLECTED USING NON-SURVEY GRADE EQUIPMENT.



STATE PROJECT NUMBER		
1021-03-74		
MATERIAL SYMBOLS		
ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/META

LEGEND OF BORING

(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

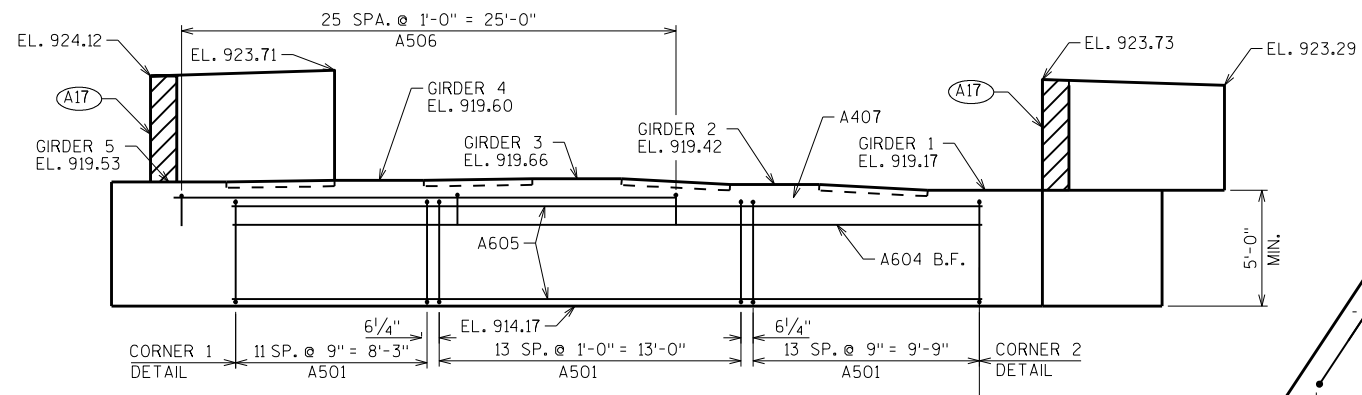
SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-232			
DRAWN BY MJH		PLANS CK'D. MWB	
SUBSURFACE EXPLORATION			SHEET 3

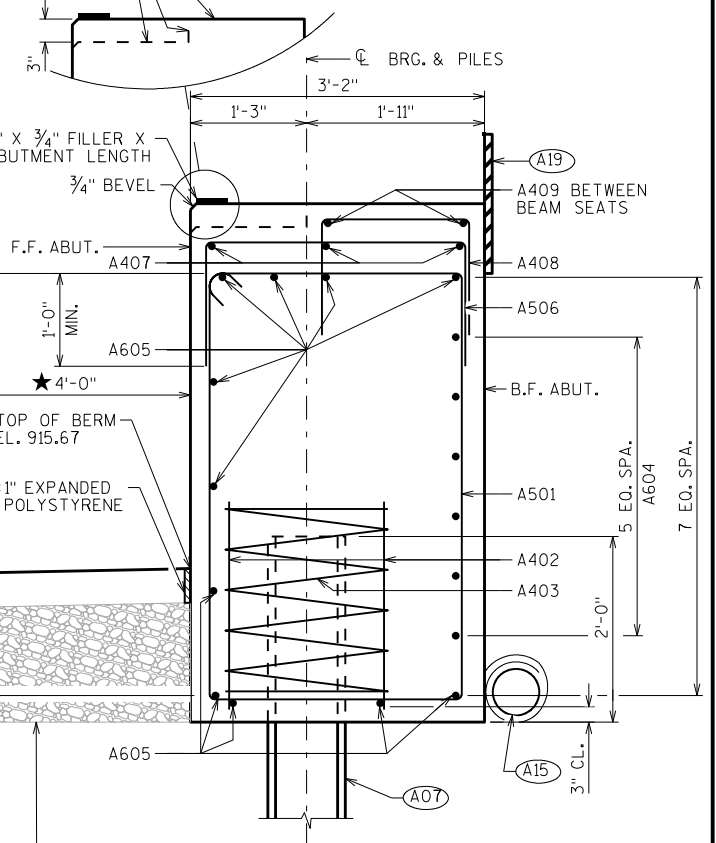
* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

SCALE = 50.00



CORNER 1 DETAIL

STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".



SECTION THRU BODY

SIZE 2 COARSE AGGREGATE. COST INCIDENTAL TO BID ITEM "SLOPE PAVING CONCRETE"

† SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONC.)

★ DIMENSION NOTED BASED ON ASSUMED MSE WALL PANEL THICKNESS OF 9".

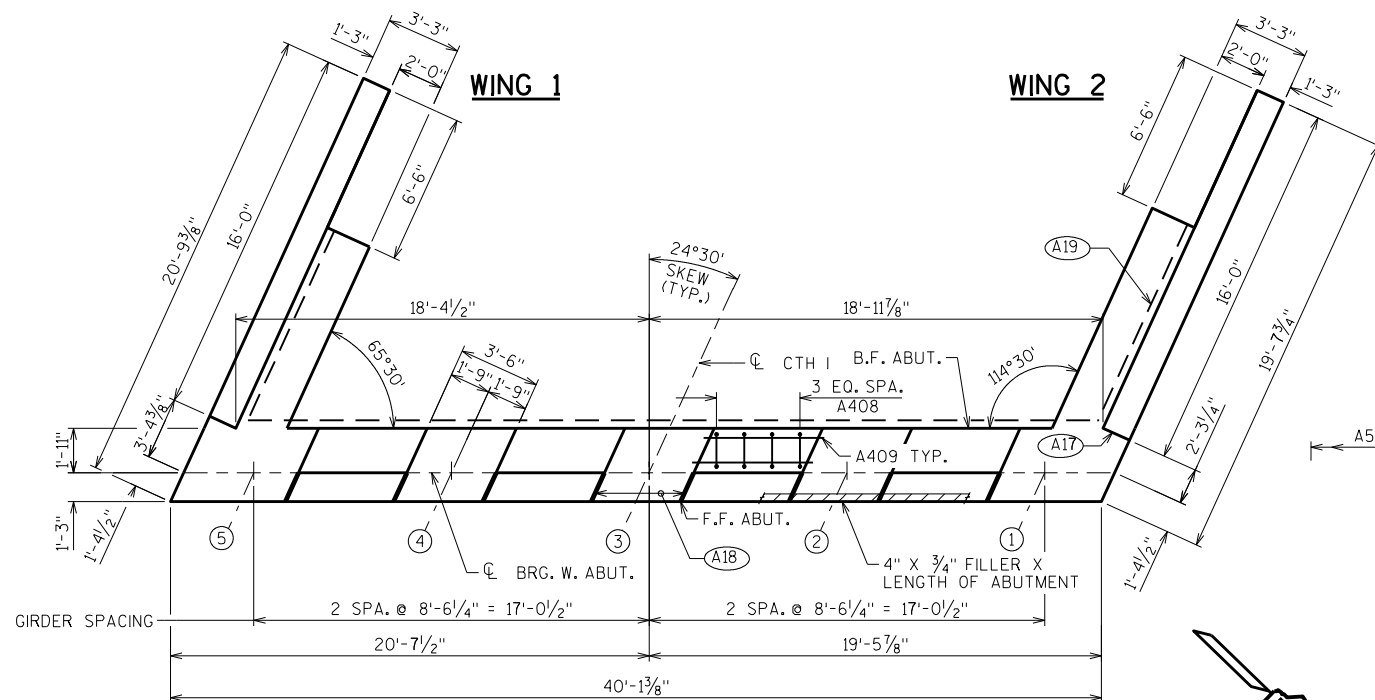
(A07) SUPPORT ABUTMENT ON HP 10 X 42 STEEL PILING, ESTIMATED 135' LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. PILE POINTS REQUIRED.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

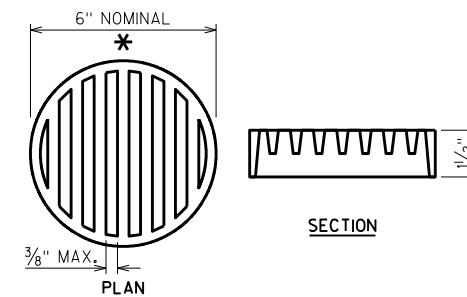
(A18) 3/4" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.



○ INDICATES GIRDER NUMBER

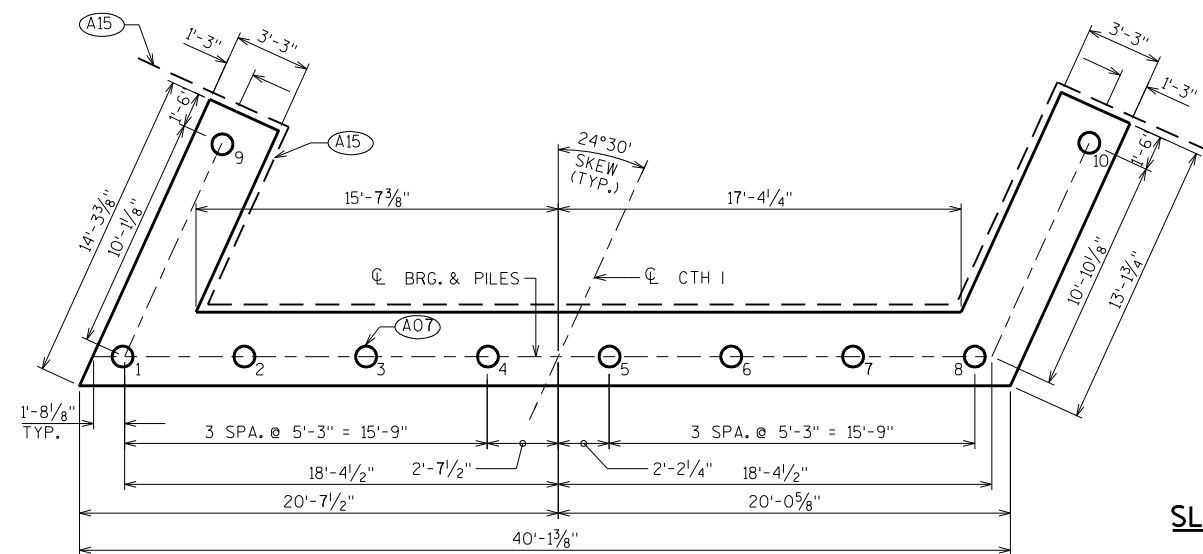
CORNER 2 DETAIL



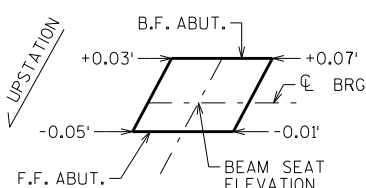
* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



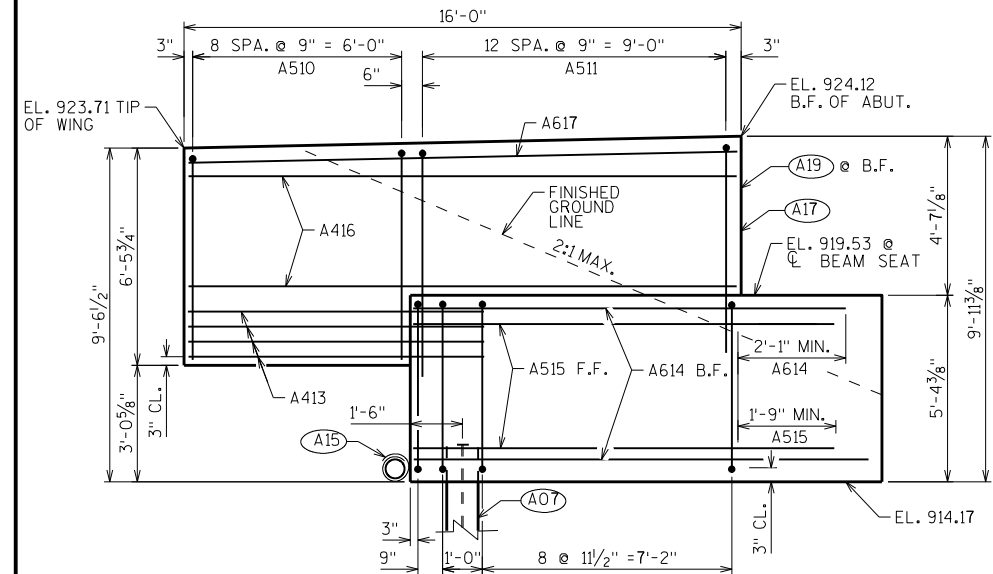
SLOPED BEAM SEAT DETAIL



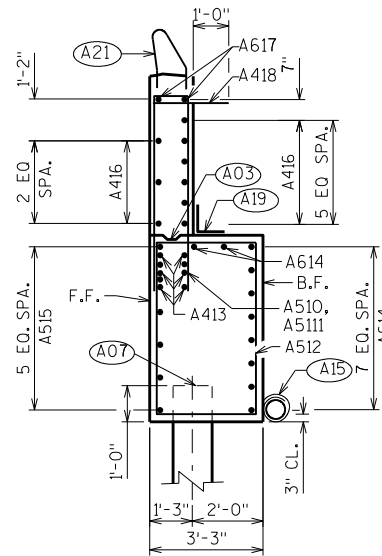
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-232			
DRAWN BY MJH		PLANS CKD. MWB	
WEST ABUTMENT		SHEET 4	

BILL OF BARS

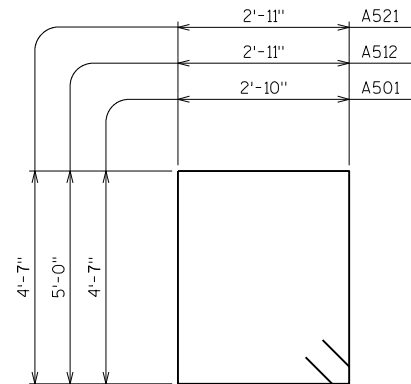
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501		52	15'-6"	X		BODY-STIRRUPS
A402		20	2'-3"			BODY-2-PER-BODY-PILE-VERTICAL
A403		10	28'-0"			BODY-1-PER-BODY-PILE
A904		6	39'-9"			BODY-HORIZONTAL-B.F.
A605		11	39'-9"			BODY-HORIZONTAL
A506		26	5'-3"	X		BODY-VERTICAL-TOP-UNDER GIR. 1-3
A407		3	25'-0"			BODY-HORIZONTAL-TOP-UNDER GIR. 1-3
A408		16	3'-11"	X		BODY-VERTICAL-TOP-BTWN. BEAM SEATS
A409		8	6'-8"			BODY-HORIZONTAL-TOP-BTWN. BEAM SEATS
A510	X	9	12'-8"	X		WING 1-VERTICAL-UPPER WING
A511	X	13	12'-10"	X		WING 1-VERTICAL-UPPER WING
A512	X	11	16'-6"	X		WING 1-STIRRUP-LOWER WING
A413	X	8	7'-9"			WING 1-HORIZONTAL-UPPER WING
A714	X	10	11'-7"			WING 1-HORIZONTAL-B.F.-LOWER WING
A515	X	6	11'-2"			WING 1-HORIZONTAL-F.F.- LOWER WING
A416	X	9	15'-7"			WING 1-HORIZONTAL-UPPER WING
A617	X	2	15'-7"			WING 1-HORIZONTAL-UPPER WING
A418	X	2	2'-0"			WING 1-HORIZONTAL-DEWELS-UPPER WING
A519	X	13	12'-6"	X		WING 2-VERTICAL-UPPER WING
A520	X	9	13'-0"	X		WING 2-VERTICAL--UPPER WING
A521	X	11	15'-8"	X		WING 2-STIRRUP-LOWER WING
A422	X	8	7'-9"			WING 2-HORIZONTAL-UPPER WING
A523	X	6	11'-2"			WING 2-HORIZONTAL-F.F.- OWER WING
A724	X	10	11'-7"			WING 2-HORIZONTAL-B.F.-LOWER WING
A425	X	9	15'-7"			WING 2-HORIZONTAL-UPPER WING
A626	X	2	15'-7"			WING 2-HORIZONTAL-UPPER WING



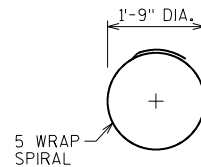
WING 1 ELEVATION



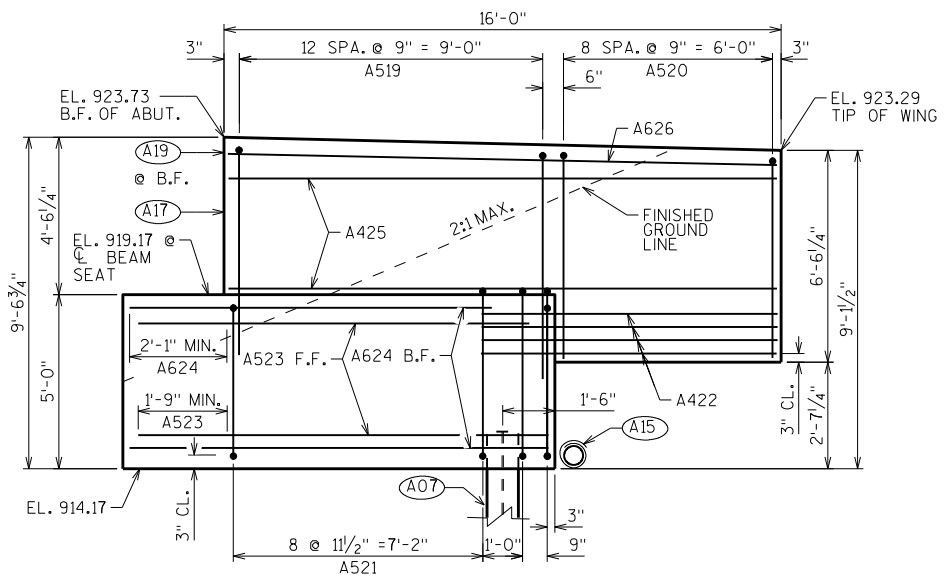
WING 1 SECTION



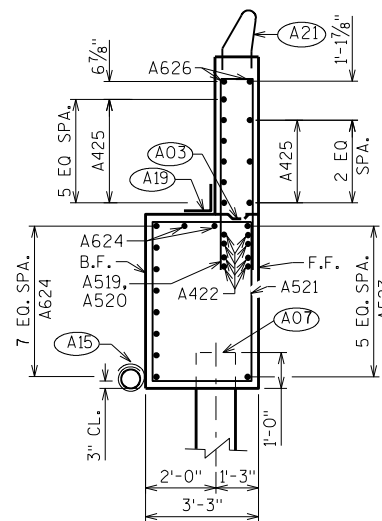
A501, A512, A521



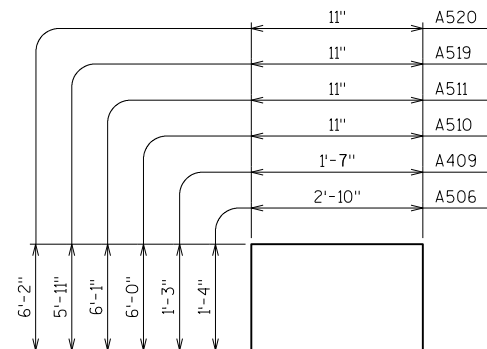
A405



WING 2 ELEVATION



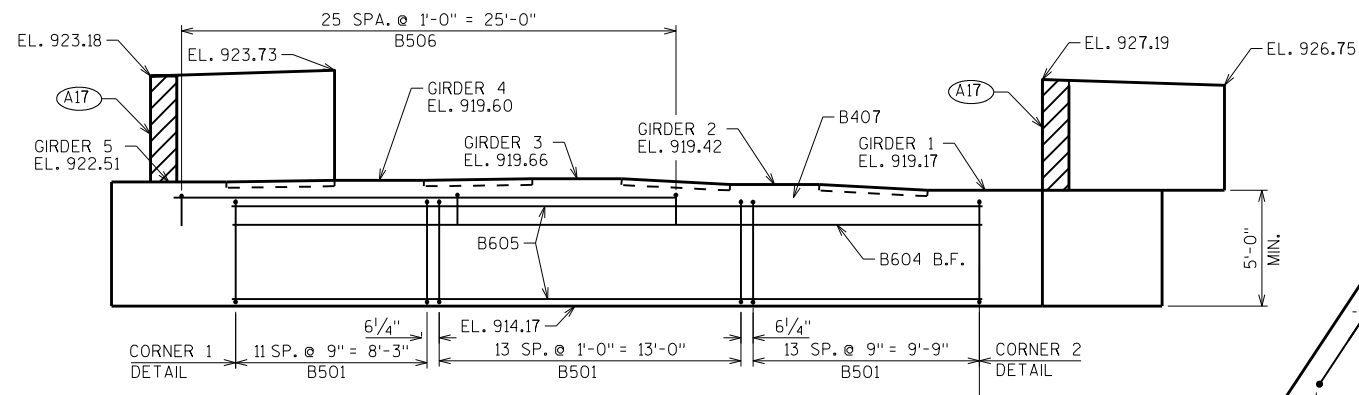
WING 2 SECTION



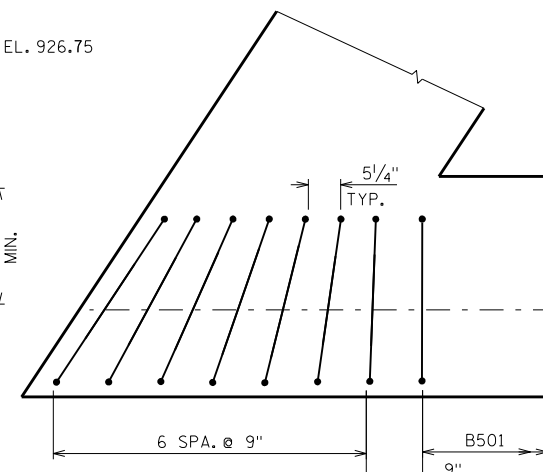
A506, A408, A510, A511, A519, A520

- (A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2X6 (18" RMW @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).
- (A07) SUPPORTED ABUTMENT ON HP 10 X 42 STEEL PILING, ESTIMATED 135'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- (A21) FOR PPT. BARS, & DIMENSIONS SEE "SINGLE SLOPE PARAPET 32SS" SHEET.

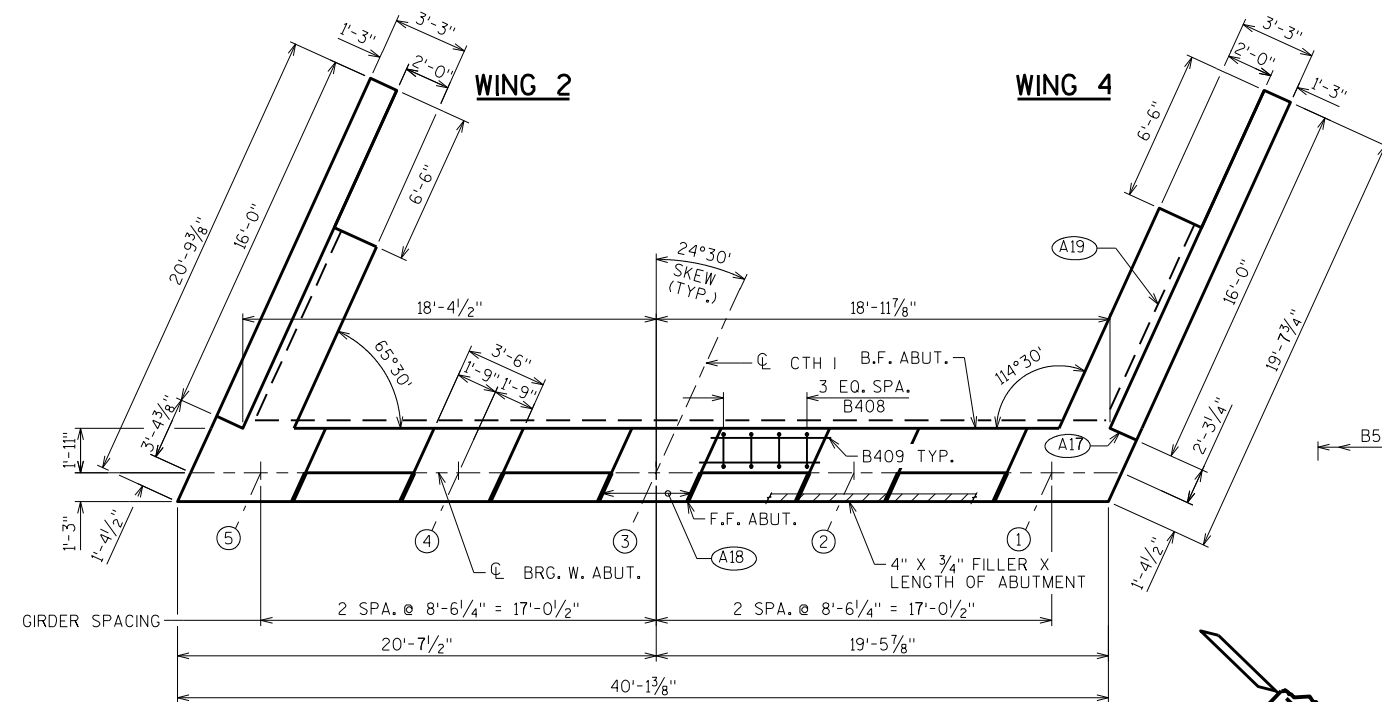
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-232			
DRAWN BY MJH		PLANS CK'D. MWB	
WEST ABUTMENT DETAILS		SHEET 5	



ELEVATION LOOKING WEST @ F.F. ABUT.

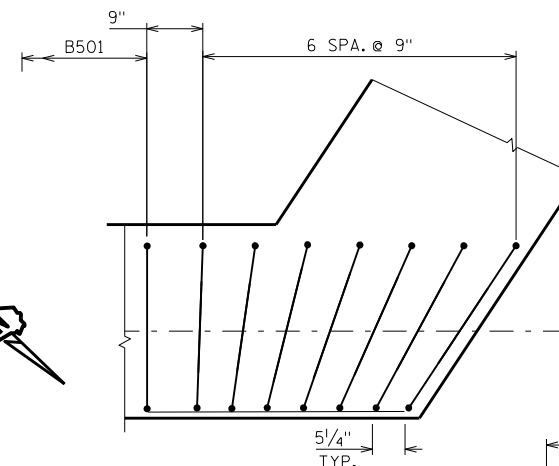


CORNER 1 DETAIL

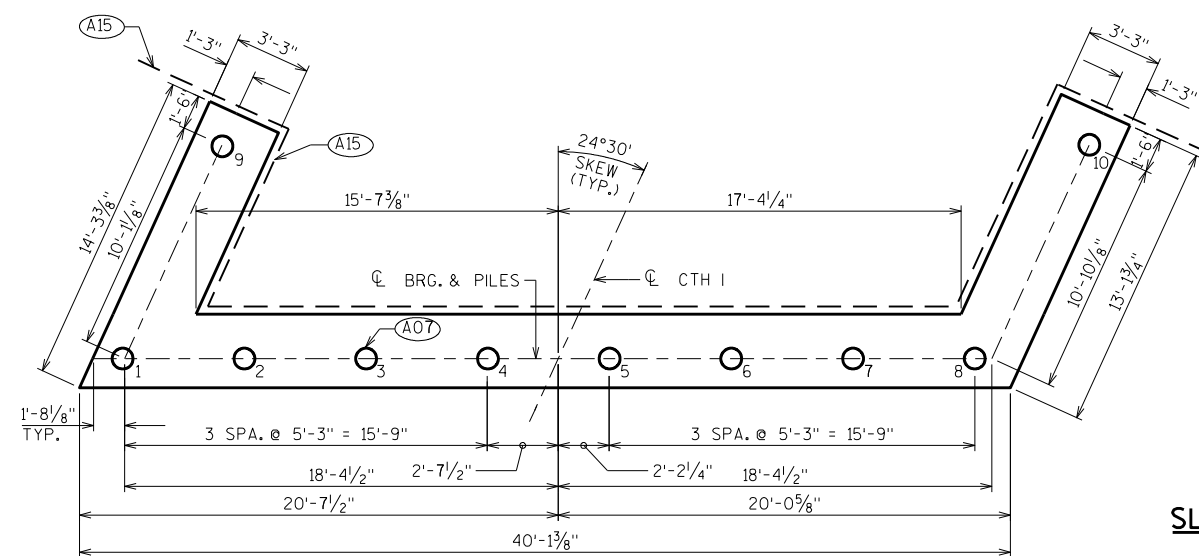


PLAN

O INDICATES GIRDER NUMBER

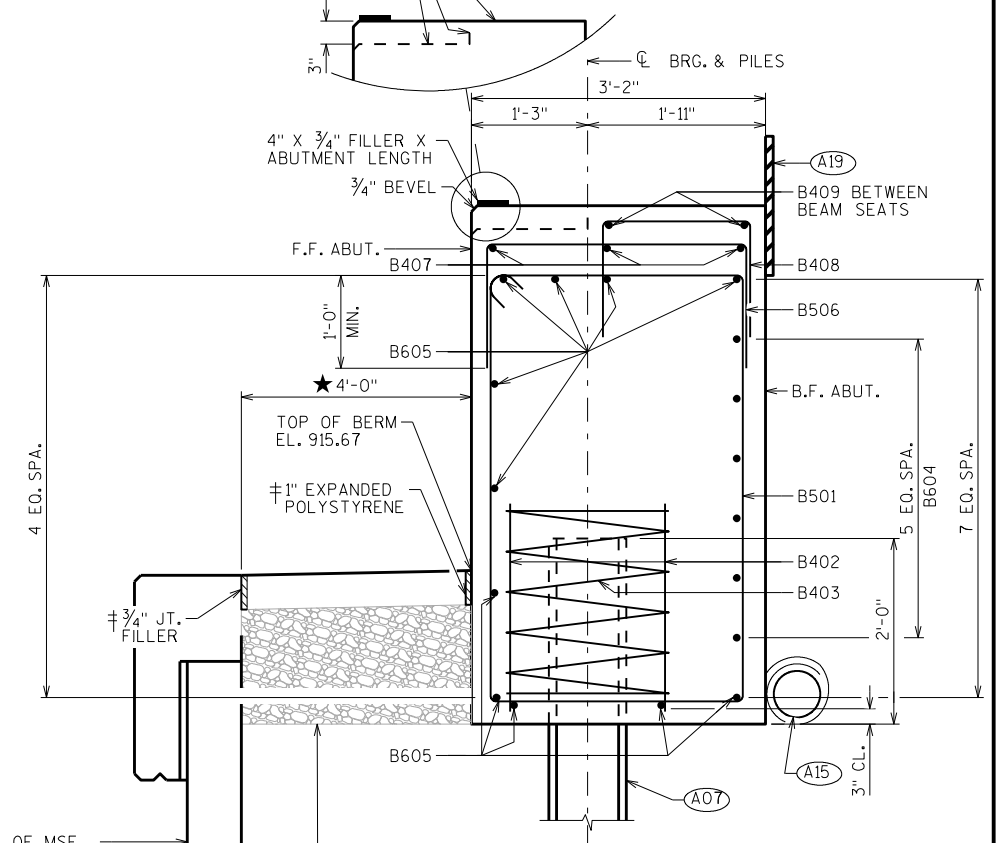


CORNER 2 DETAIL



PILE PLAN

STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".



SECTION THRU BODY

SIZE 2 COARSE AGGREGATE. COST INCIDENTAL TO BID ITEM "SLOPE PAVING CONCRETE"

† SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONC.)

★ DIMENSION NOTED BASED ON ASSUMED MSE WALL PANEL THICKNESS OF 9".

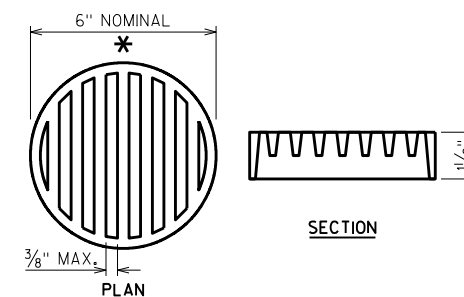
(A07) SUPPORT ABUTMENT ON HP 10 X 42 STEEL PILING, ESTIMATED 135' LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. PILE POINTS REQUIRED.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A18) 3/4" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

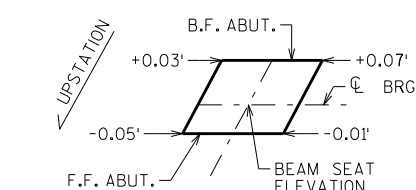


RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

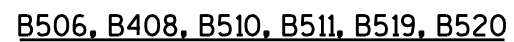
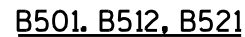
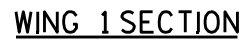
THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



SLOPED BEAM SEAT DETAIL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-232			
DRAWN BY MJH		PLANS CK'D. MWB	
EAST ABUTMENT		SHEET 6	

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		52	15'-6"	X		BODY-STIRRUPS
B402		20	2'-3"			BODY-2-PER-BODY-PILE-VERTICAL
B403		10	28'-0"			BODY-1-PER-BODY-PILE
B904		6	39'-9"			BODY-HORIZONTAL-B.F.
B605		11	39'-9"			BODY-HORIZONTAL
B506		26	5'-3"	X		BODY-VERTICAL-TOP-UNDER GIR. 1-3
B407		3	25'-0"			BODY-HORIZONTAL-TOP-UNDER GIR. 1-3
B408		16	3'-11"	X		BODY-VERTICAL-TOP-BTWN. BEAM SEATS
B409		8	6'-8"			BODY-HORIZONTAL-TOP-BTWN. BEAM SEATS
B510	X	9	12'-8"	X		WING 1-VERTICAL-UPPER WING
B511	X	13	12'-10"	X		WING 1-VERTICAL-UPPER WING
B512	X	11	16'-6"	X		WING 1-STIRRUP-LOWER WING
B413	X	8	7'-9"			WING 1-HORIZONTAL-UPPER WING
B714	X	10	11'-7"			WING 1-HORIZONTAL-B.F.-LOWER WING
B515	X	6	11'-2"			WING 1-HORIZONTAL-F.F.- LOWER WING
B416	X	9	15'-7"			WING 1-HORIZONTAL-UPPER WING
B617	X	2	15'-7"			WING 1-HORIZONTAL-UPPER WING
B418	X	2	2'-0"			WING 1-HORIZONTAL-DEWELS-UPPER WING
B519	X	13	12'-6"	X		WING 2-VERTICAL-UPPER WING
B520	X	9	13'-0"	X		WING 2-VERTICAL--UPPER WING
B521	X	11	15'-8"	X		WING 2-STIRRUP-LOWER WING
B422	X	8	7'-9"			WING 2-HORIZONTAL-UPPER WING
B523	X	6	11'-2"			WING 2-HORIZONTAL-F.F.- OWER WING
B724	X	10	11'-7"			WING 2-HORIZONTAL-B.F.-LOWER WING
B425	X	9	15'-7"			WING 2-HORIZONTAL-UPPER WING
B626	X	2	15'-7"			WING 2-HORIZONTAL-UPPER WING

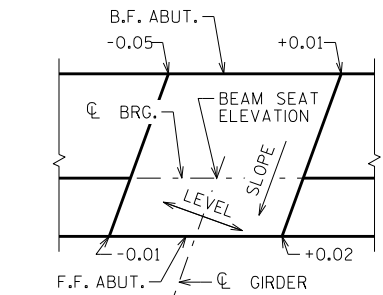


- (A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED X26. (18" RMW @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).
- (A07) SUPPORTED ABUTMENT ON HP 10 X 42 STEEL PILING, ESTIMATED 135'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- (A21) FOR PPT. BARS, & DIMENSIONS SEE "SINGLE SLOPE PARAPET 325S" SHEET.

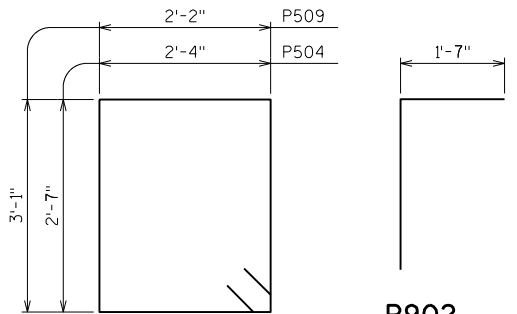
NO.	DATE	REVISION			BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION					
STRUCTURE B-18-232					
			DRAWN BY	PLANS CK'D.	MWB
EAST ABUTMENT DETAILS				SHEET 7	

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE
BAR MARK SIGNIFIES THE BAR SIZE

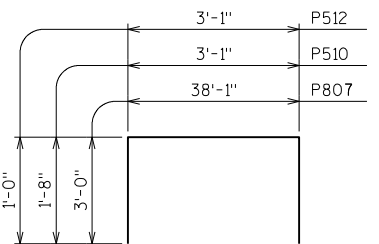
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
P701		90	8'-7"			FOOTING - HORIZ.
P902	X	54	10'-7"	X		COLUMN/FOOTING - VERT.
P903	X	54	20'-8"			COLUMN - VERT.
P504	X	228	10'-6"	X		COLUMN - STIRRUP
P905	X	10	38'-2"			CAP - HORIZ. - BOTTOM
P506	X	10	38'-2"			CAP - HORIZ. - SIDES
P807	X	6	43'-10	X		CAP - HORIZ. - TOP
P408	X	4	9'-6"			CAP - HORIZ. - UNDER BEAM 3
P509	X		10'-0"	X		CAP - STIRRUP
P510	X		6'-2"	X		CAP - VERT. - UNDER BEAM 3
P511	X		2'-0"			DOWEL BARS
P512	X		4'-10"	X		CAP - HORIZ. - ENDS



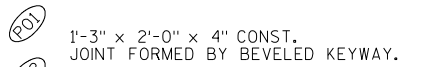
SLOPED BEAM SEAT DETAIL



P504, P509



P807, P510, P512



SUPPORT PIER ON HP 10 x 42 STEEL
PILING, ESTIMATED 180'-0" LONG WITH
A REQUIRED DRIVING RESISTANCE OF 180
TONS PER PILE.

P511 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS.
MAY BE PLACED AFTER CONCRETE IS POURED
BUT BEFORE INITIAL SET HAS TAKEN PLACE.
(EMBED 1'-0" INTO CONC.)

KEYED CONST. JOINT-FORMED BY
BEVELED 2 x 6 BETWEEN BEAM SEATS.

NO.	DATE	REVISION	BY

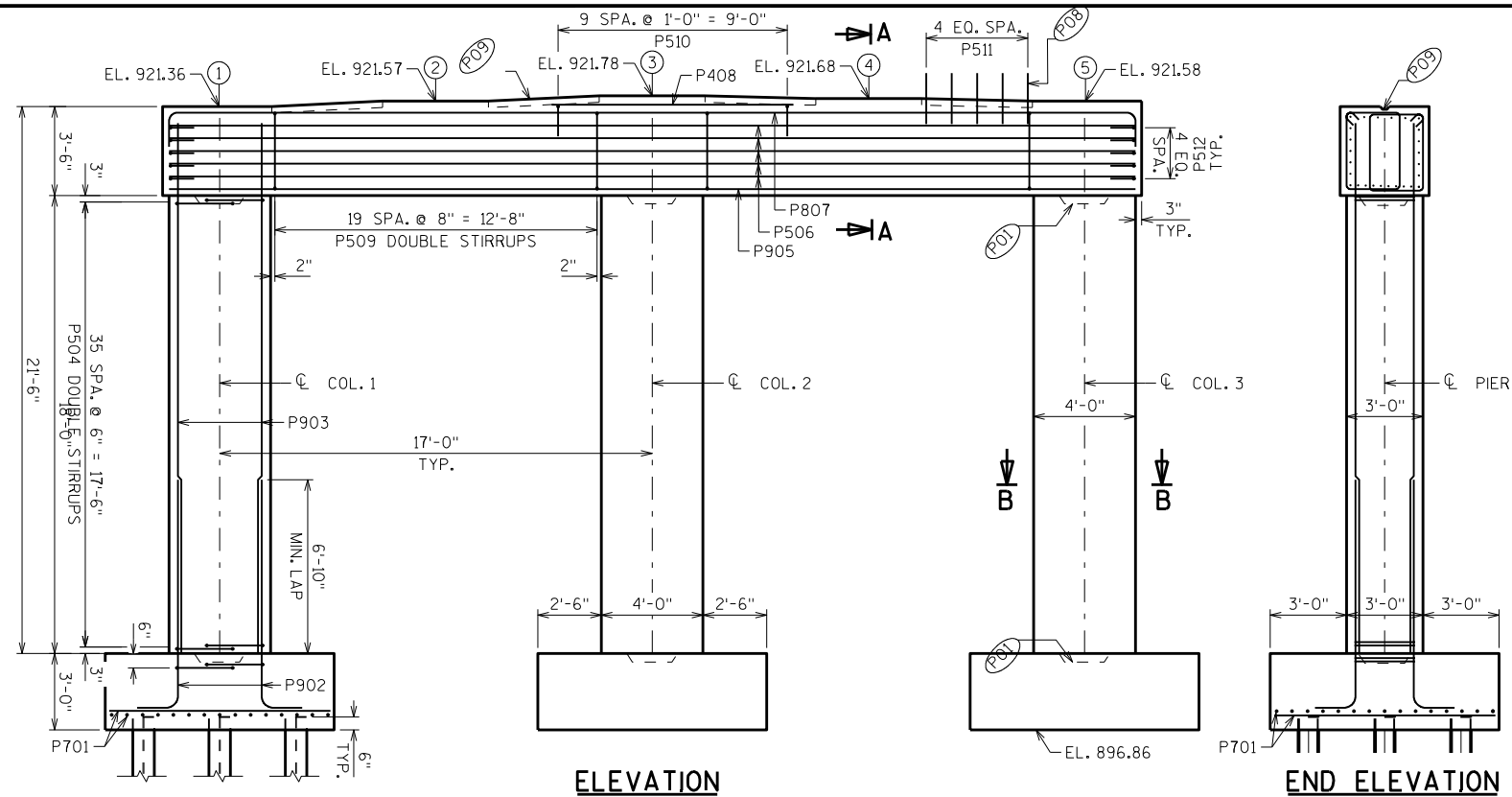
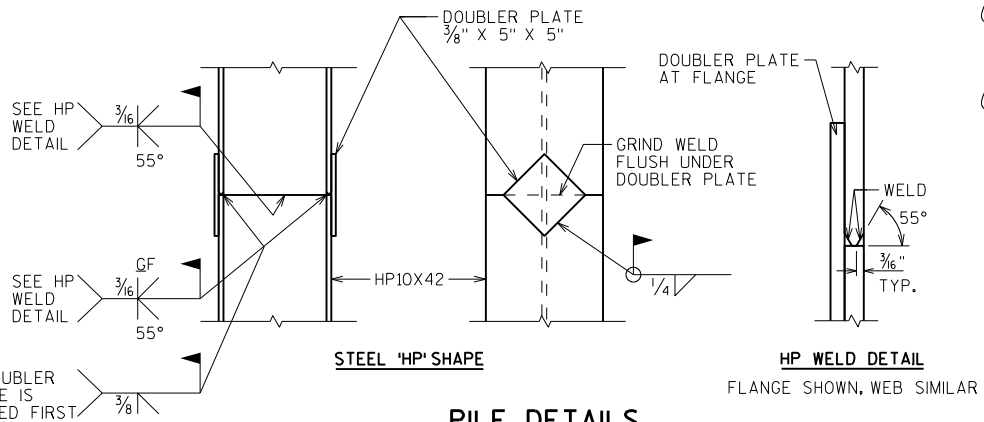
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-18-232

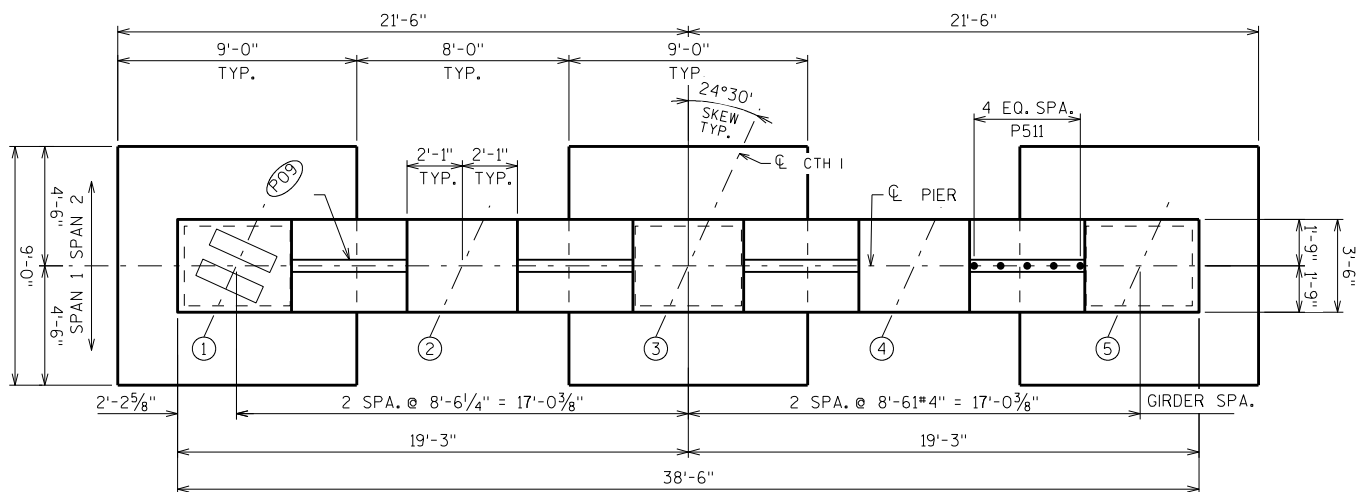
DRAWN BY	SAD	PLANS CK'D.	MWB
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PIER

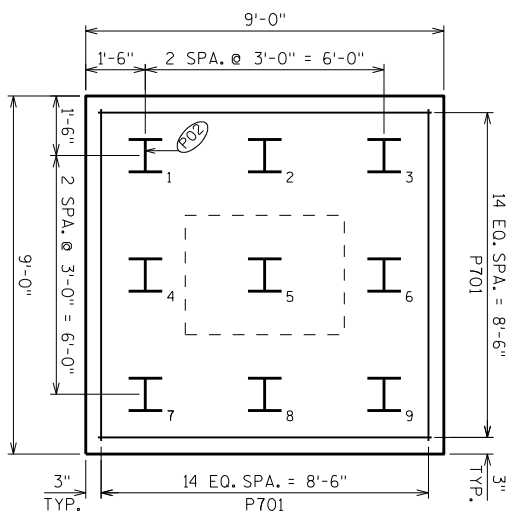
SHEET 8



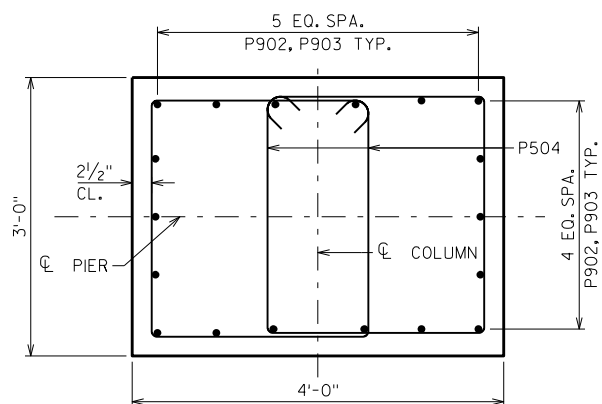
ELEVATION



PLAN



FOOTING/PILE PLAN
TYPICAL ALL FOOTINGS



SECTION THRU COLUMN

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER OR EPOXY TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECT. 503.3.3 OF STANDARD SPECIFICATIONS FOR GUIDANCE.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

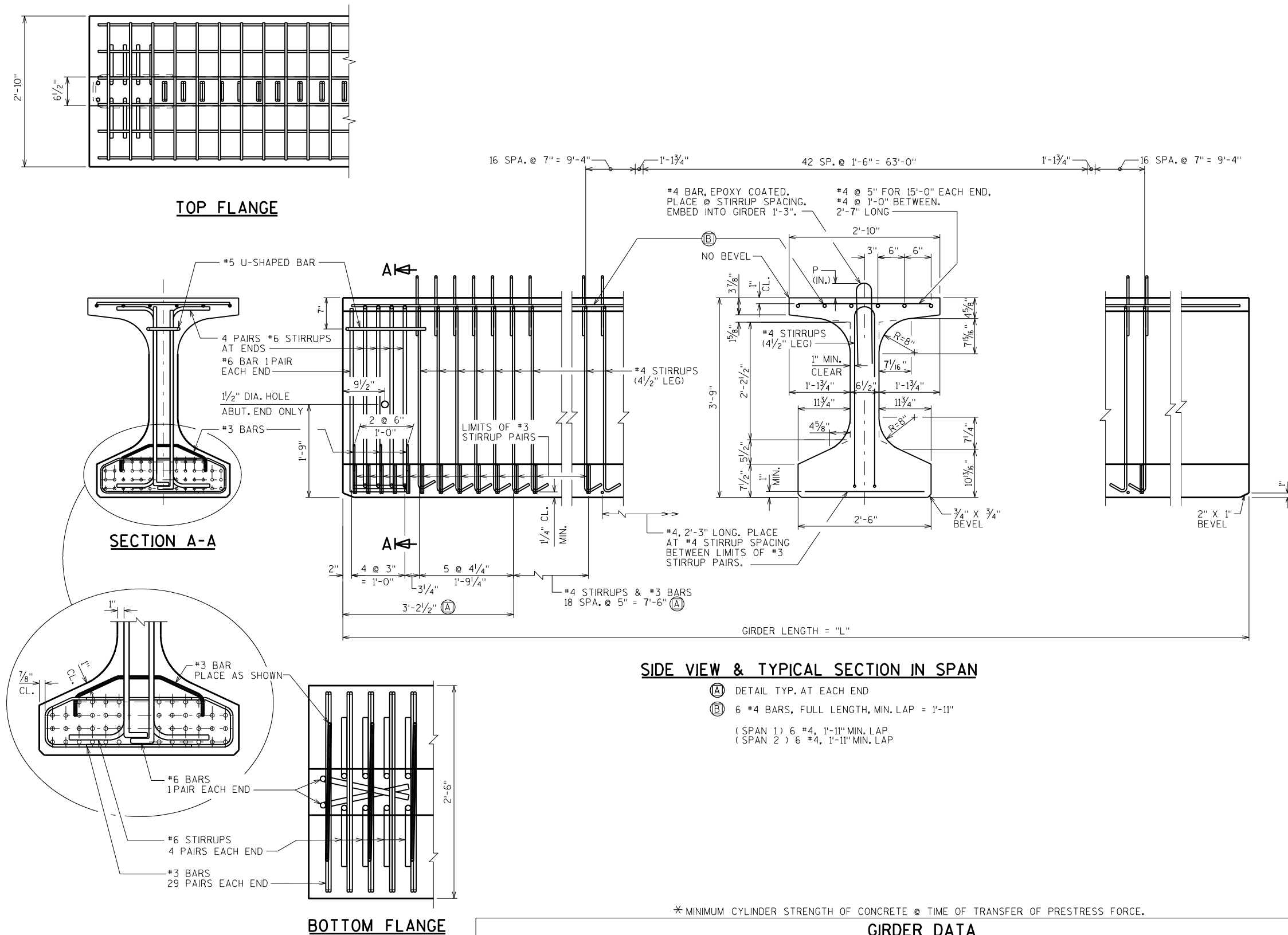
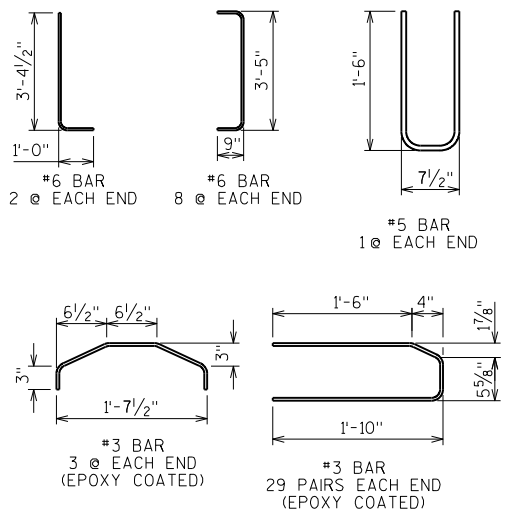
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE (0.6" DIA.)-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

**SIDE VIEW & TYPICAL SECTION IN SPAN**

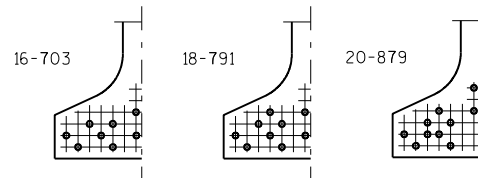
- (A) DETAIL TYP. AT EACH END
 (B) 6 #4 BARS, FULL LENGTH, MIN. LAP = 1'-11"
- (SPAN 1) 6 #4, 1'-11" MIN. LAP
 (SPAN 2) 6 #4, 1'-11" MIN. LAP

* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

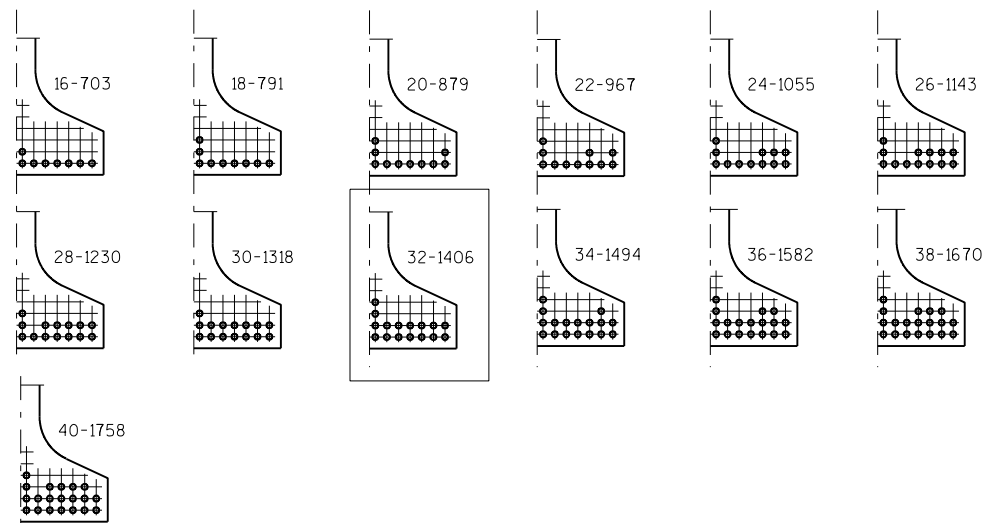
GIRDER DATA																										
SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.)										CONC. STRGTH. f'c (p.s.i.)	"P" 1ST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN							UNDRAPED PATTERN	
			1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	10/10						TOTAL NO. OF STRANDS	f'ci (P.S.I.)	(IN.)				TOTAL NO. OF STRANDS	f'ci (P.S.I.)	
																				"A"	"B" MIN.	"B" MAX.	"C"			
1	1-5	105.38	0.70	1.33	1.82	2.12	2.22	2.11	1.79	1.30	0.68	8000	7	7	7	0.60	32	6800	40.0	13.75	16.75	5.0				
2	1-5	105.38	0.68	1.30	1.79	2.11	2.22	2.12	1.82	1.33	0.70	8000	7	7	7	0.60	32	6800	40.0	13.75	16.75	5.0				

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-232			
DRAWN BY MJH		PLANS CK'D. MWB	
45W" PRESTRESSED GIRDER DETAILS 1		SHEET 9	



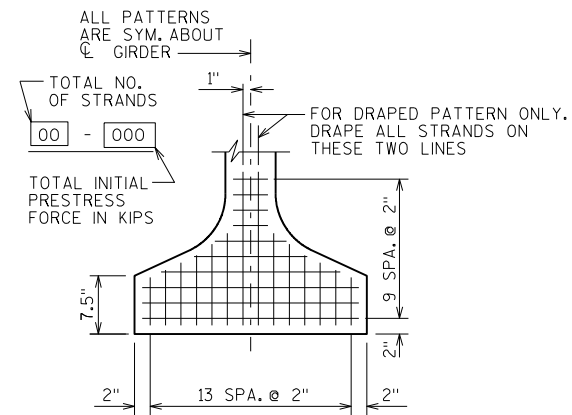
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"Ø STRANDS

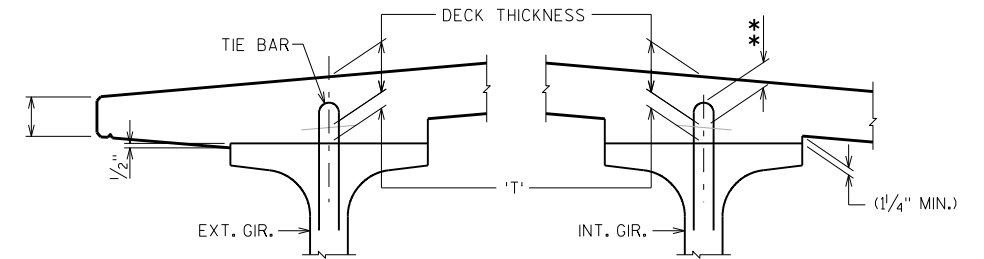


ARRANGEMENT AT $\frac{1}{4}$ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"Ø STRANDS



TYP. STRAND PATTERN



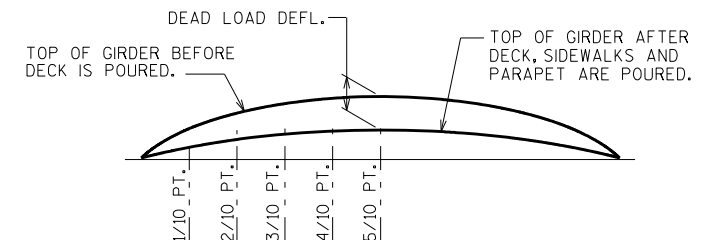
DECK HAUNCH DETAIL

IF 1/4" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN 1/2" OR, ** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

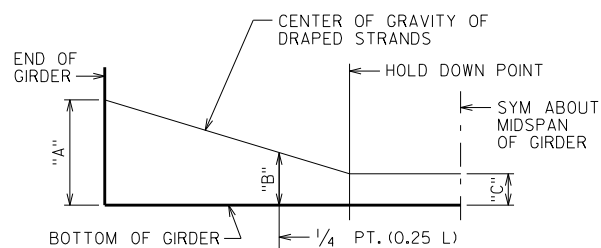
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT $\frac{1}{4}$ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 2 5/8" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM



DRAPED STRAND PROFILE

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	3.30
2	3.30

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

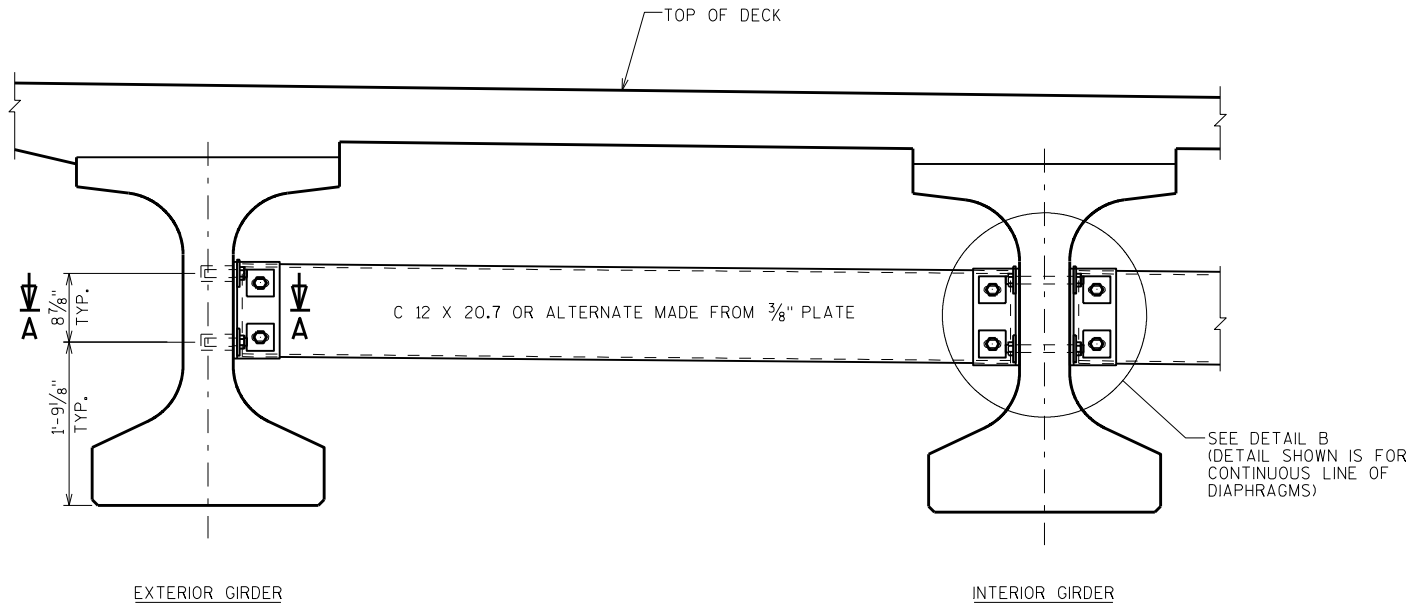
THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-232			
DRAWN BY MJH		PLANS CK'D. MWB	
45W" PRESTRESSED GIRDER DETAILS 2		SHEET 10	

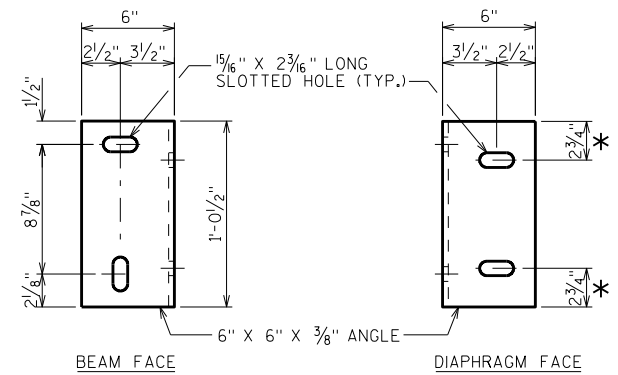
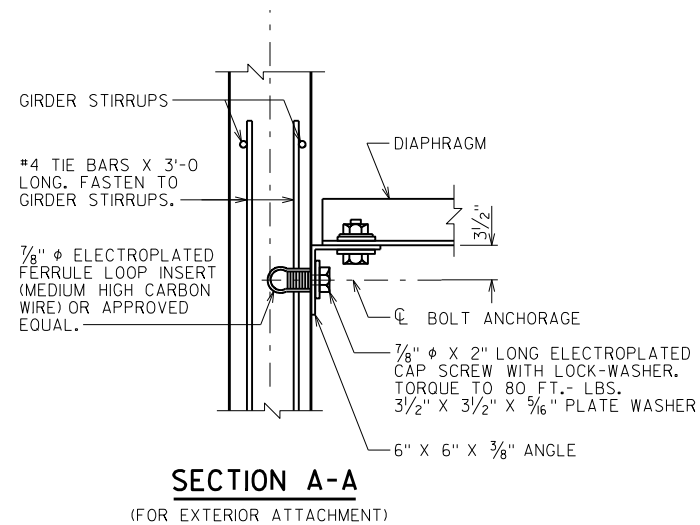
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-_-_-", EACH.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709
GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE
ASTM A325 TYPE 1.

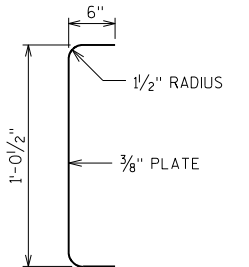
ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S10F OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.



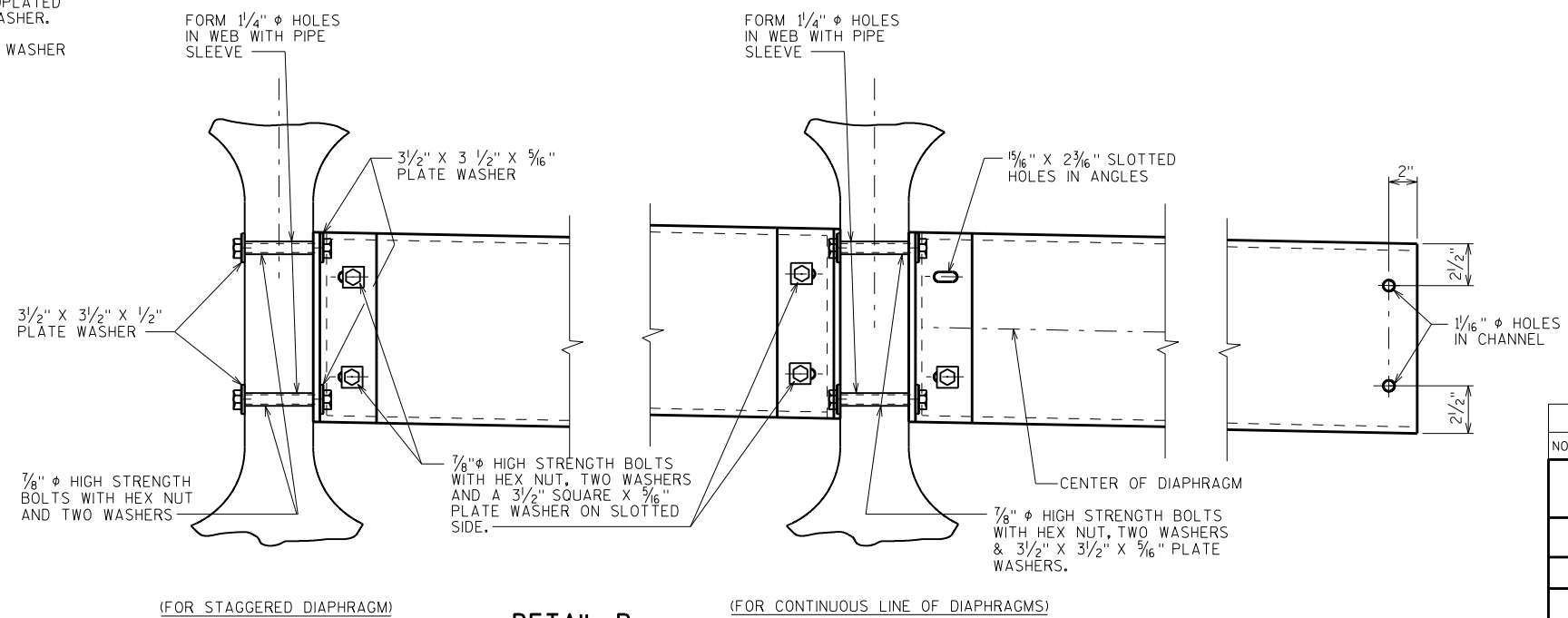
PART TRANSVERSE SECTION AT DIAPHRAGM



* 2 1/2" FOR ALTERNATE PLATE DIAPHRAGM

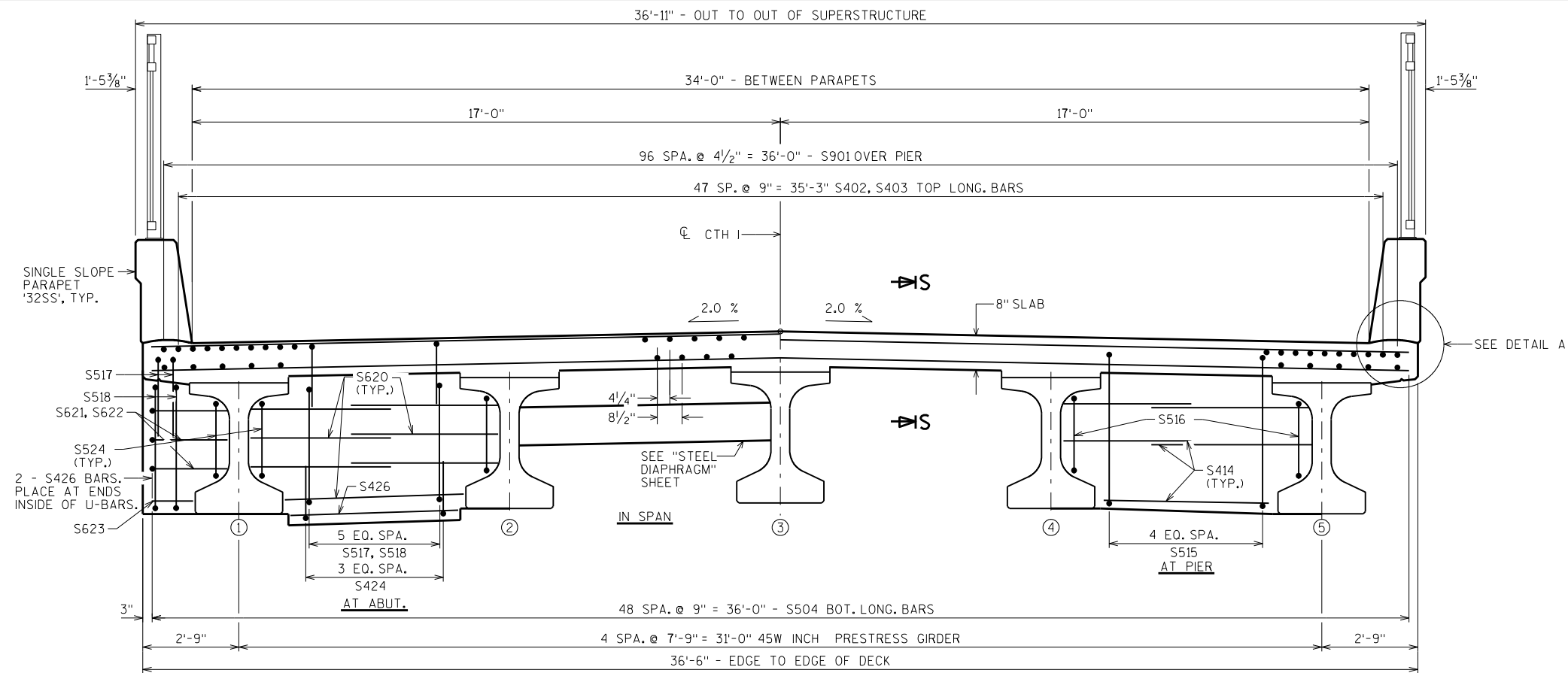


SECTION THRU
ALTERNATE DIAPHRAGM

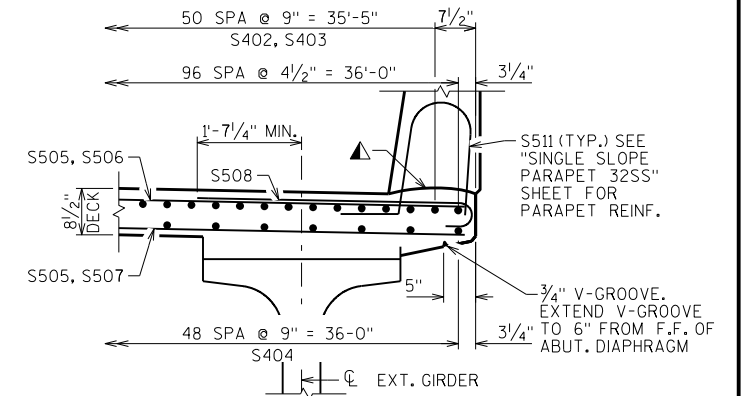


DETAIL B

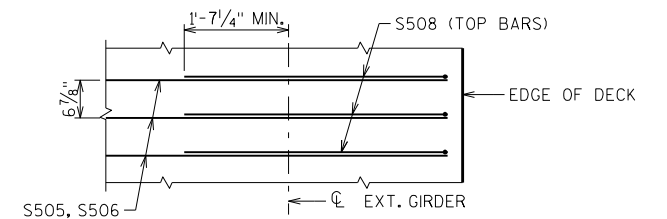
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-232			
		DRAWN BY	PLANS CK'D. MWB
STEEL DIAPHRAGM		SHEET 11	



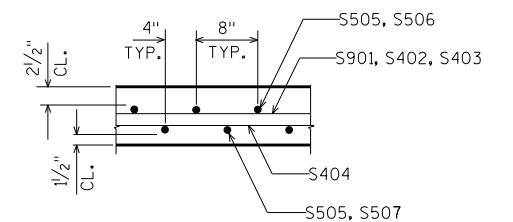
CROSS SECTION THRU ROADWAY
(LOOKING EAST)



DETAIL A

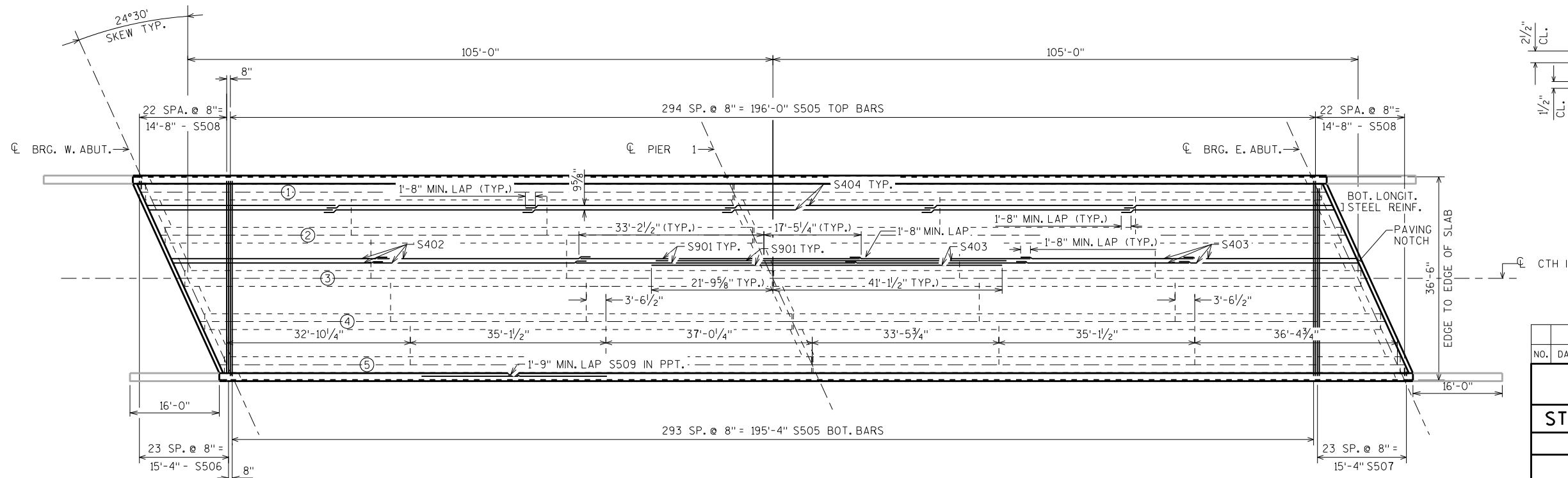


ADDITIONAL REINF. DETAIL
(TYP. AT BOTH SIDES OF DECK)



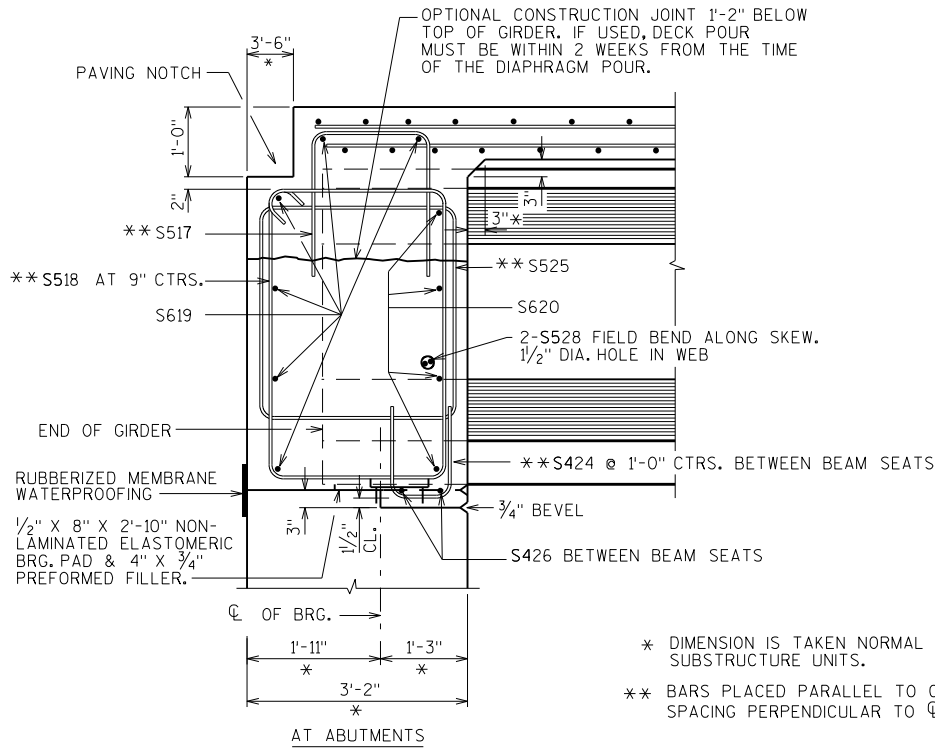
SECTION S-S

- ▲ HORIZONTAL CONSTRUCTION JOINT-STRIKE OFF AND LEAVE ROUGH AS SHOWN.
- INDICATES GIRDER NUMBER

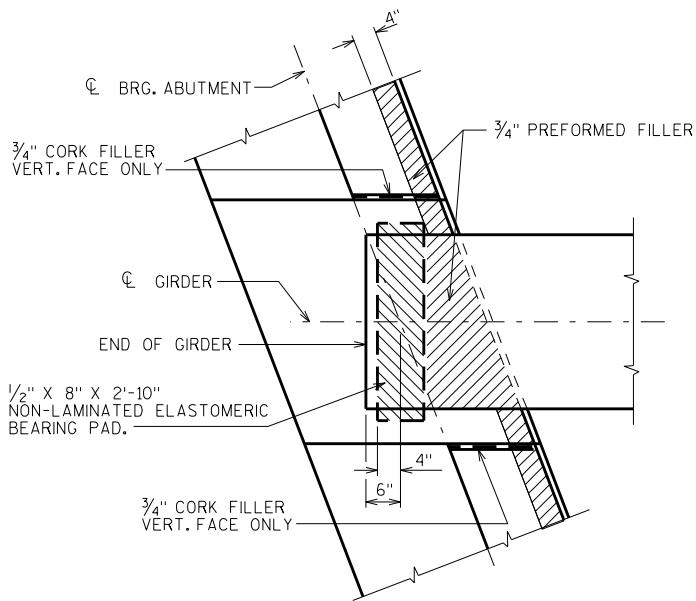


PLAN

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-232			
DRAWN BY MJH		PLANS CK'D. MWB	
SUPERSTRUCTURE		SHEET 12	



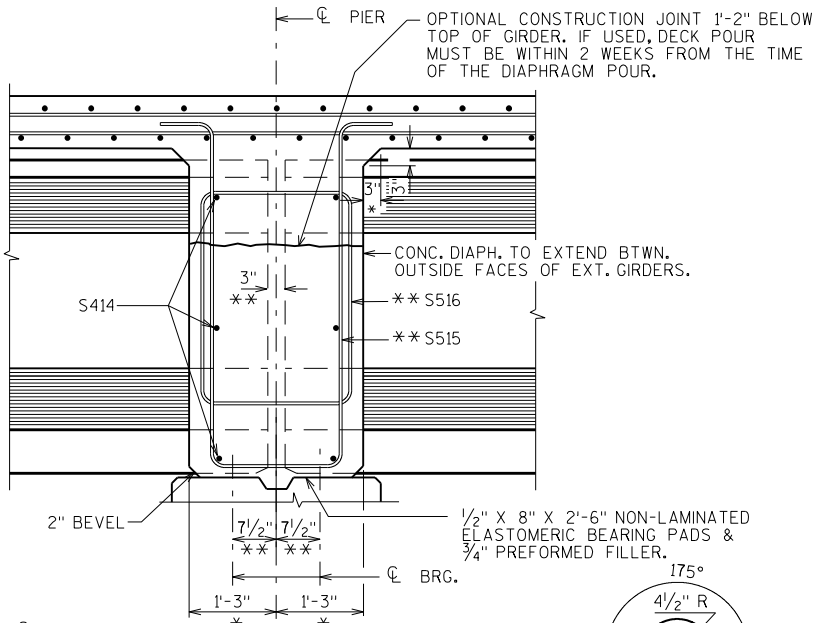
PART LONGIT. SECTION



BEARING PAD DETAIL

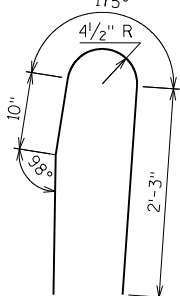
TOP OF DECK ELEVATIONS

	W. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	PIER 1	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	E. ABUT.
EOD	923.77	924.04	924.30	924.55	924.78	925.01	925.22	925.43	925.62	925.80	925.98	926.14	926.29	926.43	926.56	926.67	926.78	926.88	926.96	927.04	927.10
GIR. 1	923.83	924.10	924.35	924.60	924.84	925.06	925.28	925.48	925.67	925.85	926.03	926.19	926.33	926.47	926.60	926.72	926.82	926.92	927.00	927.08	927.14
GIR. 2	924.08	924.34	924.59	924.84	925.07	925.29	925.50	925.70	925.89	926.07	926.24	926.39	926.54	926.67	926.80	926.91	927.01	927.10	927.18	927.25	927.31
GIR. 3	924.32	924.58	924.83	925.07	925.30	925.52	925.72	925.92	926.10	926.28	926.44	926.60	926.74	926.87	926.99	927.10	927.20	927.29	927.36	927.43	927.49
GIR. 4	924.26	924.51	924.76	924.99	925.22	925.43	925.64	925.83	926.01	926.18	926.34	926.49	926.63	926.76	926.87	926.98	927.07	927.16	927.23	927.30	927.35
GIR. 5	924.19	924.44	924.68	924.92	925.14	925.35	925.55	925.73	925.91	926.08	926.24	926.38	926.52	926.64	926.76	926.86	926.95	927.03	927.10	927.16	927.21
EOD	924.17	924.43	924.67	924.90	925.12	925.33	925.53	925.71	925.89	926.06	926.21	926.36	926.49	926.62	926.73	926.83	926.92	927.00	927.07	927.13	927.18

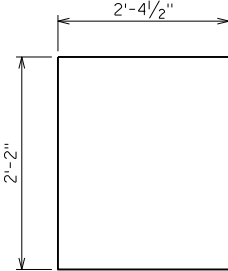


AT PIER DIAPHRAGM

* DIMENSION IS TAKEN NORMAL TO ϕ SUBSTRUCTURE UNITS.
** BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO ϕ GIRDERS



S513

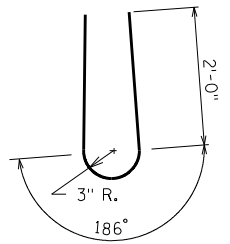


S516

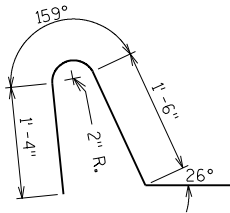
BAR SERIES TABLE

MARK	NO. REOD.	LENGTH
S506	1 SERIES OF 24	1'-8" TO 35'-4"
S507	1 SERIES OF 24	1'-8" TO 35'-4"
S508	1 SERIES OF 23	2'-5" TO 34'-7"
S509	1 SERIES OF 23	2'-5" TO 34'-7"

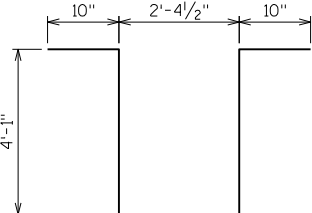
BUNDLE AND TAG EACH SERIES SEPARATELY



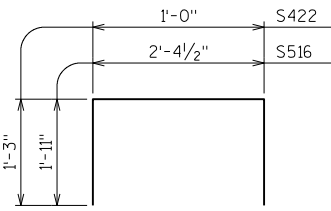
S511



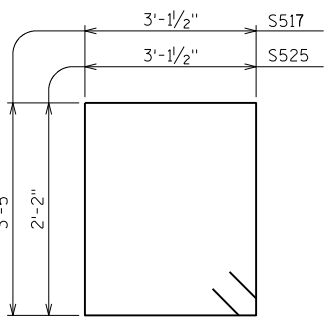
S512



S515



S517, S423



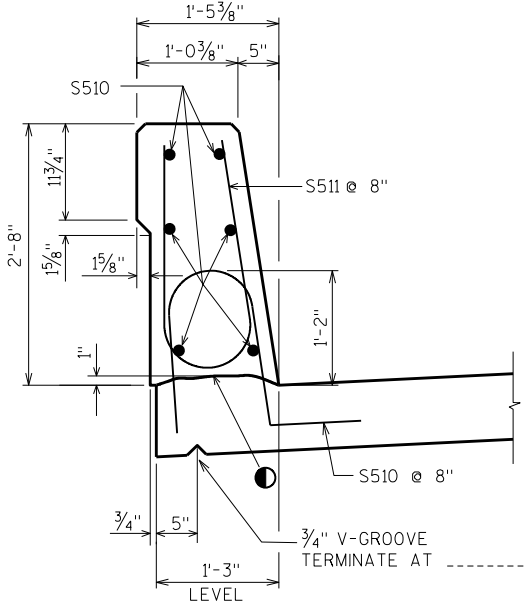
S518, S526

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S901	X	51	52'-0"			DECK-LONGIT.-CONTINUITY-OVER PIER
S402	X	102	38'-5"			DECK-LONGIT.-TOP-SPAN 1
S403	X	153	30'-8"			DECK-LONGIT.-BOT.-SPAN 2
S404	X	364	31'-9"			DECK-LONGIT.-BOT.
S505	X	589	36'-2"			TRANSVERSE TOP AND BOTTOM
S506	X	24	18'-6"	▲		TRANSVERSE TOP CUT LEFT
S507	X	24	18'-6"	▲		TRANSVERSE TOP CUT RIGHT
S508	X	23	18'-6"	▲		TRANSVERSE BOT CUT
S509	X	23	18'-6"	▲		TRANSVERSE BOT CUT RIGHT
S510	X	60	37'-1"			PARAPET-HORIZ.
S511	X	642	4'-10"	X		DECK & PARAPET-VERT.
S512	X	640	4'-2"	X		DECK & PARAPET-VERT.
S513	X	4	5'-10"	X		DECK & PARAPET-VERT. AT PAVING NOTCH
S414	X	48	4'-5"			PIER DIAPHRAGM-HORIZ.
S515	X	20	11'-9"	X		PIER DIAPHRAGM-VERT.-BTWN GIRDERS
S516	X	8	9'-9"	X		PIER DIAPHRAGM-VERT.-UNDER FLANGES
S517	X	64	6'-0"	X		ABUT. DIAPHRAGM-VERT. & DECK
S518	X	64	13'-9"	X		ABUT. DIAPHRAGM-VERT.-BTWN GIRDERS
S619	X	12	39'-9"			ABUT. DIAPH. HORIZ.-B.F. ABUT
S620	X	64	4'-10"			ABUT. DIAPH. HORIZ.-F.F. ABUT. BTWN GIRDERS
S621	X	6	9'-10"	X		ABUT. DIAPH. HORIZ.-ENDS-WINGS 1 AND 3
S622	X	6	7'-9"	X		ABUT. DIAPH. HORIZ.-ENDS-WINGS 2 AND 4
S623	X	4	0'-8"			ABUT. DIAPH. HORIZ.-ENDS-BOT.
S424	X	50	3'-5"	X		ABUT. DIAPH. VERT.-BTWN BEAM SEATS
S524	X	24	11'-2"	X		ABUT. DIAPH. VERT.-UNDER FLANGES
S426	X	20	2'-11"			ABUT. DIAPH. HORIZ.-BTWN BEAM SEATS
S427	X	8	3'-8"			ABUT. DIAPH. VERT.-ENDS
S528	X	24	6'-0"			ABUT. DIAPH. HORIZ.-THRU GIRDER WEBS

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



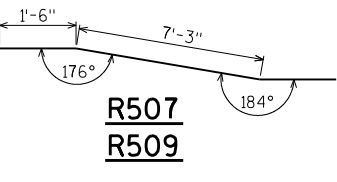
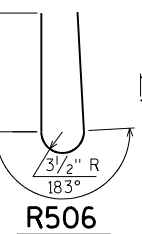
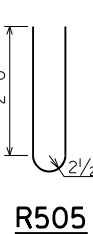
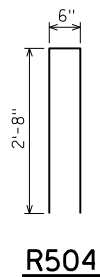
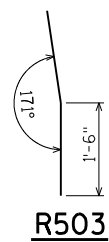
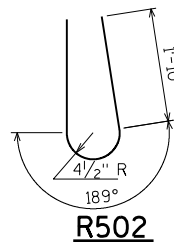
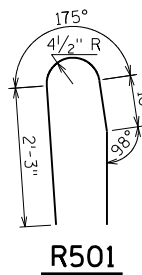
SECTION THRU PARAPET ON BRIDGE

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-232			
DRAWN BY MJH		PLANS CK'D. MWB	
SUPERSTRUCTURE DETAILS		SHEET 13	

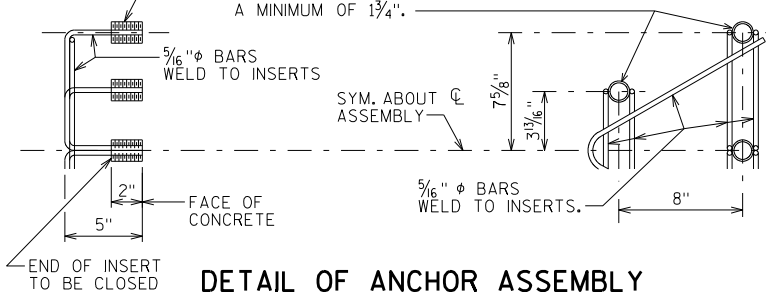
BILL OF BARS

FOR ABUTMENT PARAPETS

BAR MARK	COAT	S. ABUT.	N. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	30	30	5'-10"	X		PARAPET VERT.
R502	X	30	30	5'-0"	X		PARAPET VERT.
R503	X	24	24	3'-0"	X		PARAPET VERT.
R504	X	34	34	5'-7"	X		PARAPET VERT.
R505	X	22	22	4'-9"	X		PARAPET VERT.
R506	X	12	12	4'-10"	X		PARAPET VERT.
R507	X	1	1	15'-6"	X		PARAPET HORIZ.
R508	X	5	5	15'-6"			PARAPET HORIZ.
R509	X	1	1	19'-6"	X		PARAPET HORIZ.
R510	X	5	5	19'-6"			PARAPET HORIZ.



THREADED INSERTS FOR $\frac{7}{8}$ " ϕ X 2" LONG GALVANIZED HEX HEAD CAP SCREWS. CAP SCREWS TO BE THREADED A MIN. OF $\frac{1}{8}$ " AND SHALL BE SUPPLIED, INCLUDING WASHERS, WITH ASSEMBLY. INSERTS TO BE THREADED A MINIMUM OF $1\frac{3}{4}$ ".



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

NO.	DATE	REVISION	BY
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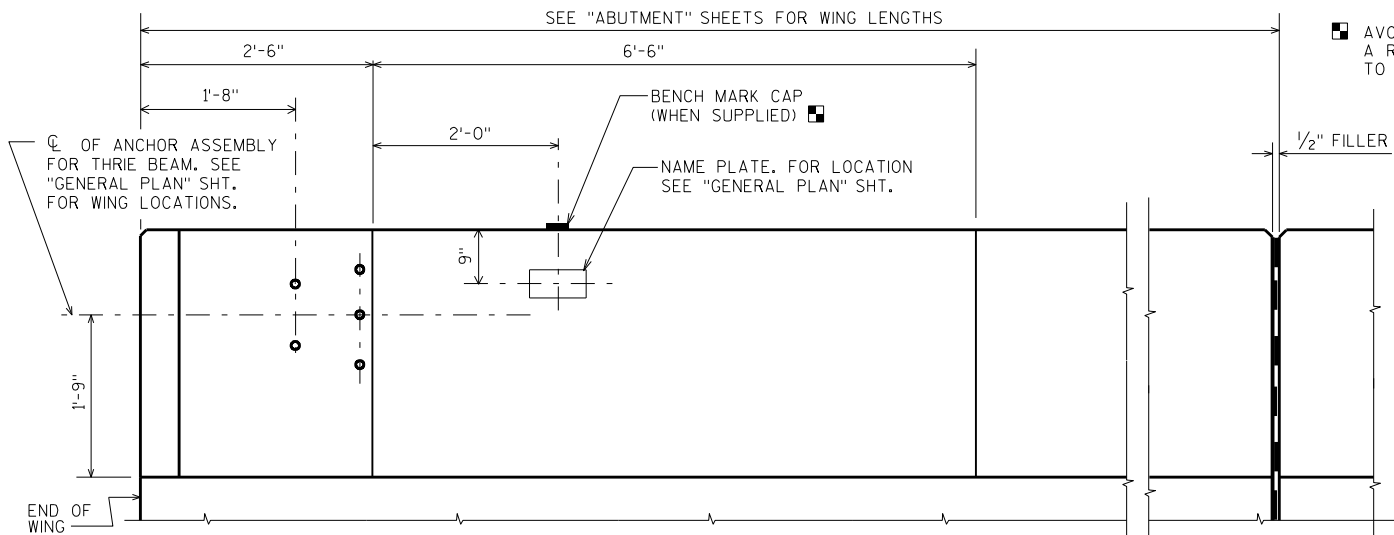
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-18-232

DRAWN BY MJH PLANS CK'D. MWB

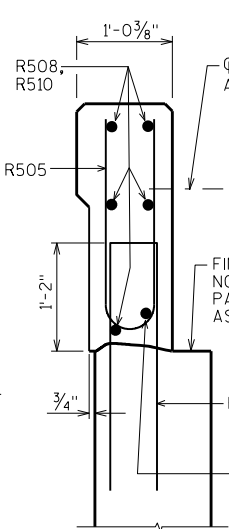
SINGLE SLOPE
PARAPET 32SS

SHEET 14

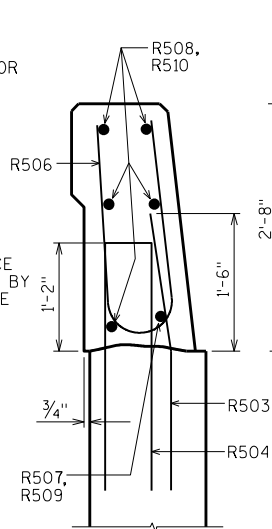


INSIDE ELEVATION

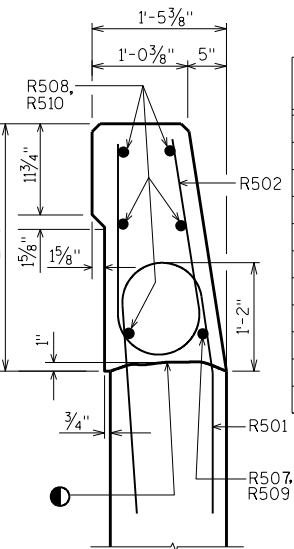
AVOID PLACING A BENCH MARK CAP BELOW A RAIL OR FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.



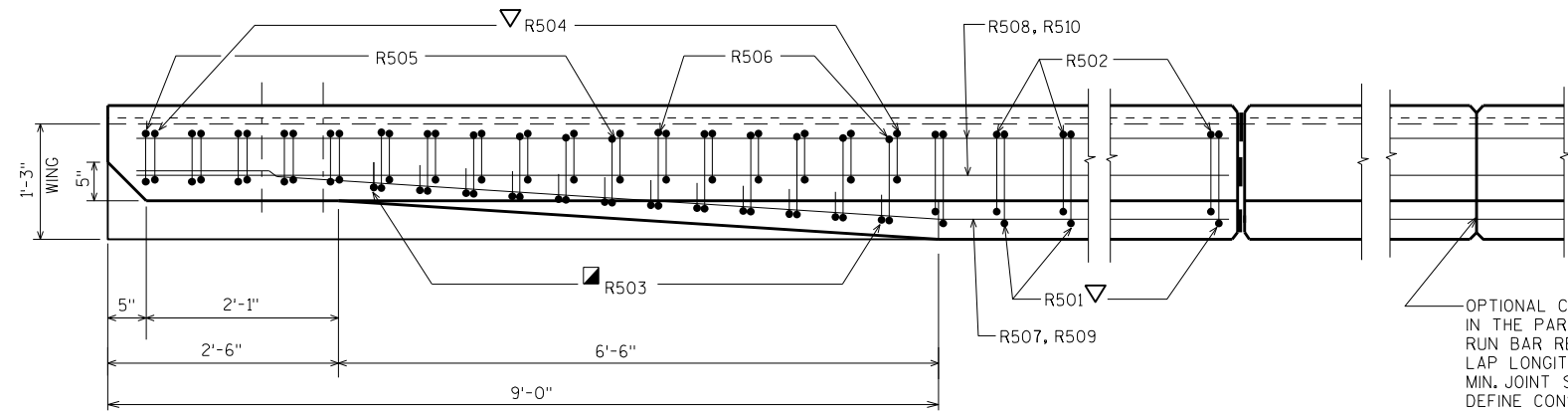
SECTION A



SECTION B

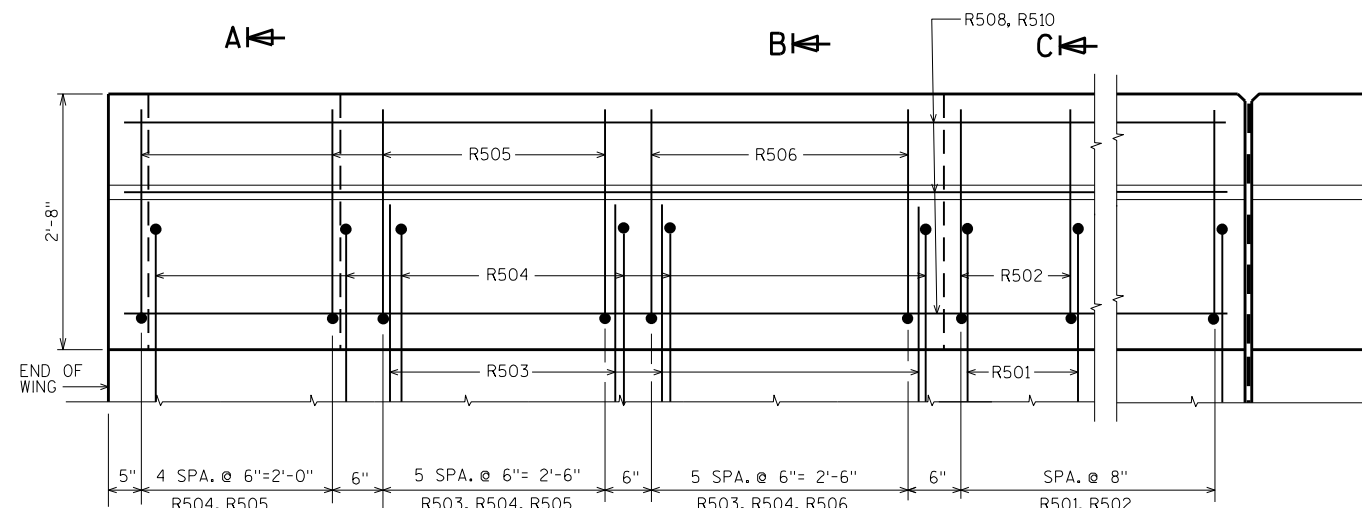


SECTION C

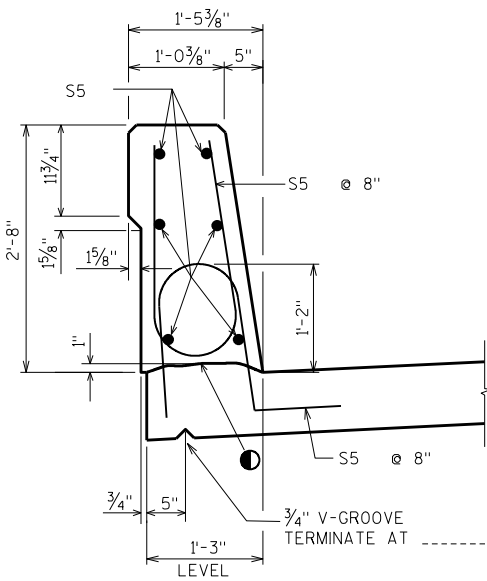


PLAN

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A $\frac{3}{4}$ " - 'V' GROOVE.



OUTSIDE ELEVATION



SECTION THRU PARAPET ON BRIDGE

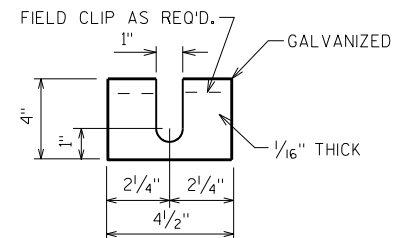
CONST. JOINT - STRIKE OFF AS SHOWN.

R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 OR S503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

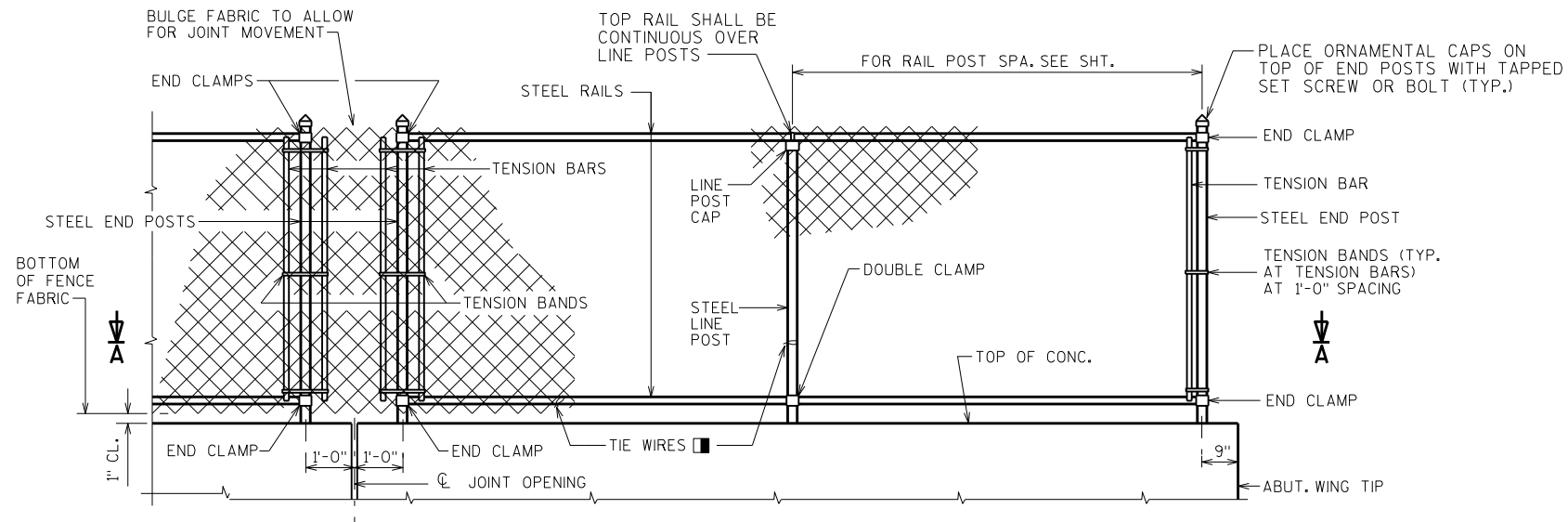
R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

**FENCE MEMBER
SIZE & WEIGHT**

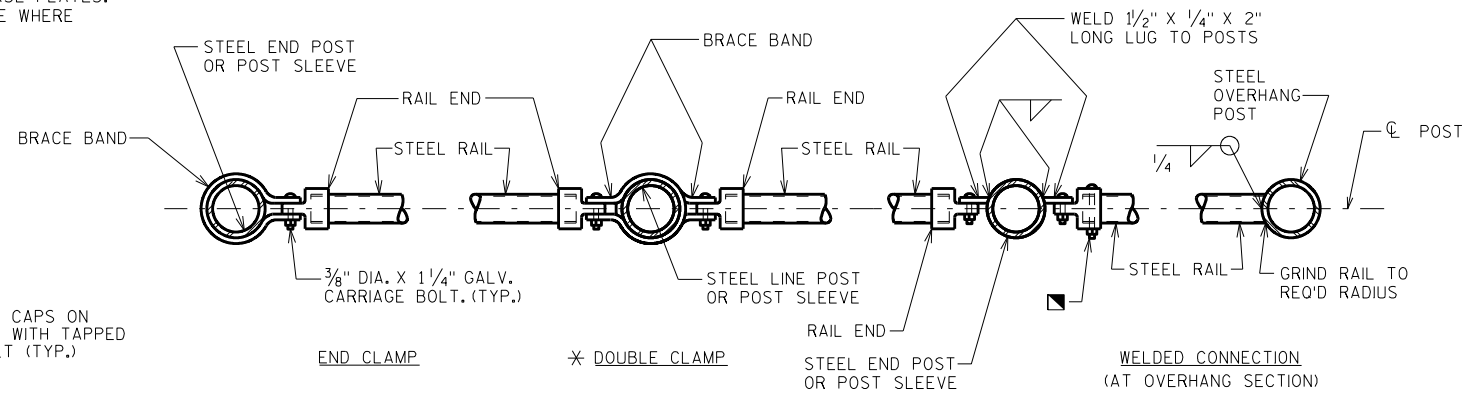
STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12

**POST SHIM DETAILS**

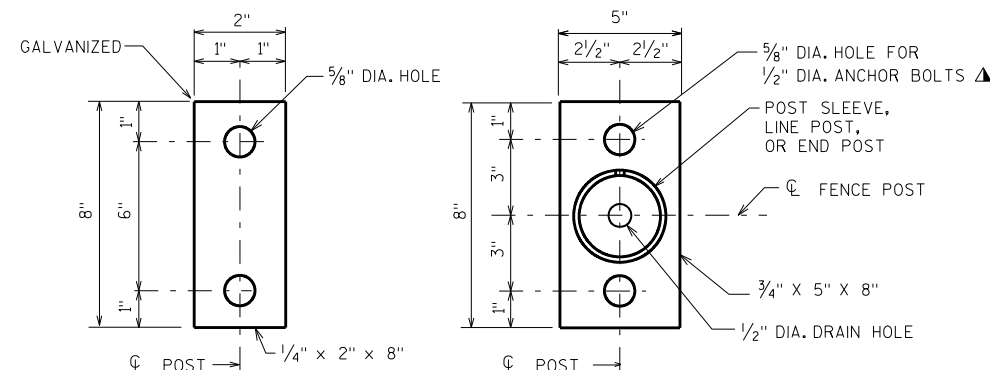
SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.

**FENCE PART ELEVATION**

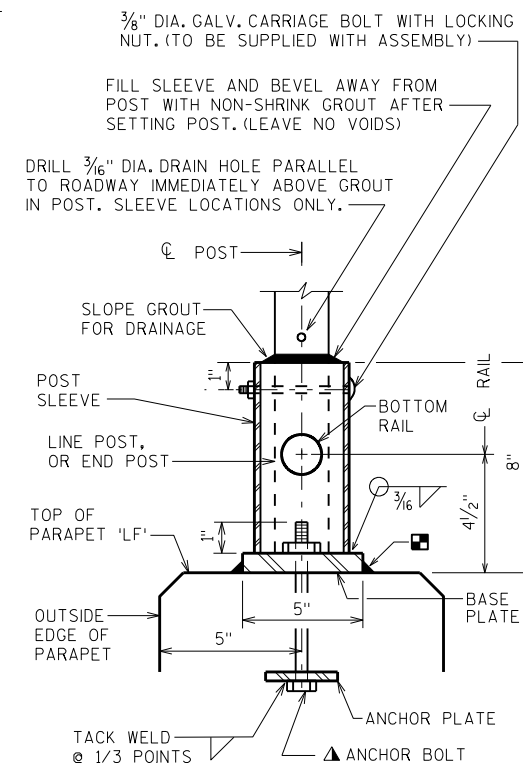
VIEWING FABRIC SIDE

**SECTION A-A**

NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS

**ANCHOR PLATE**

★ NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.

BASE PLATE**DETAIL 'A'**

UNIT SHALL BE GALVANIZED AFTER FABRICATION
NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.

NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL WITH A COLORED POLYMER-COATING ON THE OUTSIDE.

FABRIC SHALL CONFORM TO ASTM F668, CLASS 2B. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. SEE THE "BRIDGE SPECIAL PROVISIONS" FOR ADDITIONAL DETAILS.

THE COLOR OF POLYMER-COATING FOR THIS STRUCTURE SHALL BE _____ IN ACCORDANCE WITH ASTM F934.

THE BID ITEM SHALL BE "FENCE CHAIN LINK POLYMER-COATED - 12 FT. B-18-232", LF.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

■ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

* ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

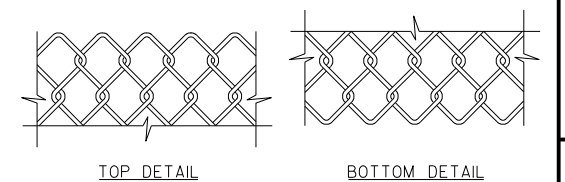
▲ 1/2" DIA. X 6 7/8" LONG GALVANIZED HEX BOLT WITH NUT & WASHER. ★

★ ALTERNATIVE ANCHORAGE: CONCRETE ADHESIVE ANCHORS 1/2-INCH. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.

■ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

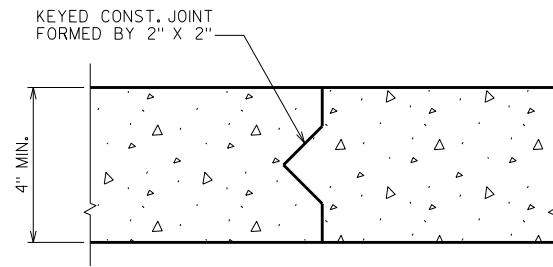
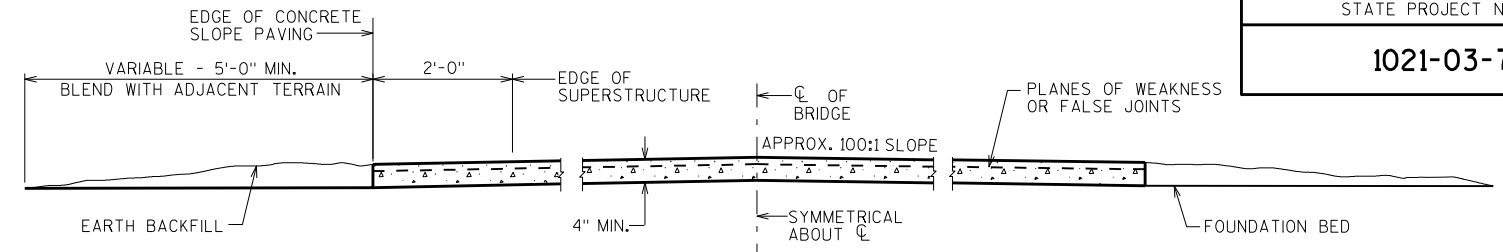
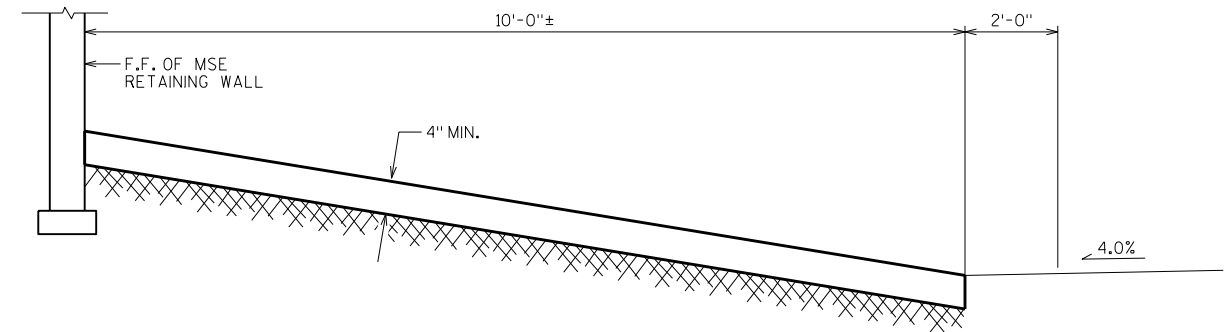
■ BOLT RAIL TO RAIL END TO SECURE OVERHANG SECTION. ALTERNATE IS TO WELD RAIL DIRECTLY TO END POST.

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR 1/4" POINT OF POST SPACING.

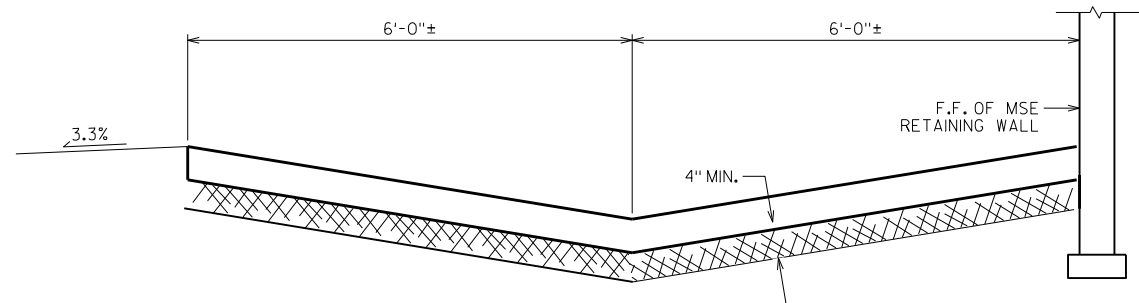
**FENCE FABRIC**

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

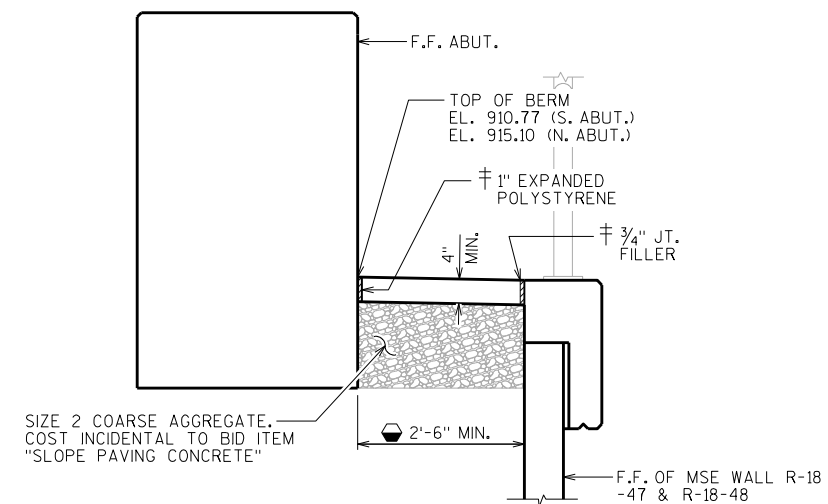
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-232			
DRAWN BY MJH		PLANS CK'D. MWB	
FENCING DETAILS			SHEET 15

**CONSTRUCTION JOINT****SECTION A-A****SOUTH CROSS SECTION SLOPE PAVING**

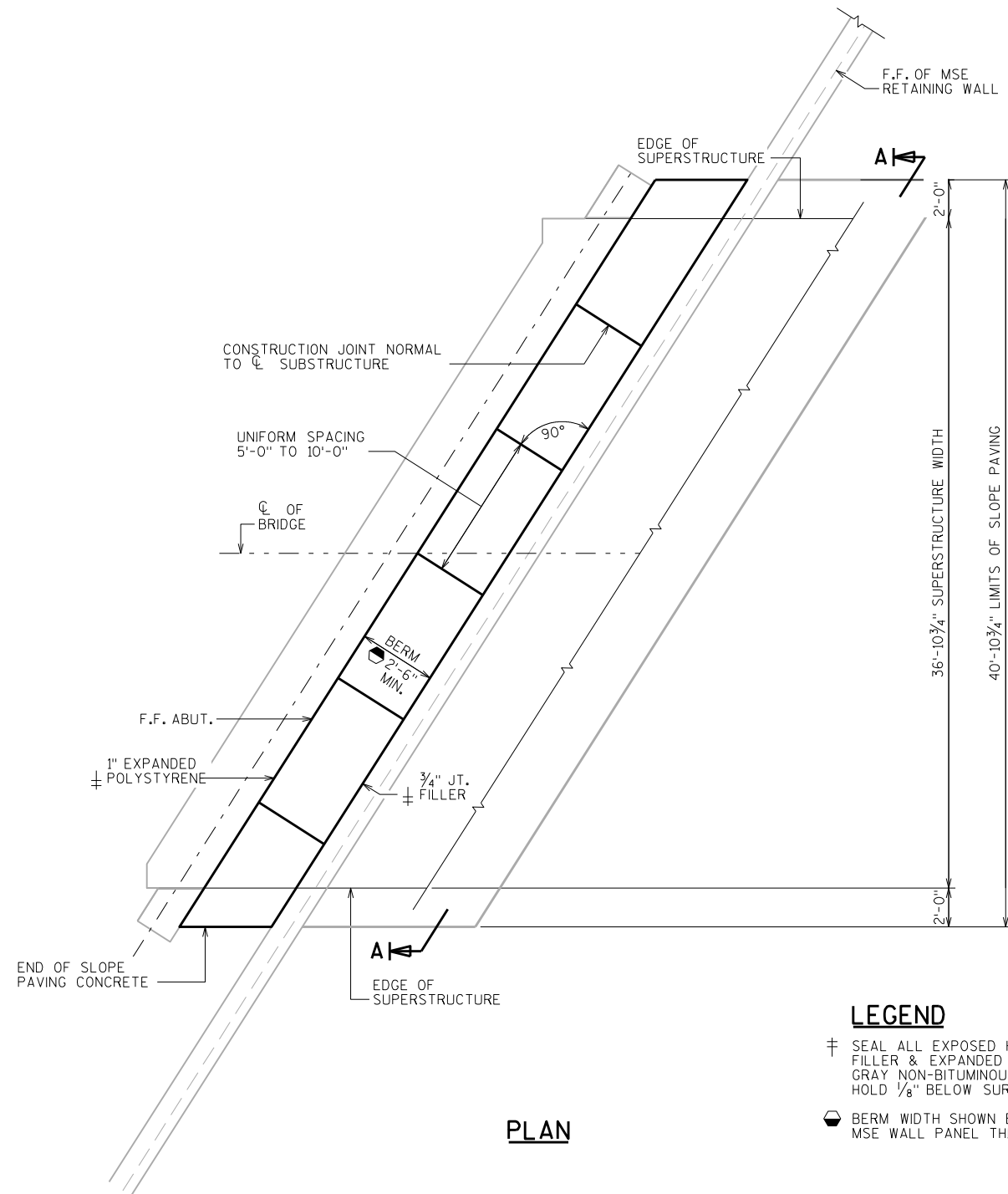
(NORMAL TO MSE RETAINING WALL)

**NORTH CROSS SECTION SLOPE PAVING**

(NORMAL TO MSE RETAINING WALL)

**TYPICAL SECTION SLOPE PAVING CONCRETE****GENERAL NOTES**

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

**PLAN****LEGEND**

† SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER & EXPANDED POLYSTYRENE WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONC.)

● BERM WIDTH SHOWN BASED ON ASSUMED MSE WALL PANEL THICKNESS OF 9".

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-18-232			
DRAWN BY MJH		PLANS CK'D. MWB	
SLOPE PAVING			SHEET 16

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

BEVEL ALL EXPOSED EDGES OF CONCRETE $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER UNLESS OTHERWISE SHOWN OR NOTED.

ALL BAR STEEL REINFORCEMENT IN CAST-IN-PLACE CONCRETE IS TO BE EPOXY COATED.

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF JOINT FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP & HOLD $\frac{1}{8}$ " BELOW THE SURFACE OF CONCRETE).

ALL WALL STATIONING AND OFFSETS ARE GIVEN AT THE FRONT FACE OF WALL R-18-47.

THE EXISTING GROUND LINE IS THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

THE PLAN QUANTITY FOR THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/OMP" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE WALL TO A CONSTANT DEPTH OF 1'-6" BELOW FINISHED GRADE.

COORDINATE THE CONSTRUCTION OF RETAINING WALL R-18-47 WITH THE SOUTH ABUTMENT OF BRIDGE B-18-210.

THE REMOVAL OF THE EXISTING STRUCTURE IS INCLUDED IN A LUMP SUM PAY ITEM FOR BRIDGE B-18-210.

ALLOWABLE WALL SYSTEMS

WALL CONCRETE PANEL MSE LRFD/OMP

MATERIAL PROPERTIES

CONCRETE MASONRY (COPING) ———— f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT, GRADE 60 —fy = 60,000 P.S.I.


LIST OF DRAWINGS

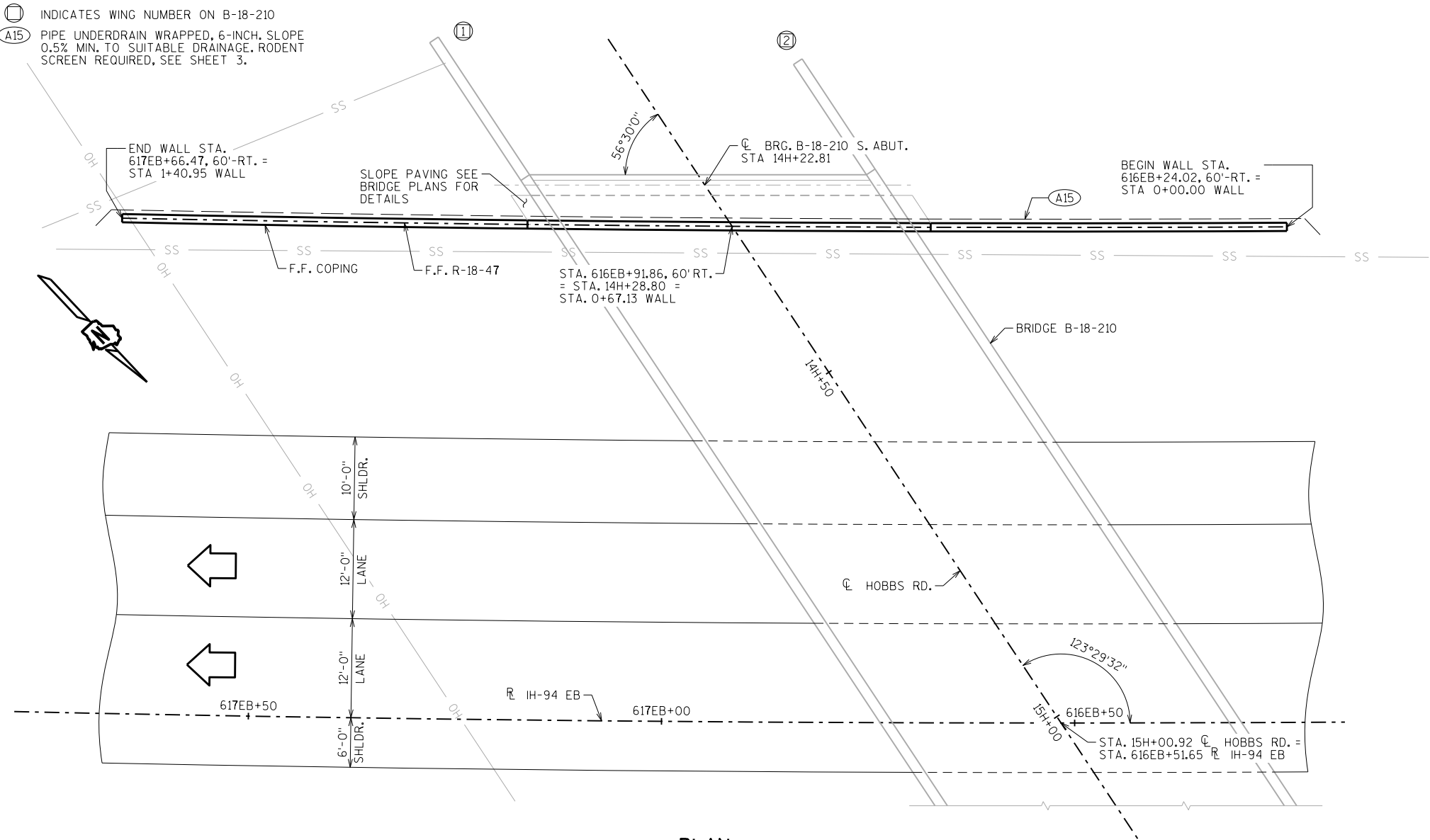
- 1. GENERAL PLAN & ELEVATION
- 2. QUANTITIES & WALL DATA
- 3. WALL DETAILS
- 4. SUBSURFACE EXPLORATION

CURVE DATA

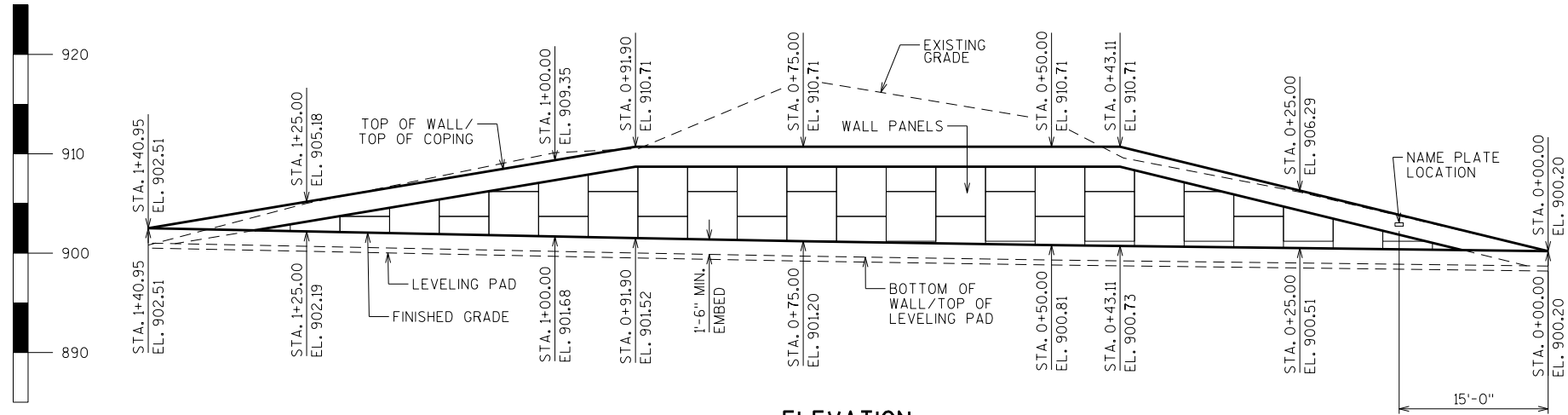
IH-94 EB
P.I. = 606EB+04.99
 Δ = 27°29'16"
D = 1°00'00"
T = 1401.39'
L = 2748.81'
R = 5729.65'
S.E. = 3.40%
P.C. = 592EB+03.60
P.T. = 619EB+52.41

STRUCTURE DESIGN CONTACTS:
LAURA SHADEWALD (608) 267-9592
DANIELLE DE TENNIS (608) 266-8689

NO.	DATE	REVISION	BY
<div><div></div><div>BUREAU OF STRUCTURES</div></div>			
ACCEPTED CHIEF STRUCTURES DESIGN ENGINEER _____ DATE _____			
STRUCTURE R-18-47			
MSE WALL ALONG S. ABUT B-18-210			
COUNTY	EAU CLAIRE	TOWN/CITY/VILLAGE	WASHINGTON
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	DFD	DESIGNED CK'D.	DLM
DRAWN BY	DFD	PLANS CK'D.	DLM
GENERAL PLAN			SHEET 1 OF 4



PLAN



ELEVATION

LOOKING SOUTH AT F.F. WALL

SOIL PARAMETERS

SOIL DESCRIPTION	FRICTION ANGLE (DEGREES)	COHESION (PSF)	UNIT WEIGHT (PCF)
GRANULAR BACKFILL WITHIN THE WALL IN THE REINFORCING ZONE	30	0	120
FILL BEHIND AND BELOW THE REINFORCING ZONE	31	0	120
BORING B-5, STA. 114+00, 9' RT OF R HOBBS ROAD			
SAND, BROWN, FINE, LITTLE SILT EL. 904.6 TO EL. 903.1	32	0	120
SAND, BROWN, FINE, SOME SILT EL. 903.1 TO EL. 901.6	32	0	120
SAND, DARK BROWN, FINE, LITTLE SILT EL. 901.6 TO EL. 897.6	32	0	120
SAND, LIGHT BROWN, FINE EL. 897.6 TO EL. 895.6	30	0	115
SAND, BROWN, FINE, LITTLE SILT EL. 895.6 TO EL. 893.6	30	0	115
SILT, BROWN, TRACE FINE SAND EL. 893.6 TO EL. 878.6	30	0	115
SAND, BROWN, FINE EL. 878.6 TO EL. 872.6	30	0	115
SILT, BROWN, SOME FINE SAND EL. 872.6 TO EL. 868.6	30	0	115
SAND, BROWN, FINE EL. 868.6 TO EL. 858.6	32	0	120
SILT, BROWN, SOME FINE SAND SEAMS EL. 858.6 TO EL. 852.6	32	0	120
SAND, BROWN, FINE, LITTLE SILT EL. 852.6 TO EL. 843.6	33	0	125
SAND, GRAY, FINE, TRACE SILT EL. 843.6 TO EL. 827.6	34	0	125

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS		
WALL HEIGHT (FEET) ¹	11.5	9.6
EXPOSED WALL HEIGHT (FEET)	10	8.1
MINIMUM LENGTH OF REINFORCEMENT (FEET)	13.4	8.9
LENGTH OF REINFORCEMENT TO HEIGHT RATIO	1.16	0.93
BORING LOCATION USED	B-5	B-5
APPROXIMATE WALL STATION	0+91.6	1+00.0
CAPACITY TO DEMAND RATIO (CDR) ²		
SLIDING (CDR > 1.0)	1.0	1.0
ECCENTRICITY (CDR > 1.0)	2.0	1.8
GLOBAL STABILITY (CDR > 1.0)	2.3	N/A ³
BEARING RESISTANCE (CDR > 1.0)	1.7	1.7
FACTORED BEARING RESISTANCE (PSF)	6,500	5,000
NOTES: 1. THE WALL HEIGHT INCLUDES AN EMBEDMENT OF 1.5 FEET. 2. CDR REQUIREMENTS AND LOAD AND RESISTANCE FACTORS ARE PRESENTED IN CHAPTER 14 OF THE BRIDGE MANUAL. 3. NA NOT APPLICABLE, GLOBAL SLOPE STABILITY WAS EVALUATED AT THE CRITICAL WALL LOCATION.		

GEOMETRY TABLE

WALL STATION	R IH-94 EB STATION	OFFSET TO F.F. WALL	TOP OF WALL EL.	FINISHED GRADE EL.	EXISTING GRADE EL.
0+00.00	616EB+24.02	60.0' RT.	900.20	900.20	900.20
0+25.00	616EB+49.29	60.0' RT.	906.29	900.51	906.14
0+43.11	616EB+67.59	60.0' RT.	910.71	900.72	909.58
0+50.00	616EB+74.55	60.0' RT.	910.71	900.81	913.32
0+75.00	616EB+99.82	60.0' RT.	910.71	901.20	917.48
0+91.90	617EB+16.90	60.0' RT.	910.71	901.52	910.53
1+00.00	617EB+25.08	60.0' RT.	909.35	901.68	910.11
1+25.00	617EB+50.34	60.0' RT.	905.18	902.19	905.01
1+40.95	617EB+66.47	60.0' RT.	902.51	902.51	900.81

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	155
SPV.0165	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-18-47	SF	910
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	1/2" & 3/4"
	NON-BITUMINOUS JOINT SEALER	SIZE	1/2" & 3/4"
	EXPANDED POLYSTYRENE	SIZE	1"

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE PLANS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

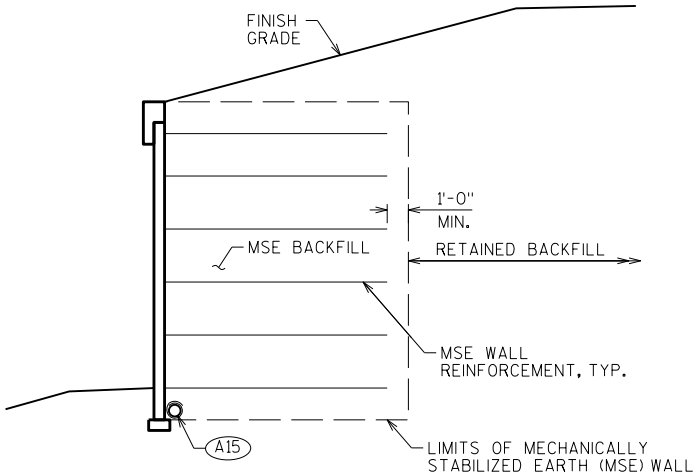
THE RETAINING WALL SHALL BE DESIGNED USING THE ELEVATIONS GIVEN ON THIS SHEET.

DESIGN FOR THE RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED BEHIND WALL AS SHOWN.

DESIGN THE RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

THE DESIGN OF THE WALL IN FRONT OF THE ABUTMENT SHALL INCLUDE THE HORIZONTAL EARTH LOADS AND 240 PSF LIVE LOAD SURCHARGE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS.

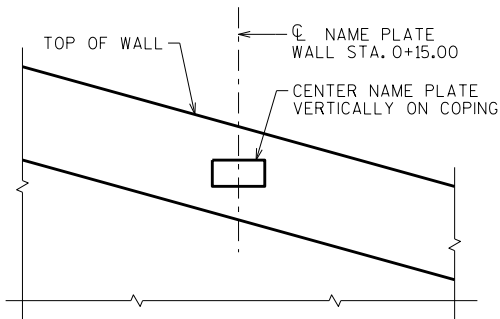
THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.



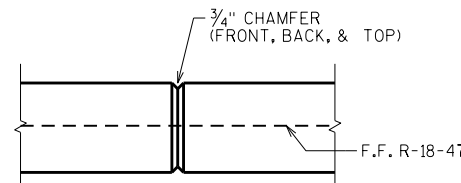
TYPICAL SECTION
THRU MSE RETAINING WALL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-18-47			
		DRAWN BY	DFD PLANS CK'D. DLM
QUANTITIES & WALL DATA		SHEET 2	

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH).
SLOPE 0.5% MIN. TO SUITABLE
DRAINAGE. RODENT SHIELD REQUIRED.

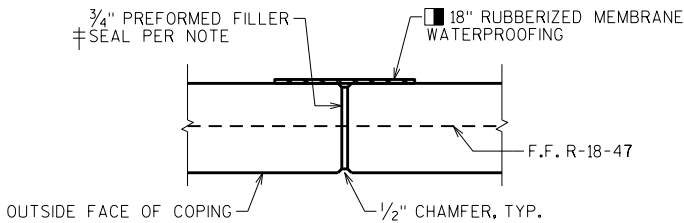


NAME PLATE DETAIL



COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 12'



COPING EXPANSION JOINT

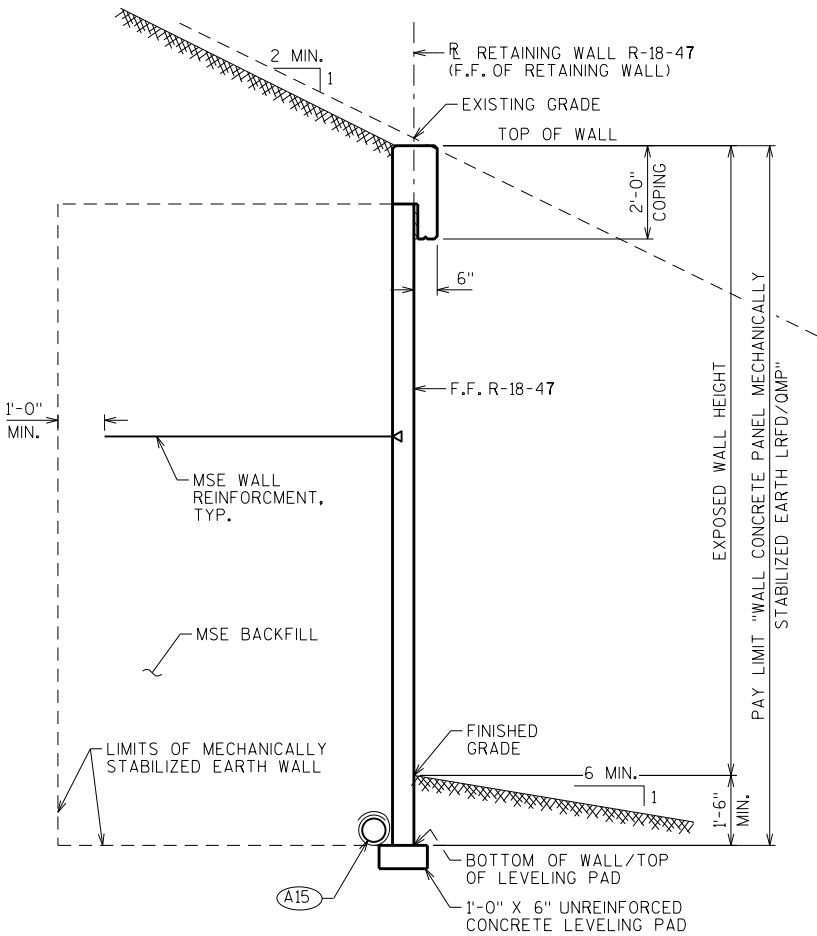
DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 50'

SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLE 1/8" BELOW SURFACE OF CONC.)

MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.

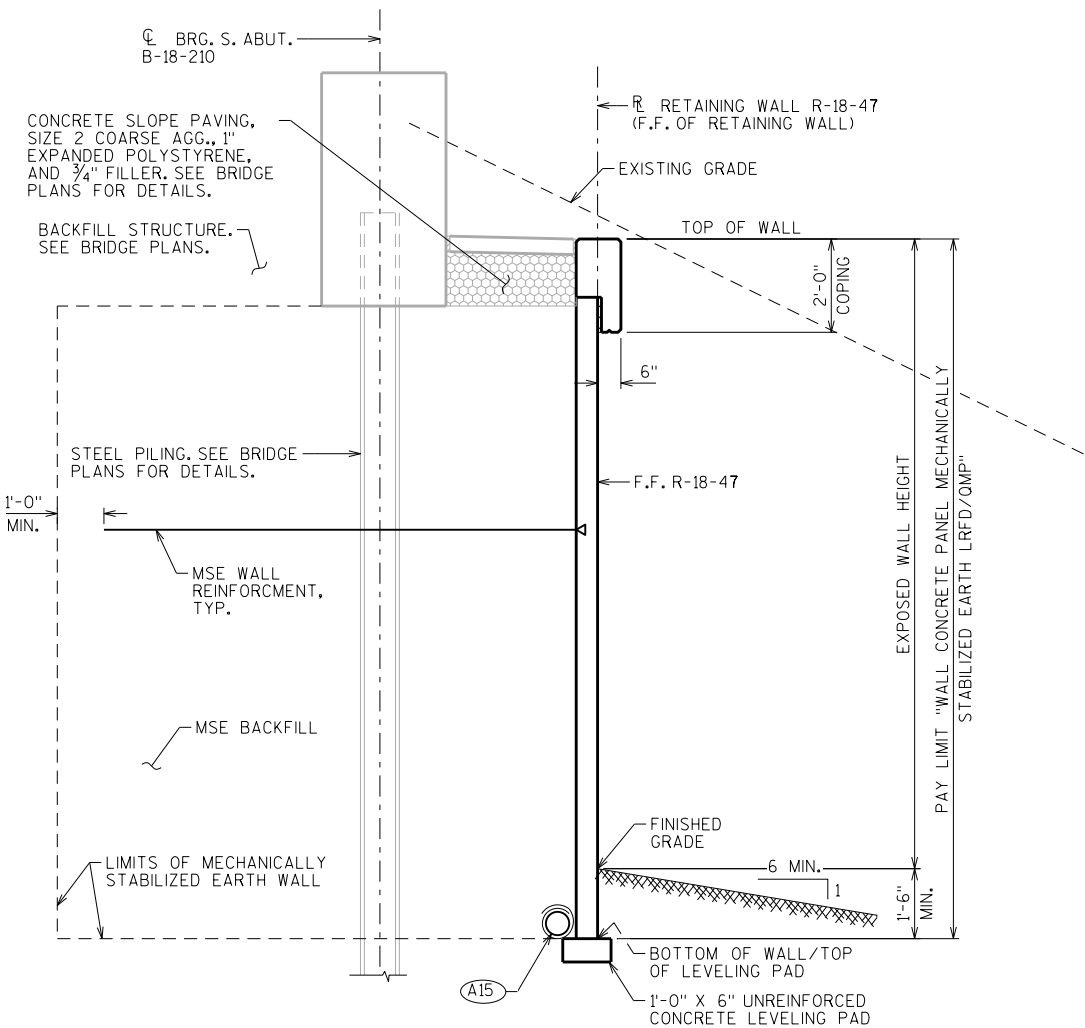
(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-18-47			
DRAWN BY		DFD	PLANS CK'D. DLM
WALL DETAILS		SHEET 3	



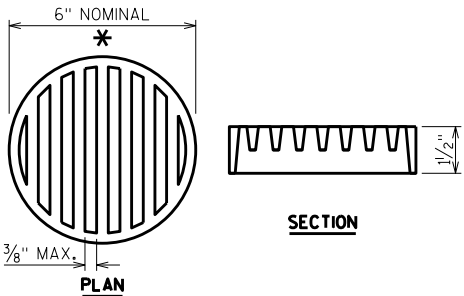
TYPICAL SECTION

LOOKING WEST
STA. 0+00.00 TO 0+43.11 &
STA. 0+91.90 TO 1+40.95



TYPICAL SECTION AT ABUTMENT

LOOKING WEST
0+43.11 TO 0+91.90

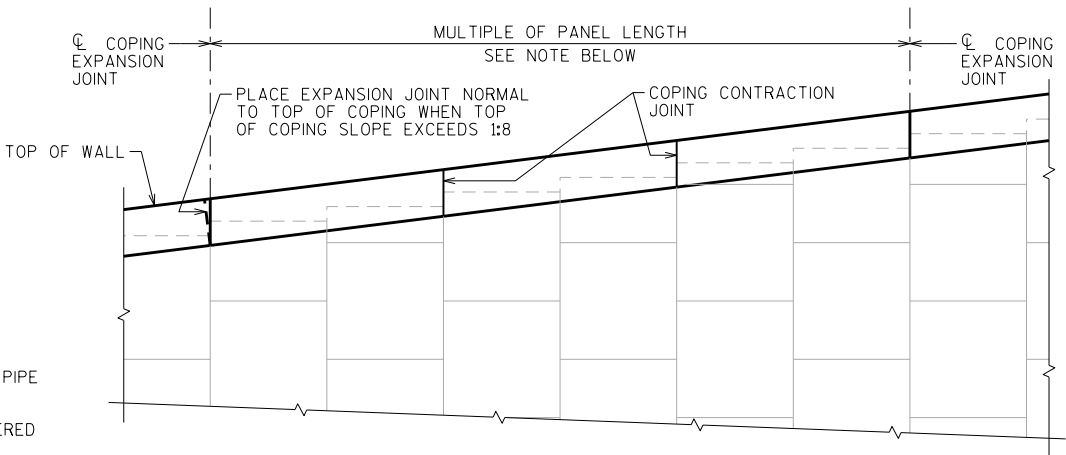


RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

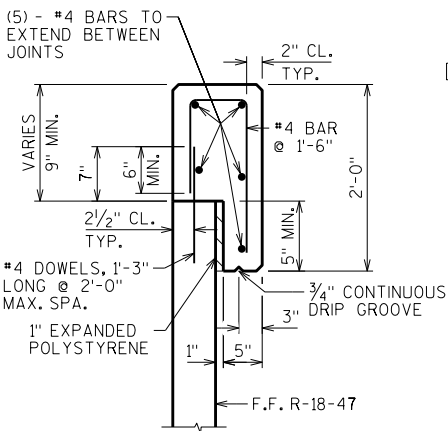
THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



CAST-IN-PLACE COPING PARTIAL ELEVATION

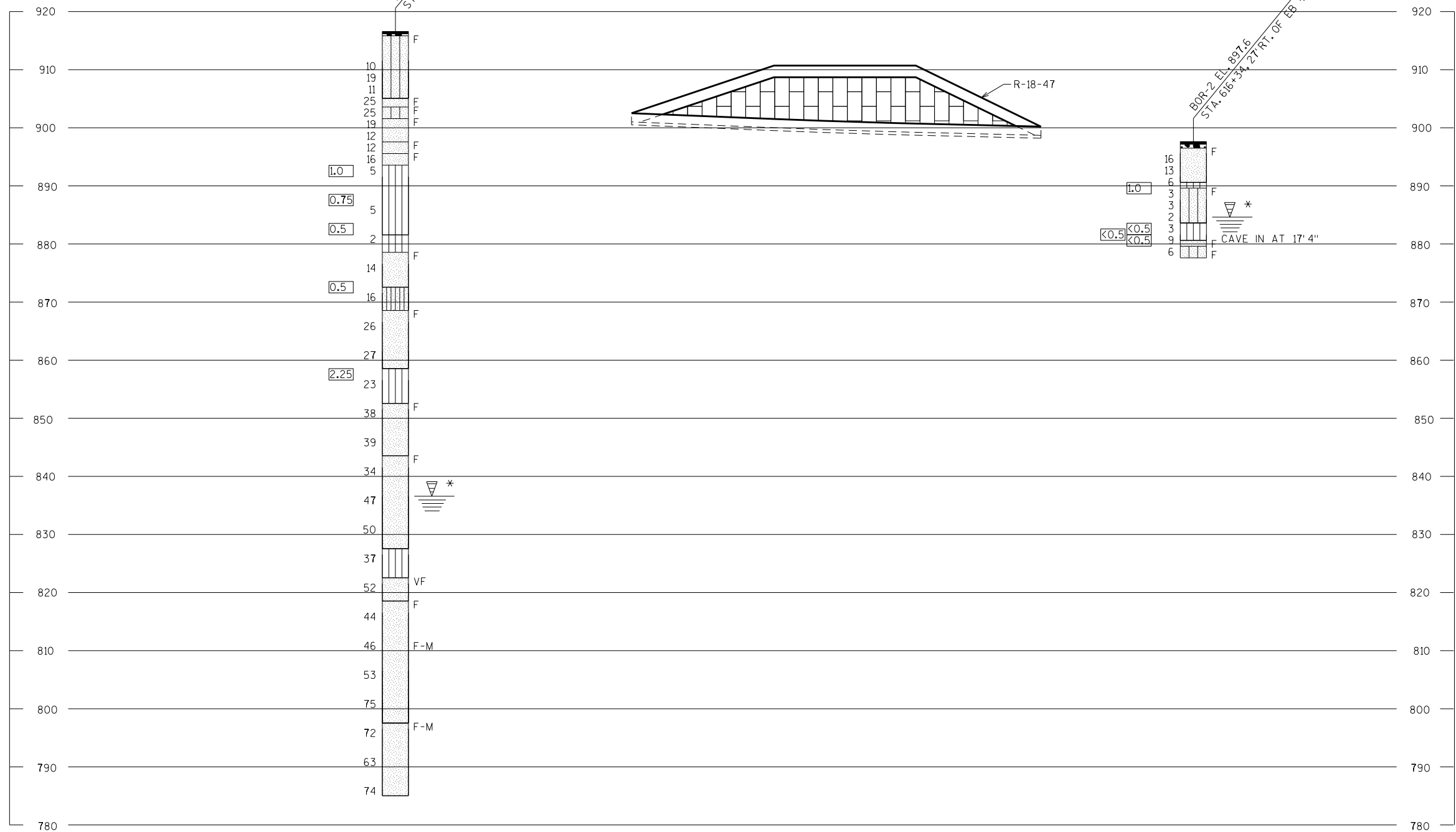
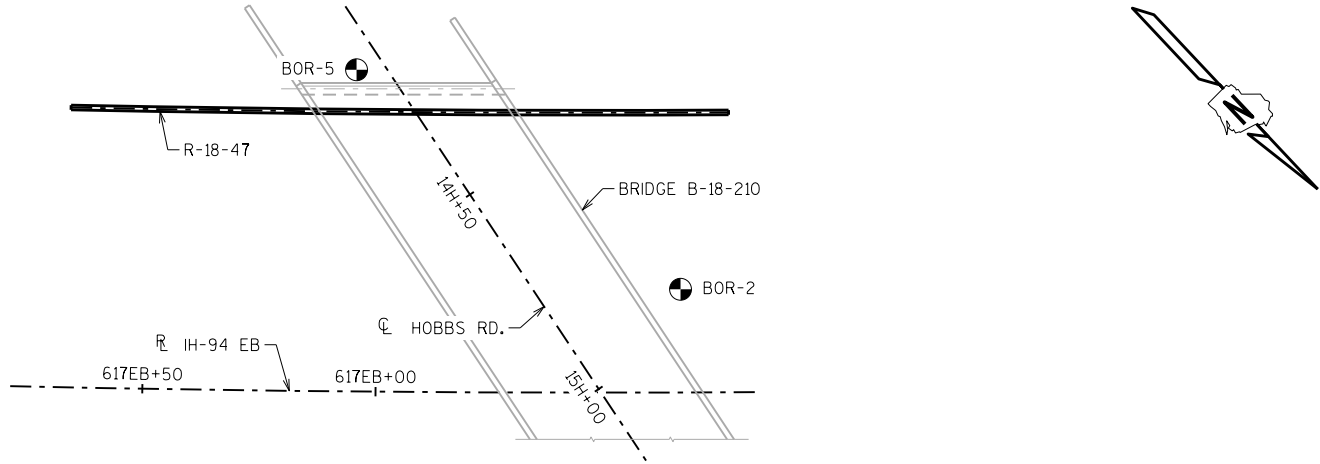
LOOKING AT F.F. WALL

NOTE:
ALL JOINTS MUST COINCIDE WITH PANEL JOINT ON FRONT FACE.



CAST-IN-PLACE
CONCRETE COPING DETAIL

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
2	11/10/2016	260996.410	364049.162
5	11/15/2016	260914.553	364067.552
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) EAU CLAIRE COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			



STATE PROJECT NUMBER		
1021-03-74		
MATERIAL SYMBOLS		
ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/META

LEGEND OF BORING	
BORING #/EL. STA./OFF-SET	
ST (1) (2) 17	
F-C	COBBLE OR BOULDER
	WEATHERED LIMESTONE
	CORE RUN #1 - 24'-29' REC=80%, ROD=72%
GROUND WATER ELEVATION	
	AT TIME OF DRILLING
	END OF DRILLING
	AFTER DRILLING
ABBREVIATIONS	
F-FINE	M-MEDIUM
C-COARSE	ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-18-47			
DRAWN BY TLP/DFD		PLANS CKD. DLM	
SUBSURFACE EXPLORATION		SHEET 4	

* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

SCALE = 20.00

- INDICATES WING NUMBER ON B-18-210
- PIPE UNDERDRAIN WRAPPED, 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED, SEE SHEET 3.

STATE PROJECT NUMBER

1021-03-74

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

BEVEL ALL EXPOSED EDGES OF CONCRETE $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER UNLESS OTHERWISE SHOWN OR NOTED.

ALL BAR STEEL REINFORCEMENT IN CAST-IN-PLACE CONCRETE IS TO BE EPOXY COATED.

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF JOINT FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP & HOLD $\frac{1}{8}$ " BELOW THE SURFACE OF CONCRETE).

ALL WALL STATIONING AND OFFSETS ARE GIVEN AT THE FRONT FACE OF WALL R-18-48.

THE EXISTING GROUND LINE IS THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

THE PLAN QUANTITY FOR THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/OMP" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE WALL TO A CONSTANT DEPTH OF 1'-6" BELOW FINISHED GRADE.

COORDINATE THE CONSTRUCTION OF RETAINING WALL R-18-48 WITH THE NORTH ABUTMENT OF BRIDGE B-18-210.

THE REMOVAL OF THE EXISTING STRUCTURE IS INCLUDED IN A LUMP SUM PAY ITEM FOR BRIDGE B-18-210.

ALLOWABLE WALL SYSTEMS

WALL CONCRETE PANEL MSE LRFD/OMP

MATERIAL PROPERTIES

CONCRETE MASONRY (COPING) — $f'c$ = 3,500 P.S.I.

BAR STEEL REINFORCEMENT, GRADE 60 — f_y = 60,000 P.S.I.

LIST OF DRAWINGS


- GENERAL PLAN & ELEVATION
- QUANTITIES & WALL DATA
- WALL DETAILS
- SUBSURFACE EXPLORATION

CURVE DATA

IH-94 WB
P.I. = 605WB+90.87
 Δ = 27°29'16"
D = 0°59'23"
T = 1416.06'
L = 2777.60'
R = 5789.65'
S.E. = 3.30%
P.C. = 591WB+74.81
P.T. = 619WB+52.41

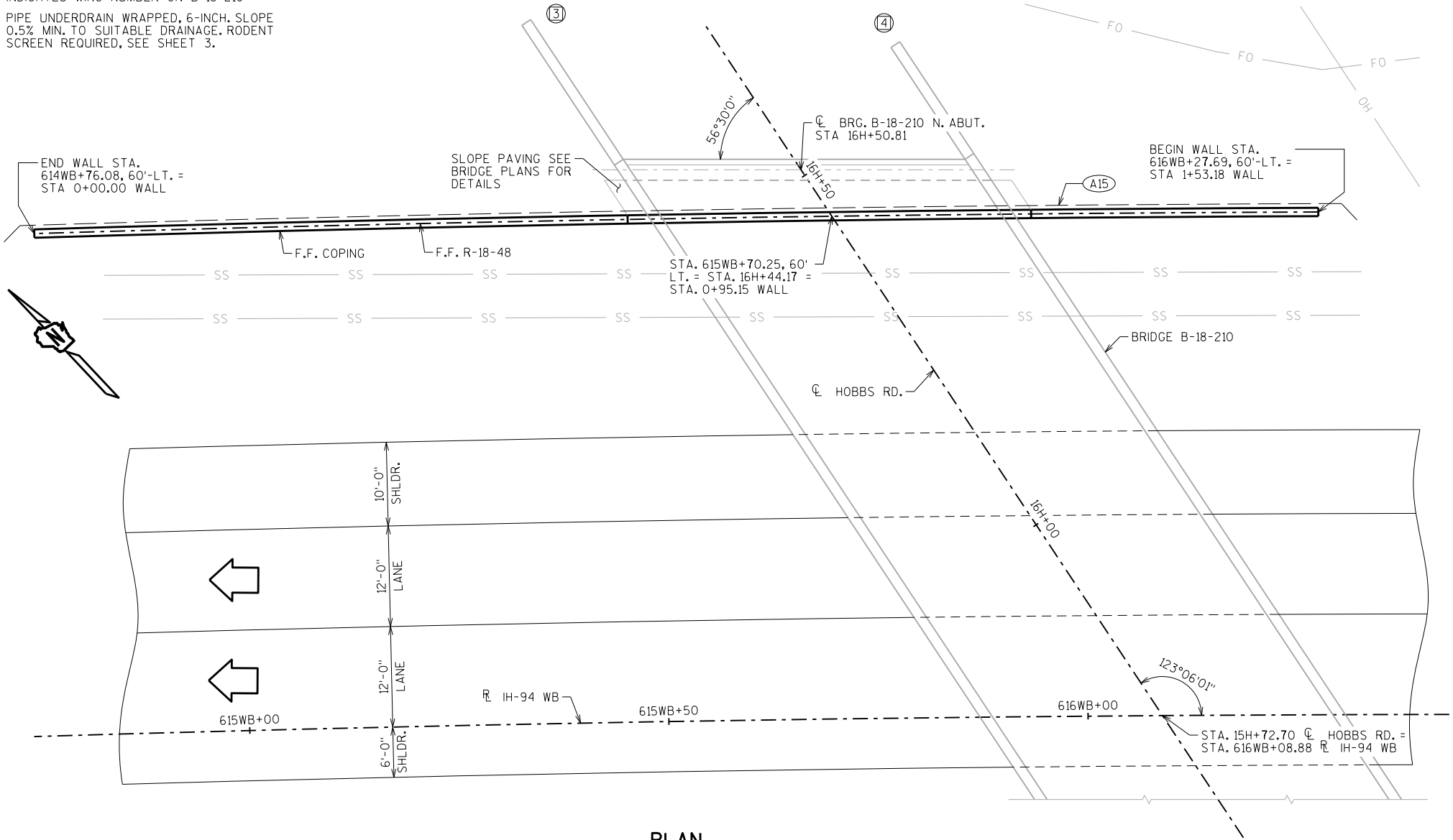
STRUCTURE DESIGN CONTACTS:

LAURA SHADEWALD (608) 267-9592
DANIELLE DE TENNIS (608) 266-8689

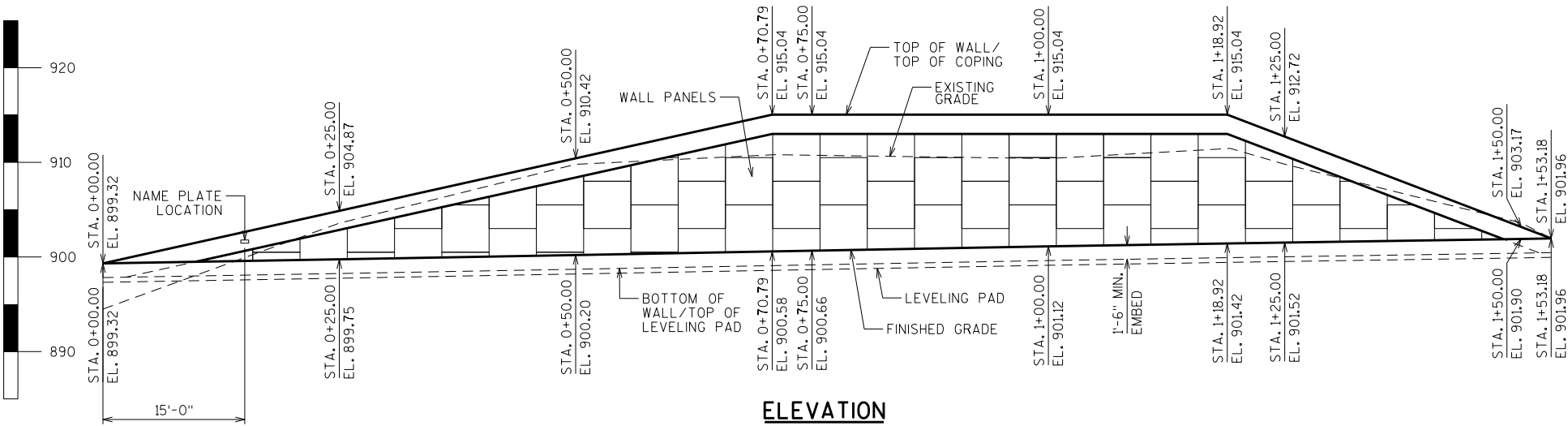
NO.	DATE	REVISION	BY
 BUREAU OF STRUCTURES			
ACCEPTED _____ CHIEF STRUCTURES DESIGN ENGINEER DATE _____			
STRUCTURE R-18-48			
MSE WALL ALONG N. ABUT B-18-210			
COUNTY	EAU CLAIRE	TOWN/CITY/VILLAGE	WASHINGTON
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	DFD	DESIGNED CK'D.	DLM
DRAWN BY	DFD	PLANS CK'D.	DLM
GENERAL PLAN			SHEET 1 OF 4

I.D. 1021-03-04D

DATE: MAY 2017



PLAN



ELEVATION

LOOKING NORTH AT F.F. WALL

SOIL PARAMETERS

SOIL DESCRIPTION	FRICTION ANGLE (DEGREES)	COHESION (PSF)	UNIT WEIGHT (PCF)
GRANULAR BACKFILL WITHIN THE WALL IN THE REINFORCING ZONE	30	0	120
FILL, GRANULAR BEHIND AND BELOW THE THE REINFORCING ZONE	31	0	120
B-4 - STA. XX+XX.XX - XX' LT/RT OF XXX			
SAND, BROWN, FINE TO MEDIUM EL. 899.1 TO EL 893.1	33	0	125
SILT, BROWN EL. 893.1 TO EL 878.1	29	0	110
SILT, BROWN, SOME FINE SAND EL. 878.1 TO EL 871.6	30	0	115
SAND, BROWN, FINE EL. 871.6 TO EL 851.1	32	0	120
SAND, BROWN, FINE EL. 851.1 TO EL 843.1	33	0	125
SAND, BROWN, FINE EL. 843.1 TO EL 838.1	32	0	120
SAND, GRAY, FINE TO MEDIUM EL. 838.1 TO EL 833.0	33	0	125

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS		
WALL HEIGHT (FEET) ¹	15.9	15.1
EXPOSED WALL HEIGHT (FEET)	14.4	13.6
MINIMUM LENGTH OF REINFORCEMENT (FEET)	16.8	10.6
LENGTH OF REINFORCEMENT TO HEIGHT RATIO	1.06	0.70
BORING LOCATION USED	B-4	B-4
APPROXIMATE WALL STATION	0+71.1	1+19.3
CAPACITY TO DEMAND RATIO (CDR) ²		
SLIDING (CDR > 1.0)	1.0	1.2
ECCENTRICITY (CDR > 1.0)	1.8	1.3
GLOBAL STABILITY (CDR > 1.0)	1.6	N/A ³
BEARING RESISTANCE (CDR > 1.0)	1.1	1.1
FACTORED BEARING RESISTANCE (PSF)	5,500	4,500
NOTES: 1. THE WALL HEIGHT INCLUDES AN EMBEDMENT OF 1.5 FEET. 2. CDR REQUIREMENTS AND LOAD AND RESISTANCE FACTORS ARE PRESENTED IN CHAPTER 14 OF THE BRIDGE MANUAL. 3. NA NOT APPLICABLE, GLOBAL SLOPE STABILITY WAS EVALUATED AT THE CRITICAL WALL LOCATION.		

GEOMETRY TABLE

WALL STATION	R IH-94 WB STATION	OFFSET TO F.F. WALL	TOP OF WALL EL.	FINISHED GRADE EL.	EXISTING GRADE EL.
0+00.00	614WB+76.08	60.0' LT.	899.32	899.32	894.49
0+25.00	615WB+00.83	60.0' LT.	904.87	899.75	903.57
0+50.00	615WB+25.57	60.0' LT.	910.42	900.20	909.79
0+70.79	615WB+46.15	60.0' LT.	915.04	900.58	910.81
0+75.00	615WB+50.31	60.0' LT.	915.04	900.66	910.75
1+00.00	615WB+75.06	60.0' LT.	915.04	901.12	910.40
1+18.92	615WB+93.78	60.0' LT.	915.04	901.42	911.47
1+25.00	615WB+99.80	60.0' LT.	912.72	901.52	909.80
1+50.00	616WB+24.54	60.0' LT.	903.17	901.90	903.60
1+53.18	616WB+27.69	60.0' LT.	901.96	901.96	901.96

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	170
SPV.0165	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-18-48	SF	1420
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE 1/2" & 3/4"	
	NON-BITUMINOUS JOINT SEALER	SIZE 1/2" & 3/4"	
	EXPANDED POLYSTYRENE	SIZE 1"	

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/OMP".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE PLANS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

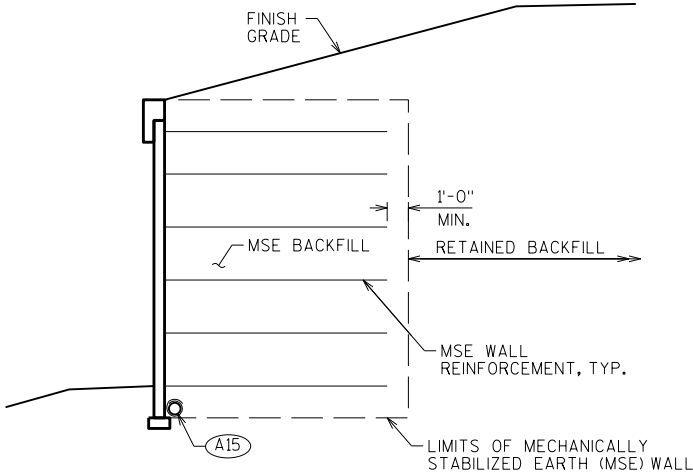
THE RETAINING WALL SHALL BE DESIGNED USING THE ELEVATIONS GIVEN ON THIS SHEET.

DESIGN FOR THE RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED BEHIND WALL AS SHOWN.

DESIGN THE RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

THE DESIGN OF THE WALL IN FRONT OF THE ABUTMENT SHALL INCLUDE THE HORIZONTAL EARTH LOADS AND 240 PSF LIVE LOAD SURCHARGE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

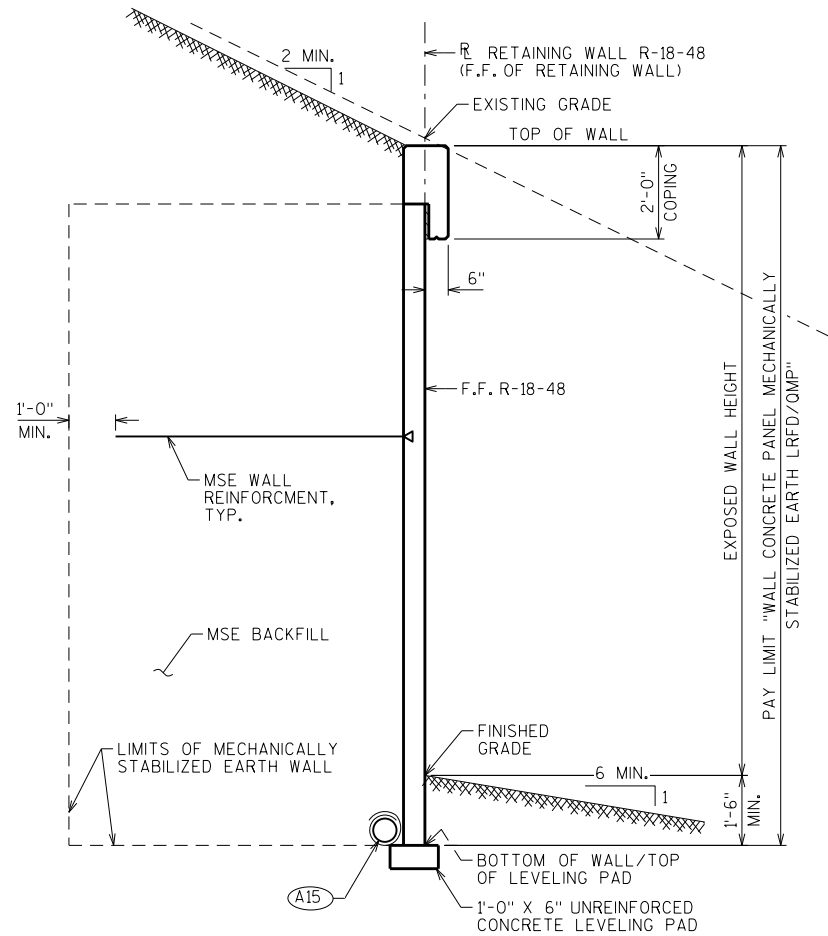


TYPICAL SECTION THRU MSE RETAINING WALL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-18-48			
		DRAWN BY DFD	PLANS CK'D. DLM
QUANTITIES & WALL DATA		SHEET 2	

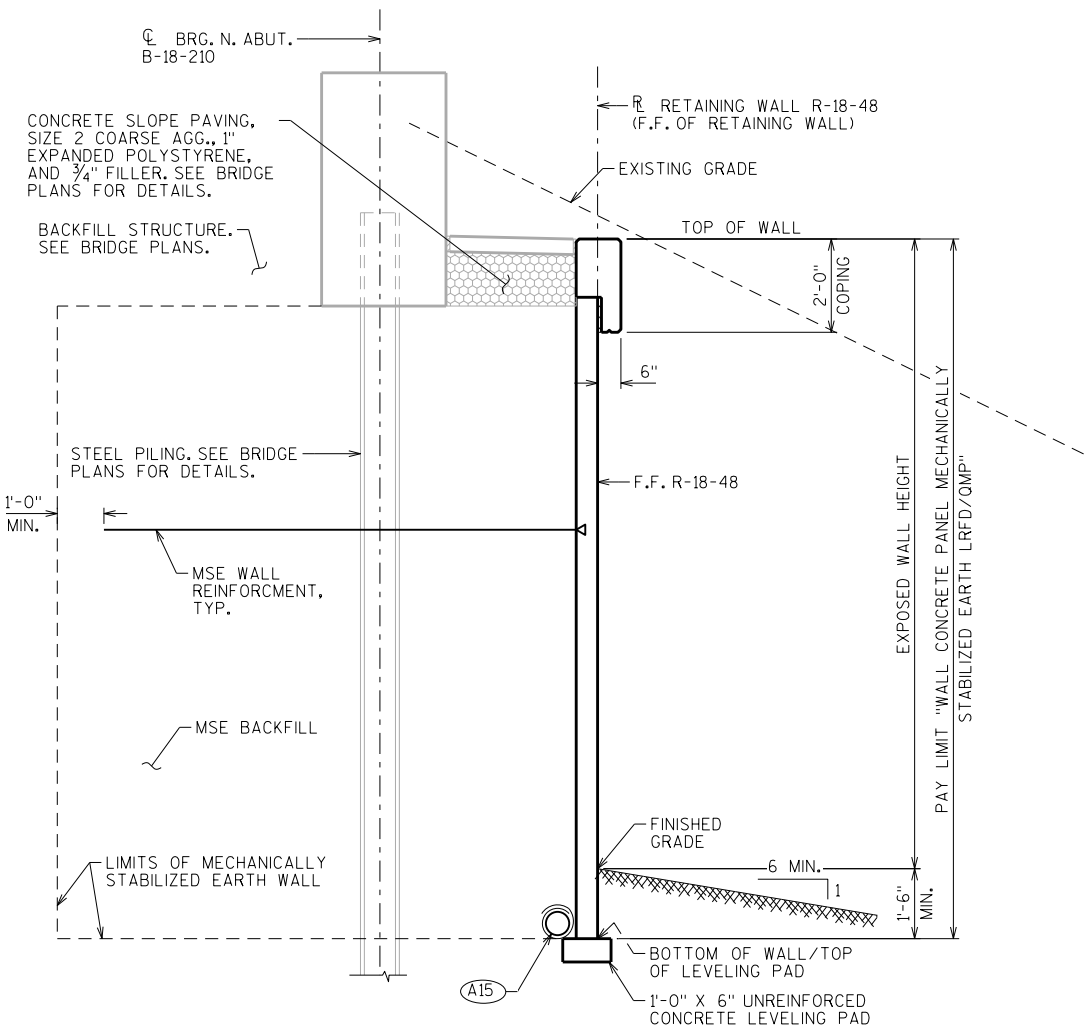
A15 PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

SCALE = 1:00



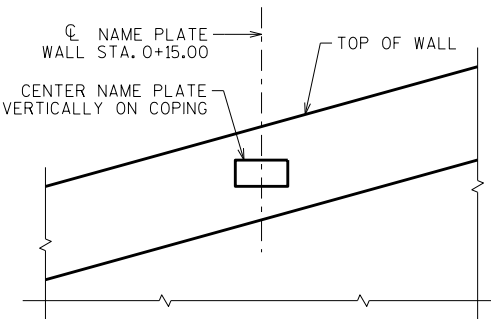
TYPICAL SECTION

LOOKING EAST
STA. 0+00.00 TO 0+70.79 &
STA. 1+18.92 TO 1+35.18

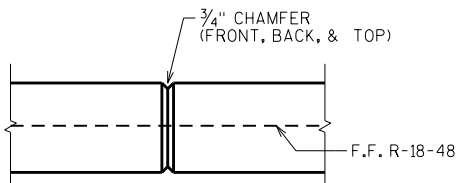


TYPICAL SECTION AT ABUTMENT

LOOKING EAST
0+70.79 TO 1+18.92

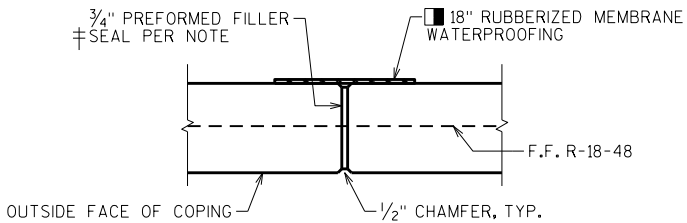


NAME PLATE DETAIL



COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 12'

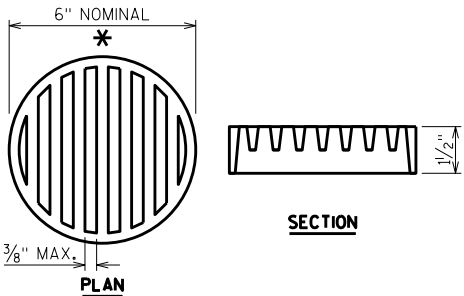


COPING EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 50'

† SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLE 1/8" BELOW SURFACE OF CONC.)

■ MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.

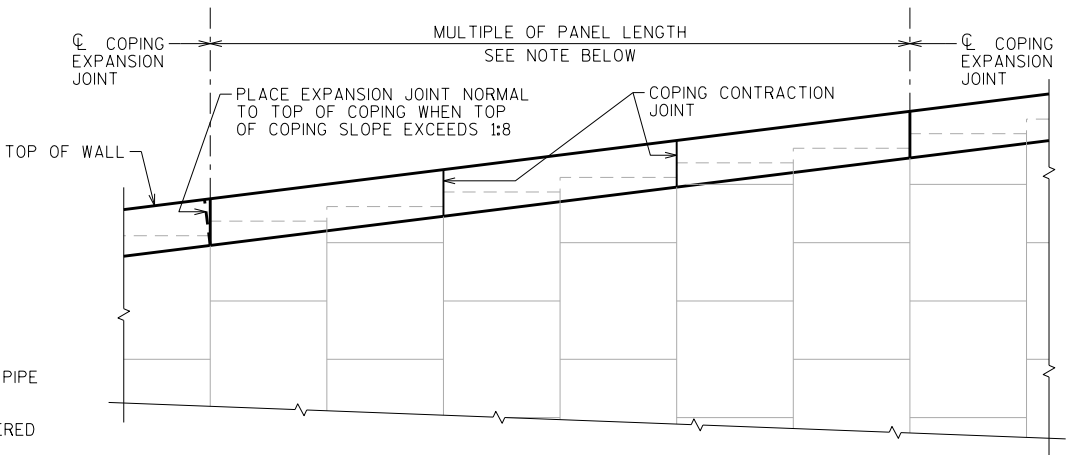


RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

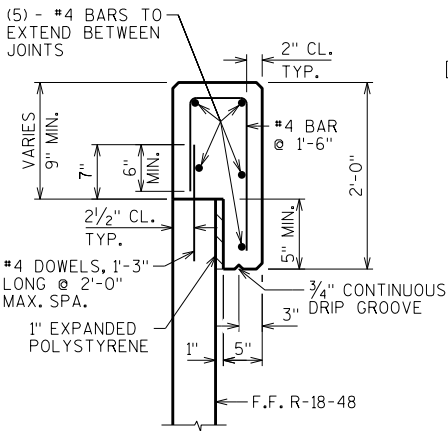
THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



CAST-IN-PLACE COPING PARTIAL ELEVATION

LOOKING AT F.F. WALL

NOTE:
ALL JOINTS MUST COINCIDE WITH PANEL JOINT ON FRONT FACE.



**CAST-IN-PLACE
CONCRETE COPING DETAIL**

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-18-48			
DRAWN BY		DFD	PLANS CK'D. DLM
WALL DETAILS		SHEET 3	

- INDICATES WING NUMBER ON B-18-232
- PIPE UNDERDRAIN WRAPPED, 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED, SEE SHEET 3.

STATE PROJECT NUMBER

1021-03-74

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

BEVEL ALL EXPOSED EDGES OF CONCRETE $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER UNLESS OTHERWISE SHOWN OR NOTED.

ALL BAR STEEL REINFORCEMENT IN CAST-IN-PLACE CONCRETE IS TO BE EPOXY COATED.

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF JOINT FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP & HOLD $\frac{1}{8}$ " BELOW THE SURFACE OF CONCRETE).

ALL WALL STATIONING AND OFFSETS ARE GIVEN AT THE FRONT FACE OF WALL R-18-49.

THE EXISTING GROUND LINE IS THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

THE PLAN QUANTITY FOR THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/OMP" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE WALL TO A CONSTANT DEPTH OF 1'-6" BELOW FINISHED GRADE.

COORDINATE THE CONSTRUCTION OF RETAINING WALL R-18-49 WITH THE WEST ABUTMENT OF BRIDGE B-18-232.

THE REMOVAL OF THE EXISTING STRUCTURE IS INCLUDED IN A LUMP SUM PAY ITEM FOR BRIDGE B-18-232.

ALLOWABLE WALL SYSTEMS

WALL CONCRETE PANEL MSE LRFD/OMP

MATERIAL PROPERTIES

CONCRETE MASONRY (COPING) ———— $f'c = 3,500$ P.S.I.


BAR STEEL REINFORCEMENT, GRADE 60 — $f_y = 60,000$ P.S.I.

LIST OF DRAWINGS

- GENERAL PLAN & ELEVATION
- QUANTITIES & WALL DATA
- WALL DETAILS
- SUBSURFACE EXPLORATION

STRUCTURE DESIGN CONTACTS:

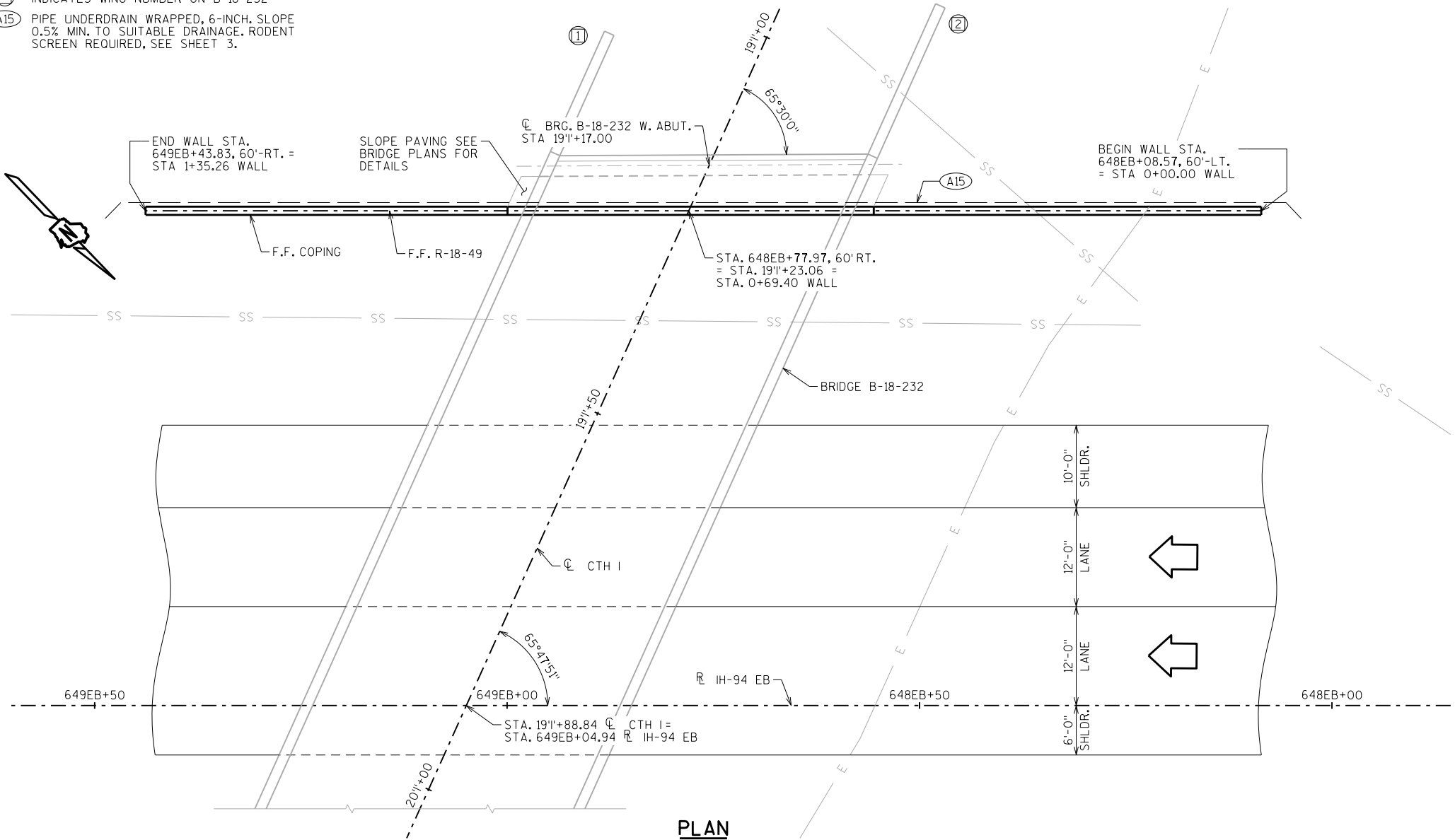
LAURA SHADEWALD (608) 267-9592
DANIELLE DE TENNIS (608) 266-8689

NO.	DATE	REVISION	BY
			
ACCEPTED _____ CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE R-18-49			
MSE WALL ALONG W. ABUT B-18-232			
COUNTY	EAU CLAIRE	TOWN/CITY/VILLAGE	WASHINGTON
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	DFD	DESIGNED CK'D.	DLM
DRAWN BY	DFD	PLANS CK'D.	DLM
GENERAL PLAN			SHEET 1 OF 4

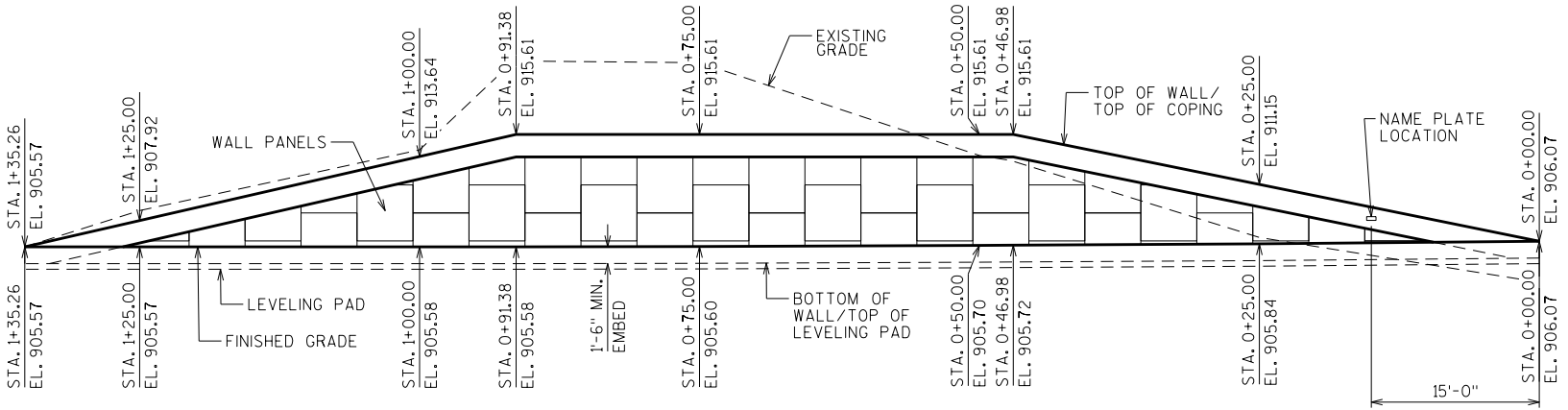
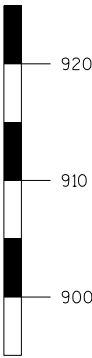
I.D. 1021-03-04E

DATE: MAY 2017

SCALE = 8.00



PLAN



ELEVATION

LOOKING SOUTHWEST AT F.F. WALL

SOIL PARAMETERS

SOIL DESCRIPTION	FRICTION ANGLE (DEGREES)	COHESION (PSF)	UNIT WEIGHT (PCF)
GRANULAR BACKFILL WITHIN THE WALL IN THE REINFORCING ZONE	30	0	120
FILL, GRANULAR BEHIND AND BELOW THE THE REINFORCING ZONE	31	0	120
B-1 - STA. XX+XX.XX - XX' LT/RT OF XXX			
SAND, TAN, FINE EL. 902.4 TO EL 894.9	28	0	110
SILT, BROWN, FINE TO MEDIUM, SOME SAND EL. 894.9 TO EL 886.9	28	0	110
(INSERT SOIL DESCRIPTION) EL. 886.9 TO EL 883.9	28	0	110
SAND, BROWN, FINE, SOME SILT EL. 883.9 TO EL 853.9	33	0	125
SAND, TAN/BROWN, FINE TO MEDIUM EL. 853.9 TO EL 843.9	33	0	125
SAND, BROWN, FINE TO MEDIUM, LITTLE SILT EL. 843.9 TO EL 822.9	32	0	120
SILT, BROWN/GRAY, LITTLE SAND EL. 822.9 TO EL 819.9	30	0	120
SAND, GRAY, FINE TO MEDIUM EL. 819.9 TO EL 814.9	33	0	125
SAND, GRAY, FINE TO MEDIUM, TRACE SILT EL. 814.9 TO EL 808.9	32	0	120
SAND, GRAY, FINE TO MEDIUM EL. 808.9 TO EL 804.9	33	0	125
SILT, GRAY, SOME SAND EL. 804.9 TO EL 800.9	30	0	120
SAND, BROWN, FINE TO MEDIUM, SOME SILT EL. 800.9 TO EL 794.9	30	0	120

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS		
WALL HEIGHT (FEET) ¹	11.4	11.5
EXPOSED WALL HEIGHT (FEET)	9.9	10.0
MINIMUM LENGTH OF REINFORCEMENT (FEET)	8.9	8.1
LENGTH OF REINFORCEMENT TO HEIGHT RATIO	0.78	0.70
BORING LOCATION USED	B-1	B-1
APPROXIMATE WALL STATION	0+50.0	1+91.6
CAPACITY TO DEMAND RATIO (CDR) ²		
SLIDING (CDR > 1.0)	1.0	1.1
ECCENTRICITY (CDR > 1.0)	1.2	1.3
GLOBAL STABILITY (CDR > 1.0)	N/A ³	2.6
BEARING RESISTANCE (CDR > 1.0)	1.9	1.6
FACTORED BEARING RESISTANCE (PSF)	6,500	5,000
NOTES: 1. THE WALL HEIGHT INCLUDES AN EMBEDMENT OF 1.5 FEET. 2. CDR REQUIREMENTS AND LOAD AND RESISTANCE FACTORS ARE PRESENTED IN CHAPTER 14 OF THE BRIDGE MANUAL. 3. NA NOT APPLICABLE, GLOBAL SLOPE STABILITY WAS EVALUATED AT THE CRITICAL WALL LOCATION.		

GEOMETRY TABLE

WALL STATION	R IH-94 EB STATION	OFFSET TO F.F. WALL	TOP OF WALL EL.	FINISHED GRADE EL.	EXISTING GRADE EL.
0+00.00	648EB+08.57	60.0' RT.	906.07	906.07	902.41
0+25.00	648EB+33.57	60.0' RT.	911.15	905.84	906.41
0+46.98	648EB+55.55	60.0' RT.	915.61	905.72	913.28
0+50.00	648EB+58.57	60.0' RT.	915.61	905.70	913.73
0+75.00	648EB+83.57	60.0' RT.	915.61	905.60	922.02
0+91.38	648EB+99.95	60.0' RT.	915.61	905.58	922.17
1+00.00	649EB+08.57	60.0' RT.	913.64	905.57	914.23
1+25.00	649EB+33.57	60.0' RT.	907.92	905.57	908.81
1+35.26	649EB+43.83	60.0' RT.	905.57	905.57	905.57

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	150
SPV.0165	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-18-49	SF	900
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	1/2" & 3/4"
	NON-BITUMINOUS JOINT SEALER	SIZE	1/2" & 3/4"
	EXPANDED POLYSTYRENE	SIZE	1"

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE PLANS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

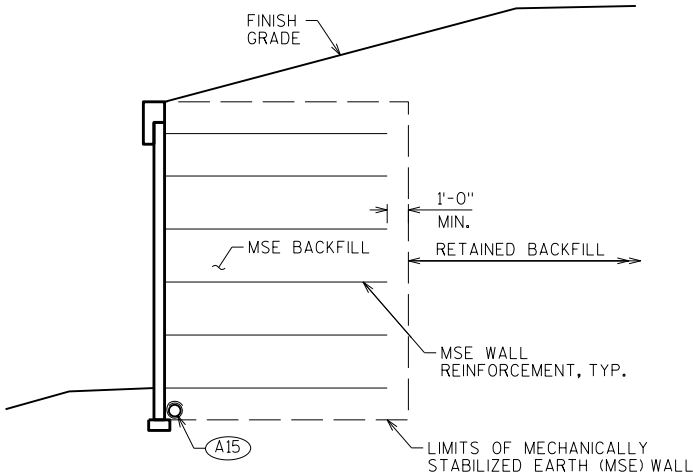
THE RETAINING WALL SHALL BE DESIGNED USING THE ELEVATIONS GIVEN ON THIS SHEET.

DESIGN FOR THE RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED BEHIND WALL AS SHOWN.

DESIGN THE RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

THE DESIGN OF THE WALL IN FRONT OF THE ABUTMENT SHALL INCLUDE THE HORIZONTAL EARTH LOADS AND 240 PSF LIVE LOAD SURCHARGE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

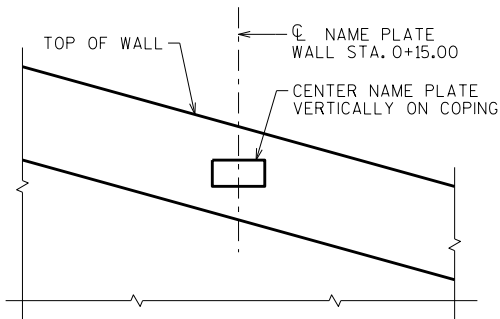


TYPICAL SECTION THRU MSE RETAINING WALL

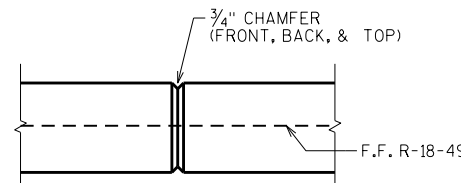
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-18-49			
		DRAWN BY DFD	PLANS CK'D. DLM
QUANTITIES & WALL DATA		SHEET 2	

A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

SCALE = 1:00

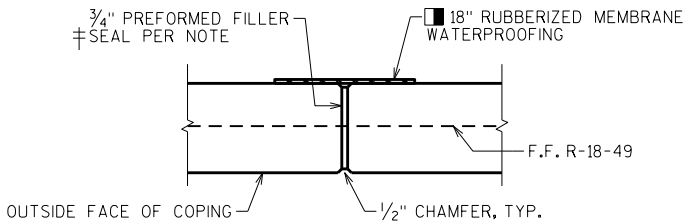


NAME PLATE DETAIL



COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 12'



COPING EXPANSION JOINT

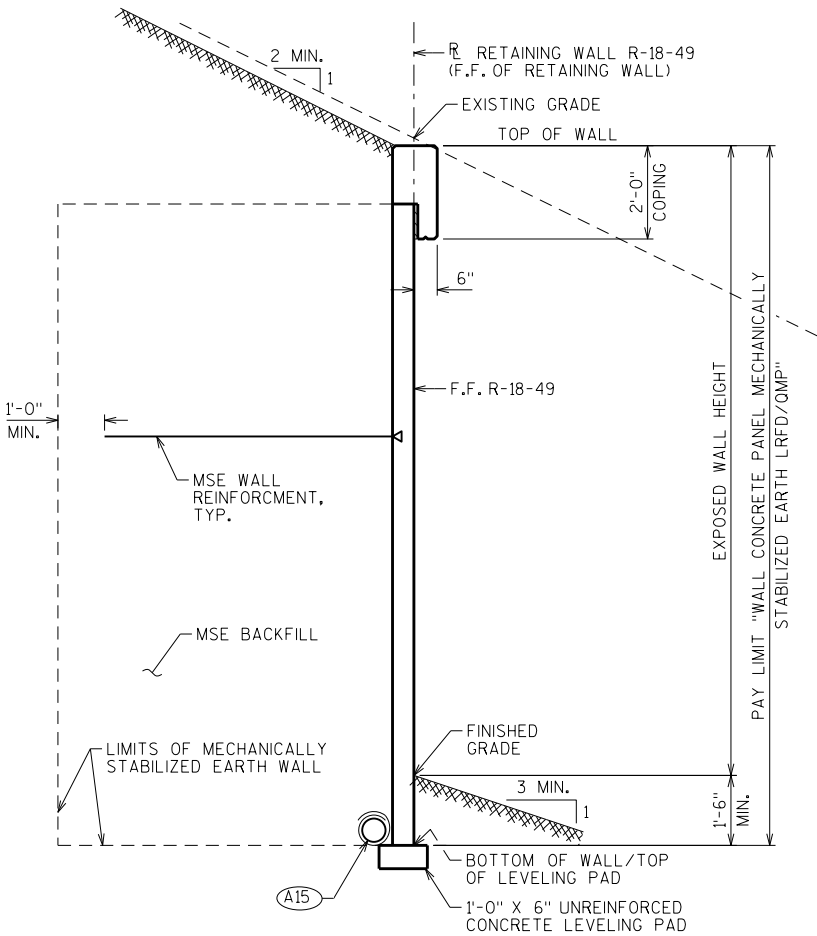
DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 50'

SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER
WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.
(1" DEEP AND HOLE 1/8" BELOW SURFACE OF CONC.)

MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF
COPING TO 6" BELOW TOP OF PANELS.

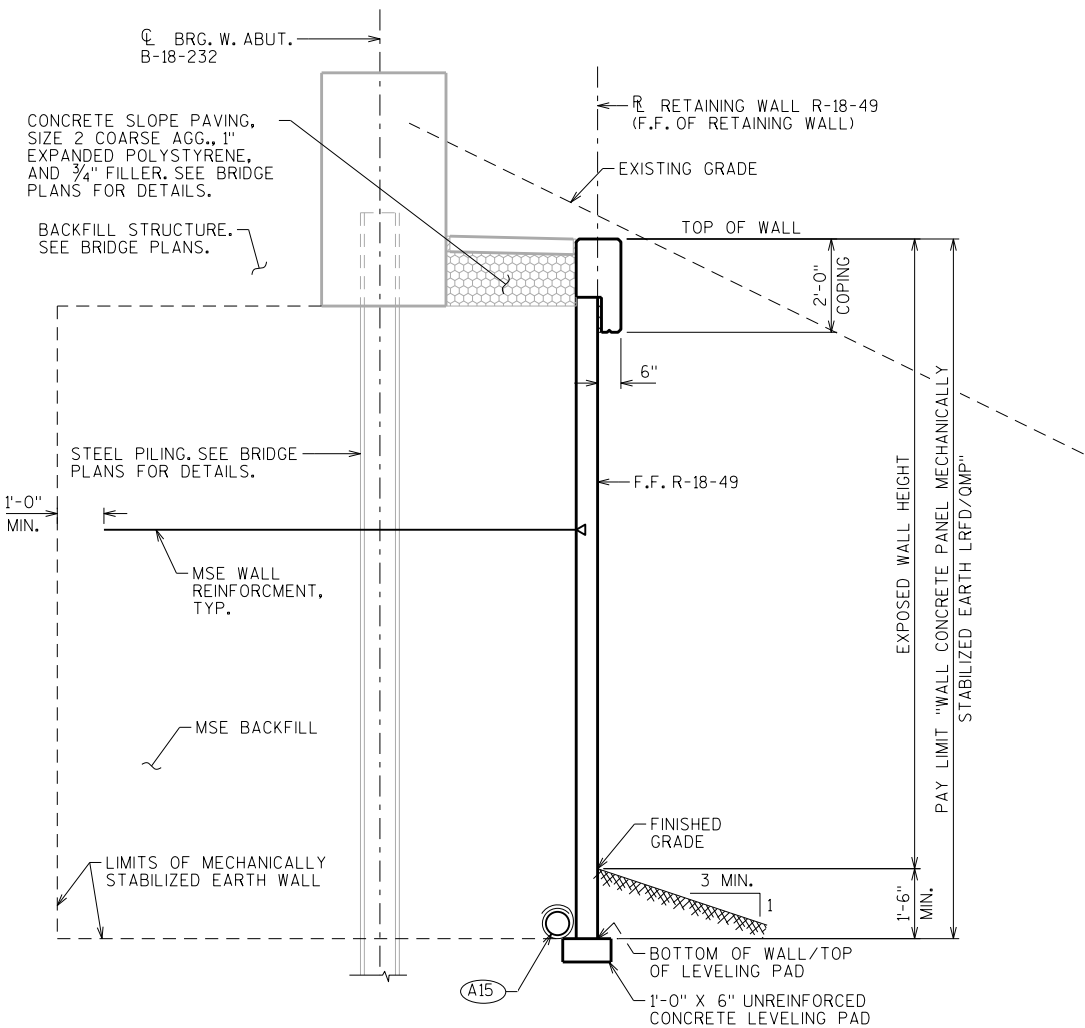
(A15) PIPE UNDERDRAIN WRAPPED (6-INCH).
SLOPE 0.5% MIN. TO SUITABLE
DRAINAGE. RODENT SHIELD REQUIRED.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-18-49			
DRAWN BY		DFD	PLANS CK'D. DLM
WALL DETAILS		SHEET 3	



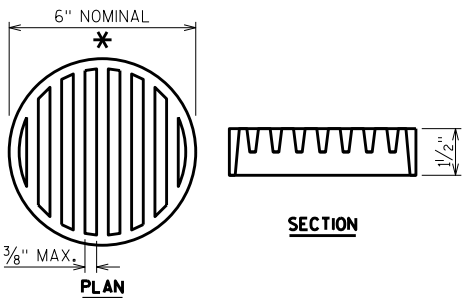
TYPICAL SECTION

LOOKING NORTHEAST
STA. 0+00.00 TO 0+46.98 &
STA. 0+91.38 TO 1+35.26



TYPICAL SECTION AT ABUTMENT

LOOKING NORTHEAST
STA. 0+46.98 TO 0+91.38

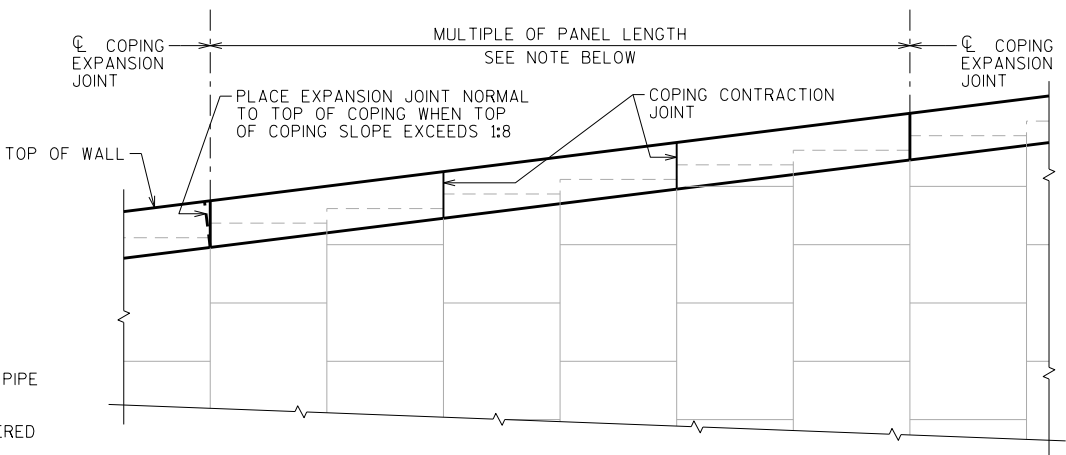


RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

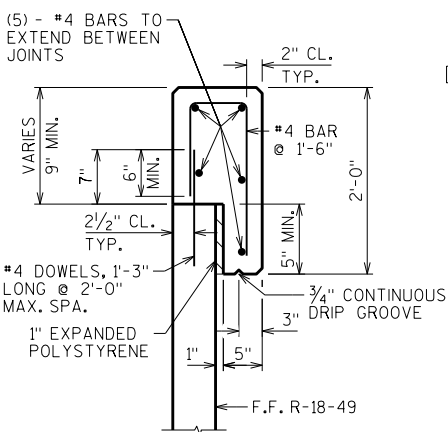
THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



CAST-IN-PLACE COPING PARTIAL ELEVATION

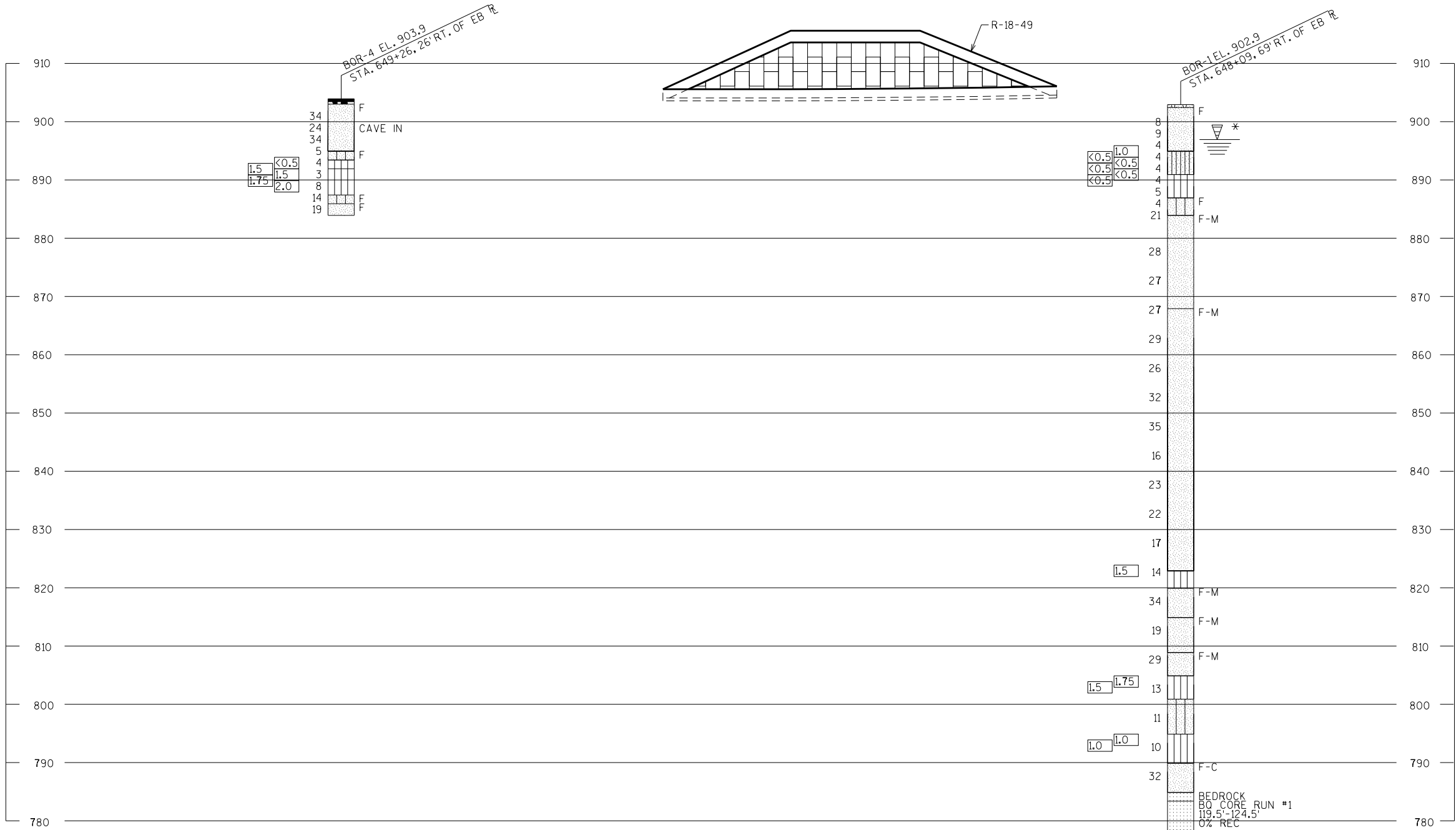
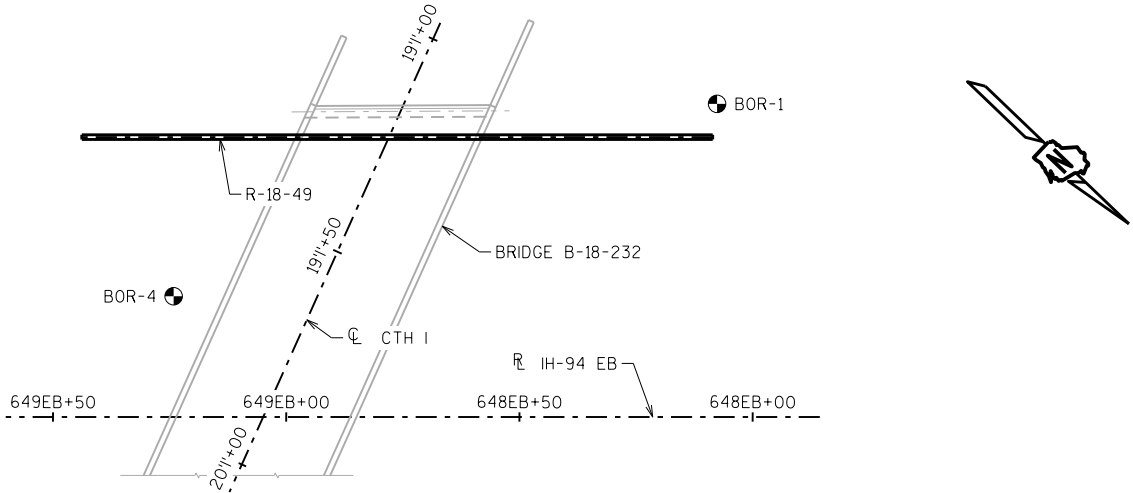
LOOKING AT F.F. WALL

NOTE:
ALL JOINTS MUST COINCIDE WITH PANEL JOINT ON FRONT FACE.



CAST-IN-PLACE
CONCRETE COPING DETAIL

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	11/02/2016	258681.464	366217.572
4	11/10/2016	258625.889	366327.961
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) EAU CLAIRE COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			



* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

STATE PROJECT NUMBER		
1021-03-74		
MATERIAL SYMBOLS		
ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/META

LEGEND OF BORING	
	BORING #/EL. STA./OFF-SET
	ST (1) 17
	(2) 17
	F-C
	WEATHERED LIMESTONE
	CORE RUN #1 - 24'-29' REC=80%, ROD=72%
GROUND WATER ELEVATION	
	AT TIME OF DRILLING
	END OF DRILLING
	AFTER DRILLING
ABBREVIATIONS	
F-FINE	M-MEDIUM
C-COARSE	ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-18-49			
DRAWN BY DFD/TLP		PLANS CK'D. DLM	
SUBSURFACE EXPLORATION			SHEET 4

SCALE = 20.00

- INDICATES WING NUMBER ON B-18-232
- PIPE UNDERDRAIN WRAPPED, 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED, SEE SHEET 3.

STATE PROJECT NUMBER

1021-03-74

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

BEVEL ALL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER UNLESS OTHERWISE SHOWN OR NOTED.

ALL BAR STEEL REINFORCEMENT IN CAST-IN-PLACE CONCRETE IS TO BE EPOXY COATED.

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF JOINT FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP & HOLD 1/8" BELOW THE SURFACE OF CONCRETE).

ALL WALL STATIONING AND OFFSETS ARE GIVEN AT THE FRONT FACE OF WALL R-18-50.

THE EXISTING GROUND LINE IS THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

THE PLAN QUANTITY FOR THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/OMP" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE WALL TO A CONSTANT DEPTH OF 1'-6" BELOW FINISHED GRADE.

COORDINATE THE CONSTRUCTION OF RETAINING WALL R-18-50 WITH THE EAST ABUTMENT OF BRIDGE B-18-232.

THE REMOVAL OF THE EXISTING STRUCTURE IS INCLUDED IN A LUMP SUM PAY ITEM FOR BRIDGE B-18-232.

ALLOWABLE WALL SYSTEMS

WALL CONCRETE PANEL MSE LRFD/OMP

MATERIAL PROPERTIES

CONCRETE MASONRY (COPING) —f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT, GRADE 60 —fy = 60,000 P.S.I.

LIST OF DRAWINGS


- GENERAL PLAN & ELEVATION
- QUANTITIES & WALL DATA
- WALL DETAILS
- SUBSURFACE EXPLORATION

CURVE DATA

IH-94 WB
P.I. = 653WB+95.69
Δ = 5°41'00"
D = 0°30'00"
T = 568.80'
L = 1136.67'
R = 11459.19'
S.E. = 2.00%
P.C. = 648WB+26.89
P.T. = 659WB+63.56

STRUCTURE DESIGN CONTACTS:

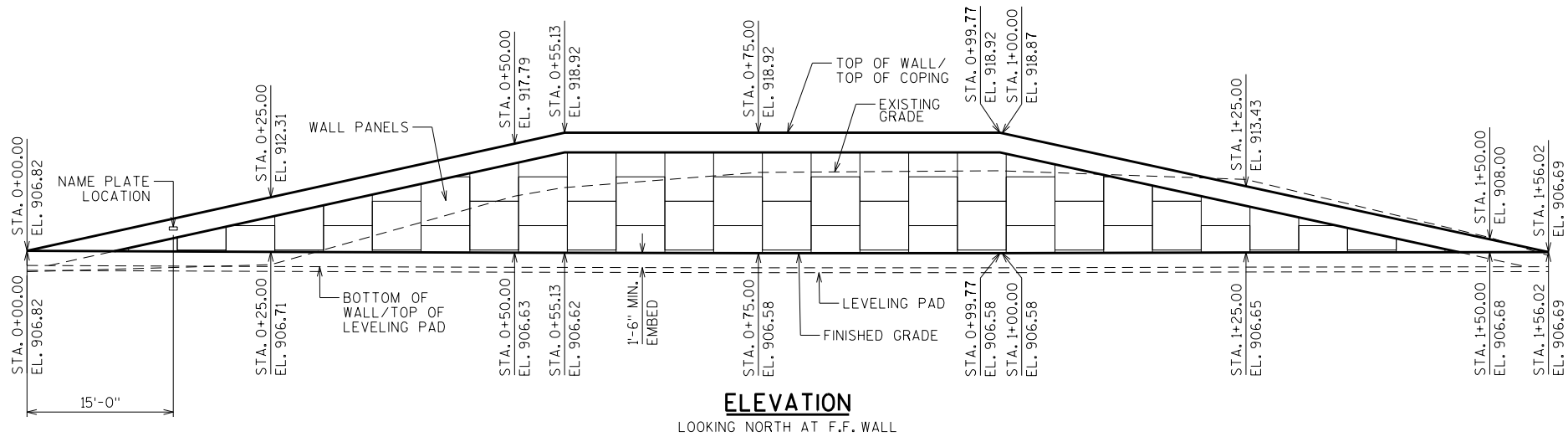
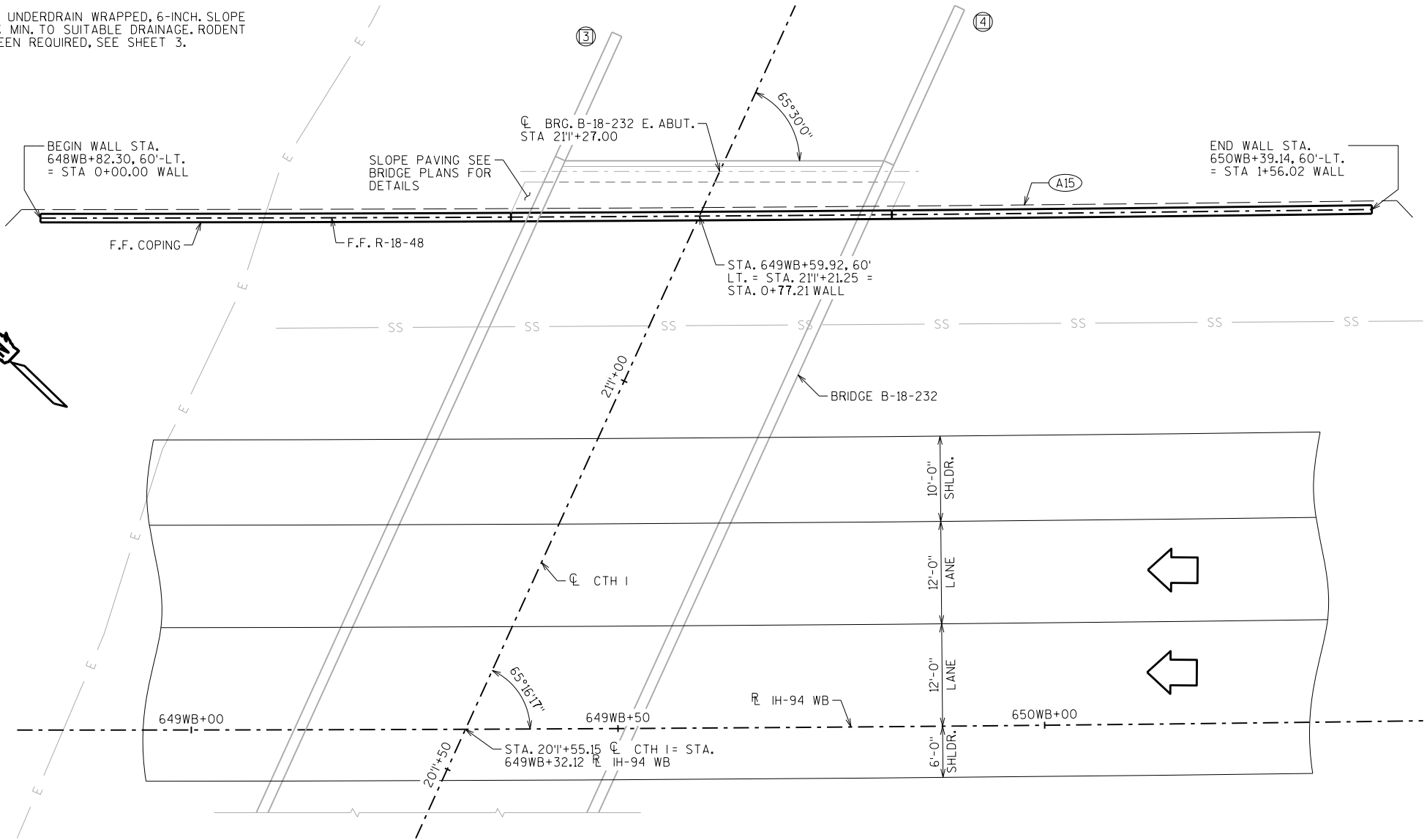
LAURA SHADEWALD (608) 267-9592
DANIELLE DE TENNIS (608) 266-8689

NO.	DATE	REVISION	BY
 BUREAU OF STRUCTURES			
ACCEPTED _____ CHIEF STRUCTURES DESIGN ENGINEER DATE _____			
STRUCTURE R-18-50			
MSE WALL ALONG E. ABUT B-18-232			
COUNTY	EAU CLAIRE	TOWN/CITY/VILLAGE	WASHINGTON
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	DFD	DESIGNED CK'D.	DLM
DRAWN BY	DFD	PLANS CK'D.	DLM
GENERAL PLAN			SHEET 1 OF 4

I.D. 1021-03-04F

DATE: MAY 2017

SCALE = 8.00



SOIL PARAMETERS

SOIL DESCRIPTION	FRICTION ANGLE (DEGREES)	COHESION (PSF)	UNIT WEIGHT (PCF)
GRANULAR BACKFILL WITHIN THE WALL IN THE REINFORCING ZONE	30	0	120
FILL BEHIND AND BELOW THE REINFORCING ZONE	31	0	120
B-2 - STA. 649+26.0 - 81' LT OF R CTH IWB			
SAND, TAN, FINE EL. 905.1 TO EL 898.1	32	0	120
SAND, BROWN, FINE, SOME SILT EL. 898.1 TO EL 896.1	29	0	115
SILT, BROWN, SOME SAND EL. 896.1 TO EL 889.1	0	1,000	115
SAND, TAN, FINE, SOME SILT EL. 889.1 TO EL 879.1	32	0	120
SAND, BROWN, FINE, SOME SILT EL. 879.1 TO EL 876.1	32	0	120
SAND, TAN, FINE, LITTLE SILT EL. 876.1 TO EL 859.1	32	0	120
SAND, TAN, FINE, LITTLE SILT EL. 859.1 TO EL 849.1	33	0	125
SAND, GRAY, FINE EL. 849.1 TO EL 836.1	33	0	125
SILT, GRAY, LITTLE SAND EL. 836.1 TO EL 830.1	0	1,250	115

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS		
WALL HEIGHT (FEET) ¹	12.7	13.8
EXPOSED WALL HEIGHT (FEET)	11.2	12.3
MINIMUM LENGTH OF REINFORCEMENT (FEET)	9.7	16.4
LENGTH OF REINFORCEMENT TO HEIGHT RATIO	0.7	1.2
BORING LOCATION USED	B-2	B-2
APPROXIMATE WALL STATION	0+50.0	0+99.5
CAPACITY TO DEMAND RATIO (CDR) ²		
SLIDING (CDR > 1.0)	1.3	1.0
ECCENTRICITY (CDR > 1.0)	1.4	2.0
GLOBAL STABILITY (CDR > 1.0)	N/A ³	1.7
BEARING RESISTANCE (CDR > 1.0)	1.4	1.3
FACTORED BEARING RESISTANCE (PSF)	5,000	6,000
NOTES: 1. THE WALL HEIGHT INCLUDES AN EMBEDMENT OF 1.5 FEET. 2. CDR REQUIREMENTS AND LOAD AND RESISTANCE FACTORS ARE PRESENTED IN CHAPTER 14 OF THE BRIDGE MANUAL. 3. NA NOT APPLICABLE, GLOBAL SLOPE STABILITY WAS EVALUATED AT THE CRITICAL WALL LOCATION.		

GEOMETRY TABLE

WALL STATION	R IH-94 WB STATION	OFFSET TO F.F. WALL	TOP OF WALL EL.	FINISHED GRADE EL.	EXISTING GRADE EL.
0+00.00	648WB+82.30	60.0' LT.	906.82	906.82	904.68
0+25.00	649WB+07.43	60.0' LT.	912.31	906.71	905.40
0+50.00	649WB+32.56	60.0' LT.	917.79	906.63	912.42
0+55.13	649WB+37.72	60.0' LT.	918.92	906.62	913.28
0+75.00	649WB+57.69	60.0' LT.	918.92	906.58	914.85
0+99.77	649WB+82.60	60.0' LT.	918.92	906.58	915.02
1+00.00	649WB+82.82	60.0' LT.	918.87	906.58	915.01
1+25.00	650WB+07.96	60.0' LT.	913.43	906.65	914.13
1+50.00	650WB+33.09	60.0' LT.	908.00	906.68	908.18
1+56.02	650WB+39.14	60.0' LT.	906.69	906.69	906.34

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	170
SPV.0165	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-18-50	SF	1240
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	1/2" & 3/4"
	NON-BITUMINOUS JOINT SEALER	SIZE	1/2" & 3/4"
	EXPANDED POLYSTYRENE	SIZE	1"

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/OMP".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE PLANS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

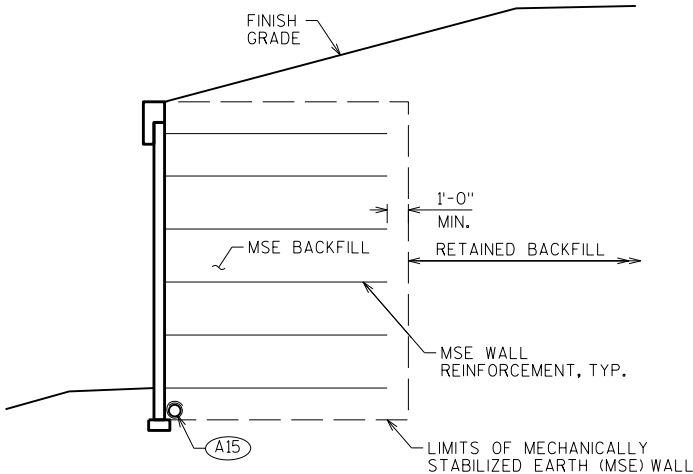
THE RETAINING WALL SHALL BE DESIGNED USING THE ELEVATIONS GIVEN ON THIS SHEET.

DESIGN FOR THE RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED BEHIND WALL AS SHOWN.

DESIGN THE RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

THE DESIGN OF THE WALL IN FRONT OF THE ABUTMENT SHALL INCLUDE THE HORIZONTAL EARTH LOADS AND 240 PSF LIVE LOAD SURCHARGE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

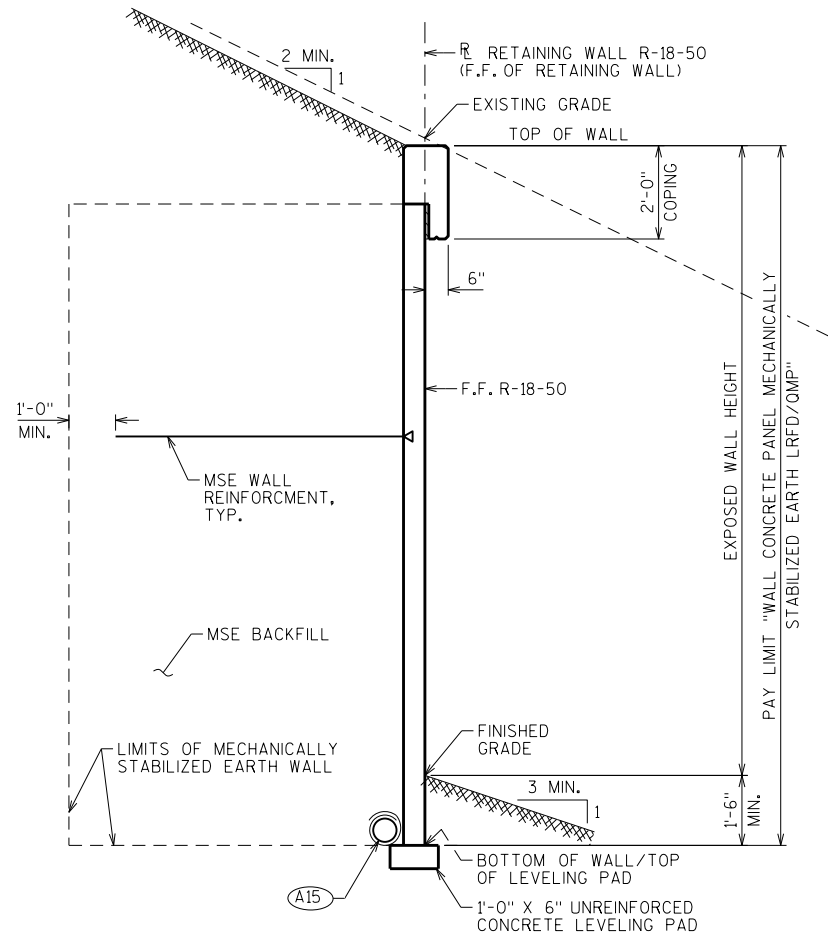


TYPICAL SECTION
THRU MSE RETAINING WALL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-18-50			
		DRAWN BY DFD	PLANS CK'D. DLM
QUANTITIES & WALL DATA			SHEET 2

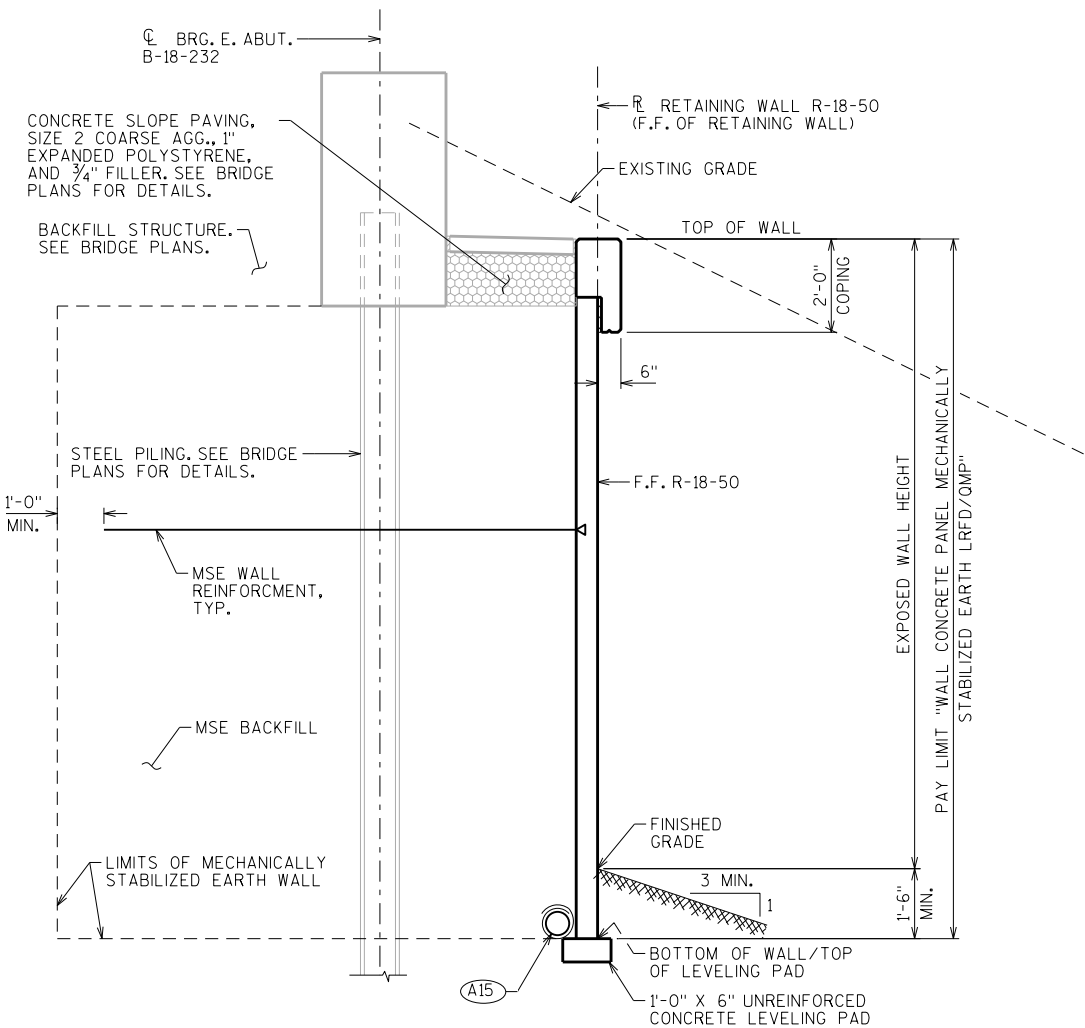
A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

SCALE = 1:00



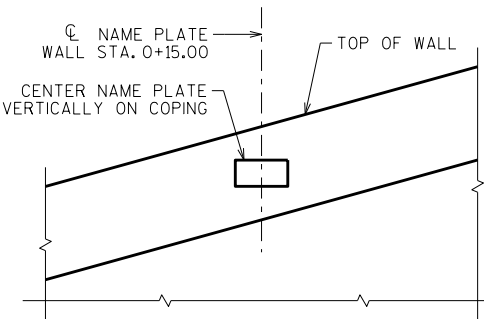
TYPICAL SECTION

LOOKING SOUTHEAST
STA. 0+00.00 TO 0+55.13 &
STA. 0+99.77 TO 1+56.02

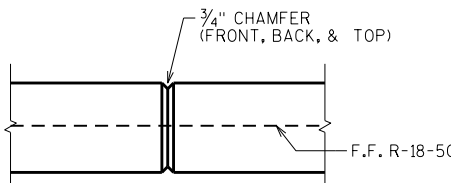


TYPICAL SECTION AT ABUTMENT

LOOKING SOUTHEAST
STA. 0+55.13 TO 0+99.77

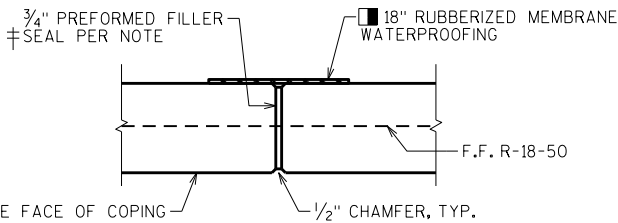


NAME PLATE DETAIL



COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 12'

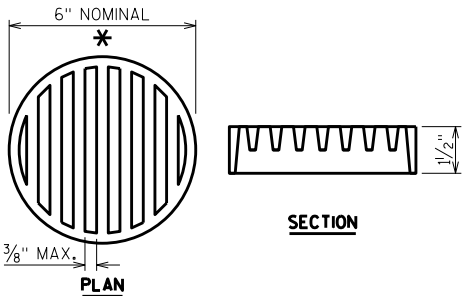


COPING EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 50'

SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLE 1/8" BELOW SURFACE OF CONC.)

MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.

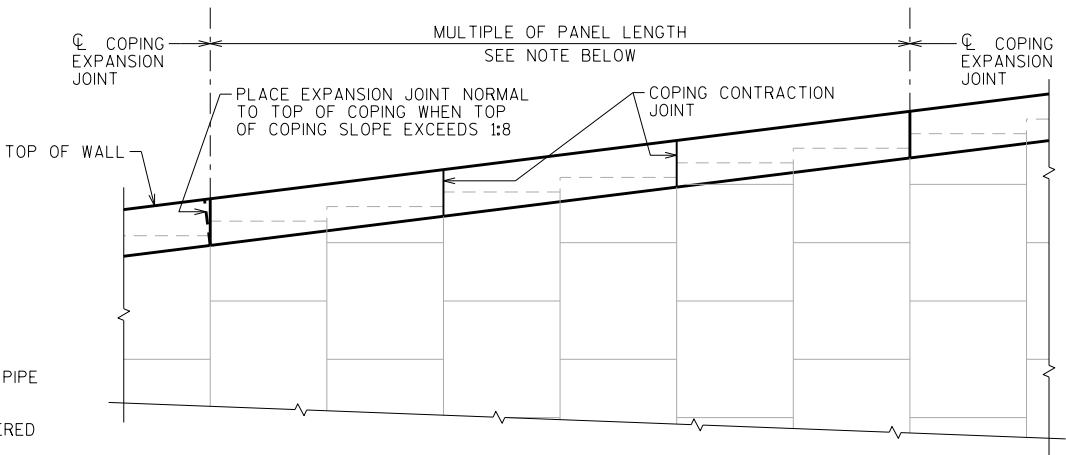


RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

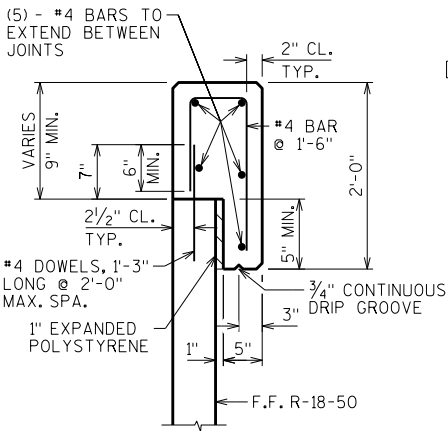
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CAST-IN-PLACE COPING PARTIAL ELEVATION

LOOKING AT F.F. WALL

NOTE:
ALL JOINTS MUST COINCIDE WITH PANEL JOINT ON FRONT FACE.

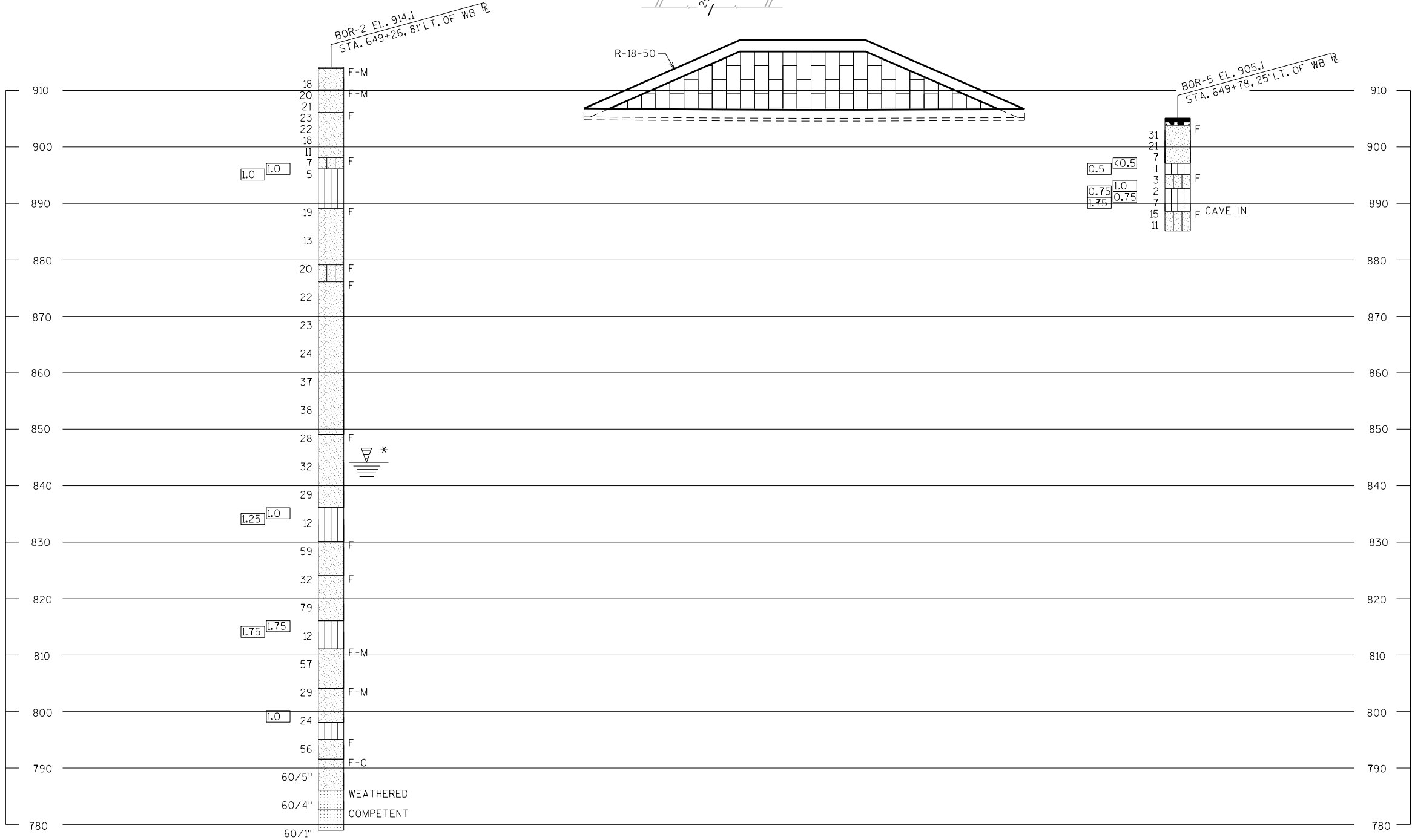
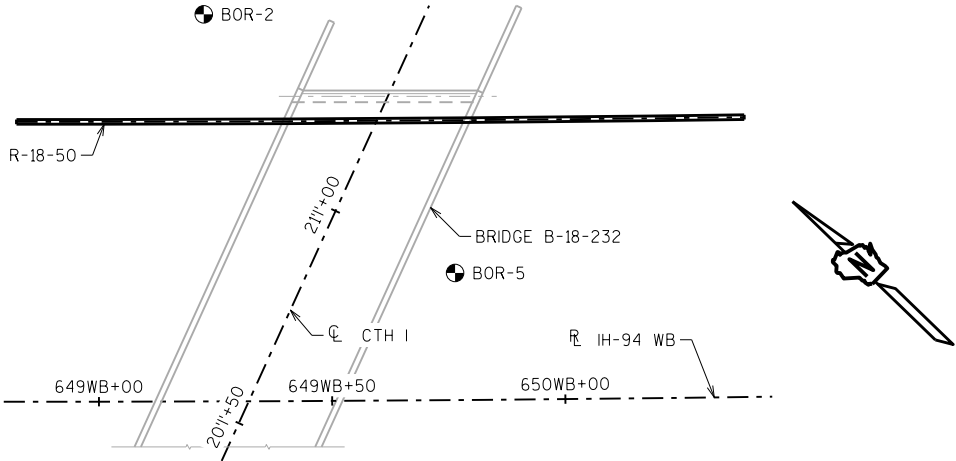


CAST-IN-PLACE CONCRETE COPING DETAIL

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-18-50			
DRAWN BY		DFD	PLANS CK'D. DLM
WALL DETAILS		SHEET 3	

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
2	11/03/2016	258744.530	366448.731
5	11/10/2016	258667.256	366446.380
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) EAU CLAIRE COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			



STATE PROJECT NUMBER		
1021-03-74		
MATERIAL SYMBOLS		
ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/META

LEGEND OF BORING

BORING #/EL. STA./OFFSET

ST (1) (2) 17

F-C

COBBLE OR BOULDER

WEATHERED LIMESTONE

CORE RUN #1 - 24'-29'

REC=80%, ROD=72%

(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING

▽ END OF DRILLING

▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

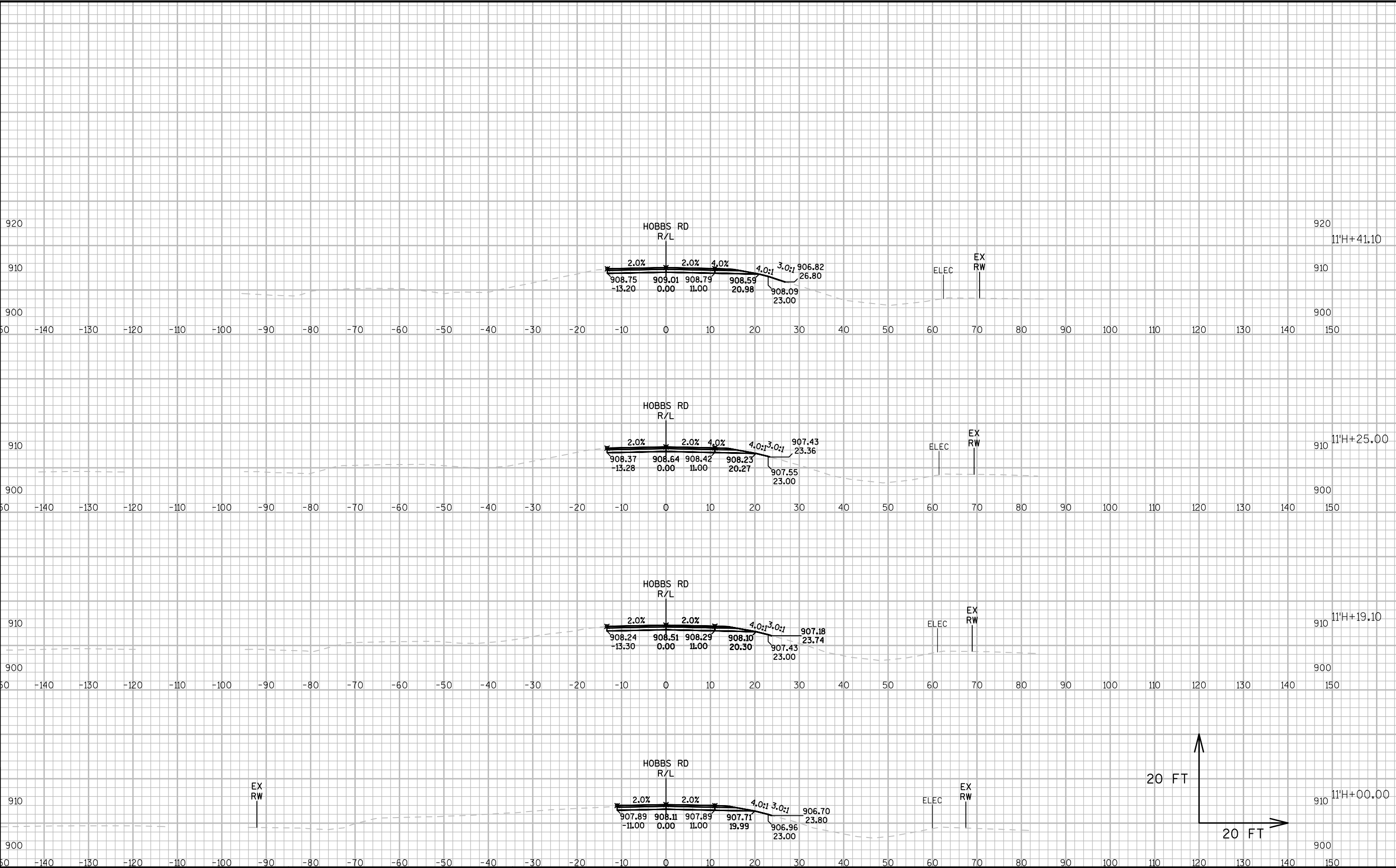
SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-18-50			
DRAWN BY TLP/DFD		PLANS CK'D. DLM	
SUBSURFACE EXPLORATION		SHEET 4	

* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

SCALE = 20.00



PROJECT NO:1021-03-74

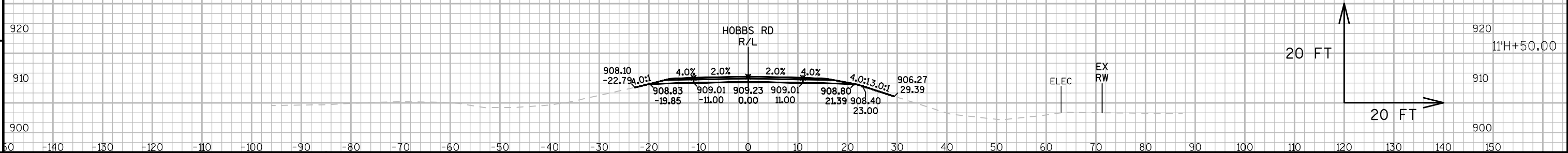
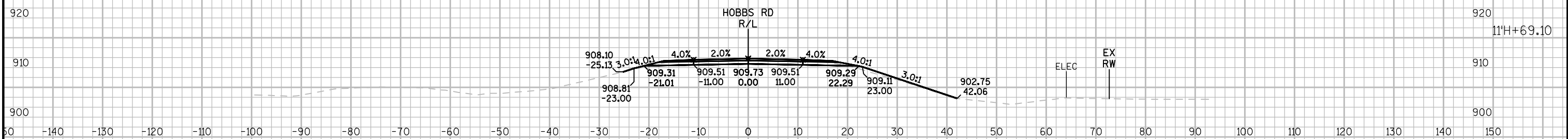
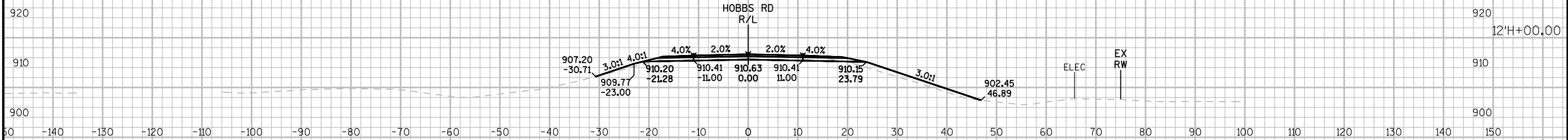
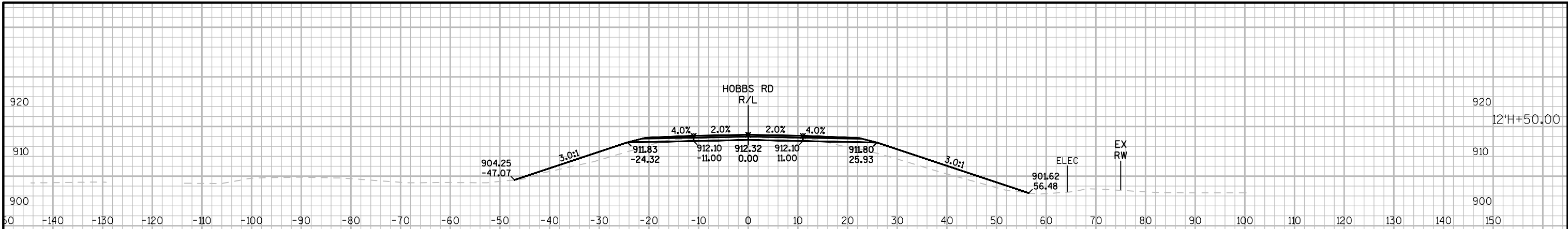
HWY:IH 94

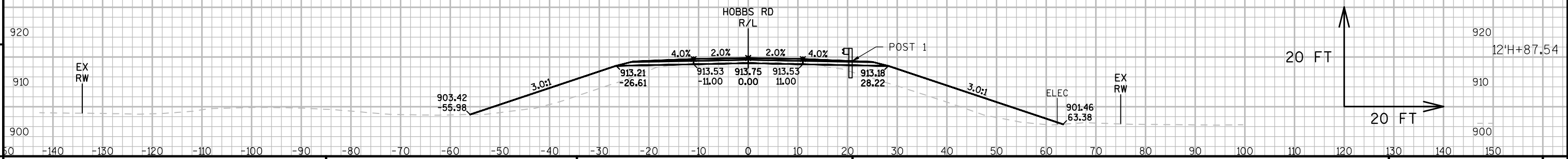
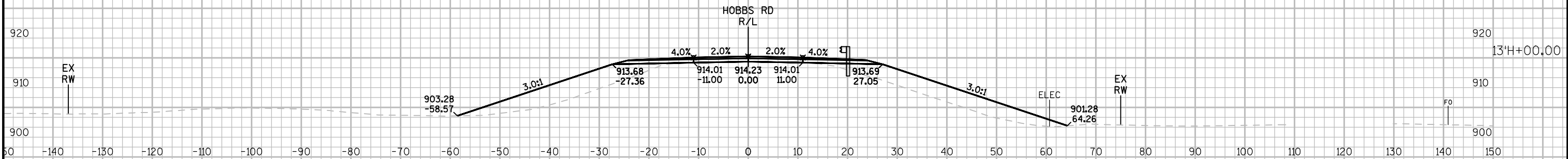
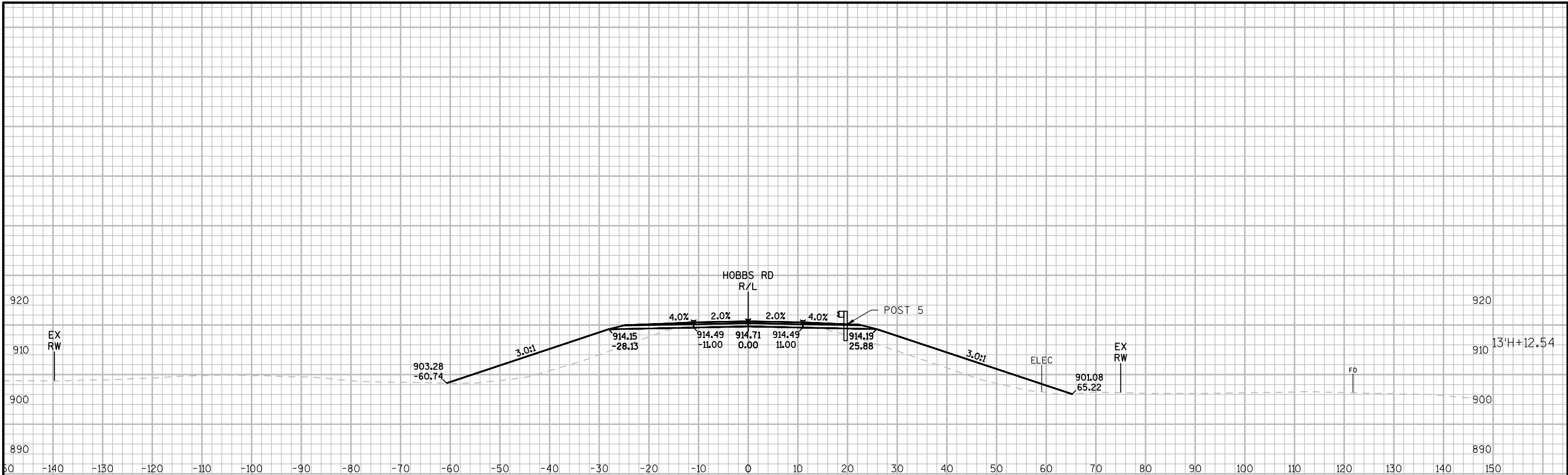
COUNTY:EAU CLAIRE

CROSS SECTIONS: HOBBS RD

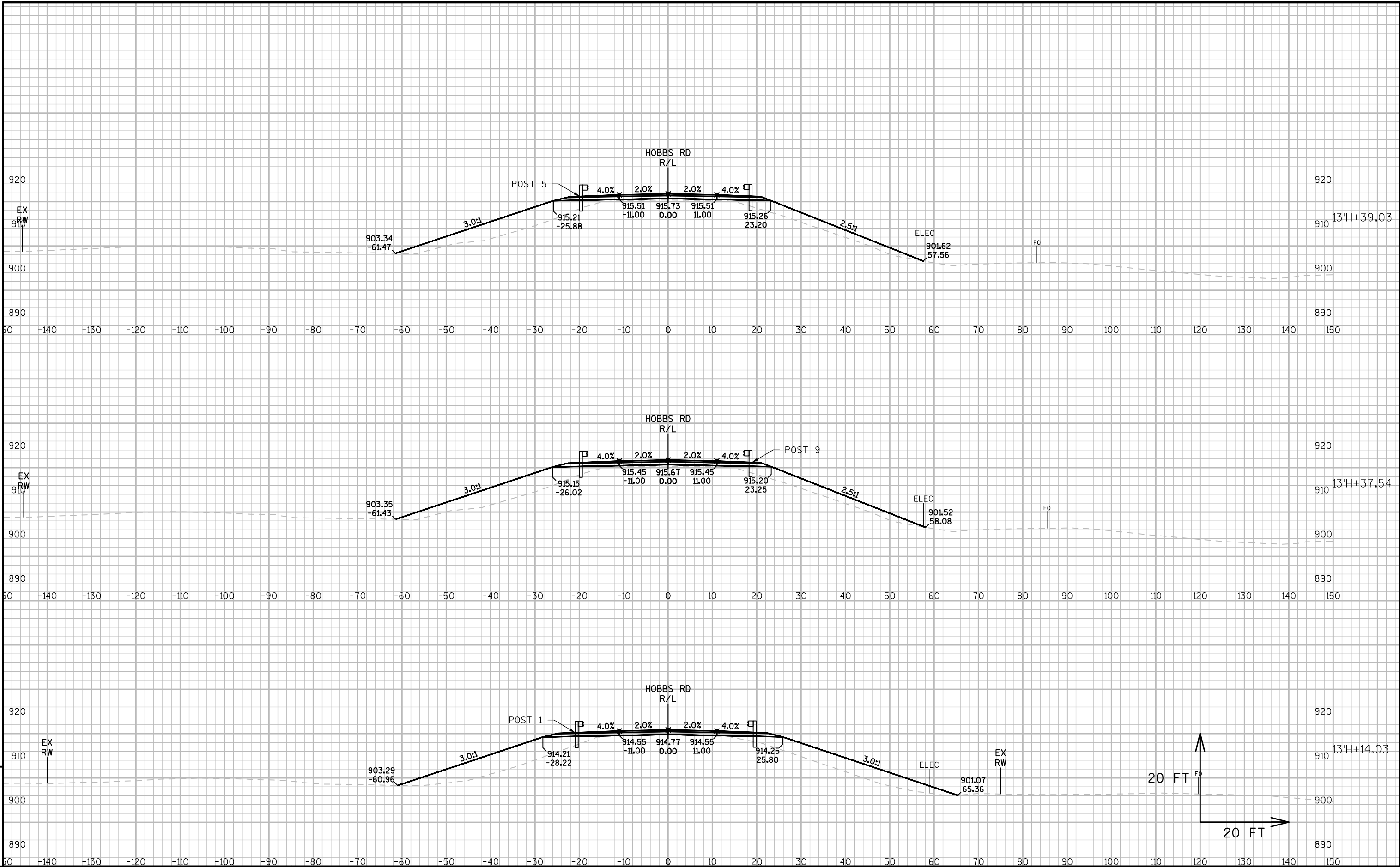
SHEET

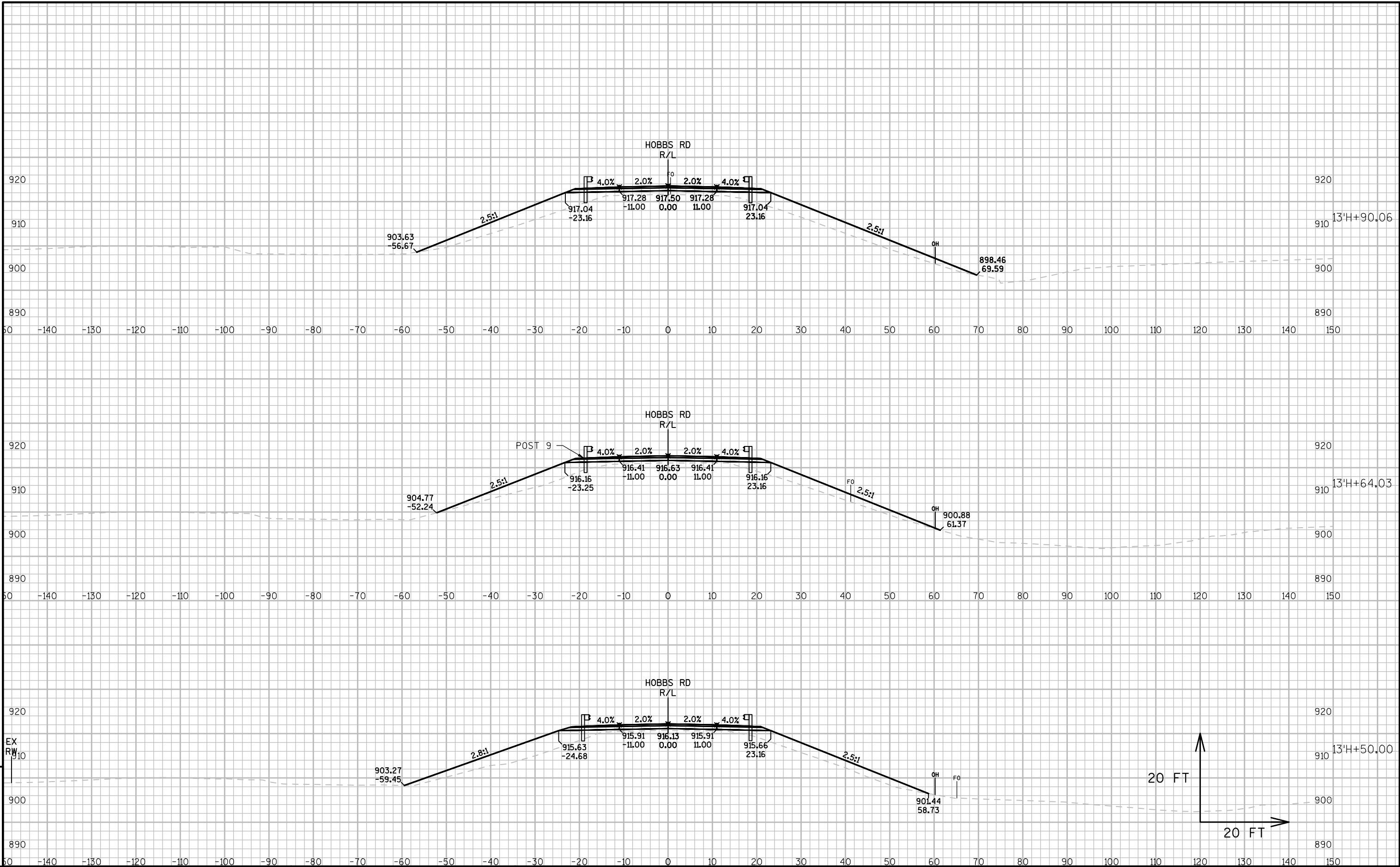
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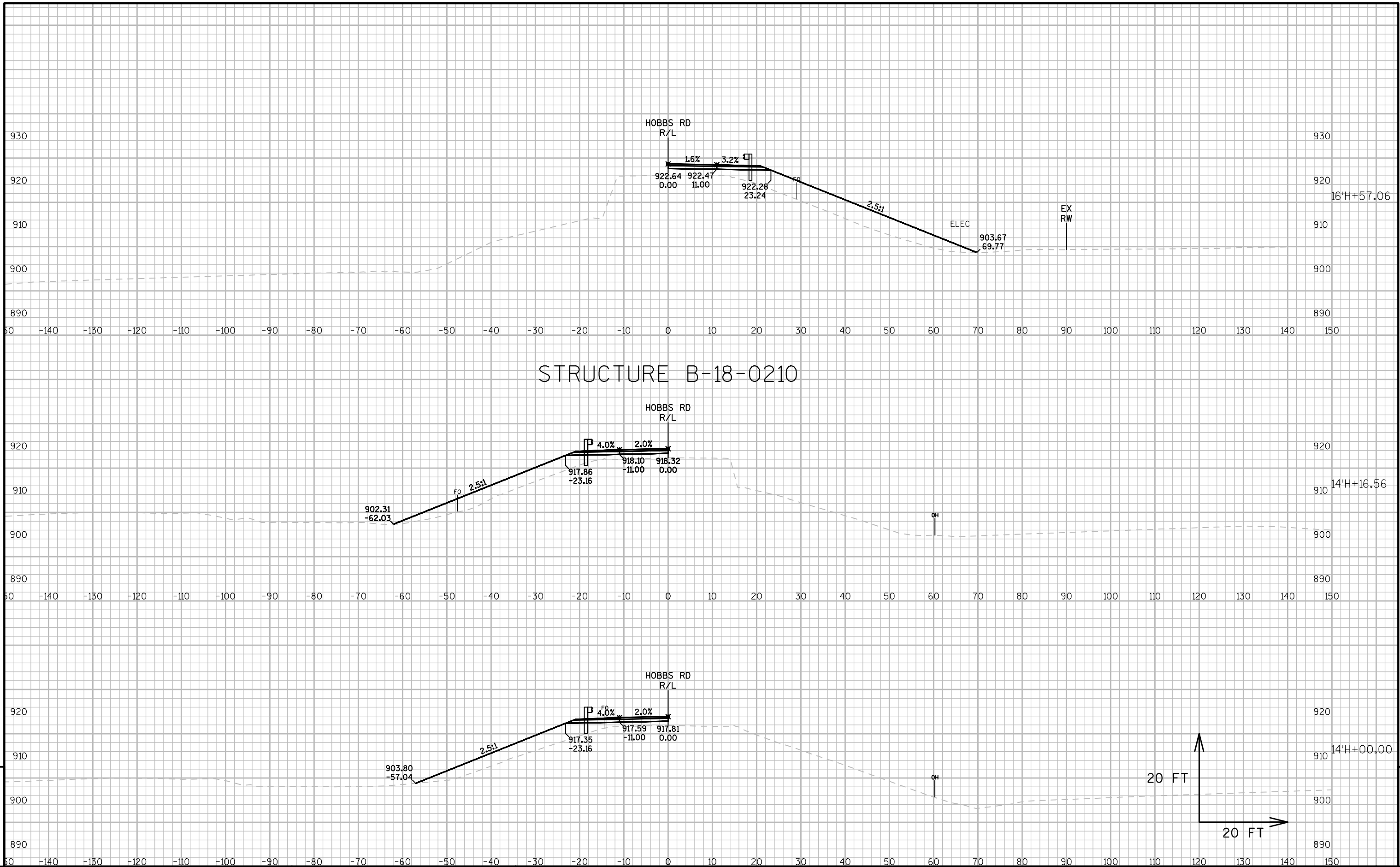


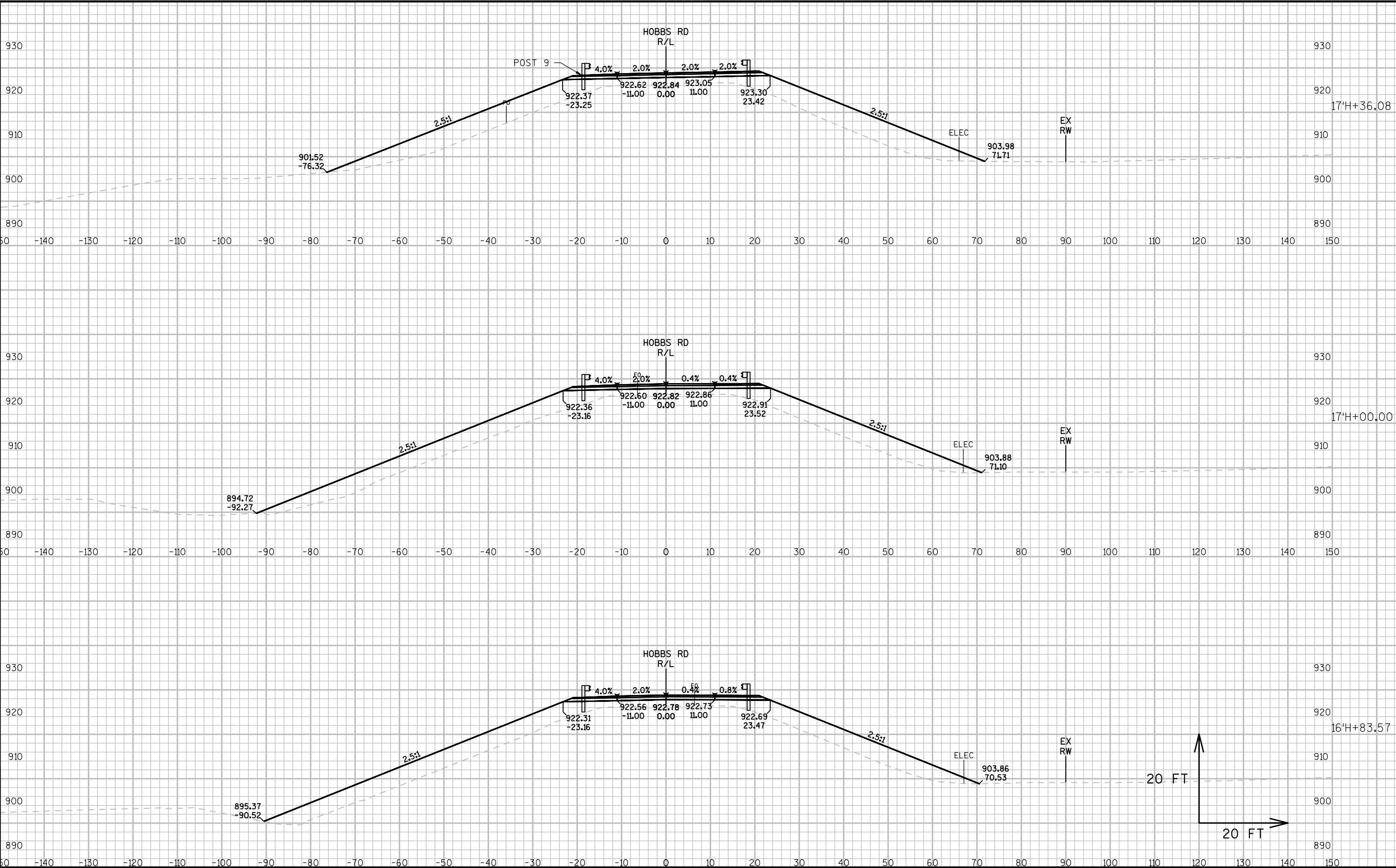


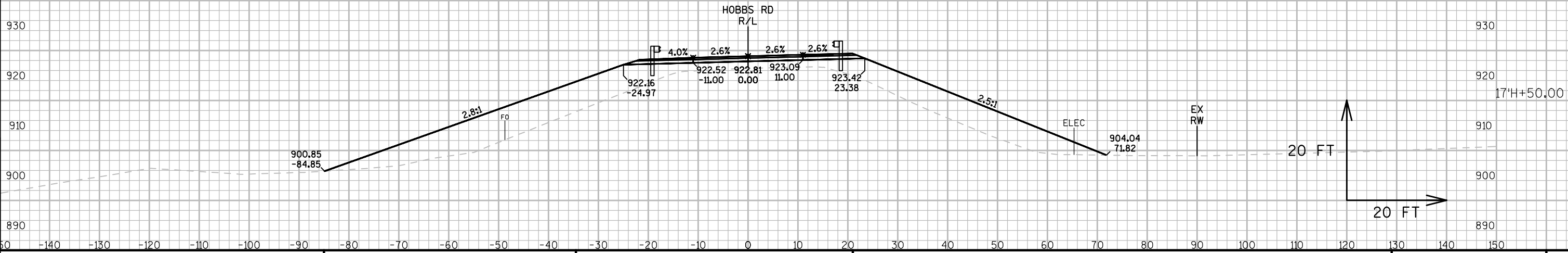
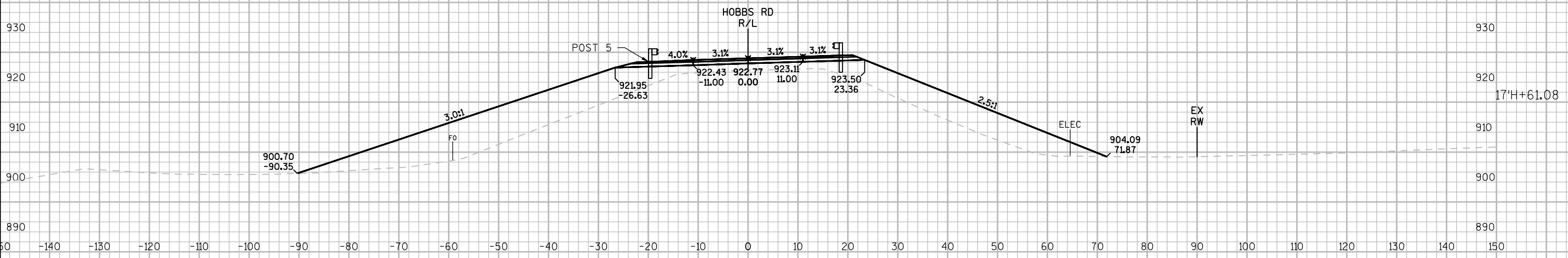
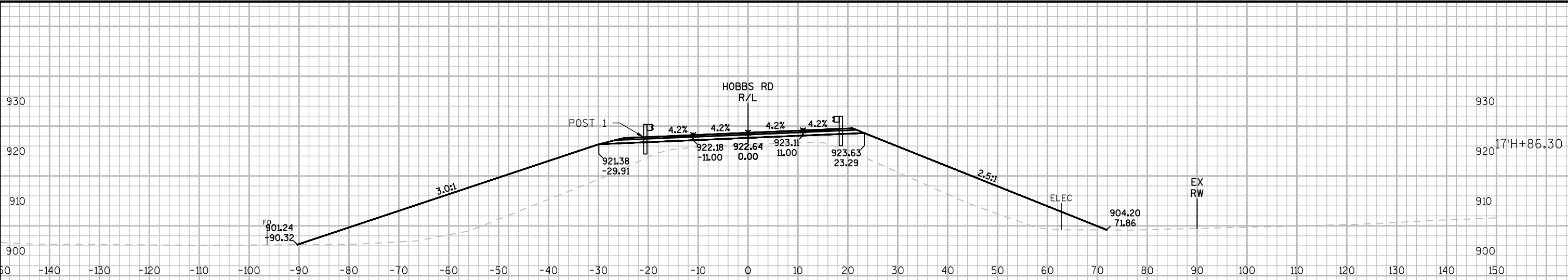
PROJECT NO:1021-03-74	HWY:IH 94	COUNTY:EAU CLAIRE	CROSS SECTIONS: HOBBS RD	SHEET	E
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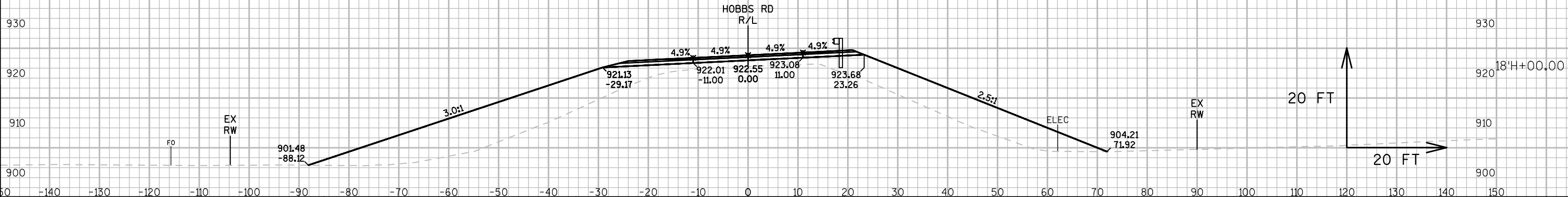
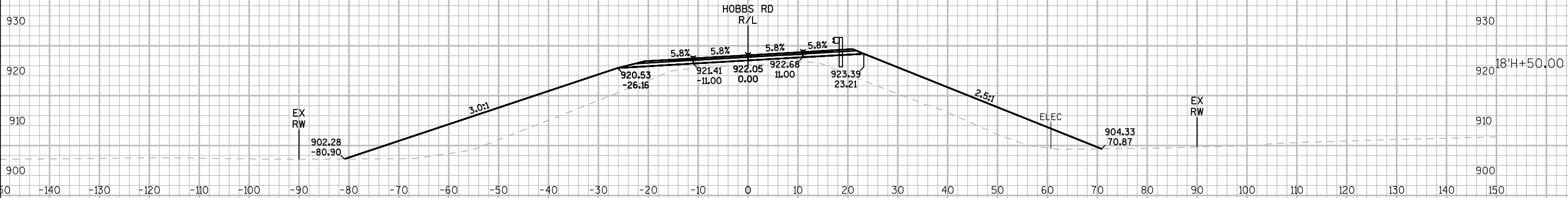


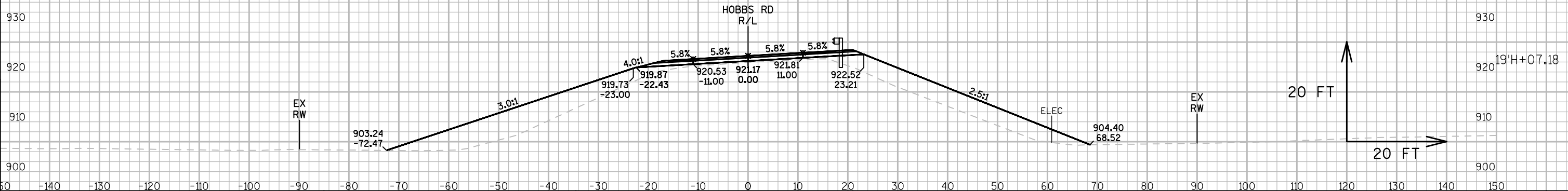
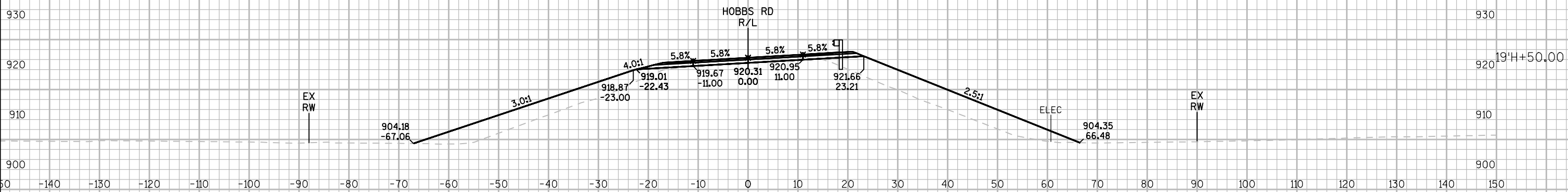
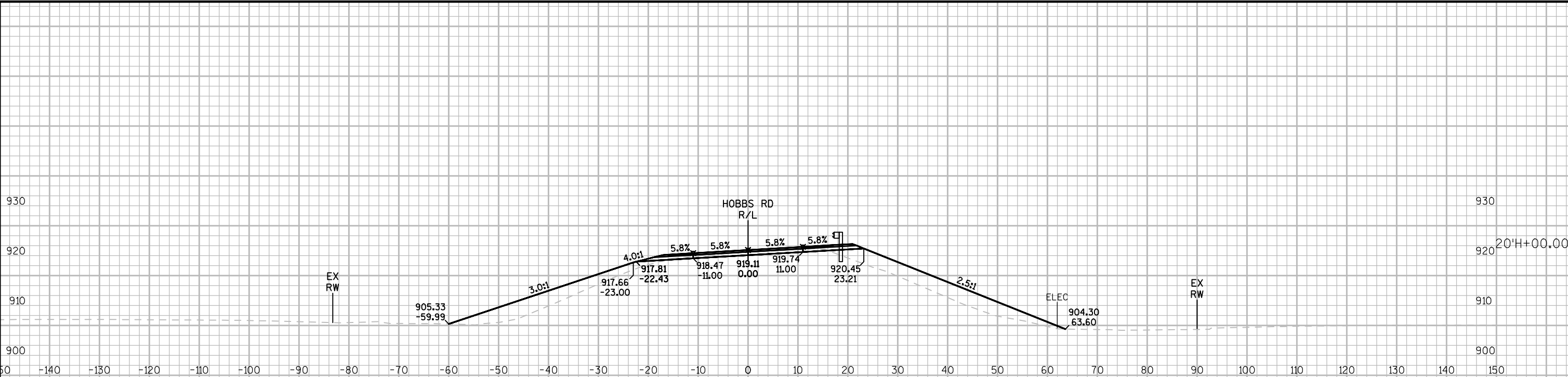


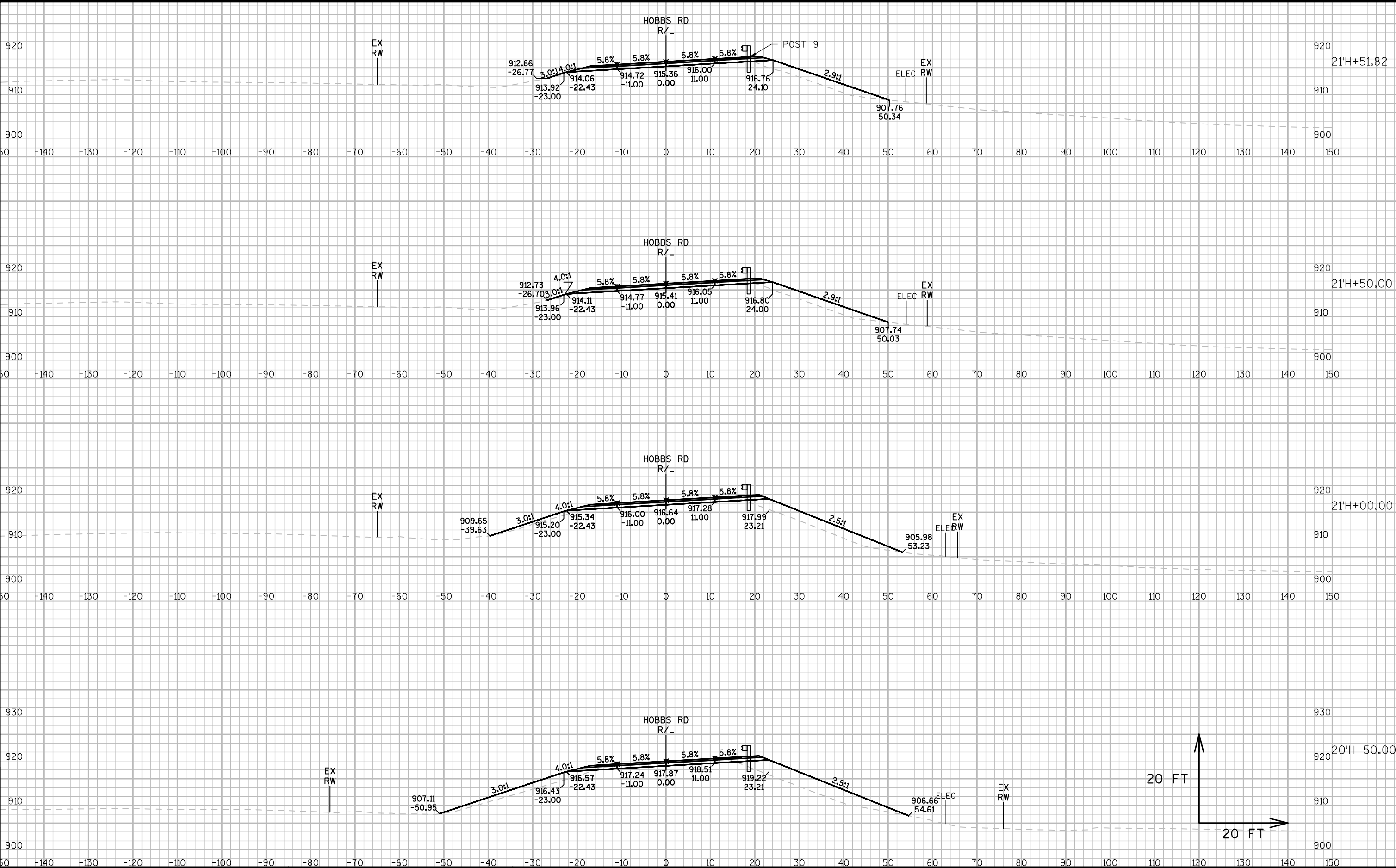


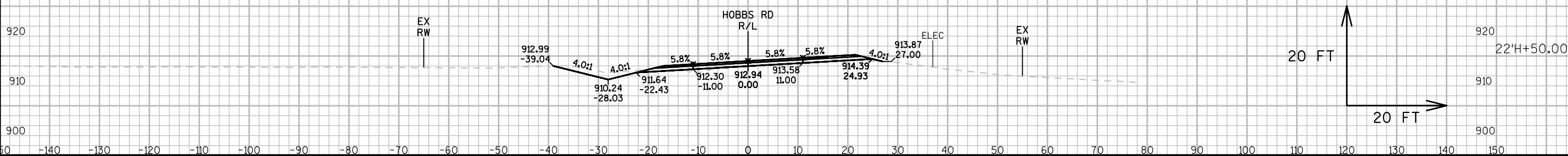
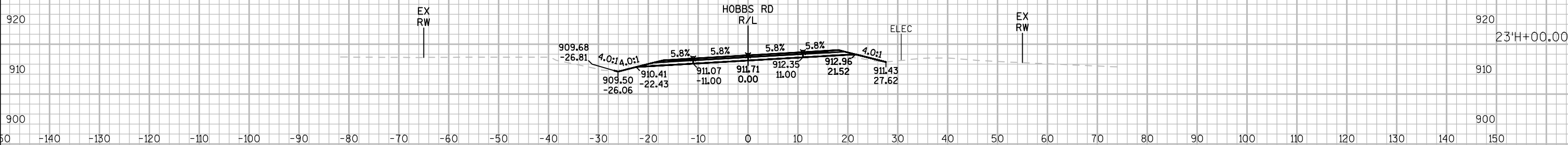
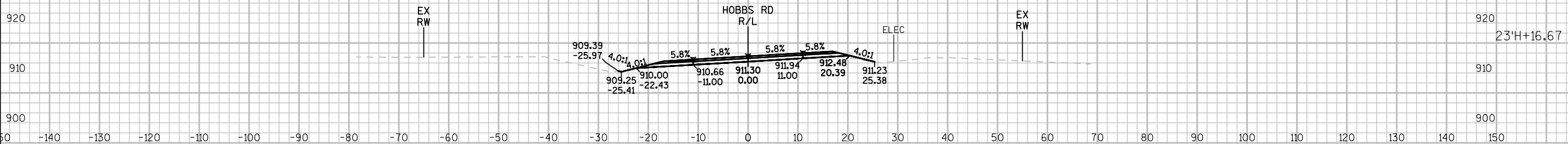
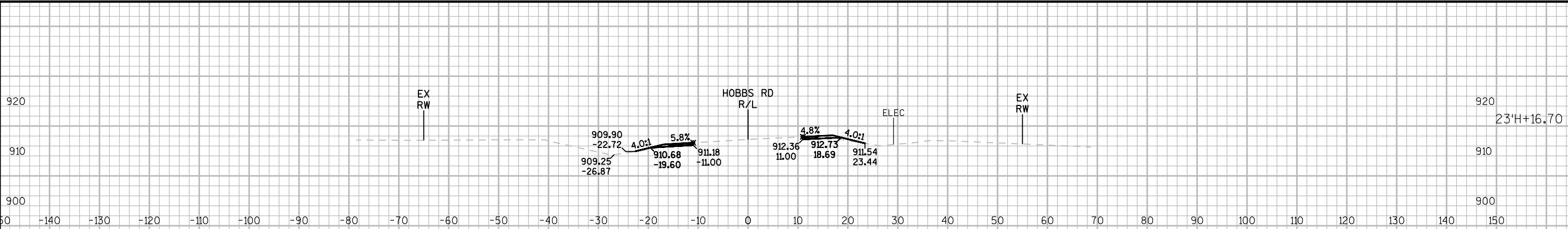


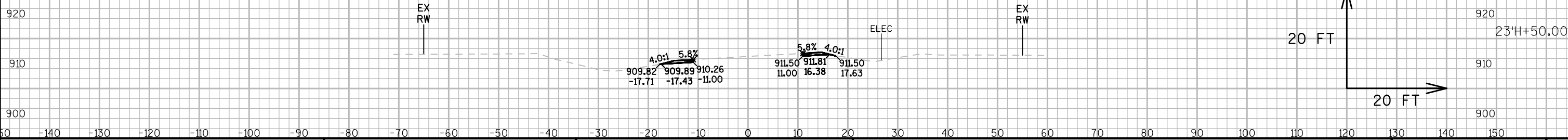
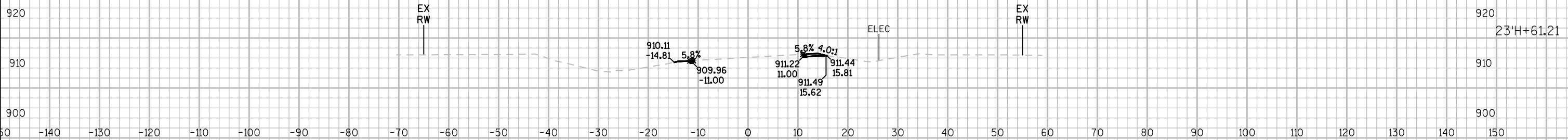
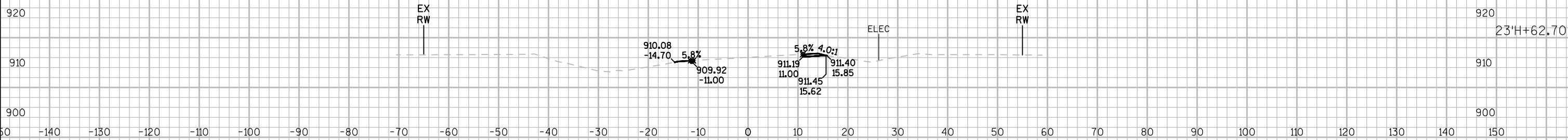
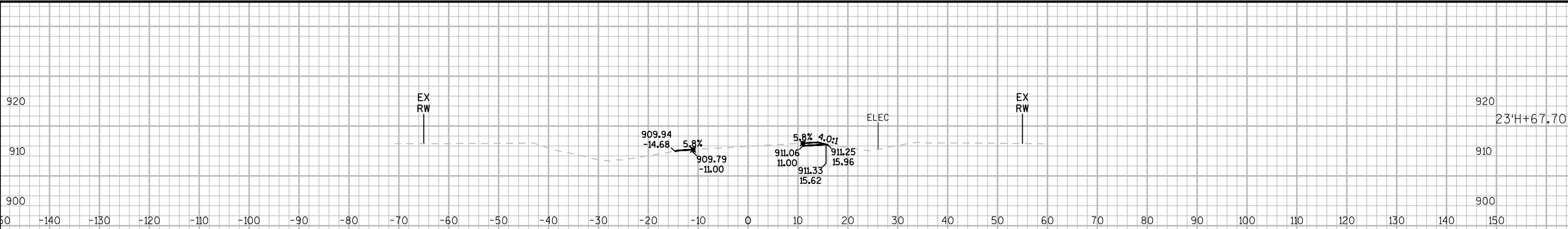






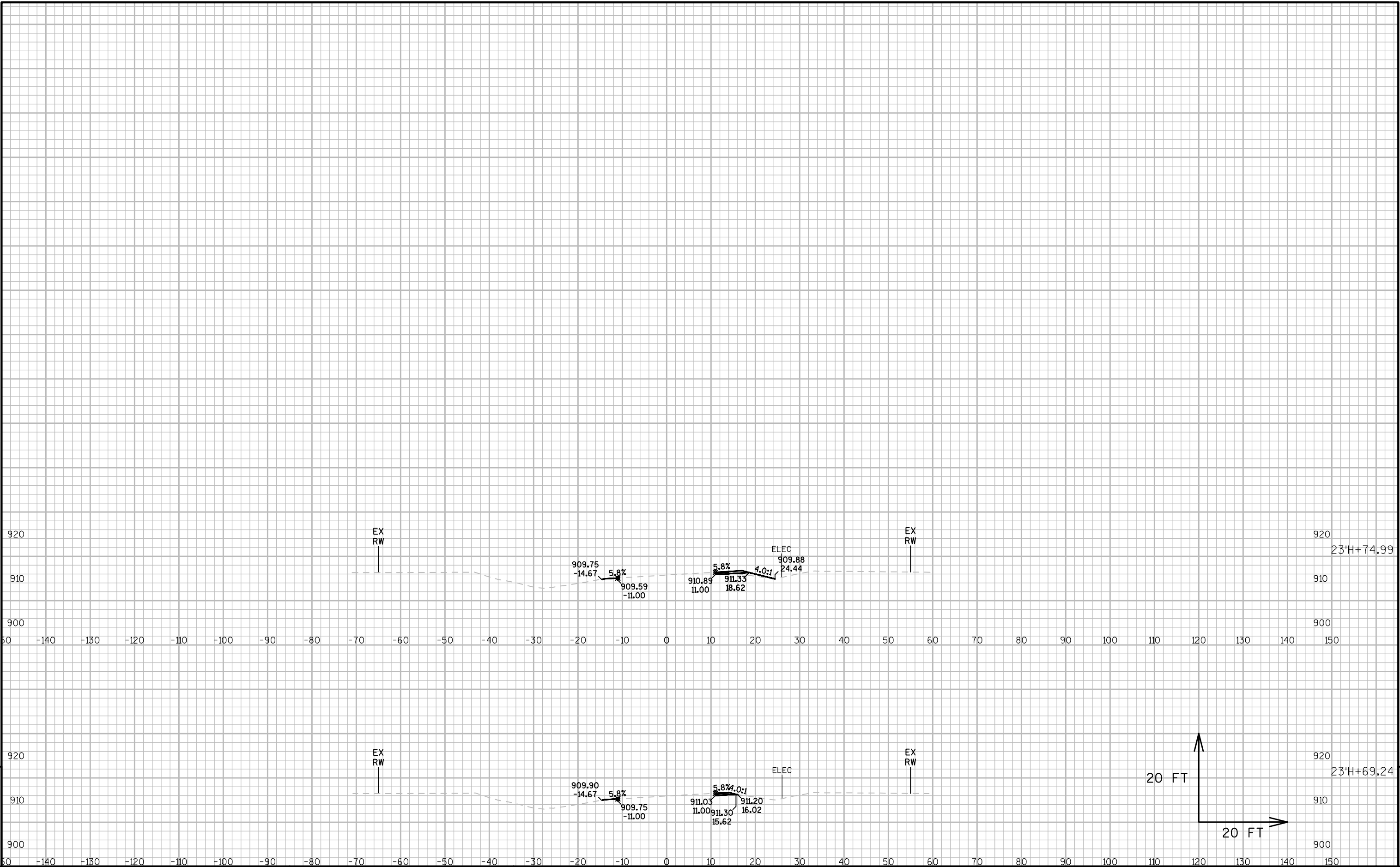


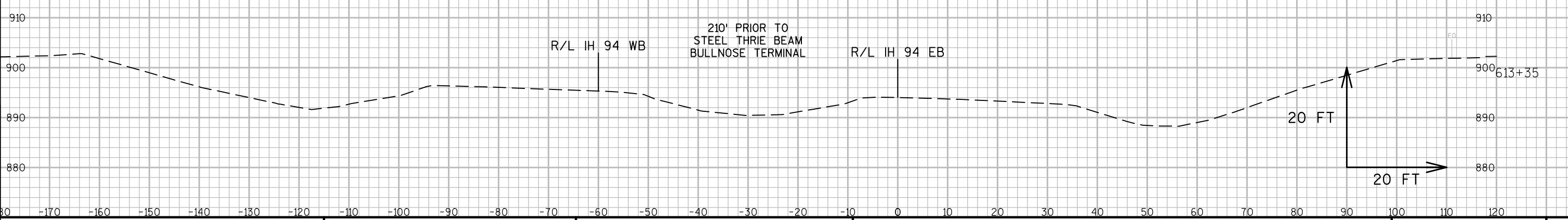
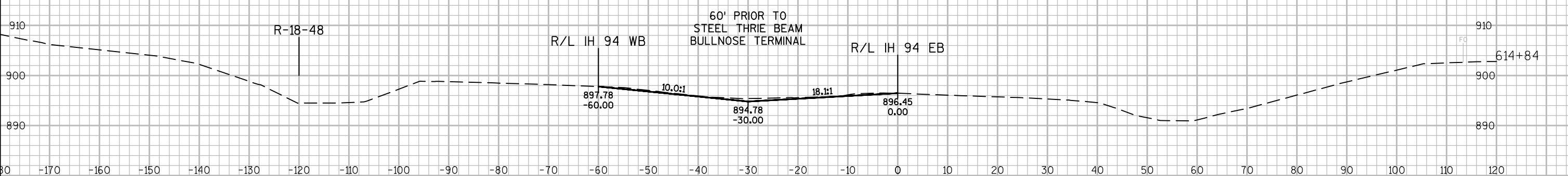
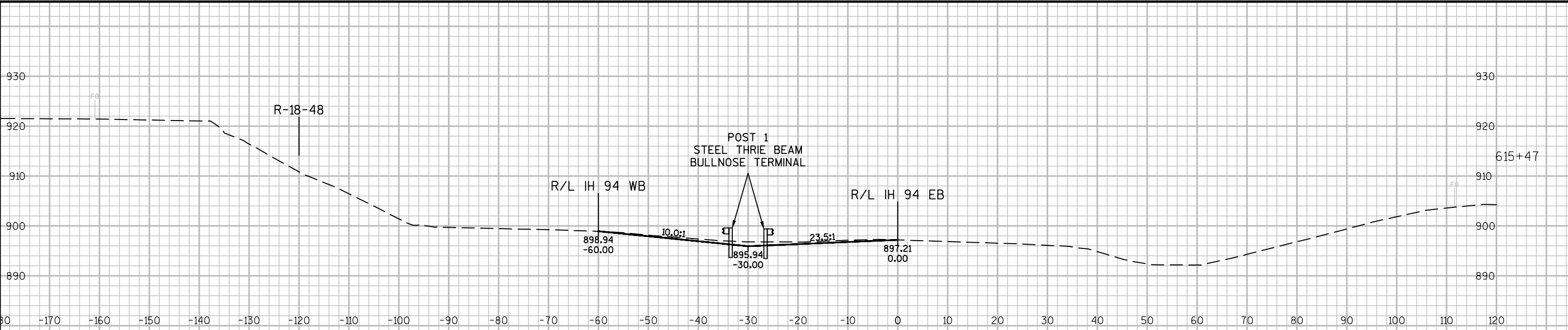


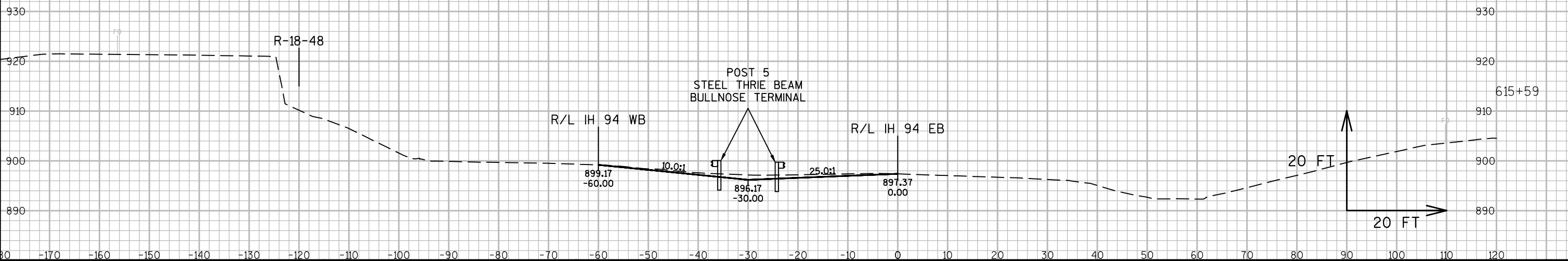
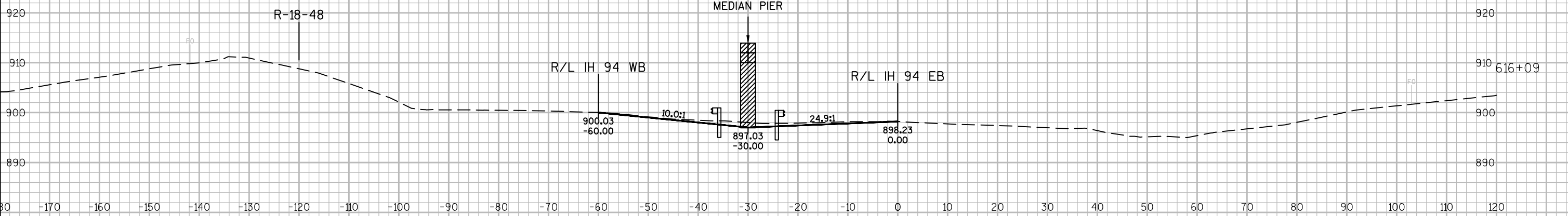
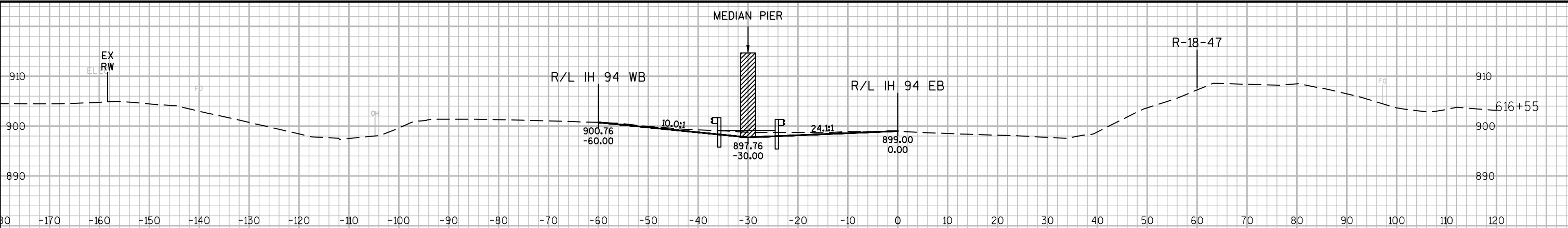


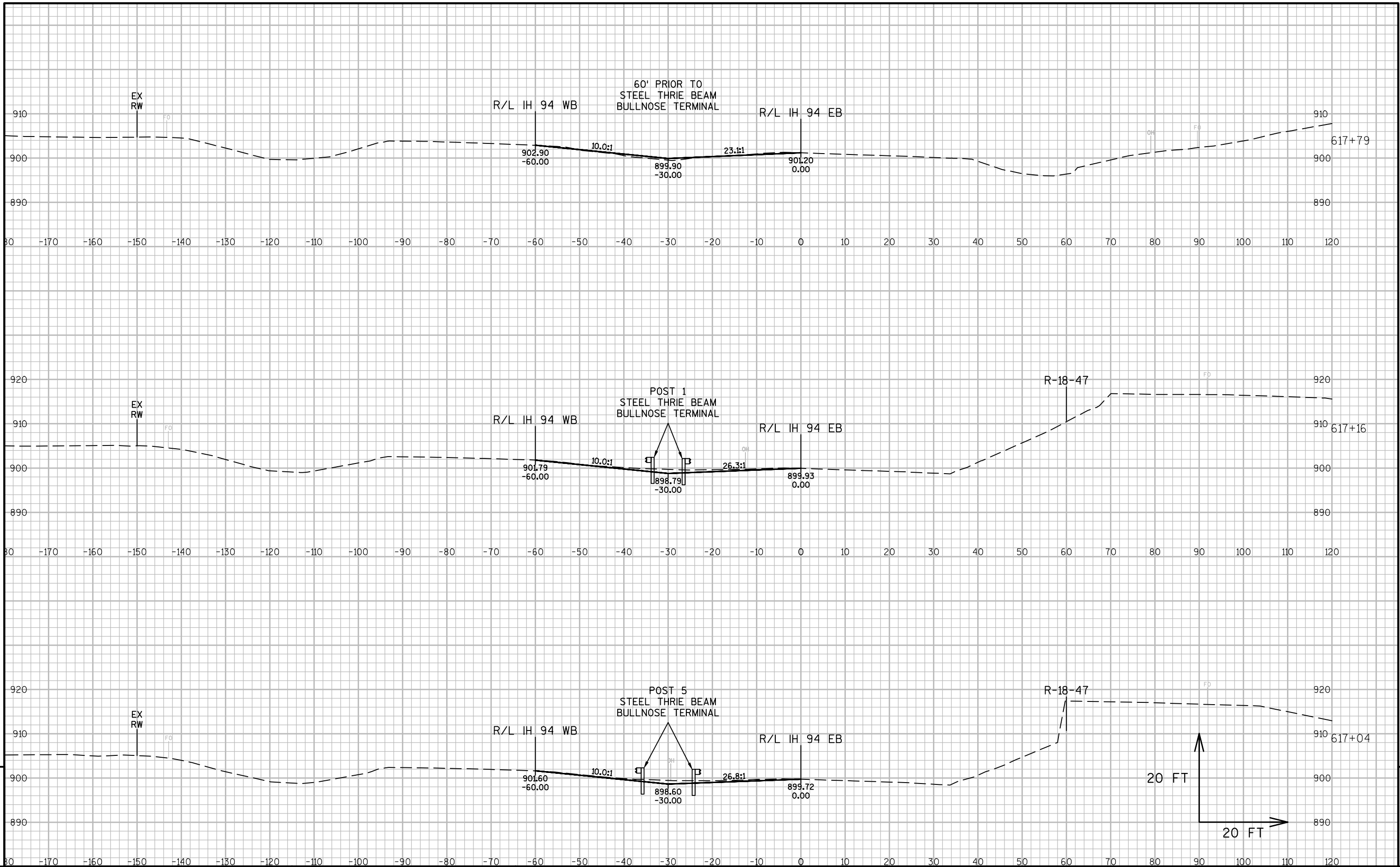
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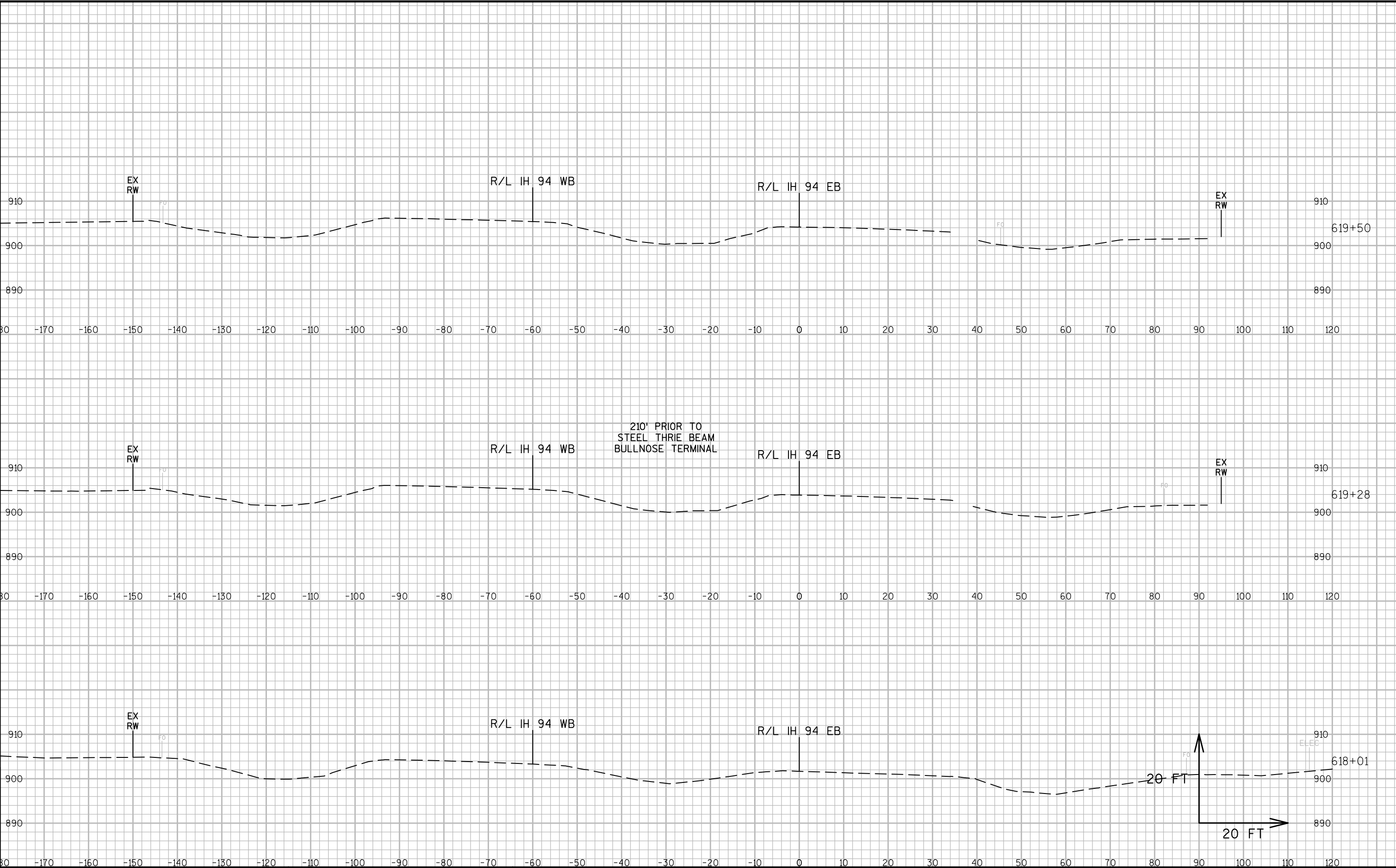
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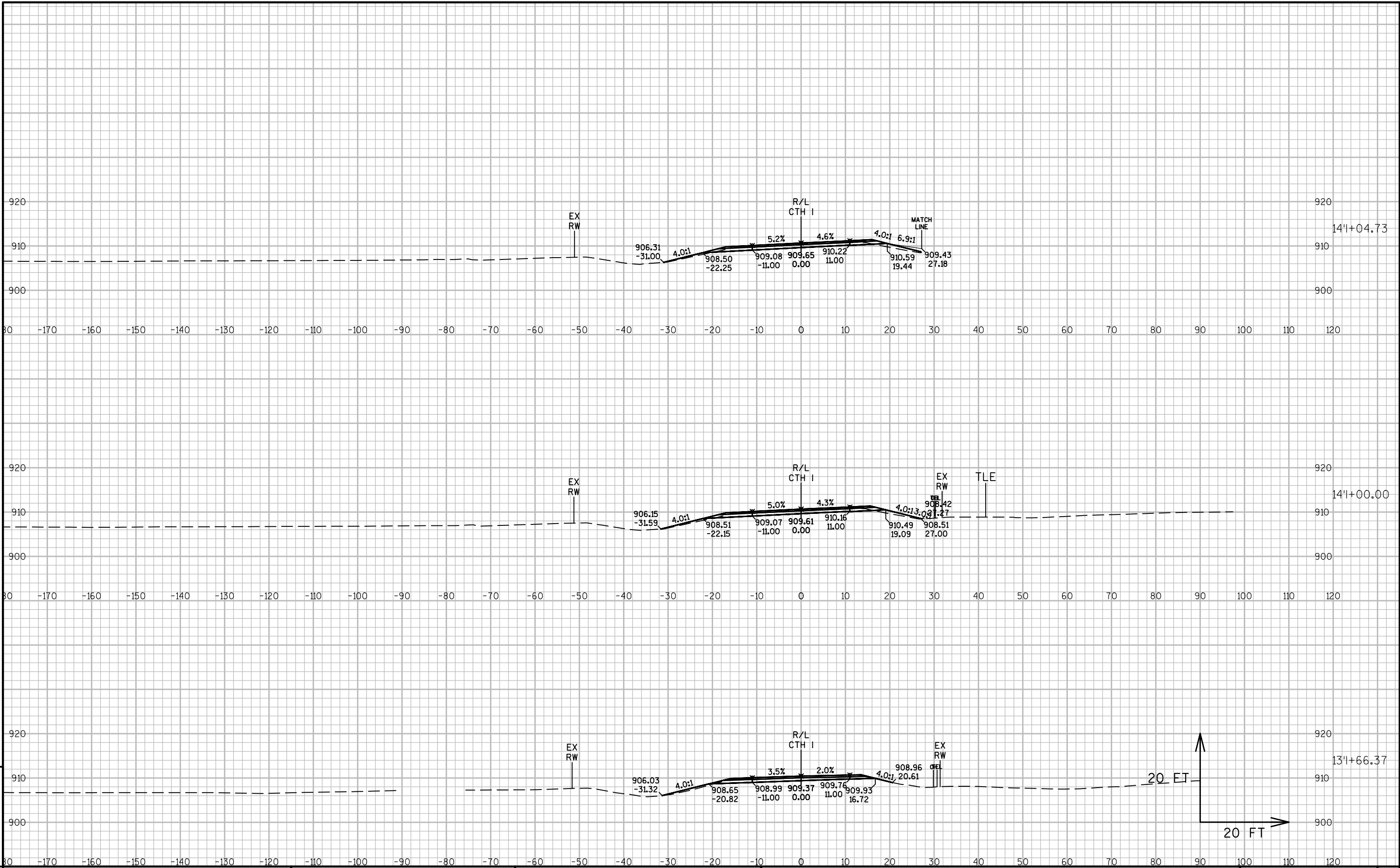


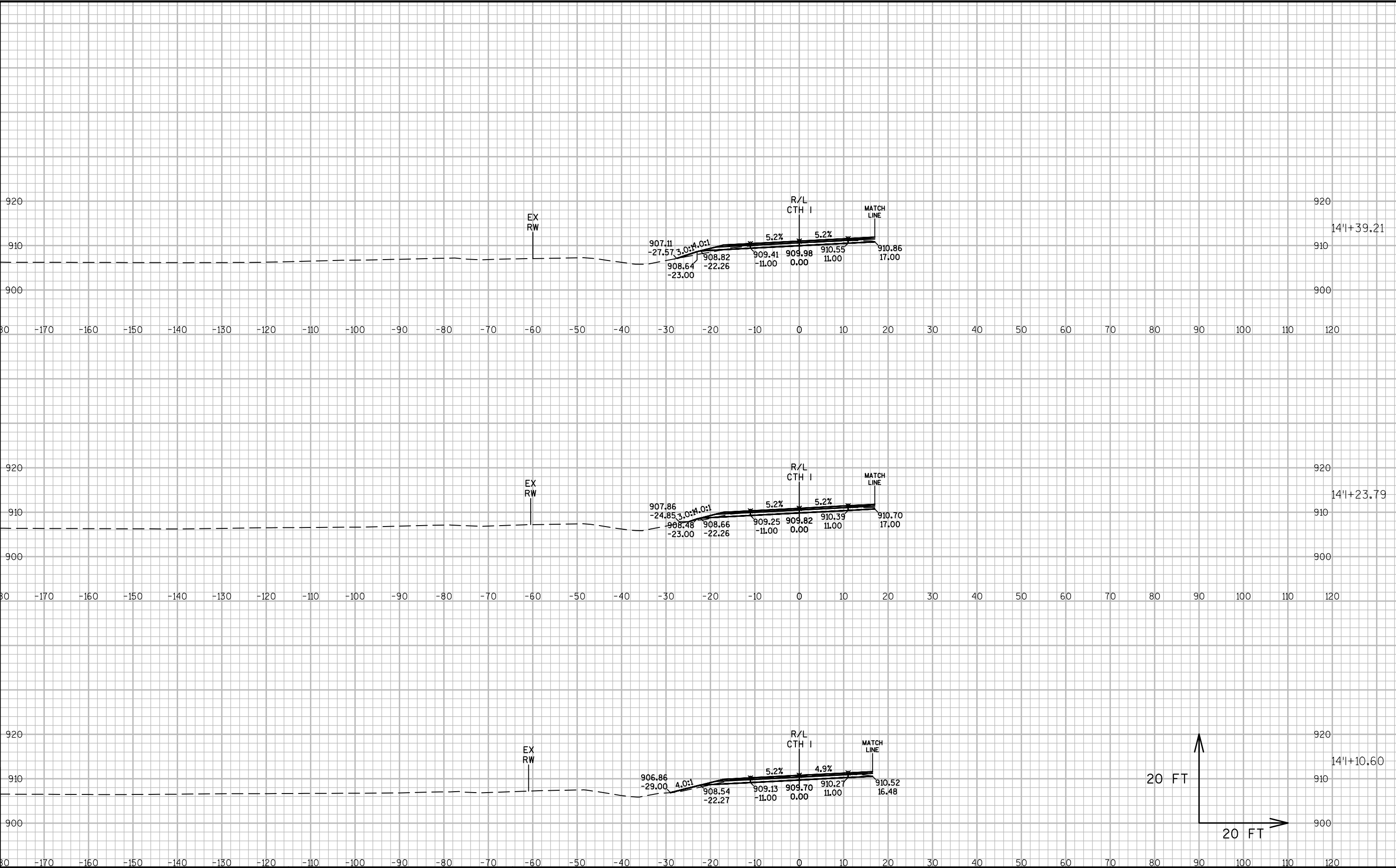


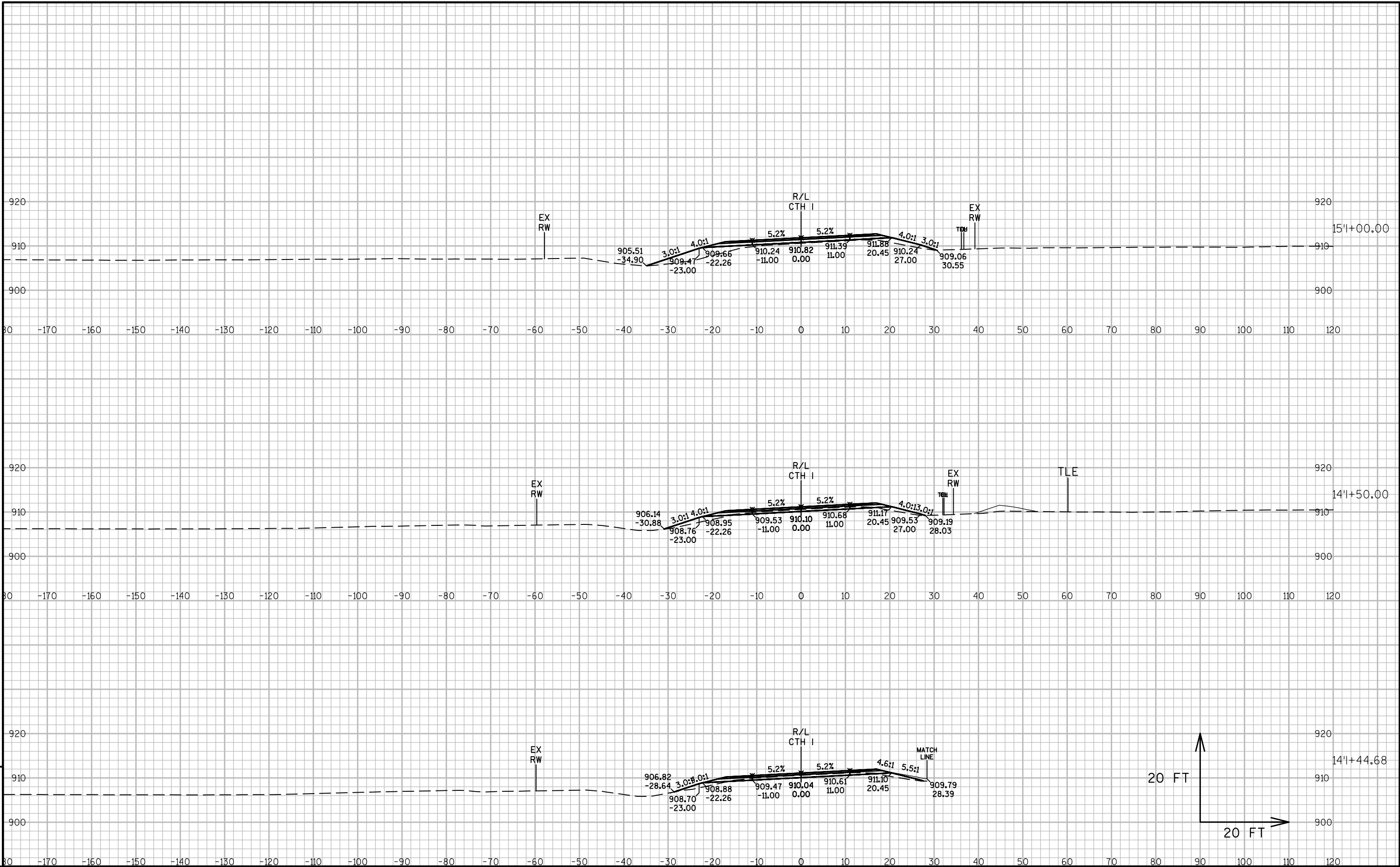


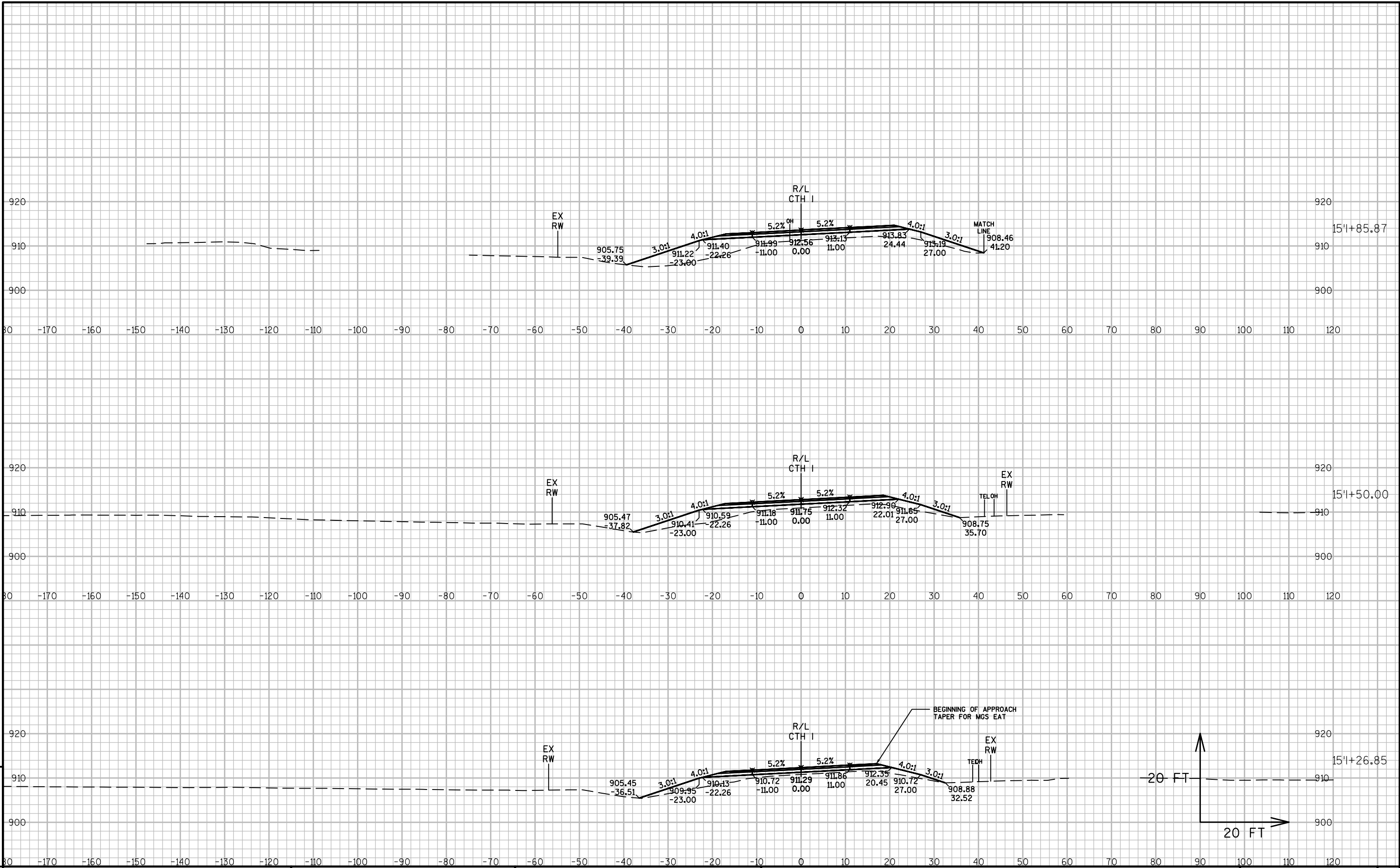


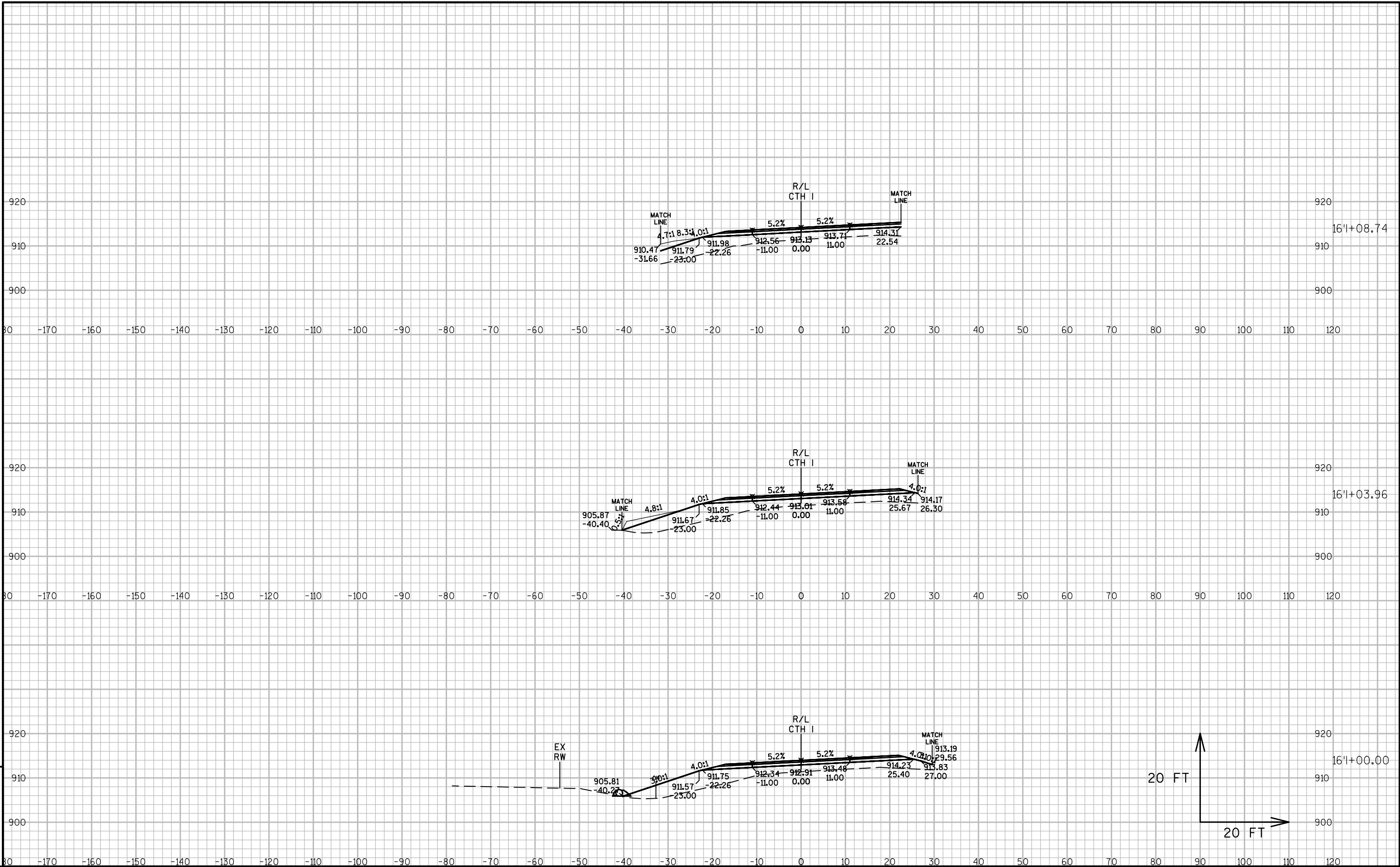


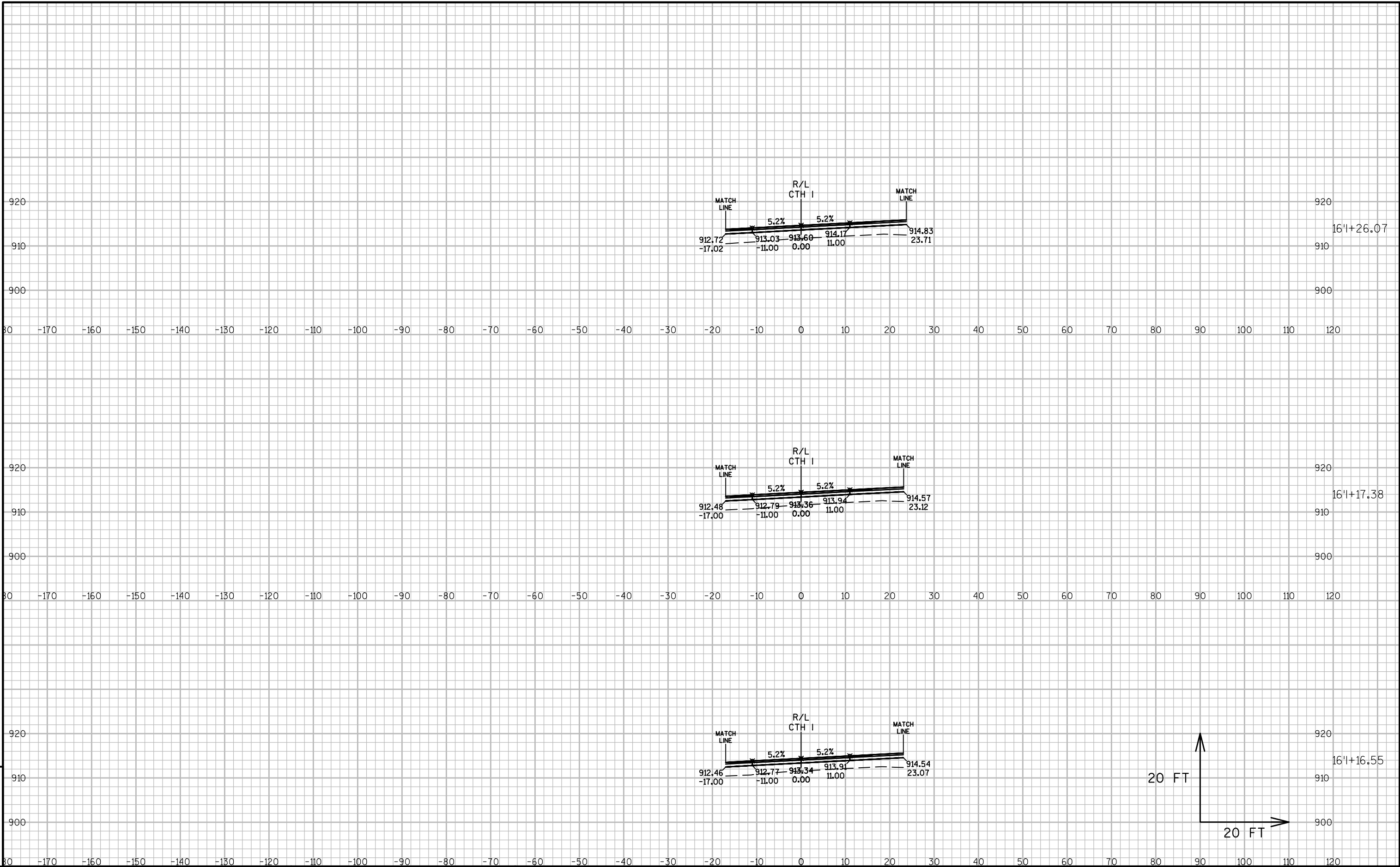


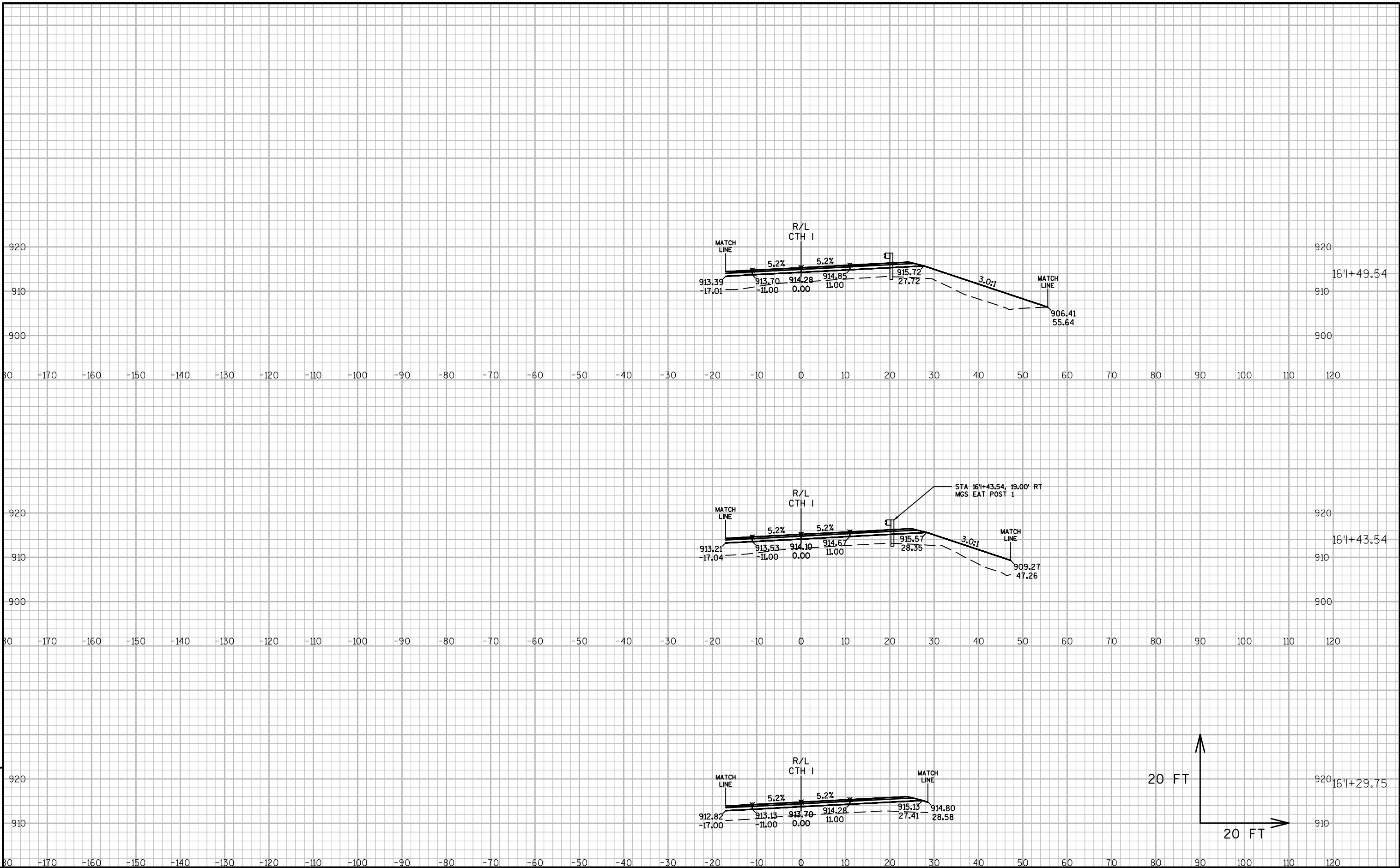


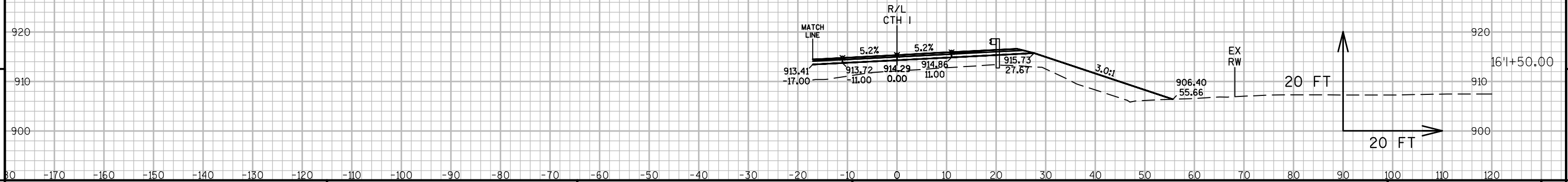
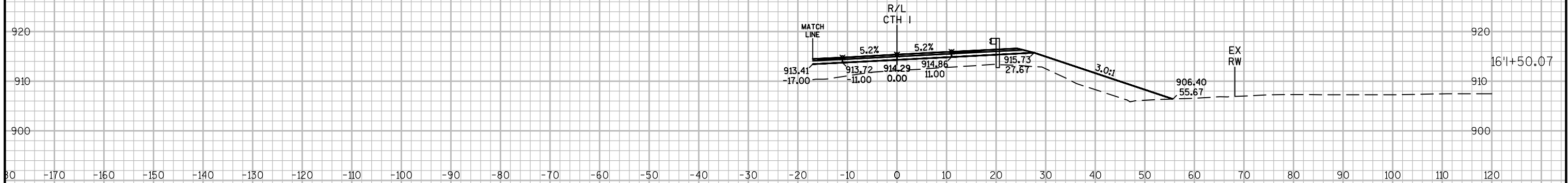
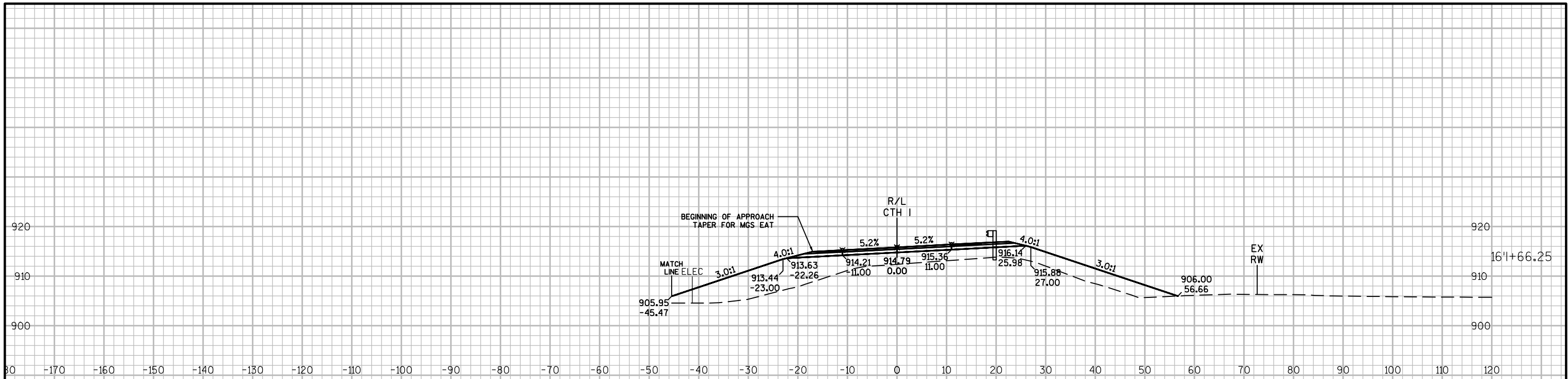


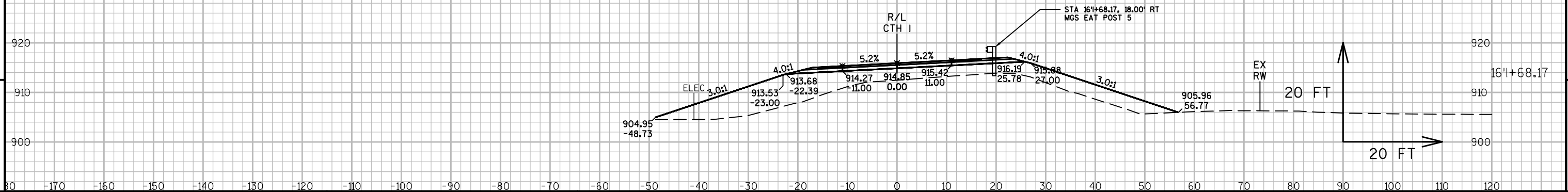
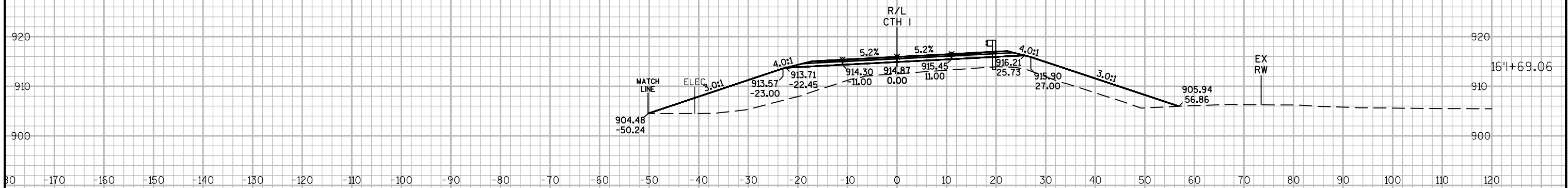
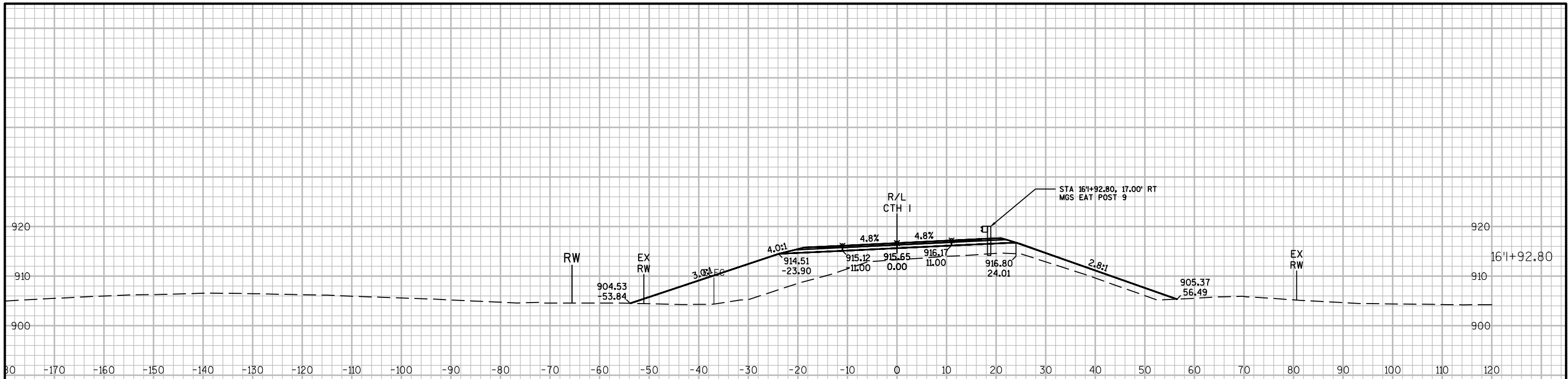


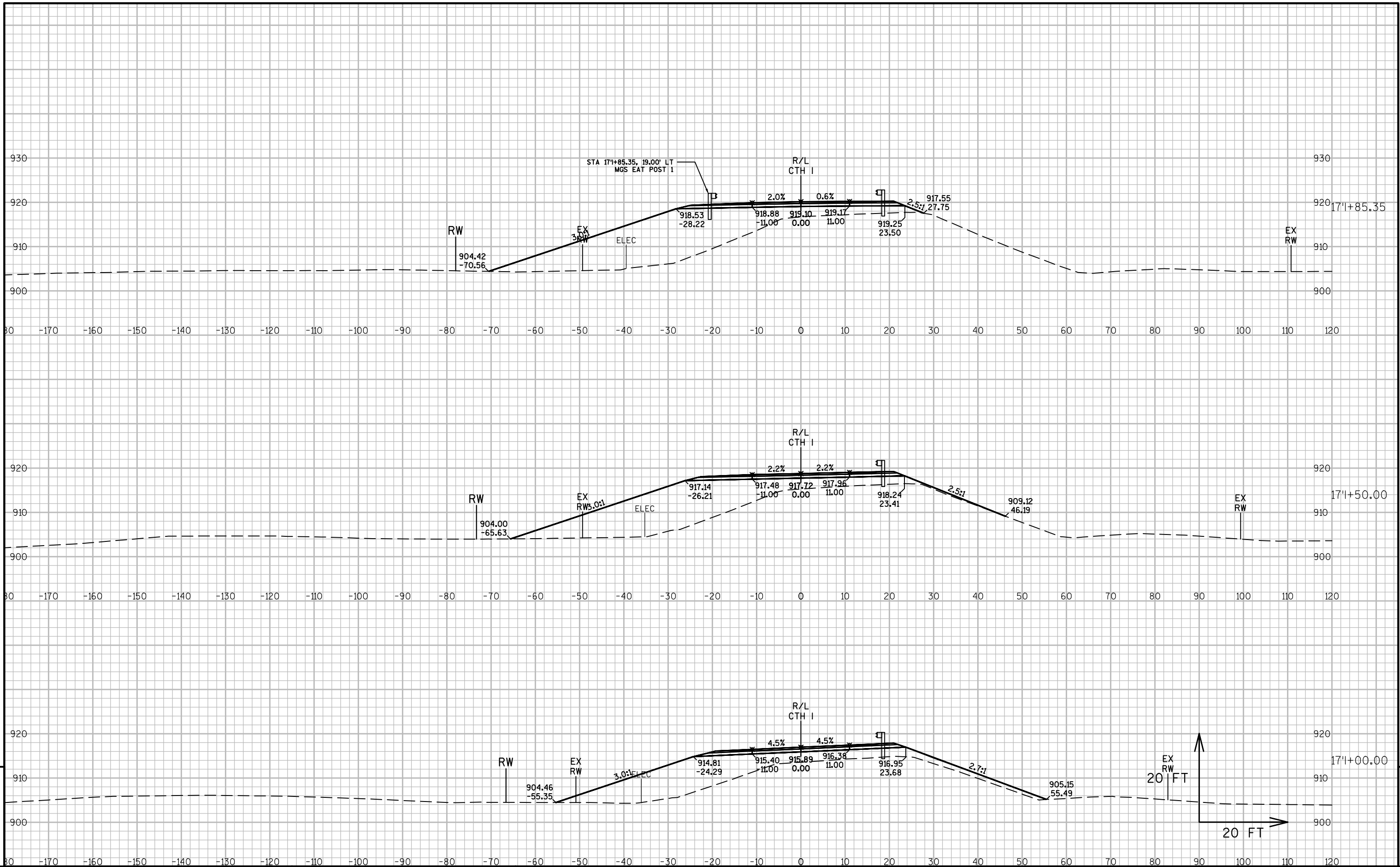


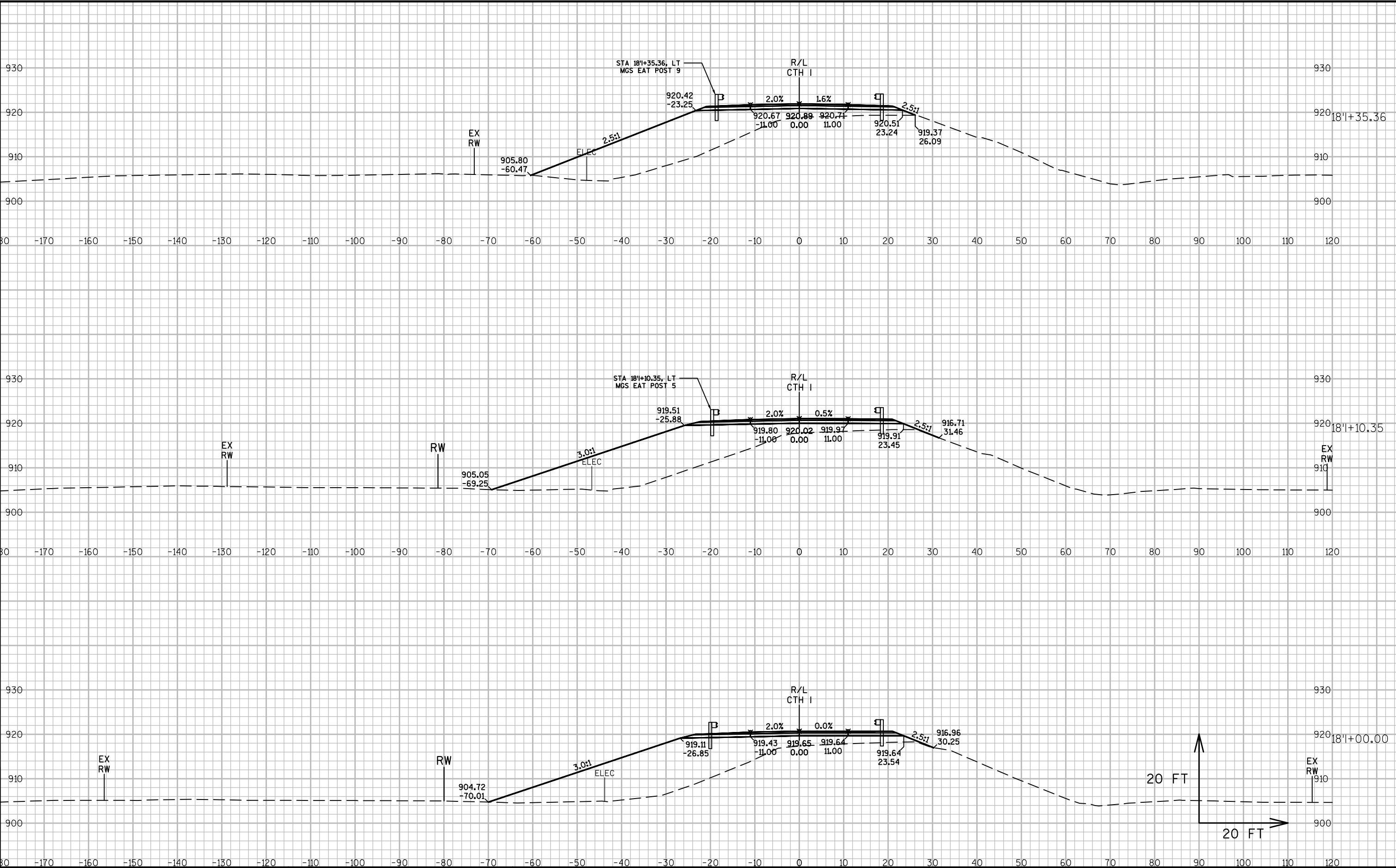


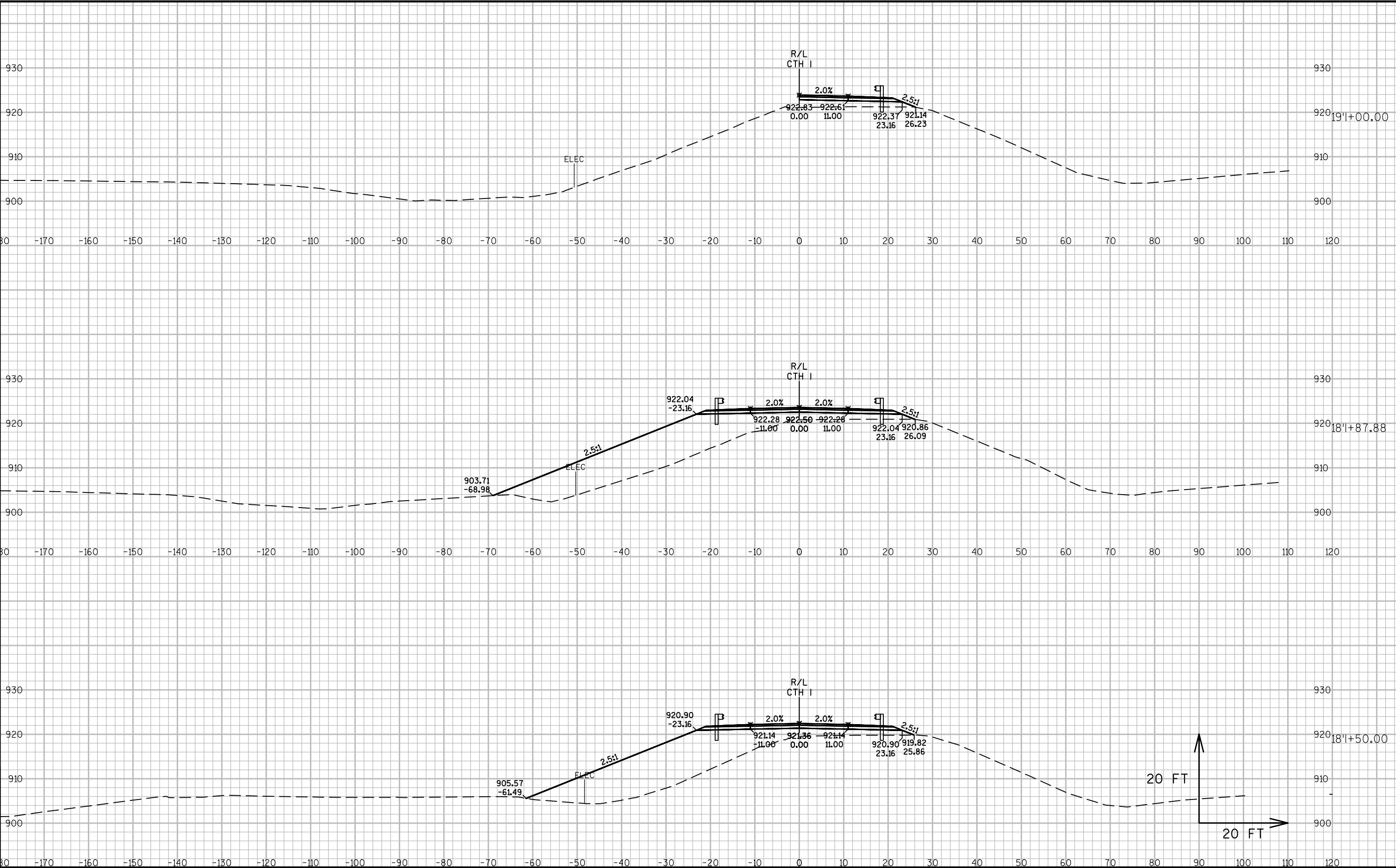


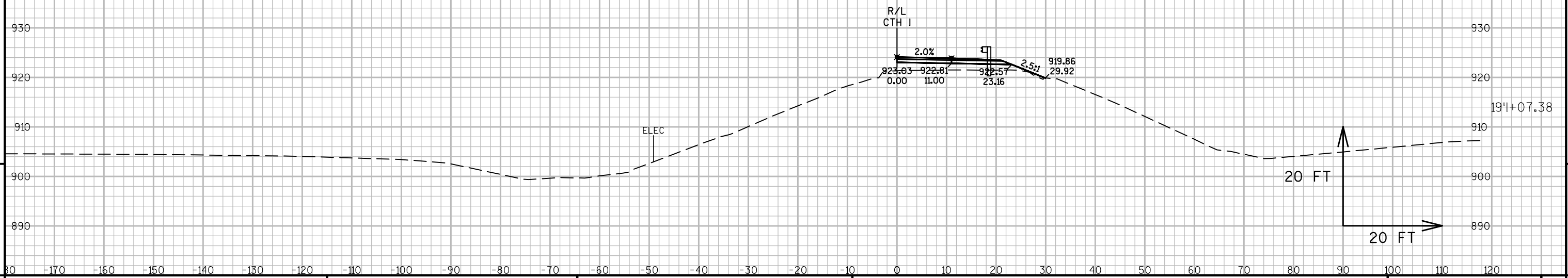
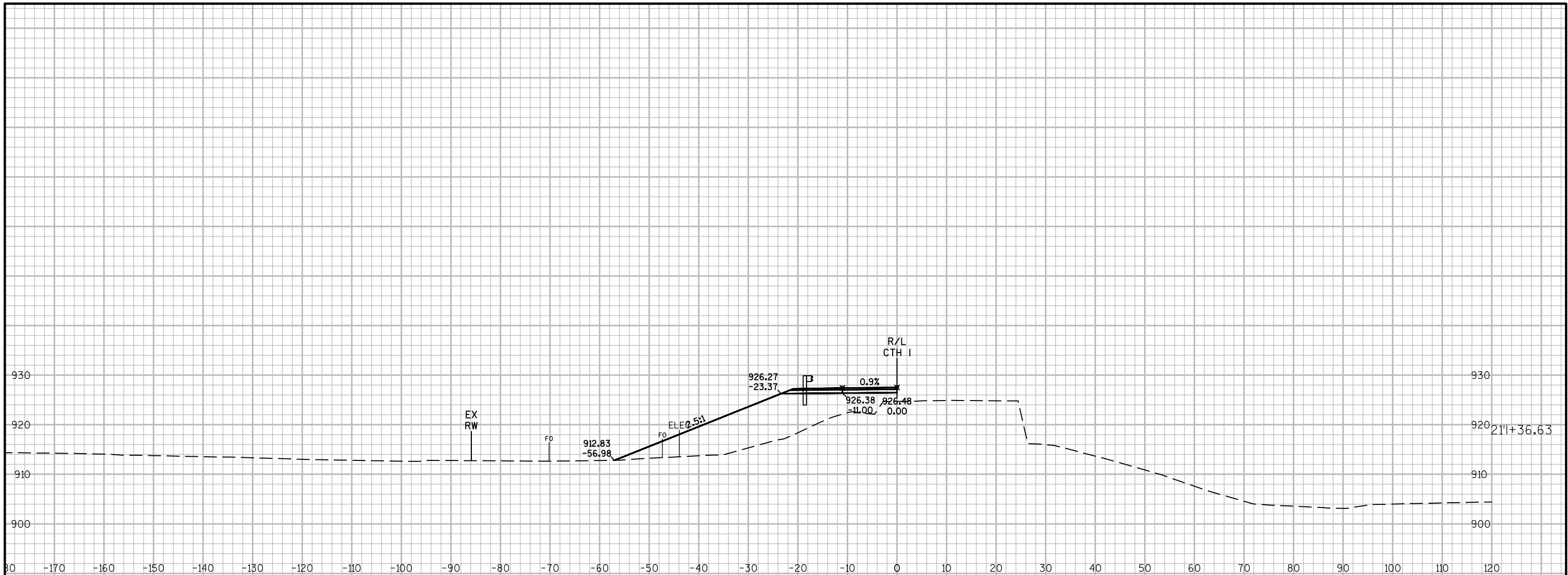


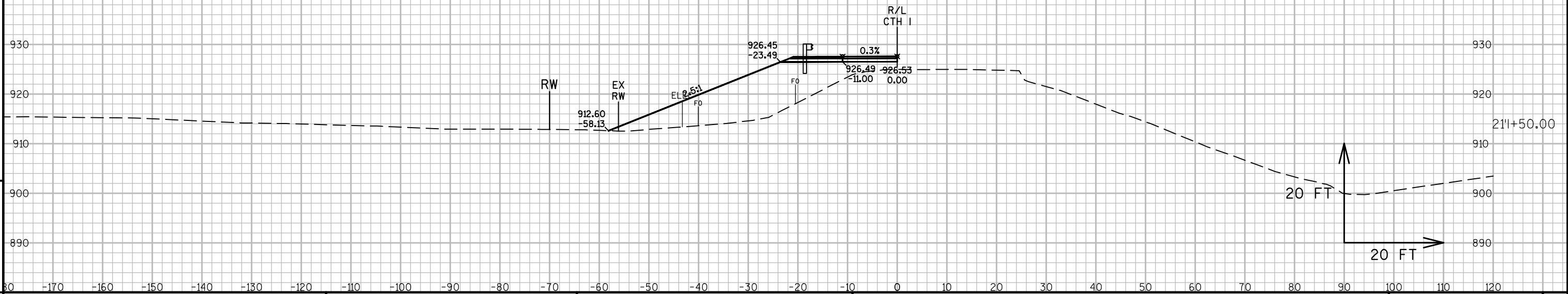
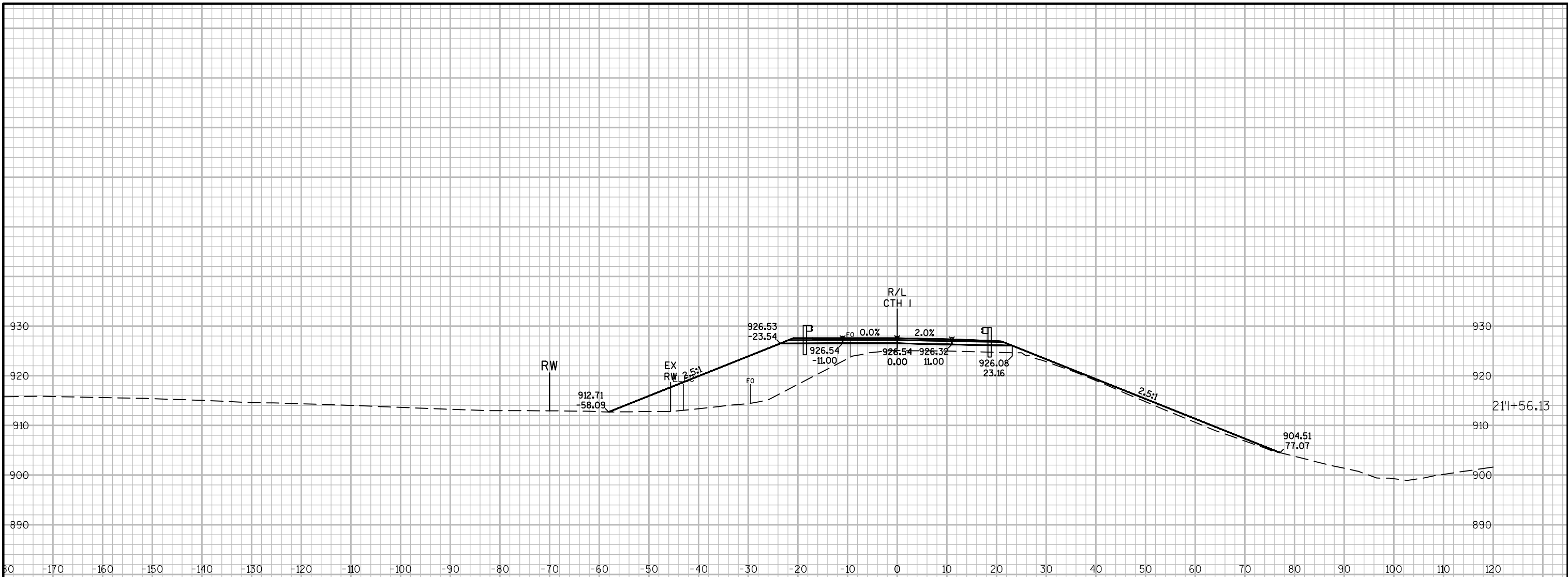


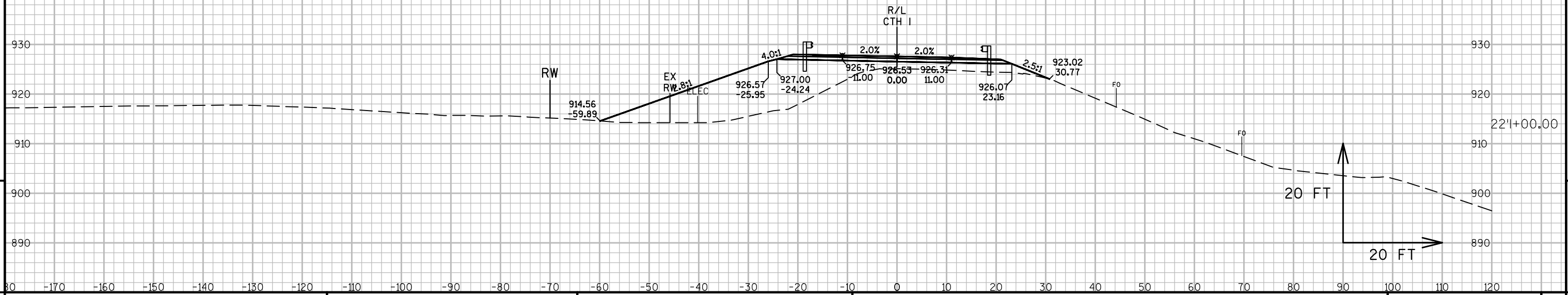
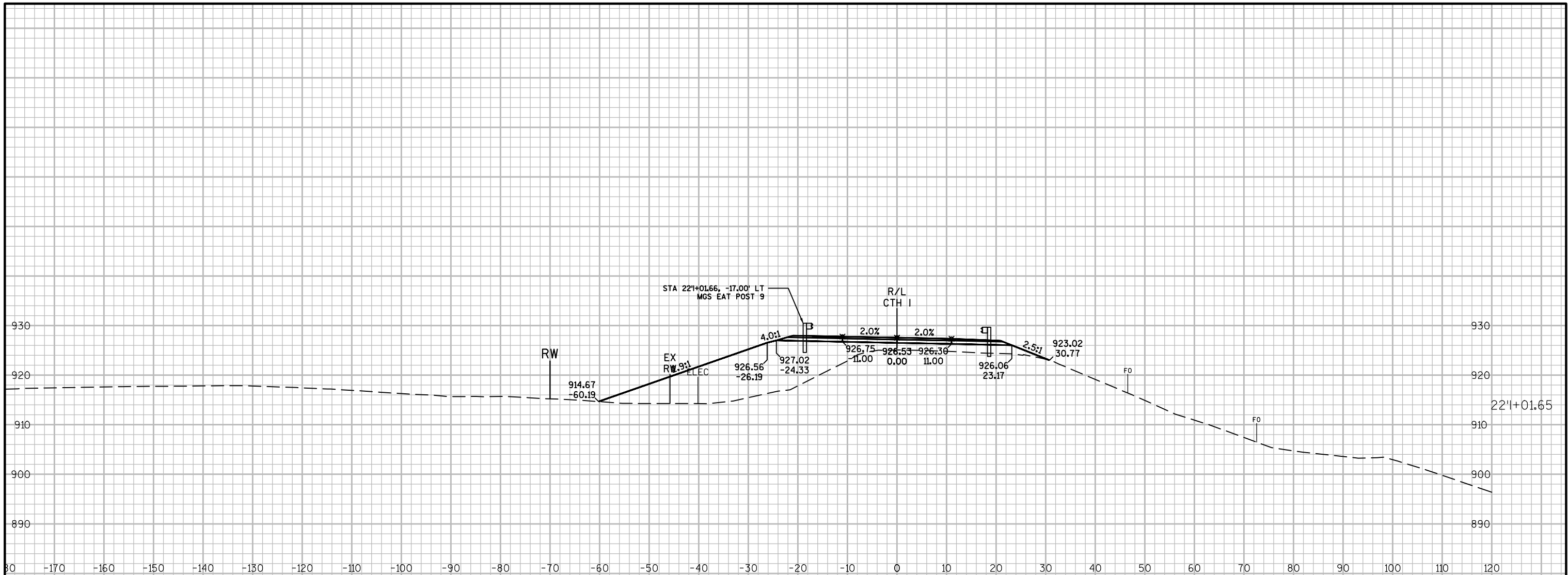


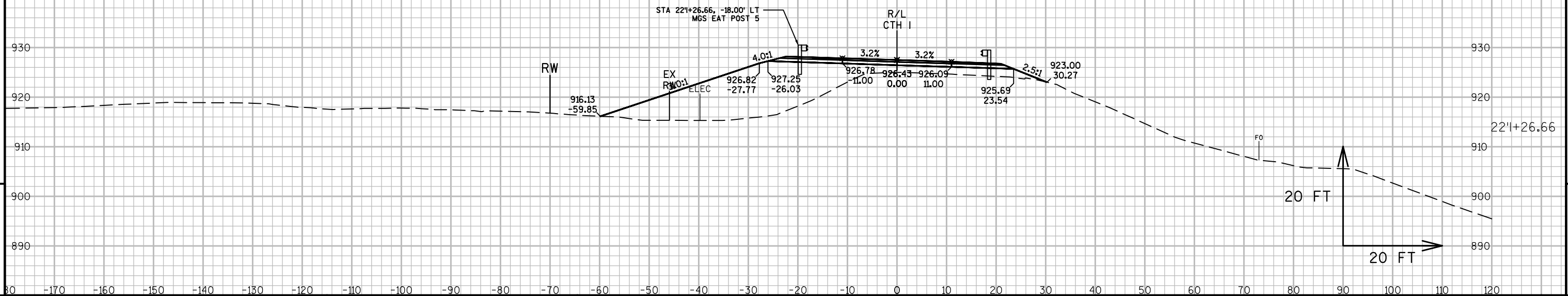
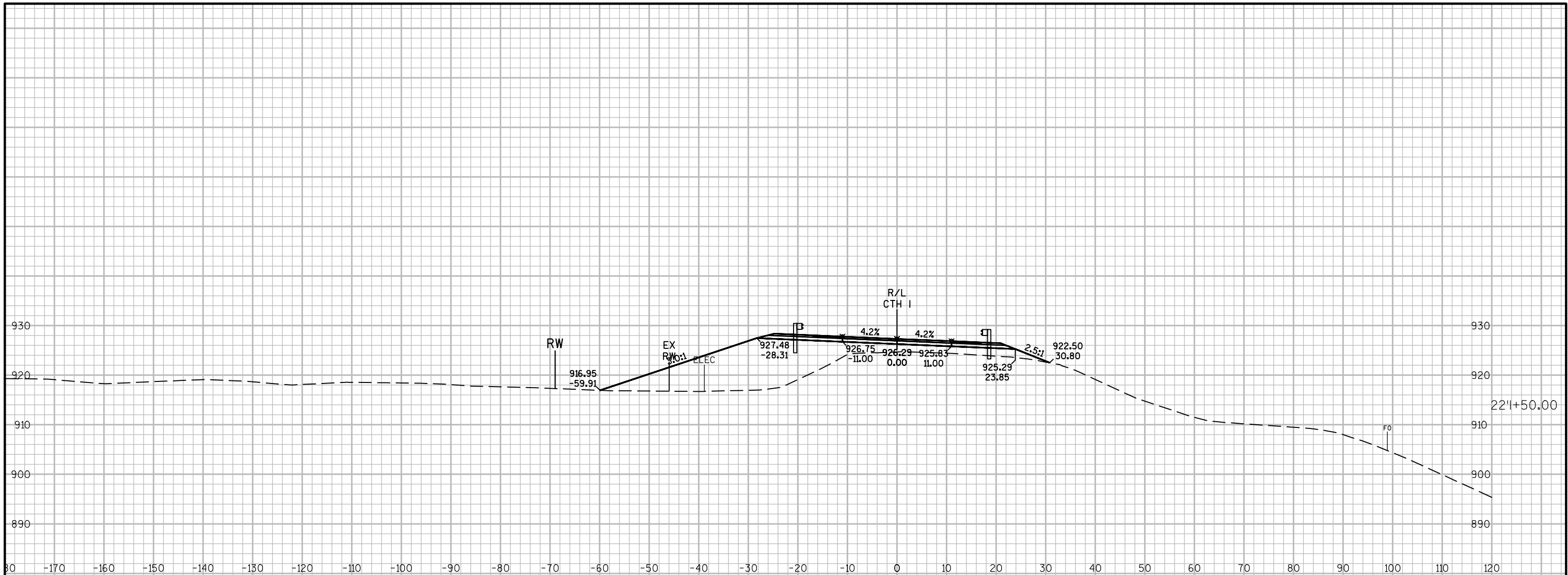


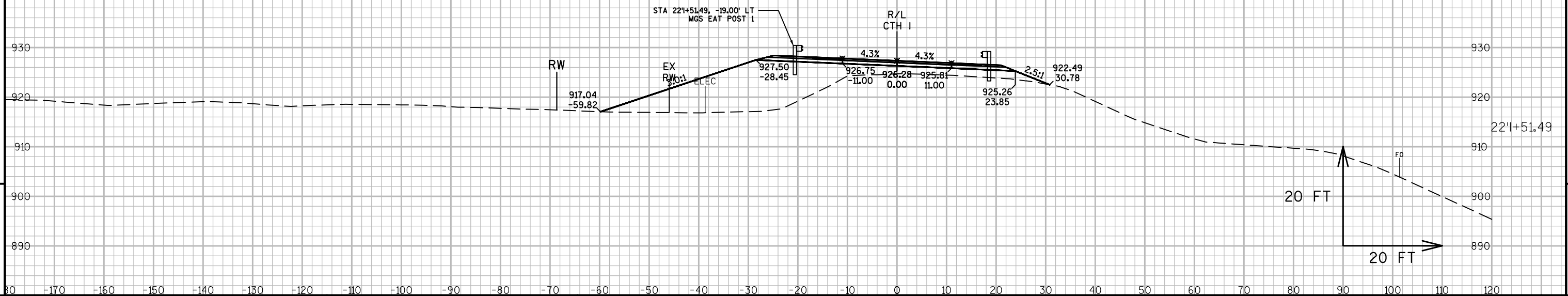
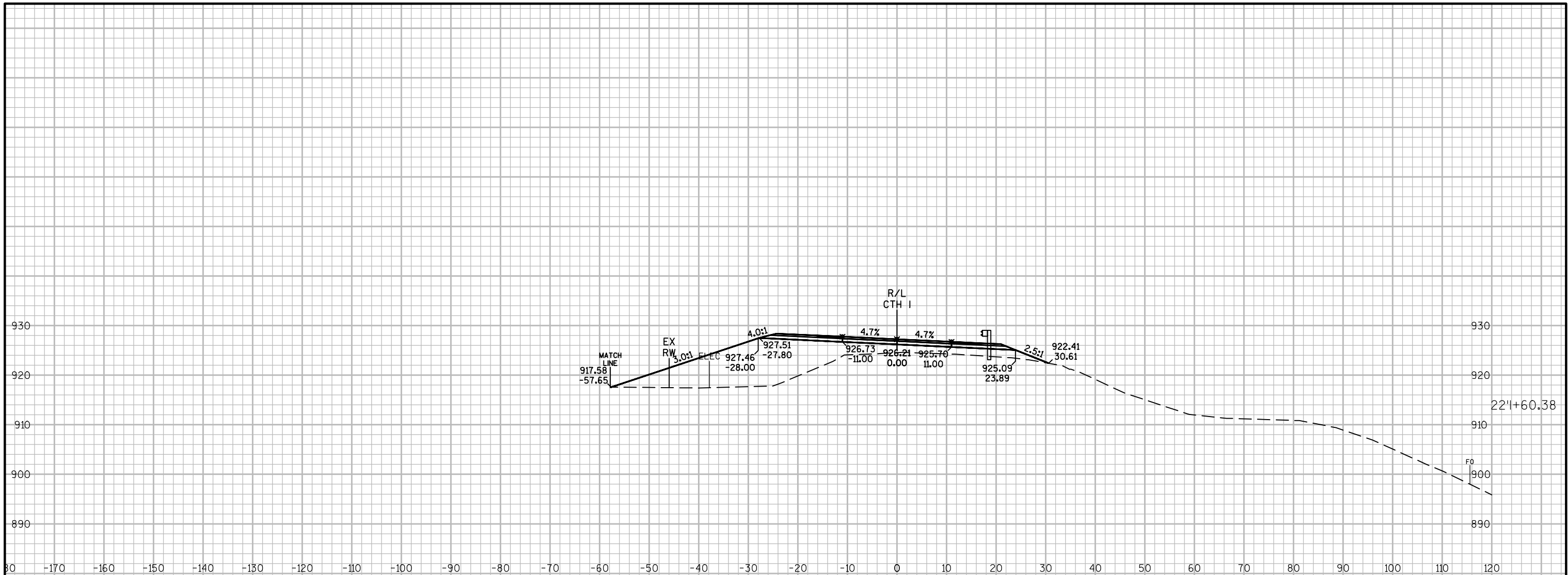


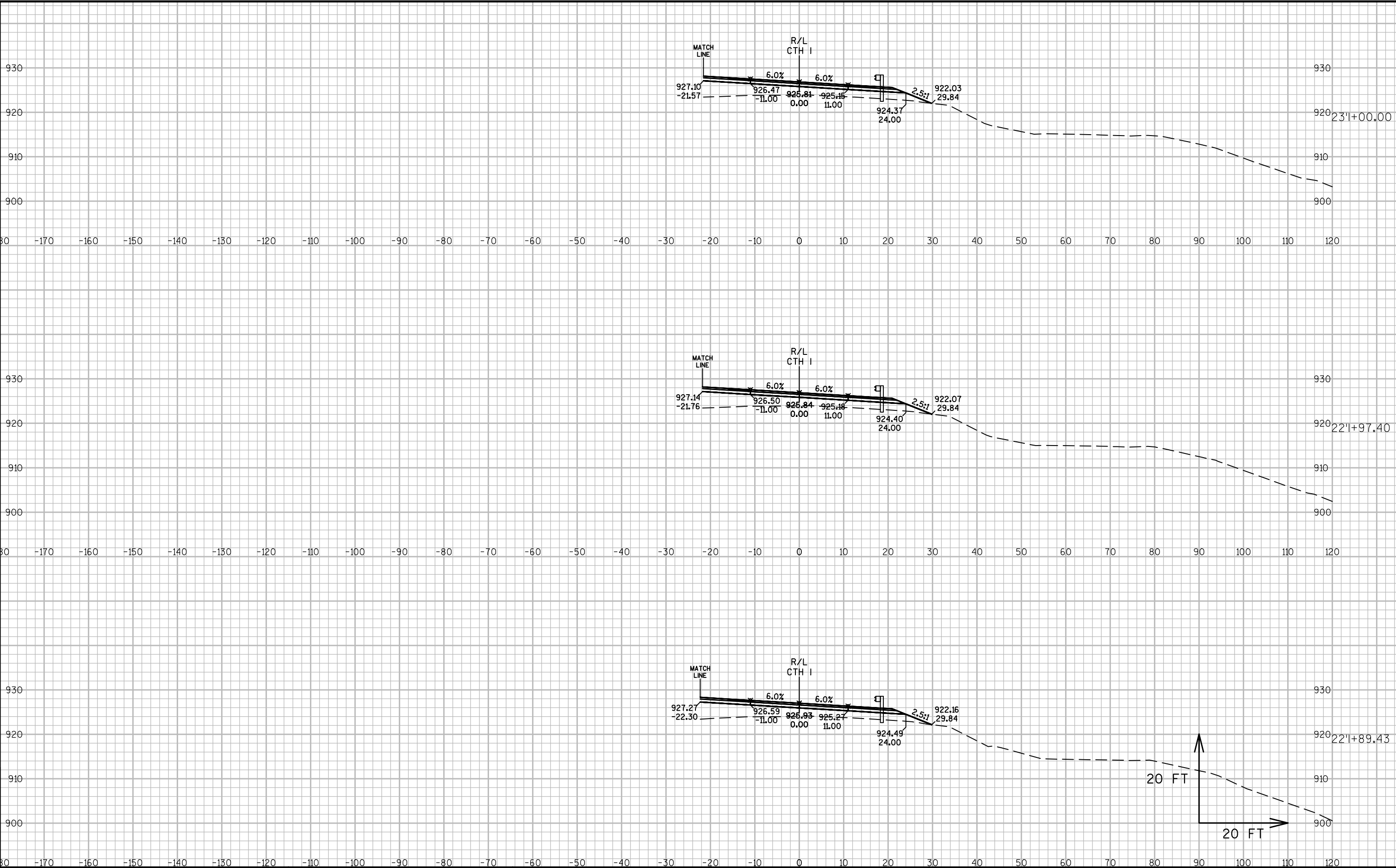


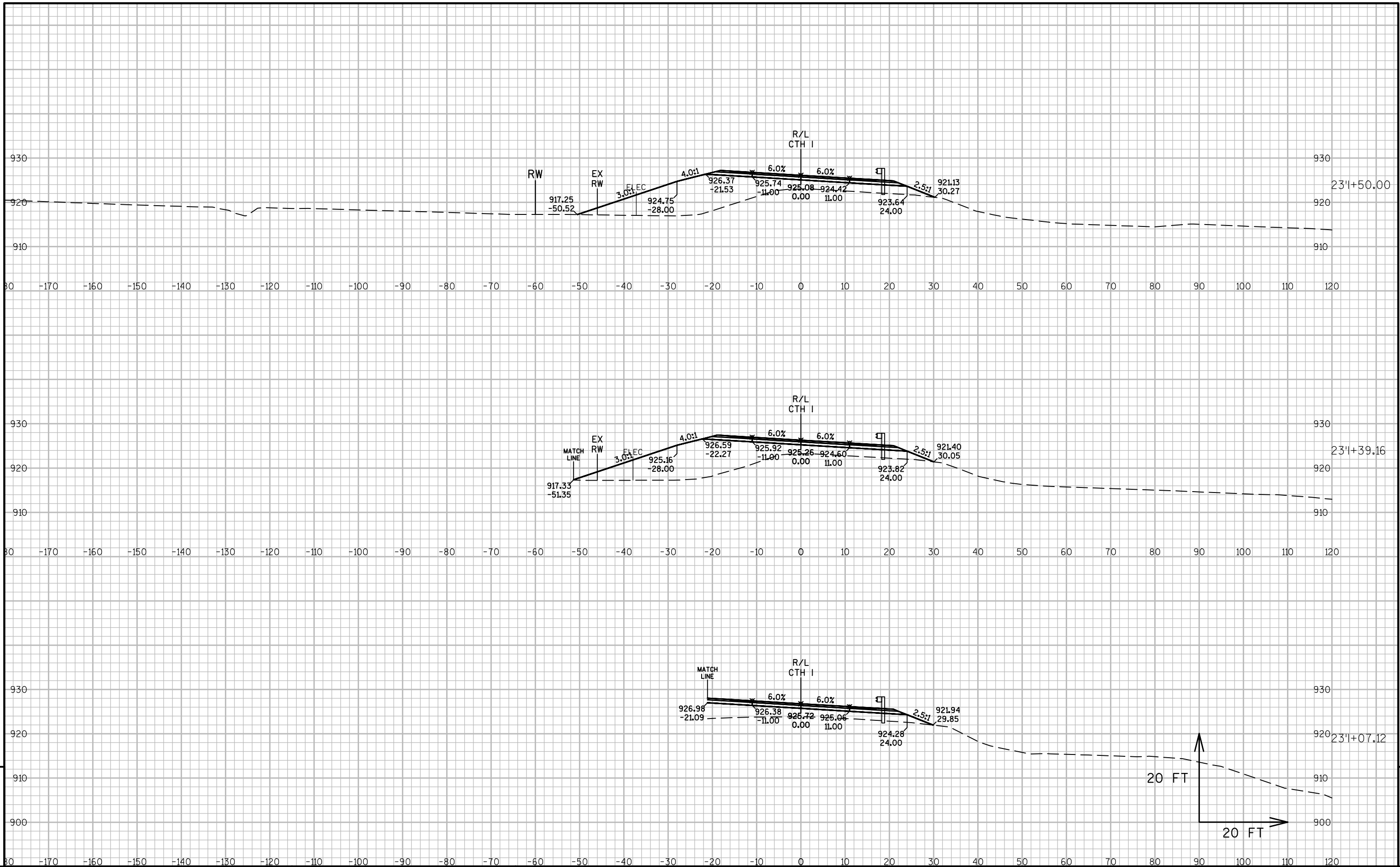


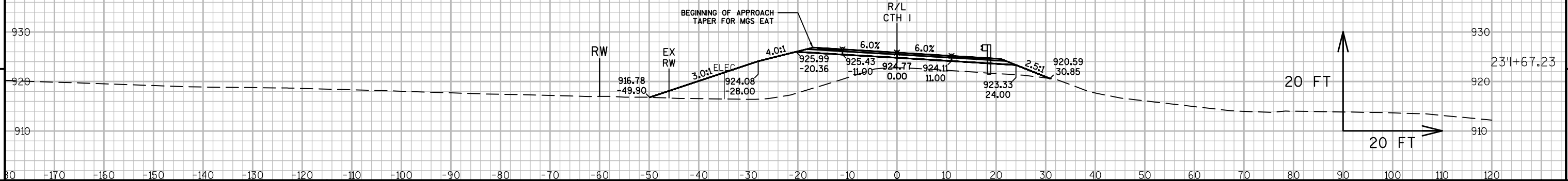
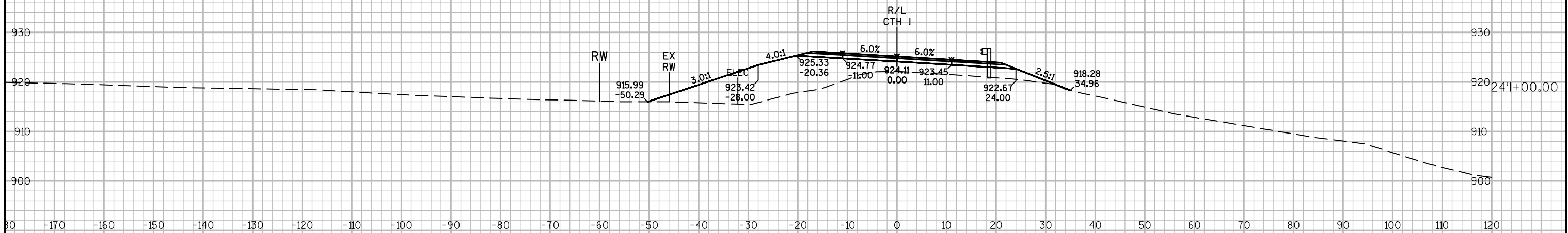
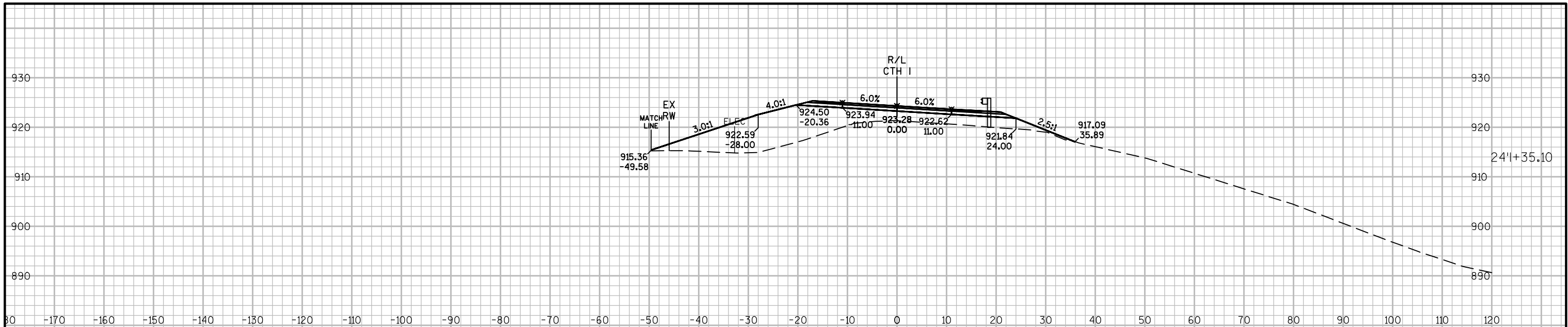


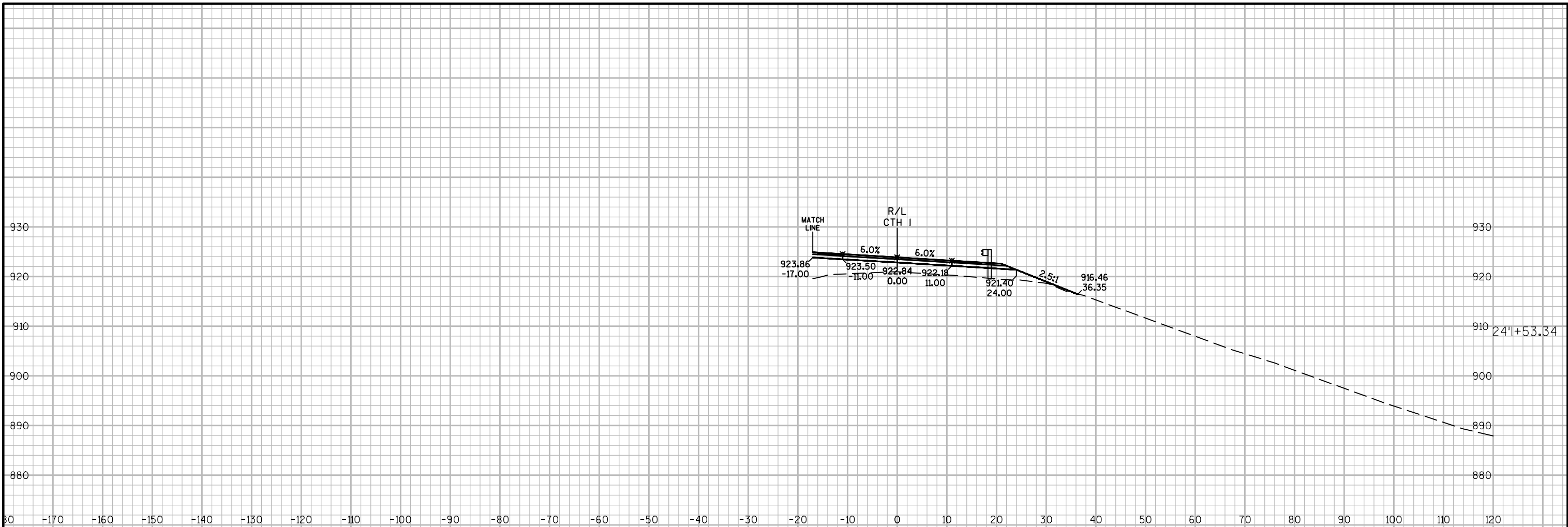


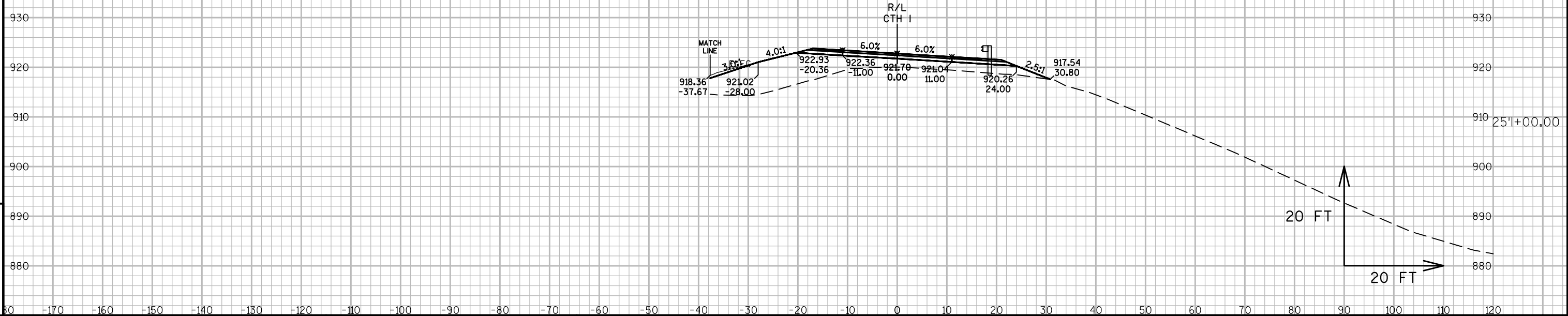
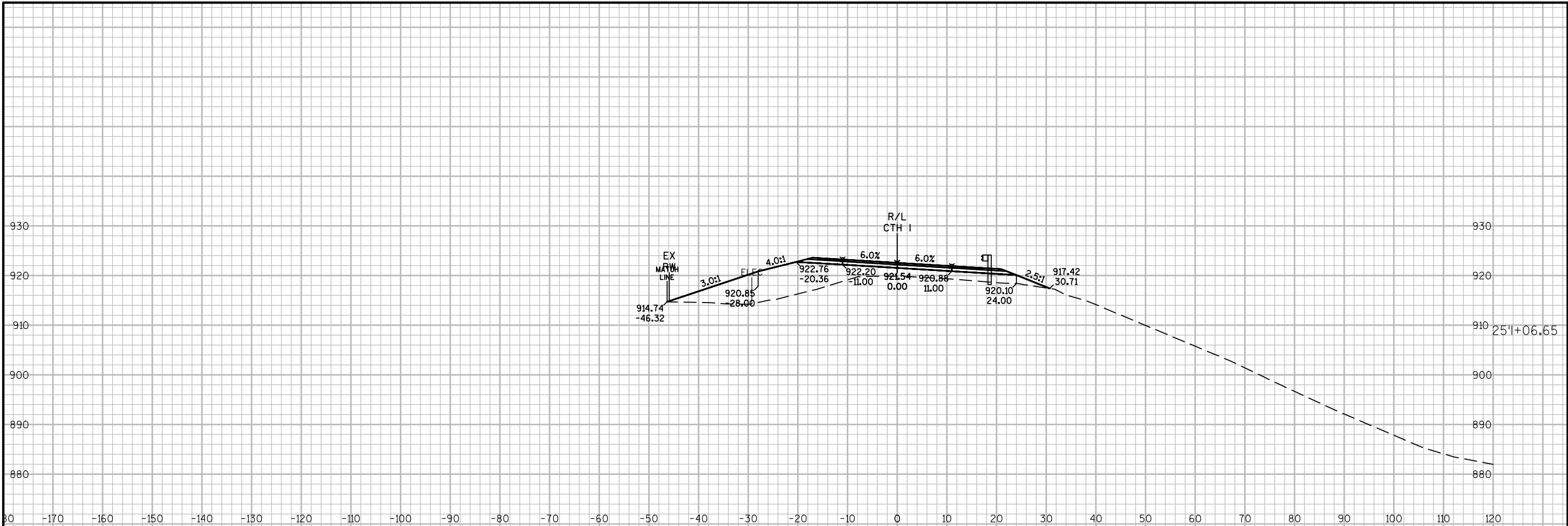


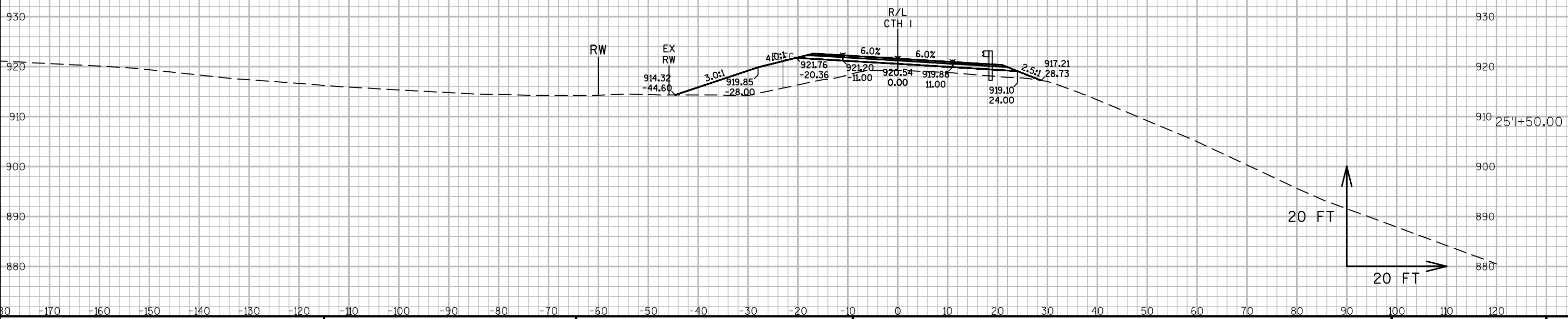
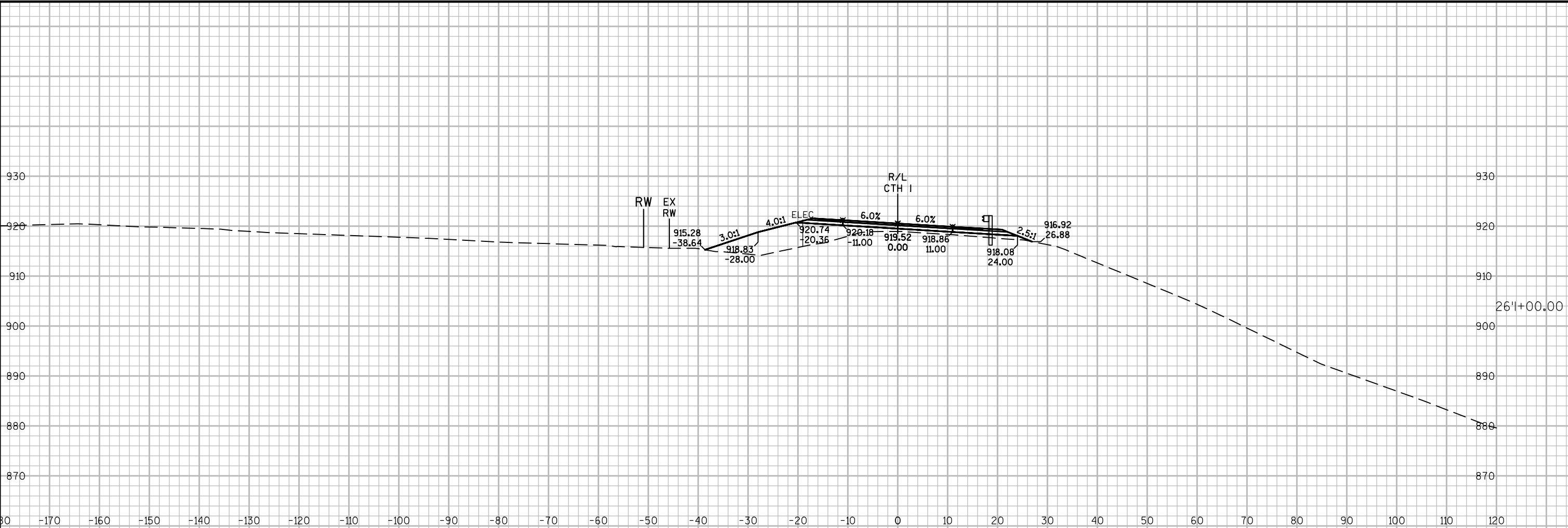


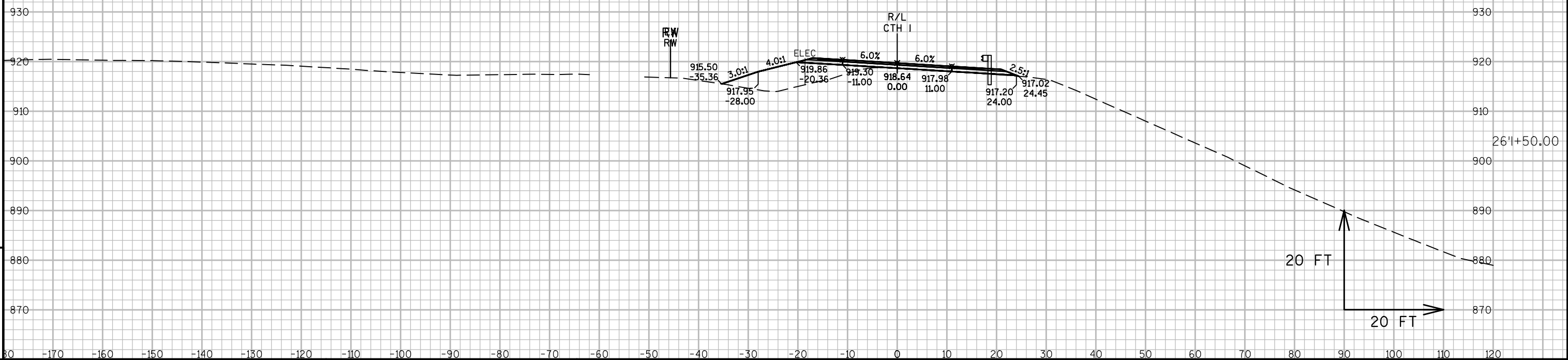
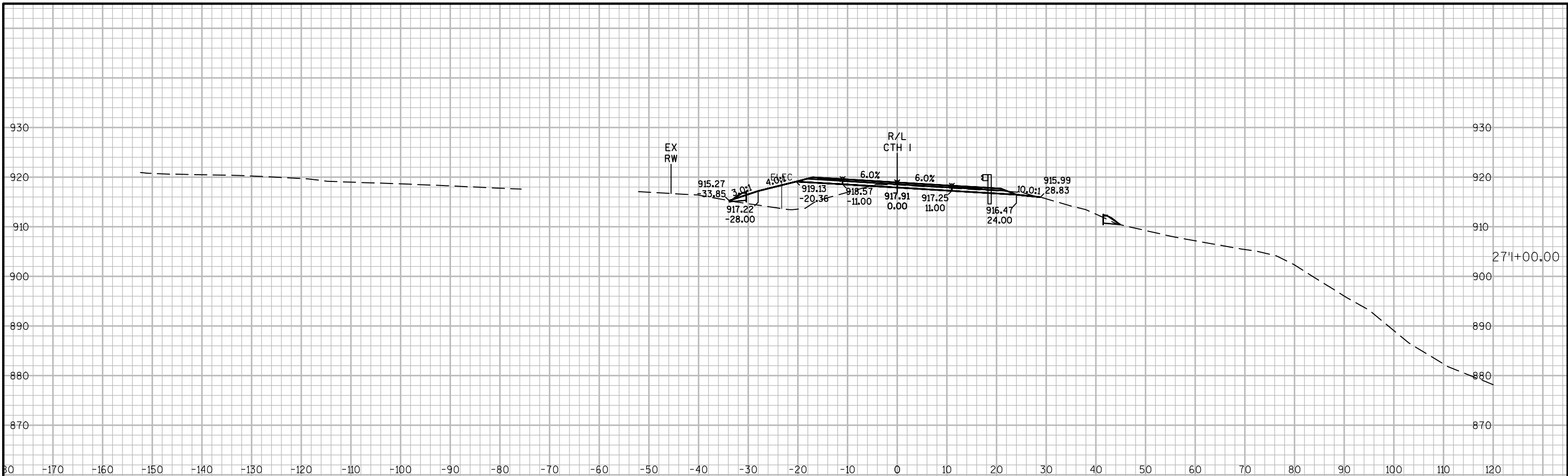


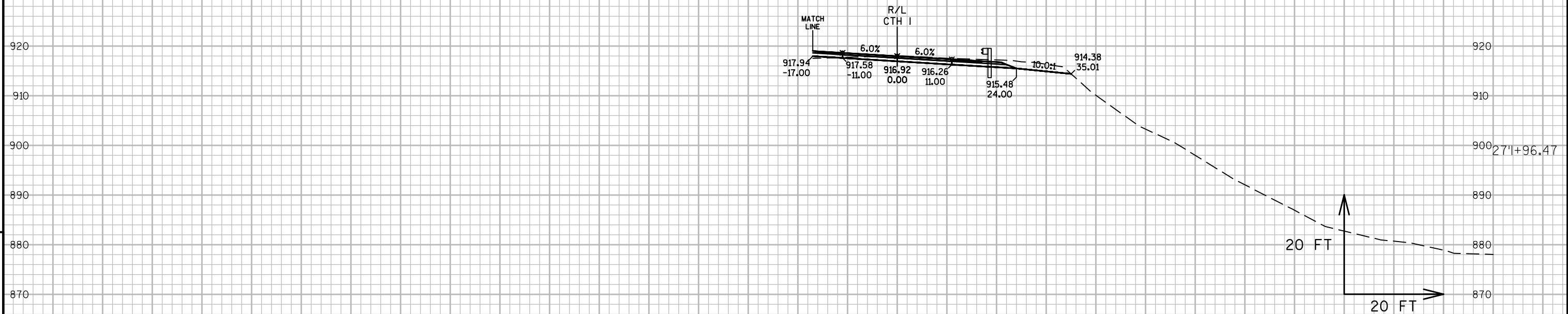
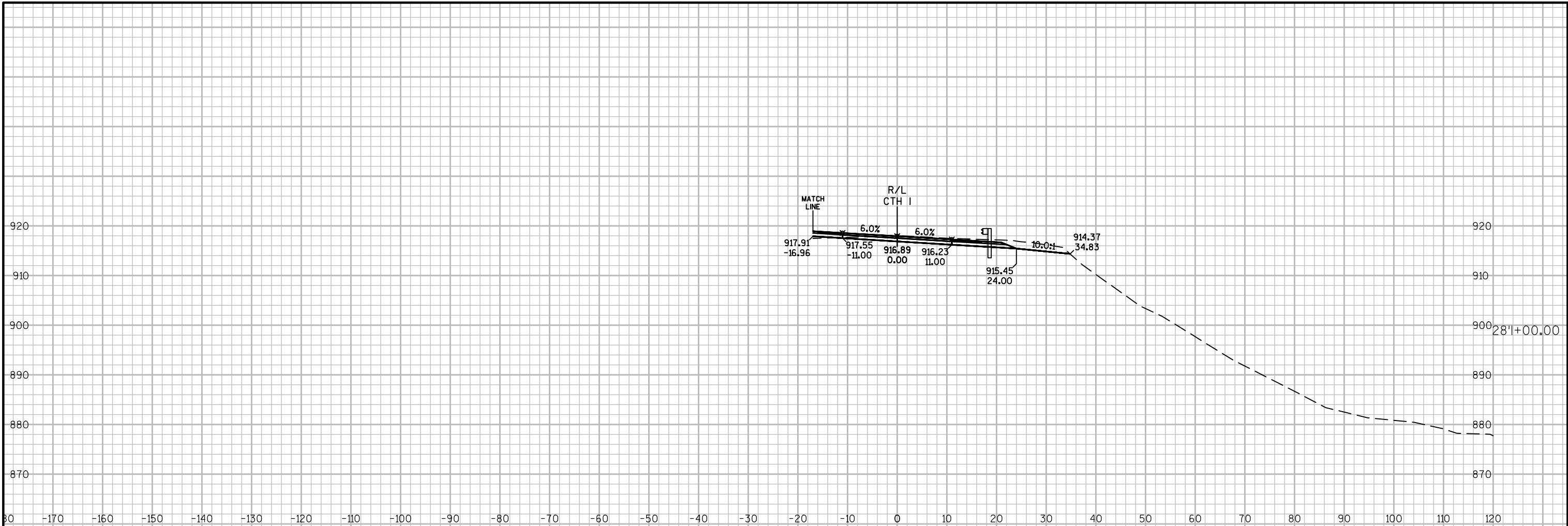


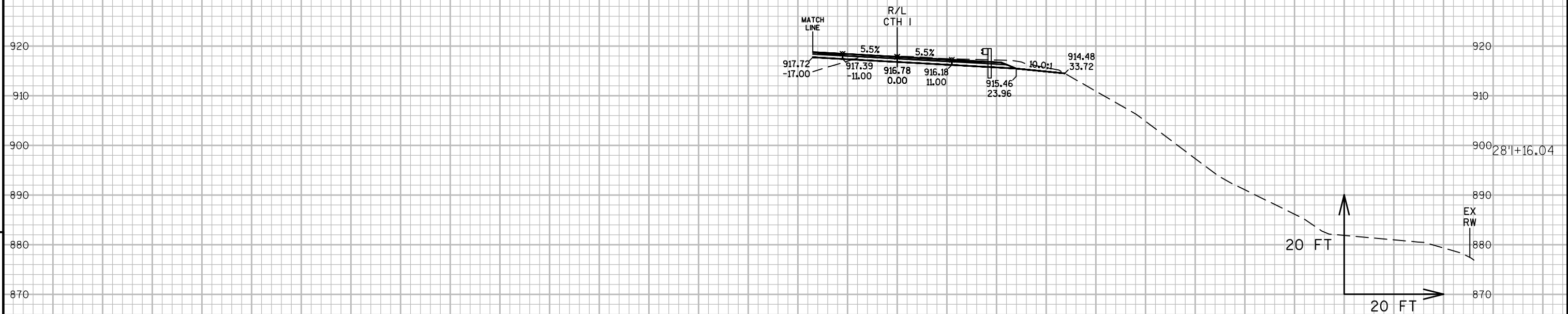
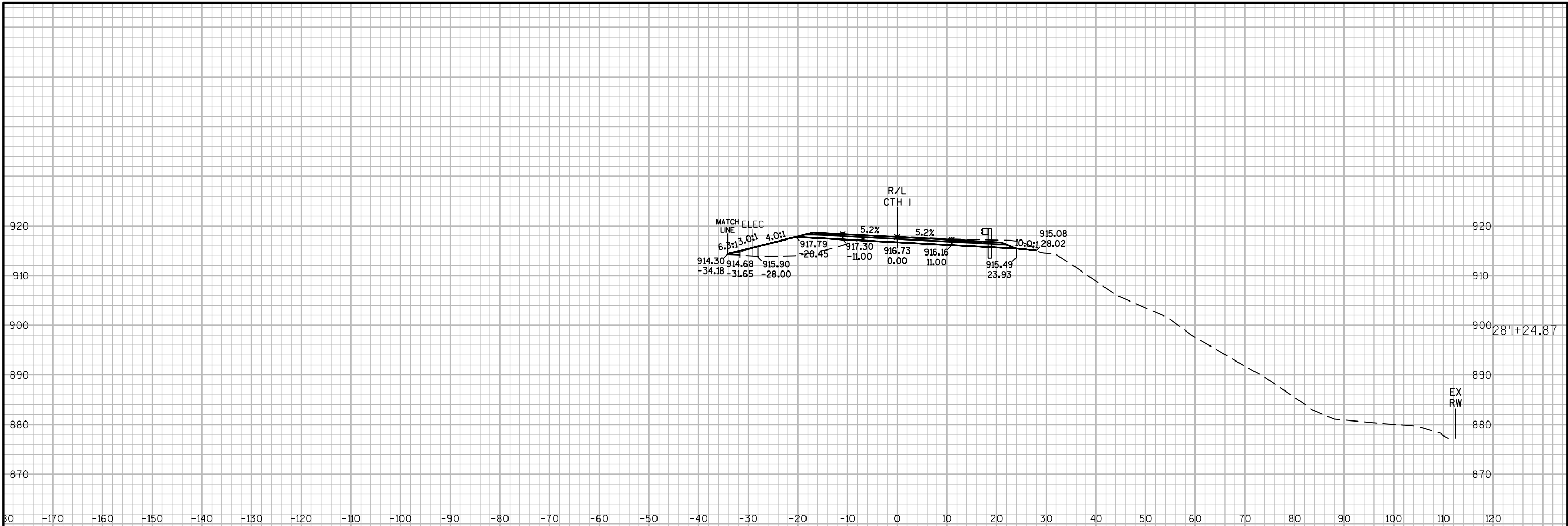


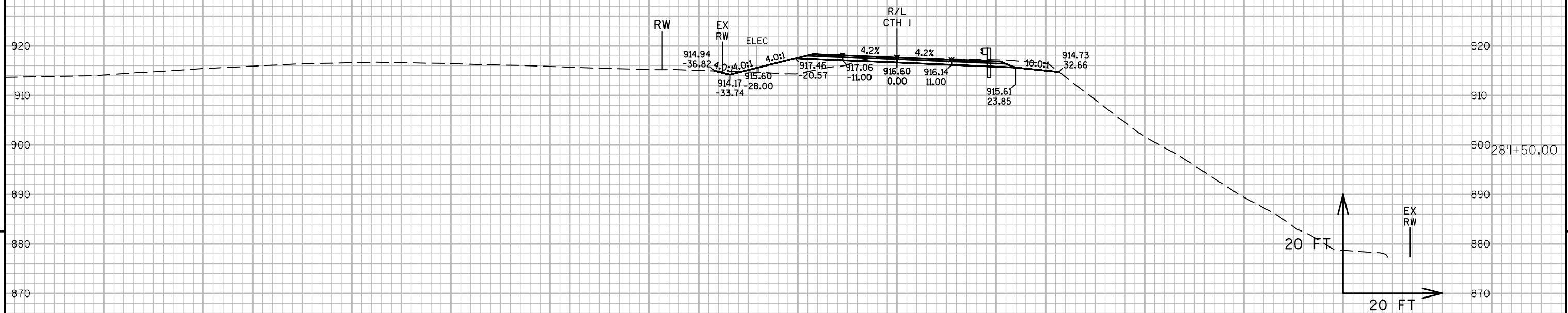
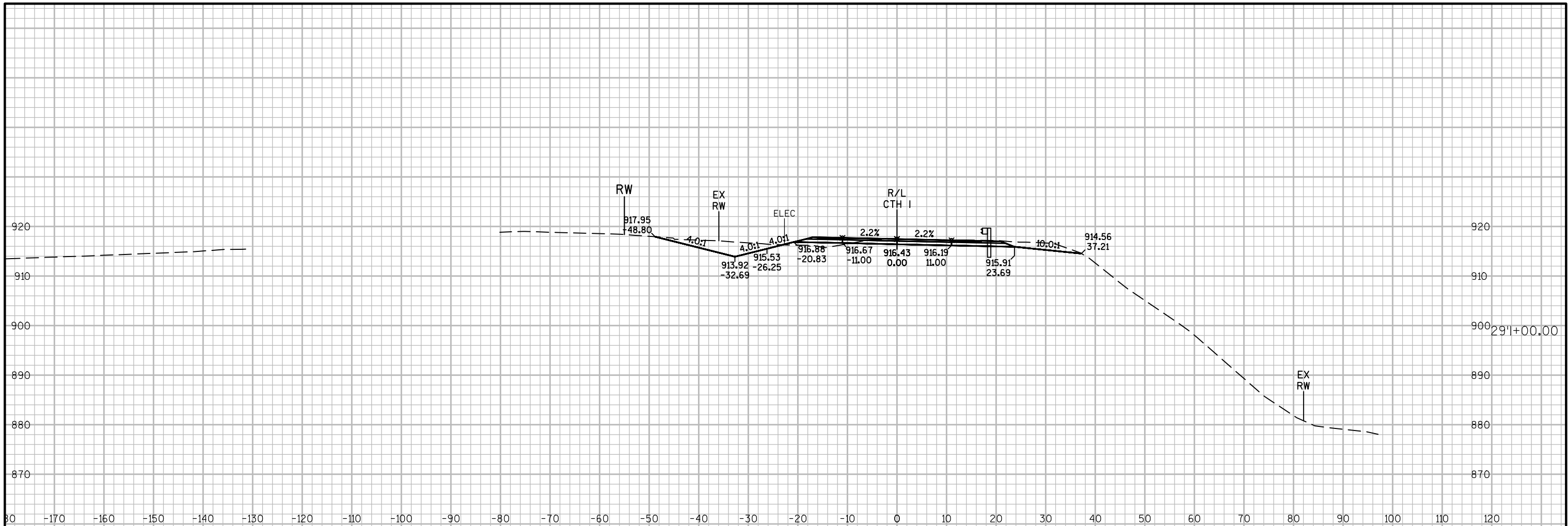


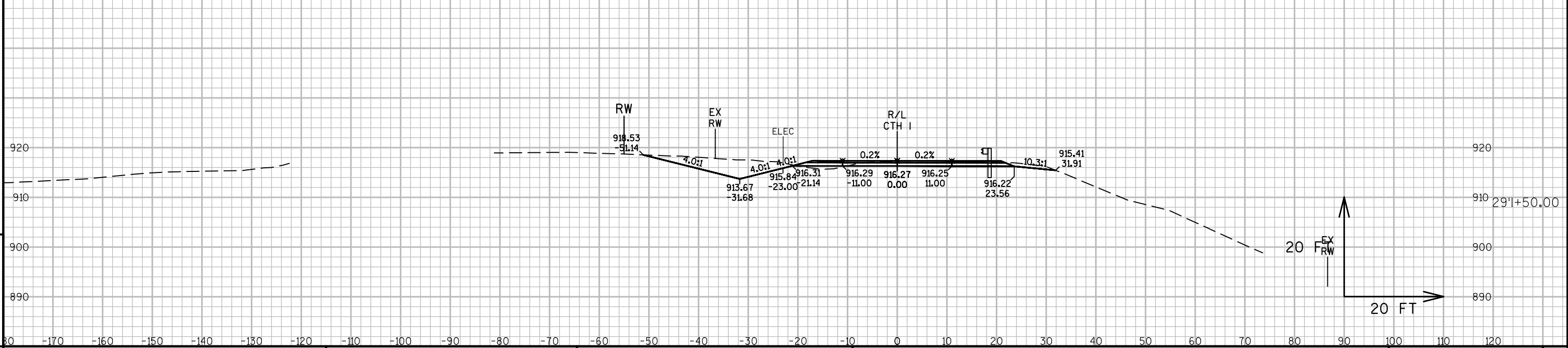
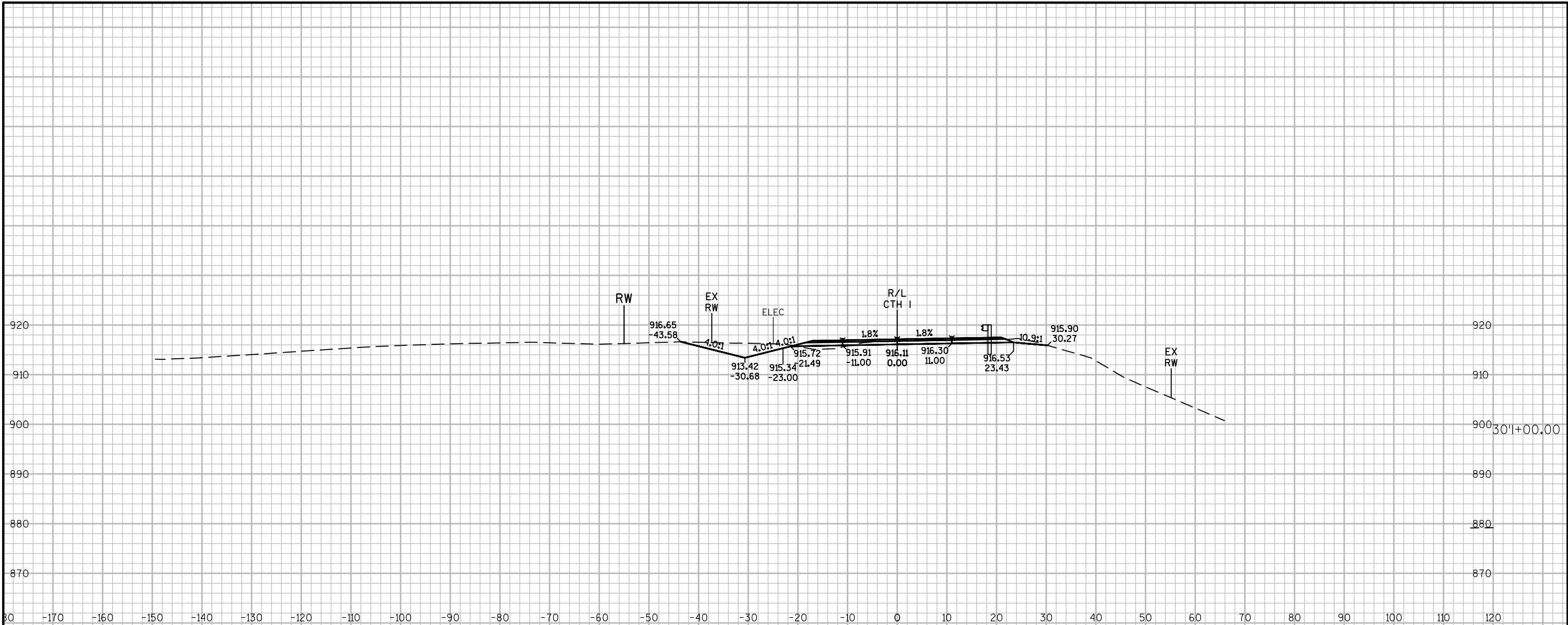


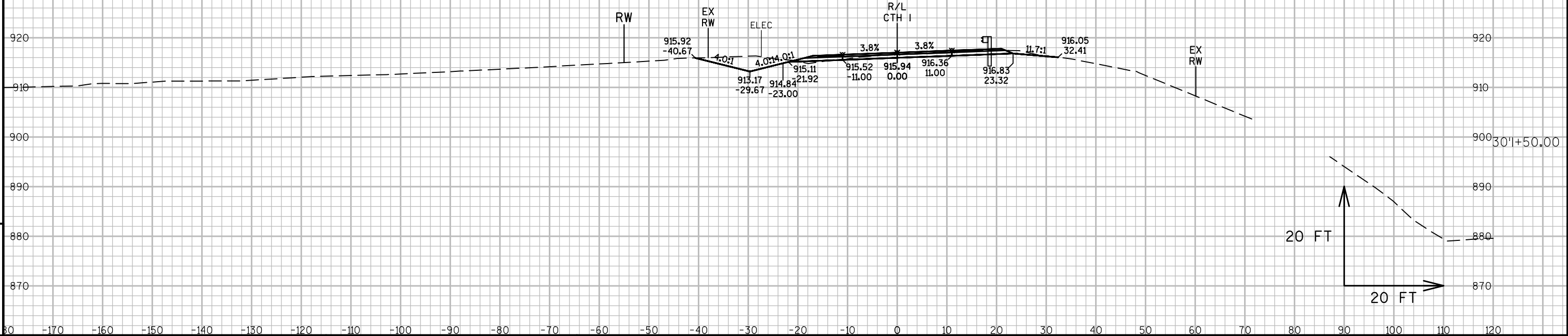
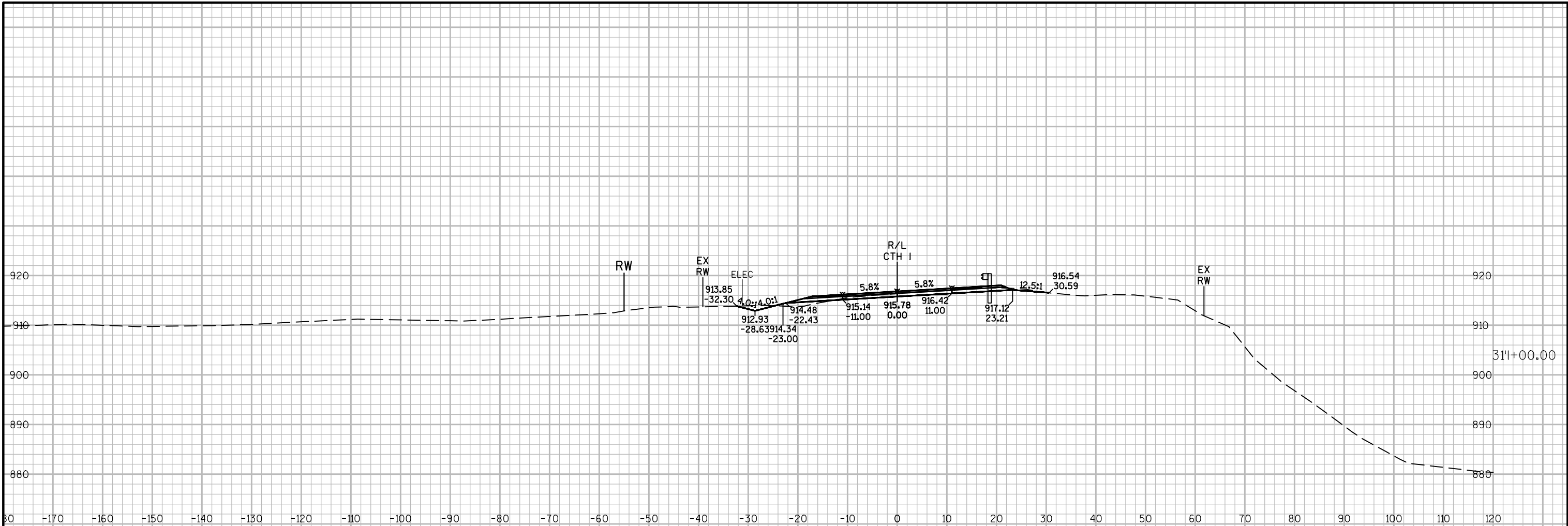


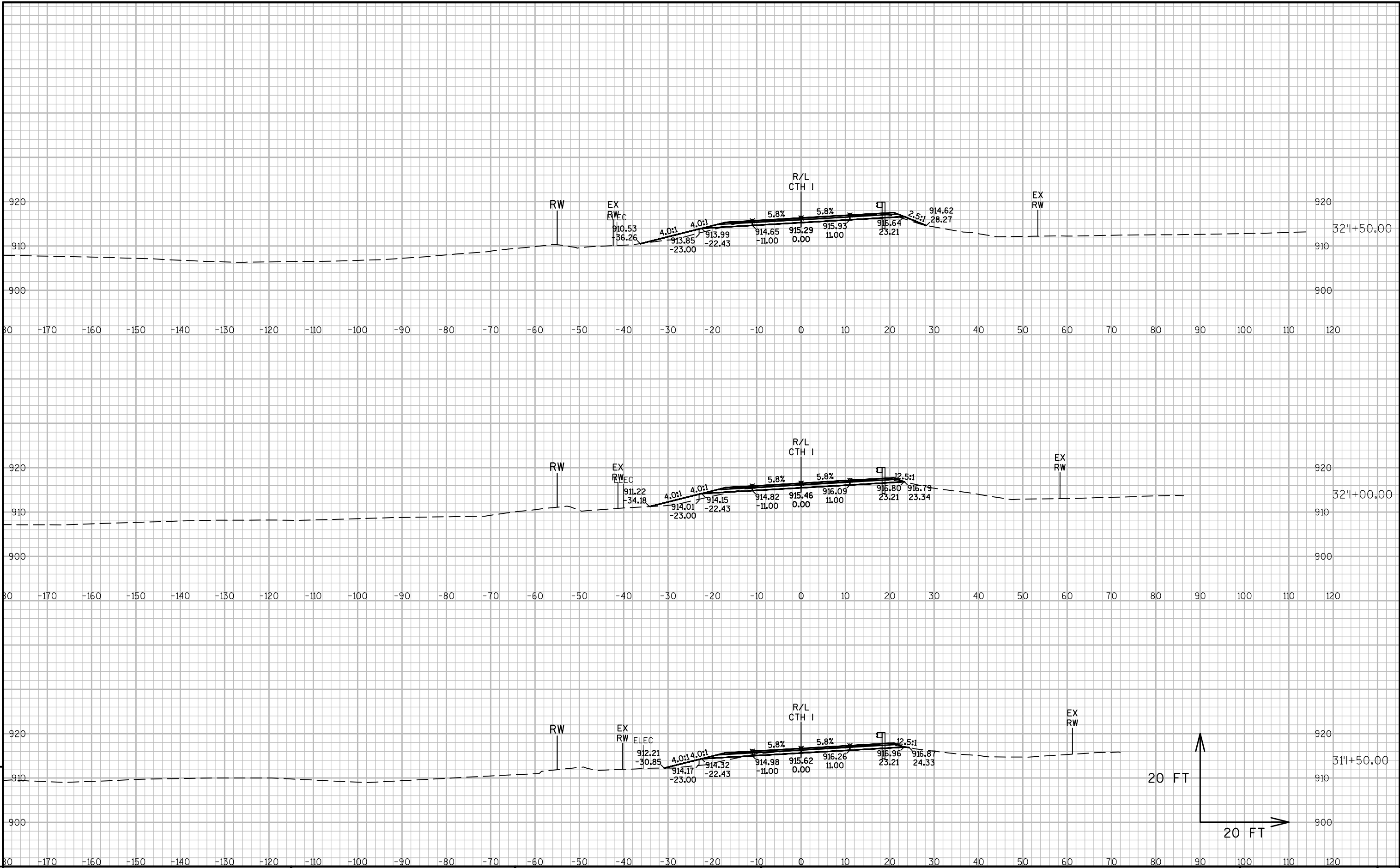


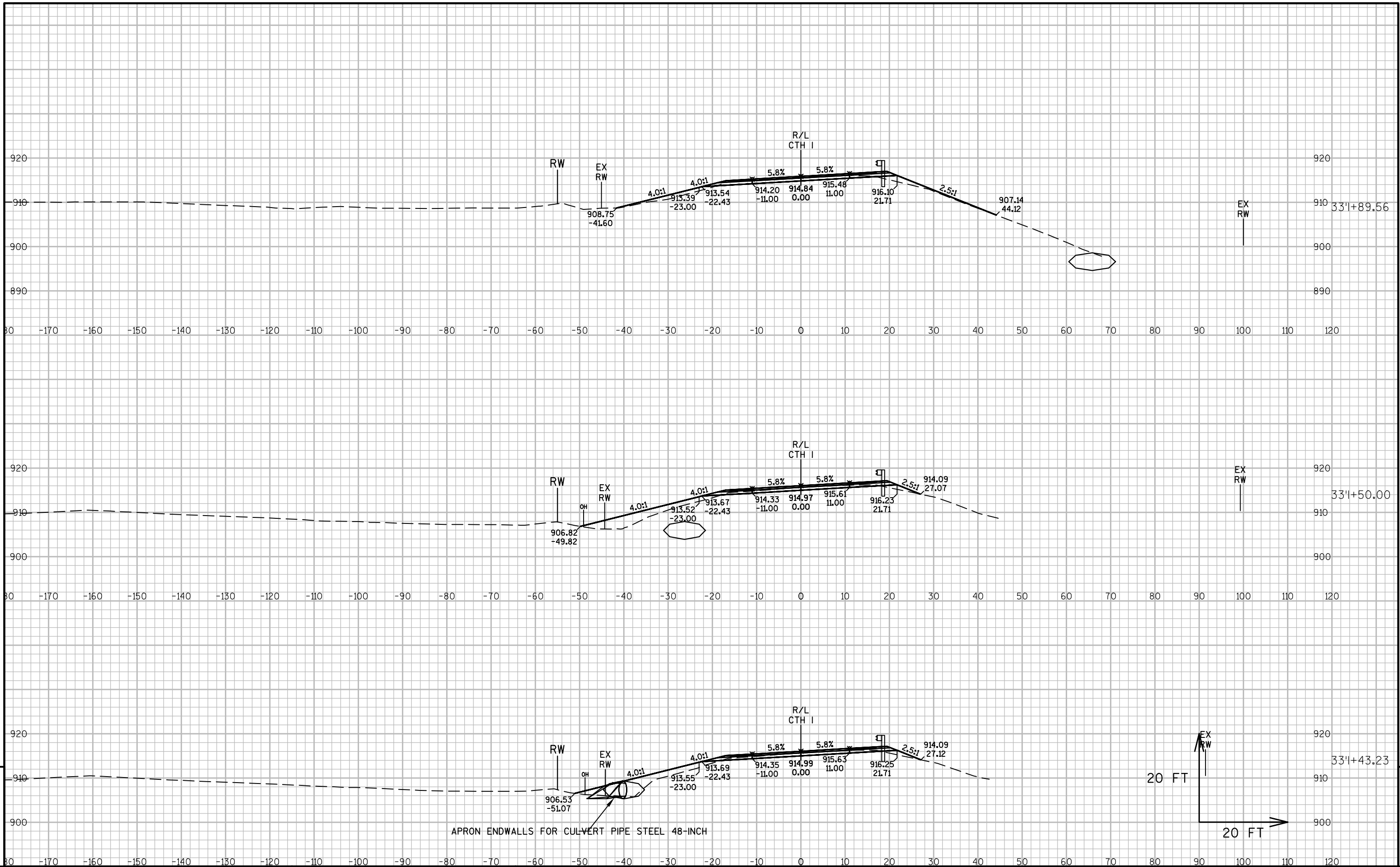


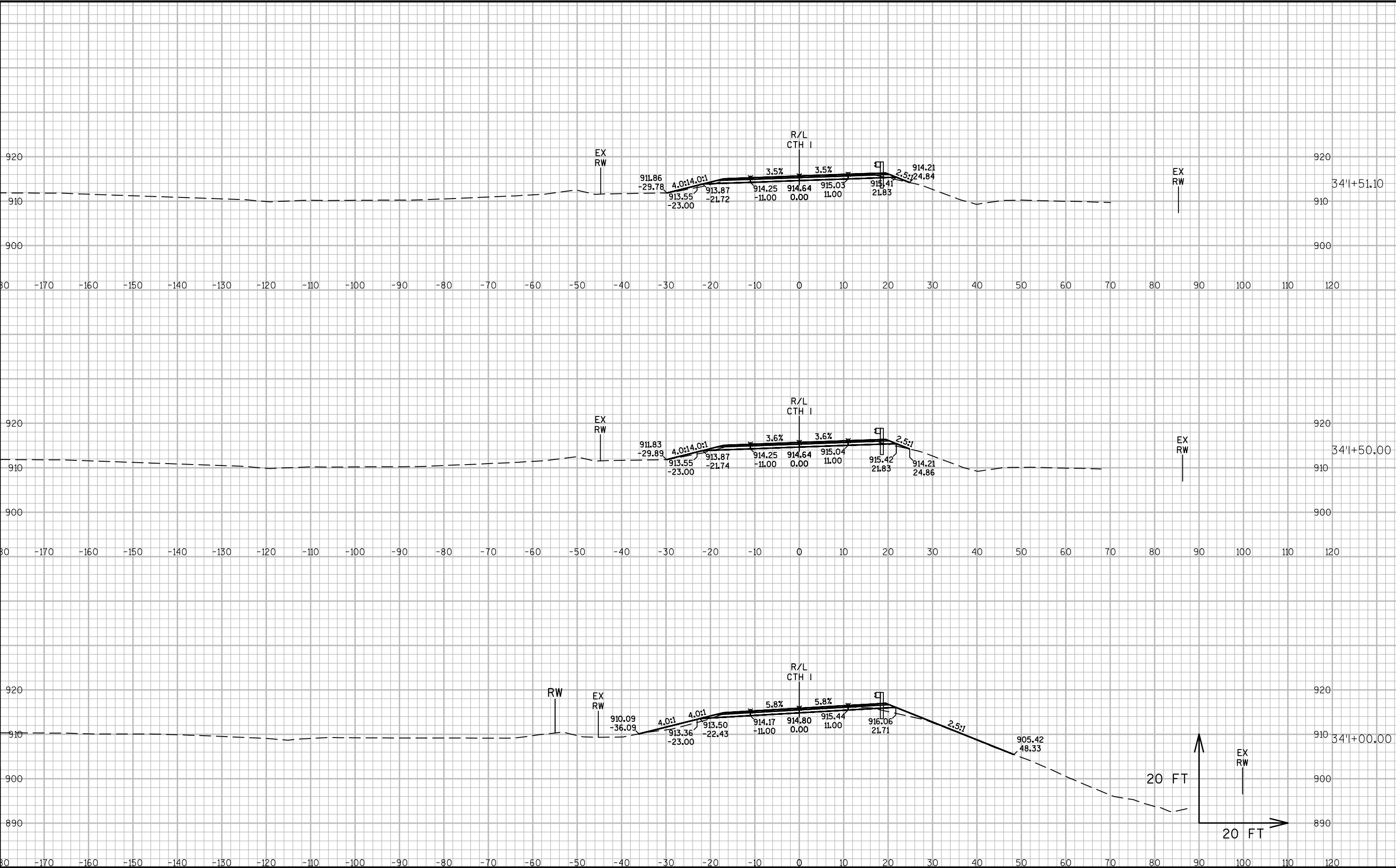


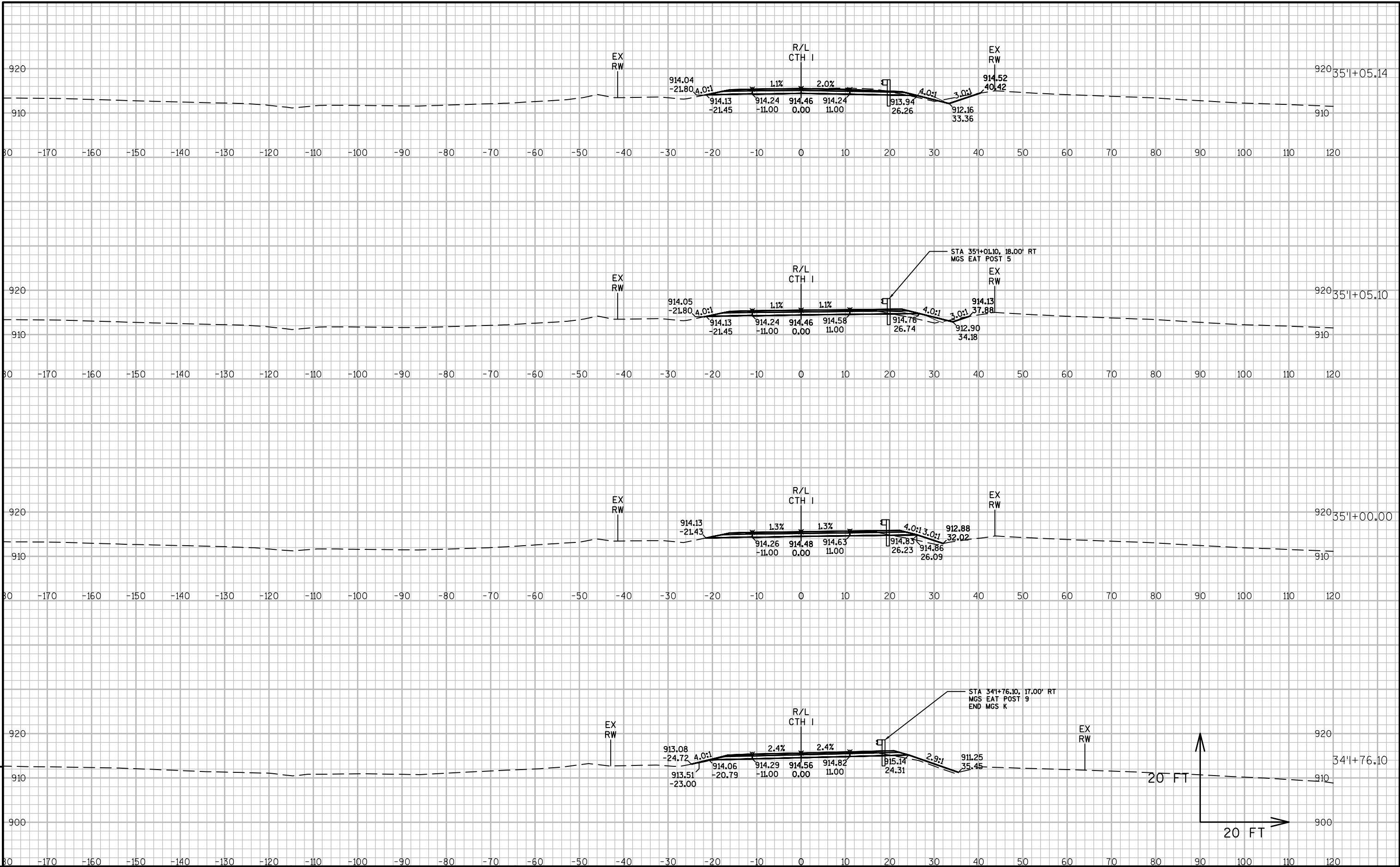


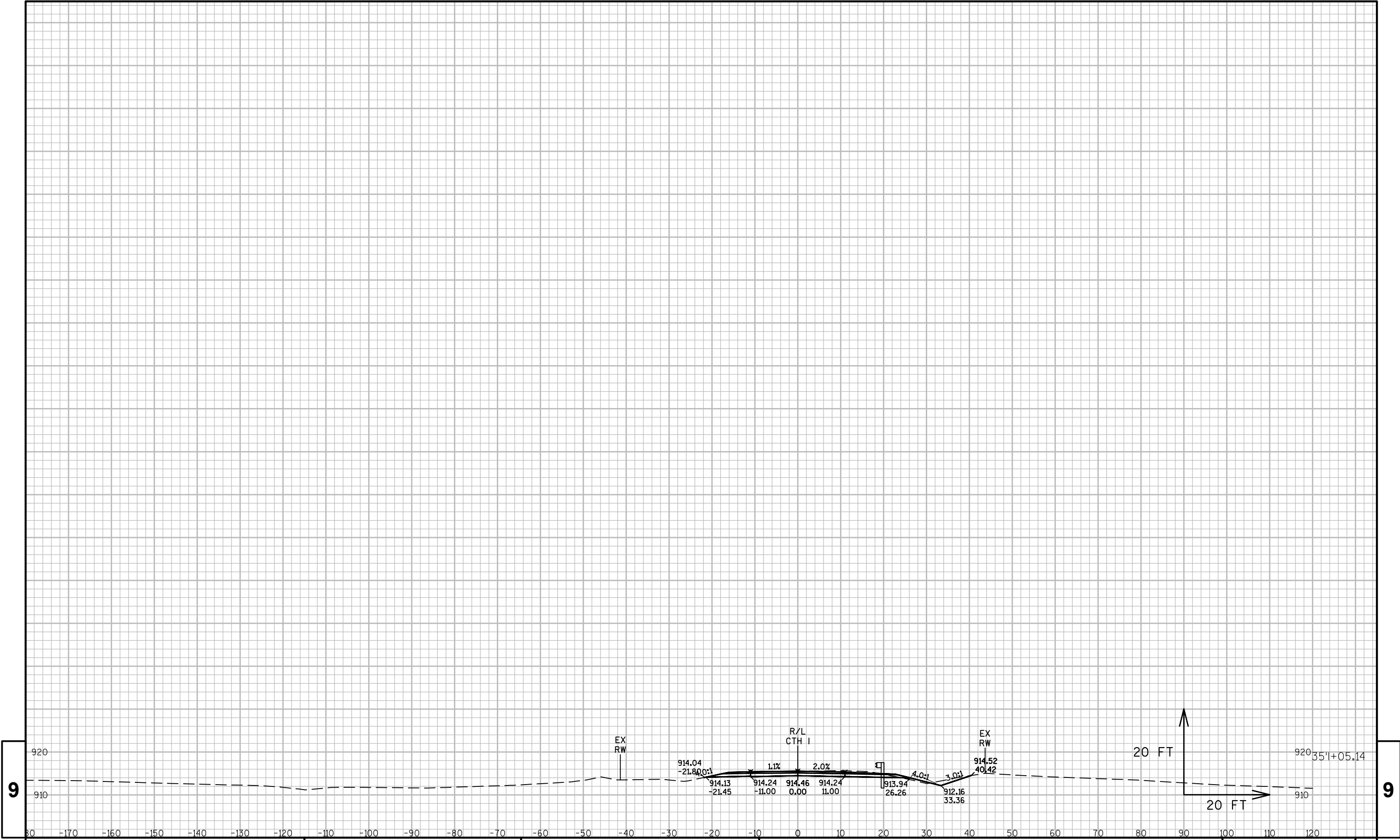




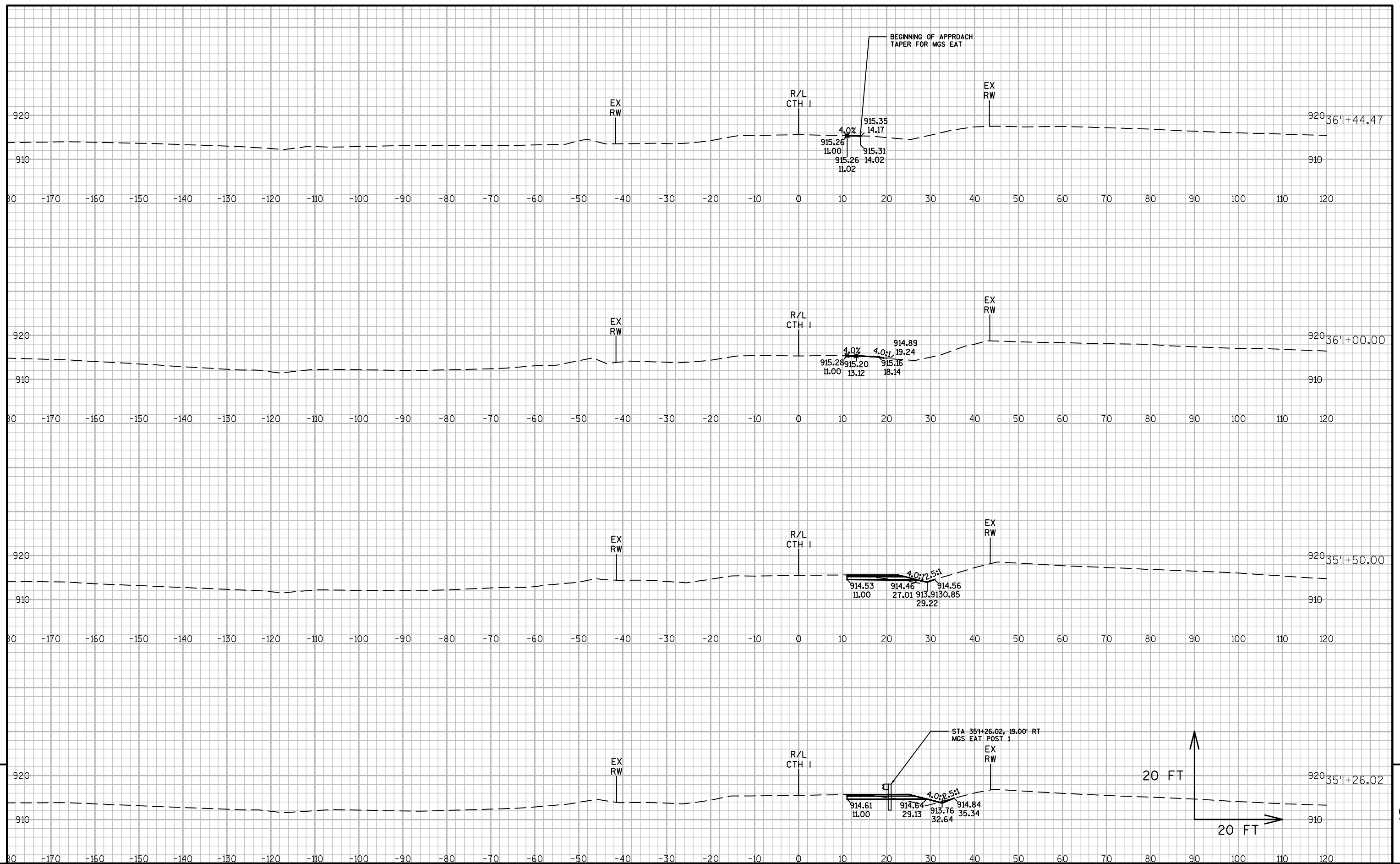


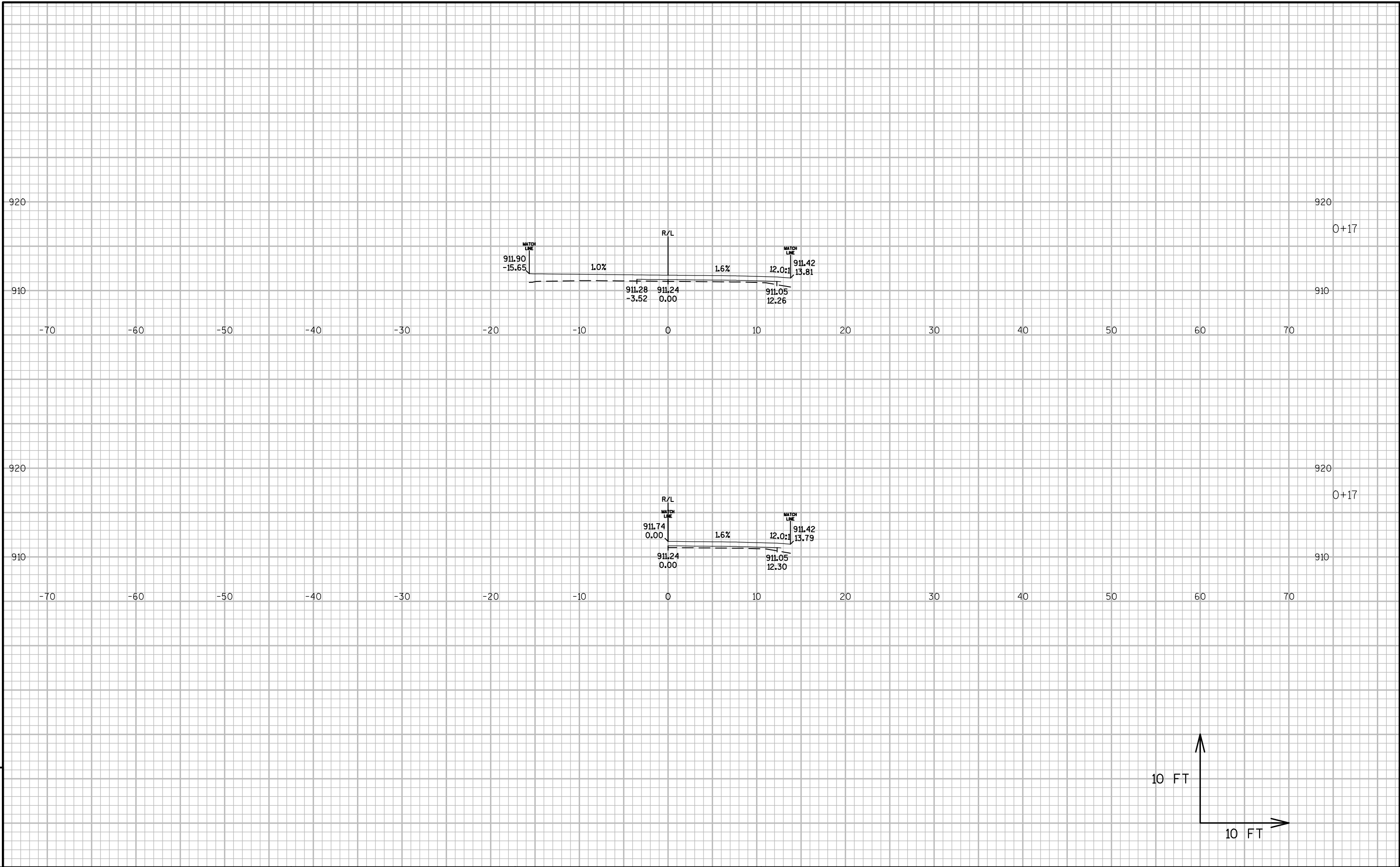


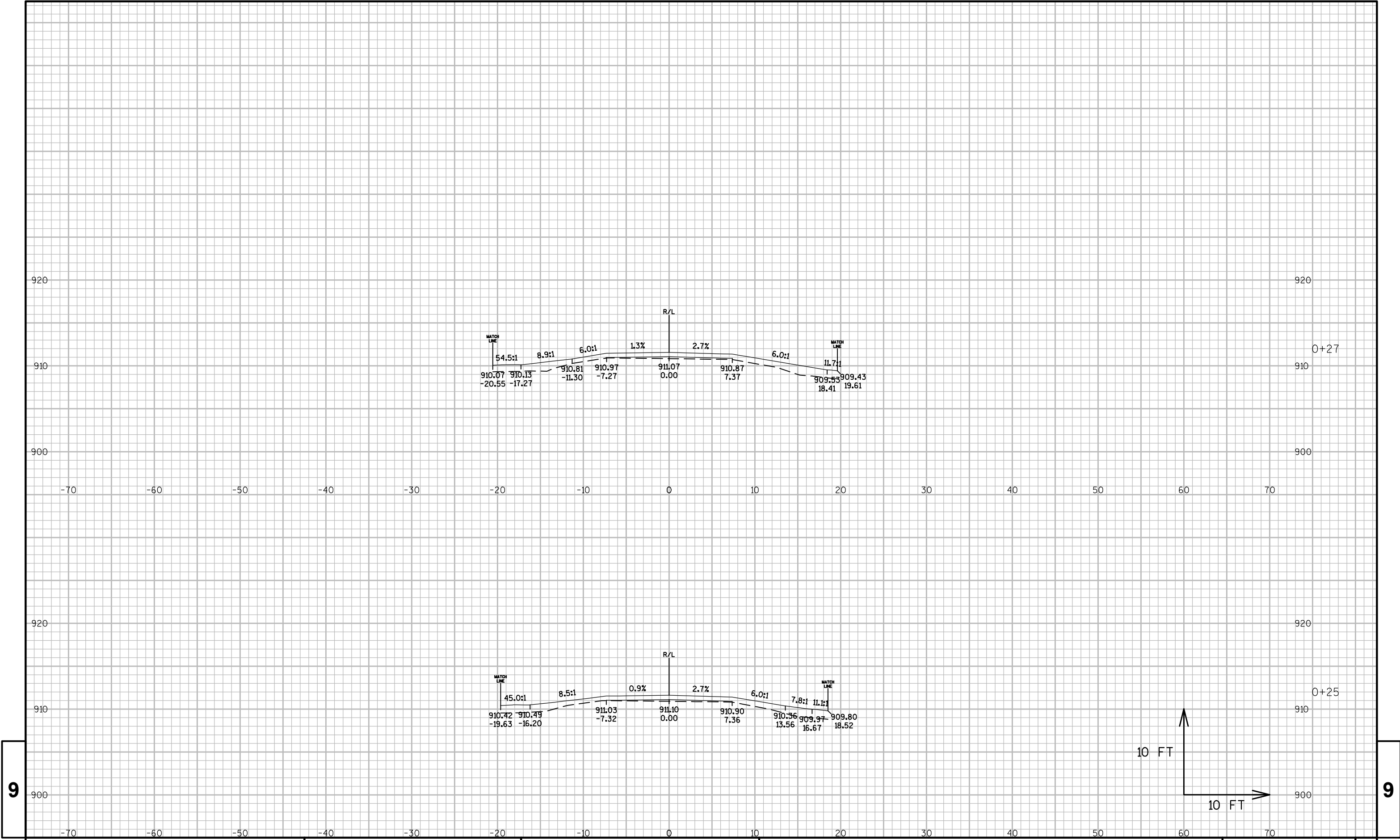




9		PROJECT NO: 1021-03-74		HWY: IH 94		COUNTY: EAU CLAIRE		CROSS SECTIONS: CTH I		SHEET		E
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PROJECT NO:1021-03-74

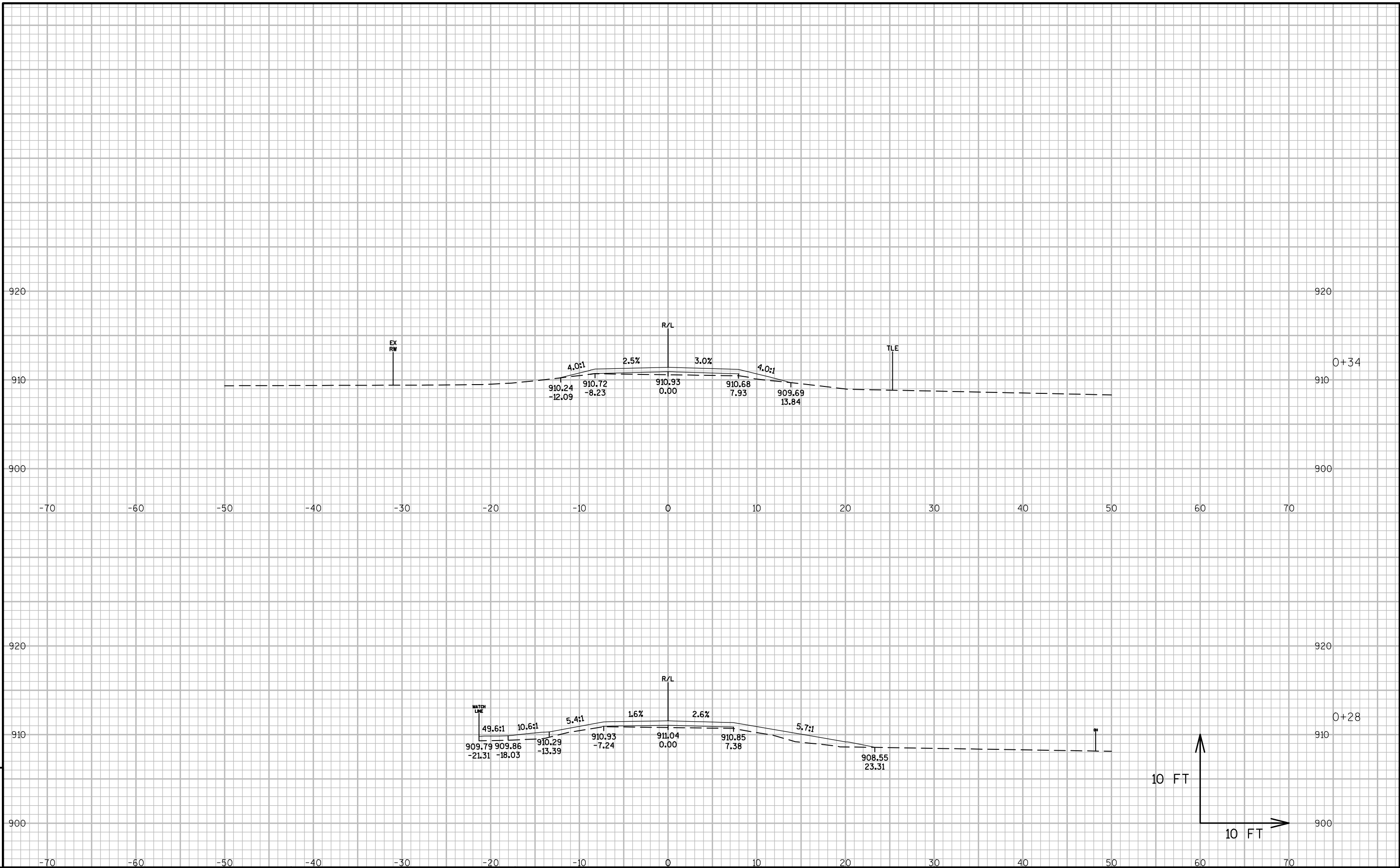
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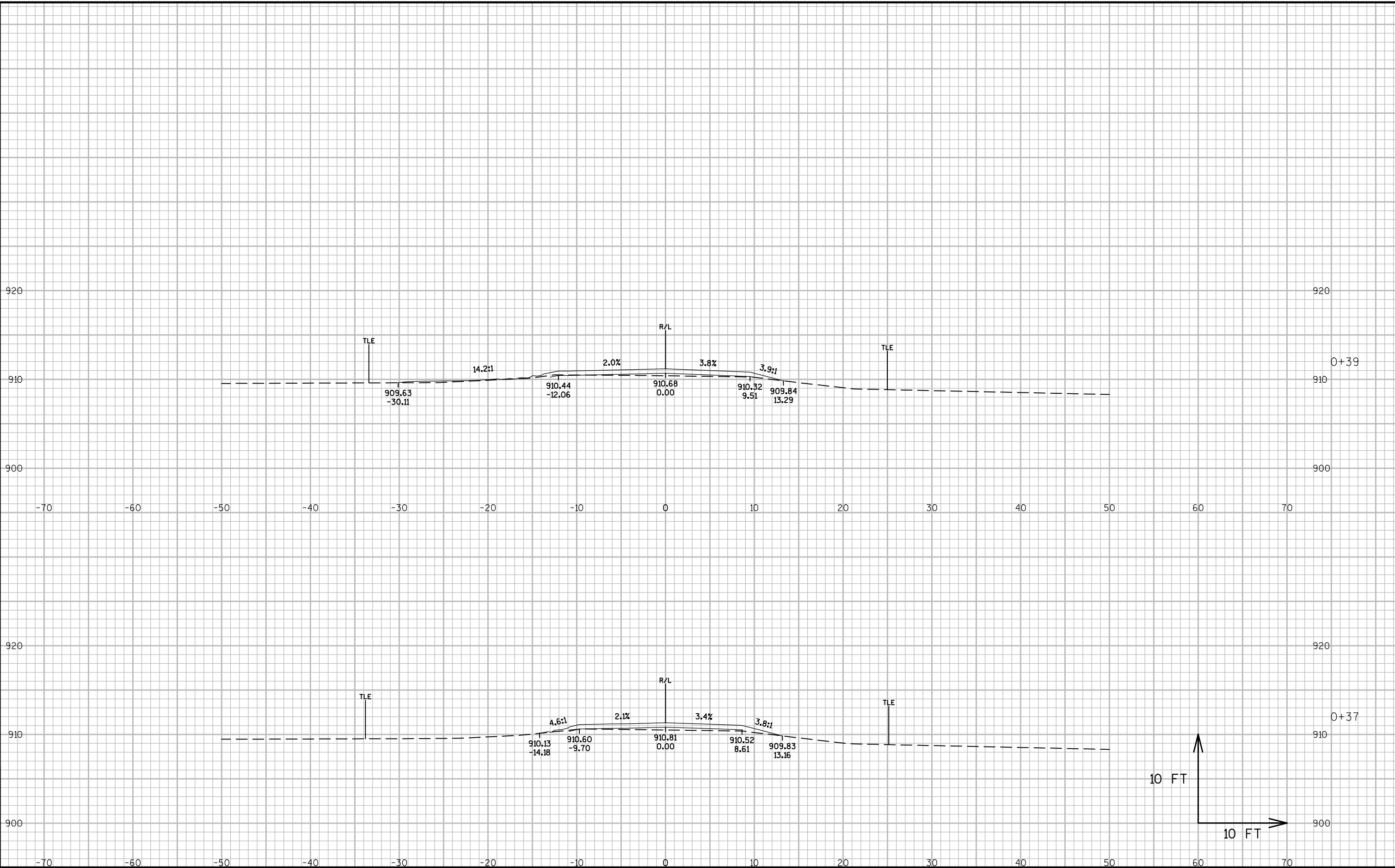
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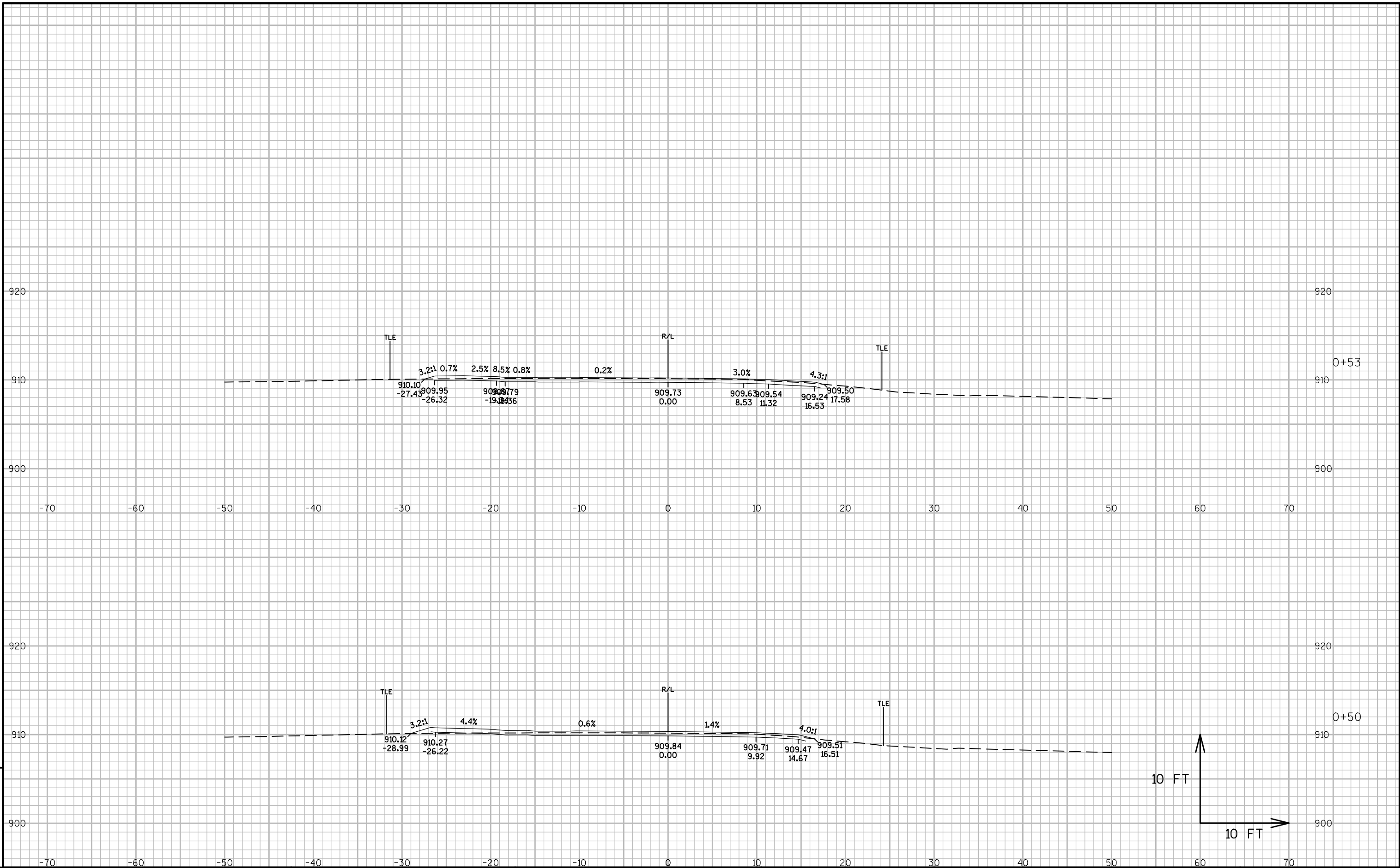
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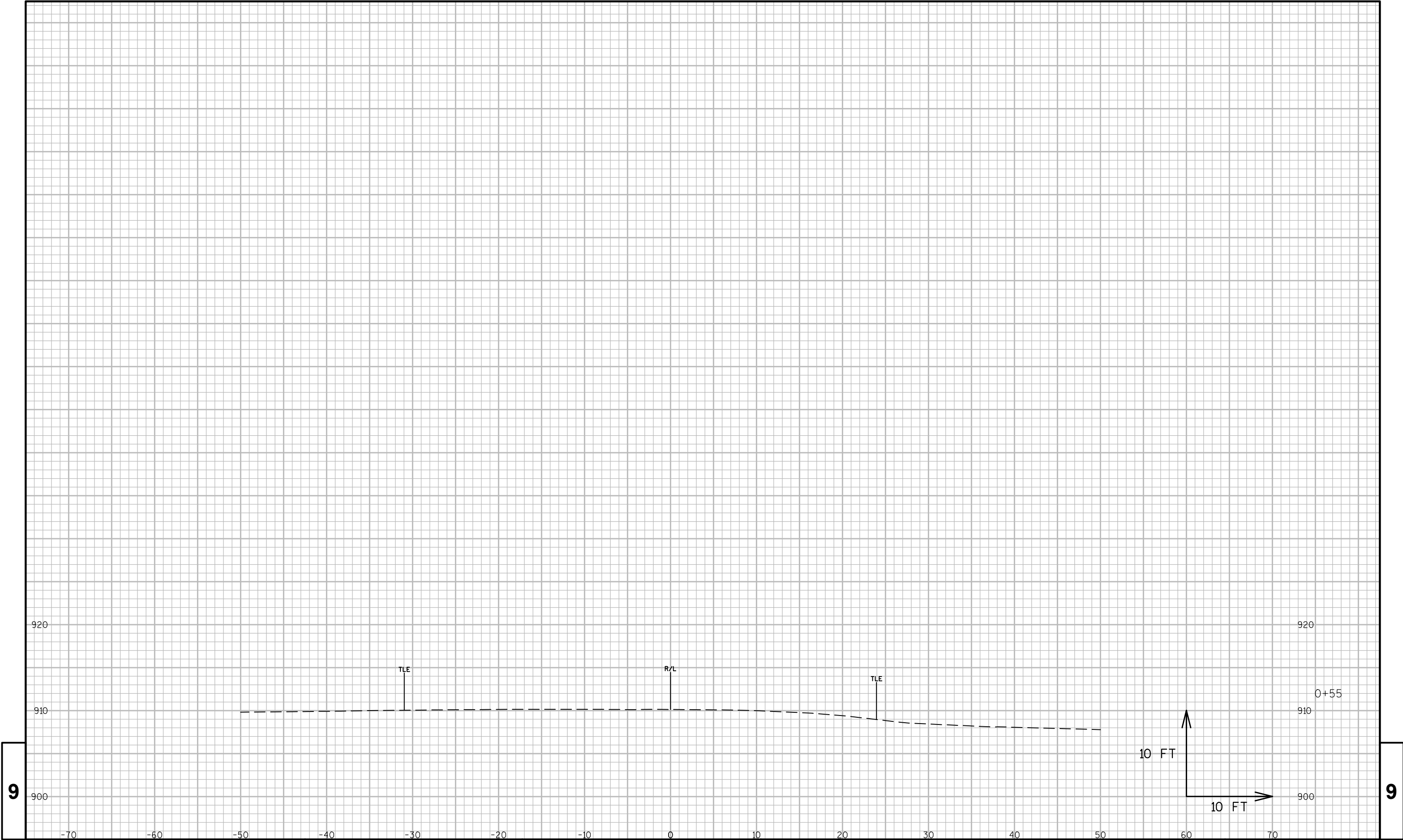
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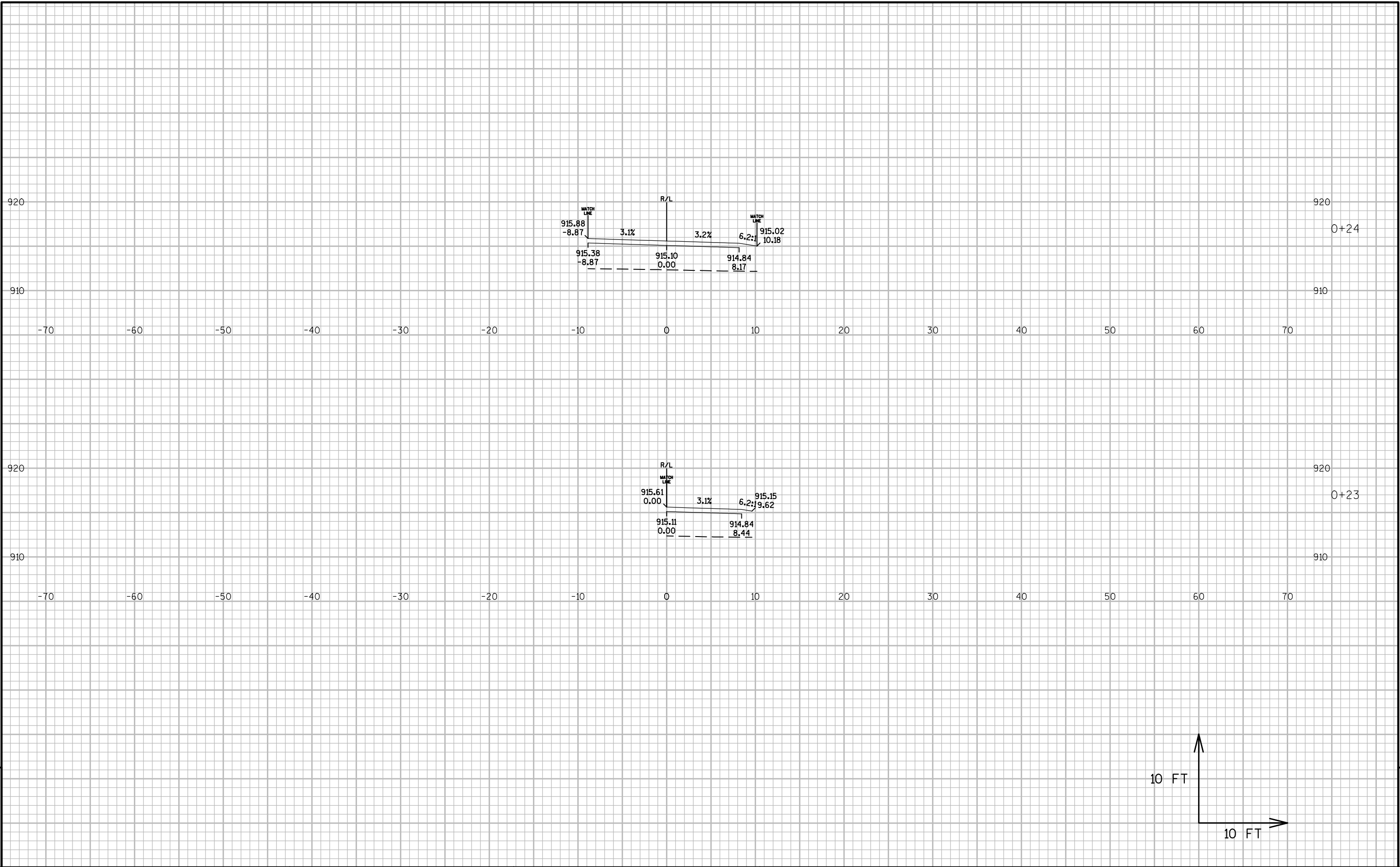


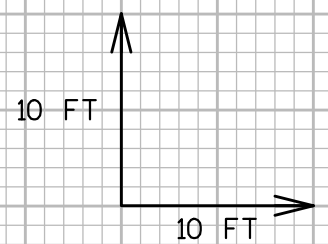
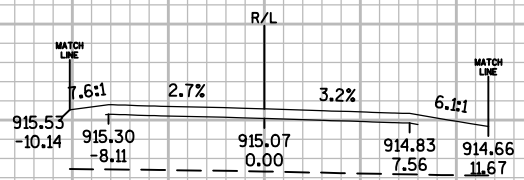
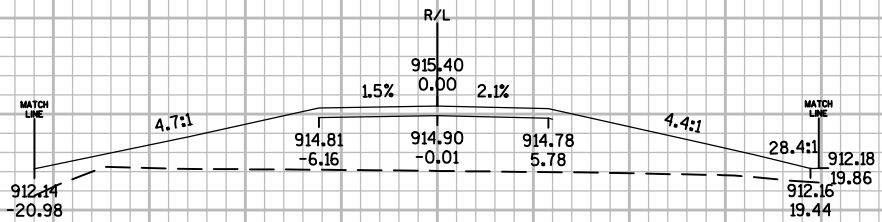
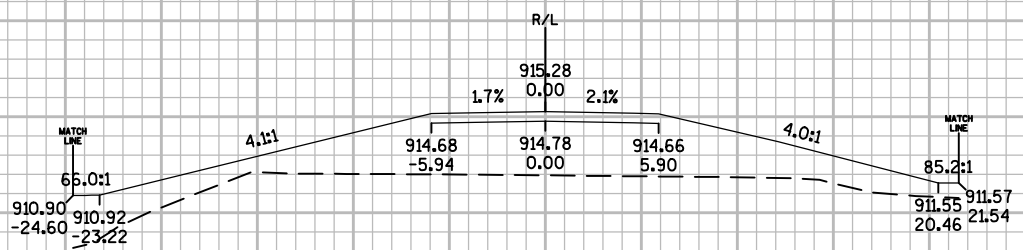


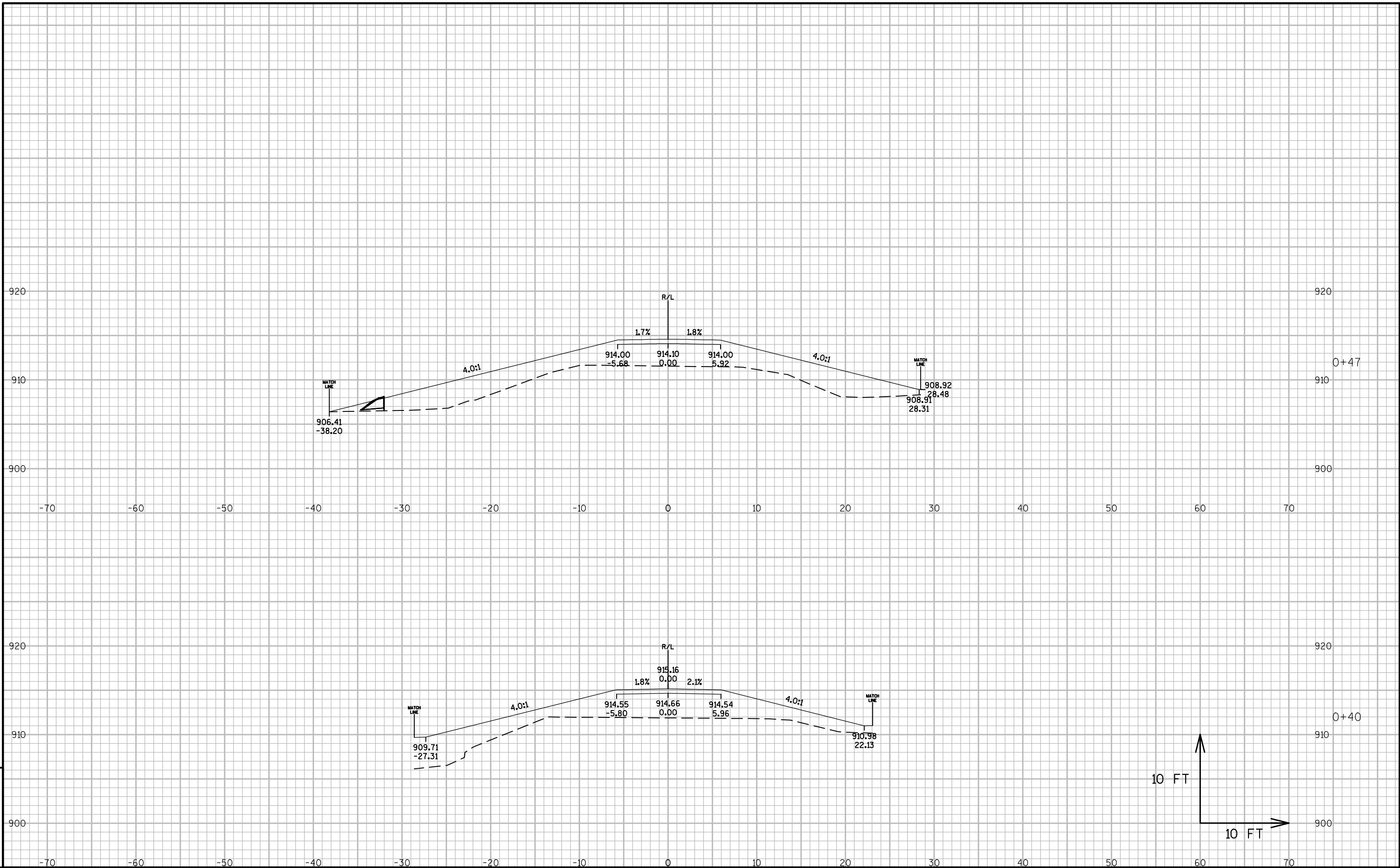
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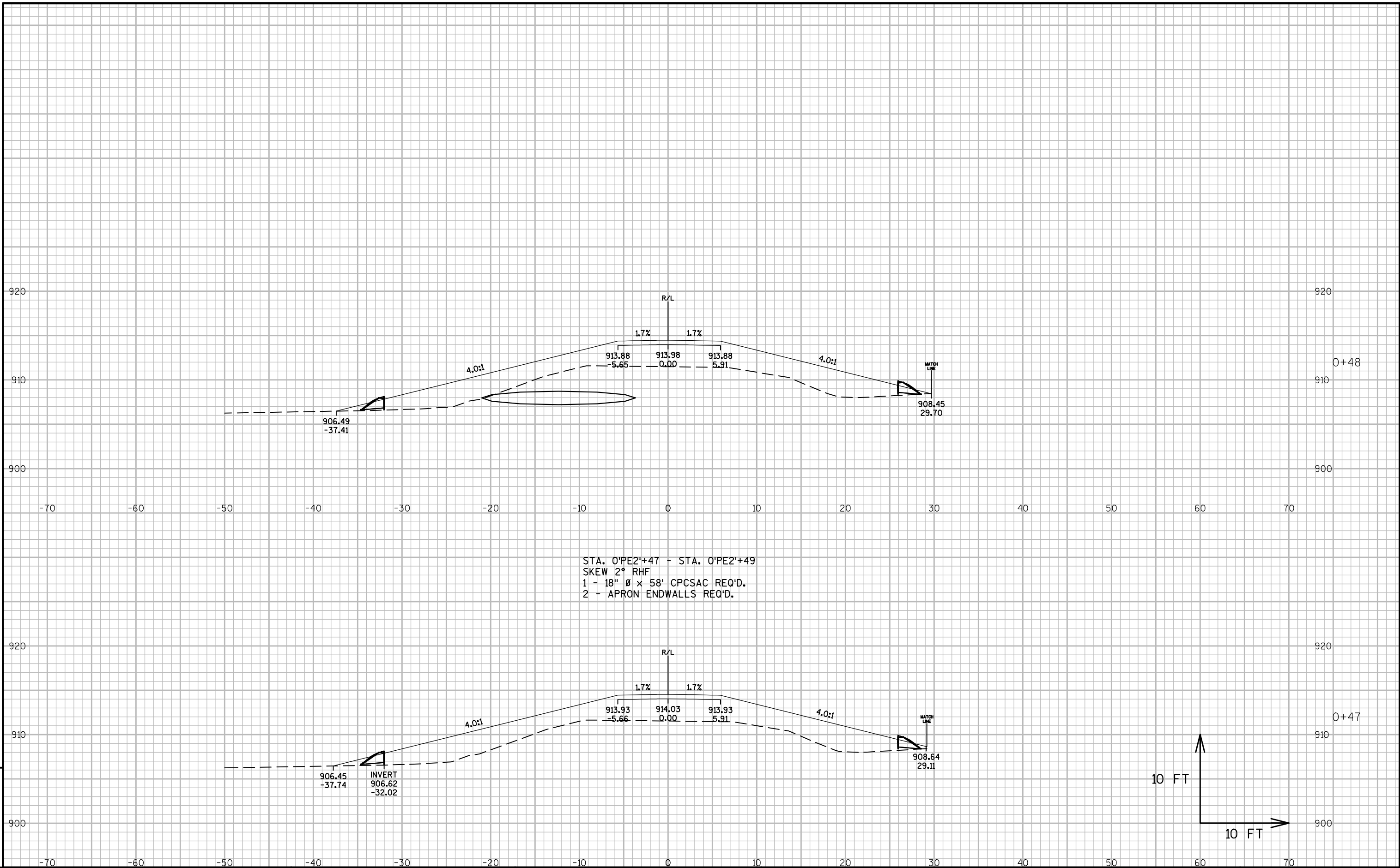
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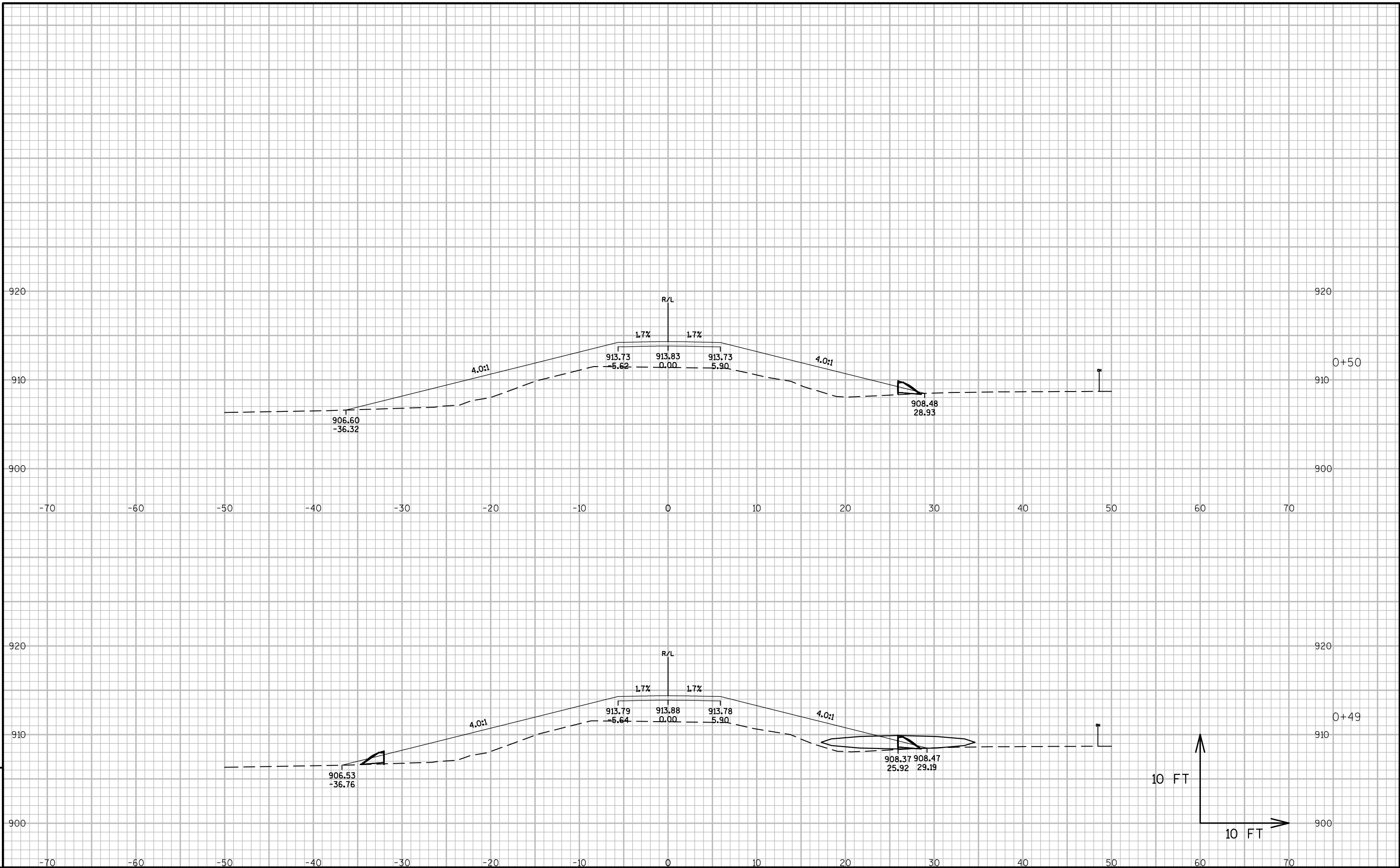
PROJECT NO:1021-03-74	HWY:IH 94	COUNTY:EAU CLAIRE	CROSS SECTIONS: 'PE1'	SHEET	E
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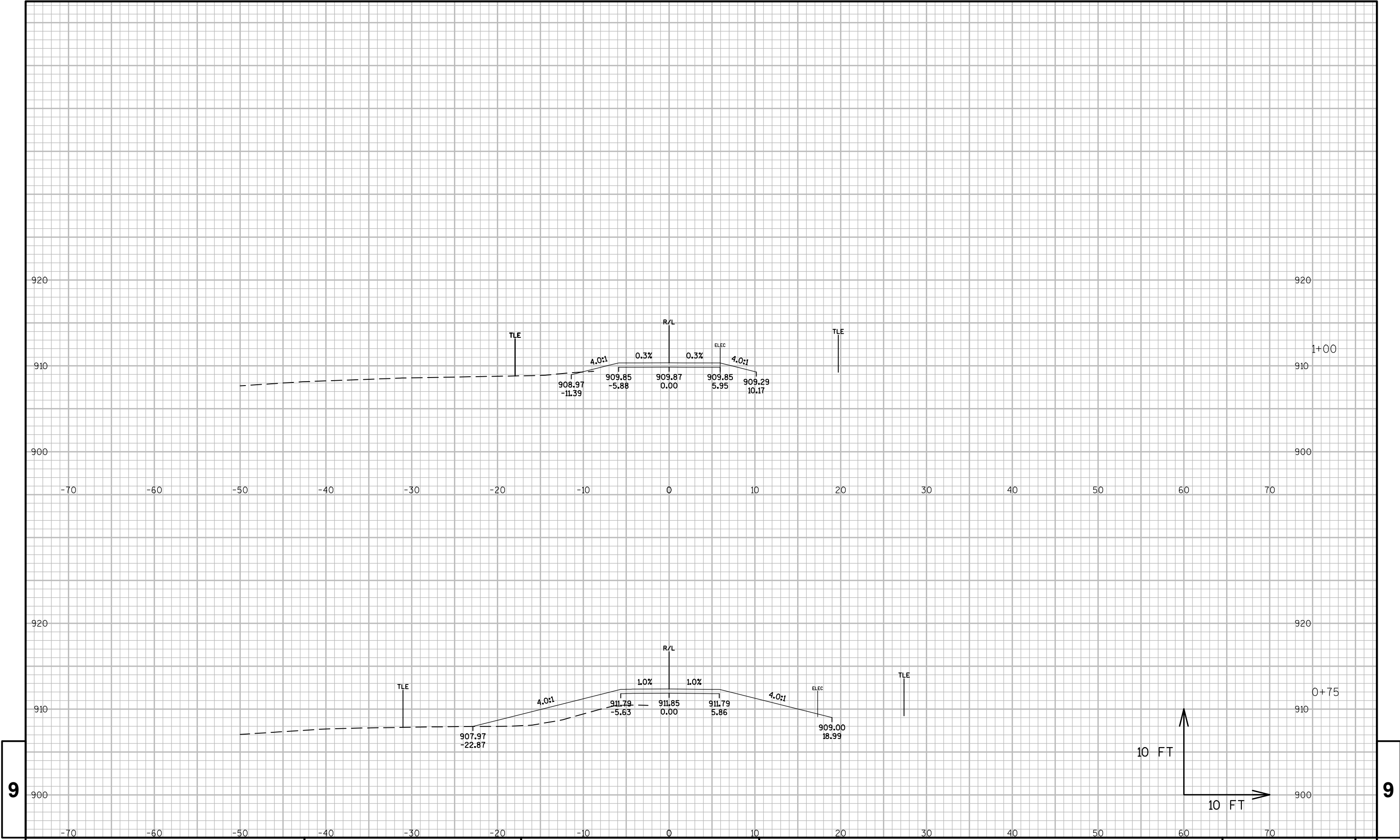






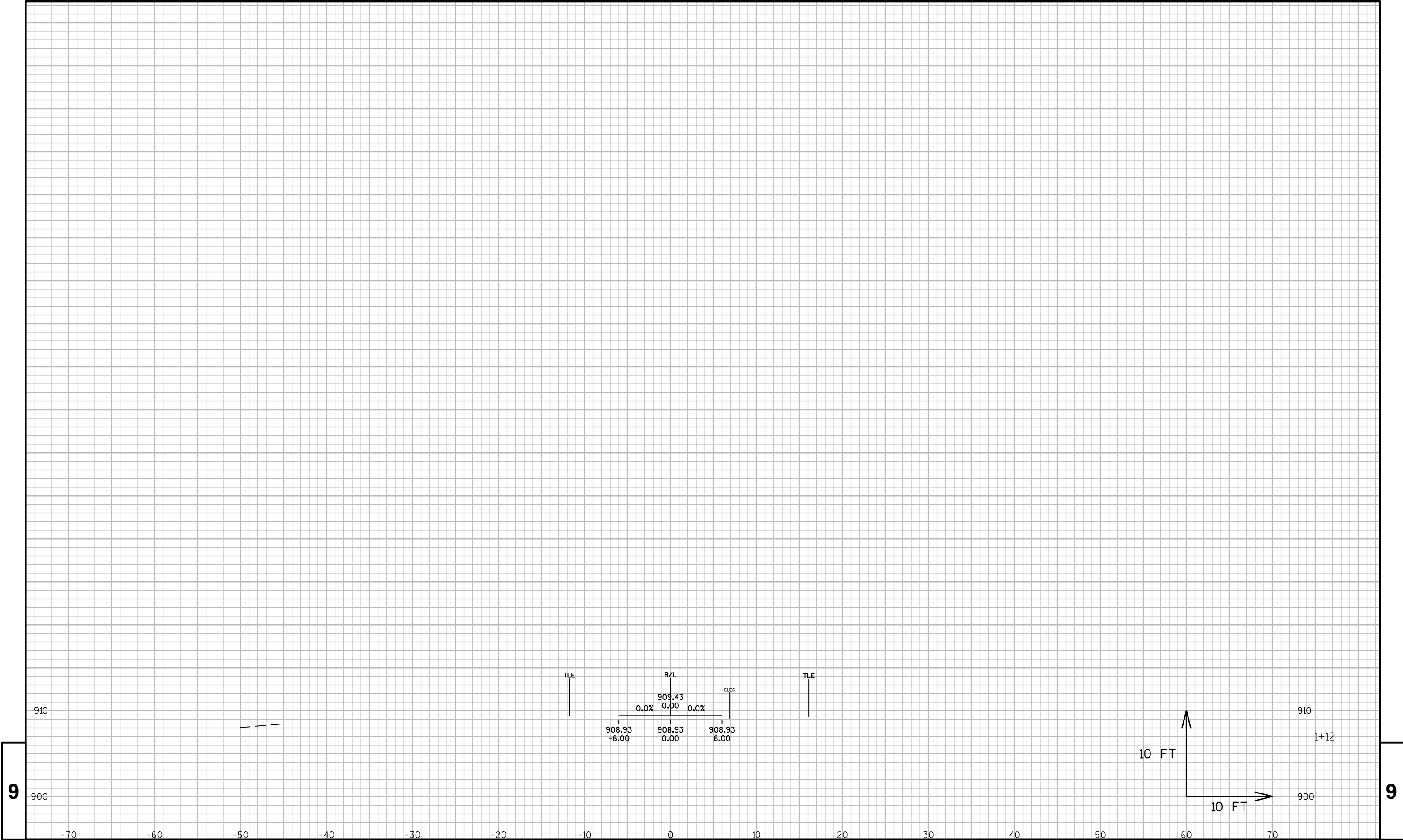






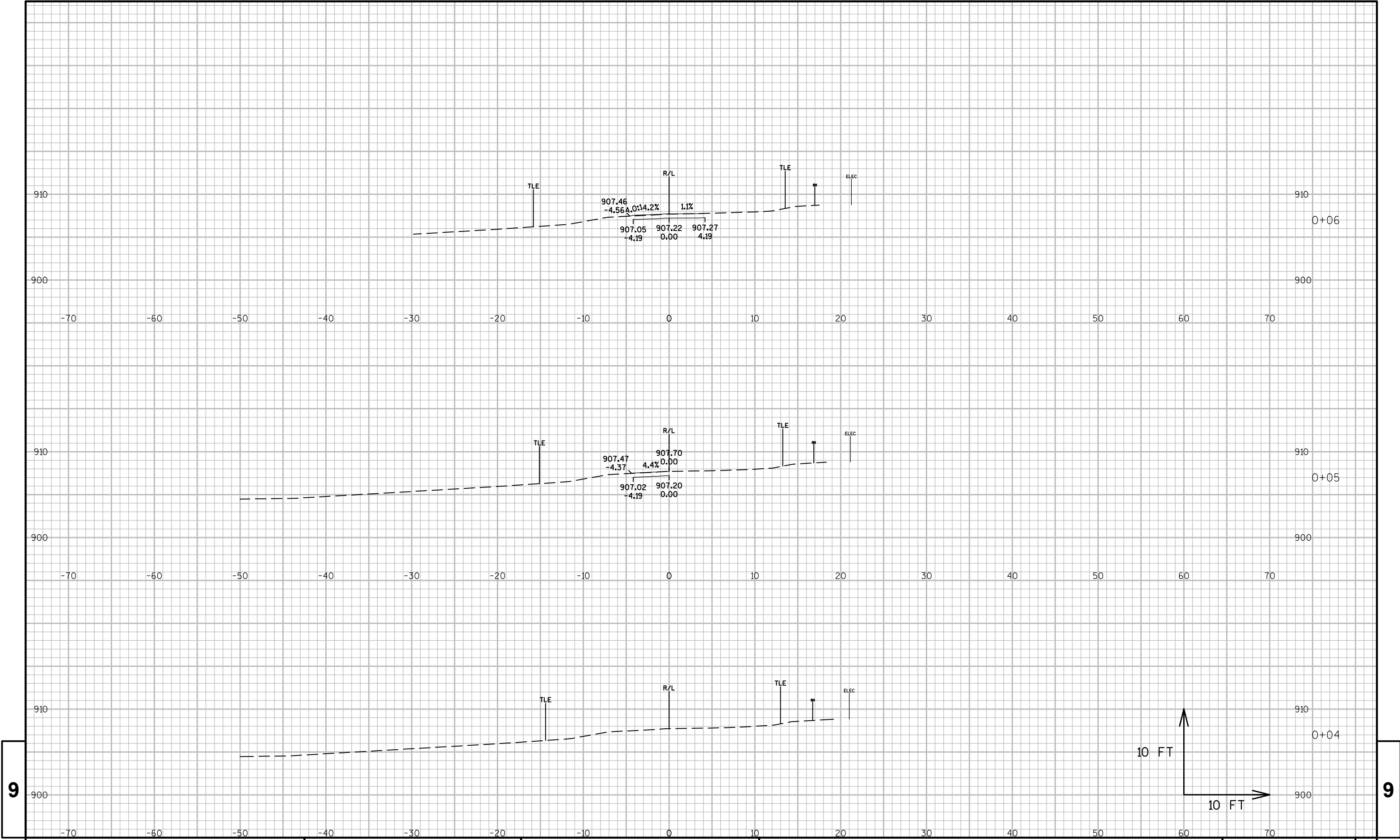
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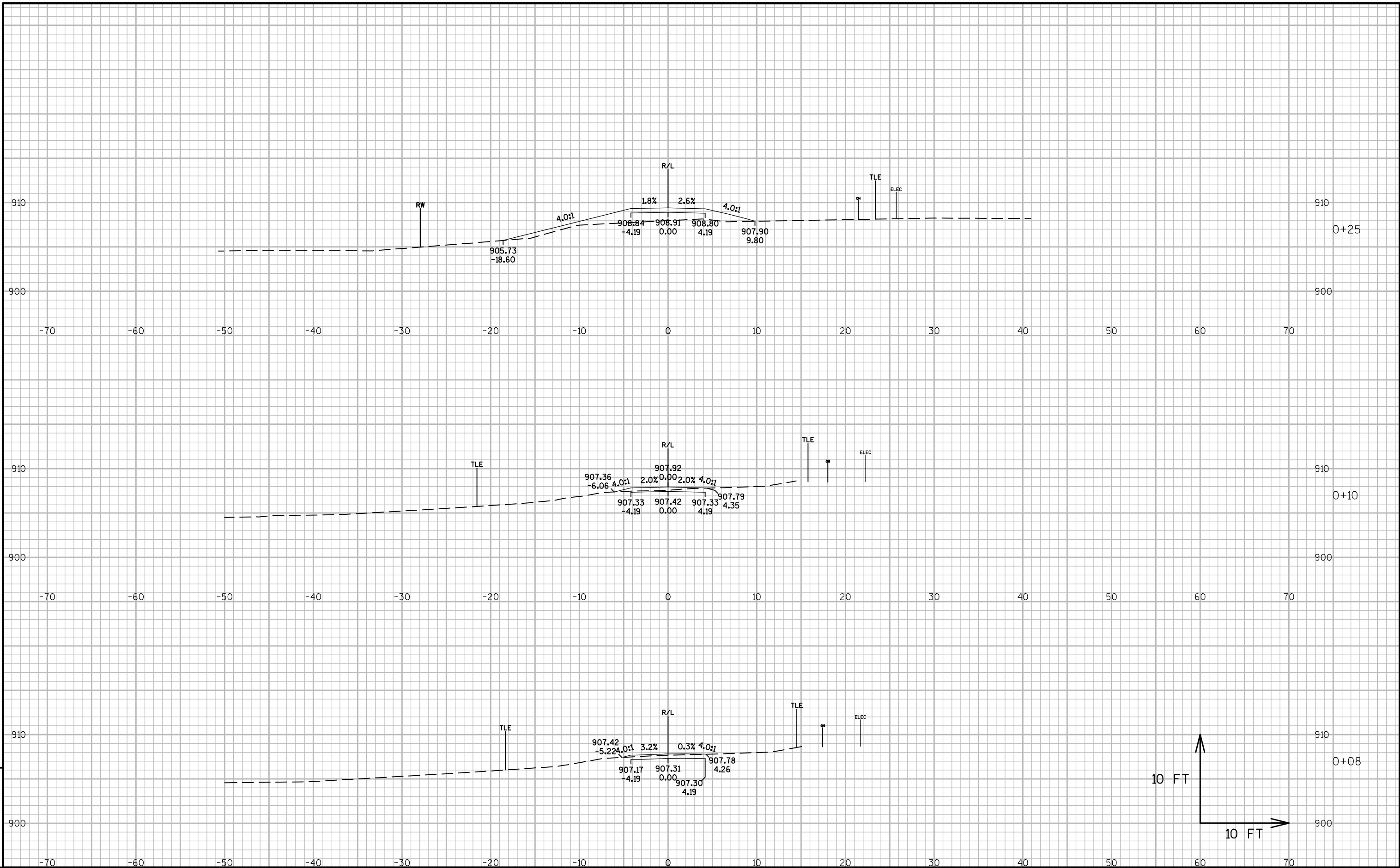
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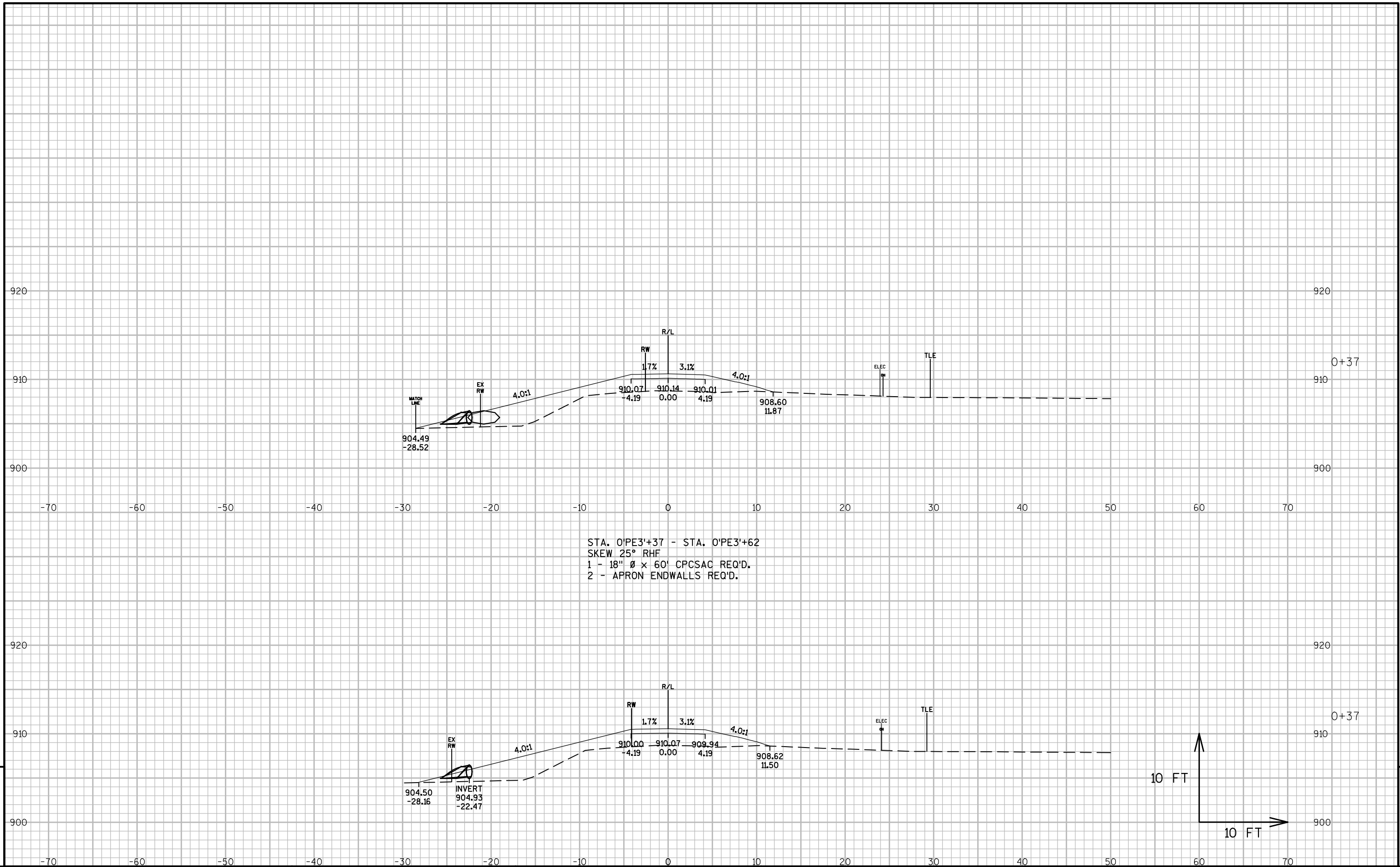
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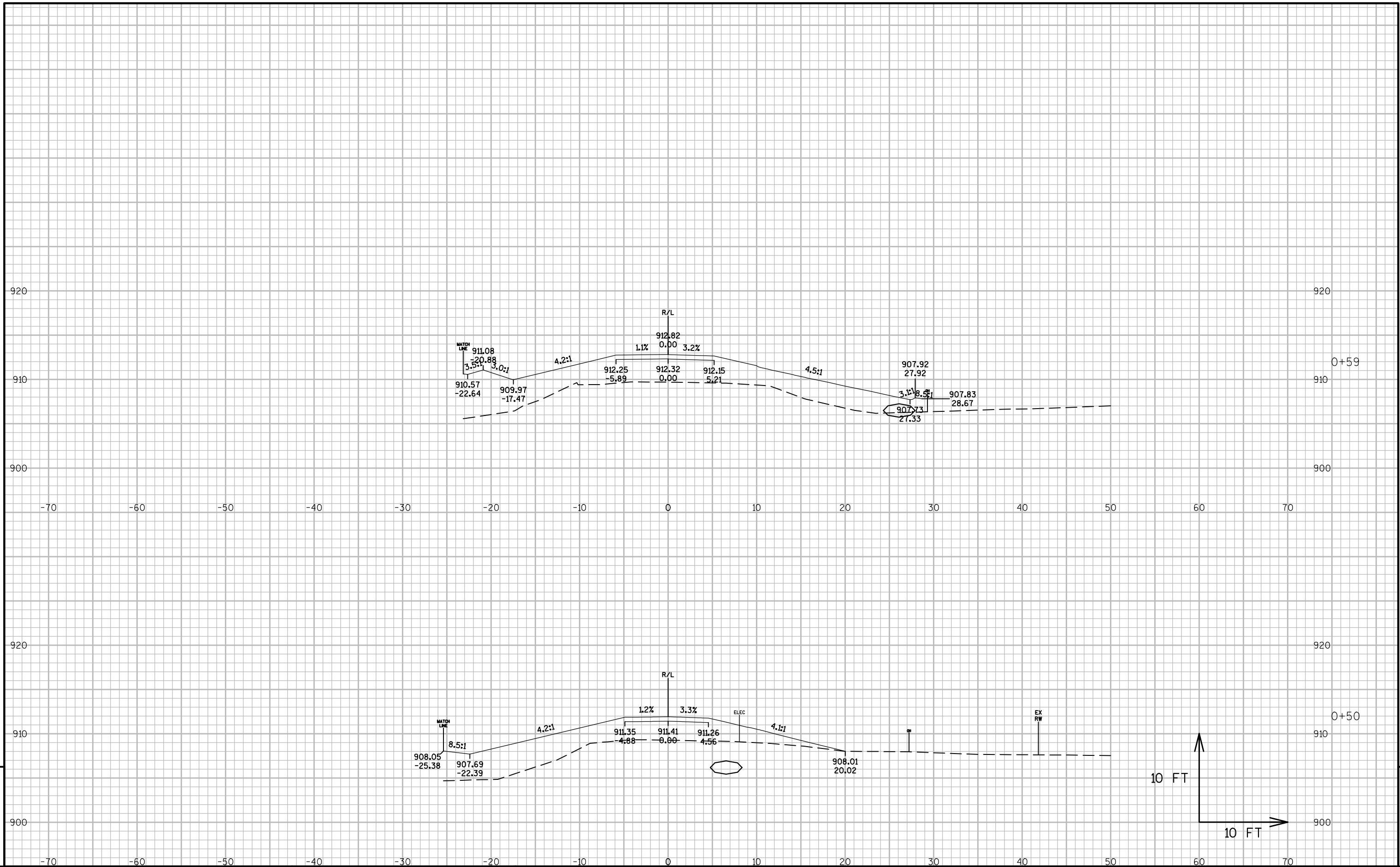


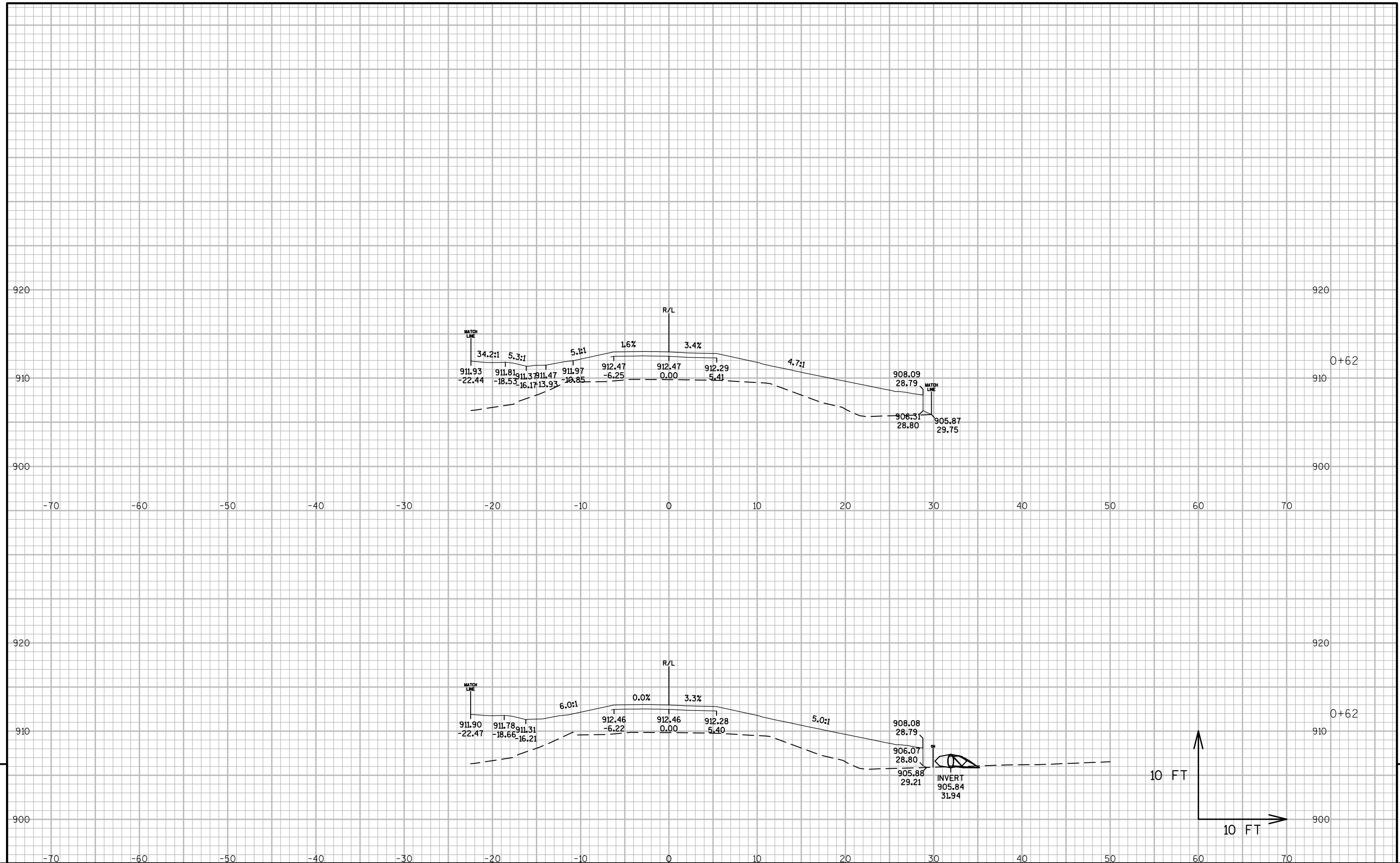
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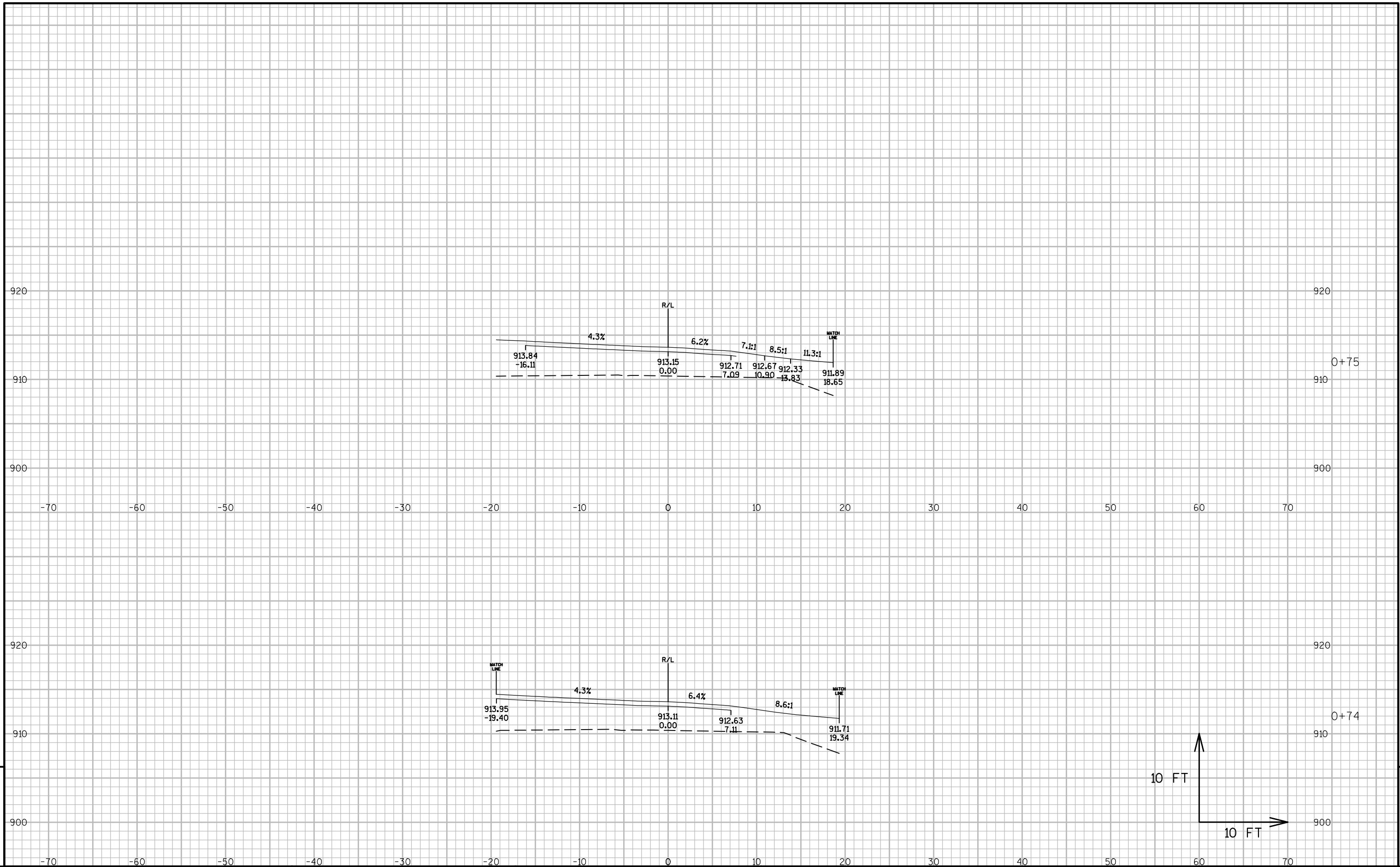
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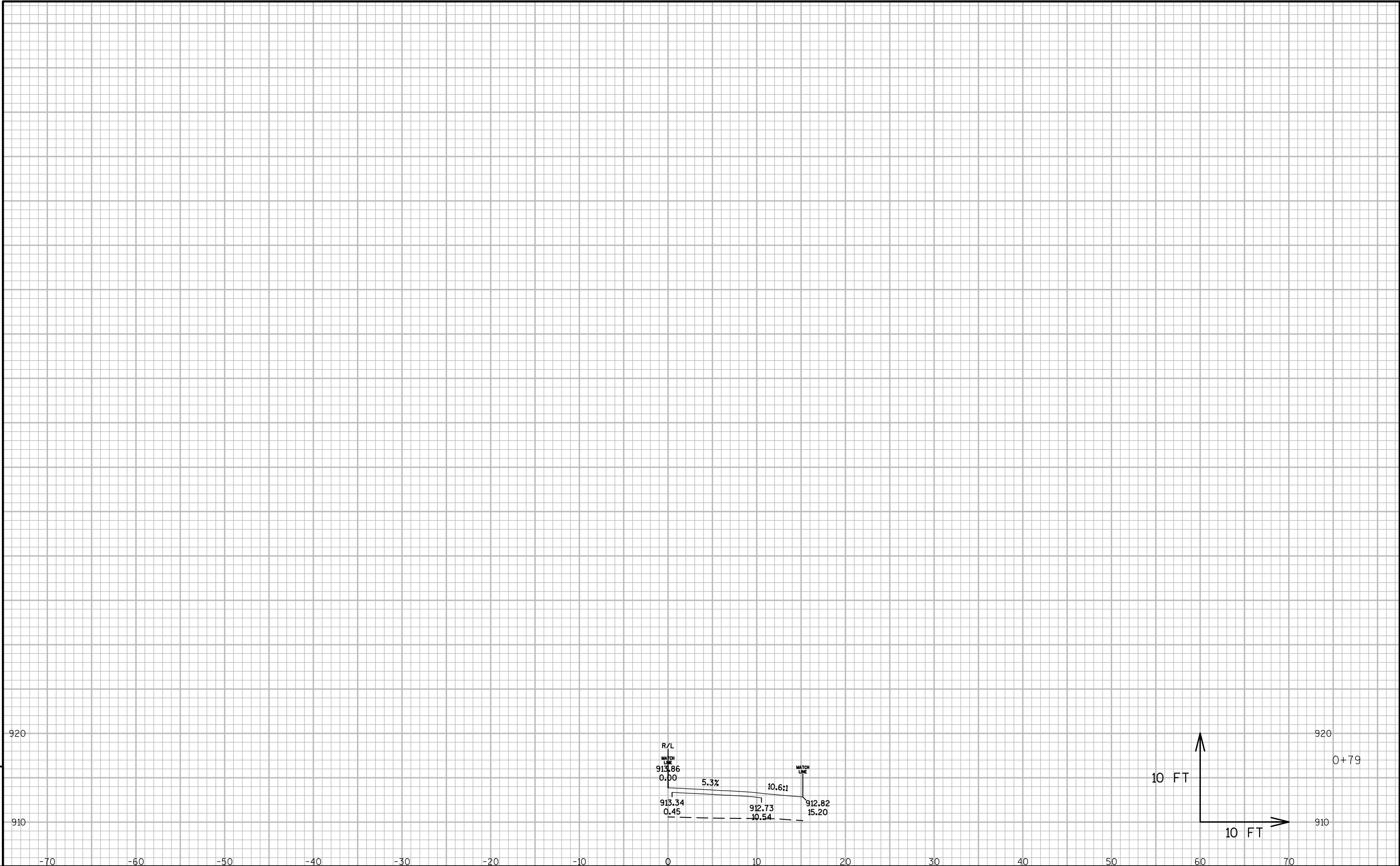




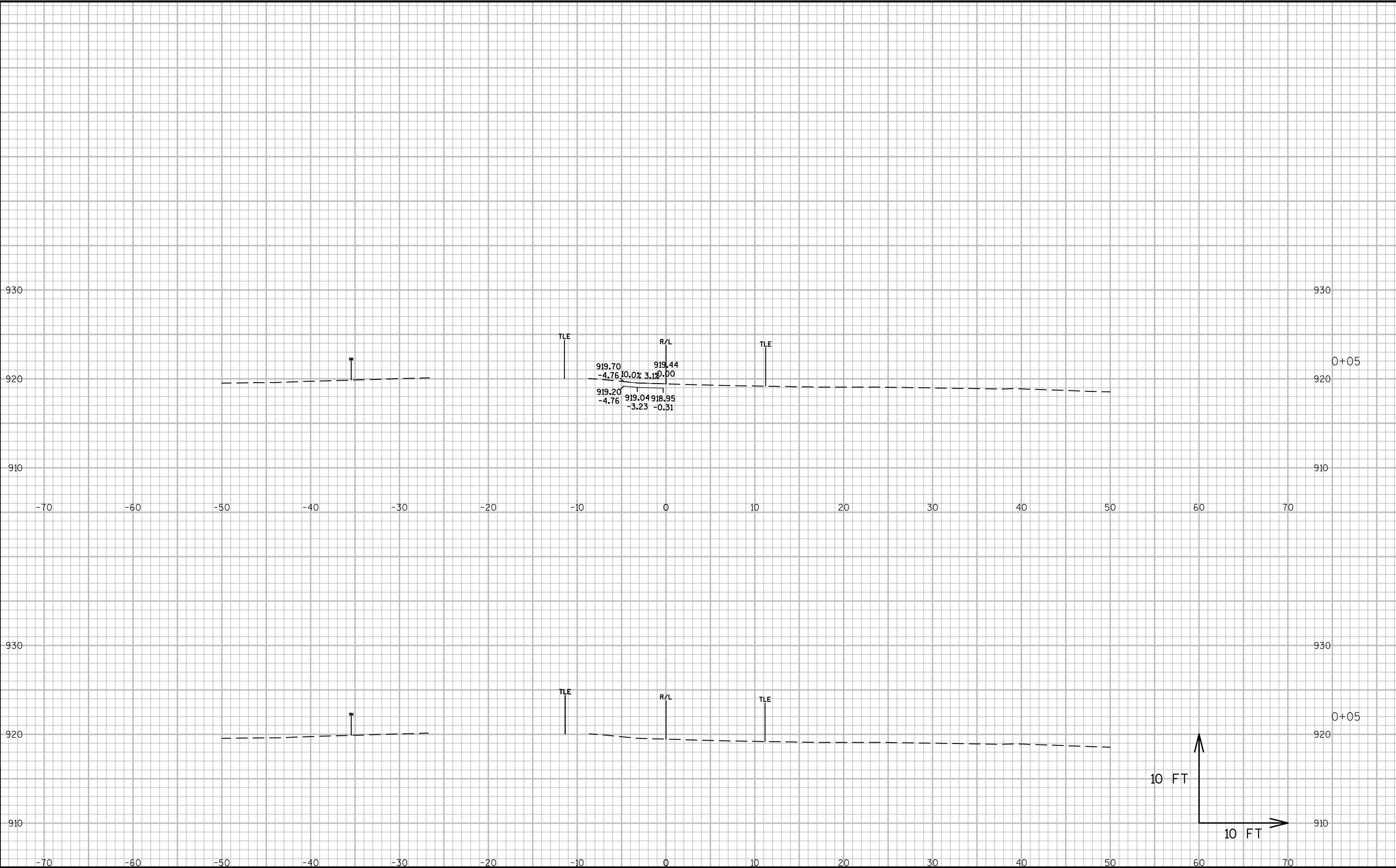




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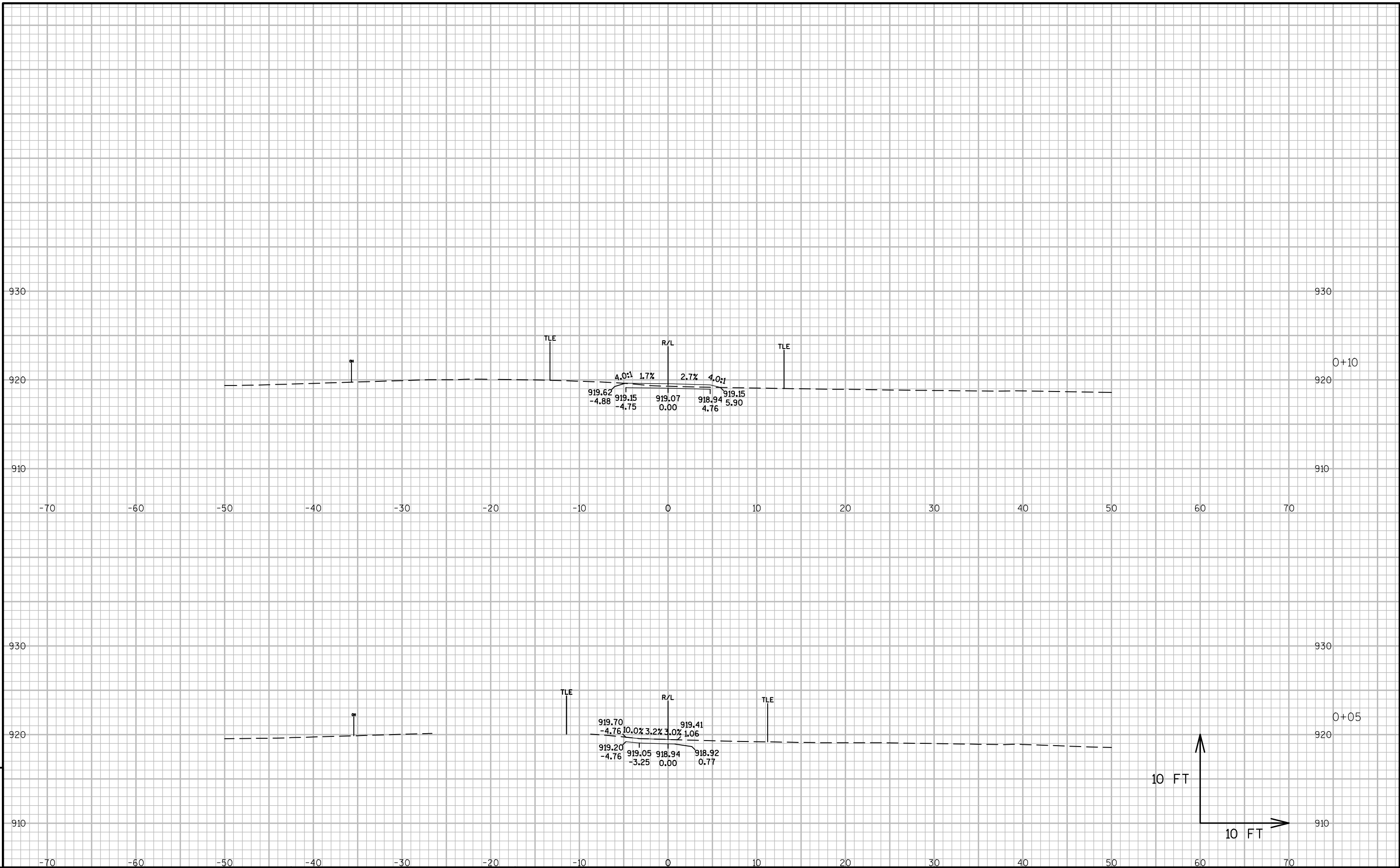


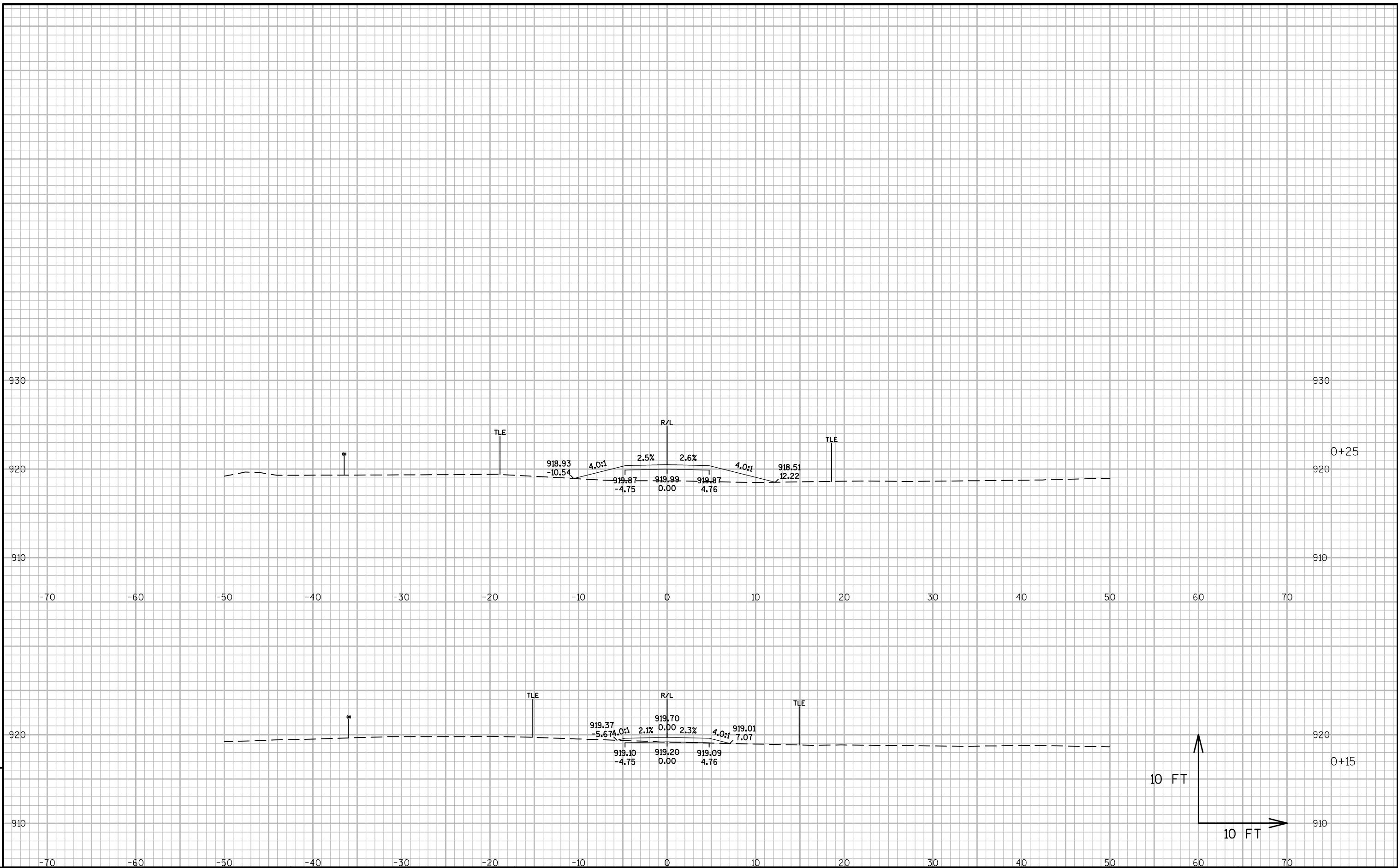
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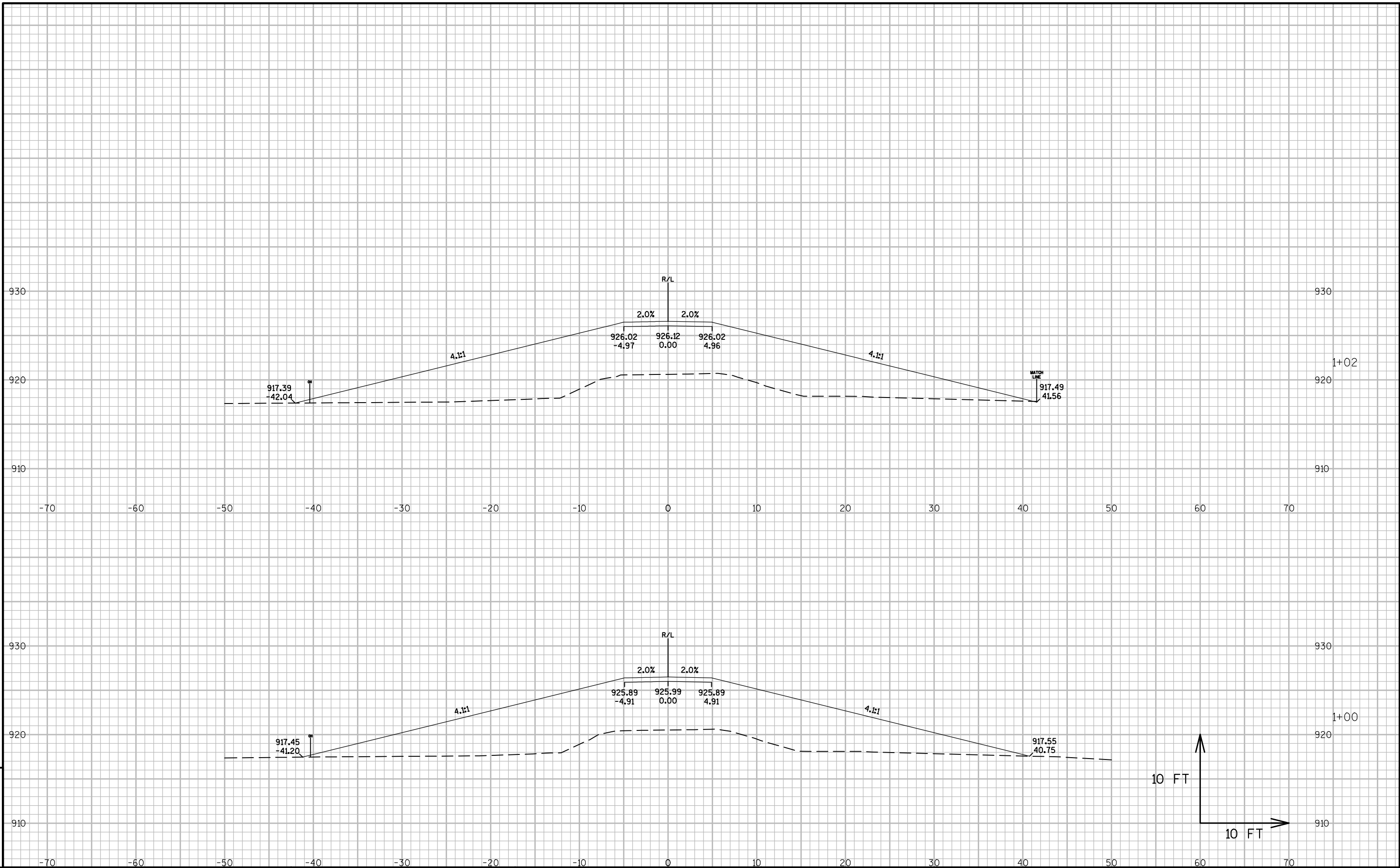


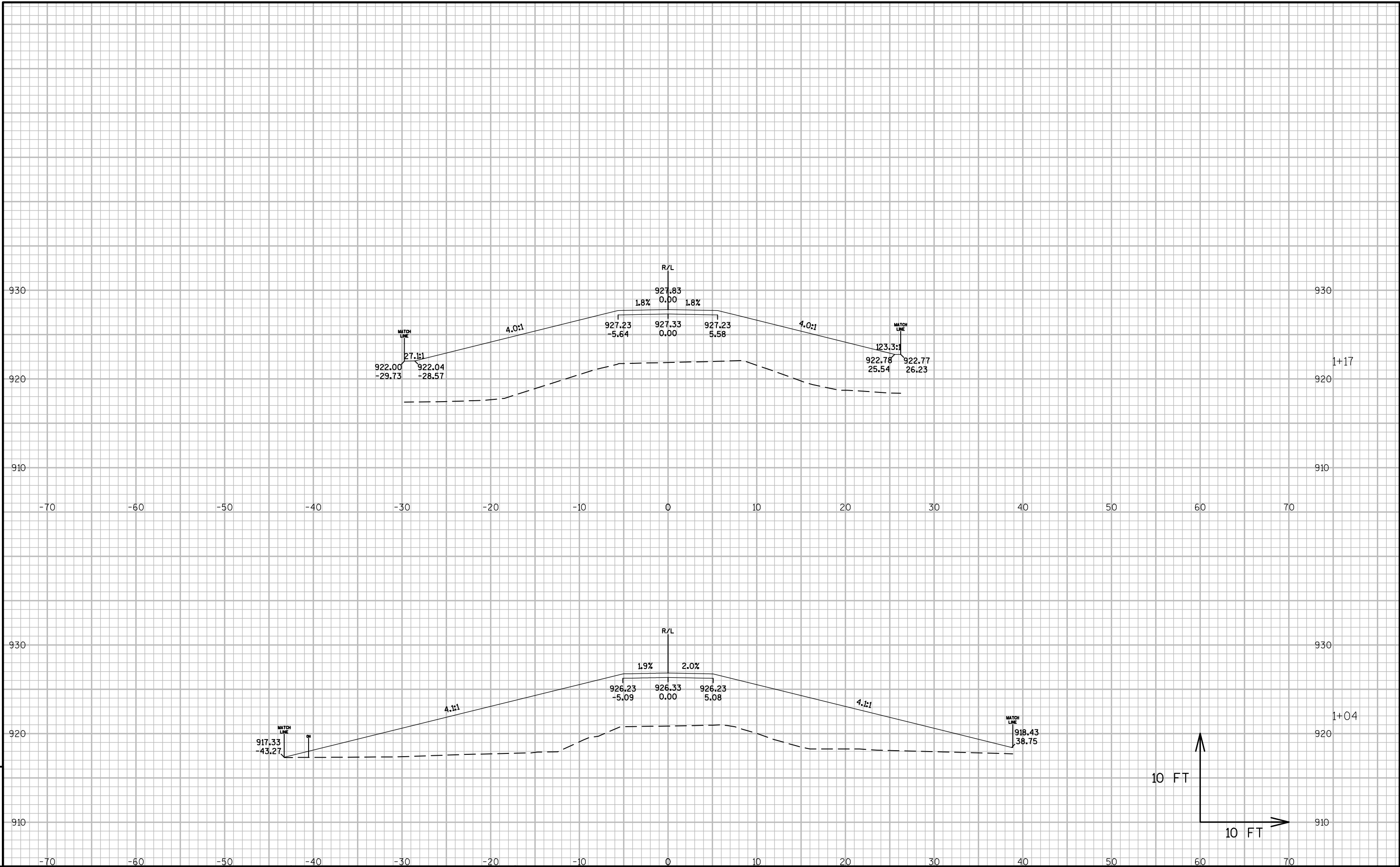
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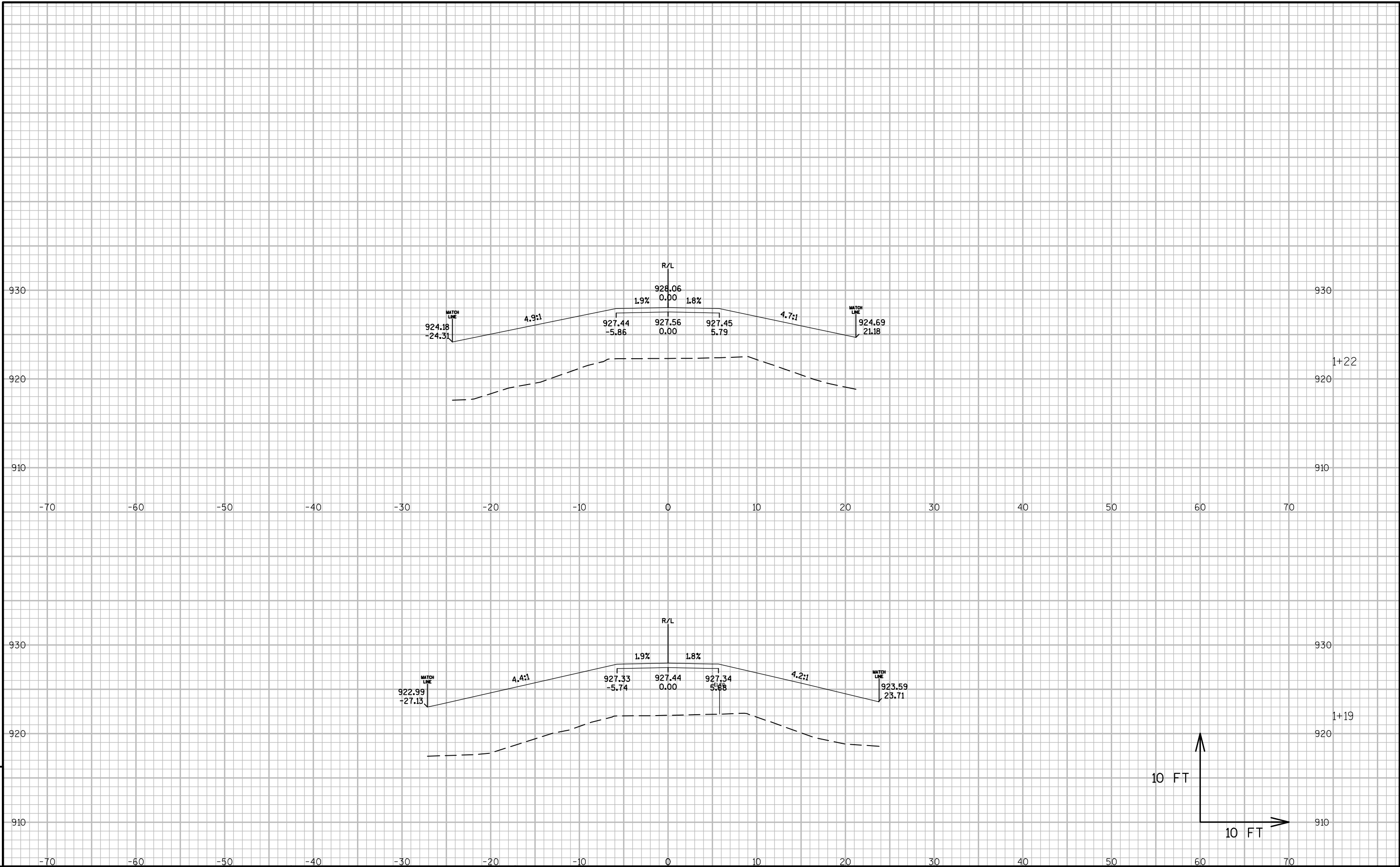
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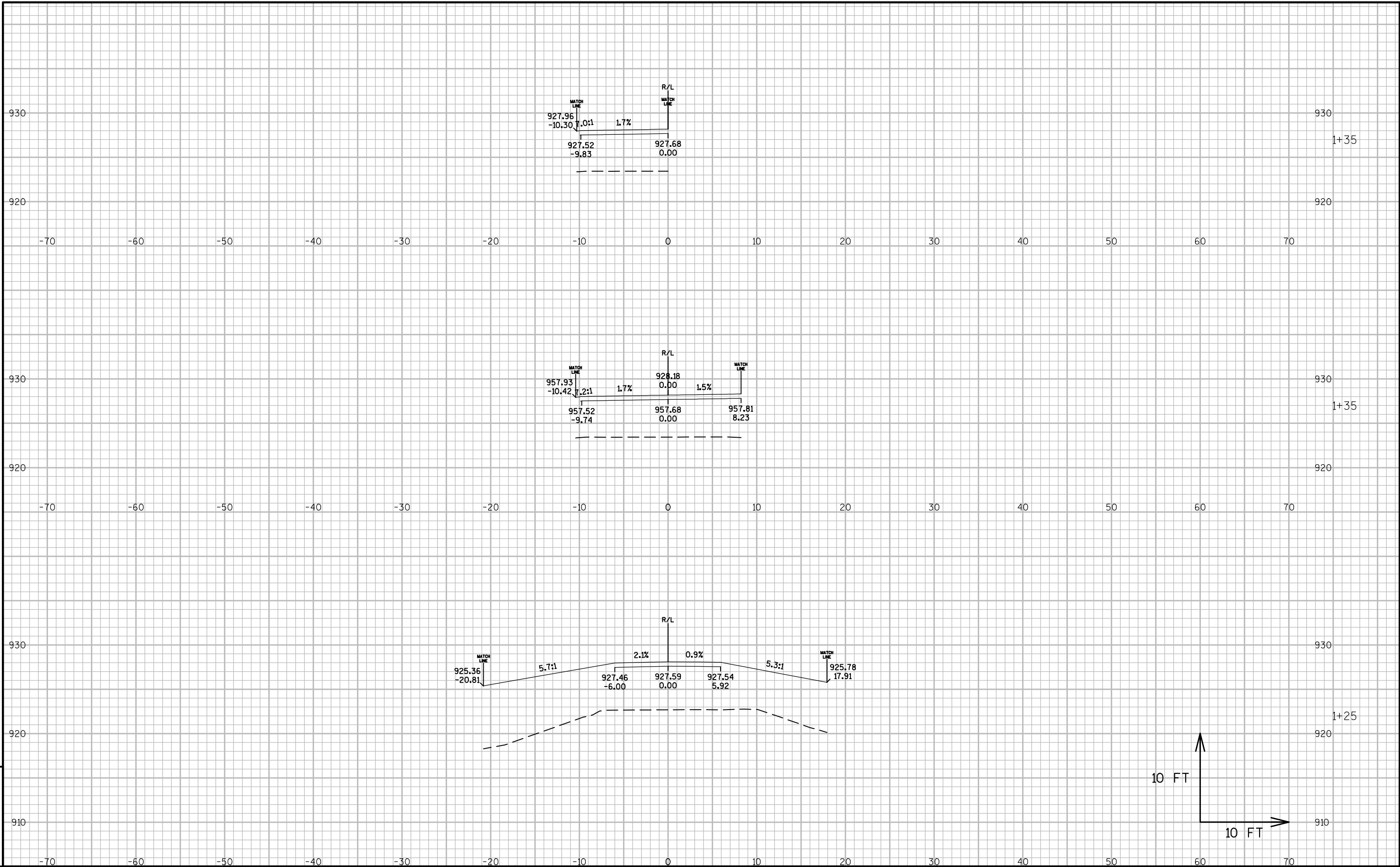


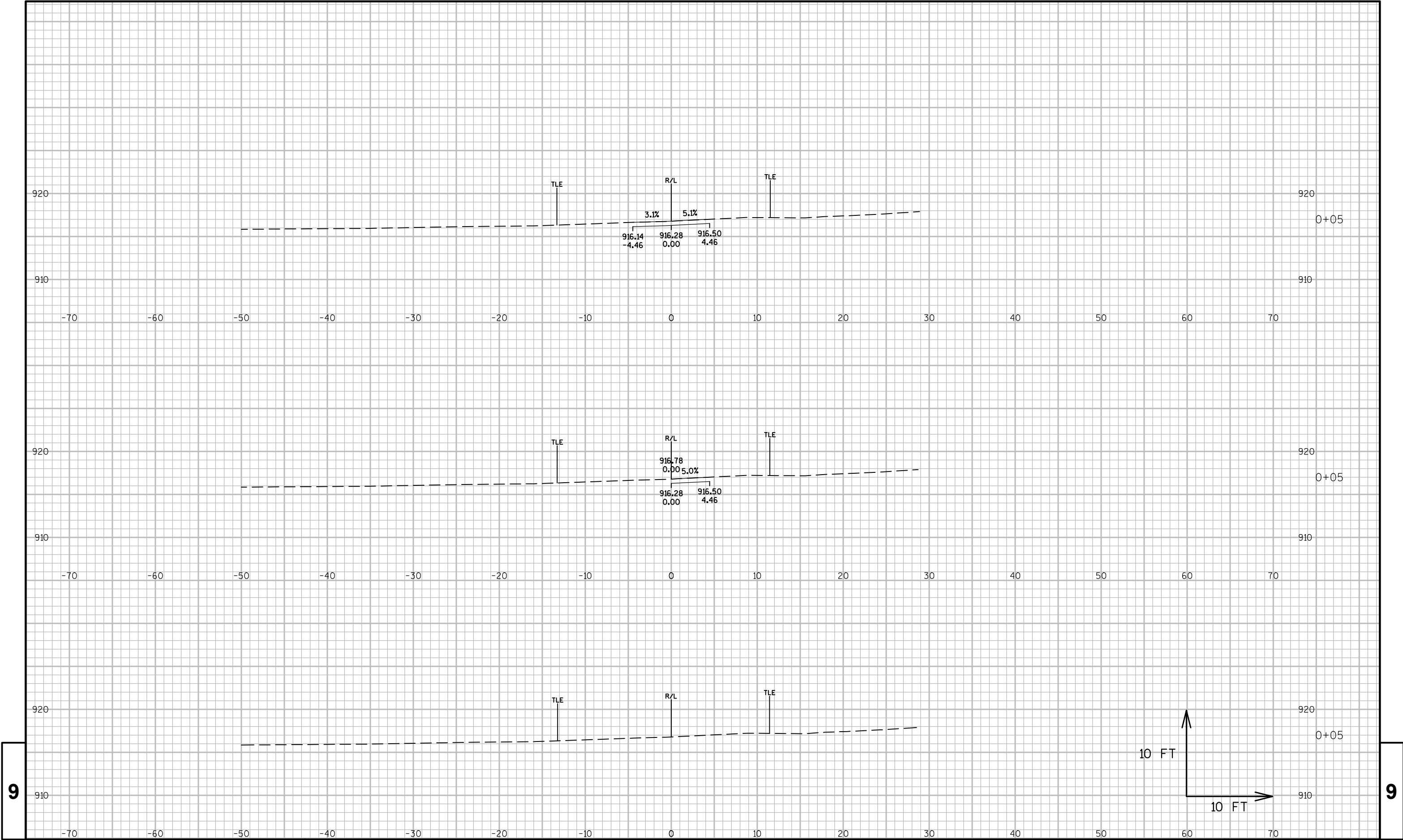












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PROJECT NO:1021-03-74

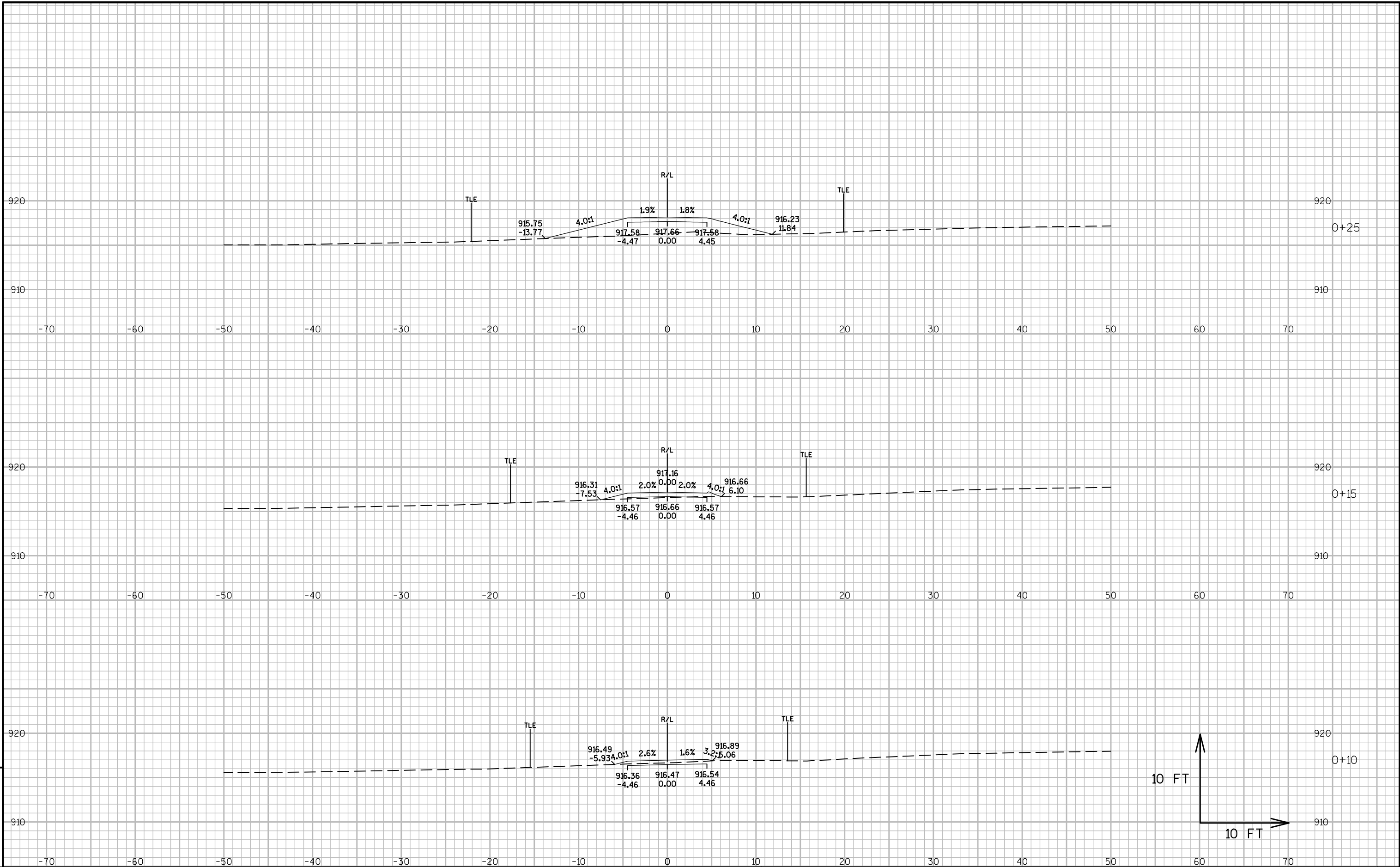
HWY:IH 94

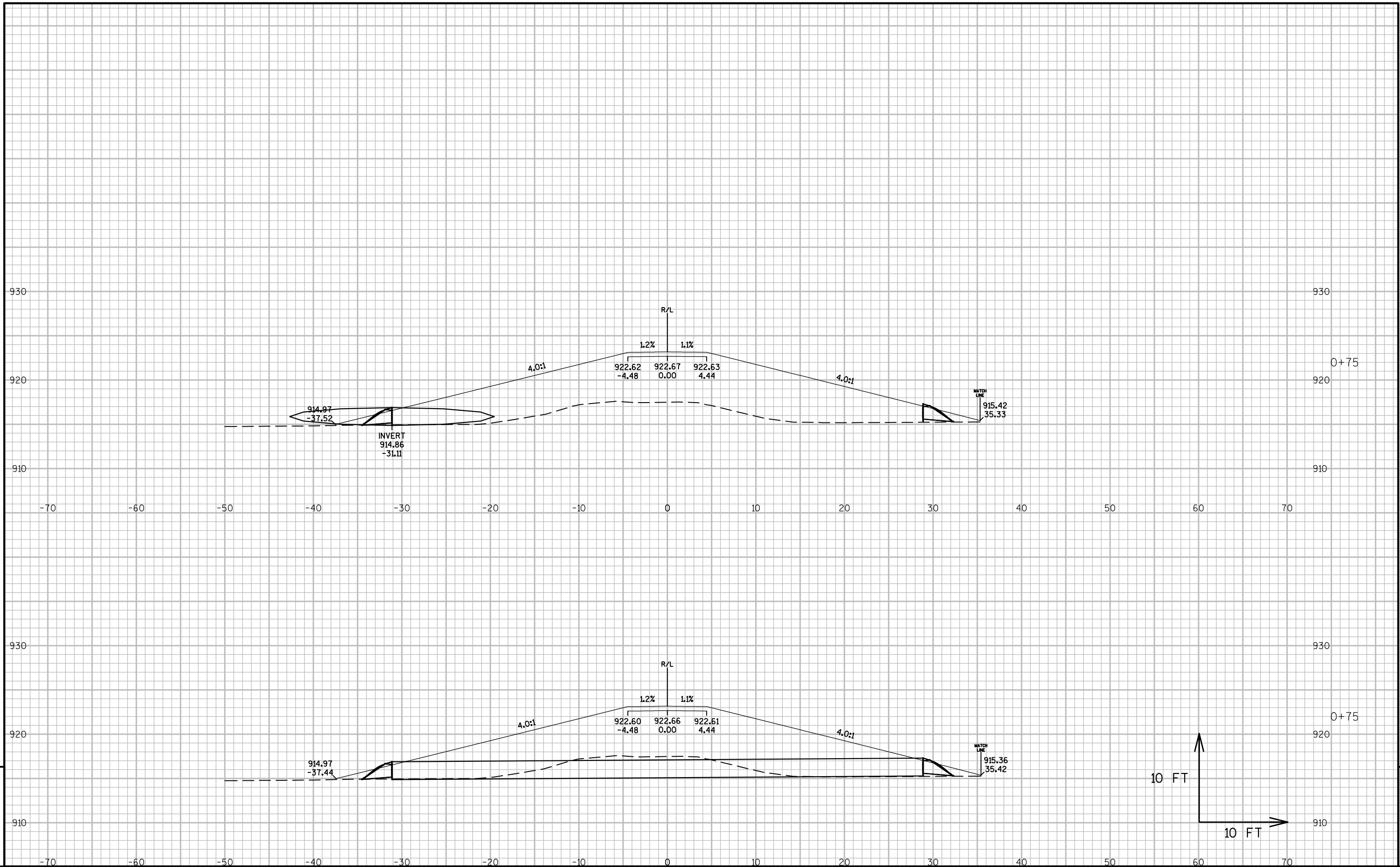
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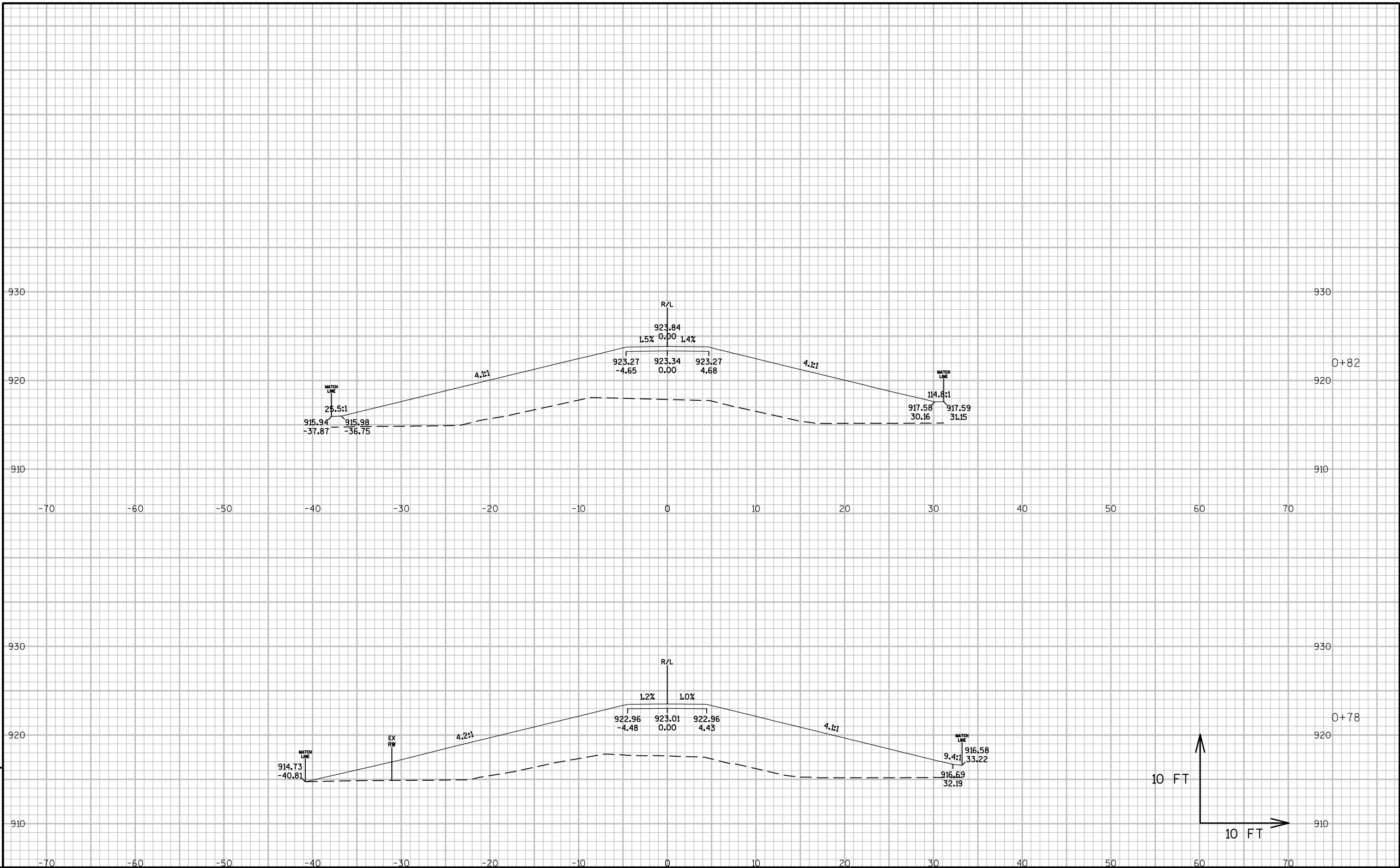
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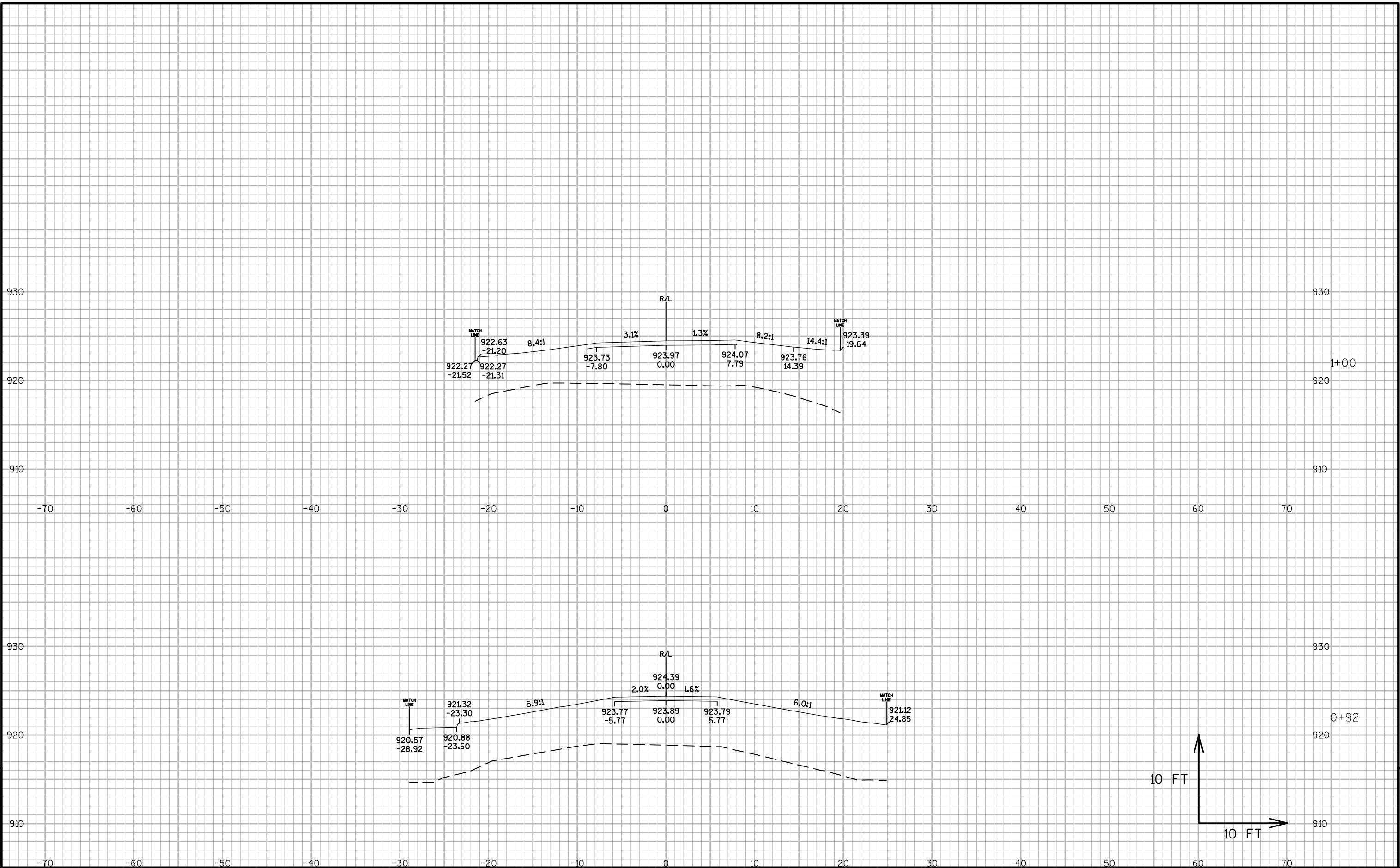
SHEET

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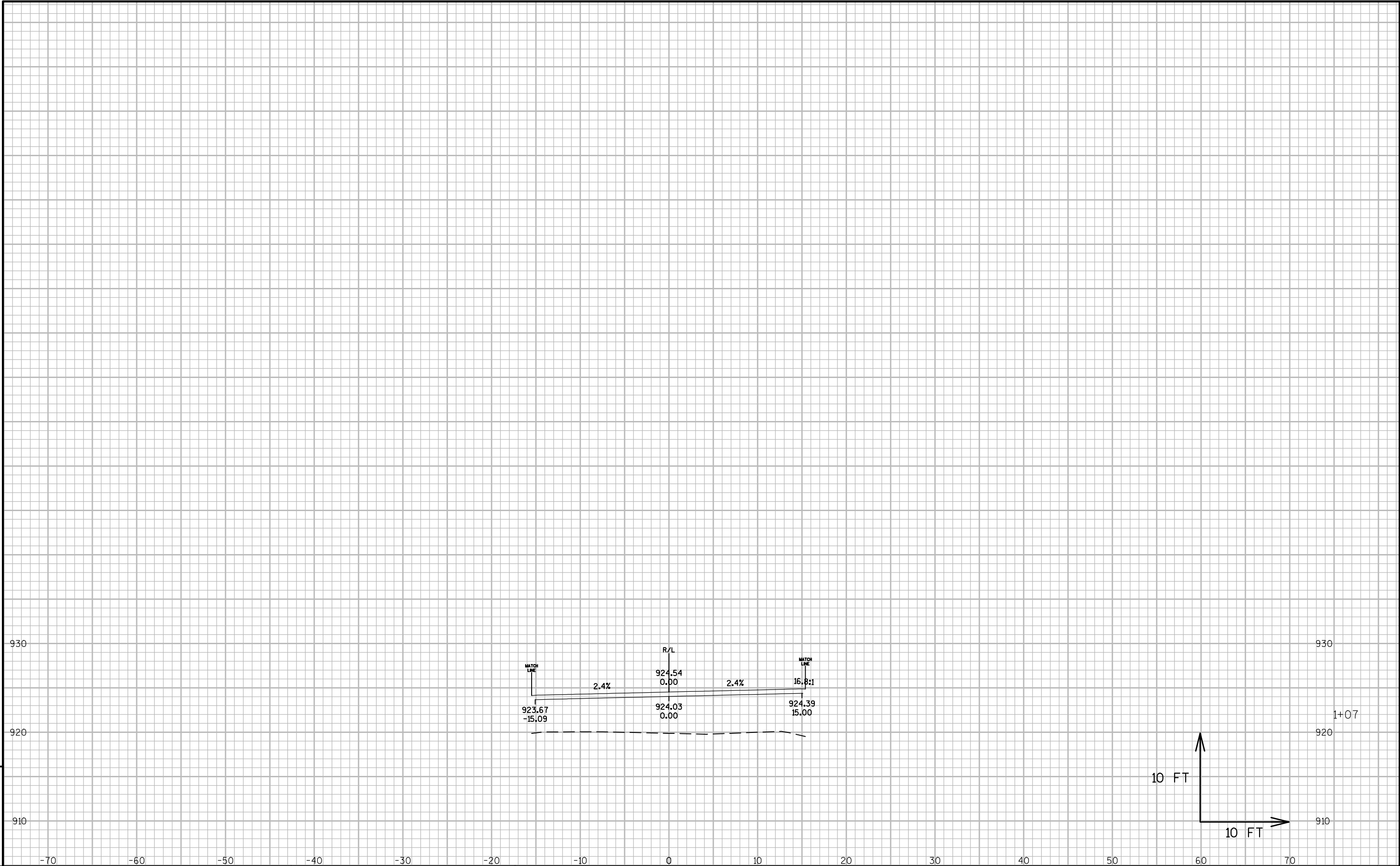




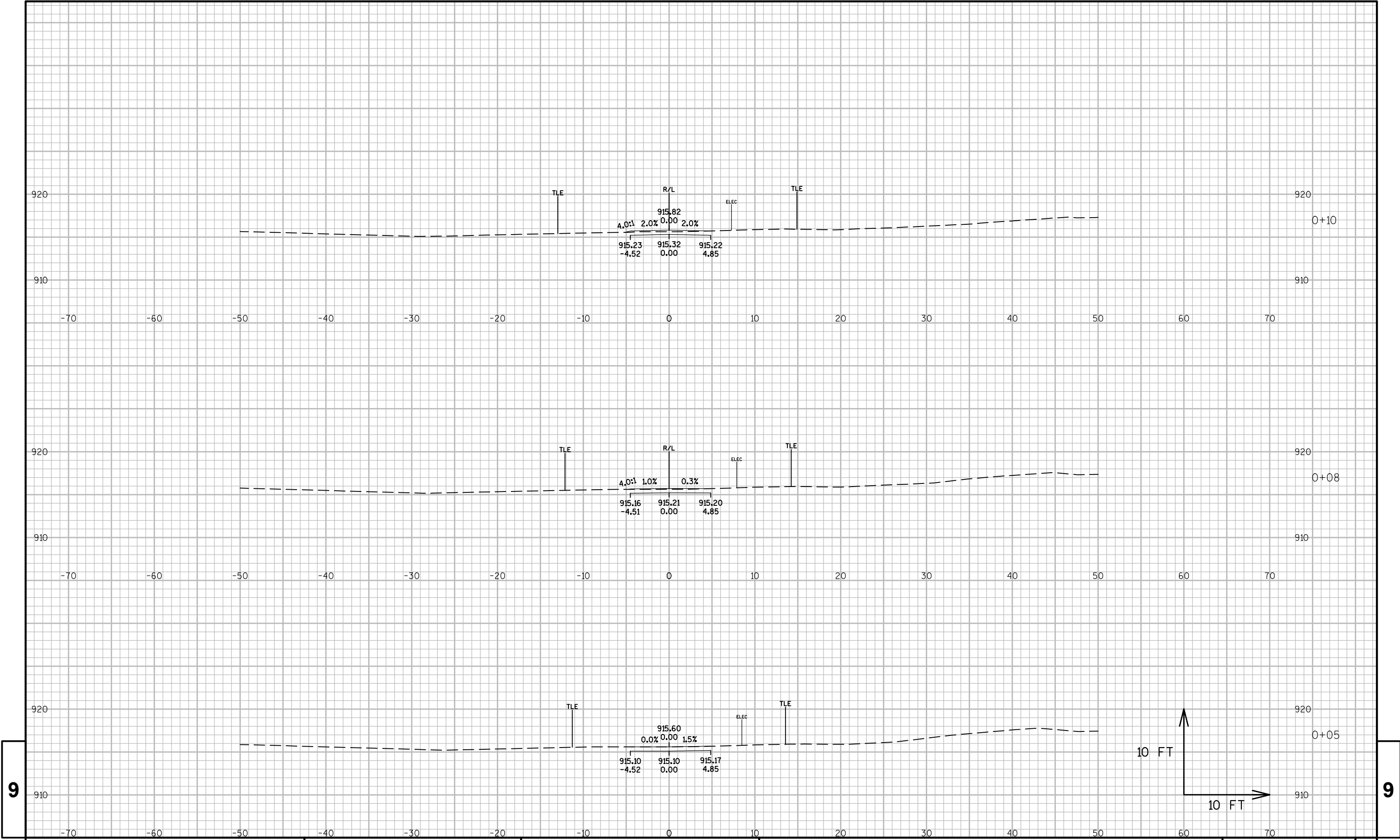




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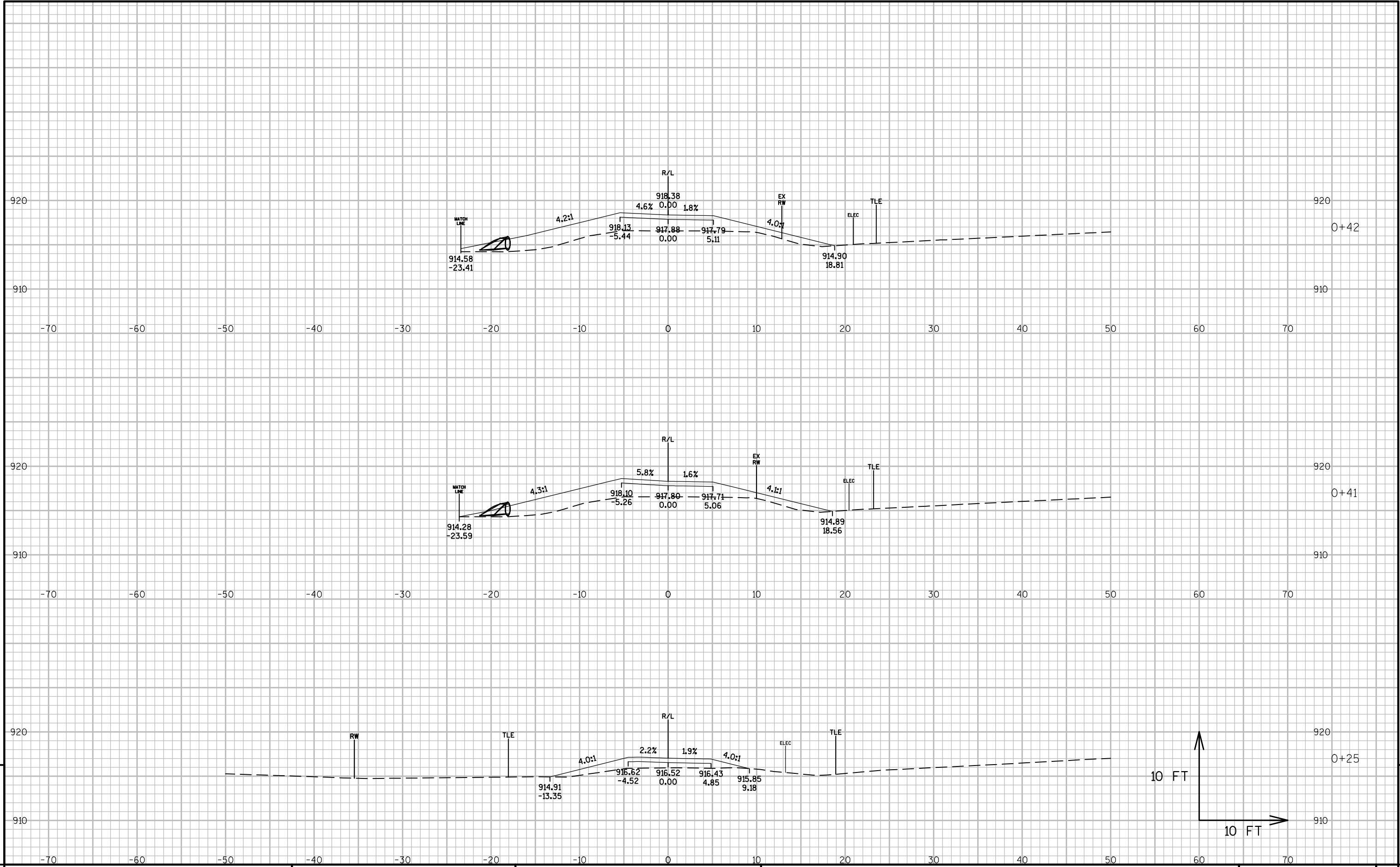


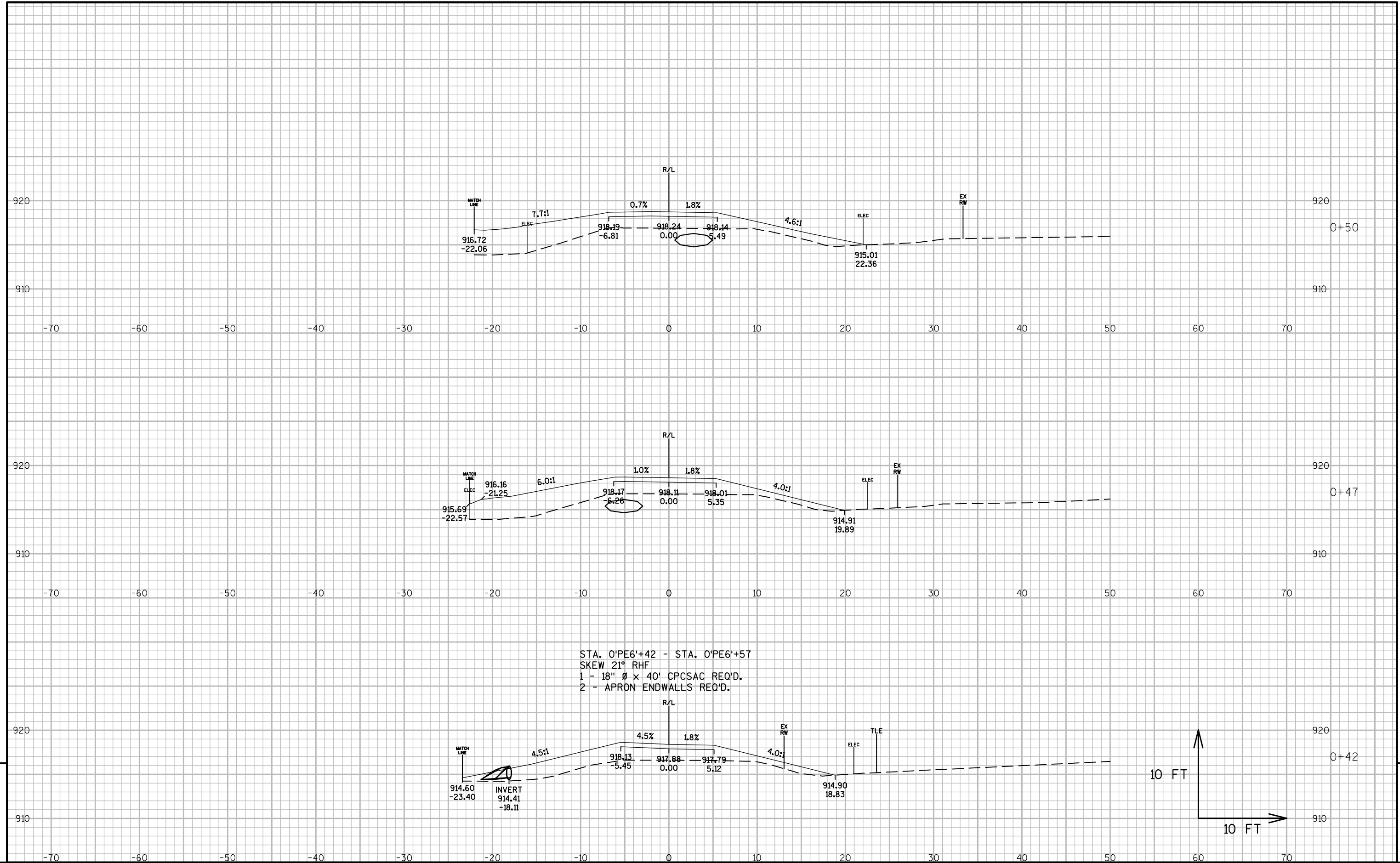
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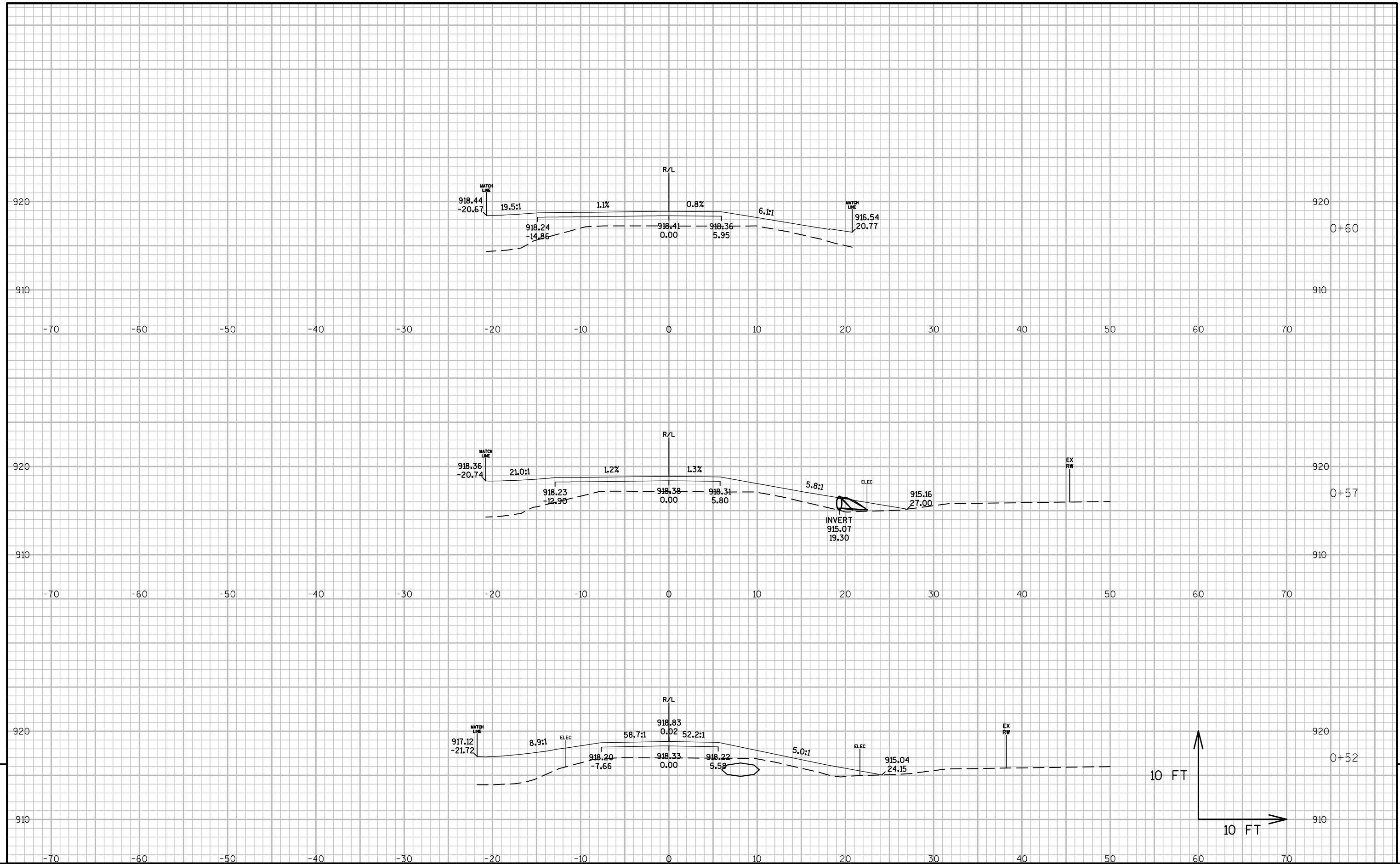


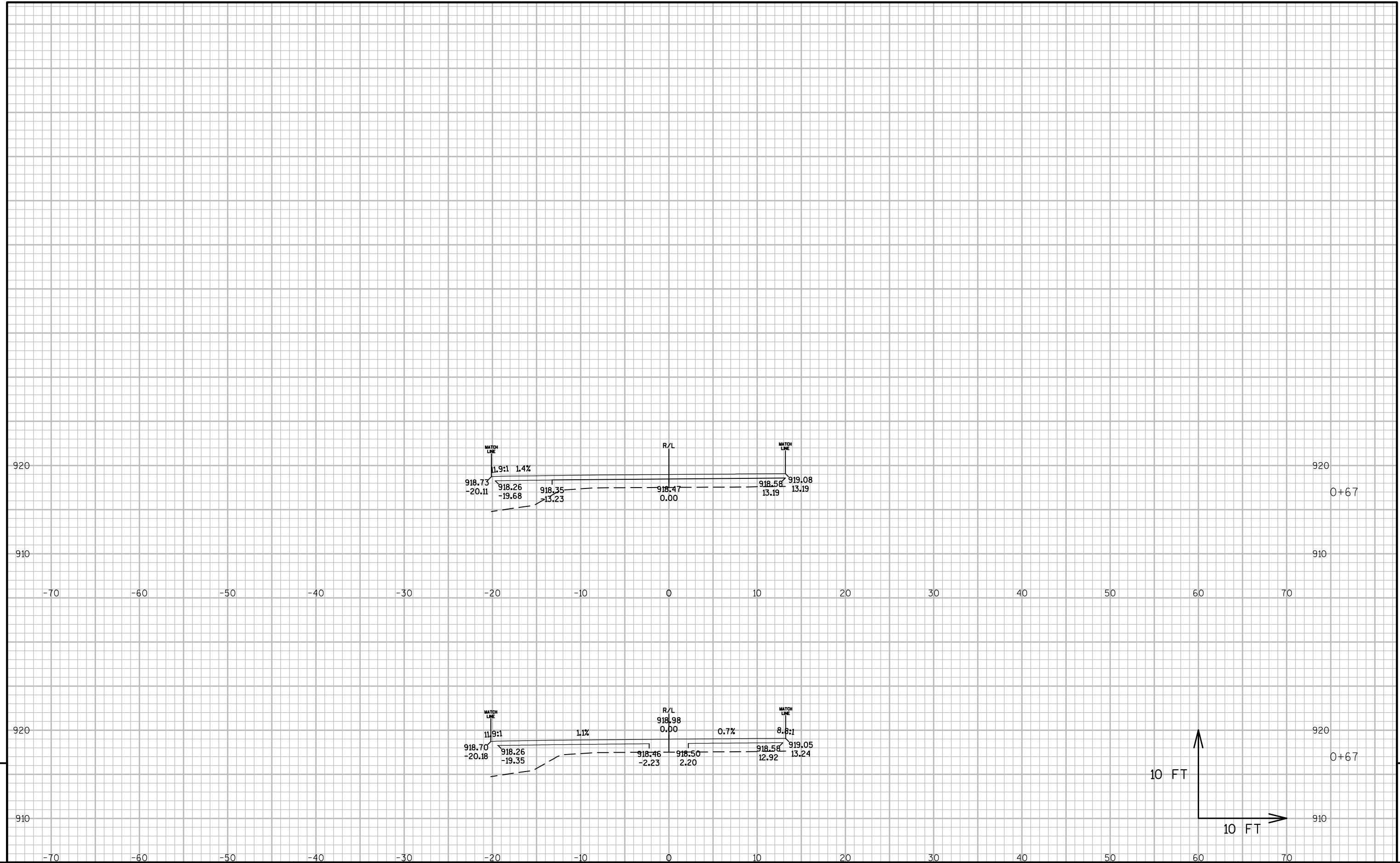
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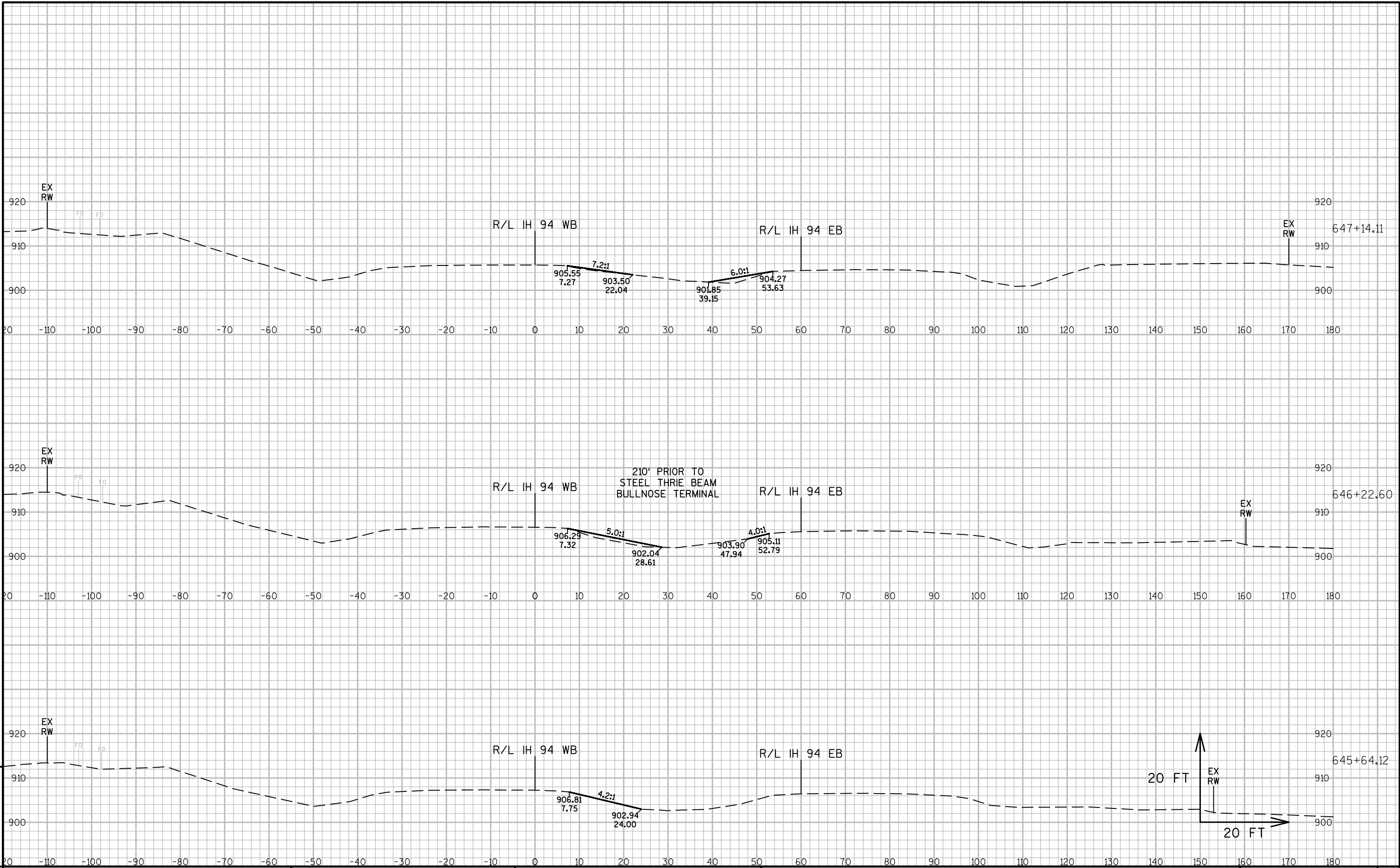
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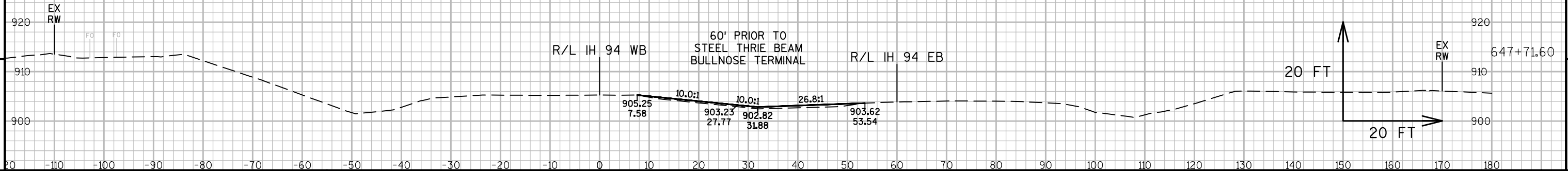
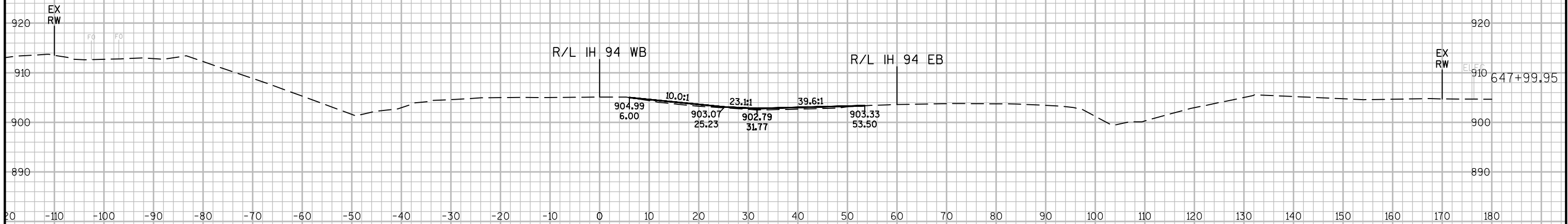
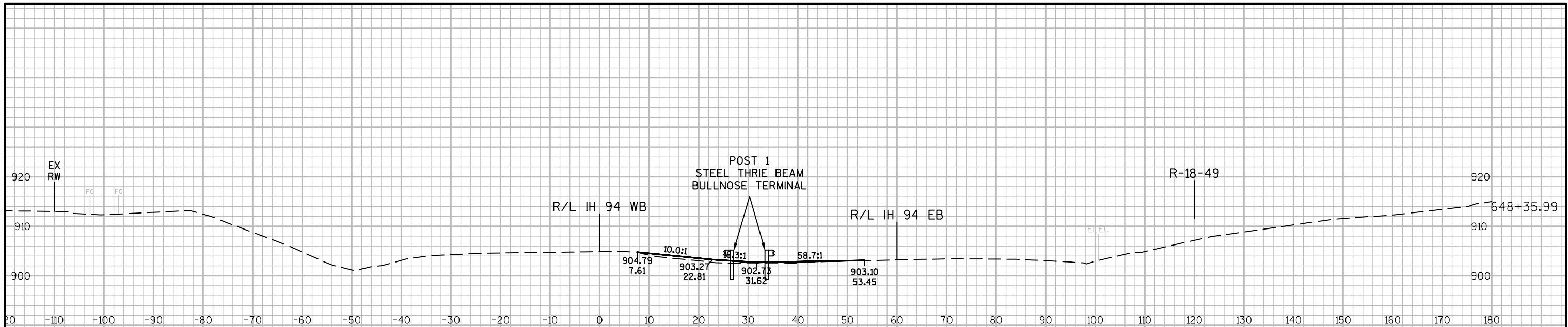


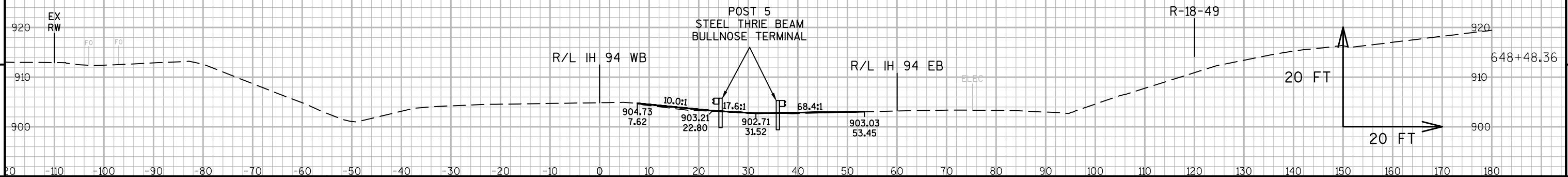
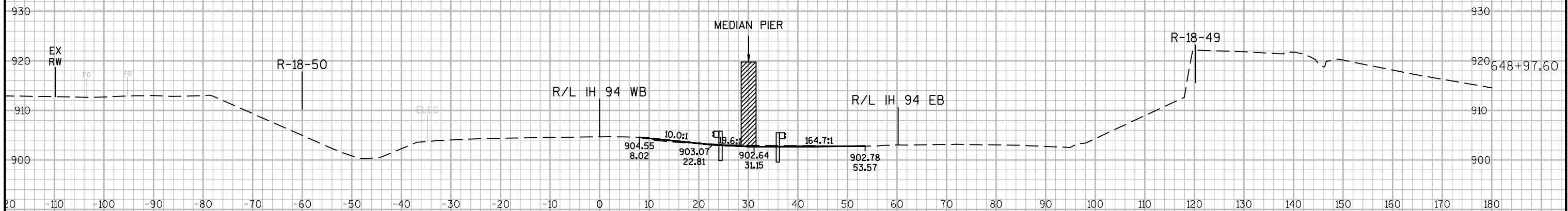
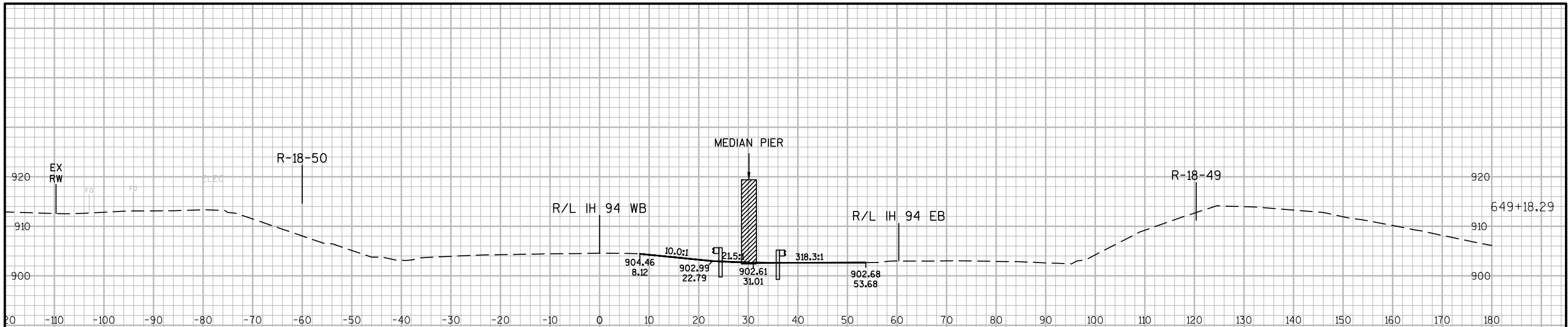












PROJECT NO:1021-03-74

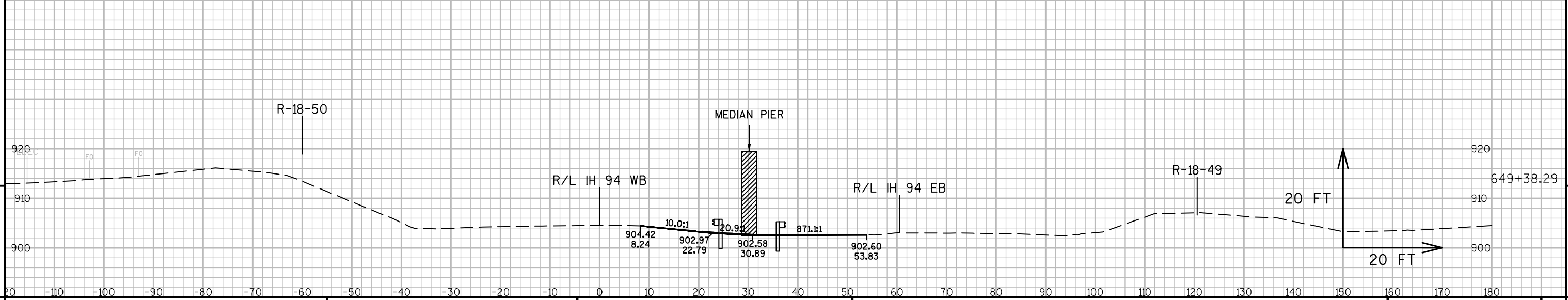
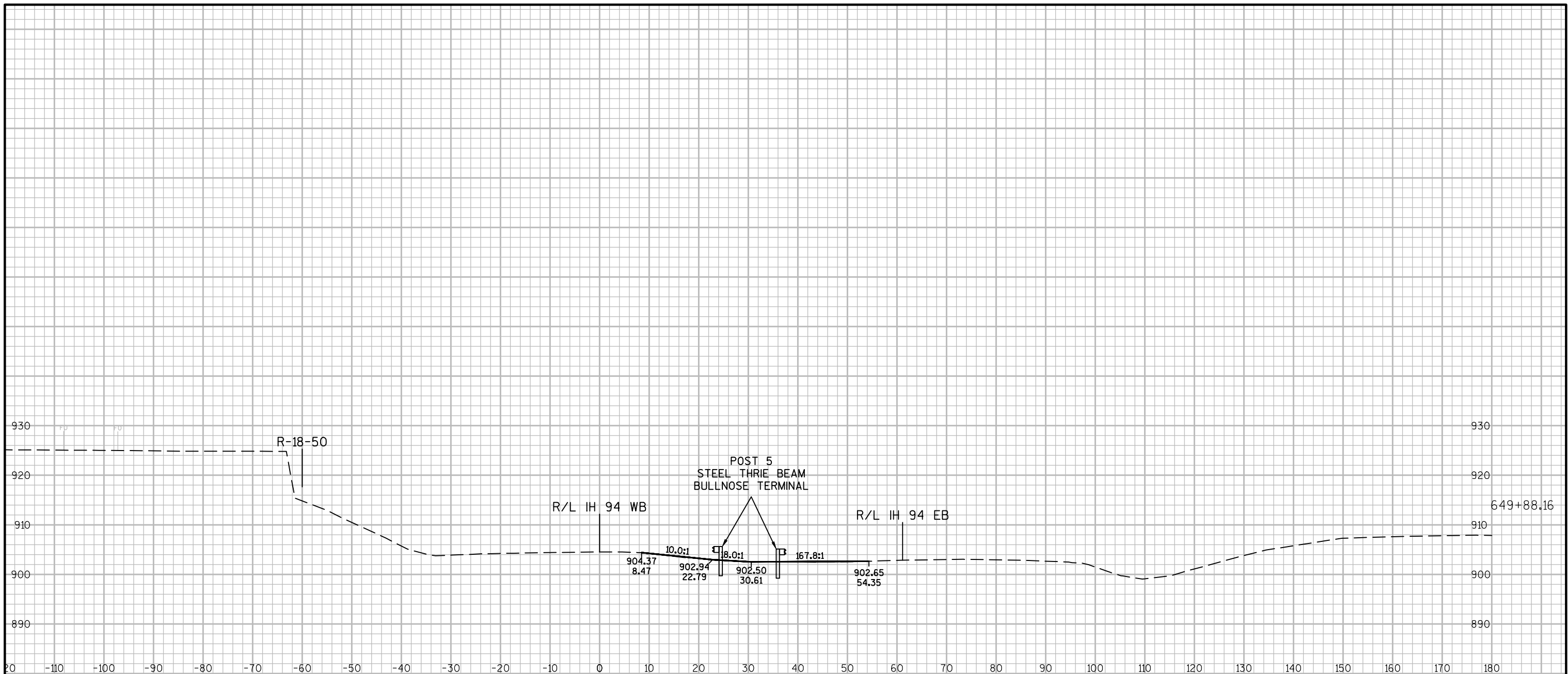
HWY: IH 94

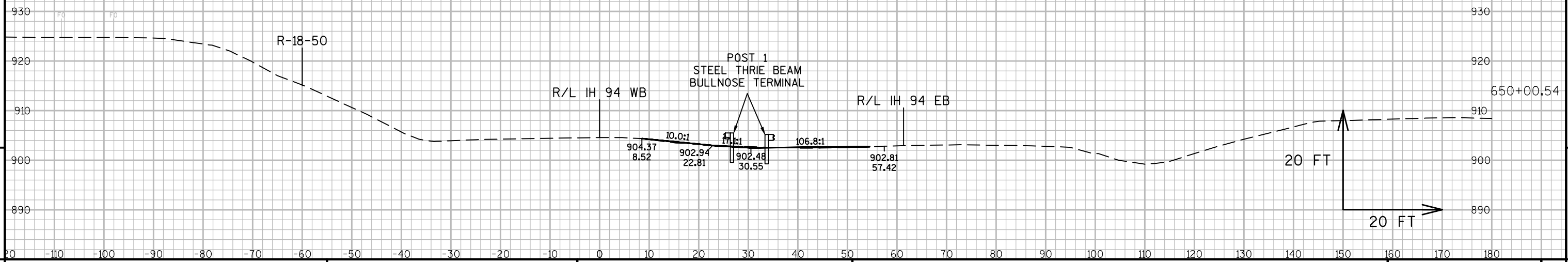
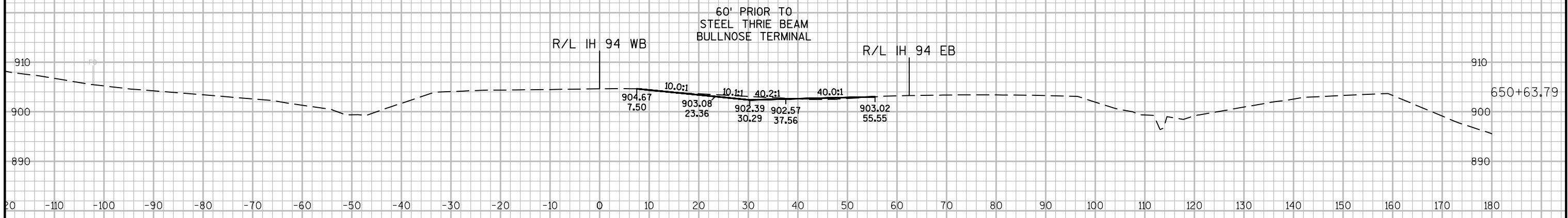
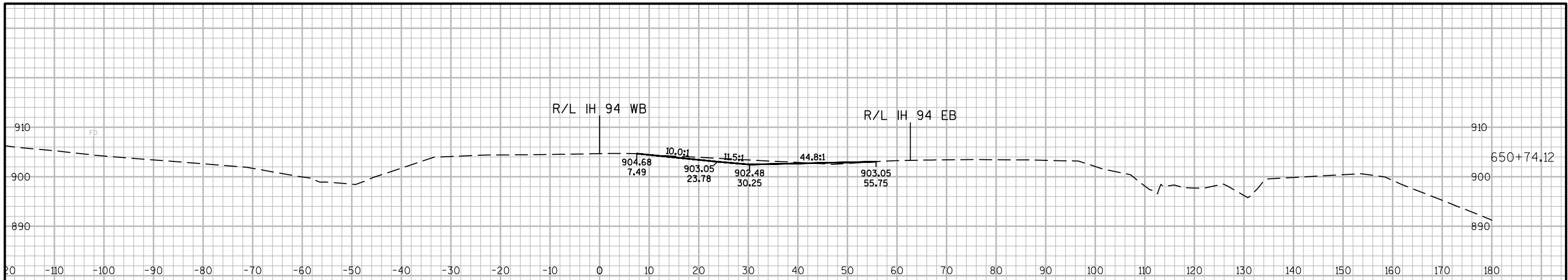
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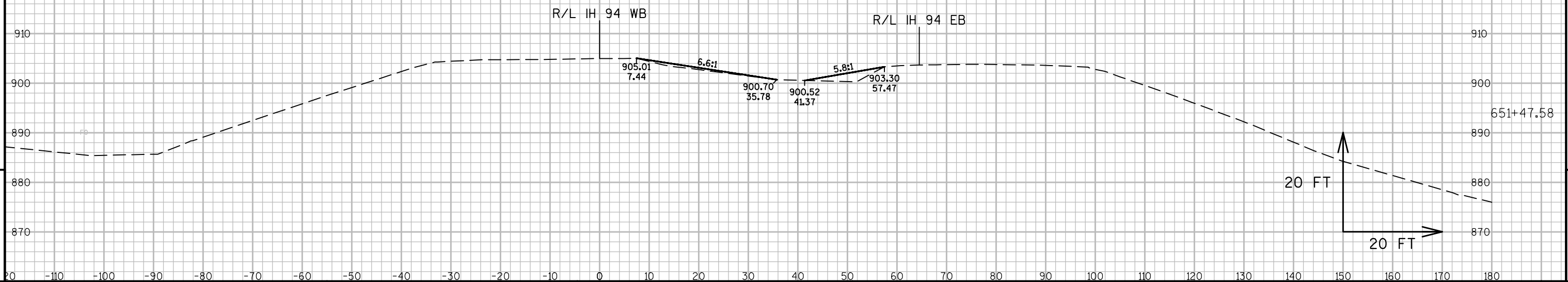
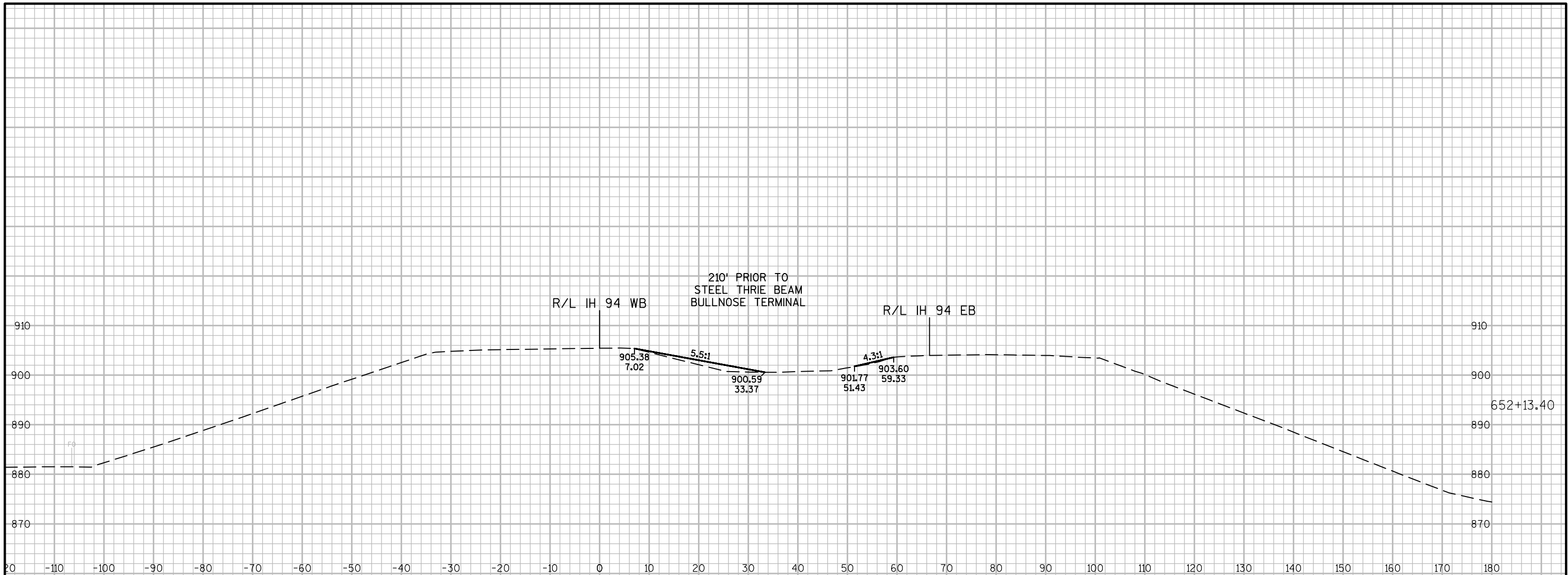
CROSS SECTIONS: IH 94 MEDIAN AT CTH I

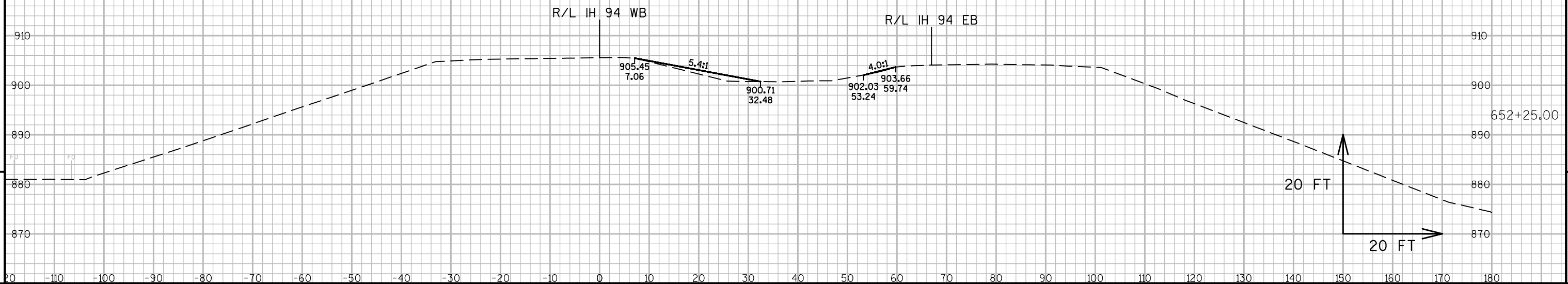
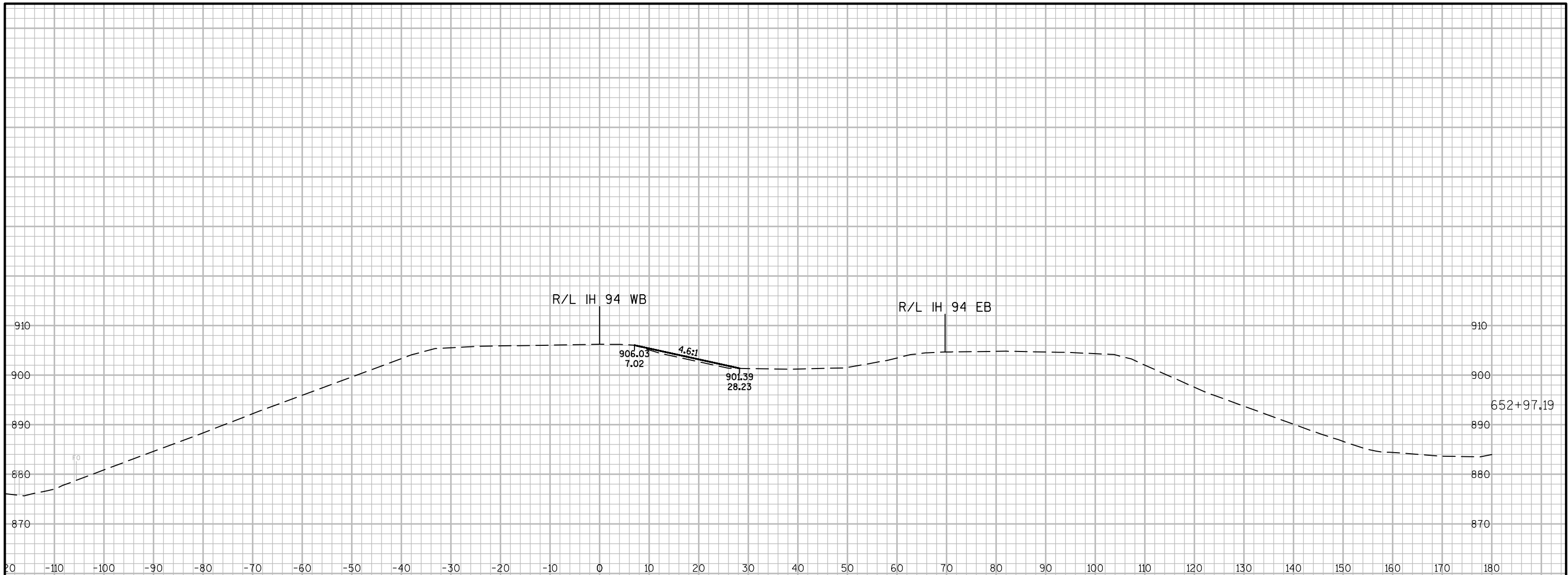
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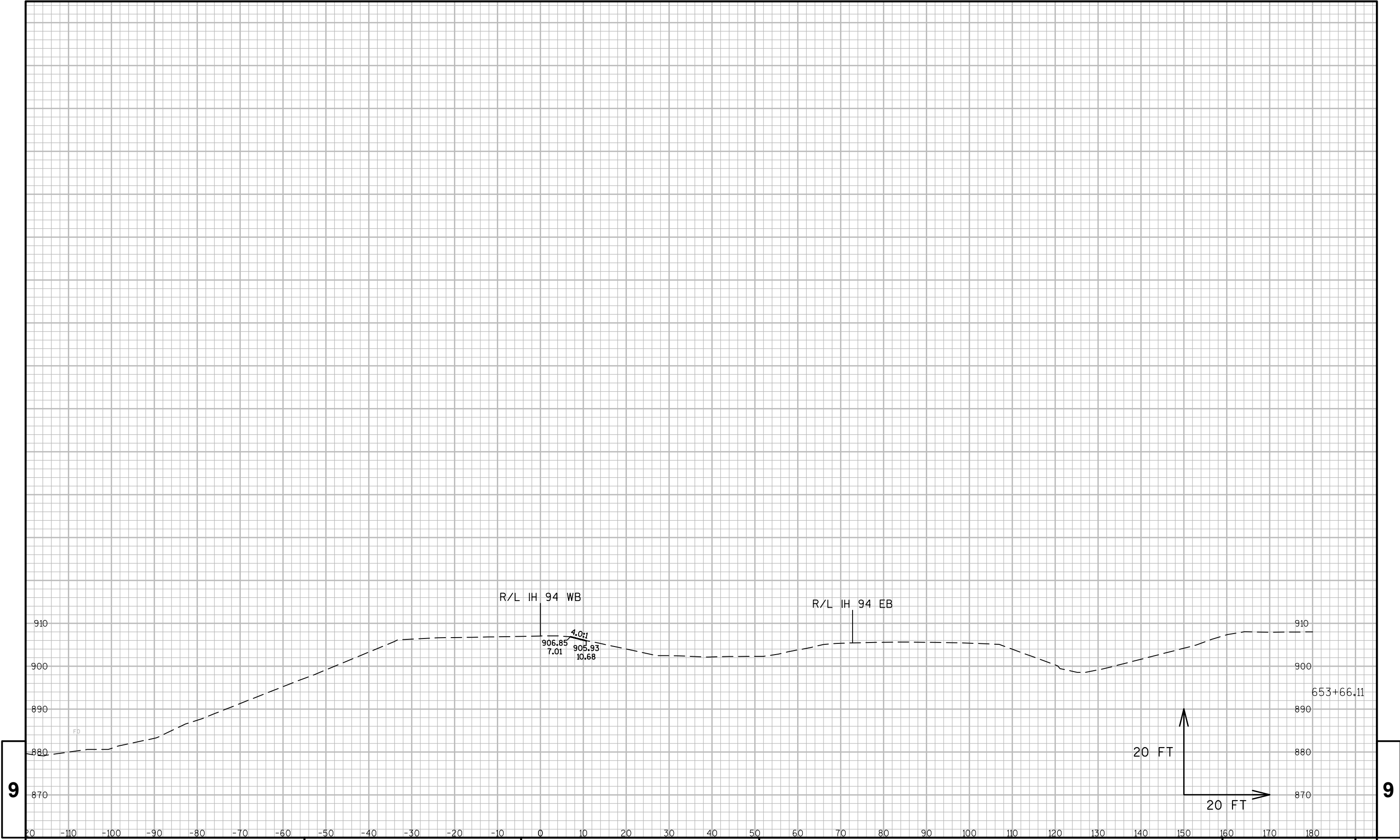
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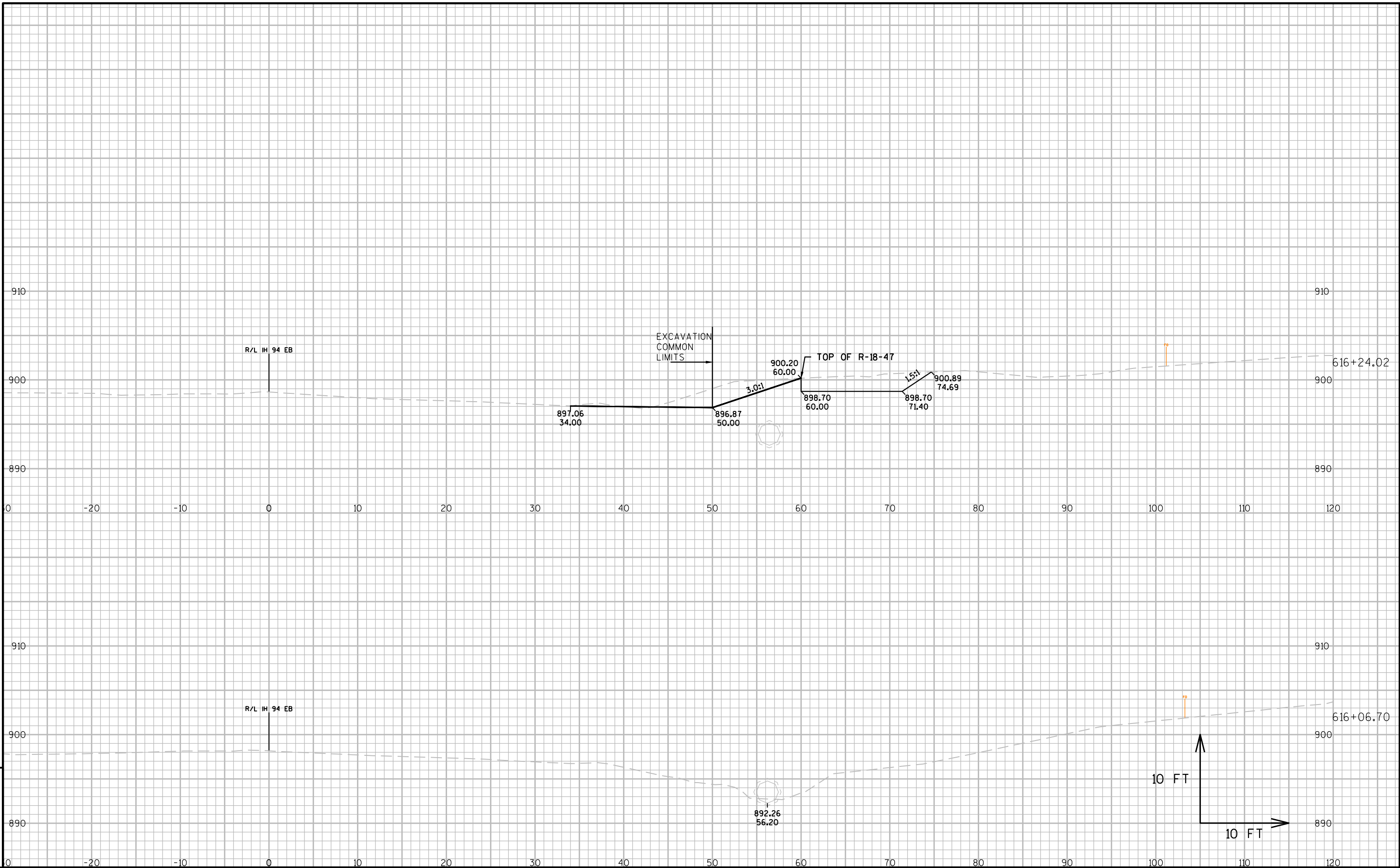


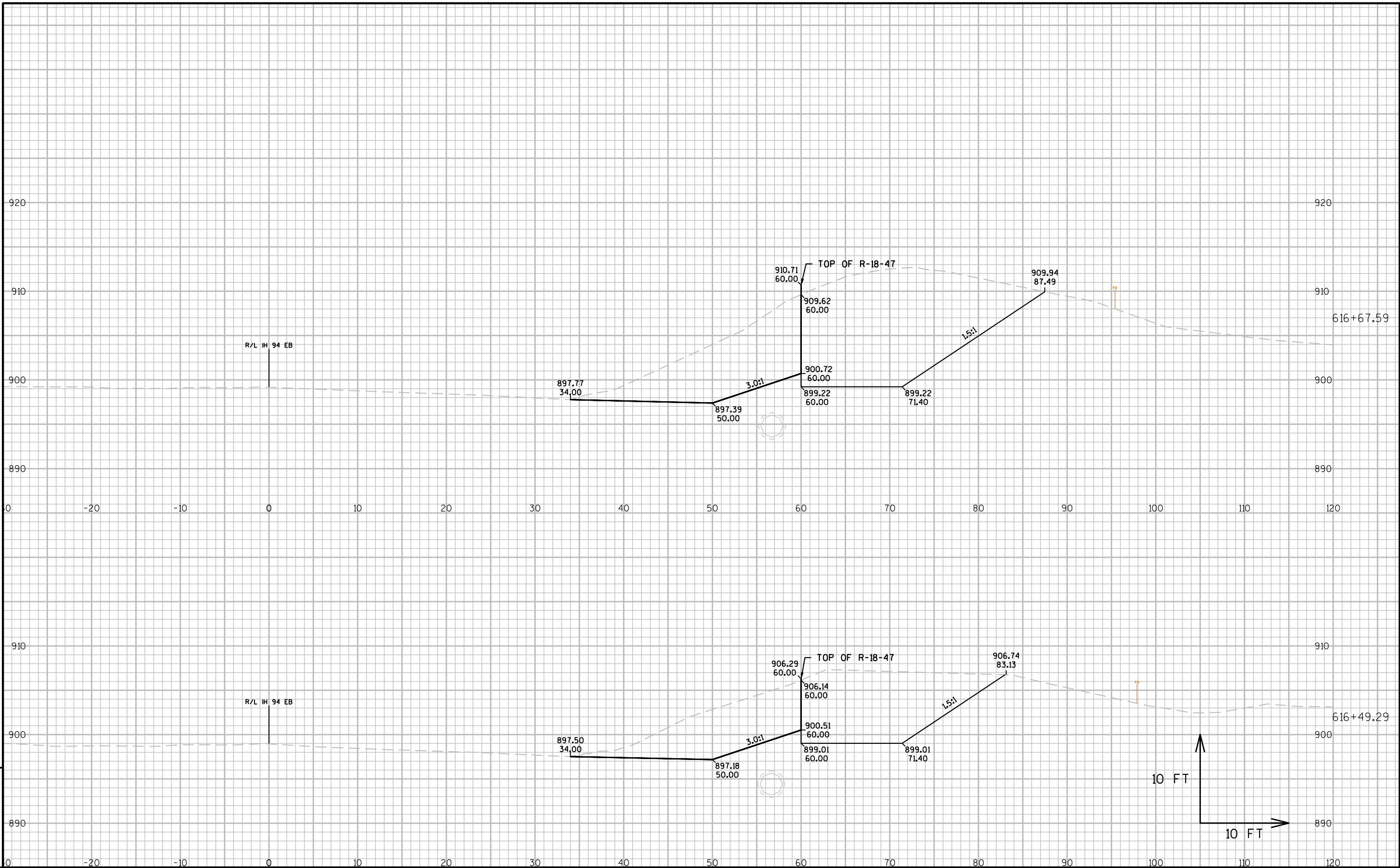


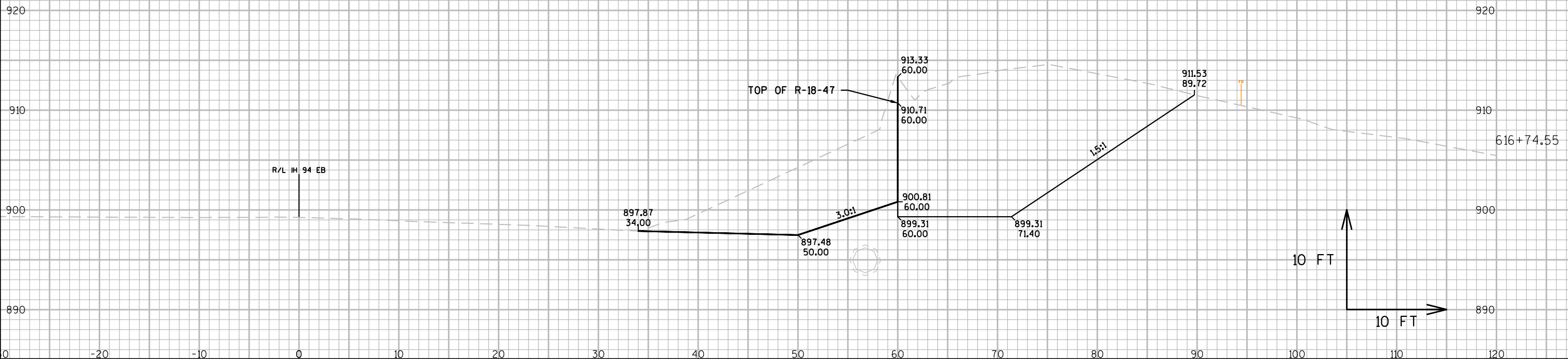
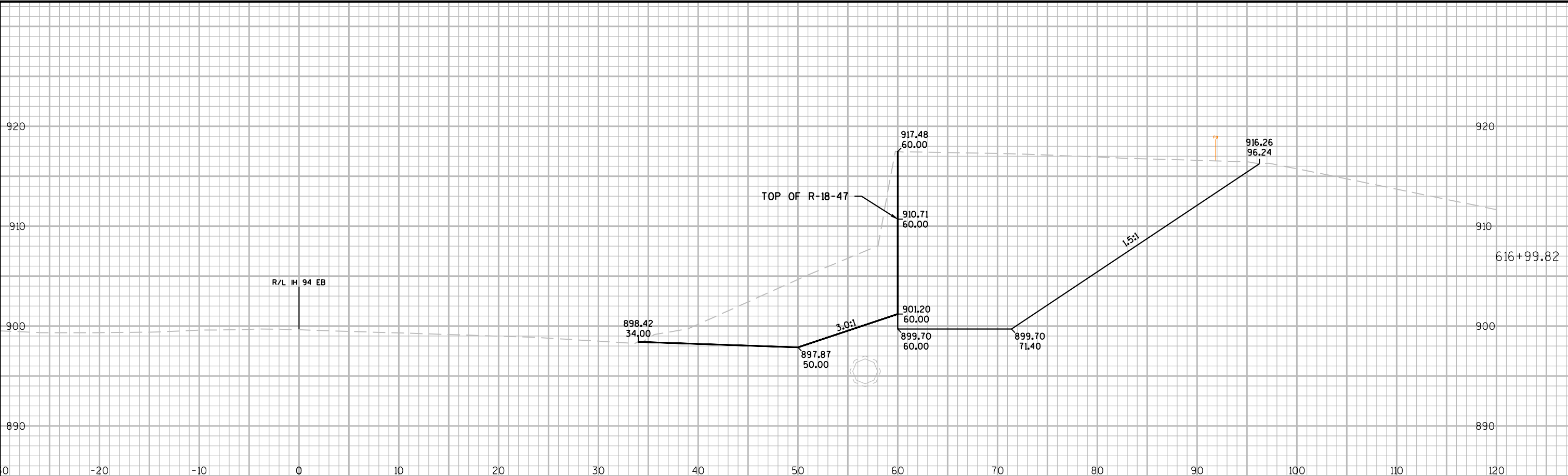


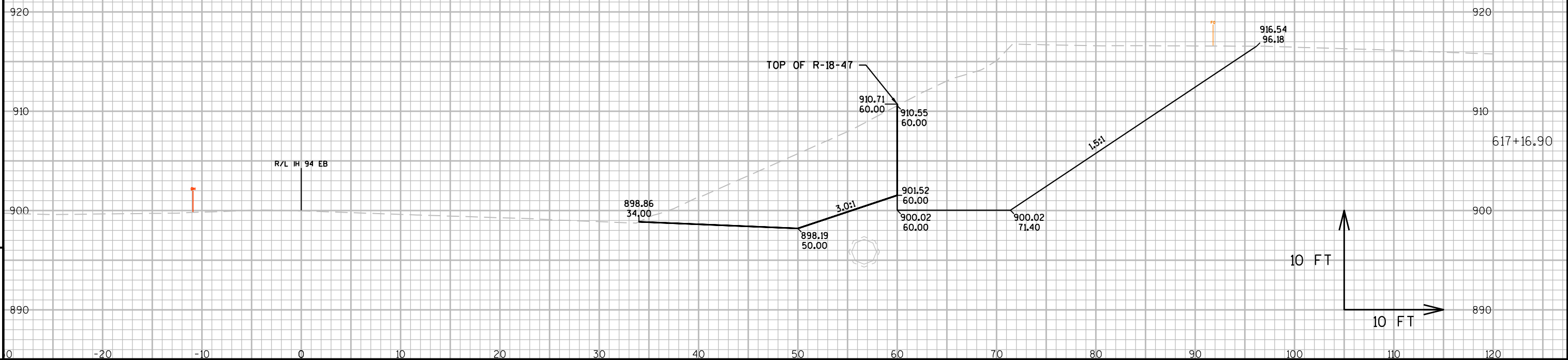
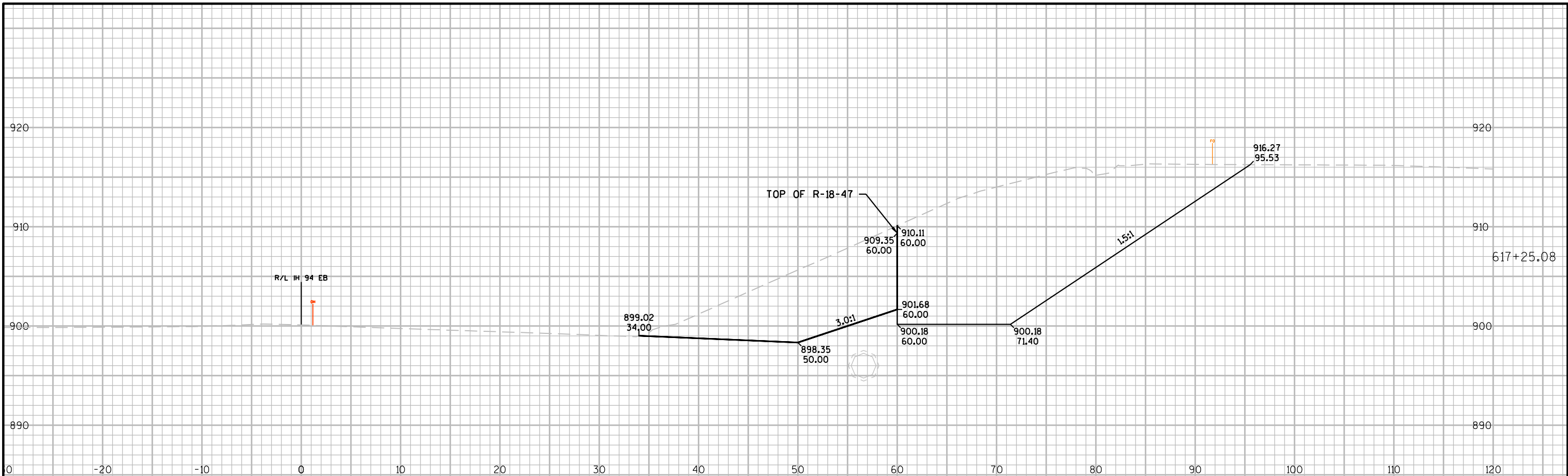
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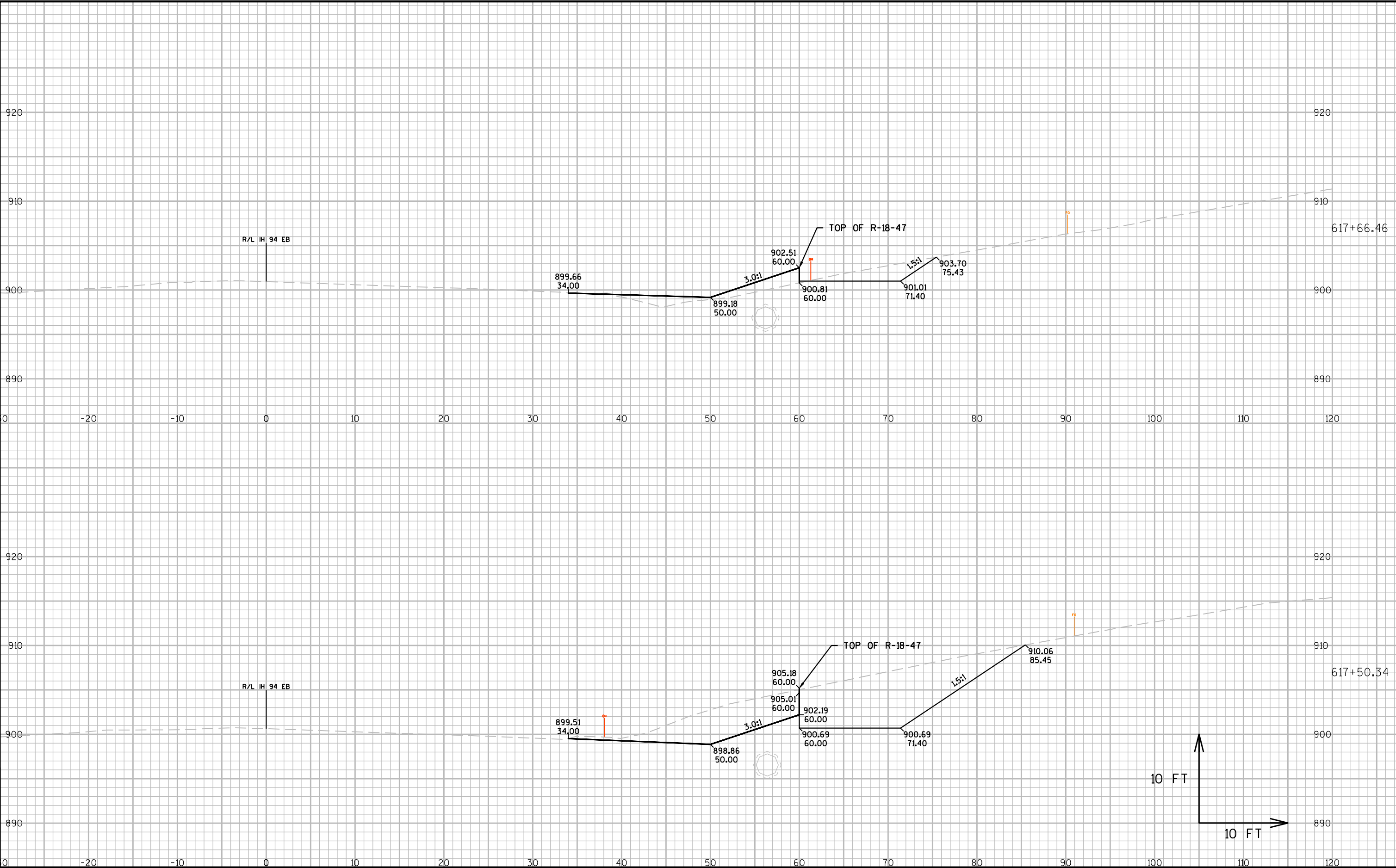
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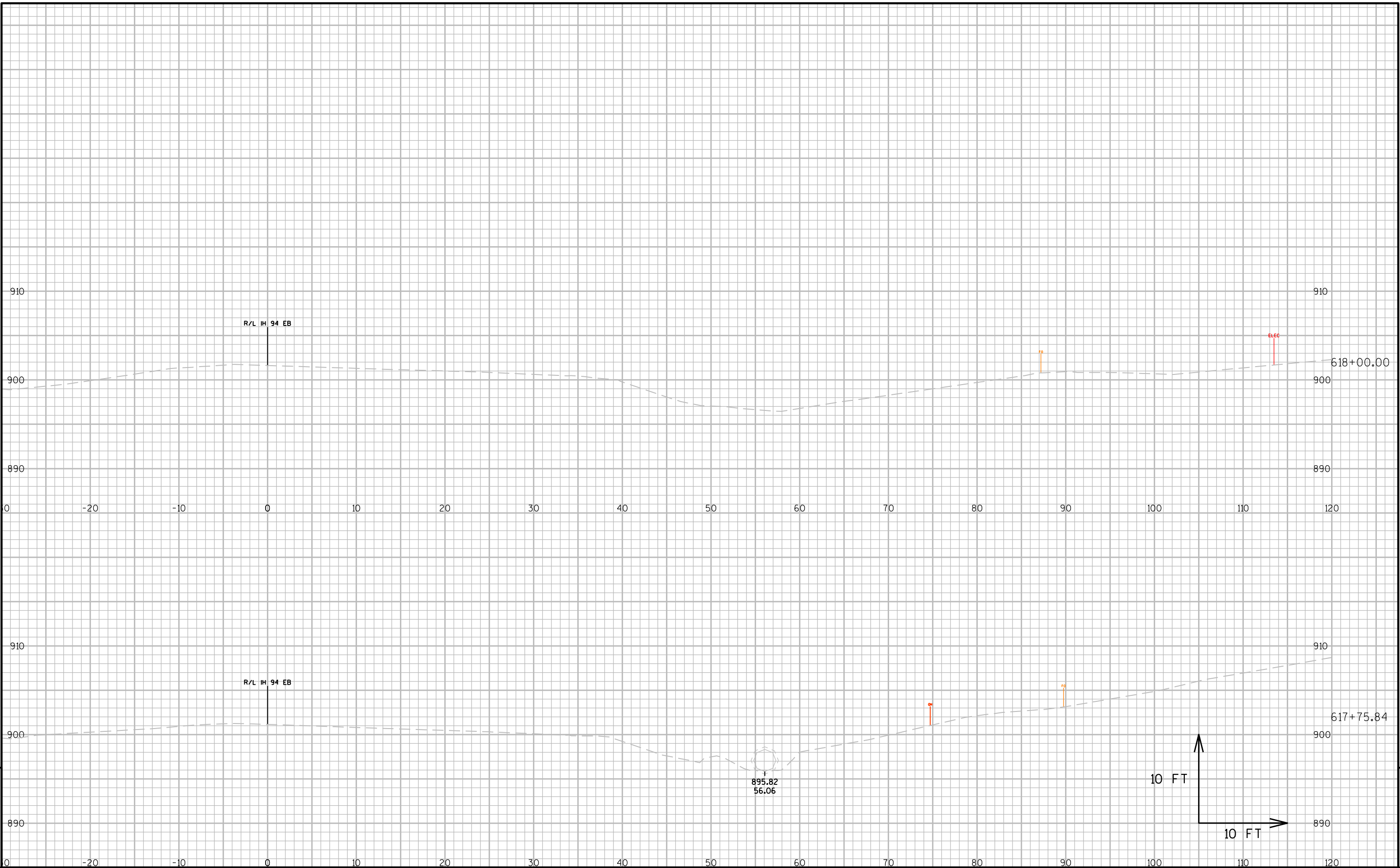


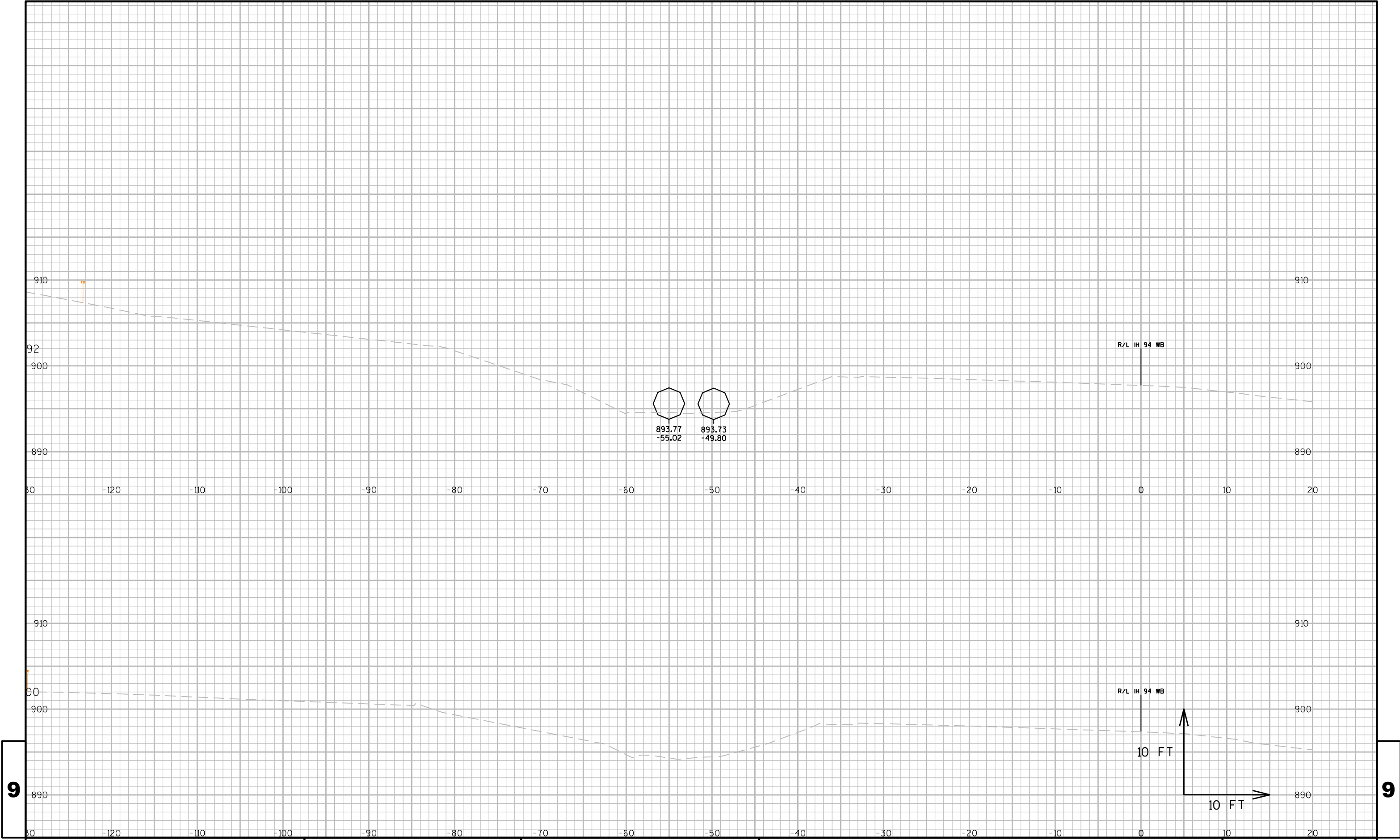






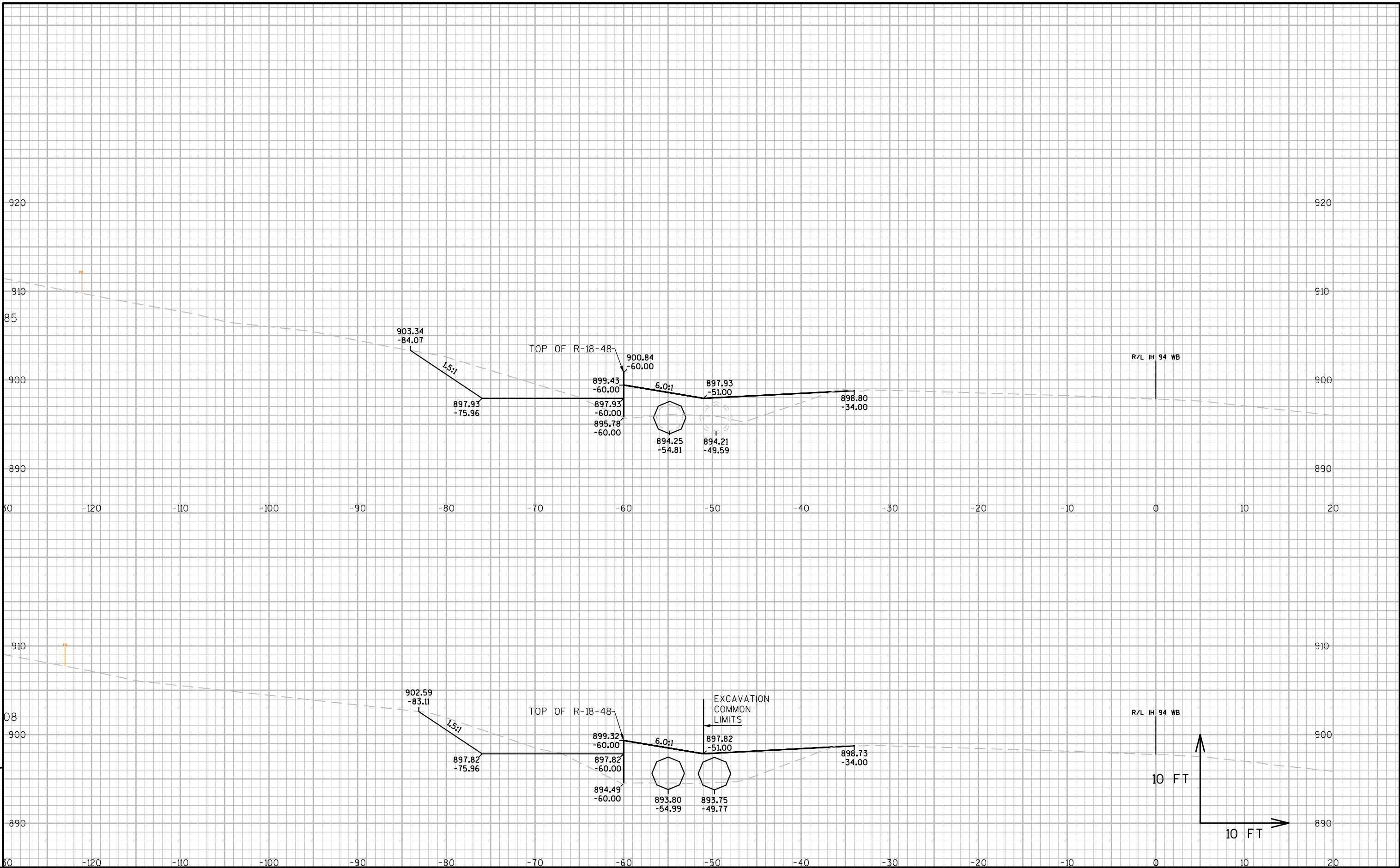


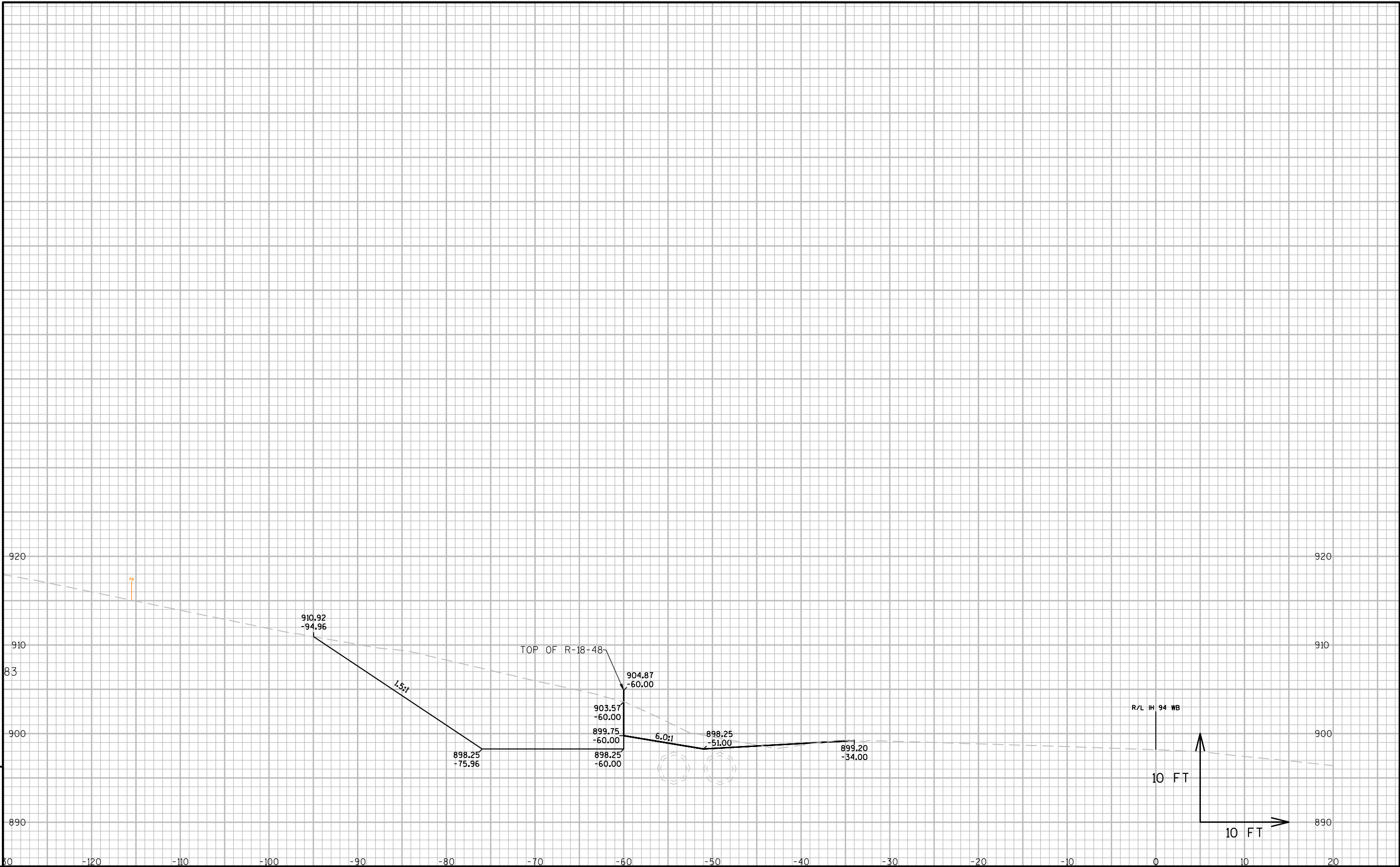


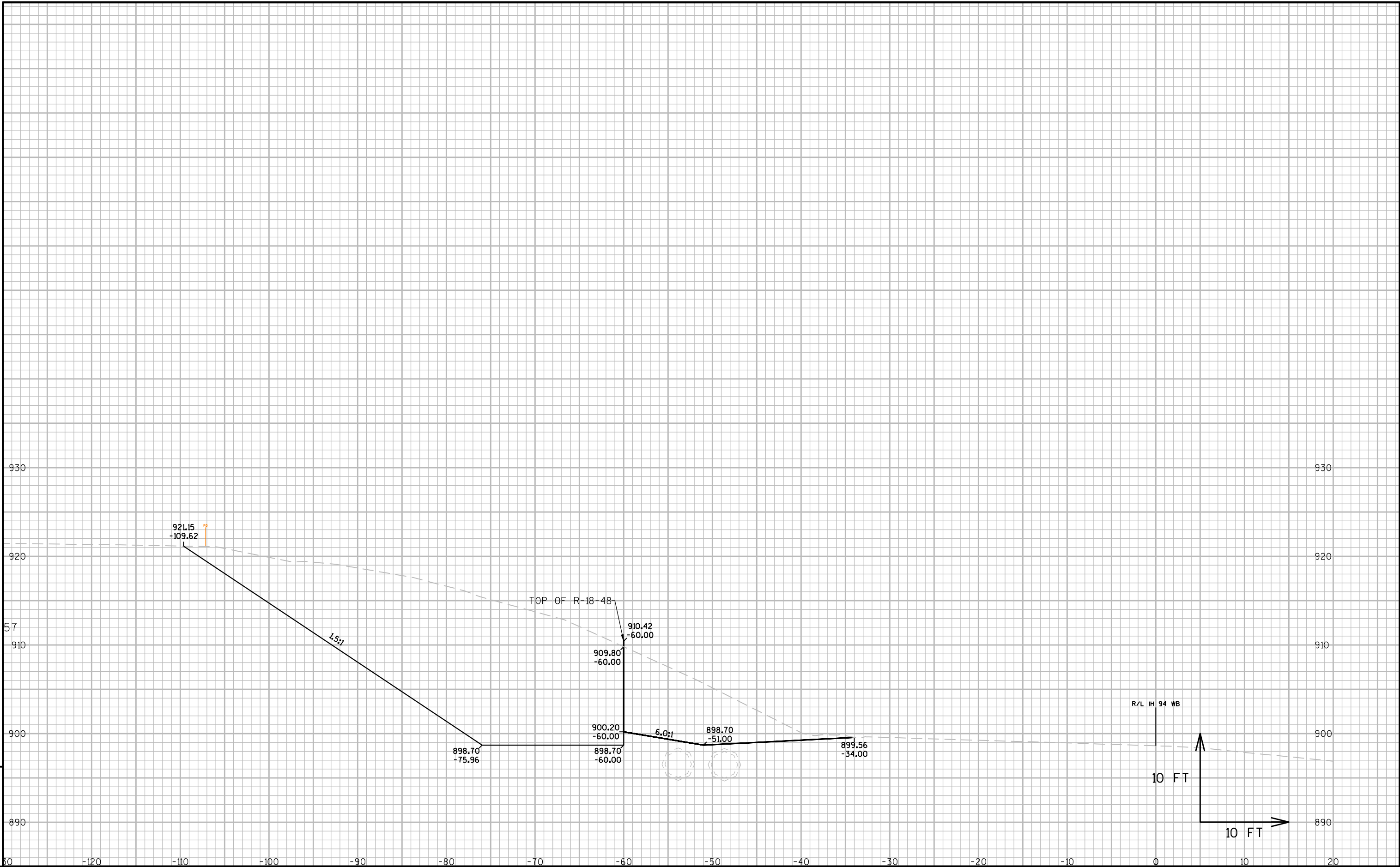


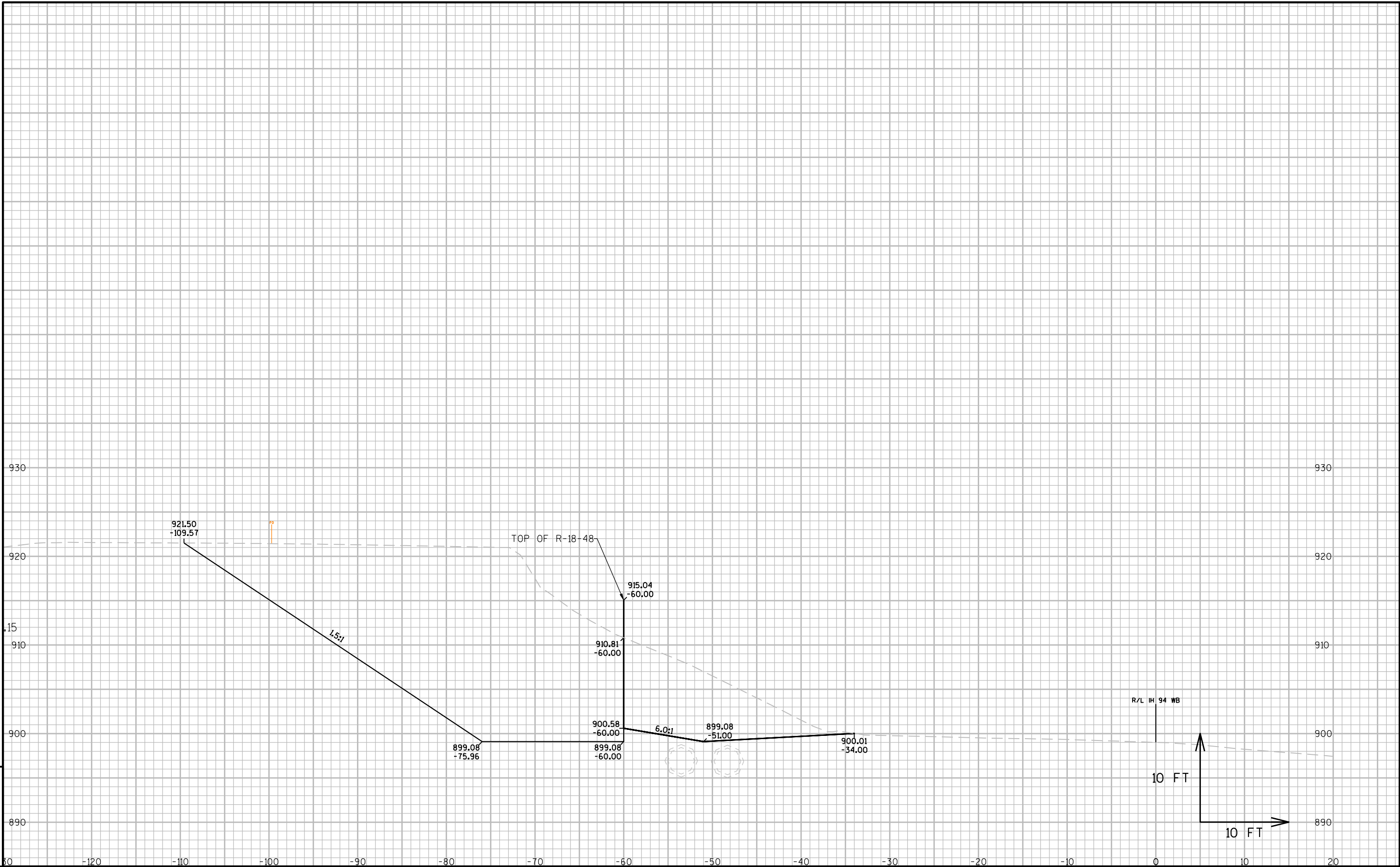
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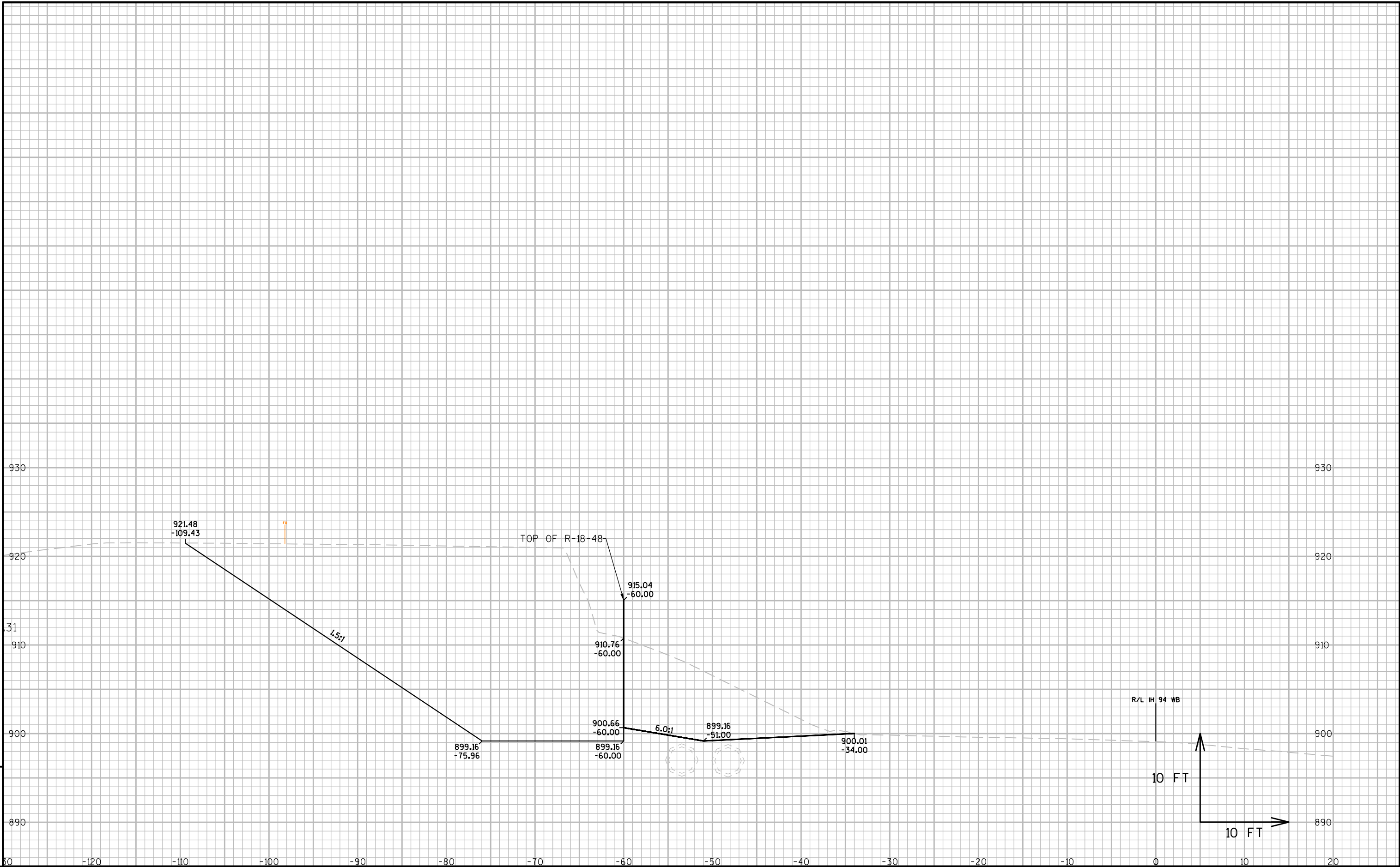
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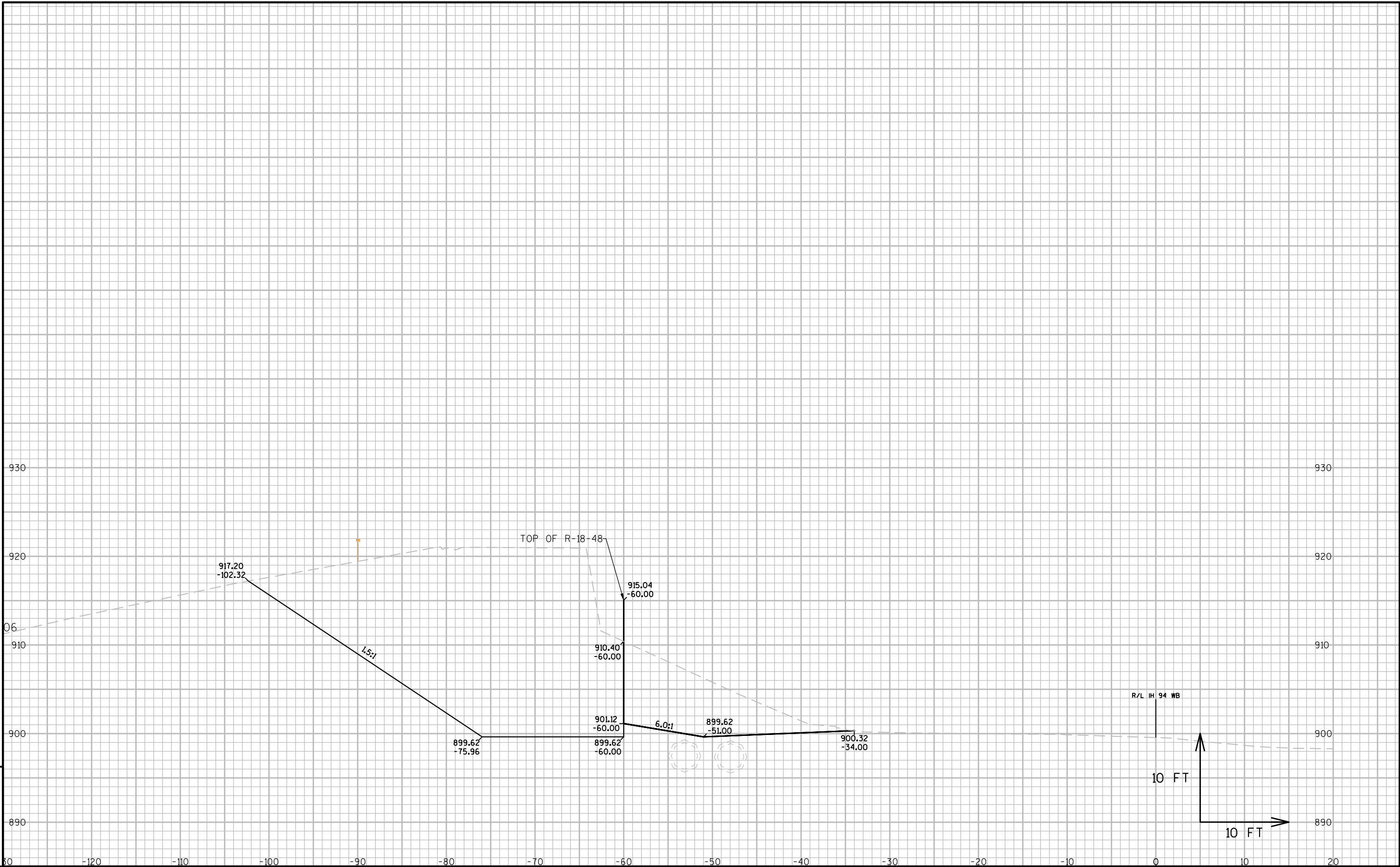


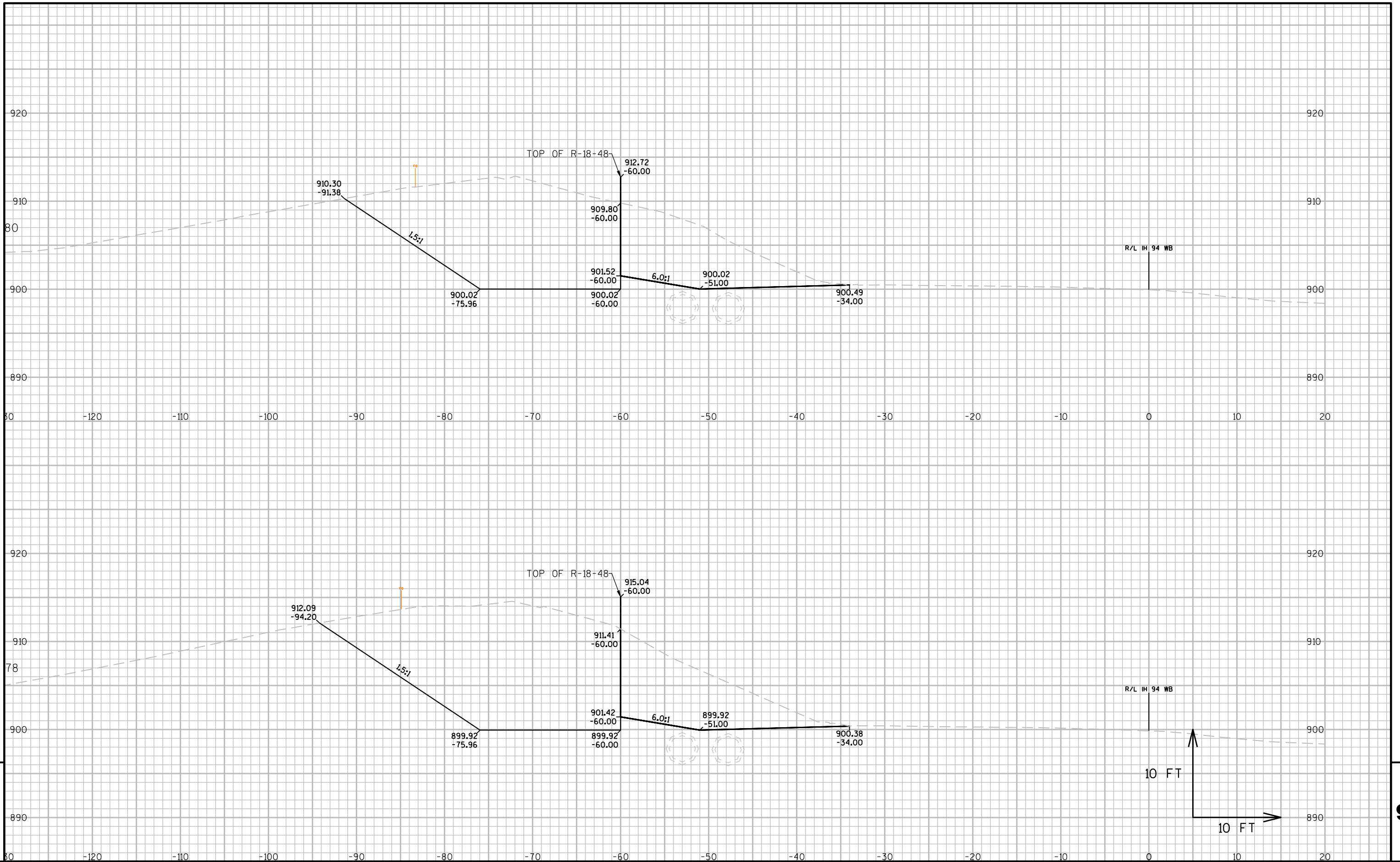


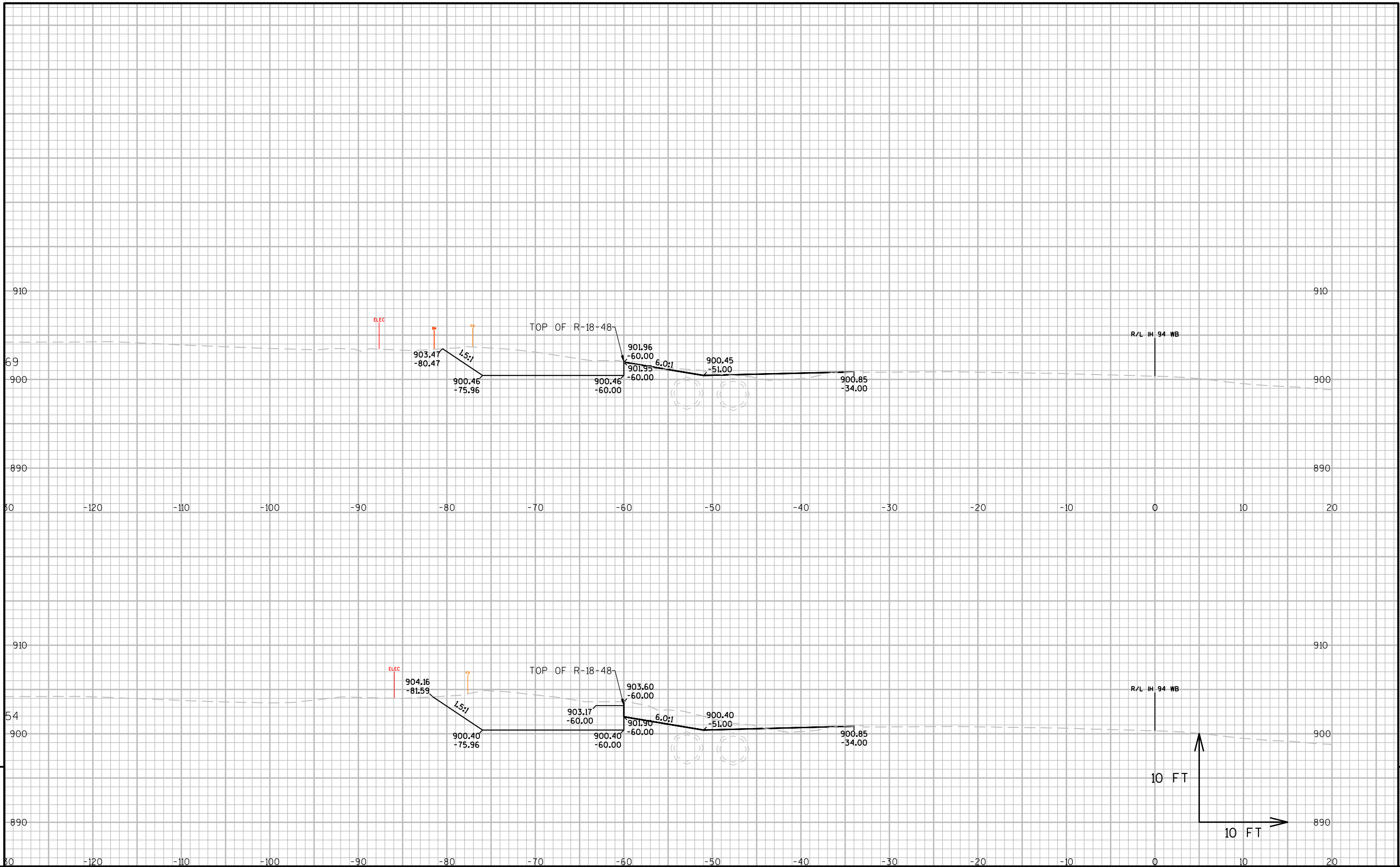


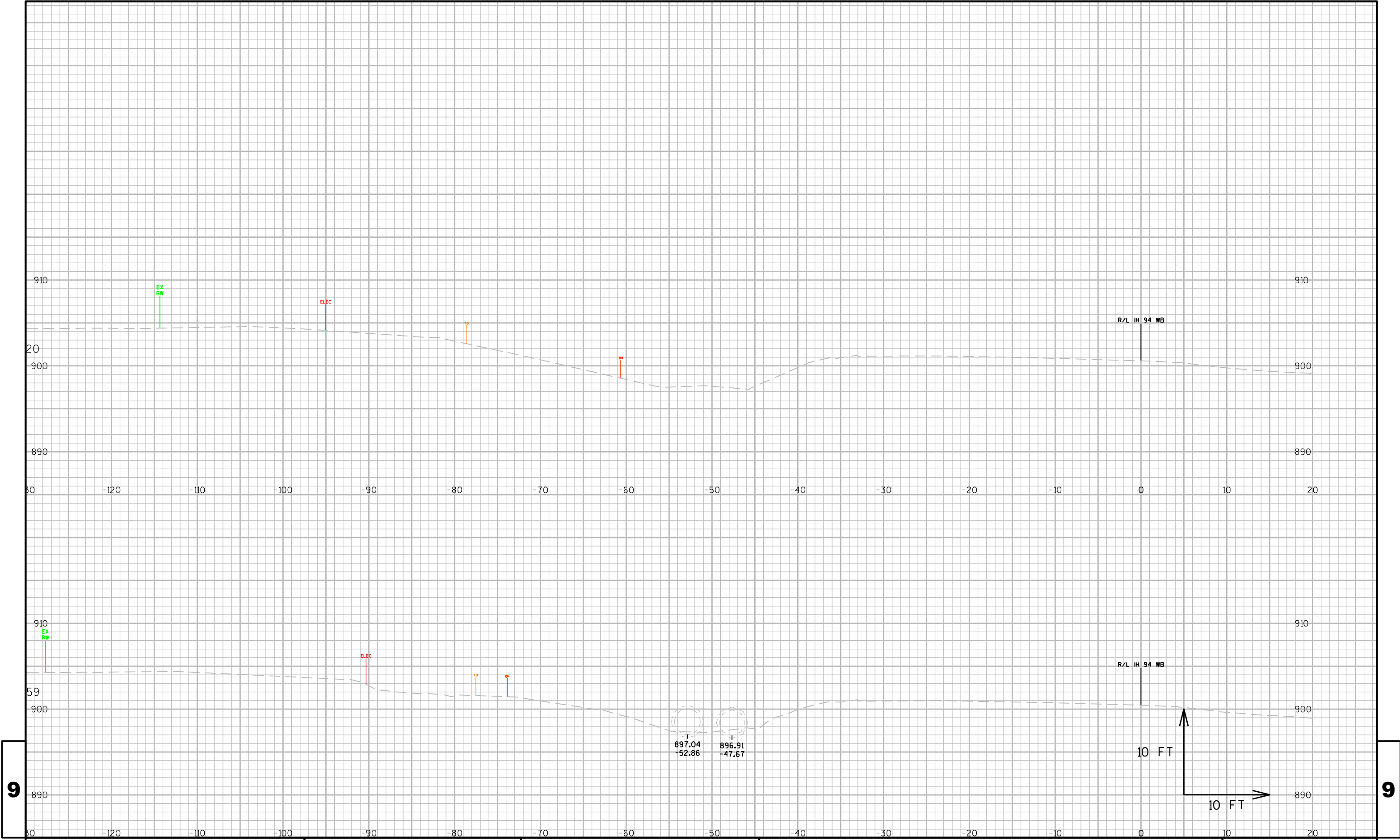








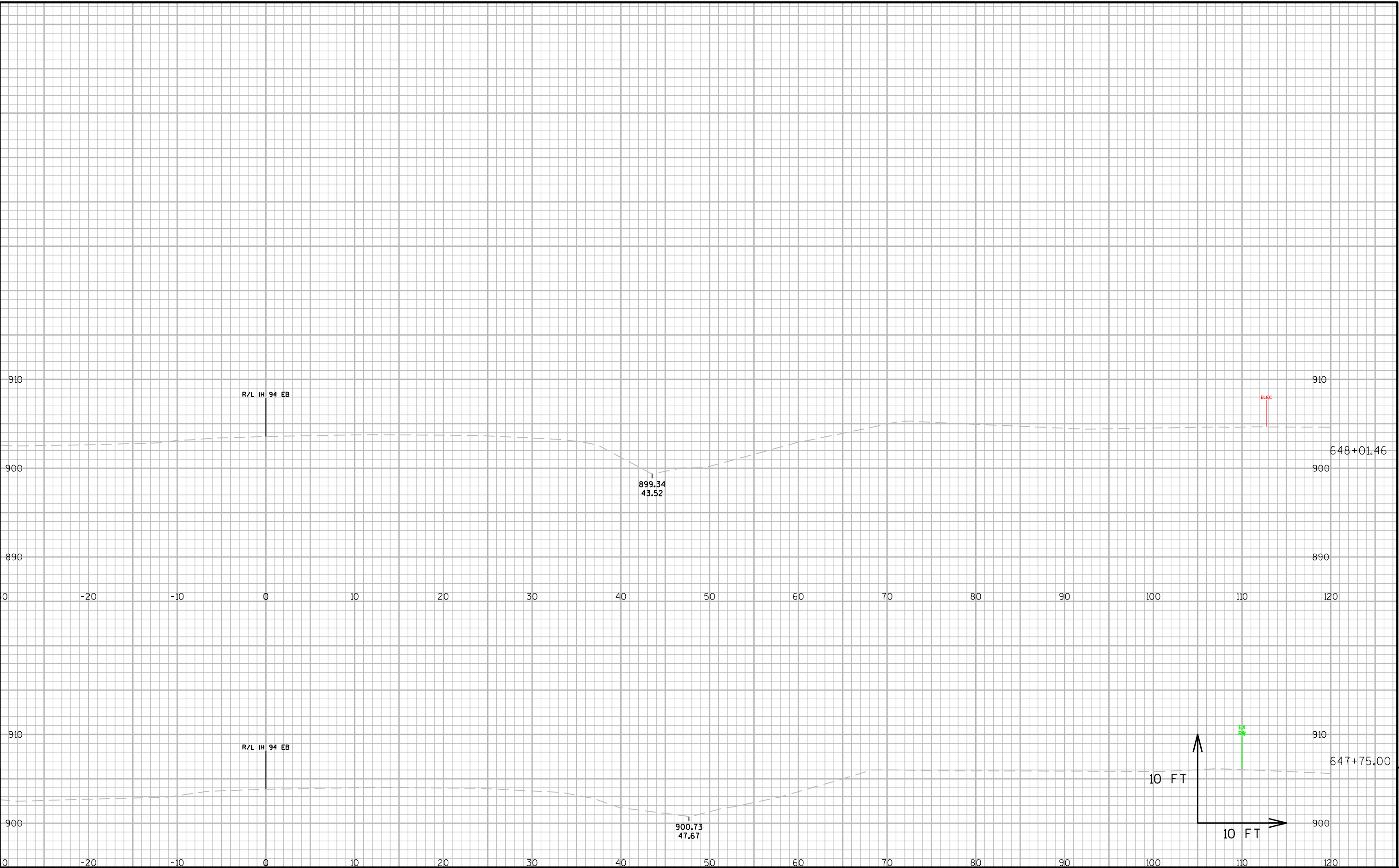


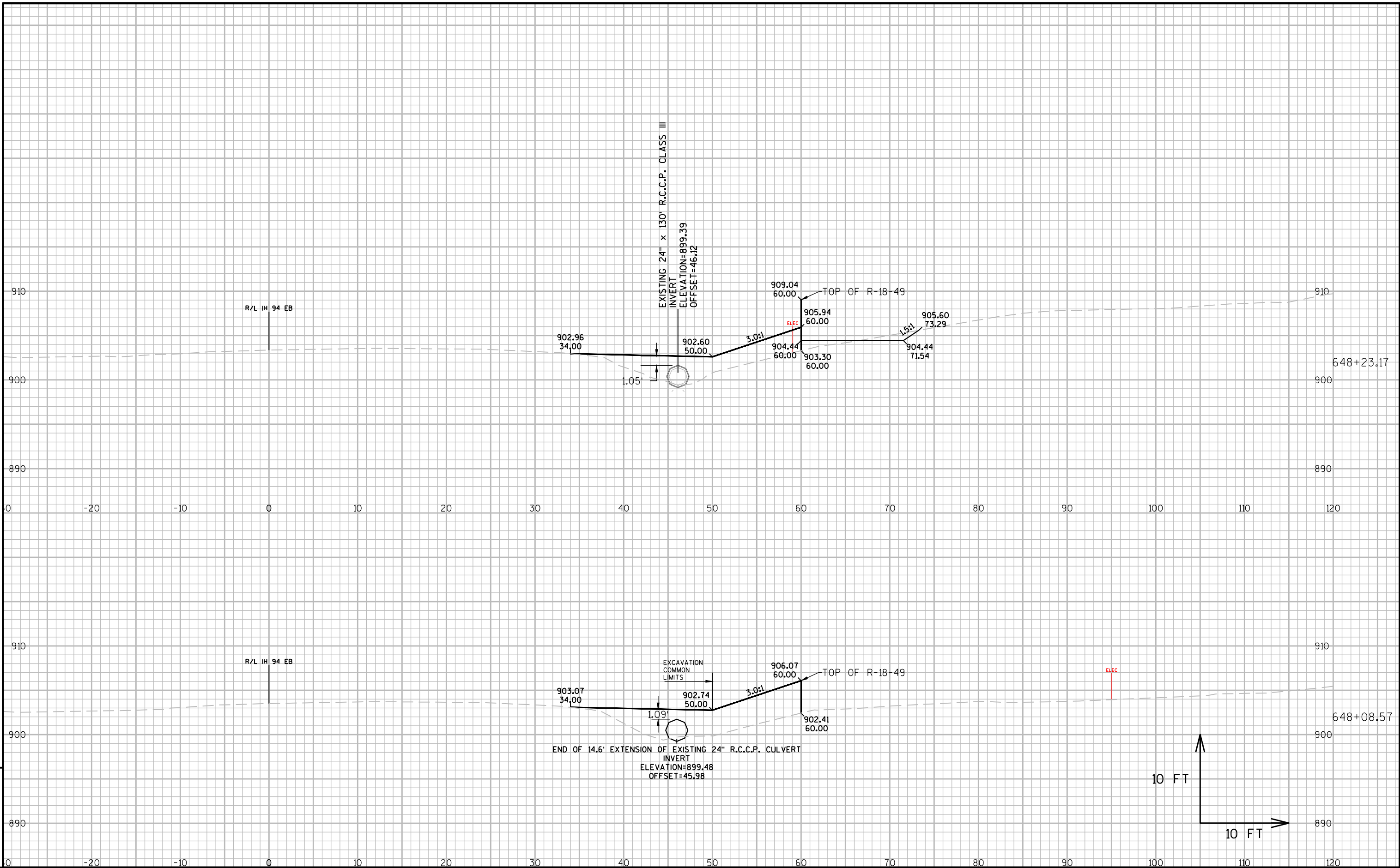


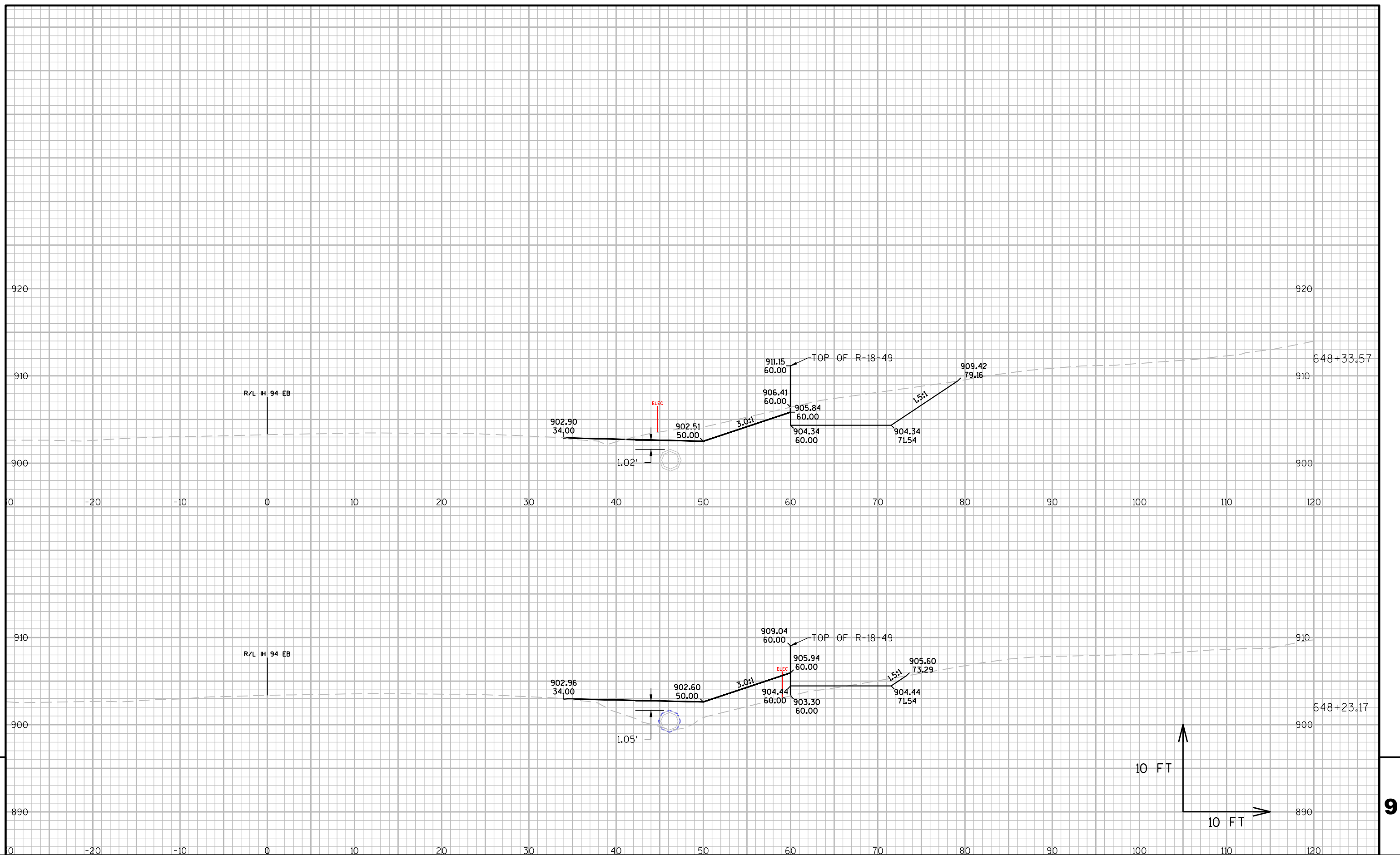
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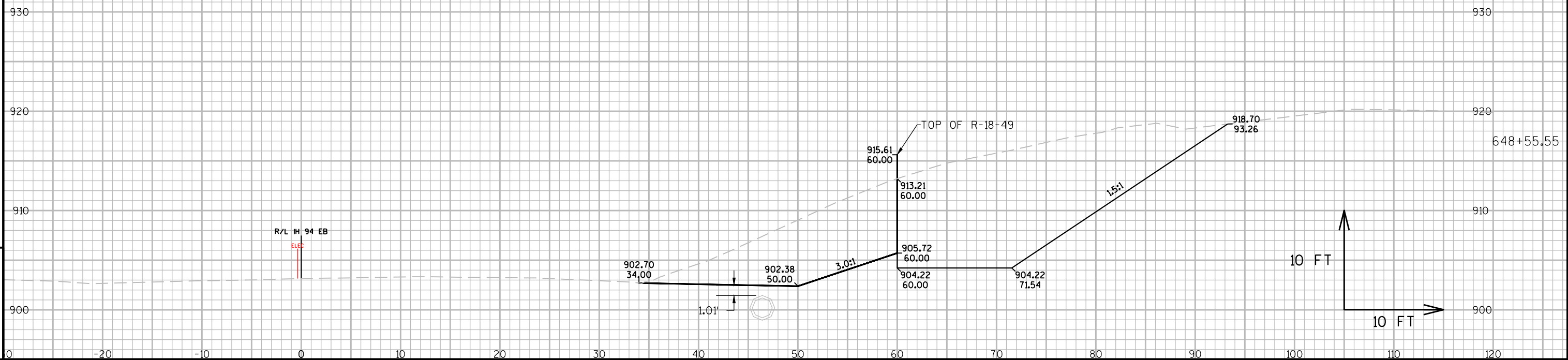
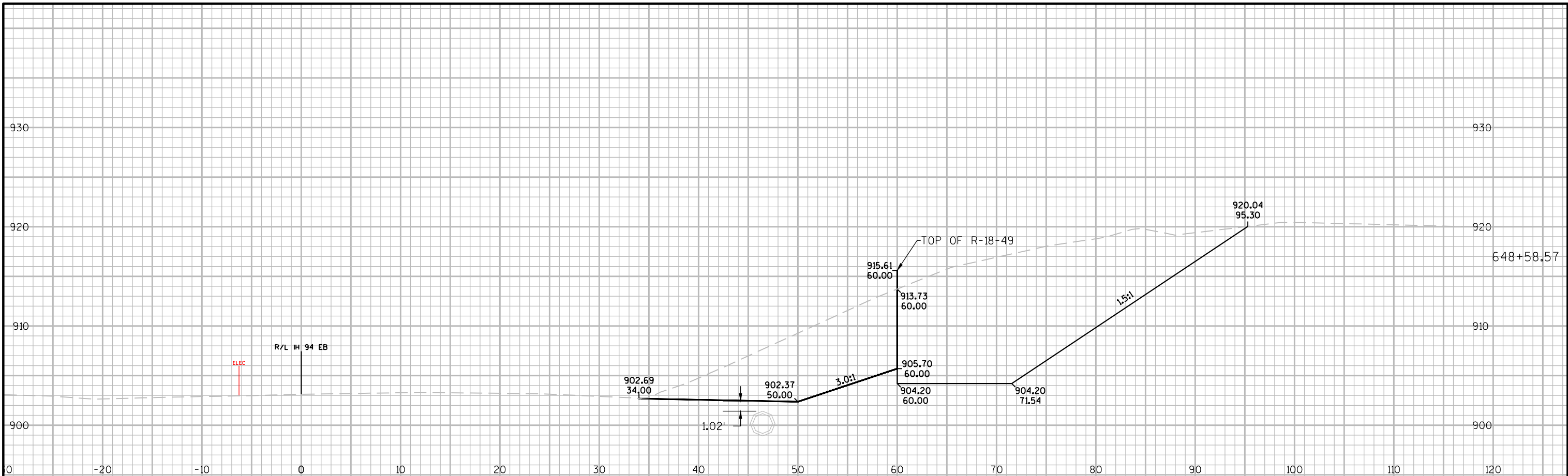
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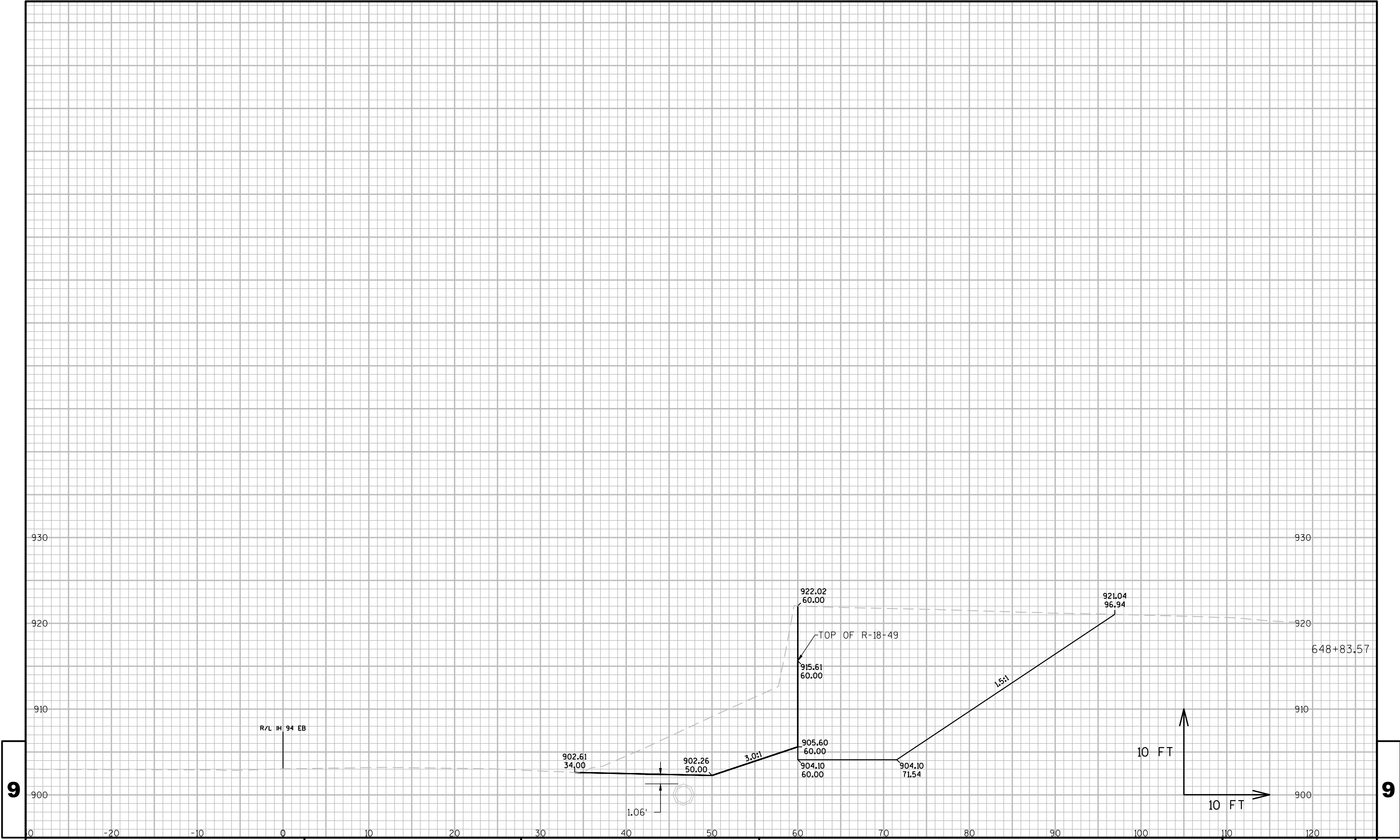
PROJECT NO:1021-03-74	HWY:IH 94	COUNTY:EAU CLAIRE	CROSS SECTIONS:IH 94 WB AT HOBBS RD	SHEET	E
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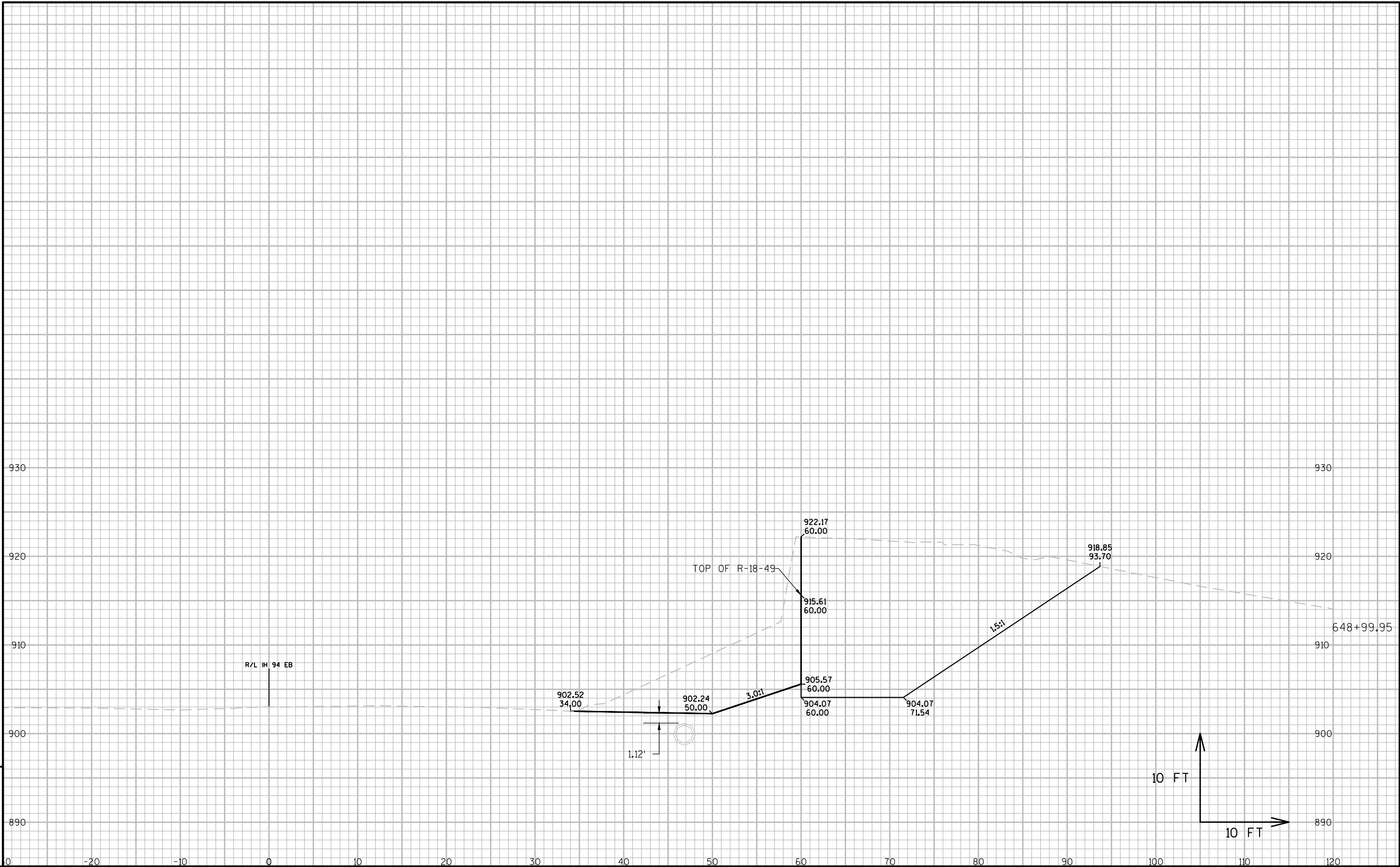


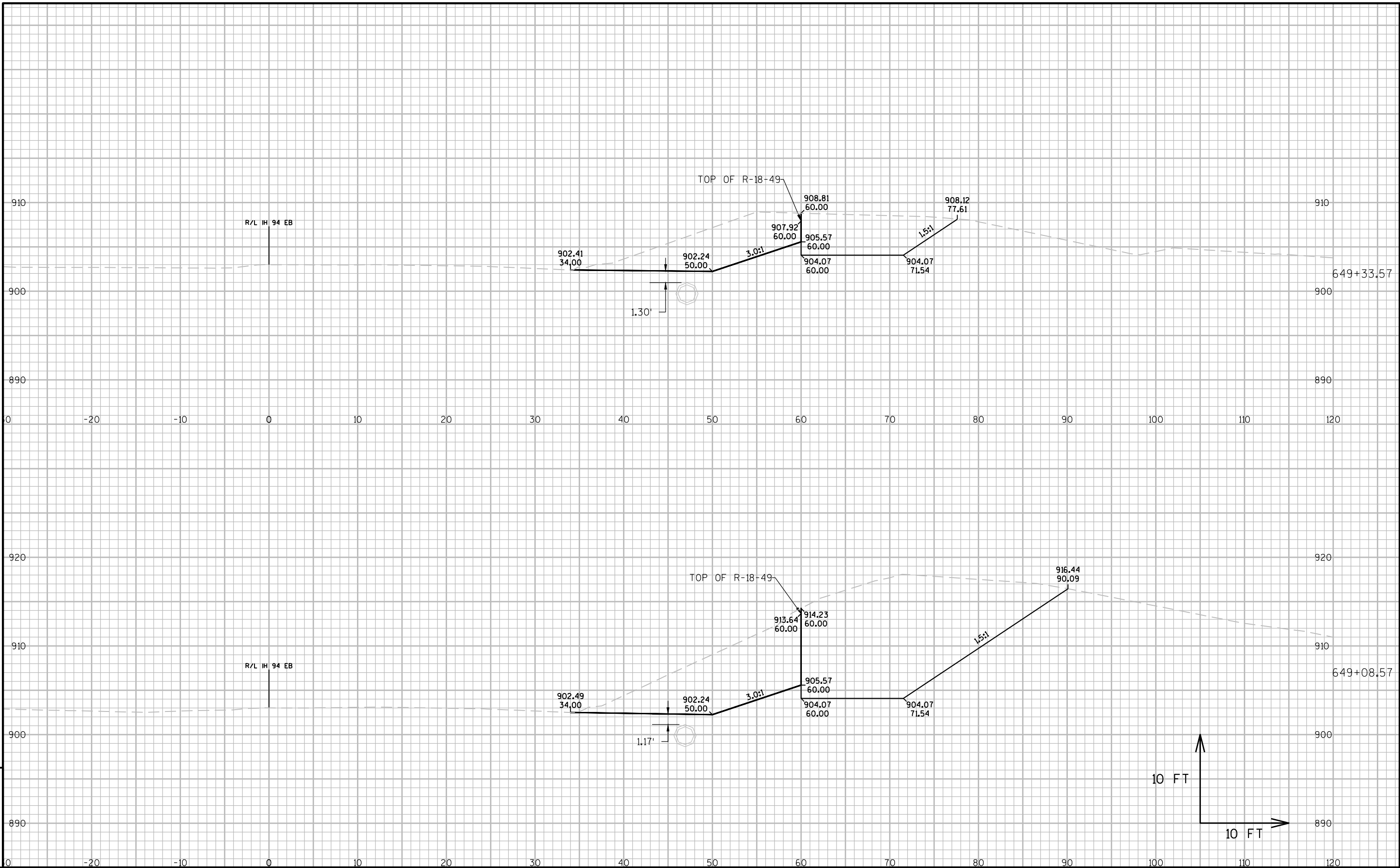


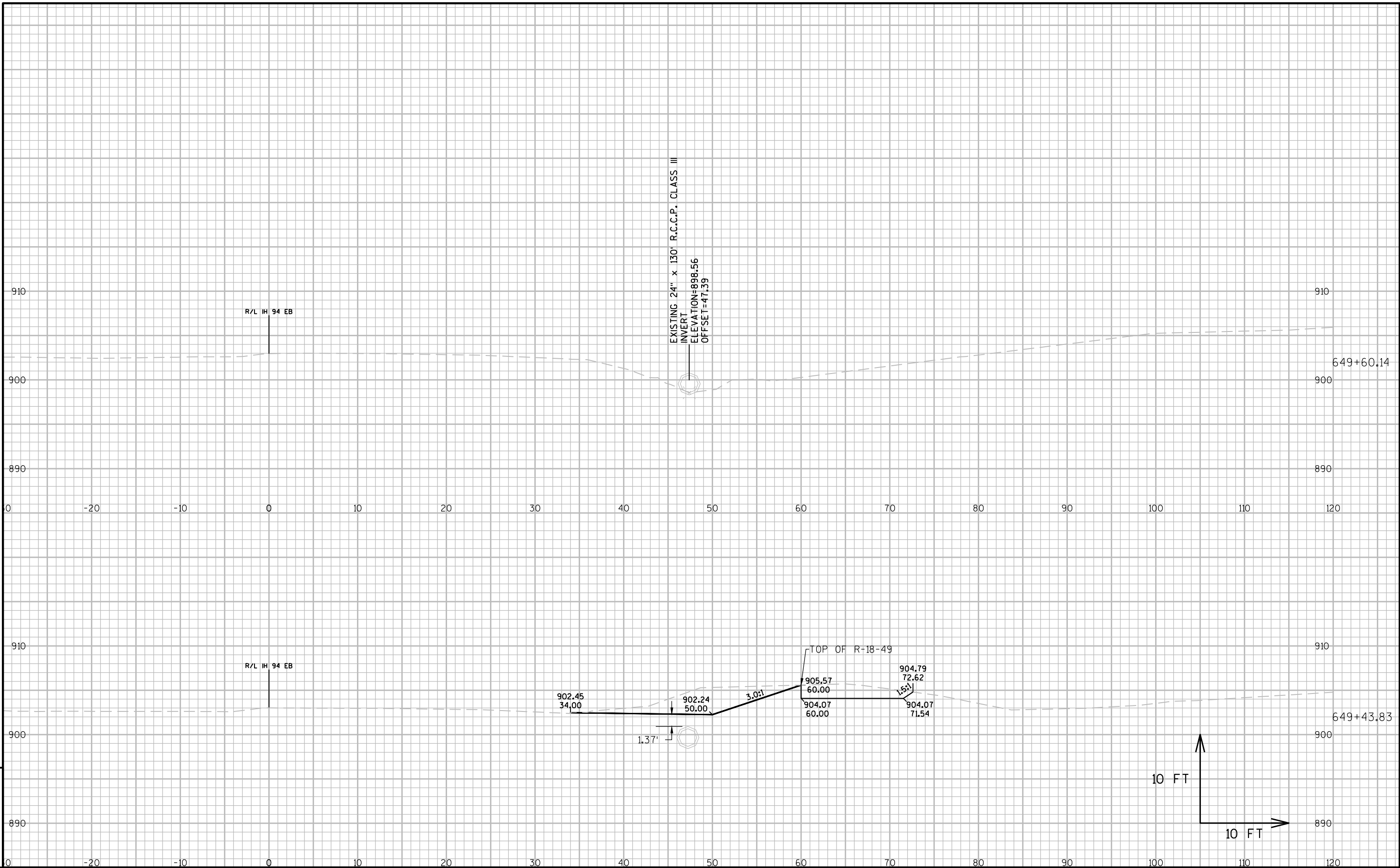


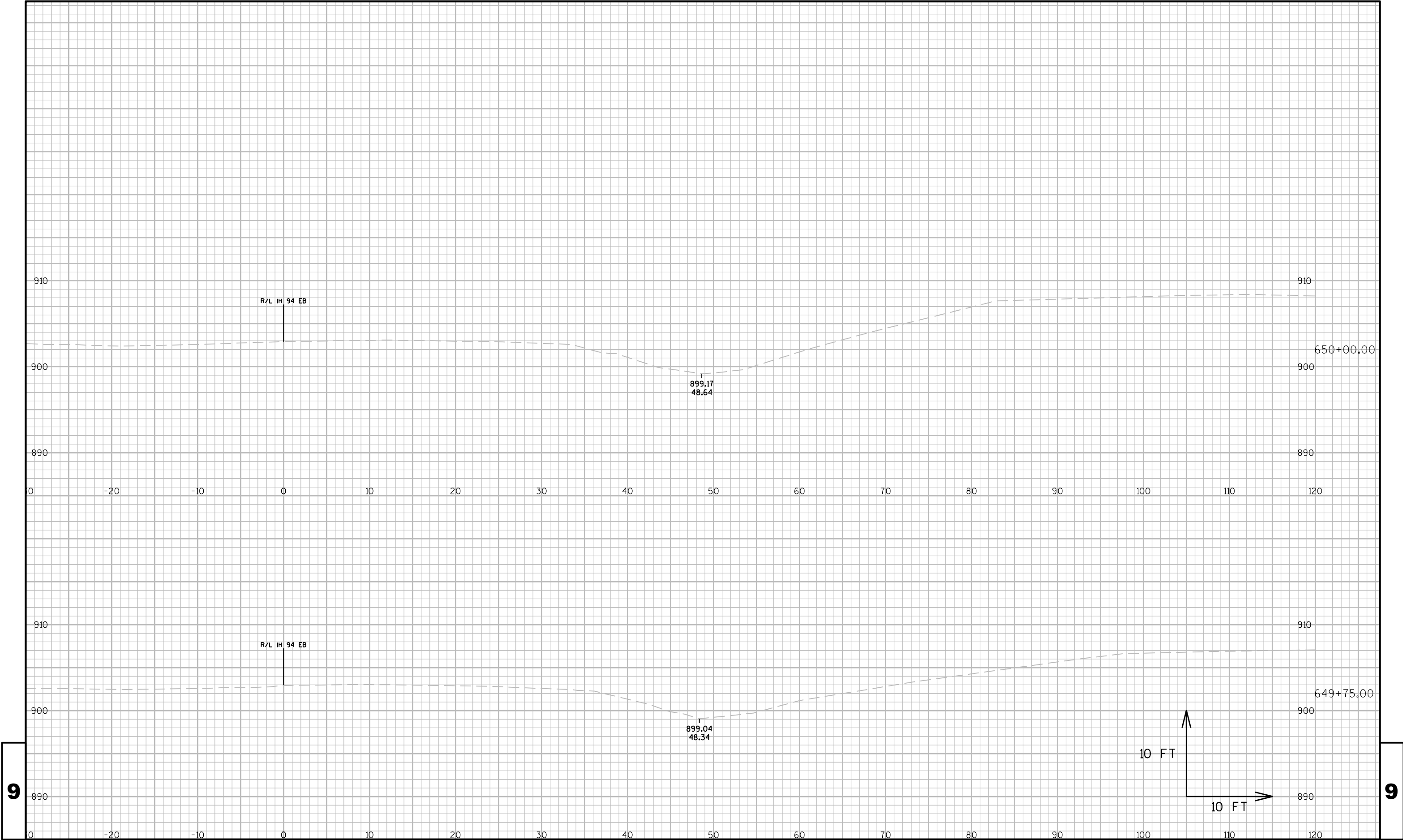
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PROJECT NO:1021-03-74

HWY:IH 94

COUNTY:EAU CLAIRE

CROSS SECTIONS:IH 94 EB AT CTH I

SHEET

E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOOTHER\18-49.XS 1078.DWG
LAYOUT NAME - R-18-49 - (10)

PLOT DATE : 1/9/2017 3:38 PM

PLOT BY : BUDDEN, LUCAS J

PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

